GOVERNMENT OF INDIA

India. METEOROLOGICAL DEPARTMENT.

THE INDIA WEATHER REVIEW

FOR THE YEAR

1909

QC
990
.I39
I52
1909

Published by Authority of the Government of India

UNDER THE DIRECTION OF

GILBERT T. WALKER, M.A., Sc.D., F.R.S.,

DIRECTOR GENERAL OF OBSERVATORIES

LIBRARY
WEATHER BUREAU
No. 31656

LIBRARY
JUL 31 1911
Weather Bureau

LIBRARY
N.O.A.A.
U.S. Dept. of Commerce

CALCUTTA
SUPERINTENDENT GOVERNMENT PRINTING, INDIA
1911

National Oceanic and Atmospheric Administration

Environmental Data Rescue Program

ERRATA NOTICE

One or more conditions of the original document may affect the quality of the image, such as:

Discolored pages
Faded or light ink
Binding intrudes into the text

This document has been imaged through the NOAA Environmental Data Rescue Program. To view the original document, please contact the NOAA Central Library in Silver Spring, MD at (301) 713-2607 x124 or www.reference@nodc.noaa.gov.

Information Manufacturing Corporation
Imaging Subcontractor
Rocket Center, West Virginia
September 14, 1999

GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

LIBRARY
MAY 1 - 1911
Weather Bureau

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

SIMLA, JANUARY 1909.

INTRODUCTION.

THIS review of the weather in India during the month of January 1909, is based on observations taken daily at 8 hrs. at 238 stations, and on additional observations taken at 10 hrs. and 16 hrs. at 35 stations. In the rainfall summary the data furnished by the meteorological observatories, and such rainfall statements of the month as had been published by the Provincial Governments up to the date of the preparation of the review, have been utilized. The brief notes on solar, seismic and magnetic disturbances have been supplied by the chief observatories.

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

Up to the end of the year 1906 there have been published in Tables I and II the data of the first, second and third class stations. From 1907 the tables have been called B and A respectively, and a Table C has been introduced containing the data of fourth class stations.

Summary of the chief features of the weather in India during the month of January, 1909.

2. January, like the preceding three months, was dry over the greater part of northern and central India. Although unsettled weather was experienced in northern India with almost the normal frequency, the resulting precipitation was light and restricted owing to an abnormal character of the disturbances.

On the other hand weather was unusually wet over the southern half of the peninsula in consequence of the passage through that region of a cyclonic storm on the first two days of the month. The aggregate measurements of the precipitation of the month were less than the corresponding normal values over the whole of the country with the exception of Madras, Mysore, Chota Nagpur, Hyderabad North, Central India East and Assam; the excess was small in the three last named areas, and exceptionally large in Madras which obtained six times its normal quantity. The defect in northern India averaged about half an inch over the tract extending from the Suleiman ranges eastwards to Bihar, and was greatest in the North-West Frontier Province where it slightly exceeded an inch in amount.

The air was dry over the greater part of northern India and damper than usual in most parts of the peninsula and of Burma. The proportion of cloud was equal to or exceeded the average in all parts of the country except locally in the North-West Frontier Province. Temperature did not depart materially from the normal except in the mountainous region to the west and north of upper India where the weather was decidedly cooler than usual, both by day and night.

Solar, seismic and magnetic disturbances.

KODAIKANAL OBSERVATORY.

3. *Solar Observations.*—The first three days of the month were too cloudy for any solar work, the 6th was not favourable for prominence observations, and the prominence record was imperfect on three other days.

Sunspots.—There were only 19 new groups, but the daily average was 4·5 and the average life of a spot was 8·0 days. Groups 1586, 1595 and 1596 were returns of 1575, 1578 and 1580 respectively. There was a difference of several degrees in longitude between the old and new positions of 1586 and 1595 but in the previous rotation they were long

trains of spots only a few of which survived to return. A majority of the new groups came round the east limb as large spots. There was again a preponderance of southern spots, which extended over 13° of latitude, while the northern spots were confined to the region between 6° and 9°. The latitude distribution was as follows :—

	1°-10°	11°-20°	Extreme latitudes.	Mean latitude.
North	7	1	16, 6	9·4
South	4	7	17, 4	11·5

Though the total number of new groups was small the activity, as judged by the number of large spots, was large. Spots 1578 and 1580 which came round the east limb about the end of December were situated in about longitude 180° and when this region came round again towards the end of January it contained the five large groups 1593, 1594, 1595, 1596 and 1598. The first three of these were changing rapidly from day to day and were also spectroscopically active; C was frequently observed reversed and thus D_3 dark near them. On the 23rd D_3 was seen bright on the whole of the main spot in No. 1593. Another region, about longitude 310°, contained 2 large spots and the active group 1590. Altogether there were 10 large spot groups during the month.

Prominences.—Fifty-seven large and 4 metallic prominences were recorded during the month. The tallest and the most active of them was photographed on the 12th. At $8^h\ 3^m$ the main part of it was an arch 15° long and 160″ high. Subsequent photographs showed it as changing rapidly both in form and height. But at $14^h\ 27^m$ there was nothing left except a narrow slanting strip 10° long and far away from limb, it was 285″ high at the highest place. Four other eruptive prominences were observed during the month.

Magnetic disturbances.—There were "very great" magnetic disturbances on the 3rd, 4th and 31st, "great" ones on the 1st, 2nd and 30th, a "moderate" one on the 29th and "slight" disturbances on half a dozen other days. The large group No. 1578 crossed the central meridian on the 2nd and No. 1580 crossed on the 4th, and the "very great" disturbance on the 31st is probably a recurrence after one rotation of the "very great" disturbance of the 3rd and 4th.

C. MICHIE SMITH,
Director,
Kodaikanal and Madras Observatories.

BOMBAY OBSERVATORY.

Note on the Alibag Magnetic Record.

4. During the month of January the traces showed 12 calm days, 10 days of small, 7 days of moderate and 2 days of great disturbance.

The days of the month selected as quiet for the purposes of the Magnetic Survey of India are the 7th, 11th, 17th, 20th and 22nd. The observed absolute values of the several magnetic elements reduced to the mean monthly tabulations of the magnetograms as also the ranges and the summed ranges of the horizontal force and declination for the month are as follow :—

	° ′ ″	
Easterly declination	1 1 17	
Horizontal force	·36842	C.G. S. unit.
Vertical force	·15970	,, ,,
Dip (calculated)	23° 26′·1	,, ,,
Dip (observed twice a week)	23° 25′·8	,, ,,
Horizontal force range	·00039	,, ,,
Horizontal force summed range	·00219	,, ,,
Declination range	1′·28	,, ,,
Declination summed range	7′·41	,, ,,

(NOTE.—Summed range means sum without regards to signs of 24 ordinate of diurnal inequality.)

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

TABLE 1.

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

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

Seismic disturbances recorded at Bombay.

Two seismic disturbances were recorded during the month, on the 22nd and 23rd.

List of seismic disturbances.

TABLE 2.

Date.	Commence	Max.	End.	Max. Amp.	Duration.
	H. M.	H. M.	H. M.	M. M.	H. M.
January 22nd.	12—43·6	12—52·5	13—0·1	0·6	0—16·5
January 23rd.	2—57·7	3—15·7	4—32·3	1·4	1—34·6

All times given above denote G. M. T.

Sensibility to tilt, 1 mm. = 0″·41.

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

CALCUTTA OBSERVATORY.

5. List of displacements recorded by the Milne seismograph at the Alipore Observatory during January 1909.

TABLE 3.

Date 1909.	P. T. Commencement. G. M. T.	L. W. Commencement. G. M. T.	Maximum G. M. T.	End G. M. T.	Duration.	Maximum displacement on trace from mean position	REMARKS.
	H. M.	H. M.	H. M.	H. M.	H. M	mm.	
January 22nd.	12—22·5	12—53·5	12—53·8	13—28·1	1—5·6	0·75	Sensibility 1 mm= 0·38″ of tilt.
January 30th.	15—56·4	...	15—57·4	16—1·5	0—5·1	0·50	

C. W. PEAKE,

Meteorologist, Calcutta.

SIMLA OBSERVATORY.

6. List of earthquakes recorded by the Omori-Ewing seismograph; magnification was 15 during the whole month.

TABLE 4.

Date.	Commencement of 1st P. T. G. M. T.	Commencement of 2nd P. T. G. M. T.	Beginning of L. W. G. M. T.	Time of Maximum amplitude G. M. T.	End approximately G. M. T.	Duration.	Maximum displacement of style.	Remark
	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	mm.	
23rd A.	2 - 53·5	2—57·7	3—2·5	3—3·1	4—13	1—20	5·8	
23rd B.	2—53·4	2—57·8	3—1·6	3—3·7	?	?	3·0	

A=E—W. component.

B=N—S. component.

Magnification of each instrument=15.

The following table contains a list of the earthquakes that have been reported :—

TABLE 5.

Place at which felt.	Date.	G. M. T. of earthquake	Intensity.	Duration.	Remarks.
		H. M.		Sec.	
Ispahan . . .	22nd ...	2—34	4?	?	
Gauhati . . .	26th ...	19—50	2	8	1 shock.
Dam Dim . . .	26th ...	20—35	3	20	1 ,,
Panighatta (Bengal) .	26th ...	20—58	4	4	1 ,,

NOTE —The scale of intensity is as follows :—

1. Strong enough to be felt by persons at rest.
2. Strong enough to make doors and windows rattle.
3. Strong enough to make hanging objects swing.
4. Strong enough to be move the observer's seat.
5. Strong enough to throw down loose objects.
6. Strong enough to crack the walls of buildings.
7. Strong enough to cause greater damage (to be specified).

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

Maximum	1·53
Minimum	1·39
Mean	1·47
Number of days of observation .	12

J. H. FIELD,

Imperial Meteorologist, Simla.

ROYAL ALFRED OBSERVATORY, MAURITIUS.

7. Solar Observations.—Observations were taken on the 4th, 6th, 7th, 9th, 11th, 13th, 15th, 16th, 18th, 20th, 21st and 26th to 30th. Groups of sunspots were observed throughout. The sunspots were especially numerous from 26th to 30th and faculæ were seen on each day of observation.

Magnetic disturbances.

TABLE 6.

Date.	Time.	Disturbance.
2nd to 3rd	15h. to 6h.	Rapid fluctuations in H. F. (± 20) in decl. (± 9.)
4th to 5th	15h. to 6h.	Fluctuations in H. F. (± 10) in decl. small.
4th	16½h. to 18½h	Wave in H. F. (—30) steep at end.
4th	17½h. to 18¾h	Wave in decl (+20).
13th	12½h. to 13½h	Wave in H. F. (—18) steep at commencement and at end.
13th	13·4h. to 13·5h.	Decrease in H. F. (18): 16h. to 17½h. decrease in H. F. (71) followed by gradual increase (36) till 21h. with superposed wave 18½h. to 20½h (—10).
23rd to 24th	20h. to 5h.	Frequent small fluctuations in H. F.
25th	1h. to 8h.	Frequent small fluctuations in H. F.
25th to 26th	14h. to 6h.	Fluctuations in H. F. (±10) with waves 19½h. to 23h. (+15).
26th	3h. to 5½h.	(+21).
26th to 27th	21h. to 1h.	Irregular wave in H. F. (+20) 14h. to 14½h. sharp wave in H. F. (+15) steep at commencement and at end.
27th to 28th	23½h. to 2h.	Wave in H. F. (+25).

T. F. CLAXTON,

Director.

Weather in the Indian monsoon region.

8. Pressure ruled below the normal in the Indian Ocean, but not to the same extent as in India: it was low also in Persia and Arabia. The low pressure conditions over India were thus determined by general and not by local actions.

The air movement did not differ materially from the type usual in January. The distribution of rainfall on the other hand was very irregular, the aggregate measurement being about 46 per cent in excess at Zanzibar and 34 and 12 per cent in defect of the average at Mauritius and the Seychelles.

TABLE 7.

—	Mauritius.	Zanzibar.	Seychelles.
Departure from normal of mean pressure.	—·007	—·013	—·009
Actual mean wind direction . .	S 85° E	N 39° E	N 23° W
Normal mean wind direction . .	S 87° E	N 33° E	N 39° W
Actual mean wind velocity (miles per diem)	233	159	159
Normal mean wind velocity (miles per diem)	266	187	147
Rainfall departure from normal .	—2·55	+1·34	—2·07

Depressions and cyclonic storms.

9. The cyclonic storm which was approaching the south Madras coast on the last day of December had by 8 hrs. of the 1st January crossed inland between Negapatam and Pamban. It was at this stage a well-defined disturbance and its effects on the winds and weather was as great at the level of Kodaikanal in the Palni Hills as in the plains. The storm advanced almost due west during that day and on the morning of the 2nd was shown over the Arabian Sea to the west of the Malabar coast. The greatest defect of pressure in the centre of the storm was throughout these two days a quarter of an inch, and it is to be noticed that there was no appreciable diminution of this depth in consequence of the obstructing action of the West Ghats. The further career of the storm is uncertain, there being but little marine information available at present for the southeast of the Arabian Sea. Winds recorded on the Malabar coast and at Minicoy appear however to show that the disturbance was broken up during the next two or three days while moving slowly westwards.

The storm was of an exceptional character in the following respects:—

(a) It formed at a time of year when storms are practically unknown; the only other instance on record of a storm formed over the Bay in January occurring in 1906.

(b) It was a disturbance of comparatively great elevation, differing materially in this respect from the storms usually formed during the period October to December. These invariably fill up while moving westwards across the plateau of Mysore and the West Ghats, the average elevation of which in the part traversed by the storm under discussion is about 5,000 feet.

(c) Its passage across the south of the peninsula was marked by the occurrence of unprecedentedly heavy rain (for the time of year) over Madras. The largest amounts occurred in the Nilgiris which obtained a total of over 9 inches from the 1st to the 3rd.

The effects of the storm lasted in southern India until the 6th when dry weather was re-established.

As ordinarily happens when conditions during the cold weather months are unsettled in the south, weather was quiet throughout the first week in northwest India except in Kashmir where light local precipitation was received on one or two days. In Persia on the other hand a depression was in the course of formation of which the following is a brief history:—

Cold weather disturbance of the 3rd to the 11th.—The daily charts published by the English Meteorological office and the Egyptian reports do not indicate the passage eastwards of any definite depression from Europe into Asia Minor or Mesopotamia. They show however the existence on the 2nd and 3rd of a belt of low pressure over the region extending from the head of the Persian Gulf to Syria. It was presumably within this trough that the disturbance under discussion was generated during the next three days. From its place of origin it moved rapidly eastwards through the southwest of Persia on the 7th, Baluchistan on the 8th, north Rajputana and the adjacent districts of the Punjab on the 9th and the southeast Punjab on the 10th into the west of the United Provinces on the 11th after which it disappeared. It was well marked throughout this course—a fact which would show that it was one of fairly high elevation. The accompanying precipitation was nowhere heavy as frequently happens in the case of storms with a more northerly course than usual, and within India was restricted to Baluchistan, Kashmir, the east Punjab, the west of the United Provinces and Rajputana. The formation of the disturbance coincided with the transfer of a depression from the north of Russia to the neighbourhood of the Caspian.

On the 12th, whilst the unsettled conditions in northwest India were passing away, another depression was appearing over Asia Minor and Syria. The meteorological records of the Persian and Baluchistan stations for the next week indicate that the main disturbance instead of advancing eastwards followed a northeasterly course which led it into Turkestan.

Its effect on the Indian weather was accordingly slight and was confined to the country forming the eastern limits of the region traversed by it, namely, Baluchistan and Kashmir.

The only other disturbance which entered India from the west during January was formed, according to available evidence, on the 18th over Greece and thence transmitted along an easterly course to Sind and the neighbouring districts of Rajputana where it shewed itself first on the 24th as a large diffused low pressure area. From here it moved into the United Provinces, filling up at the same time. It was a mere wave of low pressure and produced only light precipitation in upper India and Baluchistan.

On the 26th the only noteworthy feature of the meteorological conditions over India was a very slight irregularity of pressure over the south of the Central Provinces—a region characterized by high temperature for some days previously; this passed northwards occasioning thunderstorms, in some cases with hail, over Baghelkhand and the adjacent districts to the east and south, and light precipitation or snow in the Simla-Kumaon Hills and the neighbouring plains.

Weather was quiet generally over India on the last three days of the month.

Pressure.

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

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

Aden.	Faridpur.	Rangpur.
Akyab.	Gorakhpur.	Ratnagiri.
Arrah.	Jalpaiguri.	Sambhar.
Barisal.	Midnapore.	Cochin.
Bhamo.	Minbu.	Comilla.
Bogra.	Negapatam.	Cuddapah.
Bushire.	Noakhali.	Monywa.
Chapra.	Nowgong.	Mymensingh.
Delhi.	Perim.	Tavoy.
Dinajpur.	Rangoon.	Toungoo.
Dunga (Zanzibar).		Zanzibar.

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

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

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

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

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

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

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

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

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

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

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

(4) The total range of 8 hrs. pressure during the month. In Table A, columns 4 to 9, under the general heading "Pressure," are given for all stations recording observations at 10 hrs. and 16 hrs.—

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

(2) The mean daily range.

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

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

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

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

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

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

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

The more important barometric changes and movements during the month are described in the statement of depressions and cyclonic storms of the month. The data that are chiefly used in that discussion are the 8 hrs. reduced observations and the departures derived from comparison of these observations with the normal daily 8 hrs. values.

Except locally at one or two stations the mean 8 hrs. pressure of the month was lower than usual throughout the country—a circumstance by no means favourable to winter rains. In the plains the defect was least in upper India where it averaged ·011″, and greatest in Bengal, the Central Provinces and Mysore (about ·043″). The decreased pressure accompanied increased temperature over the whole Indian area except northwest India and Bombay where temperature was either normal or in defect.

The following comparative statement illustrates these characteristics :—

TABLE 8.

Division.	Departure from normal of	
	Mean 8 hrs. pressure.	Mean temperature of month.
	″	°
Burma	—·033	+0·5
Eastern Bengal and Assam	—·038	+1·0
Bengal	—·043	+2·2
United Provinces	—·038	+0·3
Punjab	—·010	—1·9
North-West Frontier Province	—·017	—3·1
Sind	—·006	—1·8
Rajputana	—·022	—1·5
Bombay	—·031	0
Central India	—·034	+0·8
Central Provinces	—·044	+2·1
Hyderabad	—·038	+2·1
Mysore	—·041	+1·6
Madras	—·038	+0·6

The defect of pressure was even more marked at the level of the hill stations in northwest India than in the neighbouring plains; in other words the vertical gradient was steeper than usual. This is shown below :—

TABLE 9.

Hill station.	Departure from normal pressure. A.	Plain station.	Departure from normal pressure. B.	Departure of pressure difference. B—A.
	″		″	″
Quetta	—·023	Jacobabad	—·007	+·016
Leh	—·099	Lahore	—·022	+·077
Murree	—·046	Peshawar	—·026	+·020
Simla	—·057?	Ludhiana	—·020	+·037?
Chakrata	—·014?	Roorkee	—·020	—·006?
Darjeeling	—·035	Dhubri	—·035	0
Mount Abu	—·040	Deesa	—·028	+·012
Pachmarhi	—·031	Khandwa	—·046	—·015
Kodaikanal	—·045	Madura	—·029	+·016

As temperature also was largely below the normal in the hill districts of northwest India it is certain that the low pressure of the month in that region was not a temperature effect but was the result of a decided rarefaction of air, more especially in the middle and perhaps upper atmospheric strata. Although the vertical distribution of pressure in northwest India was of the type ordinarily associated with abundant precipitation the horizontal gradient tending to drive air in the upper strata from south to north, as determined from the data of Kodaikanal in the Palni hills and of the stations situated at the same elevation on the face of the Himalayas, was not favourable.

Temperature.

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

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

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

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

The methods of exposing thermometers will be found fully described in the hand-book of instructions to observers in India, or briefly in the Annual Report on the Meteorology of India for the year 1887, page 37. All thermometers in use have been verified by comparison with Kew standard thermometers at Calcutta, and all thermometer readings are corrected to their true values, and hence are strictly comparable.

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

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

Temperature was lower than usual, both by day and night, over practically the whole of northwestern India; the deficiency was on the whole more marked in the hill districts than in the plains, and was probably a result chiefly of heavy snowfall in the Central Asian region. At Kabul in Afghanistan the day temperature was 7° and the night temperature 11½° below the normal. In the plains the coolest area with respect to the normal was the North-West Frontier Province with a temperature 3° below the average value

Over the remainder of the country the temperature conditions approximated closely to the normal except locally in the tract stretching from the Bombay Deccan northeastwards to Bengal, in which both day and night temperatures were from 2° to 5° in excess.

As might be expected from the character of the disturbances of the month no marked cool or warm waves were recorded in northern India. The more persistent features of the temperature conditions from day to day were :—(1) the prevalence of warm weather over the Deccan until nearly the

end of the month ; over the United Provinces from the 11th to the 19th and over northeast India from the 14th to the 28th with a very brief interruption : (2) a steady defect of temperature over northwest India during the 1st week, again from the 10th to the 14th, and from the 25th to the end of the month.

TABLE 10.

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

TABLE 11.

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
1. Bay Islands	85·5	75·0	80·3	10·6	15·1	—0·4	—1·0	+0·6
2. Lower Burma	87·0	65·1	76·1	22·0	29·4	+0·6	+1·3	—0·7
3. Upper Burma	81·2	52·9	67·1	28·3	38·4	—0·6	+0·6	—1·2
4. Assam	73·2	51·4	62·3	21·8	38·3	—0·3	+0·3	—0·6
5. Eastern Bengal	78·3	52·5	65·4	5·9	37·2	+2·4	+0·3	+2·1
6. Bengal	80·7	56·8	68·8	23·9	36·6	+3·0	+2·9	+0·1
7. Orissa	83·4	60·3	71·8	23·1	34·3	+1·8	+2·6	—0·8
8. Chota Nagpur	78·9	54·1	66·5	24·8	37·6	+1·7	+3·2	—1·5
9. Bihar	76·9	50·5	63·7	26·4	40·7	+2·5	—0·4	+2·9
10. United Provinces, East	75·4	48·7	62·1	26·7	42·4	+1·7	+1·0	+0·7
11. Do. West	69·9	46·7	58·4	23·2	37·4	—1·3	+0·1	—1·4
12. Punjab, East and North	65·3	42·0	53·7	23·3	36·6	—2·5	—1·1	—1·4
13. Do., Southwest	66·5	40·7	53·7	25·8	36·4	—2·2	—1·5	—0·7
14. Kashmir	29·3	9·3	19·3	20·0	45·1	—4·7	—5·1	+0·4
15. North-West Frontier Province	62·4	37·9	50·2	24·5	34·8	—3·9	—2·1	—1·8
16. Baluchistan	49·5	30·6	40·1	18·9	46·3	—5·3	—2·5	—2·8
17. Sind	73·0	48·9	61·0	24·2	39·8	—2·7	—0·8	—1·9
18. Rajputana, West	72·9	45·9	59·4	27·0	43·8	—2·6	—2·2	—0·4

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
19. Rajputana East	71·9	47·1	59·5	24·8	41·5	—2·0	+0·1	—2·1
20. Gujarat	79·6	53·9	66·8	25·7	42·6	—2·7	—1·6	—1·1
21. Central India, West	77·9	49·7	63·8	28·2	43·1	—0·7	+0·4	—1·1
22. Do., East	75·3	50·5	63·0	24·9	42·2	+0·2	+3·2	—3·0
23. Berar	86·1	59·4	72·8	26·6	40·2	+2·7	+3·4	—0·7
24. Central Provinces, West	81·3	53·6	67·5	27·7	43·0	+1·1	+1·8	—0·7
25. Do., East	82·6	57·1	69·9	25·5	39·7	+1·7	+4·4	—2·7
26. Konkan	83·5	68·5	76·0	15·0	25·6	—2·5	+1·2	—3·7
27. Bombay Deccan	87·6	58·1	72·9	29·6	41·1	+2·3	+3·0	—0·7
28. Hyderabad, North	86·3	58·8	72·5	27·5	39·7	+2·7	+3·2	—0·5
29. Do. South	87·1	63·4	75·2	23·7	34·2	+1·2	+2·7	—1·5
30. Mysore	83·0	59·7	71·7	23·9	34·7	+1·2	+1·9	—0·7
31. Malabar	85·7	72·1	78·9	13·6	20·3	—1·5	+1·7	—3·2
32. Madras, Southeast	84·9	68·3	76·6	16·5	25·2	—0·5	+0·8	—1·3
33. Do Deccan	88·3	64·2	76·3	24·1	35·0	+0·1	+3·0	—2·9
34. Do Coast, North	82·5	67·2	74·9	15·2	26·2	+0·3	+2·3	—2·0

Winds.

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

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

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

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

Winds were remarkably steady over northwest India owing mainly to the comparative absence of cold weather storms, and were more variable than usual in Eastern Bengal and Assam and Bombay.

The rate of air movement agreed generally with the normal except in the case of Hyderabad, where it was considerably less than the average. In other respects there was little that was anomalous.

TABLE 12.

Division.	Departure from normal of	
	Hourly wind velocity.	Wind steadiness.
Burma	—0·3	0
Eastern Bengal and Assam	—0·5	—15
Bengal	+0·	— 4
United Provinces	+0·2	+ 1
Punjab	+0·4	+12
North-West Frontier Province	—0·5	+ 4
Sind	—0·6	+ 9
Rajputana	+0·2	+11
Bombay	0	—12
Central India	—0·5	+ 4
Central Provinces	+0·6	0
Hyderabad	—2·0	+ 5
Mysore	+0·5	— 7
Madras	+0·2	0

Humidity and cloud.

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

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

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

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

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

In point both of absolute and relative humidity the air was drier than usual over the greater part of northern India, while the opposite conditions obtained over nearly the whole of the peninsula and Burma. The departures were however nowhere very marked except locally in the coast districts from Goa to Mangalore where the amount of moisture was in decided excess of the normal. The abnormal features of the hygrometric conditions were thus similar in their general character to those of the rainfall.

Skies were less clouded than usual in Lower Burma, the North-West Frontier Province and the greater part of the Punjab, but over the rest of the country the proportion of cloud exceeded that of an average January.

The statement below illustrates the principal features of the humidity and cloud distribution of the month.

TABLE 13.

Division.	Hygrometry; 8 hrs.				Cloud.	
	Mean humidity.	Departure from normal.	Mean vapour tension in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.
	%		″	″		
Burma	87	+3	·520′	+·022	1·5	—0·3
Eastern Bengal and Assam	88	—3	·410	—·010	2·6	+0·6
Bengal	75	—3	·393	+·012	2·5	+1·0
United Provinces	73	—6	·288	—·017	3·1	+0·6
Punjab	76	—2	·235	—·021	3·7	—0·2
North-West Frontier Province.	66	—6	·177	—·028	3·1	—0·9
Sind	60	—1	·259	—·010	3·3	+0·2
Rajputana	61	+2	·240	—·009	3·3	+0·3
Bombay	62	+2	·401	+·021	1·3	+0·4
Central India	61	—5	·285	—·007	3·6	+1·9
Central Provinces	59	—3	·331	+·012	1·9	+0·5
Hyderabad	61	—1	·432	+·029	1·9	+0·8
Mysore	73	+3	·480	+·023	3·8	+1·4
Madras	81	+3	·656	+·042	3·8	+1·3

Rainfall.

14. Rainfall observations are made at about 2,700 stations in India. The time of observation is 8 hrs. The rainfall data for each province are tabulated in the office of the Meteorologist, Director of Land Records, or other office in the province, and published in the provincial gazettes.

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

Plate VII (based on all the rainfall data available at the time of publication) shows the normal average rainfall and the departure of the rainfall from the normal of the month of the 34 meteorological or rainfall divisions, over each of which the meteorological conditions (more especially the rainfall) are fairly uniform, and the staple crops similar in character.

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

The normal figures of rainfall, and of the number of "rainy days," in table B. are based on observations which extend in most cases over a period of 30 or 40 years ending in 1900.

Weather was very dry over at least two-thirds of the country. Gujarat was rainless throughout the month, while the total rainfall over Berar, the Konkan, the Bombay Deccan, Hyderabad South, the Punjab Southwest, the Bay Islands and Burma was less than a tenth of an inch in amount. The only areas where the month's aggregate exceeded the normal were Madras, Mysore, Hyderabad North, Chota Nagpur, Central India East and Assam; the excess was very large in the first two areas, ranging from 352 to 1,490 per cent in amount and was due almost entirely to the action of the cyclonic storm which advanced from the Bay across the south of the peninsula into the Arabian Sea at the beginning of the month. The defect in the remainder of India was on the whole most marked in upper India and Baluchistan, which under ordinary conditions constitute the region of greatest precipitation during the month. The United Provinces East and Bihar also showed a shortage, which was serious in view of the prevalence of a similar condition during the previous three or four months.

The distribution of rainfall was thus very abnormal, and resembled in several important respects that of the corresponding period of 1906.

TABLE 14.

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure.
			"	"	"	
1. Bay Islands	0	1·6	0·05	0·61	−0·56	−92
2. Lower Burma	0·1	0·1	0·04	0·05	−0·01	−20
3. Upper Burma	0·1	0·3	0·05	0·10	−0·05	−50
4. Assam	2·2	1·9	0·87	0·75	+0·12	+16
5. Eastern Bengal	0·4	0·9	0·13	0·46	−0·33	−72
6. Bengal	0·8	0·9	0·32	0·42	−0·10	−24
7. Orissa	0·4	0·5	0·24	0·26	−0·02	−8
8. Chota Nagpur	2·3	1·1	1·14	0·51	+0·63	+124
9. Bihar	0·8	1·4	0·24	0·70	−0·46	−66
10. United Provinces, East	1·2	1·6	0·33	0·75	−0·42	−56
11. United Provinces, West	2·3	2·0	0·80	0·98	−0·18	−18
12. Punjab, East and North	1·5	2·4	0·84	1·31	−0·47	−36
13. Punjab, Southwest	0·4	1·3	0·09	0·54	−0·45	−83
14. Kashmir	5·7	5·1	2·74	3·49	−0·75	−21
15. North-West Frontier Province	0·9	2·5	0·29	1·37	−1·08	−79
16. Baluchistan	1·8	2·9	0·71	1·28	−0·57	−45
17. Sind	0·6	0·8	0·18	0·28	−0·10	−36
18. Rajputana, West	0·4	0·5	0·13	0·16	−0·03	−19
19. Rajputana, East	0·8	1·0	0·29	0·39	−0·10	−26
20. Gujarat	0	0·1	0	0·04	−0·04	−100
21. Central India, West	0·3	0·6	0·12	0·25	−0·13	−52
22. Central India, East	2·3	1·8	0·87	0·86	+0·01	+1
23. Berar	0·2	0·5	0·07	0·29	−0·22	−76
24. Central Provinces, West	0·9	1·0	0·34	0·55	−0·21	−38
25. Central Provinces, East	0·5	0·8	0·20	0·40	−0·20	−50
26. Konkan	0	0·2	0·01	0·13	−0·12	−92
27. Bombay Deccan	0·2	0·2	0·05	0·10	−0·05	−50
28. Hyderabad, North	0·4	0·2	0·16	0·08	+0·08	+100
29. Hyderabad, South	0·1	0·2	0·03	0·08	−0·05	−63
30. Mysore	1·8	0·1	0·86	0·07	+0·79	+1,129
31. Malabar	2·1	0·2	1·65	0·22	+1·43	+650
32. Madras, Southeast	4·0	1·0	4·57	0·71	+3·86	+544
33. Madras, Deccan	2·1	0	1·59	0·10	+1·49	+1,490
34. Madras Coast, North	0·9	0·3	1·13	0·25	+0·88	+352

TABLE 15.

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Burma	0·05	0·08	—0·03	—38
Eastern Bengal and Assam	0·52	0·61	—0·09	—15
Bengal	0·39	0·50	—0·11	—22
United Provinces	0·55	0·86	—0·31	—36
Punjab	0·69	1·15	—0·46	—40
North-West Frontier Province	0·29	1·37	—1·08	—79
Sind	0·18	0·28	—0·10	—36
Rajputana	0·25	0·33	—0·08	—24
Bombay	0·03	0·09	—0·06	—67
Central India	0·39	0·46	—0·07	—15
Central Provinces	0·20	0·41	—0·21	—51
Hyderabad	0·09	0·08	+0·01	+13
Mysore	0·86	0·07	+0·79	+1,129
Madras	2·89	0·45	+2·44	+542
Mean of India when the size of the above areas is taken into account.	0·56	0·45	+0·11	+24

Snowfall.

I.—AFGHANISTAN.

15. Snow fell at Kabul on six days to a total depth of about 2 feet. The largest amount received on any single day was 5¾ inches on the 8th. The accumulation on the adjoining hills at the end of the month varied from 6″ to over 12″ in amount.

II.—NORTH-WEST FRONTIER PROVINCE.

(*a*) *Tochi* (North Waziristan).—Moderate snow fell on the night of the 8th down to a level of about 6,000 feet.

(*b*) *Dera Ismail Khan.*—The total fall received during the month measured 3 inches in depth on the Gabarghar, two feet on the Girni Sar and 3 feet 2 inches on the Saraghar.

(*c*) *Kurram.*—There were altogether seven falls on the Sufed Koh and at Parachinar. In the latter locality the total fall was equivalent to 1·74 inches of rain. At the end of the month all the higher passes were open.

(*d*) *Kohat.*—Snow storms occurred occasionally and gave the following amounts:—

TABLE 16.

Date.	Place.	Amount.	
		Ft.	Ins.
8th January 1909	Samana Range	0	1
10th "	"	0	6
15th "	"	0	2
15th "	Mahorah	1	6
15th "	Mozioghar	1	0
15th "	Koram	1	0
16th "	Samana Range	0	4
16th "	Zawa	2	0
19th "	"	0	6
20th "	Samana Range	0	10
20th "	Fort Lockhart	0	10

(*e*) *Hazara.*—The statement below shows the total depth of snowfall on the well-known ranges during the first 15 days of the month, for which alone information is available at present:—

TABLE 17.

Range.	Total snowfall.	
	Ft.	Ins.
Kagan (Jared)	1	6
" (Siri Kagan)	4	1½
" (Narang)	10	3½
Siran (Bhogurmang)	7	8
Tandiani	0	9
Dungagali	1	9

III.—KASHMIR.

Several snowstorms occurred in this region. The aggregate amount received during the month was equivalent to 14·95 inches of rain at Sonemarg and 7·91 inches at Minimarg. So far as can be judged from the limited information available at present it appears that on the whole the snowfall of the month was in excess of the normal quantity on the higher elevations, and normal or in defect in the valleys.

At the close of the month the accumulated snow measured about 5 feet in depth in the grounds of the Dras observatory and 18 to 21 feet on the Zoji-la.

IV.—PUNJAB.

(*a*) *Murree.*—Snow fell on five days at Murree and on one day at Kahuta; the total fall amounted to 17 inches in the former and 3 feet in the latter locality.

(*b*) *Chamba.*—The snowfall in this district occurred almost entirely during three well-defined periods, *viz.*, from the 9th to the 11th, the 16th to 19th and 24th to the 27th.

In the Pangi valley each of the storms gave snow down to the bank of the river Chenab.

The statement below shows the total amount of snow received during the month at the recording stations, and the depth of accumulation at the end of the month :—

TABLE 18.

Recording station.	Total amount of snowfall.		Reported depth of accumulation at the end of the month.	
	Ft.	Ins.	Ft.	Ins.
Kalatop	20	2	...	
Kainthli	10	6½	...	
Sunkhigalli	2	3	...	
Bakloh	0	8	...	
Chitrari	6	4	3	2
Darkund	21	7	10	6
Bakani	17	0	9	0
Sao	2	0	...	
Bhandal	5	6½	...	
Deur	4	8	..	
Khangu	14	2	...	
Alwas	16	11	...	
Tisa	6	11	...	
Chatri	10	8	...	
Kilar	6	0	2	2

(*c*) *Dalhousie.*—A total of 8 feet 4 inches fell during seven days. At least double that quantity is believed to have been received at Bakrota, Kalatop, Dainkund and Khajiar. The most severe storm was that of the 11th when the snowfall at Dalhousie is reported to have been about 4 feet in amount.

(*d*) *Kulu.*—Snow fell on eight days in the Kulu tahsil and six days in the Saraj tahsil; the lowest elevation reached by the snow line was 4,000 feet.

The statement below gives the reported depth of accumulation on the various passes at the end of January 1909 with the corresponding average data :—

TABLE 19.

KULU TAHSIL.			SARAJ TAHSIL.		
Name of pass.	Reported.	Normal.	Name of pass.	Reported.	Normal.
Rohtang	23 ? feet	14½ feet.	Sirikand	19 feet.	12 feet.
Hamta	28 ? „	14 „	Chul	8½ „	6½ „
Barsai	11 „	7 „	Maghin	5½ „	6 „
Chandar Khani	10 feet.	8 feet.	Dundku	4 feet.	7 feet.
Boja Dhár	7½ „	6½ „	Tikkar	4 „	5½ „
Lohri Aohhri	9 „	8½ „	Nuhnon	3½ „	3½ „
Sari	12 „	8½ „	Ramgarh	2 „	2 „
Bhubu	9 „	6 „	Raghopur	5 „	6 „
Bastari	10 „	5 „	Jalori	6½ „	6 „
Majhang	2½ „	2½ „	Lambri	7 „	6 „
			Sakiran	7½ „	6½ „
			Gargarasan	6 „	8 „
			Supakun	6 „	6½ „
			Bashleo	7 „	6 „
			Placha	15 „	7 „
			Tirath	8 „	8 „

(*e*) *Kilba.*—Snowstorms occurred on the 10th, 13th, 15th, 18th, 21st, 24th, 26th, 28th, 30th and 31st; the snow line on these occasions was at 5,750 feet at which elevation the total fall was estimated at 5½ feet. At the close of the month there was from 3½ to 5 feet of snow on the Hindustan-Tibet road which was accordingly impassable. All the higher passes were closed.

V.—UNITED PROVINCES.

(*a*) *Garhwal.*—Frequent snowstorms occurred during the month. The snowfall was heaviest on the 10th, 15th and 27th when the snow line descended in places to 3,000 feet.

(*b*) *Almora.*—On the Nuwe pass there fell 27½ feet of snow on seven days, in Chaudas 12 feet on ten days, in Malla Johar 11½ feet on two days, in Byans 7 feet on five days and in Malla Danpur 6 feet on five days.

On the 9th and 11th snow fell down to elevations lower than 6,500 feet but melted as it fell.

TABLE 20.

NAME OF PASS OR PEAK.	DEPTH OF ACCUMULATION AT THE END OF THE MONTH.	
	Reported.	Normal.
Unta dhura	11½ feet.	18½ feet.
Balam „	5 „	12 „
Pindari Peak	6 „	9 „
Kaphini „	6 „	8 „
Kantela „	6 „	8 „
Nuwe Pass	34 „	31 „
Binkaru „	23 „	27½ „
Lipulekh „	1 foot.	17½ „
Lampia „	1 „	7½ „

16.—SUMMARY.

(*a*) Weather was probably more disturbed than usual in Persia, Turkestan and parts of Afghanistan, but in Baluchistan and the greater part of the mountainous region of the North-West Frontier Province the precipitation was perhaps slightly below the normal. Very low temperatures were experienced in Kabul and the surrounding region.

(*b*) In Kashmir the snowfall was very unevenly distributed, being greater than usual on the higher mountains and normal or below it at the lower levels. The accumulation on the Zoji-la was estimated at 18 to 21 feet at the end of the month.

(*c*) In the Punjab Himalayas the precipitation, although irregular in distribution, was on the whole above normal. The accumulations were generally considerably greater than usual on the hill ranges in Kangra and Chamba.

(*d*) More than the average amount of snow fell in the Kumaon Himalayas. In parts of Garhwal the snow line came down as low as 3,000 feet. The accumulations in Almora at the end of the month were not as deep as usual.

Crop report.

17. *Burma.*—Threshing and winnowing were in progress. In Upper Burma the cultivation of spring crops was progressing satisfactorily and the standing crops were in good condition.

Eastern Bengal and Assam.—Prospects of standing crops were fair, but they were likely to suffer from want of moisture. Cotton and rape crops were being reaped.

Bengal.—Standing crops had been benefitted by rainfall but more rain was wanted in Bihar, and prospects were unfavourable in north Bihar, Birbhum, Midnapore, Jessore and Khulna.

United Provinces.—More rain was urgently needed in some districts, but standing crops were generally in good or fair condition, except in the dry tracts of Kheri and Fyzabad.

Punjab.—Pressing of sugar-cane and harvesting of toria were in progress. Spring crops were generally in good condition, but more rain was urgently needed.

North-West Frontier Province.—The condition of the standing crops was generally good, but rain was badly wanted throughout the province.

Jammu and Kashmir.—Standing crops were in good condition. Fodder was sufficient.

Rajputana.—Standing crops had been damaged slightly by frost and rats. The season's prospects were favourable.

Central India.—Harvesting of autumn crops and sowing of spring crops were being completed. Some slight damage had been caused by frost and insects.

Central Provinces.—Threshing and winnowing of autumn crops and picking of cotton were completed in most districts. The condition of standing crops was fair to satisfactory.

Bombay.—Crops had been damaged slightly in parts by frost, disease, and want of moisture, but otherwise were in fair to good condition. The picking of cotton and harvesting of spring crops were in progress in some districts and had been begun in others.

Hyderabad.—Spring crops were generally in fair condition except in parts of Raichur and other isolated tracts. Late rice was still being sown.

Mysore.—Paddy and minor dry crops were being harvested. Prospects of the season were not satisfactory and in parts of the state fodder and water were becoming scarce.

Coorg.—Rice was being threshed and the picking of coffee was in progress, water and fodder were sufficient.

Madras.—Standing crops were generally fair, but some were withering for want of rain. The condition of cattle was on the whole good and prospects fair. Harvesting was being carried on with poor to normal outturn.

HEM RAJ.

Table A.—Abstract of observations taken at 10 hrs. and 16 hrs., at 35 Stations in India, etc., in January 1909.

Table

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

Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Mean of 16 hrs.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to S. L. and gravity 45° Lat.	Temperature of air. Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of three previous columns.
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
I.—Burma.																					
Bangoon . .	36	29·975	29·841	·134	29·907	—·041	29·880	90·1	65·7	24·4	92·6	62·5	30·1	77·5	89·4	76·0	+1·3	63·0	68·2	69·3	66·8
III.—Bengal.																					
Calcutta . .	21	30·047	·913	·134	·970	—·048	·938	81·7	58·5	23·2	87·1	51·0	36·1	72·8	79·9	69·1	+3·9	56·5	62·3	64·5	61·1
IV.—United Provinces of Agra and Oudh.																					
Allahabad . .	309	29·769	·635	·134	·689	—·037	·964	76·1	50·2	25·9	82·3	29·5	42·8	64·9	74·6	61·4	+1·9	47·7	54·2	57·9	53·3
Dehra Dun . .	2,233	27·760	27·671	·089	27·705	—·035	·986	65·7	43·7	22·0	71·2	34·5	36·7	56·3	62·1	53·8	—0·8	41·1	49·3	51·6	47·3
V.—Punjab.																					
Lahore . . .	702	29·362	29·266	·096	29·305	—·021	30·018	66·1	41·0	25·1	71·7	35·9	35·8	54·7	64·4	51·6	—1·4	39·8	48·3	52·8	46·8
VIII.—Rajputana.																					
Jaipur . . .	1,431	28·626	28·512	·114	28·560	—·024	30·000	72·2	48·2	24·0	78·2	36·0	42·2	63·5	70·2	58·8	—1·1	43·6	51·7	54·9	50·0
Udaipur . .	1,925?	·108	27·990	·118	·040	...	29·965	74·3	48·5	25·8	84·7	38·8	45·9	65·3	72·7	61·2	...	44·4	53·5	57·2	51·7
IX.—Bombay.																					
Bombay . .	37	29·990	29·874	·116	29·925	—·030	·903	80·2	66·5	13·7	83·3	61·3	22·0	73·2	75·7	72·6	—1·9	62·1	66·1	68·3	65·5
XI.—Central Provinces.																					
Nagpur . .	1,017	·009	28·858	·151	28·926	—·041	·913	85·7	57·2	28·5	90·6	49·8	40·8	73·2	83·9	70·7	+1·9	53·3	61·3	66·1	60·2
XII.—Hyderabad.																					
Hyderabad . .	1,690	28·323	·192	·131	·252	—·039	·894	86·2	61·5	24·7	90·9	55·2	34·7	76·5	83·0	73·0	+2·6	57·3	63·8	63·9	61·7
XIII.—Mysore.																					
Bangalore . .	3,021	27·002	26·890	·112	26·944	—·042	·859	82·7	58·4	24·3	88·3	53·9	34·4	73·1	80·6	69·6	+2·1	56·9	61·9	62·8	60·5
Mysore . . .	2,518	·490	27·363	·127	27·425	—·046	·856	84·3	60·8	23·5	88·9	55·9	33·0	75·1	83·1	71·6	+0·9	58·0	64·6	63·7	62·1
XIV.—Madras.																					
Periyakulam. .	944	29·053	28·916	·137	28·985	...	·869	85·7	65·1	20·6	90·7	57·1	33·6	77·2	84·3	75·4	...	61·8	68·0	68·7	66·2
Pudukkottai . .	318	·697	29·565	·132	29·631	...	·853	85·4	68·4	17·0	89·3	63·9	25·4	78·3	83·2	76·9	...	(a) 67·4	70·6	71·7	69·9
Madras . .	22	30·014	·901	·113	·955	—·041	·908	83·9	68·1	15·8	87·3	64·5	22·8	79·2	80·4	75·2	—0·1	67·6	73·1	72·7	71·2
Station in the Bay.																					
Port Blair . .	58	29·931	·824	·107	·879	—·019	·866	87·1	74·6	11·	87·4	71·4	16·0	81·9	84·4	79·6	—0·6	71·2	74·8	75·4	73·8
Kashmir.																					
Srinagar . .	5,204	25·000	24·925	·075	24·954	—·037	24·924	35·8	24·3	11·5	42·9	15·1	27·8	29·2	33·9	28·1	—2·6	22·4	27·0	30·9	26·8
Leh . . .	11,503	19·580	19·511	·069	19·540	—·081	19·508	23·3	3·9	19·4	32·4	—12·0	44·4	15·5	15·5	11·6	—5·7	2·1	12·6	15·3	10·0

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

(a) mean of 24 days.

A.

at 35 stations in India, etc., in January, 1909.

Vapour Tension in inches of mercury.					Humidity.					Cloud.				Wind direction. Total number of 10 hrs. and 16 hrs. winds from											Wind steadiness.		Wind velocity.		Rainfall.			
From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean 10 hrs.	Mean 16 hrs.	Mean of two previous columns.	Departure from normal.	Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.	Station.	Number of rainfall stations.
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		51	52	53	54	55	56
																									%	%						
																															I.—Burma.	
·545	·568	·450	·538	−·030	86	60	33	67	−3	1·0	0·8	0·9	−1·1	4	31	16	1	3	3	...	...	4	N16°E	N27°E	68	36	*42	91	0	0	Rangoon . .	2
																															III.—Bengal.	
·437	·431	·405	·442	+·011	88	52	39	62	−5	1·3	2·3	1·8	+0·3	3	5	14	3	2	...	13	6	16	N38°W	N30°W	32	44	70	62	0	0	Calcutta . .	6
																															IV.—United Provinces of Agra and Oudh.	
·303	·287	·267	·293	−·041	81	46	30	58	−10	3·0	4·2	3·6	+1·2	8	1	6	8	1	...	2	24	12	N64°W	N42°W	43	26	77* (d)	91	0·18	0·08	Allahabad . .	10
·228	·270	·255	·255	−·015	79	59	47	64	−3	5·6	6·0	5·8	+1·5	17	7	...	1	3	5	9	3	8	S87°W	S66°W	24	20	20	38	1·38	0·46	Dehra Dun§ .	11
																															V.—Punjab.	
·221	·258	·250	·247	−·022	86	60	42	66	−4	3·6	3·2	3·4	−0·3	10	7	5	2	1	4	1	13	19	N48°W	N30°W	45	21	40*	41	0·71	0·70	Lahore . .	12
																															VIII.—Rajputana.	
·233	·248	·216	·248	−·020	67	42	33	51	−5	4·0	4·1	4·1	+0·8	2	9	12	12	7	2	3	5	10	N36°E	N	31	18	87	79	0·19	0·07	Jaipur . .	19
·250	·270	·281	·261	...	71	43	34	49	...	2·6	2·7	2·7	...	21	3	3	19	4	1	4	5	2	S80°E	...	24	...	51*	...	0	0	Udaipur . .	
																															IX.—Bombay.	
·510	·556	·602	·574	−·017	77	67	67	74	+2	0·9	0·6	0·8	−0·3	...	7	9	9	...	...	...	5	32	N19°W	N6°E	61	58	227	238	0	0	Bombay . .	26
																															XI.—Central Provinces.	
·368	·403	·428	·405	+·042	77	48	36	56	+2	1·0	2·2	1·6	−0·4	1	10	9	13	9	7	6	3	4	N85°E	N72°E	26	30	71*	84	0·02	0·01	Nagpur . .	24
																															XII.—Hyderabad.	
·424	·434	·356	·403	−·020	77	49	33	54	−3	2·6	2·2	2·4	+0·8	20	1	8	7	25	...	...	...	1	S71°E	S54°E	50	55	63*	86	0	0	Hyderabad .	29
																															XIII.—Mysore.	
·450	·429	·372	·421	+·013	91	54	38	63	+1	2·6	3·1	2·9	...	...	1	11	40	7	2	1	...	...	N89°E	N88°E	84	78	183*	127	0·63	0·44	Bangalore . .	30
·454	·480	·352	·433	+·010	84	55	33	59	+1	3·8	4·2	4·0	+1·0	...	3	16	28	12	1	...	...	2	N82°E	N83°E	76	81	156*	211	1·10	1·02	Mysore . .	
																															XIV.—Madras.	
·517	·566	·496	·526	...	82	61	43	62	...	1·9	1·8	1·9	...	25	4	6	6	9	10	...	1	1	S64°E	...	27	...	38*	...	4·45	2·61	Periyakulam .	32
(a) ·662	·649	·626	·646	...	(a) 95	67	56	73	...	6·1	6·2	6·2	...	9	38	6	5	1	1	...	2	...	N47°E	...	76	...	228*	...	2·78	1·98	Pudukkottai .	
·672	·738	·706	·723	+·038	97	80	68	83	+4	4·7	3·5	4·1	0	...	10	17	22	9	2	...	1	1	N70°E	N51°E	67	76	112	137	5·42	2·62	Madras . .	
																															Station in the Bay.	
·717	·769	·765	·768	−·039	84	70	64	76	−3	3·2	4·6	3·9	+0·3	8	20	25	4	...	...	...	...	5	N24°E	N39°E	72	76	112*	156	0·09	0·09	Port Blair . .	1
																															Kashmir.	
·103	·125	·143	·124	−·034	77	77	73	76‡	−8	9·4	7·6	8·5	+1·3	15	4	1	...	13	13	4	4	8	S10°W	S21°E	24	4	78*	74	2·70	0·99	Srinagar . .	16
·038	·057	·064	·053	−·011	68	63	60	65	+3	6·9	8·5	7·7	+0·9	...	...	5	10	3	20	23	1	...	S3°W	S13°W	56	32	25	24	0·75	0·28	Leh . . .	

† Departures from old normals.

‡ Mean of three previous columns.

* Corrected.

(d) Mean of 27 days.

§ Wind observations less 9.

Table

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

Number of sub-division.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure.						Temperature of air.										Temperature, Wet-bulb.			
			Mean of 10 hrs.	Mean of 16 hrs.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to S. L. and gravity 45° Lat.	Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of three previous columns.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	Baluchistan.																					
16	Quetta . . .	5,502	24·685	24·616	·069	24·640	—·023	24·600	46·5	28·3	18·2	65·9	15·6	50·3	39·8	42·9	36·7	—2·9	27·5	33·9	36·0	32·5
	Hill Stations excluding Kashmir and Baluchistan.																					
	Simla . . .	7,224	23·093	23·031	·062	23·052	—·053	23·014	43·7	33·6	10·1	48·7	29·0	19·7	40·1	40·7	38·9	—0·8	29·6	33·4	35·5	32·8
	Sarain . . .	...	·168	·097	·071	·121	...	23·083	42·3	26·9	15·4	50·8	17·3	33·5	37·7	35·2	33·9	...	...	33·6	32·9	...
	Kalabagh . .	...	...	...	...	...	...	...	Observations not received.				...	...	...	...	...	...	...	...	...	...
	Chakrata . .	7,022	·310	·253	·057	·269	—·020	·229	49·0	33·8	15·2	61·3	21·3	40·0	41·7	42·6	40·7	—2·0	30·4	35·4	36·6	34·1
	Muktesar . .	7,592	22·844	22·774	·070	22·799	...	22·757	48·4	33·7	14·7	58·7	26·2	32·5	42·0	43·3	40·3	...	28·4	35·3	36·6	33·4
	Katmandu . .	4,388	25·717	25·601 (a)	·116	25·653	—·034†	25·607 (a)	64·1	34·5	29·6	68·5	27·8	40·7	48·8	60·4	48·6	—1·0†	33·2	43·2	47·9	41·4
	Darjeeling . .	7,376	22·985	22·952	·033	22·963	—·048	22·919	48·4	34·9	13·5	52·5	30·8	21·7	43·0	45·8	41·0	+0·9	33·4	39·7	42·3	38·5
	Pachmarhi . .	3,528	26·534	26·460	·074	26·489	—·038	26·436	73·7	49·9	23·8	77·7	36·1	41·6	61·2	70·6	61·1	+2·4	45·4	52·9	56·4	51·6
	Mount Abu . .	3,945	·126	·045	·081	·078	—·037	·028	63·5	49·6	13·9	71·2	40·4	30·8	58·8	60·4	55·9	—2·3	41·8	47·3	48·5	45·8
	Chikalda . .	3,642	·418	·317	·101	·360	—·077	·304	75·2	56·1	19·1	78·9	47·9	31·0	68·4	72·7	65·0	+1·0	49·8	55·6	58·0	54·5
	Ootacamund . .	7,322	23·084	23·002	·082	23·037	...	22·973	64·3	45·8	18·5	70·3	37·9	32·4	60·9	60·3	54·4	...	41·9	50·3	53·0	48·1
	Kodaikanal . .	7,688	22·843	22·775	·068	22·809	...	·744	63·1	48·7	14·4	68·8	44·6	24·2	59·0	59·2	55·9	...	40·1	47·6	50·2	46·0
	Dodabetta . .	8,539?	·071	·024	·047	·042	...	21·978	58·3	46·4	11·9	63·7	42·1	21·6	54·7	55·1	51·7	...	40·1	45·1	46·7	44·0
	Extra India.																					
	Minicoy . .	7	29·985	29·879	·106	29·935	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Zanzibar . .	72	·894	·781	·113	·841	—·013	29·839	86·3	79·1	7·2	88·8	72·8	16·0	82·8	85·8	81·7	—0·2	74·3	77·0	77·2	76·2
	Diego Garcia . .	...	...	...	...	...	...	...	Observations not received.				...	...	...	...	...	...	...	...	...	...
	Seychelles . .	15	·947	·863	·084	·916	—·009†	·855	83·1	76·8	6·3	85·5	73·5	12·0	80·6	81·5	78·8	+0·3†	71·7	76·0	76·0	74·6
	Mauritius . .	181	...	..	...	·754	—·007	·880	...	...	...	87·1	65·3	21·8	...	...	77·6	—1·3	...	...	...	72·9

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

(a) Mean of 30 days.

A—*concld.*

at 35 stations in India, etc., in January, 1909—concld.

Vapour tension in inches of mercury.					Humidity.					Cloud.				Wind direction. Total number of 10 hrs. and 16 hrs. winds from.											Wind steadiness.		Wind velocity.		Rainfall.		Station.
From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean 10 hrs.	Mean 16 hrs.	Mean of two preceding columns.	Departure from normal.	Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.	
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55
																									%	%					
																															Baluchistan.
·147	·139	·144	·151	−·013	91	56	53	72	+2	3·4	5·4	4·3	+0·2	17	9	1	2	5	8	2	5	13	N58°W	N84°W	18	24	66*	70	1·20	0·41	Quetta . .
																															Hill Stations excluding Kashmir and Baluchistan.
·127	·124	·155	·143	−·008	66	52	62	64	+3	5·3	6·3	5·8	+0·2	...	...	...	...	...	...	...	...	...	...	S18°E	...	20	...	120	2·67	0·65	Simla . .
...	·153	·167	...	...	...	68	81	...	...	5·5	6·0	5·5	...	16	...	15	5	1	10	12	3	...	S30°E	...	16	...	54*	...	5·20‡	1·12‡	Sarain . .
...	...	...	...	...	...	...	...	...	...	Observations not received.													...	...	...	...	...	...	...	...	Kalabagh . .
·139	·146	·158	·156	−·006	73	58	59	67	+1	4·8	5·9	5·4	+0·8	17	17	2	1	2	21	.	...	2	S43°E	S51°W	5	6	101*	137	6·37	2·65	Chakrata . .
·107	·141	·150	·141	...	53	54	55	59	...	5·3	7·3	6·3	...	18	1	1	10	8	3	4	17	...	S19°W	...	16	...	176*	...	3·26	1·41	Muktesar . .
·177	·219	·200	·207	−·046	88	63	38	67	−10	1·9	2·7	2·3	−1·1	4	3	2	13	...	...	4	36	...	N86°W	N78°W	40	46	18	21	0·35	0·14	Katmandu .
·178	·212	·235	·216	+·006	87	76	76	84	−1	1·2	5·4	4·8	−0·9	3	...	3	..	9	...	33	8	6	S49°W	N81°W	58	20	102*	89	0·13	0·13	Darjeeling .
·262	·314	·295	·297	+·004	71	58	40	61	+1	0·5	0·6	0·6	−1·8	6	5	8	2	4	5	11	13	8	N88°W	N75°W	26	10	(b) *91	84	0	0	Pachmarhi .
·180	·201	·210	·204	−·003	49	49	39	51	+2	2·9	3·1	3·2	+0·8	...	7	9	1	13	1	16	2	13	N80°W	N61°W	10	12	153*	125	0·05	0·05	Mount Abu‖ .
·291	·302	·318	·311	−·003	61	43	40	57	−1	2·6	3·5	3·1	+1·1	2	...	...	...	3	4	51	...	3	S42°W	S41°W	85	21	172*	132	0	0	Chikalda .
·232	·259	·3 5	·274	...	74	70	59	62	...	2·6	3·6	3·1	...	...	3	7	21	19	8	3	1	...	S67°E	...	64	...	113*	...	9·62	4·52	Ootacamund .
·176	·221	·277	·224	...	50	46	56	51	...	2·9	3·8	3·4	...	...	6	12	19	14	8	...	1	2	S87°E	...	56	...	335	...	9·87	4·51	Kodaikanal .
·188	·202	·236	·218	...	58	48	54	54	...	2·6	3·9	3·3	..	...	5	19	18	15	5	...	...	...	N86°E	...	66	...	528*	...	6·45	2·74	Dodabetta .
																															Extra India.
...	...	...	...	...	...	...	...	...	...	3·8	3·5	3·7	...	...	17	27	6	5	3	...	2	2	N39°E	...	64	...	118*	...	2·77	2·40	Minicoy . .
·799	·854	·821	·822	−·030	79	70	66	75	−2	7·4	6·2	6·8	+0·4	1	15	30	6	3	2	1	2	1	N39°E	N33°E	67	70	159*	187	4·28	1·70	Zanzibar‖ . .
...	...	...	...	...	...	...	...	...	...	Observations not received.							...	...	...	...	...	...	...	...	...	...	...	...	...	...	Diego Garcia .
·714	·874	·832	·818	−·015	77	81	77	81	−3	6·6	7·6	7·1	+0·4	7	13	7	2	4	1	...	7	21	N23°W	N39°W	50	61	159	147	15·28	4·04	Seychelles .
...	...	..	721	−·013	...	...	...	77	+2	...	...	6·2	−0·2	...	...	...	...	...	...	..	...	...	S85°E	S87°E	...	...	233	266	5·01	1·09	Mauritius .

† Departures from old normals.

* Corrected.

(b) Mean of 30½ days.
‖ Wind observations les I.
‡ Snow water.

Table B.—Abstract of observations taken at 8 hrs. at 238 stations in India, etc., in January 1909.

(1) Provincial means.

(2) Data of stations.

(1) Provincial means based on the material in Table B, (2) except that the statement of rainfall depends on the complete data of about 2,700 stations.

	Pressure departure from normal.	Temperature of air.								Wind.		Hygrometry.				Cloud.		Rainfall.		
		Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Absolute range during month.	Departure of velocity from normal.	Departure of steadiness from normal.	Mean humidity.	Departure from normal.	Mean vapour tension.	Departure from normal.	Mean cloud amount.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.
	"	°	°	°	°	°	°	°	°					"	"					
Burma	—·033	84·1	+0·1	59·0	+1·0	71·6	+0·5	25·2	33·9	—0·3	0	87	+ 3	·520	+·022	1·5	—0·3	0·05	0·08	—0·03
Eastern Bengal and Assam	—·038	76·8	+1·6	52·1	+0·3	64·5	+1·0	24·7	36·1	—0·5	—15	88	— 3	·410	—·010	2·6	+0·6	0·52	0·61	—0·09
Bengal	—·043	79·4	+2·4	54·6	+2·1	67·1	+2·2	24·8	37·9	+0·1	— 4	75	— 3	·393	+·012	2·5	+1·0	0·39	0·50	—0·11
United Provinces of Agra and Oudh.	—·038	72·4	+0·1	47·6	+0·5	60·1	+0·3	24·8	39·7	+0·2	+ 1	73	— 6	·288	—·017	3·1	+0·6	0·55	0·86	—0·31
Punjab	—·010	65·7	—2·4	41·7	—1·3	53·7	—1·9	24·0	36·5	+0·4	+12	76	— 2	·235	—·021	3·7	—0·2	0·69	1·15	—0·46
North-West Frontier Province	—·017	62·4	—3·9	37·9	—2·1	50·2	—3·1	24·5	34·8	—0·5	+ 4	66	— 6	·177	—·028	3·1	—0·9	0·29	1·37	—1·08
Sind	—·006	73·0	—2·7	48·9	—0·8	61·0	—1·8	24·2	39·8	—0·6	+ 9	60	— 1	·259	—·010	3·3	+0·2	0·18	0·28	—0·10
Rajputana	—·022	72·3	—2·3	46·6	—1·0	59·5	—1·7	25·8	42·5	+0·2	+11	61	+ 2	·240	—·009	3·3	+0·3	0·25	0·33	—0·08
Bombay	—·031	83·0	—0·9	58·8	+0·9	70·9	0	24·2	37·9	0	—12	62	+ 2	·401	+·021	1·3	+0·4	0·03	0·09	—0·06
Central India	—·034	76·6	—0·2	50·1	+1·8	63·4	+0·8	26·5	42·6	—0·5	+ 4	61	— 5	·285	—·007	3·6	+1·9	0·39	0·46	—0·07
Central Provinces	—·044	82·8	+1·5	56·0	+2·7	69·4	+2·1	26·9	41·5	+0·6	0	59	— 3	·331	+·012	1·9	+0·5	0·20	0·41	—0·21
Hyderabad	—·038	86·7	+1·5	61·4	+2·8	74·1	+2·1	25·3	36·5	—2·0	+ 5	61	— 1	·432	+·029	1·9	+0·8	0·09	0·08	+0·01
Mysore	—·041	83·6	+1·2	59·7	+1·9	71·7	+1·6	23·9	34·7	+0·5	— 7	73	+ 3	·430	+·023	3·8	+1·4	0·86	0·07	+0·79
Madras	—·038	84·9	—0·5	68·2	+1·6	76·6	+0·6	16·7	25·8	+0·2	0	81	+ 3	·656	+·042	3·8	+1·8	2·89	0·45	+2·44

Table

(2) *Abstract of observations taken at 8 hrs. at 238.*

Number of sub-division.	Station.	Elevation of bar. cistern above sea-level, in feet.	Pressure, 8 hrs., in inches.								Temperature of air.												
			Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	I.—Burma.																						
2	Mergui	56	(d) 29·910	(d) —·037	(d) 29·898	29·971	20th	29·827	30th	·144	74·4	88·3	+0·2	70·0	+3·0	79·2	+1·6	18·3	91·9	29th	63·9	1st	28·0
	Tavoy	19	(e) 29·964	(e) —·031	(e) 29·915	30·041	21st	29·884	30th	·157	69·5	90·3	+0·8	65·9	+1·7	78·1	+1·3	24·4	92·5	5 days	58·8	24th	33·7
	Moulmein	94	29·902	—·031	29·936	29·999	21st	29·824	20th & 30th.	·166	70·0	89·2	+0·8	66·4	+1·2	77·8	+1·0	22·8	91·5	4 days	63·3	19th	28·2
	Rangoon	36	29·953	—·046	29·927	30·037	21st	29·873	30th	·164	68·5	90·1	+1·0	65·7	+1·5	77·9	+1·3	24·4	92·6	27th, 29th and 31st.	62·4	18th	30·2
	Bassein	27?	29·967	—·035	29·932	30·047	21st	29·885	3 th	·162	68·4	87·4	+1·7	(d) 63·7	(d) +2·0	(d) 75·6	+1·9	23·7	90·7	29th	58·9	10th	31·8
	Diamond Island	41	29·954	—·033	29·930	30·026	21st	29·873	29th	·153	76·8	84·9	+0·9	72·3	+1·3	78·6	+1·1	12·6	87·4	29th and 30th.	70·2	17th, 18th and 21st.	17·2
	Toungoo	183	(j) 29·845	(j) —·028	(j) 29·959	29·917	12th	29·747	30th	·170	61·6	84·2	—1·1	53·0	—1·6	70·1	—1·4	28·2	88·5	31st	51·8	8th	36·7
	Kyaukpyu	...	29·985	...	29·944	30·054	20th	29·921	30th	·133	...	...	...	...	...	...	...	...	...	...	...	...	...
	Akyab	20	29·983	—·051	29·946	30·048	22nd	29·918	30th	·130	62·3	81·8	+0·4	60·4	+1·1	71·1	+0·8	21·4	85·4	28th	55·8	9th and 10th.	29·6
3	Thayetmyo	121	(f) 29·897	(f) —·023	(f) 29·965	29·990	12th	29·808	31st	·182	63·6	86·4	+0·5	54·1	+0·6	70·3	+0·6	32·3	91·5	31st	47·9	10th	43·6
	Minbu	165	(d) 29·855	(d) —·032	(d) 29·972	29·942	12th	29·759	30th	·183	62·4	84·2	—1·5	57·9	+1·8	71·1	+0·2	26·3	88·8	23rd and 31st.	52·3	31st	36·5
	Yamethin	657	(e) 29·310	(e) —·052?	(e) 29·950	29·403	11th	29·210	31st	·193	61·5	85·1	—2·1	55·4	+0·8	70·3	—0·7	29·7	91·3	30th	51·0	8th	40·3
	Mandalay	250	(d) 29·745	(d) —·038	(d) 29·957	29·844	12th	29·616	30th	·228	62·3	85·7	+1·6	56·1	+0·1	71·0	+0·9	29·6	90·0	30th and 31st.	51·9	8th	38·1
	Monywa	280	(e) 29·753	...	(e) 29·972	29·870	11th	29·592	30th	·278	61·1	83·5	...	57·0	...	70·3	...	26·5	88·8	30th	51·6	7th	37·2
	Lashio	2,751	27·186	—·035	27·132	27·266	11th	27·109	31st	·157	50·8	74·3	—0·8	44·7	—0·3	59·6	—0·6	29·6	77·3	30th and 31st.	40·0	7th	37·3
	Bhamo	381	(d) 29·646	(d) —·014	(d) 30·009	29·719	11th	29·513	18th	·246	52·3	75·8	—1·4	49·1	+0·6	62·5	—0·4	26·7	80·4	22nd and 30th.	44·1	8th	36·3
	Myitkyina	458	29·556	...	30·004	29·662	11th	29·417	18th	·245	54·6	74·8	...	48·8	...	61·8	...	26·0	80·7	31st	42·5	1st	38·2
	II.—Eastern Bengal and Assam.																						
4	Dibrugarh	353	29·665	...	30·002	29·761	11th	29·542	18th	·219	52·9	67·6	...	51·1	...	59·4	...	16·5	73·4	1st and 14th.	44·1	1st and 2nd.	29·3
	Sibsagar	333	(d) 29·730	(d) —·040	(d) 30·043	29·807	12th	29·607	29th	·230	53·6	67·9	—2·2	50·7	+1·2	59·3	—0·5	17·2	72·6	15th and 31st.	40·7	1st	31·9
	Tezpur	252	29·767	...	29·995	29·803	11th	29·613	18th	·280	54·2	74·5	...	52·5	...	63·5	...	22·0	78·1	29th	46·4	9th	31·7
	Gauhati	195	29·855	...	30·020	29·978	11th	29·690	18th	·288	52·7	76·2	...	48·9	...	62·6	...	27·3	81·5	29th	43·6	8th and 9th.	37·9
	Dhubri	115	(e) 29,929	(e) —·035	(e) 30·008	30·036	11th	29·828	18th	·208	55·6	75·5	+1·5	52·4	—0·7	64·0	+0·4	23·1	79·5	29th	45·8	11th	33·7
	Silchar	104	(d) 29·954	(d) —·026	(d) 30·018	30·044	11th	29·863	18th	·181	56·7	77·5	—0·3	52·7	+0·4	65·1	+0·1	24·8	81·3	1st, 28th and 29th.	45·8	11th	35·5
5	Cox's Bazar	36	(e) 29·979	...	(e) 29·960	30·046	22nd	29·920	30th	·126	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chittagong	87	29·948	—·028	29·988	30·009	11th	29·883	30th	·126	60·9	80·1	+1·8	(m) 56·6	(m) +1·2	(m) 68·4	+1·5	23·5	83·1	13th and 14th.	49·9	8th	32·2
	Noakhali	43	29·995	...	29·987	30·067	22nd	29·918	18th	·149	60·5	79·5	...	55·6	...	67·6	...	23·9	82·8	14th	47·9	8th	34·9

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

(e) Mean of 29 days.
(d) " 30 "
(m) " 21 "
(j) " 24 "
(f) " 28 "

3.

Stations in India, etc., in January, 1909.

Wind Direction. Number of winds from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind Velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind Steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hr.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 31st Jany. 1909.	Normal rainfall for period, 1st Dec. to 31st January.	Departure from normal of period, 1st Dec. 1908 to 31st Jany. 1909.	Heaviest rainfall during month.	Station
26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																															I.—Burma.
4	4	6	3	..	3	4	6	N5°E	S4°W	...	2·0	...	23	+12	88	+7	·738	+·028	0·9	−2·1	3	1·40	+1·60	1·69	0·91	+0·78	2·17	1·29	+0·88	0·64	Mergui.
..	..	..	..	..	..	..	..	(a)	N9°W	*1·0	1·2	−0·2	...	...	92	+5	·665	+·020	0	−2·0	0	0·20	−0·20	0	0·21	−0·21	0·04	0·27	−0·23	0	Tavoy.
3	10	3	..	..	..	..	..	N45°E	N48°E	1·9	2·4	−0·5	46	−15	90	+5	·652	+·050	3·6	+2·3	0	0·40	−0·40	0	0·36	−0·36	0	0·41	−0·41	0	Moulmein.
4	11	1	..	.	..	..	..	N22°E	N29°E	3·7	3·8	−0·1	79	+47	80	−3	·557	−·011	1·0	−0·5	0	0·20	−0·20	0	0·12	−0·12	0·04	0·21	−0·17	0	Rangoon.
	1	..		..	..	2	1	N41°W	N2°W	(g) 3·8	3·6	+0·2	10	−22	94	+7	·633	+·056	0·3	−1·5	0	0·10	−0·10	0	0·14	−0·14	0	0·27	−0·27	0	Bassein.
1	11	2	..	.	..	..	1	N27°E	N14°E	8·5	7·9	+0·6	82	+1	75	+2	·696	+·043	1·0	−1·3	0	0·44	−0·44	0	0·21	−0·21	0	0·91	−0·91	0	Diamond Island.
2	3	1	..	..	..	..	4	N10°E	N9°W	1·5	1·7	−0·2	43	−22	92	+4	·497	−·004	2·0	+0·9	0	0·20	−0·20	0	0·08	−0·08	0	0·25	−0·25	0	Toungoo.
1	8	5	1	4	..	..	1	N40°E	...	3·0	...	...	55	...	...	...	...	...	1·2	...	0	...	...	0	...	...	0	...	...	0	Kyaukpyu.
	11	1	.	..	..	..	2	N25°E	N21°E	3·3	2·8	+1·0	59	−28	90	+3	·508	+·014	3·5	+2·8	0	0·10	−0·10	0	0·06	−0·06	0	0·76	−0·76	0	Akyab.
	14	.	.	2	2	..	1	N23°E	N11°E	*3·7	2·8	+0·9	60	+30	77	+3	·455	+·038	0·6	0	0	0·10	−0·10	0	0·02	−0·02	0	0·17	−0·17	0	Thayetmyo.
..		2	..	4	1	..	17	N61°W	N52°W	2·5	5·8	−3·3	53	+5	73	+4	·441	+·016	1·5	+0·8	0	0·10	−0·10	0	0	0	0	0·63	−0·63	0	Minbu.
..		4	1	..	..	..	11	N29°W	N11°W	2·0	2·4	−0·4	33	+7	84	+7	·456	+·027	0·5	0	0	0·20	−0·20	0	0·09	−0·09	0	0·57	−0·57	0	Yamethin.
..	..	1	.	..	..	..	..	S45°E	N13°E	2·0	2·1	−0·1	3	−10	78	−5	·434	?−·025	2·9	+1·8	0	0·10	−0·10	0	0·05	−0·05	0	0·34	−0·34	0	Mandalay.
..	..	1	.	.	1	6		N19°W	...	1·5	...	...	49	...	87	...	·473	...	1·1	...	0	0	0	0	0	0	0	0·15	−0·15	0	Monywa.
.	1	.	..	2	..	1		S57°W	...	*2·8	...	...	3	...	91	+1	·341	+·003	0·8	−3·7	0	...	...	0	0·39	−0·39	0·18	1·05	−0·87	0	Lashio.
..	..	..	.	..	..	..	..	(a)	N18°W	0·9	2·6	−1·7	...	...	9	+6	·392	+·009	1·4	−1·7	1	1·20	−0·20	0·39	0·72	−0·33	0·39	1·14	−0·75	0·36	Bhamo.
3	1	1	..	..	..	..	..	N87°E	...	*1·6	...	...	19	...	89	...	·384	...	2·5	...	1	...	...	0·15	...	...	0·15	...	...	0·10	Myitkyina.
																															II.—Eastern Bengal and Assam.
2	..	..	..	..	..	..	..	N45°E	...	1·0	...	...	3	...	8	...	·303	...	4·6	...	8	4·00	+4·00	4·29	1·57	+2·72	4·29	2·33	+1·96	1·28	Dibrugarh.
2	1	..	1	1	..	..		N33°E	N82°E	1·	1·8	−0·6	13	−10	91	−8	·362	−·022	5·4	0	3	3·70	−0·70	1·68	1·31	+0·37	1·68	1·88	−0·20	0·86	Sibsagar.
	2	..	..	..	..	..	..	N56°E	...	(d) 4·7	...	...	27	...	93	...	·396	...	2·4	...	1	1·80	−0·80	0·29	0·65	−0·37	0·28	1·08	−0·80	0·21	Tezpur.
	..	..	..	..	1	..	..	(a)	...	1·2	...	...	...	...	96	...	·389	...	8·5	...	0	1·70	−1·70	0·04	0·64	−0·60	0·04	0·88	−0·84	0·02	Gauhati.
	10	5	1	4	..	..	..	S68°E	N55°E	4·3	3·8	+1·0	46	+7	86	−5	·387	−·022	0·8	−1·1	0	0·90	−0·90	0	0·43	−0·43	0	0·50	−0·50	0	Dhubri.
.	5	2	..	..	..	..	..	S78°E	S72°E	2·1	1·7	+0·4	20	+14	92	+1	·431	0	1·3	−2·2	2	1·90	+0·10	0·96	0·72	+0·24	0·96	1·18	−0·22	0·47	Silchar.
3	12	3	..	..	..	..	..	N69°E	...	*2·	...	...	79	...	...	...	...	...	0·3	...	0	...	...	0	...	...	0	...	...	0	Cox's Bazar.
	1	1	1	..	..	..	..	N59°E	N28°E	1·2	3·1	−1·9	27	−26	86	−2	·463	+·003	1·5	+0·4	0	0·68	−0·68	0	0·30	−0·30	0	1·15	−1·15	0	Chittagong.
	1	2	..	..	1	1		N19°W	...	2·1	...	...	58	...	88	...	*469	...	2·1	...	0	0·97	−0·97	0·01	0·44	−0·43	0·01	0·82	−0·81	0·01	Noakhali.

* Uncorrected for scale erro
(a) Indeterminat e.
(g) Mean of 27 days.
(d) Mean of 30 days.

Tal

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

Number of sub-division	Station.	Elevation of bar. cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	II.—Eastern Bengal and Assam.—*concld.*																					
5	Barisal	12	30·014	—·043	29·973	30·110	22nd	29·925	18th	·185	62·7	80·4	+2·8	56·9	+2·5	68·7	+2·7	23·5	84·3	28th and 29th.	49·1	8th
	Comilla	36	(d) 29·994	...	(d) 29·979	30·089	22nd	29·900	18th	·189	60·4	81·5	...	54·8	...	68·2	...	26·7	85·8	29th	47·8	30th
	Narayanganj	26	30·010	—·032	29·983	30·104	22nd	29·903	18th	·201	59·6	79·2	+1·3	56·2	+1·0	67·7	+1·2	23·0	83·5	28th	49·8	7th
	Faridpur	46	29·998	...	29·995	30·089	22nd	29·893	18th	·196	58·8	79·2	...	52·4	...	65·8	...	26·8	83·3	15th and 22nd.	41·9	7th and 30th.
	Sirajganj	49	(d) 30·004	...	(d) 30·005	30·093	22nd	29·889	18th	·204	56·6	78·5	...	52·1	...	65·4	...	26·4	84·3	15th	44·8	7th and 30th.
	Mymensingh	63	(d) 29·975	(d) —·039	(d) 29·993	30·065	12th	29·858	18th	·207	57·5	78·2	+3·2	53·2	+0·7	65·7	+2·0	25·0	81·6	29th	46·6	7th and 8th.
	Bogra	75	29·981	?—·012	30·011	30·070	11th	29·874	18th	·196	58·6	78·7	+2·6	51·2	—0·7	65·0	+1·0	27·5	83·7	15th and 21st.	45·2	7th, 30th and 31st.
	Rampur Boalia	70	29·977	...	29·999	30·069	11th	29·869	18th	·200	59·2	79·1	...	52·5	...	65·8	...	25·6	85·1	15th	44·6	8th
	Malda	72	29·957	...	29·985	30·060	11th	29·853	18th	·207	56·6	77·3	...	49·8	...	63·6	...	27·5	83·3	15th	42·0	30th
	Dinajpur	123	29·893	—·047	29·987	30·003	11th	29·782	18th	·226	52·7	75·3	+2·6	47·2	—2·2	62·8	+0·2	31·1	83·3	15th	39·5	3rd
	Rangpur	123	29·925	...	30·011	30·036	11th	29·809	18th	·227	55·3	76·1	...	47·4	...	61·8	...	28·7	80·6	14th	39·5	31st
	Jalpaiguri	334	29·739	—·051	29·939	29·854	11th	29·634	18th	·220	53·8	(d) 74·7	(d) +2·7	50·4	—0·4	(d) 62·6	+1·2	24·3	78·4	29th	46·4	6th
	Cooch Behar	156	29·885	...	30·039	30·018	11th	29·764	18th	·254	53·3	73·8	...	50·5	...	62·2	...	23·3	77·8	28th and 29th.	45·6	6th
	III.—Bengal.																					
6	Saugor Island	25	30·006	—·049	29·976	30·095	11th and 22nd.	29·901	18th	·194	66·8	80·5	+3·9	62·8	+3·6	71·6	+3·8	17·7	84·5	28th	55·5	30th
	Midnapore	149	29·881	...	29·985	29·959	11th	29·774	18th	·185	63·2	84·4	...	59·1	...	71·8	...	25·3	89·8	27th	52·2	8th
	Calcutta	21	30·023	—·042	29·991	30·107	11th	29·911	18th	·196	61·7	(d) 82·0	(d) +4·9	58·4	+3·1	(d) 75·2	+4·0	23·6	87·1	27th	51·2	8th, 9th and 30th.
	Jessore	33	(h) 30·008	(h) —·040	(h) 29·986	30·089	11th	29·931	30th	·158	(d) 59·2	79·7	+1·8	57·2	+4·2	68·5	+3·0	22·5	83·5	18th and 28th.	49·2	7th
	Krishnagar	47	29·892	...	29·991	30·085	11th	29·868	18th	·217	55·7	80·4	...	53·3	...	66·9	...	27·1	85·1	18th	44·0	7th
	Burdwan	99	29·945	—·042	29·998	30·029	11th	29·826	18th	·203	61·9	82·1	+3·3	57·4	+2·5	69·8	+2·9	24·7	86·4	14th, 15th and 16th.	50·3	9th
	Bankura	813	29·713	...	29·993	29·795	12th	29·603	18th	·192	62·6	81·9	...	57·5	...	69·7	...	24·4	86·6	18th	49·7	30th
	Raniganj	334	29·704	...	30·013	29·781	22nd	29·595	18th	·186	59·2	80·2	...	55·1	...	67·7	...	25·1	86·5	18th	48·0	7th and 8th.
	Berhampore	67	29·980	—·038	30·000	30·083	11th	29·872	18th	·211	58·1	78·1	+1·3	54·5	+1·1	66·3	+1·2	23·6	84·1	15th	47·7	7th
	Naya Dumka	489	(d) 29·551	...	(d) 30·030	29·633	11th	29·456	17th	·177	59·9	77·8	...	52·8	...	65·4	...	25·0	83·9	21st	44·0	7th
7	Balasore	50	29·995	—·040	29·992	30·078	12th	29·888	18th	·190	63·6	84·1	+2·8	59·2	+3·5	71·6	+3·2	24·9	89·4	19th	53·8	8th
	False Point	21	30·025	—·036	29·988	30·108	12th	29·933	31st	·175	67·5	80·6	+1·5	60·3	+2·0	70·5	+1·8	20·3	85·1	16th	53·1	13th
	Cuttack	80	29·960	—·042	29·987	30·043	12th	29·865	31st	·178	64·2	(d) 85·2	(d) +0·7	61·5	+1·7	(d) 73·4	+1·2	23·7	90·9	29th	54·7	9th
	Puri (d)	24	(e) 30·005	...	(e) 29·968	30·090	12th	29·910	31st	·180	69·3	81·1	...	65·3	...	73·2	...	15·8	84·6	6th	60·1	13th, 14th and 15th.

N. B.—Elevations in italics indicate barometrical determinations.
NOTE.—The barometric readings are not reduced to sea-level in the case of hill or plateau stations, the elevations of which exceed 3,300 feet.

(d) Mean of 30 days.
(e) " 29 "
(h) " 26 "

B.—*continued.*

***stations in India, etc., in January, 1909*—continued.**

Wind Direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind Velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind Steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 31st Jany. 1909.	Normal rainfall for period, 1st Dec. to 31st January.	Departure from normal of period, 1st Dec. 1908 to 31st Jany. 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																II.—Eastern Bengal and Assam—*concld.*
21	3	4	...		1	1	..	1	N17°E	N4°E	1·1	1·7	−0·6	17	+6	88	+1	·498	+·029	2·1	+1·3	0	1·00	−1·00	0·03	0·67	−0·64	0·03	1·27	−1·24	0·03	Barisal.
26	...	...	...	...	5	...	...	...	S	...	1·5	...	...	16	...	85	...	·471	...	1·6	...	1	1·29	−0·29	0·11	0·54	−0·43	0·11	0·76	−0·65	0·11	Comilla.
25	1	1	1	..	...	2	..	1	N22°W	N10°W	1·0	2·3	−1·3	3	−36	85	−2	·410	−·009	1·8	+0·5	0	1·00	−1·00	0·05	0·38	−0·33	0·05	0·54	−0·49	0·05	Narayanganj.
26	3	...	...	...	...	...	.	2	N14°W	...	1·2	...	...	13	...	86	...	·415	...	2·0	...	1	0·97	+0·03	0·17	0·49	−0·32	0·17	0·57	−0·40	0·17	Faridpur.
25	...	...	...		1	3	1	1	S63°W	...	1·2	...	...	13	...	87	...	·404	...	3·0	...	1	1·07	−0·07	0·42	0·47	−0·05	0·42	0·58	−0·16	0·38	Sirajganj.
30	...	...	...	1	...	...	...	...	S45°E	N54°E	0·3	1·3	−1·0	3	−23	86	−5	·[illegible]	−·011	8·5	+7·0	2	1·00	+1·00	0·58	0·50	+0·08	0·58	0·55	+0·03	0·47	Mymensingh.
25	...	..	1	..	4	..	1	..	S	S18°W	0·9	1·7	−0·8	13	−21	(*) 75	−10	(e) ·373	−·023	1·0	−0·2	0	1·06	−1·06	0·08	0·57	−0·49	0·08	0·59	−0·51	0·06	Bogra.
30	1	..	...	...	...	...	...	...	N	...	1·0	...	...	3	...	76	...	·390	...	1·6	...	2	0·85	+1·15	0·28	0·35	−0·07	0·28	0·41	−0·13	0·18	Rampur Boalia.
11	1	2	1	1	2	5	4	4	S82°W	...	* 3·0	...	...	23	...	82	...	·388	...	0·9	...	1	0·97	+0·03	0·15	0·68	−0·53	0·15	0·92	−0·77	0·11	Malda.
18	...	1	2	1	...	3	5	1	N72°W	N61°W	2·3	2·3	0	13	−23	87	0	·322	−·028	1·3	+0·2	0	0·84	−0·84	0	0·51	−0·51	0	0·55	−0·55	0	Dinajpur.
24	...	...	...	1	...	2	3	1	S76°W	...	0·9	...	...	13	...	85	...	·389	...	1·3	...	0	0·90	−0·90	0·01	0·49	−0·48	0·01	0·58	−0·57	0·01	Rangpur.
23	1	2	2	..	...	1	1	1	N23°E	N18°E	2·1	...	...	7	−36	90	−1	·379	−·017	1·3	+0·2	1	0·97	+0·03	0·20	0·50	−0·30	0·20	0·54	−0·34	0·20	Jalpaiguri.
24	...	...	6		1	...	.	...	S81°E	...	1·3	...	...	19	...	92	...	·376	...	2·8	...	0	0·90	−0·90	0·04	0·43	−0·39	0·04	0·51	−0·47	0·04	Cooch Behar.
																																III.—Bengal.
1	7	13	...	...	1	5	1	3	N10°E	N13°E	(d) 6·7	7·2	−0·5	46	−18	87	−3	·379	+·053	1·6	+0·1	0	0·74	−0·74	0·02	0·21	−0·19	0·02	0·54	−0·52	0·02	Saugor Island.
4	12	6	...	...	2	3	.	4	N4°W	...	2·2	...	...	48	...	64	...	·373	...	2·4	...	1	0·94	+0·06	1·50	0·55	+0·95	1·50	0·75	+0·75	1·50	Midnapore.
9	4	3	2	2	...	2	..	9	N13°W	N6°W	* 2·9	2·6	+0·3	33	+1	84	0	·463	+·028	2·0	+0·9	0	0·78	−0·78	0	0·32	−0·32	0	0·54	−0·54	0	Calcutta.
31	..	...	...	...	...	...	.	.	(a)	N14°W	0·5	1·6	−1·1	...	...	d 83	−4	d ·428	−·007	0·7	−0·5	0	0·90	−0·90	0	0·46	−0·46	0	0·64	−0·64	0	Jessore.
20	1	..	...	...	...	...	.	1	N27°W	...	1·2	...	...	6	...	88	...	·397	...	2·2	...	1	0·81	+0·19	0·30	0·43	−0·13	0·30	0·53	−0·23	0·30	Krishnagar.
17	5	1	1	1	...	1	1	4	N17°W	N23°W	1·5	1·6	−0·1	23	−3	69	−3	·391	+·022	2·6	+1·1	0	0·81	−0·81	0·06	0·29	−0·23	0·06	0·40	−0·34	0·03	Burdwan.
27	...	...	...	...	...	...	3	1	N76°W	...	2·0	...	...	13	...	62	...	·357	...	1·5	...	0	1·06	−1·06	0·09	0·34	−0·25	0·09	0·47	−0·38	0·07	Bankura.
19	1	..	1	...	...	..	3	7	N49°W	...	1·5	...	...	29	...	74	...	·385	...	2·3	...	1	0·97	+0·03	0·92	0·43	+0·49	0·92	0·51	+0·41	0·75	Raniganj.
18	1	1	3	1	1	5	...	1	S4°E	N67°W	1·1	1·6	−0·5	9	−17	81	−7	·397	−·018	3·4	+2·0	1	1·06	−0·06	0·25	0·41	−0·16	0·25	0·52	−0·27	0·21	Berhampore.
29	...	...	...	...	...	...	...	2	N45°W	...	1·2	...	...	3	...	67	...	·357	...	1·5	...	2	1·17	+0·83	0·68	0·59	+0·09	0·68	0·75	−0·07	0·58	Naya Dumka.
3	9	2	...	...	...	2	2	13	N31°W	N27°W	2·0	2·8	−0·8	69	+19	76	−5	·449	+·007	2·3	+0·8	0	0·61	−0·61	0	0·27	−0·27	0	0·45	−0·45	0	Balasore.
9	7	1	...	...	1	...	5	8	N39°W	N28°W	4·9	5·9	−1·0	53	−15	91	+3	·618	+·079	4·9	+3·4	0	0·71	−0·71	0	0·46	−0·46	0	1·15	−1·15	0	False Point.
24	...	...	...	...	1	2	3	1	S71°W	N W	* 1·5	1·4	+0·1	17	+7	85	+7	·526	+·071	1·2	−0·3	0	0·55	−0·55	0	0·16	−0·16	0	0·43	−0·43	0	Cuttack.
	15	3	...	...	...	2	2	3	N9°W	...	(e) 8·3	...	...	60	...	82	...	·598	...	2·7	...	0	0·43	−0·43	0·02	0·26	−0·24	0·02	0·91	−0·89	0·02	Puri.

(e) Mean of 29 days.
(d) ,, of 30 ,,
(*) Uncorrected for scale error.
(a) Indeterminate.

TABLE

(2) *Abstract of observations taken at 8 hrs. at 238*

Number of sub-division.	Station.	Elevation of bar. cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	III.—Bengal.— *concld.*																						
	Angul	455	29·566	...	30·004	29·653	12th	29·463	31st	·189	62·7	84·6	...	57·5	...	71·1	...	27·1	89·1	29th	51·0	8th and 10th.	38·1
	Sambalpur	486	29·553	—·035	30·009	29·627	12th and 15th.	29·420	31st	·207	65·4	84·5	+2·3	57·8	+3·0	71·2	+2·7	26·7	88·1	21st, 26th and 28th.	48·6	9th	39·5
8	Chaibassa	733	29·281	—·038	30·003	29·359	12th	29·182	18th	·176	58·4	83·2	+2·1	56·7	+3·6	69·9	+2·9	26·5	88·3	27th	50·2	8th	38·1
	Ranchi	2,128	(d) 27·865	(d) —·018?	(d) 30·035	27·934	12th	27·781	18th	·153	58·5	76·1	+1·7	54·4	+3·5	65·3	+2·6	21·7	81·2	14th and 21st.	45·9	29th	35·3
	Purulia	816	29·194	...	30·003	29·270	12th	29·077	18th	·193	58·7	81·5	...	55·7	...	68·6	...	25·8	85·5	4 days	49·1	29th and 30th.	36·4
	Hazaribagh	1,993	27·977	—·032	30·017	28·044	12th	27·885	18th	·159	60·3	74·5	+1·4	53·0	+2·5	63·8	+2·0	21·5	80·7	13th	46·3	6th and 29th.	34·4
	Daltonganj	730	29·320?	...	30·053?	29·385	28th	29·203	17th	·182	56·5	79·3	...	50·6	...	65·0	...	28·7	86·5	13th	42·5	9th	41·0
9	Purnea	122	29·915	—·042	30·002	30·018	12th	29·802	18th	·216	50·5	77·1	+2·4	46·4	—1·0	61·8	+0·3	30·7	82·5	27th	38·7	31st	43·8
	Bhagalpur	160	29·883	...	30·003	29·972	12th	29·771	18th	·201	60·9	78·5	...	52·0	...	65·3	...	26·5	84·2	14th and 27th.	43·8	30th and 31st.	40·4
	Monghyr	155	29·890	...	30·007	29·967	22nd	29·797	18th	·170	59·5	76·5	...	(e) 53·4	...	(e) 65·1	...	23·1	83·9	22nd	46·9	30th and 31st.	37·0
	Darbhanga	165	29·860	—·054	29·993	29·952	11th	29·756	18th	·196	53·2	77·2	+4·5	(d) 48·2	(d) —3·9	(d) 62·7	+0·3	29·0	83·1	14th	39·3	31st	43·8
	Pusa	188	29·833	...	29·990	29·925	11th	29·708	17th	·217	53·7	78·5	...	48·1	...	63·3	...	30·4	85·3	14th	39·8	31st	45·5
	Muzaffarpur	178	29·861	...	30·007	29·967	11th	29·753	18th	·214	55·4	76·6	...	48·9	...	62·8	...	27·7	83·2	14th	39·0	31st	44·2
	Motihari	224	29·801	...	30·004	29·898	11th	29·698	7th	·200	48·5	76·4	...	45·8	...	61·1	...	30·6	82·9	14th	38·3	7th	44·6
	Chapra	181	29·851	...	30·001	29·914	22nd	29·751	7th	·163	53·5	75·2	...	50·2	...	62·7	...	25·0	81·7	14th	42·9	6th	38·8
	Patna	183	29·855	—·058	30·003	29·925	12th	29·755	18th	·170	58·6	74·7	+1·7	52·9	+2·7	63·8	+2·2	21·8	80·5	27th	43·2	6th	37·3
	Arrah	190	29·848	...	30·003	29·910	12th	29·753	7th	·157	54·9	77·2	...	50·1	...	63·7	...	27·1	81·9	14th	41·7	31st	40·2
	Buxar	239	29·706	...	30·008	29·851	3rd and 28th.	29·607	7th	·154	56·0	76·7	...	51·3	...	64·0	...	25·4	83·0	27th	41·6	31st	41·4
	Dehri	351	29·681	...	30·009	29·743	28th	29·575	17th	·168	59·7	77·6	...	55·9	...	66·8	...	21·7	83·3	17th	50·0	3rd, 30th and 31st.	33·3
	Gaya	375	29·661	—·046	30·013	29·723	14th	29·560	17th	·163	58·1	77·2	+1·3	53·2	+1·6	65·2	+1·5	24·0	84·9	21st	46·7	25th	38·2
	IV.—United Provinces of Agra and Oudh.																						
10	Gorakhpur	257	29·754	—·055	29·987	29·839	12th	29·644	7th	·195	54·6	75·6	+2·7	48·5	—0·7	62·1	+1·0	27·1	82·5	21st	39·9	31st	42·6
	Benares	267	29·775	—·039	30·016	29·865	28th	29·672	17th	·193	56·5	76·3	+2·0	50·6	+2·4	63·5	+2·2	25·7	82·6	11th	40·1	31st	42·5
	Allahabad	309	29·739	—·034	30·024	29·847	28th	29·618	17th	·229	55·1	76·0	+1·6	49·9	+2·0	63·0	+1·8	26·1	82·1	26th	39·5	31st	42·6
	Cawnpore	416	29·605	—·043	30·013	29·734	28th	29·474	17th	·260	53·0	75·1	+1·2	47·8	+0·7	61·5	+1·0	27·3	79·9	13th, 17th and 26th.	36·5	30th	43·4
	Lucknow	368	(f) 29·668	(f) —·031	(f) 30·024	29·787	28th	29·547	17th	·240	52·9	74·8	+0·8	48·1	+1·4	61·5	+1·1	26·7	80·0	17th and 27th.	39·1	30th	40·9
	Bahraich	401	(f) 29·604	(f) —·044	(f) 29·998	29·713	12th	29·477	17th	·236	50·9	74·4	+2·0	47·1	0	60·8	+1·0	27·3	80·6	13th	38·5	6th	42·1

N.B—Elevations in italics indicate barometrical determinations.
NOTE.—The barometric readings are not reduced to sea-level in the case of hill or plateau stations, the elevations of which exceed 3,200 feet.
(d) Mean of 30 days.
(e) " 29 "
(f) " 28 "

B.—*continued.*

***stations in India, etc., in January, 1909*—continued.**

Wind direction. Number of winds from. Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 31st Jany. 1909.	Normal rainfall for period, 1st Dec. to 31st Jany.	Departure from normal of period, 1st Dec. 1908 to 31st Jany. 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																III.—Bengal—*concld.*
8	2	..	..	..	1	2	3	15	N56°W	...	5·1	...	...	58	...	78	...	·455	...	2·1	...	0	...	...	0	...	...	0	...	...	0	Angul.
...	5	5	6	9	..	1	3	2	N74°E	N32°E	4·5	2·6	+1·9	37	—37	(d) 66	—7	(d) ·423	+·018	2·0	+0·7	0	1·00	—1·00	0·03	0·28	—0·25	0·03	0·52	—0·49	0·03	Sambalpur.
15	...	1	1	...	2	6	5	1	S66°W	S68°W	2·0	1·2	+0·8	30	—10	79	+5	·394	+·016	2·6	+1·2	1	1·23	—0·23	0·52	0·14	+0·38	0·52	0·24	+0·28	0·36	Chaibassa.
5	2	...	1	1	2	1	9	10	N70°W	N73°W	6·5	5·2	+1·3	53	+17	61	—2	·308	+·008	3·4	+1·8	4	1·35	+2·65	1·43	0·29	+1·14	1·43	0·38	+1·05	0·69	Ranchi.
9	...	...	...	1	...	1	12	8	N77°W	...	2·8	...	...	58	...	77	...	·388	...	3·4	...	1	1·35	—0·35	0·33	0·44	—0·11	0·34	0·62	—0·28	0·17	Purulia.
2	1	1	...	...	6	6	5	10	S84°W	S86°W	6·1	5·8	+0·3	53	+9	59	—5	·308	+·008	3·0	+1·1	3	1·45	+1·55	2·51	0·48	+2·03	2·51	0·68	+1·83	1·96	Hazaribagh.
29	...	...	...	...	...	...	1	1	N63°W	...	2·8	...	...	6	...	84	...	·392	...	3·6	...	2	1·63	+0·37	1·60	0·76	+0·84	1·60	1·05	+0·55	1·25	Daltonganj.
18	...	2	...	1	...	...	4	6	N51°W	S74°W	(h) 1·2	2·1	—0·9	27	—2	87	—4	·322	—·028	2·1	+0·9	0	0·90	—0·90	0·01	0·47	—0·46	0·01	0·57	—0·56	0·01	Purnea.
13	...	...	2	...	3	7	6	...	S48°W	...	3·0	...	...	39	...	61	...	·332	...	4·5	...	0	1·32	—1·32	0	0·55	—0·55	0	0·62	—0·62	0	Bhagalpur.
4	...	1	3	1	...	8	13	1	S72°W	...	5·0	...	...	52	...	75	...	·396	...	2·0	...	0	...	...	0·01	...	...	0·01	...	...	0·01	Monghyr.
20	...	1	1	1	...	3	4	1	S72°W	S84°W	2·1	2·6	—0·5	13	—18	79	—7	·330	—·050	2·8	+1·5	0	1·30	—1·30	0·09	0·62	—0·53	0·11	0·69	—0·58	0·09	Darbhanga.
13	...	4	2	...	...	12	...	...	S34°W	...	...	...	...	23	...	76	...	·319	...	2·7	...	0	...	...	0·11	...	...	0·15	...	...	0·06	Pusa.
17	...	...	1	1	...	3	5	4	W	...	*3·3	...	...	26	...	74	...	·328	...	0·6	...	0	1·33	—1·33	0·08	0·79	—0·71	0·08	0·86	—0·78	0·07	Muzaffarpur.
9	...	1	3	2	1	5	7	3	S69°W	...	3·8	...	...	26	...	90	...	·314	...	3·4	...	1	1·32	—0·32	0·17	0·59	—0·42	0·17	0·73	—0·56	0·15	Motihari.
10	...	3	..	...	3	10	4	1	S55°W	...	2·8	...	...	39	...	76	...	·321	...	2·5	...	0	1·48	—1·48	0·08	0·74	—0·66	0·10	0·83	—0·73	0·03	Chapra.
...	...	...	4	1	10	10	5	1	S25°W	S70°W	4·1	2·4	+1·7	62	+14	68	—9	·344	—·012	2·5	+0·8	0	1·32	—1·32	0·10	0·56	—0·46	0·10	0·66	—0·56	0·06	Patna.
14	1	1	...	...	1	8	6	.	S66°W	...	2·0	...	...	39	..	78	...	·345	...	2·4	...	0	1·58	—1·58	0·05	0·88	—0·83	0·07	1·01	—0·94	0·03	Arrah.
2	1	2	4	1	7	8	5	1	S27°W	...	5·4	...	...	36	...	71	...	·321	...	3·4	...	1	1·65	—0·65	0·24	0·78	—0·54	0·29	0·98	—0·69	0·11	Buxar.
7	1	...	1	1	2	13	4	2	S52°W	...	3·5	...	...	55	...	64	...	·338	...	3·4	...	2	1·35	+0·65	0·58	0·59	—0·01	0·68	0·91	—0·23	0·35	Dehri.
8	..	2	...	5	3	3	7	3	S51°W	S16°W	3·6	3·0	+0·6	27	—5	(d) 70	—3	(d) ·347	+·002	2·7	+1·0	2	1·32	+0·68	0·81	0·59	+0·22	0·86	0·76	+0·10	0·40	Gaya.
																																IV.—United Provinces of Agra and Oudh.
27	...	...	...	...	...	1	2	1	W	N84°W	2·3	1·6	+0·7	11	—25	73	—9	·316	—·034	2·5	+0·7	0	1·50	—1·50	0·20	0·76	—0·56	0·20	0·90	—0·70	0·07	Gorakhpur.
12	1	...	3	2	...	10	3	...	S37°W	S49°W	2·9	2·9	0	30	—6	75	—9	·339	—·002	2·7	+0·8	3	1·40	+1·60	0·51	0·67	—0·16	0·70	0·88	—0·18	0·14	Benares.
14	...	1	3	...	...	2	11	...	S86°W	N74°W	3·3	3·8	—0·5	30	+4	65	—14	·292	—·041	3·8	+1·9	0	1·60	—1·60	0·18	0·76	—0·58	0·22	1·00	—0·78	0·09	Allahabad
5	3	1	4	2	...	3	8	5	N63°W	N79°W	3·2	3·0	+0·2	30	—2	70	—9	·287	—·033	1·0	—0·9	1	1·60	—0·60	0·20	0·68	—0·48	0·20	0·85	—0·65	0·16	Cawnpore.
16	...	...	...	3	1	2	6	3	S72°W	N84°W	1·7	2·2	—0·5	23	—6	67	—15	·278	—·042	2·6	+0·1	0	1·90	—1·90	0·23	0·96	—0·73	0·23	1·34	—1·11	0·08	Lucknow.
8	4	...	3	...	...	2	6	8	N50°W	N45°W	2·9	2·2	+0·7	43	+20	82	—5	·314	—·024	2·3	+0·9	2	1·90	+0·10	0·79	0·92	—0·13	0·79	1·26	—0·47	0·38	Bahraich.

(d) Mean of 30 days
(h) " 26 "
* Uncorrected for scale error.

Table

(2) Abstract of observations taken at 8 hrs. at 238

Number of sub-division.	Station.	Elevation of barometer cistern above sea-level, in feet.	Pressure, 8 hrs., in inches.								Temperature of air.												
			Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	2
	IV.—United Provinces of Agra and Oudh—*concld.*																						
11	Jhansi	835	(m) 29·214?	(m) —·020?	(m) 30·062?	29·371	28th	29·097	10th	·274	58·8	74·7	−1·7	53·1	+2·0	64·0	+0·2	21·6	83·0	10th and 11th.	46·0	5th	37·0
	Agra	556	29·484	—·035	30·045	29·620	28th	29·346	17th	·274	51·3	69·8	−3·7	48·4	—0·2	59·2	−2·0	21·4	76·5	10th	39·5	5th	37·0
	Mainpuri	516	(d) 29·513	(d) —·030	(d) 30·027	29·651	28th	29·393	17th	·258	51·1	(d) 72·3	(d) +0·6	(d) 47·3	(d) +1·1	(e) 59·8	+0·9	25·0	77·3	10th and 12th.	38·6	5th	38·7
	Bareilly	568	29·434	—·043	30·011	29·538	12th	29·318	17th	·220	50·4	70·7	+0·1	46·5	+0·4	58·6	+0·3	24·2	74·8	18th	39·5	3rd and 5th.	35·3
	Meerut	738	29·267	—·041	30·031	29·403	28th	29·141	10th	·265	48·1	68·9	−1·5	44·6	−0·4	56·8	−1·0	24·3	75·1	18th	37·3	3rd	37·8
	Roorkee	899	29·108	—·020	30·051	29·246	28th	29·008	17th	·238	46·7	67·3	−2·3	43·4	−1·0	55·4	−1·7	23·9	73·0	15th	33·4	4th	39·6
	Dehra Dun	2,233	27·727	—·035	30·055	27·861	12th	27·632	7th	·229	46·8	65·8	—0·4	43·5	−1·3	54·7	—0·9	22·3	71·0	8th	34·5	28th	36·5
	V.—Punjab.																						
12	Delhi	718	29·309	—·027	30·047	29·452	28th	29·150	10th	·302	50·2	68·7	−2·0	48·0	+0·1	58·4	—1·0	20·7	73·2	18th	41·2	3rd and 5th.	32·0
	Sirsa	662	29·381	—·013	30·070	29·550	28th	29·184	9th	·366	45·0	67·0	−3·1	40·7	- 2·4	54·4	−2·8	27·2	74·3	10th	33·1	5th	41·2
	Patiala	818	29·193	...	30·053	29·352	28th	29·053	10th	·299	47·7	65·0	...	44·2	...	55·1	...	21·7	0·8	18th	36·0	3rd	34·8
	Ambala	892	29·118	—·009	30·050	29·272	28th	28·987	10th	·285	48·5	66·7	−1·1	41·0	+0·7	55·4	−0·2	22·7	72·0	18th	32·0	3rd	40·0
	Ludhiana	812	29·206	—·020	30·058	29·380	28th	29·060	10th	·320	45·6	64·1	—3·1	43·6	—0·7	53·9	—1·9	20·5	69·0	10th	35·0	3rd	34·0
	Lahore	702	29·327	—·022	30·069	29·525	28th	29·164	9th	·361	42·4	66·2	—2·8	40·1	—0·6	53·2	—1·7	26·1	71·9	16th	34·2	23rd	37·7
	Sialkot	830	29·269	+·006	30·087	29·308	28th	29·055	10th	·343	45·0	64·2	—2·0	40·1	—2·7	52·2	—2·4	24·1	70·7	19th	33·5	29th	37·2
	Rawalpindi	1,674	28·333	—·013	30·131	28·532	28th	28·178	10th	·354	39·7	58·9	—3·2	35·6	—2·3	47·3	—2·8	23·3	66·4	16th	30·4	4th	36·0
13	Khushab	612	29·463	+·008	30·104	29·673	28th	29·306	10th	·367	45·3	66·3	—1·3	(e) 39·8	(e) —1·5	(e) 53·1	—1·4	26·5	71·4	16th	34·4	3rd and 5th	37·0
	Montgomery	558	29·496	—·012	30·075	29·694	28th	29·327	9th	·367	44·5	66·5	−2·0	39·6	—2·6	53·1	—2·3	26·9	72·4	21st	33·6	5th	38·8
	Multan	420	29·672	—·002	30·097	29·879	28th	29·491	10th	·338	46·9	66·8	—3·4	42·8	—0·5	54·8	—2·0	24·0	71·3	17th and 21st.	38·0	13th	33·3
	VI.—North-West Frontier Province.																						
15	Peshawar	1,110	28·951	—·026	30·147	29·163	28th	28·803	10th	·360	40·7	58·8	—4·7	37·2	—2·4	48·0	—3·6	21·6	65·2	16th	32·4	3rd	32·8
	Dera Ismail Khan	590	29·500	—·007	30·100	29·707	28th	29·343	17th	·364	43·4	66·0	—3·1	38·6	—1·8	52·3	—2·5	27·4	70·9	1st	34·1	4th	36·8
	VII.—Sind.																						
17	Jacobabad	186	29·911	—·007	30·077	30·106	28th	29·769	8th	·337	46·8	71·4	—2·2	41·3	—2·0	56·4	—2·1	30·1	76·1	31st	32·3	12th	43·8
	Hyderabad	96	30·004	—·009	30·061	29·188	28th	29·868	9th	·320	54·0	74·2	—2·6	49·6	—1·5	61·9	—2·1	24·6	84·1	9th	41·5	11th	42·6
	Kurrachee	30	30·095	—·003	30·059	30·279	28th	29·955	17th	·324	59·4	73·5	—3·4	55·7	+1·2	64·6	—1·1	17·8	78·5	10th	45·5	12th	33·0
	VIII.—Rajputana.																						
18	Bikaner	771	29·266	—·022	30·069	29·442	28th	29·085	10th	·357	48·6	69·5	—2·3	45·1	—4·3	57·3	—3·3	24·4	79·1	9th	38·0	3rd	41·1
	Jodhpur	782	29·278	—·004?	30·098	29·460	28th	29·097	10th	·363	53·2	73·7	—2·6	49·4	—0·2	61·6	—1·4	24·3	80·6	9th	39·3	11th	41·3

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

(e)—Mean of 29 days.
(m)— „ of 21 „
(d)— „ of 30 „

B—*continued.*

***stations in India, etc., in January, 1909*—continued.**

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 31st January 1909.	Normal rainfall for period, 1st Dec. to 31st January.	Departure from normal of period, 1st Dec. 1908 to 31st January 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																IV.—United Provinces of Agra and Oudh—*concld.*
12	5	3	..	2	.	4	2	3	N34°W	N68°W	4·0	2·1	+1·9	20	+2	59	−3	·300	+·006	2·6	+0·8	1	1·20	−0·20	0·39	0·62	−0·23	0·41	0·86	−0·42	0·36	Jhansi.
8	...	1	1	1	3	7	1	6	S71°W	N56°W	4·1	3·6	+0·5	40	+8	72	0	·276	−·005	4·5	+1·9	1	1·20	−0·20	1·05	0·53	+0·52	1·07	0·82	+0·25	0·94	Agra.
11	1	1		1	2	2	10	3	S89°W	N59°W	2·1	1·6	+0·5	39	+11	71	−5	·275	−·010	1·7	−0·9	3	1·50	+1·50	0·39	0·73	−0·34	0·39	1·07	−0·68	0·15	Mainpuri.
18	1	.	..	1	.		6	5	N67°W	N45°W	2·4	2·2	+0·2	33	+8	72	−11	·274	−·023	4·0	+1·3	2	2·36	−0·36	0·44	1·05	−0·61	0·64	1·38	−0·74	0·19	Bareilly.
21	1	...	1	1	...	..	5	2	N60°W	S88°W	1·3	2·0	−0·7	17	−18	76	−1	·262	−·031	3·4	+0·3	3	2·30	+0·70	0·71	1·35	−0·64	0·91	1·83	−0·92	0·32	Meerut.
16	1	.	..	3		.	1	10	N45°W	N53°W	2·8	2·1	+0·7	27	+11	84	−1	·271	−·003	3·2	+0·2	4	2·80	+1·20	1·30	1·68	−0·38	1·39	2·29	−0·90	0·57	Roorkee.
31	...	.			.	...	.	...	(a)	S45°E	0·8*	1·6	−0·8	...	...	77	−2	·252	−·011	5·5	+0·8	4	3·50	+0·50	1·38	2·38	−1·00	1·58	3·18	−1·60	0·46	Dehra Dun.
																																V.—Punjab.
2	2	..	.	1	.	3	15	8	N78°W	S87°W	3·8	2·9	+0·9	72	+37	71	+3	·261	+·002	3·7	+0·1	1	2·40	−1·40	0·36	1·23	−0·87	0·36	1·76	−1·40	0·15	Delhi.
18	3	..	1		.	2	5	2	N66°W	N36°W	2·2	3·4	−1·2	53	+12	79	+3	·241	−·010	3·5	−0·7	1	1·50	−0·50	0·21	0·84	−0·63	0·21	1·15	−0·94	0·15	Sirsa.
3	7	...	1	.	.	.	5	12	N32°W	...	4·7	.	...	61	...	80	..	·271	...	1·2	.	3	...	...	2·94	...	...	3·11	...	...	2·57	Patiala.
9	1	..		2	...	.	3	16	N40°W	N48°W	4·9	1·9	+3·0	56	+38	(d) 79	−8	(d) ·273	−·011	5·0	+1·6	5	2·60	+2·20	0·77	1·62	−0·85	0·99	2·44	−1·45	0·20	Ambala.
16	.	2	.	2	.	1	6	9	N43°W	N59°W	1·8	1·7	+0·1	27	+8	83	+1	·259	−·014	1·1	−0·1	3	2·60	+0·40	2·62	1·84	+0·78	2·73	2·62	+0·11	1·93	Ludhiana.
19	3			1	1	.	5	2	N63°W	N88°W	(d) 1·9	1·7	+0·2	23	+20	85	+3	·234	−·021	3·2	−0·8	1	1·90	−0·90	0·71	1·12	−0·41	1·01	1·50	−0·49	0·70	Lahore.
16	2	4	2	2	.		2	3	N21°E	N19°E	1·9	1·3	+0·6	20	+12	80	−2	·243	−·026	2·7	−0·7	1	3·40	−2·40	0·46	2·51	−2·05	1·71	3·03	−1·32	0·42	Sialkot.
25	2	..	1		..	1	2	...	N52°W	N46°W	2·3	2·0	+0·3	7	−7	82	−2	·202	−·028	4·8	+0·1	1	4·20	−3·20	0·27	2·74	−2·47	1·46	3·48	−2·02	0·15	Rawalpindi.
10	.	6	1	2	2	6	1	..	S72°E	N18°E	3·5	2·9	+0·6	5	−6	65	−5	·199	−·014	2·8	−0·6	0	1·50	−1·50	0·07	0·82	−0·75	0·07	1·36	−1·29	0·03	Khushab.
12	6	1	3	2	1	2	1	3	N7°E	N18°E	3·6	3·4	+0·2	17	+3	(d) 65	−10	(d) ·187	−·059	3·2	−0·6	1	1·30	−0·30	0·12	0·84	−0·72	0·12	1·26	−1·14	0·11	Montgomery.
19	8	2	.	2	.	.	..	.	N20°E	N45°E	1·0	1·3	−0·3	27	+1	66	−5	·212	−·032	3·4	+0·2	0	1·10	−1·10	0	0·45	−0·45	0	0·64	−0·64	0	Multan.
																																VI.—North-West Frontier Province.
3	...		1	1	6	1	...	1	S2°E	S16°W	1·7	2·5	−0·8	22	−17	65	−8	·178	−·036	3·8	−0·9	0	2·90	−2·90	0·15	1·60	−1·45	0·88	1·93	−1·05	0·03	Peshawar.
0	1	4	..	1	.	2	..	13	N33°W	N37°W	1·3	1·4	−0·1	43	+25	66	−3	·165	−·020	2·4	−0·9	1	1·40	−0·40	0·29	0·44	−0·15	0·33	0·65	−0·32	0·29	Dera Ismail Khan.
																																VII.—Sind.
3	6	1	.	1	...	.	..	10	N23°E	N22°E	3·0	2·2	+0·8	46	+28	59	−3	·193	−·025	2·9	−0·6	0	1·00	−1·00	0·07	0·27	−0·20	0·09	0·36	−0·27	0·05	Jacobabad.
2	15	1	...	1	1	2	..	9	N19°W	N7°E	5·6	7·0	−1·4	66	+15	58	0	·250	−·008	3·3	+0·1	1	0·70	+0·30	0·11	0·24	−0·13	0·11	0·29	−0·18	0·11	Hyderabad.
3	4	13	4	1	..	...	1	5	N30°E	N50°E	8·0	9·2	−1·2	59	−15	(d) 63	−1	(d) ·333	+·004	3·7	+1·2	2	1·10	+0·90	0·68	0·66	+0·02	0·68	0·79	−0·11	0·40	Kurrachee.
																																VIII.—Rajputana.
4	4	6	5	2	4	2	2		S89°E	N22°W	5·2	3·7	+1·5	20	−2	54	−3	·189	−·040	3·6	+0·3	0	1·10	−1·10	0·02	0·39	−0·37	0·02	0·56	−0·54	0·02	Bikaner.
11	12	...	..	1	1	..	1		N21°E	...	4·8	...	...	66	...	54	+10	·224	...	4·3	...	1	0·90	+0·10	0·47	0·23	+0·24	0·47	0·38	+0·09	0·43	Jodhpur.

(d)—Mean of 30 days.
(a)—Indeterminate.
* Uncorrected for scale error.

Table

(2) *Abstract of observations taken at 8 hrs. at 238*

Number of sub-division.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	VIII.—Rajputana—*concld.*																						
	Pachpadra	*380*	29·682	—·018	30·051	29·856	28th	29·508	10th	·348	49·7	75·5	—2·9	43·1	—2·0	59·3	—2·5	32·4	82·9	9th	34·0	11th	48·9
19	Jaipur	1,431	28·593	—·022	30·075	28·761	28th	29·430	10th	·331	53·7	72·2	—2·4	48·0	0	60·1	—1·2	24·2	78·2	9th	36·1	12th	42·1
	Sambhar	1,254	28·772	—·015	30·084	28·931	28th	28·605	10th	·326	48·0	71·0	—2·6	44·3	—1·1	57·7	—1·9	26·7	77·4	9th	35·9	30th	41·5
	Ajmer	1,611	28·413	—·029	30·096	28·579	28th	28·253	10th	·326	50·1	70·0	—4·1?	47·7	+2·2?	58·9	—1·0?	22·3	76·9	9th.	40·2	30th and 31st.	36·7
	Kotah	819?	29·211	—·027	30·078	29·367	28th	29·055	10th	·312	(s) 55·3	(t) 74·7	(t) —1·2	(t) 49·5	(t) —0·5	(u) 62·0	—0·9	25·2	82·5	9th and 10th.	45·1	5th	37·4
	Udaipur	1,025	(d) 28·097	(d) —·019	(d) 30·071	28·241	28th	27·956	10th	·285	(d) 56·5	74·4	—0·9	48·3	+1·4	61·4	+0·3	26·1	84·5	9th	38·8	29th	45·7
	IX.—Bombay.																						
20	Deesa	466	29·568	—·028	30·019	29·748	28th	29·442	10th	·306	57·3	81·2	—1·9	50·9	—0·6	66·1	—1·3	30·3	88·3	16th	40·9	12th and 30th.	47·4
	Bhuj	395	29·667	—·010	30·039	29·827	28th	29·533	10th	·294	58·7	(l) 75·0	(l) —5·4	(d) 52·7	(d) —1·8	(m) 64·3	—3·6	22·3	81·6	25th	42·5	12th	39·1
	Jamnagar	61	30·018	...	30·024	30·175	28th	29·896	10th	·279	61·9	74·5	...	52·9	...	63·7	...	21·6	80·4	9th	41·7	12th	38·7
	Dwarka	37?	30·041	...	30·025	30·190	28th	29·940	10th	·250	64·4	75·4	...	57·7	...	66·6	...	17·7	81·3	8th	49·7	12th	31·6
	Rajkot	429	(d) 29·613	(d) —·017	(d) 30·021	29·755	28th	29·530	10th	·225	56·4	80·4	—3·6	(d) 48·6	(d) —2·5	(d) 64·5	—3·1	31·8	90·9	9th	36·0	12th	54·9
	Veraval	*18*	30·030	—·011	29·990	30·144	28th	29·967	10th	·177	62·0	79·3	—2·2	57·0	—1·8	68·2	—2·0	22·3	87·7	6th	50·3	4th	37·4
	Bhavnagar Para	55	29·996	—·045?	29·995	30·123	28th	29·918	10th	·205	69·5	83·0	+0·4?	53·1	—3·0	68·0	—1·3?	29·9	89·6	25th	40·5	12th	49·1
	Surat	39	29·986	—·026	29·972	30·096	28th	29·907	3rd	·189	61·0	84·6	—2·3	56·6	+0·1	70·6	—1·1	28·0	90·1	7th and 9th	47·6	12th	42·5
	Ahmedabad	163	29·878	—·030	30·001	30·050	28th	29·798	10th	·252	60·3	83·2	—0·8	55·6	—1·4	69·4	—1·1	27·6	89·1	25th	46·7	12th	42·4
26	Bombay	37	29·976	—·035	29·954	30·052	12th	29·887	2nd and 3rd.	·165	69·1	80·4	—2·2	66·3	—1·6	73·3	—1·9	14·1	83·5	3rd	61·5	12th, 28th and 31st.	22·0
	Ratnagiri	110	29·872	—·037	29·924	29·943	12th	29·768	3rd	·175	72·4	85·0	—2·7	65·9	—0·3	75·5	—1·5	19·1	92·8	3rd	58·4	31st	34·4
	Goa	199	29·771	—·067?	29·911	29·846	11th	29·656	3rd	·190	74·3	82·8	—4·1	72·1	+4·3	77·5	+0·1	10·7	87·1	3rd	67·1	15th	20·0
	Mormugao	*60*	29·922	—·037	29·918	29·992	11th	29·797	3rd	·195	72·9	83·6	—2·2	70·2	+1·3	76·9	—0·5	13·4	88·0	5th and 6th	65·7	13th and 14th.	22·3
	Karwar	44	29·948	—·031	29·927	30·023	11th	29·824	3rd	·199	69·9	85·8	—1·1	67·9	+2·4	76·9	+0·7	17·0	90·8	29th	61·5	31st	29·3
27	Malegaon	1,430	28·571	—·044	30·018	28·691	28th	28·498	3rd	·193	61·1	88·1	+2·5	53·2	+1·3	70·7	+1·9	34·9	93·4	24th	44·1	28th	49·3
	Ahmednagar	2,154	(g) 27·854	(g) —·024?	(g) 30·020	27·934	28th	27·789	3rd	·145	63·7	86·6	+2·6	55·5	+4·8	71·1	+3·7	31·1	90·9	25th	49·5	31st	41·4
	Poona	1,846	(d) 28·150	(d) —·040	(d) 30·010	28·238	28th	28·086	30th	·152	62·9	87·5	+1·6	(e) 54·7	(e) +0·4	(e) 71·1	+1·0	32·8	91·5	25th	46·0	31st	45·5
	Sholapur	1,590	(d) 28·402	(d) —·044	(d) 29·983	28·468	28th	28·318	2nd	·150	68·9	89·5	+1·8	62·5	+4·3	76·0	+3·1	27·0	93·8	25th, 26th and 27th	55·4	31st	38·4
	Bijapur	*1,948*	28·033	—·043	29·966	28·100	28th	27·960	3rd	·140	69·6	88·7	+3·5	62·6	+4·6	75·6	+4·1	26·1	93·2	25th and 26th	58·2	4 days	35·0
	Belgaum	2,539	27·441	—·034	29·953	27·494	15th and 28th.	27·351	3rd	·143	68·4	85·3	+1·8	59·8	+2·3	72·6	+2·1	25·5	90·3	25th	53·6	13th and 14th.	36·7

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

(d) Mean of 30 days.
(g) " " 27 "
(s) " " 29 "
(l) " " 15 "
(t) " " 14 "
(u) " " 13 "
(l) " " 22 "
(m) " " 21 "

—*continued.*

ations in India, etc., in January, 1909—continued.

Wind direction. Number of winds from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 31st Jany. 1909.	Normal rainfall for period, 1st Dec. to 31st Jany.	Departure from normal of period, 1st Dec. 1908 to 31st Jany. 1909.	Heaviest rainfall during month.	Station.
26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																															VIII.—Rajputana—*concld.*
...	2	2	1	1	...	...	...	S86°E	...	2·3	4·1	—1·8	13	...	65	+4	·242	+·004	0	—3·0	1	1·00	0	0·18	0·38	—0·20	0·18	0·50	—0·32	0·13	Pachpadra.
6	12	4	3	...	...	1	...	N47°E	N6°E	3·6*	3·3	+0·3	59	+30	56	—10	·240	—·025	4·5	+1·4	0	1·50	—1·50	0·19	0·60	—0·41	0·19	0·79	—0·60	0·07	Jaipur.
3	9	..	...	1	...	1	1	N27°E	N34°E	4·0	4·1	—0·1	33	+19	73	+7	·255	+·012	3·9	+1·2	1	1·10	—0·10	0·36	0·39	—0·03	0·36	0·74	—0·38	0·27	Sambhar.
...	4	1	...	..	..	1	...	N45°E	N9°W	3·4	2·2	+1·2	13	—5	72	—1	·266	+·002	3·9	+1·4	2	1·30	+0·70	0·30	0·44	—0·14	0·30	0·71	—0·41	0·20	Ajmer.
4	3	2	...	...	...	3	1	N4°E	...	2·2	...	...	22	...	(s) 54 (d)	—1	(s) ·265 (d)	...	2·9	...	1	0·70	+0·30	0·18	0·18	0	0·20	0·54	—0·34	0·18	Kotah.
3	...	...	.	...	...	4	5	N49°W	...	2·1	...	...	33	...	56	+4	·263	...	2·9	...	0	0·30	—0·30	0	0·06	—0·06	0	0·19	—0·19	0	Udaipur.
																															IX.—Bombay.
5	15	4	1	1	1	1	...	N46°E	N56°E	8·8*	8·5	+0·3	62	+ 4	51	+5	·251	+·024	3·1	+1·5	0	0·36	—0·36	0	0·15	—0·15	0	0·21	—0·21	0	Deesa.
4	4	2	3	...	3	5	2	N22°W	N45°W	7·4	6·5	+0·9	17	—1	57	+2	·292	—·023	2·6	+1·3	0	0·10	—0·10	0	0·07	—0·07	0	0·14	—0·14	0	Bhuj.
3	10	6	2	2	3	1	1	N67°E	...	11·2	...	...	32	...	60	...	·342	...	0	...	1	...	...	0·18	...	...	0·18	...	...	0·13	Jamnagar.
13	7	2	..	...	...	1	5	N6°E	...	11·3	...	...	69	...	63	...	·395	...	1·5	...	0	...	...	0	...	...	0	...	...	0	Dwarka.
4	6	2	1	2	1	2	5	N5°E	N55°E	6·0	5·2	+0·8	7	—35	54	+1	·260	—·030	1·6	+0·6	0	0·20	—0·20	0	0·04	—0·04	0	0·08	—0·08	0	Rajkot.
19	9	1	...	...	...	...	1	N14°E	N20°E	8·5	5·9	+2·6	89	+14	56	+4	·318	—·004	0·5	—0·8	0	0	0	0	0	0	0	0·09	—0·09	0	Veraval.
3	...	...	...	...	3	4	18	N54°W	N85°W	3·4	6·9	—3·5	75	+10	52	—15?	·272	—·085?	1·3	+0·2	0	0·10	—0·10	0	0·07	—0·07	0	0·14	—0·14	0	Bhavnagar.
8	3	3	...	2	...	2	10	N15°W	N5°E	3·4	4·9	—1·5	53	+11	68	+4	·375	—·001	0·4	—0·3	0	0·20	—0·20	0	0·05	—0·05	0	0·06	—0·06	0	Para. Surat.
3	16	2	...	...	...	...	4	N31°E	N48°E	4·8	4·3	+0·5	66	—5	50	+3	·269	—·001	1·1	—0·6	0	0·10	—0·10	0	0·03	—0·03	0	0·10	—0·10	0	Ahmedabad.
13	10	5	1	...	...	...	1	N31°E	N58°E	9·5*	9·9	—0·4	76	—5	75	+3	·542	—·007	1·0	+0·1	0	0·10	—0·10	0	0·10	—0·10	0	0·16	—0·16	0	Bombay.
12	7	5	1	...	...	...	...	N33°E	S88°E	10·0	7·7	+2·3	62	+7	66	+6	·530	+·051	0·2	—0·6	0	0·20	—0·20	0	0·15	—0·15	0	0·20	—0·20	0	Ratnagiri.
5	8	14	3	1	...	...	...	N70°E	N75°E	5·4	5·6	—0·2	76	—11	79	+12	·671	+·104	1·9	+1·5	0	...	...	0	0·19	—0·19	0	0·25	—0·25	0	Goa.
10	6	3	...	...	...	...	1	N24°E	S84°E	(e) 6·2*	8·2	—2·0	56	—21	88	+7	·711	+·078	2·4	+2·0	0	...	...	0	0	0	0	0	0	0	Mormugao.
3	...	...	...	...	...	...	...	N	N62°E	3·0*	3·5	—0·5	10	—77	87	+8	·644	+·111	1·8	+1·4	0	0·10	—0·10	0	0·09	—0·09	0	0·16	—0·16	0	Karwar.
...	...	...	...	...	1	2	2	N80°W	N68°W	4·6	5·1	—0·5	13	—52	45	—13	·249	—·058	0·1	—1·2	1	0·10	+0·90	0·23	0·11	+0·12	0·23	0·37	—0·14	0·23	Malegaon.
...	...	1	3	6	...	1	15	N74°W	N5°W	6·2	5·9	+0·3	27	+20	48	—13	·290	—·053	0·6	—0·3	0	0·20	—0·20	0	0·01	—0·01	0	0·51	—0·51	0	Ahmednagar.
2	...	1	3	...	...	1	4	N15°W	S70°W	6·2(f)	6·2	0	10	—58	64	+7	·375	+·067	1·6	+0·8	0	0·20	—0·20	0	0·04	—0·04	0	0·23	—0·23	0	Poona.
2	7	5	12	2	...	1	2	S83°E	S66°E	9·0	7·8	+1·2	53	—2	50	+2	·361	+·036	1·5	+0·5	0	0·20	—0·20	0	0·07	—0·07	0	0·50	—0·50	0	Sholapur.
2	1	4	7	5	2	...	5	S43°E	S59°E	4·4	4·2	+0·2	27	—17	61	—7	·440	—·015	1·5	+0·3	1	0·20	+0·80	0·15	0	+0·15	0·15	0·03	+0·12	0·14	Bijapur.
1	3	8	7	1	...	2	1	S81°E	S81°E	8·7*	10·0	—1·3	40	—3	64	+8	·438	+·082	1·6	+0·7	0	0·20	—0·20	0	0·04	—0·04	0	0·16	—0·16	0	Belgaum.

(f) Mean of 28 days.
* Uncorrected for scale error.
(e) Mean of 29 days.
(s) " 15 "
(d) " 30 "

TABLE

(2) *Abstract of observations taken at 8 hrs. at 238*

Number of sub-division.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches.								Temperature of air.												
			Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	X.—Central India.																						
21	Neemuch	1,624	28·394	—·016	30·071	28·544	28th	28·273	10th	·271	54·7	75·9	—1·7	48·2	−0·5	62·1	—1·1	27·7	84·0	9th	39·8	29th	44·2
	Indore	1,823	28·188	−·018	30·046	28·331	28th	28·111	10th	·220	60·0	79·8	+0·4	51·1	+1·3	65·5	+0·9	28·7	85·1	10th	43·1	29th and 30th.	42·0
22	Nowgong	754	29·269	—·050	30·033	29·413	28th	29·143	17th	·270	54·5	74·1	—1·0	49·2	+2·2	61·7	+0·6	24·9	82·5	26th	39·0	30th	43·5
	Sutna	1,040	(d) 28·960	(d) —·052	(d) 30·024	29·079	28th	28·846	17th	·233	56·3	76·5	+1·4	51·7	+4·1	64·2	+2·8	24·8	84·0	11th	43·2	1st	40·8
	XI.—Central Provinces.																						
23	Buldana	2,132	27·869	...	29·999	27·957	28th	27·806	31st	·151	66·8	83·1	...	60·3	...	71·7	...	22·8	88·4	25th	52·0	28th and 29th.	36·4
	Akola	930	29·068	—·051	29·991	29·177	28th	29·005	30th	·172	65·0	88·5	+3·3	57·2	+3·8	72·9	+3·6	31·3	93·2	27th	47·6	29th and 30th.	45·6
	Amraoti	1,215	(d) 28·778	(d) —·044	(d) 29·958	28·879	28th	28·696	30th	·183	66·3	86·6	+2·0	60·8	+3·0	73·7	+2·5	25·8	91·3	27th	52·8	29th and 31st.	38·5
24	Khandwa	1,044	28·955	—·046	30·012	29·112	28th	28·886	10th	·226	58·1	86·2	+2·3	54·2	+2·4	70·2	+2·4	32·0	91·2	27th	42·1	29th	49·1
	Hoshangabad	1,006	29·010	—·041	30·033	29·160	28th	28·934	10th	·226	58·0	80·6	+0·3	53·0	+0·7	66·8	+0·5	27·6	86·6	14th	44·4	29th	42·2
	Saugor	1,807	28·187	—·043	30·033	28·312	28th	28·110	10th and 17th.	·202	58·0	76·6	−0·3	54·1	+2·3	65·4	+1·0	22·5	83·6	17th	45·0	28th	38·6
	Jubbulpore	1,327	(d) 28·676	(d) —·041	(d) 30·035	28·801	28th	28·609	27th and 30th.	·192	56·1	78·1	+0·5	51·8	+3·8	65·0	+2·2	26·3	84·5	17th	40·8	29th	43·7
	Seoni	2,033	27·969	—·033	30·031	28·066	28th	27·894	30th	·172	60·7	80·8	+1·6	(d) 51·5	(d) +0·2	(d) 66·2	+0·9	29·3	85·5	26th	41·9	29th	43·6
	Nagpur	1,017	28·984	—·045	30·001	29·098	28th	28·906	30th	·192	63·3	85·7	+2·2	57·2	+1·6	71·5	+1·9	28·5	90·6	26th and 28th.	49·6	9th	41·0
25	Pendra	2,123?	27·969	...	30·044	28·057	28th	27·896	17th	·161	58·6	77·4	...	53·1	...	65·3	...	24·3	81·8	16th, 19th and 21st.	42·2	29th	39·6
	Raipur	970	29·037	—·043	30·005	29·112	15th	28·942	31st	·170	61·8	83·5	+1·9	58·8	+3·4	71·2	+2·7	24·7	88·2	28th	51·6	29th	36·6
	Chanda	634	(d) 29·367	(d) —·055	(d) 29·973	29·484	28th	29·285	31st	·199	66·5	86·8	+1·4	59·4	+5·3	73·1	+3·4	27·4	93·0	26th	50·0	9th	43·0
	XII.—Hyderabad.																						
28	Aurangabad (d)	1,905	(i) 28·114	(i) —·045	(i) 30·020	28·173	15th	28·058	31st	·115	(e) 67·3	85·6	+0·4?	57·9	+3·0	71·7	+1·7?	27·7	90·2	25th	49·7	30th	40·5
	Nizamabad	1,260	28·741	—·006?	29·988	28·820	15th	28·639	30th	·181	69·3	88·0	+2·7	(d) 59·7	(d) +3·3	(d) 73·8	+3·0	28·3	95·9	27th	53·7	4th	42·2
	Bidar	*2,165*	27·840	...	29·984	27·917	15th	27·761	31st	·156	70·6	85·3	...	58·7	...	72·0	...	26·6	90·2	25th	53·8	13th	36·4
29	Gulbarga	1,503	28·495	—·036	29·985	28·562	15th	28·410	2nd and 30th.	·152	69·3	88·6	+1·9	62·7	+4·2	75·7	+3·1	25·9	93·5	28th	55·8	31st	37·7
	Raichur	*1,311*	(f) 28·676	(f) —·037	(f) 29·967	28·739	15th	28·592	31st	·147	70·6	87·4	+0·7	65·6	+2·2	76·5	+1·5	21·8	93·1	31st	61·1	17th	32·0
	Hyderabad (Deccan).	1,690	28·304	—·012	29·996	28·369	15th	28·204	31st	·165	65·4	86·1	+1·6	61·5	+3·4	73·8	+2·5	24·6	90·8	31st	56·2	14th	34·6
	Hanumkonda	871	29·137	—·031	29·983	29·222	15th	29·016	31st	·206	68·5	86·2	+0·4	63·7	+0·8	74·9	+0·6	22·5	91·5	31st	59·2	10th and 15th.	32·3
	XIII.—Mysore.																						
30	Chitaldroog	2,405	27·582	—·037	29·954	27·650	15th	27·475	2nd	·175	70·0	84·7	+0·9	62·6	+1·5	73·7	+1·2	22·1	91·1	25th	56·4	14th	34·7

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

(d) Mean of 30 days.
(i) " 25 "
(e) " 29 "
(f) " 28 "

3—contd.

tations in India, etc., in January, 1909—contd.

Wind Direction. Number of winds from N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind Steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st Dec. 1908 to 31st Jan. 1909. (53)	Normal rainfall for period, 1st Dec. to 31st Jan. (54)	Departure from normal of period, 1st Dec. 1908 to 31st Jan. 1909. (55)	Heaviest rainfall during month. (56)	Station. (57)
																															X.—Central India.
14	10	1	...	...	1	1	2	N12°E	N48°E	5·5	6·5	−1·0	76	+26	53	−4	·234	−·030	2·7	+1·1	0	0·40	−0·40	0	0·21	−0·21	0	0·49	−0·49	0	Neemuch.
...	8	6	3	...	...	2	2	N72°E	N36°E	2·8	2·4	+0·4	37	+26	54	−8	·286	−·012	2·2	+0·8	0	0·40	−0·40	0	0·13	−0·13	0	0·33	−0·33	0	Indore.
2	...	5	4	3	3	3	1	S21°E	N56°W	2·3	1·4	+0·9	13	−13	(d) 71	−5	(d) ·308	0 ?	3·3	+1·0	2	1·70	+0·30	0·41	0·71	−0·30	0·47	1·26	−0·79	0·22	Nowgong.
...	...	4	2	...	2	6	3	S80°W	N20°W	1·7	4·1	−2·4	13	−23	(e) 67	−3	(e) ·312	+·020	6·0	+4·8	3	1·80	+1·20	0·86	0·92	−0·06	1·01	1·35	−0·34	0·45	Sutna.
																															XI—Central Provinces.
4	3	3	5	4	1	5	6	N27°W	...	5·3	5·7	−0·4	6	...	46	...	·307	...	1·4	...	0	...	...	0·08	0·22	−0·14	0·08	0·81	−0·73	0·08	Buldana.
...	4	4	7	2	4	2	1	S45°E	S84°E	3·3	3·7	−0·4	27	−8	50	−5	·323	+·025	1·7	+0·5	0	0·70	−0·70	0	0·33	−0·33	0	1·08	−1·08	0	Akola.
...	10	8	5	2	2	1	1	N87°E	N87°E	6·1	4·2	+1·9	49	−12	(e) 50	−2	(e) ·333	+·006	0·7	−0·5	1	0·90	+0·10	0·16	0·35	−0·19	1·06	0·92	+0·14	0·16	Amraoti.
...	1	2	2	...	...	2	1	E	N39°E	3·3	3·3	0	5	−18	53	−3	·264	−·011	1·6	+0·6	0	0·50	−0·50	0	0·26	−0·26	0	0·69	−0·69	0	Khandwa.
...	11	9	...	...	1	1	...	N66°E	N63°E	3·5	2·8	+0·7	53	−4	(d) 63	−4	(d) ·303	−·010?	3·2	+1·8	1	0·80	+0·20	0·18	0·26	−0·08	1·51	0·79	+0·72	0·16	Hoshangabad.
2	8	5	6	..	3	1	1	N80°E	S84°E	6·4	3·5	+2·9	37	+8	52	−7	·250	−·030	3·1	+1·8	1	1·50	−0·50	0·11	0·64	−0·53	0·11	1·34	−1·23	0·11	Saugor.
3	3	...	9	5	...	...	1	S54°E	S63°E	2·3	2·0	+0·3	33	−3	73	−2	·335	+·014	2·3	+0·6	2	1·40	+0·60	0·41	0·72	−0·31	0·91	1·05	−0·14	0·24	Jubbulpore.
5	8	4	3	2	2	1	...	N61°E	N39°E	(d) 4·5	2·6	+1·9	33	+1	62	−5	·357	−·002	2·6	+1·0	3	1·20	+1·80	0·39	0·53	−0·14	0·39	1·05	−0·66	0·14	Seoni.
12	5	6	1	...	..	1	...	N32°E	N13°E	3·0	3·5	−0·5	59	+27	61	0	·369	+·021	1·2	−0·1	0	1·00	−1·00	0·02	0·43	−0·41	0·69	0·91	−0·22	0·01	Nagpur.
7	1	...	2	4	2	...	6	N35°W	...	4·6	...	...	23	...	64	...	·320	...	2·4	...	3	...	...	1·54	...	...	1·73	...	...	1·03	Pendra.
4	4	2	1	2	..	...	2	N37°E	N13°E	2·6	2·7	−0·1	23	+13	67	+5	·375	+·028	0·9	−0·5	0	0·80	−0·80	0	0·20	−0·20	0·04	0·45	−0·41	0	Raipur.
3	1	1	6	4	1	...	1	S45°E	N68°E	2·2	2·0	+0·2	27	−1	68	−3	·454	+·057	1·2	+0·1	0	0·60	−0·60	0	0·30	−0·30	0	0·64	−0·64	0	Chanda.
																															XII—Hyderabad.
2	7	5	2	...	..	1	1	N57°E	...	(e) 6·0	...	...	40	...	(e) 50	+2	(e) ·340	...	0·6	...	1	0·20	+0·80	0·82	0·26	+0·56	0·82	0·59	+0·23	0·82	Aurangabad.
1	1	...	5	2	2	...	...	S28°E	...	2·9	...	...	20	...	(d) 62	−3	(d) ·440	...	2·0	...	2	0·20	+1·80	0·70	0·09	+0·61	0·70	0·23	+0·47	0·50	Nizamabad.
...	3	1	6	5	14	...	1	S11°W	...	4·5	...	...	52	...	50	...	·381	...	0·5	...	1	0·10	+0·90	0·38	0·02	+0·36	0·38	0·54	−0·16	0·38	Bidar.
...	3	8	3	5	1	.	...	S63°E	S86°E	6·6	7·1	−0·5	43	+11	59	+2	·429	+·053	1·6	+0·5	0	0·20	−0·20	0·12	0·07	+0·05	0·13	0·07	+0·06	0·06	Gulbarga.
...	7	2	18	1	1	.	...	S64°E	S55°E	3·1	3·1	−5·0	69	+16	65	+2	·489	+·040	2·4	+0·9	0	0·10	−0·10	0	0	0	0	0	0	0	Raichur.
...	1	2	2	...	..	.	...	S80°E	S51°E	3·2	3·6	−0·4	13	−12	72	−3	·449	−·005	2·5	+1·1	0	...	...	0	0·06	−0·06	0	0·23	−0·23	0	Hyderabad (Deccan).
1	...	...	13	7	..	...	1	S30°E	...	(e) 5·2	...	...	53	...	(n) 69	−4	(n) ·495	...	3·9	...	0	0·20	−0·20	0·04	0·27	−0·23	0·04	0·52	−0·48	0·02	Hanumkonda.
																															XIII.—Mysore.
...	1	7	7	1	...	...	...	S67°E	S69°E	5·7	6·7	−1·0	46	−9	62	+4	·449	+·027?	2·6	+1·1	2	0·30	+1·70	1·20	0·01	+1·19	1·20	0·10	+1·10	0·60	Chitaldroog.

(d) Mean of 30 days.
(e) „ „ 29 „
(n) „ „ 20 „

Table

(2) *Abstract of observations taken at 8 hrs. at 238*

Number of sub-division.	Station.	Elevation of bar-cistern above sea level, in feet.	Pressure, 8 hrs., in inches.								Temperature of air.												
			Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8*	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	XIII—Mysore *concld.*																						
30	Hassan	3,149	26·881?	—·016?	29·992?	26·936	22nd	26·718	2nd	·218	65·4	83·3	+1·8	57·2	+3·1	70·2	+2·5	26·1	88·8	24th	52·2	13th	36·6
	Bangalore	3,021	26·992	—·046	29·986	27·056	22nd	26·856	3rd	·200	64·4	82·3	+2·1	58·3	+1·5	70·3	+1·8	24·0	88·3	26th	53·8	13th	34·5
	Mysore	2,518	27·482	—·040	29·975	27·546	22nd	27·337	2nd	·209	67·6	84·0	0	60·8	+1·5	72·4	+0·8	23·2	89·0	24th	56·0	13th	33·0
	XIV.—Madras.																						
31	Mangalore		(d) 29·904	(d) —·050	(d) 29·902	29·976	12th and 22nd.	29·727	2nd	·249	77·4	85·9	—2·6	72·9	+3·4	79·4	+0·4	13·0	89·7	5th	68·9	14th	20·8
	Calicut	27	29·939	—·045	29·896	30·013	11th	29·758	2nd	·255	75·5	85·8	—1·8	71·9	+2·3	78·9	+0·3	13·9	86·8	7 days.	68·1	13th and 14th.	18·7
	Cochin	9	29·957	—·035	29·894	30·031	12th	29·803	2nd	·228	75·0	87·7	—1·4	72·0	+0·5	79·9	—0·5	15·7	90·7	24th and 28th.	68·7	12th and 14th.	22·0
	Trivandrum	198	29·754	—·018	29·886	29·828	11th	29·625	2nd	·203	74·7	83·4	0	d 71·6	(d) +0·4	(d) 77·5	+0·2	11·8	86·0	25th	66·5	14th	19·5
32	Tinnevelly	168	29·839	—·032	29·939	29·922	11th	29·642	1st	·280	76·2	(d) 88·5	(d) +0·8	71·3	—0·3	(d) 80·0	+0·3	17·2	91·2	5 days	66·9	12th	24·3
	Pamban	37	(d) 29·953	(d) —·034	(d) 29·917	30·038	11th	29·734	1st	·304	76·8	82·9	+1·0	73·2	—1·6	78·1	—0·3	9·7	84·2	7 days	70·5	10th	13·7
	Madura	447	29·555	—·029	29·948	29·645	11th	29·361	1st	·284	73·8	85·5	—2·0	68·0	—0·6	76·8	—1·3	17·5	89·4	31st	63·1	10th	26·3
	Periyakulam	944	29·047	...	29·955	29·139	11th	28·875	2nd	·264	70·3	85·4	...	65·1	...	75·3	...	20·3	90·0	31st	57·1	25th	32·9
	Pudukkottai	318	29·691	...	29·948	29·783	11th	29·445	1st	·338	73·0	85·4	...	68·4	...	76·9	...	17·0	89·3	30th	63·9	11th	25·4
	Negapatam	31	29·959	—·043	29·920	30·037	11th	29·732	1st	·305	77·4	84·1	+2·3	73·6	+2·8	78·9	+2·6	10·5	86·4	11th and 31st.	67·5	29th	18·9
	Trichinopoly	255	29·750	—·038	29·943	29·836	11th	29·538	1st	·298	74·5	85·4	—2·0	68·2	+1·0	76·8	—0·5	17·2	90·1	31st	63·3	11th	26·8
	Coimbatore	1,348	28·641	—·042	29·967	28·720	11th	28·475	2nd	·245	69·5	85·0	—1·8	65·2	+1·3	75·1	—0·3	19·8	90·8	31st	60·3	10th, 13th and 25th.	30·5
	Salem	940	29·087	—·039	29·990	29·165	11th	28·914	1st	·251	72·7	86·5	—1·8	65·4	+1·7	76·0	—0·1	21·1	92·0	31st	60·4	30th	31·6
	Cuddalore	37	29·975	—·032	29·943	30·053	11th	29·792	1st	·261	72·9	83·0	—0·3	69·2	+1·9	76·1	+0·8	13·8	85·1	30th	66·2	4 days.	18·9
	Vellore	707	29·312	...	29·983	29·385	22nd	29·152	1st	·233	68·8	83·1	...	64·4	...	73·7	...	18·7	89·7	30th and 31st.	59·5	30th	30·2
	Madras	22	29·997	—·044	29·952	30·072	11th	29·856	1st	·216	74·1	83·6	—1·1	68·1	+0·7	75·9	—0·2	15·5	87·5	30th	64·5	19th and 25th.	23·0
33	Cuddapah	433	29·577	—·041	29·961	29·656	22nd	29·470	2nd	·186	71·3	86·1	—2·3	66·1	+1·7	76·1	—0·3	20·0	92·2	30th and 31st.	62·1	13th and 18th.	30·1
	Bellary	1,475	28·515	—·040	29·976	28·593	15th	28·415	3rd	·178	68·4	89·6	+2·0	63·7	+3·2	76·7	+2·6	25·9	95·0	28th	58·3	14th	36·7
	Kurnool	923	(d) 29·063	(d) —·055	(d) 29·962	29·143	11th	28·979	30th and 31st.	·164	68·2	89·3	+0·6	62·8	+4·1	76·0	+2·4	26·5	94·7	31st	56·6	10th	38·1
34	Nellore	52	(d) 29·950	(d) —·046	(d) 29·946	30·027	22nd	29·838	2nd	·189	72·9	84·2	—1·8	68·2	+1·9	76·2	+0·1	16·0	99·3	30th	64·6	18th	25·7
	Masulipatam	15	30·036	—·021	29·987	30·113	15th	29·933	31st	·180	72·4	84·0	+0·5	68·7	+3·4	76·4	+2·0	15·3	92·3	30th	63·1	18th	29·2
	Coconada	26	30·012	—·037	29·974	30·089	15th	29·922	31st	·167	71·7	82·2	+1·2	67·0	+1·7	74·6	+1·5	15·2	90·2	29th	61·0	16th	29·2
	Waltair (Vizagapatam).	296	29·810	—·041	29·983	29·879	22nd	29·725	30th and 31st.	·154	72·3	80·3	...	68·8	...	74·5	...	11·5	82·6	30th	63·9	16th	18·7
	Calingapatam	19	30·028	...	29·987	30·100	12th	29·932	31st	·168	...	...	...	...	...	...	...	...	...	...	...	...	...

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

(d) Mean of 30 days.

B—*contd.*

tations in India, etc., in January, 1909—contd.

Wind direction. Number of winds from. Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind stradiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 31st January 1909.	Normal rainfall for period, 1st Dec. to 31st January.	Departure from normal of period, 1st Dec. 1908 to 31st January 1909.	Heaviest rainfall during month.	Station.
5	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																XIII—Mysore—*concld.*
9	...	5	12	4	...	...	...	1	N87°E	S80°E	4·5	2·9	+1·6	58	−11	76	+4	·473	+·013	3·6	+0·9	1	0·10	+0·90	0·26	0	+0·26	0·26	0·18	+0·08	0·10	Hassan.
1	4	...	21	4	1	...	...	...	E	N87°E	7·7	5·3	+2·4	77	−5	81	+3	·492	+·034	4·4	+1·4	1	0·10	+0·90	0·63	0·14	+0·49	0·80	0·62	+0·18	0·44	Bangalore.
4	2	11	10	3	...	1	...	...	N70°E	N72°E	7·9	8·8	−0·9	66	−4	(d) 74	+1	(d) ·5[illegible]6	+·022	4·5	+2·0	1	0·10	+0·90	1·10	0	+1·10	1·19	0·17	+1·02	1·02	Mysore.
																																XIV—Madras.
1	2	9	19	.	..	...	...	..	N72°E	S85°E	5·1*	3·1	+2·0	86	+8	79	+8	·745	+·144	2·8	+1·2	1	0·10	+0·90	0·21	0·05	+0·16	0·21	0·50	−0·29	0·17	Mangalore.
2	1	5	17	6	...	...	..	...	N89°E	N80°E	5·2	8·4	−3·2	80	−3	83	+6	·736	+·075	3·1	+1·7	3	0·30	+2·70	4·59	0·19	+4·40	4·77	1·16	+3·61	4·11	Calicut.
1	...	11	13	2	1	...	...	...	N76°E	N42°E	5·7*	5·1	+0·6	72	−9	75	+3	·668	+·027	2·4	+1·0	2	1·00	+1·00	1·21	0·54	+0·67	3·02	2·20	+0·82	0·65	Cochin.
1	2	14	6	1	...	...	...	...	N56°E	N44°E	4·9	4·0	+0·9	66	+16	78	+1	·678	+·001	4·1	+1·3	5	1·30	+3·70	1·65	0·63	+1·02	2·14	2·87	−0·73	0·65	Trivandrum.
	17	6	...	1	...	...	2	5	N1°W	N19°W	4·7	5·1	−0·4	79	−4	74	−4	·675	−·023	5·6	+3·1	4	1·50	+2·50	1·81	1·02	+0·79	2·85	4·77	−1·92	1·26	Tinnevelly.
	9	11	8	3	..	1	...	1	N43°E	N15°E	8·2	11·4	−3·2	66	+22	82	−3	·750	...	5·1	...	3	2·20	+0·80	4·76	1·33	+3·43	9·85	11·64	−1·79	3·09	Pamban.
	7	11	7	...	...	...	...	1	N42°E	N3°E	7·7	5·1	+2·6	69	−10	80	+6	·668	+·036	5·5	+2·7	5	0·80	+4·20	4·04	0·24	+3·80	4·12	2·11	+2·01	1·46	Madura.
...		1	..	...	1	..	...	..	S67°E	...	1·6	...	...	2	...	74	...	·557	...	2·9	...	5	0·90	+4·10	4·45	0·63	+3·82	4·57	2·19	+2·38	2·61	Periyakulam.
	11	11	...	1	...	...	1	7	N7°E	...	8·7	...	...	71	...	86	...	·698	...	5·5	...	3	...	...	2·78	...	...	3·22	...	...	1·98	Pudukkottai.
	3	12	5	1	...	...	1	8	N25°E	N1°W	7·2	7·8	−0·6	59	−2	77	−5	·739	+·025	4·8	−0·7	4	1·90	+2·10	2·55	1·37	+1·18	9·22	14·16	−4·94	1·40	Negapatam.
	6	8	4	2	...	.	.	4	N33°E	N18°E	3·9*	4·4	−0·5	49	+1	80	+3	·684	+·052	3·8	+0·8	4	0·60	+3·40	5·81	0·27	+5·54	6·18	3·03	+3·15	4·52	Trichinopoly.
	3	25		.	...	...	...	..	N41°E	N67°E	4·8	2·9	+1·9	89	+17	83	−1	·603	−·015	5·0	+2·5	3	0·50	+2·50	2·44	0·16	+2·28	2·45	1·29	+1·16	1·34	Coimbatore.
...		1	22	3	..	..	1	1	S88°E	N50°E	4·2	4·8	−0·6	76	+31	75	0	·606	+·021	4·2	+1·8	5	0·30	+4·70	3·17	0·23	+2·94	3·17	1·49	+1·68	1·33	Salem.
	8	1	;	...	...	...	1	12	N18°W	N21°W	7·8	2·6	+5·2	59	−20	88	0	·719	+·009	4·4	+0·2	6	1·20	+4·80	3·79	0·80	+2·99	5·78	8·99	−3·21	1·99	Cuddalore.
...	...	...	...	...	1	...	2		N63°W	...	3·0	...	...	6	...	90	...	·638	...	3·4	...	4	0·70	+3·30	6·64	0·49	+6·15	7·00	3·37	+3·63	2·55	Vellore.
10	5	4	2	1	...	2	6		N10°E	N16°E	4·7*	5·7	−1·0	49	−9	89	+7	·749	+·030	2·8	−0·6	6	2·10	+3·90	5·42	0·52	+4·90	6·77	6·54	+0·23	2·62	Madras.
..	6	2	15	1	3	2	1		S54°E	S65°E	...	...	...	49	−5	83	+8	·640	+·059	3·7	+2·2	5	0·20	+4·80	4·03	0·16	+3·87	4·03	1·30	+2·73	2·21	Cuddapah.
1	2	4	6	4	2	..	...		S49°E	S36°E	3·3	3·6	−0·3	33	−9	65	−1	·451	−·004	2·9	+1·3	1	0·10	+0·90	0·26	0·09	+0·17	0·26	0·20	+0·06	0·21	Bellary.
2	...	10	9	2	2	...	..		S63°E	S80°E	5·2*	...	...	56	+52	74	+6	·512	+·050	2·0	+0·8	0	0·20	−0·20	0·02	0·07	−0·05	0·02	0·19	−0·17	0·02	Kurnool.
3	2	2	4	4	1	2	7		N38°W	N51°W	(d) 4·5*	3·7	+0·8	7	−44	87	+1	·708	+·033	3·9	+0·2	5	0·50	+4·50	8·30	0·55	+7·75	8·50	2·19	+6·31	2·78	Nellore.
..	2	7	7	5	1	.	...		S54°E	N14°E	5·2	4·6	+0·6	53	−22	88	+2	·702	+·059	3·9	+2·1	1	0·30	+0·70	0·20	0·07	+0·13	0·20	0·85	−0·65	0·20	Masulipatam.
5	6	...		...	...	..	10		N10°W	N7°W	6·6	7·8	−1·2	53	−28	84	+11	·661	+·119	6·0	+4·3	0	0·40	−0·40	0	0·11	−0·11	0	0·91	−0·91	0	Cocanada.
2	5	...	...	..	2	16	2		N70°W	N78°W	6·9	...	...	53	+4	77	+11	·615	+·063	2·8	+1·4	0	0·60	−0·60	0	0·16	−0·16	0	1·96	−1·96	0	Waltair (Vizagapatam.).
2	3	...	1	3	5	7	8		N77°W	...	5·0	...	...	42	...	...	...	...	...	4·6	...	0	...	...	0·01	...	...	0·01	...	...	0·01	Calingapatam.

(d) Mean of 30 days.
* Uncorrected for scale error.

Table

(2) *Abstract of observations taken at 8 hrs. at 238*

Number of Sub-division.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches.								Temperature of air.												
			Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	XIV.—Madras—*concld.*																						
	Gopalpur . .	72	29·967	—·031	29·982	30·047	12th	29·868	31st	·179	67·2	81·6	+1·3	63·5	+2·3	72·6	+1·8	18·1	84·2	7th and 22nd.	56·0	14th and 15th.	28·2
	Stations in the Bay.																						
1	P. V. Fraser .	8	(d) 30·067	...	(d) 29·992	30·175	15th	29·975	7th	·200	74·0	...	...	...	...	...	...	...	...	...	...	...	...
	Car Nicobar .	25	29·899	...	29·851	29·972	22nd	29·815	30th	·157	81·0	85·5	...	77·5	...	81·5	...	8·0	87·2	11th and 13th.	72·7	12th	14·5
	Port Blair . .	61	29·916	—·020	29·904	29·980	20th	29·844	29th	·136	77·6	86·0	—0·4	74·6	—1·0	80·3	—0·7	11·4	87·2	4 days	71·5	8th	15·7
	Slipper Island .	90	29·871?	...	29·895?	29·942	21st	29·791	29th	·151	78·5	85·0	...	75·3	...	80·2	...	9·7	86·6	5 days	72·1	18th	14·5
	Kashmir.																						
14	Srinagar . .	5,204	24·963	—·034	24·934	25·154	14th	24·735	10th	·419	26·9	36·0	—3·0	23·8	—2·6	29·9	—2·8	12·2	43·1	21st and 23rd.	15·1	30th	28·0
	Gulmarg . .	*8,569*									Observations not received												
	Sonemarg . .	*8,764*	21·751	...	21·719	21·931	14th	21·549	10th	·382	12·4	27·3	...	6·2	...	16·8	...	21·1	33·4	22nd and 27th.	—9·4	28th	42·8
	Dras . . .	*10,059*	20·689	—·090	20·657	20·910	14th	20·434	10th	·476	—4·4	14·9	—4·4	—17·1	—7·4	—1·1	—5·9	32·0	33·0	25th	—45·0	29th	78·9
	Leh . . .	*11,593*	19·562	—·099	19·530	19·780	14th	19·350	10th	·430	6·5	23·4	—6·4	3·0	—5·8	13·3	—6·1	20·4	32·6	3rd	—12·0	29th	44·6
	Skardu . . .	*7,505*	22·888	—·067	22·858	23·125	14th	22·618	9th	·507	12·2	28·2	—6·6	(e) 9·2	—7·7	(e) 18·8	—7·2	19·0	35·9	10th	—7·4	30th	43·3
	Minimarg . .	*9,359*	21·018	...	20·986	21·223	13th	20·795	9th	·428	11·0	28·8	...	5·6	...	17·2	...	23·2	42·8	22nd	—5·5	28th and 29th.	48·3
	Astor . . .	*7,955*	22·484	...	22·454	22·680	13th	22·258	9th	·422	18·6	33·4	...	13·8	...	23·6	...	19·6	41·4	10th	—10·0	29th	51·4
	Gilgit . . .	4,890	25·219	...	25·192	25·454	13th	24·963	9th	·486	32·5	42·3	—2·9	29·6	—2·0	36·0	—2·5	12·7	48·7	23rd	25·2	4th	23·5
	Baluchistan.																						
16	Quetta . . .	5,502	(d) 24·664	(d) —·023	(d) 24·624	24·823	28th	24·562	8th and 17th.	·261	32·1	46·4	—4·9	27·3	—2·0	36·9	—3·5	19·1	66·1	8th	15·5	12th	50·6
	Chaman .	4,311	25·740	—·032	25·702	25·887	28th	25·606	8th	·281	37·2	47·0	—5·6	32·9	—3·0	40·0	—4·3	14·1	64·8	8th	23·2	12th	41·6
	Robat . . .	...	27·039	...	26·907	27·212	11th	26·716	7th	·496	(d) 40·3	55·1	...	31·7	...	43·4	...	23·4	70·0	8th	23·2	11th	46·8
	Hill Stations excluding Kashmir and Baluchistan.																						
	Chitral . . .	*5,486*	...	...	...	...	...	...	...	...	29·8	41·5	...	26·0	...	33·7	...	15·5	45·1	3rd, 5th and 28th.	22·5	27th	22·6
	Para Chinar . .	6,000	24·430	...	24·397	24·630	28th	24·270	17th	·360	31·6	43·4	...	24·0	...	33·7	...	19·4	49·0	3rd	16·2	11th	32·8
	Cherat . . .	*4,256*	25·763	—·006	25·731	25·936	28th	25·608	10th	·328	38·3	44·7	—4·5	36·1	—1·8	40·4	—3·2	8·6	56·5	24th	31·0	26th	25·5
	Murree . . .	6,333	(d) 23·818	(d) —·046	(d) 23·786	23·952	28th	23·683	10th	·269	34·9	41·0	—6·2	30·7	—4·5	35·9	—5·4	10·3	48·0	14th	25·0	12th	23·0

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

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

(e)—Mean of 29 days.
(d) " 30 "

3.—contd.

tations in India, etc., in January, 1909—contd.

Wind direction. Number of winds from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 31st Jan. 1909.	Normal rainfall for period, 1st Dec. to 31st January.	Departure from normal of period, 1st Dec. 1908 to 31st Jan. 1909.	Heaviest rainfall during month.	Station.
26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																															XIV—Madras —*concld.*
14	...	...	...	...	1	1	13	N26°W	N21°W	8·4	8·4	0	82	+1	83	+6	·548	+·049	0·9	—0·5	0	0·40	—0·40	0	0·12	—0·12	0	0·87	—0·87	0	Gopalpur.
																															Stations in the Bay.
5	5	2	...	...	5	3	1	N18°W	...	4·0†	...	...	19	...	79	...	·666	...	3·5	...	0	...	...	0	...	...	0	...	...	0	P.V. Fraser.
1	2	2	1	...	...	...	...	N63°E	...	5·3	...	...	67	...	77	...	·812	...	8·9	...	8	...	...	5·85	...	...	8·28	...	...	2·87	Car Nicobar. K.
6	7	2	...	...	...	2	7	N	N23°E	4·1*	6·5	—2·4	51	—15	80	—1	·758	—·023	3·3	—0·8	0	...	...	0·09	1·02	—0·93	7·84	7·64	+0·20	0·09	Port Blair.
14	7	5	1	...	...	...	2	N25°E	...	10·8	...	...	72	...	73	...	·711	...	5·6	...	0	...	...	0	...	...	0·09	...	...	0	Slipper Island.
																															Kashmir.
...	1	1	11	4	2	...	...	S33°E	S26°E	3·5	31	+0·4	49	+31	82	—9	·120	—·029	10·0	+2·1	8	6·40	+1·60	2·70	3·49	—0·79	7·45	4·40	+3·05	0·99	Srinagar.
																															Gulmarg.
1	2	3	1	2	1	1	1	S83°E	...	2·3	...	...	9	...	90	...	·073	...	6·9	...	17	...	...	14·95	...	...	26·19	...	...	4·1	Sonemarg.
...	...	...	...	...	1	...	1	W	...	0·6	...	...	5	...	91	+3	(g) ·048	...	7·0	...	13	8·70	+4·30	3·56	2·68	+0·88	6·95	4·04	+2·91	0·44	Dras.
.	1	1	...	...	1	...	...	E	S13°W	0·9*	1·0	—0·1	3	—35	55	+2	·036	0	7·6	+0·9	2	0·80	+1·20	0·75	0·31	+0·44	0·79	0·50	+0·29	0·28	Leh.
	2	1	...	...	1	.	...	N66°E	...	0·6	...	...	7	...	100	+5	·080	...	7·4	...	2	3·00	—1·00	0·56	0·78	—0·22	0·83	1·06	—0·23	0·22	Skardu.
4	5	5	...	...	3	...	...	N50°E	...	5·8	...	...	27	...	75	...	·061	...	7·0	...	15	...	...	7·91	...	...	14·89	...	...	2·20	Minimarg.
...	...	...	...	11	4	...	...	S11°W	...	2·2	...	...	46	...	75	...	·079	...	7·6	...	7	...	...	1·49	...	...	3·66	...	...	0·34	Astor.
...	...	...	...	...	.	5	...	W	...	1·9	...	...	16	...	82	+15	·152	+·009	7·7	+0·6	1	0·30	+0·70	0·18	0·21	—0·03	0·40	0·30	+0·10	0·12	Gilgit.
																															Baluchistan.
1	...	1	3	2	1	...	...	S33°E	N13°W	2·8	2·9	—0·1	17	+12	81	+2	·115	—·003	4·3	+0·6	5	4·80	+0·20	1·20	2·03	—0·83	2·60	2·84	—0·24	0·41	Quetta.
...	...	4	15	6	2	...	...	S36°E	S58°E	5·8	6·8	—1·0	72	+12	74	+6	·165	0	4·8	+0·4	6	3·40	+2·60	1·68	1·30	+0·38	2·65	2·22	+0·43	0·53	Chaman.
6	10	...	...	1	1	...	1	N25°E	...	5·6	...	...	46	...	(d) 69	...	(d) ·177	...	2·9	...	3	...	...	0·75	...	...	1·04	...	...	0·29	Robat.
																															Hill stations excluding Kashmir and Baluchistan.
1	...	...	1	...	..	...	...	N71°E	...	8·3	...	...	4	...	(o) 89	...	(o) ·155	...	4·5	...	0	...	...	0	...	...	0·80	...	...	0	Chitral.
...	...	...	...	...	...	3	1	N76°W	...	(d) 2·7	...	...	13	...	93	...	·167	...	4·7	...	6	1·00	+5·00	1·74	0·63	+1·11	2·79	1·42	+1·37	0·64	Para Chinar.
14	2	..	...	1	...	...	13	N18°W	N12°W	17·5	13·4	+4·1	86	+16	51	—8	·115	—·036	4·6	—0·2	1	...	...	0·23	2·07	—1·84	1·61	3·0	—1·46	0·18	Cherat
1	...	1	15	12	...	...	...	S29°E	S62°E	10·3	9·0	+1·3	82	+33	70	+8	·141	+·007	4·8	—0·5	6	2·80	+3·20	2·11	3·67	—1·56	4·80	4·81	—0·01	0·60	Murree.

† 8 hrs. velocity.

* Uncorrected for scale error.
K Wind directions of 6 days.
(g).—Mean of 27 days.
(o) „ „ 19 „
(d) Mean of 30 days.

Table

(2) *Abstract of observations taken at 8 hrs. at 238*

Number of sub-division.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches.								Temperature of Air.												
			Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	Hill stations excluding Kashmir and Baluchistan—*concld.*																						
	Kailang	*10,087*	20·859	...	20,814	21·052	13th	20·678	10th	·374	14·7	28·5	−5·8	9·8	−4·8	19·1	−5·3	18·7	36·4	18th	−3·0	30th	39·4
	Simla	7,224	22·055	—·057	23·017	23·166	15th	22·950	10th	·216	36·8	43·9	−0·6	33·5	−1·0	38·7	—0·8	10·4	48·7	9th	25·2	28th	23·5
	Sarain	...	23·150	...	23·112	23·257	14th	23·048	30th	·209	30·4	42·3	...	26·6	...	34·4	...	15·7	50·8	8th	17·3	28th	33·5
	Kalabagh	...	...	...	...	...	...	...	...	...	Observations not received					...	...	...	...	...	...	...	...
	Chakrata	7,022	(d) 23·285	(d) —·014	(d) 23·245	23·419	12th	23·191	10th	·228	37·9	49·1	−1·5	34·1	—2·1	41·6	—1·8	15·0	61·3	8th	21·2	28th	40·1
	Muktesar	7,592	22·807	—·042	22·766	22·919	12th	22·702	30th	·217	38·6	45·8	−0·8	33·7	—1·7	41·3	—1·3	15·1	58·5	9th	26·0	28th	32·5
	Darjeeling	7,376	22·984	—·035	22·939	23·102	12th	22·864	18th	·238	39·5	48·6	+1·7	34·9	+0·1	41·8	+0·9	13·7	53·3	1st	30·7	7th	22·6
	Shillong	4,920	25·138	...	25·090	25·244	11th	25·038	18th	·206	47·7	62·8	...	(d) 40·1	...	(d) 51·4	...	22·7	67·9	1st	30·	7th	37·7
	Cherra Poonjee	4,309	(d) 25·721	...	(d) 25·672	25·811	12th	25·634	7th	·177	51·3	60·3	...	45·7	...	53·0	...	14·6	60·7	1st	39·8	7th	26·9
	Maymyo	3,545	26·491	—·011	26·436	26·567	11th	26·420	31st	·147	46·9	70·2	—1·1	39·7	+1·4	55·0	+0·2	30·5	72·9	5 days	33·6	8th	39·3
	Pachmarhi	3,528	26·526	—·031	26·473	26·604	28th	26·450	30th	·154	59·3	73·7	+2·4	49·5	+2·0	61·6	+2·2	24·2	77·7	11th, 21st and 27th	36·1	29th	41·6
	Mount Abu	3,945	26·098	—·040	26·048	26·206	28th	25·988	10th	·218	54·9	63·5	—3·1	49·6	−1·6	56·5	—2·4	13·9	71·2	9th	40·4	12th	30·8
	Mercara	3,781	26·253	—·040	26·186	26·306	11th	26·078	2nd	·228	62·1	78·0	+0·3	57·5	+0·9	67·8	+0·6	20·5	85·0	28th	52·5	13th	32·4
	Ootacamund	7,322	23·049	...	22·985	23·105	22nd	22·924	2nd	·181	54·0	64·4	...	45·7	...	55·1	...	18·7	71·0	22nd	37·7	10th	33·3
	Kodaikanal	7,088	22·828	—·045	22·763	22·871	24th	22·712	1st	·159	54·5	63·3	+0·4	48·8	+1·9	56·0	+1·2	14·5	70·5	1st	41·5	30th	26·0
	Extra India.																						
37	Singapore (a)	10	29·924	...	29·855	29·976	20th	29·865	30th	·111	82·3	87·0	...	72·7	...	79·9	...	14·3	90·5	6th	69·0	13th, 14th and 15th.	21·5
	Penang (a)	20	29·924	...	29·869	29·948	23rd	29·892	27th	·056	80·7	88·7	...	74·8	...	81·8	...	13·9	91·0	17th, 22nd and 23rd.	73·0	10th	18·0
	Trincomalee	12	29·977	—·009?	29·915	30·049	11th	29·815	1st	·234	74·8	83·7	+0·4	73·6	—1·0	78·7	—0·3	10·1	85·5	31st	68·0	11th	17·5
	Colombo	40	29·905	—·045	29·872	29·972	12th	29·810	2nd	·162	72·6	87·0	−0·5	71·9	—0·2	79·5	—0·4	15·1	89·5	15th and 28th.	67·0	13th	22·5
	Minicoy	7	29·980	...	...	30·053	11th	29·828	3rd	·225	...	...	...	...	...	...	...	...	...	...	...	...	...
	Amini Divi	*13*	29·968	—·037	29·909	30·040	11th	29·782	4th	·258	80·5	85·5	+1·2	75·5	+1·6	80·5	+1·4	10·0	87·4	10th	71·2	25th	16·2
	Gyantse	13,120	...	...	...	...	...	...	...	...	16·2	43·8	...	8·1	...	26·0	...	35·7	49·8	10th	3·5	24th	49·3
	Pharijong	14,400	17·803	...	17·762	17·941	12th	17·681	9th	·260	(j) 15·7	41·5	...	0·5	...	21·0	...	41·0	61·3	29th	0·1	5 days	61·2
	Gangtok	5,660?	24·459	...	24·414	24·530	13th	24·352	30th	·178	51·4	60·5	...	...	...	...	...	...	65·9	1st	...	...	...
	Gartok	15,100?	17·074	...	...	17·216	11th	16·956	7th	·260	9·3	20·6	...	0·9	...	10·8	...	19·7	31·3	7th	—13·0	11th	44·3
	Kashgar (c)	4,255	25·651	...	...	25·870	13th	25·340	17th	·530	8·8	30·3	—2·1	4·3	—8·2	17·3	—5·2	26·0	36·1	5th	—4·7	13th and 14th.	40·8
	Kabul	...	24·362	...	24·271	24·479	14th	24·150	25th	·329	14·4	37·6	—7·3	6·4	—11·5	22·1	—9·4	31·2	45·2	3rd, 10th and 26th.	—7·1	12th and 13th.	52·3
	Meshed	3,104	26·820	...	26·798	27·108	2nd	26·382	7th	·726	25·1	41·0	...	16·8	—5·4	28·9	...	24·2	50·4	1st, 5th and 29th.	6·8	3rd	43·6
	Jask (d)	13	30·161	—·026	30·071	30·253	10th	29·995	7th	·258	62·5	72·2	—1·6	59·7	—0·6	66·0	—1·1	12·5	77·8	8th	53·3	11th	24·5
	Muscat	20	30·096	—·025	30·065	30·243	11th	29·995	7th and 17th.	·248	66·9	74·2	+2·0	64·6	—2·6	69·4	—0·3	9·6	80·3	8th, 9th and 16th.	59·1	27th	31·2

N. B.—Elevations in italics indicate barometrical determinations.
NB.—The barometric readings are not reduced to sea-level, in the case of hill or plateau stations, the elevations of which exceed 3,300 feet.
(a) 9 hrs. observations.
(c) Aneroid corrected.
(j) Mean of 4 days.
(d) „ „ 30 „

B.—*contd.*

stations in India, etc., in January, 1909—contd.

Wind Direction. Number of winds from: Calm	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind Velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 31st January 1909.	Normal rainfall for period, 1st Dec. to 31st January.	Departure from normal of period, 1st Dec. 1908 to 31st January 1909.	Heaviest rainfall during month.	Station
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																Hill stations excluding Kashmir and Baluchistan.—*concld.*
...	1	...	4	14	1	2	3	6	S36°E	...	*9·9	0·9	+9·0	29	...	73	...	·073	...	6·1	...	10	...	...	3·34	2·92	+0·42	4·24	4·00	+0·24	0·85	Kailang.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	58	+5	·123	+·001	5·4	+0·7	7	3·60	+3·40	2·67	2·71	−0·04	3·37	3·94	−0·57	0·65	Simla.
17	...	2	...	...	6	...	...	...	S18°W	...	2·3	...	...	29	...	86	...	·146	...	5·5	...	8	...	...	5·20	...	...	6·50	...	...	1·12	Sarain.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Observations not received					...	...	...	...	...	...	...	...	...	...	...	...	Kalabagh.
9	14	1	3	1	1	...	...	2	N12°E	N34°E	5·5	5·7	—0·2	46	+1	58	0	·129	—·002	4·9	+0·8	7	5·00	+2·00	6·37	3·73	+2·64	6·92	4·89	+2·03	2·65	Chakrata.
4	...	3	14	2	1	1	6	...	S85°E	...	7·3	...	...	37	...	58	+1	·134	...	5·0	...	6	...	...	3·26	2·35	+0·91	3·37	3·08	+0·29	1·41	Muktesar.
4	...	3	2	10	1	8	2	1	S15°E	S57°E	4·2	3·7	+0·5	37	+14	76	—6	·186	—·004	2·9	—1·3	1	1·71	−0·71	0·13	0·71	−0·58	0·13	0·94	—0·81	0·13	Darjeeling.
18	...	...	...	1	...	12	...	...	S41°W	...	4·7	...	...	40	...	60	...	·201	...	1·3	...	0	1·50	−1·50	0·05	0·53	−0·48	0·05	0·81	−0·76	0·05	Shillong.
5	...	3	1	...	1	14	5	2	S61°W	...	4·9	...	...	46	...	69	...	·261	...	2·1	...	2	1·70	+0·30	0·32	0·83	—0·51	0·33	1·04	—0·71	0·18	Cherra Poonjee.
29	...	...	...	...	1	1	...	...	N24°W	...	2·1	...	...	7	...	91	+3	·301	...	0	...	0	0·20	—0·20	0	0·06	−0·06	0	0·51	−0·51	0	Maymyo.
10	1	1	3	2	4	6	4	...	S22°W	S3°E	3·8	3·5	+0·3	27	+9	59	+1	·302	+·014	0·6	—1·3	0	1·50	−1·50	0	0·65	−0·65	0	1·12	−1·12	0	Pachmarhi.
3	2	8	1	4	...	5	5	3	N20°W	N2°W	6·4	5·2	+1·2	10	—8	46	+2	·198	—·007	3·0	+1·3	0	0·70	−0·70	0·05	0·33	—0·28	0·05	0·54	—0·49	0·05	Mount Abu.
5	2	13	11	...	...	...	...	...	N61°E	N74°E	4·8	5·0	—0·2	72	—2	85	+10	·470	+·052	4·2	+1·1	3	0·20	+2·80	1·58	0·02	+1·56	1·58	0·53	+1·05	0·76	Mercara.
6	...	3	8	11	2	1	...	...	S64°E	...	4·8	...	...	62	...	59	...	·245	...	2·5	...	4	0·60	+3·40	9·62	0·35	+9·27	9·97	2·90	+7·07	4·52	Ootacamund
...	3	5	13	8	2	...	...	...	S87°E	...	16·5*	...	...	72	...	49	—10	·202	...	3·5	...	5	1·40	+3·60	9·87	2·83	+7·04	11·64	7·94	+3·70	4·51	Kodaikanal.
																																Extra India.
15	5	11	...	...	...	...	...	...	N31°E	...	4·6*	...	...	49	...	...	...	...	...	(e) 5·2	...	13	...	...	13·68	...	...	32·74	...	...	4·05	Singapore.
...	12	2	4	2	2	...	2	7	N	...	11·2*	...	...	48	...	...	...	...	...	0·1	...	7	...	...	3·39	...	...	8·18	..	...	1·25	Penang.
16	1	7	1	...	4	1	...	1	N66°E	N30°E	1·7*	7·7	—6·0	17	—48	89	+10	·801	+·024	3·7	—0·3	7	...	...	3·24	5·38	—2·14	17·59	21·28	—3·70	1·35	Trincomalee.
1	4	19	1	1	3	2	...	..	N48°E	N37°E	(f) 6·6*	8·7	—2·1	59	—22	91	+17	·740	—·029	5·0	+1·4	2	...	...	1·72	3·20	—1·48	2·75	9·99	—7·24	1·23	Colombo.
...	9	12	4	2	2	...	1	1	N39°E	N42°E	5·0	6·4	—1·4	61	—4	...	...	...	...	2·8	—0·4	2	...	...	2·77	2·09	+0·68	6·58	6·75	—0·17	2·40	Minicoy.
2	8	14	2	1	...	...	...	4	N27°E	...	...	...	...	71	...	76	+3	·788	—·010	4·2	+0·7	3	...	...	3·46	0·19	+3·27	3·50	0·51	+2·99	2·05	Amini Divi.
...	...	...	...	14	8	8	1	...	S7°E	...	3·9	...	...	78	...	90	...	·084	...	...	...	0	...	...	0	...	...	0	...	...	0	Gyantse.
...	...	1	...	9	9	10	...	2	S3°W	...	(d) 8·1	..	...	65	...	(j) 60	...	(j) ·057	...	...	...	0	...	...	0	...	...	0	...	...	0	Phari Jong.
31	...	...	...	...	...	...	...	...	A	...	0·5	...	...	...	...	72	...	·273	...	0·8	...	1	...	...	0·15	...	...	0·15	...	...	0·14	Gangtok.
6	...	...	2	13	9	1	...	...	S30°E	...	12·1	...	...	71	...	...	...	...	...	6·0	...	0	...	...	0	...	...	0	...	...	0	Gartok.
31	...	...	...	...	...	...	...	...	A	N56°W	(f) 0·4	0·6	—0·2	...	...	...	...	...	...	5·6	...	0	...	...	0	0·27	—0·27	0	0·46	—0·46	0	Kashgar.
...	12	2	...	...	2	...	3	12	N27°W	N82°W	...	...	...	71	+66	68	...	·065	...	3·7	+1·0	6	...	...	2·31	1·34	+1·07	4·15	1·53	+2·62	0·55	Kabul.
23	2	...	...	2	1	1	2	...	S45°W	...	1·2	...	...	3	...	(d) 86	...	(d) ·120	...	6·2	+0·9	2	...	...	0·84	0·41	+0·43	0·94	1·11	—0·17	0·54	Meshed.
4	8	11	5	...	...	...	1	1	N34°E	N18°E	(e) 1·1	12·0	—10·9	62	—9	75	+2	·432	—·014	3·8	+1·9	5	...	...	1·18	0·87	+0·31	1·64	1·65	—0·01	0·32	Jask.
22	...	1	...	1	...	...	4	3	N66°W	S59°W	4·8	4·8	0	17	—16	71	+3	·472	—·014	3·1	+0·6	6	...	...	4·52	1·28	+ 3·24	4·70	1·54	+3·16	2·09	Muscat.

(d) mean of 30 days.
(j) Mean of 24 days.
(e) Mean of 29 days.
(f) " " 28 "
(a) Indeterminate.

* Uncorrected for scale error.

Table

(2) *Abstract of observations taken at 8 hrs. at 238*

Number of sub-division.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches.								Temperature of air.												
			Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	Extra India—*concld.*																						
			(*d*)		(*d*)																		
	Bahrein . . .	18	30·148	...	30·120	30·314	9th	29·981	14th	·333	59·4	65·4	...	56·7	...	61·1	...	8·7	79·9	7th	48·3	10th	31·6
	Bushire . . .	14	30·083	—·051	30·056	30·272	10th	29·815	6th	·457	53·0	63·0	—1·1	50·6	—1·1	56·8	—1·1	12·4	77·6	7th	42·6	10th	35·0
			(*e*)		(*e*)						(*d*)			(*d*)		(*d*)							
	Busrah . . .	25	30·182	...	30·168	30·443	9th	29·690	6th	·753	48·3	61·6	...	42·4	...	52·1	...	19·2	70·2	4th	30·1	11th	40·1
	Ispahan (*b*) . .	*5,817*	...	...	...	...	...	...	...	Observations not received.						...	...	...	...	...	...	...	...
	Tehran (*b*) . .	*4,002*	25·940	...	...	26·175	10th	25·600	7th	·575	27·2	40·5	—1·8	23·2	—3·1	31·9	—2·5	17·3	52·5	1st	14·7	16th	37·8
	Baghdad . .	220	30·027	+·001	30·212	30·319	9th	29·705	13th	·614	42·5	60·5	+0·4	39·1	+0·8	49·8	+0·6	21·4	65·7	5th	28·0	11th	37·7
	Beirut . . .	...	...	...	...	...	...	...	...	Observations not received						...	...	...	...	...	...	...	...
	Aden . . .	94	29·975	—·007	30·002	30·065	1st	29·865	14th	·200	74·9	79·9	—0·7	72·4	—0·4	76·2	—0·6	7·5	92·3	3rd	68·9	28th	23·4
	Perim . . .	201	29·790	—·041	29·929	29·877	1st	29·666	14th	·211	76·4	82·7	0	73·5	0	78·1	0	9·2	86·5	2nd	72·6	14th	13·9
	Zanzibar . .	72	29·894	—·017	29·893	29·960	12th	29·817	7th	·143	81·7	86·3	+0·2	79·1	—0·6	82·7	—0·2	7·2	88·8	26th	72·8	18th	16·0
	„ Dunga .	*154*	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

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

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

(*b*) Aneroid uncorrected.

(*d*) Mean of 30 days.
(*e*) „ 29 „

-concld.

ions in India, etc., in January, 1909—concld.

Wind Direction.									Wind Velocity.			Wind Steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									
ber of winds from																													
N.E.	E.	S.E.	S.	S.W.	W.	N.W.	N.	Resultant direction.	Normal direction.	Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 31st January 1909.	Normal rainfall for period, 1st Dec. to 31st January.	Departure from normal of period, 1st Dec. 1908 to 31st January 1909.	Heaviest rainfall during month.	Station.
27	28	29	30	31	32	33		34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																															Extra India— *concld.*
1	2	4	1	1	6	12		N48°W	...	8·2	...	...	45	...	82	...	·419	...	4·8	...	1	...	...	0·75	...	...	0·80	...	...	0·75	Bahrein.
9	6	3	..	1	..	3		N42°E	N58°E	(d) 12·1	8·0	+4·1	56	+2	86	+8	·350	+·001	4·3	+1·0	4	...	...	3·43	3·12	+0·31	4·51	6·36	—1·85	1·42	Bushire.
1	...	2	3	2	9	6		N89°W	...	(e) 4·3	...		38	...	(d) 85	...	(d) ·295	...	4·4	...	3	...	...	1·30	...	...	1·59	...	...	0·45	Busrah.
.	...	..	..	...	...	...		...	S79°W	...	3·1	...	...	...	...	...	...	...	...	...	...	...	...	...	0·26	...	...	0·80	...	...	Ispahan.
14	...	..	..	1	.	...		N23°E	N16°E	2·7	2·9	—0·2	61	+15	85	+18	·127	—·002	3·4	—0·4	3	...	...	1·01	1·29	—0·28	2·26	2·66	—0·40	0·60	Tehran.
.	...	1	2	1	1	5		N45°W	N8°W	7·0	3·2	+2·1	26	+1	67	—13	·186	—·058	3·1	+0·5	0	...	...	0·06	1·38	—1·32	0·54	3·02	—2·48	0·04	Baghdad.
...	...	...	...	...		...		...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Beirut.
2	...	.	..	..	...	1		N42°E	N80°E	14·7	13·5	+1·2	96	+22	80	+ 5	·696	+·044	7·0	+0·6	0	...	...	0·12	0·32	—0·20	0·20	0·69	—0·49	0·06	Aden.
...	18	8	5	...	...	...		S65°E.	S81°E	18·1	19·8	—1·7	84	+1	76	0	·691	+·007	...	...	0	...	...	0·05	0·34	—0·29	0·11	0·42	—0·31	0·05	Perim.
14	1	.	1	1	1	...		N28°E	N28°E	6·7	7·8	—1·1	61	—16	79	— 1	·855	—·012	7·4	+1·2	5	...	...	4·28	3·37	+0·91	4·73	6·14	—1·41	1·70	Zanzibar.
.	...	..	...	...	.			...	...	...	...	...	...	Observations not received.						...	...	...	...	...	...	...	...	...	...	...	Dunga.

(e) Mean of 29 days.
(d) ,, ,, 30 ,,

Table C.—Abstract of observations taken at 8 hrs. at 32 fourth class stations in India, etc., in January, 1909.

TABLE

Abstract of observations taken at 8 hrs. at 32 fourth

Number of sub-division.	Station.	Temperature of air.													Wind direction.										
		Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.	Number of wind from: Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	II.—Eastern Bengal and Assam.																								
4	Bishnath	58·1	73·8	...	39·4	...	56·6	...	34·4	78·3	13th	30·2	1st	48·1	...	...	...	...	...	...	...	...	...	...	...
	Borjuli	52·0	74·5	...	45·7	...	60·1	...	28·8	79·7	12th	36·4	2nd	43·3	...	...	...	...	...	...	...	...	...	...	...
	Chandkhira	59·0	81·4	...	50·9	...	66·2	...	30·5	93·6	28th	41·5	5th	52·1	...	...	...	...	...	...	...	...	...	...	...
	Doom Dooma	48·4	57·7	...	44·0	...	50·9	...	13·7	61·9	26th	40·7	3rd	21·2	...	...	...	...	...	...	...	...	...	...	...
	Dikom	50·9	70·0	...	47·3	...	58·7	...	22·7	77·6	15th	37·6	2nd	40·0	...	...	...	...	...	...	...	...	...	...	...
	Golaghat	55·9	71·4	...	49·1	...	60·3	...	22·3	77·1	29th	41·9	1st & 11th	35·2	...	...	...	...	...	...	...	...	...	...	...
	Hailakandi	53·1	78·9	...	50·6	...	64·8	...	28·3	83·0	29th	42·2	5th	40·8	...	...	...	...	...	...	...	...	...	...	...
	Jorehat	55·3	71·4	...	50·2	...	60·8	...	21·2	75·9	13th, 15th & 29th.	41·8	1st, 2nd & 3rd	34·1	...	...	...	...	...	...	...	...	...	...	...
	Messa	56·4	79·6	...	42·8	...	61·2	...	36·8	81·8	5th	40·1	5th	41·7	...	...	...	...	...	...	...	...	...	...	...
	Panerihat	47·7	75·7	...	45·5	...	60·6	...	30·2	80·3	2nd	38·5	9th	41·8	...	...	...	...	...	...	...	...	...	...	...
	Srimangal	53·7	81·0	...	47·7	...	64·4	...	33·3	86·0	29th	39·7	8th	46·3	...	...	...	...	...	...	...	...	...	...	...
	Brahmanbaria	61·7	80·9	...	55·0	...	68·0	...	25·9	84·8	1st, 7th & 15th.	44·9	7th & 8th	39·9	...	...	...	...	...	...	...	...	...	...	...
	Dam Dim	44·8 (g)	81·5	...	45·1	...	63·3	...	36·4	88·9	2nd	37·9	1st	51·0	...	...	...	...	...	...	...	...	...	...	...
	Goalundo	58·3	81·6	...	48·9	...	65·3	...	32·7	85·7	18th & 22nd.	40·4	10th	45·3	...	...	...	...	...	...	...	...	...	...	...
	Kalchini	58·2	74·7	...	44·1	...	59·4	...	30·6	79·6	1st	37·9	7th	41·7	...	...	...	...	...	...	...	...	...	...	...
	Nagrakata	52·0	75·7	...	49·6	...	62·7	...	26·1	79·1	1st & 28th	44·0	7th	35·1	...	...	...	...	...	...	...	...	...	...	...
	Pabna	59·9	81·2	...	50·0	...	65·6	...	31·2	85·6	15th	41·9	7th	43·7	...	...	...	...	...	...	...	...	...	...	...
	III.—Bengal.																								
	Fraserganj	68·9	...	...	...	...	...	...	...	...	...	...	...	...	...	23	...	1	...	7	...	...	...	N 4° E	...
	XI.—Central Provinces.																								
	Chhindwara	57·9	80·8	...	52·1	...	66·4	...	28·7	84·2	26th	42·9	29th	41·3	...	10	8	2	1	2	1	2	5	N 7° E	...
	Hill Stations.																								
	Panighatta	57·6	73·4	...	52·3	...	62·9	...	21·1	77·9	1st	45·5	29th	32·4	...	...	...	...	...	...	...	...	...	...	...
	Kurseong	46·9	57·9	...	44·5	...	51·2	...	13·4	66·1	1st	40·2	7th	25·9	...	...	...	...	...	...	...	...	...	...	...
	Poo	...	38·7	...	13·5	...	23·6	...	20·2	45·2	3rd	3·9	28th & 30th.	41·3	24	2	2	...	1	...	1	...	1	N 18° E	...
	Kargil	6·0	17·9	...	−8·1	...	4·9	...	26·0	30·1	10th	−31·0	23rd	61·1	...	7	11	3	...	...	4	1	5	N 11° E	...
	Killa Drosh	30·5	41·8	...	26·8	...	34·3	...	15·0	57·3	7th	23·0	3 days	34·3	19	...	2	3	2	1	...	...	3	N 76° E	...
	Pishin	...	47·0	...	27·3	...	37·1	...	19·7	61·3	8th	17·0	12th	44·3	...	...	...	...	...	...	...	...	...	...	...
	Kalat	31·7	45·4	−7·0	23·2	+2·9	34·4	−2·1	22·2	60·1	8th	9·9	12th	50·2	...	8	...	...	...	20	1	1	1	S 10° W	...
	Extra India.																								
	Ahwaz	... (b)	73·7 (b)	...	47·4 (c)	...	60·6 (c)	...	26·3	92·7	2nd	32·0	9th	60·7	...	...	...	...	...	...	...	...	...	...	...
	Birjand	31·4	41·8	...	28·1	...	35·1	...	13·7	52·6	7th	17·1	11th	35·5	3	3	9	...	...	3	...	3	1	N 23° E	...
	Ihumbi	*22·2	*48·9	...	18·3	...	33·6	...	30·6	56·4	16th	12·8	8th	43·6	...	...	31	...	...	...	...	...	...	N 45° E	...
	Karmanshah	27·1	40·1	...	21·7	...	30·9	...	18·4	50·6	5th	10·0	20th	40·6	...	...	...	...	...	...	...	...	...	...	...
	Koweit	...	62·0	...	47·7	...	54·9	...	14·3	70·3	4th	39·9	12th	30·4	...	2	2	...	4	...	1	12	9	N 68° W	...
	Maidan	...	60·4	...	38·3	...	49·4	...	22·1	71·2	1st	29·9	8th & 16th	41·3	...	...	...	...	...	...	...	...	...	...	...

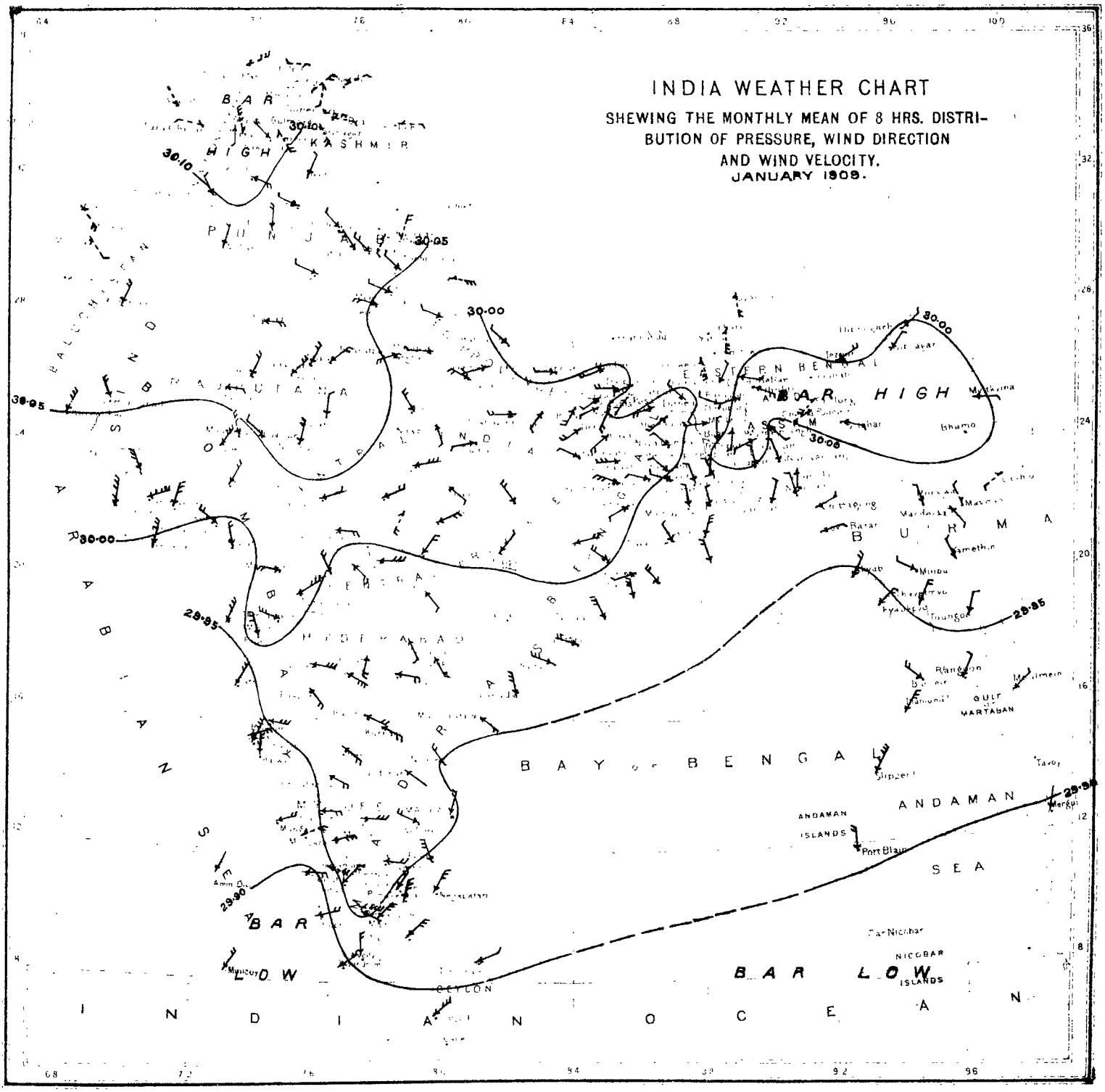
(a) Mean of 7 days.
(b) Mean of 26 days.
(c) Mean of 25 days.
(g) „ of 29 days.

* Uncorrected for scale error.

ass stations in India, etc., in January, 1909.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st December 1908 to 31st January 1909.	Normal rainfall for period, 31st December to 31st January.	Departure from normal of period, 1st Dec. 1908 to 31st Jany. 1909.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					II.—Eastern Bengal and Assam.
..	...	...	...	...	94	...	·386	...	...	...	3	...	...	0·81	...	...	0·81	...	...	0·57	Bishnath.
..	...	...	...	...	92	...	·369	...	...	...	2	...	...	0·77	...	...	0·77	...	...	0·60	Borjuli.
.	...	...	...	...	91	...	·456	...	...	...	2	...	...	0·54	...	...	0·61	...	...	0·28	Chandkhira.
.	...	...	...	...	96	...	·331	...	...	...	9	...	...	4·85	...	...	4·85	...	...	1·43	Doom Dooma.
.	...	...	...	...	98	...	·370	...	...	...	9	...	...	3·82	...	...	3·82	...	...	1·10	Dikom.
.	...	..	...	...	92	...	·418	...	...	...	1	...	...	0·22	...	...	0·22	...	...	0·18	Golaghat.
.	...	...	...	...	95	...	·390	...	...	...	1	...	...	1·17	...	...	1·17	...	...	1·06	Hailakandi.
.	...	...	...	...	96	...	·422	...	...	...	3	...	...	0·96	...	...	0·96	...	...	0·39	Jorehat.
.	...	...	...	...	72	...	·331	...	...	...	1	...	...	0·36	...	...	0·36	...	...	0·27	Messa.
.	...	...	...	...	94	...	·316	...	...	...	0	...	...	0·07	...	...	0·07	...	...	0·07	Panerihat.
.	...	...	...	...	90	...	·331	...	...	...	0	...	...	0·11	...	...	0·11	...	...	0·08	Srimangal.
.	...	...	...	...	83	...	·461	...	...	...	1	...	...	0·23	...	...	0·23	...	...	0·14	Brahmanbaria.
.	...	...	...	...	96	...	·239	...	...	...	1	...	...	0·10	...	...	0·10	...	...	0·10	Dam Dim.
	...	...	...	...	(g) 83	...	(g) ·409	...	...	...	1	...	...	0·44	...	...	0·44	...	...	0·44	Goalundo.
	...	...	...	...	76	...	·379	...	...	...	1	...	...	0·14	...	...	0·14	...	...	0·14	Kalchini.
	...	...	...	...	80	...	·351	...	...	...	0	...	...	0·04	...	...	0·04	...	...	0·04	Nagrakata.
	...	...	...	...	76	...	·398	...	...	...	1	...	...	0·47	...	...	0·47	...	...	0·45	Pabna.
																					III.—Bengal.
	...	...	52	...	(f) 85	...	(f) ·604	...	...	...	0	...	...	0·07	...	...	0·07	...	...	0·07	Fraserganj.
																					XI.—Central Provinces.
6	...	...	52	...	37	...	·340	...	...	...	1	...	...	0·42	...	...	0·68	..	...	0·32	Chhindwara.
																					Hill Stations.
	...	...	...	...	71	...	·335	...	...	...	1	...	...	0·20	...	...	0·20	...	...	0·20	Panighatta.
	...	...	...	...	78	...	·254	...	...	...	1	...	...	0·33	...	...	0·33	...	...	0·33	Kurseong.
	...	...	10	...	...	...	...	...	6·5	...	7	...	...	2·02	3·20	—1·18	2·16	4·25	—2·09	0·44	Poo.
	...	...	52	...	(a) 47	...	(a) ·040	...	5·5	...	5	...	...	1·47	...	...	2·60	...	...	0·80	Kargil.
	...	...	13	...	86	...	·146	...	3·4	...	0	...	...	0	...	...	0·75	...	...	0	Killa Drosh.*
	...	...	...	...	...	...	...	...	4·5	...	2	...	...	0·56	2·16	—1·60	2·22	3·36	—1·14	0·23	Pishin.
	...	...	39	...	40	...	·070	...	...	...	2	...	...	0·65	0·79	—0·14	1·43	...	...	0·33	Kalat.
																					Extra India.
	...	...	...	...	...	...	...	...	...	...	5	...	...	2·56	...	...	3·13	...	...	0·93	Ahwaz.
5	...	...	36	...	(d) 77	...	(d) ·152	...	4·6	...	3	...	...	0·81	...	...	0·81	...	...	0·25	Birjand‡.
	...	...	100	...	...	...	...	...	...	...	0	...	...	0	...	...	0	...	...	0	Chumbi.
	...	...	...	...	82	...	·126	...	...	...	...	...	...	†2·78	...	...	†5·30	...	...	0·83	Karmanshah.
	...	...	53	...	...	...	...	...	5·2	...	2	...	...	0·56	...	...	0·73	...	...	0·23	Koweit.
	.	...	..	...	...	...	...	...	...	...	9	...	...	4·45	...	...	5·94	...	...	0·80	Maidan.

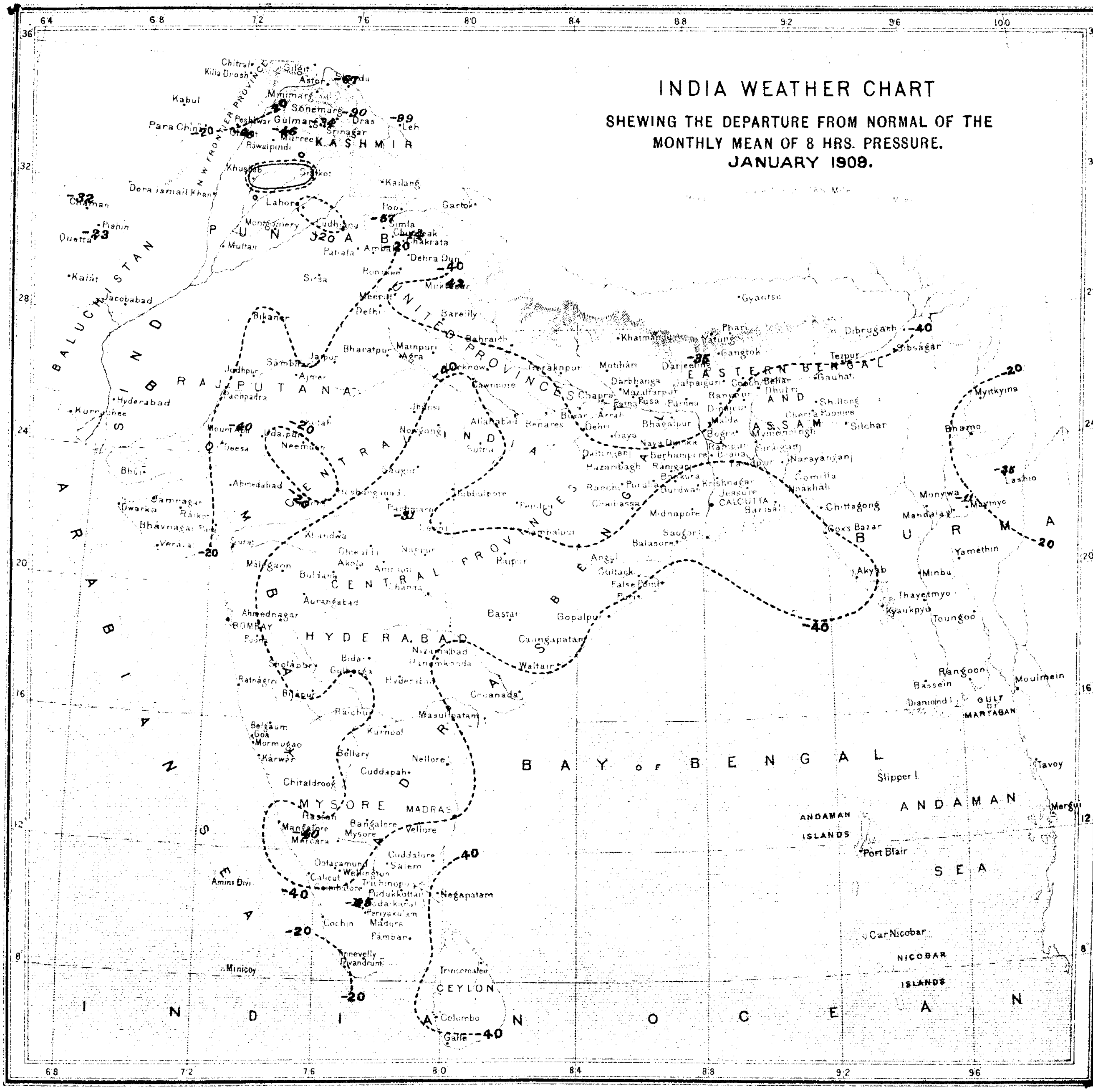
* Wind observations less 1. ‡ Wind observations less 9.
(d) Mean of 16 days.
(e) Mean of 14 days.
(f) Mean of 30 days.
† Snow water.



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

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

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



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

PLATE III.

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

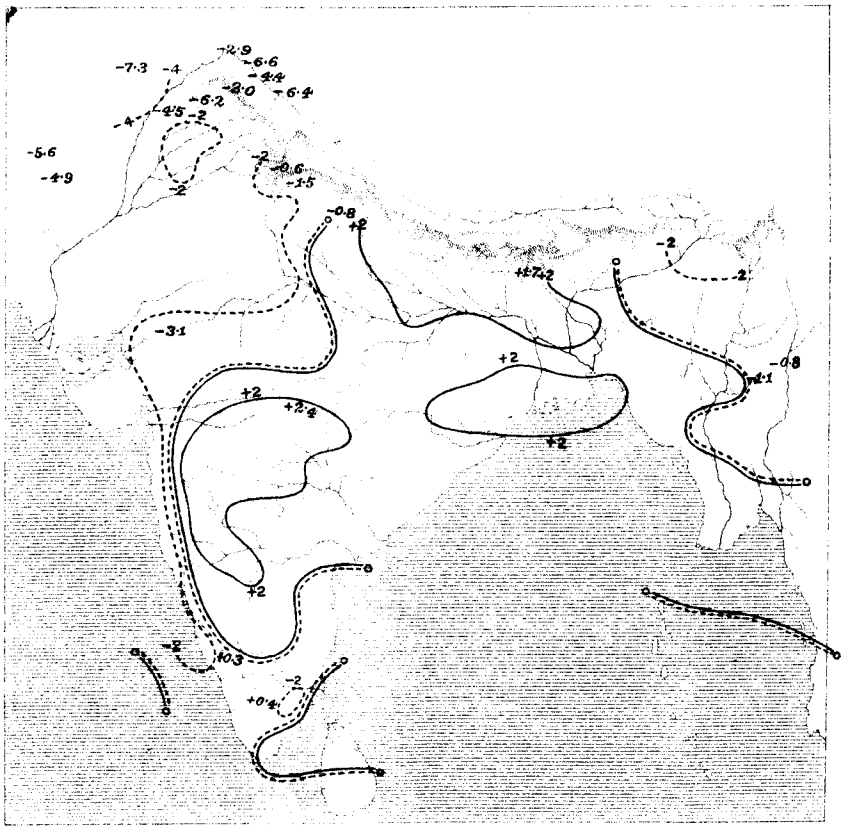
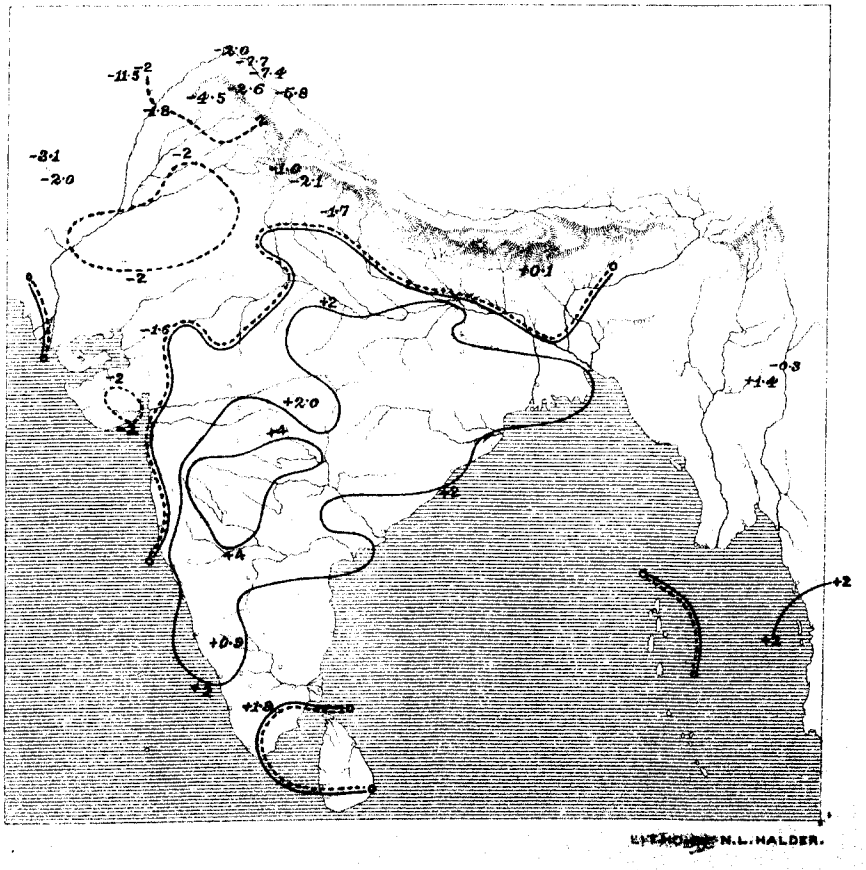


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.



LITHO. N.L. HALDER.

PLATE IV.

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

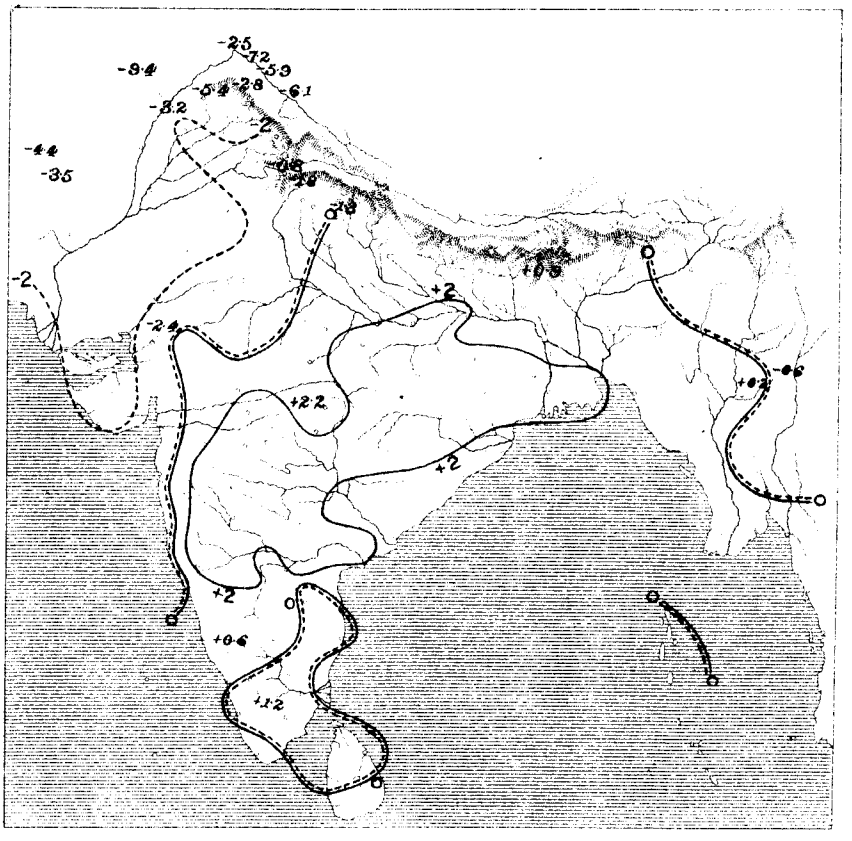
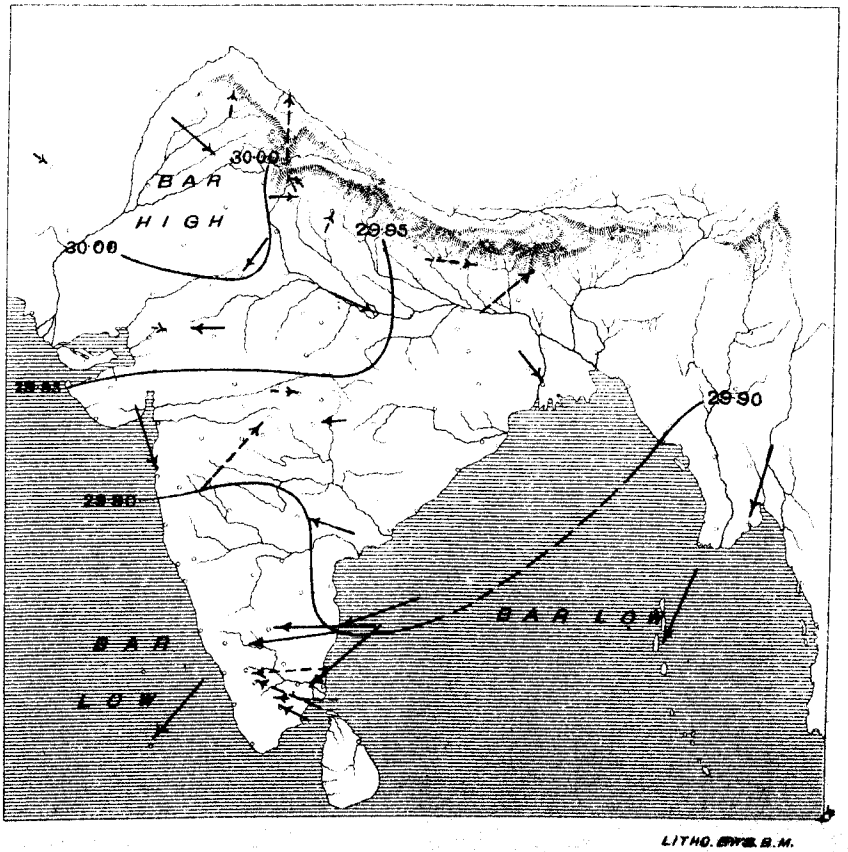


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.



LITHO. BWS. B.M.

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

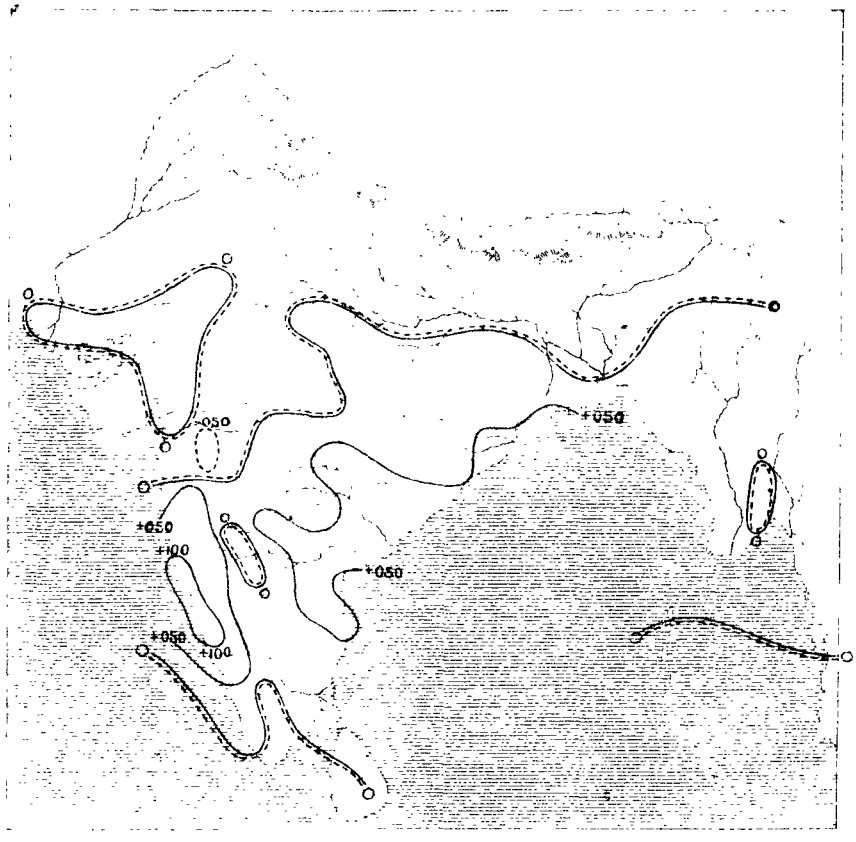
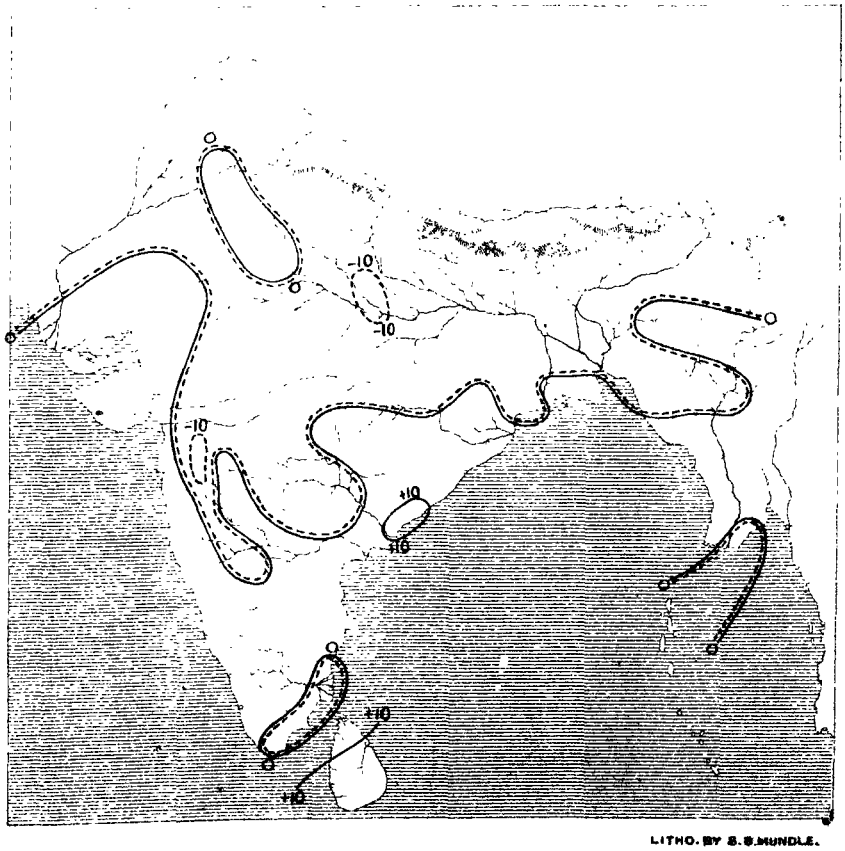


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 HRS.



LITHO. BY S. S. MUNDLE.

PLATE VI.

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

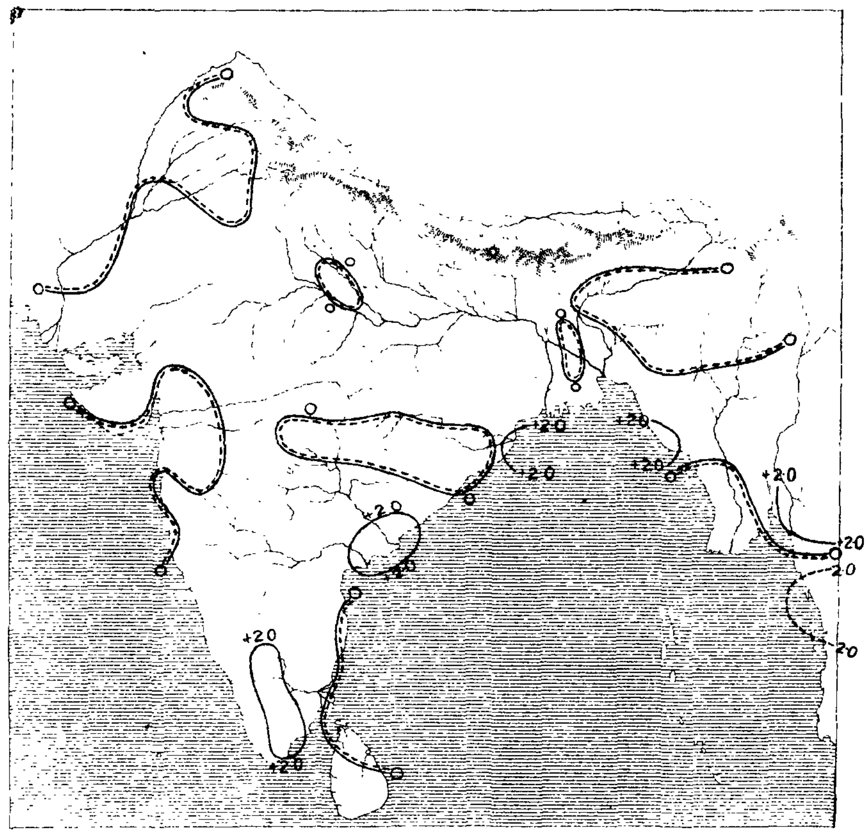
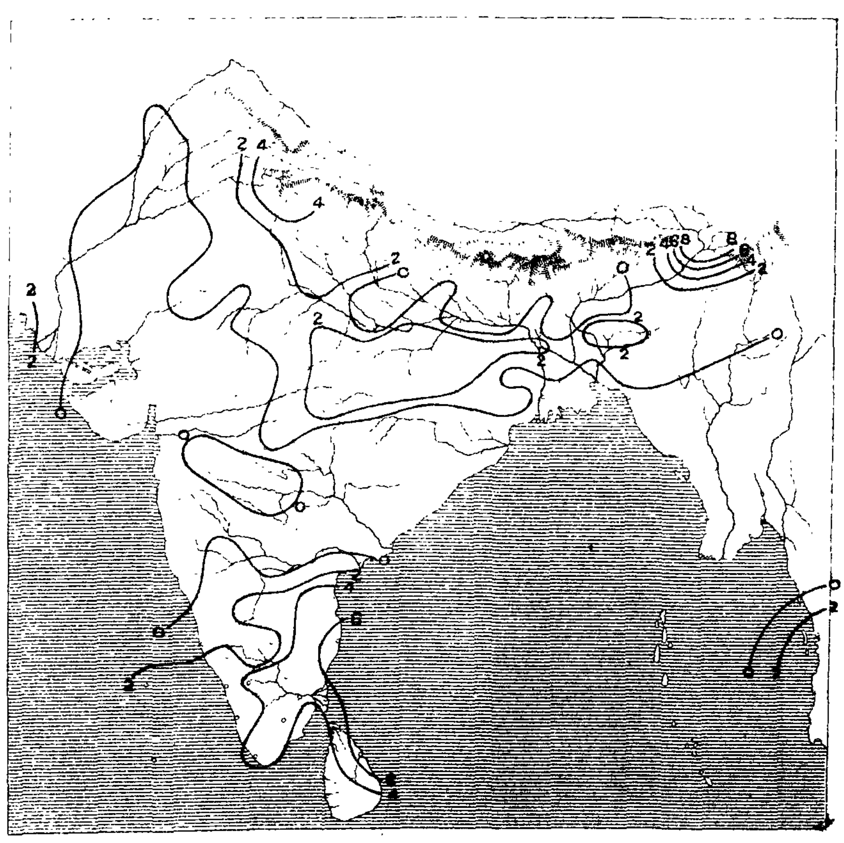
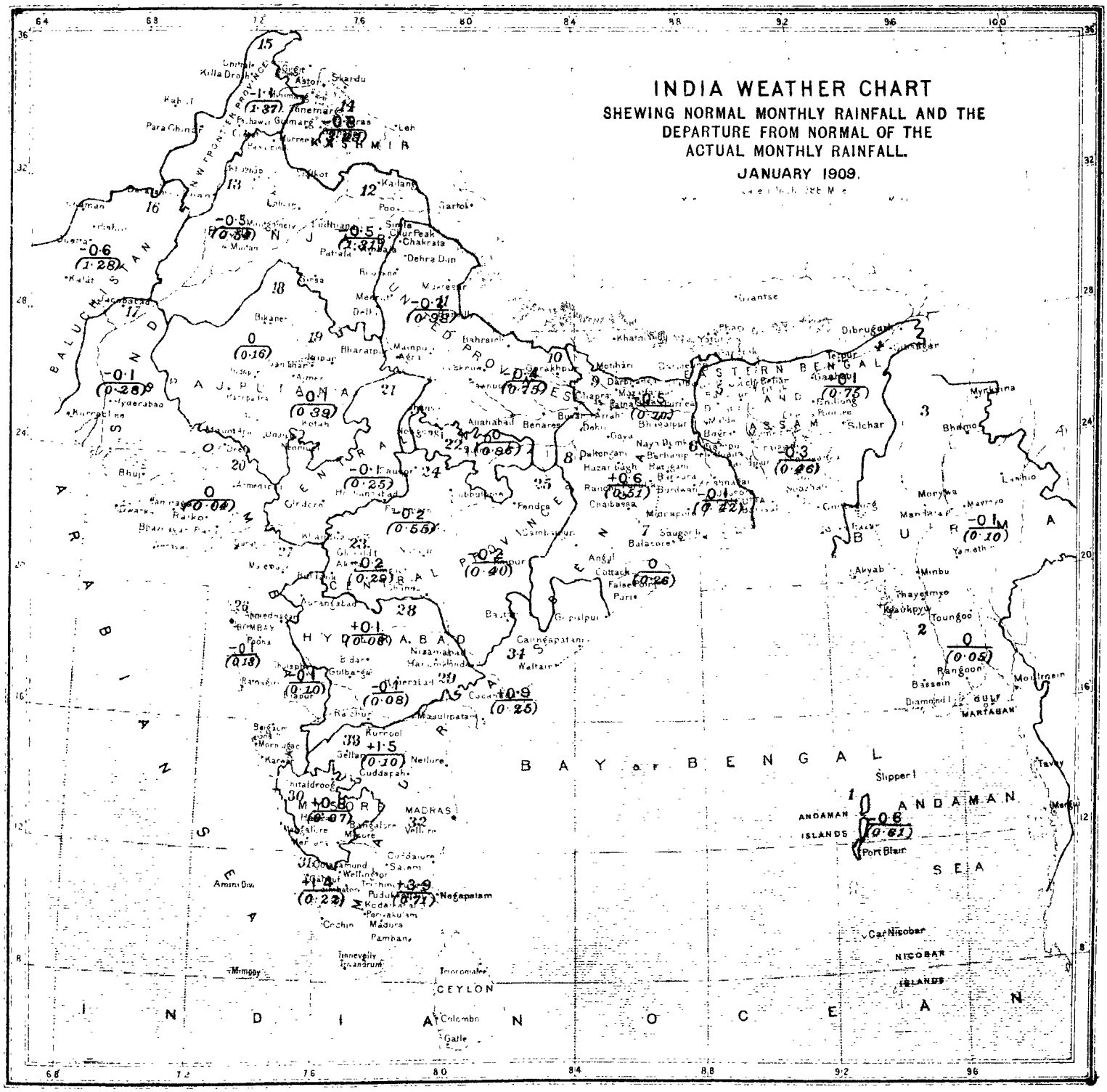


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE
MONTH ON WHICH RAINFALL EQUALLED OR
EXCEEDED 0·10 INCH.
(BASED ON THE RETURNS OF TABLE B.)



LITHO. BY S. S. MUNDLE.



R&R No. 4063 E 69 — L — 5,000

The country is divided into 34 areas as shewn in the list below. The numbers in that list correspond with the red numbers on the chart, and serve to identify the areas. The numbers in brackets on the chart give the average over the divisions of the normal monthly rainfall, the numbers above these give the departures from normal of the average actual rainfall over the divisions.

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

GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

LIBRARY
MAY 1 - 1911
Weather Bureau

MONTHLY WEATHER REVIEW.

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, FEBRUARY, 1909.

INTRODUCTION.

THIS review of the weather in India during the month of February, 1909, is based on observations taken daily at 8 hrs. at 240 stations, and on additional observations taken at 10 hrs. and 16 hrs. at 35 stations. In the rainfall summary the data furnished by the meteorological observatories, and such rainfall statements of the month as had been published by the provincial Governments up to the date of the preparation of the review, have been utilized.

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

Summary of the chief features of the weather in India during the month of February, 1909.

2. Weather in the Indian region was on the whole less disturbed than is usual in February, and with one exception the disturbances which advanced into northwest India from the west were very weak and followed an abnormal course. Two local depressions, however, were formed in central India and were productive of a series of thunderstorms in that region.

The total precipitation of the month was short of the average over a large part of the country, the only divisions which received more than their normal supply being Kashmir, Baluchistan, the North-West Frontier Province, the Punjab Southwest, Berar, the west of the Central Provinces and Burma. The largest defect occurred in Assam which received a third of an inch instead of the usual inch and a half.

No marked hot or cool waves were felt and the mean temperature conditions of the month were accordingly very nearly normal over practically the whole of the country. Humidity was low generally; cloud was in defect over the greater part of northern India but above normal in the peninsula and Burma.

Pressure as measured near the earth's surface was only ·007″ in excess of the normal. The conditions at the level of the hill stations were such as are associated with the prevalence of drier weather than usual.

Solar, seismic and magnetic disturbances.

SOLAR PHYSICS OBSERVATORY, KODAIKANAL.

3. *Solar Observations.*—Observations were possible on all the days of the month, but on three days the prominence record was imperfect on account of cirrus cloud.

Sunspots.—The spot activity was slightly lower in February than in January. There were 16 new groups with a daily average of 4·2 and an average life of 7·7 days; the corresponding figures for January having been 19, 4·5 and 8·0 respectively. There were 3 returns of old spots during the month. As in January, the southern spots occupied a wider belt and their mean latitude

was higher than the northern spots. The latitude distribution was as follows :—

TABLE 1.

	1°-10°	11°-20°	Above 20°	Extreme latitudes.	Mean latitude.
North	4	1	...	4, 17	9·0
South	5	5	1	3, 21	12·4

The five large groups 1593, 1594, 1595, 1596, and 1598, lying between longitudes 210° and 150°, which were mentioned in last month's report continued to be seen for the first few days in February. Another large display of spots began on the 20th when group No. 1609 came round the east limb; the affected area lay between longitudes 190° and 125° and contained the groups Nos. 1609, 1611, 1612, 1613, and 1615, all of which, except 1612 contained fairly large spots. The only large spots outside these regions were 1605 and 1607. Most of these groups were spectroscopically active, reversals and displacements of C and darkening of D3 were very frequently observed in them.

Prominences.—Sixty-four large, 6 metallic and 8 eruptive prominences were recorded during the month. Two prominences photographed on the 25th reached a height of 240″. Half the eruptive prominences of the month were in or near the large spotted region which came round towards the end of the month. The general prominence activity was higher in February than in January, the mean daily profile areas for the two months having been roughly 4·9 and 4·4 square minutes respectively.

Magnetic disturbances.—There was a "great" magnetic disturbance on the 2nd and 3rd, a "moderate" one on the 6th and 7th, and "small" ones on the 4th and from the 21st to the 27th. Spot group No. 1598, the last of the first five groups referred to above, crossed the central meridian on the 2nd; the five other groups 1609 to 1615, also mentioned above, all lay between the central meridian and the east limb during the period February 21 to 27.

C. MICHIE SMITH,
Director,
Kodaikanal and Madras Observatories.

BOMBAY OBSERVATORY.

Note on the Alibag magnetic record.

4. During the month the traces showed 13 calm days, 14 days of small, and one day of moderate disturbance.

The days selected as quiet for the purposes of the magnetic survey of India are the 11th, 12th, 15th, 16th and 19th.

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

Easterly declination . . .	1° 0′ 59″ ,,
Horizontal force . . .	0·36848 C. G. S. unit.
Vertical force . . .	0·15972 ,, ,,
Dip (calculated) . . .	23° 26′·1.
Dip (observed) . . .	23° 25′·9.
Horizonal force range . . .	0·00038 C. G. S. unit.
Horizontal force summed range .	0·00233 ,, ,,
Declination range . . .	1′·76
Declination summed range .	6′·03

[NOTE.—Summed range means sum without regard to signs of 24 ordinates of diurnal inequality.]

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

TABLE 2.

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

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

Seismic disturbances recorded at Colaba.

Six seismic disturbances were recorded during the month, on the 2nd, 9th (two disturbances), 15th, 16th and 22nd.

List of Seismic disturbances.

TABLE 3.

Date.	Commencement.	Maximum.	End.	Maximum Amplitude	Duration.
	H. M.	H. M.	H. M.	mm.	H. M.
2nd Feb. 1909	19 24·8	19 25·5	19 34·9	0·2	0 10·1
9th ,, .	11 36·2	11 47·0	12 16·0	1·0	0 39·8
9th ,, .	14 59·8	15 2·9	15 13·5	0·3	0 13·7
15th ,, .	0 55·9	1 7·7	1 13·7	0·3	0 17·8
16th ,, .	8 9·5	8 22·2	8 32·4	0·3	0 22·9
22nd ,, .	9 45·6	9 50·6	10 59·5	0·6	1 13·9

NOTE.—All times given above denote G. M. T.
Sensibility to tilt, 1 mm.=0″·41.

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

CALCUTTA OBSERVATORY.

5. *List of displacements recorded by the Milne seismograph at the Alipore Observatory during February 1909.*

TABLE 4.

Date 1909.	P. T. Commencement. G.M.T.	L. W. Commencement. G.M.T.	Maximum. G.M.T.	End. G.M.T.	Duration.	Maximum displacement on trace from mean position.	REMARKS.
	H. M.	H. M.	H. M.	H. M.	H. M.	mm.	
b. 2nd	19 15·8	19 20·9	19 26·0	19 41·2	0 25·4	1·25	
„ 9th	11 37·0	11 41·6	12 2·7	13 33·2	1 56·2	2·00	
„ 10th	20 16·6	—	20 17·6	20 33·9	0 17·3	0·50	
„ 11th	4 34·5	—	4 35·0	4 43·1	0 8·6	0·50	
„ 13th	5 23·6	—	5 24·6	5 31·7	0 8·1	1·00	
„ 15th	0 50·3	—	0 55·3	2 28·4	1 38·1	2·50	
„ 16th	8 4·9	—	8 8·4	8 40·5	0 35·6	3·00	
„ 16th	18 40·0	—	18 40·5	18 48·1	0 8·1	0·50	
„ 22nd	9 38·9	—	9 41·4	9 43·9*	0 5·0	0·50	The end of the displacement ended in the morning air tremor. Sensibility 1 mm.=0·38″ of tilt.

C. W. PEAKE,
Meteorologist, Calcutta.

SIMLA OBSERVATORY.

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

TABLE 5.

Date 1909.		Commencement of 1st P. T. G. M. T.	Commencement of 2nd P. T. G. M. T.	Beginning of L. W. G. M. T.	Time of maximum amplitude. G. M. T.	End approximately. G. M. T.	Duration.	Maximum displacement of style.	REMARKS.
		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	mm.	
st	A	...	...	8 14·0	...	8 14·5	0 0·5	Very small.	Local slight.
„	B	...	...	8 13·6	...	8 13·9	0 0·3	„	Do.
st	A	...	...	16 22·7	...	6 29·0	0 6·3	„	Do.
„	B	...	...	16 22 7	...	16 26·5	0 3·8	0 3	Do.
th	A	...	...	0 32·3	...	0 32·9	0 0·6	Very small.	Do.
„	B	...	...	...	...	...	...	...	Not visible.
th	A	11 30·6	?	11 45·0	11 47·7	12 8·0	0 37	0·6	
„	B	?	?	...	11 44·4	12 0	?	0·4	
14th	A	17 58·3	...	...	17 58·7	18 0·7	0 2·4	Very small.	Barely visible.
„	B	...	...	...	...	...	...	...	
15th	A	0 53·2	...	0 55·2	0 56·7	1 20·0	0 27	0·5	
„	B	0 53·0	...	0 55·2	0 55·5	1 6·0	0 13	0·3	
16th	A	8 2·9	8 6·3	8 9·4	8 13·0	8 41·0	0 38	0·5	
„	B	8 6·0	...	8 8·3	8 8·5	8 26·0	0 20	0·5	
22nd	A	9 37·3	9 39·7	9 44·2?	9 45·9	10 32·0	0 55	0·7	
„	B	...	...	...	...	...	...	...	Barely visible.

A = E—W component.
B = N—S component.
Magnification of each instrument = 15.

The following table contains a list of the earthquakes that have been reported :—

TABLE 6.

Place at which felt.	Date.	G. M. T. of earthquake.		Intensity.	Duration	REMARKS.
		H.	M.		Sec.	
Murree . . .	1st	16	33	4	4	1 Shock.
Chittagong . .	2nd	15	44	4	1, 5, 5.	3 „
Shushtar. (S. W.-Persia).	15th	8	39	2	3	1 Tremor.
Bhagalpur . . .	17th	17	4½	4	short.	
Monghyr . . .	17th	17	3	4	3	1 Shock.
Arrah . . .	17th	16	58	3	about 1 min.	2 „
Darbhanga (Laheriaserai.)	17th	17	0	4	1	1 „
Muzaffarpur. (Newspaper account.)	17th	17	0	5	45	
Bishnath . . .	18th	2	0	3	½	1 Shock.
Srinagar . . .	28th	22	20	1	2	1 „

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

Maximum	1·54
Minimum	1·41
Mean	1·46
Number of days of observation . .	10

J. H. FIELD,
Imperial Meteorologist, Simla.

ROYAL ALFRED OBSERVATORY, MAURITIUS.

7. *Solar observations.*—Observations were taken on the 1st, 2nd, 4th, 12th, 13th, 15th, 16th, 18th to 20th, 22nd, 26th and 27th. Groups of sunspots were observed throughout. The sunspots were especially numerous from the 1st to the 4th and faculæ were seen on each day of observation.

Magnetic Disturbances.

TABLE 7.

Day.	Time.	Disturbance.
2nd	5¼h. to 8h.	Wave in H. F. (+47).
2nd	10½h. to 11½h.	Wave in H. F. (+40) steep at commencement, decrease in H. F. continued until 15 h.
2nd	17½h. to 18¼h.	Wave in H. F. (+20).
2nd to 3rd	22½h. to 12h.	Wave in H. F. (+50), occasional undulations throughout (±6), in decl.
2nd	5½h. to 8½h.	Double wave in decl. (—20 to +43).
2nd	10h. to 11½h.	Wave in decl. (+33), 19 to 35 undulation in decl. (±7).
3rd to 4th	23½h. to 1h.	Wave in H. F. (+15).
6th	4·50h.	Sharp increase in H. F. 20.
6th	11h. to 21h.	General decrease in H. F. (111).
6th	21½h. to 23¾h.	Wave in H. F. (+57), in decl. (+30).
7th	1¼h. to 2h.	Wave in H. F. (+30, in decl. (—10).
8th	1h. to 4h.	Wave in H. F. (+20).
9th	...	Accentuated diurnal variations in decl.
9th to 10th	12h. to 22h.	Occasional small fluctuations in H. F.
9th	16h. to 4h.	Sharp decrease in H. F. (10).
10th	5h. to 7h.	Wave in H. F. (+17).
17th	0h. to 1h.	Wave in H. F. (+12).
21st	1½h. to 3h.	Wave in H. F. (+9).
21st	21h. to 23h	Occasional small irregular waves in H. F. with superposed small fluctuations.

T. F. CLAXTON,
Director.

Weather in the Indian monsoon region.

8. In the subequatorial region as represented by Zanzibar and the Seychelles the pressure agreed closely with the average value and winds were fairly normal both as regards direction and intensity: rainfall was about 50 per cent. in defect at the former and 30 per cent. in excess at the latter station. Further south at Mauritius pressure was low and rainfall in excess; the air motion was considerably below the normal strength.

TABLE 8.

—	Maurtitius.	Zanzibar.	Seychelles.
Departure from normal of mean pressure.	—·018	+·002	+·002
Actual mean wind direction	N 80° E	N 35° E	N27° W
Normal mean wind direction	S 81° E	N 33° E	N 21° W
Actual mean wind velocity (miles per diem).	175	148	98
Normal mean wind velocity (miles per diem).	264	161	147
Rainfall departure from normal	+0·42	—1·49	+3·85

Depressions and cyclonic storms.

9. A remarkable feature of the meteorology of February, as of the preceding month, was the comparative rareness and feebleness of the disturbances. The Egyptian and English charts show that several depressions were transmitted from the Mediterranean across Syria and Asia Minor eastwards into Persia but only two were continued into north-west India, and even these were shallow low pressure areas rather than well-defined cold weather storms. The first of these entered Sind in the interval between 8 hrs. of the 18th and the same hour of the 19th and was dissipated on the 20th while passing eastwards across the south Punjab and north Rajputana. Judging from the character of the vertical pressure distribution it was of low elevation and its influence on the weather was not large.

The second disturbance appeared over north-west India on the 21st and disappeared on the 24th after producing light to moderate precipitation over the plains and hill districts of upper India. In the course of the disturbed period over north-west India two slight depressions were formed over the central parts of the country during the prevalence of high temperatures and were the cause of numerous light thunder showers over the Central Provinces, Central India and the east of the United Provinces.

In connection with the unusual character of the disturbances of the month it may be noted that the distribution of pressure over eastern Europe was abnormal on most days, pressure there being low instead of high as is normally the case.

Pressure.

10. The low pressure conditions which had characterized January did not persist during February, and the mean 8 hrs. pressure was ·007″ above the normal. Greater excesses were recorded over northern India, particularly over the Punjab, but in the peninsula and Burma pressure was in defect both actually and relatively to the average condition. The horizontal gradient near the earth's surface from north to south was accordingly much greater than is usual in February, and an area of high pressure was developed over Rajputana where ordinarily pressure is lower than in the Punjab.

In the hill districts of northern India the excess was almost the same in amount as in the plains below with the result that the vertical gradient did not differ appreciably from the normal value.

In southern India, on the other hand, pressure was markedly in defect at the level of 8,000 feet.

TABLE 9.

DIVISION.	Departure from normal of mean 8 hrs. pressure.
	″
Burma	—·015
Eastern Bengal and Assam	+·016
Bengal	+·016
United Provinces	+·025
Punjab	+·034
North-West Frontier Province	+·010
Sind	+·019
Rajputana	+·027
Bombay	—·005
Central India	+·011
Central Provinces	+·004
Hyderabad	—·002
Mysore	—·011
Madras	—·005

TABLE 10.

HILL STATION.	Departure from normal pressure. A	PLAIN STATION.	Departure from normal pressure. B	Departure of pressure difference. B—A.
	″		″	″
Quetta	+·019	Jacobabad	+·020	+·001
Leh	+·018	Lahore	+·009?	—·009?
Murree	+·012	Peshawar	+·003	—·009
Simla	—·004?	Ludhiana	+·028	+·032?
Chakrata	+·036	Roorkee	+·040	+·004
Darjeeling	+·037	Dhubri	+·035	—·002
Mount Abu	+·004	Deesa	+·003	—·001
Pachmarhi	+·007	Khandwa	—·005	—·012

Temperature.

11. Day temperature differed but little from the normal in the plains of India, except in a narrow strip at the foot of the hills from Bareilly to Jalpaiguri where it was high. Night temperature also was within 2° of the normal almost everywhere, the only exceptions being Lower Burma (+2°·3), Berar (+2°·5), Bihar (—2°·8) and Rajputana West (—3°·3).

In Kashmir both day and night temperatures were lower than usual, the latter however to a greater extent than the former, but elsewhere in the hills the deviations from the normal, although similar in character to those in the adjacent plains, were very feebly marked.

The temperature conditions were on the whole more stable than usual, a frequent character during a mild winter. In most parts of northern India and in the north Deccan weather was cooler than usual during the first week and unusually warm during the third week. The second disturbance of the month initiated a spell of cold weather over northwest India lasting from the 24th to the end of the month: but throughout the month there were none of the rapid and large fluctuations of temperature which frequently characterize the cold weather season in northern India.

TABLE 11.

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
1. Bay Islands	86·3	76·4	81·4	9·9	16·4	−1·6	+1·1	−2·7
2. Lower Burma	89·5	68·4	79·0	21·1	31·5	+0·2	+2·3	−2·1
3. Upper do.	86·5	56·8	71·7	29·7	44·8	−0·9	+0·2	−1·1
4. Assam	78·4	53·2	65·8	25·2	40·8	+1·5	−1·6	+3·1
5. Eastern Bengal	81·9	53·8	67·9	28·1	45·0	+2·0	−1·6	+3·6
6. Bengal	84·1	58·9	71·5	25·2	43·2	+1·3	+0·4	+0·9
7. Orissa	85·3	63·7	74·5	21·6	34·8	−1·4	−0·3	−1·1
8. Chota Nagpur	81·0	55·8	68·4	25·2	43·9	−0·5	+0·5	−1·0
9. Bihar	80·8	51·7	66·3	29·1	49·5	+1·7	−2·8	+4·5
10. United Provinces, East	80·5	49·8	65·2	30·7	52·7	+1·7	−1·8	+3·5
11. Do., West	76·1	49·0	62·6	27·0	44·2	+0·6	−1·1	+1·7
12. Punjab, East and North	71·3	44·9	58·1	26·4	44·8	−0·3	−1·9	+1·6
13. Do., Southwest	71·5	45·2	58·4	26·2	44·4	−1·7	−1·5	−0·2
14. Kashmir	34·1	11·7	22·9	22·4	51·7	−3·2	−5·2	+2·0
15. North-West Frontier Province	67·7	41·9	54·8	25·8	46·3	−1·3	−1·9	+0·6
16. Baluchistan	57·8	36·6	47·1	21·2	50·5	−0·8	−1·6	+0·8
17. Sind	79·3	53·6	66·5	25·8	42·1	+0·2	−1·4	+1·6
18. Rajputana, West	79·1	48·6	64·0	30·5	49·7	−0·3	−3·3	+3·0
19. Do., East	77·9	49·3	63·6	28·6	49·3	−0·2	−1·2	+1·0
0. Gujarat	85·0	58·3	71·7	26·7	42·3	+0·2	−0·2	+0·4
1. Central India, West	81·5	52·4	66·9	29·2	47·9	−0·8	+0·3	−1·1
22. Do., East	79·2	52·3	65·8	26·9	50·4	−0·8	+0·6	−1·4
23. Berar	88·7	62·5	75·6	26·1	43·8	−0·1	+2·5	−2·6
24. Central Provinces, West	84·0	55·9	70·0	28·2	47·9	−1·1	+0·7	−1·8
25. Do., East	85·0	58·8	71·9	26·2	42·7	−1·4	+1·2	−2·6
26. Konkan	83·2	67·9	75·6	15·3	25·4	−1·4	−1·4	0
27. Bombay Deccan	90·6	59·8	75·2	30·8	45·9	+0·3	+1·0	−0·7
28. Hyderabad, North	90·0	61·1	75·5	28·8	43·3	+0·9	+1·2	−0·3
29. Do., South	91·2	67·2	79·2	24·1	38·3	−0·5	+1·6	−2·1
30. Mysore	88·5	62·4	75·5	26·0	35·4	+0·9	+0·9	0
31. Malabar	87·0	73·1	80·1	13·9	20·6	−0·9	+0·2	−1·1
32. Madras, Southeast	89·3	69·0	79·2	20·3	27·8	−0·2	+0·3	−0·5
33. Do., Deccan	93·9	67·5	80·7	26·4	39·0	−0·7	+1·1	−1·8
34. Do. Coast, North	85·3	70·1	77·7	15·2	22·7	−0·8	+0·9	−1·7

TABLE 12.

Division.	Departure from normal of		
	Mean maximum temperature.	Mean minimum temperature.	Mean temperature.
	°	°	°
Burma	−0·3	+1·4	+0·6
Eastern Bengal and Assam	+1·8	−1·6	+0·1
Bengal	+0·4	−0·6	−0·1
United Provinces	+1·1	−1·4	−0·2
Punjab	−0·6	−1·8	−1·2
North-West Frontier Province	−1·3	−1·9	−1·6
Sind	+0·2	−1·4	−0·6
Rajputana	−0·2	−2·1	−1·2

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

Winds.

12. (*a*) Winds were very variable in the United Provinces and considerably steadier than usual in north-west and central India and the greater part of the peninsula.

(*b*) The air motion was on the whole of about the average intensity except in Hyderabad, Central India, the North-West Frontier Province and north-east India where it was at least 20 per cent. weaker than usual.

(*c*) The deviations from normal of the direction of wind were chiefly local and of little significance.

It may be noted that abnormalities (*a*) and (*b*) were in part at least related to the absence of regular cold weather storms.

TABLE 13.

Division.	Departure from normal of	
	Hourly wind velocity.	Wind steadiness.
Burma	−0·5	+2
Eastern Bengal and Assam	−0·7	+1
Bengal	−0·7	−1
United Provinces	−0·6	−11
Punjab	+0·4	+7
North-West Frontier Province	−0·9	−12
Sind	−0·8	+24
Rajputana	+0·2	+9
Bombay	−0·2	−4
Central India	−1·0	+16
Central Provinces	+0·6	+10
Hyderabad	−1·6	+26
Mysore	+0·7	+13
Madras	+0·4	+2

Humidity and cloud.

13. The air was slightly damper than usual in Burma and dry over the plains of northern and central India. At the hill stations in Baluchistan and northern India, on the other hand, humidity was, if anything, in excess of the normal. Over the peninsula the departures from the normal hygrometric conditions were small and irregular.

Notwithstanding the defect of rainfall there was more cloud than usual in the peninsula, Central India and Sind; while in the plains of northern India, where the precipitation was generally below normal the proportion of cloud also was low. In Burma there was a marked excess of cloud, as of rainfall.

TABLE 14.

Division.	Hygrometry; 8 hrs.				Cloud.	
	Mean humidity.	Departure from normal.	Mean vapour tension in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.
	%					
Burma . .	81	+ 2	·561	+ ·020	3·0	+ 1·3
Eastern Bengal and Assam.	80	— 6	·421	—·042	2·0	—0·9
Bengal . .	69	— 3	·403	—·030	2·1	0
United Provinces.	62	—10	·283	—·047	2·3	—0·4
Punjab . .	70	— 4	·255	—·038	3·3	—0·4
North-West Frontier Province.	% 66	— 8	·215	—·042	3·8	—0·2
Sind . .	58	— 3	·298	—·021	3·0	+ 0·2
Rajputana .	47	— 7	·207	—·050	2·1	—0·9
Bombay . .	56	— 2	·398	—·019	1·3	+ 0·2
Central India .	52	— 5	·276	—·024	2·6	+ 0·9
Central Provinces.	49	— 4	·307	—·016	1·8	+ 0·2
Hyderabad .	54	— 1	·444	+ ·023	1·9	+ 1·1
Mysore . .	64	— 1	·469	—·004	2·5	+ 0·7
Madras . .	76	0	·667	—·004	3·2	+ 0·7

Rainfall.

14. Precipitation received under ordinary conditions in February is light except in Baluchistan and upper and north-east India. In the month under review, as has been pointed out in a previous section, no regular cold weather storms visited India and the precipitation was accordingly even lighter than usual in all parts of the country with the exception of Baluchistan, Kashmir, the North-West Frontier Province, the Punjab South-west, Berar, the Central Provinces West, and Burma. The defect was most pronounced over the west of the United Provinces and the greater part of north-east India, regions almost beyond the influence of the slight disturbances of the month.

Rainfall was, on the other hand, much above the normal in the Bay Islands—a circumstance detrimental to the occurrence of rain in north-west India.

TABLE 15.

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			Inches	Inches.	Inches.	
1. Bay Islands	4·5	0·8	2·11	0·54	+ 1·57	+ 291
2. Lower Burma	0·7	0·3	0·42	0·20	+ 0·22	+ 110
3. Upper do.	0·1	0·4	0·03	0·17	— 0·14	— 82
4. Assam	1·1	3·3	0·33	1·47	—1·14	— 78
5. Eastern Bengal	0·6	1·4	0·22	0·83	—0·61	— 73
6. Bengal	0·8	1·5	0·20	0·86	—0·66	— 77
7. Orissa	1·3	1·3	0·64	0·77	—0·13	— 17
8. Chota Nagpur	1·0	1·6	0·47	0·77	—0·30	— 39
9. Bihar	1·0	1·3	0·26	0·57	—0·31	— 54
10. United Provinces, East	0·9	1·1	0·23	0·48	—0·25	— 52
11. Do. do., West	1·1	1·6	0·35	0·87	—0·52	— 60

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			Inches.	Inches.	Inches.	
12. Punjab, East and North	2·1	2·2	0·98	1·08	—0·10	— 9
13. Do., Southwest	1·8	1·3	0·66	0·55	+0·11	+ 20
14. Kashmir	4·9	4·9	4·07	2·91	+1·16	+ 40
15. North-West Frontier Province	3·7	2·8	2·11	1·34	+0·77	+ 57
16. Baluchistan	4·2	3·7	1·72	1·57	+0·15	+ 10
17. Sind	0·1	0·7	0·07	0·25	—0·18	— 72
18. Rajputana, West	0·2	0·3	0·08	0·13	—0·05	— 38
19. Do., East	0·2	0·6	0·06	0·26	—0·20	— 77
20. Gujarat	0·2	0·2	0·06	0·11	—0·05	— 45
21. Central India, West	0·1	0·6	0·05	0·30	—0·25	— 83
22. Do., East	1·2	1·3	0·46	0·64	—0·18	— 28
23. Berar	0·7	0·6	0·37	0·23	+0·14	+ 61
24. Central Provinces, West	1·7	0·8	0·59	0·38	+0·21	+ 55
25. Do. do., East	1·0	0·8	0·38	0·45	—0·07	— 16
26. Konkan	0	0·1	0	0·05	—0·05	—100
27. Bombay Deccan	0	0·2	0	0·09	—0·09	—100
28. Hyderabad, North	0·3	0·3	0·10	0·16	—0·06	—38
29. Hyderabad, South	0	0·4	0	0·18	—0·18	—100
30. Mysore	0·1	0·1	0·04	0·04	0	0
31. Malabar	0·3	0·2	0·13	0·18	—0·05	— 28
32. Madras Southeast	0·7	0·7	0·38	0·50	—0·12	— 24
33. Do. Deccan	0	0	0·01	0·11	—0·10	— 91
34. Do. Coast, North	0·2	0·6	0·13	0·45	—0·32	— 71

TABLE 16.

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Burma	0·21	0·18	+0·03	+ 17
Eastern Bengal and Assam	0·28	1·16	—0·88	— 76
Bengal	0·33	0·74	—0·41	— 55
United Provinces	0·29	0·66	—0·37	— 56
Punjab	0·91	0·97	—0·06	— 6
North-West Frontier Province	2·11	1·34	+0·77	+ 57
Sind	0·07	0·25	—0·18	— 72
Rajputana	0·07	0·22	—0·15	— 68

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Bombay	0·02	0·09	—0·07	—78
Central India	0·19	0·41	—0·22	—54
Central Provinces	0·46	0·34	+0·12	+35
Hyderabad	0·05	0·17	—0·12	—71
Mysore	0·04	0·04	0	0
Madras	0·23	0·41	—0·18	—44
Mean of India when the size of the above areas is taken into account.	0·29	0·47	—0·18	—38

Snowfall.

I.—AFGHANISTAN.

15. Snow fell in Kabul on six days to a total depth of 15½ inches. Heavier falls are said to have occurred on the Hazara and Ghazni hills. At the end of the month the plain of Kabul was clear of snow, but on the Paghman hills there was still an accumulation of about 2½ feet or more. Severe cold was experienced during the first sixteen days of the month.

II.—NORTH-WEST FRONTIER PROVINCE.

(*a*) There were altogether four falls on the Sufed Koh and all of these extended to Parachinar. The total amount was not large enough to block the passes. Weather during the month was unusually warm.

(*b*) *Kohat.*—Snow fell on two or three occasions. The statement below gives the total fall recorded in the various localities:—

TABLE 17.

Locality.	Total amount received during the month.	
	Ft.	In.
Mahorah	3	0
Mazioghar	2	0
Koram	1	0
Zawaghar	0	6
Samana Range	0	6

(*c*) *Hazara.*—The following statement shows the total depth of snowfall received during the month on the mountain ranges in this district:—

TABLE 18.

Name of Range or station.	Snowfall during month.	
	Ft.	In.
Narang	5	10
Kagan	3	1
Jared	3	4

III.—KASHMIR.

According to the available information the snowfall of the month in this region was on the whole greater than usual. The snow accumulations at the end of the month were estimated at 12 feet in Sonemarg, 5 feet in Dras and at 10 to 15 feet on the Zoji-la and other higher passes.

IV.—PUNJAB.

(*a*) *Murree.*—Snow fell on five days at Murree and on two days on the hills near Kahuta; the total fall amounted to nearly a foot in the former and 7 feet in the latter locality.

(*b*) *Dalhousie.*—Snow fell on four days. The fall at Dalhousie was 3¼ feet deep but was believed to be at least double that amount at Bakrota, Kalatop, Khajiar and Dainkund.

(*c*) *Kulu.*—Snowstorms occurred on nine days in the Kulu tahsil and on eight days in the Saraj tahsil. The lowest level reached by the snowline was 4,000 feet.

The statement below gives the reported depth of accumulation on the various passes at the end of February 1909 with the corresponding average data:—

TABLE 19.

KULU TAHSIL.			SARAJ TAHSIL.		
PASS.	DEPTH OF ACCUMULATION.		PASS.	DEPTH OF ACCUMULATION.	
	Reported.	Normal.		Reported.	Normal.
Rohtang	21 feet	17½ feet	Sirikhand	18 feet.	18 feet
Hamta	34 "	15 "	Chul	8½ "	10 "
Barsai	8 "	7½ "	Maghin	5 "	8½ "
Chandar Khani	12 "	11 "	Dundku	3 "	10 "
Boja Dhar	7½ "	8 "	Tikkar	3 "	8 "
Lohri Achhri	10 "	10 "	Ramgarh	1½ "	2½ "
Lari	20 "	12 "	Raghopur	4 "	9 "
Bhubu	8 "	8 "	Nuhnon	2½ "	4½ "
Bastari	9 "	7 "	Jalori	6 "	8½ "
Majhang	3 "	3½ "	Lambri	7 "	8 "
			Gargarasan	5½ "	12 "
			Sakiran	7½ "	9 "
			Supakun	5½ "	9 "
			Bashleo	7 "	9 "
			Placha	5 "	11 "
			Tirath	9 "	12½ "

(*d*) *Kailang.*—Feeble snowstorms occurred on eight days, chiefly during the second half of the month. The total quantity received was a little over 2 feet.

(*e*) *Kilba.*—There were four falls of snow on the hills near Kilba. The snowline descended to about 5,750 feet at which level the total quantity received during the month was estimated at 1½ feet. Most of the higher passes were closed. Weather was unusually cold and damp; avalanches were frequent.

V.—UNITED PROVINCES.

(*a*) *Garhwal.*—Snowstorms occurred on nine days, those of the 1st, 2nd and 3rd being severe; the snowline descended to about 4,000 feet on that occasion. Later the weather was generally mild and the falls did not descend to low altitudes. The total fall on the higher ranges was believed to be up to the average.

(*b*) *Almora.*—Occasional falls occurred during the month. The total fall measured 14½ feet on the Nuwe pass, 5 feet in Malla Danpur, 4 feet in Byans and 3½ feet in Malla Johar. The snowline came down to the inhabited area.

TABLE 20.

NAME OF PASS.	DEPTH OF ACCUMULATION AT THE END OF THE MONTH.	
	Reported.	Normal.
Untadhura	7 feet	25 feet
Ralamdhura	3 "	20½ "
Nuwe Pass	28 "	35 "
Lipu lekh "	7 "	19 "
Lampia "	7 "	21½ "

Weather was colder than usual.

SUMMARY.

16. (*a*) So far as can be judged from the scanty information available at present snowfall was on the whole either normal or in defect in the Afghan hills.

(*b*) According to newspaper accounts in the last week of February snow lay thickly on the Baluchistan hills as far down as Pishin where it had not been seen for years.

(*c*) In Kashmir the snowfall although irregularly distributed was on the whole probably somewhat in excess of the normal quantity.

(*d*) In the Punjab Himalayas, regarding which the information is imperfect, there was probably an average fall.

(*e*) Snowfall was normal or in defect in the Kumaon Himalayas. The accumulations at the end of the month were considerably smaller than usual.

On the whole it is probable that the snowfall of the month was not above the average.

Crop report.

17. *Burma.*—Harvesting of the winter rice crop was nearly completed in Lower Burma. The cultivation of the spring crops was in progress in Upper Burma.

Eastern Bengal and Assam.—The standing crops were in fair condition, but more rain was needed for them as well as for the preparation of land for jute and other autumn crops.

Bengal.—Land was being prepared for the autumn crops, and pulses and oil-seeds were being harvested. In parts of north Bihar fodder and the water-supply were becoming insufficient, and the prospects of the spring crops were bad.

United Provinces.—Standing crops were poor in Kheri and parts of Hardoi, Bahraich, Cawnpore and Sitapur, and some damage was reported by hail and frost: otherwise standing crops were in fair to good condition.

Punjab.—Crop prospects showed a marked improvement towards the end of the month and were generally good on irrigated and average to fair on unirrigated lands. More rain was still needed in Ambala, Ferozepore and Mianwali.

North-West Frontier Province.—The condition of standing crops was generally good on irrigated and average on unirrigated lands. More rain was wanted in Bannu, where fodder was scarce.

Jammu and Kashmir.—Standing crops were in good condition and fodder was sufficient.

Rajputana.—Standing crops were doing well and cattle were in good condition. Gram was being harvested in Kotah.

Central India.—Extraction of opium was in progress in Bhopawar. Spring crops were doing well almost everywhere, and except for some cattle disease, agricultural stock was satisfactory.

Central Provinces.—Threshing and winnowing of autumn crops and picking of cotton were nearly completed, and spring crops were being reaped. Standing crops were in fair to good condition.

Bombay.—Crops had been damaged in parts by insects, frost, disease and want of moisture, but elsewhere they were in fair to good condition. Autumn crops were being threshed and spring crops were being harvested.

Hyderabad.—Late rice sowings were completed. The spring crop was fair except in parts of the Raichur district.

Mysore.—Cattle disease was prevalent in parts and water and fodder were available in only limited quantities. Prospects of the season were unsatisfactory.

Coorg.—Rice was being threshed, and the picking of coffee was completed.

Madras.—Ploughing, sowing, weeding and transplanting were in progress. Standing crops were generally fair, but in parts they required more rain and were withering.

HEMRAJ.

TABLE A.—Abstract of observations taken at 10 hrs. and 16 hrs. at 35 stations in India, etc., in February, 1909.

Tal

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

Number of subdivision.	Station.	Elevation of barometer cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Mean of 16 hrs.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to sea-level and gravity, 45° Lat.	Temperature of air. Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Temperature, wet- Mean minimum.	Mean 10 hrs.	Mean 16 hrs.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	I.—Burma.																				
2	Rangoon	36	29·957	29·827	·130	29·888	−·025	29·859	93·5	69·5	24·0	99·5	63·7	35·8	81·6	91·6	79·4	+ 2·1	66·5	71·0	71·6
	III.—Bengal.																				
6	Calcutta	21	30·038	·904	·134	·963	+·006	·930	85·3	60·2	25·1	93·2	52·3	40·9	75·6	84·3	71·9	+ 1·6	57·8	64·1	68·1
	IV.—United Provinces of Agra and Oudh.																				
10	Allahabad	309	29·763	·635	·128	·688	+·020	·959	81·3	51·8	29·5	96·2	40·5	55·7	70·9	80·1	65·5	+ 0·6	47·9	56·8	58·9
11	Dehra Dun	2,233	27·759	27·677	·082	27·711	+·008	·969	71·7‖	47·2	24·5	77·6	38·8	38·8	60·4	68·2	59·0‖	+ 1·4	43·7	49·4	53·0
	V.—Punjab.																				
12	Lahore	702	29·338	29·244	·094	29·282	+·001	·986	71·3	45·0	26·3	81·3	36·3	45·0	59·5	69·2	57·1	− 0·2	43·0	51·8	54·9
	VIII.—Rajputana.																				
19	Jaipur	1,431	28·619	28·506	·113	28·552	+·014	·973	78·9	50·5	28·4	87·7	37·0	50·7	69·3	77·3	63·6	− 0·6	42·3	53·2	56·5
	Udaipur	1,925	·109‖	27·999	·110	·049		·964‖	78·7	51·7	27·0	86·9	42·4	44·5	70·1	77·8	65·3		45·6	54·1	57·6
	IX.—Bombay.																				
5	Bombay	37	29·981	29·865	·116	29·917	−·016	·894	82·7	68·2	14·5	86·2	65·1	21·1	74·9	78·2	74·6	− 0·2	64·4	67·7	70·5
	XI.—Central Provinces.																				
24	Nagpur	1,017	·002	28·852	·150	28·919	+·001	·902	88·9	60·1	28·8	94·7	50·1	44·6	76·2	87·2	74·1	− 0·2	53·1	60·5	65·4
	XII.—Hyderabad.																				
29	Hyderabad	1,690	28·315	·183	·132	·242	−·012	·871	90·2	65·2	25·0	95·4	57·8	37·6	80·0	87·8	77·4	+ 0·3	59·7	65·6	65·1
	XIII.—Mysore.																				
30	Bangalore	3,021	27·011	26·885	·126	26·945	−·024	·831	87·8	60·1	27·7	92·8	55·9	36·9	77·9	85·6	73·3	+ 1·3	57·3	62·7	62·7
	Mysore	2,518	·501	27·358	·143	27·427	−·015	·841	89·0	63·6	25·4	93·1	60·0	33·1	78·1	87·6	75·6	+ 0·4	58·9	63·7	63·0
	XIV.—Madras.																				
32	Periyakulam	944	29·059	28·904	·155	28·982		·859	91·2	64·7	26·5	95·0	58·7	36·3	80·4	89·3	78·0		61·4	68·4	68·2
	Pudukkottai	318	·700	29·555	·145	29·628		·877	90·5	69·2	21·3	93·3	65·3	28·0	80·6	88·0	79·9		68·4	71·3	67·3
	Madras	22	30·004	·896	·108	·948	−·018	·902	86·6	69·5	17·1	89·4	66·2	23·2	82·1	83·2	77·1	+ 0·5	69·0	74·6	74·4
	Station in the Bay.																				
1	Port Blair	58	29·921	·817	·104	·867	−·025	·855	86·5	76·1	10·4	88·6	72·4	16·2	82·1	84·9	80·4	− 0·2	73·4	76·9	77·4
	Kashmir.																				
14	Srinagar	5,204	25·007	24·941	·066	24·970	+·033	24·941	39·3	24·3	15·0	48·8	10·1	38·7	30·3	37·1	30·0	− 3·0	22·3	28·1	34·0
	Leh	11,503	19·648	19·579	·069	19·613	+·020	19·581	30·3	7·1	23·2	40·1	−4·0	44·1	20·2	26·0	16·9	− 1·9	5·2	16·9	21·2
	Baluchistan.																				
16	Quetta	5,502	24·701	24·634	·067	24·661	+·014	24·621	52·5	30·8	21·7	68·1	19·0	49·1	43·3	50·1	41·5	− 0·7	29·9	36·9	40·5

‖ Mean of 27 days.

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

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

ions in India, etc., in February, 1909.

Vapour tension (inches of mercury). Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Humidity. From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Cloud. Mean 10 hrs.	Mean 16 hrs.	Mean of two previous columns.	Departure from normal.	Wind direction. Total number of 10 hrs. and 16 hrs. winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Wind steadiness. Average percentage.	Normal percentage.	Wind velocity. Mean velocity in miles per diem.	Normal.	Rainfall. Total rainfall for the month.	Heaviest rainfall during the month.	Station.	Number of subdivision.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
																								%	%					I.—Burma.	
·622	·514	·608	+·003	85	58	36	66	−3	3·6	4·6	4·1	+2·3	4	9	17	4	1	12		5	4	N 39° E	S 42° W	25	16	37*	91	0·71	0·71	Rangoon	2
																														III.—Bengal.	
·455	·405	·466	−·019	85	51	34	60	−6	2·2	2·4	2·3	+0·1	4	5	6	3	2	1	21	4	10	S 87° W	N 73° W	30	25	75	79	0·10	0·07	Calcutta	6
																														IV.—United Provinces of Agra and Oudh.	
·286	·224	·281	−·046	73	37	22	49	−9	1·9	3·1	2·5	+0·1	7	4	3	8	2	4	2	18	8	N 70° W	N 63° W	26	34	54*	108	0·24	0·16	Allahabad	10
·259	·219	·250	−·032	74	50	47	59	−3	4·3	4·4	4·4	0	3	10	2	4	1	1		2	4	N 6° E	S 85° W	48	29	25‡	41	1·84	0·92	Dehra Dun§	11
																														V.—Punjab.	
·288	·247	·273	−·014	85	57	36	62	0	2·8	4·0	3·4	−0·5	4	8	5	3	2	1	1	5	27	N 31° W	N 30° W	57	30	69*	53	0·61	0·20	Lahore	12
																														VIII.—Rajputana	
·211	·204	·211	−·051	53	29	21	38	−9	1·9	2·9	2·4	−0·7	1	7	7	7	4	3	6	6	15	N 28° W	N 20° W	25	33	104	91	0·09	0·04	Jaipur	19
·225	·231	·234		61	30	24	38		1·8	2·1	2·0		7	6	9	16	7	1	3	6	1	N 75° E		34		77*		0	0	Udaipur	
																														IX.—Bombay.	
·587	·616	·618	−·001	80	68	66	75	+4	1·0	0·9	1·0	−0·2		2	9	11	3			9	22	N 14° W	N 1° W	39	57	212	250	0	0	Bombay	26
																														XI.—Central Provinces.	
·344	·360	·346	+·002	62	38	28	44	+1	0·9	3·0	2·0	−0·2		10	15	11	4	4	6	4	2	N 53° E	N 42° E	32	19	81*	106	0·25	0·15	Nagpur	24
																														XII.—Hyderabad.	
·451	·339	·411	−·031	72	44	26	48	−2	1·4	4·0	2·9	+0·9	20		8	4	18	1	2	1	1	S 64° E	S 51° E	39	27	92*	98	0·05	0·05	Hyderabad.	23
																														XIII.—Mysore.	
·396	·308	·387	−·020	84	42	25	52	−2	1·4	2·7	2·1			2	14	24	6	4	2	3	1	N 85° E	S 69° E	59	59	196*	120	0	0	Bangalore	30
·416	·273	·383	−·054	75	43	21	48	−5	3·8	3·6	3·7	+0·6	3	2	14	22	11	2		1	1	N 86° E	N 87° E	68	56	153*	190	0·25	0·25	Mysore	
																														XIV.—Madras.	
·537	·411	·486		82	52	30	55		0·1	1·4	0·9		17	1	8	4	18	4	1	3		S 60° E		37		53*		1·68	1·18	Periyakulam	22
·641	·530	·620		98	61	41	68		5·0	5·0	5·0		4	7	31	7	1				6	N 38° E		73		196*		1·53	1·53	Pudukkottai	
·757	·736	·756	+·041	97	69	64	80	+2	3·7	3·1	3·4	+0·2		5	12	25	8		4	1	1	N 81° E	S 84° E	63	72	118	120	0·05	0·05	Madras	
																														Station in the Bay.	
·856	·846	·852	+·015	88	78	70	82	+3	6·3	6·4	6·4	+3·3	20	8	19	4	4				1	N 45° E	N 42° E	48	71	96*	120	2·72	1·26	Port Blair	1
																														Kashmir.	
·134	·165	·130	−·014	75	78	73	75†	−9	8·3	6·8	7·6	+1·0	11	3	2	1	13	12	4	2	8	S 5° E	S 9° W	25	8	88*	84	2·46	1·57	Srinagar	14
·071	·080	·064	−·003	69	64	56	66	+2	5·6	7·1	6·4	−0·4		1	8	8	4	24	10			S 19° E	S 9° W	52	25	31‖	31	0·24	0·19	Leh¶	
																														Baluchistan	
·157	·156	·167	−·004	91	57	48	68	+1	4·6	4·8	4·7	+0·5	22	6	1	1	4	3	1	10	8	N 64° W	N 84° W	23	30	68*	84	2·86	1·13	Quetta	16

* Corrected. † Mean of three previous columns. ‡ Mean of 15 days.

r plateau stations, the elevations of which exceed 3,000 feet.

¶ Wind observations less 1.

‖ " "

Ta

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

Number of subdivision.	Station.	Elevation of barometer above sea-level, in feet.	Pressure. Mean of 10 hrs.	Mean of 16 hrs.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to sea-level and gravity, 45° Lat.	Temperature of air. Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Temperature, wet-b Mean minimum.	Mean 10 hrs.	Mean 16 hrs.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
	Hill Stations, excluding Kashmir and Baluchistan.																					
	Simla	7,224	23·106	23·058	·048	23·075	—·002	23·037	47·1	35·6	11·5	54·5	25·9	28·6	42·3	44·5	41·1	+0·5	30·8§	35·2	37·7	3
	Sarain		·184	·122	·062	·141		·103	45·9	27·8	18·1	55·4	18·3	37·1	42·4	37·4	36·7			36·3	34·4	
	Kalabagh								Register not received.													
	Chakrata	7,022	23·330	23·275	·055	23·287	+·032	23·246	52·7	35·2	17·5	61·9	27·7	34·2	43·6	45·7	43·7	+0·2	31·7‖	37·5	39·3	3
	Muktesar	7,592	22·863	22·804	·059	22·827		22·785	52·1	35·1	17·0	59·5	25·8	33·7	44·4	47·2	43·4		30·0	37·3	39·6	3
	Katmandu	4,388	25·733	25·615	·118	25·671	+·023†	25·625	68·8	36·6	32·2	78·3	30·2	48·1	55·4	65·1	52·5	0†	35·1	47·5	50·9	4
	Darjeeling	7,376	23·030	22·990‖	·040	23·007	+·018	22·963‖	51·2	36·4	14·8	62·4	29·7	32·7	45·1	48·2	43·6	+2·0	34·7	41·2	43·8	3
	Pachmarhi	3,528	26·534	26·460	·074	26·488	—·011	26·425	76·5	51·6	24·9	83·7	39·1	44·6	64·9	74·0	63·9	+0·6	45·7	53·3	57·4	5
	Mount Abu	3,945	·136	·061	·077	·090	—·004	·041	68·1	52·8	15·3	74·4	42·9	31·5	63·7	65·4	60·2	—0·6	42·5	48·1	48·8	4
	Chikalda	3,642	·428	·325	·103	·368	—·034	·312	79·0	58·4	20·6	84·7	52·1	32·6	69·9	76·2	68·5	0	49·4	55·3	58·6	5
	Ootacamund	7,322	23·084	23·009	·075	23·037		22·973	65·7	42·6	23·1	70·5	37·7	32·8	61·3	62·4	54·0		41·0	51·6	54·1	4
	Kodaikanal	7,688	22·861	22·795	·066	22·822		·763	65·5	47·1	18·4	70·7	43·0	27·7	59·5	59·8	56·2		40·0	47·2	52·5	4
	Dodabetta	8,539	·076	·029	·047	·042		21·979	57·4	42·5	13·9	62·4	39·8	22·6	52·3	55·5	50·2		39·7	44·6	47·7	4
	Extra India.																					
	Minicoy	7	30·010	29·898	·112	29·956																
	Zanzibar	72	29·906	·786	·120	·848	+·002	29·846	87·3	79·2	8·1	89·8	76·0	13·8	82·9	87·0	82·3	—0·4	74·0	76·9	77·1	76
	Diego Garcia								Register not received.													
	Seychelles	15	·965§	·878	·087	·930	+·001†	·869§	83·3	76·8	6·5	86·5	74·4	12·1	81·0	81·5	79·0	—0·1†	71·8	76·4	76·6	75
	Mauritius	181				·723	—·018	·848				88·5	69·6	18·9			79·1	+0·6				75

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

§ Mean of 27 days. ‖ Mean of 25 days.

—concluded.

tations in India, etc., in February, 1909—concluded.

Vapour tension, in inches of mercury.					Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity.		Rainfall.		Station.	Number of subdivision.
														Total number of 10 hrs. and 16 hrs. winds from																		
From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean 10 hrs.	Mean 16 hrs.	Mean of two previous columns.	Departure from normal.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.		
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
																									%	%						
																															Hill Stations, excluding Kashmir and Baluchistan.	
·126§	·134	·160	·150	—·009	63§	51	56	60	− 1	4·7	5·4	5·1	−0·6																2·92	1·22	Simla.	
	·156	·172				59	77			5·2	5·5	5·4		12	6	6	5	1	14	9	3		S 3° E		20		51*		8·96**	3·62	Sarain.	
						Reg	ister	not	recei	ved.																					Kalabagh.	
151‖	·163	·176	·173	0	75‖	59	59	37	+ 1	4·4	4·3	4·4	−0·5	13	13	1		4	22	1	1	1	S 6° E	S 6° W	20	4	132*	151	5·75	2·07	Chakrata.	
121	·152	·170	·158		59	53	53	58		4·6	5·3	5·0		23		3	2	8	4	4	12		S 25° W		21		152*		1·37	0·30	Muktesar.	
191	·242	·214	·226	—·034	87	54	35	62	− 7	1·3	3·2	2·3	−1·2		5	2	18				31		N 61° W	N 87° W	23	47	22	39	0·29	0·24	Katmandu.	
186	·223	·244	·228	+·005	86	74	72	80	− 3	4·8	6·1	5·5	−1·5	7		3		1		23	9	13	S 80° W	S 83° W	57	31	94*	132	0·22	0·22	Darjeeling.	
248	·281	·292	·278	+·018	64	45	34	52	+ 3	0·4	1·0	0·7	−1·6	5	5	3	7	5	5	8	2	16	N 58° W	N 69° W	14	25	123*	106	0·50	0·44	Pachmarhi.	
162	·162	·159	·165	—·023	40	28	25	35	+ 1	2·1	2·9	2·5	+0·1		6	19		5	3	8	5	10	N 4° W	N 66° W	26	28	168*	146	0·01	0·01	Mount Abu.	
254	·274	·292	·277	+·004	51	37	32	44	+ 1	2·6	3·9	3·2	+1·5	1	3	2		13	5	24		8	S 30° W	N 81° W	43	24	173*	156	0·23	0·13	Chikalda.	
243	·284	·235	·302		88	53	59	70		2·8	4·3	3·6		2	6	15	16	7	3		1	6	N 65° E		52		80*		0	0	Ootacamund.	
191	·205	·324	·240		59	41	63	54		2·4	4·4	3·4			15	7	8	8	4	1	2	11	N 25° E		34		306		0·08	0·08	Kodaikanal.	
209	·216	·251	·240		74	55	57	65		2·0	3·9	3·0			21	18	7	2	4		1	3	N 26° E		74		361*		0	0	Dodabetta.	
																															Extra India.	
										1·6	1·6	1·6			37	17						2	N 12° E		93		107*		0	0	Minicoy.	
771	·845	·799	·822	—·048	77	75	62	73	− 4	5·9	3·9	4·9	+0·3	3	15	24	8	2	1	2	1	2	N 35° E	N 32° E	64	55	148*	161	1·32	1·05	Zanzibar.	
						Reg	ister	not	recei	ved.																					Diego Garcia.	
722	·855	·855	·834	—·008	78	80	79	82	− 1	6·8	7·6	7·2	+0·7†	26	8	4	1	1		1	5	10	N 27° W	N 21° W	32	53	98	147	16·65	3·19	Seychelles.	
			·813	+·056				82	+ 4			7·1	+0·8										N 80° E	S 81° E			175	264	7·60	2·43	Mauritius.	

† Departures from old normals.

* Corrected.

** Snow water.

Table B.—Abstract of observations taken at 8 hrs. at 240 stations in India, etc., in February, 1909.

(1) Provincial means.

(2) Data of stations.

Provincial means based on the material in Table B (2) except that the statement of rainfall depends on the complete data of about 2,700 stations.

	Pressure departure from normal.	Temperature of air.								Wind.		Hygrometry.				Cloud.		Rainfall.		
		Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Absolute range during month.	Departure of velocity from normal.	Departure of steadiness from normal.	Mean humidity.	Departure from normal.	Mean vapour tension.	Departure from normal.	Mean cloud amount.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.
a	—·015	88·0	—0·3	62·6	+1·4	75·4	+0·6	25·4	38·1	—0·5	+ 2	81	+ 2	·561	+·020	3·0	+1·3	0·21	0·18	+0·03
ern Bengal and Assam . .	+·016	80·9	+1·8	53·7	—1·6	67·3	+0·1	27·2	43·8	—0·7	+ 1	80	— 6	·421	—·042	2·0	—0·9	0·28	1·16	—0·88
al	+·016	82·6	+0·4	56·5	—0·6	69·6	—0·1	26·1	44·2	—0·7	— 1	69	— 3	·403	—·030	2·1	0	0·33	0·74	—0·41
d Provinces of Agra and dh.	+·025	78·1	+1·1	49·4	—1·4	63·8	—0·2	28·7	48·1	—0·6	—11	62	—10	·283	—·047	2·3	—0·4	0·29	0·66	—0·37
ab	+·034	71·3	—0·6	45·0	—1·8	58·2	—1·2	26·4	44·7	+0·4	+ 7	70	— 4	·255	—·038	3·3	—0·4	0·91	0·97	—0·06
-West Frontier Province .	+·010	67·7	—1·3	41·9	—1·9	54·8	—1·6	25·8	46·3	—0·9	—12	66	— 8	·215	—·042	3·8	—0·2	2·11	1·34	+0·77
. . . . .	+·019	79·3	+0·2	53·6	—1·4	66·5	—0·6	25·8	42·1	—0·8	+24	58	— 3	·298	—·021	3·0	+0·2	0·07	0·25	—0·18
tana	+·027	78·4	—0·2	49·0	—2·1	63·8	—1·2	29·4	49·4	+0·2	+ 9	47	— 7	·207	—·050	2·1	—0·9	0·07	0·22	—0·15
ay	—·005	86·0	—0·1	61·2	—0·1	73·7	—0·1	25·1	39·1	—0·2	— 4	56	— 2	·398	—·019	1·3	+0·2	0·02	0·09	—0·07
al India	+·011	80·3	—0·8	52·3	+0·4	66·3	—0·2	28·0	49·1	—1·0	+16	52	— 5	·276	—·024	2·6	+0·9	0·19	0·41	—0·22
al Provinces . . .	+·004	85·4	—0·9	58·3	+1·2	71·9	+0·1	27·2	45·6	+0·6	+10	49	— 4	·307	—·016	1·8	+0·2	0·46	0·34	+0·12
abad	—·002	90·7	0	64·6	+1·5	77·6	+0·8	26·1	40·4	—1·6	+26	54	— 1	·444	+·023	1·9	+1·1	0·05	0·17	—0·12
e	—·011	88·5	+0·9	62·4	+0·9	75·5	+1·0	26·0	35·4	+0·7	+13	64	— 1	·469	—·004	2·5	+0·7	0·04	0·04	0
s	—·005	88·7	—0·5	69·7	+0·5	79·2	0	19·0	27·0	+0·4	+ 2	76	0	·667	—·004	3·2	+0·7	0·23	0·41	—0·18

Table

(2) *Abstract of observations taken at 8 hrs., at 240*

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches.								Temperature of air.												
			Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	I.—Burma.																						
2	Mergui	56	29·904	—·023	29·891	29·971	14th	29·835	24th	·136	76·2	89·0	—0·6	72·0	+2·9	80·5	+1·2	17·0	91·9	18th, 24th & 28th.	67·7	14th	24·2
	Tavoy	19	29·950	—·035	29·901	30·013	6th	29·835	21st	·128	74·2	91·6	+0·5	71·6	+4·8	81·6	+2·7	20·0	97·0	8th	65·8	9th	31·2
	Moulmein	94	29·886†	—·007†	29·919†	29·957	12th	29·813	24th	·144	73·7	92·4	+0·9	70·6	+2·9	81·5	+1·9	21·8	97·5	27th	65·8	2nd & 3rd	31·7
	Rangoon	36	29·934	—·029	29·906	30·002	11th	29·853	21st	·149	72·2	93·4	+0·6	69·3	+3·4	81·4	+2·0	24·1	93·6	28th	63·9	11th	35·7
	Bassein	27?	29·916	—·016	29·911	30·013	13th	29·872	24th	·141	71·7	90·8	+0·8	68·0	+3·1	79·4	+2·0	22·8	97·2	27th	62·9	10th & 11th.	34·3
	Diamond Island	41	29·937	—·023	29·913	30·010	11th	29·860	24th	·150	77·5	85·0	+0·8	73·9	+1·6	79·5	+1·2	11·1	88·4	19th	71·7	1st & 2nd.	16·7
	Toungoo	164	29·812†	—·028†	29·924†	29·900	12th	29·744	21st	·156	66·2	89·6	—1·3	61·2	+0·1	75·5	—0·6	28·4	96·5	27th&28th	55·8	5th&10th	40·7
	Kyaukpyu	18	29·970		29·928	30·054	10th	29·884	24th & 25th.	·170													
	Akyab	20	29·972	—·022	29·935	30·056	10th	29·888	24th	·168	63·4	84·4	—0·4	60·9	—0·6	72·7	—0·5	23·5	91·9	28th	54·5	4th, 6th & 11th.	37·4
3	Thayetmyo	121	29·859†	—·003†	29·926†	29·964	11th	29·780	21st	·184	67·8	92·1	—0·5	58·8	+1·9	75·5	+0·7	33·3	100·0	27th	51·9	1st & 22nd	48·1
	Minbu	*165*	29·818	+·004	29·933	29·920	11th & 12th	29·741	21st	·179	67·4	89·3†	—2·3†	62·1	+0·9	75·8†	—0·7†	27·2	98·3	27th & 28th.	55·0	9th	43·3
	Yamethin	657	29·288	—·014	29·919	29·382	12th	29·214	1st	·168	67·3	91·1	—1·4	60·4	—0·2	75·8	—0·8	30·7	99·3	27th	54·0	5th, 6th & 12th.	45·3
	Mandalay	250	29·729‡	+·006	29·939	29·839	12th	29·637	1st	·202	66·3	90·0	+0·1	60·1	0	75·1	+0·1	29·9	100·0	27th	51·9	21st	48·1
	Monywa	*280*	29·715		29·934‡	29·787	13th	29·634	2nd	·153	63·7	88·7		60·2		74·5		28·5	97·8	27th & 28th.	54·6	5th & 6th	42·2
	Lashio	*2,751*	27·179	0	27·125	27·254	11th	27·095	1st	·159	55·3	78·6	—0·4	48·6	—0·1	63·6	—0·3	30·0	85·3	27th	42·0	6th	43·3
	Bhamo	*381*	29·637?	+·043?	29·999?	29·739	11th	29·535	21st	·204	56·8	81·2	—1·0	51·7	—1·4	66·5	—1·2	29·5	88·9	27th&28th	44·6	12th	44·3
	Myitkyina	458	29·544		29·985	29·651	11th	29·430	21st	·221	59·9	80·9		52·8		66·9		28·1	88·7	26th	46·0	12th	42·7
	II.—Eastern Bengal and Assam.																						
4	Dibrugarh	353	29·649		29·982	29·768	11th	29·512	21st	·256	57·2	73·8		54·2		64·0		19·6	81·4	25th & 28th.	48·1	12th	33·3
	Sibsagar	333	29·725†	+·016†	30·035†	29·875	11th	29·559	21st	·316	56·7	73·9	+0·8	52·3	—1·0	63·1	—0·1	21·6	81·6	28th	45·2	11th & 12th.	36·4
	Tezpur	252	29·773		29·999	29·911	11th	29·590	21st	·321	57·4	79·1		55·0		67·1		24·1	86·6	27th	47·9	3rd	38·7
	Gauhati	195	29·856		30·021	29·989	11th	29·63[illegible]	21st	·324	56·2	81·4		49·9		65·6		31·5	90·5	27th & 28th.	40·6	2nd	49·9
	Dhubri†	115	29·929	+·035	30·008	30·056	11th	29·770	21st	·286	58·2	79·8	+1·8	54·6	—1·4	67·2	+0·2	25·2	88·5	27th	46·8	2nd & 3rd	41·7
	Silchar	104	29·958	+·025	30·021	30·079	11th	29·852	24th	·227	60·6	82·5	+1·8	53·3	—2·3	67·9	—0·3	29·2	91·3	25th	46·8	9th	44·5
5	Cox's Bazar	36	29·973		29·953	30·080	12th	29·872	25th	·208													
	Chittagong	87	29·937	+·007	29·977	30·027	11th	29·843	24th & 25th.	·184	63·1	83·1	+0·8	56·8	—2·2	70·0	—0·7	26·3	91·5	27th	49·0	4th	42·5
	Noakhali	43	29·990		29·982	30·089	11th	29·886	21st	·203	62·0	82·0		55·3		68·7		26·7	90·3	28th	47·9	3rd & 12th.	42·4
	Barisal	12	30·009	+·009	29·968	30·119	11th	29·889	21st	·230	65·5	82·7	+1·0	57·8	—1·9	70·3	—0·5	24·9	90·3	25th	50·1	12th	40·2
	Comilla	36	29·994		29·978	30·099	11th	29·879	21st	·220	63·5	81·8		55·1		70·0		29·7	92·8	25th & 27th.	47·3	3rd	45·5
	Narayanganj	26	30·003†	+·015†	29·973†	30·120	11th	29·884	21st	·236	61·7	82·1	—0·1	56·6	—2·0	69·4	—1·1	25·5	89·5	27th & 28th.	49·8	3rd	39·7
	Faridpur	46	29·991		29·988	30·104	11th	29·855	21st	·249	62·1	82·5		54·0		68·3		28·5	91·3	25th	45·4	3rd	45·9
	Sirajganj	49	29·998		29·999	30·109	11th	29·860	24th	·249	60·0	81·7		54·0		67·8		27·7	91·4	25th	44·3	3rd	47·1
	Mymensingh	63	29·968	+·012	29·986	30·079	11th	29·837	21st	·242	60·7	81·4	+3·0	55·0	—0·6	68·2	+1·2	26·4	89·6	25th	47·1	2nd, 3rd & 8th.	42·5
	Bogra	75	29·966†	+·035†?	29·997†	30·065	6th	29·807	25th	·258	62·5	83·4†	+3·2†	52·0	—1·5	68·3†	+0·9†	30·4	93·7	24th	45·2	8th	48·5
	Rampur Boalia	70	29·973		29·996	30·107	11th	29·815	24th	·292	61·8	83·3		54·1		68·7		29·2	92·1	24th	45·1	3rd	47·0
	Malda	72	29·961†		29·989†	30·089	11th	29·802	21st	·287	60·4	81·8		52·3		67·1		29·5	91·3	24th	42·5	2nd	48·8
	Dinajpur	123	29·898†	+·017†	29·985†	30·018	11th	29·739	21st	·279	55·9	82·7	+3·3	50·3	—2·8	66·5	+0·3	32·4	91·8	27th	40·0	3rd	51·8
	Rangpur	123	29·919†		30·005	30·046	11th	29·755	21st	·291	58·8	79·8		48·8		64·3		31·0	88·6	27th	40·0	3rd	48·6

† Mean of 27 days.
‡ " " 24 "

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

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

ations in India, etc., in February, 1909.

Wind direction.											Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Number of winds from									Resultant direction.	Normal direction.	Mean velocity in miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 28th Feb. 1909.	Normal rainfall for period 1st Dec. to 28th Feb.	Departure from normal of period, 1st Dec. 1908 to 28th Feb. 1909.		
N.E.	E.	S.E.	S.	S.W.	W.	N.W.																										
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57		
																																I.—Burma.
1			2	3	9	6	N 64° W	N 8° W		2·1		56	+ 9	90	+ 7	·801	+ ·047	2·0	−1·6	7	2·80	+4·20	6·61	1·73	+4·91	8·81	3·02	+5·79	2·60	Mergui.
							(a)	N 51° W	1·0*	1·4	−0·4			92	+ 4	·781	+ ·087	2·3	−0·1	1	0·80	+0·20	1·28	0·65	+0·63	1·32	0·92	+0·40	1·21	Tavoy.
6	4	1			1		N 55° E	N 84° E	2·1	2·3	−0·2	36	−12	88	+ 4	·733	+ ·057	5·4	+4·1	2	0·50	+1·50	0·25	0·25	0	0·25	0·66	− 0·41	0·13	Moulmein.
10	2					1	N 28° E	S 67° W	3·9	3·8	+0·1	63	+16	80	− 5	·634	+ ·001	3·4	+2·2	1	0·40	+0·60	0·71	0·31	+0·40	0·75	0·52	+0·23	0·71	Rangoon.
					3	5	N 45° W	N 43° W	3·9†	4·5	−0·6	36	−23	88	+ 1	·689	+ ·020	2·0	0	2	0·30	+1·70	0·44	0·29	+0·15	0·44	0·56	−0·12	0·26	Bassein.
4	2					7	N	N 90° W	9·5	8·8	+0·7	70	− 5	77	+ 1	·736	+ ·037	3·5	+1·2	2	0·40	+1·60	0·38	0·07	+0·31	0·38	0·98	−0·60	0·28	Diamond Island.
4							N 19° E	N 6° E	1·4	1·9	−0·5	32	− 3	92§	+ 8	·611§	+ ·056	3·5	+2·2	1	0·30	+0·70	0·20	0·15	+0·05	0·20	0·40	−0·20	0·12	Toungoo.
9	2		7				N 49° E		3·3*			36						1·9		1			0·10			0·10			0·10	Kyaukpyu.
13	1					1	N 29° E	N 24° E	4·2‖	3·5	+0·7	67	−16	86	+ 4	·504	−·036	2·0	+0·8	0	0·30	−0·30	0	0·12	−0·12	0	0·83	−0·88	0	Akyab.
18	1			1		2	N 35° E	N 53° W	4·0	3·5	+0·5	70	+27	68	+ 2	·463	+ ·022	3·0	+2·4	0	0·10	−0·10	0	0·04	−0·04	0	0·21	−0·21	0	Thayetmyo.
				1	4	16	N 52° W	N 70° W	2·9	6·3	−3·4	70	+52	63	− 1	·422	−·022	3·8	+3·0	0	0·10	−0·10	0·05	0·03	+0·02	0·05	0·66	−0·61	0·05	Minbu.
		4				6	N 15° W	S 63° E	1·7	3·1	−1·4	18	+ 6	70	0	·465	−·002	3·3	+2·6	0	0·30	−0·30	0	0·38	−0·38	0	0·95	−0·95	0	Yamethin.
							N	S 30° W	2·0	2·4	−0·4	4	− 7	70	+ 1	·445	− ·010	2·7	+1·6	0	0·30	−0·30	0·01	0·05	−0·04	0·01	0·39	−0·3	0·01	Mandalay.
						2	N 4° W		2·1			67		77		·458		2·1		0	0	0	0	0	0	0	0·15	−0·15	0	Monywa.
1				1			(a)		3·4					83	+ 1	·367	+ ·015	3·5	−0·9	0			0	0·29	−0·29	0·18	1·34	−1·16	0	Lashio.
1					1		N 23° W	N 18° W	1·2	2·8	−1·6	3	−21	93	+ 6	·439	+ ·005	3·2	+0·4	0	1·10	−1·10	0·01	0·39	−0·38	0·40	1·53	−1·13	0·01	Bhamo.
8	5		1				N 58° E		2·4*			46		82		·425		2·6		0			0			0·15			0	Myitkyina.
																																II.—Eastern Bengal and Assam.
	1		1				S 45° E		1·0			4		91		·438		4·0		1	6·70	−5·70	0·47	2·56	−2·09	4·76	4·89	−0·13	0·23	Dibrugarh.
11		2				1	N 43° E	N 48° E	1·8	2·3	−0·5	42	+ 6	89	− 9	·422	−·036	4·9	−1·0	3	4·90	−1·90	1·05	1·98	−0·93	2·73	3·86	−1·13	0·61	Sibsagar.
2	5						N 78° E		2·7			21		88		·420		2·8		0	2·60	−2·60	0·08	0·87	−0·79	0·36	1·95	−1·59	0·06	Tezpur.
	1			1	1		S 45° W		1·5			4		87		·402		6·5		0	1·30	−1·80	0·10	0·73	−0·63	0·14	1·61	−1·47	0·09	Gauhati.
5	8	3		2			N 85° E	N 67° E	4·9	4·3	+0·6	44	+13	80	− 4	·397	−·030	0·3	−1·9	1	1·20	−0·20	0·16	0·48	−0·32	0·16	0·98	−0·82	0·16	Dhubri.
		6					S 45° E	S 63° E	3·1	2·4	+0·7	21	+13	84	− 3	·455	−·037	1·1	−2·6	0	3·70	−3·70	0·08	2·31	−2·23	1·04	3·49	−2·45	0·06	Silchar.
7	7					1	N 30° E		2·8			79						1·7		0			0			0			0	Cox's Bazar.
13	1						N 48° E	N 45° E	1·2	3·9	−2·7	49	− 6	76	− 8	·446	−·077	2·0	−0·3	0	1·39	−1·39	0	0·98	−0·98	0	2·13	−2·13	0	Chittagong.
10	1	1	1			1	N 31° E		2·3			54		81		·455		1·4		0	1·81	−1·81	0	1·00	−1·00	0·01	1·82	−1·81	0	Noakhali.
3	1		1	1		4	N 3° W	N 13° W	1·4	2·1	−0·7	33	+25	78	− 7	·498	−·061	1·6	−0·8	0	1·77	−1·77	0·02	1·04	−1·02	0·05	2·31	−2·26	0·02	Barisal.
1	1	1					E		1·1			9		78		·464		0·2		0	2·18	−2·18	0	0·97	−0·97	0·11	1·73	−1·62	0	Comilla.
2		2		1		1	N 52° E	N 27° W	1·5	2·9	−1·4	4	− 4	77	− 7	·431	−·080	0·6	−2·4	0	2·12	−2·12	0·06	1·28	−1·22	0·11	1·82	−1·71	0·06	Narayanganj.
		1	4			1	(a)		1·6					80		·459		1·3		1	2·00	−1·00	0·45	1·32	−0·87	0·62	1·89	−1·27	0·41	Faridpur.
			1	1	2	5	N 56° W		1·6			29		79		·418		2·9		1	1·57	−0·57	1·37	0·91	+0·46	1·79	1·49	+0·30	1·30	Sirajganj.
2	6	3			1	2	N 76° E	N 74° E	1·4	1·9	−0·5	25	− 6	78	− 7	·420	−·037	3·8	+1·7	1	1·48	−0·48	0·13	1·03	−0·90	0·71	1·58	−0·37	0·13	Mymensingh.
					1	1	N 33° W	N 27° W	1·2	2·4	−1·2	13	+ 3	66†	−13	·385†	−·036	0·8	−1·0	0	1·52	−1·52	0·06	0·85	−0·79	0·14	1·44	−1·30	0·04	Bogra.
						1	N 45° W		1·1			4		70	•	·397		1·0		3	1·35	+1·65	0·37	0·84	−0·47	0·65	1·25	−0·60	0·15	Rampur Boalia.
1			1	2	3	7	N 56° W		3·4*			39		74		·398		1·4		3	1·23	+1·77	1·18	0·75	+0·43	1·33	1·67	−0·34	0·57	Malda.
2	1		2	1	7	2	N 73° W	N 83° W	2·6	3·6	−1·0	25	− 4	79	− 1	·359	−·034	1·5	0	2	1·39	+0·61	0·55	0·37	+0·18	0·55	0·92	−0·37	0·38	Dinajpur.
	1				3	4	N 51° W		0·8			25		78		·395		0·4		1	1·13	−0·13	0·22	0·43	−0·21	0·23	1·01	−0·78	0·16	Rangpur.

(a) Indeterminate. § Mean of 25 days. ‖ Mean of 26 days. * Uncorrected.

Tabl

(2) *Abstract of observations taken at 8 hrs., at 240 station*

Number of subdivision.	Station.	Elevation of barcistern above sea-level in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
.	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	II.—Eastern Bengal and Assam—*concld.*																						
5	Jalpaiguri	283	29·736*	+·010*	29·998*	29·874	11th	29·589	21st	·285	56·4	79·3	+2·8	52·4	—0·4	65·9	+1·2	26·9	86·4	27th	43·4	7th	43·0
	Cooch Behar	156	29·882		30·004	30·013	11th	29·726	21st	·287	56·8	78·1		52·2		65·2		25·9	85·3	27th	43·6	7th	41·7
	III.—Bengal.																						
6	Sangor Island	25	30·000	+·009	29·970	30·106	11th	29·870	25th	·236	68·3	82·0	+0·8	64·2	—1·3	73·1	—0·3	17·8	92·0	28th	56·5	3rd	35·5
	Midnapore	149	29·874		29·976	29·973	11th	29·734	21st	·239	66·3	86·9		61·3		74·1		25·6	96·3	22nd & 25th.	53·7	3rd	42·6
	Calcutta	21	30·014	+·011	29·982	30·121	11th	29·873		·248	64·3	84·8	+2·8	60·1	—0·3	72·4	+1·3	24·7	93·2	25th & 27th.	52·0	9th	41·2
	Jessore	33	29·993	+·008	29·974	30·111	11th	29·848	21st	·263	63·5	83·5	+0·4	59·9	+2·6	71·7	+1·5	23·6	93·0	25th	51·2	3rd	41·8
	Krishnagar	47	29·983		29·982	30·101	11th	29·833	21th	·268	58·6	84·5		54·6		69·6		29·9	94·1	25th	44·0	3rd	50·1
	Burdwan	99	29·933	+·012	29·985	30·049	11th	29·780	21st	·269	65·0	85·5	+1·7	59·3	+0·7	72·4	+1·2	26·2	95·4	25th	49·8	3rd	45·6
	Bankura	313	29·706*		29·983*	29·832	11th	29·537	21st	·295	66·1	85·0		59·6*		72·2*		25·4	94·1	24th & 25th.	51·2	2nd & 3rd.	42·9
	Raniganj	334	29·698		30·004	29·821	11th	29·548	21st	·273	62·1	84·0		57·3		70·7		26·7	93·5	24th	50·0	2nd	43·5
	Berhampore	67	29·972	+·018	29·991	30·098	11th	29·816	24th	·282	61·2	82·9	+0·9	56·7	+0·2	69·8	+0·6	26·2	91·6	24th & 28th.	47·7	3rd	43·9
	Naya Dumka	489	29·548*		30·024*	29·668	11th	29·376	21st	·292	62·9	81·4		55·7		68·6		25·7	90·9	23rd	46·5	3rd	44·4
7	Balasore	50	29·985	+·014	29·981	30·097	11th	29·847	25th	·250	66·3	84·5	—0·9	61·5	—0·4	73·0	—0·7	23·0	93·4	26th	55·1	3rd	38·3
	False Point	21	30·018	+·017	29·981	30·121	11th	29·894	25th	·227	70·4	81·9	—0·9	62·7	—2·1	72·3	—1·5	19·2	86·1	28th	57·6	4th & 12th.	28·5
	Cuttack	80	29·947	+·010	29·974	30·046	11th	29·827	24th	·219	68·4	86·9	—3·2	65·6	—0·1	76·3	—1·7	21·3	95·9	25th	62·2	14th	33·7
	Puri	24	29·990		29·953	30·091	11th	29·868	25th	·223	72·7	83·4*		68·5		75·9*		14·9	86·6	18th & 24th.	61·1	6th	25·5
	Angul	455	29·558		29·990	29·660	11th	29·436	24th	·224	67·9	87·5		62·3		75·0		25·2	96·1	25th & 26th.	56·0	9th	40·1
	Sambalpur	486	29·535	+·007	29·988	29·628	11th	29·401	24th	·227	67·8	87·4	—0·6	61·4	+1·5	74·4	+0·5	26·0	96·1	27th	53·6	9th	42·5
8	Chaibassa	*733*	29·273	+·015	29·995	29·385	11th	29·127	21st	·258	61·4	84·2	—1·0	58·8	+0·5	71·5	—0·3	25·4	95·3	26th	51·7	2nd & 3rd.	43·6
	Ranchi	2,128	27·868	+·031	30·025	27·978	11th	27·743	21st	·235	61·3	78·4	+0·2	56·0	+1·2	67·3	+0·7	22·4	87·7	24th	47·4	2nd	40·3
	Purulia	*816*	29·190		29·994	29·306	11th	29·029	21st	·277	61·8	84·2		58·4		71·3		25·8	93·5	24th	50·6	1st	42·9
	Hazaribagh	2,007	27·983	+·023	30·013	28·087	11th	27·847	21st	·240	62·9	77·3	+0·7	54·3	—0·2	65·8	—0·5	23·0	87·7	24th	46·3	7th	41·4
	Daltonganj	*730*	29·316		30·049	29·432	11th	29·164	21st	·268	57·0	80·9		51·3		66·1		29·6	93·1	24th	42·0	1st	51·1
9	Purnea	123	29·914	+·029	30·000	30·056	11th	29·750	21st	·306	53·3	81·7	+2·6	48·0	—3·4	64·9	—0·4	33·7	90·5	24th	37·7	2nd	52·8
	Bhagalpur	160	29·883		30·003	30·015	11th	29·710	21st	·305	63·8	82·8		54·2		68·5		28·6	93·2	24th	43·8	1st	49·4
	Monghyr	155	29·889		30·005	30·025	11th	29·701	21st	·324	63·6	80·5		55·8		68·1		24·7	91·9	24th	46·9	7th	45·0
	Darbhanga	165	29·864	+·021	29·998	29·995	11th	29·698	21st	·297	56·4	81·4	+4·6	48·2	—6·2	64·8	—0·8	33·2	91·6	24th	38·8	2nd	52·8
	Pusa	188	29·843		29·998	29·974	11th	29·654	21st	·320	56·0	82·6		48·0		65·3		34·6	93·0	24th	37·9	6th	55·1
	Muzaffarpur	178	29·863		30·008	29·997	11th	29·693	21st	·304	58·6	80·7		49·3		65·0		31·4	90·7	24th	38·5	6th	52·2
	Motihari	224	29·804		30·006	29·934	11th	29·652	21st	·282	51·1	80·7		47·0		63·9		33·7	90·9	24th	35·8	6th	55·1
	Chapra	181	29·853		30·001	29·985	11th	29·696	21st	·289	56·6*	79·2		51·8		65·5		27·4	91·7	24th	42·9	6th	48·8
	Patna	183	29·852	+·016	29·998	29·985	11th	29·686	21st	·299	61·3	77·9	—0·3	53·0	—0·6	65·5	—0·5	24·9	88·5	24th	43·2	7th	45·3
	Arrah	190	29·847		30·003	29·979	11th	29·684	21st	·295	57·4	80·9*		51·1		66·1*		29·8	91·9	24th	43·2	2nd	48·7
	Buxar	239	29·799		30·009	29·921	11th	29·637	21st	·284	58·8	80·1		53·1		66·6		27·0	92·0	24th	43·1	1st, 2nd & 6th.	48·9
	Delhi	351	29·677		30·002	29·800	11th	29·514	21st	·286	62·3	81·2		58·0		69·6		23·2	93·3	24th	50·0	1st	43·3
	Gaya	372	29·661	+·016	30·010	29·791	11th	29·507	21st	·284	61·3	81·1	—0·2	55·1	—1·1	68·1	—0·7	26·0	93·4	24th	46·7	1st	46·7
	IV.—United Provinces of Agra and Oudh.																						
10	Gorakhpur	257	29·757	+·018	29·988	29·834	11th	29·614	21st	·270	57·9	80·7	+2·7	49·1	—3·5	64·9	—0·4	31·6	90·6	24th	39·5	2nd	51·1
	Benares	267	29·772	+·024	30·011	29·892	11th	29·604	21st	·288	59·4	80·2	—0·2	50·7	—1·3	65·5	—0·8	29·5	92·1	24th	41·1	1st	53·0
	Allahabad	309	29·729	+·022	30·011	29·848	11th	29·552	21st	·296	59·5	80·7	+0·5	51·6	—0·2	66·2	+0·2	29·1	96·1	24th	40·5	6th	55·6

N.B.—Elevations in italics indicate barometrical determinations. * Mean of 27 days.

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

continued.

India, etc., in February, 1909—continued.

Wind direction. Number of winds from N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity in miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 28th Feb. 1909.	Normal rainfall for period 1st Dec. to 28th Feb.	Departure from normal of period, 1st Dec. 1908 to 28th Feb. 1909.	Heaviest rainfall during month.	Station.
7	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																														II.—Eastern Bengal and Assam—*concld.*
2	1	1			1	1	N 31° E	N 40° E	3·6			7	−26	84	− 2	·390	+ ·008	1·3	−0·2	1	1·03	−0·93	0·72	0·45	+ 0·27	0·92	0·99	− 0·07	0·65	Jalpaiguri.
1	5		2		1		S 79° E		1·5			18		86		·402		1·4		0	1·21	− 1·21	0·14	0·42	− 0·28	0·18	0·93	− 0·75	0·07	Cooch Behar.
																														III.—Bengal.
8			3	3		3	N 6° E	N 3° W	7·9	8·7	−0·8	49	+25	87	+ 1	·610	−·032	3·0	−0·2	1	1·74	− 0·74	0·28	1·12	− 0·84	0·30	1·66	− 1·36	0·26	Saugor Island.
3	1	1	4			3	N 11° E		2·2			36		67		·434		3·1		1	1·77	− 0·77	0·37	1·09	− 0·72	1·87	1·84	+ 0·03	0·30	Midnapore.
2	1	2	2	4		8	N 50° W	S 46° W	3·1†	3·3	−0·2	25	+ 9	81	0	·491	−·023	2·5	+0·3	0	1·61	− 1·61	0·10	1·00	− 0·90	0·10	1·54	− 1·44	0·07	Calcutta.
1						2	N 18° W	N 18° W	0·9	2·0	−1·1	7	− 5	73	−10	·450	−·052	0·6	−1·7	0	1·77	− 1·77	0	1·16	− 1·16	0	1·80	− 1·80	0	Jessore.
	1		1	1		1	W		1·4			1		82		·414		1·7		0	1·58	− 1·58	0·05	1·10	− 1·05	0·35	1·63	− 1·28	0·05	Krishnagar.
1	1		1	1		7	N 35° W	N 27° W	1·7	2·0	−0·3	25	+ 5	63	− 2	·424	+ ·008	2·3	−0·2	0	1·58	− 1·58	0·09	0·92	− 0·83	0·15	1·32	− 1·17	0·07	Burdwan.
					3	3	N 68° W		1·7			18		58		·373		1·1		0	1·88	− 1·88	0·10	1·03	− 0·93	0·19	1·50	− 1·31	0·05	Bankura.
					2	4	N 40° W		1·6			29		68		·396		2·4		1	1·52	− 0·52	0·18	1·05	− 0·87	1·10	1·56	− 0·46	0·10	Raniganj.
2	1	1	2	1	3		N 59° W	S 83° W	1·4	2·2	−0·8	7	−24	71*	− 9	·383*	−·057	2·4	+0·2	0	1·65	− 1·65	0·02	0·97	− 0·95	0·27	1·49	− 1·22	0·02	Berhampore.
						1	N 45° W		1·6			4		59		·338		0·5		1	1·62	− 0·62	0·24	0·70	− 0·46	0·92	1·45	− 0·53	0·22	Naya Dumka.
			2	3	2	6	N 43° W	N 42° W	2·4	3·8	−1·4	42	+ 7	75	− 3	·487	−·039	3·4	+0·4	3	2·16	+ 0·84	2·03	1·20	+ 0·83	2·03	1·65	+ 0·38	1·52	Balasore.
			1	2	3	7	N 33° W	N 57° W	5·9	7·8	−1·9	56	+13	86	0	·640	−·027	3·4	+0·3	1	1·29	− 0·29	1·33	0·95	+ 0·38	1·33	2·10	− 0·77	1·29	False Point.
2	2				1		N 59° E	N 36° E	1·7†	2·1	−0·4	7	0	84	+ 6	·593	+·034	2·6	+0·2	1	1·16	− 0·16	1·27	0·46	+ 0·81	1·27	0·89	+ 0·38	1·27	Cuttack.
7	1			6		1	N 5° E		10·2			39		80		·653		2·2		1	1·08	− 0·08	0·39	0·93	− 0·60	0·41	1·90	− 1·49	0·39	Puri.
3		1	2	2	5	10	N 58° W		5·7			46		75		·514		2·2		0			0·12			0·12			0·09	Angul.
3	3	5		2		2	N 51° E	N 27° E	4·1	2·9	+1·5	49	−13	64	− 3	·448	−·010	2·5	+0·5	3	1·00	+ 2·00	0·49	0·51	− 0·02	0·52	1·03	− 0·51	0·20	Sambalpur.
				12	4		S 60° W	S 36° W	2·4	1·5	+0·9	46	−11	77*	+ 8	·423*	+·005	2·6	+0·5	1	1·61	− 0·61	0·49	1·26	− 0·77	1·01	1·50	− 0·49	0·38	Chaibassa.
			1	3	7	5	N 66° W	N 68° W	5·4	5·8	−0·4	46	+11	52	− 7	·282	−·044	2·4	+0·3	0	2·10	− 2·10	0·23	1·36	− 1·13	1·63	1·71	− 0·08	0·09	Ranchi.
				1	15	7	N 71° W		2·8			79		62		·347		2·3		3	1·97	+ 1·03	0·55	1·02	− 0·47	0·89	1·64	− 0·75	0·19	Purulia.
1	1	2	6	1	6		N 54° W	S 87° W	5·2	7·2	−2·0	29	−15	48	− 9	·272	−·032	2·0	−0·5	0	1·84	− 1·84	0·10	0·75	− 0·65	2·61	1·44	+ 1·17	0·06	Hazaribagh.
3		2					E		2·8			11		82		·387		2·2		1	1·30	− 0·30	0·25	0·53	− 0·28	1·85	1·58	+ 0·27	0·25	Daltonganj.
3			2	1	3		N 63° W	S 64° W	2·1	3·1	−1·0	7	−13	75	− 9	·310	−·083	1·3	−0·2	0	1·13	− 1·13	0·12	0·56	− 0·44	0·13	1·13	− 1·00	0·08	Purnea.
	1	3	2	2			S 45° W		2·5			14		52		·310		2·6		1	1·52	− 0·52	0·27	0·68	− 0·41	0·27	1·30	− 1·03	0·14	Bhagalpur.
1		2	4	11	2		S 89° W		3·7			21		71		·432		1·5		0			0·11			0·12			0·09	Monghyr.
	1		4	4	3		N 82° W	N 89° W	2·1	3·7	−1·6	25	− 6	68	− 9	·316	−·076	1·8	+0·2	0	1·23	− 1·23	0·14	0·51	− 0·37	0·25	1·20	− 0·95	0·03	Darbhanga.
			8	1			S 49° W					32		65		·299		1·6		1			0·23			0·38			0·16	Pusa.
2	2		2	4	3		W		2·6†			12		62		·308		1·0		1	1·27	− 0·27	0·16	0·47	− 0·31	0·24	1·33	− 1·09	0·11	Muzaffarpur.
1			2	1	1		N 45° W		2·0			4		62		·319		1·9		0	1·00	− 1·00	0·18	0·37	− 0·19	0·35	1·10	− 0·75	0·08	Motihari.
	1	2	7	5	2		S 61° W		2·4			36		70*		·331*		2·3		1	1·13	− 0·13	0·24	0·49	− 0·25	0·34	1·32	− 0·98	0·14	Chapra.
2	3	6	9	3			S 21° W	S 70° W	3·3	3·3	0	48	+ 2	64	− 4	·349	−·022	2·7	+0·3	2	1·16	+ 0·84	0·52	0·60	− 0·08	0·62	1·26	− 0·64	0·36	Patna.
		1	7	6			S 63° W		1·8			39		69		·335		2·0		1	1·10	− 0·10	0·47	0·61	− 0·14	0·54	1·62	− 1·08	0·34	Arrah.
2	3	4	3	6	1		S 39° W		5·2			46		64		·323		2·0		3	1·39	+ 1·61	0·89	0·52	+ 0·37	1·18	1·50	− 0·32	0·46	Buxar.
	1	1	11	3	2		S 56° W		1·9			50		59		·335		2·4		1	1·29	− 0·29	0·31	0·52	− 0·21	0·99	1·43	− 0·44	0·28	Dehri.
	1	8	3	7	1		S 42° W	S 37° W	2·5	3·6	−1·1	42	+ 7	64	− 4	·356	−·027	2·3	0	3	1·39	+ 1·61	0·99	0·63	+ 0·36	1·85	1·39	+ 0·46	0·66	Gaya.
																														IV.—United Provinces of Agra and Oudh.
				2	2		N 67° W	N 73° W	1·7‡	2·2	−0·5	11	−23	63	−10	·309	−·055	1·9	0	2	1·30	+ 0·70	0·28	0·49	− 0·21	0·48	1·39	− 0·91	0·16	Gorakhpur.
2	3	1	3	1			S 18° W	S 52° W	2·2	3·9	−1·7	29	− 5	68	− 8	·350	−·028	1·8	−0·4	2	1·20	+ 0·80	0·60	0·46	+ 0·14	1·30	1·34	− 0·04	0·39	Benares.
2	1	2	2	5			S 53° W	S 81° W	2·2	4·5	−2·3	11	−13	58	−11	·301	−·057	2·0	−0·5	1	1·00	0	0·24	0·47	− 0·23	0·46	1·47	− 1·01	0·16	Allahabad.

† Uncorrected.

‡ Mean of 28 days.

Tab

(2) *Abstract of observations taken at 8 hrs., at 240 statio*

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	2
	IV.—United Provinces of Agra and Oudh—*concld.*																						
10	Cawnpore	416	29·601	+·022	30·005	29·723	12th	29·430	21st	·293	55·9	80·7	+1·9	48·6	−2·9	64·7	−0·5	32·1	90·9	24th	38·5	6th	5
	Lucknow	368	29·667‡	+·031‡	30·020‡	29·787	11th	29·505	21st	·282	56·1	80·7	+1·9	49·6	−1·3	65·2	+0·3	31·1	92·0	24th	40·1	1st & 12th.	5
	Bahraich	401	29·606	+·024	29·996	29·719	11th	29·475	21st	·244	55·3	80·1	+3·4	49·4	−1·3	64·8	+1·1	30·7	91·1	24th	39·0	5th	5
11	Jhansi	824	29·215‡	+·020‡	30·044‡	29·331	11th	29·040	21st	·291	63·6	80·6	−0·6	56·0	+0·6	68·3	0	24·6	91·5	24th	48·0	6th	4
	Agra	556	29·478	+·019	30·032	29·613	4th	29·295	21st	·318	56·1	76·1	−2·5	51·0	−1·3	63·6	−1·9	25·1	85·5	23rd	40·5	6th	4
	Mainpuri	516	29·511	+·032	30·023	29·622	11th	29·358	21st	·264	54·1	78·2	+1·4	47·5	−2·9	62·9	−0·8	30·7	87·3	23rd	39·1	5th	4
	Bareilly	568	29·435	+·022	30·006	29·541	11th	29·288	21st	·253	55·0	77·1	+2·1	49·2	−0·5	63·2	+0·8	27·9	86·3	23rd	40·5	1st	4
	Meerut	738	29·255	+·010	30·013	29·372	12th	29·109	21st	·263	52·1	76·0	+1·5	46·5	−1·9	61·3	−0·2	29·5	82·6	24th	38·8	5th	4
	Roorkee	899	29·108	+·040	30·042	29·224	12th	28·981	21st	·243	50·7	73·7	+0·6	46·0	−1·7	59·9	−0·6	27·7	82·5	24th	37·9	10th	4
	Dehra Dun	2,233	27·730	+·018	30·033	27·838	12th	27·628	24th	·210	52·1	70·7	+1·5	47·1	+0·1	58·9	+0·8	23·6	77·5	16th, 17th & 18th.	39·0	4th & 6th.	3
	V.—Punjab.																						
12	Delhi	718	29·300	+·025	30·032	29·418	12th	29·133	21st	·285	54·7	76·0	+1·2	51·1	−0·7	63·6	+0·3	24·9	84·2	24th	37·2	6th	4
	Sirsa	662	29·364	+·027	30·045	29·488	4th	29·183	22nd	·305	49·9	74·2	−1·0	44·3	−2·5	59·3	−1·8	29·9	84·3	23rd	35·1	6th	4
	Patiala	*818*	29·183		30·036	29·305	12th	29·046	21st	·259	51·1	72·2		46·4		59·3		25·8	80·2	20th	38·4	5th	4
	Ambala	892	29·105	+·045	30·031	29·216	12th	28·980	22nd	·256	51·1	73·7	+2·2	45·8	−2·0	59·8	+0·1	27·9	82·5	20th	37·0	1st	4
	Ludhiana	812	29·194	+·026	30·040	29·299	4th	29·024	22nd	·275	48·8	70·5	−0·7	45·0	−1·5	58·3	−1·1	24·5	78·5	18th	38·5	5th	4
	Lahore	702	29·306?	+·009?	30·039?	29·442	4th	29·101	24th	·341	47·7	71·2	−1·5	44·4	+0·3	57·8	−0·6	26·8	81·4	17th	36·2	6th	4
	Sialkot	830	29·187	+·039	30·058	29·293	4th	28·995	23rd	·298	48·1	68·6	−1·0	42·1	−4·0	55·4	−2·5	25·5	78·0	16th & 17th.	34·5	4th	4
	Rawalpindi	1,674	28·326	+·026	30·106	28·436	4th	28·133	23rd	·303	44·6	63·7	−1·1	38·7	−2·7	51·2	−1·9	25·0	76·9	17th	30·9	5th	4
13	Khushab	612	29·440	+·043	30·073	29·591	4th	29·225	24th	·369	51·0	71·2	+2·5?	44·7	−1·4	58·0	+0·6?	26·5	83·4	17th	35·9	6th	4
	Montgomery	558	29·517?‖	+·068?‖	30·092?‖	29·620	4th	29·280	24th	·340	50·2	71·6	−1·2	44·1	−2·3	57·9	−1·8	27·5	80·4	18th	35·1	25th	4
	Multan	420	29·647	+·027	30·067	29·806	4th	29·397	22nd	·409	52·0	71·6	−2·1	46·9	−0·6	59·3	−1·4	24·7	79·8	17th	39·5	4th & 5th.	4
	VI.—North-West Frontier Province.																						
15	Peshawar	1,110	28·932	+·003	30·115	29·080	4th	28·700	22nd	·380	46·0	65·6	−0·5	41·4	−1·2	53·5	−0·9	24·2	77·2	17th	32·9	7th	4
	D. I. Khan	530	29·476	+·016	30·069	29·639	4th	29·239	22nd	·400	47·0	69·8	−2·1	42·4	−2·5	56·1	−2·3	27·4	81·4	17th	33·1	4th	4
	VII.—Sind.																						
17	Jacobabad	186	29·380	+·020	30·043	30·055	4th	29·645	22nd	·410	53·3	77·6	−0·3	46·9	−1·6	62·3	−1·0	30·7	87·1	19th	37·3	4th	4
	Hyderabad	96	29·975	+·016	30·031	30·137	4th	29·744	22nd	·393	58·8	81·5	+0·7	53·3	−1·1	67·5	−0·2	28·2	90·6	19th & 20th.	46·5	4th, 5th & 6th.	4
	Kurrachee	13	30·065	+·020	30·029	30·207	4th	29·811	22nd	·396	64·6	78·9	−0·8	60·5	+2·5?	69·8	+0·9?	18·4	86·5	15th	54·0	4th & 5th.	4
	VIII.—Rajputana.																						
18	Bikaner	*771*	29·246	+·022	30·040	29·380	4th	29·013	22nd	·367	53·6	76·1	+0·2	49·2	−4·3	62·7	−2·1	26·9	86·6	20th	39·0	6th	4
	Jodhpur	782	29·271	+·042	30·083	29·399	6th	29·067	22nd	·332	57·4	79·5	+0·1	51·7	−1·6	65·6	−0·8	27·8	88·5	20th	43·3	5th	4
	Pachpadra	*380*	29·683	+·055	30·049	29·889	4th	29·479	22nd	·410	54·1	81·8	−1·2	44·9	−3·9	63·8	−2·6	36·9	90·9	20th	34·6	5th	4
19	Jaipur	1,431	28·589	+·023	30·060	28·695	6th	28·444	22nd	·254	57·8	78·7	+0·1	50·2	−1·7	64·5	−0·8	28·5	87·7	23rd	37·1	6th	4
	Sambhar	1,254	28·767	+·033	30·071	28·882	6th	28·617	22nd	·265	51·6	77·5	+0·1	45·8	−3·9	61·7	−1·9	31·7	87·9	23rd	33·4	6th	4
	Ajmer	1,611	28·410	+·015	30·086	28·526	6th	28·260	22nd	·266	51·9	76·9	−0·9	49·5	+0·1	63·2	−0·4	27·4	86·9	23rd	39·7	6th	4
	Kotah	819?	29·201	+·015	30·057	29·325	6th	29·056	23rd	·269													
	Udaipur	1,925	28·098	+·009	30·059	28·195	6th	27·958	22nd	·237	60·4	78·4	−0·1	51·7	+0·9	65·1	+0·4	26·7	87·0	23rd	42·3	7th	4
	IX.—Bombay.																						
20	Deesa	466	29·556	+·003	30·001	29·676	6th	29·421	22nd	·255	62·3	87·0	+0·5	54·5	−0·6	70·8	−0·1	32·5	92·8	14th	46·9	1st & 4th.	4
	Bhuj	395	29·651	+·019	30·018	29·768	6th	29·490	22nd	·278	64·0	84·3*	−0·6*	57·8	−0·3	71·5*	−0·5	26·5	92·6	20th	49·0	6th	4

N.B.—Elevations in italics indicate barometrical determinations.
NOTE.—The barometric readings are not reduced to sea-level in the cases of hill or plateau stations, the elevations of which exceed 3,200 feet.
* Mean of 22 days. ‡ Mean of 27 days. § Mean of 15 days. ‖ Mean of 20 days.

—*continued.*

India, etc., in February, 1909—continued.

Wind direction. Number of winds from ...	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity in miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 28th Feb. 1909.	Normal rainfall for period, 1st Dec. to 28th Feb.	Departure from normal of period, 1st Dec. 1908 to 28th Feb. 1909.	Heaviest rainfall during month.	Station.
6	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																															IV.—United Provinces of Agra and Oudh—*concld.*
2	2	4			3	5	2	N 49° W	N 81° W	3·0	3·9	−0·9	14	−10	58	−9	·270	−·064	0·6	−1·3	0	1·00	−1·00	0·06	0·48	−0·42	0·26	1·33	−1·07	0·06	Cawnpore.
1	1	2	2		2	4	4	N 67° W	N 74° W	1·9	3·0	−1·1	14	−16	58	−14	·268	−·076	2·3	−0·5	1	1·20	−0·20	0·14	0·44	−0·30	0·37	1·78	−1·41	0·14	Lucknow.
2		2			1	2	5	N 41° W	N 68° W	3·0	3·2	−0·2	25	−6	65	−13	·295	−·073	2·6	−0·4	1	1·60	−0·60	0·20	1·01	−0·81	0·99	2·27	−1·28	0·20	Bahraich.
4	2	2	2	3	5	1	2	S 45° W	S 81° W	4·5	2·5	+2·0	4	−19	50	−3	·304	+·008	2·1	+0·4	0	0·80	−0·80	0·14	0·41	−0·27	0·58	1·27	−0·69	0·07	Jhansi.
1	5	2	3		2	7	4	N 43° W	N 53° W	4·1	4·3	−0·2	21	−18	53	−12	·241	−·069	3·2	+0·8	1	0·60	+0·40	0·21	0·29	−0·08	1·28	1·11	+0·17	0·16	Agra.
1	2	4			3	7	2	N 71° W	N 63° W	2·0	2·0	0	18	−2	62	−10	·269	−·058	0·5	−3·3	1	0·70	+0·30	0·16	0·96	−0·80	0·55	2·03	−1·48	0·16	Mainpuri.
		1			1	4	2	N 82° W	N 51° W	2·2	3·1	−0·9	18	−8	61	−15	·269	−·055	3·2	+0·1	1	1·18	−0·18	0·38	0·74	−0·36	1·02	2·12	−1·10	0·34	Bareilly.
		3			1	1	4	N 3° W	N 89° W	1·3	2·6	−1·3	9	−22	65	−8	·262	−·041	2·6	−0·5	2	1·50	+0·50	1·48	0·90	+0·58	2·39	2·73	−0·34	1·35	Meerut.
			2				8	N 45° W	N 40° W	3·0	2·8	+0·2	21	+9	74	−6	·279	−·029	2·9	−0·4	3	2·90	+0·10	0·46	1·32	−0·86	1·85	3·61	−1·76	0·18	Roorkee.
			1					S 45° E	N 32° W	**§ 1·3	1·7	−0·4	4	0	67	−7	·264	−·017	4·6	+0·8	3	4·10	−1·10	1·84	2·21	−0·37	3·42	5·39	−1·97	0·92	Dehra Dun.¶
																															V.—Punjab.
		4	2	2	12	5		S 79° W	N 86° W	3·7	3·5	+0·2	49	+16	61	−4	·263	−·019	2·0	−1·7	2	1·40	+0·60	0·70	0·71	−0·01	1·06	2·47	−1·41	0·60	Delhi.
1	3	1	2	1	3	3		N 45° W	S 76° W	3·4	4·1	−0·7	4	0	70	−3	·253	−·035	3·4	−0·7	1	1·10	−0·10	0·36	0·33	+0·03	0·57	1·48	−0·91	0·26	Sirsa.
1	1	2	4	1	3	6		N 40° W		5·5			29		69		·261		3·5		1			0·32			3·46			0·32	Patiala.
		5	1			13		N 50° W	N 39° W	5·2	2·3	+2·9	29	+4	70	−14	·266	−·058	4·2	+0·8	1	2·30	−1·30	0·35	2·41	−2·06	1·34	4·85	−3·51	0·30	Ambala.
2		3	1	2	2	9		N 56° W	N 52° W	2·2	1·9	+0·3	29	+1	73	−5	·259	−·049	3·3	−1·2	2	2·40	−0·40	0·62	1·30	−0·68	3·35	3·92	−0·57	0·44	Ludhiana.
3		1	1		5	1		N 36° W	N 23° W	2·8	2·2	+0·6	18	+9	81	+3	·276	−·019	3·1	−0·5	3	2·20	−0·80	0·61	1·10	−0·49	1·62	2·60	−0·98	0·20	Lahore.
3	2	1			1	3		N 15° E	N 18° E	1·7	1·8	−0·1	25	+11	86	+7	·291	−·016	2·9	−0·3	5	3·50	+1·50	2·42	1·80	+0·62	4·13	4·83	−0·70	0·91	Sialkot.
2			1	2	1			N 14° W	N 45° W	2·7	2·3	+0·4	14	−10	73	−9	·221	−·042	5·1	+0·8	6	4·40	+1·60	3·57	2·24	+1·33	5·03	5·72	−0·69	2·20	Rawalpindi.
6	2	4	1	1	2	1		N 76° E	N 29° E	4·3	3·3	+1·0	21	+10	61	−6	·243	+·011	3·5	+0·2	3	1·80	+1·20	1·62	0·69	+0·93	1·69	2·05	−0·36	0·76	Khushab.
2	2	1	1	1	4	6		N 28° W	N 18° E	4·3	4·2	+0·1	36	+20	60	−9	·220	−·055	2·9	−0·8	0	1·30	−1·30	0·12	0·67	−0·55	0·24	1·93	−1·69	0·09	Montgomery
1	1							N 13° E	N 37° E	1·0	1·8	−0·8	29	+9	65	−3	·254	−·050	2·9	−0·4	2	1·20	+0·80	0·60	0·43	+0·17	0·60	1·07	−0·47	0·44	Multan.
																															VI.—North-West Frontier Province.
1	2	1	3	5	3			S 35° W	S 27° W	2·2	3·2	−1·0	21	−18	59	−17	·138	−·064	4·5	0	4	2·90	+1·10	2·21	1·22	+0·99	3·09	3·15	−0·06	0·85	Peshawar.
3				2		5		N 34° W	N 22° W	1·1	1·9	−0·8	18	−6	73	+2	·241	−·019	3·0	−0·3	3	2·00	+1·00	0·90	0·79	+0·11	1·23	1·44	−0·21	0·36	D. I. Khan.
																															VII.—Sind.
3						9		N 13° W	N 37° E	3·8	3·0	+0·8	67	+47	60	+3	·243	−·006	3·9	+0·5	1	0·90	+0·10	0·37	0·34	+0·03	0·46	0·70	−0·24	0·32	Jacobabad.
2		1	1	1		5		N 8° W	N 21° W	5·2	6·9	−1·7	53	+13	53	−4	·267	−·035	3·0	+0·3	0	0·60	−0·60	0·02	0·22	−0·20	0·13	0·51	−0·38	0·02	Hyderabad.
17	2			1	1	2		N 32° E	N 39° E	8·4	9·8	−1·4	70	+11	61	−8	·384	−·022	2·0	−0·1	0	0·80	−0·80	0·01	0·31	−0·30	0·69	1·10	−0·41	0·01	Kurrachee.
																															VIII.—Rajputana.
3	3	2	3	1	2	5		N 2° E	N 39° W	5·8	4·5	+1·3	30	+6	52	−1	·214	−·034	2·7	−0·6	1	0·80	+0·20	0·36	0·26	+0·10	0·38	0·82	−0·44	0·36	Bikaner.
13		1		1	1			N 29° E		4·5			60		36	−8	·173		3·2		0	0·50	−0·50	0	0·11	−0·11	0·47	0·49	−0·02	0	Jodhpur.
1	2	1						E		2·2	4·5	−2·3	12		45	−8	·191	−·046	0·3	−2·5	0	0·30	−0·30	0·07	0·08	−0·01	0·25	0·58	−0·33	0·07	Pachpadra.
10	3	2		1		1		N 39° E	N 2° W	** 4·3	3·8	+0·5	56	+25	43	−14	·209	−·068	2·3	−0·6	0	0·50	−0·50	0·09	0·17	−0·08	0·28	0·96	−0·68	0·04	Jaipur.
6			1					N 34° E	N 9° E	4·7	4·7	0	25	−3	58	−1	·230	−·030	1·9	−0·6	0	0·50	−0·50	0·03	0·18	−0·15	0·39	0·92	−0·53	0·03	Sambhar.
5		1		1		1		N 37° E	N 2° W	3·9	2·5	+1·4	18	+7	53	−11	·211	−·073	1·9	−0·4	1	0·70	+0·30	0·11	0·24	−0·13	0·41	0·95	−0·54	0·11	Ajmer.
3	1	1				5		N 2° E		2·3			32						2·3		0	0·50	−0·50	0	0·18	−0·18	0·20	0·72	−0·52	0	Kotah.
				1		4		N 35° W		2·5			25		42	−8	·223		2·2		0	0·30	−0·30	0	0·23	−0·23	0	0·42	−0·42	0	Udaipur.
																															IX.—Bombay.
14	5		1	2				N 50° E	N 30° E	** 8·8	8·6	+0·2	60	+24	36	−7	·206	−·041	1·6	−0·4	0	0·27	−0·27	0	0·07	−0·07	0	0·28	−0·28	0	Deesa.
3	1	3		3	5	5		N 57° W	N 69° W	7·3	7·3	+0·5	21	−11	59	0	·358	−·026	2·7	+1·4	2	0·30	+1·70	0·31	0·09	+0·22	0·31	0·23	+0·08	0·21	Bhuj.

** Uncorrected.

¶ Wind observations of 25 days.

Table

(2) *Abstract of observations taken at 8 hrs., at 240 station*

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	IX.—Bombay—*concld.*																						
29	Jamnagar	61	29·998		30·004	30·116	6th	29·813	22nd	·273	66·1	81·0		56·6		68·8		24·4	87·2	20th	46·5	6th	40·7
	Dwarka	37?	30·022		30·006	30·129	7th	29·872	22nd	·257	68·4	79·7		62·2		71·0		17·5	86·3	18th & 19th	54·7	5th	31·6
	Rajkot	429	29·606	+·010	30·007	29·714	6th	29·496	22nd	·218	63·2	85·0	−1·2	54·4	−0·1	70·3	−0·7	31·6	92·9	20th	44·0	5th	48·9
	Veraval	*18*	30·011	+·008	29·971	30·111	8th	29·932	22nd	·179	67·1	82·6*	+1·1*	60·7	0	171·7*	+0·6	21·9	91·7	12th	53·3	5th	38·4
	Bhavnagar Para	55	29·978	−·014	29·977	30·088	6th	29·874	22nd	·214	63·9	87·5	+1·8	57·6	−2·1	72·5	−0·2	29·9	96·6	20th	48·5	6th	48·1
	Surat	39	29·971	−·018	29·957	30·069	8th	29·897	19th	·172	66·0	88·9	−0·8	60·6	+1·6	74·8	+0·4	28·3	96·6	19th & 28th	54·1	1st	42·5
	Ahmedabad	163	29·867	+·012	29·987	29·993	6th	29·757	22nd	·236	65·8	88·2	+0·7	60·4	+0·1	74·3	+0·4	27·8	94·1	20th	53·2	6th	40·9
26	Bombay	37	29·966	−·015	29·944	30·042	8th	29·906	22nd	·136	70·8	82·4	−0·2	68·1	−0·6	75·3	−0·4	14·3	86·0	28th	65·0	1st	21·0
	Ratnagiri	110	29·871	−·011	29·923	29·939	8th	29·824	19th	·115	72·2	83·7	−2·7	65·1	−2·2	74·4	−2·5	18·6	87·8	27th	56·9	1st	30·9
	Goa	199	29·772	−·040?	29·913	29·836	7th	29·726	25th & 26th	·110	73·3	81·5	−5·1?	70·7	+0·6	76·1	−2·3?	10·8	85·6	14th	65·1	2nd	20·5
	Mormugao	*60*	29·925	−·008	29·921	29·987	7th	29·883	19th	·104	72·9	83·4	−1·5	69·5	−1·7	76·5	−1·6	13·9	87·5	14th	63·7	1st & 2nd.	23·8
	Karwar	44	29·954	−·004	29·934	30·017	7th & 11th.	29·910	26th	·107	68·6	85·2	−1·1	66·1	−1·2	75·7	−1·2	19·1	89·8	15th	59·0	1st & 2nd.	30·8
27	Malegaon	1,430	28·564	−·008	29·937	28·668	7th	28·491	22nd	·177	65·7	90·7	+0·8	55·9	+0·5	73·3	+0·7	34·8	97·4	28th	47·6	1st	49·8
	Ahmednagar	2,154	27·859	+·024?	30·009	27·948	6th & 7th.	27·795	24th	·153	67·7	89·8	+1·7	57·5	+2·4	73·7	+2·1	32·3	98·9	23rd	47·5	2nd	51·4
	Poona	1,846	28·147	−·012	30·000	28·228	8th	28·072	22nd	·156	64·7	90·2	−1·1	55·0‡	−1·3‡	72·1‡	−1·2	35·2	95·0	28th	47·0	1st	48·0
	Sholapur	1,590	28·385	−·022	29·857	28·462	7th	28·316	25th	·146	71·5	92·5	−1·2	64·7	+2·5	78·6	+0·7	27·8	98·8	28th	53·9	2nd	44·9
	Bijapur	*1,948*	28·025	−·003	29·943	28·095	7th & 11th.	27·960	25th	·135	73·0	92·3	+1·9	65·8	+1·6	79·1	+1·8	26·5	98·2	28th	58·2	5th	40·0
	Belgaum	2,539	27·438	−·012	29·936	27·504	7th	27·382	25th	·122	71·0	88·2	−0·4	60·0	+0·4	74·1	0	28·2	93·8	28th	52·6	5th	41·2
	X.—Central India.																						
21	Neemuch	1,624	28·390	+·018	30·053	28·500	6th	28·260	23rd	·240	58·4	79·9	−1·3	50·5	−1·6	65·2	−1·5	29·4	88·0	21st & 23rd.	39·8	6th & 7th.	48·2
	Indore	1,823	28·188	+·020	30·029	28·295	6th	28·090	21st	·205	64·2	83·1	−0·2	54·2	+2·1	68·6	+1·0	28·9	90·1	23rd	42·6	6th	47·5
22	Nowgong	754	29·263	+·004	30·021	29·376	4th	29·086	21st	·290	58·3	79·1	−1·2	50·9	−0·2	65·0	−0·7	28·2	89·5	24th	40·0	6th	49·5
	Sutna	1,040	28·955	0	30·010	29·061	12th	28·783	21st	·278	60·4	79·2	−0·4	53·7	+1·4	66·5	+0·5	25·5	93·0	24th	41·7	6th	51·3
	XI.—Central Provinces.																						
23	Buldana	2,132	27·868		29·981	27·914	7th	27·811	22nd	·133	70·5	85·4		63·5		74·5		21·9	91·8	28th	54·0	6th	37·8
	Akola	930	29·070	+·005	29·985	29·174	7th	28·988	21st	·186	65·4	90·9	+0·2	60·5	+3·0	75·7	+1·6	30·4	97·2	28th	49·1	1st	48·1
	Amraoti	1,215	28·771	+·005	28·973	28·867	7th	28·679	21st	·188	69·9	89·7	−0·4	63·6	+1·9	76·6	+0·8	26·1	96·3	24th	50·8	2nd	45·5
24	Khandwa	1,044	28·950	−·005	29·996	29·067	6th	28·869	21st	·198	63·6	88·9	+0·1	58·6	+2·7	73·8	+1·4	30·3	97·2	23rd	46·1	7th	51·1
	Hoshangabad	1,006	29·009	+·007	30·025	29·129	6th	28·895	21st	·234	61·4	84·5	−0·9	55·4	−0·6	70·0	−0·8	29·1	92·1	20th & 24th.	45·4	7th & 8th.	46·7
	Saugor	1,807	28·185	+·010	30·015	28·287	11th	28·042	21st	·245	62·3	79·5	−1·8	56·8	+1·4	68·2	−0·2	22·7	90·1	24th	44·0	6th	46·1
	Jubbulpore	1,327	28·671	+·007	30·026	28·784	7th	28·527	21st	·257	57·7	80·3	−2·1	52·5	+0·1	66·4	−1·0	27·8	91·5	24th	41·3	7th	50·2
	Seoni	2,033	27·964	+·007	30·022	28·044	11th	27·855	21st	·189	61·7	82·4	−1·4	51·7	−3·7?	67·1	−2·6?	30·7	90·0	27th	41·4	2nd	48·6
	Nagpur	1,017	28·981	+·008	29·990	29·034	7th	28·865	21st	·219	66·8	88·5	−0·8	60·1	+0·1	74·3	−0·4	28·4	94·6	28th	50·1	2nd	44·5
25	Pendra	2,123?	27·970		30·028	28·075	11th	27·835	21st	·240	62·0	78·5		54·3		66·4		24·2	87·3	25th	47·2	1st	40·1
	Raipur	970	29·026	+·001	29·988	29·121	7th	28·909	24th	·212	64·5	86·4	−1·0	61·4	+0·9	73·9	−0·1	25·0	94·7	24th	54·6	2nd	40·1
	Chanda	*634*	29·355	−·009	29·955	29·450	7th	29·255	25th	·195	69·7	90·1	−1·7	60·6	+1·4	75·4	−0·2	29·5	97·0	25th	49·0	2nd	48·0
	XII.—Hyderabad.																						
28	Aurangabad	1,905	28·084	−·040?	29·972	28·162	8th	28·042	24th	·120	70·8	89·2*	+0·4*	59·6*	+1·6*	74·4*	+1·0	29·6	93·7	23rd	50·2	2nd	43·5
	Nizamabad	1,260	28·731	−·020	29·967	28·797	8th	28·642	25th	·155	73·6	91·8	+1·9	62·1	+0·8	76·9	+1·1	29·7	98·9	28th	50·7	2nd	48·2

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

* Mean of 27 days. ‖ Mean of 25 days.

NOTE.—The barometric readings are not reduced to sea-level, in the cases of hill or platea

‡ Mean of 17 days.

-continued.

India, etc., in February, 1909—continued.

Wind direction. Number of winds from N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity in miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal, in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 28th Feb. 1909.	Normal rainfall for period, 1st Dec. to 28th Feb.	Departure from normal of period, 1st Dec. 1908 to 28th Feb. 1909.	Heaviest rainfall during month.	Station.
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																														IX—Bombay—*concld.*
5	8	1			3	1	2	N 61° E		11·5			31		55		·356		1·5		0			0·05		0·23			0·05	Jamnagar.
5	1				2	2	6	N 10° W		11·7			60		66		·470		2·3		1			0·12		0·12			0·12	Dwarka.
9	1				2	1	2	N 17° E	N 2° W	6·4	6·1	+0·3	42	+11	48	−11	·281	−·087	1·8	+0·8	1	0·30	+0·70	0·32	0·09	+0·23	0·32	0·17	+0·15	0·32	Rajkot.
7						2	1	N 9° E	N 7° E	8·9†	7·1	+1·8	49	−23	53	− 6	·354	−·047	0·8	−0·4	0	0·10	−0·10	0	0·01	−0·01	0	0·10	−0·10	0	Veraval.
2				2	7	11	N 49° W	S 85° W	5·9	8·1	−2·2	70	+ 5	54	− 8	·329	−·066	2·1	+1·0	1	0·20	+0·80	0·65	0·07	+0·58	0·65	0·21	+0·44	0·65	Bhavnagar Para.
7		2	3		1	2		N 35° E	N 27° W	4·8	5·0	−0·2	25	−18	63	− 2	·414	−·023	0·6	−0·5	0	0·10	−0·10	0·02	0·08	−0·06	0·02	0·14	−0·12	0·02	Surat.
7	1	1		1		5		N 32° E	N 11° E	5·4	4·0	+1·4	63	+ 5	34	− 7	·277	−·044	1·4	0	0	0·30	−0·30	0·07	0·14	−0·07	0·07	0·24	−0·17	0·07	Ahmedabad.
3	11	2						N 66° E	N 47° E	8·8†	10·4	−1·6	85	+14	79	+ 8	·599	+·020	0·9	−0·3	0	0·10	−0·10	0	0·02	−0·02	0	0·18	−0·18	0	Bombay.
4	8	2				2		N 47° E	N 73° E	9·3	8·2	+1·1	56	+16	66	+ 1	·526	−·013	0·3	−0·4	0	0·10	−0·10	0	0·03	−0·03	0	0·23	−0·23	0	Ratnagiri.
15	1	3						N 79° E	N 67° E	5·9	5·9	0	70	− 7	84	+10	·690	+·049	1·8	+1·2	0			0	0·06	−0·06	0	0·31	−0·31	0	Goa.
3		4						N 48° E	N 80° E	7·5†	9·3	−1·8	42	− 6	87	+ 5	·709	+·023	2·0	+1·4	0			0	0·05	−0·05	0	0·05	−0·05	0	Mormugao.
								N 33° E	N 55° E	3·9†	4·1	−0·2	36	−47	84	0	·597	−·016	1·1	+0·6	0	0	0	0	0·02	−0·02	0	0·18	−0·18	0	Karwar.
1						1		N 23° E	N 63° W	5·4	6·1	−0·7	3	−68	37	−20?	·234	−·119?	0	−1·3	0	0·10	−0·10	0	0·03	−0·03	0·23	0·40	−0·17	0	Malegaon.
	2					11		N 41° W	N 13° W	6·1	8·3	−2·2	60	+25	37	−22	·254	−·128?	0·3	−0·6	0	0·30	−0·30	0	0·40	−0·40	0	0·91	−0·91	0	Ahmednagar.
			1	2		3		S 85° W	N 76° W	6·5†	7·1	−0·6	13	− 3	51§	− 1	·312§	−·005	0·4	−0·4	0	0·10	−0·10	0	0·06	−0·06	0	0·29	−0·29	0	Poona.
		9	1	1		6		N 46° E	N 72° E	8·0	7·5	+0·5	29	+13	38	− 2	·303	−·007	1·2	+0·3	0	0·10	−0·10	0·02	0·03	−0·01	0·02	0·53	−0·51	0·02	Sholapur.
		5	6		2	1		N 65° W	N 79° W	6·0†	4·8	+1·2	14	− 8	41	−15	·339	−·098?	1·3	+0·3	0	0·20	−0·20	0	0·07	−0·07	0·15	0·10	+0·05	0	Bijapur.
4	3	2	1	1	2			N 43° E	N 68° E	9·3	9·7	−0·4	36	+12	47	− 1	·349	+·003	1·5	+0·6	0	0·10	−0·10	0	0·03	−0·03	0	0·19	−0·19	0	Belgaum.
																														X.—Central India.
3			1	1	2			N 16° E	N 30° E	5·5**	7·0	−1·5	63	+32	43	− 5	·214	−·049	1·9	+0·6	0	0·50	−0·50	0	0·17	−0·17	0	0·66	−0·66	0	Neemuch.
2	4	1		3				N 67° E	N 29° W	2·9	2·8	+0·1	39	+27	41	−11	·255	−·039	2·0	+0·7	0	0·50	−0·50	0	0·18	−0·18	0	0·51	−0·51	0	Indore.
4		1	6	4	2			S 77° W	N 85° W	1·8	2·0	−0·2	18	− 1	61	− 6	·311	−·024	2·9	+0·4	0	1·00	−1·00	0·13	0·48	−0·35	0·60	1·74	−1·14	0·07	Nowgong.
1		1	3	8	4			N 88° W	N 30° W	2·3	4·8	−2·5	40	+ 5	62	+ 3	·323	+·015	3·6	+1·9	2	1·50	+0·50	0·29	0·65	−0·36	1·30	2·00	−0·70	0·15	Sutna.
																														XI.—Central Provinces.
6	5	2		6	5			N 45° E		5·9	6·4	−0·5	4		32		·239		1·3		0			0	0·30	−0·30	0·08	1·11	−1·03	0	Buldana.
6	5	1	1	4	1			S 51° E	S 24° E	3·4	4·3	−0·9	25	+17	41	− 4	·304	+·015	1·6	+0·1	1	0·30	+0·70	1·22	0·17	+1·05	1·22	1·25	−0·03	1·22	Akola.
12	2			1	2			N 72° E	S 83° E	6·3	4·8	+1·5	56	+24	47	− 2	·356	+·007	1·0	−0·3	0	0·60	−0·60	0·03	0·21	−0·18	1·09	1·13	−0·04	0·03	Amraoti.
5	4	2	2	2	3			S 79° E	N 18° W	5·6	4·1	+1·5	14	−10	41	− 5	·249	−·020	1·5	+0·3	0	0·30	−0·30	0	0·05	−0·05	0	0·74	−0·74	0	Khandwa.
9	1		1					N 78° E	N 60° E	4·0	2·9	+1·1	46	+ 6	52	− 6	·281	−·042	2·0	+0·6	1	0·50	+0·50	0·24	0·27	−0·03	1·75	1·06	+0·69	0·19	Hoshangabad.
7	6	2	3	2				S 65° E	S 72° E	6·6	3·7	+2·9	42	+11	42	−10	·240	−·040	2·4	+1·0	2	0·80	+1·20	0·68	0·41	+0·27	0·79	1·75	−0·96	0·34	Saugor.
1	5	5						S 70° E	S 63° E	2·5*	2·4	+0·1	25	+ 5	66	0	·321	−·026	1·6	−0·5	4	1·10	+2·90	1·08	0·56	+0·52	1·89	1·61	+0·38	0·29	Jubbulpore.
3		2	1					N 42° E	N 31° E	5·0	2·9	+2·1	49	+18	52	−10	·289	−·078?	2·4	+0·2	3	1·50	+1·50	0·66	0·88	−0·22	1·05	1·93	−0·88	0·32	Seoni.
1			1		1			N 11° E	N 18° E	3·4	4·4	−1·0	70	+34	47	− 5	·319	−·041	2·0	+0·2	2	0·90	+1·10	0·25	0·38	−0·13	0·94	1·29	−0·35	0·15	Nagpur.
1	2	2			5			N 3° W		4·7			28		54		·310		1·8		4			1·29			3·02			0·60	Pendra.
3	1	3	1	2	2			N 51° E	N 4° W	4·2	4·0	+0·2	14	+ 2	54	+ 1	·336	−·019	2·0	−0·1	0	0·70	−0·70	0·05	0·35	−0·30	0·09	0·80	−0·71	0·05	Raipur.
4	3	2	1		2			S 81° E	N 76° E	2·6	2·7	−0·1	18	− 2	59	− 1	·342	+·023	1·8	+0·5	1	0·60	+0·40	0·23	0·49	−0·26	0·23	1·13	−0·90	0·20	Chanda.
																														XII.—Hyderabad.
4	2	1			1			N 63° E		7·7			36		36	− 4	·277		0·4		0	0·20	−0·20	0	0·17	−0·17	0·82	0·76	+0·06	0	Aurangabad.
1	7	3	4					S 21° E		3·4			39		50	− 7	·418		1·3		0	0·40	−0·40	0	0·42	−0·42	0·70	0·65	+0·05	0	Nizamabad.

the elevations of which exceed 3,200 feet. † Uncorrected. § Mean of 24 days. ** Mean of 20 days.

Table

(2) *Abstract of observations taken at 8 hrs., at 240 station*

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure, 8 hrs., in inches.								Temperature of air.												
			Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	XII.—Hyderabad—*concld.*																						
28	Bidar	*2,165*	27·831		29·957	27·906	11th	27·764	21st & 25th.	·142	74·8	88·9		61·7		75·3		27·2	93·8	27th & 28th	55·7	1st	38·1
29	Gulbarga	1,503	28·481	+·001	29·956	28·564	11th	28·403	25th	·161	74·1	92·5	−0·1	66·4	+2·1	79·4	+1·0	26·1	98·0	26th & 28th	54·8	3rd	43·2
	Raichur	*1,311*	28·655	−·002	29·934	28·723	11th	28·580	25th	·143	74·9	91·9	−0·9	69·2	+1·0	80·6	+0·1	22·7	96·6	25th	59·1	2nd	37·5
	Hyderabad (Deccan)	1,690	28·298	+·011	29·976	28·365	11th	28·225	1st	·140	69·3	89·9	−1·4	65·1	+1·7	77·6	+0·2	24·8	95·3	27th & 28th	57·7	2nd	37·6
	Hanumkonda	871	29·125	+·001	29·963	29·193	11th & 12th.	29·034	25th	·159	72·9	90·6	+0·6	67·9	+1·6	79·3	+1·1	22·7	96·0	25th	61·2	3rd	34·8
	XIII.—Mysore.																						
30	Chitaldroog	2,405	27·578	−·012	29·927	27·638	7th	27·528	25th	·110	74·7	90·2	+0·9	66·9	+1·0	78·6	+1·0	23·3	94·6	28th	60·9	3rd	33·7
	Hassan	3,149	26·890?	+·011?	29·981?	26·956	7th	26·842	25th	·114	68·7	87·2	+0·9	59·1	+1·5	73·2	+1·2	28·1	91·6	28th	53·8	2nd	37·8
	Bangalore	3,021	26·996	−·020	29·972	27·063	11th	26·939	1st	·124	67·3	87·6	+1·8	60·1	+0·5	73·9	+1·2	27·5	92·8	28th	55·8	13th	37·0
	Mysore	2,518	27·491	−·001	29·972	27·554	7th	27·443	2nd	·111	70·3	88·8	0	63·6	+0·7	76·2	+0·4	25·2	93·0	28th	60·0	13th	33·0
	XIV.—Madras.																						
31	Mangalore	65	29·919	−·018	29·917	29·992	7th	29·875	24th & 25th.	·117	78·0	86·2	−1·9	71·8	−0·5	79·1	−1·2	14·4	91·7	13th	64·9	2nd	26·8
	Calicut	27	29·954	−·015	29·911	30·019	7th	29·906	24th	·113	76·8	86·8	−1·9	73·3†	+0·7†	80·1†	−0·6	13·5	88·3	4 days	69·1	14th	19·2
	Cochin	9	29·972	−·010	29·910	30·033	7th	29·921	25th	·112	77·3	89·9	0	74·1	+0·4	82·1	+0·2	15·8	91·7	4 days	71·7	4 days	20·0
	Trivandrum	198	29·769	+·005	29·900	29·825	7th	29·731	1st	·094	76·8	85·1	+0·1	73·3	+0·3	79·2?	+0·2	11·8	86·5	6 days	70·0	6th	16·5
32	Tinnevelly	168	29·843	+·009	29·943	29·922	7th	29·784	25th	·138	77·7	92·9	+0·9	72·2	−0·5	82·6	+0·2	20·7	96·2	28th	67·9	1st	28·3
	Pamban	37	29·961	−·001	29·925	30·025	11th	29·904	25th	·131	77·7	84·8	−0·1	74·0	−0·9	79·5	−0·5	10·8	86·7	26th	72·0	2nd	14·7
	Madura	447	29·562	−·002	29·953	29·637	11th	29·504	25th	·133	76·0	91·4	−0·6	69·3	−0·2	80·4	−0·4	22·1	94·9	28th	64·6	9th	30·3
	Periyakulam	944	29·055		29·959	29·137	11th	28·995	1st	·142	72·2	91·0		64·7		77·9		26·3	95·0	28th	58·7	10th	36·3
	Pudukkottai	318	29·694		29·951	29·774	11th	29·642	25th	·132	74·2	90·3		69·3		79·8		21·0	93·3	16th 17th & 18th.	65·3	6th	28·0
	Negapatam	31	29·959	−·022	29·919	30·035	11th	29·903	25th	·132	77·4	84·8	+0·4	72·3	+0·2	78·6	+0·3	12·5	86·9	1st & 21st	68·5	2nd	18·4
	Trichinopoly	255	29·755	−·014	29·948	29·836	11th	29·697	25th	·139	75·9	91·2	−1·1	68·9	+0·5	80·1	−0·3	22·3	94·6	17th 18th & 28th.	64·8	4 days	29·8
	Coimbatore	1,348	28·651	−·012	29·972	28·731	11th	28·590	25th	·141	71·6	91·5	−0·5	66·4	+0·9	79·0	+0·2	25·1	97·4	28th	62·3	13th	35·1
	Salem	940	29·091	−·011	29·989	29·166	11th	29·031	25th	·135	74·7	92·9	−0·7	66·7	+1·2	79·8	+0·3	26·2	97·5	28th	61·4	24th	36·1
	Cuddalore	37	29·972	+·002	29·940	30·052	11th	29·909	25th	·144	73·9	85·3	−0·1	69·3	+0·4	77·3	+0·2	16·0	87·6	17th & 18th	65·2	1st	22·4
	Vellore	707	29·306		29·971	29·389	7th & 11th	29·234	25th	·155	70·5	89·1		65·1		77·1		24·0	92·2	2nd 23rd & 26th.	60·5	1st	31·7
	Madras	22	29·886	−·019	29·939	30·073	11th	29·920	25th	·153	75·7	86·6†	−0·3†	69·5	+1·5	78·0†	+0·6	17·1	89·5	17th	66·5	27th	23·0
33	Cuddapah	433	29·562	−·001	29·941	29·629	7th & 12th.	29·475	25th	·154	75·8	92·8	−2·3	68·5	−0·6	80·6	−1·5	24·3	97·7	26th	63·6	28th	34·1
	Bellary	1,475	28·502	−·013	29·948	28·569	11th	28·433	25th	·136	73·3	95·0	+0·8	67·5	+2·1	81·3	+1·5	27·5	99·0	4 days	59·3	3rd	39·7
	Kurnool	923	29·051	−·013	29·940	29·123	11th	28·972	1st	·151	72·4	94·0	−0·5	66·5	+1·7	80·2	+0·6	27·5	99·2	28th	56·1	2nd	43·1
34	Nellore	66	29·939	−·004	29·935	30·021	11th	29·862	25th	·159	74·6	88·6	−2·0	70·0	+0·9	79·3	−0·6	18·6	92·8	22nd	66·1	28th	26·7
	Masulipatam	15	30·023	+·014	29·973	30·104	11th	29·932	25th	·172	75·8	86·4	−0·5	70·1	+1·8	78·3	+0·7	16·3	89·8	26th	67·1	24th	22·7
	Cocanada	26	29·997	0	29·959	30·089	11th	29·907	25th	·182	74·7	84·6	−1·2	69·9	+0·3	77·3	−0·5	14·7	90·7	25th	66·5	1st	24·2
	Waltair (Vizag.)	*226*	29·797	−·001	29·969	29·897	11th	29·703	25th	·194	75·6	82·7		71·9		77·3		10·8	86·1	26th.	69·4	6th & 13th.	16·7
	Calingapatam	19	30·012		29·971	30·112	11th	29·305	25th	·207													
	Gopalpur	72	29·952	+·019	29·967	30·056	11th	29·826	25th	·230	71·9	84·1	+0·6	68·6	+0·7	76·4	+0·7	15·5	87·2	26th & 27th.	64·0	15th	23·2

N.B.—Elevations in italics indicate barometrical determinations. † Mean of 27 days.

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

-continued.

India, etc., in February, 1909—continued.

Wind direction. Number of winds from N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity in miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 28th Feb. 1909.	Normal rainfall for period, 1st Dec. to 28th Feb.	Departure from normal of period, 1st Dec. 1908 to 28th Feb. 1909.	Heaviest rainfall during month.	Station.
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																													XII.—Hyderabad—*concld.*	
2		4	5	12	1		S 20° W		5·7			54		53		·452		0·7		0	0·40	− 0·40	0·07	0·18	− 0·11	0·45	0·72	− 0·27	0·07	Bidar.
3	6	5	8			1	S 52° E	N 89° E	7·2	7·7	−0·5	49	+23	49	0	·420	+·027	1·4	+0·5	0	0·40	− 0·40	0	0·29	− 0·29	0·13	0·36	− 0·23	0	Gulbarga.
1	3	17	2			1	S 52° E	S 23° E	3·4	7·0	−3·6	67	+36	56	+ 4	·498	+·050	2·1	+1·1	0	0·20	− 0·20	0	0·24	− 0·24	0	0·24	− 0·24	0	Raichur.
3		7		2			S 53° E	S 68° E	3·5	4·1	−0·6	29	+20	67	0	·477	−·018	3·0	+1·6	0			0·05	0·15	− 0·10	0·05	0·38	− 0·33	0.05	Hyderabad (Deccan).
1		16	4	1			S 36° E		6·3			67		70	+ 1	·536		4·1		0	0·60	− 0·60	0	0·26	− 0·26	0·04	0·78	− 0·74	0	Hanumkonda.
																													XIII.—Mysore.	
	5	7	1	1	1	1	S 51° E	S 6° E	5·7	6·3	−0·6	36	+20	47	− 4	·409	−·015	1·7	+0·2	0	0·10	− 0·10	0	0·07	− 0·07	1·20	0·17	+ 1·03	0	Chitaldroog.
1	10	5		1	1	2	S 80° E	S 72° E	4·4	2·8	+1·6	39		67		·475		2·5		0	0·10	− 0·10	0	0·06	− 0·06	0·26	0·24	+0·02	0	Hassan.
1	12	8	6	1			S 57° E	S 62° E	8·1	5·0	+3·1	74	+19	71	+ 1	·474	−·004	1·5	−0·2	0	0·20	− 0·20	0	0·09	− 0·09	0·90	0·71	+ 0·09	0	Bangalore.
3	6	2	1	5	2		S 47° E	S 89° E	6·4	7·9	−1·5	21	− 1	69	+ 1	·516	+·008	4·4	+2·2	1	0·30	+ 0·70	0·25	0·22	+ 0·03	1·44	0·39	+ 1·05	0·25	Mysore.
																													XIV.—Madras.	
9	12	1				1	N 76° E	N 75° E	4·7*	2·9	+1·8	53	−11	74	− 3	·715	+·010	2·4	+0·7	0	0·10	− 0·10	0	0·03	− 0·03	0·21	0·53	− 0·32	0	Mangalore.
5	9	8					S 87° E	N 69° E	7·1	9·8	−2·7	63	− 4	81	+ 3	·752	+·017	2·2	+0·2	0	0·40	− 0·40	0	0·15	− 0·15	4·77	1·31	+ 3·46	0	Calicut.
13	13						N 68° E	N 41° E	7·1*	5·5	+1·6	85	+14	74	− 1	·696	−·045	1·4	−0·2	1	1·70	− 0·70	0·12	0·87	− 0·75	3·14	3·07	+ 0·07	0·12	Cochin.
10	1					2	N 35° E	N 55° E	4·5*	4·7	−0·2	39	− 8	79	+ 1	·730	+·007	2·0	−0·6	2	1·10	+ 0·90	0·71	0·64	+ 0·07	2·85	3·51	− 0·66	0·50	Trivandrum.
5	1				2	7	N 6° W	N 17° W	4·9	4·9	0	74	− 2	72	− 5	·686	−·026	3·5	+1·2	3	1·80	+ 1·20	0·76	1·48	− 0·72	3·61	6·25	− 2·64	0·31	Tinnevelly.
1	3						N 34° E	N 56° E	7·5		−1·5	67	− 8	81	+ 2	·769		3·8		2	0·50	+ 1·50	2·34	0·73	+ 1·61	12·19	12·37	− 0·18	2·04	Pamban.
6	2					4	N 12° E	N 14° E	7·4	4·5	+2·9	56	− 7	78	+ 3	·691	+·004	4·7	+2·7	1	0·90	+ 0·10	0·16	0·51	− 0·35	4·28	2·62	+ 1·66	0·12	Madura.
		2					S 45° E		2·2			4		69		·545		1·2		4	1·40	+ 2·60	1·68	0·97	+0·71	6·25	3·16	+ 3·09	1·18	Periyakulam.
7						8	N 88° W		8·1			86		82		·696		4·8		1			1·53			4·75			1·53	Pudukkottai.
10					1	17	N 17° W	N 18° E	9·3	6·4	+2·9	70	+30	78	− 2	·740	−·014	4·4	0	1	0·80	+ 0·20	1·67	0·58	+ 1·09	10·89	14·74	− 3·85	1·62	Negapatam.
4	1				1	2	N 8° E	N 27° E	3·5*	3·9	−0·4	35	0	77	− 1	·689	+·004	3·3	+0·6	1	0·50	+ 0·50	1·24	0·79	+ 0·45	7·42	3·82	+ 3·60	1·24	Trichinopoly.
14					1	2	N 31° E	N 63° E	3·7	2·9	+0·8	49	−14	73	−10	·572	−·090	3·4	+0·9	0	0·80	− 0·80	0	0·46	− 0·46	2·45	1·75	+0·70	0	Coimbatore.
5	9	1	1	2	2	1	N 77° E	N 53° E	4·0	5·3	−1·3	32	−23	79	+ 5	·686	+·052	3·1	+1·5	1	0·50	+ 0·50	0·27	0·33	− 0·06	3·44	1·82	+ 1·62	0·27	Salem.
1					6	11	N 46° W	N 60° W	6·9	2·2	+4·7	63	+12	87	− 2	·738	−·012	4·8	+0·8	1	0·70	+ 0·20	0·18	0·71	− 0·53	5·95	9·70	− 3·74	0·10	Cuddalore.
				1		1	N 45° W		3·6*			4		86		·643		3·1		3	0·50	+ 2·50	0	0·13	− 0·13	7·00	3·50	+ 3·50	0	Vellore.
2	2	1	7	4	1	2	S 57° W	S 34° W	4·9*	5·0	−0·1	4	−12	87	+ 5	·778	+·036	2·9	+0·2	0	0·60	− 0·60	0·05	0·23	− 0·18	6·82	6·77	+ 0·05	0·05	Madras.
4	11	11		1	1		S 74° E	S 72° E				74	+11	73	+ 7	·646	+·032	2·6	+1·7	0	0·20	− 0·20	0	0·07	− 0·07	4·03	1·37	+ 2·66	0	Cuddapah.
	2	8	4	2		2	S 33° E	S 11° E	3·6	4·0	−0·4	36	+16	45	−11	·367	−·101?	1·6	+0·1	0	0·10	− 0·10	0	0·02	− 0·02	0·26	0·22	+ 0·04	0	Bellary.
1	8	7	1		1		S 72° E	S 58° E	6·2*			49	+41	62	+ 4	·492	+·014	1·2	+0·4	0	0·10	− 0·10	0	0·02	− 0·02	0·02	0·21	− 0·19	0	Kurnool.
2	3	4	7	1		3	S 41° E	S 14° E	4·3*	4·6	−0·3	25	+ 9	85	0	·734	−·008	4·1	+1·6	0	0·30	− 0·30	0	0·10	− 0·10	8·50	2·29	+ 6·21	0	Nellore.
1	3	7	11	1			S 27° E	N 41° E	5·7	4·7	+1·0	62	+39	84	− 2	·743	−·005	3·3	+0·7	0	0·30	− 0·30	0	0·22	− 0·22	0·20	1·07	− 0·87	0	Masulipatam.
5	1	2				1	N 28° E	N 17° W	7·0	7·2	−0·2	39	−28	78	+ 4	·668	+·030?	6·6	+4·4?	0	0·50	− 0·50	0	0·37	− 0·37	0	1·28	− 1·28	0	Cocanada.
4	2	1		3	12	1	N 68° W	N 86° W	5·4			36	−27	70	− 1	·616	−·032	3·8	+1·8	0	0·50	− 0·50	0	0·17	− 0·17	0	2·13	− 2·13	0	Waltair (Vizag.).
2		1	4	7	4	4	S 84° W		5·8			36						3·5		1			0·19			0·20			0·19	Calingapatam.
				4	3	9	N 33° W	N 37° W	10·1	10·8	−0·8	70	+ 8	81	+ 3	·627	+·010	1·9	−0·5	0	0·90	−0·90	0	0·48	− 0·48	0	1·35	− 1·35	0	Gopalpur.

* Uncorrected.

Tabl

(2) *Abstract of observations taken at 8 hrs., at 240 station*

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	Stations in the Bay.																						
1	P. V. Fraser	8	30·036		29·962	30·130	11th	29·920	25th	·210	75·6												
	Car Nicobar	25	29·911		29·863	29·943	6th	29·826	1st	·117	82·1	86·2		77·1		81·7		9·1	88·0	26th & 28th.	71·4	12th	13·6
	Port Blair	58	29·901	−·026	29·889	29·961	11th	29·843	1st	·118	78·3	86·5	−1·6	76·0	+1·1	81·3	−0·3	10·5	88·7	2nd	72·5	21st	16·2
	Slipper Island	90	29·861		29·885	29·933	11th	29·787	24th	·146	79·1	86·1		76·0		81·1		10·1	92·6	28th	73·1	13th	19·5
	Kashmir.																						
14	Srinagar	5,204	24·978	+·024	24·959	25·188	12th	24·687	24th	·501	26·5	39·3	−3·0	23·5	−3·8	31·4	−3·4	15·8	49·1	19th	10·1	6th	39·0
	Gulmarg	*8,569*																					
	Sonemarg	*8,764*	21·796		21·764	22·005	12th	21·561	2nd	·441	17·3	31·8		11·3		21·6		20·5	47·4	19th	−9·4	4th	56·8
	Dras	*10,059*	20·756	−·006	20·724	21·025	12th	20·476	23rd	·549	−5·9	17·3	−5·2	−19·4	−8·7	−1·0	−7·0	36·7	32·9	21st	−41·0	6th	73·9
	Leh	11,503	19·629	+·018	19·597	19·864	12th	19·345	25th	·519	10·7	28·9	−2·5	6·3	−3·5	17·6	−3·0	22·6	40·1	20th	−4·0	5th	44·1
	Skardu	*7,505*	22·952	+·024	22·922	23·242	12th	22·601	24th	·633	14·9†	32·9	−5·5	10·6†	−3·4†	22·0†	−7·0	22·3	43·9	22nd	−8·4	6th	52·3
	Minimarg *	*9,359*	21·071		21·039	21·281	12th	20·803	24th	·478	17·0	32·7		9·4		21·1		23·3	53·8	15th	−7·0	1st & 4th.	60·8
	Astor	*7,955*	22·556		22·523	22.822	12th	22·258	24th	·564	20·5	38·3		16·9		27·6		21·4	51·4	15th	0	5th	51·4
	Gilgit	4,890	25·246		25·219	25·524	12th	24·846	24th	·678	38·9	51·6	+0·3	34·8	−1·8	43·2	−0·8	16·8	61·2	21st	28·2	1st	35·0
	Baluchistan.																						
16	Quetta	5,502	24·679	+·019	24·639	24·816	9th	24·460	22nd	·356	36·7	52·2	−0·9	30·4	−1·3	41·3	−1·1	21·8	68·1	19th	19·0	25th	49·1
	Chaman	4,311	25·748	+·025	25·710	25·900	9th	25·519	22nd	·381	42·0	55·4	−0·6	36·3	−1·8	45·9	−1·2	19·1	72·8	19th	23·7	25th	49·1
	Robat		27·053†		27·011†	27·342	9th	26·804	21st	·538	48·7	65·8		43·0‡		54·1‡		22·8	81·0	18th	27·8	24th	53·2
	Hill Stations, excluding Kashmir and Baluchistan.																						
	Chitral	*5,486*									35·0	50·3		30·9		40·7		19·4	60·6	19th	24·5	1st & 4th.	36·1
	Para Chinar	6,000	24·436		24·397	24·594	12th	24·124	24th	·470	37·4	50·9		30·4		40·7		20·5	62·6	17th	19·1	3rd	43·5
	Cherat	*4,956*	25·774	+·045	25·742	25·903	14th	25·519	24th	·384	43·1	50·7	−1·4	39·9	−0·2	45·3	−0·8	10·8	62·1	19th	28·0	25th	34·1
	Murree	6,333	23·840†	+·012†	23·808†	24·018	14th	23·599	24th	·419	38·0	45·3	−2·7	32·6	−1·9	39·0	−2·3	12·7	52·0	17th	21·5	25th	37·5
	Kailang	*10,087*	20·908		20·863	21·122	12th	20·649	2nd	·473	16·2	32·2	−1·2	11·3	−2·4	21·8	−1·8	20·9	40·3	15th	−3·5	5th	43·8
	Simla	7,224	23·074	−·004	23·036	23·174	12th	22·934	2nd	·240	38·7	46·6	+0·7	35·4	−0·2	41·0	+0·3	11·2	54·5	19th	25·9	4th	28·6
	Sarain		23·178		23·140	23·273	14th	23·030	2nd	·243	35·6	45·6		27·7		36·6		17·9	55·4	18th	18·3	6th	37·1
	Kalabagh							Register not received.															
	Chakrata	7,022	23·304	+·036	23·264	23·396	12th	23·183	2nd	·213	38·9	52·3	+1·1	35·3	−0·8	43·3	+0·2	17·0	61·8	17th & 18th,	27·7	1st & 2nd.	34·1
	Muktesar	7,592	22·832	+·002	22·791	22·919	14th	22·746	1st	·173	40·6	51·4	+1·8	35·3	+0·6	43·4	+1·2	16·1	59·0	28th	26·0	2nd	33·0
	Darjeeling	7,376	23·022	+·037	22·977	23·094	11th & 13th.	22·914	1st	·180	42·4	50·5	+2·7	36·3	+0·7	43·5	+1·7	14·3	62·3	28th	29·7	1st	32·6
	Shillong	4,920	25·165		25·117	25·247	13th	25·084	21st	·163	50·2	64·1		41·6		52·8		22·5	72·9	26th, 27th & 28th.	31·7	4th	41·2
	Cherra Poonjee	4,309	25·747		25·698	25·828	13th	25·664	21st	·164	54·5	63·5		48·3		55·9		15·2	71·2	25th	42·3	7th & 9th.	28·9
	Maymyo †	3,545	26·488	−·015	26·433	26·562	11th	26·420	1st	·142	54·4	74·7	−0·4	43·8§	+1·2§	59·3§	+0·4	30·9	81·9	27th	35·1	12th	46·8
	Pachmarhi	3,528	26·528	+·007	26·475	26·605	11th	26·429	21st	·176	60·1	76·0	+0·5	51·2	−0·3	63·6	+0·1	24·8	83·7	24th	39·1	7th	44·6
	Mount Abu	3,945	26·114	+·004	26·064	26·195	7th	26·009	22nd & 23rd.	·186	59·4	67·7	−1·1	52·8	−0·8	60·3	−1·0	14·9	74·2	13th & 20th.	42·9	4th	31·3
	Mercara	3,781	26·269	−·016	26·202	26·327	11th	26·211	25th	·116	64·8	81·1	−0·1	59·0	+0·2	70·1	+0·1	22·1	85·5	28th	56·0	2nd & 3rd.	29·5
	Ootacamund	*7,329*	23·058		22·991	23·113	8th	23·021	2nd	·092	53·2	65·6		42·6		54·1		23·0	70·5	14th	37·7	5th, 8th & 14th.	32·1
	Kodaikanal	7,688	22·843	−·039	22·778	22·884	11th	22·801	8th	·080	52·9	65·2	−0·7	47·1	−1·1	56·2	−0·9	18·1	70·5	26th	43·0	6th	27·5

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

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

* Mean of 25 days.

‡ " " 24 "

-continued.

India, etc., in February, 1909—continued.

Wind direction. Number of winds from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity in miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 28th Feb. 1909.	Normal rain fall for period, 1st Dec. to 28th Feb.	Departure from normal of period, 1st Dec. 1908 to 28th Feb. 1909.	Heaviest rainfall during month.	Station.
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																													Stations in the Bay.	
8				6	3	2	N 18° W		6·04			32		73		·650		3·1		1			1·04			1·04			1·00	P. V. Fraser.
15	7						N 48° E		4·1			85		79		·868		9·5		6			2·97			11·25			1·00	Car Nicobar
6	1	2				1	N 35° E	N 9° E	3·6¶	5·0	−1·4	39	−12	86	+2	·832	+·018	6·2¶¶	+2·8	7			3·72	0·40	+ 3·32	11·56	8·04	+ 3·52	1·26	Port Blair.
4	4	1				3	N 16° E		10·5			70		78		·770		6·5		2			0·49			0·58			0·23	Slipper Island.
																														Kashmir.
	1	7	3	3	1	4	S	S 24° E	3·7	3·5	+0·2	22	− 1	81	− 8	·115	−·043	7·9	+0·3	7	6·40	+0·60	3·46	2·80	+0·66	10·91	7·20	+3·71	1·57	Srinagar.
																														Gulmarg.
3	4					1	N 39° E		3·4			32		86		·088 **		5·7		12			13·48			39·67			4·75	Sonemarg.
3	1						N 56° E		0·4			11		89	− 1	·055		5·2		10	8·20	+1·80	3·62	1·98	+ 1·64	10·57	6·02	+4·55	1·27	Dras.
		1	1	1			S	S 27° W	1·2¶	1·2	−0·1	9	−27	59	+12	·045	+·009	7·4	+1·4	1	1·00	0	0·24	0·35	− 0·11	1·03	0·85	+0·18	0·19	Leh.
1		1	2				S 34° E		1·2			7		99†	+ 6	·098†		4·8		1	2·60	−1·60	0·51	0·64	− 0·13	1·34	1·70	−0·36	0·47	Skardu.
6	6	2		1	1		N 72° E		9·5			40		67		·067		5·5		10			8·55			23·44			2·42	Minimarg.
			13	4			S 10° W		3·2			56		65		·079		6·0		1			1·20			4·86			0·80	Astor.
					6		W		2·9			21		68	+12	·163	+·027	7·2	+0·7	1	0·90	+0·10	0·26	0·16	+ 0·10	0·66	0·46	+0·20	0·26	Gilgit.
																														Baluchistan.
1	2	3	2		1		S 57° E	S 4° W	2·3	3·5	−1·2	14	+ 2	75	+ 1	·162	−·004	5·1	+1·3	7	6·40	+0·60	2·86	2·21	+ 0·65	5·46	5·05	+0·41	1·12	Quetta.
	4	9	5	4	1	3	S 20° E	S 46° E	6·7	8·4	−1·7	46	−15	72	+ 8	·190	+·003	5·5	+1·4	6	4·30	+1·70	1·43	1·75	−0·32	4·08	3·97	+0·11	0·34	Chaman.
6		1	3	6	5	1	S 79° W		7·3			18		64		·228		2·5		2			0·31			1·35			0·15	Robat.
																													Hill Stations excluding Kashmir and Baluchistan.	
3				1			N 11° E		1·0			18		74		·151		4·0		4			0·99			1·79			0·29	Chitral.
1			4	1			S		4·1			14		77		·170		3·8		3	4·80	−1·80	1·92	1·93	− 0·01	4·71	3·35	+1·36	1·00	Para Chinar.
3		1	2	1	1	10	N 24° W	N 16° W	13·6	13·6	0	53	− 3	46	−14	·134	+·032	4·1	−0·3	5			5·60	3·31	+ 2·29	7·21	6·38	+0·83	2·81	Cherat.
1		13	8			1	S 32° E	S 68° E	9·6	8·9	+0·7	63	+23	59	− 5	·130	−·014	5·0	+0·2	8	2·70	+5·30	4·38	3·84	+ 0·54	9·18	8·65	+0·53	1·60	Murree.
	2	12	3	5	6		S 4° E		1·0¶	1·0	0	54		82		082		5·0		6			2·87	3·02	− 0·15	7·11	7·02	+0·09	0·78	Kailang.
														59	+ 3	·132	+·001	4·9	+0·4	5	4·00	+1·00	2·92	3·00	− 0·08	6·29	6·94	−0·65	1·22	Simla.
1	2	1	10				S 17° E		2·5			36		75		·156		4·7		8			8·96			15·46			3·62	Sarain.
												Register		not		receiv	ed.													Kalsbagh.
					1	1	N 6° W	N 66° E	7·1	6·3	+0·8	63	+32	61	0	·152	+·003	4·4	+0·8	6	5·60	+0·40	5·75	4·20	+1·55	12·67	9·09	+3·58	2·07	Chakrata.
5	8	2		1	1		N 83° E		6·2			39		57	− 5	·141		4·6		6			1·37	2·66	− 1.29	4·74	5·74	−1·00	0·30	Muktesar.
4	3	5	1	4	3	2	S 33° E	S 53° E	4·3	5·5	−1·2	14	− 6	74	−10	·202	−·009	3·0	−1·8	1	2·52	−1·52	0·22	1·01	− 0·79	0·35	1·95	−1·60	0·22	Darjeeling.
				11			S 45° W		3·5			39		65		·240		0·8		0	1·90	−1·90	0·11	0·79	− 0·68	0·16	1·60	−1·44	0·05	Shillong.
2				4	7		S 87° W		5·3			30		62		·267		2·1		1	3·10	−2·10	1·10	2·08	− 0·98	1·43	3·12	−1·69	0·95	Cherra Poonjee.
	1						E		2·3			4		82	− 1	·357		0·9		1	0·30	+0·70	0·29	0·30	− 0·01	0·29	0·81	−0·52	0·29	Maymyo.
1	6	5	2	2	2	3	S 49° E	S 23° W	4·5†	4·4	+0·1	25	+ 9	54	+ 3	·286	−·009	0·9	−1·3	1	1·00	0	0·50	0·47	+ 0·03	0·50	1·59	−1·09	0·44	Pachmarhi.
1		1		6		3	N 23° E	N 45° W	7·0	6·1	+0·9	21	− 7	34	− 8	·173	−·033	4·0	+2·0	0	0·50	−0·50	0·01	0·29	− 0·28	0·06	0·83	−0·77	0·01	Mount Abu
0	5					1	N 44° E	N 60° E	3·0	4·3	−1·3	56	+14	72	+ 2	·438	−·010	2·8	−0·2	1	0·30	+0·70	0·82	0·14	+ 0·68	2·40	0·67	+1·73	0·82	Mercara.
9	8	4					N 79° E		3·3			60		63		·256		2·1		0	1·20	−1·20	0	0·38	− 0·38	9·97	2·38	+7·59	0	Ootacamund.
6	2	2			1	7	N 5° E		13·1¶			60		51	− 6	·202		2·4		0	2·30	−2·30	0·08	1·61	− 1·53	11·72	9·55	+2·17	0·08	Kodaikanal.

§ Mean of 26 days. † Mean of 27 days. ‖ 8 hrs. velocity. ¶ Uncorrected. ** Mean of 20 days.

¶¶ Wind observations 127 days.

Tab

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

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	2
	Extra India.																						
57	Singapore (a)	10	29·950		29·881	30·029	11th	29·845	23rd	·184	80·9	85·9		72·4		79·2		13·5	89·8	14th	71·0	4 days	18
	Penang (a)	20	29·919		29·864	29·940	16th	29·890	25th	·050	81·0	88·9		74·9		81·9		14·0	91·0	13th, 15th & 16th.	74·0	6 days	17
	Trincomalee	12	29·864?	+·010?	29·922?	30·049	7th	29·933	1st	·116	75·1*	85·0	0	74·0*	−1·1*	79·5*	−0·6	11·0	86·5	4 days	71·0	2nd	15
	Colombo	40	29·920*	−·028*	29·887*	29·989	7th	29·869	1st	·120	73·1	88·5	+0·2	72·8	−0·1	80·7	+0·1	15·7	93·0	12th	69·0	2nd	24
	Minicoy	7	29·998			30·056	8th	29·955	25th	·101													
	Amini Divi	*13*	29·992	+·008	29·933	30·064	7th	29·946	22nd	·118	81·5	86·9	+1·7	74·6	−1·5	80·8	+0·1	12·3	89·9	28th	70·2	4th	19
	Gyantse	13,120									17·2	44·3		8·8		26·6		35·5	52·3	24th	0·5	18th	51
	Phari Jong	14,400	17·826		17·785	17·936	11th	17·639	1st	·297	14·1	41·9		0·4		21·2		41·5	65·6	15th	0	16th	65
	Gangtok*	5,660?	24·479		24·434	24·565	11th	24·368	1st	·197	54·2	62·5		41·4		52·0		21·1	75·9	27th	35·8	2nd & 8th.	40
	Gartok	15,100?	17·163		17·129	17·376	28th	16·986	1st & 23rd	·390	11·4	25·6		0·7		13·1		24·9	36·4	16th	−20·0	8th	56
	Kashgar (c)	4,255	25·648			25·880	10th	25·420	22nd	·460	22·8	44·3	−0·1	18·0	−4·3	31·4	−2·2	26·8	59·6	19th	1·3	5th	58
	Kabul		24·305¶		24·274¶	24·477	16th	24·011	24th	·466	22·9	44·0¶	−4·5	14·7	−8·4	29·6¶	−6·5	29·3	53·2	21st	−5·1	5th	58
	Meshed	3,104	26·780		26·758	27·023	21th	26·512	6th & 16th	·511	32·7	51·8		23·8	−4·6	37·8		28·0	66·6	12th	4·8	24th	61
	Jask	13	30·047	−·005	30·017	30·182	8th	29·849	21st	·333	68·4	77·0*	+2·1*	65·2*	+3·4*	71·1*	+2·8*	11·8	88·3	22nd	58·8	3rd	2
	Muscat	20	30·042	−·012	30·010	30·209	9th	29·838	21st	·371	71·0	79·4	+6·6	68·9	+1·1	71·2	+3·9	10·5	85·3	20th	62·6	3rd	2
	Bahrein	18	30·046		30·017	30·184	9th	29·903	16th	·281	65·0	69·9		61·2		65·6		8·7	78·3	20th	52·3	9th	2
	Bushire	14	30·015	−·061	29·988	30·249	7th	29·836	16th	·413	59·5	69·3	‖+3·7	56·1	+3·3	62·7	+3·5	13·2	82·1	15th	47·6	4th	3
	Busrah	25	30·039§		30·025§	30·163	27th	29·835	15th	·328	55·3	66·3		49·5		58·2		17·3	76·8	24th	39·1	7th & 9th	3
	Kerman										38·6	61·8		32·6		47·2		29·2	70·2	12th	17·4	3rd	5
	Ispahan	*5,817*								Regist	er not	recei	ved										
	Tehran (b)	*4,009*	25·912			26·050	4 days	25·650	16th	·400	35·1	51·7	−0·3	31·7	−1·1	41·7	−0·7	20·0	63·5	12th	23·7	2nd	3
	Baghdad‡	220	29·917	−·040	30·129	30·230	7th	29·616	15th	·614	47·8	67·7	+3·4	44·4‖	+2·8‖	55·9‖	+3·1	23·3	73·8	15th	40·0	2nd	3
	Beirut				29·933						58·0	64·3		50·6		57·5		13·7	72·8	18th	42·0	24th	3
	Aden	94	29·955	+·008	29·982	30·057	8th & 9th	29·869	25th	·188	75·7	80·0	−1·7	73·6	+0·2	76·8	−0·8	6·4	81·3	4 days	69·4	1st	1
	Perim	201	29·765	−·024	29·904	29·878	8th	29·687	25th	·191	76·5	82·8	−0·7	73·5	−0·7	78·2	−0·7	9·3	84·3	27th	72·2	2nd	1
	Zanzibar	72	29·911	+·002	29·910	29·953	8th	29·867	26th	·086	82·0	87·3	+0·3	79·3	−1·1	83·3	−0·4	8·0	89·8	27th	76·0	3rd	1

N. B.—The elevations in italics indicate barometrical determinations.

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

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

* Mean of 27 days. ‡ Mean of 18 days. § Mean of 17 days.

concluded.

40 stations in India, etc., in February, 1909—concluded.

Wind direction.														Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.										Station.
r of winds from																																				
			E.		S.E.		S.	S.W.		W.	N.W.		Resultant direction	Normal direction.	Mean velocity in miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Mean amount of cloud at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 28th Feb. 1909.	Normal rainfall for period, 1st Dec. to 28th Feb.	Departure from normal of period, 1st Dec. 1908 to Feb. 1909	Heaviest rainfall during month.	
7	28	29	30	31	32	33							34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																				Extra India.
9												1	N 32° E		4·8†			39						5·8		14			9·74			42·48			2·21	Singapore.
1	5	3									4		N 17° E		11·5†			60						0·6		8			5·19			13·37			1·90	Penang.
5													N 33° E	N 7° E	1·7	6·9	-5·2	25	+ 4	91	+10	·795	—·016	2·8	−0·3	2			1·81	1·98	—0·17	19·31	23·26	− 3·95	1·61	Trincomalee.
0	7												N 63° E	N 58° E	4·7	6·4	−1·7	53	0	92	+20	·758	−·030	4·9	+2·5	3			1·02	2·29	− 1·27	3·77	12·28	− 8·51	0·61	Colombo.
4													N 14° E	N 20° E	4·5	5·2	−0·7	93	+27					1·8	−1·3	0			0	0·35	−0·35	6·58	7·10	− 0·52	0	Minicoy.
5	2										7		N 2° E					82		71	−5	·761	—·070	3·5	−0·4	0			0	0	0	3·50	0·51	+2·99	0	Amini Divi.
		1	18	5	4								S 28° E		6·3(j)			86		74		·074				0			0			0			0	Gyantse.
		2	2	12	3						2		S 1° W		3·7			24		‡ 81		‡ ·073		0·7		0			0			0			0	Pharijong.
													(d)		¶ 1·0					66		·277		1·6		3			0·59			8·74			0·20	Gangtok. (k)
1			8	8	2								S 20° E		11·3			54						4·8		0			0			0			0	Gartok.
													(d)	N 25° W	0·5	1·5	−1·0							4·2	−0·8	0			0	0·12	−0·12	0	0·58	− 0·58	0	Kashgar.
5	4			1	1	2		5					N 4° E	S 51° E				54	+45	78		·105		3·6	+0·3	6			2·07	0·98	+1·09	6·22	2·51	+ 3·71	0·55	Kabul.
			1	4									N 70° E		1·3			4		77		·143		5·4	+0·8	2			0·34	1·03	− 0·69	1·28	2·14	− 0·86	0·15	Meshed.
7	10										3		N 44° E	N 10° E	¶ 11·2	12·2	−1·0	60	—8	84	+8	·588	+·091	3·1	+0·6	0			0·19	0·97	—0·78	1·83	2·62	− 0·79	0·09	Jask.
			1				1				5		N 48° W	S 82° W	4·3	4·7	−0·4	21	−20	73	+2	·563	+·052	2·7	+0·3	0			0	0·78	—0·78	4·70	2·32	+ 2·38	0	Muscat.
3	5	4				6		7					N 8° W		9·5			25		78		·493		2·0		0			0			0·80			0	Bahrein.
4	4	5						7					N 31° E	N 48° E	13·6	8·0	+5·6	36	−11	82	+6	·422	+·059	4·0		3			0·44	2·35	− 1·91	4·95	8·71	− 3·76	0·10	Bushire.
2			2	2	1	7		8					N 70° W		§§ 5·6*			44		85		·377		3·5		3			0·96			2·55			0·41	Busrah.
1	3	3	5	2	1	6							N 18° W		2·6			11		56††		·142††		2·7		0			0			0			0	Kerman.
																	Regis	ter	not re	ceiv	ed															Ispahan.
8	1				2	3							N 9° E	N 22° E	3·6	3·6	0	46	+16	80	+15	·166	+·007	2·2	−1·7	5			0·95	0·82	+ 0·13	3·21	3·48	− 0·27	0·40	Tehran.
	1	3	2		3	2							S 27° W	N 8° E	‖‖ 7·4	4·4	+3·0	10	−13	68	—2	·231	−·030	2·9	+0·3	4			0·70	2·17	− 1·47	1·24**	5·19	− 3·95	0·23	Baghdad.
2		8			15	1							S 18° W					53		70		·305		6·2		10			4·41			1·74			0·89	Beirut.
8													N 45° E	N 81° E	18·7	15·3	+3·4	99	+20	81	+ 5	·720	+·045	6·3	−0·1	0			0	0·29	—0·29	0·20	0·98	− 0·78	0	Aden.
		11	9	8									S 51° E	S 83° E	†† 16·3	19·2	−2·9	79	+ 8	73	−5	·671	−·045			0			0·05	0·26	− 0·21	0·16	0·68	− 0·52	0·05	Perim.
1			3		1								N 31° E	N 27° E	6·1	6·7	−0·6	64	−8	77	−1	·842	−·022	6·5	+0·4	2			1·32	2·81	− 1·49	6·05	11·27	− 5·22	1·05	Zanzibar.

‡ Mean of 20 days.

(d) Indeterminate.
(j) Mean of 13 days.

† Uncorrected.

** Rainfall for January 1909 not received.
(k) Wind observations of 24 days.

†† Mean of 25 days.
§§ " " 14 "
‖‖ " " 15 "

Table C.—Abstract of observations taken at 8 hrs., at 31 fourth-class stations in India, etc., in February, 1909.

Ta

Abstract of observations taken at 8

Number of subdivision.	Station.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.	Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	II.—Eastern Bengal and Assam.																							
4	Bishnath	55·7	78·7	...	42·1	...	60·4	...	36·6	86·5	27th	33·4	3rd	53·1	...	...	..	..	...	...	...	...	...	...
	Borjuli	55·9	79·7	...	48·6	...	64·2	...	31·1	89·0	27th	40·4	2nd & 3rd	48·6	...	...	...	...	...	...	...	...	...	...
	Chandkhira	58·6	83·4	...	51·1	...	67·3	...	32·3	91·6	28th	39·5	15th	52·1	...	...	...	...	...	...	...	...	...	...
	Doom Dooma	52·4	56·7	...	47·0	...	51·9	...	9·7	59·1	14th	43·4	12th	15·7	...	...	...	...	...	...	...	...	...	...
	Dikom	54·6	75·7	...	49·9	...	62·8	...	25·8	85·2	27th	43·4	12th	41·8	...	...	...	...	...	...	...	...	...	...
	Golaghat	58·8	77·3	...	50·9	...	64·1	...	26·4	85·1	27th & 28th.	43·9	11th	41·2	...	...	...	...	...	...	...	...	...	...
	Hailakandi	54·2	83·1	...	51·3	...	67·2	...	31·8	91·0	25th	44·0	9th	47·0	...	...	...	...	...	...	...	...	...	...
	Jorehat	57·3	76·9	...	51·8	...	64·4	...	25·1	84·4	25th	45·3	11th	39·1	...	...	...	...	...	...	...	...	...	...
	Messa	60·0	83·4	...	43·5	...	63·5	...	39·9	90·0	28th	39·8	9th	50·2	...	...	...	...	...	...	...	...	...	...
	Panerihat	50·8	79·0	...	47·2	...	63·1	...	31·8	86·1	24th	39·3	1st	46·8	...	...	...	...	...	...	...		...	...
	Srimangal	58·1	85·1	...	48·3	...	66·7	...	36·8	93·4	25th	39·8	3rd	53·6	...	...	...	...	...	...	...	...	...	...
5	Brahmanbaria	63·8	83·8	...	53·1	...	68·5	...	30·7	92·8	25th	43·4	3rd	49·4	...	...	...	...	...	...	...	...	...	...
	Dam Dim	48·0	85·1	...	43·9	...	64·5	...	41·2	89·9	15th, 16th, 17th & 25th.	34·9	7th	55·0	...	...	...	...	...	...	...	...	...	...
	Goalundo	62·7	83·8	...	50·8	...	67·3	...	33·0	93·1	25th	40·4	3rd	52·7	...	...	...	...	...	...	...	...	...	...
	Kalchini	62·9	79·7	...	46·3	...	63·0	...	33·4	85·9	27th	38·4	7th	47·5	...	...	..	...	...	...	...	...	...	...
	Nagrakata	59·3	80·4	...	52·1	...	66·3	...	28·3	87·1	22nd, 24th, & 25th.	42·0	6th	45·1	...	...	...	...	...	...	...	...	...	...
	Pabna	62·5	84·7	...	52·1	...	68·4	...	32·6	95·2	25th	42·5	3rd	52·7	...	...	...	...	...	...	...	...	...	...
	III.—Bengal.																							
6	Fraserganj	70·9	...	...	...	...	...	...	...	...	...	...	...	...	...	19	...	...	...	9	...	...	...	N
	XI.—Central Provinces.																							
24	Chhindwara	60·6	82·9	...	54·3	...	68·6	...	28·6	89·7	28th	44·9	2nd	44·8	...	10	7	1	...	...	1	...	9	N 3° W
	Hill Stations.																							
	Panighatta	61·5	78·6	...	55·0	...	66·8	...	23·6	85·5	27th	41·3	6th	44·2	...	...	...	...	...	...	...	...	...	...
	Kurseong	50·8	63·0	...	47·8	...	55·4	...	15·2	70·9	28th	42·1	8th	28·8	...	...	...	...	...	...	...	...	...	...
	Poo	...	37·2	...	16·5	...	26·9	...	20·7	46·3	15th	4·9	1st	41·4	22	1	1	2	1	...	...	1	...	N 63° E
	Karjil	10·5	21·4	...	5·7	...	13·6	...	15·7	34·6	24th	1·0	11th	33·6	...	7	9	1	2	...	...	3	6	N 7° E
	Killa Drosh	36·0	50·7	...	30·1	...	40·4	...	20·6	61·3	17th	25·0	1st	36·3	23	...	4	1	...	...	...	...	...	N 53° E
	Pishin	...	53·5	...	31·3	...	42·4	...	21·2	70·3	18th	19·5	25th	50·8	...	...	...	...	...	...	...	...	...	...
	Kalat	36·4*	52·9	−3·1	26·5	+1·8	39·7	−0·7	26·4	68·2	19th	17·9	3rd	50·3	...	4	...	...	...	23	...	1	...	S 3° W
	Extra India.																							
	Ahwaz	...	71·3	...	53·1	...	62·2	...	18·2	78·3	19th	44·0	2nd	34·3	...	...	...	...	2	...	...	...	...	S 45° E
	Birjand§	40·8	51·3	...	34·0	...	42·6	...	17·3	59·3	12th	22·9	3rd	36·4	14	4	11	1	1	1	3	...	...	N 41° E
	Chumbi ‖	24·4*	49·6*	...	19·7	...	34·6	...	29·9	57·5	24th	13·2	5th & 7th	44·3	14	...	10	...	...	...	...	...	...	N 45° E
	Kermanshah	37·9	49·9	...	29·5	...	39·7	...	20·4	69·2	16th	19·6	2nd	49·6	...	...	...	...	...	...	...	...	...	...
	Koweit	...	67·5	...	53·1	...	60·3	...	14·4	73·9	23rd	45·9	4th	28·0	2	1	2	...	6	1	...	5	11	N 54° W
	Maidan	...	...	...	...	...	...	...	...	...	...	...	Register not received.		...	...	...	...	...	...	...	...	...	...

§ Observations of 25 days, * Uncorrected for scale error. ‖ Observations of 26 days.

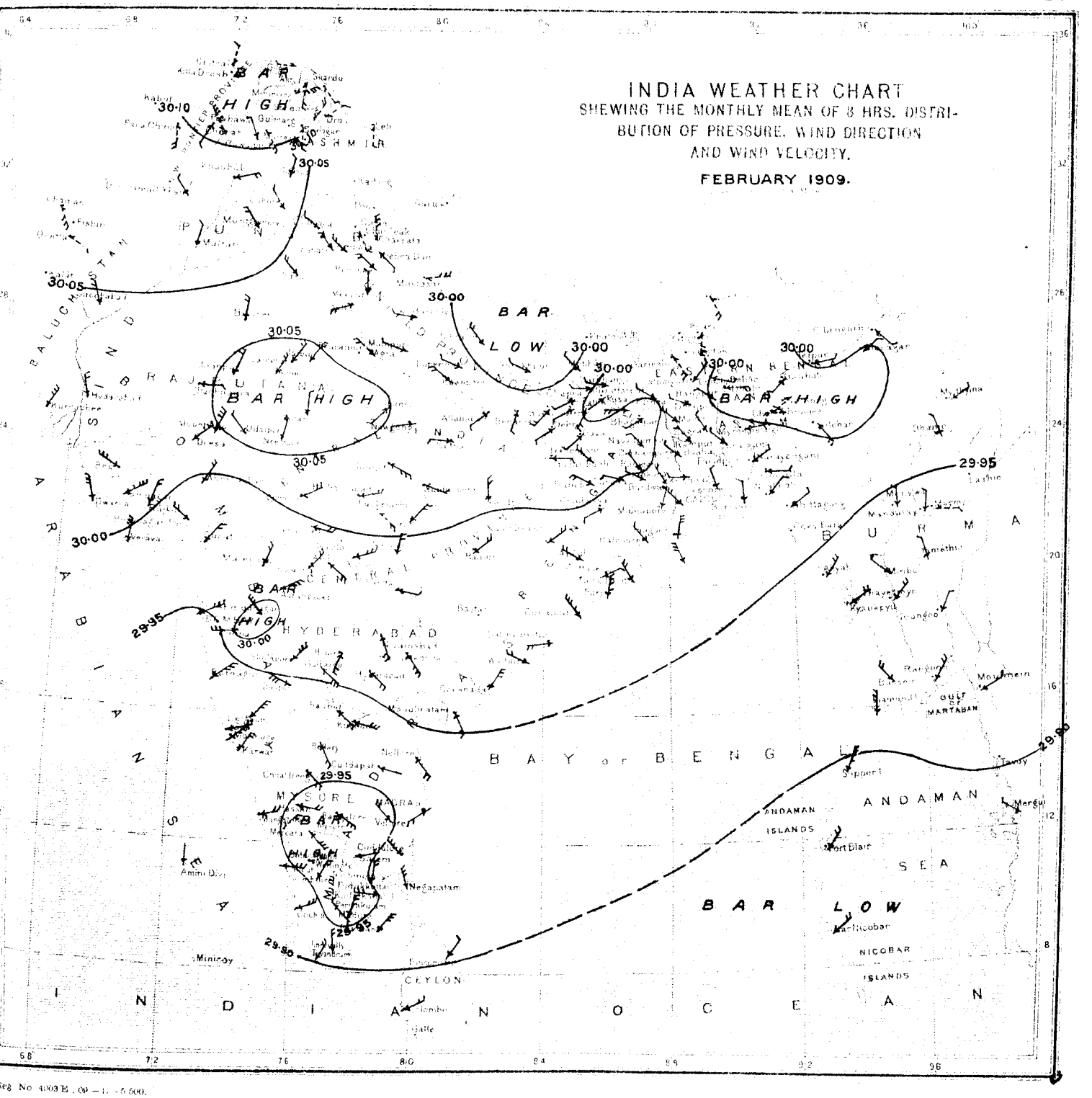
C.

at 31 fourth-class stations in India, etc., in February, 1909.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, in miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 28th Feb 1909.	Normal rainfall for period, 1st Dec. to 28th Feb.	Departure from normal of period, 1st Dec. 1908 to 28th Feb. 1909.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					II.—Eastern Bengal and Assam.
...	...	...	...	...	93	...	·420	...	...	...	1	...	...	0·19	...	..	1·14	...	...	0·17	Bishnath.
...	...	...	...	...	88	...	·402	...	...	...	0	...	...	0·07	...	...	0·92	...	...	0·07	Borjuli.
...	...	...	...	...	92	...	·460	...	...	...	1	...	...	0·47	...	...	2·07	...	...	0·47	Chandkhira.
...	...	...	...	...	96	...	·384	...	...	...	4	...	...	1·63	...	...	6·81	...	...	0·89	Doom Dooma.
...	...	...	...	...	95	...	·416	...	...	...	2	...	...	0·47	...	...	4·61	...	...	0·16	Dikom.
...	...	...	...	...	89	...	·448	...	...	..	3	...	...	0·35	...	..	1·19	...	...	0·13	Golaghat.
...	...	...	...	...	89	...	·377	...	...	...	1	...	...	0·17	...	...	2·38	...	...	0·11	Hailakandi.
...	...	...	...	...	92	...	·436	...	...	...	3	...	...	0·63	...	...	2·12	...	...	0·32	Jorehat.
...	...	...	...	...	78	...	·405	...	...	...	0	...	...	0	...	...	0·67	...	...	0	Messa.
...	...	...	...	...	87	...	·325	...	...	...	1	...	...	0·70	...	...	0·77	...	...	0·66	Panerihat.
...	...	...	...	...	81	...	·402	...	...	...	1	...	...	0·81	...	...	1·75	.	...	0·81	Srimangal.
...	...	...	...	...	75	...	·448	...	...	...	0	...	...	0	...	..	2·20		...	0	Brahmanbaria.
...	...	...	...	...	91	...	·311	...	...	...	1	...	...	0·34	...	...	0·44	...	...	0·33	Dam Dim.
...	...	...	...	...	74	...	·438	...	...	...	1	...	...	0·54	...	...	1·50	...	...	0·54	Goalundo.
...	...	...	...	...	70	...	·411		...	...	1	...	...	0·15	...	...	0·32	...	...	0·15	Kalchini.
...	...	...	...	...	68	...	·341	...	...	...	1	..	..	0·48	...	...	0·52	...	...	0·48	Nagrakata.
...	...	...	...	...	70	...	·409	...	...	...	0	...	...	0·12	...	...	1·08	...	...	0·09	Pabna.
																					III.—Bengal.
...	...	...	36	...	79	...	·602	...	...	...	1	...	...	0·50	...	...	0·57	...	...	0·50	Fraserganj.
																					XI.—Central Provinces.
3·9	...	...	75	...	62	...	·333	..	...	...	2	...	...	0·77	...	...	1·45	...	...	0·44	Chhindwara.
																					Hill Stations.
...	...	...	...	...	59	...	·321	...	...	...	1	...	...	0·18	...	...	0·38	...	...	0·16	Panighatta.
...	...	...	...	...	67	...	·247	...	...	...	1	...	...	0·29	...	...	0·63	...	...	0·21	Kurseong.
...	...	...	7	...	...	...	...	...	5·4	...	4	...	...	3·41 †	3·93	—0·52	5·57	8·18	—2·61	1·68	Poo.
...	...	...	57	...	34	...	·026	...	3·7	...	3	...	...	1·42	...	...	4·02	...	...	0·80	Kargil.
...	...	...	18	...	78	...	·165	...	3·3	...	5	...	...	1·47	...	...	2·22	...	...	0·70	Killa Drosh.
...	...	...	...	...	...	...	...	...	5·0	..	5	...	...	2·01	2·86	−0·85	4·23	6·22	—1·99	0·67	Pishin.
...	...	...	68	...	70	...	·153	...	...	...	6	...	...	2·81	1·26	+1·55	4·24	2·70	+1·54	0·95	Kalat.
																					Extra India.
...	...	...	4	...	...	...	...	...	2·6	...	1	...	...	0·67	...	...	3·80	...	...	0·55	Ahwaz. ‡
7·5	...	...	40	...	63	...	·165	...	3·8	...	4	...		2·54	...	...	3·35	...	...	1·60	Birjand.
...	...	...	39	...	68	...	·108	...	...	...	2	...	...	0·53	...	...	0·53	...	...	0·40	Chumbi. **
...	...	...	...	...	73	...	·170	...	...	...	5	...	...	2·59†	...	...	7·89†	...	...	0·90	Kermanshah
...	...	...	29	...	...	...	...	...	4·6	...	0	...	...	0·20	...	...	0·93	...	...	0·07	Koweit.
...	...	...	...	...	...	...	..	Register not received				...	...	...	...	...	...	...	...	...	Maidan.

† Snow water. ‡ Wind less 26. ¶ Mean of 16 days.

** Wind variable 2.

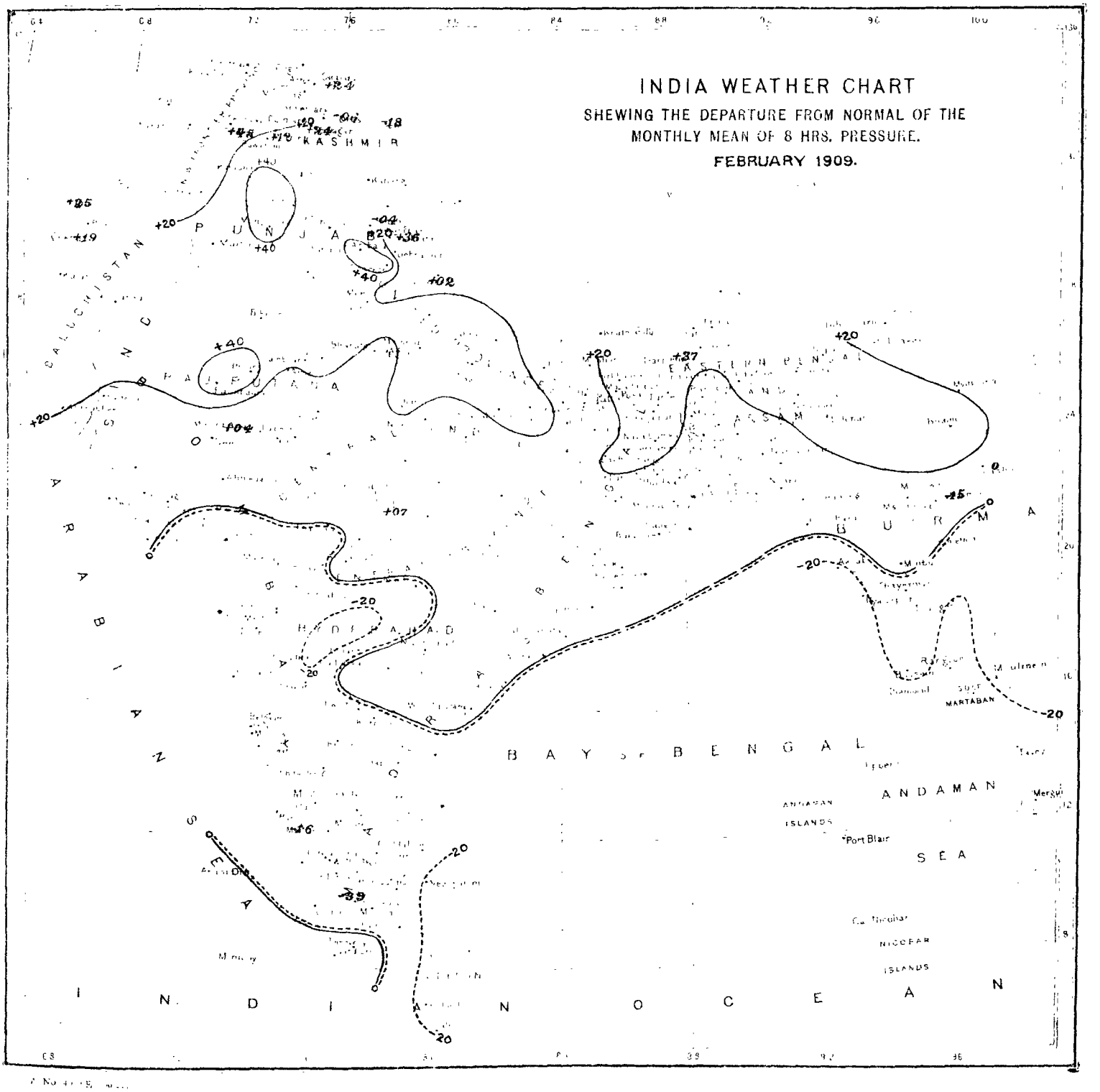


Reg No 4003 E. 09—1.—5 500.

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

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

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



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

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

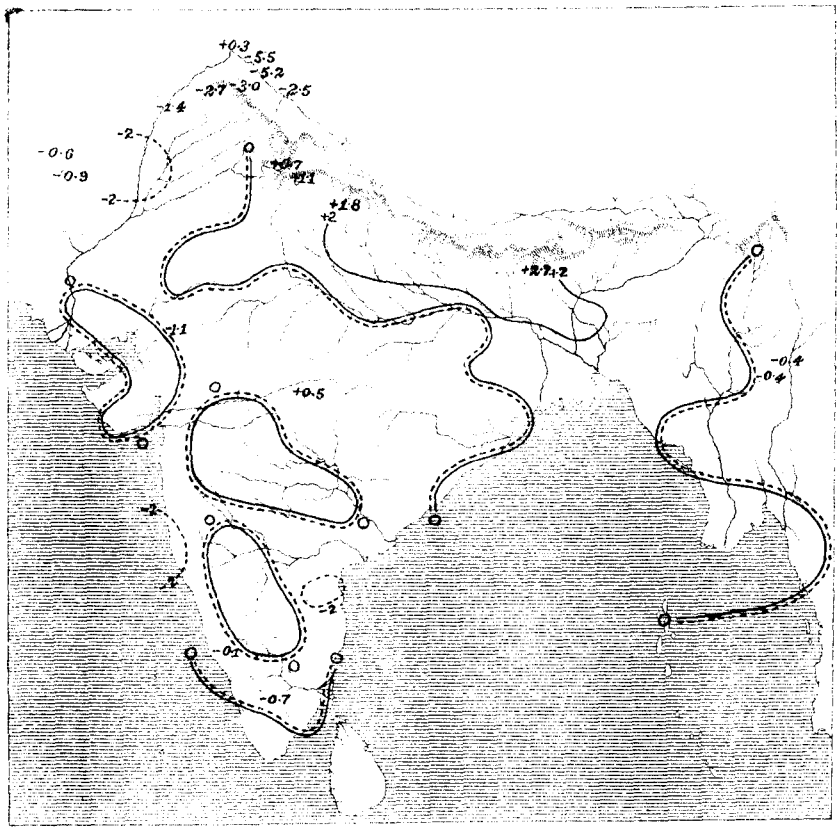


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.

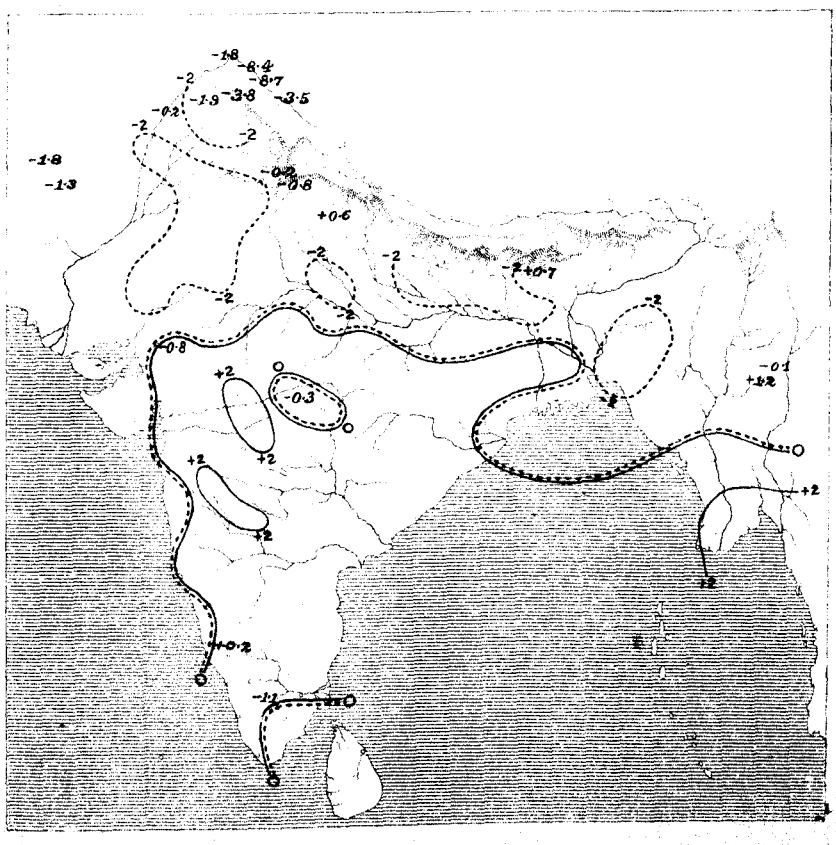


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MEAN TEMPERATURE.

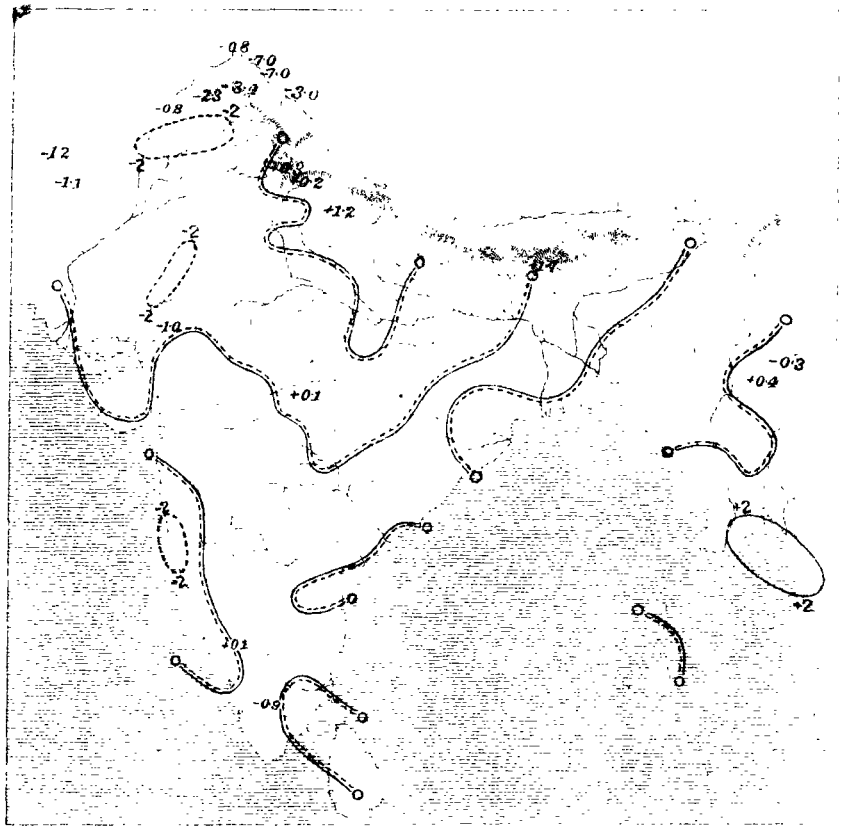
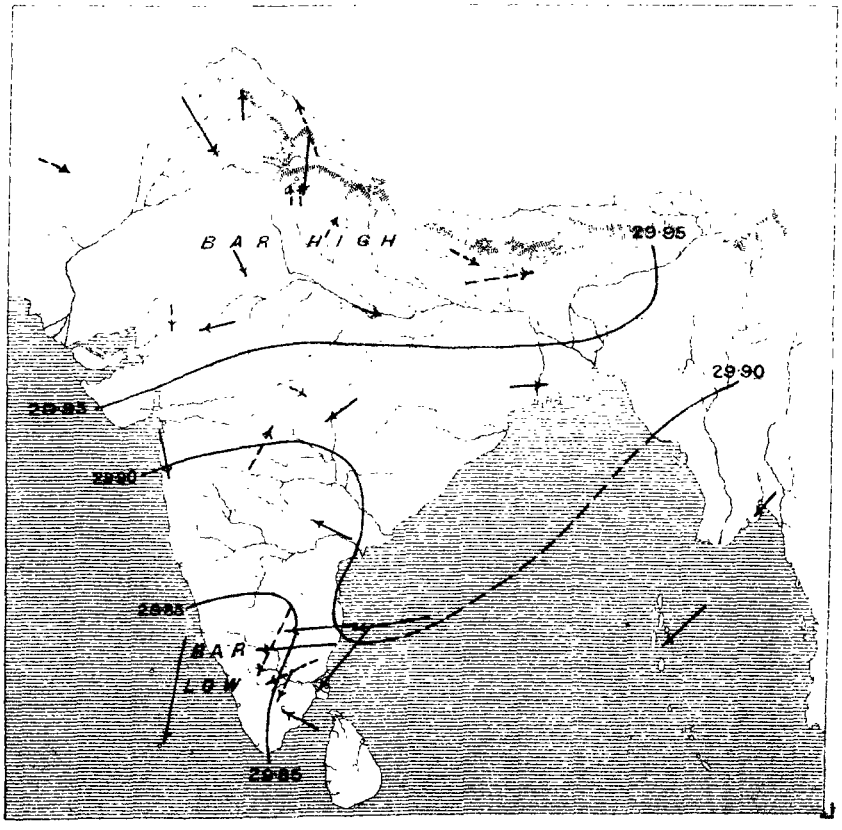


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.



LITHO. BY S. S. MUNDLE.

PLATE V.

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

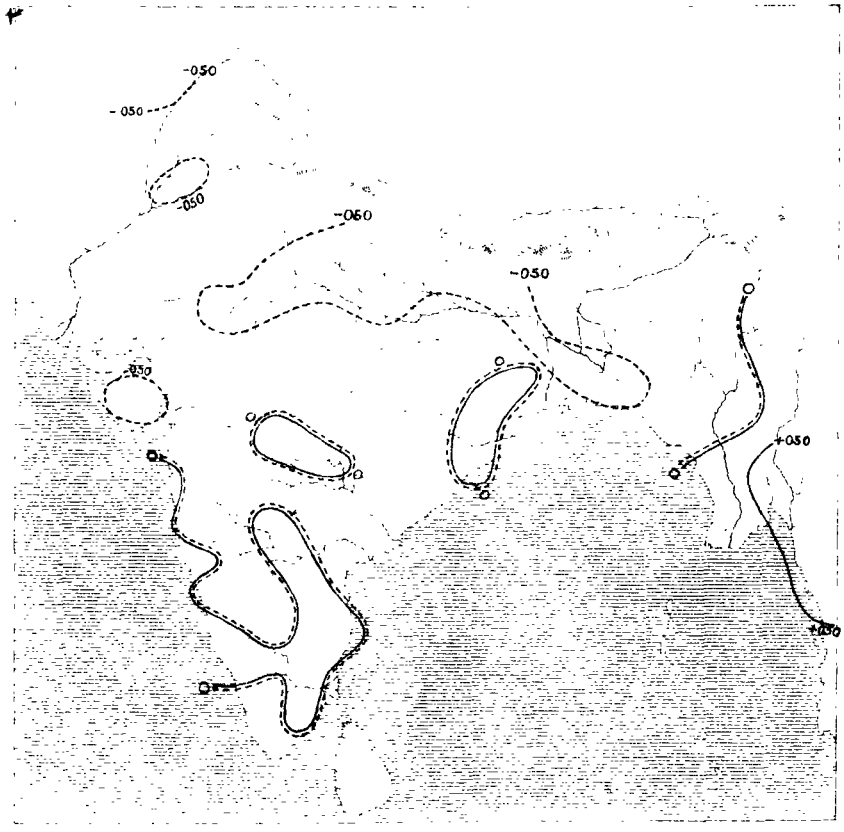


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 HRS.

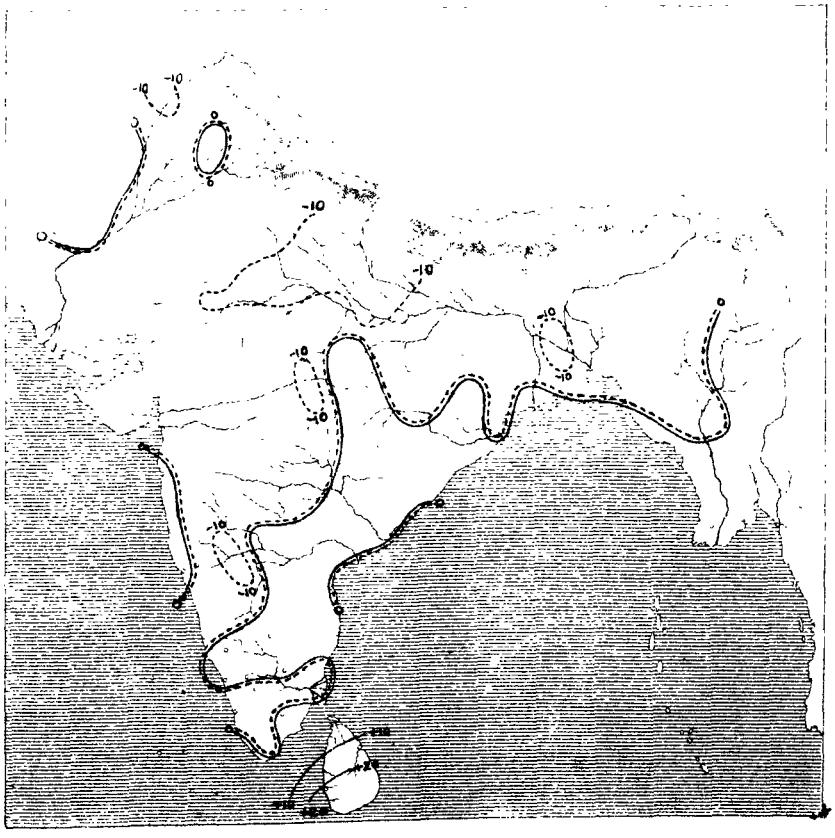


PLATE VI.

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

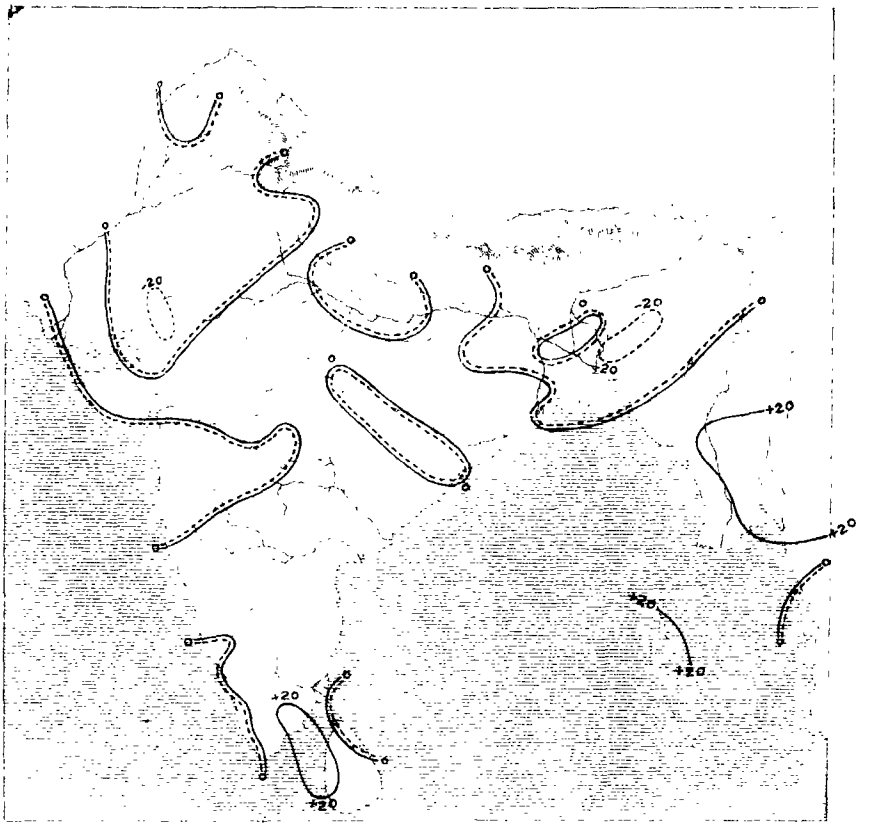
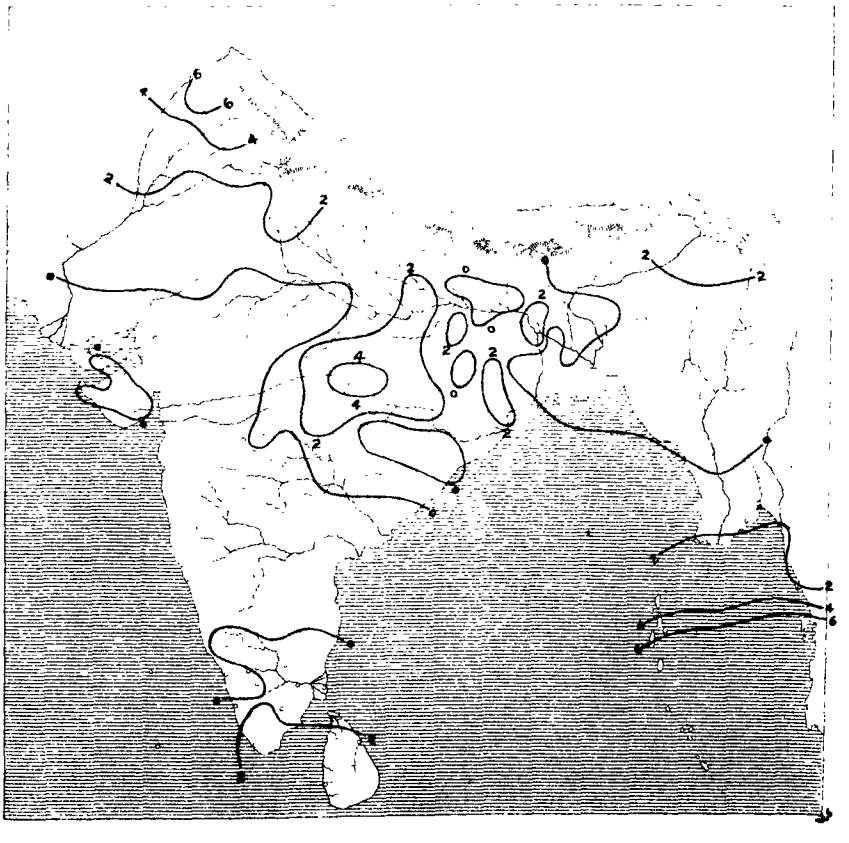
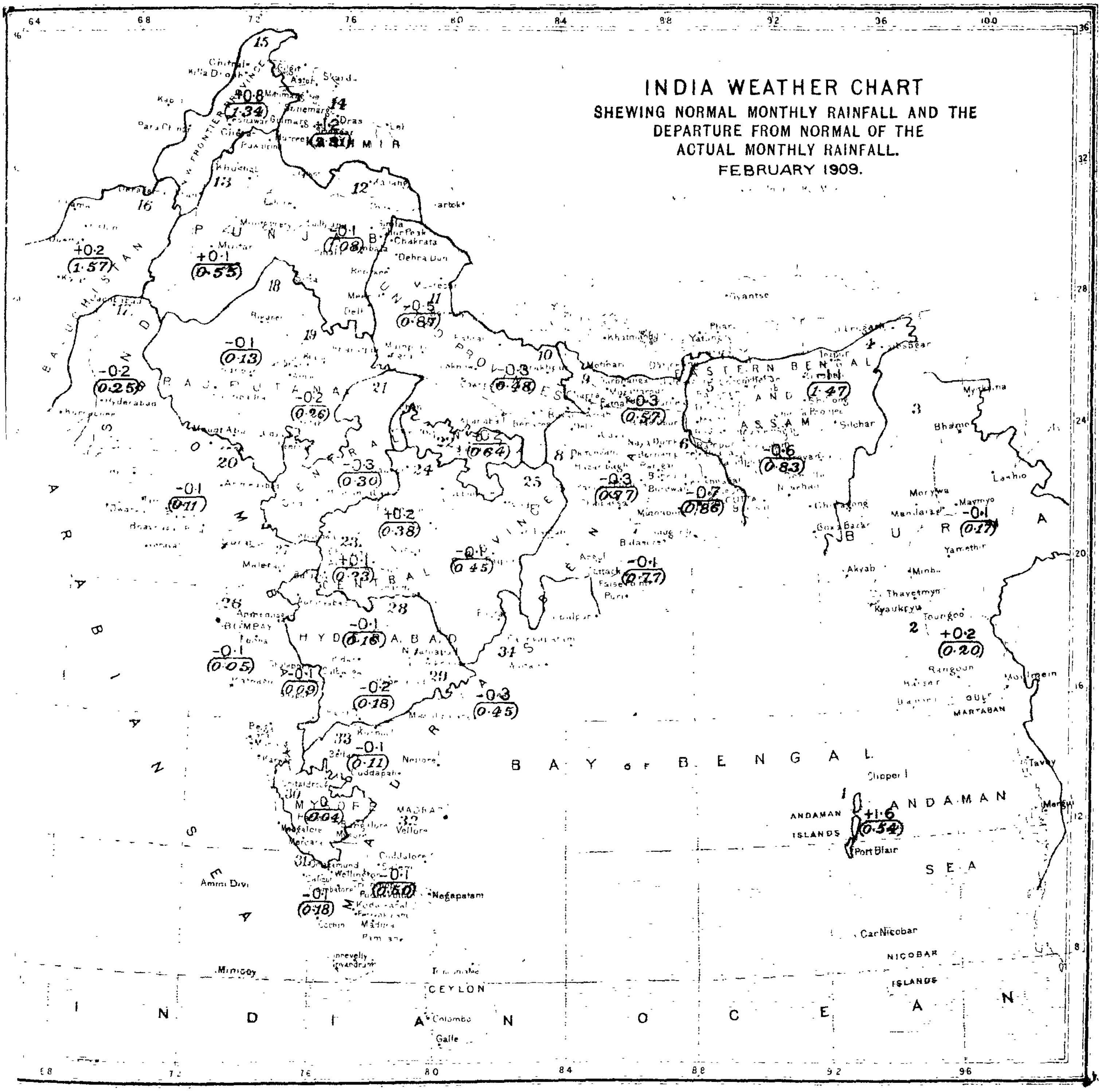


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EQUALLED OR EXCEEDED 0·10 INCH.

(BASED ON THE RETURNS OF TABLE B.)





The country is divided into 34 areas as shown in the list below. The numbers in that list correspond with the red numbers on the chart, and serve to identify the areas. The numbers in brackets on the chart give the average over the divisions of the normal monthly rainfall; the numbers above these give the departures from normal of the average actual rainfall over the divisions.

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

LIBRARY
SEP 8 - 1909
Weather Bureau

GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW.

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

SIMLA, MARCH, 1909.

INTRODUCTION.

THIS review of the weather in India during the month of March, 1909, is based on observations taken daily at 8 hrs. at 240 stations, and on additional observations taken at 10 hrs. and 16 hrs. at 35 stations. In the rainfall summary the data furnished by the meteorological observatories, and such rainfall statements of the month as had been published by the provincial Governments up to the date of the preparation of the review, have been utilized. The brief notes on solar, seismic and magnetic disturbances are supplied by the chief observatories in the Indian area.

Summary of the chief features of the weather in India during the month of March, 1909.

2. March 1909 was almost as dry as the corresponding month of 1898, which was the driest March on record. No rain fell in the United Provinces, Sind and Rajputana and practically none in Bengal, Central India and the greater part of Bombay. As, however, the quantity of rainfall received normally during March does not exceed half an inch over three-fourths of the country the defect recorded in the month under review was in general small. The total fall of the month was seriously below normal in northeast India, particularly in Assam which received barely a sixth of an inch, instead of 4½", its normal supply for the month.

Humidity was remarkably low over a large part of the country, while cloud was in defect in northern India and Bombay and in excess over the eastern half of the peninsula.

Except in northeast India, Berar and the adjacent districts to the west where it was rather high, temperature differed little from the normal. The excess in the northeast occurred entirely in the day temperature which was 3° to 8° above the average.

Mean 8 hrs. pressure averaged over the whole country was ·001" in defect of the corresponding normal value. There was a decided excess in northwest India and a similar defect in the northeast, a type of distribution favourable for the prevalence of dry westerly winds over northern India.

Solar, seismic and magnetic disturbances.

KODAIKANAL OBSERVATORY.

3. *Solar observations.*—The weather was fine throughout the month except on the 3rd when neither spots nor prominences could be observed, and the 2nd on which the prominence record was imperfect.

Sunspots.—The number of new spot groups recorded was 24 with a daily average of 4·4 as against 16 and 4·2 in February, but most of them were shortlived, the average life of a spot being only 5·3 days as against 7·7 in February.

Three of the new groups of the month were returns of old ones. The latitude distribution of the spots was as follows :—

TABLE 1.

—	1°—10°	11°—20°	Above 20°	Extreme lat.	Mean lat.
				° °	°
North	4	2	...	2, 13	8·7
South	8	8	2	2, 22	11·9

thus showing three times as many groups in the southern as in the northern hemisphere.

Groups Nos. 1611, 1613, 1615, 1629, 1631, 1632 and 1637 contained fairly large spots. The first three of these were groups which appeared towards the end of the previous month. Nos. 1611, 1613, 1629, and 1632 were scattered trains and very active, as indicated by the behaviour of the C and D_3 lines. The region about longitude 180° which showed a great spot activity during several previous rotations contained the groups 1628 to 1633 in March.

Prominences.—Fifty-two large, six metallic, and six eruptive prominences were recorded during the month. The tallest of them, which was 175″ high, was photographed on the 7th.

Magnetic disturbances.—There was a "great" magnetic disturbance on the 28th, "moderate" ones on the 18th, 19th, 20th and 27th and "small" ones on 10 other days. The region containing the 6 spot groups 1628 to 1633, mentioned above, crossed the central meridian from the 24th to the 28th.

C. MICHIE SMITH,

Director,

Kodaikanal and Madras Observatories.

BOMBAY OBSERVATORY.

Note on the Alibag Magnetic Record.

4. During the month of March 1909 the traces showed 12 calm days, 15 days, of small, 3 days of moderate and 1 day of great disturbance.

The days of the month selected as quiet for the purposes of the Magnetic Survey of India are the 9th, 10th, 15th, 16th and the 24th.

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

Easterly declination	1° 1′ 14″.	
Horizontal force	O. 36847 C. G. S.	
Vertical force	O. 15968	Ditto
Dip (calculated)	23° 25′·8	
Dip (observed)	23° 25′·1	
Horizontal force range	O. 00058 C. G. S.	
Horizontal force summed range	O. 00346	Ditto
Declination range	2′·2	
Declination summed range	8′·0	

(NOTE.—Summed range means sum without regard to signs of 24 cordi of diurnal inequality).

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

TABLE 2.

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

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

Seismic disturbances recorded at Bombay.—Four seis disturbances were recorded during the month, on the 1 13th, 17th and 29th.

List of seismic disturbances.

TABLE 3.

Date.	Commencement.	Max.	End.	Maximum Amplitude.	Durat
	H. M.	H. M.	H. M.	mm.	H.
March 12th and 13th.	23 37·8	23 57·3	0 36·1	1·5	0 5
13th	14 40·0	15 11·9	Lost in shifting time.	2·0	...
17th and 18th.	23 4·8	23 29·0	0 16·3	2·0	1 1
29th	9 9·7	9 12·4	9 19·8	0·2	0 1

All times given above denote G. M. T.

Sensibility 1. m. m.=0″·41.

N. A. F. MOOS, *Director*

Bombay and Alibag Observatori

CALCUTTA OBSERVATORY.

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

TABLE 4.

Date 1909.	P. T. Commencement. G. M. T.	L. W. Commencement. G. M. T.	Maximum. G.M.T.	End G.M.T.	Duration.	Maximum displacement on trace from mean position.	REMARKS.
	H. M.	H. M.	H. M.	H. M.	H. M.	mm.	
March 12th.	23 27 0	23 40·2	23 55·4	0 31·1* 13-3-0	1 4·1	1·75	*Ended in the morning air tremor.
March 13th.	14 37·9	14 45·0	14 48·5	16 13·8	1 35·9	1 50	
March 17th.	—	23 2·8	23 9·9	0 16·4 18-3-09	1 13·6	1·25	Sensibility 1 m.m.=0·38″ of tilt.

E. P. HARRISON,

Offg. Meteorologist, Calcutta.

SIMLA OBSERVATORY.

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

TABLE 5.

Date.	—	Commencement of 1st P. T. G. M. T.	Commencement of 2nd P. T. G. M. T.	Beginning of I. W G. M. T.	Time of Maximum amplitude. G. M. T.	End approximately G. M. T.	Duration.	Maximum displacement of style.	REMARKS.
		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	m. m.	
12th and 13th.	A.	...	...	...	...	...	...	...	Instrument under repair.
,,	B.	23 34·7	?	23 46·0	23 52·9	0 16·0	0 41	0·4	
13th ...	A.	...	...	...	...	...	...	...	,,
,,	B.	14 37·6	14 45·1	14 48·4?	14 50·0	15 40·0	0 62	0·5	
17th ...	A.	23 2·5	23 9·9	23 26·9	23 34·1	23 54·0	0 52	1·6	Absolute times doubtful to ± 1min.
,,	B.	?	?	?	23 24·7	?	?	0·4	

A=E-W Component.
B=N-S Component.
Magnification of both instruments=15.

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

Maximum	1·51
Minimum	1·35
Mean	1·44
Number of days of observation	8

J. H. FIELD,

Imperial Meteorologist, Simla.

ROYAL ALFRED OBSERVATORY, MAURITIUS.

7. *Solar observations.*—Observations were taken from the 1st to the 6th except the 4th, on the 11th, 13th and 15th and from the 25th to the 31st. Sunspots, singly and in groups, being seen throughout. They were specially numerous between the 25th and the 31st; faculæ were seen on each day of observation.

Magnetic disturbances.

TABLE 6.

Ray.	Time.	Disturbance.
2nd to 3rd	23h. to 1h.	Wave in H. F. (+12).
3rd	19h. to 23h.	Fluctuations in H. F. (+10).
5th	15h. 26m.	Sharp increase in H. F. (15) followed till 6th 3h. by a wave (—65).
6th	6½h. to 12h.	Wave in H. F. (—32) in declination small fluctuations.
9th	2½h. to 4h.	Wave in H. F. (+10).
12th	7h. to 9h.	Wave in H. F. (+8).
14th to 15th	22h. to 5h.	Small undulations in H. F.
21st to 22nd	15h. to 3h.	Wave in H. F. (—72) small fluctuations in decl.
23rd	13h. to 14h.	Undulations in H. F. (± 6).
25th	10½h. to 21h.	Wave in H. F. (+ 14) sharp at commencement.
26th	1h. to 3h.	Wave in H. F. (+ 24).
26th	16h. 18m.	Sharp increase in H. F. (10).
26th	14h.	Wave in H. F. (— 45).
27th	½h. to 2h.	Wave in H. F. (+ 25).
29th	0h. to 9h.	Undulations in H. F. (± 16).

T. F. CLAXTON,

Director.

Weather in the Indian monsoon region.

8. There was no marked departure from the normal pressure conditions in the subequatorial region as represented by Zanzibar and the Seychelles.

Winds were nearly normal as regards velocity: their direction was however considerably more easterly than usual at Zanzibar.

Rainfall was unusually scanty at the Seychelles (—86 per cent) and 66 per cent above the average at Zanzibar.

At Mauritius both pressure and rainfall were in marked defect.

TABLE 7.

—	Mauritius.	Zanzibar.	Seychelles.
Departure from normal of mean pressure.	—·077	—·008	—·003
Actual mean wind direction . .	S 58°E	S 74°E	N 17°W
Normal mean wind direction . .	S 78°E	S 44°E	N 17°W
Actual mean wind velocity (miles per diem.)	274	106	125
Normal mean wind velocity (miles per diem.)	250	130	118
Rainfall departure from normal . .	—3·42	+ 3·71	— 8·86

Depressions and cyclonic storms.

9. The disturbances which usually affect the weather in India during March belong either to the type of cold weather storms or to the class of local hot weather disturbances, such as hailstorms or thunderstorms. During the month under review the disturbances of the former class were very ill-defined and followed a somewhat more northerly course than usual. The precipitation associated with them was accordingly almost restricted to Kashmir and Baluchistan and on one occasion only, *viz.*, the 25th and 26th, did it extend to the plains of upper India.

There was thus a great similarity as regards general characteristics between the depressions of this and those of the previous two months.

Disturbances of the second class occur chiefly in Assam and Eastern Bengal, where under ordinary conditions sea breezes prevail. During the present month thunderstorms and hailstorms were of very rare occurrence in consequence of the prevalence in northern India of pressure conditions inimical to the sea breeze action.

Pressure.

10. The mean 8 hrs. pressure was more or less above the average over the greater part of northwest and central India, and in defect over the rest of the country. The excess was greatest (+·030″) in Sind, north Rajputana and the Punjab, while the largest defect, (—·032″), occurred along the foot of the eastern Himalayas from Darbhanga to Sibsagar. The gradient from west to east across northern India was thus considerably stronger than usual.

TABLE 8.

Division.	Departure from normal of mean 8 hrs. pressure.
	″
Burma	—·016
Eastern Bengal and Assam	—·022
Bengal	—·007
United Provinces	+·005
Punjab	+·029
North-West Frontier Province	+·015
Sind.	+·029
Rajputana	+·023
Bombay	—·008
Central India	+·004
Central Provinces	+·004
Hyderabad	—·004
Mysore	—·006
Madras	—·004

The vertical distribution was on the whole not unfavourable to the occurrence of normal precipitation in northwest India.

TABLE 9.

Hill station.	Departure from normal pressure. A	Plain station.	Departure from normal pressure. B	Departure of pressure difference. B—A
	″		″	″
Quetta	+·047	Jacobabad . .	+·038	—·009
Leh	+·009	Lahore . .	+·016	+·007
Murree	+·009	Peshawar . .	+·008	—·001
Simla	+·004	Ludhiana . .	+·021	+·017
Chakrata . . .	+·026?	Roorkee . .	+·017	—·009?
Darjeeling . . .	+·013	Dhubri . .	—·029	—·042
Mount Abu . . .	+·016	Deesa . .	—·004	—·020
Pachmarhi . . .	+·014	Khandwa . .	—·002	—·016

Temperature.

11. Deviations from normal of mean temperature were small in almost all parts of the country.

The monthly average of minimum temperature was within ½° of the normal value, except locally in Rajputana West where nights were 3° cooler than usual. Day temperature on the other hand did not correspond so closely with the normal, for in Assam, Eastern Bengal, Bengal, Bihar, the east of the United Provinces and Hyderabad North the maximum temperature of the air was from 3° to 8° higher than the average.

In comparison with normals, the hill stations of Darjeeling, Muktesar. Chakrata and Simla were warmer, both by day and night, than the neighbouring plains, but elsewhere in the hills the temperature conditions were approximately normal.

A spell of cold weather was felt over northwest India from the 26th to the 30th after the passage of the last depression of the month: temperature was as much as 13° to 14° below normal at Rawalpindi, Cherat and Murree on the 26th.

TABLE 10.

Division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
1. Bay Islands	88·1	76·5	82·4	11·7	17 7	—2·4	—0·6	—1·8
2. Lower Burma	92·7	72·0	82·4	20·7	31·1	—[illegible]·1	+0·9	—1·0
3. Upper Burma	96·3	64·6	80·5	31·7	45·5	+1·7	+0·2	+1·5
4. Assam	89·4	61·2	75·1	28·2	43·3	+5·8	—0·8	+6·6
5. Eastern Bengal	93·5	63·5	78·5	30·0	46·9	+5·1	—1·0	+6·1
6. Bengal	97·1	68·1	82·6	29·[illegible]	46·0	+4·6	+0·2	+4 4
7. Orissa	94·9	70·2	82·6	24·7	42·7	+2·1	—1·0	+3·1
8. Chota Nagpur	93·9	64·2	79·1	29·7	44·9	+2·4	+1·3	+1·1
9. Bihar	95·2	62·9	79·1	32·4	49·2	+4 3	—0·7	+5·0
10. United Provinces, East	94·3	60·5	77·4	33·8	50·3	+3·0	—0·5	+3·5
11. Do. do. West	89·4	58·1	73·8	31·3	47·8	+1·8	—1·3	+3·1
12. Punjab, East and North	84·1	54·4	69·2	29·7	47·3	+0·1	—1·6	+1·5
13. Punjab, Southwest	84·6	55·7	70·2	28·8	47·5	—0·7	—1·5	+0·8
14. Kashmir	46·3	24·9	35·6	21·4	44·7	—0·7	—1·3	+0·6
15. North-West Frontier Province	79·3	52·3	65·8	27·1	46 1	—0·5	—1·5	+1·0
16. Baluchistan	68·5	45·0	56·8	23·5	47·6	—0·6	—2·5	+1·9
17. Sind	89·4	62·7	76·1	26·7	42·1	—0·7	—0·6	—0·1
18. Rajputana, West	92·0	59·1	75·6	32·9	50·3	+0·4	—3·0	+3·4
19. Do. East	91·7	60·8	76·3	30·9	45·6	+1·4	—1·8	+3·2
20. Gujarat	94·0	64·5	79·3	29·5	43 9	+1·8	—1·3	+3·1
21. Central India, West	92·9	60·9	76·9	32 0	46·1	+0·9	—0·1	+1·0
22. Do. East	92·9	60·8	76·9	32·1	47·9	+1·0	—0·2	+1·2
23. Berar	98·9	70·5	84·8	28·4	40·2	+2·0	+2·2	—0·2
24. Central Provinces, West	96 4	65·3	80·9	31·1	46·7	+1·1	+0·7	+0·4
25. Do. do. East	96·0	68·2	82·1	27 8	42·2	+0·8	+2·2	—1·4
26. Konkan	87·7	74·3	81·1	13·4	20·6	+0·6	+0·6	0
27. Bombay Deccan	98·7	66·9	82·8	31·9	40·5	+2·5	+1·3	+1·2
28. Hyderabad, North	99·1	68·6	83·9	30·4	39·9	+3·2	+2·2	+1·0
29. Do. South	99·1	71·5	85·3	27·6	35·7	+0·7	—0·2	+0·9
30. Mysore	94 0	65·7	79·9	28·3	36·0	+1·6	—0·4	+2.0
31. Malabar	89·5	76·2	82·8	13 3	20·0	0	+0·3	—0·3
32. Madras, Southeast	93·7	71·7	82·7	22 0	33·2	—0·7	—0·6	—0·1
33. Do. Deccan	101·2	70·7	86·0	30·6	41·1	+0·8	—1·5	+2·3
34. Do. Coast, North	90·9	72·1	81·5	18·8	29·8	+0·5	—1·2	+1·7

TABLE 11.

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

Winds.

12. The abnormal character of the pressure distribution over northern India resulted in a strengthening of the usual dry westerly current down the Gangetic Plain and in its extension into Bengal as far as the eastern confines of Bihar. Thus at Patna the mean direction for the month was S57°W the normal being S63°E, and at Purnea the usual northeast winds were replaced by winds from between southwest and west. In the peninsula and Burma, regions of nearly uniform pressure, the deviations from the normal type were rather irregular and of no great significance from the standpoint of weather.

TABLE 12.

Division.	Departure from normal of	
	Hourly wind velocity.	Wind steadiness.
Burma	−0·3	−9
Eastern Bengal and Assam	−0·8	+7
Bengal	+0·1	+18
United Provinces	+0·2	+6
Punjab	+0·2	+10
North-West Frontier Province	−0·6	+14
Sind	−1·6	+23
Rajputana	−0·5	−2
Bombay	−0·9	0
Central India	−1·0	+17
Central Provinces	+0·4	+1
Hyderabad	−1·8	+8
Mysore	+1·2	−16
Madras	−0·4	0

Humidity and cloud.

13. The air was drier than usual, in point both of absolute and relative humidity, throughout the country with some local exceptions. The dryness was great in the east of the United Provinces, Bihar and the adjacent districts of Chota Nagpur on the one hand and over central Madras and the neighbouring districts on the other.

TABLE 13

Station.	Departure from normal of	
	Absolute humidity.	Relative humidity.
	"	
Bogra	—·131	—27
Purnea	—·209	—32
Lucknow	—·133	—20
Bahraich	—·157	—21
Hyderabad	—·155	—16
Bellary	—·172	—13

In the former regions the low humidities were associated mainly with dry westerly winds caused by the abnormal pressure conditions which prevailed, and were most marked about the middle of the month and again towards the end of the last week: at several stations the percentage of saturation on these occasions was as low as 10 to 18.

In the latter area, central Madras and the neighbouring districts, the greatest dryness occurred between the 12th and 18th when humidities of 8 to 24 per cent were observed at a number of stations.

The dryness of the air was not a phenomenon of the lower atmosphere merely, for at all the hill stations below the level of Leh, which is over 11,000 feet in height, the humidity was as much in defect as in the plains below.

The departures of cloud were parallel with those of the rainfall except in Madras, Mysore, the Central Provinces and the east of Central India, where notwithstanding the shortness of the rainfall skies were clouded to an unusual extent.

TABLE 14.

Division.	Hygrometry; 8 hrs.				Cloud.	
	Mean humidity.	Departure from normal.	Mean vapour tension in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.
Burma	72	0	·620	—·007	1·7	—0·4
Eastern Bengal and Assam.	69	—11	·527	—·070	1·8	—1·9
Bengal	48	—13	·413	—·088	1·5	—0·9
United Provinces	42	—13	·298	—·084	1·2	—0·8
Punjab	51	—7	·308	—·048	2·3	—0·6
North-West Frontier Province	50	—10	·306	—·055	2·8	—1·2
Sind	50	—5	·384	—·034	1·9	—0·6
Rajputana	37	—6	·269	—·012	1·0	—1·4
Bombay	53	—3	·483	—·019	1·0	—0·5
Central India	37	—8	·296	—·050	1·7	+0·2
Central Provinces	31	—10	·289	—·064	2·2	+0·7
Hyderabad	39	—11	·406	—·063	1·2	+0·1
Mysore	58	—5	·483	—·054	2·3	+0·7
Madras	72	—1	·713	—·034	2·8	+0·5

Rainfall.

14. Owing partly to the abnormal track of the cold weather depressions and partly to the prevalence of unusual pressure conditions, which checked almost completely the flow of damp air from the Bay into the interior, the precipitation of the month was in defect of the normal over practically the whole of the country; the only divisions where an excess occurred were the Bay Islands, Lower Burma and the Konkan. The deficiency exceeded half an inch in amount in northeast India, Kashmir, the North-West Frontier Province and the Punjab, and was absolutely greatest in Assam which received a total of 0·16," in place of the normal 4·51".

No rain fell during the month in Bihar, the United Provinces, Sind, Rajputana, Gujarat, Central India West, and scarcely any in Upper Burma, Eastern Bengal, Bengal, Chota Nagpur, the Punjab East and North, Central India East, Hyderabad South, the Madras Deccan and Madras Coast, North.

On the mean of the whole month and of the whole area there was a defect of 83 per cent in the rainfall; in respect of dryness the month was almost unique, being surpassed only by March 1898.

TABLE 15.

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure.
			"	"	"	
1. Bay Islands .	1·5	0·5	1·37	0·17	+1·20	+706
2. Lower Burma	0·6	0·5	0·44	0·28	+0·16	+57
3. Upper Burma	0	0·7	0·01	0·25	—0·24	—96
4. Assam . .	0·5	7·0	0·16	4·51	—4·35	—96
5. Eastern Bengal.	0·1	2·5	0·05	1·75	—1·70	—97
6. Bengal . .	0	1·7	0·01	1·01	—1·00	—99
7. Orissa . .	0·5	1·9	0·16	1·09	—0·93	—85
8. Chota Nagpur .	0·2	1·5	0·05	0·71	—0·66	—93
9. Bihar . .	0	0·8	0	0·36	—0·36	—100
10. United Provinces, East.	0	0·7	0	0·31	—0·31	—100
11. United Provinces, West.	0	1·1	0	0·48	—0·48	—100
12. Punjab, East and North.	0·3	1·5	0·09	0·73	—0·64	—88
13. Punjab, South-west.	0·6	1·3	0·14	0·50	—0·36	—72
14. Kashmir . .	4·0	5·0	1·55	2·66	—1·11	—42
15. North-West Frontier Province.	2·4	3·4	0·65	1·76	—1·11	—63
16. Baluchistan .	1·7	3·1	0·83	1·12	—0·29	—26
17. Sind . .	0	0·4	0	0·16	—0·16	—100
18. Rajputana, West.	0	0·2	0	0·07	—0·07	—100
19. Rajputana, East.	0	0·5	0	0·19	—0·19	—100
20. Gujarat . .	0	0·1	0	0·02	—0·02	—100
21. Central India, West.	0	0·2	0	0·19	—0·10	—100
22. Central India, East.	0·3	0·7	0·08	0·30	—0·22	—73
23. Berar . .	0·5	0·5	0·14	0·32	—0·18	—56
24. Central Provinces, West.	0·6	0·8	0·17	0·36	—0·19	—53
25. Central Provinces, East.	1·0	1·3	0·26	0·64	—0·38	—59
26. Konkan . .	0·2	0·1	0·10	0·06	+0·04	+67
27. Bombay Deccan.	0·4	0·4	0·15	0·19	—0·04	—21

TABLE 15—*concld.*

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal	Actual.	Normal.	Departure from normal.	Percentage departure.
			"	"	"	
28. Hyderabad, North.	0·5	0·8	0·18	0·34	—0·16	—47
29. Hyderabad, South.	0·2	0·8	0·04	0·49	—0·45	—92
30. Mysore . .	0·5	0·7	0·22	0·32	—0·10	—31
31. Malabar . .	0·9	1·0	0·35	0·57	—0·22	—39
32. Madras, South-east.	0·4	0·6	0·19	0·45	—0·26	—58
33. Madras, Deccan.	0·1	0·2	0·03	0·16	—0·13	—81
34. Madras Coast, North.	0·2	0·5	0·06	0·42	—0·36	—86

TABLE 16.

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Burma	0·20	0·26	—0·06	—23
Eastern Bengal and Assam. .	0·11	3·13	—3·02	—96
Bengal	0·04	0·77	—0·73	—95
United Provinces . . .	0	0·39	—0·39	—100
Punjab	0·10	0·68	—0·58	—85
North-West Frontier Province .	0·65	1·76	—1·11	—63
Sind	0	0·16	—0·16	—100
Rajputana	0	0·15	—0·15	—100
Bombay	0·09	0·11	—0·02	—18
Central India	0·03	0·17	—0·14	—82
Central Provinces . . .	0·18	0·41	—0·23	—56
Hyderabad	0·11	0·42	—0·31	—74
Mysore	0·22	0·32	—0·10	—31
Madras	0·14	0·42	—0·28	—67
Mean of India when the size of the above areas is taken into account.	0·10	0·58	—0·48	—83

Snowfall.

I.—*Afghanistan.*

15. Snow to a depth of 9 inches is reported to have fallen at Kabul on the 3rd of the month. At the close of the month the plain of Kabul, as well as the adjoining low hills, was clear of snow.

II.—*North-West Frontier Province.*

(*a*) *Wano.*—There was a fall of about 5 inches on the 5th down to 11,000 feet and another of about 2 inches on the 11th 3,000 feet lower. By the end of the month the hills had become quite bare of the snow covering.

(*b*) *Dera Ismail Khan.*—No snowfall took place on the Saraghar, Girni Sar and Gabar ghar peaks.

(*c*) *Kurram.*—There were in all seven falls on the Sufed Koh and the surrounding hills. Weather was unusually warm throughout. All the passes were open at the end of the month.

(*d*) *Kohat.*—Snow fell on the 3rd, 4th and 25th on the Tirah hills. The total fall amounted to 5 inches on the Mozioghar and 3½ inches on the Mahorah. No snow fell on the Samana Range.

(*e*) *Hazara.*—The statement below shows the character of the snowfall in this district :—

TABLE 17.

Name of Range.	Total snowfall of month.	
	Ft.	In.
Narang	4	2½
Kagan	1	4½
Jared	0	5

III.—*Kashmir.*

Snowfall was very irregular in occurrence and distribution. One slight fall occurred in Srinagar. At Skardu there were three snowstorms resulting in about half a foot of snow. At Sonemarg and on the Zoji-la and Hangsathu passes no less than sixteen falls occurred adding considerably to the existing accumulations, with the result that at the end of the month snow to a depth of about 12 feet was reported to be lying in the former and 24 feet in the latter locality. At Dras the total fall of the month was 2½ feet while on the Kargil hills about 2 feet were measured at a level of 15,000 feet.

IV.—*Punjab.*

(*a*) *Murree.*—No snow fell during the month at Murree nor on the hills adjacent to Kahuta.

(*b*) *Kulu.*—Snowfall was confined to the higher peaks and occurred on eight days in the Kulu and on three days in the Saraj tahsil.

The depth of accumulation as reported on the 25th of the present month, together with the corresponding normal values, is given below :—

TABLE 18.

KULU TAHSIL.			SARAJ TAHSIL.		
Name of Pass.	Reported.	Normal.	Name of Pass.	Reported.	Normal.
Rohtang	12 feet	16½ feet	Sirikhand	18 feet	17½ feet
Hamta	26? "	14½ "	Chul	8½ "	7 "
Barsai	6 "	6½ "	Maghin	5 "	7 "
Chandar Khani	8 "	10 "	Dundku	3 "	7½ "
Beja Dhar	5½ "	7 "	Tikkar	3 "	6 "
Lohri Achhri	8 "	8½ "	Ramgarh	1½ "	3 "
Sari	12 "	10 "	Raghopur	4 "	6½ "
Bhubu	7 "	6 "	Nuhnon	2½ "	3 "
Bastari	6 "	5 "	Jalori	6 "	6 "
Majhang	1 foot	2 "	Lambri	7 "	5 "
			Gargarasan	5½ "	10 "
			Sakiran	7½ "	6½ "
			Supakun	5½ "	7 "
			Bashleo	7 "	7 "
			Placha	5 "	9 "
			Tirath	9 "	10½ "

(*c*) *Kailang.*—Altogether eight inches of snow fell on three days.

(*d*) *Kilba.*—There were eight falls of snow on the hills near Kilba extending down to about 7,500 feet, at which level the total fall measured about 3½ feet in depth. All the well known and higher passes were free of snow.

V.—*United Provinces.*

Almora.—Snowstorms were of occasional occurrence. The total fall measured 6½ feet on the Binkaru pass, 4 feet on the Untadhura, 3 feet in Byans and 4½ inches in Malla Danpur. The snow line descended from the perpetual snows to the inhabited area.

The statement below shows a comparison of the reported depth of snow accumulations on the various peaks and passes in the district with the average values :—

TABLE 19.

Name of pass.	Depth of Accumulation at the end of the month.	
	Reported.	Normal.
Binkaru pass	16 feet ...	27½ feet.
Lipu lekh „	9 „ ...	22½ „
Lampia „	9 „ ...	22½ „

Summary.

16. (*a*) The available data indicate that there was heavy fall of snow in the mountain regions of Persia durin the first week of the month.

(*b*) Very heavy rain fell at Herat and was accompanie by snow on the neighbouring hills. Further east in Kabı and the hills of the North-West' Frontier Province th snowfall was apparently less than usual.

(*c*) The snowfall of the month was in general ligh and below normal in Baluchistan as well as in the wester Himalayan region.

Crop report.

17. *Burma.*—Standing crops were in good condition. Clearings for hill rice, and cultivation of spring rice were in progress.

Eastern Bengal and Assam.—Standing crops had suffered from continued drought, and the prospects of summer rice had been seriously affected. Sowings had been greatly retarded for want of moisture.

Bengal.—Sugarcane was being planted and spring crops harvested. More rain was urgently wanted for preparation of lands for next season's crops in southwest Bengal and Bihar.

United Provinces.—Prospects were bad in Kheri and a part of Bahraich. Standing crops were suffering from want of rain in the dry parts of Debra Dun and Garhwal and from high winds in Moradabad, Bareilly, Aligarh, and Sitapur.

Punjab.—Standing irrigated crops were generally in good to fair condition, but unirrigated crops were below the average in Rohtak, Ambala, Jullundur, Gujranwala, Jhang and Multan. Extra spring and autumn crops were being sown.

North-West Frontier Province.—Sowings of extra spring crops and of sugarcane were in progress. The condition of standing crops was generally good in irrigated areas and average elsewhere. More rain was wanted for unirrigated tracts.

Jammu and Kashmir.—Standing crops were in fair condition. Fodder was sufficient.

Rajputana.—Spring crops were being harvested, with fair to good outturn. Standing crops were doing well and fodder and water were sufficient.

Central India.—Spring crops were being harvested: agricultural stock was satisfactory.

Central Provinces.—Reaping, threshing and winnowing of spring crops were in progress, but some damage was reported from hail. Cattle were doing well and fodder and water were sufficient.

Bombay.—Standing spring crops had been damaged in parts by insects, wind, want of moisture and rain, but were generally in fair to good condition. Agricultural stock was sufficient except in parts of the Deccan and Cutch, and was generally in good condition.

Hyderabad.—Lands were being prepared for next autumn sowings. Spring crops were generally in fair condition but some damage had been caused by rain.

Mysore.—Prospects of the season were uncertain. Cattle were generally healthy and water and fodder were procurable.

Coorg.—Threshing of rice was completed. Water and fodder for cattle were sufficient.

Madras.—Ploughing, sowing, weeding and transplanting were in progress. Standing crops were generally in fair condition, but in some parts they required more rain. The condition of cattle was on the whole good.

HEM RAJ.

G. C. B. P., Simla.—No. 79 M. R. G. I.—C-3-09.—385.—S.A.G.

Table A.—Abstract of observations taken at 10 hrs. and 16 hrs., at 35 Stations in India, etc., in March, 1909.

Table

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

Number of sub-division.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Mean of 16 hrs.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to S. L. and gravity 45° Lat.	Temperature of air. Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of three previous columns.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	I.—Burma.																					
2	Rangoon	18	29·932	29·792	·140	29·861	—·001	29·817	96·1	72·0	24·1	100·2	67·4	32·8	83·7	93·1	81·4	+0·2	69·5	74·0	74·7	72·7
	III.—Bengal.																					
6	Calcutta	21	·911	·770	·141	·835	—·021	·8[illegible]1	97·4	68·8	28·6	102·7	56·5	46·2	86·5	96·2	82·2	+2·9	63·9	70·1	69·9	68·0
	IV.—United Provinces of Agra and Oudh.																					
10	Allahabad	309	·637	·499	·138	·559	+·011	·820	95·3	62·1	33·2	102·6	50·0	49·6	81·0	93·9	77·9	+1·1	51·4	59·5	61·6	57·5
11	Dehra Dun	2,233	27·680	27·589	·091	27·627	—·001	·819	84·4	53·8	30·6	91·0	46·6	44·4	73·6	81·5	68·7	+1·7	46·9	56·9	58·1	51·0
	V.—Punjab.																					
12	Lahore	702	29·237	29·143	·094	29·184	+·017	·865	84·9	53·7	31·2	93·8	45·1	48·7	74·0	83·2	68·6	—0·4	49·8	59·8	62·0	57·2
	VIII.—Rajputana.																					
19	Jaipur	1,431	28·540	28·423	·117	28·474	+·021	·853	92·0	60·2	31·8	99·0	46·7	52·3	82·4	90·5	75·7	+0·8	49·4	60·4	62·5	57·4
	Udaipur	1,925?	·055	27·934	·121	27·989	...	·847	90·7	(a) 59·4	31·3	96·9	50·7	46·2	82·7	89·8	(a) 75·3	...	51·1	61·2	63·9	55·4
	IX.—Bombay.																					
26	Bombay	37	29·922	29·805	·117	29·860	—·017	·837	87·0	73·3	13·7	91·7	70·6	21·1	80·7	82·4	78·5	+0·6	67·9	71·7	71·0	71·2
	XI.—Central Provinces.																					
24	Nagpur	1,017	28·027	28·768	·159	28·843	+·009	·802	99·4	68·0	31·4	103·6	58·2	45·4	87·3	97·5	83·0	+0·6	56·5	64·5	68·3	63·1
	XII.—Hyderabad.																					
20	Hyderabad	1,590	·264	·129	·135	·193	—·002	·701	98·5	69·7	28·8	109·8	64·7	36·1	88·0	96·2	83·4	+0·3	59·0	64·7	65·9	63·2
	XIII.—Mysore.																					
30	Bangalore	3,021	26·984	26·854	·130	26·919	—·013	·773	93·3	64·5	28·8	96·0	59·9	36·1	83·2	90·6	78·0	+1·3	56·5	63·3	63·0	60·9
	Mysore	2,518	27·472	27·322	·150	27·397	—·016	·784	94·2	66·2	28·0	96·3	61·4	34·9	82·9	92·5	79·3	—0·1	59·3	65·2	63·6	62·7
	XIV.—Madras.																					
32	Periyakulam	944	29·021	28·865	·156	28·943	...	·810	96·1	67·3	28·8	99·5	55·6	43·9	85·1	93·7	81·8	...	61·7	70·1	66·6	66·8
	Pudukkottai	318	·658	29·504	·154	29·581	...	·828	95·5	73·3	22·2	99·7	66·5	32·[illegible]	85·6	93·2	84·4	...	70·5	73·8	73·8	71·2
	Madras	22	·960	·841	·119	·900	—·005	·854	89·3	79·8	18·5	97·4	66·3	31·1	85·3	85·5	78·5	—1·0	70·7	76·9	76·7	74·8
	Station in the Bay.																					
1	Port Blair	58	·903	·801	·105	·853	—·015	·840	88·6	76·1	12·5	91·2	71·0	20·2	84·2	87·3	80·7	—1·6	73·6	77·7	78·1	76·5
	Kashmir.																					
14	Srinagar	5,204	24·982	24·907	·075	24·940	+·036	24·911	55·3	38·2	17·1	63·4	32·1	31·3	45·6	53·2	45·6	+0·5	35·8	42·6	48·7	42·4
	Leh	11,503	19·707	19·619	·088	19·661	+·003	19·629	45·3	21·4	23·9	53·5	9·8	43·7	34·3	41·8	32·2	+1·3	18·6	27·7	31·4	25·9

N.B.—Elevations in italics indicate barometrical determinations.
NOTE.—The barometric readings are not reduced to sea-level in the case of hill or plateau stations, the elevations of which exceed 3,200 feet.
(a) Mean of 30 days.

A.

at 35 stations in India, etc., in March, 1909.

Vapour Tension in inches of mercury.					Humidity.					Cloud.				Wind direction. Total number of 10 hrs. and 16 hrs. winds from											Wind steadiness.		Wind velocity.		Rainfall.			
From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean 10 hrs.	Mean 16 hrs.	Mean of two previous columns.	Departure from normal.	Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.	Station.	Number of subdivisions
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
																									%	%						
																															I.—Burma.	
·697	·716	·620	·658	+·003	88	62	40	63	0	1·3	1·5	1·4	−0·6	1	...	...	...	7	34	11	9	...	S11°W	S21°W	77	55	*43	108	0·47	0·47	Rangoon . .	2
																															III.—Bengal.	
·541	·526	·547	·525	−·118	76	41	22	51	−16	0·6	1·7	1·2	−1·0	1	3	...	1	1	1	39	6	10	S65°W	S69°W	71	44	120	118	0	0	Calcutta . .	6
																															IV.—United Provinces of Agra and Oudh.	
·243	·189	·121	·195	−·163	43	16	7	25	−17	2·0	1·9	2·0	−0·2	3	5	1	1	1	1	3	30	17	N72°W	N63°W	71	41	*103	122	0	0	Allahabad . .	10
·241	·258	·137	·265	−·058	58	31	18	37	−10	2·4	2·0	2·2	−1·4	...	...	...	...	...	...	...	...	...	...	N81°W	...	28	...	50	0·01	0·01	Dehra Dun .	11
																															V.—Punjab.	
·312	·331	·278	·318	−·042	75	26	25	49	−5	2·2	2·6	2·4	−1·1	1	11	3	2	3	3	...	17	22	N43°W	N12°W	56	31	*79	70	0·01	0·01	Lahore . .	12
																															VIII.—Rajputana.	
·221	·256	·219	·234	−·039	42	22	15	29	−10	1·0	1·5	1·3	−1·8	...	9	5	4	3	5	7	9	20	N52°W	N46°W	37	30	11	108	0	0	Jaipur . .	19
(o) ·276	·270	·242	·270	...	(o) 55	24	20	32	...	0·7	0·9	0·8	...	4	9	5	18	3	1	3	11	8	N21°E	...	23	...	79*	...	0	0	Udaipur . .	
																															IX.—Bombay.	
·615	·668	·732	·699	−·038	75	33	66	72	−3	1·7	1·4	1·6	+0·3	...	1	3	5	4	3	1	15	30	N57°W	N36°W	52	43	207	202	0	0	Bombay . .	26
																															XI.—Central Provinces.	
·321	·333	·333	·322	−·021	46	25	19	31	−3	2·3	3·6	3·0	+0·6	4	8	14	11	5	8	5	4	3	N72°E	N6°E	26	12	80*	118	0·07	0·05	Nagpur . .	24
																															XII.—Hyderabad.	
·372	·324	·255	·318	−·142	51	24	15	31	−13	1·5	2·1	1·8	+0·2	26	...	8	2	17	...	2	5	2	S61°E	S48°E	21	23	65*	101	0	0	Hyderabad .	29
																															XIII.—Mysore.	
·371	·362	·262	·341	−·106	60	32	18	39	−11	1·8	2·0	1·9	...	1	...	16	24	15	5	1	...	...	S84°E	S36°E	74	46	193*	118	0	0	Bangalore . .	30
·427	·408	·281	·364	−·073	65	33	15	41	−6	3·8	5·5	4·7	+2·1	...	4	16	26	11	2	1	1	1	N83°E	N86°E	60	37	175*	192	0	0	Mysore . .	
																															XIV.—Madras.	
·488	·530	·365	·464	...	71	46	24	46	...	1·1	2·2	1·7	...	13	3	8	9	13	9	3	3	1	S60°E	...	34	...	71*	...	0·39	0·21	Periyakulam .	33
·714	·687	·530	·639	...	87	56	37	60	...	4·6	4·9	4·8	...	5	4	18	7	14	7	4	1	2	S80°E	...	40	...	160*	...	0	0	Pudukkottai .	
·755	·816	·800	·815	+·013	100	67	60	79	+1	2·9	2·0	2·5	+0·3	...	3	6	7	23	12	10	1	...	S35°E	S41°E	55	81	111	149	0	0	Madras . .	
																															Station in the Bay.	
·797	·868	·839	·862	−·030	88	74	65	80	+1	4·6	5·0	4·8	+1·7	19	2	23	8	9	1	...	...	...	N70°E	N63°E	62	66	103*	101	2·44	1·58	Port Blair . .	1
																															Kashmir.	
·184	·245	·300	·230	−·025	78	73	72	76‡	−5	6·1	5·6	5·9	+0·2	11	9	5	...	10	7	1	9	10	N53°W	N24°W	13	16	102*	115	3·56	2·00	Srinagar . .	14
·081	·101	·093	·095	−·007	70	51	37	55	−3	6·1	7·0	7·0	+0·5	...	2	9	2	2	19	18	7	3	S28°W	S45°W	42	23	60	48	0·09	0·03	Leh . .	

* Corrected. (o) Mean of 30 days.

‡ Mean of three previous columns.

Table

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

Number of sub-division.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Pressure. Mean of 16 hrs.	Pressure. Mean daily range.	Pressure. Mean of daily mean pressures.	Pressure. Departure from normal.	Pressure. Mean reduced to S. L. and gravity 45° Lat.	Temperature of air. Mean maximum.	Temperature of air. Mean minimum.	Temperature of air. Mean daily range.	Temperature of air. Highest maximum.	Temperature of air. Lowest minimum.	Temperature of air. Absolute range.	Temperature of air. Mean 10 hrs.	Temperature of air. Mean 16 hrs.	Temperature of air. Mean of daily means.	Temperature of air. Departure from normal.	Temperature, Wet-bulb. Mean minimum.	Temperature, Wet-bulb. Mean 10 hrs.	Temperature, Wet-bulb. Mean 16 hrs.	Temperature, Wet-bulb. Mean of three previous columns.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	Baluchistan.																					
16	Quetta	5,502	24·714	24·639	·075	24·670	+·043	24·629	64·5	36·6	27·9	74·9	29·8	46·1	56·3	62·0	50·8	—1·8	34·5	44·4	46·0	41·6
	Hill Stations excluding Kashmir and Baluchistan.																					
	Simla	7,224	23·137	23·089	·048	23·106	+·001	23·068	59·5	46·1	13·4	67·0	37·1	29·9	54·8	56·2	53·2	+1·7	36·1	41·5	43·4	40·3
	Sarain	...	·206	·138	·068	·162	...	·124	59·2	35·4	23·8	66·6	29·7	36·9	54·1	51·8	47·6	...	...	41·3	41·8	...
	Kalabagh	...	...	...	...	...	...	...	Observations not received.				...	...	...	...	...	...	...	...	...	...
	Chakrata	7,022	23·345	23·287	·058	23·303	+·022	23·263	66·4	45·8	20·6	71·8	37·7	34·1	57·3	53·7	56·4	+3·1	37·3	44·4	45·4	42·4
	Muktesar	7,592	22·888	22·822	·066	22·848	...	22·806	65·8	45·8	20·0	72·3	38·5	33·8	57·3	62·3	56·1	...	35·5	42·4	44·9	40·9
	Katmandu	4,388	25·661	25·551	·110	25·603	—·008†	25·557	81·5	43·1	38·4	86·0	37·2	48·8	66·5	78·5	62·6	+1·8†	39·5	52·3	55·0	48·9
	Darjeeling	7,376	23·023	22·975	·048	22·996	+·002	22·951	62·8	45·7	17·1	68·1	40·2	27·9	57·3	60·1	54·6	+4·9	38·8	47·9	51·2	46·0
	Pachmarhi	3,528	26·520	26·431	·089	26·468	+·004	26·415	86·8	60·2	26·6	92·4	51·6	40·8	75·6	84·8	73·8	+1·1	(a) 49·1	56·9	59·8	55·3
	Mount Abu	3,945	·131	·047	·084	·081	+·013	·031	78·2	62·2	16·0	83·4	54·6	28·8	73·7	76·2	70·5	+0·6	(b) 47·6	52·1	53·2	51·0
	Chikalda	3,642	·411	·303	·108	·349	—·014	·293	88·4	65·9	22·5	92·3	62·6	29·7	79·2	85·3	77·5	+0·9	53·6	59·3	62·1	58·3
	Ootacamund	7,323	23·103	23·034	·069	23·063	...	22·999	71·0	50·0	21·0	74·5	43·2	31·3	66·9	65·6	60·8	...	42·1	50·1	52·0	48·7
	Kodaikanal	7,698	22·869	22·804	·065	22·836	...	·771	68·8	51·2	17·6	72·7	48·9	23·8	63·4	62·5	60·0	...	41·6	49·8	53·5	48·3
	Dodabetta	8,539?	·108	·052	·056	·074	...	·011	63·7	48·1	15·6	68·7	45·2	23·5	59·4	60·9	56·2	...	40·0	45·7	48·7	44·8
	Extra India.																					
	Minicoy	7	29·985	29·866	·119	29·930	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Zanzibar	72	·912	·783	·129	·852	—·008	29·850	88·0	79·5	8·5	91·7	75·2	16·5	83·9	87·3	82·5	+1·0	74·5	77·7	77·6	76·6
	Diego Garcia	...	...	...	...	...	...	...	Register not received.				...	...	...	...	...	...	...	...	...	...
	Seychelles	15	·944	·850	·094	·902	—·003†	·841	84·9	78·1	6·8	86·9	75·7	11·2	82·6	83·9	80·5	+1·6†	72·5	76·6	76·9	75·3
	Mauritius	181	...	...	...	29·700	—·077	29·826	...	...	...	87·0	67·0	20·0	...	...	77·0	—0·3	...	...	...	71·1

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

(a) Mean of 30 days.
(b) „ „ 19 „

A—*concld.*

at 35 stations in India, etc., in March, 1909—concld.

Vapour tension in inches of mercury.					Humidity.					Cloud.				Wind direction. Total number of 10 hrs. and 16 hrs. winds from.											Wind steadiness.		Wind velocity.		Rainfall.			
From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean 10 hrs.	Mean 16 hrs.	Mean of two previous columns.	Departure from normal.	Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.	Station.	Number of sub-division.
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
																									%	%						
																															Baluchistan.	
·183	·171	·148	·165	—·043	83	39	30	52	—4	2·7	3·4	3·1	—1·0	20	4	...	...	4	2	3	11	18	N67°W	S78°W	40	30	68*	96	1·13	0·58	Quetta	16
																															Hill Stations excluding Kashmir and Baluchistan.	
·113	·127	·150	·128	—·046	36	30	34	34	—15	4·8	5·5	5·2	+0·2	...	...	...	...	...	...	...	...	...	...	S33°W	...	4	...	137	0·40	0·30	Simla	
...	·131	·165	...	...	...	32	45	...	...	5·1	5·2	5·2	...	9	6	12	4	1	19	10	...	1	S25°E	...	21	...	73*	...	0·58	0·32	Sarain	
...	...	...	...	...	...	...	...	...	...	Observations not received.													...	...	...	...	...	...	...	...	Kalabagh	
·139	·161	·167	·154	—·305	45	34	34	39	—13	2·3	2·9	2·6	—1·4	10	15	4	...	4	27	2	...	...	S17°E	S39°W	23	13	136*	170	0·23	0·16	Chakrata	
·103	·118	·118	·111	...	34	26	22	28	...	2·6	3·9	3·3	...	14	1	1	3	2	1	2	35	3	S	...	54	...	190*	...	0·07	0·04	Muktesar	
·202	·230	·165	·197	—·104	73	35	17	43	—18	0·1	0·4	0·3	—3·0	...	3	4	14	1	1	1	38	...	N81°W	N82°W	35	47	28	32	0	0	Katmandu	
·168	·239	·290	·230	—·024	56	51	55	55	—20	2·6	4·1	3·4	—1·7	3	...	...	...	2	...	25	21	11	S76°W	S78°W	74	42	132*	180	0	0	Darjeeling	
(a) ·229	·252	·231	·232	—·019	(a) 44	28	19	30	—4	0·5	1·3	0·9	—1·4	6	6	9	3	2	1	11	10	14	N54°W	N57°W	34	32	125*	120	0·43	0·40	Pachmarhi	
(b) ·184	·144	·144	·152	—·059	(b) 34	17	16	22	—9	0·8	0·8	0·8	—1·5	...	...	17	...	5	1	12	8	19	N36°W	N81°W	·39	38	158*	173	0	0	Mount Abu	
·275	·278	·288	·275	+·003	43	28	24	32	0	3·3	3·3	3·3	+1·0	4	3	1	...	11	4	19	...	20	S69°W	N51°W	34	27	176*	180	0·51	0·22	Chikalda	
·188	·194	·250	·212	...	52	29	40	41	...	3·0	5·0	4·0	...	1	2	12	33	14	...	...	...	...	N89°E	...	82	...	159*	...	0·23	0·22	Ootacamund	
·176	·227	·324	·243	...	46	39	58	43	...	2·6	5·8	4·2	...	...	12	12	20	12	2	...	...	1	N73°E	...	61	...	363	...	4·84	1·81	Kodaikanal ‡	
·167	·169	·222	·186	...	49	32	42	41	...	3·0	5·3	4·2	...	...	2	17	31	12	...	...	...	...	N84°E	...	84	...	513*	...	0·18	0·18	Dodabetta	
																															Extra India.	
...	...	...	...	...	...	...	...	...	...	2·6	3·4	3·0	...	...	19	16	4	10	...	1	4	8	N23°E	...	50	...	68*	...	1·35	0·80	Minicoy	
·790	·864	·822	·856	—·061	78	75	64	75	—6	6·3	5·3	5·8	+0·5	3	9		3	11	9	9	2	3	S74°E	S44°E	16	13	106*	130	9·29	2·92	Zanzibar	
...	...	...	...	...	...	...	...	...	...	...	Register not received.						...	...	...	...	...	...	...	...	...	...	...	...	...	...	Diego Garcia	
·731	·840	·835	·829	—·032	75	75	72	78	—5	5·3	4·9	5·1	—1·6†	8	16	8	3	...	...	1	3	23	N17°W	N17°W	63	39	125	118	1·39	0·42	Seychelles	
...	...	...	·762	+·015	...	...	...	82	+2	...	...	7·0	+0·6	...	...	...	...	...	...	...	...	...	S58°E	S78°E	...	...	274	250	5·87	0·94	Mauritius	

† Departures from old normals.
(a) Mean of 30 days.
(b) Mean of 19 days.

* Corrected.

‡ Wind variable 3.

Table B.—Abstract of observations taken at 8 hrs. at 240 stations in India, etc., in March 1909.

(1) Provincial means.

(2) Data of stations.

(1) Provincial means based on the material in Table B, (2) except that the statement of rainfall depends on the complete data of about 2,500 stations.

	Pressure departure from normal.	Temperature of air.								Wind.		Hygrometry.				Cloud.		Rainfall.		
		Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Absolute range during month.	Departure of velocity from normal.	Departure of steadiness from normal.	Mean humidity.	Departure from normal.	Mean vapour tension.	Departure from normal.	Mean cloud amount.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.
	"	°	°	°	°	°	°	°	°					"	"					
Burma	—·016	94·5	+0·7	68·3	+0·6	81·4	+0·7	26·2	38·3	—0·3	— 9	72	0	·620	—·007	1·7	—0·4	0·20	0·26	—0·06
Eastern Bengal and Assam	—·022	92·3	+5·3	62·8	—0·9	77·5	+2·2	29·5	45·9	—0·8	+ 7	69	—11	·527	—·070	1·8	—1·9	0·11	3·13	—3·02
Bengal	—·007	95·5	+3·4	65·9	—0·1	80·7	+1·7	29·6	46·5	+0·1	+18	48	—13	·413	—·088	1·5	—0·9	0·04	0·77	—0·73
United Provinces of Agra and Oudh.	+·005	91·6	+2·4	59·2	—0·9	75·5	+0·7	32·4	49·0	+0·2	+ 6	42	—13	·298	—·084	1·2	—0·8	0	0·39	—0·39
Punjab	+·029	84·2	—0·1	54·8	—1·6	69·5	—0·8	29·4	47·4	+0·2	+10	54	— 7	·308	—·048	2·3	—0·6	0·10	0·68	—0·58
North-West Frontier Province	+·015	79·3	—0·5	52·3	—1·5	65·8	—1·0	27·1	46·1	—0·6	+14	59	—10	·306	—·055	2·8	—1·2	0·65	1·76	—1·11
Sind	+·029	89·4	—0·7	62·7	—0·6	76·1	—0·7	26·7	42·1	—1·6	+23	50	— 5	·384	—·034	1·9	—0·6	0	0·16	—0·16
Rajputana	+·023	91·8	+1·0	60·2	—2·3	76·0	—0·7	31·6	47·4	—0·5	— 2	37	— 6	·269	—·042	1·0	—1·4	0	0·15	—0·15
Bombay	—·008	93·9	+1·5	67·7	0	80·8	+0·8	26·2	37·0	—0·9	0	53	— 3	·483	—·019	1·0	—0·5	0·09	0·11	—0·02
Central India	+·004	92·9	+1·0	60·8	—0·2	76·9	+0·4	32·0	47·0	—1·0	+17	37	— 8	·296	—·050	1·7	+0·2	0·03	0·17	—0·14
Central Provinces	+·004	97·0	+1·2	67·5	+1·4	82·3	+1·3	29·5	44·0	+0·4	+ 1	31	—10	·280	—·064	2·2	+0·7	0·18	0·41	—0·23
Hyderabad	—·004	99·1	+1·6	70·3	+0·6	84·7	+1·1	28·8	37·5	—1·8	+ 8	39	—11	·406	—·063	1·2	+0·1	0·11	0·42	—0·31
Mysore	—·006	94·0	+1·6	65·7	—0·4	79·9	+0·6	28·3	36·0	+1·2	—16	58	— 5	·486	—·054	2·3	+0·7	0·22	0·32	—0·10
Madras	—·004	93·3	—0·1	72·4	—0·7	82·9	—0·4	20·9	31·3	—0·4	0	72	— 1	·713	—·034	2·8	+0·5	0·14	0·42	—0·28

Table

(2) *Abstract of observations taken at 8 hrs. at 240*

Number of sub-division.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	I.—Burma.																						
2	Mergui	56	(e) 29·875	(e) —·026	(e) 29·862	29·933	15th	29·815	8th & 9th.	·118	78·7	90·6	−0·6	73·2	+1·3	81·9	+0·4	17·4	93·9	31st	67·7	13th	26·2
	Tavoy	19	29·933	—·021	29·884	30·003	27th	29·870	13th	·133	75·9	93·3	0	72·2	+2·0	82·8	+1·0	21·1	95·5	4 days	62·3	13th	33·2
	Moulmein	94	29·860	0	29·893	29·958	27th	29·795	8th	·163	78·4	94·8	+0·7	73·6	+0·9	84·2	+0·8	21·2	98·5	30th	67·3	12th	31·2
	Rangoon	18	29·920	—·023	29·876	30·020	27th	29·849	13th	·171	74·9	96·0	−0·6	72·0	+0·9	84·0	+0·2	24·0	100·1	29th	67·4	3rd	32·7
	Bassein	27?	29·909	—·013	29·874	30·004	27th	29·842	13th	·162	76·7	95·7	+1·3	71·4	+0·9	83·6	+1·1	24·3	99·7	27th	67·4	7th	32·3
	Diamond Island	41	29·909	—·015	29·885	29·994	27th	29·831	13th	·163	79·6	84·6	—1·0	76·2	+1·2	80·4	+0·1	8·4	88·9	1st	72·2	15th	16·7
	Toungoo	183	29·767	—·025	29·875	29·957	27th	29·687	13th	·170	76·4	98·5	+0·7	69·9	+1·4	84·2	+1·1	28·6	103·0	31st	61·3	1st	41·7
	Kyaukpyu	...	29·918	...	29·876	30·012	27th	29·853	8th	·159	...	...	...	...	...	...	...	...	...	...	...	...	...
	Akyab	20	29·921	—·024	29·884	30·007	27th	29·850	8th	·157	72·1	88·2	—0·9	67·7	—1·2	78·0	—1·1	20·5	95·9	2nd	61·0	3rd, 8th and 15th.	34·9
3	Thayetmyo	121	29·788	—·019	29·852	29·869	27th	29·707	9th	·162	76·1	101·0	+1·2	65·8	—0·7	83·4	+0·3	35·2	106·0	28th and 30th.	57·9	6th	48·1
	Minbu	*165*	29·734	—·020	29·846	29·798	27th	29·646	9th	·152	75·7	99·7	+0·4	70·0	+0·7	84·9	+0·6	29·7	106·3	27th	61·5	2nd	44·8
	Yamethin	657	29·232	—·024	29·850	29·309	27th	29·149	9th	·160	76·2	99·3	+0·2	69·5	+1·4	84·4	+0·8	29·8	103·8	25th	60·0	4th	43·8
	Mandalay	250	29·654	—·007	29·857	29·734	27th	29·550	9th	·184	77·3	101·5	+3·8	68·7	+0·8	85·1	+2·3	32·8	106·5	25th	58·9	3rd	47·6
	Monywa	*250*	29·635	...	29·854	29·714	3rd	29·510	9th	·204	74·0	99·1	...	66·5	...	82·8	...	32·6	106·3	26th	59·6	4th	46·7
	Lashio	*2,751*	27·130	—·005	27·076	27·216	27th	27·003	9th	·213	63·8	87·6	+1·4	55·7	0	71·7	+0·7	31·9	92·3	26th	47·0	3rd	45·3
	Bhamo	*381*	29·535	—·001	29·885	29·625	3rd	29·389	9th	·236	65·7	91·9	+2·9	50·0	—1·1	75·5	+0·9	32·0	98·4	25th	51·1	4th	47·3
	Myitkyina	458	29·446	...	29·876	29·543	20th	29·303	9th	·240	68·7	90·2	...	61·5	...	75·9	...	28·7	94·2	30th	53·5	5th	40·7
	II.—Eastern Bengal and Assam.																						
4	Dibrugarh	353	(d) 29·634	...	(d) 29·859	29·653	20th	29·317	8th	·336	65·9	82·9	...	61·8	...	72·4	...	21·1	89·4	29th	54·1	4th	35·3
	Sibsagar	333	29·582	—·044	29·883	29·710	3rd	29·411	8th	·299	65·1	83·9	+4·8	(o) 57·7	(o) —1·0	(o) 69·7	+1·9	26·2	89·6	28th and 29th.	52·7	5th	36·9
	Tezpur	252	29·627	...	29·845	29·735	3rd	29·455	8th	·280	67·6	90·4	...	63·8	...	77·1	...	26·6	97·6	30th	57·9	1st and 4th.	39·7
	Gauhati	195	29·709	...	29·867	29·854	3rd	29·537	8th	·317	66·6	93·9	...	58·8	...	76·3	...	35·1	102·0	29th and 30th.	50·1	1st	51·9
	Dhubri	115	29·771	—·029	29·846	29·914	3rd	29·605	8th and 9th.	·309	69·6	92·7	+6·2	63·2	—0·2	78·0	+3·0	29·5	100·5	27th and 30th.	52·8	13th	47·7
	Silchar	104	(d) 29·843	(d) —·014	(d) 29·904	29·923	3rd	29·710	9th	·213	70·9	92·4	+6·4	62·0	—1·2	77·2	+2·6	30·4	98·8	30th and 31st.	50·8	1st	48·0
5	Cox's Bazar	36	(d) 29·891	...	(d) 29·871	29·946	28th	29·785	9th	·161	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chittagong	87	29·851	—·014	29·889	29·923	27th	29·739	9th	·184	72·6	88·3	+1·6	66·7	—0·9	77·5	+0·4	21·6	95·5	31st	57·0	5th	38·5
	Noakhali	43	29·890	...	29·880	29·955	27th	29·777	9th	·178	75·7	86·5	...	69·1	...	78·8	...	19·4	95·8	31st	55·9	5th	39·9

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

(d) Mean of 30 days.
(e) " 29 "
(o) " 19 "

B.

stations in India, etc., in March, 1909.

Wind Direction. Number of winds from Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Resultant direction.	Normal direction.	Wind Velocity. Mean velocity, in miles per hour.	Normal.	Departure from normal.	Wind Steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 31st March 1909.	Normal rainfall for period, 1st Dec. to 31st March.	Departure from normal of period, 1st Dec. 1908 to 31st March 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																I.—Burma
1	14	1	4	2	1	12	5		N78°W	N27°W	...	...	...	33	−20	86	+5	·825	−·010	0·4	−3·0	1	4·70	−3·70	0·54	3·28	−2·74	9·35	6·30	+3·05	0·40	Mergui.
31	...	...	...	...	...	...	...	...	(a)	N34°W	*1·1	1·6	−0·5	...	...	87	+2	·781	+·013	2·1	−0·3	4	1·60	+2·40	3·01	1·24	+1·77	4·33	2·16	+2·17	1·55	Tavoy.
15	2	6	3	4	1	...	...	...	N77°E	S58°E	3·6	3·3	+0·3	33	−32	81	+1	·793	+·007	1·5	−0·4	1	0·60	+0·40	1·05	0·36	+0·69	1·30	1·02	+0·28	1·02	Moulmein.
4	3	2	5	...	5	3	7	2	S72°W	S64°W	5·6	4·5	+1·1	13	−55	85	0	·739	+·003	3·0	+1·0	1	0·50	+0·50	0·47	0·20	+0·27	1·22	0·72	+0·50	0·47	Rangoon.
10	2	...	...	...	3	9	6	1	S63°W	N55°W	4·5	5·6	−1·1	46	−22	84	0	·775	−·003	0·3	−1·7	1	0	+1·00	0·45	0·01	+0·44	0·89	0·57	+0·32	0·45	Bassein.
2	2	2	2	1	...	...	3	19	N37°W	N30°W	11·2	9·3	+1·9	66	−7	77	+1	·791	+·031	2·3	−0·5	0	0	0	0	0·05	−0·05	0·38	1·03	−0·65	0	Diamond Island.
16	...	2	1	5	5	1	...	1	S33°E	S51°E	2·8	3·1	−0·3	30	−13	69	−5	·639	−·038	1·4	−0·7	0	0·30	−0·30	0·04	0·11	−0·07	0·24	0·51	−0·27	0·04	Toungoo.
...	...	7	1	17	6	...	...	...	S54°E	...	*3·5	...	...	72	...	...	...	...	...	1·8	...	0	...	...	0	...	...	0·10	...	...	0	Kyaukpyu.
4	1	17	4	2	...	...	2	1	N50°E	N32°E	4·1	3·7	+0·4	62	−13	88	+6	·696	−·006	4·4	+2·0	0	0·60	−0·60	0	0·52	−0·52	0	1·40	−1·40	0	Akyab.
...	...	5	1	5	6	14	...	...	S7°W	S68°W	(d) 5·2	4·8	+0·4	53	+14	59	0	·516	−·005	0·6	0	0	0·10	−0·10	0	0·03	−0·03	0	0·24	−0·21	0	Thayetmyo.
2	1	...	.	17	6	3	...	2	S26°E	S63°E	3·6	7·4	−3·8	66	+43	56	−2	·509	−·027	1·6	+1·1	0	0·10	−0·10	0	0·04	−0·04	0·05	0·70	−0·65	0	Minbu.
2	2	1	...	16	8	1	...	1	S32°E	S38°E	3·9	4·6	−0·7	66	+15	60	+1	·541	+·005	0·2	−0·5	0	0·30	−0·30	0·03	0·21	−0·18	0·03	1·16	−1·13	0·03	Yamethin.
30	.	..	...	...	1	...	...	...	S	S8°W	4·0	4·2	−0·2	3	−23	47	−7	·438	−·070	4·1	+2·8	0	0·40	−0·40	0	0·16	−0·16	0·01	0·55	−0·54	0	Mandalay.
9	8	...	1	7	2	..	...	4	N39°E	...	2·7	...	...	17	...	52	...	·434	...	0·3	...	0	0·50	−0·50	0	0·24	−0·24	0	0·39	−0·39	0	Monywa.
20	...	6	5	...	...	...	...	...	N65°E	...	*3·9	...	...	33	...	66	−6	·399	−·021	0·6	−4·1	0	...	...	0·05	0·58	−0·58	0·23	1·92	−1·69	0·05	Lashio.
22	1	7	...	...	..	...	...	1	N33°E	N3°W	1·8	3·3	−1·5	30	+1	86	+7	·548	+·028	1·3	−0·9	1	1·90	−0·90	0·12	0·66	−0·54	0·52	2·19	−1·67	0·12	Bhamo.
9	7	9	4	1	1	...	...	...	N44°E	...	*3·3	...	...	53	...	67	...	·464	...	2·4	...	1	...	...	0·33	...	...	0·48	...	...	0·33	Myitkyina.
																																II.—Eastern Bengal and Assam.
21	...	4	5	1	...	...	...	...	N76°E	...	(d) 2·2	...	...	30	...	79	...	·494	...	2·0	...	2	10·00	−8·00	0·57	5·34	−4·77	5·33	10·23	−4·90	0·44	Dibrugarh.
13	...	18	...	...	...	...	...	...	N45°E	N51°E	2·9	3·0	−0·1	59	+9	77	−16	·485	−·071	1·2	−5·0	1	9·80	−8·80	0·15	5·11	−4·96	2·68	8·97	−6·09	0·15	Sibsagar.
7	..	17	7	...	...	...	...	...	N57°E	...	(d) 5·5	...	...	72	...	72	...	·486	...	0·6	...	0	5·50	−5·50	0	2·68	−2·68	0·36	4·63	−4·27	0	Tezpur.
17	1	7	3	2	1	...	...	...	N69°E	...	2·9	...	...	33	...	67	...	·444	...	7·8	...	0	5·40	−5·40	0	2·82	−2·82	0·14	4·43	−4·29	0	Gauhati.
11	2	5	6	1	...	5	1	...	N77°E	N72°E	(d) 5·5	6·3	−0·8	20	−27	60	−15	·442	−·082	0·6	−2·0	0	2·40	−2·40	0	1·88	−1·88	0·16	2·86	−2·70	0	Dhubri.
21	...	...	5	5	...	...	...	...	S67°E	S83°E	4·0	3·0	+1·0	33	+17	69	−13	·530	−·057	0·7	−4·2	1	10·80	−9·80	0·10	8·61	−8·51	1·14	12·10	−10·96	0·10	Silchar.
...	3	2	16	9	1	...	...	...	S83°E	...	4·0	...	...	78	...	...	...	...	...	3·0	...	0	...	...	0	...	...	0	...	...	0	Cox's Bazar.
6	1	5	4	13	2	...	...	...	S68°E	N87°E	3·0	5·5	−2·5	59	+5	80	−3	·656	−·035	3·2	0	0	2·77	−2·77	0	2·74	−2·74	0	4·87	−4·87	0	Chittagong.
8	1	...	2	11	3	5	...	1	S25°E	...	4·3	...	...	45	...	84	...	·757	...	2·3	...	0	3·26	−3·26	0	2·75	−2·75	0·01	4·57	−4·56	0	Noakhali.

(a) Indeterminate.
* Uncorrected for scale error.
(d) Mean of 30 days.

Tabl

(2) *Abstract of observations taken at 8 hrs. at 24*

Number of sub-division.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	II.—Eastern Bengal and Assam—*concld.*																						
5	Barisal	12	29·903	—·014	29·832	29·972	3rd	29·788	8th	·184	(g) 71·4	(g) 93·6	(g) +4·7	(h) 67·3	(h) —1·2	(h) 80·4	+1·5	26·3	99·3	30th and 31st.	55·6	4th	43
	Comilla	36	29·885	...	29·869	29·955	3rd	29·759	9th	·199	74·2	95·0	...	68·2	...	81·6	...	27·8	100·8	31st	55·8	5th	45
	Narayanganj	26	(d) 29·850	(d) —·021	(d) 29·857	29·957	3rd	29·743	9th	·214	71·8	(d) 95·7	(d) +3·7	(d) 68·1	(d) —0·1	(d) 80·9	(d) +1·5	25·6	97·5	30th and 31st.	58·8	1st, 4th and 5th.	38
	Faridpur	46	29·863	...	29·850	29·941	1st	29·733	8th	·208	73·6	95·2	...	64·8	...	80·0	...	30·4	101·3	28th and 29th.	51·0	11th	49
	Sirajganj	49	29·855	...	29·854	29·959	3rd	29·718	8th	·241	71·9	95·1	...	63·7	...	79·4	...	31·1	102·1	29th and 31st.	52·3	14th	50
	Mymensingh	63	29·847	—·018	29·863	29·949	3rd	29·717	8th	·232	73·1	93·6	+6·7	65·1	+0·7	79·4	+3·7	28·5	100·1	29th and 31st.	55·1	14th	45
	Bogra	75	29·832	+·003	29·860	29·926	3rd	29·703	10th	·223	75·8	(d) 97·9	(d) +7·7	(d) 64·1	(d) —1·8	(d) 80·0	(d) +3·0	35·8	104·7	27th and 30th.	52·2	14th and 15th.	52
	Rampur Boalia	70	29·834	...	29·854	29·935	3rd	29·704	8th	·231	73·5	96·6	...	65·4	...	80·0	...	33·2	104·1	27th	53·6	5th	50
	Malda	72	(d) 29·8 1	...	(d) 29·825	29·887	1st	29·664	9th	·223	(d) 74·8	96·7	..	(d) 64·1	...	(d) 79·4	...	35·6	105·8	27th	51·5	14th	54
	Dinajpur	123	29·711	—·023	29·824	29·838	3rd	29·559	9th	·279	68·1	96·3	+7·2	58·5	—2·3	77·4	+2·2	37·8	105·3	27th	51·0	14th	54
	Rangpur	123	29·770	...	29·852	29·897	3rd	29·616	9th	·281	70·6	93·2	...	56·9	...	75·0	...	36·3	101·6	27th	48·0	13th	53
	Jalpaiguri	234	29·588	—·040	29·840	29·724	3rd	29·414	9th	·310	65·0	85·2	+4·4	(d) 55·9	(d) —0·7	(d) 71·6	+1·9	30·2	96·4	24th and 30th.	52·4	2nd	41
	Cooch Behar	156	29·732	...	29·850	29·871	3rd	29·555	9th	·316	65·8	89·0	...	58·2	..	73·6	...	30·8	96·8	26th and 30th.	52·6	2nd	11
	III.—Bengal.																						
6	Saugor Island	25	29·886	—·016	29·855	29·968	3rd	29·769	8th	·199	78·7	95·3	+3·1	75·1	+0·4	82·9	+1·8	14·9	96·5	20th	66·5	2nd	30
	Midnapore	149	29·759	...	29·857	29·861	3rd	29·612	8th	·222	77·4	100·1	...	69·3	...	84·8	...	31·1	106·3	25th	59·7	3rd	40
	Calcutta	21	29·893	—·012	29·860	29·931	3rd	29·706	8th	·225	75·7	97·2	+6·4	65·1	—0·1	83·2	+3·0	25·1	102·7	27th and 28th.	56·5	4th	40
	Jessore	33	29·861	—·027	29·845	29·945	3rd	29·727	8th	·218	74·0	95·9	+3·5	70·2	+2·0	82·1	+2·8	25·7	102·5	27th	57·2	3rd	45
	Krishnagar	47	29·851	...	29·848	29·949	3rd	29·718	8th	·231	71·6	97·5	...	64·1	...	87·8	...	33·4	104·1	27th, 28th and 29th.	51·0	4th	53
	Burdwan	99	29·806	—·014	29·876	29·965	3rd	29·677	8th	·228	75·2	99·0	+5·3	67·8	—0·6	83·1	+2·1	31·2	105·4	27th	56·8	4th	48
	Bankura	313	29·581	...	29·840	29·695	3rd	29·471	8th	·224	77·3	99·1	...	68·7	...	83·9	...	30·4	104·6	29th	58·7	4th	45
	Raniganj	331	(d) 29·377	...	(d) 29·872	29·683	3rd	29·454	8th	·229	72·8	98·0	...	65·8	...	81·9	...	32·2	104·5	4 days	58·0	3rd and 4th.	46
	Berhampore	67	29·832	—·015	29·840	29·932	3rd	29·691	8th	·241	72·4	97·2	+4·5	65·1	—0·6	81·2	+2·6	32·1	104·6	27th	55·2	4th and 14th.	49
	Naya Dumka	489	29·408	...	29·865	29·531	1st	29·282	10th	·249	75·4	96·3	...	63·2	...	80·8	...	31·1	103·4	27th	55·5	4th and 14th.	47
7	Balasore	50	29·869	—·003	29·864	29·976	3rd	29·751	8th	·225	77·4	96·8	+4·1	69·0	—0·6	82·9	+1·8	27·8	103·4	9th	56·6	4th	46
	False Point	21	29·917	+·001	29·880	29·986	3rd	29·829	8th	·157	78·1	88·3	+1·0	70·5	—1·7	79·4	—0·4	17·8	100·1	27th	56·6	4th	43
	Cuttack	80	29·846	—·006	29·871	29·927	3rd	29·768	8th	·159	75·0	98·9	+1·9	71·0	—1·5	85·0	+0·2	27·9	105·4	30th	62·2	4th	43
	Puri	24	29·892	...	29·855	29·979	3rd	29·810	8th	·169	78·9	88·4	...	74·7	...	81·6	...	13·7	98·1	27th	67·6	3rd and 4th.	30

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

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

(g) Mean of 27 days.
(h) " 26 "
(d) " 30 "

B—*continued.*

***stations in India, etc., in March, 1909*—continued.**

Wind Direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind Velocity. Mean velocity in miles per hour.	Normal.	Departure from normal.	Wind Steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 31st March 1909.	Normal rainfall for period, 1st Dec. to 31st March.	Departure from normal of period, 1st Dec. 1908 to 31st March 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																II.—Eastern Bengal and Assam—*concld.*
10	1	2	2	3	8	4	1	...	S9°E	S18°W	2·8	3·7	−0·9	37	+24	(g) 85	0	(g) ·725	−·029	2·0	−1·0	0	3·03	−3·03	0	1·96	−1·96	0·05	4·27	−4·22	0	Barisal.
8	...	...	2	10	11	...	...	...	S27°W	...	3·6	...	...	65	...	87	...	·746	...	2·5	...	0	3·03	−3·03	0	2·74	−2·74	0·11	4·47	−4·36	0	Comilla.
10	...	...	...	5	9	6	...	1	S5°W	S13°W	3·4	5·0	−1·6	53	+14	83	0	·661	−·036	3·4	−0·8	1	3·18	−2·18	1·45	2·75	−1·30	1·56	4·57	−3·01	1·45	Narayanganj.
10	...	...	...	...	16	4	...	1	S13°W	...	3·1	...	...	61	...	76	...	·652	...	3·8	...	0	3·50	−3·50	0·07	2·30	−2·23	0·69	4·19	−3·50	0·07	Faridpur.
10	...	1	1	3	5	8	2	1	S24°W	...	3·1	...	...	39	...	69	...	·656	...	2·9	...	0	2·20	−2·20	0	1·26	−1·26	1·79	2·75	−0·96	0	Sirajganj.
8	...	2	11	9	1	...	...	...	S73°E	S76°E	2·1	3·2	−1·1	66	+5	71	−16	·598	−·012	5·0	−0·6	0	3·52	−3·52	0	2·93	−2·93	0·71	3·61	−2·90	0	Mymensingh.
19	...	...	6	...	5	...	1	...	S45°E	S53°E	2·6	3·6	−1·0	47	+9	47	−27	·431	−·131	0	−2·1	0	1·74	−1·74	0	1·33	−1·33	0·14	2·77	−2·63	0	Bogra.
30	...	...	...	...	...	...	1	...	W	...	1·1	...	...	3	...	54	...	·471	...	0·4	...	0	1·68	−1·68	0	1·15	−1·15	0·65	2·40	−1·75	0	Rampur Boalia.
7	2	...	...	...	2	13	4	3	S55°W	...	5·6	...	...	52	...	(d) 44	...	(d) ·375	...	0·2	...	0	1·19	−1·19	0	0·82	−0·82	1·33	2·49	−1·16	0	Malda.
5	1	1	2	1	3	9	9	...	S55°W	S14°W	4·6	4·9	−0·3	46	+45	43	−18	·313	−·103	0·5	−1·4	0	1·19	−1·19	0	0·67	−0·67	0·55	1·59	−1·04	0	Dinajpur.
14	...	1	...	1	4	7	5	1	S11°W	...	2·7	...	...	32	...	54	...	·397	...	0·2	...	0	1·68	−1·68	0	1·16	−1·16	0·23	2·17	−1·94	0	Rangpur.
17	...	4	2	...	...	1	3	2	N27°E	N75°E	1·7	...	...	17	−24	67	−8	·417	−·036	0·8	−1·1	0	2·10	−2·10	0	1·23	−1·23	0·92	2·22	−1·30	0	Jalpaiguri.
12	...	...	11	5	2	1	...	...	S67°E	...	2·1	...	...	48	...	68	...	·439	...	0·8	...	0	2·41	−2·41	0	1·66	−1·66	0·18	2·59	−2·41	0	Cooch Behar.
																																III.—Bengal.
2	1	2	...	...	6	15	3	2	S47°W	S19°W	12·8	13·1	−0·3	62	+23	82	−1	·367	−·004	2·1	−2·2	0	1·81	−1·81	0	1·33	−1·33	0·30	2·99	−2·69	0	Saugor Island.
3	4	...	...	...	13	5	3	3	S42°W	...	3·0	...	...	45	...	58	...	·442	...	1·6	...	0	2·59	−2·59	0·01	1·67	−1·63	1·91	3·51	−1·60	0·01	Midnapore.
1	1	...	...	1	2	19	[illegible]	4	S50°W	S42°W	5·1	4·9	+0·2	69	+22	70	−11	·631	−·072	1·3	−1·6	0	2·09	−2·09	0	1·19	−1·19	0·10	2·73	−2·63	0	Calcutta.
22	...	...	...	2	1	5	1	...	S58°W	S32°W	1·7	2·9	−1·2	23	−6	72	−8	·633	−·065	1·2	−2·6	0	3·13	−3·13	0	1·03	−1·03	0	3·73	−3·73	0	Jessore.
14	...	...	...	...	7	7	3	...	S34°W	...	2·7	...	...	43	...	74	...	·530	...	2·5	...	0	1·97	−1·97	0	1·11	−1·11	0·35	2·74	−2·39	0	Krishnagar.
8	...	...	...	...	3	8	[illegible]	1	S70°W	S58°W	2·7	3·1	−0·4	56	+19	53	−11	·470	−·083	2·0	−0·8	0	2·16	−2·16	0	1·34	−1·34	0·15	2·66	−2·51	0	Burdwan.
18	...	...	...	...	...	2	6	5	N80°W	...	3·3	...	...	36	...	33	...	·305	...	0·6	...	0	1·76	−1·76	0	1·30	−1·30	0·19	2·80	−2·61	0	Bankura.
18	...	...	...	...	...	...	6	7	N66°W	...	2·0	...	...	39	...	32	...	·314	...	1·3	...	0	1·48	−1·48	0	0·76	−0·76	1·10	2·32	−1·22	0	Raniganj.
14	...	...	...	...	6	11	...	...	S30°W	S42°W	2·1	3·3	−1·2	53	+10	55	−17	·415	−·121	1·4	−1·3	0	1·73	−1·73	0	0·97	−0·87	0·27	2·46	−2·19	0	Berhampore.
28	...	...	...	...	...	...	...	3	N45°W	...	3·2	...	...	10	...	28	...	·249	...	0	...	0	1·41	−1·41	0	0·81	−0·81	0·92	2·26	−1·34	0	Naya Dumka.
5	5	...	...	...	4	13	2	2	S62°W	S61°W	3·6	5·8	−2·2	43	+10	60	−19	·566	−·144	1·9	−1·7	0	2·87	−2·87	0·02	1·82	−1·80	2·05	3·47	−1·42	0·02	Balasore.
2	2	...	...	...	1	13	9	4	S76°W	S70°W	9·7	10·8	−1·1	69	+15	83	−3	·804	−·024	3·7	−0·5	0	1·48	−1·48	0	1·15	−1·15	1·33	3·25	−1·92	0	False Point.
12	...	...	1	1	3	6	8	...	S53°W	S50°W	2·6	3·3	−0·7	46	+17	79	+1	·607	−·017	2·1	−0·8	0	1·77	−1·77	0	1·23	−1·23	1·27	2·12	−0·85	0	Cuttack.
2	8	...	...	...	...	19	1	1	S72°W	...	12·3	...	...	52	...	83	...	·832	...	2·2	...	0	1·05	−1·05	0	0·65	−0·65	0·41	3·55	−2·14	0	Puri.

* Uncorrected for scale error.
(g) Mean of 27 days.
(d) „ of 30 „

TABL

(2) *Abstract of observations taken at 8 hrs. at 24*

Number of sub-division.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches.								Temperature of air.												
			Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	III.—Bengal— *concld.*																						
	Angul	455	29·469	...	29·891	29·550	3rd	29·387	8th	·163	76·4	89·0	...	68·8	...	83·9	...	30·2	104·1	24th, 25th and 30th.	59·0	3rd and 4th.	45·1
	Sambalpur	486	29·448	+·006	29·888	29·551	3rd	29·376	8th	·175	76·0	97·9	+1·2	67·2	−0·1	82·6	+0·6	30·7	103·6	30th	56·6	3rd	47·0
8	Chaibassa	733	29·174	+·030	29·877	29·270	3rd	29·060	8th	·210	71·7	97·6	+2·8	67·2	+0·2	82·4	+1·5	30·4	103·8	30th	55·7	3rd	48·1
	Ranchi	2,128	27·798	+·022	29·897	27·888	27th	27·688	9th	·200	73·6	90·5	+2·9	66·2	+2·9	78·3	+2·9	24·3	96·2	24th and 30th.	58·4	3rd	37·8
	Purulia	816	29·078	...	29·861	29·182	3rd	28·973	8th	·209	72·1	98·4	...	67·3	...	82·9	...	31·1	104·5	28th	56·6	3rd	47·9
	Hazaribagh	1,993	27·897	+·002	29·873	27·959	3rd	27·771	9th	·218	74·7	90·0	+1·4	64·6	+0·8	77·3	+1·1	25·4	96·7	30th	57·3	12th and 13th.	39·4
	Daltonganj	730	29·203	...	29·912	29·317	3rd	29·086	10th	·231	(p) 62·4	(p) 93·0	...	(p) 55·7	...	(p) 74·4	...	37·3	99·1	8th	48·0	3rd	51·1
9	Purnea	134	29·751	—·019	29·843	29·886	3rd	29·595	9th	·291	71·0	95·5	+5·6	59·0	−1·4	77·3	+2·1	36·5	103·0	26th	51·2	15th	51·8
	Bhagalpur	160	29·728	...	29·843	29·868	3rd	29·557	9th	·311	73·1	96·7	...	(d) 68·4	...	(d) 81·7	...	30·3	105·2	27th	55·3	4th	49·9
	Monghyr	155	(d) 29·733	...	(d) 29·813	29·867	3rd	29·586	9th	·281	(e) 75·1	(d) 94·3	...	(d) 66·2	...	(d) 80·3	...	(d) 28·1	102·9	26th	55·9	2nd	47·0
	Darbhanga	165	29·709	—·023	29·835	29·844	3rd	29·551	9th	·293	71·0	95·8	+7·9	59·8	−3·1	77·8	+2·4	36·0	103·6	27th	52·3	4th, 14th and 15th.	51·3
	Pusa	188	29·684	...	29·831	29·821	3rd	29·530	9th	·291	73·2	97·3	...	59·7	...	78·5	...	37·6	105·7	27th	51·1	4th	54·6
	Muzaffarpur	178	29·701	...	29·840	29·839	3rd	29·542	9th	·297	71·9	95·6	...	60·0	...	77·8	...	35·6	102·7	26th and 29th.	52·0	4th	50·7
	Motihari	224	29·648	...	29·842	29·789	3rd	29·483	9th	·306	(d) 63·9	94·9	...	56·8	...	75·9	...	38·1	101·4	29th	48·8	13th	52·6
	Chapra	181	(d) 29·708	...	(d) 29·849	29·838	3rd	29·564	9th	·274	69·8	94·3	...	62·6	...	78·5	...	31·7	101·7	26th	52·9	4th	48·8
	Patna	183	29·702	—·022	29·842	29·847	3rd	29·560	10th	·287	75·5	92·3	+1·4	64·7	+0·7	78·5	+1·1	27·6	100·0	26th and 27th.	54·2	14th	45·8
	Arrah	190	29·714	...	29·863	29·845	3rd	29·580	9th	·265	72·0	95·1	...	61·5	...	78·3	...	33·6	102·4	26th	52·2	13th	50·2
	Buxar	239	29·653	...	29·855	29·788	3rd	29·524	9th	·264	71·4	94·6	...	64·2	...	79·4	...	30·4	103·5	2 th	54·1	3rd	49·4
	Dehri	351	29·549	...	29·862	29·677	3rd	29·423	10th	·254	74·9	96·2	...	(d) 69·0	...	(d) 82·6	...	27·2	102·3	4 days	60·0	14th	42·3
	Gaya	372	29·530	—·012	29·835	29·656	3rd	29·391	10th	·265	77·1	95·4	+2·1	67·2	+1·1	81·3	+1·6	28·2	102·9	26th	57·7	14th	45·2
	IV.—United Provinces of Agra and Oudh.																						
10	Gorakhpur	257	29·615	—·012	29·835	29·749	3rd	29·453	9th	·296	73·7	95·0	+4·5	61·6	−0·9	78·3	+1·8	33·4	105·6	25th	52·5	3rd	53·1
	Benares	267	29·646	+·003	29·875	29·773	3rd	29·508	10th	·265	73·3	94·4	+1·6	61·5	−0·3	78·0	+0·7	32·9	102·1	26th	54·1	13th and 14th.	48·0
	Allahabad	309	29·615	+·010	29·887	29·736	3rd	29·479	10th	·257	72·3	94·9	+1·9	62·1	0	78·5	+1·0	32·8	102·6	26th	53·0	14th	49·6
	Cawnpore	416	29·485	+·007	29·873	29·613	1st	29·341	10th	·272	70·4	94·1	+3·3	58·9	−1·5	76·6	+0·9	35·2	101·9	26th	51·5	3rd	50·4
	Lucknow	368	(d) 29·552	(d) —·023	(d) 29·891	29·682	1st	29·400	10th	·282	70·8	93·8	+2·3	60·4	+0·1	77·1	+1·2	33·4	102·0	26th	52·1	3rd	49·9
	Bahraich	401	(d) 29·480	(d) 0	(d) 29·853	29·602	1st	26·331	9th	·271	67·5	93·6	+4·6	58·5	−0·3	76·1	+2·2	35·1	101·1	27th	50·5	3rd	50·6

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

(d) Mean of 30 days.
(e) " 29 "
(p) " 18 "

B—*continued.*

stations in India, etc., in March, 1909—continued.

Wind direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, in miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 31st March 1909.	Normal rainfall for period, 1st Dec. to 31st March.	Departure from normal of period, 1st Dec. 1908 to 31st March 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																III.—Bengal—*concld.*
3	1	3	...	2	1	1	5	15	N50°W	...	0·8	...	...	55	...	58	...	·528	...	2·6	...	0	...	...	0·08	...	...	0·20	...	...	0·08	Angul.
...	2	5	4	5	5	6	1	3	S30°E	N46°E	4·4	3·1	+1·3	23	—23	44	—11	·410	—·072	2·7	+0·9	0	1·80	—1·80	0·05	1·07	—1·02	0·57	2·10	—1·53	0·03	Sambalpur.
4	...	...	...	...	1	23	5	...	S51°W	S69°W	3·4	1·7	+1·7	82	+31	45	—9	·374	—·087	2·1	+0·2	0	2·19	—2·19	0	1·05	—1·05	1·01	2·55	—1·54	0	Chaibassa.
6	2	1	...	...	...	2	11	9	N67°W	N86°W	9·2	6·5	+2·7	66	+23	28	—17	·237	—·079	1·7	+0·1	2	2·58	—0·58	0·35	1·37	—1·02	2·01	3·11	—1·10	0·19	Ranchi.
4	1	...	...	...	...	4	17	5	N85°W	...	4·1	...	...	74	...	42	...	·337	...	1·9	...	0	2·17	—2·17	0	1·01	—1·01	0·89	2·65	—1·76	0	Purulia.
1	3	...	...	...	1	2	9	14	N65°W	S85°W	8·6	8·1	+0·7	76	+24	23	—18	·202	—·112	1·3	—0·5	0	1·81	—1·81	0	0·80	—0·80	2·61	2·24	+0·37	0	Hazaribagh.
24	2	...	3	...	1	1	...	...	N82°E	...	2·8	...	...	6	...	(p) 50	...	(p) ·358	...	1·5	...	0	1·67	—1·67	0	0·63	—0·63	1·85	2·21	—0·36	0	Daltonganj.
6	...	3	1	1	...	13	...	7	S71°W	N45°E	5·0	4·0	+1·0	33	+20	37	—32	·263	—·209	0	—1·4	0	0·83	—0·83	0	0·44	—0·44	0·13	1·57	—1·44	0	Purnea.
11	...	...	...	...	3	6	11	...	S65°W	...	5·7	...	...	52	...	25	...	·230	...	0·1	...	0	0·84	—0·84	0	0·44	—0·44	0·27	1·74	—1·47	0	Bhagalpur.
2	...	...	...	...	...	7	19	1	S81°W	...	(d) 9·0	...	...	(e) 86	...	(e) 35	...	(e) ·367	...	(d) 0·4	...	0	...	...	0	...	...	0·12	...	...	0	Monghyr.
10	...	1	1	1	...	5	16	3	S84°W	S82°W	4·3	4·5	—0·2	43	+19	41	—20	·318	—·121	1·0	—0·3	0	0·83	—0·83	0	0·46	—0·46	0·25	1·66	—1·41		Darbhanga.
8	...	...	...	...	1	21	1	...	S45°W	...	...	...	...	68	...	32	...	·262	...	0·8	...	0	...	...	0	...	...	0·38	...	...	0	Pusa.
4	...	...	1	2	1	9	12	2	S68°W	...	5·6	...	...	58	...	40	...	·315	...	0·4	...	0	0·97	—0·97	0	0·43	—0·43	0·24	1·76	—1·52	0	Muzaffarpur.
19	1	...	...	...	1	1	5	4	N77°W	...	2·3	...	...	29	...	(e) 58	...	(e) ·355	...	1·0	...	0	0·77	—0·77	0	0·49	—0·49	0·35	1·59	—1·24	0	Motihari.
3	...	...	...	...	4	19	4	1	S47°W	...	4·5	...	...	78	...	40	...	·300	...	0·9	...	0	0·71	—0·71	0	0·38	—0·38	0·34	1·70	—1·36	0	Chapra.
...	...	...	2	1	4	10	14	...	S57°W	S63°E	6·3	3·9	+2·4	69	+40	32	—18	·274	—·123	1·0	—0·8	0	0·74	—0·74	0	0·39	—0·39	0·62	1·65	—1·03	0	Patna.
4	...	...	...	...	...	13	11	3	S72°W	...	4·0	...	...	74	...	34	...	·269	...	1·1	...	0	0·81	—0·81	0	0·47	—0·47	0·54	2·09	—1·55	0	Arrah.
...	1	...	...	...	5	16	9	...	S53°W	...	9·9	...	...	81	...	36	...	·273	...	1·5	...	0	0·87	—0·87	0	0·28	—0·28	1·18	1·78	—0·60	0	Buxar.
2	...	...	...	...	...	20	9	...	S59°W	...	4·9	...	...	87	...	27	...	·234	...	1·7	...	0	1·00	—1·00	0	0·53	—0·53	0·99	1·96	—0·97	0	Dehri.
6	...	...	...	...	3	3	19	...	S77°W	S37°W	3·1	4·2	—1·1	69	+29	38	—15	·363	—·075	1·2	—0·9	0	1·03	—1·03	0	0·55	—0·55	1·85	1·94	—0·09	0	Gaya.
																																IV.—United Provinces of Agra and Oudh.
23	...	1	...	...	1	2	3	1	S77°W	N72°W	(e) 1·3	3·2	—1·9	13	—23	(d) 37	—20	(d) ·306	—·006	0·8	—0·8	0	0·70	—0·70	0	0·33	—0·33	0·48	1·72	—1·24	0	Gorakhpur.
7	1	...	...	2	...	9	12	...	S69°W	S54°W	5·0	4·7	+0·3	59	+12	38	—20	·313	—·109	1·5	—0·5	0	0·80	—0·80	0	0·25	—0·25	1·30	1·59	—0·29	0	Benares.
5	1	...	...	1	1	4	16	3	S86°W	S85°W	4·5	5·1	—0·6	66	+27	28	—19	·224	—·145	2·0	0	0	0·60	—0·60	0	0·26	—0·26	0·46	1·73	—1·27	0	Allahabad.
5	3	1	...	...	...	3	12	7	N70°W	S89°W	4·6	4·3	+0·3	62	+26	34	—12	·254	—·101	0·1	—1·2	0	0·70	—0·70	0	0·26	—0·26	0·26	1·59	—1·33	0	Cawnpore.
6	1	...	...	...	...	6	14	4	S89°W	N80°W	3·4	3·8	—0·4	68	+25	33	—20	·253	—·133	0·6	—1·5	0	0·90	—0·90	0	0·33	—0·33	0·37	2·11	—1·74	0	Lucknow.
18	3	1	...	...	...	1	5	3	N54°W	N51°W	4·8	3·6	+1·2	27	—1	41	—21	·278	—·157	1·2	—0·8	0	1·00	—1·00	0	0·57	—0·57	0·99	2·84	—1·85	0	Bahraich.

(d) Mean of 30 days
(e) " 29 "
(p) " 18 "

Tabl

(2) *Abstract of observations taken at 8 hrs. at 24*

Number of sub-division.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches.								Temperature of air.												
			Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	IV.—United Provinces of Agra and Oudh—*concld.*																						
11	Jhansi	824	29·122	+·010	29·924	29·248	1st	29·003	10th	·245	75·9	94·0	+0·9	67·2	+0·9	80·6	+0·9	26·8	101·5	25th	58·0	2nd	43·5
	Agra	556	29·378	+·008	29·914	29·513	1st	29·240	10th	·273	68·8	89·8	−1·3	61·2	—1·5	75·5	−1·4	28·6	98·5	26th	52·5	2nd	46·0
	Mainpuri	516	(e) 29·405	(e) +·029	(e) 29·899	29·530	1st	29·304	9th	·226	68·6	92·4	+2·7	57·4	−1·3	74·9	+0·7	35·0	101·8	26th	49·6	1st	52·2
	Bareilly	568	29·309	—·005	29·863	29·438	1st	29·165	10th	·273	66·1	90·4	+2·9	58·1	−0·9	74·3	+1·0	32·3	98·3	26th	49·0	2nd	49·3
	Meerut	738	29·148	—·002	29·881	29·290	1st	29·014	10th	·276	64·7	87·8	+1·2	55·6	−2·1	71·8	−0·5	32·2	97·1	26th	46·8	12th	50·3
	Roorkee	899	28·995	+·017	29·902	29·133	1st	28·862	10th	·271	62·5	87·2	+1·8	53·4	−2·7	70·4	−0·5	33·8	95·0	25th and 26th.	45·4	13th	49·6
	Dehra Dun	2,233	27·657	+·006	29·903	27·779	27th	27·537	10th	·212	63·1	83·9	+4·2	53·7	−1·3	68·8	+1·5	30·2	90·5	30th	46·5	2nd	44·0
	V.—Punjab.																						
12	Delhi	718	29·195	+·015	29·905	29·338	1st	29·061	10th	·277	66·6	88·2	+0·8	61·8	—0·4	75·1	+0·2	26·4	98·2	26th	51·7	2nd	46·5
	Sirsa	662	29·266	+·026	29·923	29·438	1st	29·104	21st	·334	64·4	88·0	−0·6	54·0	−3·2	71·0	−1·9	34·0	99·3	15th	44·6	12th	55·7
	Patiala	*818*	29·090	...	29·911	29·240	1st	28·916	10th	·324	63·5	85·0	...	55·2	...	70·1	...	29·8	92·4	31st	46·6	13th	45·8
	Ambala	892	29·004	+·023	29·902	29·142	1st	28·836	10th	·306	63·5	86·5	+2·6	(d) 54·3	(d) −2·8	(d) 70·3	−0·1	32·2	93·5	26th and 31st.	47·0	13th	46·5
	Ludhiana	812	29·096	+·021	29·918	29·262	1st	28·925	10th	·337	61·5	84·0	—0·4	55·5	−2·0	69·8	—1·2	28·5	92·5	31st	47·5	2nd	45·0
	Lahore	702	29·213	+·016	29·921	29·396	1st	29·042	21st	·354	60·8	84·4	—0·7	53·6	—0·6	69·0	—0·7	30·8	93·9	31st	45·2	12th and 13th.	48·7
	Sialkot	836	29·090	+·029	29·935	29·269	1st	28·945	21st	·324	60·2	80·9	—0·8	50·8	−4·8?	65·9	−2·8?	30·1	90·0	31st	42·5	12th	47·5
	Rawalpindi	1,674	28·254	+·027	29·980	28·422	1st	28·113	9th	·309	58·5	75·5	—1·0	40·9	−0·8	62·7	—0·9	25·6	84·4	24th	41·4	12th	43·0
13	Khushab	612	29·340	+·050	29·951	29·541	1st	29·209	9th	·332	64·9	(d) 82·8	(d) +2·2?	55·8	—1·0	(d) 69·3	+0·6?	27·0	92·4	30th and 31st.	47·9	12th	44·5
	Montgomery	558	29·387	+·042	29·937	29·570	1st	29·227	9th	·343	65·7	85·5	—0·2	53·5	−2·4	69·5	—1·3	32·0	95·4	31st	44·6	12th	50·8
	Multan	420	29·545	+·037	29·950	29·730	1st	29·411	9th	·319	65·7	85·4	—1·1	57·9	—0·5	71·7	—0·8	27·5	96·8	31st	49·5	12th	47·3
	VI.—North-West Frontier Province.																						
15	Peshawar	1,110	28·853	+·008	30·005	29·044	1st	28·713	9th	·331	57·8	76·4	+0·3	51·3	−0·6	63·9	—0·2	25·1	85·2	30th	43·4	1st and 12th.	41·8
	Dera Ismail Khan	590	29·378	+·021	29·948	29·564	1st	29·232	9th	·332	61·8	82·2	—1·3	53·2	—2·3	67·7	—1·8	29·0	91·9	31st	41·6	12th	50·3
	VII.—Sind.																						
17	Jacobabad	186	29·778	+·038	29·934	29·981	27th	29·635	22nd	·346	69·5	91·7	+0·6	58·0	—1·6	74·9	—0·5	33·7	101·6	31st	49·8	12th	51·8
	Hyderabad	96	29·872	+·025	29·925	30·018	27th	29·735	22nd	·273	71·6	92·7	—0·4	63·4	—0·8	78·1	—0·6	29·3	100·1	31st	55·5	12th and 13th.	43·6
	Kurrachee	13	29·977	+·024	29·941	30·102	27th	29·865	22nd	·237	72·2	83·7	—2·4	66·7	+0·6	75·2	—0·9	17·0	92·0	26th	61·0	1st, 7th and 8th	31·0
	VIII.—Rajputana.																						
18	Bikaner	771	29·160	+·028	29·927	29·312	1st	29·017	21st	·295	67·7	89·2	—0·1	61·3	—3·4	75·2	—1·8	27·9	96·6	24th	51·0	2nd	45·6
	Jodhpur	782	29·183	+·036	29·972	29·320	1st	29·058	21st	·262	69·2	92·4	+1·5	61·7	—1·6	77·1	—0·1	30·7	98·5	22nd	51·3	8th	47·2

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

(e)—Mean of 29 days.
(d)— „ of 30 „

B—*continued.*

stations in India, etc., in March, 1909—continued.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, in miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 31st March 1909.	Normal rainfall for period 1st Dec. to 31st March.	Departure from normal of period, 1st Dec. 1908 to 31st March 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																IV.—United Provinces Agra and Oudh—*concl.*
6	2	11	...	...	1	8	...	3	N	S84°W	5·4	3·0	+2·4	17	−15	46	+8?	·414	+·100?	1·0	−0·3	0	0·50	−0·50	0	0·26	−0·26	0·58	1·53	−0·95	0	Jhansi.
4	...	1	...	...	4	15	3	4	S55°W	N66°W	6·3	4·8	+1·5	62	+19	38	−10	·264	−·078	1·8	−0·4	0	0·80	−0·80	0	0·26	−0·26	1·28	1·37	−0·09	0	Agra.
9	1	1	1	...	...	3	9	7	N72°W	N63°W	3·1	2·5	+0·6	49	+17	47	−4	·331	−·021	0	−2·5	0	0·50	−0·50	0	0·04	−0·04	0·55	2·07	−1·52	0	Mainpuri.
22	...	...	...	...	...	...	8	1	N86°W	N43°W	3·4	3·7	−0·3	30	−6	(d) 54	−4	(d) ·345	−·028	1·6	−0·6	0	1·82	−1·82	0	0·76	−0·76	1·02	2·88	−1·86	0	Bareilly.
29	...	1	...	...	...	...	7	3	N71°W	N86°W	1·9	2·8	−0·9	27	−20	52	−4	·319	−·028	1·5	−0·8	0	1·40	−1·40	0	0·63	−0·63	2·39	3·36	−0·97	0	Meerut.
22	...	...	...	...	...	...	...	9	N45°W	N41°W	3·5	3·0	+0·5	27	+12	52	−10	·291	−·061	1·3	−1·1	0	1·90	−1·90	0·02	0·69	−0·67	1·87	4·30	−2·43	0·02	Roorkee.
28	...	...	...	...	...	...	...	...	N(e)	N5°W	(k) 1·7	2·1	−0·4	3	−1	49	−8	·282	−·036	2·7	+0·1	0	2·60	−2·60	0·01	0·94	−0·93	3·43	6·33	−2·90	0·01	Dehra Dun.
																																V.—Punjab.
1	3	...	...	...	2	1	14	9	S72°W	N87°W	(n) 4·4	3·9	+0·5	72	+22	46	−3	·207	−·026	2·1	−0·9	0	1·50	−1·50	0	0·50	−0·50	1·06	2·97	−1·91	0	Delhi.
6	5	2	6	...	1	3	4	4	N13°W	N24°W	3·9	4·7	−0·8	20	+16	50	−7	·303	−·051	1·6	−1·6	0	1·10	−1·10	0	0·32	−0·32	0·57	1·80	−1·23	0	Sirsa.
...	12	1	4	1	...	1	2	10	N13°W	...	6·2	...	...	61	...	50	...	·296	...	2·4	...	0	...	...	0	...	...	3·46	...	...	0	Patiala.
5	...	...	...	3	...	1	...	22	N48°W	N37°W	6·5	3·2	+3·3	62	+38	49	−11	·289	−·098	2·1	+0·4	0	1·40	−1·40	0·04	0·37	−0·33	1·38	5·22	−3·84	0·04	Ambala.
13	...	3	...	...	...	...	1	14	N36°W	N31°W	1·8	2·2	−0·4	19	+27	53	−10	·293	−·078	1·7	−2·1	0	1·70	−1·70	0·06	0·79	−0·73	3·41	4·71	−1·30	0·05	Ludhiana.
13	4	1	1	1	2	...	4	5	N43°W	N10°W	3·3	2·9	+0·4	27	+9	60	−5	·323	−·051	3·0	−0·4	0	1·70	−1·70	0·01	0·65	−0·64	1·63	3·25	−1·62	0·01	Lahore.
11	6	4	1	1	...	1	3	4	N11°W	N7°E	1·7	2·1	−0·4	33	+4	72	+5	·372	−·011	2·1	−0·7	1	2·90	−1·90	0·45	1·14	−0·69	4·58	5·97	−1·39	0·45	Sialkot.
23	3	2	...	...	1	...	1	1	N4°W	N39°W	3·4	2·9	+0·5	13	−13	65	−7	·316	−·023	4·1	0	2	4·20	−2·20	1·18	1·89	−0·71	6·21	7·61	−1·40	0·95	Rawalpindi.
10	1	7	3	1	4	4	...	1	S80°E	N22°E	4·5	5·1	−0·6	17	−5	(m) 56	−2	(m) ·346	+·009	2·3	−0·5	2	1·70	+0·30	0·51	1·13	−0·62	2·20	3·18	−0·98	0·40	Khushab.
4	4	7	3	2	4	1	4	2	N37°E	N53°E	5·3	5·4	−0·1	17	−5	40	−12	·244	−·083	2·1	−0·3	1	1·20	−0·20	0·30	0·35	−0·05	0·54	2·28	−1·74	0·30	Montgomery.
16	2	9	...	3	...	1	...	...	N54°E	N50°E	1·4	1·9	−0·5	33	+8	49	−10	·306	−·063	2·0	+0·2	1	1·20	−0·20	0·21	0·39	−0·18	1	1·46	−0·65	0·21	Multan.
																																VI.—North West Frontier Province.
11	...	...	2	...	8	6	2	2	S27°W	S27°W	2·6	3·6	−1·0	43	+18	59	−13	·286	−·073	3·7	−1·1	2	3·90	−1·90	0·64	2·04	−1·40	3·73	5·19	−1·46	0·38	Peshawar.
12	1	9	...	...	...	...	1	8	N1°W	N13°W	1·9	2·1	−0·2	42	+10	59	−6	·326	−·036	1·9	−1·3	0	2·50	−2·50	0·14	0·89	−0·75	1·37	2·33	−0·96	0·08	Dera Ismail Khan.
																																VII.—Sind.
7	9	1	...	...	...	...	1	13	N26°W	N83°E	4·5	3·9	+0·6	69	+44	41	0	·291	−·002	2·7	−0·1	0	0·70	−0·70	0	0·15	−0·15	0·46	0·85	−0·39	0	Jacobabad.
4	8	4	1	1	4	5	1	3	N21°W	S83°W	5·5	8·4	−2·9	20	−8	43	−6	·337	−·046	1·7	−0·7	0	0·30	−0·30	0	0·16	−0·16	0·13	0·67	−0·54	0	Hyderabad.
...	8	6	1	...	...	1	5	10	N22°W	N32°W	9·0	11·4	−2·4	69	+33	66	−8	·525	−·055	1·4	−0·9	0	0·50	−0·50	0	0·19	−0·19	0·69	1·29	−0·60	0	Kurrachee.
																																VIII.—Rajputana.
1	2	4	5	4	3	3	4	5	N68°E	S46°W	5·5	5·3	+0·2	3	−8	35	−5	·232	−·057	1·7	−1·3	0	0·50	−0·50	0	0·19	−0·19	0·38	1·01	−0·63	0	Bikaner.
5	7	11	1	1	2	3	1	...	N32°E	...	4·4	...	...	40	...	26	−9	·188	...	1·5	...	0	0·20	−0·20	0	0·01	−0·01	0·47	0·50	−0·03	0	Jodhpur.

(e)—Mean of 29 days.
(k)— „ of 23 „
(n)— „ of 20 „
(m)— „ of 21 „

Table

(2) *Abstract of observations taken at 8 hrs. at 24*

Number of sub-division.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range dur-
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	VIII—Rajputana—*concld.*																						
	Pachpadra	370	29·536	—·020	29·887	29·672	1st	29·410	9th	·262	68·9	94·5	—0·1	54·4	—3·9	74·4	—2·0	40·1	101·7	21st	43·6	11th and 13th.	53
19	Jaipur	1,431	28·523	+·027	29·947	28·641	1st	28·115	10th	·229	71·9	91·5	+1·8	60·1	—0·7	75·8	+0·6	31·4	98·2	25th	46·6	13th	51
	Sambhar	1,251	28·697	+·038	29·959	28·834	1st	28·581	21st	·253	65·2	90·2	+1·5	55·6	—3·2	72·9	—0·9	34·6	96·4	24th	41·9	13th	51
	Ajmer	1,651	28·347	+·019	29·972	28·495	1st	28·228	21st	·237	66·1	89·2	+0·1	61·0	+1·3?	75·1	+0·7?	28·2	94·9	31st	52·2	13th and 14th.	42
	Kotah	819?	29·213	+·010	29·947	29·215	1st	28·995	21st	·250	(r) 73·0	(r) 97·5	(r) +1·2	(r) 67·9	(r) —2·1	(r) 82·7	(r) —0·5	29·6	100·5	24th	64·6	13th and 24th.	35
	Udaipur	1,965	28·012	+·014	29·950	28·147	2nd	27·914	21st	·233	72·5	93·2	+1·1	(d) 59·3	(d) —1·1	(d) 74·9	0	33·9	97·3	21st	50·8	12th	46
	IX—Bombay.																						
20	Deesa	466	(f) 29·476	(f) —·004	(f) 29·963	29·546	27th	29·401	21st	·145	73·0	98·2	+2·1	61·3	—2·5	79·7	—0·2	36·9	103·8	17th and 31st.	51·4	6th	52
	Bhuj	395	29·579	+·025	29·936	29·656	27th	29·502	22nd	·154	73·8	91·0	+0·1	63·8	—1·6	78·9	—0·8	30·2	100·5	31st	55·5	5th	45
	Jamnagar	61	29·922	...	29·928	30·000	26th	29·852	22nd	·148	74·4	90·6	...	62·9	...	76·9	...	27·7	99·5	31st	57·1	14th	42
	Dwarka	37?	29·951	...	29·935	30·032	27th	29·833	19th	·149	75·2	84·0	...	69·9	...	77·0	...	14·1	93·8	29th	61·2	13th	32
	Rajkot	429	29·532	+·004	29·923	29·618	27th	29·481	22nd	·137	73·3	(d) 93·5	(d) +0·9	60·2	—2·2	(d) 78·5	—0·7	36·3	102·9	20th	53·0	4th	49
	Veraval	*18*	29·944	+·000	29·904	30·021	26th	29·893	22nd	·128	(d) 72·3	89·0	+2·7	61·3	—0·6	76·7	+1·1	24·7	99·2	16th	57·3	6th	41
	Bhavnagar Para	55	29·907	—·019	29·906	29·985	26th	29·853	30th	·132	74·5	97·1	+3·3	64·9	—2·0	80·9	+0·7	32·2	102·6	29th and 30th.	57·5	12th	45
	Surat	39	29·905	—·027	29·880	29·997	27th	29·850	13th	·147	74·5	97·7	+1·1	66·5	+0·5	82·1	+0·8	31·2	104·1	17th	62·6	14th	41
	Ahmedabad	163	(i) 29·799	(i) —·010	(i) 29·906	29·862	2nd	29·732	22nd	·130	74·5	99·1	+2·1	67·1	—0·7	83·1	+0·7	32·0	103·6	20th and 30th	59·7	6th	43
26	Bombay	37	29·867	—·024	29·884	29·903	27th	29·845	12th	·148	76·8	86·9	+1·2	73·3	—0·1	80·1	+0·6	13·6	91·5	27th	70·5	7th	21
	Ratnagiri	110	29·823	—·017	29·874	29·876	26th	29·767	12th	·109	78·8	88·4	+0·6	71·7	—0·7	80·1	—0·1	16·7	92·3	2nd and 27th.	66·9	7th	25
	Goa	199	29·724	—·043?	29·863	29·780	27th	29·666	10th	·114	80·0	85·6	—1·7	77·4	+3·2	81·5	+0·8	8·2	88·1	28th	74·1	2nd	14
	Mormugao	*60*	29·877	—·012	29·872	29·931	27th	29·822	11th	·109	81·1	88·7	+1·8	75·8	+0·3	82·3	+1·1	12·9	92·0	28th	72·7	2nd and 6th.	19
	Karwar	44	29·905	—·010	29·883	29·962	27th	29·856	10th and 12th.	·106	76·4	89·1	+1·3	73·5	+0·5	81·3	+0·9	15·6	91·8	4th	68·5	2nd	23
27	Malegaon	1,430	28·510	—·010	29·911	28·590	26th	28·444	21st.	·146	75·9	100·2	+2·9	63·5	—0·1	81·8	+1·4	36·7	103·9	31st	56·1	12th and 13th.	47
	Ahmednagar	2,154	27·810	+·016?	29·914	27·888	26th	27·750	13th	·138	77·7	98·2	+4·4	65·1	+2·6	81·6	+3·5	33·1	102·4	14th	60·5	9th	41
	Poona	1,846	(d) 28·111	(d) —·002	(d) 29·927	28·193	26th	28·060	22nd	·133	73·9	98·8	+1·1	64·3	+0·4	81·6	+0·8	34·5	101·0	4 days.	59·3	5th	41
	Sholapur	1,590	28·332	—·018	29·875	28·414	27th	28·276	12th	·138	80·1	100·8	+0·4	71·9	+2·6	86·4	+1·5	28·9	103·8	30th	66·9	10th	36
	Bijapur	*1,948*	(e) 27·989	(e) +·002	(e) 29·880	28·065	27th	27·927	12th	·138	79·5	99·5	+3·1?	71·3	+0·7	85·4	+1·9?	28·2	102·7	20th	63·7	31st	39
	Belgaum	2,539	27·409	—·007	29·885	27·470	27th	27·365	11th	·105	74·9	94·8	+0·9	65·1	+0·9	79·9	+0·9	29·7	96·8	11th and 20th.	61·1	8th	35

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

(r) Mean of 16 days.
(d) " " 30 "
(f) " " 28 "
(e) " " 29 "
(i) " " 25 "

B—*continued.*

stations in India, etc., in March, 1909—continued.

Wind direction. Number of winds from Calm. (25)	N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, in miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from nor. mal. (52)	Total rainfall from 1st Dec. 1908 to 31st March, 1909. (53)	Normal rainfall for period, 1st Dec. to 31st March. (54)	Departure from normal of period, 1st Dec. 1908 to 31st March, 1909. (55)	Heaviest rainfall during month. (56)	Station. (57)
																																VIII.—Rajputana—*concld.*
17	...	2	6	4	...	...	2	...	S71°E	...	2·5	5·3	—2·8	25	...	41	—8	·305	—·014	0	—2·4	0	0·30	—0·30	0	0·11	—0·11	0·25	0·69	—0·44	0	Pachpadra.
11	6	7	2	...	...	...	...	2	N21°E	N29°W	4·6*	4·5	+0·1	46	+6	35	—9	·273	—·051	1·3	—1·3	0	0·70	—0·70	0	0·34	—0·34	0·28	1·30	—1·02	0	Jaipur.
20	5	2	1	1	...	...	1	1	N12°E	N11°W	5·5	5·7	—0·2	20	—2	47	+2	·292	—·008	1·3	—1·1	0	0·80	—0·80	0	0·28	—0·28	0·39	1·20	—0·81	0	Sambhar.
22	1	4	...	1	1	1	1	...	N9°E	S63°W	4·5	4·1	+0·4	9	—2	45	—3	·299	—·017	1·2	—0·9	0	0·60	—0·60	0	0·16	—0·16	0·41	1·11	—0·70	0	Ajmer.
15	6	...	1	1	...	...	2	6	N26°W	...	3·0	...	...	37	...	(r) 29	—4	(r) ·280	...	0·4	...	0	0·10	—0·10	0	0·10	—0·10	0·20	0·82	—0·62	0	Kotah.
22	3	1	...	...	...	...	2	5	N34°W	...	3·3	...	...	30	...	36	—10	·288	...	0·6	...	0	0·30	—0·30	0	0·09	—0·09	0	0·51	—0·51	0	Udaipur.
																																IX.—Bombay.
10	2	10	6	1	...	1	...	1	N56°E	N7°W	8·4*	8·6	—0·2	43	+16	31	—6	·253	—·059	0·5	—1·3	0	0·18	—0·18	0	0·05	—0·05	0	0·33	—0·33	0	Deesa.
2	4	4	2	...	...	2	8	9	N45°W	N60°W	7·1	8·8	—1·7	53	—12	52	—5	·416	—·004	1·3	—0·7	0	0·10	—0·10	0	0·05	—0·05	0·31	0·29	+0·02	0	Bhuj.
...	3	3	3	1	3	7	6	5	W	...	(d) 12·3	...	...	28	...	58	...	·493	...	0·4	...	0	...	...	0	...	...	0·23	...	...	0	Jamnagar.
1	4	2	...	...	...	3	9	12	N57°W	...	11·2	...	...	69	...	72	...	·610	...	1·0	...	0	...	...	0	...	...	0·12	...	...	0	Dwarka.
5	9	6	2	...	...	3	7	4	N33°W	N25°W	6·8	7·7	—0·9	37	—17	50	—14	·403	—·114	0·8	—1·3	0	0	0	0	0	0	0·32	0·17	+0·15	0	Rajkot.
1	23	3	...	...	...	...	...	4	N1°W	N13°W	9·9	7·7	+2·2	92	+27	(d) 56	—6	(d) ·410	—·072	0·5	—1·3	0	0	0	0	0	0	0	0·10	—0·10	0	Veraval.
...	4	1	1	1	...	3	4	17	N48°W	N85°W	6·4	8·6	—2·2	68	+3	53	—7	·413	—·055	1·5	+0·2	0	0·10	—0·10	0	0·08	—0·08	0·65	0·29	+0·36	0	Bhavnagar.
7	4	2	5	2	3	1	3	4	N22°E	N46°W	3·9	6·1	—2·2	10	—26	54	—9	·475	—·081	0·9	—0·3	0	0	0	0	0	0	0·02	0·14	—0·12	0	Para. Surat.
1	2	10	3	1	...	...	...	14	N	N1°E	4·0	4·7	+0·2	58	+24	39	—4	·325	—·051	0·2	—1·8	0	0	0	0	0·06	—0·06	0·07	0·30	—0·23	0	Ahmedabad.
1	7	6	7	3	3	...	...	4	N50°E	N40°E	8·9*	10·9	—2·0	46	—8	72	—3	·671	—·028	2·6	+0·8	0	0	0	0	0·02	—0·02	0	0·20	—0·20	0	Bombay.
8	4	3	13	2	1	...	...	...	N77°E	N22°E	(d) 8·3	8·3	0	56	+34	69	0	·677	—·001	0·8	—0·6	0	0·10	—0·10	0	0·01	—0·01	0	0·24	—0·24	0	Ratnagiri.
...	3	8	15	1	2	...	1	1	N71°E	N58°E	(d) 5·0	6·3	—1·3	69	+19	85	+9	·866	+·101	1·8	—0·2	0	...	...	0	0	0	0	0·31	—0·31	0	Goa.
4	1	8	12	3	3	...	...	...	N85°E	N72°E	6·5*	9·0	—2·5	66	+41	82	+3	·865	+·061	3·0	+0·8	0	...	...	0	0	0	0	0·05	—0·05	0	Mormugao.
5	4	2	...	...	...	...	...	...	N15°E	N43°E	3·6*	4·6	—1·0	17	—44	83	+1	·767	+·041	1·8	+0·3	0	0	0	0	0	0	0	0·18	—0·18	0	Karwar.
7	...	...	1	...	...	...	1	2	N45°W	N66°W	6·5	7·7	—1·2	3	—62	20	—33?	·178	—·289?	0·1	—1·6	0	0·10	—0·10	0	0·04	—0·04	0·23	0·44	—0·21	0	Malegaon.
1	4	1	1	...	3	2	...	19	N44°W	N1°W	7·2	9·1	—1·9	62	+12	21	—35?	·203	—·308?	0·3	—0·8	0	0·30	—0·30	0	0·32	—0·32	6	1·23	—1·23	0	Ahmednagar.
3	2	1	...	2	...	3	6	4	N77°W	S87°W	7·0*	8·5	—1·5	30	—3	37	—4	·308	—·029	1·3	+0·1	0	0·30	—0·30	0	0·04	—0·04	0	0·33	—0·33	0	Poona.
5	...	7	3	5	1	3	1	6	N58°E	N14°E	8·6	7·9	+0·7	17	—5	32	—3	·336	—·011	1·2	—0·1	0	0·60	—0·60	0·10	0·26	—0·16	0·12	0·79	—0·67	0·08	Sholapur.
3	4	1	1	2	1	7	8	4	N89°W	N84°W	5·8	4·9	+0·9	41	+1	43	—12	·433	—·100?	0·3	—0·8	2	0·70	+1·30	0·75	0·49	+0·26	0·90	0·59	+0·31	0·64	Bijapur.
5	2	6	5	1	2	3	5	2	N27°E	N8°E	9·7*	11·3	—1·6	10	—1	56	+8	·468	+·072	0·3	—0·6	1	0·90	+0·10	0·24	0·43	—0·19	0·24	0·62	—0·38	0·22	Belgaum.

* Uncorrected for scale error.
(d) Mean of 30 days.
(r) „ of 16 „

TABL

(2) *Abstract of observations taken at 8 hrs. at 24*

Number of sub-division.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	X.—Central India.																						
21	Neemuch	1,624	28·321	+·010	29·938	28·428	2nd	28·234	21st	·194	71·5	91·5	+0·1	50·1	−2·1	75·5	−1·0	32·1	98·5	20th	51·8	12th, 13th and 14th.	46·7
	Indore	1,823	28·110?	+·029?	29·033?	28·229	3rd	28·071	21st	·158	75·7	94·2	+1·7	62·3	+1·9	78·3	+1·8	31·9	100·1	29th	54·6	9th	45·5
22	Nowgong	254	29·176	+·007	29·911	29·290	1st	29·073	10th	·217	70·0	93·0	+0·6	59·5	−1·3	76·3	−0·4	33·5	99·0	26th	50·0	2nd and 3rd.	49·0
	Sutna	1,040	28·870	−·006	29·896	28·978	3rd	28·759	10th	·219	72·5	92·7	+1·4	62·1	+0·9	77·4	+1·2	30·6	99·5	26th	52·7	3rd	46·8
	XI.—Central Provinces.																						
23	Buldana	2,132	27·826	...	29·894	27·904	26th	27·773	17th	·131	80·8	95·6	...	72·1	...	83·9	...	23·5	99·9	30th	65·9	1st	34·0
	Akola	930	29·001	+·001	29·895	29·101	3rd	28·920	21st	·181	78·9	101·5	+2·3	67·7	+1·7	84·6	+2·0	33·8	106·2	29th	58·6	12th	47·6
	Amraoti	1,215	28·710	+·003	29·885	28·825	3rd	28·634	21st	·191	79·9	99·7	+1·6	71·8	+2·6	85·8	+2·1	27·9	103·8	29th	61·8	10th	39·0
24	Khandwa	1,044	28·888	−·002	29·909	28·982	3rd	28·816	21st	·166	74·7	99·8	+2·2	66·6	+1·7	83·3	+2·0	33·2	105·7	30th	56·1	9th	49·6
	Hoshangabad	1,006	28·937	+·005	29·927	29·044	2nd	28·843	21st	·201	72·8	97·0	+1·3	61·3	−0·3	80·7	+0·5	32·7	103·1	30th	54·9	9th	48·2
	Saugor	1,807	28·125	+·007	29·908	28·230	3rd	28·031	21st	·205	74·6	92·4	+0·3	66·8	+2·3	79·6	+1·3	25·6	93·6	24th	58·5	1st and 14th.	40·1
	Jubbulpore	1,327	28·594	−·001	29·913	28·715	2nd	28·509	24th	·206	69·5	93·4	+0·6	60·7	−0·1	77·1	+0·3	32·7	99·5	29th	51·3	12th and 13th.	48·2
	Seoni	2,033	27·916	+·014	29·919	28·006	2nd	27·835	21st	·171	74·3	93·8	+0·6	(d) 58·2?	(d) −5·3?	(d) 76·0?	−2·4?	35·6	100·0	23rd	51·4	4th	48·6
	Nagpur	1,017	28·913	+·009	29·899	28·999	2nd	28·810	21st	·189	77·1	99·2	+0·9	67·9	+0·1	83·6	+0·5	31·3	103·6	24th and 29th.	58·1	9th	45·5
25	Pendra	2,123?	(e) 27·919	...	(e) 29·921	28·062	27th	27·830	10th	·172	74·0	90·2	...	64·5	...	77·4	...	25·7	95·8	29th	57·2	1st, 3rd and 12th.	38·6
	Raipur	970	28·918	−·002	29·887	29·050	2nd	28·884	10th	·166	74·5	97·5	+1·0	70·7	+2·1	84·1	+1·6	26·8	104·7	31st	64·6	2nd and 4th.	40·1
	Chanda	*634*	29·289	+·001	29·875	29·368	3rd	29·225	22nd	·143	79·7	100·3	+0·6	69·3	+2·3	84·8	+1·5	31·0	105·0	19th	57·0	10th	48·0
	XII.—Hyderabad.																						
28	Aurangabad	1,905	(e) 28·037	(e) −·032	(e) 29·888	28·095	27th	27·988	17th	·107	80·5	98·8	+2·4	68·2	+2·8	83·5	+2·6	30·6	102·7	30th	61·2	9th	41·5
	Nizamabad	1,260	(d) 28·081	(d) −·030?	(d) 29·896	28·761	27th	28·630	19th	·131	81·1	101·6	+4·0	69·9	+1·6	86·8	+2·8	31·7	103·9	10 days	61·7	2nd	42·2
	Bidar	*2,165*	27·791	...	29·883	27·869	27th	27·728	21st	·141	82·4	96·8	...	67·8	...	82·3	...	29·0	99·5	16th and 24th.	63·5	26th	36·0
29	Gulbarga	1,503	28·430	+·001	29·883	28·504	27th	28·380	21st	·124	81·0	100·3	+1·1	71·1	+0·4	85·7	+0·8	29·2	103·0	21st, 25th and 30th	65·3	7th	37·7
	Raichur	*1,311*	28·603	+·007	29·861	28·671	28th	28·544	11th	·127	81·9	99·2	+0·4	73·7	−0·3	86·5	+0·1	25·5	102·1	30th	68·1	4th	34·0
	Hyderabad (Deccan).	1,600	28·249	+·011	29·901	28·314	27th	28·193	13th	·121	76·2	98·4	+0·5	69·7	+0·1	84·1	+0·3	28·7	100·8	29th	64·7	7th	36·1
	Hanumkonda	871	29·063	−·003	29·890	29·129	3rd	29·003	11th	·126	78·1	98·4	+0·9	71·4	−0·8	84·9	+0·1	27·0	101·0	16th, 28th and 29th.	66·2	10th	34·8
	XIII.—Mysore.																						
30	Chitaldroog	2,405	27·553	−·003	29·887	27·616	26th	27·503	10th	·113	77·6	96·0	+1·6	69·9	−0·3	83·0	+0·7	26·1	98·1	17th and 29th.	64·9	7th	33·2

N.B.—Elevations in italics indicate barometrical determinations.
NOTE.—The barometric readings are not reduced to sea-level, in the case of hill or plateau stations, the elevations of which exceed 3,200 feet.
(*d*) Mean of 30 days.
(*e*) „ 29 „

B—*continued.*

tations in India, etc., in March, 1909—continued.

Wind Direction. Number of winds from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind Velocity. Mean velocity, in miles per hour.	Normal.	Departure from normal.	Wind Steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 31st March 1909.	Normal rainfall for period, 1st Dec. to 31st March.	Departure from normal of period, 1st Dec. 1908 to 31st March 1909.	Heaviest rainfall during month.	Station
26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																															X.—Central India
13	7	1			1	2	2	N5°E	S34°E	5·6	7·8	−2·2	62	+37	35	−2	·200	−·036	0·3	−1·5	0	0·10	−0·10	0	0·04	−0·04	0	0·70	−0·70	0	Neemuch.
1	11	1		1		2	2	N49°E	N7°W	3·5	3·1	+0·1	46	+17	28	−12	·250	−·060	1·1	−0·2	0	0·10	−0·10	0·05	0·04	+0·01	0·05	0·55	−0·50	0·03	Indore.
...	2	2		...	8	11	..	S72°W	S50°W	2·4	2·5	−0·1	46	+3	41	−9	·307	−·053	2·0	+0·5	0	0·70	−0·70	0	0·22	−0·22	0·60	1·96	−1·36	0	Nowgong.
..	..	1		1	3	13	9	N51°W	N51°W	3·7	5·4	−1·7	66	+9	44	+12	·357	+·053	3·2	+1·9	0	1·00	−1·00	0	0·43	−0·43	1·30	2·43	−1·13	0	Sutna.
																															XI—Central Provinces.
5	3	7	4		1	1	6	N21°E	...	5·5	7·4	−1·9	26	..	18	...	·185	...	2·2	...	0	...	...	0·01	0·15	−0·14	0·09	1·26	−1·17	0·01	Buldana.
..	2	3	9		1	1	3	S39°W	N45°W	3·9	4·8	−0·9	10	−1	27	−8	·259	−·049	3·1	+1·4	0	0·90	−0·90	0	0·13	−0·13	1·22	1·68	−0·46	0	Akola.
...	8	7	6	..	3	1	1	E	N72°E	6·2	4·8	+1·4	32	+10	26	−13	·256	−·102	2·0	+0·6	0	0·80	−0·80	0·02	0·32	−0·30	1·11	1·45	−0·34	0·02	Amraoti.
3	6	4	2	1	1	2	5	N25°E	N40°W	6·1	5·0	+1·1	27	−2	25	−10	·224	−·066	2·3	+1·2	0	0·30	−0·30	0	0·12	−0·12	0	0·86	−0·86	0	Khandwa.
...	5	7		1	..	1	...	N75°E	N63°E	3·4	2·6	+0·8	33	+8	31	−15	·255	−·083	2·2	+0·5	0	0·40	−0·40	0·03	0·18	−0·15	1·78	1·24	+0·54	0·03	Hoshangabad.
2	4	8	5	1	5	3	...	S78°E	S69°E	6·6	4·2	+2·4	39	+12	(d) 32	−7	(d) ·275	−·032	1·7	+0·2	0	0·60	−0·60	0	0·29	−0·29	0·79	2·04	−1·25	0	Saugor.
2	3	1	9	1	1	..		S75°W	S23°E	2·3	2·7	−0·4	17	−12	40	−8	·289	−·068	2·1	+0·3	1	1·20	−0·20	0·13	0·43	−0·30	2·12	2·04	+0·08	0·13	Jubbulpore.
6	6	2	2	3	1	2	...	N43°E	N37°E	5·5	3·2	+2·3	13	−14	31	−16	·209	−·113	2·4	+0·5	2	1·70	+0·30	0·16	0·29	−0·13	1·51	2·52	−0·01	0·20	Seoni.
8	4	6	1	..	1	2	1	N31°E	N14°E	3·3	4·9	−1·6	40	+8	35	−6	·321	−·055	2·6	+0·7	0	1·10	−1·10	0·07	0·48	−0·41	1·01	1·77	−0·76	0·05	Nagpur.
7	2	2	1	3	3	1	7	N28°W	...	5·9	...	...	30	...	32	...	·278	...	1·3	...	2	...	...	0·69	...	...	3·71	...	...	0·41	Pendra.
2	2	2	2	3	2	3	1	S11°W	N59°W	6·4	4·9	+0·5	5	−6	38	−4	·325	−·044	2·1	−0·1	2	1·80	+0·20	0·68	0·65	+0·03	0·77	1·45	−0·68	0·41	Raipur.
1	2	4	7	6	..	1	1	S45°E	N46°E	3·2	3·0	+0·2	40	+8	39	−8	·405	−·020	2·7	+1·2	3	1·40	+1·60	0·82	1·19	−0·37	1·05	2·32	−1·27	0·41	Chanda.
																															XII—Hyderabad.
5	6	7	1	..	..	1	1	N45°E	...	8·4	...	...	46	...	26	−7	·267	...	1·5	...	0	0·50	−0·50	0	0·25	−0·25	0·82	1·01	−0·19	0	Aurangabad.
.	1	...	..	..	5	..	...	S45°W	...	4·2	...	...	13	...	33	−20	·351	...	1·1	...	0	0·80	−0·80	0	0·63	−0·63	0·70	1·28	−0·58	0	Nizamabad.
1	3	...	1	4	14	3	1	S45°W	...	5·1	...	...	48	...	41	...	·456	...	0·2	...	1	1·40	−0·40	0·15	0·50	−0·35	0·60	1·22	−0·62	0·15	Bidar.
2	4	6	3	5	1	1	1	S74°E	N79°E	7·5	7·0	−0·5	30	+9	40	−3	·424	−·017	0·4	−0·6	1	0·80	+0·20	0·38	0·52	−0·14	0·51	0·88	−0·37	0·37	Gulbarga.
1	1	1	8	3	11	1	...	S6°W	S3°W	3·3	7·2	−3·9	49	+21	44	−5	·493	−·017	1·4	0	0	0·70	−0·70	0·11	0·44	−0·33	0·11	0·68	−0·57	0·06	Raichur.
.	1	1	..	..	..	1	2	N18°W	S47°E	3·2	4·2	−1·0	7	−5	41	−16	·367	−·155	2·2	+1·0	0	...	...	0	0·58	−0·58	0·05	0·96	−0·91	0	Hyderabad (Deccan).
.	.	2	17	2	..	1	1	S47°E	...	(d) 6·2	...	...		...	51	−14	·484	...	1·4	...	0	0·70	−0·70	0	0·26	−0·26	0·04	1·04	−1·00	0	Hanumkonda.
																															XIII.—Mysore.
	2	4	3	...	5	8	2	S62°W	S56°W	6·0	6·4	−0·4	20	−17	48	−3	·455	−·035	1·1	0	0	0·50	−0·50	0·07	0·34	−0·27	1·27	0·51	+0·76	0·06	Chitaldroog.

(d) Mean of 30 days.

Tab

(2) Abstract of observations taken at 8 hrs. at 24

Number of the station	Station.	Elevation of barometer above sea level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45 lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month	Temperature of air. Mean of 8 hrs. temperature	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range dur
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	2
	XIII—Mysore *concld.*																						
30	Hassan	3,149	26·864?	+·012?	29·932?	26·924	27th	26·8.7	11th and 12th.	·097	71·7	92·4	+1·4	62·2	0	77·3	+0·7	30·2	95·2	16th	57·1	7th	38
	Bangalore	3,021	26·971	—·015	29·904	27·039	27th	26·928	9th	·111	73·9	93·2	+2·5	64·5	—0·2	78·9	+1·2	28·7	95·8	11th and 31st.	59·8	6th and 7th.	36
	Mysore	2,518	27·463	0	29·925	27·524	27th	27·12	11th	·104	73·5	94·3	+0·8	63·2	—1·0	80·3	—0·1	28·1	95·9	30th	61·5	17th	36
	XIV.—Madras.																						
31	Mangalore	65	29·874	—·027	29·871	29·935	27th	29·821	12th	·114	81·8	89·8	+0·4	75·3	+0·3	83·1	+0·4	13·5	96·7	3rd	72·9	1st and 3rd.	23
	Calicut	27	29·913	—·022	29·870	29·972	27th	29·857	9th	·115	80·8	89·6	—0·7	73·2	+0·1	82·9	+0·3	13·4	92·3	28th	73·6	3rd	18
	Cochin	9	29·936	—·016	29·873	29·954	27th	29·860	9th	·094	81·4	91·9	+0·7	77·1	+0·1	84·5	+0·4	11·8	94·7	23rd	74·2	9th	20
	Trivandrum	198	29·738	+·001	29·803	29·816	27th	29·681	9th	·135	79·0	86·5	—0·5	75·2	+0·5	80·8	0	11·4	89·0	22nd	72·0	4 days.	17
32	Tinnevelly	168	29·705	+·011	29·793	29·856	27th	29·726	9th	·130	80·9	95·9	—0·6	71·1	—1·5	85·1	—1·1	21·8	98·7	26th	67·9	17th	30
	Pamban	37	29·917	+·001	29·881	29·979	15th	29·850	9th	·129	81·2	88·1	—0·7	77·3	+1·2	82·7	+0·3	10·8	90·7	27th and 30th.	74·9	17th and 19th.	16
	Madura	417	29·517	—·001	29·903	29·581	27th	29·436	9th	·145	80·0	95·8	—0·9	72·2	—0·6	84·0	—0·8	23·6	99·4	31st	63·1	16th	36
	Periyakulam	944	29·010	...	29·903	29·073	27th	28·935	9th	·133	76·8	96·0	...	67·7	...	81·9	...	28·3	97·5	31st	58·6	16th	40
	Pudukkottai	318	29·645	...	29·898	29·715	27th	29·567	9th	·148	78·7	95·5	...	73·5	...	84·5	...	22·9	99·7	31st	66·9	13th	32
	Negapatam	31	(f) 29·912?	(f) —·025?	(f) 29·872?	29·959	27th	29·862	9th	·137	81·0	89·8	+1·2	76·1	+0·6	82·9	+0·2?	13·7	92·9	31st	69·5	16th	23
	Trichinopoly	255	29·711	—·008	29·901	29·785	27th	29·630	9th	·155	80·1	96·0	—1·9	72·0	—0·8	84·0	—1·4	24·0	99·6	10th	62·3	16th	37
	Coimbatore	1,348	28·602	—·020	29·900	28·663	27th	28·541	9th	·122	76·2	93·7	+0·5	63·3	—0·5	83·0	0	27·4	99·9	30th	60·3	15th	39
	Salem	940	29·044	—·010	29·931	29·112	27th	28·984	9th	·128	79·6	93·5	—0·1	70·0	—0·8	81·3	—0·5	28·5	103·0	10th	60·4	16th	42
	Cuddalore	37	29·925	+·009	29·893	30·005	27th	29·849	9th	·156	77·8	88·6	—0·7	71·4	—0·8	80·0	—0·8	17·2	97·1	31st	66·7	17th	30
	Vellore	707	29·252	...	29·915	29·325	27th	29·175	10th	·150	72·9	(d) 91·4	...	65·9	...	(d) 80·1	...	23·5	98·2	25th	58·0	6th	40
	Madras	22	29·941	—·011	29·894	30·010	27th	29·862	9th	·148	78·6	88·9	—1·5	70·0	—1·3	79·9	—1·2	18·0	93·5	10th	66·5	6th	27
33	Cuddapah	433	29·502	+·005	29·876	29·579	27th	29·437	11th	·142	81·0	101·0	—0·7	71·4	—3·6?	86·2	—2·2?	29·6	104·7	1st	63·6	6th and 7th.	41
	Bellary	1,475	28·458	—·002	29·889	28·535	27th	28·406	11th and 13th.	·129	78·1	101·5	+1·2	70·4	—1·7	86·0	—0·3	31·1	104·0	12th and 29th.	65·3	17th	38
	Kurnool	923	29·035	+·005	29·884	29·079	27th	28·934	13th	·145	77·1	101·2	+0·3	70·2	—1·3	85·7	—0·5	31·0	103·7	11th	60·1	7th	43
34	Nellore	66	29·882	+·005	29·879	29·953	27th	29·807	9th	·146	77·2	93·7	—2·5	71·6	—0·8	82·6	—1·7	22·1	98·3	10th	67·1	6th	31
	Masulipatam	15	29·964	+·017	29·914	30·034	26th	29·901	10th	·133	79·4	92·4	+1·0	70·4	—1·9		—0·5	22·0	95·8	16th and 28th.	66·1	7th	29
	Cocanada	26	29·934	0	29·896	30·001	27th	29·873	10th	·128	78·0	93·5	+1·8	72·3	—1·2	82·9	+0·3	21·2	93·2	25th and 26th.	67·0	1st	31
	Waltair (Vizagapatam).	226	29·722	—·009	29·892	29·779	27th	29·652	9th	·127	78·6	86·4	...	74·0	...	80·2	...	12·4	90·1	15th	69·4	5th	20
	Calingapatam	19	29·928	...	29·887	29·991	27th	29·855	9th	·136	...	...	...	...	...	...	...	...	...	...	...	...	...

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

(f) Mean of 28 days.
(d) " of 30 "

B—*contd.*

stations in India, etc., in March, 1909—contd.

Wind direction. Number of winds from. Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, in miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 31st March 1909.	Normal rainfall for period, 1st Dec. to 31st March.	Departure from normal of period, 1st Dec. 1908 to 31st March 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																XIII—Mysore—*concld.*
12	...	2	3	3	...	1	5	5	N56°W	S37°E	5·6	3·0	+2·6	10	−13	67	0	·520	−·028	2·1	+0·1	1	0·90	+0·10	0·37	0·38	−0·01	0·63	0·62	+0·01	0·30	Hassan.
.	...	3	7	6	6	6	3	...	S27°E	S12°E	8·0	4·9	+3·1	46	−4	51	−15	·430	−·113	1·9	+0·3	0	1·00	−1·00	0	0·48	−0·48	0·80	1·19	−0·39	0	Bangalore
8	...	6	2	1	2	6	5	1	S56°W	S39°W	7·3	8·0	−0·7	10	−28	65	−3	·537	−·041	4·1	+2·5	0	1·00	−1·00	0	0·23	−0·23	1·44	0·62	+0·82	0	Mysore.
																																XIV—Madras
6	1	10	14	.	..	...	..	..	N69°E	N70°E	3·3*	3·0	+0·3	72	+32	77	−1	·834	+·026	1·3	−1·1	0	0·20	−0·20	0	0·07	−0·07	0·21	0·60	−0·39	0	Mangalor
4	6	5	6	3	...	...	2	5	N30°E	N42°E	6·6	10·5	−3·9	43	−4	80	+4	·837	+·025	1·9	−0·1	0	0·90	−0·90	0	0·58	−0·58	4·77	1·89	+2·88	0	Calicut.
2	1	14	10	4	.	...	...	...	N71°E	N31°E	6·5*	6·8	−0·3	79	+4	75	−2	·799	−0·49	2·8	+0·7	4	2·60	+1·40	1·34	2·15	−0·81	4·48	5·22	−0·74	0·43	Cochin.
15	3	7	1	...	...	...	..	5	N12°E	N24°E	4·1*	5·5	−1·1	37	−10	77	0	·766	−·029	4·0	+1·6	6	2·60	+3·40	4·87	1·78	+3·09	7·72	5·29	+2·43	1·80	Trivandrum.
8	7	4	.	...	1	...	3	8	N22°W	N25°W	4·3	4·7	−0·4	49	−11	70	−3	·735	−·030	3·7	+1·4	3	2·30	+0·70	1·28	1·03	+0·25	4·89	7·28	−2·39	0·55	Tinnevelly
4	3	7	11	6	1	...	1	.	N86°E	S87°E	5·5	7·4	−1·9	59	−10	80	+3	·850	...	3·5	...	1	0·90	+0·10	0·32	0·72	−0·40	12·51	13·09	−0·58	0·27	Pamban.
6	8	9	3	...	...	2	2	1	N21°E	N28°E	6·0	3·8	+2·2	49	−1	75	+2	·761	−·005	4·7	+2·5	0	1·00	−1·00	0	0·47	−0·47	4·28	3·09	+1·19	0	Madura.
20	..	.	..	1	1	...	..	..	S24°E	...	...	...	...	6	...	59	...	·543	...	0·8	...	2	2·30	−0·30	0·39	1·73	−1·34	6·64	4·89	+1·75	0·21	Periyakulam.
...	7	11	1	4	..	2	1	5	N23°E	...	6·7	...	...	48	...	77	...	·756	...	4·8	...	0	...	...	0	...	...	4·75	...	...	0	Pudukkottai.
2	1	12	1	4	2	...	..	9	N28°E	S85°E	9·0	6·3	+2·7	43	+7	77	0	·824	−·003	4·1	−0·1	0	0·50	−0·50	0	0·52	−0·52	10·89	15·26	−4·37	0	Negapatam
29	1	5	2	2	...	..	.	1	N58°E	N31°E	2·4*	3·8	−1·4	27	+5	71	−2	·732	−·015	3·1	+0·3	0	0·50	−0·50	0	0·41	−0·41	7·42	4·23	+3·19	0	Trichinopoly.
8	1	15		...	...	2	3	2	N22°E	N84°E	3·9	2·9	+1·0	43	+3	65	−15	·602	−·128?	2·9	+0·4	0	1·10	−1·10	0	0·50	−0·50	2·45	2·25	+0·20	0	Coimbatore
11	1	6	7	2	1	.	2	1	N70°E	N66°E	4·3	5·3	−1·0	37	−3	71	0	·726	+·015	3·3	+1·6	0	1·20	−1·20	0	0·71	−0·71	3·44	2·53	+0·91	0	Salem.
15	4		.	...	1	3	4	4	N67°W	N86°W	5·5	2·4	+3·1	33	−17	81	−1	·804	−·061?	3·5	+0·3	0	0·40	−0·40	0	0·30	−0·30	5·96	10·00	−4·04	0	Cuddalore.
29	..	...	1	...	...	1	...	...	S19°E	...	0·2	...	...	4	...	73	...	·599	...	2·0	...	0	0·30	−0·30	0	0·19	−0·19	7·00	3·69	+3·31	0	Vellore.
2	4	2	1	3	17	2	..	...	S11°E	S25°W	4·7*	6·2	−1·5	49	−5	87	+9	·857	+·047	2·4	−0·1	0	0·80	−0·80	0	0·21	−0·21	6·82	6·98	−0·16	0	Madras.
...	...	7	10	9	...	5	...	...	S74°E	S72°E	...	...	...	59	+2	56	−2	·579	−·075	2·3	+1·1	0	0·20	−0·20	0	0·04	−0·04	4·03	1·41	+2·62	0	Cuddapah.
12	3	1	2	4	3	3	2	1	S11°E	S45°W	3·8	4·6	−0·8	13	+2	37	−13	·357	−·172	0·8	−0·6	0	0·50	−0·50	0·01	0·14	−0·13	0·27	0·36	−0·09	0·01	Bellary.
8	...	2	7	4	1	4	2	3	S54°E	E	6·6*	...	...	17	+6	45	−8	·424	−·022	0·8	−0·4	0	0·60	−0·60	0	0·41	−0·41	0·02	0·62	−0·60	0	Kurnool.
2	...	1	1	13	8	...	..	6	S28°E	S32°E	5·5*	6·4	−0·9	46	−22	84	+3	·780	−·043	4·8	+2·2	0	0·30	−0·30	0	0·08	−0·08	8·50	2·37	+6·13	0	Nellore.
5	...	.	1	2	17	5	1	...	S5°W	S20°E	5·3	5·5	−0·2	72	+29	85	+2	·853	−·004?	2·2	−0·5	0	0·40	−0·40	0	0·12	−0·12	0·20	1·19	−0·99	0	Masulipatam.
16	...	1	...	...	...	8	5	1	S68°W	N52°W	5·2	6·5	−1·3	40	−3	76	+1	·731	−·020	5·6	+3·1	0	0·70	−0·70	0	0·47	−0·47	0	1·75	−1·75	0	Cocanada.
3	..	1	1	1	...	10	14	1	S79°W	S88°W	6·6	...	...	66	−9	66	−6	·647	−·095	2·8	+0·1	0	0·60	−0·60	0	0·32	−0·32	0	2·45	−2·45	0	Waltair (Vizagapatam.).
1	1	..	...	...	7	10	8	4	S61°W	...	6·5	...	...	65	...	...		...	...	1·7	...	0	...	...	0	...	...	0·20	...	...	0	Calingapatam.

(*d*) Mean of 30 days.
* Uncorrected for scale error.

Tab

(2) *Abstract of observations taken at 8 hrs. at 24*

Number of Sub-division.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches.								Temperature of air.												
			Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range dur-
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	XIV.—Madras—*concld.*																						
	Gopalpur	72	29·851	0	29·868	29·928	3rd	29·788	9th	·110	76·4	88·4	+1·8	72·2	—1·0	80·3	+0·4	16·2	100·2	27th	61·0	3rd and 4th.	36
	Stations in the Bay.																						
1	P. V. Fraser	8	29·935	...	29·860	30·025	3rd	29·820	8th	·205	79·8	...	...	...	...	...	...	...	...	...	...	...	..
	Car Nicobar	25	29·898	...	29·850	29·933	12th	29·856	26th	·077	83·1	88·3	...	77·1	...	82·8	...	11·2	90·3	26th	74·5	15th	15
	Port Blair	61	29·883	—·019	29·871	29·959	27th	29·820	1st	·139	78·9	88·7	—2·4	76·0	—0·6	82·4	—1·5	12·7	91·2	24th	71·0	13th	20
	Slipper Island	90	29·842	...	29·866	29·925	27th	29·772	13th	·153	79·9	87·4	...	76·3	...	81·9	...	11·1	90·1	2nd	73·1	15th	17
	Kashmir.																						
14	Srinagar	5,204	24·958	+·028	24·929	25·149	2nd	24·750	21st	·399	41·3	55·1	—0·3	37·6	+0·5	46·3	+0·1	17·5	68·6	30th	29·1	1st	39
	Gulmarg	8,569									Observations not received												
	Sonemarg	8,764	21·853	...	21·821	21·961	2nd	21·623	10th	·338	25·5	38·3	...	19·8	...	29·1	...	18·5	46·4	18th	6·1	11th and 12th	40
	Dras	10,059	20·815	+·038	20·783	20·978	2nd	20·521	10th	·457	9·2	28·3	—5·8	—2·0	—6·3	13·2	—3·1	30·3	36·9	26th	—28·0	12th	64
	Leh	11,503	19·701	+·009	19·669	19·852	19th	19·444	10th	·408	27·1	44·8	+1·7	21·2	+0·1	33·0	+0·9	23·6	53·6	26th	10·0	2nd	42
	Skardu	7,505	22·935	+·050	22·905	23·148	2nd	22·632	10th	·516	36·6	50·0	+0·2	32·1	—0·1	41·2	+0·1	17·6	59·9	31st	23·1	1st	36
	Minimarg	9,359	21·109	...	21·077	21·225	2nd	20·854	10th	·371	28·6	45·2	..	17·0 (d)	...	31·1 (d)	...	28·2	59·3	18th	3·0	11th and 12th.	56
	Astor	7,955	22·571	...	22·541	22·729	29th	22·366	21st	·423	31·9	46·6	...	28·5	...	37·6	...	18·1	55·4	24th and 25th.	14·0	12th	41
	Gilgit	4,890	25·216	...	25·189	25·405	2nd	24·937	9th	·468	49·4	62·3	+0·6	44·7	—0·6	53·5	0	17·6	72·2	30th and 31st.	37·2	1st	35
	Baluchistan.																						
16	Quetta	5,502	24·700	+·047	24·660	24·814	27th	24·599	4th	·215	48·7	63·8	—0·7	36·5	—3·5	50·2	—2·1	27·3	75·1	29th and 30th.	29·0	6th and 12th	46
	Chaman	4,311	25·746	+·030	25·708	25·868	27th	25·635	24th	·233	54·9	65·8	—0·5	44·5	—1·4	55·1	—1·0	21·3	77·8	30th	33·7	5th	44
	Robat	...	26·991	...	26·940	27·140	27th	26·848	13th	·292	62·0	76·0	...	54·1	...	65·1	...	21·9	92·5	31st	39·8	4th	52
	Hill Stations excluding Kashmir and Baluchistan.																						
	Chitral	5,486	...	...	...	...	...	...	...	...	41·7	60·1	...	36·4	...	48·3	...	23·7	70·6	30th	32·0	10th	38
	Para Chinar	6,000	(h) 24·438	...	(h) 24·405	24·537	27th	24·300	25th	·237	47·5	61·7	...	38·7	...	50·2	...	23·0	71·1	30th	30·0	11th	41
	Cherat	4,256	25·730	+·046	25·728	25·892	1st	25·605	10th	·287	53·2	63·2	+1·7	48·8	+0·9	56·0	+1·3	14·4	73·6	30th	39·5	26th	34
	Murree	6,333	23·856	+·009	23·824	23·955	27th	23·694	10th	·261	48·7	56·7	—1·6	42·7	—0·6	49·7	—1·1	14·0	66·0	20th	33·0	26th	33

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

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

(d) Mean of 30 days.
(h) „ 26 „

B—*contd.*

***stations in India, etc., in March, 1909*—continued.**

Wind direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity in miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 31st March 1909.	Normal rainfall for period, 1st Dec. to 31st March.	Departure from normal of period, 1st Dec. 1908 to 31st March 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																XIV—Madras—*concld.*
2	8	...	1	...	1	10	3	6	N72°W	S89°W	12·0	13·9	—1·9	46	+4	77	—1	·711	—·029	0·9	—1·6	0	1·00	—1·00	0	0·65	—0·65	0	2·00	—2·00	0	Gopâlpur.
																																Stations in the Bay.
...	3	1	...	...	5	16	4	2	S56°W	...	*7·0	...	...	61	...	83	...	·846	...	2·9	...	0	...	...	0	...	...	1·04	...	...	0	P.V. Fraser
...	2	15	10	2	...	...	...	...	(e) N63°E	...	3·1	...	...	83	...	76	...	·855	...	9·8	...	4	...	...	1·78	...	...	13·03	...	...	1·31	Car Nicobar
19	...	3	1	1	...	...	...	7	N10°W	N22°W	3·6*	4·2	—0·6	20	—20	85	+2	·843	—·020	3·7	+0·9	2	...	...	2·44	0·40	+2·04	14·00	8·44	+5·56	1·58	Port Blair.
6	7	3	1	...	...	1	3	10	N26°W	...	7·3	...	...	56	...	78	...	·800	...	5·1	...	1	...	...	0·29	...	...	0·87	...	...	0·29	Slipper Island.
																																Kashmir
10	5	...	...	9	1	1	1	4	S83°E	S3°W	4·3	4·8	—0·5	6	—2	81	—8	·213	—·024	6·0	+6·1	6	6·60	—0·60	3·56	3·14	+0·42	14·47	10·34	+4·13	2·00	Srinagar.
											Observations not received.																					Gulmarg.
14	5	5	4	...	2	1	...	...	N49°E	...	2·7	...	...	30	...	81	...	·112	...	6·0	...	16	...	...	7·99	...	...	47·66	...	...	1·80	Sonemarg.
29	...	...	...	...	...	...	...	2	N45°W	...	0·5	...	...	3	...	95	+4	·071	...	5·7	...	14	10·80	+3·20	3·53	3·89	—0·36	14·10	9·91	+4·19	0·61	Dras.
25	...	...	3	...	2	1	...	...	S41°E	S63°W	2·6*	2·0	+0·6	13	—7	54	+4	·083	+·006	6·6	+0·5	0	1·00	—1·00	0·09	0·22	—0·13	1·12	1·07	+0·05	0·03	Leh.
19	...	1	...	4	5	2	...	...	S14°E	...	6·3	...	...	30	...	70	—11	·149	...	5·8	...	2	2·70	—0·70	0·42	0·96	—0·54	1·76	2·66	—0·90	0·28	Skardu.
11	6	13	1	...	...	...	...	...	N34°E	...	7·1	...	...	59	...	63	...	·101	...	5·8	...	14	...	...	7·92	...	...	31·36	...	...	1·08	Minimarg.
13	1	...	...	2	13	1	1	...	S1°W	...	4·2	...	...	45	...	68	...	·125	...	6·3	...	2	...	...	0·81	...	...	5·67	...	...	0·25	Astor.
18	...	...	...	...	...	6	7	...	S70°W	...	4·2	...	...	40	...	41	—10	·141	—·038	7·3	+1·1	2	1·40	+0·60	0·33	0·59	—0·26	0·99	1·05	—0·06	0·15	Gilgit.
																																Baluchistan.
24	1	...	...	1	3	...	2	...	S26°W	S12°W	2·8	4·0	—1·2	10	—1	52	—10	·176	—·035	2·9	—0·1	3	4·00	—1·00	1·13	1·84	—0·71	6·59	6·89	—0·30	0·58	Quetta.
8	...	...	5	10	6	2	...	...	S36°E	S31°E	6·9	9·9	—3·0	59	+8	54	—5	·226	—·033	3·5	—0·2	3	4·70	—1·70	2·04	1·31	+0·73	6·12	5·28	+0·84	1·39	Chaman.
5	3	13	1	...	...	2	6	1	N10°E	...	7·6	...	...	37	...	64	...	·359	...	1·1	...	2	...	...	1·65	...	...	3·00	...	...	1·54	Robat.
																																Hill stations excluding Kashmir and Baluchistan.
21	...	7	...	...	...	...	...	...	N45°E	...	1·1	...	...	26	...	69	...	·183	...	3·4	...	5	...	...	2·27	...	...	4·06	...	...	0·78	Chitral.
26	2	...	1	...	...	2	...	...	N34°W	...	5·1	...	...	4	...	53	...	·172	...	2·8	...	5	9·00	—4·00	2·43	4·76	—2·33	7·14	8·11	—0·97	1·35	Para Chinar.
3	11	2	1	1	1	2	1	9	N20°W	N10°W	12·9	14·2	—1·3	56	0	36	—20	·138	—·079	3·8	—1·1	1	...	...	0·37	3·79	—3·42	7·58	10·17	—2·59	0·14	Cherat
7	2	1	...	12	5	1	...	3	S34°E	S83°E	9·8	9·0	+0·8	37	+5	44	—1·0	·151	—·026	4·5	—0·4	2	4·90	—2·90	1·17	4·05	—2·88	10·35	12·70	—2·35	0·79	Murree.

* 8 hrs. velocity.
(e) Mean of 29 days.

* Uncorrected for scale error.

Tabl

(2) *Abstract of observations taken at 8 hrs. at 24*

Number of sub-division.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of Air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	Hill stations excluding Kashmir and Baluchistan—*concld.*																						
	Kailang	*10,087*	(d) 20·899	...	(d) 20,954	21·136	2nd	20·761	10th	·375	27·1	39·5	−1·9	20·8	−0·8	30·2	−1·4	18·7	48·8	21st	10·2	2nd	38·
	Simla	7,224	23·109	+·004	23·071	23·198	27th	22·966	10th	·232	52·4	59·3	+2·9	46·2	+0·2	52·8	+1·6	13·1	67·0	20th	37·1	11th	29·
	Sarain	...	(e) 23·191	...	...	23·282	27th	23·061	10th	·221	44·6	58·8	...	35·4	...	47·1	...	23·4	66·6	20th	29·7	2nd	36·
	Kalabagh	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chakrata	7,022	23·319	+·026	23·279	23·417	27th	23·195	9th	·222	51·0	66·0	+4·3	45·8	+1·5	55·9	+2·9	20·2	71·8	30th	37·7	8th	34·
	Muktesar	7,592	22·859	+·009	22·818	22·962	27th	22·709	9th	·253	52·7	65·4	+5·4	46·1	+3·6	55·7	+4·5	19·3	72·5	20th	38·5	1st	34·
	Darjeeling	7,376	23·028	+·023	22·983	23·128	27th	22·866	9th	·262	54·0	62·7	+6·2	45·7	+3·4	54·2	+4·8	17·0	68·3	27th	40·2	1st and 2nd	28·
	Shillong	4,920	25·131	...	25·083	25·227	27th	24·963	9th	·264	63·0	76·4	...	53·8	...	65·1	...	22·6	83·9	18th	41·7	1st	42·
	Cherra Poonjee	4,309	25·767	...	25·658	25·795	27th	25·577	9th	·218	63·1	72·8	...	56·5	...	64·7	...	16·3	81·2	31st	49·8	12th	31·
	Maymyo	3,545	(d) 26·154	(d) —·023	(d) 26·399	26·537	27th	26·345	9th	·192	63·9	83·0	+1·6	50·0	+0·4	66·5	+1·0	33·0	87·9	25th and 26th	38·6	9th	49·
	Pachmarhi	3,528	26·509	+·014	26·456	26·599	3rd	26·449	21st	·150	72·1	86·5	+2·1	60·1	—0·3	73·3	+0·9	26·4	92·2	24th	51·6	2nd	40·
	Mount Abu	3,945	(d) 26·108	(d) +·016	(d) 26·058	26·183	3rd	26·044	21st	·139	70·3	77·6	—0·1	62·2	+0·7	69·9	+0·3	15·4	83·2	30th	54·4	1st	28·
	Mercara	3,781	26·247	—·014	26·180	26·310	27th	26·202	10th	·108	69·0	87·4	+2·5	61·3	−0·5	74·3	+1·0	26·1	90·0	17th, 18th, and 20th	57·0	14th	33·
	Ootacamund	7,322	23·080	...	23·016	23·143	27th	23·022	6th	·121	61·1	71·0	...	50·0	...	60·5	...	21·0	74·5	30th	43·2	19th	31·
	Kodaikanal	7,698	22·847	—·029	22·782	22·905	27th	22·812	6th	·093	57·8	68·9	+0·2	51·1	+0·2	60·0	+0·2	17·8	72·5	10th	49·0	26th	23·
	Extra India.																						
	Singapore (a)	10	29·123	...	29·864	29·997	26th	29·873	9th	·124	81·1	88·3	...	72·3	...	80·3	...	16·0	91·5	19th	71·0	23rd 28th and 29th.	20·
	Penang (a)	20	29·926	...	29·871	29·962	31st	29·902	7th	·060	83·5	90·9	...	75·5	...	83·2	...	15·4	93·0	4 days	73·0	22nd	20·
	Trincomalee	12	29·948	+·015	29·886	30·022	27th	29·890	9th	·132	77·1	87·3	—0·7	75·9	—0·1	81·6	—0·4	11·4	90·0	26th	72·5	17th	17·
	Colombo	40	29·893	—·033	29·860	29·965	27th	29·841	9th	·124	75·5	89·0	−0·4	74·7	+3·8	81·9	+1·7	14·3	91·5	15th	71·5	15th	20·
	Minicoy	7	29·962	...	...	30·010	27th	29·903	9th	·107	...	...	...	...	...	...	...	...	...	...	...	...	...
	Amini Divi	*13*	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Gyantse	13,120	17·091	...	...	17·242	2nd	16·926	10th and 22nd	·316	29·9	54·5	...	18·7	...	36·6	...	35·8	61·1	13th	6·9	3rd	54·
	Pharijong	14,400	(h) 17·910	...	...	18·050	27th	17·814	12th	·236	22·4	50·3	...	0·4	...	25·4	...	49·9	66·1	8th	0	4 days	66·1
	Gangtok	5,660?	(n) 24·460	...	...	24·561	29th	24·358	19th	·203	59·5	71·7	...	50·3	...	61·1	...	21·4	77·7	30th	45·0	3rd	32·
	Gartok (c)	15,100?	17·266	...	...	17·411	17th	17·086	26th	·325	21·5	33·8	...	9·7	...	21·8	...	24·1	40·7	18th	0·3	6th	40·4
	Kashgar (c)	4,255	25·587	...	...	25·950	23rd	25·200	9th	·750	38·6	59·1	+2·9	34·0	—2·1	46·6	+0·4	25·1	79·1	30th	26·8	2nd	52·
	Kabul	...	(h) 24·293	...	(h) 24·262	24·375	15th	24·135	4th	·240	38·7	59·0	+1·9	32·1	—3·5	45·6	—0·8	26·9	76·7	30th	24·9	1st, 6th and 13th.	51·8
	Meshed	3,104	26·787	...	...	26·908	20th	26·642	12th	·266	43·7	58·3	...	34·5	—3·9	46·4	...	23·8	77·8	29th	22·3	5th	55·5
	Jask	13	29·982	—·006	29·952	30·083	15th	29·862	22nd	·221	72·7	80·8	+2·1	68·3	+2·2	74·6	+2·2	12·5	85·8	31st	59·3	6th	26·5
	Muscat	20	29·985	+·014	29·953	30·095	4th	29·866	23rd	·229	76·2	83·7	+7·1	72·7	—1·6	78·2	+2·8	11·0	92·8	31st	65·1	5th	27·7

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

(c) Aneroid corrected for scale error
(d) Mean of 30 days.
(e) „ 29 „
(h) „ 26 „
(n) „ 20 „

3—*contd.*

ations in India, etc., in March, 1909—continued.

Wind Direction. Number of winds from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind Velocity. Mean velocity in miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 31st March 1909.	Normal rainfall for period, 1st Dec. to 31st March.	Departure from normal of period, 1st Dec. 1908 to 31st March 1909.	Heaviest rainfall during month.	Station.
26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																															Hill stations excluding Kashmir and Baluchistan.—*concld.*
1	...	1	6	6	7	7	2	(d) S69°W	...	1·5	1·4	+0·1	27	...	78	...	·117	...	6·1	...	5	...	...	2·01	3·58	—1·57	9·12	10·60	—1·48	0·80	Kailang.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	26	—18	·101	—·045	3·8	0	1	4·30	—3·30	0·40	2·07	—1·67	6·69	9·01	—2·32	0·30	Simla.
...	2	1	...	13	4	...	...	S2°W	...	3·0	...	...	46	...	58	...	·171	...	3·3	...	2	...	...	0·58	...	...	16·04	...	...	0·32	Sarain.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Observations not received				...	...	...	...	...	...	...	...	...	...	...	...	Kalabagh.
3	1	...	...	...	...	...	3	N3°W	N13°E	7·4	7·1	+0·3	86	+47	38	—13	·143	—·033	1·9	—0·9	1	4·50	—3·50	0·23	2·30	—2·07	12·00	11·39	+1·51	0·16	Chakrata.
1	1	8	2	1	...	9	1	E	...	7·7	...	...	1	...	(d) 28	—21	(d) ·111	...	2·3	...	0	...	...	0·07	1·92	—1·85	4·81	7·66	—2·85	0·04	Muktesar.
1	8	3	5	...	7	4	...	S66°E	S37°E	5·4	7·5	—2·1	10	—1	46	—29	·192	—·059	0·8	—2·0	0	3·35	—3·35	0	1·55	—1·55	0·35	3·50	—3·15	0	Darjeeling.
...	...	...	1	19	...	...		S43°W	...	8·6	...	...	62	...	31	...	·180	...	1·2	...	0	4·40	—4·10	0	1·82	—1·82	0·16	3·42	—3·26	0	Shillong.
2	1	1	...	...	9	6	4	S86°W	...	9·0	...	...	43	...	57	...	·332	...	2·8	...	1	9·00	—8·00	0·23	13·83	—13·60	1·66	16·95	—15·29	0·14	Cherra Poonjee.
...	...	...	2	4	...	...		S31°W	...	3·2	...	...	20	...	66	—3	·105	...	0·2	..	0	0·90	—0·90	0	0·34	—0·34	0·29	1·15	—0·86	0	Maymyo.
1	5	3	1	2	6	2	4	N77°W	N3°W	5·0	5·0	0	6	+2	31	—4	·211	—·035	1·0	—1·1	1	0·90	+0·10	0·43	0·33	+0·10	0·93	1·92	—0·99	0·40	Pachmarhi.
	9	..	4	1	6	3	5	N41°W	N23°W	6·6	7·2	—0·6	10	—10	26	—9	·192	—·010	1·0	—1·0	0	0·50	—0·50	0	0·13	—0·13	0·06	0·96	—0·90	0	Mount Abu.
5	2	1	...	...	..	4		N16°E	N22°E	3·8	3·7	+0·1	40	+18	63	—5	·140	—·053	1·6	—1·3	0	2·00	—2·00	0·12	0·81	—0·69	2·52	1·48	+1·04	0·06	Mercara.
5	18	4	...	...	..	1		N86°E	...	6·3	...	...	66	...	33	...	·177	...	2·8	...	1	1·80	—0·80	0·23	1·00	—0·77	10·20	3·38	+6·82	0·22	Ootacamund.
8	10	2	...	...	...	...		N49°E	...	15·1*	...	...	76	...	41	—6	·198	...	2·6	...	7	3·20	+3·80	4·84	1·92	+2·92	16·56	11·47	+5·09	1·81	Kodaikanal.
																															Extra India.
8	1	...	...	2	...	3		N21°E	...	4·9*	...	...	27	...	...	...	...	...	5·0	...	18	...	...	19·92	...	...	62·40	...	...	6·61	Singapore.
9	10	2	4	...	...	4		N70°E	...	13·4*	...	...	53	...	...	...	...	...	6	...	6	...	...	3·32	...	...	13·69	..	...	1·02	Penang.
1	...	...	5	...	...			S9°E	S37°W	1·3*	5·6	—4·3	13	—10	91	+10	·857	—·021	2·4	0	5	...	...	1·86	1·45	+0·41	21·17	24·71	—3·54	0·48	Trincomalee.
7	9	5	...	...	4	2		N77°E	S58°E	4·1*	5·4	—1·3	40	+8	93	+19	·824	—·021	5·0	+2·1	8	...	...	3·53	4·15	—0·92	7·30	16·73	—9·43	1·52	Colombo.
7	..	4	...	1	...	5		N16°E	N26°W	2·8	5·4	—2·6	48	—9	...	...	...	...	2·5	—0·5	3	...	...	1·35	0·98	+0·37	7·93	8·08	—0·15	0·80	Minicoy.
...	...	..	..	..	..	.		...	...	...	...	...	...	...	(l) 75	...	(b) ·100	...	...	...	...	...	...	...	0	...	...	0·51	...	...	Amini Divi.
...	1	23	3	2	1	1		S35°E	...	5·3	...	...	78	...	75	...	·100	...	0	...	0	...	...	0	...	...	0	...	...	0	Gyantse.
...	..	1	5	2	11	6		N79°W	...	8·4	..	...	52	...	...	...	...	...	3·2	...	0	...	...	0	...	...	0	...	...	0	Phari-jong.
1	...	...	...	1	...	...		(a)	...	1·0	...	...	...	...	79	...	·406	...	0·5	...	0	...	...	0	...	...	0·74	...	...	0	Gangtok.
...	...	11	12	...	1	..		S19°E	...	13·3	...	...	68	...	...	...	...	...	3·8	...	0	...	...	0	...	...	0	...	...	0	Gartok.
...	...	...	...	...	...	3		N45°W	N1°W	?	2·4	?	10	+2	(k) 52	?	(k) ·132	?	5·3	—0·5	0	...	...	0	0·20	—0·20	0	0·78	—0·78	0	Kashgar.
2	2	7	1	2	6	6		N45°W	N80°W	...	...	...	13	—4	76	...	·182	...	3·5	—0·4	4	...	...	2·85	4·90	—2·05	9·07	7·41	+1·66	1·07	Kabul.
...	1	1	2	...	1	1		N	...	1·2	...	...	4	...	78	...	·225	...	7·0	+1·5	5	...	...	1·18	2·43	—1·25	2·46	4·57	—2·11	0·32	Meshed.
3	8	1	...	...	3	5		N36°E	N23°E	11·8	11·0	+0·8	23	—13	74	0	·600	+·034	1·6	—0·7	0	...	...	0·02	1·15	—1·13	1·85	3·77	—1·92	0·01	Jask.
...	...	1	...	...	1	3		N59°W	N72°W	4·4	4·6	—0·2	7	—23	65	—3	·596	+·020	1·9	—0·3	0	...	...	0	1·05	—1·05	4·70	3·37	+1·33	0	Muscat.

(a) Indeterminate.
(d) mean of 30 days.
* Uncorrected for scale error.
(l) Mean of 5 days.
(k) „ 23 „

Table

(2) Abstract of observations taken at 8 hrs. at 240

Number of sub-division.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	Extra India— *contd.*																						
	Bahrein	18	30·003	...	29·974	30·177	3rd	29·717	1st	·430	70·2	76·2	...	64·8	...	70·5	..	11·4	87·9	22nd	53·6	5th	31·3
	Bushire	14	29·947	—·040	29·920	30·097	4th	29·830	21st	·258	65·6	77·6	+5·6	61·7	+2·9	69·7	+4·3	15·9	95·1	28th	43·6	5th	46·5
	Busrah	25	(d) 30·008	...	(d) 29·993	30·179	15th	29·775	1st	·404	62·8	80·7	..	56·1	...	68·4	..	24·6	89·7	18th and 27th	39·7	4th	50·0
	Kerman	...	...	..	...	...	..	..	...	...	44·8	68·5	...	38·2	..	53·4	...	30·3	82·7	30th	28·6	9th	54·1
	Ispahan (b)	5,817	24·249	...	...	24·420	16th	23·900	1st	·520	42·7	63·6	+2·6	30·3	+3·1	51·5	+2·9	24·3	75·4	20th	30·2	1st	45·2
	Tehran (b)†	4,002	25·856	...	...	23·050	15th	25·700	12th and 22nd	·350	46·7	62·3	+5·1	41·1	+3·0	52·0	+4·1	20·9	78·5	30th	25·7	4th	52·8
	Baghdad†	220	29·837	?	29·942	30·042	3rd	29·681	25th	·361	59·2	78·5	+6·2	54·0	+5·8	66·3	+6·0	24·5	90·5	17th	41·8	3rd	48·7
	Beirut	...	...	...	29·928	...	...	..	...	...	61·8	69·4	...	55·5	...	62·5	...	13·9	85·3	16th	50·5	3rd	34·8
	Aden	94	29·907	+·010	29·934	29·967	16th	29·868	23rd & 25th	·099	77·7	82·5	—1·9	75·1	—0·1	78·8	—1·0	7·4	86·8	31st	70·4	11th	16·4
	Perim	201	29·721	—·016	29·859	29·776	3rd	29·660	25th	·116	78·6	84·4	—0·9	75·3	—0·5	79·9	—0·7	9·1	86·1	28th	74·2	2nd	11·9
	Zanzibar	72	29·903	—·004	29·901	29·969	20th	29·828	13th	·141	82·6	88·2	+1·9	79·4	+0·1	83·8	+1·0	8·8	91·7	6th	75·2	23rd	16·5
	„ Dunga	154	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	..	...

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

(b) Aneroid uncorrected for scale error.
† 7 hrs. observations.

(d) Mean of 30 days.

B—*concld.*

stations in India, etc., in March, 1909—concluded.

Wind Direction.												Wind Velocity.			Wind Steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.											
Number of winds from																																		
Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		Resultant direction.	Normal direction.	Mean velocity in miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 31st March 1909.	Normal rainfall for period, 1st Dec. to 31st March.	Departure from normal of period, 1st Dec. 1908 to 31st March 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33		34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																		Extra India—*concld.*
...	5	...	2	4	5	5	5	5		S23°W	...	8·2	...	...	26	...	71	...	·533	...	0·3	...	0	...	...	0	...	...	0·80	...	...	0	Bahrein.
3	4	5	8	4	...	...	1	6		N46°E	N41°E	15·2	8·5	+6·7	10	0	81	+11	·522	+·090	2·7	−0·2	2	...	...	0·56	1·00	−0·44	5·51	9·71	−4·20	0·27	Bushire.
10	1	2	1	4	3	1	6	3		S63°W	...	4·9	...	...	13	...	71	...	·415	...	2·4	...	0	...	...	0·06	...	...	2·61	...	...	0·04	Busrah.
...	13	1	2	...	3	4	1	7		N25°W (p)	...	2·7	...	...	45	...	58	...	·268	...	3·0	...	0	...	...	0	...	...	0‡	...	...	0	Kerman.
4	1	...	...	1	2	2	7	1		S76°W	S82°W	3·9	6·3	−2·4	44	0	77	+1	·223	−·015	2·6	−1·0	3	...	...	0·91	0·99	−0·08	1·914	1·96	−0·02	0·35	Ispahan.
7	8	13	...	1	...	1	...	1		N28°E	N14°E	4·3	3·8	+0·5	61	+39	72	+16	·236	+·042	2·3	−1·8	5	...	...	2·15	2·80	−0·65	5·36	6·28	−0·92	0·98	Tehran.
11	2	...	2	8	2	1	1	4		S37°E	N11°W	4·9	4·0	+0·9	16	−8	56	−14	·291	−·048	3·0	+0·7	2	...	...	0·28	1·60	−1·32	1·52	6·79	−5·27	0·15	Baghdad.
7	...	4	1	4	...	15	...	...		S21°W	...	...	...	...	40	...	72	...	·396	...	4·4	...	4	...	...	1·72	...	...	16·40*	...	...	0·93	Beirut.
1	...	2	...	...	...	1	...	...		N45°E	N82°E	21·9	15·8	+6·1	92	+13	77	+1	·726	0	4·7	−0·5	0	...	...	0	0·87	−0·87	0·20	1·85	−1·65	0	Aden.
...	...	...	8	6	6	...	...	1		S67°E	S73°E	18·2	19·3	−1·1	84	+31	75	−3	·712	−·024	...	...	0	...	...	0	0·27	−0·27	0·16	0·95	−0·79	0	Perim.
8	4	8	4	1	1	5	...	...		N60°E	S27°E	4·5	5·4	−0·9	26	+4	79	−4	·879	−·015	6·2	+0·7	7	...	...	9·29	5·58	+3·71	15·34	16·85	−1·51	2·92	Zanzibar.
...	...	...	...	...	...	...	...	...		...	...	...	...	...	...	Observations not received.						...	...	...	...	...	...	...	...	...	...	...	...	Dunga.

(p) Observations of 18 days.

* Rainfall for January 1909 wanting.

‡ Rainfall for December 1908 and January 1909 wanting.

† Rainfall for the months of January and February 1909 wanting.

Table C.—Abstract of observations taken at 8 hrs. at 31 fourth-class stations in India, etc., in March, 1909.

TABLE

Abstract of observations taken at 8 hrs. at 31 fourth

Number of sub-division.	Station.	Temperature of air.													Wind direction.										
		Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.	Number of winds from: Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	II.—Eastern Bengal and Assam.																								
4	Bishnath	64·0	89·9	...	49·8	...	69·9	...	40·1	98·1	30th	41·6	4th	56·5	...	...	...	...	...	...	...	...	...	...	...
	Borjuli	68·5	90·1	...	56·6	...	73·4	...	33·5	96·8	30th	48·6	7th	48·2	...	...	...	...	...	...	...	...	...	...	...
	Chandkhira	68·7	93·8	...	57·4	...	75·6	...	36·4	100·8	30th	46·0	1st	54·8	...	...	...	...	...	...	...	...	...	...	...
	Doom Dooma	64·2	82·1	...	57·7	...	69·9	...	24·4	94·4	29th	47·2	3rd	47·2	...	...	...	...	...	...	...	...	...	...	...
	Dikom	63·3	85·0	...	58·1	...	71·6	...	26·9	93·4	29th	48·2	4th	45·2	...	...	...	...	...	...	...	...	...	...	...
	Golaghat	68·8	88·5	...	58·0	...	73·3	...	30·5	97·1	23rd	49·9	4th	47·2	...	...	...	...	...	...	...	...	...	...	...
	Hailakandi	62·6	92·3	...	57·7	...	75·0	...	34·6	99·4	30th	49·0	15th	50·4	...	...	...	...	...	...	...	...	...	...	...
	Jorehat	67·4	87·1	...	59·2	...	73·2	...	27·9	93·9	23rd	50·8	4th	43·1	...	...	...	...	...	...	...	...	...	...	...
	Messa	75·1	94·5	...	58·2	...	76·4	...	36·3	100·5	27th & 29th	47·3	3rd	53·2	...	...	...	...	...	...	...	...	...	...	...
	Panerihat	58·8	89·3	...	56·1	...	72·7	...	33·2	94·1	28th & 30th.	49·0	2nd	45·1	...	...	...	...	...	...	...	...	...	...	...
	Srimangal	73·2	95·7	...	62·7	...	79·2	...	33·0	102·0	27th	47·7	4th	54·3	...	...	...	...	...	...	...	...	...	...	...
5	Brahmanbaria	74·7	95·2	...	66·4	...	80·8	...	28·8	101·6	31st	51·9	4th & 14th	49·7	...	...	...	...	...	...	...	...	...	...	...
	Dam Dim	55·1	90·3	...	51·3	...	70·8	...	39·0	94·9	23rd & 30th.	46·9	1st	48·0	...	...	...	...	...	...	...	...	...	...	...
	Goalundo	75·3	96·9	...	61·0	...	79·0	...	35·9	104·1	27th	48·2	14th	55·9	...	...	...	...	...	...	...	...	...	...	...
	Kalchini	69·8	88·7	...	52·7	...	70·7	...	36·0	96·3	30th	42·9	2nd	53·4	...	...	...	...	...	...	...	...	...	...	...
	Nagrakata	65·7	88·6	...	59·5	...	74·1	...	29·1	94·1	26th & 27th	53·0	2nd	41·1	...	...	...	...	...	...	...	...	...	...	...
	Pabna	74·1	97·5	...	62·0	...	79·8	...	35·5	104·9	27th	50·9	14th	54·0	...	...	...	...	...	...	...	...	...	...	...
	III.—Bengal.																								
6	Fraserganj	81·0	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	15	...	13	...	S47° W	...
	XI.—Central Provinces.																								
24	Chhindwara	71·8	94·2	...	63·0	...	78·6	...	31·2	98·5	24th	53·2	3rd	45·3	...	7	9	2	1	3	1	3	5	N 9° E	...
	Hill Stations.																								
	Panighatta	71·8	88·6	...	65·0	...	76·8	...	23·6	95·9	28th	54·5	2nd	41·4	...	...	...	...	...	...	...	...	...	...	...
	Kurseong	62·4	72·9	...	58·3	...	65·6	...	14·6	79·7	29th	51·9	2nd	27·8	...	...	...	...	...	...	...	...	...	...	...
	Poo*	...	47·6	...	24·1	...	35·9	...	23·5	58·6	22nd	16·2	1st	42·4	20	1	3	4	2	...	...	...	...	N 76° E	...
	Kargil	22·4	...	...	...	...	...	...	...	...	...	...	...	...	...	8	13	1	5	...	1	...	3	N 36° E	...
	Killa Drosh	45·1	60·4	...	38·8	...	49·6	...	21·6	71·3	29th	28·0	1st	43·3	21	1	2	...	5	2	...	...	...	S 59° E	...
	Pishin	...	65·9	...	36·4	...	51·2	...	29·5	79·3	29th	29·0	4 days	50·3	...	...	...	...	...	...	...	...	...	...	...
	Kalat	43·5*	61·8	−2·9	34·6	+2·3	48·2	−0·3	27·2	72·2	19th	25·9	12th	46·3	...	5	...	...	...	20	...	6	...	S 22°W	...
	Extra India.																								
	Ahwaz	...	81·6	...	60·0	...	70·8	...	21·6	94·3	30th	49·8	4th	44·5	...	...	...	...	...	...	...	...	...	...	...
	Birjand	(b) 50·6	60·4	...	42·5	...	51·4	...	17·9	74·3	31st	33·6	4th	40·7	3	5	14	...	...	5	...	1	1	N 36° E	...
	Chumbi	*32·3	*58·4	...	27·5	...	43·0	...	30·9	65·5	8th	23·7	2nd	41·8	26	...	...	...	...	...	...	...	...	††	...
	Karmanshah	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Koweit	...	77·5	...	60·6	...	59·1	...	16·9	89·2	17th	48·4	3rd	40·8	1	...	...	...	9	...	4	7	10	S80° W	...
	Maidan	...	75·5	...	55·1	...	65·3	...	20·4	87·2	29th	44·9	2nd & 3rd	42·3	...	...	...	...	...	...	...	...	...	...	...

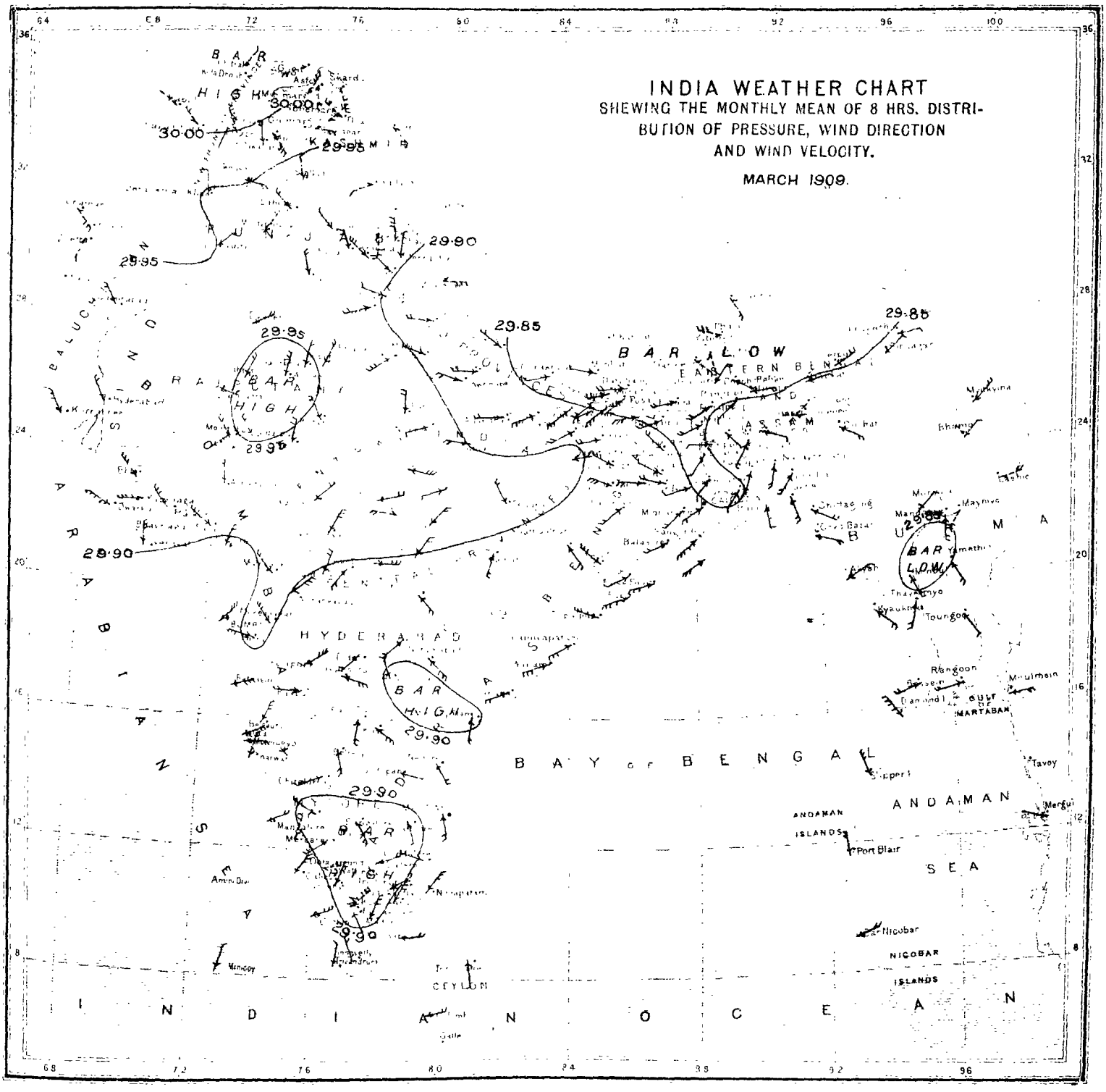
* Uncorrected for scale error.
* Observations of 30 days

C.

class stations in India, etc., in March, 1909.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity miles per hour.	Normal.	Percentage departure from normal.	Actual percentage.	Departure from normal.	Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st December 1908 to 31st March 1909.	Normal rainfall for period, 1st December to 31st March.	Departure from normal of period, 1st Dec. 1908 to 31st Mar. 1909.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					II.—Eastern Bengal and Assam.
...	...	...	...	...	86	...	·515	...	...	...	0	...	...	0	...	...	1·14	...	...	0	Bishnath.
...	...	...	...	...	69	...	·479	...	...	...	0	...	...	0	...	...	0·92	...	...	0	Borjuli.
...	...	...	...	...	88	...	·641	...	...	...	0	...	...	0	...	...	2·07	...	...	0	Chandkhira.
...	...	...	...	...	95	...	·579	...	...	...	3	...	...	0·65	...	...	7·46	...	...	0·19	Doom Dooma.
...	...	...	...	...	83	...	·484	...	...	...	2	...	...	0·31	...	...	4·92	...	...	0·20	Dikom.
...	...	...	...	...	71	...	·497	...	...	...	0	...	...	0·06	...	...	1·25	...	...	0·06	Golaghat.
...	...	...	...	...	88	...	·508	...	...	...	1	...	...	0·18	...	...	2·56	...	...	0·14	Hailakandi.
...	...	...	...	...	79	...	·527	...	...	...	1	...	...	0·31	...	...	2·43	...	...	0·31	Jorehat.
...	...	...	...	...	64	...	·556	...	...	...	0	...	...	0	...	...	0·67	...	...	0	Messa.
...	...	...	...	...	69	...	·340	...	...	...	0	...	...	0	...	...	0·77	...	...	0	Pancrihat.
...	...	...	...	...	79	...	·660	...	...	...	1	...	...	0·47	...	...	2·22	...	...	0·47	Srimangal.
...	...	...	...	...	81	...	·709	...	...	...	0	...	...	0	...	...	2·20	...	...	0	Brahmanbaria.
...	...	...	...	...	81	...	·351	...	...	...	0	...	...	0	...	...	0·44	...	...	0	Dam Dim.
...	...	...	...	...	73	...	·662	...	...	...	0	...	...	0	...	...	1·50	...	...	0	Goalundo.
...	...	...	...	...	56	...	·420	...	...	...	0	...	...	0	...	...	0·32	...	...	0	Kalchini.
...	...	...	...	...	59	...	·367	...	...	...	0	...	...	0	...	...	0·52	...	...	0	Nagrakata.
...	...	...	...	...	66	...	·569	...	...	...	0	...	...	0	...	...	1·08	...	...	0	Pabna.
																					III.—Bengal.
...	...	...	58	...	72	...	·762	...	...	...	0	...	...	0	...	...	0·57	...	...	0	Fraserganj.
																					XI.—Central Provinces.
3·8	...	...	42	...	50	...	·391	...	...	...	2	...	...	0·46	...	...	1·91	..	...	0·16	Chhindwara.
																					Hill Stations.
...	...	...	...	...	34	...	·263	...	...	...	0	...	...	0	...	...	0·38	...	...	0	Panighatta.
...	...	...	...	...	43	...	·235	...	...	...	0	...	...	0	...	...	0·63	...	...	0	Kurseong.
...	...	...	27	...	...	...	...	...	4·1	...	3	...	...	1·26 **	4·11	—2·85	6·83	12·29	—5·46	0·81	Poo.
...	...	...	61	...	20	...	·026	...	5·4	...	4	...	...	1·04	...	...	5·06	...	...	0·30	Kargil.
...	...	...	19	...	61	...	·182	...	2·9	...	6	...	...	2·65	...	...	4·87	...	...	0·81	Killa Drosh.
...	...	...	...	...	...	...	...	...	2·7	...	3	...	...	1·93	1·83	+0·10	6·16	8·05	—1·89	1·22	Pishin.
...	...	...	52	...	62	...	·179	...	...	...	2	2·60	—0·60	1·08*	0·83	+0·25	5·32	3·53	+1·79	0·80	Kalat.
																					Extra India.
...	...	...	...	...	...	...	...	...	4·3	...	2	...	...	0·27	...	...	4·07	...	...	0·13	Ahwaz.
(a) 7·0	...	...	47	...	(b) 51	...	(b) ·177	...	(b) 3·8	...	4	...	...	1·55	...	...	4·90	...	...	0·63	Birjand‡ E.
...	...	...	...	...	76	...	·141	...	...	...	0	...	...	0	...	...	0·53	...	...	0	Chumbi.†
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	Karmanshah.
...	...	...	36	...	...	...	...	...	3·2	...	2	...	...	0·40	...	...	1·33	...	...	0·18	Koweit.*
...	...	...	...	...	...	...	...	...	...	...	4	...	...	1·11	...	...	...	...	...	0·37	Maidan.

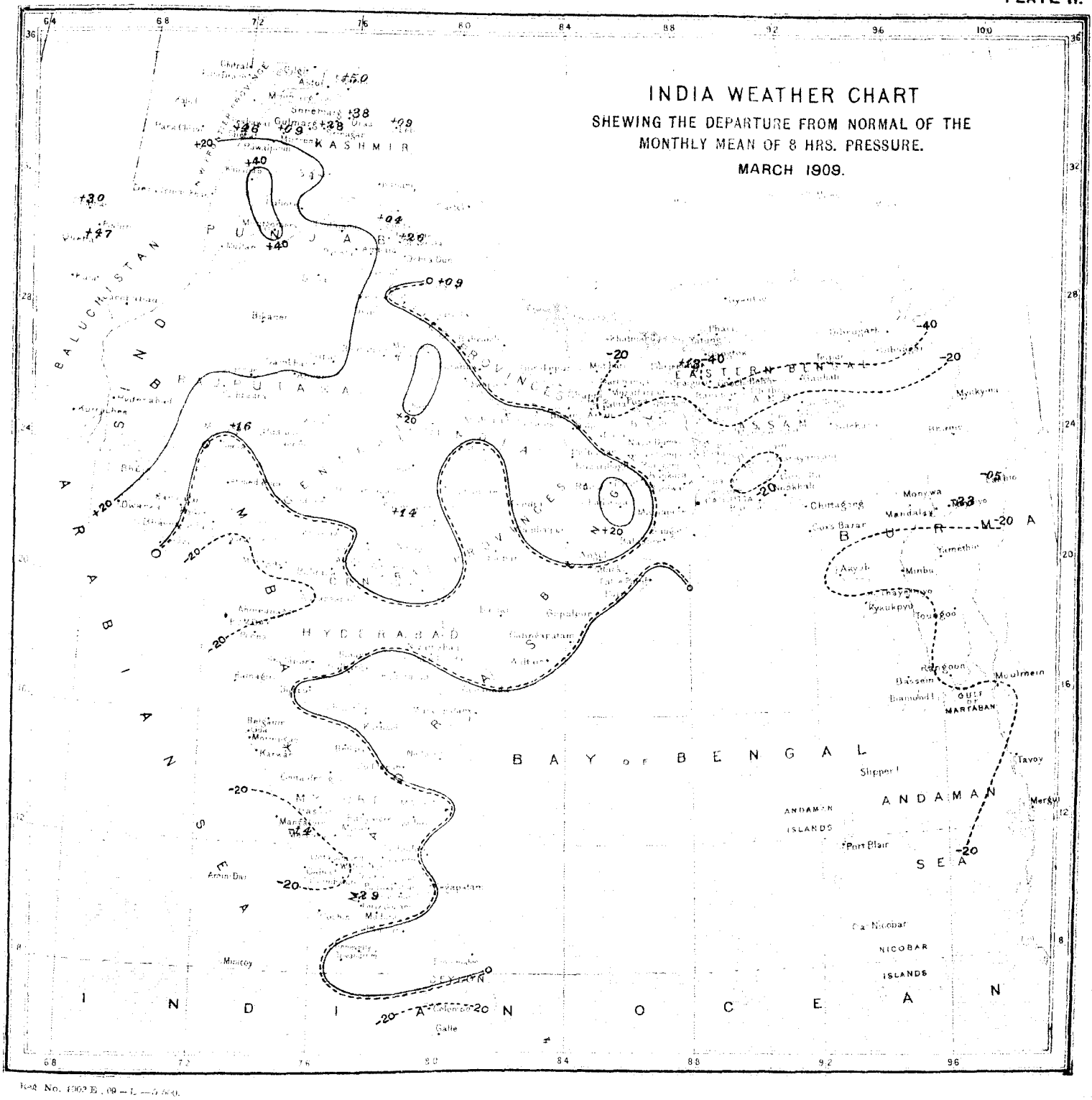
†† Indeterminate. ‡ Wind observations less 1. (a) Mean of 28 days. † Wind variable 5.



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

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

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



Reg. No. 1002 E. 09 — L — 5,500.

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

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

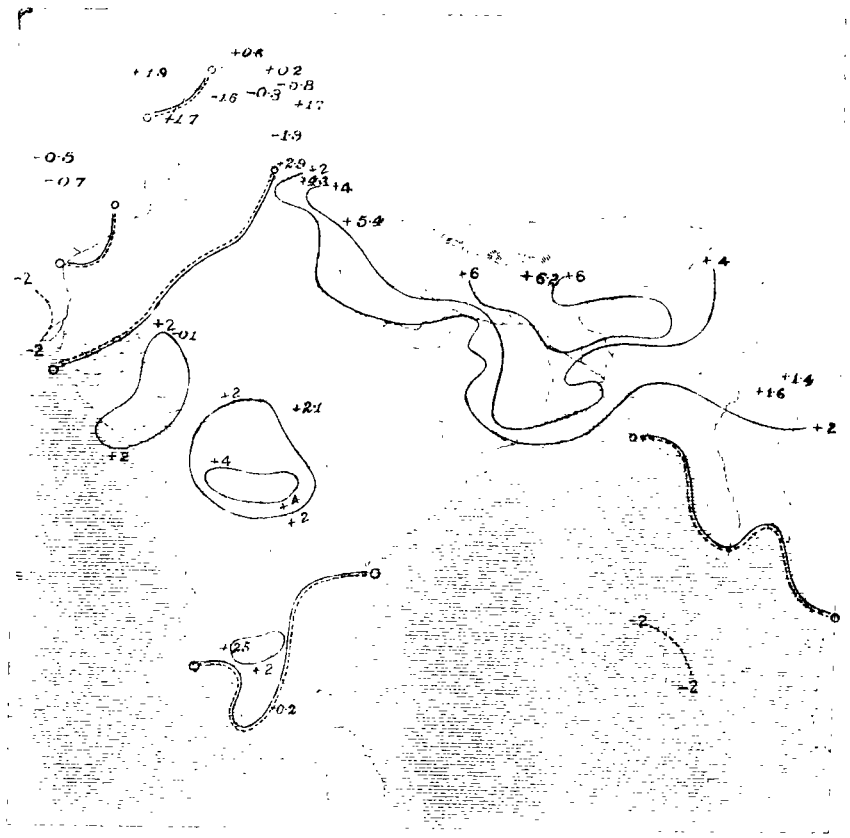


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.

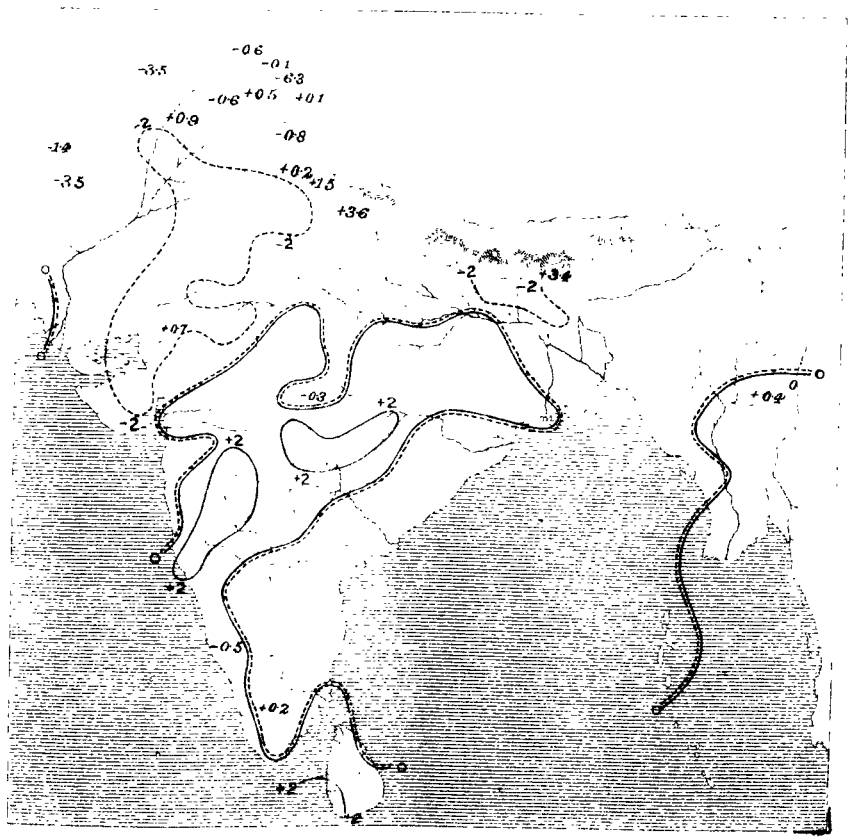


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MEAN TEMPERATURE.

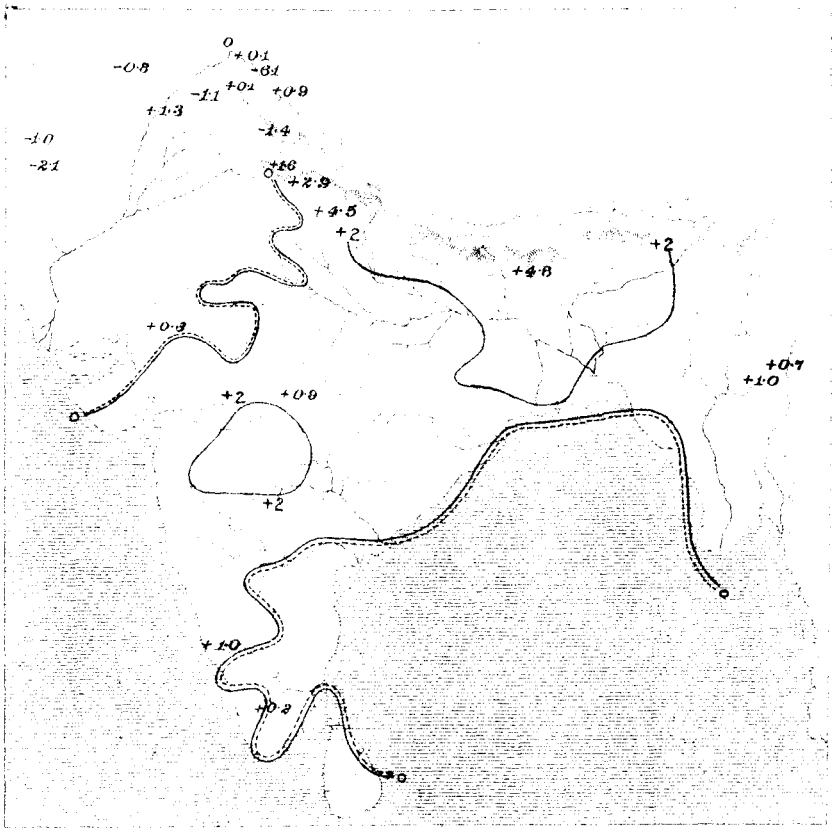


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.

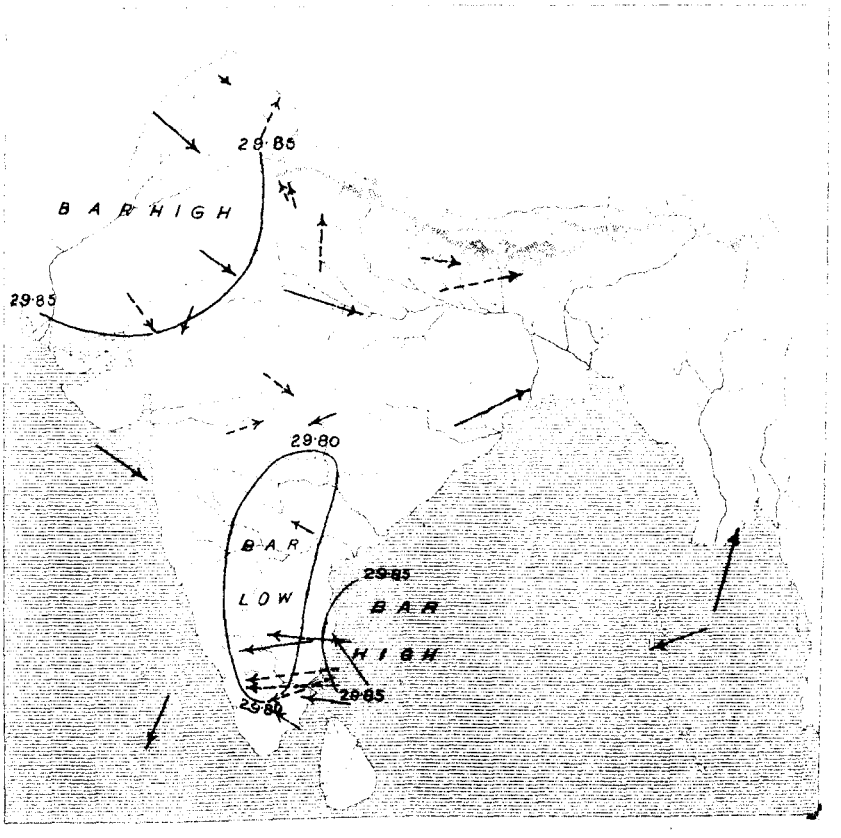


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF ABSOLUTE HUMIDITY AT 8 HRS.

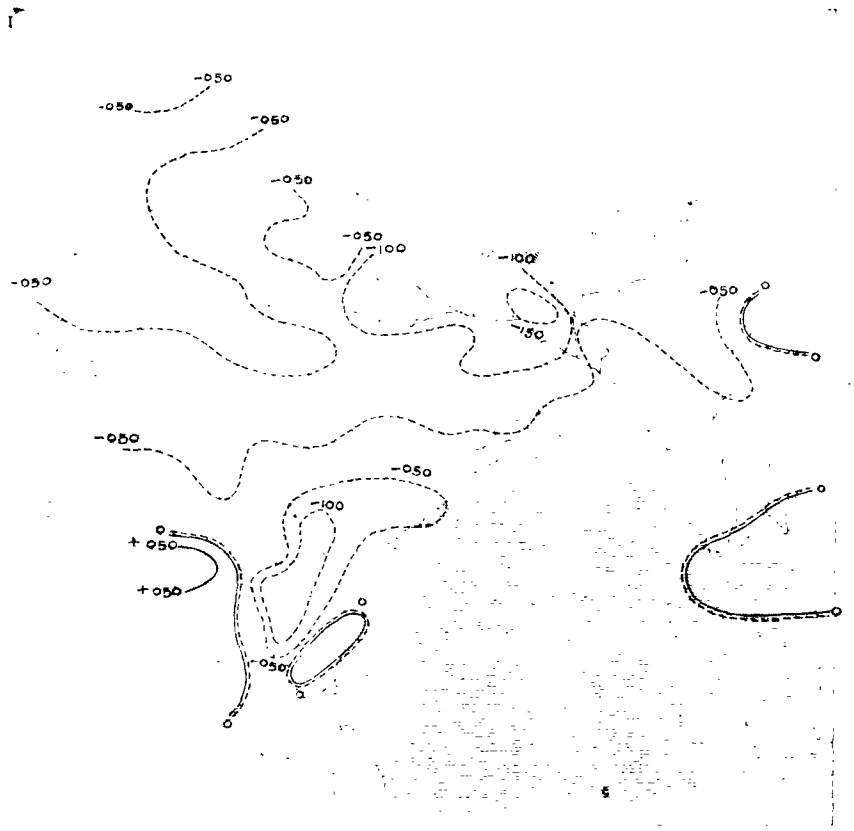


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 HRS.

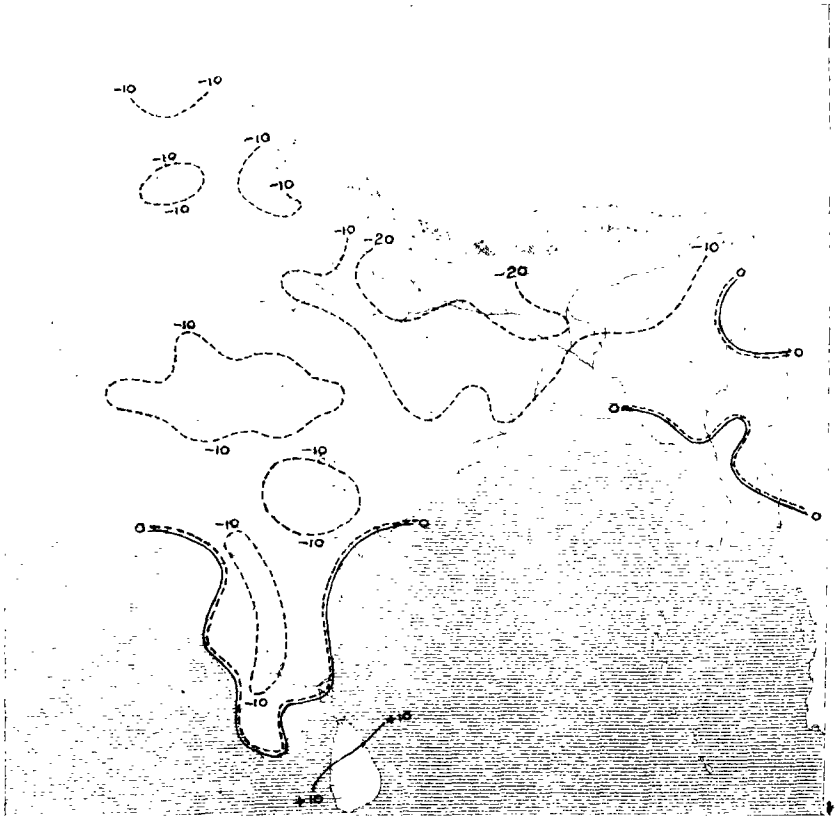


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF CLOUD AMOUNT AT 8 HRS.

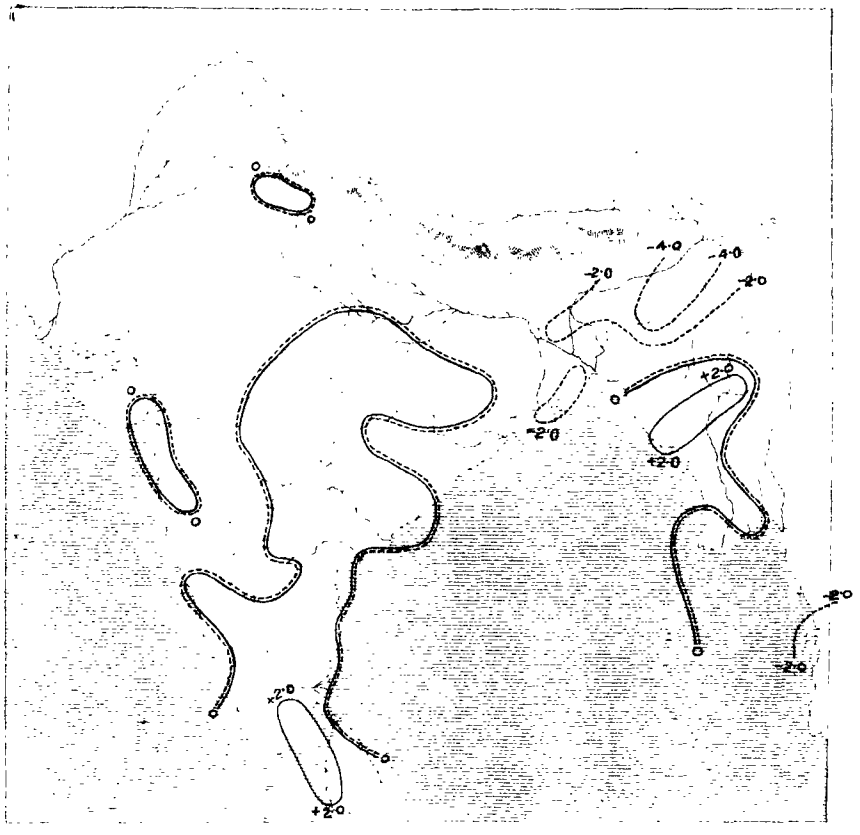
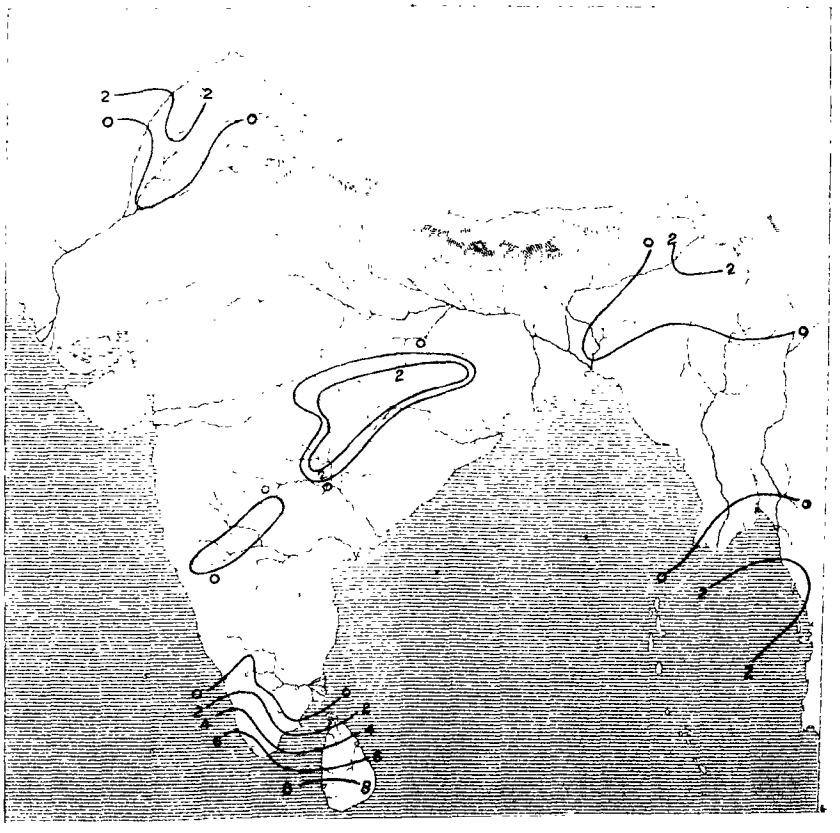
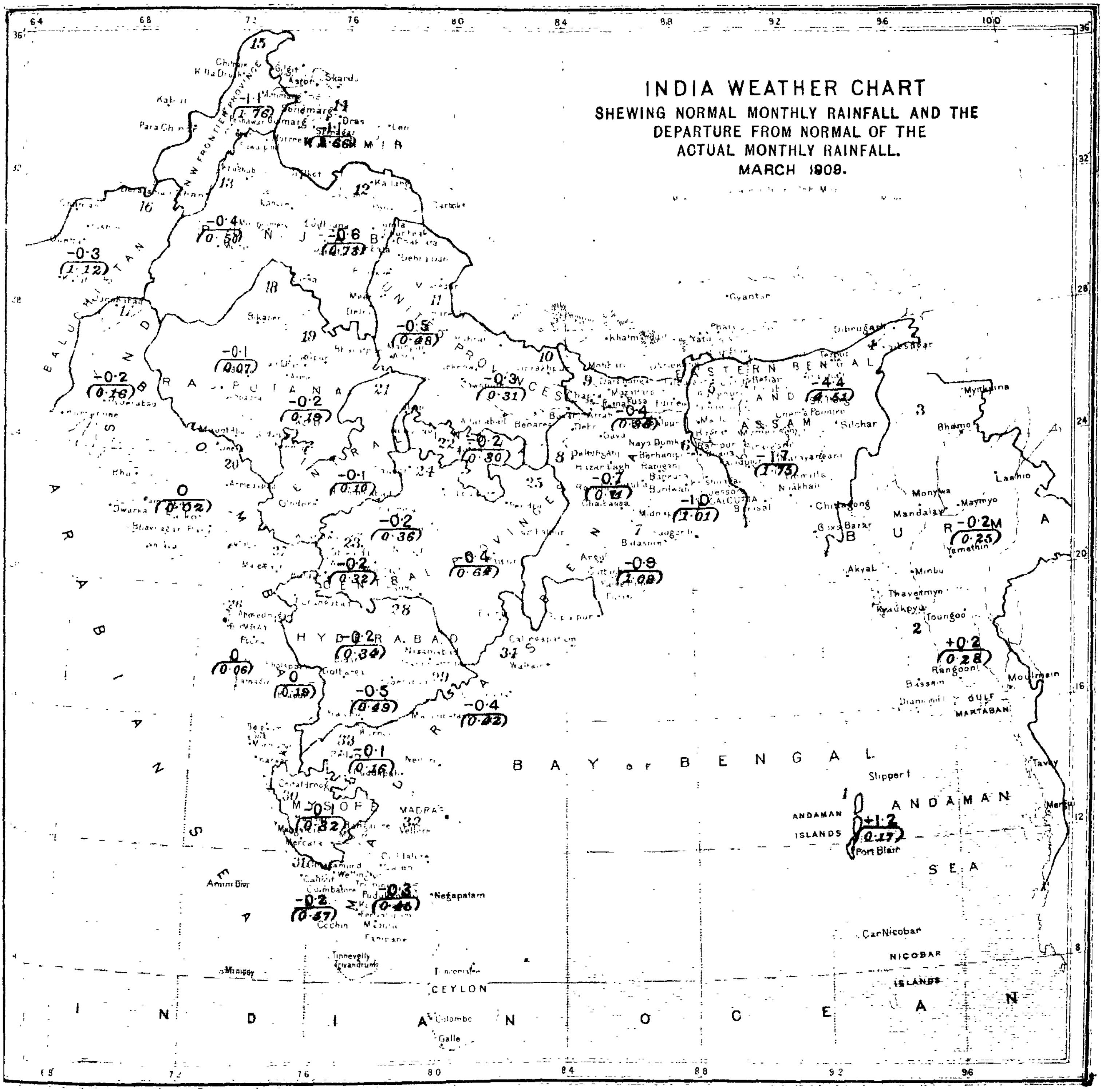


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EQUALLED OR EXCEEDED 0·10 INCH.

(BASED ON THE RETURNS OF TABLE B.)





The country is divided into 34 areas as shown in the list below. The numbers in that list correspond with the red numbers on the chart, and serve to identify the areas. The numbers in brackets on the chart give the average over the divisions of the normal monthly rainfall; the numbers above these give the departures from normal of the average actual rainfall over the divisions.

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

LIBRARY
OCT 11 1909
Weather Bureau.

GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, APRIL, 1909.

INTRODUCTION.

THIS review of the weather in India during the month of April, 1909, is based on observations taken daily at 8 hrs. at 238 stations, and on additional observations taken at 10 hrs. and 16 hrs. at 35 stations. In the rainfall summary the data furnished by the meteorological observatories, and such rainfall statements of the month as had been published by the provincial Governments up to the date of the preparation of the review have been utilized The brief notes on solar, seismic and magnetic disturbances are supplied by the chief observatories.

Summary of the chief features of the weather in India during the month of April, 1909.

2. In the west of the peninsula, Kashmir and the North-West Frontier Province weather was drier than usual in April, but elsewhere the month's rainfall was unusually abundant, in many parts ranging from four to twenty times the normal quantity.

Temperature, and especially day temperature, was low over practically the whole of the country. The air was drier than usual over the peninsula and a large part of Burma and northeast India, but was remarkably damp over the rest of the country. Departures of cloud were generally parallel with those of humidity.

The barometric pressure in the lowest stratum of the atmosphere was ·015″ in excess of the normal. At the leve of the hills on the other hand pressure was in decided defect, so that the vertical pressure gradients were steeper than usual.

Solar, seismic and magnetic disturbances.

KODAIKANAL.

3. *Solar observations.*—Spot observations were possible during the whole month but on the 24th prominences could not be observed, and on 4 other days the prominence record was imperfect.

Sunspots.—Twenty-two new spot groups were observed during the month with a daily average of 3·1. The average life of a spot was only 3·8 days and there were only two groups which passed across the whole disc. The sun was free from spots on one day—the 10th. Of the 22 new groups seen only 4 were in the northern hemisphere. The latitude distribution was as follows :—

TABLE I.

—	1° - 10°	11° - 20°	Extreme latitudes.	Mean latitude.
North . .	4	0	2°, 9°	6°·8
South . .	6	12	2°, 20°	11°·9

Nos. 1643 and 1649 were the only new groups which contained fairly large spots. The latter group developed large companions as it neared the central meridian and by the time it reached it had become a train of 3 large spots. Groups Nos. 1635 and 1637 mentioned in the report for March continued to be seen till April 9. Disturbances in C and D_3 were frequently observed in group No. 1635 after it crossed the central meridian. Group No. 1651 appeared within 2 days' march of the west limb and was associated with a small but very active prominence.

Prominences.—Seventy-three large, 4 metallic, and 6 eruptive prominences were recorded during the month. The main part of an eruptive prominence recorded on the 21st was a bright straight jet 220″ high in Ca but in hydrogen it was only a faint detached streak about 90″ high. The prominence associated with group No. 1651, mentioned above, was bright and metallic but its height, though changing, did not exceed 30″. C was displaced and the direction and amount changed frequently during the whole time of observation—9h. 45m. to 11h.; the greatest displacement observed corresponded to a radial velocity of 115 miles a second towards the observer. The prominence showed about 30 bright lines between C and F.

Magnetic disturbances.—There were "small" magnetic disturbances on 12 days but nothing of greater intensity.

C. MICHIE SMITH,

Director,

Kodaikanal and Madras Observatories.

BOMBAY OBSERVATORY.

Alibag Magnetic Record.

4. During the month of April 1909 the traces showed 16 calm days and 14 days of small disturbance.

The days of the month selected as quiet for the purposes of the Magnetic Survey of India are the 6th, 8th, 15th, 21st and 22nd.

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

Easterly declination	1° 0′ 43″	
Horizontal force	0·36861	C. G. S. unit.
Vertical force	0·15982	" "
Dip (calculated)	23°26′·4	
Dip (observed)	23°25′·9	
Horizontal force range	0·00062	C. G. S. unit.
Horizontal force summed range	0·00388	" "
Declination range	3′·5	
Declination summed range	13′·5	

[NOTE.—Summed range means sum without regard to signs of 24 ordinates of diurnal inequality.]

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

TABLE 2.

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

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

Seismic disturbances recorded at Bombay.

Ten seismic disturbances were recorded during the month on the 9th, 10th (3 disturbances), 11th, 12th, 14th, 25th, 27th and 29th.

List of seismic disturbances.

TABLE 3.

Date.	Commencement.		Maximum.		End.		Maximum amplitude.	Duration.	
	H.	M.	H.	M.	H.	M.	mm.	H.	M.
April, 9th	7	3·0	7	4·1	7	12·2	0·2	0	9·2
10th	6	23·9	6	46·1	7	40·0	0·3	1	16·1
10th	18	56·0	19	28·6	?		0·9	...	
10th	20	2·2	20	22·7	21	29·8	4·9	1	27·6
11th	14	42·6	14	48·7	15	5·5	0·8	0	22·9
12th	2	42·1	2	47·9	2	53·9	0·4	0	11·8
14th	20	2·5	20	20·5	20	36·5	0·2	0	34·0
25th	23	6·9	23	14·7	23	30·1	0·4	0	23·2
27th	13	4·0	13	29·8	14	26·7	0·4	1	22·7
29th	22	58·1	23	5·0	23	28·2	0·5	0	30·1

All times given above denote G. M. T.
Sensibility 1 mm. = 0″·41.

N. A. F. MOOS,

Director,

Bombay Observatory.

CALCUTTA OBSERVATORY.

5. *List of displacements recorded by the Milne seismograph at the Alipore Observatory during April, 1909.*

TABLE 4.

Date 1909.	P. T. Commencement. G. M. T.	L. W. Commencement. G. M. T.	Maximum. G. M. T.	End. G. M. T.	Duration.	Maximum displacement on trace from mean position.	REMARKS.
	H. M.	H. M.	H. M.	H. M.	H. M.	mm.	
April 10th	5 53·0	...	5 57·6	6 32·6	0 39·6	0·50	
,, Do.	18 46·8	19 19·3	20 15·2	21 34·0	2 47·2	5·00	
,, 11th	14 18·8	14 35·1	14 38·7	15 3·6	0 44·8	0·75	Sensibility 1 mm. = ·038″ of tilt.
,, 14th	20 0·1	20 7·7	20 16·4	20 48·4	0 48·3	1·75	
,, 25th	22 52·0	23 6·1	23 8·2	23 27·5	0 35·5	0·50	

E. P. HARRISON,
Offg. Meteorologist, Calcutta.

SIMLA OBSERVATORY.

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

TABLE 5.

Date 1909.		Commencement of 1st P. T. G. M. T.	Commencement of 2nd P. T. G. M. T.	Beginning of L. W. G. M. T.	Time of maximum amplitude. G. M. T.	End approximately. G. M. T.	Duration.	Maximum displacement of style.	REMARKS.
		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	mm.	
9th	A	7 4·0	...	7 5·2	7 5·5	7 12·7	0 8·7	Small*	
,,	B	7 4·1	...	7 5·5	?	7 9·6	0 5·5	,,	
11th	A	18 50·3	?	19 16·9	19 22·7	?	...	0·9	
,,	B	18 51·7	19 7·4?	19 17·9	19 19·5	?	...	0·2	
,,	A	...	...	20 10·6	20 14·2	21 24	...	6·0	
,,	B	20 9·3?	?	?	20 15·1	20 51	0 42?	3·5	
14th	A	...	...	...	...	...	...	0·7	Time marking defective.
,,	B	3 8·2	...	3 8·4	3 8·4	3 10·5	0 2·3	0·6	
,,	A	20 1·0	20 6·5	20 16·2	20 18·2	21 12	1 11	0·9	
,,	B	20 1·2	20 7·0	20 9·6?	20 7·0	20 50	0 49	0·5	
27th	A	12 54·2	12 58·7	13 3·6	13 3·7	14 27	1 33	0·6	
,,	B	12 54·3	...	13 3·6	13 3·8	13 57	1 3	0·3	
29th	A	15 34·7	...	...	...	15 35·1	0 0·4	Small	
,,	B	15 34·9	...	...	...	15 35·5	0 0·6	,,	
30th	A	8 58·5?	...	9 0·1	9 0·6	9 23	0 24?	0·6	
,,	B	8 58·6	...	9 0·0	9 0·2	9 13	0 14	0·5	
,,	A	12 39·3	...	...	12 40·7	13 1	0 22	0·5	
,,	B	?	...	...	12 40·3	12 46	?	Small	

A = E—W component.
B = N—S component.
Magnification of each instrument = 15.
* Displacements less than 0·2 mm. are reported as "Small".

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

TABLE 6.

Place at which felt.	Date.	G. M. T. of earthquake.		Duration.	Intensity.	No. of shocks.	REMARKS.
		H.	M.	Secs.			
Mount Abu . .	8th	21	10	20	1	1	
Ditto . . .	9th	7	0	3 min.	6	3	
Ditto . . .	9th	7	20	...	...	1	Moderate.
Ditto . . .	9th	8	6	...	...	1	Do.
Ditto . . .	9th	9	40	...	...	1	Do.
Ditto . . .	9th	11	52	...	...	1	Do.
Ditto . . .	9th	15	0	...	...	1	Rather severe.
Ditto . . .	9th	20	23	...	...	1	Moderate.
Ditto . . .	10th	0	0	...	...	1	Do.
Ditto . . .	10th	5	48	...	...	1	Do.
Jodhpur . . .	9th	7	0	6	3	1	
Pachpadra . .	9th	6	44	4	4	2	
Deesa . . .	9th	7	0½	30	5	1	No damage.
Do. . . .	10th	5	49	6	...	1	Slight.
Kailang (Kangra) .	10th	20	3	9	3	8	
Ditto . .	18th	2	5½	3	...	3	
Muktesar . . .	14th	3	11	10	2	1	
Chaibassa . .	14th	2	2	2	6	1	

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

Maximum	1·47
Minimum	1·29
Mean	1·38
Number of days of observation . . .	7

J. H. FIELD,
Imperial Meteorologist, Simla.

ROYAL ALFRED OBSERVATORY, MAURITIUS.

7. *Solar observations.*—Observations were taken on every day except the 4th, 5th, 10th to the 14th, 23rd and 25th, groups of sunspots being seen throughout except on the 15th and 16th. They were especially numerous from the 19th to 22nd and faculæ were visible on each day of observation.

Magnetic disturbances.

TABLE 7.

Day.	Time.	Disturbance.
1st	2h. to 4h.	Wave in H. F. (+23).
11th	15h. to 19h.	Occasional small fluctuations in H. F.
11th to 12th.	19h. to 4h.	Wave in H. F. (−51).
12th	14h. to 15h.	Wave in H. F. (+17).
13th	1h. to 7h.	Two successive waves in H. F. (+20) and (+17).
16th	14½h. to 15½h.	Wave in decl. (+14).
17th	0h. to 1½h.	Wave in decl. (−8).
18th	3½h. to 6h.	Wave in decl. (−20).
18th to 19th.	18h. to 3h.	Occasional small undulations in decl.
19th	19h. to 19½h.	Wave in decl. (+10).
25th	3h. to 15h.	Occassional small undulations in decl.
26th	6h. to 10h.	Wave in decl. (−54).
27th	21½h. to 22½h.	Wave in decl. (+10).

T. F. CLAXTON,
Director.

Weather in the Indian monsoon region.

8. In the subequatorial region pressure was practically normal at Zanzibar and in slight defect at Seychelles. The direction of air movement was abnormal in both localities, but particularly at Seychelles where southeasterly winds were established much earlier than usual. Rainfall was unusually heavy at Zanzibar which received a total of 26″, in place of the normal 13″; it was also in slight excess at Seychelles.

TABLE 8.

	Mauritius.	Zanzibar.	Seychelles.
Departure from normal of mean pressure.	−·011	+·005	−·015
Actual mean wind direction	S 76° E	S 12° W	S 50° E
Normal mean wind direction	S 70° E	S 5° E	N 8° E
Actual mean wind velocity (miles per diem)	222	140	99
Normal mean wind velocity (miles per diem).	252	170	112
Rainfall departure from normal	−2·25	+13·57	+1·85

Depressions and cyclonic storms.

9. Several disturbances affected the weather in Persia during the month but of these only two were important from the point of view of Indian weather. The central area of the first crossed on the 19th into Sind and was thence displaced eastwards into Rajputana and the neighbouring districts of Central India, where it disappeared on the 22nd. Widespread light to heavy rain was received over northern and central India during its existence. The second disturbance entered Sind on the 25th but failed to advance any further, with the result that the rainfall associated with it did not extend eastwards beyond the central parts of the United Provinces.

Barometrically both these depressions were feeble; their rain-producing action was however supplemented largely by a strong influx of damp winds from the neighbouring seas occasioned by favourable pressure conditions over northern India.

Pressure.

10. The general distribution of pressure over India was even less stable than is ordinarily the case in April.

On the average of the whole month and of the whole country the 8 hrs. pressure was ·015″ higher than the corresponding normal value.

Relatively to this general condition pressure was markedly high in northeast India and low in most other parts, particularly in Sind. There was in fact an abnormal gradient of about ·07″ between the eastern and western extremities of northern India. This type of distribution was on the whole most marked during the second half of the month and was an important factor in the production of an unusual burst of rainfall over northern and central India.

In the Baluchistan hills the defect was greater than in the plains below, and this was also the case in Rajputana, the Central Provinces and southern India. In upper India the excess in the lowest strata did not extend upwards to any great height for at the level of 7,000 feet and above pressure was well below the normal. The vertical pressure gradients were thus stronger than usual in all parts of the Indian region.

TABLE 9.

DIVISION.	Departure from normal of mean 8 hrs. pressure.
	″
Burma	+·013
Eastern Bengal and Assam	+·054
Bengal	+·048
United Provinces	+·031

Division.	Departure from normal of mean 8 hrs. pressure.
	"
Punjab	+·025
North-West Frontier Province	—·001
Sind	—·014
Rajputana	—·009
Bombay	—·004
Central India	—·004
Central Provinces	+·004
Hyderabad	+·003
Mysore	—·002
Madras	+·002

TABLE 10.

Hill Station.	Departure from normal pressure. A.	Plain Station.	Departure from normal pressure. B.	Departure of pressure difference. B—A.
	"		"	"
Quetta	—·010	Jacobabad	—·006	+·004
Leh	—·032	Lahore	+·018	+·050
Murree	+·003	Peshawar	—·009	—·012
Simla	—·030	Ludhiana	+·026	+·056
Chakrata	—·007	Roorkee	+·038	+·045
Darjeeling	+·016	Dhubri	+·065	+·049
Mount Abu	—·039	Deesa	—·020	+·019
Pachmarhi	—·019	Khandwa	—·006	+·013

Temperature.

11. Both day and night temperatures were more or less below the normal throughout the plains of India with the exception of the North-West Frontier Province and Sind where on the average of the month nights were very slightly warmer than usual. The lowness was on the whole most marked in northern and central India and was, as usually happens during rainy periods, exhibited much more largely in the day than in the night temperature.

In Baluchistan and at stations on the southern face of the Himalayas temperature was nearly as much below normal as in the adjacent plains, but further north in Afghanistan and Kashmir weather was on the whole warmer than usual.

A spell of abnormally cool weather was experienced over the plains of northern India from the 18th to the end of the month; the lowness of temperature was, as is usual during periods of rainfall in the hot weather, shown chiefly in the day temperature, and this was at times as much as 20° to 30° below normal.

TABLE 11.

Division.	Departure from normal of		
	Mean maximum temperature.	Mean minimum temperature.	Mean temperature.
	°	°	°
Burma	—2·0	0	—1·0
Eastern Bengal and Assam	—2·6	—2·0	—2·4

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

TABLE 12.

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
1. Bay Islands	89·1	78·9	84·0	10·2	17·4	—3·5	—0·6	—2·9
2. Lower Burma	94·1	76·4	85·3	17·8	25·8	—0·4	+0·6	—1·0
3. Upper do.	94·9	71·9	83·4	23·0	36·6	—4·1	—0·7	—3·4

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum	Daily range.
	°	°	°	°	°	°	°	°
4. Assam	84·8	67·8	76·3	17·0	32·2	—2·2	—1·1	— 1·1
5. Eastern Bengal	89·5	70·0	79·7	19·5	34·2	—2·8	—2·3	— 0·5
6. Bengal	93·2	73·2	83·2	20·0	36·2	—4·8	—2·5	— 2·3
7. Orissa	92·4	74·0	83·2	18·4	32·5	—5·8	—3·0	— 2·8
8. Chota Nagpur	93·5	69·9	81·7	23·6	38·4	—7·6	—4·2	— 3·4
9. Bihar	94·3	70·6	82·5	23·6	39·7	— 5·3	—1·5	— 3·8
10. United Provinces, East	96·6	69·5	83·2	27·0	41·3	—5·3	—2·1	— 3·2
11. Do. do, West	93·3	67·4	80·4	25·9	39·3	—6·1	—2·4	— 3·7
12. Punjab, East and North	91·0	65·5	78·2	25·5	41·6	—5·7	—0·8	— 4·9
13. Punjab, Southwest	93·3	68·8	81·1	24·5	39·7	—4·9	+0·5	— 5·4
14. Kashmir	60·8	37·9	49·3	22·9	42·1	+2·0	+1·3	+ 0·7
15. North-West Frontier Province	88·9	64·4	76·6	24·5	39·3	—1·9	+0·9	— 2·8
16. Baluchistan	80·8	55·7	68·3	25·1	43·5	—0·4	—2·2	+ 1·8
17. Sind	94·4	73·0	83·7	21·5	37·5	—4·4	+1·3	— 5·7
18. Rajputana, West	97·9	71·2	84·5	26·8	42·8	—5·0	—1·6	— 3·4
19. Do., East	95·5	71·0	83·3	24·5	41·0	—4·9	—1·4	— 3·5
20. Gujarat	95·3	73·1	84·1	22·2	33·9	—3·7	+0·5	— 4·2
21. Central India, West	95·1	69·8	82·5	25·3	41·1	—5·7	—0·8	— 4·9
22. Do., East	95·7	71·8	83·8	23·9	36·9	—6·9	+0·3	— 7·2
23. Berar	99·8	73·4	86·7	26·4	43·1	—3·9	—1·9	— 2·0
24. Central Provinces, West	97·0	70·2	83·6	26·8	42·5	—5·9	—2·0	— 3·9
25. Do., East	94·5	70·8	82·7	23·7	38·7	—8·4	—4·1	— 4·3
26. Konkan	88·3	76·4	82·3	11·9	17·8	—1·3	—2·0	+ 0·7
27. Bombay Deccan	98·7	68·8	83·8	29·9	42·8	—2·4	—2·6	+ 0·2
28. Hyderabad, North	99·0	71·3	85·1	27·7	41·4	—2·4	—2·1	— 0·3
29. Do., South	99·3	75·5	87·4	23·8	36·9	—2·9	—1·4	— 1·5
30. Mysore	93·2	69·0	81·2	24·2	33·9	—0·3	—0·4	+ 0·1
31. Malabar	90·0	78·2	84·1	11·8	18·5	—0·4	+0·4	— 0·8
32. Madras, Southeast	96·2	76·8	86·6	19·4	29·9	—0·3	+0·1	— 0·4
33. Do. Deccan	102·0	76·9	89·5	25·1	37·3	—2·1	—1·7	— 0·4
34 Do. Coast, North	90·9	76·7	83·8	14·1	28·0	—1·7	—0·8	— 0·9

Winds.

12. As usually happens in periods of great instability of pressure conditions the deviations of air movement from the normal were local rather than general and not very marked; the only conspicuous abnormalities were deficiencies of steadiness and velocity in Burma, Eastern Bengal and Assam, and Hyderabad, and excesses of steadiness in the Central Provinces and Bombay.

TABLE 13.

Division.	Departure from normal of	
	Hourly wind velocity.	Wind steadiness.
Burma	−1·4	−15
Eastern Bengal and Assam	−1·4	− 5
Bengal	−1·0	0
United Provinces	+0·3	+ 1
Punjab	+0·1	+ 4
North-West Frontier Province	−0·9	− 2
Sind	−0·8	+ 9
Rajputana	−0·2	− 8
Bombay	+0·7	+11
Central India	−0·9	0
Central Provinces	+0·8	+10
Hyderabad	−1·7	−11
Mysore	+0·5	+ 7
Madras	−0·1	+ 2

Humidity and cloud.

13. Humidity, both relative and absolute, was well above the average over practically the whole of the plains of northern and central India, and normal or in defect over the peninsula, Burma and northeast India. In comparison with the normal the air was dampest in the region represented by the stations of Delhi, Bareilly, Mainpuri, Lucknow, Jhansi, Kotah and Sutna where the percentage of saturation exceeded the average by 23 or more. The air was drier, both absolutely and relatively, in the hill districts of Baluchistan and only relatively in Kashmir, a region characterized by excessive temperature. Elsewhere near the elevated regions there was a general agreement between hills and plains.

The distribution of cloud was characterized by almost the same abnormal features as that of humidity: thus cloud was generally in excess in extra tropical India and the north of the peninsula, and below the customary amount over the rest of the country. Over Central India and the United Provinces the actual proportion was more than double of the normal value.

TABLE 14.

Division.	Hygrometry; 8 hrs.				Cloud.	
	Mean humidity.	Departure from normal.	Mean vapour tension in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.
	%					
Burma	74	+1	·748	−·016	3·9	+0·5
Eastern Bengal and Assam.	80	−1	·696	−·066	5·0	+0·3
Bengal	70	+ 6	·671	−·024	4·0	+1·6
United Provinces	56	+15	·521	+·095	3·3	+1·8
Punjab	55	+ 9	·472	+·049	2·7	+0·3
North-West Frontier Province.	60	+ 2	·504	+·025	2·5	−0·3
Sind	59	+ 4	·600	+·025	2·5	+0·6
Rajputana	49	+15	·487	+·070	3·1	+1·3
Bombay	61	+ 1	·628	−·022	1·5	−0·7
Central India	50	+16	·505	+·095	3·8	+2·6
Central Provinces	47	+12	·472	+·065	2·4	+0·5
Hyderabad	51	0	·554	−·038	2·0	−0·5
Mysore	67	− 4	·593	−·053	2·1	−1·6
Madras	72	− 1	·816	−·031	3·5	−0·4

Rainfall.

14. The month was abnormally wet over the whole land area of India excluding Assam, Kashmir, the North-West Frontier Province and the west of the peninsula. Over northern and central India the precipitation was associated with two storms of the cold weather type but was due chiefly to the prevalence at the time of their appearance in India of a peculiar type of pressure distribution favouring an indraught of damp sea winds. The excess was upwards of 200 per cent. in amount over practically the whole of the region stretching northwestwards from Bengal and north Madras to the Indus and was absolutely greatest in Central India which received twenty times its normal supply.

The rainfall for the whole country was 110 per cent. in excess and was the heaviest on record for April since 1899.

TABLE 15.

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			"	"	"	
1. Bay Islands	7·0	3·8	3·95	1·94	+2·01	+104
2. Lower Burma	1·9	2·5	1·00	1·87	−0·87	− 47
3. Upper do.	3·8	2·1	1·67	1·13	+0·54	+ 48
4. Assam	13·2	11·4	8·03	9·21	−1·18	− 13
5. Eastern Bengal	8·8	4·6	5·93	3·75	+2·18	+ 58
6. Bengal	8·4	2·7	5·23	1·69	+3·54	+209
7. Orissa	8·0	2·1	5·20	1·20	+4·00	+333
8. Chota Nagpur	6·2	1·8	3·32	0·90	+2·42	+269
9. Bihar	4·9	1·0	2·70	0·54	+2·16	+400
10. United Provinces, East	4·6	0·4	2·59	0·14	+2·45	+1750
11. Do., West	4·9	0·6	2·75	0·23	+2·52	+1096
12. Punjab, East and North	3·8	1·0	2·32	0·43	+1·89	+440
13. Punjab, Southwest	2·9	0·9	1·38	0·37	+1·01	+273
14. Kashmir	3·2	4·6	1·02	2·50	−1·48	− 59
15. North-West Frontier Province	3·1	2·6	1·12	1·31	−0·19	− 15
16. Baluchistan	2·2	1·2	0·72	0·48	+0·24	+ 50
17. Sind	0·5	0·3	0·15	0·13	+0·02	+ 15
18. Rajputana, West	2·1	0·2	1·04	0·06	+0·98	+1633
19. Do., East	3·7	0·3	2·03	0·11	+1·92	+1745
20. Gujarat	0·6	0·1	0·26	0·02	+0·24	+1200
21. Central India, West	2·3	0·1	1·06	0·05	+1·01	+2020
22. Do., East	3·9	0·3	2·50	0·12	+2·38	+1983
23. Berar	1·4	0·6	0·38	0·24	+0·14	+ 58
24. Central Provinces, West	3·1	0·6	1·82	0·22	+1·60	+727
25. Do., East	6·7	1·2	3·76	0·48	+3·28	+683
26. Konkan	0·1	0·8	0·08	0·45	−0·37	− 82
27. Bombay Deccan	0·3	1·6	0·10	0·78	−0·68	− 87
28. Hyderabad, North	1·8	1·3	0·81	0·48	+0·33	+ 69
29. Do., South	2·9	1·6	1·51	0·67	+0·84	+125
30. Mysore	3·4	2·9	1·74	1·64	+0·10	+ 6
31. Malabar	3·1	4·3	1·88	2·87	−0·99	− 34
32. Madras, Southeast	3·8	2·0	2·43	1·33	+1·10	+ 83
33. Do. Deccan	3·0	1·3	1·45	0·63	+0·82	+130
34. Do. Coast, North	6·7	1·4	4·38	0·80	+3·58	+448

TABLE 16.

DIVISION.	RAINFALL.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Burma	1·37	1·47	—0·10	— 7
Eastern Bengal and Assam	7·02	6·51	+0·51	+ 8
Bengal	4·16	1·13	+3·03	+268
United Provinces	2·67	0·18	+2·49	+1383
Punjab	2·12	0·42	+1·70	+405
North-West Frontier Province	1·12	1·31	—0·19	— 15
Sind	0·15	0·13	+0·02	+ 15
Rajputana	1·75	0·09	+1·66	+1844
Bombay	0·15	0·48	—0·33	—96
Central India	1·54	0·07	+1·47	+2100
Central Provinces	1·67	0·29	+1·38	+476
Hyderabad	1·19	0·59	+0·60	+102
Mysore	1·74	1·64	+0·10	+ 6
Madras	2·84	1·22	+1·62	+133
Mean of India when the size of the above areas is taken into account.	2·25	1·07	+1·18	+110

Snowfall.

I.—AFGHANISTAN.

15. The usual report from Kabul has not been received. There was apparently heavy snowfall in the mountainous region of Herat during the third week.

II.—NORTH-WEST FRONTIER PROVINCE.

(*a*) *Wano.*—Slight falls occurred on the Marwatti and Pirghal ranges on the 6th and 19th; on the latter date the snowline was at about 8,000 feet.

(*b*) *Dera Ismail Khan.*—No snow fell during the month on the hills bordering the district.

III.—KASHMIR.

There were four slight snowfalls at Sonemarg and on the neighbouring mountains and one fall on the ranges surrounding the valley of Srinagar, but elsewhere the weather was unusually settled. At the end of the month the accumulations on the Zoji-la and Hangsathu passes were believed to be about 14 feet in depth. In the grounds of the observatory at Sonemarg the unmelted snow was estimated at about 2 feet.

IV.—PUNJAB.

(*a*) *Kulu.*—Snow fell on the higher passes on nine days in the Kulu tahsil and on 14 days in the Saraj tahsil.

The statement below gives the reported depth of accumulation on the various passes at the end of April 1909 with the corresponding normal data:—

TABLE 17.

KULU TAHSIL.			SARAJ TAHSIL.		
NAME OF PASS.	Reported.	Normal.	NAME OF PASS.	Reported.	Normal.
Rohtang	7 feet	12½ feet	Sirikhand	12 feet	12½ feet
Barsai	3 "	4 "	Chul	1 foot	3 "
Boja Dhar	3½ "	4 "	Raghopur	2 feet	3½ "
Chandar Khani	8 "	6½ "	Jalori	1 foot	3 "
Lohri Achhri	5 "	6 "	Lambri	3 feet	2½ "
Sari	6 "	4½ "	Gargarasan	2½ "	7 "
Bhubu	4 "	2½ "	Sakiran	3 "	3½ "
Bastari	2 "	1½ "	Supakun	1 foot	4½ "
			Tirath	3 feet	6½ "

(*b*) *Kilba.*—Light snow fell on five occasions down to about 8,500 feet. All the higher passes were passable at the end of the month.

V.—UNITED PROVINCES.

Almora.—Frequent snow storms occurred chiefly during the second half of the month. The total fall amounted to about 18 feet on the Nuwe pass, 13 feet in

Byans, 5 feet in Malla Johar and 4 feet on the Binkaru pass. The snow line descended to the inhabited region.

TABLE 18.

NAME OF PASS.	DEPTH OF ACCUMULATION AT THE END OF THE MONTH.	
	Reported.	Normal.
Nuwe Pass	25 feet	17¼ feet
Unta Dhura	8 "	10 "
Ralam "	5 "	8 "
Binkaru Pass	17 "	20 "
Lipulekh "	12 "	10½ "
Lampia "	12 "	11¼ "

Weather was damper, cooler and more cloudy than usual.

SUMMARY.

16. (*a*) The snowfall was probably heavier than usual in Afghanistan and about normal in the hill districts of the North-West Frontier Province.

(*b*) The fall was deficient in Kashmir.

(*c*) According to the imperfect information available, the month's fall was in excess in the Punjab Himalayas. The quantity received in Kulu was regarded as unusually heavy. The accumulations at the end of the month were however by no means excessive.

(*d*) In Almora the fall was apparently greater than usual. At the end of the month the accumulations of snow were of about the average depth.

Crop report.

17. *Burma.*—Harvesting of spring rice and dry spring crops was approaching completion. Standing crops were generally in good condition.

Eastern Bengal and Assam.—Prospects of tea and all ordinary field crops were good. Summer rice was being reaped in several places.

Bengal.—Lands were being prepared for autumn crops and sowings of jute and other early crops had commenced. Cattle disease was reported from several districts.

United Provinces.—The rainfall during the latter part of the month caused considerable damage to crops and grain on threshing floors, but prospects were on the whole satisfactory except in Dhera and Kheri.

Punjab.—Spring crops were being harvested. Rain had damaged gram to an appreciable extent in all districts. Extra spring and autumn crops were being sown.

North-West Frontier Province.—In irrigated lands standing crops were generally in fair condition, but they were not in so good a condition in unirrigated tracts. Spring crops were being harvested.

Jammu and Kashmir.—The condition of standing crops was average to fair. Ploughing for autumn crops was in progress

Rajputana.—Spring crops were being harvested and preparations for autumn sowings were in progress. Fodder was sufficient.

Central India.—Spring crops were being harvested but some damage was reported from Gwalior on account of heavy rain. Lands were being prepared for autumn sowings.

Central Provinces.—Field embankments were being constructed in the rice districts and land was being prepared for the sowing of autumn crops. Threshing and winnowing of spring crops were being carried on, but were retarded in some districts by wind and rain.

Bombay.—Standing crops were generally in fair to good condition. Harvesting and threshing of spring crops were in progress. Lands were being prepared for next season.

Hyderabad.—Lands were being prepared in all districts for the next monsoon sowings. The harvesting of spring crops had suffered somewhat from rain. The late rice crop was fair throughout.

Mysore.—The prospects of the season had improved, but more rain was needed all over the state. Lands were being ploughed.

Coorg.—Coffee blossoms were out. The prices of food-grains were high. Water and fodder for cattle were sufficient.

Madras.—Standing crops were generally fair and had benefitted by rain, but some were withering in north Arcot and South Canara. Harvesting was in progress with poor to normal outturn.

HEM RAJ.

TABLE A.—Abstract of observations taken at 10 hrs. and 16 hrs. at 35 stations in India, etc., in April, 1909.

Ta

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

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Pressure. Mean of 16 hrs.	Pressure. Mean daily range.	Pressure. Mean of daily mean pressures.	Pressure. Departure from normal.	Pressure. Mean reduced to sea-level and gravity 45° Lat.	Temperature of air. Mean maximum.	Temperature of air. Mean minimum.	Temperature of air. Mean daily range.	Temperature of air. Highest maximum.	Temperature of air. Lowest minimum.	Temperature of air. Absolute range.	Temperature of air. Mean 10 hrs.	Temperature of air. Mean 16 hrs.	Temperature of air. Mean of daily means.	Temperature of air. Departure from normal.	Temperature Wet-bulb. Mean minimum.	Temperature Wet-bulb. Mean 10 hrs.	Temperature Wet-bulb. Mean 16 hrs.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	I.—Burma.																				
2	Rangoon	18	29·897	29·752	·145	29·828	+·022	29·783	98·2	77·6	20·6	101·8	75·8	26·0	90·5	94·0	85·5	+0·5	73·8	76·9	77·5
	III.—Bengal.																				
6	Calcutta	21	·862	·724	·138	·792	+·041	·758	92·9	73·1	19·8	100·2	67·2	33·0	85·0	89·0	82·3	−2·7	70·2	76·2	75·7
	IV.—United Provinces of Agra and Oudh.																				
10	Allahabad	309	·522	·385	·137	·447	+·029	·704	97·8	71·5	26·3	104·6	64·5	40·1	88·4	95·9	84·1	−3·5	63·2	68·6	69·2
11	Dehra Dun	2,233	27·598	27·504	·094	27·543	+·002	·719	87·7	61·4	26·3	94·4	58·5	35·9	78·8	81·5	74·5	−2·9	55·1	62·2	62·8
	V.—Punjab.																				
12	Lahore	702	29·107	29·006	·101	29·050	+·015	·717	91·8	65·1	26·7	101·0	58·0	43·0	82·2	89·5	78·0	−2·9	60·8	68·2	69·4
	VIII.—Rajputana.																				
19	Jaipur	1,431	28·402	28·286	·116	28·338	−·009	·705	95·7	69·6	26·1	104·2	63·1	41·1	86·2	92·7	82·6	−3·7	61·2	67·8	69·1
	Udaipur	1,925	27·928	27·819†	·109	27·869		·703†	94·7	70·3	24·4	104·7	62·5	42·2	87·8	92·3	83·4		62·4	69·5	69·6
	IX.—Bombay.																				
26	Bombay	37	29·871	29·761	·110	29·815	+·003	·792	88·9	76·8	12·1	94·0	73·3	20·7	83·4	84·9	81·9	−0·2	73·2	75·7	76·4
	XI.—Central Provinces.																				
24	Nagpur	1,017	28·831	28·667	·164	28·746	+·010	·703	98·2	71·2	27·0	108·5	61·8	46·7	87·3	95·8	81·4	−6·2	64·2	70·5	71·5
	XII.—Hyderabad.																				
29	Hyderabad	1,690	·184	·045	·139	·113	−·011	·710	97·9	74·2	23·7	104·5	63·7	40·8	88·0	94·0	85·4	−2·6	66·0	70·7	69·8
	XIII.—Mysore.																				
30	Bangalore	3,021	26·934	26·796	·138	26·871	−·007	·725	92·3	69·0	23·3	95·7	62·4	33·3	81·7	90·2	79·4	−0·5	61·2	69·7	68·6
	Mysore	2,518	27·423	27·269	·154	27·352	−·009	·740	92·5	68·8	23·7	95·6	62·4	33·2	82·1	91·4	79·4	−1·5	65·2	68·8	68·5
	XIV.—Madras.																				
32	Periyakulam	944	28·955	28·805	·150	28·880		·716	95·1	73·5	21·6	99·3	68·8	30·5	85·8	91·9	84·3		69·1	74·1	74·2
	Pudukkottai	318	29·580	29·428	·152	29·504		·748	96·6	77·6	21·0	102·4	68·7	33·7	89·7	94·9	88·1		73·9	77·0	77·0
	Madras	22	·872	·751	·121	·819	−·006	·772	91·8	77·0	14·8	98·0	68·4	29·6	87·4	87·3	83·4	−0·7	76·0	79·4	79·9
	Station in the Bay.																				
1	Port Blair	58	·864	·763	·101	·815	−·001	·802	89·1	78·3	10·8	92·2	75·2	17·0	86·0	86·4	82·7	−2·0	75·6	79·5	79·1
	Kashmir.																				
14	Srinagar	5,204	24·896	24·806	·090	24·846	−·038	24·817	68·3	47·2	21·1	75·3	41·9	33·4	57·9	66·0	56·7	+1·0	44·3	54·3	60·3
	Leh	11,503	19·694	19·598	·096	19·647	−·033	19·616	58·8	31·3	27·5	67·1	23·7	43·4	48·3	54·2	44·0	+1·1	27·3	35·1	38·7
	Baluchistan.																				
16	Quetta	5,502	24·629	24·562	·067	24·588	−·011	24·548	74·7	45·5	29·2	83·5	36·4	47·1	67·8	70·1	60·7	−0·2	42·9	52·3	52·7

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

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

† Mean of 29 days.

stations in India, etc., in April, 1909.

Vapour tension in inches of mercury.				Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity.		Rainfall.		Station.	Number of subdivision.
													Total number of 10 hrs. and 16 hrs. winds from																			
Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean 10 hrs.	Mean 16 hrs.	Mean of two previous columns.	Departure from normal.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.		
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
																								%	%						
																														I.—Burma.	
·756	·727	·774	—·033	83	52	46	65	− 6	4·3	4·5	4·4	+1·0	1	1		2	4	26	10	14	2	S 28° W	S 24° W	63	57	45*	134	0	0	Rangoon.	2
																														III.—Bengal.	
·789	·716	·768	−·029	86	65	53	73	+ 3	4·3	5·9	5·1	+2·5	2		2	2	11	13	26	1	3	S 16° W	S 30° W	62	69	141	168	5·95	0·98	Calcutta	6
																														IV.—United Provinces of Agra and Oudh.	
·437	360	·443	+·069	63	36	24	43	+11	5·2	4·6	4·9	+3·2	5	7	8	8	1	3	4	14	10	N 36° W	N 54° W	27	35	99*	127	1·29	0·73	Allahabad.	10
·347	·343	·356	+·045	66	33	37	49	+12	4·3	5·7	5·0	+2·2																3·85	0·90	Dehra Dun.	11
																														V.—Punjab.	
·507	·454	·497	+·102	77	48	35	55	+14	3·1	3·0	3·1	+0·2	8	2	11	7	8	2	2	5	15	N 17° E	N 15° W	20	28	71*	77	2·46	1·12	Lahore.	12
																														VIII.—Rajputana.	
·453	·420	·453	+·120	62	39	29	45	+15	3·8	5·9	4·9	+2·4		4	6	10	7	5	7	10	11	N 72° W	N 57° W	7	50	116	120	2·48	0·70	Jaipur.	19
·506	·450	·465		64	39	31	44		3·2	5·4	4·3		7	2	3	7	5	3	12	16	5	S 65° W		28		105*		2·14	1·61	Udaipur.	
																														IX.—Bombay.	
·792	·802	·814	—·027	84	69	66	76	−1	2·0	1·1	1·6	0		2	1	2		2	7	28	18	N 79° W	N 60° W	73	56	208	254	0	0	Bombay.	26
																														XI.—Central Provinces.	
·544	·473	·521	+·119	68	43	30	48	+18	2·5	5·1	3·8	+0·6	1	4	13	5	8	7	18	1	3	S 22° E	N 66° W	18	22	90*	144	3·43	1·31	Nagpur.	24
																														XII.—Hyderabad.	
·539	·423	·514	−·050	64	41	28	46	0	1·9	4·7	3·3	+0·5	32		4		6		8	6	4	S 62° W	S 9° W	15	5	82*	108	2·45	1·93	Hyderabad	29
																														XIII.—Mysore.	
·587	·453	·553	—·002	79	55	32	57	+ 2	1·9	3·9	2·9		2	3	5	7	4	11	12	10	6	S 39° W	S 27° W	25	38	150*	115	5·00	2·58	Bangalore.	30
545	·411	·533	—·056	82	50	28	55	− 4	2·7	5·0	3·9	−1·8	2	2	11	11	6	5	7	10	6	S 87° E	N 85° E	7	12	157*	190	5·82	3·07	Mysore.	
																														XIV—Madras.	
·687	·608	·653		80	56	42	59		0·9	2·8	1·9		26	1	4	5		5	3	13	3	S 83° W		17		49*		7·25	1·48	Periyakulam.	32
·751	·690	·747		84	54	43	60		5·1	5·3	5·2		8	3	5	3	14	10	7	4	6	S 17° E		23		182*		2·54	1·17	Pudukkottai.	
·898	·921	·926	+·026	96	69	71	82	+ 4	3·9	2·3	3·1	−0·4		3	3	4	26	12	10	2		S 23° E	S 36° E	60	83	157	182	7·52	3·29	Madras.	
																														Station in the Bay.	
·922	·902	·916	—·043	88	74	72	81	+ 1	5·8	6·6	6·2	+1·6	14	5	11	9	15	2		2	2	N 86° E	N 89° E	40	51	143*	115	5·06	1·49	Port Blair.	1
																														Kashmir.	
·382	·467	·350	+·020	80	78	72	77‡	− 1	3·7	5·4	4·6	−0·4	12	6	3		12	9	2	5	11	S 53° W	N 18° W	8	19	105*	115	1·53	0·70	Srinagar.	14
·096	·105	·107	—·007	66	28	25	40	− 5	5·5	7·6	6·6	+0·1		5	3	5	2	25	7	12		S 21° W	S 63° W	42	27	80	74	0·17	0·14	Leh.	
																														Baluchistan.	
·233	·218	·228	—·023	82	36	33	51	+ 3	2·6	5·1	3·9	+0·6	18	7		1	2	6	3	9	14	N 68° W	N 78° W	32	35	54*	84	1·31	0·50	Quetta.	16

* Corrected.

‡ Mean of three previous columns.

Ta

Abstract of observations taken at 10 hrs. and 16 hrs

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Mean of 16 hrs.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to sea-level and gravity, 45° Lat.	Temperature of air. Mean maximum	Mean minimum	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Temperature Wet-bulb. Mean minimum.	Mean 10 hrs.	Mean 16 hrs.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	Hill Stations excluding Kashmir and Baluchistan.																				
	Simla . . .	7,224	23·101	23·051	·050	23·068	—·030	23·030	62·9	50·1	12·8	69·9	40·9	29·0	58·6	59·1	57·1	−2·2	43·1	47·6	48·9
	Sarain . .		·163	·113	·050	·128		·090	62·4	41·9	20·5	72·2	37·9	34·3	57·5	57·2	52·8			46·7	48·2
	Kalabagh . .								Register not received.												
	Chakrata . .	7,022	·296	·246	·050	·259	—·010	·220	68·0	49·3	18·7	75·3	42·7	32·6	62·8	60·4	59·3	−2·5	43·3	51·4	49·9
	Muktesar . .	7,592	22·851	22·783	·068	22·809		22·767	66·8	47·8	19·0	73·9	39·0	34·9	58·4	59·9	57·9		41·0	47·3	48·3
	Katmandu . .	4,388	25·641	25·538	·103	25·588	+·039†	25·542	77·5	52·7	24·8	88·0	43·5	44·5	68·2	71·9	65·7	—1·4†	49·8	57·9	58·8
	Darjeeling . .	7,376	23·033	22·994	·039	23·012	+·025	22·966	58·7	46·7	12·0	67·4	43·6	23·8	55·0	56·7	53·3	—2·9	44·6	51·5	53·2
	Pachmarhi .	3,528	26·438	26·336	·102	26·381	—·020	26·328	88·2	65·8	22·4	98·2	59·1	39·1	77·6	85·6	77·6	—4·1	56·5	62·0	63·0
	Mount Abu . .	3,945	·027	25·948	·079	25·981	—·041	25·932	81·3	65·5	15·8	89·8	56·0	33·8	76·2	79·1	74·0	—4·0	54·2‡	59·5	60·5
	Chikalda . .	3,642	·330	26·223	·107	26·271	—·032	26·215	89·5	67·5	22·0	97·9	61·6	36·3	81·0	87·0	79·1	—4·0	56·6	61·1	63·4
	Ootacamund .	7,327	23·082	23·002	·080	23·040		22·976	70·3	51·2	19·1	73·5	48·2	25·3	66·8	64·0	61·4		49·0	57·6	57·4
	Kodaikanal . .	7,688	22·845	22·773	·072	22·808		·745	67·6	53·3	14·3	71·2	50·4	20·8	64·2	61·7	60·5		49·0	56·5	56·9
	Dodabetta . .	8,539	·096	·029	·067	·061		21·997	63·4	50·0	13·4	66·8	44·7	22·1	60·5	58·4	57·3		47·8	53·4	54·4
	Extra India.																				
	Minicoy . .	7	29·944	29·848*	·096	29·900															
	Zanzibar . .	72	·952	·846	·106	·903	+·005	29·902	82·9	75·6	7·3	86·6	73·3	13·3	79·7	81·9	77·5	—1·9	72·4	76·1	76·2
	Diego Garcia .								Register not received.												
	Seychelles . .	15	·930	·846	·084	·891	—·015	·830	86·2	78·4	7·8	88·4	74·7	13·7	83·8	84·9	81·0	+1·6†	73·1	77·9	78·1
	Mauritius . .	181				·822	—·011	·950				83·8	65·6	18·2			74·7	—0·6			

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

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

‡ Mean of 29 days.

-concluded.

stations in India, etc., in April, 1909—concluded.

Vapour tension, in inches of mercury.				Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity.		Rainfall.		Station.	Number of subdivision
													Total number of 10 hrs. and 16 hrs. winds from																			
Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean 10 hrs.	Mean 16 hrs.	Mean of two previous columns.	Departure from normal.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.		
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
																														Hill Stations excluding Kashmir and Baluchistan.	
·219	·241	·216	+·005	59	46	52	52	+9	4·8	7·2	6·0	+1·8																3·40	1·28	Simla.	
·210	·219				46	55			5·1	7·8	6·5		12	8	8	4		8	9	9	2	N 84° W		12		66*		5·69	1·98	Sarain.	
									Register not received.																					Kalabagh.	
·266	·252	·239	+·034	65	49	51	55	+13	3·5	5·8	4·7	+1·1	15	13			5	24	2		1	S 5° E	S 54° W	25	23	120*	180	3·55	0·71	Chakrata.	
·212	·215	·197		58	48	47	51		4·9	7·1	6·0		15	2	2	4	6	3		27	1	S 80° W		30		189*		3·67	1·16	Muktesar.	
·367	·350	·341	—·019	80	55	50	62	+4	3·4	5·9	4·7	+0·7	2	2	2	25	2			27		N 24° E	N 87° W	3	42	30	36	4·87	0·95	Katmandu.	
·348	·373	·326	+·007	86	80	81	82	+6	6·9	7·6	7·3	+1·1	9	1	1				20	18	11	S 83° W	S 75° W	67	32	121*	206	6·30	1·16	Darjeeling.	
·379	·322	·343	+·072	56	41	27	40	+13	0·4	2·6	1·5	—1·0	7	1	1	5		4	15	16	11	S 80° W	N 63° W	48	44	150*	144	0·85	0·44	Pachmarhi.	
·320	·321	·308	+·063	48‡	37	34	40	+14	3·4	4·3	3·9	+2·1			4	1	9	1	28	1	16	S 73° W	S 87° W	76	56	207*	211	1·36	0·81	Mount Abu.	
·309	·311	·311	+·033	50	29	25	34	+8	3·6	5·7	4·7	+2·0	2	3	2		7	3	10		33	N 62° W	N 46° W	45	35	172*	197	0·96	0·38	Chikalda.	
·379	·434	·364		86	58	68	72		4·8	8·4	6·6		2	6	10	17	14	8	1		2	S 83° E		53		72*		4·04	0·77	Ootacamund.	
·382	·417	·369		76	64	76	72		4·1	6·7	5·4			16	10	10	10	6			8	N 48° E		40		242		3·60	0·97	Kodaikanal.	
·338	·382	·343		86	64	78	76		5·8	8·5	7·2			12	17	15	9	4	1		2	N 65° E		57		308*		4·26	1·40	Dodabetta.	
																														Extra India.	
									3·8	3·7	3·8			28	7	1	1			4	19	N 13° W		78		91*		3·64	1·56	Minicoy.	
·856	·830	·855	—·035	85	85	76	86	+1	7·5	7·7	7·6	+1·6	6				7	27	19	1		S 12° W	S 5° E	77	81	140*	170	26·80	2·82	Zanzibar.	
									Register not received.																					Diego Garcia.	
·886	·878	·862	0	77	76	72	78	—2	5·0	6·3	5·7	+0·6†	18	2	3	7	11	9	1	1	8	S 50° E	N 8° E	20	9	99	112	8·92	3·55	Seychelles.	
		·689	—·015				80	—1			5·3	—0·4										S 76° E	S 70° E			222	252	2·90	0·72	Mauritius.	

* Corrected.

† Departures from old normals.

Table B.—Abstract of observations taken at 8 hrs. at 238 stations in India, etc., in April, 1909.

(1) Provincial means.

(2) Data of stations.

(1) Provincial means based on the material in Table B (2) except that the statement of rainfall depends on the complete data of about 2,700 stations.

		Temperature of air.								Wind.		Hygrometry.				Cloud.		Rainfall.		
	Pressure departure from normal.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Absolute range during month.	Departure of velocity from normal.	Departure of steadiness from normal.	Mean humidity.	Departure from normal.	Mean vapour tension.	Departure from normal.	Mean cloud amount.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.
Burma	+·013	94·5	−2·0	74·1	0	84·3	−1·0	20·4	31·2	−1·4	−15	74	+ 1	·748	−·016	3·9	+0·5	1·37	1·47	−0·10
Eastern Bengal and Assam	+·054	88·3	−2·6	69·4	−2·0	78·9	−2·4	18·9	33·7	−1·4	− 5	80	− 1	·696	−·066	5·0	+0·3	7·02	6·51	+0·51
Bengal	+·048	93·5	−5·7	71·9	−2·7	82·7	−4·2	21·6	37·2	−1·0	0	70	+ 6	·671	−·024	4·0	+1·6	4·16	1·13	+3·03
United Provinces of Agra and Oudh.	+·031	94·8	−5·7	68·4	−2·3	81·7	−4·0	26·4	40·2	+0·3	+ 1	56	+15	·521	+·095	3·3	+1·8	2·67	0·18	+2·49
Punjab	+·025	91·6	−5·4	66·4	−0·3	79·0	−2·9	25·2	41·1	+0·1	+ 4	55	+ 9	·472	+·049	2·7	+0·3	2·12	0·42	+1·70
North-West Frontier Province	−·001	88·9	−1·9	64·4	+0·9	76·6	−0·5	24·5	39·3	−0·9	− 2	60	+ 2	·504	+·025	2·5	−0·3	1·12	1·31	−0·19
Sind	−·014	94·4	−4·4	73·0	+1·3	83·7	−1·6	21·5	37·5	−0·8	+ 9	59	+ 4	·600	+·025	2·5	+0·6	0·15	0·13	+0·02
Rajputana	−·009	96·4	−5·0	71·1	−1·5	83·8	−3·3	25·4	41·7	−0·2	− 8	49	+15	·487	+·070	3·1	+1·3	1·75	0·09	+1·66
Bombay	−·004	94·5	−2·6	72·6	−1·3	83·6	−1·9	21·9	32·6	+0·7	+11	61	+ 1	·628	−·022	1·5	−0·7	0·15	0·48	−0·33
Central India	−·004	95·4	−6·3	70·8	−0·2	83·1	−3·3	24·6	39·0	−0·9	0	50	+16	·505	+·095	3·8	+2·6	1·54	0·07	+1·47
Central Provinces	+·004	97·1	−6·0	71·2	−2·4	84·1	−4·2	25·9	41·7	+0·8	+10	47	+12	·472	+·065	2·4	+0·5	1·67	0·29	+1·38
Hyderabad	+·003	99·2	−2·7	73·7	−1·6	86·4	−2·2	25·5	38·8	−1·7	−11	51	0	·554	−·038	2·0	−0·5	1·19	0·59	+0·60
Mysore	−·002	93·2	−0·3	69·0	−0·4	81·2	−0·4	24·2	33·9	+0·5	+ 7	67	− 4	·593	−·053	2·1	−1·6	1·74	1·64	+0·10
Madras	+·002	94·8	−0·8	77·0	−0·3	85·9	−0·5	17·7	28·5	−0·1	+ 2	72	− 1	·816	−·031	3·5	−0·4	2·84	1·22	+1·62

Tab

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

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	I.—Burma.																					
2	Mergui	56	29·866*	+·003*	29·852*	29·924	4th	29·799	20th	·125	81·5	92·8	+0·9	74·1	+0·4	83·4	+0·7	18·7	95·9	28th	71·2	6th, 11th & 20th
	Tavoy	19	29·911	−·010	29·862	29·965	4th	29·865	20th	·100	80·7	94·1	+0·1	75·3	+1·1	84·7	+0·6	18·8	96·5	28th	71·8	19th
	Moulmein	94	29·836	+·019	29·868	29·892	4th	29·788	26th	·104	82·4	94·6	0	76·9	+0·5	85·8	+0·3	17·7	98·0	20th	74·3	2nd & 3rd
	Rangoon	18	29·894	+·003	29·850	29·961	4th	29·843	17th	·118	81·8	97·8	−0·8	77·5	+1·3	87·7	+0·3	20·3	101·6	22nd	75·9	7th, 8th & 9th.
	Bassein	27?	29·888	+·019	29·852	29·955	4th	29·831	17th	·124	82·4	95·4	−0·8	76·5	+1·0	86·0	+0·1	18·9	99·7	24th	72·9	7th
	Diamond Island	41	29·884	+·009	29·860	29·932	12th	29·832	17th	·100	84·2	88·7	0	80·0	+1·7	84·4	+0·9	8·7	90·4	7 days	74·7	30th
	Toungoo	164	29·736*	−·006*	29·841*	29·811	3rd	29·672	17th	·139	84·1	99·5	−0·9	76·5	+0·5	88·0	−0·2	23·0	102·5	24th & 25th.	68·8	14th
	Kyaukpyu	18	29·891		29·849	29·964	4th	29·828	24th	·136												
	Akyab	20	29·892	+·014	29·855	29·958	4th	29·822	30th	·136	79·0	90·0	−1·8	74·2‡	−1·8†	82·1‡	−1·8	15·8	95·9	16th	69·5	16th
3	Thayetmyo	121	29·760	+·015	29·823	29·831	4th	29·701	24th	·130	84·5	100·5	−2·5	75·4	−0·4	88·0	−1·5	25·1	105·5	24th	70·4	9th & 20th
	Minbu	*165*	29·704	+·013	29·814	29·773	5th	29·637	25th	·136	82·2	99·8	−3·6	77·8	+0·9	88·8	−1·4	22·0	107·8	24th	70·5	19th
	Yamethin	657	29·216	+·015	29·827	29·286	4th	29·150	25th	·136	81·2	96·7	−5·6	74·9	−1·2	85·8	−3·4	21·8	103·8	24th	69·5	4th & 9th
	Mandalay	250	29·631	+·035	29·832	29·711	4th	29·511	25th	·200	81·8	99·4	−2·9	75·0	−2·8	87·2	−2·9	24·4	108·0	24th	68·9	14th
	Monywa	*280*	29·622		29·841	29·700	3rd	29·523	25th	·177	80·2	98·4		74·8		86·6		23·6	105·3	24th	66·6	18th
	Lashio	*2,751*	27·120*	+·007*	27·066*	27·204	3rd	27·039	25th	·165	67·6	84·1	−8·8	62·4	−0·5	73·3	−3·7	21·7	94·8	1st	58·0	14th
	Bhamo	*381*	29·520	+·048	29·865	29·608	6th	29·398	25th	·210	72·6	91·0	−2·9	67·5	−0·1	79·3	−1·5	23·5	98·9	25th	64·1	23rd
	Myitkyina	458	29·434‡		29·860‡	29·514	6th	29·330	25th	·184	73·0	89·0		67·0		78·0		22·0	98·2	25th	61·5	17th
	II.—Eastern Bengal and Assam.																					
4	Dibrugarh	353	29·565*		29·888*	29·660	6th	29·466	29th	·194	69·0	79·7		65·7		72·8		14·0	89·4	1st	61·1	2nd & 3rd
	Sibsagar	333	29·596*		29·895*	29·699	6th	29·503	29th	·196	69·0	80·5	−2·0	64·9†	−4·0†	?	?	?	88·6	23rd	61·6	30th
	Tezpur	252	29·656		29·873	29·765	5th	29·546	29th	·219	71·5	84·5		67·9		76·3		16·6	94·1	3rd	64·9	9th & 19th.
	Gauhati	195	29·728		29·884	29·826	5th	29·627	29th	·199	71·9	87·0		67·9		77·4		19·1	100·5	1st	64·1	19th & 20th.
	Dhubri	115	29·786	+·065	29·860	29·876	6th	29·694	8th, 29th, & 30th	·182	72·3	85·5	−3·2	69·5	−1·2	77·5	−2·2	16·0	98·5	1st	66·3	17th
	Silchar	104	29·819	+·042	29·878	29·901	6th	29·689	30th	·212	73·9	87·3	−1·2	68·2	−1·0	77·7	−1·1	19·1	98·3	1st	63·3	13th
5	Cox's Bazar	36	29·865		29·815	29·959	4th	29·765	30th	·204												
	Chittagong	87	29·820	+·029	29·856	29·903	5th	29·697	30th	·206	77·3	87·0	−1·9	70·5	−3·2	78·8	−2·6	16·5	91·5	7th	66·0	17th & 18th.
	Noakhali	43	29·866		29·856	29·942	5th	29·766	30th	·176	77·9	87·4		71·1		79·3		16·3	92·3	1st	65·9	17th & 18th.
	Barisal	12	29·879	+·046	29·837	29·955	5th, & 15th.	29·758	30th	·197	79·5	90·6	−1·6	72·1	−3·3	81·3	−2·5	18·5	96·3	1st	64·6	12th
	Comilla	36	29·862‡		29·846‡	29·944	5th	29·752	29th & 30th	·192	76·8	90·3		71·4‡		81·0‡		18·9	99·3	1st	66·3	2nd, 9th & 15th.
	Narayanganj	26	29·872	+·061	29·847	29·961	5th	29·742	30th	·219	77·1	89·1	−4·1	71·3	−3·0	80·2	−3·5	17·8	95·0	1st	65·3	17th
	Faridpur	46	29·846		29·842	29·929	5th	29·722	30th	·207	77·1	90·3		70·5		80·4		19·8	99·3	1st	64·9	18th
	Sirajganj	49	29·846		29·845	29·945	3rd	29·728	29th & 30th.	·217	76·2	88·9		69·7		79·3		19·2	100·4	1st	62·3	17th
	Mymensingh	63	29·848	+·072	29·863	29·925	6th	29·738	30th	·187	75·4	88·3	−2·5	69·7	−2·5	79·0	−2·5	18·6	100·1	1st	63·6	29th
	Bogra	75	29·827	+·077	29·855	29·905	4th	29·727	30th	·178	77·4	92·8	−3·4	69·6	−2·3	81·2	−2·9	23·2	103·2	1st	62·2	18th
	Rampur Boalia	70	29·813		29·833	29·915	15th	29·695	30th	·220	77·1	92·1		70·7		81·4		21·4	102·1	4th	65·1	7th
	Malda	72	29·790		29·815	29·893	15th	29·663	8th	·230	77·2	93·0		70·5		81·7		22·5	102·8	9th	63·5	16th
	Dinajpur	123	29·742	+·049	29·823	29·822	15th	29·632	8th	·190	74·0	91·2	−3·4	69·3	−1·4	80·3	−2·4	21·9	102·3	3rd	65·0	18th
	Rangpur	123	29·775		29·856	29·860	15th	29·682	8th	·178	75·1	88·7		66·8		77·7		21·9	99·1	1st	61·0	18th

* Mean of 29 days. † Mean of 4 days. ‡ Mean of 28 days.

N.B.—Elevations in italics indicate barometrical determinations.
NOTE.—The barometric readings are not reduced to sea-level, in the cases of hill or pl

tions in India, etc., in April, 1909.

Wind direction. Number of winds from N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N. W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs., in inches of mercury. (43)	Departure from normal, in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st Dec. 1908 to 30th April 1909. (53)	Normal rainfall for period, 1st Dec. to 30th April. (54)	Departure from normal of period, 1st Dec. 1908 to 30th April 1909. (55)	Heaviest rainfall during month. (56)	Station. (57)
																														I.—Burma.
1	2	7	10	5	2	2	S 3° E	N 8° W				49	− 8	83	+ 2	·8301	−·013	0·2	−4·4	7	6·70	+0·30	8·47	6·54	+ 1·93	17·82	12·84	+ 4·98	2·37	Mergui.
							(a)	N 27° W	1·0	1·6	−0·6			84	+ 1	·8851	+·018	2·3	−2·0	2	5·30	−3·30	0·68	3·78	− 3·10	5·01	5·94	− 0·93	0·55	Tavoy.
5	5	6	4	3	1		S 55° E	S 34° E	3·2	3·9	−0·7	40	− 5	77	− 2	·858	−·003	3·7	−0·3	4	5·00	−1·00	1·79	3·11	− 1·32	3·09	4·13	− 1·04	1·00	Moulmein.
1	1		2	2	14	4	N 83° W	S 61° W	5·6	5·6	0	56	−14	75	− 5	·812	−·036	2·4	−0·7	0	2·20	−2·20	0	1·83	− 1·83	1·22	2·55	− 1·33	0	Rangoon.
1		1		3	10	6	N 79° W	N 55° W	4·4	6·1	−1·7	49	−18	79	0	·874	+·004	3·5	0	2	2·10	−0·10	2·18	1·55	+ 0·63	3·07	2·12	+ 0·95	1·39	Bassein.
6	3	1		2	4	10	N 20° W	N 47° W	7·9	8·5	−0·6	43	−20	74	0	·875	+·026	4·3	+0·1	0	2·09	−2·09	0·08	1·46	− 1·38	0·46	2·49	− 2·03	0·08	Diamond Island.
1		7	6	3		2	S 11° E	S 28° E	3·1	4·6	−1·5	37	−37	70	− 3	·813	−·035	3·3	+0·5	4	3·10	+0·90	2·56	2·28	+ 0·28	2·80	2·79	+ 0·01	2·00	Toungoo.
17	1	6				1	N 51° E		3·4			73						3·0		3			0·79			0·89			0·39	Kyaukpyu.
15	3	2				3	N 40° E	N 49° E	3·9	3·8	+0·1	66	+19	82	+ 2	·797	−·088	4·1	−0·4	3	1·80	+1·20	1·06	1·28	− 0·22	1·06	2·68	− 1·62	0·62	Akyab.
5	1	2	5	9	1	1	S 25° W	S 10° W	7·2§	6·5	+0·7	20	−43	55	− 7	·652	−·083	4·5	+3·4	3	1·60	+1·40	1·57	0·90	+ 0·67	1·57	1·14	+ 0·43	0·65	Thayetmyo.
		12	4	3	2	6	S 1° E	S 45° E	4·4	9·7	−5·3	28	−20	60	0	·638	−·039	4·9	+3·7	2	1·20	+0·80	0·35	0·85	− 0·50	0·40	1·55	− 1·15	0·18	Minbu.
1		12	9	1		1	S 26° E	S 28° E	3·2	6·8	−3·6	59	−12	70	+ 5	·734	−·008	5·5	+4·5	4	3·60	+0·40	5·72	1·52	+ 4·20	5·75	2·68	+ 3·07	2·50	Yamethin.
							(a)	S 3° W	4·2	6·3	−2·1			58	− 1	·618	−·092	3·2	+0·8	4	2·40	+1·60	1·13	1·12	+ 0·01	1·14	1·67	− 0·53	0·40	Mandalay.
1			1			6	N 13° W		3·6			56		63		·645		3·6		3	2·00	+1·00	0·56	0·71	− 0·15	0·56	1·10	− 0·54	0·20	Monywa.
5	2	1		1			N 60° E		3·0§			23		85	+15	·576	+·065	5·6	+0·1	9			4·37	2·20	+ 2·17	4·60	4·12	+ 0·48	1·72	Lashio.
7					1		N 30° E	N 14° W	2·7	4·2	−1·5	30	− 3	87	+13	·694	+·060	5·8	+2·0	7	4·80	+2·20	3·31	1·66	+ 1·65	3·83	3·85	− 0·02	0·92	Bhamo.
9	6	1					N 56° E		3·7§			53		76		·617		6·3		8			1·81			2·29			0·45	Myitkyina.
																														II.—Eastern Bengal and Assam.
9	5	2					N 62° E		2·3			46		89		·617		7·5		17	13·50	+3·50	9·00	9·76	− 0·76	14·33	19·99	− 5·66	1·45	Dibrugarh.
17	1			1			N 43° E	N 18° E	2·7	3·3	−0·6	56	+ 3	85	− 5	·613	−·076	8·4	+1·5	14	14·50	−0·50	7·47	9·50	− 2·03	10·35	18·47	− 8·12	1·03	Sibsagar.
9	8						N 66° E		5·5			49		85		·657		6·5		16	11·00	+5·00	4·50	5·92	− 1·42	4·86	10·55	− 5·69	0·64	Tezpur.
7		1	1				N 32° E		2·7			37		83		·651		8·2		14	10·20	+3·80	6·29	5·87	+ 0·42	6·43	10·30	− 3·87	1·38	Gauhati.
6	17	3	1				N 88° E	N 72° E	10·0	8·7	+1·3	76	+13	83	+ 4	·661	−·026	3·0	−2·0	12	7·40	+4·60	7·99	4·73	+ 3·26	8·15	7·59	+ 0·56	1·50	Dhubri.
	8	6					S 75° E	N 82° E	4·5	3·4	+1·1	40	+15	81	− 2	·685	−·045	3·9	−2·2	11	13·70	−2·70	8·32	13·61	− 5·29	9·46	25·71	−16·25	1·96	Silchar.
3	15	9	1	1			S 78° E		3·9			77						3·5		7			6·05			6·05			3·91	Cox's Bazar.
4	6	11	1				S 70° E	S 47° E	2·9	6·9	−4·0	59	+ 2	82	+ 2	·773	−·067	4·5	+0·1	11	4·42	+6·58	8·15	3·85	+ 4·30	8·15	8·72	−0·57	1·72	Chittagong.
4	6	7	4	3	2		S 51° E		3·9			43		79		·755		3·7		7	4·61	+2·39	5·34	4·66	+ 0·68	5·35	9·23	− 3·88	2·72	Noakhali.
4	1	3	5	4	1	1	S 31° E	S 8° W	3·0	5·7	−2·7	7	−48	79	− 3	·799	−·104	4·9	0	8	4·29	+3·71	7·55	3·12	+ 4·43	7·60	7·39	+ 0·21	2·91	Barisal.
2	4	4	5	1			S 49° E		3·2			53		81		·755		2·5		10	6·46	+3·54	7·87	6·27	+ 1·60	7·98	10·74	− 2·76	3·19	Comilla.
4	11	3	3	3	1		S 71° E	S 10° E	3·8	7·3	−3·5	46	−11	80	− 2	·746	−·104	5·6	−0·3	10	6·59	+3·41	5·84	4·51	+ 1·33	7·40	9·08	− 1·68	1·88	Narayanganj.
	4	8	11	1	1		S 27° E		3·7			60		81		·764		4·5		9	6·00	+3·00	7·15	4·16	+ 2·99	7·84	8·35	− 0·51	4·63	Faridpur.
6	7	8	2	2		1	S 79° E		4·0			50		77		·696		6·4		12	4·60	+7·40	6·46	2·95	+ 3·51	8·25	5·70	+ 2·55	1·11	Sirajganj.
3	12	6	1		1	2	S 87° E	S 68° E	2·9	4·3	−1·4	53	−17	77	− 5	·678	−·094	6·6	+1·3	9	6·23	+2·77	5·23	5·37	− 0·14	5·94	8·98	− 3·04	1·11	Mymensingh.
2	12		2				S 87° E	S 63° E	2·5	4·6	−2·1	43	−16	70	− 7	·655	−·105	2·7	−1·1	4	3·81	+0·19	1·92	2·07	− 0·15	2·06	4·84	− 2·78	0·43	Bogra.
2		5	4	3	1		S 14° E		4·5			27		76		·709		3·6		7	2·95	+4·05	3·94	1·81	+ 2·13	4·59	4·21	+ 0·38	1·52	Rampur Boalia.
5	8	7	2	2	2		S 73° E		5·8§			47		81		·752		2·5		6	1·81	+4·19	1·78	1·35	+ 0·43	3·11	3·84	− 0·73	0·62	Malda.
6	16	2	1	1			N 87° E	N 86° E	4·9	5·6	−0·7	69	+21	79	+ 7	·665	−·014	5·5	+1·4	6	3·21	+2·79	4·80	2·33	+ 2·47	5·35	3·92	+ 1·43	1·70	Dinajpur.
3	6	4	1				S 74° E		1·5			23		77		·671		3·0		8	4·39	+3·61	3·60	3·16	+ 0·44	3·83	5·33	− 1·50	0·97	Rangpur.

ons, the elevations of which exceed 3,200 feet.

(a) Indeterminate.

§ Uncorrected fo sca.e error.

Tab

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

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	2
	II—Eastern Bengal and Assam—*concld.*																						
	Jalpaiguri	284	29·606	+·057	29·853	29·686	15th	29·511	8th	·175	73·1	87·0	−2·5	67·9	−0·3	77·4	−1·4	19·1	95·9	3rd & 4th	60·9	2nd	3
	Cooch Behar	156	29·748		29·863	29·836	15th	29·655	8th	·181	72·6	85·7		68·4		77·1		17·3	94·8	1st, 2nd & 3rd.	65·6	7th, 16th & 20th.	2
	III.—Bengal.																						
6	Saugor Island	25	29·844	+·041	29·813	29·927	4th	29·727	30th	·200	81·6	90·2	−0·6	76·7	−3·2	83·5	−1·9	13·5	93·0	1st & 7th	70·0	4 days.	2
	Midnpore	149	29·709		29·806	29·782	4th	29·575	30th	·207	79·2	95·2		73·7		84·5		21·5	106·3	10th	67·7	19th	3
	Calcutta	21	29·853	+·051	29·820	29·913	15th	29·712	30th	·231	78·7	93·0	−2·6	72·9	−2·8	83·0	−2·7	20·1	100·2	9th	67·0	13th	3
	Jessore	33	29·843	+·053	29·828	29·927	15th	29·717	30th	·210	77·9	91·0	−6·2	74·0	−1·1	82·5	−3·7	17·0	100·0	1st	69·2	2nd & 18th	30
	Krishnagar	47	29·821		29·817	29·914	15th	29·695	30th	·219	76·5	93·1		72·2		82·6		20·9	104·1	9th	67·0	13th & 18th.	37
	Burdwan	99	29·760	+·051	29·809	29·863	15th	29·629	30th	·234	77·5	93·7	−6·9	73·0	−2·7	83·4	−4·8	20·7	105·4	9th	67·3	13th & 14th.	3
	Bankura	313	29·522		29·789	29·615	4th	29·400	30th	·215	79·0	95·0		72·8		84·0		22·2	106·1	9th	67·2	19th	3
	Raniganj	334	29·520		29·811	29·595	4th	29·404	30th	·191	76·9	94·9		72·3		83·6		22·6	106·5	9th	65·0	15th	4
	Berhampore	67	29·801	+·061	29·819	29·906	15th	29·669	30th	·237	76·9	92·1	−7·9	71·9	−2·7	82·0	−5·3	20·2	102·6	9th	65·2	12th	37
	Naya Dumka	489	29·361		29·813	29·446	15th	29·242	30th	·204	79·0	93·9		72·3		83·1		21·6	104·9	9th	61·5	19th	4
7	Balasore	50	29·819	+·050	29·814	29·910	15th	29·703	30th	·207	80·1	91·7	−5·8	73·2	−2·8	82·5	−4·3	18·5	100·9	1st	65·1	14th	3
	False Point	21	29·869	+·047	29·831	29·957	4th	29·774	30th	·183	81·6	87·7	−2·2	74·4	−3·2	81·0	−2·7	13·3	92·1	11th	67·1	17th	2
	Cuttack	80	29·796	+·043	29·820	29·873	15th	29·703	30th	·170	79·6	95·5	−6·5	74·0	−4·0	84·8	−5·3	21·5	101·9	2nd & 3rd	68·7	17th	3
	Puri	24	29·838		29·801	29·920	4th	29·748	30th	·172	81·8	88·8		76·0		82·4		12·8	95·6	1st	69·1	20th	2
	Angul	455	29·405†		29·823†	29·498	15th	29·311	30th	·187	78·7	94·9		72·7		83·8		22·2	101·1	2nd, 10th & 12th.	64·5	24th	3
	Sambalpur	486	29·376	+·036	29·813	29·491	22nd	29·268	30th	·223	80·9	95·6	−8·7	73·8	−1·8	84·7	−5·3	21·8	102·6	9th	64·6	1st	3
8	Chaibassa	*733*	29·114	+·045	29·807	29·194	4th & 15th,	28·993	30th	·201	76·7	95·7	−7·9	72·2‡	−3·8†	84·0†	−5·9	23·5	103·8	9th	63·7	23rd	4
	Ranchi	2,128	27·728	+·029	29·816	27·806	4th	27·626	30th	·180	75·0	90·4	−6·7	67·8	−4·3	79·1	−5·5	22·6	97·2	9th	62·9	17th	3
	Purulia	*816*	29·008†		29·781‡	29·115	15th	28·891	30th	·224	74·7	96·0		71·2		83·6		24·8	106·0	9th	66·1	13th & 25th,	3
	Hazaribagh	2,007	27·825	+·017?	29·790	27·899	4th	27·723	30th	·176	76·3	90·0	−8·1	68·1	−4·4	79·1	−6·3	21·9	97·7	9th	63·3	19th, 20th & 21st.	3
	Daltonganj	*730*	29·109		29·800	29·194	22nd	28·972	30th	·222	78·4¶	95·4¶		70·1¶		82·8¶		25·3	102·1	14th	59·0	25th	4
9	Purnea‡	134	29·746	+·082	29·837	29·814	19th	29·648	8th	·166	75·6	92·3§	−4·4§	69·4	−0·8	81·0§	−2·6	22·9	104·5	4th	63·2	2nd	4
	Bhagalpur	160	29·693		29·807	29·763	15th	29·588	30th	·178	78·7	95·1		71·8		83·4		23·3	105·2	4th & 9th	66·3	17th	3
	Monghyr	155	29·690		29·800	29·761	15th	29·568	30th	·193	77·4	94·2†		70·2		82·3†		24·0	104·9	4th	64·9	20th	4
	Darbhanga	165	29·584	+·052	29·808	29·764	15th	29·584	8th	·180	75·5	93·1	−3·0	69·5	−2·4	81·3	−2·7	23·6	103·6	4th	61·3	2nd	4
	Pusa	188	29·657		29·802	29·741	15th	29·552	8th	·189	76·7	94·5		68·6		81·6		25·9	105·3	4th	62·4	3rd	4
	Muzaffarpur	178	29·671		29·808	29·741	15th	29·557	30th	·184	76·2	92·6		69·0		80·8		23·6	103·7	6th	63·0	12th	4
	Motihari	221	29·624		29·810	29·703	19th	29·525	30th	·178	73·2	91·4		67·3		79·4		24·1	102·4	4th & 7th	59·3	2nd	4
	Chapra	181	29·661		29·790	29·720	22nd	29·536	30th	·184	77·1	94·2		70·6		82·4		23·6	103·7	4th & 7th	65·9	19th	4
	Patna	183	29·647	+·040	29·786	29·724	4th	29·526	30th	·198	79·5	93·0	−7·6	71·9	−1·6	82·4	−4·6	21·1	102·5	4th & 7th	67·7	25th	4
	Arrah	190	29·649†		29·795†	29·719	22nd	29·531	30th	·188	78·9	95·0		70·7		82·9		24·3	103·9	4th, 7th & 9th,	65·7	2nd	4
	Buxar	239	29·583		29·782	29·653	22nd	29·455	30th	·198	78·7	96·2		72·0		84·0		24·2	105·0	7th	68·1	19th	4
	Dehri	351	29·464		29·773	29·540	4th	29·325	30th	·215	79·5	97·0		73·8		85·4		23·2	104·3	4th & 9th	66·0	19th	4
	Gaya	372	29·450	+·033	29·778	29·553	1st	29·305	30th	·248	82·0	97·2	−6·2	73·6	−1·3	85·4	−3·8	23·6	104·9	4th	66·2	19th	4
	IV.—United Provinces of Agra and Oudh.																						
10	Gorakhpur	257	29·571†	+·056†	29·788†	29·643	15th	29·465	30th	·178	78·3	94·0	−6·4	68·5	−3·9	81·2	−5·2	25·5	104·1	7th	63·5	19th	4
	Benares	267	29·559	+·041	29·784	29·625	5th	29·425	30th	·200	80·3	97·4	−5·7	70·1	−1·8	83·8	−3·8	27·3	104·6	7th	63·6	2nd	4
	Allahabad	309	29·512	+·022	29·778	29·591	4th	29·374	30th	·217	80·5	97·6	−6·2	71·5	−0·9	84·5	−3·6	26·1	104·6	7th	64·5	23rd	4

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

¶ Mean of 20 days.
† „ „ 29 „

‡ Mean of 22 days.
§ „ „ 21 „

NOTE.—The barometric readings are not reduced to sea-level, in the cases of hill or plate

‖ Mean of 27 days.

-continued.

tions in India, etc., in April, 1909—continued.

Wind direction. Number of winds from N.E.	E.	S.E.	S.	S.W.	W.	N. W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal, in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 30th April 1909.	Normal rainfall for period, 1st Dec. to 30th April.	Departure from normal of period, 1st Dec. 1908 to 30th April 1909.	Heaviest rainfall during month.	Station.
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																														II.—Eastern Bengal and Assam—*concld.*
8	9	1					N 69° E	N 88° E	2·2			53	—14	79	+ 3	·648	—·029	6·7	+3·9	10	5·53	+4·47	6·03	3·85	+2·18	6·95	6·07	+0·88	1·75	Jalpaiguri.
5	12	3		1			N 83° E		2·8			57		82		·654		6·5		9	7·41	+1·59	9·20	5·88	+3·32	9·38	8·47	+0·91	2·70	Cooch Behar
																														III.—Bengal.
	2	4	10	11	1	1	S 11° W	S 18° W	15·0	17·9	−2·9	66	−11	81	+ 1	·865	—·063	5·8	0	6	2·00	+4·00	3·53	0·85	+2·68	3·83	3·84	−0·01	1·10	Saugor Island.
4	1	2	12	2		1	S 11° E		4·4			53		73		·714		3·9		10	3·10	+6·90	8·95	1·78	+7·17	10·86	5·29	+5·57	2·29	Midnapore.
1	4	5	3	12	2	1	S 12° W	S 25° W	5·8*	7·0	−1·2	46	−24	81	+ 3	·800	—·053	4·6	+1·2	11	2·92	+8·08	5·95	1·43	+4·52	6·05	4·16	+1·89	0·98	Calcutta.
	2	9	6			1	S 36° E	S 1° E	2·5	4·1	−1·6	46	− 6	79	− 2	·766	—·121	5·6	+0·9	9	4·68	+4·32	4·55	3·18	+1·37	4·55	6·91	−2·36	1·34	Jessore.
	6	4	9	4	2	1	S 12° E		3·6			47		85		·785		4·4		14	3·39	+10·61	7·07	2·43	+4·64	7·42	5·17	+2·25	1·33	Krishnagar.
4	2	1	3	11	2		S 29° W	S 27° W	3·8	4·8	−1·0	36	−30	79	+ 9	·747	—·017	4·9	+1·6	13	3·48	+9·52	9·92	1·75	+8·17	10·07	4·41	+5·66	4·60	Burdwan.
		3	8	2	3		S 10° W		4·5			37		70		·702		2·8		9	3·00	+6·00	4·93	1·53	+3·40	5·12	4·33	+0·79	1·44	Bankura.
		5	4	1	2	1	S 50° E		2·3			27		79		·713		4·4		11	2·47	+8·53	7·23	1·59	+5·64	8·33	3·91	+4·42	1·85	Raniganj.
3	6	4	10	3			S 37° E	S 2° E	5·0	4·8	+0·2	49	− 8	79	+ 3	·733	—·054	5·0	+1·2	10	2·56	+7·44	4·72	1·24	+3·48	4·99	3·70	+1·29	1·15	Berhampore.
	5	10	1	2		1	S 48° E		3·8			47		70		·682		2·1		4	2·38	+1·62	3·13	1·02	+2·11	4·05	3·28	+0·77	1·44	Naya Dumka
	2		2	19	1	1	S 44° W	S 29° W	4·1	8·6	−4·5	62	+ 7	75	− 3	·768	—·105	4·8	+0·8	12	3·58	+8·42	7·20	1·86	+5·34	9·25	5·33	+3·92	1·91	Balasore.
		1	6	12	5	1	S 43° W	S 38° W	11·0	13·8	−2·8	62	−15	78	− 4	·836	- ·092	6·3	+1·1	5	1·84	+3·16	3·38	0·73	+2·65	4·71	3·98	+0·73	1·07	False Point.
1	1	2	5	8	4		S 30° W	S 39° W	3·4*	5·0	−1·6	43	−17	76	+ 4	·787	—·039	4·7	+1·2	10	1·97	+8·03	5·54	0·98	+4·56	6·81	3·10	+3·71	1·84	Cuttack.
1			2	19	1	2	S 54° W		13·0			60		77		·843		3·3		6	1·17	+4·83	4·25	0·80	+3·45	4·66	3·35	+1·31	1·34	Puri.
5	3	8	2		2	6	N 63° E		7·8			23		74		·724		3·3		8			5·15			5·35			1·40	Angul.
	3	5		19	2	1	S 30° W	S 87° E	4·7	3·9	+0·8	62	+52	61	+10	·645	+·035	4·7	+2·5	5	1·50	+3·50	3·52	0·60	+2·92	4·09	2·70	+1·39	1·78	Sambalpur.
2		1	1	19	4		S 50° W	S 62° W	4·1	2·6	+1·5	62	+ 3	70	+15	·632	—·023	4·0	+2·2	6	2·06	+3·94	4·25	1·36	+2·89	5·26	3·91	+1·35	1·93	Chaibassa.
1		2	7	8	10	1	S 48° W	S 51° W	7·2†	7·4	−0·2	62	+14	57	+13	·485	+·003	4·0	+2·5	5	2·16	+2·84	1·63	0·84	+0·79	3·64	3·95	−0·31	0·53	Ranchi.
3	5	5	5	4	4	2	S 14° E		4·2			27		85		·730		4·1		7	2·39	+4·61	3·39	0·99	+2·40	4·28	3·64	+0·64	1·12	Purulia.
		1	9	14	4	1	S 38° W	S 55° W	7·7	8·9	−1·2	72	+19	54	+18	·471	+·081	3·9	+1·9	6	1·35	+4·65	2·36	0·39	+1·97	4·97	2·63	+2·34	0·62	Hazaribagh.
	3						E		3·5			10		57¶		·541¶		4·8		3	0·70	+2·30	2·00	0·27	+1·73	3·85	2·38	+1·37	1·44	Daltonganj.
9	5		1	1		2	N 57° E	N 68° E	3·1	4·7	−1·6	50	−10	73	+ 6	·634	—·017	5·5	+2·9	5	1·83	+3·07	3·02	1·22	+1·80	3·15	2·79	+0·36	0·37	Purnea.
9	6	4		2			N 82° E		3·8			47		68		·656		3·3		5	1·45	+3·55	1·57	0·88	+0·69	1·84	2·62	−0·78	0·73	Bhagalpur.
3	16	5		1	3		S 87° E		7·8			60		72		·659		3·6		5			4·27			4·39			1·70	Monghyr.
6	16	1	1				N 18° E	S 67° E	4·2	5·7	−1·5	69	+16	73	+10	·652	+·029	4·4	+3·2	5	1·47	+3·53	3·88	0·70	+3·18	4·13	2·36	+1·77	2·22	Darbhanga.
12	12			2		1	N 66° E					63		66		·599		3·2		5			3·47			3·85			1·15	Pusa.
4	11	6	1	1	1	1	S 68° E		5·2*			53		70		·618		2·0		8	0·90	+7·10	2·83	0·47	+2·36	3·07	2·23	+0·84	1·60	Muzaffarpur.
6	11	1					N 73° E		2·6			53		80		·659		3·9		9	1·23	+7·77	8·28	0·68	+7·60	8·63	2·27	+6·36	1·96	Motihari.
							?		?			?		60		·546		3·0		5	0·55	+4·45	3·17	0·32	+2·85	3·51	2·02	+1·49	1·82	Chapra.
3	17	3	2	2	2		S 83° E	S 81° E	7·2	4·9	+2·3	59	+39	60	+ 9	·590	+·034	2·8	+1·5	5	0·58	+4·42	1·97	0·27	+1·70	2·59	1·92	+0·67	0·62	Patna.
10	4	1	1	4		1	N 58° E		3·3			30		60		·579		2·8		3	0·55	+2·45	1·66	0·47	+1·19	2·20	2·56	−0·36	0·66	Arrah.
3	11	2	2	5	1	1	S 84° E		5·6			30		55		·518		3·8		2	0·35	+1·65	0·51	0·15	+0·36	1·69	1·93	−0·24	0·20	Buxar.
	6	1	2	15	3	2	S 34° W		3·9			50		53		·525		4·9		5	0·41	+4·59	1·54	0·10	+1·44	2·53	2·06	+0·47	0·69	Dehri.
10	1	1	2	8	3		N 8° E	S 34° W	3·9	4·8	−0·9	2	−31	57	+ 6	·613	+·015	3·1	+1·4	3	0·58	+2·42	1·65	0·15	+1·50	3·50	2·09	+1·41	0·70	Gaya.
																														IV. United Provinces of Agra and Oudh.
8	1		1	1			N 55° E	N 57° E	5·6*	3·5	+2·1	27	+16	62	+11	·584	+·050	4·2	+2·9	7	0·50	+6·50	4·25	0·45	+3·80	4·73	2·17	+2·56	1·16	Gorakhpur.
2	4	4	1	2	3	3	S 66° E	S 53° W	3·3	3·5	−0·2	7	−15	64	+16	·646	+·152	3·9	+2·6	3	0·40	+2·60	1·53	0·13	+1·40	2·83	1·72	+1·11	1·10	Benares.
3	5	2	1	3	10	2	W	N 86° W	4·5	5·3	−0·8	17	− 5	48	+12	·482	+·058	5·4	+3·8	3	0·20	+2·80	1·29	0·13	+1·16	1·75	1·86	−0·11	0·73	Allahabad.

ons, the elevations of which exceed 3,200 feet.

(a) Indeterminate.

* Uncorrected for scale error.

Tab

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

Number of subdivision.	Station.	Elevation of barometer cistern above sea-level, in feet.	Pressure, 8 hrs. in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	2
	IV.—United Provinces of Agra and Oudh—*concld.*																						
	Cawnpore	416	29·384	+·026	29·764	29·485	27th	29·244	30th	241	79·2	100·0§	−1·6§	69·2	−3·1	85·4§	−2·4	30·8	103·9	6th, 7th & 13th.	63·5	21st & 23rd.	4
	Lucknow	368	29·461‖	+·054	29·793	29·528	4th & 15th.	29·337	30th	·191	78·1	95·5	−6·9	69·3	−1·6	82·4	−4·3	26·2	104·0	6th & 7th	63·1	2nd, 19th & 21st.	4
	Bahraich	401	29·409‖	+·039‖	29·776‖	29·471	23rd	29·303	30th	·168	76·6	94·8	−4·8	68·5	−1·2	81·7	−3·0	26·3	103·6	7th & 11th	59·0	1st	4
11	Jhansi	824	28·995	+·002	29·781	29·085	15th	28·871	30th	·214	82·7	97·7	−6·5	74·5	−2·2	86·2	−4·4	23·2	103·5	30th	65·0	22nd & 23rd.	3
	Agra	556	29·250	+·015	29·772	29·335	4th	29·094	17th	·241	78·2	94·5	−8·1	71·1	−2·6	82·8	−5·4	23·4	101·0	12th	64·5	22nd	3
	Mainpuri	516	29·293	+·034	29·773	29·410	19th	29·141	17th	·269	77·8	96·4	−6·1	68·6	−1·9	82·5	−4·0	27·8	104·3	5 days	62·1	1st & 22nd.	4
	Bareilly	568	29·229	+·034	29·771	29·325	19th	29·102	30th	·223	75·4	92·5	−6·8	66·8	−2·1	79·7	−4·5	25·7	101·3	12th	61·5	2nd	3
	Meerut	738	29·046	+·015	29·760	29·131	23rd	28·901	30th	·230	75·4	93·0	−5·5	64·7	−3·4	78·9	−4·5	28·3	101·1	13th	59·3	1st	4
	Roorkee	899	28·905	+·038	29·787	29·020	22nd	28·770	30th	·259	74·0	91·7	−6·5	64·8	−1·7	78·2	−4·1	26·9	100·0	7th	59·9	4th	4
	Dehra Dun	2,233	27·583	+·011	29·792	27·667	22nd	27·459	30th	·208	70·0	87·6	−3·0	61·3	−3·0	74·5	−3·0	26·3	94·5	6th	58·5	23rd	3
	V.—Punjab.																						
12	Delhi	718	29·082	+·024	29·774	29·169	4th	28·930	17th	·239	76·7	93·0	−6·7	71·4	−2·1	82·2	−4·4	21·6	102·2	6th	63·2	20th	3
	Sirsa	662	29·131	+·018	29·767	29·231	4th	28·947	17th	·284	77·7	94·5	−6·6	67·0	−1·5	80·7	−4·1	27·5	104·3	12th	58·6	1st	4
	Patiala	*818*	28·991		29·788	29·080	22nd	28·841	17th	·239	75·8	90·7		66·2		78·5		24·5	99·4	13th	58·7	1st	4
	Ambala	892	28·905	+·032	29·778	28·999	22nd	28·756	30th	·243	74·8	92·0	−5·7	64·9‖	−1·3‖	78·2‖	−3·5	27·1	100·0	13th & 30th.	60·0	4th	4
	Ludhiana	812	28·981*	+·026*	29·777*	29·089	22nd	28·801	17th	·288	73·8	91·0	−6·4	66·7	−0·5	78·9	−3·5	24·3	100·0	13th	59·0	1st	4
	Lahore	702	29·084†	+·018†	29·770	29·207	23rd	28·911	17th	·296	73·7	91·7	−6·5	65·0	+0·7	78·4	−2·9	26·7	100·9	12th & 13th.	58·2	2nd	4
	Sialkot	830	28·969*	+·030*	29·788*	29·080	23rd	28·839	30th	·241	72·4	88·8	−6·4	62·9*	−3·4	75·8*	−4·9†	25·9	96·5	13th	54·5	3rd	4
	Rawalpindi	1,674	28·144*	+·018*	29·818*	28·248	4th	27·981	17th	·267	71·8	86·0	−2·4	60·0	+0·1	73·0	−1·2	26·0	93·9	13th	51·9	2nd	4
13	Khushab	612	29·198	+·030†	29·789	29·317	23rd	29·037	17th	·280	77·5	92·2*	−3·1*	68·6	+0·6	80·6*	−1·3	23·6	99·9	12th	60·9	22nd	3
	Montgomery	558	29·239	+·028	29·771	29·258	23rd	29·043	17th	·315	79·0	93·2	−6·9	67·4	−0·7	80·3	−3·8	25·8	100·4	11th, 12th & 18th.	59·6	1st	4
	Multan	420	29·390	+·018	29·781	29·499	5th	29·192	17th	·307	78·4	94·4	−4·6	70·3	+1·7	82·4	−1·5	24·1	102·3	12th	63·0	22nd	3
	VI.—North-West Frontier Province.																						
15	Peshawar	1,110	28·724	−·009	29·839	28·833	7th	28·576	17th	·257	72·1	86·2	−0·7	62·0	+1·2	74·1	+0·3	24·2	93·2	12th	55·9	1st	3
	D. I. Khan	590	29·235	+·007	29·785	29·345	14th	29·046	17th	·299	76·1	91·5	−3·0	66·7	+0·6	79·1	−1·2	24·8	98·4	12th	57·1	1st	4
	VII.—Sind.																						
17	Jacobabad	186	29·598	−·006	29·749	29·715	22nd	29·437	18th	·278	80·9	101·5	−1·6	72·7	+3·0	87·2	+0·7	28·8	109·1	20th	62·8	21st	
	Hyderabad	96	29·698	−·021	29·751	29·795	6th	29·526	19th	·269	81·1	96·0	−6·7	71·7	−0·6	83·9	−3·7	24·3	109·6	30th	64·0	22nd	
	Kurrachee	13	29·823	−·014	29·786	29·934	15th	29·650	19th	·284	78·9	85·8	−4·8	74·5	+1·4	80·1	−1·7	11·3	91·0	21st	70·5	2nd	
	VIII.—Rajputana.																						
18	Bikaner	*771*	29·005	−·008	29·751	29·124	5th	28·804	18th	·320	78·6	97·1	−4·2	71·6	−4·0	84·4	−4·1	25·5	107·1	30th	63·0	22nd	
	Jodhpur	782	29·021	−·020	29·790	29·123	5th	28·865	18th	·258	79·5	97·2	−4·1	71·8	−1·2	84·5	−2·7	25·4	105·5	30th	63·3	21st	
	Pachpadra	*380*	29·414	−·008	29·753	29·517	14th	29·218	20th	·299	81·3	99·5	−6·8	70·1	+0·5	84·7	−3·2	29·4	103·9	19th	61·8	3rd	
19	Jaipur	1,431	28·390	−·005	29·738	28·475	3rd	28·264	17th	·211	79·5	95·5	−6·2	69·7	−1·4	82·6	−3·8	25·8	102·7	17th	63·1	22nd & 23rd.	
	Sambhar	1,254	28·564	+·007	29·794	28·663	4th	28·429	18th	·234	77·3	95·9	−4·5	67·9	−3·2	82·0	−3·9	28·0	105·4	30th	60·9	2nd & 22nd.	
	Ajmer	1,611	28·219	−·012*	29·800*	28·320	4th	28·085	17th	·235	76·9	93·2	−6·1	72·5	+1·1	82·9	−2·5	20·7	100·4	30th	62·7	23rd	
	Kotah	819	28·969	−·014*	29·786*	29·063	5th	28·840	17th	·223	83·3	98·3	−4·3	74·9	−2·0	86·6	−3·2	23·4	107·0	30th	65·1	23rd	
	Udaipur	1,925	27·922	−·018	29·792	28·014	4th	27·792	20th	·222	80·7	94·6	−3·4	70·0	−1·7	82·3	−2·6	24·6	103·5	30th	62·3	9th	

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

* Mean of 29 days.
† „ „ 20 „
‖ „ „ 28 „
§ „ „ 21 „

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

continued.

ions in India, etc., in April, 1909—continued.

Wind direction. Number of winds from									Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 30th April 1909.	Normal rainfall for period, 1st Dec. to 30th April.	Departure from normal of period, 1st Dec. 1908 to 30th April 1909.	Heaviest rainfall during month.	Station
E.	S.E.	E.	S.W.	W.	N.W.																											
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																														IV.—United Provinces of Agra and Oudh—*concld.*
1	4	4		7	4	3	S 75° W	S 79° W	3·6	4·1	−0·5	13	− 6	52	+12	·490	+·025	1·4	+0·5	7	0·40	+6·60	3·71	0·03	+3·68	3·97	1·62	+ 2·35	0·85	Cawnpore.
1	8	4		3	4	3	S 57° E	N 81° W	3·6	4·0	−0·4	10	−10	60	+20	·553	+·108	2·4	+0·7	7	0·40	+6·60	7·39	0·04	+7·35	7·76	2·15	+ 5·61	5·10	Lucknow.
	8	3	1		1	1	S 81° E	N 55° E	4·7	4·1	+0·6	27	+21	54	+ 3	·487	−·063?	4·2	+2·7	2	0·80	+1·20	2·93	0·40	+2·53	3·92	3·24	+ 0·68	2·40	Bahraich.
5	1	3	4	9	1	1	S 12° W	S 87° W	6·5	3·6	+2·9	20	−10	52	+24	·585	+·221	2·8	+1·3	4	0·50	+3·50	1·45	0·12	+1·33	2·03	1·65	+ 0·38	0·72	Jhansi.
2		5	3	10	5	3	S 43° W	S 89° W	6·5	5·1	+1·4	46	+ 9	54	+19	·511	+·116	4·6	+3·4	4	0·40	+3·60	2·81	0·13	+2·68	4·09	1·50	+ 2·59	0·86	Agra.
	6	4	2	5	3	4	S 8° W	S 74° W	3·2	2·4	+0·8	13	− 1	59	+22	·556	+·155	0·9	−0·5	5	0·40	+4·60	1·70	0·18	+1·31	2·34	2·55	− 0·21	0·82	Mainpuri.
1	2	1					E	N 20° W	2·1	3·7	−1·6	11	+ 3	66	+21	·582	+·137	4·6	+3·2	4	0·45	+3·55	2·45	0·17	+2·28	3·47	3·05	+ 0·42	1·50	Bareilly.
3	2	1		1	3	1	N 10° E	N 81° W	1·7	2·5	−0·8	8	−12	56	+16	·480	+·083	3·3	+1·7	4	0·90	+3·10	2·12	0·19	+1·93	4·51	3·55	+ 0·96	1·10	Meerut.
		10		1		2	S 38° E	S 60° E	3·8	3·3	+0·5	27	+20	54	+13	·410	+·019	2·1	+0·5	5	1·10	+3·90	2·64	0·39	+2·25	4·51	4·69	− 0·18	0·90	Roorkee.
							(*a*)	N 43° W	1·6	2·3	−0·7			53	+ 7	·380	+·013	3·2	+0·5	8	1·50	+6·50	3·85	0·59	+3·26	7·23	6·92	+ 0·36	0·90	Dehra Dun.
																														V.—Punjab.
2	3	3	1	2	8	6	N 73° W	N 77° W	4·7*	3·9	+0·8	23	−14	59	+23	·523	+·153	3·6	+1·6	5	0·90	+4·10	4·14	0·21	+3·93	5·20	3·18	+ 2·02	1·61	Delhi.
3	6	2	3	2	1	1	S 76° E	N 28° W	4·3	5·4	−1·1	23	+21	53	+14	·487	+·095	2·1	−0·8	4	0·60	+3·40	3·07	0·26	+2·81	3·64	2·06	+ 1·58	1·65	Sirsa.
3	4	3	3		4	2	N 23° E		5·6			27		54		·472		3·2		4			2·25			5·71			1·00	Patiala.
1		5		1	1	11	N 45° W	N 18° W	5·3	3·1	+2·2	47	+18	54	+ 1	·458	−·017	3·1	+1·8	3	0·90	+2·10	1·44	0·31	+1·13	2·82	5·53	− 2·71	0·70	Ambala.
2		5				4	N 72° E	N 27° E	1·9	2·4	−0·5	7	0	53	+ 3	·438	+·007	2·4	−0·3	3	1·00	+2·00	2·74	0·71	+2·03	6·15	5·42	+ 0·73	1·13	Ludhiana.
3	4	5	1		1	6	N 43° E	N 31° E	2·9	3·2	−0·3	23	+ 3	61	+14	·511	+·092	3·2	+0·9	5	1·00	+4·00	2·46	0·42	+2·04	4·09	3·67	+ 0·42	1·12	Lahore.
7	3	1	1	1	2	3	N 18° E	N 20° E	2·0	2·8	−0·8	43	+10	65	+18	·519	+·083	1·9	−0·2	5	1·90	+3·10	1·40	0·80	+0·60	5·93	6·77	− 0·79	0·65	Sialkot.
3	3	1	2	2		1	N 61° E	N 30° W	4·4	3·1	+1·3	13	−16	57	+ 1	·412	+ 0·0	2·8	−0·3	3	3·20	−0·20	1·19	1·70	−0·51	7·40	9·31	− 1·91	0·76	Rawalpindi.
7	7	3		3	1	1	N 71° E	N 37° E	6·6	6·7	−0·1	33	− 4	48	+ 6	·447	+·045	1·8	−1·0	4	1·50	+2·50	1·32	0·62	+0·70	3·52	3·80	− 0·28	0·80	Khushab.
5	7	3	2	1	1	2	N 78° E	S 83° E	6·1	6·3	−0·2	33	+ 7	44	+ 6	·419	+·006	2·4	+0·2	3	0·70	+2·30	2·09	0·13	+1·96	2·63	2·41	+ 0·22	0·94	Montgomery.
1	1	5				1	N 35° E	N 51° E	2·1	2·2	−0·1	33	+10	51	+ 3	·476	+·005	2·7	+1·1	4	0·70	+3·30	1·50	0·10	+1·40	2·31	1·56	+ 0·75	0·70	Multan.
																														VI.—North-West Frontier Province.
3	1	1	2	1	5	1	N 38° W	S 54° W	2·0	4·0	−2·0	13	+ 3	60	− 2	·481	+·012	3·2	−0·2	5	3·40	+1·60	2·11	1·75	+0·39	5·87	6·94	−1·07	0·60	Peshawar.
7		4				7	N 20° E	N 5° E	2·6	2·4	+0·2	27	− 6	59	+ 5	523	+·037	1·7	−0·4	2	1·90	+0·10	0·61	0·70	−0·09	1·98	3·03	−1·05	0·33	D. I. Khan.
																														VII.—Sind.
9	1			1		9	N 1° E	N 88° E	5·9	4·2	+1·7	72	+45	45	+ 7	·469	+·048	3·6	+1·7	2	0·40	+1·60	0·36	0·15	+0·21	0·82	1·00	−0·18	0·18	Jacobabad.
2		2	3	13	1	2	S 48° W	S 48° W	6·9	10·8	−3·9	41	−17	54	+ 6	·571	+·060	1·7	+0·1	0	0·20	−0·20	0	0·04	−0·04	0·13	0·71	− 0·58	0	Hyderabad.
3	1	1		1	16	6	N 71° W	N 89° W	13·1	13·2	−0·1	59	− 2	78	0	·759	−·034	2·2	0	0	0·20	−0·20	0	0·25	−0·25	0·69	1·54	− 0·85	0	Kurrachee.
																														VIII.—Rajputana.
3	6	4	3	5	3	2	S 39° E	S 51° W	6·3	5·9	+0·4	17	− 5	50	+14	·491	+·082	3·7	+1·9	3	0·30	+2·70	0·76	0·11	+0·65	1·14	1·12	+ 0·02	0·38	Bikaner.
4	1	2	4	9	2		S 24° W		4·3			27		46	+19	·456		4·2		3	0·20	+2·80	0·99	0·05	+0·94	1·46	0·55	+ 0·91	0·52	Jodhpur.
1	2	2	5	6	3	2	S 35° W		5·2	6·3	−1·1	21		48	+ 3	·514	+·026	0·7	−1·2	1	0·20	+0·80	0·78	0·04	+0·74	1·0	0·73	+ 0·30	0·72	Pachpadra.
9	5	2	1	1		5	N 36° E	N 31° W	4·8‡	5·0	−0·2	49	+15	48	+13	·460	+·067	4·2	+2·1	5	0·40	+4·60	2·48	0·07	+2·41	2·	1·37	+ 1·39	0·70	Jaipur.
3	5	1	2	1	3	2	N 41° E	N 49° W	6·4	6·9	−0·5	13	−20	51	+16	·463	+·086	3·7	+2·1	5	0·30	+4·70	1·12	0·09	+1·03	1·51	1·29	+ 0·22	0·39	Sambhar.
3	1		2	3	3	2	S 80° W	W	6·2	5·8	+0·4	10	−21	56	+19	·511	+·088	2·9	+1·4	5	0·50	+4·50	2·80	0·11	+2·69	2·21	1·22	+ 1·99	1·50	Ajmer.
2	2	3	1	2	2	8	N 26° W		3·8			30		45	+23	·485		3·2		4	0·30	+3·70	2·18	0·34	+1·84	2·38	1·16	+ 1·22	0·78	Kotah.
	1	1	1	3	9	2	S 88° W		4·2			36		50	+12	·519		2·4		3	0·30	+2·70	2·14	0·09	+2·05	2·14	0·60	+ 1·54	1·61	Udaipur.

* Plateau stations, the elevations of which exceed 3,200 feet.

‡ Uncorrected for scale error.

(*a*) Indeterminate.

T

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

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	IX.—Bombay.																					
20	Deesa	466	29·368	−·020	29·791	29·478	15th	29·205	20th	·273	81·3	101·0	−3·2	71·8	+0·1	86·4	−1·6	29·2	111·3	30th	65·4	21st
	Bhuj	395	29·454	−·002	29·804	29·559	15th	29·288	20th	·271	79·9	97·8	−3·2	71·9	+0·4	84·8	−1·4	25·9	107·5	30th	67·0	14th
	Jamnagar	61	29·802		29·808	29·917	15th	29·640	20th	·277	82·1	93·9		72·4		83·1		21·5	99·7	19th	68·4	14th
	Dwarka	37?	29·842		29·825	29·956	15th	29·679	20th	·277	80·3	84·5		76·9		80·7		7·6	88·3	30th	74·2	3rd, 4th & 7th.
	Rajkot	429	29·436	−·010	29·820	29·534	15th	29·283	20th	·251	79·9	99·2	−3·6	69·9	+0·5	84·5	−1·6	29·3	106·9	30th	65·0	21st
	Veraval	*18*	29·876‡	+·018‡	29·836‡	29·965	15th	29·734	20th	·231	78·1	84·7	−3·0	73·3	+0·8	79·0	−1·1	11·4	89·7	25th & 30th.	68·8	14th & 16th.
	Bhavnagar Para	55	29·819	−·021	29·818	29·915	15th	29·687	20th	·228	81·1	100·0	−0·8?	73·0	−1·7	86·4	−1·3?	27·0	108·2	30th	68·0	2nd
	Surat	39	29·835	−·016	29·819	29·922	15th	29·707	20th	·215	81·7	94·7	−5·4	73·8	+1·5	84·3	−2·0	20·9	102·6	15th	70·1	1st, 5th, & 13th.
	Ahmedabad	163	29·649§	−·017§	29·762§	29·704	23rd	29·553	20th	·151	81·5	101·7	−3·7	74·6	−0·6	88·1	−2·2	27·1	110·6	30th	71·7	2nd & 20th.
26	Bombay	37	29·864	−·003	29·841	29·943	15th	29·751	20th	·192	80·3	88·7	+0·2	76·8	−0·9	82·8	−0·4	11·9	91·0	25th	73·5	3rd & 4th.
	Ratnagiri	110	29·785	+·004	29·834	29·871	15th	29·693	20th	·173	81·7	88·8	−1·3	75·2	−2·2	82·0	−1·8	13·6	90·3	2nd & 4th.	70·4	3rd &
	Goa	199	29·690†	−·024†	29·827†	29·760	15th	29·605	20th	·155	80·6	86·5†	−2·7†	77·5	−1·4	81·9†	−2·1	9·0	88·1	5th	73·1	23rd
	Mormugao	*60*	29·841	+·001	29·836	29·920	15th	29·755	20th	·165	82·6	87·9	−2·2	77·3	−2·7	82·6	−2·5	10·6	90·0	20th & 21st.	73·7	3rd
	Karwar	44	29·871	+·011	29·849	29·942	15th	29·787	20th	·155	79·2	89·5	−0·5	75·0	−2·9	82·2	−1·7	14·5	90·8	2nd & 5th.	70·5	5th
27	Malegaon	1,430	28·434	−·012	29·814	28·518	4th	28·333	20th	·185	82·2	100·5	−2·7	68·6	−3·2	84·6	−3·0	31·9	107·4	29th	60·1	4th
	Ahmednagar	2,154	27·759‖	+·015?‖	29·852‖	27·826	10th	27·658	20th	·168	80·1	98·7	−0·3?	66·5†	−3·1†	82·7†	−1·7?	32·2	105·4	30th	58·0	17th
	Poona	1,846	28·054	−·002	29·860	28·142	4th	27·955	20th	·187	75·5	97·4	−4·2	66·1	−3·6	81·8	−3·9	31·3	104·0	30th	60·3	4th & 5th
	Sholapur	1,590	28·277	−·008	29·810	28·355	4th	28·185	20th	·170	82·1	101·5	−3·3	74·6	−0·9	88·1	−2·1	26·9	106·8	30th	68·9	4th
	Bijapur	*1,948*	27·933†	−·001†	29·813†	28·001	15th	27·850	20th	·151	81·2	99·3	−0·5	72·4†	−2·4†	85·8†	−1·5	26·9	105·7	30th	66·7	18th
	Belgaum	2,539	27·362	−·003	29·826	27·434	15th	27·276	20th	·158	76·3	94·5	−1·5	64·6	−2·9	79·6	−2·2	29·9	102·3	30th	60·6	23rd
	X.—Central India.																					
21	Neemuch	1,624	28·203	−·018	29·789	28·291	4th	28·087	19th	·204	79·1	94·0	−6·9	69·9	−1·4	82·0	−4·2	24·1	102·0	30th	61·3	23rd
	Indore	1,823	28·044?	+·012?	29·814?	28·128	4th	27·926	20th	·202	81·3	96·1	−4·5	69·6	−0·1	82·9	−2·3	26·5	103·6	30th	62·1	23rd
22	Nowgong	754	29·056	+·005	29·773	29·154	4th	28·936	17th	·218	79·5	95·8	−7·6	71·5	+0·1	83·6	−3·8	24·3	101·5	17th	63·5	23rd
	Sutna	1,040	28·761	0	29·769	28·834	4th	28·645	30th	·209	80·2	95·6	−6·1	72·1	+0·5	83·9	−2·8	23·5	101·0	9th, 14th & 30th.	65·2	24th
	XI.—Central Provinces.																					
23	Buldana	2,132	27·756		29·820	27·838	1st	27·653	20th	·185	80·2	96·3		72·9		84·6		23·4	102·7	30th	65·5	4th
	Akola	930	28·920	+·006	29·801	29·017	4th	28·818	18th	·199	84·3	102·5	−3·5	73·8	−1·0	88·2	−2·3	28·7	109·7	30th	60·6	3rd
	Amraoti	1,215	28·631	+·009	29·794	28·720	3rd	28·519	18th	·201	83·4	100·7	−4·3	73·6	−2·7	87·2	−3·5	27·1	107·8	30th	64·8	22nd
24	Khandwa	1,044	28·794	−·006	29·796	28·880	4th	28·682	20th	·198	82·1	101·7	−3·1	74·8	−0·5	88·2	−1·8	26·9	107·2	30th	65·1	22nd
	Hoshangabad	1,006	28·830	−·006	29·797	28·921	4th	28·708	20th	·213	81·9	99·8	−5·0	72·3	−1·5	86·0	−3·3	27·5	105·1	28th	62·9	22nd
	Saugor	1,807	28·020	−·011	29·776	28·098	3rd & 4th.	27·915	17th	·183	80·4	94·8	−6·7	71·1	−1·7	83·0	−4·2	23·7	102·1	30th	54·5	22nd
	Jubbulpore	1,327	28·499	+·002	29·793	28·591	4th	28·404	30th	·187	77·5	94·9	−7·1	69·1	−1·5	82·0	−4·3	25·8	101·0	30th	63·3	2nd & 22nd.
	Seoni	2,033	27·830	+·007	29·815	27·915	4th	27·736	18th	·179	77·3	92·9	−8·2	62·8¶	?	77·6¶	?	30·1	99·0	30th	57·4	1st & 2nd
	Nagpur	1,017	28·824	+·014	29·802	28·905	3rd	28·715	18th	·190	79·5	97·9	−7·6	71·2	−5·0	84·3	−6·3	26·7	105·6	30th	61·6	1st
25	Pendra	2,123?	27·832		29·819	27·925	4th	27·739	30th	·186	76·0	89·5		67·1		78·3†		22·4	96·8	9th & 12th	59·2	23rd
	Raipur	970	28·876	+·024	29·809	28·971	22nd	28·779	18th	·192	76·4	91·5†	−9·8†	71·5	−5·4	83·1†	−7·6	23·0	100·7	9th	61·6	22nd
	Chanda	*634*	29·204	+·005	29·783	29·293	4th	29·092	18th	·201	83·5	99·5	−7·0	73·7	−2·7	86·6	−4·9	25·8	106·0	28th & 30th.	66·5	17th

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

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

‡ Mean of 28 days. § Mean of 12 days. ‖ Mean of 25 days. ¶ Mean of 26 days.

continued.

ions in India, etc., in April, 1909—continued.

Wind direction. Number of winds from N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs., in inches of mercury.	Departure from normal, in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 30th April 1909.	Normal rainfall for period, 1st Dec. to 30th April.	Departure from normal of period, 1st Dec. 1908 to 30th April 1909.	Heaviest rainfall during month.	Station.
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																														IX.—Bombay.
3		1	5	7	5	3	S 75° W	N 88° W	9·6*†	9·1	+0·5	30	0	55	+15	·584	+·127	2·3	+1·1	1	0	+1·00	0·12	0·01	+0·11	0·12	0·34	−0·22	0·12	Deesa.
3				5	11	8	N 74° W	N 75° W	11·4	11·6	−0·2	59	−18	68	+13	·691	+·081	2·7	+1·7	0	0	0	0·09	0·12	−0·03	0·40	0·41	−0·01	0·09	Bhuj.
1				13	10	5	S 80° W		17·1			75		66		·718		1·4		0			0			0·23			0	Jamnagar.
			4	8	12	4	S 74° W		12·2			69		81		·841		2·2		0		0	0			0·12			0	Dwarka.
			1	7	13	5	N 88° W	N 66° W	11·4	10·4	+1·0	69	−4	66	+1	·667	−·003	1·9	+0·8	1	0	+1·00	0·38	0·01	+0·37	0·70	0·18	+0·52	0·34	Rajkot.
1					6	6	N 26° W	N 47° W	10·5	8·4	+2·1	72	+9	72	0	·637	−·037	1·6	−1·0	0	0	0	0	0	0	0	0·10	−0·10	0	Veraval.
				7	4	17	N 65° W	S 66° W	9·4	10·6	−1·2	75	+8	60	−2	·630	−·071	1·6	0	2	0	+2·00	1·49	0·01	+1·48	2·14	0·30	+1·84	1·05	Bhavnagar Para.
	2	11	7	2	3		S 29° W	S 61° W	6·2	7·4	−1·2	53	+13	69	+4	·750	+·011	1·6	−0·1	0	0	0	0·04	0	+0·04	0·06	0·14	−0·08	0·04	Surat.
1	2	3	8	2	11		S 87° W	N 45° W	5·3	4·7	+0·6	43	+2	56	+9	·592	+·050	1·6	+0·1	0	0·10	−0·10	0·09	0	+0·09	0·16	0·30	−0·14	0·08	Ahmedabad.
8	8	2	2	4	3		N 44° E	N 33° E	8·6*	10·6	−2·0	27	+17	76	+1	·798	−·034	3·1	0	0	0·10	−0·10	0	0·07	−·007	0	0·27	−0·27	0	Bombay.
5	2				5		N 6° E	N 81° W	11·2	8·4	+2·8	62	+42	67	−4	·717	−·095	0·8	−2·2	0	0·10	−0·10	0	0·08	−0·08	0	0·32	−0·32	0	Ratnagiri.
7	4	1	1	5	3		N 4° E	N 29° E	8·2	6·9	+1·3	46	+32	83	+9	·863	−·003	2·3	−1·1	0			0	0·32	−0·32	0	0·63	−0·63	0	Goa.
7	1				8		N 1° E	N 5° W	12·7*	8·5	+4·2	75	+71	73	−2	·813	−·074	2·7	−1·1	0			0·02	1·04	−1·02	0·02	1·09	−1·07	0·02	Mormugao.
2		1	1		1		N	N 9° W	6·4*	4·8	+1·6	61	+18	74	−4	·748	−·082	2·0	−1·3	0	0·90	−0·90	0	0·55	−0·55	0	0·73	−0·73	0	Karwar.
		1	1	7	5		N 81° W	N 69° W	9·2	9·5	−0·3	37	−26	34	−19?	·370	−·281?	0·1	−1·9	1	0·30	+0·70	0·46	0·10	+0·36	0·69	0·54	+0·15	0·46	Malegaon.
	1	1	4	2	18		N 52° W	N 1° E	8·4	10·6	−2·2	66	+18	34	−21?	·350	−·281?	0·1	−1·5	1	0·60	+0·40	0·11	0·33	−0·22	0·11	1·56	−1·45	0·11	Ahmednagar.
	2	1		10	10		N 66° W	N 83° W	11·7*	10·6	+1·1	49	−8	50†	+9	·437†	+·011?	1·1	−0·8	0	1·40	−1·40	0	0·68	−0·68	0	1·01	−1·01	0	Poona.
2	3	2		1	19		N 31° W	N 45° W	9·5	8·8	+0·7	56	+33	40	+1	·431	−·038	0·5	−2·1	0	1·10	−1·10	0·02	0·43	−0·41	0·14	1·22	−1·08	0·02	Sholapur.
1	3	1	2	2	6	7	N 40° W	N 82° W	8·0	5·6	+2·4	43	−15	43	−17	·450	−·208?	0·5	−1·8	1	2·20	−1·20	0·33	0·80	−0·47	1·23	1·39	−0·16	0·22	Bijapur.
	3	4		5	9	3	S 70° W	S 83° W	13·7*	13·1	+0·6	30	+2	48	−14	·426	−·138	0·8	−1·7	0	3·80	−3·80	0	1·90	−1·90	0·24	2·52	−2·28	0	Belgaum.
																														X.—Central India.
2	2	2		5	9	1	N 58° W	N 51° W	7·0	8·7	−1·7	30	+8	48	+13	·467	+·045	2·0	+0·7	2	0·10	+1·90	1·15	0·09	+1·06	1·15	0·79	+0·36	0·75	Neemuch.
1	1	1	2	3	9	4	N 81° W	N 45° W	5·0	4·4	+0·6	40	−10	46	+7	·489	+·031	2·1	+0·7	2	0·20	+1·80	0·60	0·13	+0·47	0·65	0·68	−0·03	0·40	Indore.
	6	3	4	5	8	1	S 28° W	S 75° W	3·2	3·1	+0·1	30	−7	54	+16	·559	+·116?	4·3	+3·1	5	0·10	+4·90	3·50	0·05	+3·45	4·10	2·01	+2·09	1·60	Nowgong.
1	3	2		3	12	8	N 79° W	N 55° W	4·3	6·7	−2·4	49	+9	53	+27	·526	+·210	6·8	+5·8	2	0·20	+1·80	1·61	0·11	+1·50	2·91	2·54	+0·37	1·04	Sutna.
																														XI.—Central Provinces.
	1	1	1	1	12	12	N 71° W		7·3	9·0	−1·7	70		35		·364		1·1		1			0·44	0·28	+0·16	0·53	1·54	−1·01	0·39	Buldana.
2		3		2	8	11	N 60° W	N 67° W	6·4	5·9	+0·5	53	0	34	+4	·396	+·018?	1·7	−0·2	0	0·50	−0·50	0·06	0·20	−0·14	1·28	1·88	−0·60	0·03	Akola.
3	2	6		4	1	5	S 68° E	S 69° W	6·2	5·4	+0·8	3	−27	44	+9	·494	+·051	1·6	−0·5	1	0·80	+0·20	0·20	0·23	−0·03	1·31	1·68	−0·37	0·10	Amraoti.
	2	2		2	10	9	N 69° W	N 68° W	8·2	6·5	+1·7	49	−14	34	+4	·374	+·018?	1·7	+0·3	0	0·30	−0·30	0·05	0·13	−0·08	0·05	0·99	−0·94	0·03	Khandwa.
4	7			4	3	1	N 78° E	S 48° W	3·6	3·0	+0·6	10	−7	43	+5	·467	+·021	2·7	+1·0	1	0·30	+0·70	0·25	0·15	+0·10	2·03	1·39	+0·64	0·17	Hoshangabad
1	1	10	7	5	4	1	S 2° E	S 53° W	7·6	4·6	+3·0	53	+36	43	+13	·420	+·069	3·5	+2·2	4	0·30	+3·70	2·20	0·09	+2·11	2·99	2·13	+0·86	0·92	Saugor.
1		11	11	2	1		S 18° E	S 18° W	3·3	3·3	0	62	+29	53	+18	·489	+·099	2·0	+0·4	4	0·60	+3·40	2·19	0·15	+2·04	4·31	2·19	+2·12	0·58	Jubbulpore.
2	2	4	8	7	2		S 3° W	S 86° W	7·1†	3·9	+3·2	43	+34	53	+14	·482	+·038	2·7	+0·6	5	1·30	+3·70	3·18	0·39	+2·79	4·69	2·91	+1·78	0·79	Seoni.
7	5	5	3	2	1	1	N 86° E	N 83° W	3·9	6·0	−2·1	33	+25	55	+19	·554	+·087	2·3	−0·2	6	1·10	+4·90	3·43	0·48	+2·95	4·44	2·25	+2·19	1·31	Nagpur.
1		2	11	6	2	2	S 24° W		6·2			46		52		·454		3·7		11			5·49			9·20			1·20	Pendra.
3	5	5	3	5	1	2	S 53° E	S 56° W	7·6	6·3	+1·3	23	−14	61	+24	·545	+·089	3·4	+0·9	8	1·40	+6·60	5·16	0·53	+4·63	5·93	1·98	+3·95	1·51	Raipur.
1	1	7	10	6	2		S 1° E	S 52° E	5·1	3·6	+1·5	58	+39	54	+9	·619	+·066	2·7	+0·3	4	1·80	+2·20	1·85	0·59	+1·26	2·90	2·91	−0·01	0·97	Chanda.

* Uncorrected for scale error.

† Mean of 29 days.

Ta

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

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	XII.—Hyderabad.																					
28	Aurangabad	1,905	27·973?	*−·030?	*29·817?	28·054	3rd	27·891	20th	·163	81·3	99·1	−3·5	69·9	−3·1	84·5	−3·3	29·2	105·2	30th	62·2	4th
	Nizamabad	1,260	28·598†	−0·11?	29·803†	28·691	4th	28·514	19th	·177	84·1	101·8	−1·2	75·5	−1·0	88·6	−1·1	26·3	106·9	29th & 30th.	68·7	12th
	Bidar	*2,165*	27·724		29·813	27·820	4th	27·616	20th	·204	82·0	96·0		66·5		82·2		27·5	103·5	30th	60·5	3rd
29	Gulbarga†	1,503	28·363	−·007	29·807	28·456	4th	28·276	20th	·180	82·8	101·0	−2·2	75·1	−1·0	88·1	−1·6	25·9	108·0	30th	69·3	4th
	Raichur	*1,311*	28·549	+·003	29·801	28·666	3rd	28·469	20th	·197	83·6	100·0	−2·1	76·9*	−2·3*	88·5*	−2·2	23·1	105·6	30th	70·6	12th
	Hyderabad (Deccan)	1,690	28·184	+	29·819	28·303	3rd	28·062	20th	·211	80·2	97·9	−4·1	74·0	−1·3	85·9	−2·7	23·9	104·3	20th	63·7	9th
	Hanumkonda	871	28·990	+·005	29·808	29·085	4th & 15th.	28·869	20th	·216	81·6	98·4	−3·1	76·0	−0·9	87·2	−2·0	22·4	103·0	29th	69·7	3rd
	XIII.—Mysore.																					
30	Chitaldroog	2,405	27·509	−·003	29·835	27·565	15th	27·437	20th	·128	78·6	96·0	+0·2	71·9	+0·1	84·0	+0·2	24·1	100·6	30th	65·9	19th
	Hassan	3,149	26·822	+·011	29·874	26·873	15th	26·757	20th	·116	73·8	91·9	+0·8	66·3	−0·1	79·1	+0·4	25·6	94·3	30th	60·1	19th
	Bangalore	3,021	26·930	−·012	29·853	26·985	15th	26·865	20th	·120	75·0	92·4	−0·8	68·9	−0·3	80·7	−0·6	23·5	95·8	1st & 2nd	62·3	11th
	Mysore	2,518	27·422	−·002	29·871	27·478	15th	27·367	20th	·111	75·6	92·5	−1·5	69·0	−1·3	80·8	−1·4	23·5	95·5	17th	62·5	3rd
	XIV.—Madras.																					
31	Mangalore	65	29·834	−·011	29·831	29·889	15th	29·768	20th	·121	83·9	90·2	−0·9	78·6	−0·1	84·3	−0·5	11·6	91·7	15th	73·4	19th
	Calicut	27	29·875	−·007	29·831	29·929	15th	29·818	20th	·111	83·7	90·8	−0·5	78·1	+0·2	84·5	−0·2	12·7	93·3	24th	73·1	3rd
	Cochin	9	29·901	0	29·838	29·960	15th	29·841	21st	·119	83·3	91·1	−0·4	77·5	−0·9	84·3	−0·7	13·6	92·7	14th	73·7	8th
	Trivandrum	198	29·692	−·003	29·821	29·767	15th	29·642	20th	·125	82·1	87·8	+0·3	78·5	+2·2	83·2	+1·3	9·3	92·0	22nd	75·5	11th
32	Tinnevelly	168	29·728	+·007	29·825	29·811	15th	29·659	20th	·152	84·7	99·2	+1·2	77·8	−0·8	88·5	+0·2	21·4	102·2	28th	71·4	9th
	Pamban	37	29·853	−·005	29·817	29·930	15th	29·771	20th	·159	81·5	91·9	+1·0	79·8	+0·8	85·9	+0·9	12·1	93·7	24th & 30th.	72·5	4th
	Madura	447	29·454	+·010	29·837	29·530	15th	29·385	20th	·145	83·3	96·8	−2·5	75·7	−0·7	86·3	−1·6	21·1	99·4	1st	67·1	13th
	Periyakulam	944	28·953		29·837	29·009	5th	28·886	20th	·123	80·2	95·1		73·5		84·3		21·6	99·3	3rd & 19th	68·8	13th
	Pudukkottai	318	29·579		29·829	29·653	15th	29·508	20th	·145	83·5	98·6		77·6		88·2		21·0	102·5	18th	68·7	11th
	Negapatam	31	29·852	−·016	29·812	29·931	15th	29·777	20th	·154	85·6	95·0	+2·5	79·4	+0·4	87·2	+1·5	15·6	100·4	18th	73·0	7th
	Trichinopoly	255	29·645	+·001	29·832	29·721	15th	29·575	20th	·146	85·6	100·2	−0·9	77·8	+0·3	89·0	−0·3	22·4	103·6	21st	72·3	27th
	Coimbatore	1,348	28·548	−·009	29·846	28·607	11th	28·478	20th	·129	78·3	96·0	−1·4	72·7	−0·7	84·4	−1·1	23·3	98·9	1st, 3rd & 24th.	68·3	3rd
	Salem	940	28·932	−·004	29·863	29·060	5th	28·909	20th	·151	82·0	98·8	−1·9	76·3	+0·5	87·6	−0·7	22·5	102·0	1st 2nd, 3rd & 4th.	69·4	6th
	Cuddalore	37	29·857	+·002	29·823	29·933	15th	29·777	20th	·156	84·8	93·5	+0·7	78·2	+1·4	85·8	+1·1	15·3	99·1	28th	73·7	2nd
	Vellore	707	29·185		29·833	29·268	15th	29·094	20th	·174	82·1	97·6		75·9		86·8		21·7	102·2	18th & 19th.	68·5	1st
	Madras	22	29·869	−·008	29·822	29·961	15th	29·782	20th	·179	83·7	92·0	−1·1	77·2	+0·1	84·6	−0·5	14·8	98·0	28th	68·5	13th
33	Cuddapah	433	29·416	+·011	29·815	29·528	15th	29·363	20th	·165	85·4	102·3	−2·9	77·2	−3·6	89·7	−3·3	25·1	106·2	18th & 20th.	69·6	17th
	Bellary	1,475	28·401†	+·002†	29·817†	28·463	4th	28·337	30th	·126	82·6	101·9	−1·5	76·2	−0·9	89·1	−1·2	25·7	111·0	30th	70·3	12th
	Kurnool	923	28·943	+·001	29·807	29·023	3rd	28·868	20th	·155	83·1	101·7	−1·9	77·3	−0·7	89·6	−1·3	24·4	106·2	30th	71·6	9th
34	Nellore	66	29·804*	+·003*	29·801*	29·903	15th	29·705	20th	·198	83·7	97·0	−3·9	77·3	−0·1	87·2	−2·0	19·7	103·8	26th	71·1	12th, 13th & 25th.
	Masulipatam	15	29·889	+·022?	29·838	29·953	3rd	29.793	20th	·160	85·1	92·8	−2·1	78·0	+0·5	85·4	−0·8	14·8	99·8	1st	72·1	12th
	Cocanada	26	29·871	+·008	29·833	29·931	15th	29·772	18th	·159	81·7	88·4	−7·2?	76·7	−1·6	82·6	−4·4?	11·7	93·2	9th	69·5	21st
	Waltair (Vizagapatam).	*226*	29·666	+·019	29·834	29·719	4th	29·601	18th & 30th.	·118	82·0	87·5		76·9		82·2		10·6	98·6	1st	70·9	21st & 24th.
	Calingapatam	19	29·876		29·835	29·944	15th	29·800	30th	·144												
	Gopalpur	72	29·806	+·041	29·820	29·883	4th	29·704	30th	·179	80·3	88·6	+0·9	74·8	−2·7	81·7	−0·9	1·38	96·7	1st	68·5	17th & 28th.

* Mean of 28 days.
† " " 29 "

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

—continued.

ations in India, etc., in April, 1909—continued.

Wind direction. Number of winds from N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction (34)	Normal direction (35)	Wind velocity. Mean velocity, miles per hour (36)	Normal (37)	Departure from normal (38)	Wind steadiness. Actual percentage (39)	Departure from normal (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal (42)	Mean vapour tension at 8 hrs. in inches of mercury (43)	Departure from normal in inches of mercury (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal (46)	Rainfall. Number of rainy days (47)	Normal number of rainy days (48)	Departure from normal (49)	Rainfall of month (50)	Normal rainfall of month (51)	Departure from normal (52)	Total rainfall from 1st Dec. 1908 to 30th April 1909 (53)	Normal rainfall for period, 1st Dec. to 30th April (54)	Departure from normal of period, 1st Dec. 1908 to 30th April 1909 (55)	Heaviest rainfall during month (56)	Station (57)
																															XII.—Hyderabad.
3	3	3	3	1	2	2	11	N 26° W		12·9			30		37	+ 8	·390		0·5		0	0·60	−0·60	0	0·28	−0·28	0·82	1·29	−0·47	0	Aurangabad.
	2		2	2	8		1	S 27° W		5·0			30		45†	− 8	·517†		2·0		4	1·40	+2·60	0·80	1·03	−0·23	1·50	2·31	−0·81	0·22	Nizamabad.
2	2		4	1	7		2	S 27° W		5·8			17		49		·533		0·9		5	2·60	+2·40	2·56	0·98	+1·58	3·16	2·20	+0·96	0·91	Bidar.
2	3	7	2	4	2	4	3	S 79° E	N 78° W	9·4	9·0	+0·4	10	+ 3	48	− 2	·536	−·047	0·7	−1·8	2	2·20	−0·20	0·44	1·05	−0·61	0·95	1·93	−0·98	0·25	Gulbarga.
2	1	1	9	2	6	1	8	S 34° W	S 58° W	3·4	8·5	−5·1	17	−25	55	+ 2	·535	0	2·1	−0·6	1	1·20	−0·20	0·40	0·66	−0·26	0·51	1·34	−0·83	0·25	Raichur.
	1				1			(a)	S 72° W	4·1	4·5	−0·4			55	− 1	·567	−·068	3·1	+0·9	3			2·45	0·67	+1·78	2·50	1·63	+0·87	1·93	Hyderabad (Dn.)
1		2	16	7	1	1	1	S 32° E		10·2*			68		65	+ 1	·700		4·9		3	1·30	+1·70	0·62	1·25	−0·63	0·66	2·29	−1·63	0·28	Hanumkonda
																															XIII.—Mysore.
				1	10	12	3	S 74° W	S 70° W	5·4	6·7	−1·3	72	+ 9	56	− 7	·539	−·089	1·1	−1·8	1	2·50	−1·50	0·19	1·97	−1·78	1·46	2·48	−1·02	0·12	Chitaldroog.
1	1	2	1	1	3	10	5	N 85° E	S 82° W	6·7	3·4	+3·3	40	+11	71	− 2	·590	−·015	2·5	−1·9	5	4·80	+0·20	1·27	3·10	−1·83	1·90	3·72	−1·82	0·46	Hassan.
			2	9	9	6	2	S 39° W	S 41° W	6·2	4·8	+1·4	62	+ 8	72	0	·630	−·019	1·7	−1·6	7	2·40	+4·60	5·00	1·26	+3·74	5·80	2·45	+3·35	2·58	Bangalore.
1			2	2	8	9	2	S 65° W	S 68° W	6·6	7·9	−1·3	53	+ 1	69	− 5	·613	−·057	3·2	−1·2	7	4·30	+2·70	5·82	3·00	+2·82	7·26	3·62	+3·64	3·07	Mysore.
																															XIV.—Madras.
4	7	6		1			2	N 46° E	N 60° E	5·5‡	3·2	+2·3	46	+16	68	− 8	·797	−·066	2·3	−2·2	0	2·30	−2·30	0	1·65	−1·65	0·21	2·25	−2·04	0	Mangalore.
2			1	1	1	1	17	N 49° W	N 15° E	8·4	1·3	−1·9	59	+26	75	− 3	·863	−·008	1·7	−3·2	0	5·10	−5·10	0·17	4·38	−4·21	4·94	6·27	−1·33	0·06	Calicut.
1	16	11	1					N 63° E	N 27° E	7·6‡	6·0	+1·6	82	+22	74	− 5	·841	−·050	2·6	−1·9	6	7·00	−1·00	4·01	5·20	−1·19	8·49	10·42	−1·93	1·18	Cochin.
9	2					1	13	N 24° W	N 4° E	5·0	5·9	−0·9	72	+20	78	− 1	·854	−·007	3·0	−1·3	5	7·10	−2·10	2·99	4·74	−1·75	10·71	10·03	+0·68	1·14	Trivandrum.
5	4				3	5	6	N 41° W	N 48° W	4·4	4·6	−0·2	46	−12	67	− 4	·800	−·037	2·7	−2·1	4	3·70	+0·30	4·32	3·28	+1·54	9·71	10·56	−0·85	2·78	Tinnevelly.
	1	6	8	8	2	1	2	S 34° E	S 38° E	6·2	7·3	−1·1	53	+ 7	79	+ 1	·928		3·7		2	3·30	−1·30	0·43	2·40	−1·97	12·94	15·49	−2·55	0·21	Pamban.
5	3	2	1	2		6	7	N 33° W	N 41° E	4·8	3·1	+1·7	37	+11	73	+ 2	·824	−·009	5·1	+1·1	6	3·30	+2·70	6·78	2·25	+4·53	11·06	5·34	+5·72	4·27	Madura.
								(a)		2·0					69		·709		1·1		11	4·70	+6·30	7·25	2·69	+4·56	13·83	7·58	+6·31	1·48	Periyakulam.
4	5	1			6	4	3	N 50° W		7·6			27		74		·852		5·4		4			2·54			7·29			1·17	Pudukkottai.
	4		6	4	8	2	3	S 18° W	S 6° E	10·4	6·9	+3·5	30	0	70	− 5	·867	−·041	3·6	−0·9	1	1·20	−0·20	0·27	0·56	−0·29	11·16	15·82	−4·66	0·26	Negapatam.
2	1	5	2		5	6	2	S 78° W	S 34° W	3·4‡	5·4	−2·0	13	− 4	64	− 4	·780	−·024	4·1	−0·1	1	2·10	−1·10	1·36	2·06	−0·70	8·78	6·29	+2·49	1·33	Trichinopoly.
	5		2	3	2	1	1	S 49° E	S 1° W	3·1	3·0	+0·1	10	− 5	81	− 1	·782	−·035	3·5	−1·0	6	3·50	+2·50	3·08	1·69	+1·39	5·53	3·94	+1·59	1·26	Coimbatore.
	4	7	1	3	4	6	1	S 18° E	S 67° E	4·0	4·6	−0·6	10	− 3	75	+ 4	·824	+·018	4·4	+0·9	7	3·10	+3·90	4·30	1·84	+2·46	7·74	4·37	+3·37	2·52	Salem.
			3	14		3	3	S 12° W	S 39° W	7·6	2·7	+4·9	46	− 6	75	− 6	·895	−·072	3·5	−0·9	1	1·00	0	0·21	0·83	−0·62	6·17	10·83	−4·66	0·18	Cuddalore.
5	1	2	1			1	4	N 3° W		4·5			26		76		·794		2·4		4	1·20	+2·80	1·24	0·71	+0·53	8·24	4·40	+3·84	0·60	Vellore.
3			5	21			1	S 8° E	S 10° W	6·5‡	7·6	−1·1	69	− 4	80	+ 6	·935	+·040	3·8	−0·6	4	1·10	+2·90	7·52	0·40	+7·12	14·34	7·38	+6·96	3·29	Madras.
		13	8		1	8		S 59° E	S 41° E				40	+ 3	65	+10	·778	+·047	4·2	+1·6	4	0·70	+3·30	1·34	0·54	+0·80	5·37	1·95	+3·42	0·73	Cuddapah.
3	1	1	3	2	2	9	6	N 71° W	N 69° W	4·7	5·4	−0·7	37	+ 7	45	− 8	·497	−·132	1·5	−1·4	4	1·90	+2·10	1·23	0·74	+0·49	1·50	1·10	+0·40	0·55	Bellary.
	4	4	5	9	2	3	2	S 25° E	S 10° E	7·8‡			57	+36	58	+ 1	·655	−·011	2·0	−0·2	3	1·70	+1·30	0·97	0·94	+0·03	0·99	1·56	−0·57	0·31	Kurnool.
		1	7	14	4		3	S 3° E	S 29° E	6·9‡	8·2	−1·3	66	− 1	76	+ 1	·871	−·034	4·7	+0·6	3	0·30	+2·70	1·37	0·40	+0·97	9·87	2·77	+7·10	0·61	Nellore.
		1	7	15	4	1		S 5° E	S 1° E	7·6	7·7	−0·1	76	+ 9	83	+ 2	·999	+·020?	5·2	+1·2	6	0·50	+5·50	4·49	0·47	+4·02	4·69	1·66	+3·03	·32	Masulipatam
1	7	1	3	1	2		2	N 62° E	S 66° W	7·0	7·5	−0·5	20	−27	81	+ 7	·871	+·001	5·7	+1·9	9	0·70	+8·30	5·10	0·35	+4·75	5·10	2·10	+3·00	1·64	Cocanada.
1	5	3		1	12	8		S 63° W	S 75° W	6·8			37	−36	70	− 5	·760	−·087	5·6	+1·9	9	0·90	+8·10	2·73	0·59	+2·14	2·73	3·04	−0·31	0·98	Waltair (Vizag.).
1	2	2	1	3	5	3	1	S 37° W		6·3			17						3·6		10			5·61			5·81			1·45	Calingapatam
3	2	1	1	4	11	2	2	S 49° W	S 35° W	13·2	17·9	−4·7	46	−21	78	− 4	·799	−·085	2·5	−1·0	9	1·10	+7·90	5·20	0·69	+4·51	5·20	2·69	+2·51	1·44	Gopalpur.

‡ Uncorrected for scale error.

(a) Indeterminate.

Tabl

(2) *Abstract of observations taken at 8 hrs. at 23*

Number of subdivision.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	Stations in the Bay.																						
1	P. V. Fraser	8	29·902		29·827	29·980	4th	29·790	30th	·190	82·0												
	Car Nicobar	25																					
	Port Blair	58	29·852	−·001	29·840	29·906	15th	29·807	29th	·099	81·7	89·0	−3·5	78·2	−0·6	83·6	−2·1	10·8	92·2	23rd & 28th.	75·0	2nd	17
	Slipper Island ‡	90	29·817		29·840	29·861	15th	29·769	20th	·092	84·1	89·2		79·6		84·4		9·6	92·6	19th	75·1	2nd	17
	Kashmir.																						
14	Srinagar	5,204	24·886	−·023	24·857	25·019	4th	24·758	21st & 26th.	·261	51·5	67·8	−0·4	47·1	+1·7	57·5	+0·7	20·7	75·1	13th & 24th.	41·6	3rd	33
	Gulmarg	*8,569*																					
	Sonemarg	*8,764*	21·832		21·800	21·961	5th	21·698	18th	·263	32·3	50·9		28·1		39·5		22·8	58·4	23rd	14·1	1st	44
	Dras	*10,059*	20·795	−·013	20·763	20·969	5th	20·635	18th	·334	27·6	43·6	−0·8	18·8	−1·5	31·2	−1·2	24·8	59·9	30th	3·0	1st	56
	Leh	11,503	19·698	−·032	19·666	19·858	5th	19·540	18th	·318	40·7	58·4	+1·3	31·3	+0·4	44·9	+0·9	27·1	67·1	30th	23·5	3rd	43
	Skardu	*7,505*	22·847	−·039	22·817	23·065	5th	22·656	18th	·409	53·1	67·0	+5·8	46·6	+4·7	56·8	+5·3	20·4	74·9	24th	37·6	1st	37
	Minimarg	*9,359*																					
	Astor	*7,955*																					
	Gilgit	4,890	25·116		25·089	25·313	4th	24·951	26th	·362	62·2	77·0	+4·3	55·3	+1·3	66·2	+2·8	21·7	85·2	24th	48·2	18th & 2.th.	37
	Baluchistan.																						
16	Quetta	5,502	24·622	−·010	24·582	24·745	30th	24·479	20th	·266	61·4	74·9	+0·7	45·5	−0·8	60·2	−0·1	29·4	83·6	29th	36·5	14th	47
	Chaman	4,311	25·651	−·045	25·613	25·818	30th	25·537	20th	·281	67·7	79·4	−1·5	56·3	−3·6	67·9	−2·6	23·1	87·8	24th	46·7	30th	41
	Robat	...	26·869		26·827	27·138	30th	26·686	10th	·452	73·0	88·2		65·4		76·8		22·8	98·0	24th	55·8	30th	42
	Hill Stations, excluding Kashmir and Baluchistan.																						
	Chitral	*5,486*									54·2	74·1		47·5		60·8		26·6	83·6	24th	39·0	15th	44
	Para Chinar	6,000	24·412*		24·379*	24·551	3rd	24·318	17th	·233	59·4	69·8		48·4		59·2		21·4	75·3	11th	43·4	1st	31
	Cherat	*4,256*	25·700	+·027	25·668	25·812	4th	25·567	17th	·245	63·8	73·9	−1·6	57·5	−0·4	65·7	−1·0	16·4	81·1	11th	50·5	13th	30
	Murree	6,333	23·836	+·003	23·801	23·943	4th	23·711	17th	·232	57·2	64·4	−4·4	49·6	−2·7	57·0	−3·6	14·8	73·5	6th & 12th.	42·5	14th	31
	Kailang	*10,087*	20·960†		20·915†	21·116	4th	20·815	21st	·301	40·1	54·5	+1·5	32·2	+1·0	43·4	+1·3	22·3	65·6	30th	21·0	1st	44
	Simla	7,232	23·079	−·030	23·041	23·177	4th	22·975	18th	·202	56·1	62·5	−2·7	50·3	−1·9	56·4	−2·3	12·2	69·7	7th	40·9	19th	28
	Sarain	...	23·145†		23·107†	23·248	4th	23·055	18th	·193	51·8	62·0		41·8		52·0		20·2	70·8	30th	37·9	19th	32
	Kalabagh	...						Not	received.														
	Chakrata	7,022	23·283	−·007	23·243	23·377	5th	23·188	18th	·189	55·1	67·8	−2·5	49·1	−3·0	58·5	−2·8	18·7	75·3	6th.	42·7	22nd	32
	Muktesar	7,592	22·829	−·023	22·788	22·928	4th	22·742	18th	·186	54·3	66·7	−2·7	48·1	−2·2	57·5	−2·5	18·6	74·0	13th	39·0	21st & 23rd.	35
	Darjeeling	7,376	23·030	+·026	22·985	23·121	4th	22·908	30th	·213	52·3	56·9	−3·3	46·7	−2·2	52·9	−2·8	12·2	67·3	4th	43·7	17th & 18th.	23
	Shillong	4,920	25·137†		25·089†	25·245	6th	24·990	30th	·255	61·3	70·3		54·0		62·2		16·3	79·9	1st	48·7	17th & 19th.	31
	Cherra Poonjee	4,309	25·699		25·650	25·786	3rd	25·598	30th	·188	61·6	70·0		57·7		63·9		12·3	79·7	1st	52·8	7th & 17th.	26
	Maymyo	3,545	26·446	+·013	26·391	26·520	3rd	26·396	17th	·124	71·2	82·4	−2·1	59·3	+0·6	70·9	−0·8	23·1	89·9	5 days	53·6	15th & 17th.	36
	Pachmarhi	3,528	26·425	−·019	26·372	26·500	4th	26·327	20th	·173	75·6	87·8	−4·7	65·8	−3·8	76·8	−4·3	22·0	95·2	30th	59·1	2nd, 22nd & 24th.	36
	Mount Abu	3,945	26·014	−·039	25·964	26·099	5th	25·846	20th	·253	72·6	81·0	−4·7	65·4	−3·7	73·2	−4·2	15·6	89·7	30th	55·9	22nd	3
	Mercara	3,781	26·215	−·019	26·148	26·266	5th	26·150	20th	·116	69·6	83·4	−0·5	62·8	−1·4	73·1	−1·0	20·6	86·0	4th	59·0	19th	2
	Ootacamund	7,327	23·067		23·003	23·115	15th	23·005	20th	·110	61·9	70·3		51·2		60·8		19·1	73·5	3rd	48·2	1st	2
	Kodaikanal	7,688	22·831	−·028	22·766	22·869	5th & 15th.	22·782	20th	·087	59·1	67·5	−1·9	53·3	−0·2	60·4	−1·1	14·2	71·0	18th	50·5	28th	2

N.B.—Elevations in italics indicate barometrical determinations. * Mean of 28 days. † ,, ,, 29 ,,

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

—*continued.*

ations in India, etc., in April, 1909—continued.

Wind direction. Number of winds from N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st Dec. 1908 to 30th April 1909. (53)	Normal rainfall for period, 1st Dec. to 30th April. (54)	Departure from normal of period, 1st Dec. 1908 to 30th April 1909. (55)	Heaviest rainfall during month. (56)	Station (57)
																															Stations in the Bay.
			2	9	15	3		S 30° W		12·0§			80		81		·889		4·2		7			1·24			2·28			0·45	P. V. Fraser.
																															Car Nicobar.
	2	3	5			1	4	N 80° E	N 82° W	5·4‖	4·8	+0·6	13	−17	84	+ 1	·918	−·031	6·0	+1·6	9			5·06	3·33	+1·73	19·06	11·77	+ 7·29	1·49	Port Blair.
5	3	5	2			4		N 34° E		5·4			44		78		·901		5·4		5			2·84			3·71			2·14	Slipper Island.
																															Kashmir.
1		1	13	1	3		2	S 34° E	S 29° E	4·6	4·8	−0·2	40	+29	82	− 2	·316	−·017	4·3	−0·2	3	6·80	− 3·80	1·53	2·69	−1·16	16·00	13·03	+ 2·97	0·70	Srinagar.
															Registe	r not r	eceived.														Gulmarg.
1	3	2		1		1		N 56° E		2·2			10		80		·150		4·2		8			1·74			49·40			0·25	Sonemarg.
						1	3	N 56° W		1·4			10		88	0	·139		4·5		0	8·80	−8·80	0·21	4·04	−3·83	14·31	13·95	+ 0·36	0·07	Dras.
1				7	1	1		S 15° W	S 66° W	3·3‖	3·1	+0·2	23	− 5	45	− 3	·116	+ ·006	5·4	−0·1	1	0·70	+0·30	0·17	0·16	+0·01	1·29	1·23	+ 0·06	0·14	Leh.
	1	1	7	1	4	1		S 20° E		11·9			27		37	−25	·153		4·1		0	2·00	−2·00	0	0·86	−0·86	1·76	3·52	− 1·76	0	Skardu.
																Data	not av	ailable.													Minimarg.
																	Ditto.														Astor.
					1	2	1	W		2·8			11		50	0	·275	+·031	5·8	+0·6	1	2·80	−1·80	0·12	1·15	−1·03	1·11	2·20	−1·09	0·10	Gilgit.
																															Baluchistan.
1	1	3		2	1	1	1	S 75° E	S 45° W	2·3	3·5	−1·2	4	− 3	50	− 2	·274	−·008	2·5	0	5	2·40	+2·60	1·31	1·07	+0·24	7·90	7·96	− 0·06	0·50	Quetta.
1		3	3	6	6	4	2	S 25° W	S 2° W	7·7	8·1	−0·4	37	− 6	41	−12	·265	−·043	4·1	+1·7	2	1·60	+0·40	0·57	0·43	+0·14	6·69	5·71	+ 0·98	0·23	Chaman.
2	10				5	6	2	N 30° W		10·4			30		54		·424		1·8		1			0·10			3·10			0·10	Robat.
																															Hill Stations, excluding Kashmir and Baluchistan.
								(a)		7·5					73		·312		4·3		4			1·40			5·46			0·32	Chitral.
		2			1			S 45° E		4·1			3		56		·285		3·0		9	8·50	+0·50	4·72	3·19	+1·53	11·86	11·30	+ 0·56	1·34	Para Chinar.
10	3		1	1	1		6	N 8° W	N 11° W	10·5	13·1	−2·6	46	− 6	53	+ 5	·306	+·029	3·2	0	4			1·02	2·22	−1·20	8·60	12·39	− 3·79	0·40	Cherat.
2	1	1	8	4	1		1	S 41° E	N 68° E	7·6	9·3	−1·7	30	+10	57	+11	·266	+·041	3·3	−0·8	9	5·90	+3·10	4·92	3·35	+1·57	15·27	16·05	− 0·78	1·53	Murree.
		1	2	6	15	5	1	S 39° W		2·6	2·0	+0·6	70		55		·136		3·0		1			0·30	2·96	−2·66	9·42	13·56	− 4·14	0·15	Kailang.
															48	+ 8	·207	+·010	3·4	+0·2	8	3·10	+4·90	3·40	1·70	+1·70	10·09	10·71	− 0·62	1·28	Simla.
	2			5	2	2		S 22° W		2·7			20		60		·228		3·8		9			5·69			21·73			1·98	Sarain.
													Not receiv	ed.																	Kalabagh.
22			1				3	N 3° W	N 17° E	6·5	7·5	−1·0	76	+38	56	+13	·235	+·025	2·6	0	7	3·90	+3·10	3·55	1·44	+2·11	16·45	12·83	+ 3·62	0·71	Chakrata.
1	1	6	2			5	1	N 67° E		7·8			7		53	+13	·209		3·8		8			3·67	1·39	+2·28	8·48	9·05	− 0·57	1·16	Muktesar.
1	5	4	5		2	5		S 85° E	S 28° E	4·4	8·6	−4·2	15	+ 7	82	+ 1	·319	−·030	6·8	+2·0	16	8·29	+7·71	6·30	4·34	+1·96	6·65	7·84	− 1·19	1·16	Darjeeling.
				2	8			S 37° W		6·0			33		67		·361		5·7		14	8·70	+5·30	5·68	4·29	+1·39	5·84	7·71	− 1·87	0·75	Shillong.
3	4			1	9	5	3	N 87° W		7·7			37		82		·451		6·9		20	17·00	+3·00	22·34	32·92	−10·58	24·00	49·87	−25·87	11·85	Cherra Poonjee.
	2	2	2	2	3	1		S 23° E		3·5			17		72	+ 5	·560		2·6		4	4·30	−0·30	1·68	2·80	− 1·12	1·97	3·95	− 1·98	0·75	Maymyo.
		4		2	9	5	7	S 75° W	N 88° W	6·4	6·0	+0·4	40	+13	44	+15	·377	+·072	1·4	−0·5	3	0·80	+2·20	0·85	0·25	+0·60	1·78	2·17	− 0·39	0·44	Pachmarhi.
	7		4		11	2	5	S 60° W	N 63° W	8·6	8·8	−0·2	23	−20	42	+13	·324	+·060	2·6	+1·6	3	0·30	+2·70	1·36	0·04	+1·32	1·42	1·00	+ 0·42	0·81	Mount Abu.
10	2	1		1		3	10	N 23° W	N 21° W	4·6	4·0	+0·6	62	+22	71	− 7	·506	−·080	2·7	−1·5	3	5·70	−2·70	1·72	2·67	−0·95	4·24	4·15	+ 0·09	0·57	Mercara.
2	3	7	7	4			1	S 72° E		3·0			43		66		·369		2·4		12	7·10	+4·90	4·04	3·46	+0·58	14·24	6·84	+ 7·40	0·77	Ootacamund
4	6	9	3	1		1	6	N 47° E		10·3‖			46		72	+11	·364		3·1		8	7·00	+1·00	3·60	4·50	−0·90	20·16	15·97	+ 4·19	0·97	Kodaikanal.

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

‖ Uncorrected or scale error.
§ 8 hrs. velocity.

‡ Mean of 25 days.
(a) Indeterminate.

Tabl

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

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure 8 hrs. in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	Extra India.																						
	Singapore (*a*)	10	29·914		29·845	29·982	4th	29·843	20th	·139	85·2	87·9		74·7		81·3		13·2	90·4	1st	73·5	4th & 20th.	16
	Penang (*a*)	20	29·905		29·850	29·987	14th & 25th.	29·820	10th & 12th.	·167	83·0	91·0		76·0		83·5		15·0	92·0	11 days	74·0	2nd & 7th	18
	Trincomalee	12	29·891?	+·020?	29·829?	29·966	15th	29·834	30th	·132	79·2	91·9	+0·9	77·3	—0·3	84·6	+0·3	14·6	96·0	27th	71·0	19th	25
	Colombo	40	29·853	—·028	29·819	29·917	15th	29·802	20th	·115	77·5	90·7	+1·8	76·3	+0·3	83·5	+1·1	14·4	93·0	21st & 22nd.	71·0	27th	22
	Minicoy	7	29·922			29·973	15th	29·872	18th	·101													
	Amini Divi	*13*	29·896	+·001	29·837	29·952	15th	29·830	20th	·122	84·7	91·3	+0·9	80·3	+0·2	85·5	+0·6	11·0	95·0	21st	76·4	2nd	18
	Gyantse	13,120	17·066		17·027	17·189	6th	16·961	28th	·228	38·6	58·1		28·2		43·2		29·9	67·1	22nd	19·7	2nd	47
	Pharijong	14,400	17·939		17·898	18·055	6th	17·837	29th	·218	30·7	48·1		—1·4		23·4		49·5	63·8	23rd	—3·0	18th	66
	Gangtok	5,660?	24·346§		24·40.§	24·569	6th	24·360	30th	·209	58·3	67·7		51·9		59·8		15·8	77·6	3rd	47·2	17th, 18th & 19th.	30
	Gartok	15,100?	17·291		17·257	17·411	3rd & 4th.	17·136	16th	·275	32·4	44·8		19·1		32·0		25·7	53·4	28th	10·8	3rd	42
	Kashgar (*c*)	4,255	25·541			25·900	5th	25·330	24th & 25th.	·570	53·3	78·7	+7·2	50·2	+1·2	64·5	+4·2	28·5	90·1	16th & 24th.	36·7	2nd	53
	Kabul		24·258		24·227	24·363	5th	24·172	18th & 26th.	·191	57·8	74·3	+3·2	47·1§	+1·8§	60·8§	+2·5	27·5	83·2	24th	38·9	1st	44
	Meshed	3,104	26·690			27·038	30th	26·329	10th	·709	55·7	72·1		44·5	—3·6	58·3		27·6	85·6	23rd	32·1	29th	53
	Jask‡	13	29·849	—·033	29·819	29·978	15th	29·738	20th	·240	79·7	86·9	−0·3	75·0	+1·7	81·0	+0·7	11·9	93·8	18th	66·8	12th	27
	Muscat‡	20	29·812	—·027	29·810	29·962	30th	29·726	10th	·236	84·5	91·5	+5·7	80·4	−0·1	86·0	+2·8	11·1	102·8	26th	72·1	13th	30
	Bahrein	18	29·887		29·858	30·073	29th	29·751	21st	·327	77·9	93·5		73·3		78·5		10·2	95·6	23rd	65·3	12th	30
	Bushire	14	29·848	—·043	29·821	29·970	29th	29·716	9th	·254	74·6	83·6	+2·0	69·5§	+2·8§	76·4§	+2·4	14·1	98·6	6th	59·6	12th	39
	Busrah	25	29·903		29·888	30·139	29th	29·656	9th	·483	71·9	84·3		62·6		73·5		21·7	92·4	7th	53·1	11th	39
	Kerman										56·0	78·1		47·0		62·5		31·1	83·3	27th	37·6	12th	45
	Ispahan (*b*) ‡	*5,817*	24·213§			24·480	30th	23·900	10th	·560	49·6	68·7	−4·3	43·6	−2·0	56·2	—3·2	25·1	78·4	24th	34·2	30th	44
	Tehran (*b*)	*4,002*	25·728			26·050	30th	25·375	10th	·675	55·9	71·4	0	48·8	—1·1	60·1	−0·6	22·6	80·5	8th & 10th.	37·7	23th & 30th.	42
	Baghdad	128¶	29·751	—·097	29·854	30·031	28th	29·495	21st	·536	66·2	83·1	+1·5	58·9	+2·0	71·0	+1·8	24·2	93·8	6th	50·9	13th	42
	Beirut (*h*)				29·872						64·3	69·3		57·0		63·2		12·3	77·5	30th	48·8	10th	28
	Aden	94	29·818	−·023	29·844	29·903	16th	29·727	21st	·176	82·7	87·9‡	—1·2‡	80·1	+2·8	84·0‡	+0·8	7·8	91·8	23rd	74·4	9th	17
	Perim	201	29·650	—·038	29·786	29·729	16th	29·556	21st	·173	82·3	85·7	—3·0	79·0	+0·2	82·4	—1·4	6·7	88·3	29th	76·8	1st	11
	Zanzibar	72	29·938	0	29·937	29·990	16th	29·877	8th	·113	78·2	82·9	—1·8	75·5	—2·1	79·2	—2·0	7·4	86·6	8th	73·3	23rd	13

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

(*a*) 9 hrs. observations. (*c*) Aneroid corrected. ‡ Mean of 29 days. § Mean of 28 days.
(*b*) Aneroid uncorrected. (*h*) 8½ hrs. observations.
¶ A redetermination of the height of the barometer at Baghdad has shown that the true height is 127·5 feet instead of 220 as previously accepted.

concluded.

ions in India, etc., in April, 1909—concluded.

Wind direction.													Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.										
er of winds from																																		
E.	S.E.	S.	S.W.	W.	N.W.																													
28	29	30	31	32	33																													
34													36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																		Extra India.
10			1									N 75° E		4·7*			37					4·8		11			11·54			73·91			2·39	Singapore.
6	2	3	2	2	3							N 59° E		9·8			33					0		6			2·32			19·01			1·01	Penang.
		3	4									S 26° W	S 39° W	1·8*	6·8	−5·0	23	−45	89	+ 8	·896	−·031	2·2	−0·9	1			0·39	1·81	− 1·42	21·56	26·52	− 4·96	0·39	Trincomalee.
12	6	2	2	6	1							S 55° E	S 12° E	4·8*	6·3	−1·5	37	−15	91	+13	·865	−·029	6·1	+1·2	4			3·28	12·03	− 8·75	10·58	28·76	−18·18	1·46	Colombo.
	1			1	10							N 12° W	N 59° W	3·8	7·4	−3·6	83	+28					3·3	−1·4	4			3·64	3·67	− 0·03	11·57	11·75	− 0·18	1·56	Minicoy.
					13							N 17° W					70		72 ††	− 3	·863 ††	−·068	3·3	−1·6	0			0	2·58	− 2·58	3·50†	3·09	+ 0·41	0	Amini Divi.
18	3	7										S 23° E		3·0			77		46 ‡‡		·120 ‡‡				0			0			0			0	Gyantse.
4	9	4	7	1								S 23° W		9·3‡			43		24		·149		1·3		0			0			0			0	Pharijong.
												N		1·1‖			6		82		·402		3·5		19			10·61			11·33			2·92	Gangtok.
9	8	1										S 28° E		10·5			57						3·3		0			0			0			0	Gartok.
			3		2							S 76° W	N 21° W	?	4·6	?	13	+ 1	52	+ 6	·218	+·028	3·3	−1·7	0			0	0·12	− 0·12	0	0·90	− 0·90	0	Kashgar.
	6	1	14		6							S 89° W	N 89° W				56	+43	64		·306		3·0	+1·1	4			4·46	2·24	+ 2·22	13·53	9·65	+ 3·88	1·40	Kabul.
3	4		1	2								S 45° E		2·1			10		68		·303		6·7	+2·3	6			1·71	1·78	− 0·07	4·17	6·35	− 2·18	0·42	Meshed.
1	1		4	9								N 6° W	N 45° W	14·5§	9·8	+4·7	23	+ 8	71	+ 5	·717	+·045	2·4	+1·4	1			0·31	0·03	+ 0·28	2·16	3·80	− 1·64	0·29	Jask.
2		1		7								N 33° W	N 51° W	4·9	4·3	+0·6	23	− 7	55	− 3	·633	−·012	1·8	+1·0	0			0	0·03	− 0·03	4·70	3·40	+ 1·30	0	Muscat.
												W		8·8			2		71		·687		2·3		2			0·36			1·16			0·23	Bahrein.
6	1	3		6	5							N 20° E	N 1° E	12·1	9·0	+3·1	40	+ 3	76	+14	·668	+·151	2·9	+0·5	4			1·37	0·53	+ 0·84	6·88	10·24	− 3·36	0·52	Bushire.
2				1	7							S 82° W		4·9			6		70		·556		2·4		1			0·68			3·29			0·61	Busrah.
3			3	4	3							N 56° W		3·0			27		42		·189		2·5											Kerman.
		2	2	5	1							N 88° W	N 83° W	4·7	6·4	−1·7	37	0	80	+15	·293	−·030	2·0	−0·7	6			1·13	0·38	+ 0·75	(p) 3·07	2·34	+ 0·73	0·30	Ispahan.(l)
2	2		2	2	1							N 38° E	S 63° W	5·3	4·4	+0·9	37	+22	58	+12	·261	+·021	2·3	−0·8	3			0·96	1·18	− 0·22	6·32	7·46	− 1·14	0·30	Tehran.
1	1			5	4							N 39° W	N 2° W	8·1	4·2	+3·9	23	−10	54	− 8	·356	−·046	2·4	+0·8	2			0·33	0·96	− 0·63	1·85	7·75	− 5·90	0·17	Baghdad.
	1	15			1							S 56° W					10		73		·443		4·3		6			1·56			(q) 18·02			0·51	Beirut.
												N 45° E	N 80° E	14·6	15·4	−0·8	82	+ 8	78	+ 4	·864	+·073	6·5	+3·1	0			0	0·38	− 0·38	0·20	2·23	− 2·03	0	Aden.
2	9			1	9							S 34° E	S 69° E	13·7	18·0	−4·3	13	−45	79	+ 3	·870	+·031			0			0	0·02	− 0·02	0·16	0·97	− 0·81	0	Perim.
12	11											S 18° W	S 15° W	5·8	7·1	−1·3	73	−11	88	+ 2	·847	−·011	7·6	+1·3	22			26·80	13·23	+13·57	42·14	30·08	+12·06	2·82	Zanzibar.

* Uncorrected for scale error.
† Rainfall for March 1909 wanting.

†† Mean of 14 days.
‡‡ „ „ 17 „
‖ „ „ 25 „

(l) Wind observations 11 less.

(p) Rainfall for March and April 1909 is wanting.
(q) „ „ January 1909 is wanting.

Table C.—Abstract of observations taken at 8 hrs. at 29 fourth class stations in India, etc., in April, 1909.

Tal

Abstract of observations taken at 8 hrs. at 29 fou

Number of subdivision.	Station.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.	Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	II.—Eastern Bengal and Assam.																							
4	Bishnath	69·1	84·0	...	56·2	...	70·1	...	27·8	92·6	1st	51·2	1st	41·4	...	...	...	...	...	...	...	...	...	...
	Borjuli	72·6	86·6	...	64·4	..	75·5	...	22·2	96·3	2nd	60·0	19th	36·3	...	...	...	...	...	.	...	...	...	...
	Chandkhira	73·9	91·6	...	63·1	...	77·4	...	28·5	100·6	1st	45·5	9th	55·1	...	...	...	...	...	...	...	...	...	...
	Doom Dooma	68·2	81·9	...	64·1	...	73·0	...	17·8	90·5	1st	59·0	2nd	31·5	...	...	...	...	...	...	...	...	...	...
	Dikom	68·3	80·7	...	64·5	...	72·6	...	16·2	90·4	1st	57·2	2nd	33·2	...	...	...	...	...	...	...	...	...	...
	Golaghat	71·3	82·5	...	65·0	...	74·0	...	17·5	90·9	3rd	58·3	2nd	32·6	...	...	...	...	...	...	...	...	...	...
	Hailakandi	68·8	87·2	...	65·0	...	76·1	...	22·2	96·0	4th	60·8	2nd & 8th	35·2	...	...	...	...	...	...	...	...	...	...
	Jorehat	71·1	82·7	...	65·6	...	74·2	...	17·1	89·9	1st & 3rd	57·8	2nd	32·1	...	...	...	...	...	...	...	...	...	...
	Messa	77·3	89·7	...	64·5	...	77·1	...	25·2	100·5	1st	57·8	2nd	42·7	...	...	...	...	...	...	...	...	...	...
	Panerihat	65·4	84·0	...	62·8	...	73·4	...	21·2	95·1	2nd	58·0	24th & 29th	37·1	...	...	...	...	...	...	...	...	...	...
	Srimangal	76·2	90·5	...	67·2	...	78·9	...	23·3	102·7	1st	60·6	17th	42·1	...	...	...	...	...	...	...	...	...	...
5	Brahmanbaria	77·5	90·5	...	63·7	...	77·1	...	26·8	100·6	1st	54·9	20th	45·7	...	...	...	...	...	...	...	...	...	...
	Dam Dim	68·5	88·3	...	63·5	...	75·9	..	24·8	97·1	2nd	52·9	2nd	44·2	...	...	...	...	...	...	...	...	...	...
	Goalundo	78·8	91·2	...	73·6	...	82·4	...	17·6	101·7	1st	62·2	18th	39·5	...	...	...	...	...	...	...	...	...	...
	Kalchini	73·9	86·7	...	64·0	...	75·4	...	22·7	96·1	3rd & 4th	59·4	1st & 2nd	36·7	...	...	...	...	...	...	...	...	...	...
	Nagrakata	70·9	86·3	...	66·8	...	76·6	...	19·5	95·1	2nd & 4th	60·0	1st & 7th	35·1	...	...	...	...	...	...	...	...	...	...
	Pabna	78·2	92·4	...	68·3	...	80·4	...	24·1	101·5	3rd	62·5	18th	39·0	...	...	...	...	...	...	...	...	...	...
	III.—Bengal.																							
6	Fraserganj											Closed.												
	XI.—Central Provinces.																							
24	Chhindwara	76·7	93·4	...	67·3	...	80·4	...	26·1	101·9	30th	59·0	22nd	42·9	...	1	3	4	6	5	2	5	4	S 11°
	Hill Stations.																							
	Panighatta	72·6	85·6	...	65·7	...	75·7	...	19·9	94·9	5th	60·3	17th	34·6	...	...	...	...	...	...	...	...	...	...
	Kurseong	60·9	70·1	...	56·2	...	63·2	...	13·9	80·5	4th	50·6	8th	29·9	...	...	...	...	...	...	...	...	...	...
	Poo	...	60·2	...	33·6	...	46·9	...	26·6	67·8	30th	26·5	1st	41·3	22	1	...	1	3	3	...	...	...	S 37°
	Kargil	41·2	63·4	...	32·0	...	47·7	...	31·4	74·1	30th	19·2	1st	54·9	...	7	3	...	...	...	5	4	11	N 45°
	Killa Drosh	56·8	74·4	...	50·9	...	62·7	...	23·5	82·2	24th, 26th & 28th.	41·1	7th	41·1	30	...	...	...	...	...	...	...	...	Indeterminat
	Pishin	...	76·7	...	47·5	...	62·1	...	29·2	89·0	29th	39·0	14th	50·0	...	...	...	...	...	...	...	...	...	...
	Kalat	56·6†	73·0	−3·1	44·0	+6·6	58·5*	+1·8	29·0	81·2	26th	33·9	30th	47·3	...	4	...	...	...	26	...	...	...	S
	Extra India.																							
	Ahwaz	...	87·3	...	65·6	...	76·5	...	21·7	94·3	24th	55·0	11th	39·3	...	...	...	...	...	...	...	...	...	...
	Birjundi	60·4	70·7	...	52·7	...	61·7	...	18·0	79·0	23rd	44·5	30th	34·5	4	2	5	1	3	3	...	2	2	N 56°
	Chumbi	39·3†	56·7†	...	35·1†	...	45·9	...	21·6	64·6	22nd	26·3	2nd	38·3	28	...	...	...	...	...	...	...	...	Indeterminat
	Karmanshah	51·7	63·8	...	41·9	...	52·8	...	21·9	73·4	22nd	32·0	28th	41·4	...	...	...	...	...	...	...	...	...	...
	Koweit								Register not received.				...											
	Maidan								Register not received.				...											

† Uncorrected for scale error.
‡ Observations of 25 days.

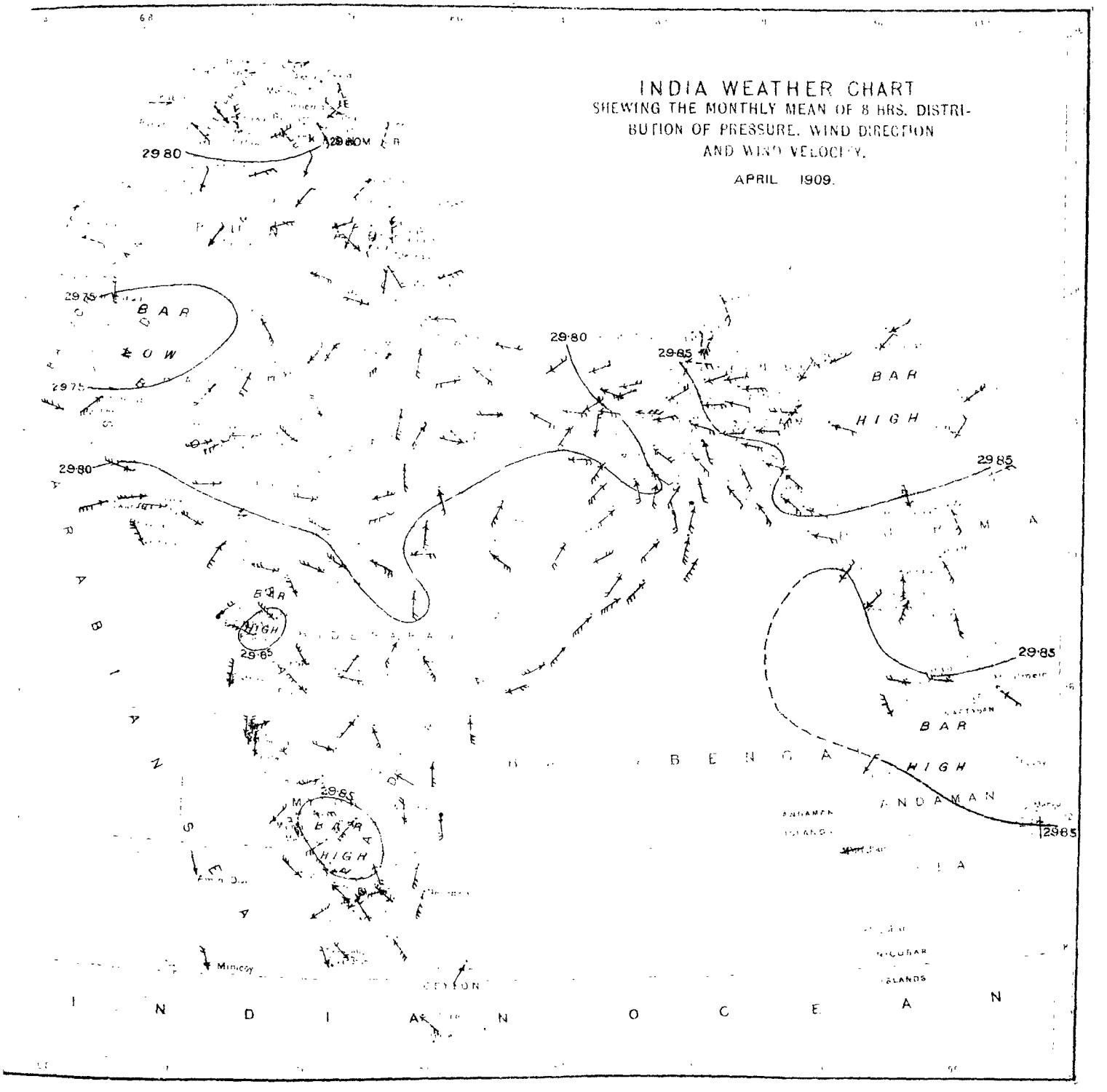
C.

class stations in India, etc., in April, 1909.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal, in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st Dec. 1908 to 30th April 1909.	Normal rainfall for period, 1st Dec. to 30th April.	Departure from normal of period, 1st Dec. 1908 to 30th April 1909.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					II.—Eastern Bengal and Assam.
...	...	...	...	...	89	...	·634	...	...	...	16	...	...	7·37	...	...	8·51	...	...	1·29	Bishnath.
...	...	...	...	...	80	...	·635	...	...	...	8	...	...	3·84	...	...	4·76	...	...	0·80	Borjuli.
...	...	...	...	...	86	...	·732	...	...	...	9	...	...	6·06	...	...	8·13	...	...	2·47	Chandkhira.
...	...	...	...	...	89	...	·615	...	...	...	10	...	...	5·56	...	...	13·02	...	...	0·61	Doom Dooma.
...	...	...	...	...	89	...	·616	...	...	...	17	...	...	7·21	...	...	12·13	...	...	1·52	Dikom.
...	...	...	...	...	85	...	·648	...	...	...	16	...	...	6·95	...	...	8·20	...	...	0·79	Golaghat.
...	...	...	...	...	92	...	·649	...	...	...	18	...	...	11·50	...	...	14·06	...	...	2·48	Hailakandi.
...	...	...	...	...	86	...	·656	...	...	...	11	...	...	6·10	...	...	8·53	...	...	0·92	Jorehat.
...	...	...	...	...	75	...	·699	...	...	...	11	...	...	4·90	...	...	5·57	...	...	1·38	Messa.
...	...	...	...	...	87	...	·543	...	...	...	10	...	...	6·68	...	...	7·45	...	...	1·57	Panerihat.
...	...	...	...	...	86	...	·780	...	...	...	12	...	...	10·76	...	...	12·98	...	...	3·28	Srimangal.
...	...	...	...	...	74	...	·702	...	...	...	10	...	...	9·04	...	...	11·24	...	...	3·53	Brahmanbaria.
...	...	...	...	...	87	...	·660	...	...	...	11	...	...	8·67	...	...	9·11	...	...	1·97	Dam Dim.
...	...	...	...	...	75	...	·743	...	...	...	11	...	...	6·06	...	...	7·56	...	...	1·13	Goalundo.
...	...	...	...	...	71	...	·601	...	...	...	13	...	...	10·48	...	...	10·80	...	...	2·30	Kalchini.
...	...	...	...	...	73	...	·537	...	...	...	16	...	...	9·16	...	...	9·68	...	...	1·53	Nagrakata.
...	...	...	...	...	77	...	·741	...	...	...	9	...	...	7·46	...	...	8·54	...	...	2·45	Pabna.
							Closed.														**III.—Bengal.**
																					Fraserganj.
																					XI.—Central Provinces.
3·6	...	...	17	...	66	...	·605	...	...	...	5	...	...	2·28	...	...	4·19	...	...	0·82	Chhindwara.
																					Hill Stations.
...	...	...	...	...	67	...	·528	...	...	...	13	...	...	9·41	...	...	9·79	...	...	3·19	Panighatta.
...	...	...	...	...	75	...	·394	...	...	...	14	...	...	9·27	...	...	9·90	...	...	1·72	Kurseong.
...	...	...	17	...	...	...	...	...	4·0	...	0	...	...	0·01	1·72	—1·71	6·84	14·01	—7·17	0·01	Poo.
...	...	...	60	...	39	...	·110	...	2·1	...	0	...	...	0	...	...	5·06	...	...	0	Kargil.
...	...	...	...	...	63	...	·292	...	2·8	...	5	...	...	1·71	...	...	6·58	...	...	0·50	Killa Drosh.
...	...	...	...	...	...	...	...	...	1·9	...	3	...	...	0·93	0·86	+0·07	7·09	8·91	—1·82	0·44	Pishin.
...	...	...	74	...	58	...	·264	...	...	...	6	1·10	+4·90	1·26	0·22	+1·04	6·58	3·75	+2·83	0·35	Kalat.
																					Extra India.
...	...	...	...	...	...	...	...	...	3·5	...	3	...	...	1·08	...	...	5·15	...	...	0·45	Ahwaz.
7·0§	...	...	13	...	50	...	·259	...	4·4	...	2	...	...	0·75	...	...	5·65	...	...	0·27	Birjand.‖
...	...	...	...	...	85	...	·205	...	...	...	12	...	...	3·85¶	...	...	4·38¶	...	...	0·85	Chumbi.**
...	...	...	...	...	69	...	·266	...	...	...	9	...	...	3·46	...	...	14·59¶	...	...	1·30	Karmanshah.
							Register not received														Koweit.
							Register not received.														Maidan.

§ Mean of 22 days.
‖ Wind observations less 3.
¶ Rain with snow water.

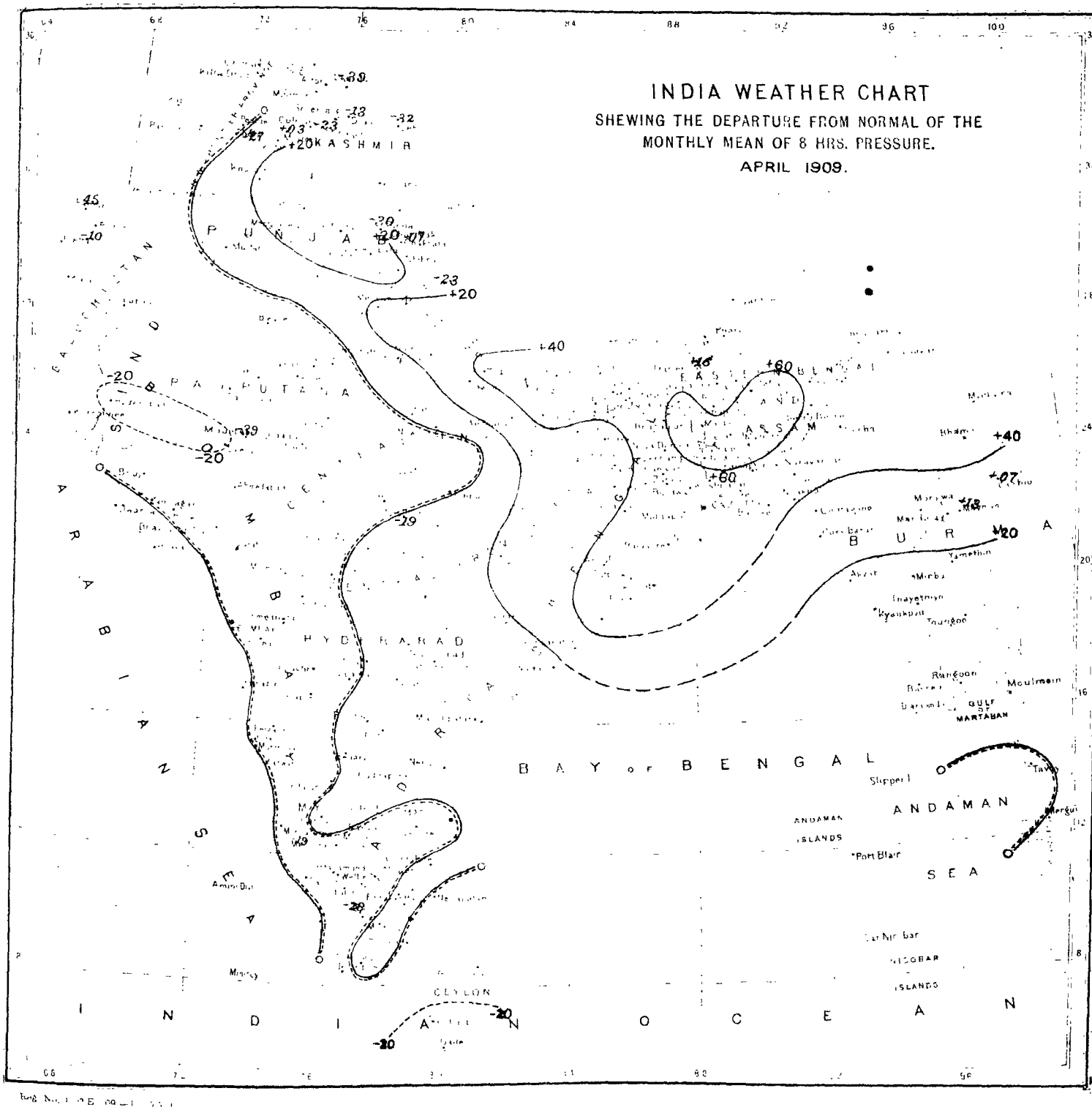
** Wind variable 2.



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

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

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



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

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

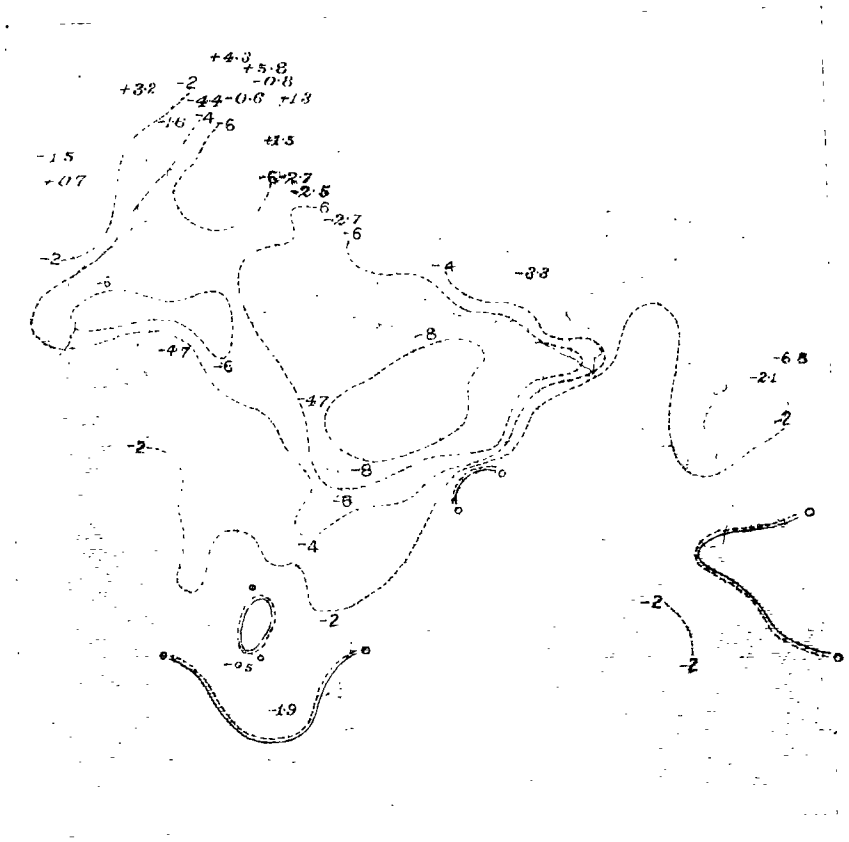


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.

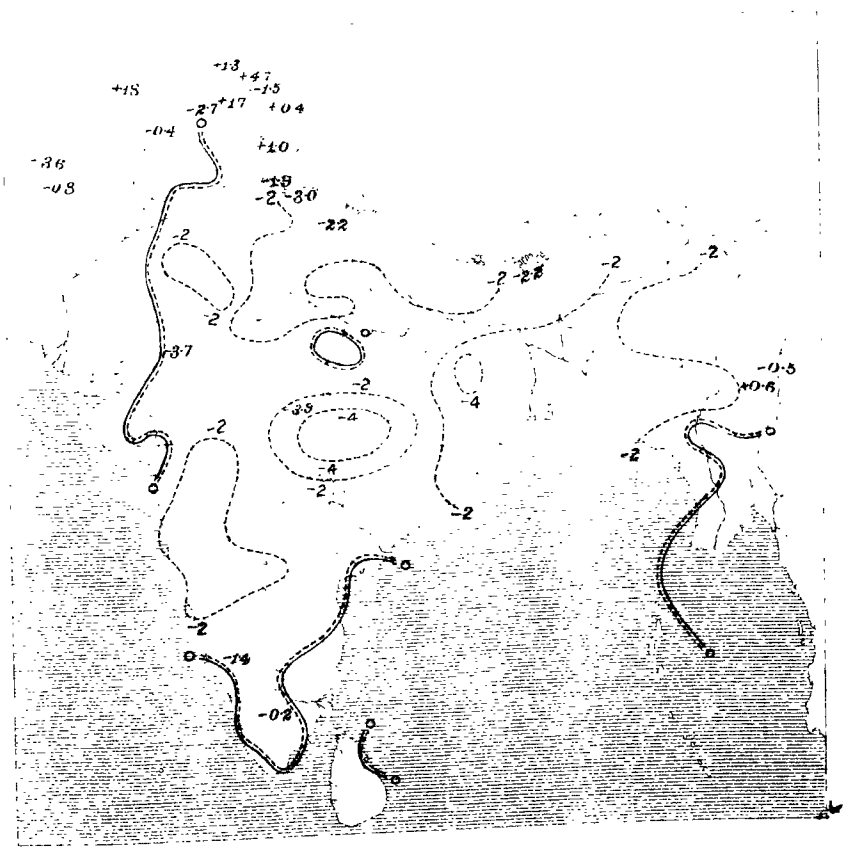


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MEAN TEMPERATURE.

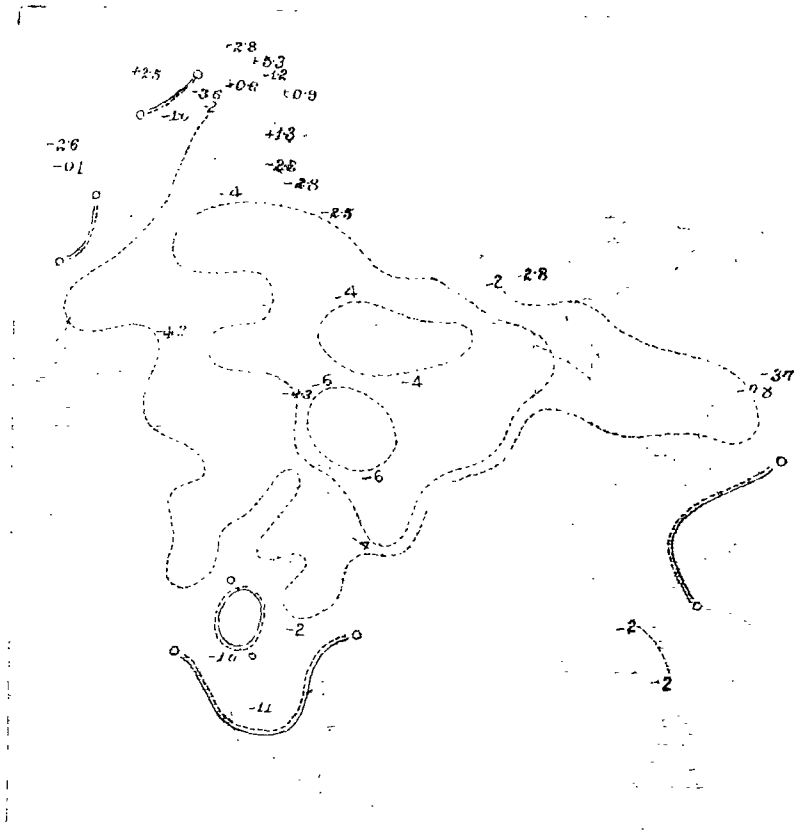


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.

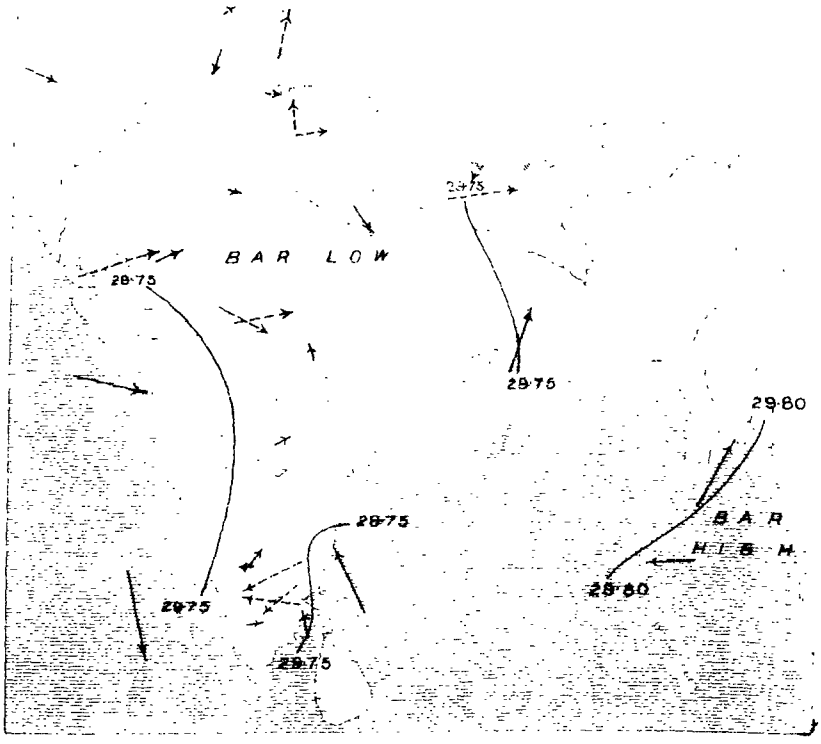


PLATE V.

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

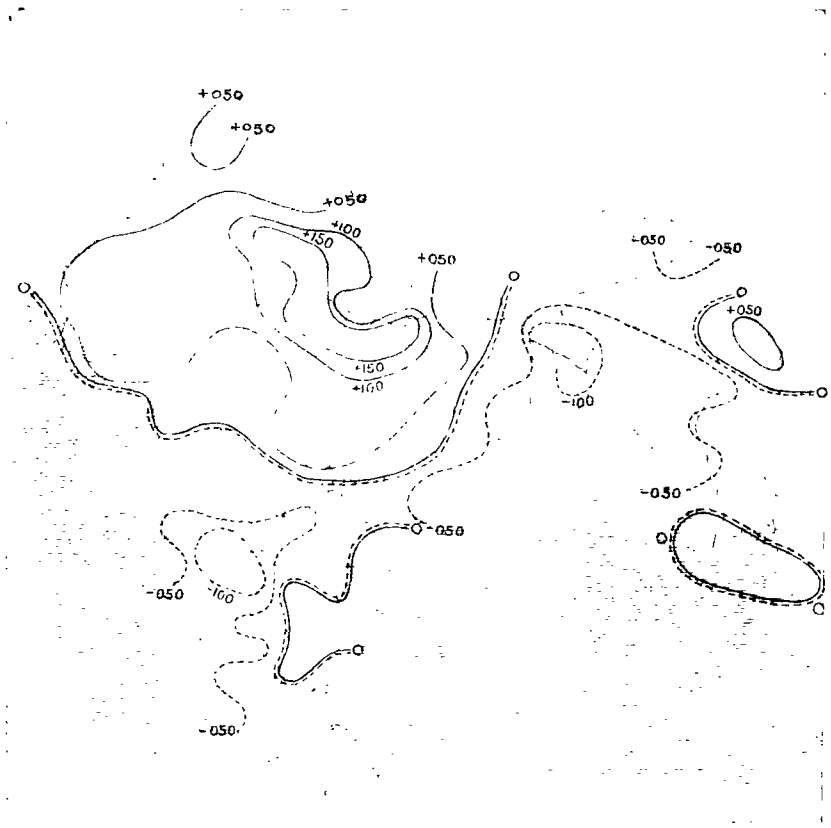


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 HRS.

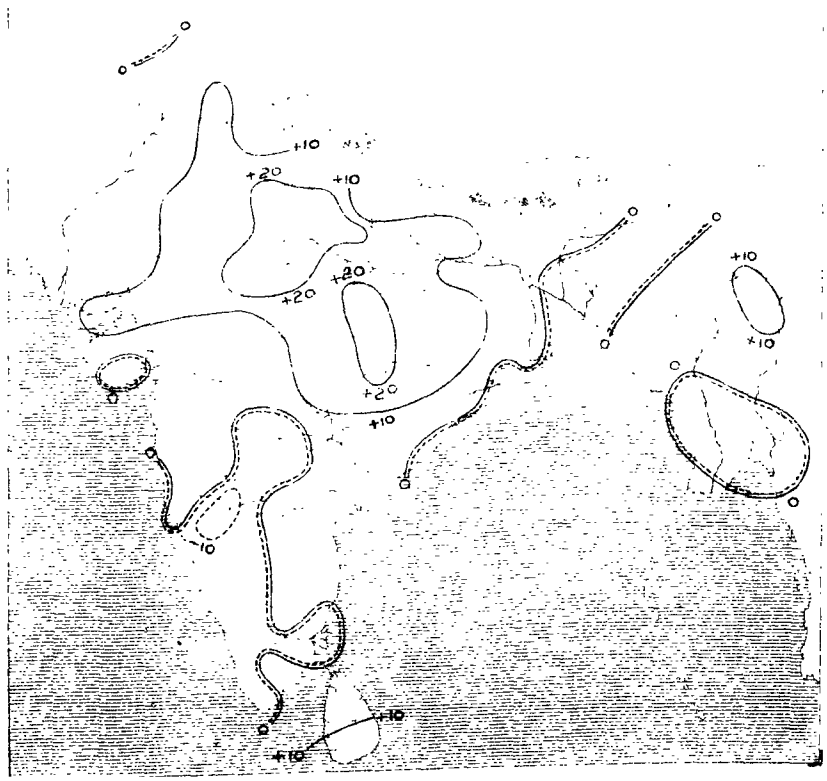


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF CLOUD AMOUNT AT 8 HRS.

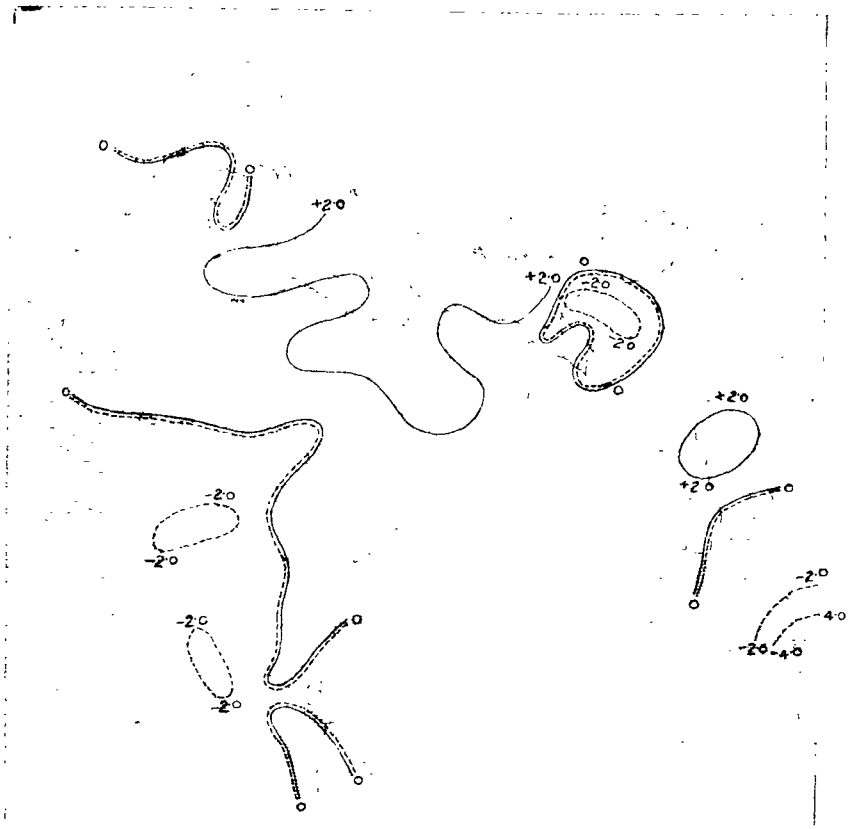
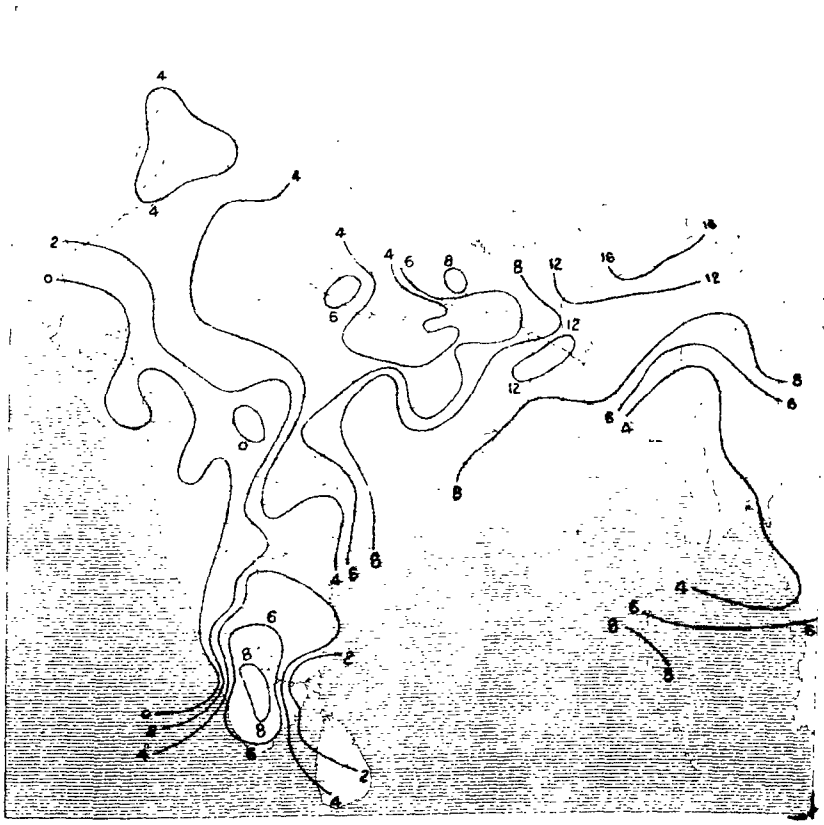
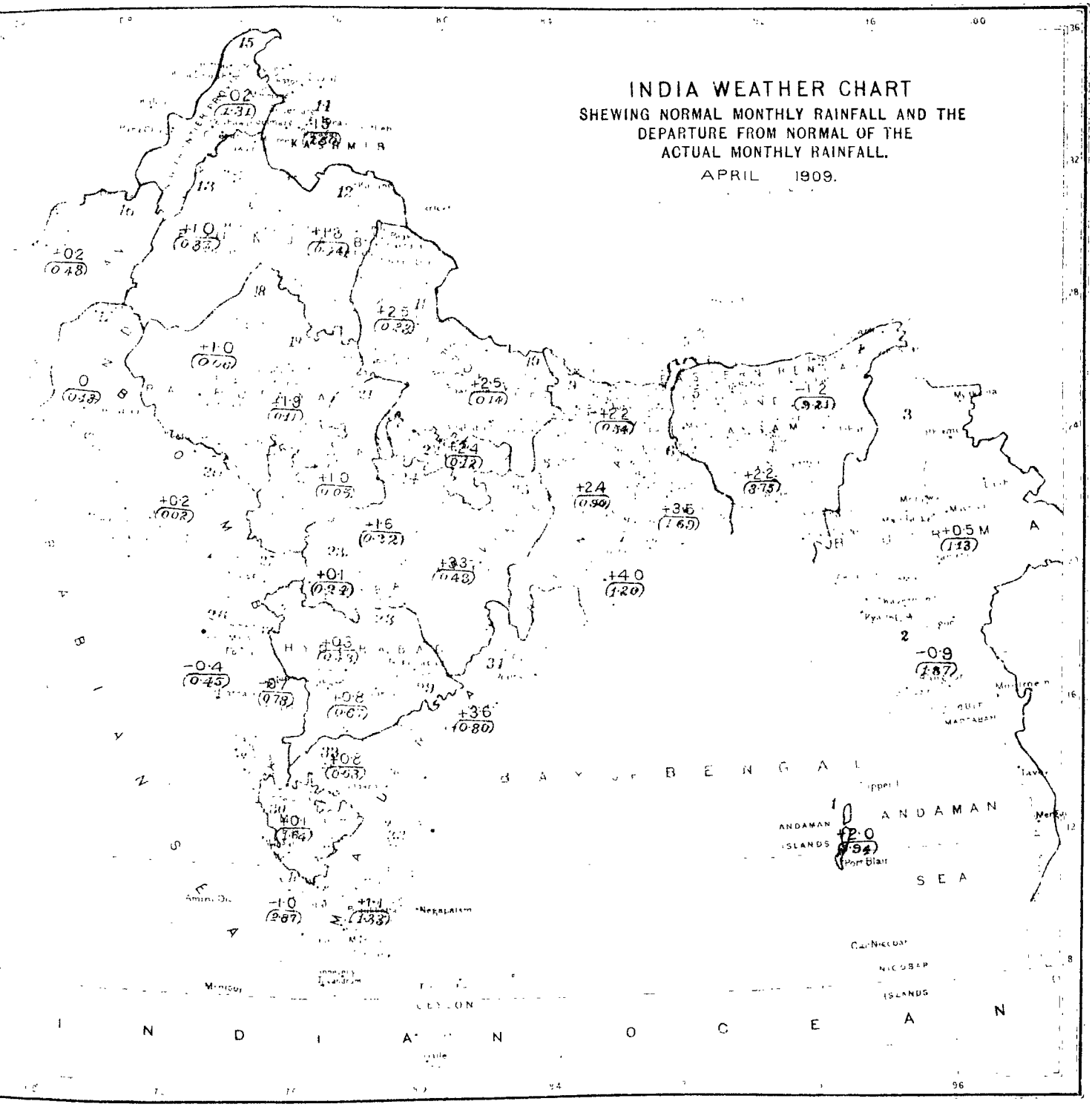


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EQUALLED OR EXCEEDED 0·10 INCH.

(BASED ON THE RETURNS OF TABLE B.)





The country is divided into 34 areas as shewn in the list below. The numbers in that list correspond with the red numbers on the chart, and serve to identify the areas. The numbers in brackets on the chart give the average over the divisions of the normal monthly rainfall; the numbers above these give the departures from normal of the average actual rainfall over the divisions.

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

GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW.

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, MAY, 1909.

INTRODUCTION.

THIS review of the weather in India for the month of May 1909 is based on observations taken daily at 8 hrs. at 239 stations and on additional observations recorded at 10 hrs. and 16 hrs. at 35 stations. In the case of the rainfall section of the review there are utilized the data afforded by the meteorological observatories and such rainfall statements of the month as had been published in the Government Gazettes by the Provincial Governments prior to the date of the publication of the review. The brief notes on solar, seismic and magnetic disturbances have been supplied by the chief observatories.

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

Summary of the chief features of the weather in India during the month of May, 1909.

2. On the average of the month the weather was drier and clearer than usual over northern India, and unusually wet and cloudy over a large part of the peninsula and of central India. The largest excess of rainfall occurred in Malabar which received a total of 20 inches in place of the normal 7 inches. On the other hand little or no rain fell over the Punjab, Sind and Baluchistan which formed the region of greatest percentage deficiency of rainfall.

Humidity was low in the northwest of India, rather high in central India and approximately normal over the rest of the country. Temperature was lower than usual both by day and night in Baluchistan, Afghanistan, Sind and west Rajputana but elsewhere the temperature conditions were practically normal. Pressure was on the average low by ·002″ and the departures from this general condition were small except in Sind and the adjacent districts to the east where a marked excess occurred.

Solar, seismic and magnetic disturbances.

KODAIKANAL OBSERVATORY.

3. *Solar Observations.*—The monsoon broke early and there were in May three days on which no observations were possible, one on which prominences could not be observed, and four other days on which the prominence record was imperfect.

Sunspots.—There were only 10 new groups—the smallest number observed since September 1903; the daily average was 2·7, but the average life of a spot was 6·5 days. One of the new groups was the return of an old one. The

latitude distribution shows, as usual, a preponderance of southern spots. It is as follows:—

TABLE 1.

	0°—10°	11°—20°	Extreme latitudes.	Mean latitude.
North	2	1	3°, 13°	8°·7
South	2	5	6°, 17°	12°·6

Four of the new groups Nos. 1659, 1662, 1663, and 1667 contained fairly large spots. No. 1663 was first seen as a double spot group with the two spots nearly equal; but the leader gradually diminished, and the following spot increased in size till, on the 15th, the former was almost a mere dot and the latter quite a large spot, but of irregular outline. Disturbances in C and D_3 were frequently observed in that group, but there was nothing striking about any of the other three groups.

Prominences.—Only 43 large and 1 metallic and eruptive prominences were recorded during the month. Two of the largest prominences of the month were two clouds 270″ and 240″ high photographed near the west limb on May 16.

Magnetic disturbances.—There was a "very great" magnetic disturbance from the 14th to the 16th, a "moderate" one on the 18th and 19th, and slight ones on 14 days. The active group 1663 crossed the central meridian on the 14th.

C. MICHIE SMITH,

Director,

Kodaikanal and Madras Observatories.

BOMBAY OBSERVATORY.

Note on the Alibag magnetic record.

4. During the month of May 1909, the traces showed 9 calm days, 18 days of small, 3 days of moderate and one day of great disturbance.

The days of the month selected as quiet for the purposes of the magnetic survey of India are 7th, 10th, 12th, 24th and 25th.

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

Easterly declination . . .	1° 0′ 19″	
Horizontal force . . .	0·36846	C. G. S. unit.
Vertical force	0·16001	,, ,,
Dip (calculated)	23°28′·4	
Dip (observed)	23°27′·6	
Horizontal force range . . .	0·00051	C. G. S. unit.
Horizontal force summed range .	0·00339	,, ,,
Declination range . . .	3′·9	
Declination summed range . .	17′·7	

[NOTE.—Summed range means sum without regard to signs of 24 ordinates of diurnal inequality.]

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

TABLE 2.

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

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

The commencement and the progress of the great disturbance of the 14th are typical of those usually observed in case of large disturbances at Colaba. The disturbance commenced at about 9·9 hrs. with a sharp characteristic rise of force of about 68γ. The force falls thereafter with oscillatory movements till the minimum is attained at about midnight, indicating a total range of movement of about 439γ. A slow and steady rise of force occurs thereafter accompanied by minor fluctuations till more or less quiescent conditions are established at about 1 hr. on the 16th.

Seismic disturbances recorded at Bombay.

Five disturbances were recorded during the month, on the 10th, 12th, 17th (2 disturbances) and 30th.

List of disturbances.

TABLE 3.

Date.	Commencement.	Maximum.	End.	Maximum amplitude.	Duration.
	H. M.	H. M.	H. M.	mm.	H. M.
May, 10th . . .	20 27·6	20 30·8	20 36·8	0·2	0 9·2
12th . .	1 31·0	1 40·3	1 59·7	0·3	0 28·7
17th . .	8 24·7	8 37·3	?	0·9	...
17th . .	?	9 28·7	10 31·6	0·8	...
30th . .	21 22·1	21 42·3	22 4·6	0·5	0 42·5

All times given above denote G. M. T.
Sensibility = 1 mm. = 0″·41 up to the 13th May and 0·36″ from the 14th.

N. A. F. MOOS,

Director,

Bombay and Alibag Observatories.

CALCUTTA OBSERVATORY.

5. List of displacements recorded by the Milne seismograph at the Alipore Observatory during May, 1909.

TABLE 4.

Date 1909.	P. T. Commencement. G.M.T.	L. W. Commencement. G.M.T.	Maximum. G.M.T.	End. G.M.T.	Duration.	Maximum displacement on trace from mean position.	REMARKS.
	H. M.	H. M.	H. M.	H. M.	H. M.	mm.	
May 2nd	22 21·5	—	—	22 55·0	0 33·5	—	Thickening of the line.
„ 10th	20 29·6	20 38·2	20 46·3	21 0·1	0 30·5	0·50	
„ 11th	15 31·4	—	15 33·5	15 38·5	0 7·1	1·00	
„ „	16 0·9	—	16 5·0	16 12·6	0 11·7	5	
„ 17th	8 23·7	8 27·3	8 40·5	10 11·0	1 47·3	1·50	
„ 19th	13 36·1	—	—	14 1·5	0 25·4	—	Thickening of the line.
„ 20th	13 41·1	—	13 41·6	13 46·2	0 5·1	0·50	
„ 30th	21 9·8	21 16·9	21 33·2	22 4·7	0 54·9	0·75	
							Sensibility 1 mm. = 0·38″ of tilt.

E. P. HARRISON,

Offg. Meteorologist, Calcutta.

SIMLA OBSERVATORY.

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

TABLE 5.

Date 1909.		Commencement of 1st P. T. G. M. T.	Commencement of 2nd P. T. G. M. T.	Beginning of L. W. G. M. T.	Time of maximum amplitude. G. M. T.	End approximately. G. M. T.	Duration.	Maximum displacement of style.	REMARKS.
		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	mm.	
May 10th	A	?	?	20 37·8	20 38·3	21 2	?	·5	
„	B	...	...	...	...	...	...	...	Barely visible.
11th	A	?	?	16 8·8	16 9·1	16 32	?	Small*	
„	B	...	...	...	...	...	...	...	Barely visible.
14th	A	18 30·5	...	...	...	18 31·5	0 1	Small	
„	B	18 30·7	...	...	...	18 31·5	0 0·8	„	
15th	A	14 15·6 14 52·9	...	14 16·9	14 16·9	15 2	0 46	0·4 Small	
„	B	14 15·7	...	14 17·1	14 17·1	15 0	0 44	0·5	
17th	A	8 22·2	?	8 44·0	8 44·3	10 3	1 41	0·7	
„	B	8 22·3	?	8 44·0	8 45·8	8 48	0 26	Small	
30th	A	21 11·8	...	21 21	?	22 10	0 58	„	
	B	21 12·0	...	21 20·8	21 21·1	21 45	0 35	„	

A = Recording E—W component.
B = Recording N—S component.
Magnification of each instrument was 15.
* Displacements less than 0·2 mm. are reported as "Small".

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

TABLE 6.

Place at which felt.	Date.	G. M. T. of earthquake.	Intensity.	Duration.	No. of shocks.	REMARKS.
		H. M.				
Kyelang (Kangra) .	4th	10 55½	1	3 Secs.	4	
Ditto . .	6th	4 47	1	2 „	4	
Ditto . . .	6th	8 44	2	3 „	4	
Manpwe (Shan States, Burma).	7th	22 45	...	1 min.	1	Sharp.
Mandalay . .	8th	10 44	3	2 Secs.	1	
Kyelang (Kangra) .	13th	22 58	2	4 „	3	
Cuddapah . .	20th	23 20	2	1 Sec.	1	
Gidhour* . . .	20th	13 35	...	1 min.	1	No damage.
Loimwe and Kentong (Shan States).*	21st	21 30	...	50 Secs.	Several	Do.
Ditto* . .	22nd	2 30			1	
Ditto* . .	22nd	9 0			1	
Ditto* . .	22nd	17 15			1	

* Newspaper accounts.

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

Maximum	1·47
Minimum	1·21
Mean	1·36
Number of days of observation . . .	12

J. H. FIELD,

Imperial Meteorologist, Simla.

ROYAL ALFRED OBSERVATORY, MAURITIUS.

7. *Solar observations.*—Observations were taken on every day except 14th, 16th, 18th, 23rd, 24th and 29th to 31st, sunspots, singly or in groups, being seen on each day of observation and faculæ except on the 5th.

Magnetic disturbances.

TABLE 7.

Day.	Time.	Disturbance.
1st	7h. to 10h.	Frequent small fluctuations in decl.
11th	9½h. to 11h.	Wave in H. F. (—11).
14th to 15th	8½h. to 8½h.	
15th to 16th	8½h. to 0h.	Small rapid fluctuations in H. F., decl., and V. F.
17th	11h. to 13h.	Wave in H. F. (+10).
18th	9h. 2m.	Sudden increase in H. F. (10) followed by a general decrease (94), till 19th 0h. with waves.
18th	15½h. to 18½h.	(—20).
18th	20½h. to 22½h.	(+60).
19th	0h. to 12h.	Irregular increase in H. F. (78), with undulations (±15), in decl. occasional undulations (±20).
21st	½h. to 2h.	Wave in H. F. (+16).
22nd to 23rd	23h. to 1h.	Wave in H. F. (+21).
26th	4h. 8m. to 16h.	Sharp increase in H. F. (26), 9h. to 22h. decrease in H. F. (85).
26th to 27th	23½h. to 1h.	Wave in H. F. (+18).
27th	11h. to 15h.	Wave in H. F. (+26).

T. F. CLAXTON,
Director.

Weather in the Indian monsoon region.

8. The barometric pressure was very nearly normal at the two insular stations and at Zanzibar. The wind direction differed but slightly from the average except at the Seychelles where it was much more southerly than usual: the velocity was low at Mauritius and Zanzibar and high at the Seychelles.

The rainfall of the month was in defect, mostly so at Zanzibar which obtained only 44 per cent. of its normal supply. The general conditions were thus favourable for the prospects of Indian monsoon rainfall.

TABLE 8.

—	Mauritius.	Zanzibar.	Seychelles.
Departure from normal of mean pressure.	—·008	+·013	—·001
Actual mean wind direction	S 62° E	S 4° E	S 30° W
Normal mean wind direction	S 65° E	S 5° E	S 43° E
Actual mean wind velocity (miles per diem).	195	160	212
Normal mean wind velocity (miles per diem).	246	194	165
Rainfall departure from normal	—1·45	—5·83	—1·68

Depressions and cyclonic storms.

9. Weather was more or less unsettled over the Indian seas during the first half of the month owing to temporary advances of humid winds from the south, which resulted in the formation of two cyclonic storms over the Bay. Below is given a brief history of these disturbances.

Cyclonic storm of the 3rd to the 9th.—On the 1st and 2nd pressure was low along the Madras coast and high over Burma and the sea to the south. In consequence the flow of moist air into the Bay from the equatorial belt was directed towards this region of low pressure and a storm was generated during the 24 hours succeeding 8 A.M. of the 2nd. According to the information contained in the logs of ships weather was squally with much rain over the strip of the Bay lying between the Coromandel coast and the meridian of 88°E, and winds although not very strong tended to circulate cyclonically around a centre in about Lat. 9°, Long. 83½°. The disturbance travelled northwestwards during the day and at 8 hrs. of the 4th, its centre was close to Cuddalore where pressure was however less than a tenth of inch below the normal. On the 5th it was hardly traceable as a definite system in the pressure chart, although the winds pointed to its continued existence. It changed rapidly however in character during the next 24 hours owing to a strong influx of moist winds from across the Malabar coast, and on the morning of the 6th was shown as a well defined low-pressure area covering the north of Malabar and the adjacent districts to the east. It developed still further during the day without however changing appreciably in position. On the morning of the 7th the lowest pressure was recorded at and near Mangalore, and

was nearly a quarter of inch below the normal value. The observations made on the morning of the 8th showed that the storm was passing out into the Arabian Sea, over the southeast of which winds of force 4 to 8 were blowing. The disturbance travelled rather quickly during the next 24 hours decreasing considerably in intensity at the same time, and on the morning of the 9th was shown as a diffused low pressure area over Gujarat and the neighbouring part of the Arabian Sea. Winds were then even stronger than on the previous day over the southeast of the Arabian Sea but their direction indicated that they were not being drawn into the depression. The marine information for the next three days is too limited to enable the future career of the disturbance to be traced with any certainty: it suffices however to indicate that the residual action was transmitted northwestwards towards the Gulf of Oman, and that it was too feeble to exercise any large influence on the weather.

Although not strongly marked the storm occasioned heavy rain over southern India, particularly in Malabar where Mangalore received a total of nearly 26 inches between the 5th and the 9th.

According to newspaper accounts the high winds and sea in the southern quadrant inflicted much damage on shipping in the port of Calicut.

It may be noted that cyclonic disturbances formed during the pre-monsoon period and advancing westwards across the peninsula are usually broken up by the obstructive action of the Ghats, but the fact that these hill ranges had no disintegrating influence on the present storm would show that it was one of greater depth than usual.

Feeble cyclonic storm of the 12th to the 14th over the Bay of Bengal.—According to the information contained in ships' logs there was a second advance of monsoon winds over both the Arabian Sea and the Bay of Bengal towards the end of the first week, but that unlike the previous advance it was directed towards the centre and south east of the Bay. As usually happens in such circumstances a storm was developed in front of the wave of humid winds; this showed itself first on the 12th to the west of the Andamans. The disturbance thus formed travelled north-eastwards towards the coast of Arakan which it crossed between Diamond Island and Akyab on the night of the 14th, after which it was speedily broken up by the obstructive action of the Arakan Yoma. Throughout its existence it was a diffused depression rather than a well-defined storm, but it gave moderately heavy rain to practically the whole of Burma.

In the north the only disturbance of any importance was recorded between the 20th and the 23rd. It was of the usual hot weather type and occasioned a series of dust-storms and thunderstorms (some attended with heavy rain) in Kashmir.

Pressure.

10. The atmospheric pressure at 8 hrs. averaged over the Indian region corresponded closely with the normal value, being only ·002″ in defect. The defect was not, however, universal, for over north west India there was an appreciable excess which was on the whole most marked in Sind and the adjacent districts of Rajputana (about ·035″).

TABLE 9.

DIVISION.	Departure from normal of mean 8 hrs. pressure.
	″
Burma	—·009
Eastern Bengal and Assam	—·005
Bengal	—·006
United Provinces	—·001
Punjab	+·004
North-West Frontier Province	—·001
Sind	+·038
Rajputana	+·017
Bombay	+·003
Central India	+·004
Central Provinces	+·001
Hyderabad	—·007
Mysore	—·013
Madras	—·011

The excess in northwest India extended upwards in a modified degree to the level of the hill stations in Baluchistan and Rajputana, but was replaced by a slight defect at and above the elevation of about 7,000 feet.

The vertical distribution of pressure as determined from the data of 8 pairs of hill and plain stations was very nearly normal.

TABLE 10.

HILL STATION.	Departure from normal pressure. A	PLAIN STATION.	Departure from normal pressure. B	Departure of pressure difference. B—A.
	″		″	″
Quetta	+·026	Jacobabad	+·035	+·009
Leh	—·012	Lahore	—·008	+·004
Murree	—·008	Peshawar	+·002	+·010
Simla	—·006	Ludhiana	+·001	+·007
Chakrata	+·017	Roorkee	+·010	—·007
Darjeeling	+·005	Dhubri	—·011	—·016
Mount Abu	+·011	Deesa	+·014	+·003
chmarhi	+·012	Khandwa	+·004	—·008

Temperature.

11. The departures from normal of mean temperature were small over a large part of the country, in few places exceeding 1½°. In Baluchistan and Afghanistan a defect of 4° to 8° was recorded and in Sind and Rajputana temperature was on the average 2° below the normal, the defect in all these areas being greater in the night than in the day temperature. In the region of approximately normal conditions there was hardly any marked difference between the departures of day and night temperatures.

During the first fortnight temperature was very unsteady, the most remarkable abnormal feature being the prevalence of cool weather over northwestern India from the 1st to the 10th and over the southern half of the peninsula from the 5th to the 10th.

The highest maximum temperature of the month was as usual observed at Jacobabad and was from 2° to 7° lower than the corresponding readings on record since 1885.

TABLE 11.

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

TABLE 12.

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
1. Bay Islands	87·0	78·3	82·6	8·7	16·9	−3·1	−0·7	−2·4
2. Lower Burma	90·2	76·8	83·5	13·4	24·7	−0·5	+0·2	−0·7
3. Upper do.	94·5	75·7	85·1	18·7	34·8	−1·2	+0·5	−1·7
4. Assam	85·5	71·4	78·5	14·1	29·3	−1·1	−1·1	0
5. Eastern Bengal	92·2	75·2	83·7	17·0	30·9	+1·3	+0·9	+0·4
6. Bengal	97·9	78·4	88·1	19·6	33·6	+0·7	+0·5	+0·2
7. Orissa	97·7	80·5	89·1	17·3	28·3	−1·1	+0·4	−1·5
8. Chota Nagpur	103·9	77·6	90·8	26·3	37·2	+1·1	0	+1·1
9. Bihar	102·4	77·3	89·8	25·2	39·3	+2·4	+0·6	+1·8
10. United Provinces, East	105·9	76·5	91·2	29·4	43·4	+1·3	−2·2	+3·5
11. Do., West	103·7	75·3	89·5	28·4	43·7	−0·2	−2·2	+2·0
12. Punjab, East and North	103·0	73·3	88·2	29·7	52·1	−1·0	−1·6	+0·6
13. Do., Southwest	104·9	76·0	90·5	28·9	52·0	−1·2	−1·3	+0·1
14. Kashmir	69·4	44·0	56·8	25·4	45·3	−0·1	−0·9	+0·8
15. North-West Frontier Province	99·9	70·8	85·4	29·2	52·3	−1·5	−1·7	+0·2
16. Baluchistan	86·7	58·1	72·4	28·6	56·3	−5·4	−6·8	+1·4
17. Sind	102·5	75·8	89·1	26·7	48·8	−1·3	−2·7	+1·4
18. Rajputana, West	105·2	76·6	90·9	28·6	48·3	−2·0	−3·7	+1·7

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
19. Rajputana, East	104·0	78·5	91·3	25·6	41·7	—1·1	—2·6	+1·5
20. Gujarat	99·8	77·7	88·8	22·1	39·2	+0·1	—0·3	+0·4
21. Central India, West	101·6	76·4	89·1	25·2	38·6	—1·8	—0·1	—1·7
22. Do., East	106·2	79·6	92·9	26·7	39·4	—0·3	+1·9	—2·2
23. Berar	105·3	79·8	92·6	25·6	37·6	—0·4	+0·3	—0·7
24. Central Provinces, West	106·3	80·6	93·5	25·7	37·3	—0·5	+0·5	—1·0
25. Do., East	105·1	81·2	93·1	23·9	33·7	—1·3	+0·9	—2·2
26. Konkan	89·9	80·4	85·2	9·5	16·3	+0·2	+0·2	0
27. Bombay Deccan	100·4	73·5	86·9	26·9	39·3	—0·1	+0·3	—0·4
28. Hyderabad, North	103·6	76·8	90·2	26·8	37·2	+0·7	+0·1	+0·6
29. Do., South	103·6	80·8	92·2	22·8	34·7	—0·6	+1·1	—1·7
30. Mysore	88·7	68·7	78·7	20·1	31·8	—2·5	—0·4	—2·1
31. Malabar	87·7	78·1	82·9	9·6	18·3	—1·5	—0·1	—1·4
32 Madras, Southeast	97·0	78·3	87·7	18·7	31·5	—1·8	—0·4	—1·4
33. Do., Deccan	102·7	80·4	91·6	22·3	34·8	—1·8	—0·3	—1·5
34. Do. Coast, North	95·6	81·9	88·8	13·7	26·9	—2·8	+0·4	—3·2

Winds.

12. (*a*) As might be expected from the character of the pressure distribution, the southerly element in the mean wind direction over Kathiawar, Sind, Rajputana and the adjacent districts of the United Provinces was not only weaker than usual but was in some cases replaced by a northerly component. At Kabul and in the north of the North-West Frontier Province on the other hand the prevailing direction was more westerly or less northerly than the normal, an indication that there was less than the usual influx of air from the Afghan mountains into the plains of upper India.

(*b*) Over central India and the peninsula, excepting the east coast, there was less than the average amount of northing in the wind's direction, while in Chota Nagpur and the east coast of the peninsula the direction was on the whole slightly more southerly than usual.

These deviations from the normal type of air circulation are the opposite of those which characterize the hot weather movement in years of excessive and late snowfall.

(*c*) Except locally in Mysore the air movement was equal to or below the average amount in all parts of the country.

(*d*) Winds blew with more than their normal steadiness in Madras and the greater part of northern and central India, while in the remainder of the peninsula, as well as in Rajputana, the directions were not so steady as usual.

TABLE 13.

Division.	Departure from normal of	
	Hourly wind velocity.	Wind steadiness.
Burma	—1·1	+2
Eastern Bengal and Assam	—0·4	+7
Bengal	—0·4	+2
United Provinces	—0·6	+6
Punjab	—0·1	+15
North-West Frontier Province	—0·8	+10
Sind	—2·6	—1
Rajputana	—0·5	—6
Bombay	—0·6	—11
Central India	—1·4	+4
Central Provinces	+0·2	+6
Hyderabad	—1·0	—9
Mysore	+1·1	—14
Madras	—0·9	+6

Humidity and cloud.

13. Both humidity and vapour tension were in marked defect in the plains of the Punjab, the North-West Frontier Province and Sind, and to a less degree in the neighbouring mountain region, but over the rest of the country the conditions were nearly normal.

The proportion of cloud also agreed closely with the normal value, the only important departures occurring in Rajputana, the Punjab and northeast India where skies were on the average much less clouded than is normally the case in May.

TABLE 14.

Division.	Hygrometry; 8 hrs.				Cloud.	
	Mean humidity.	Departure from normal.	Mean vapour tension in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.
	%					
Burma . .	81	0	·848	—·011	6·2	+0·1
Eastern Bengal and Assam.	83	— 2	·857	—·001	4·8	—1·2
Bengal . .	67	— 2	·798	—·016	2·5	—1·1
United Provinces.	43	— 2	·557	—·027	0·9	—0·6
Punjab . .	33	— 7	·423	—·091	0·5	—1·2
North-West Frontier Province.	38	— 8	·458	—·088	1·0	—0·6
Sind . .	50	— 8	·605	—·125	1·6	—0·2
Rajputana .	45	+ 2	·581	—·046	0·4	—1·0
Bombay . .	62	— 4	·720	—·046	3·0	+0·1
Central India .	44	+ 3	·566	+·022	1·5	+0·4
Central Provinces.	39	+ 2	·528	+·033	2·0	+0·1
Hyderabad .	48	— 2	·595	+·001	3·0	+0·6
Mysore . .	78	+ 4	·659	—·001	5·5	+0·3
Madras . .	72	+ 2	·856	+·011	4·8	+0·2

Rainfall.

14. The month's aggregate rainfall was more or less below the normal in all parts of northern India, the defect being on the whole most pronounced in actual amount in Assam and Eastern Bengal (—1·7″) and by percentage comparison with the normal in Sind and the southwest Punjab which were rainless throughout the month. In central India and the peninsula the distribution was marked by much irregularity: thus while the precipitation was unusually abundant in Berar, the Central Provinces West, the Bombay Deccan, Mysore, Malabar, Madras Southeast and Madras Deccan, it was equal to or in defect of the normal in central India, the Central Provinces East, the Konkan, Hyderabad and Madras Coast, North. The excess in southern India was due to the action of the cyclonic storm which passed through that area from the Bay during the first week; the defect in northeast India on the other hand was a result of the comparative feebleness and infrequence of the usual thunderstorms. In Burma the total fall was 13 per cent. above the normal.

On the average of the whole of the plains there was an excess of 1 per cent in the month's rainfall.

TABLE 15.

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			Inches	Inches.	Inches.	
1. Bay Islands	16·0	16·1	13·24	13·34	—0·10	— 1
2. Lower Burma	14·0	13·6	13·24	12·68	+0·56	+ 4
3. Upper do.	9·2	8·2	7·63	5·88	+1·75	+ 30
4. Assam	15·2	14·8	11·96	13·51	—1·55	— 11
5 Eastern Bengal	8·6	10·5	7·98	9·83	—1·85	— 19
6. Bengal	5·8	6·9	3·95	4·91	—0·96	— 20

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			Inches.	Inches.	Inches.	
7. Orissa	3·9	4·9	2·47	3·46	—0·99	— 29
8. Chota Nagpur	2·3	3·8	1·09	2·30	—1·21	— 53
9. Bihar	1·4	3·1	0·91	2·22	—1·31	— 59
10. United Provinces, East	0·5	1·3	0·20	0·67	—0·47	— 70
11. Do. do., West	0·4	1·4	0·14	0·60	—0·46	— 77
12. Punjab, East and North	0·3	1·5	0·11	0·65	—0·54	— 83
13. Do., Southwest	0	0·9	0·01	0·42	—0·41	— 98
14. Kashmir	0·2	3·7	1·00	1·72	—0·72	— 42
15. North-West Frontier Province	0·6	1·6	0·23	0·72	—0·49	— 68
16. Baluchistan	0·2	0·5	0·04	0·18	—0·14	— 78
17. Sind	0	0·3	0	0·10	—0·10	—100
18. Rajputana, West	0·2	0·7	0·11	0·31	—0·20	— 65
19. Do., East	0·7	1·1	0·24	0·43	—0·19	— 44
20. Gujarat	0·1	0·4	0·09	0·23	—0·14	— 61
21. Central India, West	0·8	0·6	0·29	0·27	+0·02	+ 7
22. Do., East	0·4	0·9	0·10	0·37	—0·27	— 73
23. Berar	1·7	0·8	0·84	0·42	+0·42	+100
24. Central Provinces, West	1·6	0·9	0·67	0·39	+0·28	+ 72
25. Do. do., East	0·7	1·4	0·25	0·72	—0·47	— 65
26. Konkan	1·1	1·8	1·11	1·47	—0·36	— 24
27. Bombay Deccan	2·9	2·4	1·68	1·34	+0·34	+ 25
28. Hyderabad, North	1·3	1·5	0·65	0·68	—0·03	— 4
29. Do., South	1·3	1·9	0·58	0·99	—0·41	— 41
30. Mysore	6·4	5·4	6·38	3·39	+2·99	+ 88
31. Malabar	7·8	8·2	20·26	7·11	+13·15	+185
32. Madras, Southeast	5·1	3·8	4·47	2·80	+1·67	+ 60
33. Do. Deccan	3·6	3·0	2·50	1·72	+0·78	+ 45
34. Do. Coast, North	2·8	3·2	1·56	2·20	—0·64	— 29

TABLE 16.

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Burma	10·17	8·97	+1·20	+ 13
Eastern Bengal and Assam	10·00	11·72	—1·72	— 15
Bengal	2·35	3·44	—1·09	— 32
United Provinces	0·17	0·64	—0·47	— 73
Punjab	0·09	0·60	—0·51	— 85
North-West Frontier Province	0·23	0·72	—0·49	— 68
Sind	0	0·10	—0·10	—100
Rajputana	0·20	0·40	—0·20	— 50

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Bombay	1·06	1·01	+0·05	+ 5
Central India	0·22	0·30	—0·08	—27
Central Provinces	0·64	0·47	+0·17	+36
Hyderabad	0·61	0·85	—0·24	—28
Mysore	6·38	3·39	+2·99	+ 88
Madras	4·76	2·87	+1·89	+66
Mean of India when the size of the above areas is taken into account.	2·91	2·87	+0·04	+ 1

Snowfall.

I.—AFGHANISTAN.

15. There were snowstorms during the first week in Badghis and on the high hills of Paghman, and on one occasion in the plain of Kabul itself.

II.—NORTH-WEST FRONTIER PROVINCE.

(*a*) *Wano.*—No snow fell and the weather was hot and dry.

(*b*) *Kurram.*—A few light falls occurred on the higher parts of the Sufed Koh.

(*c*) *Chitral.*—Feeble snowstorms occurred on three days on the neighbouring hills above 8,000 feet.

(*d*) *Drosh.*—On five days slight snow fell on the surrounding hills down to about 10,000 feet.

III.—KASHMIR.

About 2 feet of snow fell on parts of the Zoji-la and Hangsathu passes and a few inches on the ranges near Dras, while a heavy fall occurred on the mountains near Gulmarg. The accumulations at the end of the month measured about 5 feet in depth on the Zoji-la and Hangsathu, and 1 to 2 feet on the high ranges in the Kargil district.

IV.—PUNJAB.

(*a*) *Chamba.*—No snow fell during the month on the Dalhousie, Bhandal and Tisa ranges, but occasional falls occurred on the Chamba and Pangi ranges during the second and third weeks. The total fall amounted to 8 and 4 inches on the Bakani and Tundah peaks (elevation 11,000 feet) respectively, and to 6 feet on the Sach pass (elevation 14,400 feet).

The statement below shows the total amount of snow received during the month at the recording stations, and the depth of accumulation at the end of the month.

TABLE 17.

NAME OF PASS OR PEAK.	Total amount of snowfall.		Reported depth of accumulation at the end of the month.	
	Feet.	Inches.	Feet.	Inches.
Bakani Peak	0	8	2	6
Tundah "	0	4	2	6
Sach Pass	6	1	7	6
Cheni			8	6
Droti			9	6

(*b*) *Kilba.*—Feeble snowstorms occurred on four occasions, the fall was restricted to the Sutlej and Baspa valleys. On the hills opposite Kilba the snow line came down to about 9,700 feet and at that level the total fall was estimated at 3 inches. The accumulations on the Brua, Rupan and Shatul passes varied in depth between 4 and 6 feet as compared with a normal of about 8 feet.

Weather was on the whole drier, clearer and warmer than usual.

(*c*) *Kangra.*—There were altogether six falls in the Kulu tahsil on the passes over 10,000 feet high, while it rained below that level. In the Saraj tahsil the snowfall was confined to the Gargarasan and Tirath passes and was altogether not more than six inches in depth.

TABLE 18.

KULU TAHSIL.			SARAJ TAHSIL.		
NAME OF PASS.	Reported.	Normal.	NAME OF PASS.	Reported.	Normal.
Rohtang	5 feet	8 feet	Sirikhand	4 feet	7½ feet.
Hamta	7 "	3½ "	Gargarasan	½ foot	2 "
Barsai	2 "	2 "	Tirath	1½ feet	2 "
Boja Dhar	2 "	2 "			
Chandar Khani	4 "	4 "			
Lohri Achhri	1 foot	2½ "			
Sari	3 feet	1½ "			

V.—UNITED PROVINCES.

(*a*) *Garhwal.*—There were occasional snowstorms in the last three weeks at elevations above 10,000 feet, but they were not severe. Temperature was equal to or above the normal.

(*b*) *Almora.*—During the first three weeks, for which period alone information is available, several falls occurred in Malla Darma and Chaudas and one fall in Malla Johar. The total quantities were estimated at about 7 feet on the Nuwe pass, 3 feet on the Binkaru pass and 1 foot in Malla Johar.

TABLE 19.

NAME OF PASS.	DEPTH OF ACCUMULATION ON THE 20TH MAY.	
	Reported.	Normal.
Binkaru Pass	14 feet	22 feet.
Nuwe "	23 "	18 "

VI.—ASSAM.

Sadiya.—Snow is said to have fallen in the early part of the month on the hills near Sadiya. By the end of the month snow had disappeared from all peaks below 12,000 feet in height.

SUMMARY.

16. (*a*) According to the limited information available there was more than the average amount of snowfall in parts of Afghanistan.

(*b*) In the hills of the North-West Frontier Province the quantity of snowfall received during the month was by no means unusual.

(*c*) In the western Himalayas the fall, although heavy in one or two places, was on the whole not above the average, The accumulations at the end of the month were, if anything, below the average depth. The snowline was probably at a somewhat lower level than usual in the Punjab Himalayas.

Crop report.

17. *Burma.*—Sowing of hill side rice and ploughing for early sesamum, cotton and early autumn rice were in progress. Standing crops were generally in good condition.

Eastern Bengal and Assam.—The prospects of crops were fair. Winter rice was being sown and plucking of tea was in progress.

Bengal.—Sowing of jute, paddy and other autumn crops was in progress and land was being prepared for the next season's crops. Rain was needed in parts of Bihar.

United Provinces.—Standing crops were in good condition. Fields were being prepared for autumn sowings.

Punjab.—Spring crops were being harvested and the outturn was good to average on irrigated and average to below average on unirrigated areas. Extra spring and autumn crops were generally in good condition.

North-West Frontier Province.—Spring crops were being harvested and the outturn was reported to be average. Standing crops were generally good on irrigated lands and from average to below the average on unirrigated areas.

Jammu and Kashmir.—The condition of standing crops was fair to below the average. Autumn crops were being sown.

Rajputana.—Preparations were being made for monsoon sowings, and sowings had commenced in parts of Bikaner. Cattle were generally in good condition and sufficient fodder was available.

Central India.—Land was being prepared for autumn crops. Harvesting of spring crops was nearly completed.

Central Provinces.—Field embankments were being constructed and land prepared for the sowing of autumn crops. Cattle were in good condition.

Bombay.—Preparation of lands for autumn cultivation was generally in progress and sowings were being made in parts. Agricultural stock was on the whole in good condition.

Hyderabad.—The late rice crop was being harvested in parts, with a fair outturn though it had been slightly damaged by the recent rain. Land was being prepared for autumn sowings.

Mysore.—Ploughing and sowing were in progress and the prospects of the season were hopeful.

Coorg.—Sufficient water and fodder for cattle were available.

Madras.—Standing crops were generally in fair condition, but in Salem some required more rain. Ploughing, sowing, weeding and transplanting were in progress.

HEM RAJ.

Table A.—Abstract of observations taken at 10 hrs. and 16 hrs. at 35 stations in India, etc., in May, 1909.

Table

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

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Mean of 16 hrs.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to sea-level and gravity, 45° Lat.	Temperature of air. Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Temperature, wet-bulb. Mean minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of three previous columns.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	I.—Burma.																					
2	Rangoon . .	18	29·828	29·715	·113	29·776	+·016	29·731	89·5	77·8	11·7	98·1	75·9	22·2	84·6	84·8	81·2	−1·0	75·5	78·5	78·0	77·3
	III.—Bengal.																					
6	Calcutta . .	21	·707	·593	·114	·652	−·009	·618	95·3	78·2	17·1	98·6	71·3	27·3	89·7	92·4	86·4	+0·7	75·2	81·5	81·2	79·3
	IV.—United Provinces of Agra and Oudh.																					
10	Allahabad . .	309	·374	·251	·123	·310	−·004	·559	108·5	78·7	29·8	112·3	69·8	42·5	99·1	106·6	92·8	+0·3	65·5	70·4	69·9	68·6
11	Dehra Dun . .	2,233	27·488	27·393	·095	27·435	−·026	·559	96·7	69·1	27·6	102·6	61·1	41·5	87·6	93·5	81·7	+0·1	57·9	66·1	66·5	63·5
	V.—Punjab.																					
12	Lahore . . .	702	28·954	28·863	·091	28·903	−·002	·546	104·9	72·6	32·3	115·2	59·6	55·6	95·4	103·4	88·4	−0·5	62·9	70·3	71·4	68·2
	VIII.—Rajputana.																					
19	Jaipur . . .	1,431	·311	·210	·101	·255	+·011	·582	105·2	75·8	29·4	110·2	65·1	45·1	96·2	102·6	89·7	−1·9	62·7	71·5	70·6	68·3
	Udaipur . .	1,925	27·874	27·771	·103	27·822		·629	101·8	77·3	24·0	105·5	65·9	39·6	93·8	100·2	88·9		65·9	71·9	74·5	70·8
	IX.—Bombay.																					
26	Bombay . .	37	29·819	29·711	·108	29·764	−·010	·741	92·1	81·8	10·3	94·6	79·4	15·2	87·4	88·3	85·9	+1·3	76·9	79·3	79·4	78·5
	XI.—Central Provinces.																					
24	Nagpur . .	1,017	28·719	28·581	·138	28·652	+·006	·589‡	107·4‡	81·7§	25·7	111·1	77·3	33·8	97·7‡	102·9‡	93·4§	−1·1	66·5§	73·5‡	74·0‡	71·3
	XII.—Hyderabad.																					
29	Hyderabad . .	1,690	·112	27·979	·133	·047	−·004	·624	102·9	80·8	22·1	106·8	75·5	31·3	93·0	99·5	90·8	+0·7	67·8	72·3	72·3	70·8
	XIII.—Mysore.																					
30	Bangalore . .	3,021	26·886	26·765	·121	26·833	−·010	·698	88·9	69·1	19·8	93·8	64·8	29·0	79·8	86·4	77·8	−1·2	66·0	70·9	70·4	69·1
	Mysore . . .	2,518	27·381	27·260	·121	27·328	−·013	·733	87·6	63·9	18·7	94·5	64·0	30·5	79·0	86·2	76·6	−2·6	66·5	70·8	71·0	69·4
	XIV—Madras.																					
32	Periyakulam .	944								Observatory closed.												
	Pudukkottai .	318	29·501	29·380	·121	29·441		·683	99·0	78·2	20·8	104·6	71·6	33·0	90·0	95·1	88·6		73·7	76·8	77·9	76·1
	Madras . .	22	·765	·650	·115	·716	−·017	·669	97·4	80·2	17·2	106·1	74·2	31·9	91·2	90·0	87·7	−1·0	77·1	80·4	81·4	79·7
	Bay Islands.																					
1	Port Blair . .	58	·793	·707	·086	·750	−·016	·738‡	35·9	77·7	8·2	90·4	74·8	15·6	83·4‡	83·3	80·7	−1·9	75·3	78·8	78·5	77·
	Kashmir.																					
14	Srinagar . .	5,204	24·813	24·767	·076	24·807	−·007	24·778	76·4	50·5	25·9	86·9	40·7	46·2	65·1	73·6	62·9	−1·0	47·4	60·9	67·8	58·
	Leh . . .	11,503	19·708	19·621	·087	19·672	−·022	19·640	65·3	36·5	28·8	74·6	30·6	44·0	56·0	60·8	50·3	+0·5	31·0	40·0	41·8	37·
	Baluchistan.																					
16	Quetta .	5,502	24·615	24·550	·065	24·574	+·020	24·534	81·4	47·0	34·4	92·9	35·0	57·9	74·5	79·1	64·3	−3·7	42·9	52·9	54·5	50

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

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

‡ Mean of 30 days.

§ Mean of 29 days.

35 stations in India, etc., in May, 1909.

POUR TENSION IN INCHES OF MERCURY.				HUMIDITY.					CLOUD.				WIND DIRECTION.											WIND STEADINESS.		WIND VELOCITY.		RAINFALL.		STATION.	Number of subdivision.
													Total number of 10 hrs. and 16 hrs. winds from																			
Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean 10 hrs.	Mean 16 hrs.	Mean of two previous columns.	Departure from normal.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.		
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
																								%	%						
																														I.—Burma.	
·835	·873	·889	—·001	90	76	74	84	+1	7·9	3·2	8·2	+1·1	3			3	3	32	17	4		S 13° W	S 21° W	76	59	52*	110	22·33	3·63	Rangoon . .	2
																														III.—Bengal.	
·965	·916	·915	+·032	86	69	60	75	0	2·5	4·0	3·3	−1·0			2	1	11	16	32			S 15° W	S 9° W	76	67	178	168	4·52	1·15	Calcutta . .	6
																														IV.—United Provinces of Agra and Oudh.	
·368	·250	·374	— 147	46	20	11	28	−11	0·5	1·0	0·8	−0·8	3	6	5	4	1	1	2	19	21	N 52° W	N 6° W	56	24	91*	163	0·06	0·05	Allahabad. .	10
·380	·327	·355	—·048	49	29	21	35	− 6	2·1	2·7	2·4	−0·3	8	6	3	2	4	7	9	17	5	S 77° W	S 79° W	32	24	40†	53	0·22	0·13	Dehra Dun ‖ .	11
																														V.—Punjab.	
·415	·345	·415	—·039	56	24	16	33	− 3	0·3	0·3	0·3	−1·9	3	4	2	9	7	8	5	11	13	S 77° W	N 12° E	14	18	76*	77	0·08	0·08	Lahore . .	12
																														VIII.—Rajputana.	
·470	·357	·424	—·024	46	28	17	32	− 3	0·6	2·5	1·6	−0·7		3	3	3	1	1	2	25	24	N 63° W	N 72° W	68	48	149	151	0·08	0·07	Jaipur . .	19
·529	·549	·535		53	33	28	38		0·1	1·6	0·9		3	2	3	2	2		17	28	5	S 81° W		61		167*		0	0	Udaipur.	
																														IX.—Bombay.	
·894	·890	·893	+·004	79	69	67	75	− 1	2·6	2·1	2·4	−0·2						4	10	31	17	N 89° W	N 83° W	81	71	225	242	0	0	Bombay . .	26
																														XI.—Central Provinces.	
·523‡	·481‡	·477	+·046	43§	30‡	24‡	32	+ 4	2·1	5·5	3·8	0	1	10	7	3	7	5	10	15	4	N 86° W	N 48° W	19	41	140*	192	3·51	2·30	Nagpur . .	24
																														XII.—Hyderabad.	
·533	·452	·503	—·058	50	35	25	38	− 4	3·7	5·0	4·4	+1·2	8		1	1	10		3	11	28	N 65° W	N 64° W	43	43	119*	154	0·09	0·09	Hyderabad .	29
																														XIII.—Mysore.	
·655	·560	·620	+·015	85	65	47	68	+ 5	4·3	5·2	4·8			3	4	4	1	3	10	25	12	N 84° W	S 81° W	53	66	184*	151	7·91	6·06	Bangalore . .	30
·657	·572	·632	+·006	88	67	48	70	+ 5	6·1	6·3	6·2	+0·1		2	3	1	1	2	17	25	11	S 86° W	S 84° W	66	60	212*	245	10·59	2·85	Mysore.	
																														XIV.—Madras.	
																						Observatory closed.								Periyakulam .	32
·743	·712	·743		80	54	44	59		4·5	5·8	5·2		2	4	2	1	2	2	22	16	11	S 81° W.		58		210*		2·91	2·00	Pudukkottai.	
·901	·959	·932	+·036	87	63	68	75	+ 5	3·7	3·6	3·7	0			1	6	23	8	7	14	3	S 36° E	S 9° E	43	66	157	218	9·49	5·22	Madras.	
																														Bay Islands.	
·927‡	·914	·907	—·044	89	81‡	80	85	0	8·5	8·9	8·7	+1·7	4				11	5	10	23	9	S 65° W	S 39° W	52	43	202*	178	19·48	6·09	Port Blair .	1
																														Kashmir.	
·495	·630	·445	+·003	79	79	74	77¶	− 1	2·0	3·9	3·0	−1·0	12	2	4		11	7	3	5	18	N 86° W	N 30° E	14	6	86*	103	1·97	1·11	Srinagar . .	14
·111	·103	·114	—·016	60	25	20	35	− 5	3·5	7·4	5·5	−1·0		6	4	3	2	17	13	15	2	S 46° W	S 72° W	40	31	114	77	0·10	0·05	Leh.	
																														Baluchistan.	
·185	·176	·195	—·079	73	21	17	37	− 4	0·6	1·5	1·1	−0·9	19	8	1				2	15	17	N 55° W	N 69° W	55	45	59*	79	0	0	Quetta . .	16

* Corrected. ‖ Wind Observations less 1. † Mean of 30¼ days. ¶ Mean of three previous columns.

T

Abstract of observations taken at 10 hrs. and 16 hrs., at 35 sta

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Pressure. Mean of 16 hrs.	Pressure. Mean daily range.	Pressure. Mean of daily mean pressures.	Pressure. Departure from normal.	Pressure. Mean reduced to sea-level and gravity, 45° Lat.	Temperature of air. Mean maximum.	Temperature of air. Mean minimum.	Temperature of air. Mean daily range.	Temperature of air. Highest maximum.	Temperature of air. Lowest minimum.	Temperature of air. Absolute range.	Temperature of air. Mean 10 hrs.	Temperature of air. Mean 16 hrs.	Temperature of air. Mean of daily means.	Temperature of air. Departure from normal.	Temperature wet-bulb. Mean minimum.	Temperature wet-bulb. Mean 10 hrs.	Temperature wet-bulb. Mean 16 hrs.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	Hill Stations excluding Kashmir and Baluchistan.																				
	Simla . . .	7,232	23·083	23·043	·040	23·054	—·001	23·016	73·3	58·8	14·5	80·4	48·4	32·0	66·6	71·4	66·2	+0·2	46·6	50·7	52·8
	Sarain . . .		·139	·094	·045	·108		·069	73·0	49·0	24·0	80·4	42·9	37·5	66·0‡	70·8‡	61·1			50·0	52·0
	Kalabagh . .		20·164§	20·142‖	·022	20·145			55·6‖	43·8§	11·8	60·0	38·5	21·5	49·7§	53·1‖	49·7§			42·1§	44·1
	Chakrata . .	7,022	23·281	23·235	·046	23·248	+·018	·208	75·9	58·0	17·9	81·3	52·7	28·6	72·5	70·6	67·1	+1·5	47·2	55·2	54·6
	Muktesar . .	7,592	22·835	22·773	·062	22·795		22·753	75·8	56·0	19·8	79·7	48·0	31·7	68·0	70·3	66·0		44·9‡	52·6	54·2
	Katmandu . .	4,388	25·547	25·448	·099	25·494	† +·001	25·448	86·3	60·4	25·9	91·4	55·0	36·4	77·5	82·8	73·5	† +2·7	58·1	65·4	65·1
	Darjeeling . .	7,376	22·990	22·951	·039	22·967	+·005	22·921	65·3	52·8	12·5	70·1	49·2	20·9	61·1	62·7	59·2	+0·9	51·2	59·0	60·4
	Pachmarhi . .	3,528	26·387	26·285	·102	26·333	—·001	26·280	95·4	76·1	19·3	100·1	68·1	32·0	85·3	92·6	85·3	+0·7	61·6	66·2	66·2
	Mount Abu . .	3,945	·003	25·933	·070	25·965	+·007	25·915	86·6	70·2	16·4	92·2	62·0	30·2	80·5	85·0	78·5	—1·3	54·3	62·8	65·3
	Chikalda . .	3,642	·281	26·173	·108	26·224	—·006	26·168	95·1	71·9	23·2	100·7	69·9	30·8	83·9	92·2	83·6	—0·1	60·5	64·4	66·9
	Ootacamund .	7,327	23·047	22·976	·071	23·012		22·948	68·1	52·3	15·8	73·7	45·2	28·5	65·0	62·2	60·3		50·9	57·7	58·0
	Kodaikanal . .	7,688	22·813	·743	·070	22·778		·713	66·7	54·7	12·0	71·2	49·5	21·7	63·6	61·0	60·7		50·9	58·0	57·3
	Dodabetta . .	8,539?	·061	21·994	·067	·028		21·965	63·2	51·4	11·8	67·7	45·9	21·8	60·1	58·3	57·4		47·5	54·3	54·0
	Extra India.																				
	Minicoy . .	7	29·928	29·838	·090	29·888															
	Zanzibar . .	72	30·032	·936	·096	·989	+·013	29·988	83·7	75·6	8·1	86·0	72·4	13·6	79·8	82·0	78·5	+0·7	71·0	75·0	72·3
	Diego Garcia .				Observations not received.																
	Seychelles . .	15	29·981	·897	·084	·940	† —·001	·880	83·7	77·8	5·9	85·1	74·0	11·1	81·8	82·9	79·4	† —0·1	71·6	76·1	76·[illegible]
	Mauritius . .	181				·893	—·008	30·022				82·3	55·8	26·5			70·0	—2·1			

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

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

§ Mean of 11 days.
‖ " " 12 "

-concluded.

India, etc., in May, 1909—concluded.

Vapour tension in inches of mercury.				Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity.		Rainfall.		Station.	Number of subdivision.
													Total number of 10 hrs. and 16 hrs. winds from																			
Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean 10 hrs.	Mean 16 hrs.	Mean of two previous columns.	Departure from normal.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles, per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.		
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
																														Hill Stations excluding Kashmir and Baluchistan	
14	·206	·203	·197	—·072	39	32	27	33	-13	2·0	3·0	2·5	-1·4															0·49	0·25	Simla.	
	·203‡	·201‡				32‡	27‡			2·5	4·5	3·5		5	8	12	4	2	14	12	5		S 3 E		11		78*	1·36	0·90	Sarain.	
	·201‡	·213‡				58‡	53‡			4·1‡	5·0‡	5·0		7	7	2				1	2	4	N 22° W		49		320*	1·05*	0·75	Kalabagh.	
15	·261	·266	·241	—·027	44	33	35	37	-11	1·5	2·8	2·2	—1·4	10	4	1	2	8	13	2		2	S 9° E	S 57° W	55	33	105*	187	0·40	0·18	Chakrata.	
95‡	·239	·254	·220		42‡	36	36	38		2·5	3·8	3·2		11		1	2	1	1	1	41	1	S 86° W		66		173*		0·83	·53	Muktesar.	
59	·491	·421	·451	—·039	86	52	39	59	- 9	2·1	3·5	2·8	—2·4	2	2	2	17			2	37		N 84° W	S 89° W	32	39	12	43	1·08	0·27	Katmandu.	
60	·477	·503	·441	+ ·038	91	89	88	89	+ 2	5·8	7·0	6·9	—0·5	6	1	3				19	12	21	N 84° W	S 78° W	61	36	123*	153	9·85	3·50	Darjeeling.	
81	·426	·341	·375	+ ·012	43	35	23	34	+ 1	0	1·5	0·8	—2·2	2	1	3	2			13	13	28	N 70° W	N 66° W	64	58	212*	189	1·45	0·90	Pachmarhi.	
18	·373	·401	·333	—·012	35	37	34	35	- 1	0·1	1·1	0·6	—0·6		3	4		4	2	37	1	11	S 59° W	S 65° W	55	70	248*	259	0·65	0·05	Mount Abu.	
399	·378	·365	·373	+ ·007	51	33	24	36	+ 2	5·1	5·6	5·4	+2·4	1	2	1		1		8		49	N 51° W	N 33° W	81	67	170*	242	1·27	0·62	Chikalda.	
358	·401	·429	·393		91	66	75	77		6·2	7·1	6·7		3	8	13	11	6	2	5	8	6	N 36° E		24		101*		13·68	3·48	Ootacamund.	
339	·427	·433	·400		72	74	82	78		5·1	7·7	6·4		1	11	7	6	5	3	1	8	20	N 20° W		39		268		8·17	1·37	Kodaikanal.	
·290	·396	·376	·343		76	69	77	74		6·5	7·2	6·9			22	16	4	3	2	5	4	6	N 10° E		49		409*		9·38	3·38	Dodabetta.	
																														Extra India.	
										5·6	5·8	5·7			2					5	24	31	N 68° W		85		209*		1·90	0·69	Minicoy.	
·701	·809	·732	·782	—·048	79	79	65	77	— 7	6·5	5·6	6·1	0	3		1		18	27	13			S 4° E	S 5° E	79	85	160*	194	4·56	1·09	Zanzibar.	
														Observation not received																Diego Garcia.	
·695	·829	·835	·799	—·017	72	76	74	76	— 4	5·0	4·9	5·0	—0·1	3			3	34	19	2		1	S 30° E	S 43° E	81	59	212	165	4·40	2·39	Seychelles.	
			·577	—·048				78	— 1			4·9	—0·2										S 62° E	S 65° E			195	216	2·20	0·50	Mauritius.	

† Departures from old normals. ‡ Mean of 30 days. * Corrected. ¶ Rainfall since 21st May 1909.

Table B.—Abstract of observations taken at 8 hrs., at 239 stations in India, etc., in May, 1909.

(1) Provincial means.

(2) Data of stations.

(1) Provincial means based on the material in Table B (2) except that the statement of rainfall depends on the complete data of about 2,700 stations.

	Pressure departure from normal.	Temperature of air.								Wind.		Hygrometry.				Cloud.		Rainfall.		
		Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Absolute range during month.	Departure of velocity from normal.	Departure of steadiness from normal.	Mean humidity.	Departure from normal.	Mean vapour tension.	Departure from normal.	Mean cloud amount.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.
Burma	—·009	92·3	—0·8	76·2	+0·3	84·3	—0·2	16·1	29·7	—1·1	+ 2	81	0	·848	—·011	6·2	+0·1	10·17	8·97	+1·20
Eastern Bengal and Assam	—·005	90·2	+0·6	74·1	+0·3	82·2	+0·5	16·1	30·4	—0·4	+ 7	83	— 2	·857	—·001	4·8	—1·2	10·00	11·72	—1·72
Bengal	—·006	100·5	+0·7	78·2	+0·4	89·4	+0·6	22·3	35·4	—0·4	+ 2	67	— 2	·798	—·016	2·5	—1·1	2·35	3·44	—1·09
United Provinces of Agra and Oudh	—·001	104·7	+0·5	75·8	—2·2	90·3	—0·9	28·8	43·6	—0·6	+ 6	43	— 2	·557	—·027	0·9	—0·6	0·17	0·64	—0·47
Punjab	+·004	103·5	—1·0	74·0	—1·5	88·8	—1·3	29·5	52·1	—0·1	+15	33	— 7	·423	—·091	0·5	—1·2	0·09	0·60	—0·51
North-West Frontier Province	—·001	99·9	—1·5	70·8	—1·7	85·4	—1·6	29·2	52·3	—0·8	+10	38	— 8	·458	—·088	1·0	—0·6	0·23	0·72	—0·49
Sind	+·038	102·5	—1·3	75·8	—2·7	89·1	—2·0	26·7	48·8	—2·6	— 1	50	— 8	·605	—·125	1·6	—0·2	0	0·10	—0·10
Rajputana	+·017	104·5	—1·5	77·8	—3·1	91·1	—2·3	26·7	44·2	—0·5	— 6	45	+ 2	·581	—·046	0·4	—1·0	0·20	0·40	—0·20
Bombay	+·003	97·5	0	77·1	0	87·3	0	20·4	33·5	—0·6	—11	62	— 4	·720	—·046	3·0	+0·1	1·06	1·01	+0·05
Central India	+·004	103·9	—1·0	78·0	+0·9	91·0	—0·1	25·9	39·0	—1·4	+ 4	44	+ 3	·566	+·022	1·5	+0·4	0·22	0·30	—0·08
Central Provinces	+·001	105·7	—0·7	80·5	+0·5	93·1	—0·1	25·2	36·4	+0·2	+ 6	39	+ 2	·528	+·033	2·0	+0·1	0·64	0·47	+0·17
Hyderabad	—·007	103·6	—0·3	79·0	+0·9	91·3	+0·3	24·5	35·7	—1·0	— 9	48	— 2	595	+·001	3·0	+0·6	0·61	0·85	—0·24
Mysore	—·013	88·7	—2·5	68·7	—0·4	78·7	—1·5	20·1	31·8	+1·1	—14	78	+ 4	·659	—·001	5·5	+0·3	6·38	3·39	+2·99
Madras	—·011	95·8	—1·8	79·3	—0·1	87·6	—1·0	16·5	28·6	—0·2	+ 6	72	+ 2	·856	+·011	4·8	+0·2	4·76	2·87	+1·89

Tab

(2) *Abstract of observations taken at 8 hrs., at 239 statio*

Number of sub-division	Station.	Elevation of bar-cistern above sea-level, in feet	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	I.—Burma.																						
2	Mergui	56	29·827†	+·001†	29·814†	29·912	18th	29·735	31st	·177	80·2	89·3	+0·2	74·2	+0·4	81·8	+0·3	15·1	91·9	8th	66·7	26th	2
	Tavoy	19	29·858	−·015	29·809	29·927	4th	29·767	31st	·160	79·3	87·8	−0·6	75·5	+0·3	81·7	−0·2	12·3	95·5	4th	69·8	23rd	2
	Moulmein	94	29·773	+·010	29·803	25·875	4th	29·679	31st	·196	79·7	88·2	−1·1	75·3†	−0·5†	81·7†	−0·8†	12·9	95·5	2nd & 3rd.	71·3	13th	2
	Rangoon	18	29·818	−·020	29·774	29·899	4th	29·712	14th	·187	81·5	89·8	−2·1	77·8	+0·5	83·8	−0·8	12·0	99·6	1st	75·9	7 days	2
	Bassein	27?	29·793	−·008	29·757	29·863	3rd	29·644	14th	·219	81·6	90·9	−0·6	77·1	+0·1	84·0	−0·3	13·8	98·2	1st & 2nd,	72·9	18th	2
	Diamond Island	41	29·787	−·011	29·762	29·863	4th	29·653	11th	·210	84·4	88·7	+0·1	79·3	+0·5	84·0	+0·3	9·4	91·4	5 days	74·7	1st & 25th.	1
	Toungoo	164	29·658§	−·023§	29·763§	29·731	19th	29·559	31st	·172	83·9	96·0	+0·3	77·0	+0·3	86·6	+0·3	19·0	103·5	10th	73·3	1st	3
	Kyaukpyu	18	29·786		29·745	29·902	4th	29·652	14th	·250													
	Akyab	20	29·783	−·010	29·745	29·884	4th	29·655	14th	·229	81·7	90·6	0	77·8†	−0·4†	84·2†	−0·2†	12·8	97·4	14th	74·0	21st	2
3	Thayetmyo	121	29·674	−·011	29·736	29·749	18th	29·579	14th	·170	84·0	96·8	−1·6	78·1	+0·4	87·4	−0·6	18·7	105·5	10th	70·9	15th	3
	Minbu	*165*	29·614	−·003	29·723	29·672	3rd	29·541	31st	·131	83·6	97·4	−0·1	79·5	+1·8	86·5	+0·9	17·9	106·8	10th	70·5	15th	3
	Yamethin	657	29·133	−·012	29·741	29·197	19th	29·043	15th	·154	81·4	95·8	+0·5	77·0	+0·8	86·4	+0·7	18·8	104·3	8th, 9th & 10th.	71·0	15th	3
	Mandalay	250	29·543	−·001	29·741	29·623	20th	29·470	31st	·153	84·2	99·3	+0·3	79·0	0	89·2	+0·2	20·3	111·0	10th	72·4	20th	3
	Monywa	*280*	29·517		29·736	29·585	20th	29·449	15th	·136	84·3	99·4		79·6		89·5		19·8	110·8	9th	71·6	15th	3
	Lashio	*2,751*	27·036	−·017	26·982	27·109	19th	26·915	15th	·194	71·1	83·4	−4·9	65·8	0	75·1	−2·5	16·6	95·3	9th	62·0	21st	3
	Bhamo	*381*	29·415†	+·007†	29·751†	29·501	18th	29·314	15th	·187	77·0	92·2	−1·5	72·9	+0·2	82·6	−0·7	19·3	101·4	8th	69·1	1st & 16th.	3
	Myitkyina	458	29·332§		29·751§	29·393	12th	29·250	7th	·146	78·2	91·3		73·0		82·2		18·3	99·7	24th	69·0	1st	3
	II.—Eastern Bengal and Assam.																						
4	Dibrugarh	353	29·435		29·752	29·520	19th	29·329	15th	·191	74·1	81·9		69·9		75·9		12·0	92·9	27th 31st.	62·1	10th	3
	Sibsagar	333	29·463	−·008	29·757	29·543	19th	29·370	15th	·173	73·8	83·0	−2·9	67·6	−4·1	75·3	−3·5	15·4	92·6	24th & 31st.	63·6	2nd, 12th & 14th.	2
	Tezpur	252	29·532		29·745	29·636	19th	29·441	15th	·195	75·4	85·3		72·5		79·5		13·8	93·1	24th & 31st.	68·4	11th	2
	Gauhati	195	29·595		29·751	29·726	19th	29·500	6th	·226	76·2	87·8		72·0		79·9		15·8	95·5	24th	68·6	12th, 17th & 19th.	2
	Dhubri	115	29·645	−·011	29·717	29·727	18th	29·545	6th	·182	76·5	85·7	−0·2	73·1	−0·1	79·5	−0·2	12·6	101·0	10th	66·8	16th & 19th.	3
	Silchar	104	29·695‡	−·006‡	29·753‡	29·775	5th	29·602	31st	·173	78·0	88·5	−0·2	73·4	+0·9	81·0	+0·4	15·1	94·3	28th	67·3	16th & 17th.	2
5	Cox's Bazar	36	29·748		29·728	29·841	4th	29·637	31st	·204													
	Chittagong	87	29·696	−·007	29·731	29·777	4th	29·593	31st	·184	82·3	88·9	+0·3	75·7	+1·3	82·3	+0·8	13·2	91·5	17th & 24th.	69·0	18th	2
	Noakhali	43	29·740		29·730	29·820	3rd	29·647	31st	·173	83·1	88·5		76·9		82·7		11·6	91·8	15th	69·9	1st	2
	Barisal	12	29·742	−·002	29·700	29·831	4th	29·666	31st	·165	84·5	92·4	+0·5	76·6	−0·8	84·5	−0·2	15·8	95·8	16th	68·6	18th	2
	Comilla	36	29·728		29·713	29·811	4th	29·649	31st	·162	81·7	90·3							94·3	11th & 16th			
	Narayanganj‡	26	29·723	−·005	29·702	29·815	4th	29·655	31st	·160	83·5	91·8	+0·6	77·3	+1·6	81·6	+1·1	14·5	94·5	14th & 16th	69·8	2nd	2
	Faridpur	46	29·704		29·700	29·779	4th	29·634	15th	·145	82·6	93·2		75·1		84·2		18·1	99·3	10th	65·9	18th	3
	Sirajganj	49	29·705		29·704	29·815	18th	29·642	31st	·173	80·7	91·2		74·8		83·0		16·4	100·4	9th & 10th	69·8	17th & 20th	3
	Mymensingh	63	29·709	+·004	29·724	29·790	18th	29·636	31st	·154	81·6	90·5	+1·9	75·7	+1·9	83·1	+1·9	14·8	95·1	4 days	71·1	21st	2
	Bogra	75	29·679	+·016	29·706	29·741	4th	29·608	6th	·133	81·7	94·3	+1·8	75·2	+0·7	84·8	+1·3	19·1	108·2	10th	68·2	16th	4
	Rampur Boalia	70	29·664		29·683	29·747	22nd	29·590	6th	·157	83·5	98·1		76·6		87·4		21·5	108·6	8th	67·1	22nd	4
	Malda	72	29·636		29·660	29·712	22nd	29·548	6th	·164	82·5	98·8		75·9		87·4		22·9	109·8	8th	69·0	21st	4
	Dinajpur	123	29·600	−·011	29·679	29·685	18th	29·483	16th	·202	78·6	94·0	+2·3	74·1	−0·2	84·0	+1·1	19·9	105·8	8th	64·0	16th	4
	Rangpur	123	29·637†		29·716†	29·728	18th	29·551	6th	·177	80·1	90·6		72·0		81·3		18·6	99·6	9th	65·0	19th	3

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

† Mean of 30 days. ‡ Mean of 27 days.

§ „ „ 29 „

NOTE.—The barometric readings are not reduced to sea-level in the cases of hill or plate

B.

in India, etc., in May, 1909.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st to 31st May 1909.	Normal rainfall for period, 1st to 31st May.	Departure from normal of period, 1st to 31st May 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																I.—Burma.
			6	11	9	5			S 27° E	S 81° W		1·9		72	+49	89	+ 1	·899	—·006	2·5	−3·8	20	18·00	+2·00	19·78	19·26	+ 0·52	19·78	19·26	+ 0·52	2·50	Mergui.
									(a)	S 61° W	1·0*	1·6	−0·6			89	+ 1	·893	+·002	5·4	−1·4	21	17·70	+3·30	28·93	26·05	+ 2·88	28·93	26·05	+ 2·88	3·93	Tavoy.
31																																
7	4			3	15	1	1		S 2° E	S 47° E	3·4	3·4	0	45	+ 9	90	+ 2	·833	—·001	7·7	+0·4	25	17·40	+7·60	22·22	19·40	+ 2·82	22·22	19·40	+ 2·82	3·28	Moulmein.
6	1	4	3	1	5	5	4	2	S 31° W	S 39° W	4·9	4·6	+0·3	17	−37	84	− 4	·907	—·011	7·3	+0·3	20	11·00	−6·00	22·33	11·22	+11·11	22·33	11·22	+11·11	3·63	Rangoon.
13				5	2	4	4	3	S 41° W	S 51° W	3·5	4·8	−1·3	27	− 2	86	0	·931	—·004	5·4	−0·6	12	12·10	−0·10	12·76	10·30	+ 2·46	12·76	10·30	+ 2·46	2·69	Bassein.
1		2	2	3	4	8	7	4	S 53° W	S 64° W	6·5	7·8	−1·3	43	+ 3	80	+ 1	·957	+·051	6·4	−0·8	12	11·18	+0·82	12·93	10·43	+ 2·50	12·93	10·43	+ 2·50	2·32	Diamond Island.
9			9	10	3				S 13° E	S 28° E	4·0	4·6	−0·6	62	− 6	80	− 3	·916	—·007	6·2	−0·7	9	10·10	−1·10	11·04	6·28	+ 4·76	11·04	6·28	+ 4·76	3·30	Toungoo.
1	2	5	7	9	4			3	S 79° E		3·5			48						5·2		15			10·94			10·94			4·95	Kyaukpyu.
4	1	7	11	6		2			N 89° E	N 81° E	4·0	3·5	+0·5	60	+10	85	+ 1	·917	—·050	6·1	—0·8	11	11·50	−0·50	7·66	11·88	− 4·22	7·66	11·88	− 4·22	1·84	Akyab.
2	1		2	4	12	10			S 6° W	S 5° E	8·5*	7·1	+1·2	69	− 6	70	− 2	·812	−·031	6·2	+1·1	9	6·90	+2·10	10·36	4·13	+ 6·23	10·36	4·13	+ 6·23	2·95	Thayetmyo.
1	1			24	4			1	S 40° E	S 35° E	4·8	10·3	−5·5	79	+ 5	71	− 6	·808	—·034	6·1	+1·7	7	6·40	+0·60	10·68	6·01	+ 4·67	10·68	6·01	+ 4·67	4·75	Minbu.
3				14	13	1			S 21° E	S 28° E	5·1	8·1	−3·0	86	+12	78	+ 1	·812	−·011	6·3	+2·5	9	8·10	+0·90	11·31	6·76	+ 4·55	11·31	6·76	+ 4·55	3·55	Yamethin.
31									(a)	S 4° E	6·0	7·4	−1·4			69	− 2	·775	−·070	5·3§	+0·4	10	6·60	+3·40	6·67	5·55	+ 1·12	6·67	5·55	+ 1·12	1·55	Mandalay.
8	4	2	3	6	7			1	S 57° E		3·6			30		72		·817		6·3		5	7·20	−2·20	4·64	3·54	+ 1·10	4·64	3·54	+ 1·10	2·43	Monywa.
19	4	5	2				1		N 32° E		2·5*			33		88	+ 4	·663	—·002	8·2	+1·4	16			6·60	6·13	+ 0·47	6·60	6·13	+ 0·47	1·24	Lashio.
26		2				1			N 45° E	N 53° W	2·0	3·1	−1·1	3	−17	83	+ 8	·820	+·029	7·0	+1·4	11	10·40	+0·60	4·77	6·46	− 1·69	4·77	6·46	− 1·69	1·18	Bhamo.
11	2	10	4	2			1	1	N 52° E		2·7*			46		78		·750		7·1		5			1·93			1·93			0·57	Myitkyina.
																																II.—Eastern Bengal and Assam.
10	1	9	5	2		1		3	N 54° E		2·5			40		91		·755		7·5		20	15·20	+4·80	14·77	14·60	+ 0·17	14·77	14·60	+ 0·17	1·81	Dibrugarh.
7		17	2	1		3	1		N 52° E	N 60° E	3·4	2·9	+0·5	49	+16	88	− 4	·759	—·065	8·5	+0·4	18	15·99	+2·10	9·36	12·62	− 3·26	9·36	12·62	− 3·26	1·06	Sibsagar.
16		5	9	1					N 78° E		6·0			43		88		·791		6·8		18	14·10	+3·90	8·71	10·12	− 1·41	8·71	10·12	− 1·41	1·46	Tezpur.
14	3	7	1	1	3	1		1	N 51° E		2·2			23		88		·797		7·1		12	14·20	−2·20	10·23	9·76	+ 0·47	10·23	9·76	+ 0·47	1·27	Gauhati.
3		5	17	4	2				S 87° E	N 67° E	10·3	7·1	+3·2	76	+22	89	+ 2	·821	+·020	2·2	−4·8	14	15·70	−1·70	11·35	15·43	− 4·08	11·35	15·43	− 4·08	3·00	Dhubri.
21			8	1		1			S 80° E	N 84° E	3·3	3·2	+0·1	27	+14	89	+ 3	·861	+·033	4·3	−3·0	15	16·50	−1·50	13·51	17·24	− 3·73	13·51	17·24	− 3·73	2·14	Silchar.
2	1		10	13	3	1	1		S 59° E		4·8			74						3·5		9			9·58			9·58			5·23	Cox's Bazar
5		1	3	19	2	1			S 47° E	S 50° E	3·6	6·4	−2·8	72	+ 7	81	− 1	·896	—·012	3·7	−2·4	9	10·55	−1·55	8·20	10·31	− 2·11	8·20	10·31	− 2·11	2·14	Chittagong.
			7	11	10	3			S 33° E		5·7			78		82		·930		3·3		11	10·45	+0·55	25·01	10·06	+14·95	25·01	10·06	+14·95	6·30	Noakhali.
3	1	1	2	2	13	9			S 7° W	S 9° E	4·3	5·0	−0·7	62	+12	80	− 2	·952	−0·16	5·0	−1·3	12	9·84	+2·16	8·83	9·19	− 0·36	8·83	9·19	− 0·36	2·68	Barisal.
4		2	3	13	8	1			S 37° E		5·0			68		84		·924		1·8		12	11·89	+0·11	19·55	11·01	+ 8·54	19·55	11·01	+ 8·54	3·61	Comilla.
		2	7		13	5			S 18° E	S 28° E	5·3	6·7	−1·4	59	+ 5	81	− 4	·926	−·003	6·1	−0·2	6	11·53	−5·53	4·14	9·44	− 5·30	4·14	9·44	− 5·30	1·05	Narayangan
1	1		5	6	17	1			S 23° E		5·3			74		83		·930		3·7		8	10·72	−2·72	6·25	8·30	− 2·05	6·25	8·30	− 2·05	1·53	Faridpur
8	1	3	3	4	8	4			S 24° E		4·2			39		84		·838		6·9		11	10·16	+0·84	6·21	7·95	− 1·74	6·21	7·95	− 1·74	2·19	Sirajganj.
6		1	11	10	2			1	S 67° E	S 81° E	3·3	4·1	−0·8	66	− 2	81	− 4	·873	+·033	7·6	+1·4	10	13·48	−3·48	3·92	12·96	− 9·04	3·92	12·96	− 9·04	0·65	Mymensingh.
14	3	1	8	1	4				S 84° E	S 72° E	2·5	4·4	−1·9	30	−30	75	− 7	·817	−·034	2·2	−2·5	9	9·77	−0·77	7·95	8·04	− 0·09	7·95	8·04	− 0·09	4·54	Bogra.
13		4		3	7	4			S 13° E		6·5			29		76		·878		2·8		4	7·74	−3·74	2·02	5·54	− 3·52	2·02	5·54	− 3·52	0·70	Rampur Boalia.
1	3	6	5	9	5	1		1	S 74° E		6·0*			48		81		·906		2·3		6	5·58	+0·42	1·75	3·85	− 2·10	1·75	3·85	− 2·10	0·57	Maida.
1	1	4	19	3	1		1	1	N 86° E	N 88° E	5·0	4·6	+0·4	72	0	82	+ 2	·810	+·007	4·8	−1·1	6	8·23	−2·23	1·98	8·45	− 6·47	1·98	8·45	− 6·47	0·85	Dinajpur.
14		4	7	4	2				S 81° E		1·1			42		80		·827		3·3		7	11·19	−4·19	5·56	10·31	− 4·75	5·56	10·31	− 4·75	1·68	Rangpur.

* Uncorrected for scale error.

(a) Indeterminate.

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

Tat

(2) *Abstract of observation taken at 8 hrs., at 239 stati*

Number of subdivisions.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	2
	II.—Eastern Bengal and Assam—*concld.*																						
	Jalpaiguri	281	29·469	—·011	29·710	29·542	19th	29·379	6th	·163	79·5	90·3	+2·0	73·8	+1·5	82·1	+1·8	16·5	94·9	8th, 10th & 25th.	69·9	19th & 26th.	25
	Cooch Behar	156	29·607		29·720	29·676	20th	29·515	6th	·161	77·9	88·0		73·4		80·7		14·6	93·8	9th	69·6	4 days	24
	III.—Bengal.																						
6	Saugor Island	25	29·700	—·009	29·669	29·786	4th	29·613	31st	·173	85·9	92·0	+0·2	81·0	0	86·6	+0·1	11·0	96·0	15th	72·0	22nd	24
	Midnapore	149	29·560		29·654	29·638	4th	29·496	31st	·142	85·2	99·8		78·7		89·3		21·1	105·3	10th & 11th.	69·7	21st	25
	Calcutta	21	29·704	—·004	29·670	29·785	4th	29·632	31st	·153	81·2	95·3	+0·8	78·4	+1·0	86·8	+0·9	16·9	98·7	8th & 26th	71·5	21st	27
	Jessore	33	29·697	—·013	29·677	29·775	4th	29·624	16th	·151	83·9	95·3	+0·5	77·7	+0·9	86·5	+0·7	17·6	101·0	10th	71·7	18th	29
	Krishnagar	47	29·674		29·670	29·757	4th	29·590	16th	·167	82·6	96·9		77·8		87·4		19·1	102·6	10th	71·5	20th	31·1
	Burdwan	99	29·613	—·006	29·660	29·689	4th	29·551	14th	·138	83·3	97·7	—0·7	77·9	+0·1	87·8	—0·3	19·8	106·4	11th	70·8	21st	35·6
	Bankura	313	29·377		29·638	29·460	4th	29·298	14th	·162	85·7	102·5		78·9		90·7		23·6	110·1	8th	71·2	19th	38·9
	Raniganj	334	29·375		29·660	29·456	4th & 23rd.	29·312	14th	·141	82·5	100·0		77·9		89·0		22·1	108·5	12th	70·5	21st	38·0
	Berhampore	67	29·651	—·011	29·667	29·723	18th	29·582	6th	·141	83·4	93·8	+2·8	77·2	+0·6	88·0	+1·7	21·6	108·6	8th, 10th & 12th.	68·2	28th	40·4
	Naya Dumka	489	29·216†		29·659†	29·343	5th	29·150	25th	·193	84·5	100·7		78·0		89·3		22·7	109·9	7th	74·0	11th	35·9
7	Balasore	50	29·667	+·002	29·660	29·748	4th	29·576	31st	·172	86·1	96·6	—1·0	79·1	+0·4	87·9	—0·3	17·5	102·4	7th & 8th	72·1	17th, 28th & 30th.	30·3
	False Point	21	29·725	+·009	29·687	29·807	3rd	29·604	31st	·203	85·8	89·6	—1·4	79·6	—0·1	84·6	—0·8	10·0	92·6	17th	71·6	30th	21·0
	Cuttack	80	29·694	—·002	29·667	29·723	5th	29·507	31st	·216	86·1	100·3	—1·3	80·4	+0·3	90·4	—0·5	19·9	106·9	9th	74·7	19th	32·2
	Puri	24	29·707†		29·670†	29·779	5th	29·586	31st	·193	85·9	90·9		81·9		86·4		9·0	92·6	15th, 26th & 30th.	74·6	22nd	18·0
	Angul	455	29·261		29·670	29·348	4th	29·142	31st	·206	85·5	102·7		79·3		91·0		23·4	105·6	18th	71·0	23rd	37·6
	Sambalpur	486	29·212†	—·020†?	29·636†	29·309	4th	29·083	31st	·226	90·8	106·2	—0·7	82·5	+0·9	94·4	+0·1	23·7	109·1	16th, 27th & 30th.	78·6	25th	30·5
8	Chaibassa	*733*	28·965	—·002	29·644	29·051	4th	28·881	31st	·173	84·3	104·7	—0·4	79·2	—0·8	92·0	—0·6	25·5	109·8	10th	69·7	22nd	40·1
	Ranchi	2,128	27·612	+·005	29·653	27·698	4th	27·530	31st	·168	84·6	101·0	+1·4	76·2	+0·2	88·6	+0·8	24·8	104·2	13th, 14th & 15th.	70·9	20th & 23rd.	33·3
	Purulia	*816*	28·867		29·657	28·952	4th	28·801	14th	·151	82·0	104·4		78·4		91·5		26·0	110·5	12th & 13th.	73·1	4th & 22nd,	37·4
	Hazaribagh	2,007	27·706	—·012	29·625	27·806	4th	27·628	14th	·178	83·1	101·5	+2·3	76·1	+0·6	88·8	+1·5	25·4	105·2	14th & 17th.	73·3	19th & 23rd.	31·9
	Daltonganj	*730*	28·961		29·638	29·082	4th	28·853	31st	·229	87·4	108·0		78·2		93·1		29·8	111·1	13th & 14th.	68·0	4th	43·1
9	Purnea	134	29·601†	+·003†	29·687†	29·676	22nd	29·503	6th	·175	80·5	96·3	+1·5	74·5	+0·3	85·4	+0·9	21·8	105·0	9th & 10th	64·2	16th	40·8
	Bhagalpur	160	29·540		29·652	29·625	22nd	29·465	16th	·160	85·3	102·2		76·8		89·5		25·4	110·2	8th	71·3	16th	38·9
	Monghyr	155	29·532		29·656	29·622	23rd	29·455	16th	·166	85·0	101·4		76·2		83·8		25·2	107·9	7th, 13th & 26th.	67·9	16th	40·0
	Darbhanga	165	29·555	—·014	29·655	29·655	23rd	29·450	16th	·185	83·1	100·2	+4·6	75·9	—0·4	83·2	+2·1	24·3	108·6	8th	66·3	21st	42·3
	Pusa	188	29·505		29·646	29·608	23rd	29·431	16th	·177	85·0	102·8		75·3		89·1		27·5	111·1	8th	68·2	9th	42·9
	Muzaffarpur	178	29·519		29·652	29·621	23rd	29·438	16th	·183	84·6	101·1		76·1		88·6		25·0	108·7	8th	69·0	9th	39·7
	Motihari	221	29·467		29·618	29·583	23rd	29·399	31st	·184	82·0	98·8		74·4		86·6		24·4	105·9	8th	65·8	8th	40·1
	Chapra	181	29·500		29·651	29·601	23rd	29·415	31st	·186	84·6	103·0		77·0		90·0		26·0	108·2	7th & 26th.	69·4	4th	38·8
	Patna	183	29·495	—·020	29·650	29·596	23rd	29·423	31st	·173	85·6	101·4	+1·2	78·6	+0·9	90·0	+1·1	22·8	106·0	7th & 26th	72·7	16th	33·3
	Arrah	190	29·498		29·640	29·601	23rd	29·414	14th	·187	86·4	104·4		77·3		90·8		27·1	109·4	7th, 13th & 26th.	68·7	4th	40·7
	Buxar	239	29·430		29·622	29·535	23rd	29·333	31st	·202	87·4	105·1		79·1		92·1		26·0	110·0	7th & 14th	70·1	4th	39·9
	Dehri	351	29·314		29·613	29·434	4th	29·212	14th	·222	90·1	107·7		82·2		94·9		25·5	112·3	13th & 14th.	77·5	4th	34·8
	Gaya	372	29·296	—·020	29·616	29·413	4th	29·210	14th	·203	90·6	107·0	+2·1	81·0	+1·5	94·0	+1·8	26·0	110·9	7th	72·2	5th	38·7
	IV.—United Provinces of Agra and Oudh.																						
10	Gorakhpur	257	29·417†	—·016†	29·630†	29·504	4th	29·356	14th	·148	85·6	102·8	+1·8	75·1	—2·2	89·0	—0·2	27·7	108·1	7th & 26th	64·5	4th	43·6
	Benares	267	29·410	—·002	29·629	29·531	4th	29·306	14th	·225	89·7	107·1	+1·6	77·9	—1·0	92·6	+0·3	29·2	111·6	13th	68·6	4th	43·0
	Allahabad	309	29·365	—·002	29·624	29·491	4th	29·251	31st	·240	89·7	108·5	+1·5	78·7	—0·8	93·6	+0·4	29·8	112·1	13th & 21st.	70·0	4th	42·1

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

NOTE.—The barometric readings are not reduced to sea-level, in the cases of hill or plateau

† Mean of 30 days.

B—*continued.*

in India, etc., in May, 1909—continued.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st to 31st May 1909.	Normal rainfall for period, 1st to 31st May.	Departure from normal of period, 1st to 31st May 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																II.—Eastern Bengal and Assam—*concld.*
7		8	11	4	1				N 85° E	N 88° E	2·7			62	+30	81	−3	·826	+·026	6·2	+1·9	8	12·42	−4·42	6·26	12·01	−5·78	6·26	12·01	−5·78	1·33	Jalpaiguri.
4		9	14		2		2		N 77° E		2·6			58		85		·821		6·4		13	14·76	−1·76	16·55	15·26	+1·29	16·55	15·26	+1·29	5·50	Cooch Behar.
																																III.—Bengal.
		1		4	17	9			S 6° W	S 5° W	20·3	16·9	+3·4	82	+7	82	+1	1·009	0	4·9	−2·1	4	6·71	−2·71	4·23	5·09	−0·85	4·23	5·09	−0·86	1·86	Saugor Island.
		2		4	23	2			S 7° E		5·2			84		73		·877		1·9		2	7·05	−5·05	1·21	5·69	−4·48	1·21	5·69	−4·48	0·61	Midnapore.
1		1	4	4	6	14	1		S 10° E	S 6° W	7·5*	7·0	+0·5	59	−9	79	0	·934	−·010	2·8	−2·2	6	7·46	−1·46	4·52	5·68	−1·16	4·52	5·68	−1·16	1·15	Calcutta.
19				7	5				S 27° E	S 16° E	1·4	4·6	−3·2	37	−17	79	−5	·934	−·033	4·4	−1·5	7	9·74	−2·74	3·19	7·94	−4·75	3·19	7·94	−4·75	0·90	*Jessore.*
		1	6	5	14	3	2		S 18° E		4·7			65		84		·911		2·8		6	7·74	−1·74	6·91	6·55	+0·36	6·91	6·55	+0·36	2·57	Krishnagar.
3		3	2	4	6	10	3		S 13° W	S 11° W	4·4	4·7	−0·3	46	−8	80	+5	·910	+·027	3·9	−1·1	7	7·32	−0·32	6·60	6·35	+0·25	6·60	6·35	+0·25	1·23	Burdwan.
10				4	12	4	1		S 3° W		3·8			32		68		·827		1·7		5	6·19	−1·19	2·12	3·89	−1·77	2·12	3·89	−1·77	0·85	Bankura.
19	2		2	6	1	1			S 56° E		2·3			26		78		·870		3·1		6	5·18	+0·82	3·46	3·77	−0·31	3·46	3·77	−0·31	1·05	Raniganj.
	2	3	7	4	11	4			S 36° E	S 37° E	5·7	5·1	+0·6	53	+3	77	−6	·882	−·022	3·5	−2·1	3	7·74	−4·74	3·17	5·41	−2·24	3·17	5·41	−2·24	2·51	Berhampore.
15	1	1	3	7	4				S 52° E		3·8			36		67		·787		2·2		4	5·21	−1·21	0·99	3·60	−2·61	0·99	3·60	−2·61	0·50	Naya Dumka
2					4	23	1	1	S 42° W	S 29° W	5·3	8·8	−3·5	86	+11	74	−5	·914	−·057	4·3	−1·2	3	7·74	−4·74	2·45	5·97	−3·52	2·45	5·97	−3·52	1·22	Balasore.
1					10	19	1		S 31° W	S 27° W	12·9	13·7	−0·8	89	+14	82	−1	1·014	−·001	5·9	−0·5	5	4·32	+0·68	4·08	5·23	−1·15	4·08	5·23	−1·15	2·11	False Point.
5			1	2	7	11	5		S 32° W	S 46° W	4·3*	5·1	−0·8	66	+26	77	+5	·978	+·074	5·0	+0·4	7	5·23	+1·77	2·29	4·24	−1·95	2·29	4·24	−1·95	0·66	Cuttack.
	1				3	27			S 42° W		17·2			90		83		1·016		4·2		1	3·39	−2·39	0·25	2·89	−2·64	0·25	2·89	−2·64	0·12	Puri.
2	3	9	3	8	3			3	N 77° E		8·1			42		74		·902		2·7		2			1·22			1·22			0·67	Angul.
			1	7	3	19	1		S 22° W	S 7° E	4·2	4·3	−0·1	72	+30	51‡	0	·711‡	+·018	2·7	−0·8	0	3·00	−3·00	0·03	1·62	−1·59	0·03	1·62	−1·59	0·02	Sambalpur.
1				3	2	19	5	1	S 45° W	S 58° W	3·4	2·8	+0·6	76	+29	66	+5	·778	−·011	2·5	0	2	5·65	−3·65	0·90	3·34	−2·44	0·90	3·34	−2·44	0·67	Chaibasa.
1	2		3	4	6	6	5	4	S 37° W	S 43° W	7·3	7·8	−0·5	33	−11	46	−5	·540	−·065	1·2	−1·0	3	4·68	−1·68	1·50	2·08	−0·58	1·50	2·08	−0·58	1·17	Ranchi.
2		2	4	7	3	2	7	4	S 11° W		4·0			16		78		·850		3·6		4	5·26	−1·26	2·35	2·92	−0·57	2·35	2·92	−0·57	1·50	Purulia.
	3			2	9	9	3	5	S 48° W	S 28° W	8·2	9·2	−1·0	49	−1	44	−2	·525	−·009	1·5	−1·6	0	3·93	−3·93	0·08	2·33	−2·25	0·08	2·33	−2·25	0·05	Hazaribagh.
31									(a)		3·3					50		·650		1·2		0	2·07	−2·07	0·03	1·04	−1·01	0·03	1·04	−1·01	0·03	Daltonganj.
5		16	6	3					N 65° E	N 82° E	2·8	4·5	−1·7	69	−6	80	+4	·824	+·011	3·1	−1·3	3	5·34	−2·34	3·06	4·77	−1·71	3·06	4·77	−1·71	1·14	Purnea.
10		3	7	7		2	1	1	S 70° E		4·4			39		62		·715		1·6		1	4·16	−3·16	2·84	2·79	+0·05	2·84	2·79	+0·05	2·72	Bhagalpur.
1		2	17	5		1	3	2	S 87° E		9·1			55		65		·772		1·4		1			0·49			0·49			0·38	Monghyr.
3		2	23	1	1		1		S 89° E	S 79° E	5·1	6·2	−1·1	78	+2	70	−1	·803	+·011	1·7	−0·6	2	3·93	−1·93	1·35	3·07	−1·71	1·36	3·07	−1·71	1·05	Darbhanga.
3	1	6	19	2					N 31° E					81		63		·763		1·0		3			1·34			1·34			0·85	Pusa.
2	10	2	4	5		1		7	N 13° E		6·2*			42		65		·761		0·8		2	3·65	−1·65	0·64	2·40	−1·76	0·64	2·40	−1·76	0·30	Muzaffarpur
		4	23	1		1		2	N 83° E		4·1			78		72		·791		1·6		3	4·25	−1·25	1·53	2·65	−1·12	1·53	2·65	−1·12	0·81	Motihari.
																4		·616		0·9		0	2·13	−2·13	0·05	1·35	−1·30	0·05	1·35	−1·30	0·03	Chapra.
1	2	2	18	2	2	1	2	1	E	N 87° E	9·2	5·8	+3·4	56	−12	58	−7	·706	−·060	0·7	−1·3	1	2·97	−1·97	0·14	1·93	−1·79	0·14	1·93	−1·79	0·14	Patna.
1	3	11	4	2		4	9	2	N 32° E		4·0			32		50		·627		0·8		0	2·45	−2·45	0·05	1·47	−1·42	0·05	1·47	−1·42	0·03	Arrah.
			18			6	7		S 56° E		7·0			26		46		·588		1·7		1	1·97	−0·97	0·49	0·82	−0·33	0·49	0·82	−0·33	0·49	Buxar.
		2	11	1	5	6	5	1	S 21° E		4·5			26		39		·552		1·2		0	1·47	−1·47	0	0·82	−0·82	0	0·82	−0·82	0	Dehri.
3	1	7	4	3	2	2	8	1	N 40° E	S 78° W	3·6	5·3	−1·7	3	−25	46	−12	·652	−·126	1·6	−1·0	0	1·94	−1·94	0	0·98	−0·98	0	0·98	−0·98	0	Gaya.
																																IV.—United Provinces of Agra and Oudh.
20	2	7			1	1			N 39° E	N 76° E	5·9‖	3·5	+2·4	23	−20	57	−6	·638	−·041	0·6	−1·0	0	2·40	−2·40	0·11	1·34	−1·23	0·11	1·34	−1·23	0·07	Gorakhpur.
4		5	6	2	1	6	8	1	S	N 72° E	3·9	5·1	−1·2	8	−4	42	−11	·581	−·093	1·1	−0·6	0	1·00	−1·00	0·14	0·64	−0·50	0·14	0·64	−0·50	0·08	Benares.
4		3	6	1	1	2	10	4	N 71° W	N 2° E	4·2	6·8	−2·6	17	+8	33	−9	·463	−·125	1·6	0	0	0·50	−0·50	0·06	0·29	−0·23	0·06	0·29	−0·23	0·05	Allahabad

stations, the elevations of which exceed 3,000 feet.

‡ Mean of 29 days.

(a) Indeterminate.

* Uncorrected for scale error.

‖ Mean of 21 days.

Tab

(2) *Abstract of observations taken at 8 hrs., at 239 statio*

Number of subdivision	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	2
	IV.—United Provinces of Agra and Oudh—*concld.*																						
	Cawnpore	416	29·245	0	29·614	29·381	4th	29·152	14th & 31st.	·239	88·0	106·2	0	75·6	−5·0	90·9	−2·5	30·6	111·2	31st	64·0	3rd	47
	Lucknow	368	29·315*	+·014*	29·615*	29·435	4th	29·245	29th	·190	85·7	105·0	0	76·2	−1·6	90·7	−0·8	28·8	109·5	12th & 26th.	67·1	4th	42
	Bahraich	461	29·270	−·001	29·628	29·391	23rd	29·191	14th	·200	85·0	105·6	+2·6	75·6	−2·3	90·6	+0·2	30·0	109·6	4 days	67·5	3rd	42
11	Jhansi	824	28·883†	+·002†	29·616†	28·991	3rd	28·769	31st	·222	93·9	107·4	−0·9	81·1	+0·5	95·8	−0·2	23·3	111·5	30th	76·0	3rd	3
	Agra	556	29·123‡	0‡	29·634‡	29·2.8	4th	29·030	31st	·218	86·8	104·7	−2·5	78·0	−3·5	91·4	−3·0	26·7	110·5	30th	63·0	3rd	4
	Mainpuri	516	29·155‡	+·012‡	29·621‡	29·297	23rd	29·064	14th & 31st.	·233	88·0	107·6	+0·1	75·8	−4·0	91·7	−2·0	31·8	113·3	30th	65·6	3rd	4
	Bareilly	568	29·004	−·008	29·620	29·227	23rd	28·991	14th	·236	85·6	104·2	+1·0	75·1	−1·3	89·7	−0·2	29·1	108·6	12th & 13th	66·5	3rd	4
	Meerut	738	28·919	−·010	29·614	29·041	4th	28·799	14th	·242	85·1	102·7	−0·3	72·1	−3·8	87·4	−2·1	30·6	108·1	29th, 30th & 31st.	62·8	4th	4
	Roorkee	899	28·781†	+·010†	29·631†	28·910	4th	28·662	14th	·243	84·2	102·6	−0·2	72·5	−2·1	87·6	−1·2	30·1	108·5	29th	62·1	3rd & 9th	4
	Dehra Dun	2,233	27·480	−·013	29·644	27·598	4th	27·368	14th	·230	78·8	96·5	+1·5	69·2	−1·4	82·9	+0·1	27·3	102·5	22nd	61·0	4th	4
	V.—Punjab.																						
12	Delhi	718	28·958‡	+·007‡	29·633‡	29·105	23rd	28·838	14th	·267	86·2	102·4	−2·3	79·1	−1·1	90·8	−1·7	23·3	109·7	30th & 31st.	63·7	26th	4
	Sirsa	662	28·993	+·005	29·609	29·125	4th	28·852	14th	·273	83·1	100·0	−1·2	74·7	−2·7	90·4	−2·0	31·3	114·3	31st	59·0	4th	5
	Patiala	*818*	28·858		29·607	29·001	3rd	28·702	14th	·299	85·1	102·8†		73·8		88·3†		29·0	111·5	30th	64·1	3rd & 4th.	4
	Ambala	892	28·768‡	+·012‡	29·618‡	28·892	4th	28·621	14th	·271	85·1	104·1	−1·1	73·3	−3·6	88·7	−2·4	30·8	113·0	29th	61·5	4th	5
	Ludhiana	812	28·843	+·001	29·617	28·965	2nd	28·682	14th	·283	85·4	104·8	+0·4	75·3	−0·1	90·1	+0·2	29·5	114·5	29th	65·5	8th	4
	Lahore	702	28·939	−·001	29·606	29·069	2nd	28·778	14th	·291	85·0	104·4	−1·3	72·5	−0·1	88·5	−0·7	31·5	115·4	31st	59·7	2nd	5
	Sialkot	830	28·811†	−·006†	29·605†	28·914	2nd	28·655	31st	·289	84·9	102·0	−1·1	70·8	−1·6	86·5	−2·0†	31·2	114·0	31st	55·5	2nd	5
	Rawalpindi	1,674	28·013	+·004	29·646	28·154	23rd	27·853	31st	·291	83·0	97·5	−0·6	66·8†	−1·7†	82·2†	−1·2†	30·6	110·9	31st	55·9	2nd	5
13	Khushab	612	28·046	+·008	29·619	29·205	23rd	28·879	31st	·326	89·8	103·7	−1·2	76·0	−1·3	89·9	−1·3	27·7	115·4	31st	50·9	9th	5
	Montgomery	558	28·185	+·021?	29·602	29·229	2nd	28·941	21st	·288	88·7	104·7	−3·6?	73·9	−4·5	89·3	−4·1	30·8	113·9	30th	63·1	2nd & 4th.	5
	Multan	420	29·236	+·014‡	29·617‡	29·399	2nd	29·116	14th	·283	88·4	105·4	−0·2	78·2	+0·6	92·3	+0·2	28·2	115·3	30th & 31st.	65·5	3rd	4
	VI.—North-West Frontier Province.																						
15	Peshawar	1,110	28·593	+·002	29·679	28·733	6th	28·413	31st	·320	83·0	97·1	−1·5	68·9	−1·1	83·0	−1·3	28·2	109·2	30th & 31st.	58·4	2nd	5
	D. I. Khan	590	29·081	−·003	29·616	29·238	23rd	28·880	31st	·358	86·4	102·7	−1·5	72·6	−2·3	87·7	−1·9	30·1	113·9	31st	60·1	7th	5
	VII.—Sind.																						
17	Jacobabad	186	29·493	+·035	29·658	29·663	3rd	29·315	31st	·348	88·8	109·7	−1·9	74·9	−3·3	92·3	−2·6	34·8	117·1	20th	60·8	7th	5
	Hyderabad	96	29·630†	+·037†	29·679†	29·777	2nd	29·513	26th	·264	85·9	106·5	−0·4	76·0	−2·4	91·3	−1·4	30·5	114·6	11th	65·0	2nd	9
	Kurrachee	13	29·766	+·041	29·729	29·889	3rd	29·640	26th	·249	82·1	91·2	+1·9	76·4	−2·1	83·8	−0·1	14·8	109·0	11th	68·5	3rd, 8th & 9th.	9
	VIII.—Rajputana.																						
18	Bikaner	*771*	28·904	+·013	29·631	29·017	4th	28·785	14th	·252	88·8	105·9	−0·2	80·4	−2·2	93·7	−1·2	26·5	114·1	29th	69·0	2nd & 6th.	9
	Jodhpur	780	28·952?	+·012?	29·711?	29·052	4th	28·858	14th	·194	83·7	103·2	−3·8	76·3	−4·5	89·8	−4·2	26·9	108·5	11th	63·3	2nd & 6th.	9
	Pachpadra	*380*	29·357	+·033	29·693	29·455	2nd	29·251	31st	·194	83·7	105·6	−2·1	73·1	−4·4	89·1	−3·3	32·5	112·3	11th	57·6	2nd	
19	Jaipur	1,431	28·306	+·014	29·675	28·394	23rd	28·218	14th	·176	88·9	105·1	−1·5	75·8	−2·4	90·5	−2·0	29·3	110·2	29th & 31st.	65·1	3rd	
	Sambhar	1,254	28·475	+·027	29·677	28·574	4th	28·383	14th & 15th	·191	87·2	104·9	−0·2	76·7	−3·5	90·8	−1·9	28·2	109·4	29th	62·9	4th	
	Ajmer	1,611	28·141	+·014	29·696	28·218	4th	28·047	15th	·171	84·5	101·1	−2·7	79·1	−0·2?	90·1	−1·5?	22·0	104·9	25th & 29th.	65·2	3rd	
	Kotah	819 ?	28·895‡	+·011‡	29·696‡	28·986	2nd	28·800	31st	·186	92·1	107·6†	−1·4†	83·6	−2·8	95·6†	−2·1†	24·2	112·0	31st	74·6	3rd	
	Udaipur	1,925	27·871‡	+·006‡	29·714‡	27·943	23rd	27·799	31st	·144	87·3	101·3	−1·1	77·2	−1·6	89·3	−1·4	24·1	105·5	11th	65·8	6th	

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

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

* Mean of 27 days. † Mean of 30 days. ‡ Mean of 29 days.

—continued.

India, etc., in May, 1909—continued.

Wind direction. Number of winds from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st to 31st May 1909.	Normal rainfall for period, 1st to 31st May.	Departure from normal of period, 1st to 31st May 1909.	Heaviest rainfall during month.	Station.
26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																															IV.—United Provinces of Agra and Oudh—*concld.*
2	1	5	3	2	5	5	3	S 45° W	S 56° W	3·4	4·9	−1·5	13	− 2	38	− 8	·514	−·118	0·1	−1·1	0	1·00	−1·00	0	0·31	−0·31	0	0·31	−0·31	0	Cawnpore.
		14	1	2	3	3		S 63° E	N 72° E	2·8	4·0	−1·2	37	+24	44	− 2	·549	−·044	0·5	−1·0	0	1·50	−1·50	0	1·01	−1·01	0	1·01	−1·01	0	Lucknow.
1		8	4		1			S 76° E	S 72° E	4·0	4·9	−0·9	33	−13	43	−17	·519	−·241?	1·3	−0·1	2	2·50	−0·50	0·31	1·95	−1·64	0·31	1·95	−1·64	0·18	Bahraich.
4	2		1		3	9	7	N 61° W	N 70° W	6·7	4·7	+2·0	53	+13	39	+ 7	·638	+·155?	0·6	−0·4	0	0·70	−0·70	0·03	0·41	−0·38	0·03	0·41	−0·38	0·03	Jhansi.
	1		2		11	7	2	S 61° W	S 49° W	5·5	6·1	−0·6	59	+20	37	− 1	·475	−·061	2·0	+1·0	3	1·50	+1·50	1·12	0·56	+0·56	1·12	0·56	+0·56	0·51	Agra.
3	3	2		2	2	11	8	N 62° W	N 84° W	2·8	2·8	0	49	+34	51	+ 9	·686	+·119	0	−1·3	0	1·10	−1·10	0	0·43	−0·43	0	0·43	−0·43	0	Mainpuri.
1		7	1			1		N 88° E	S 73° E	2·0	4·3	−2·3	22	+ 9	59	+11	·728	+·133	0·8	−0·7	0	2·27	−2·27	0·09	0·76	−0·67	0·09	0·76	−0·67	0·06	Bareilly.
	1		2	1	1	7		S 67° W	S 54° W	1·3	2·6	−1·3	23	+ 2	45	+ 4	·554	+·040	0·7	−1·3	1	1·50	−0·50	0·22	0·60	−0·38	0·22	0·60	−0·38	0·16	Meerut.
			10					S 45° E	S 45° E	3·1	3·7	−0·6	33	+ 4	35	− 5	·415	−·067	0·8	−0·8	0	2·10	−2·10	0	0·82	−0·82	0	0·82	−0·82	0	Roorkee.
								(*a*)	N 2° W	§‖ 1·6	2·2	−0·6			42	− 4	·425	−·042	1·5	−0·9	1	3·40	−2·40	0·22	1·69	−1·47	0·22	1·69	−1·47	0·13	Dehra Dun.
																															V.—Punjab.
2	3		3	2		4	11	6	N 73° W	S 73° W	4·0	4·4	−0·4	46	+21	47	+ 9	·530	+·100	0·6	−1·8	2	2·20	−0·20	1·64	0·72	+0·92	1·64	0·72	+0·92	1·04	Delhi.
3		1	1		4	13	3	S 60° W	S 39° W	4·6	6·2	−1·6	56	+31	33	− 4	·465	−·026	0	−2·9	0	1·60	−1·60	0·08	0·71	−0·63	0·08	0·71	−0·63	0·08	Sirsa.
1	8	1	6	7	3	1	2	2	N 76° E				26		37		·449		0·7		2			0·76			0·76			0·61	Patiala.
6		1		15	2	1		6	S 37° E	S 89° E	5·3	3·1	+2·2	33	+25	33	−16	·402	−·194	1·0	−0·2	0	1·70	−1·70	0·11	0·73	−0·62	0·11	0·73	−0·62	0·06	Ambala.
1	1	2		2	1	1	1	2	N 23° W	S 44° E	1·5	2·6	−1·1	2	−12	29	−11	·359	−·156	0·2	−1·7	1	1·60	−0·60	0·19	0·61	−0·42	0·19	0·61	−0·42	0·15	Ludhiana.
2	3	9	2	4	1		6	4	N 16° E	N 72° E	3·1	3·2	−0·1	27	+ 5	39	− 2	·474	−·027	0·6	−1·2	0	1·50	−1·50	0·08	0·82	−0·74	0·08	0·82	−0·74	0·08	Lahore.
7	9	9		2	1			3	N 20° E	N 41° E	2·5	3·1	−0·6	53	+14	38	− 3	·449	−·069	0·6	−0·9	0	2·30	−2·30	0	1·03	−1·03	0	1·03	−1·03	0	Sialkot.
2	6	3				2	4	4	N 33° W	N 14° E	3·7	3·0	+0·7	40	+22	33	−11	·377	−·095	1·1	−1·0	2	3·00	−1·00	0·41	1·47	−1·06	0·41	1·47	−1·06	0·25	Rawalpindi.
4	7	10	4	1	2	1	2		N 40° E	N 14° E	9·0	7·0	+2·0	46	+28	22†	−10	·310†	−·132	0·3	−0·8	0	1·20	−1·20	0·07	0·78	−0·71	0·07	0·78	−0·71	0·07	Khushab.
1	5	2	5	4	6	3	2	3	S 52° E	S 48° E	6·3	7·5	−1·2	10	− 4	24	−12	·333	−·187	0·3	−0·9	0	1·00	−1·00	0	0·27	−0·27	0	0·27	−0·27	0	Montgomery.
12	8	4		3		2		2	N 14° E	S 12° E	1·7	2·6	−0·9	30	+23	32	−12	·448	−·128	0	−0·6	0	0·80	−0·80	0	0·30	−0·30	0	0·30	−0·30	0	Multan.
																															VI.—North-West Frontier Province.
16	2		3	2	2		4	2	W	N 50° W	2·9	4·6	−1·7	3	− 8	35	− 7	·408	−·072	1·5	−0·6	1	1·60	−0·60	0·20	0·75	−0·55	0·20	0·75	−0·55	0·20	Peshawar.
8	1	14		1			7	4	N 20° E	N 16° E	2·6	2·4	+0·2	53	+28	40	− 9	·508	−·103	0·4	−0·5	0	1·00	−1·00	0	0·34	−0·34	0	0·34	−0·34	0	D. I. Khan.
																															VII.—Sind.
1	5	3		2	2	1	1	16	N 34° W	S 53° E	5·4	4·7	+0·7	56	+27	35	− 5	·492	−·091	0·4	−0·5	0	0·30	−0·30	0	0·16	−0·16	0	0·16	−0·16	0	Jacobabad.
1	4	2	1		3	18		2	S 53° W	S 45° W	9·1	14·5	−5·4	49	−41	46	−11	·579	−·112	1·1	+0·1	0	0·30	−0·30	0	0·18	−0·18	0	0·18	−0·18	0	Hyderabad.
	2	1		1	1	6	12	8	N 83° W	S 56° W	13·9	16·9	−3·0	66	+12	68	−16	·743	−·171	3·4	−0·2	0	0	0	0	0	0	0	0	0	Kurrachee.
																															VIII.—Rajputana.
3	1				3	11	11	2	S 67° W	S 36° W	8·8	7·9	+0·9	69	+ 4	41	− 5	·564	−·077	0·5	−0·6	0	1·50	−1·50	0	0·88	−0·88	0	0·88	−0·88	0	Bikaner.
3	1	4	1		4	18			S 35° W		6·4			53		44	+ 3	·519		0·4		0	1·20	−1·20	0	0·27	−0·27	0	0·27	−0·27	0	Jodhpur.
4	1		2	2	1	20		1	S 39° W		9·6	11·1	−1·5	60		74	+12	·887	+·141?	0·3	−2·2	1	1·10	−0·10	1·06	0·66	+0·40	1·06	0·66	+0·40	1·06	Pachpadra.
6	3	2	1		1	1	6	11	N 49° W	S 88° W	6·1‖	6·3	−0·2	53	+ 3	35	− 5	·487	−·049	0·8	−0·7	0	1·50	−1·50	0·08	0·49	−0·41	0·08	0·49	−0·41	0·07	Jaipur.
11	2	1		1			11	5	N 67° W	N 84° W	6·8	10·2	−3·4	46	−19	39	− 2	·514	−·034	0·4	−0·8	1	1·60	−0·60	0·26	0·76	−0·50	0·26	0·76	−0·50	0·18	Sambhar.
10						3	15	3	W	S 79° W	10·7	8·8	+1·9	62	−13	45	+ 1	·547	−·022	0·1	−0·9	1	1·50	−0·50	0·20	0·61	−0·41	0·20	0·61	−0·41	0·20	Ajmer.
5	3					8	5	10	N 76° W		5·4			59		37	+ 9	·575		0·3		2	1·20	+0·80	0·33	0·54	−0·21	0·33	0·54	−0·21	0·20	Kotah.
4	1				1	3	18	4	N 88° W		6·5			76		43	0	·556		0·1		0	1·70	−1·70	0	1·05	−1·05	0	1·05	−1·05	0	Udaipur.

§ Mean of 25 days. ‖ Uncorrected for scale error. (*a*) Indeterminate.

T

(2) *Abstract of observations taken at 8 hrs., at 239 sta*

Number of subdivision.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	IX.—Bombay.																					
20	Deesa	466	29·317	+·014	29·731	29·413	23rd	29·243	9th	·170	86·0	107·0	+0·3	76·1	−1·4	91·6	−0·6	30·9	113·8	10th	66·4	5th
	Bhuj	385	29·395	+·035	29·741	29·492	23rd	29·323	14th	·169	84·3	100·1	−1·2	76·1	−0·6	88·2	−0·9	24·0	109·0	10th	67·5	2nd
	Jamnagar	61	29.740		29·746	29·841	23rd	29·638	9th	·203	87·2	98·5		77·4		87·9		21·1	106·4	9th	69·8	2nd
	Dwarka	37?	29 782*		29·765*	29·883	23rd	29·695	9th	·188	83 7	87·6		79·8		83·1		7·8	90·3	10th	68·2	11th
	Rajkot	429	29·385*	+·026*	29·762*	29·478	23rd	29·274	9th	·204	85·8	105·1	−0·3	75·3	+0·2	90·2	−0·1	29·8	111·9	10th	63·0	3rd
	Veraval	*18*	29·813	+·004	29 773	29·922	23rd	29·646	9th	·274	82·9	87·9	+1·2	77·4	−1·0	82·7	+0·1	10·5	100·7	3rd	66·3	7th
	Bhavnagar Para	55	29·759	−·026?	29·758	29·854	23rd	29·652	9th	·202	86·5	106·4	+3·4?	78·6	−0·2	92·4	+1·6?	27·8	112·7	1st	70·5	3rd
	Surat	39	29·782	−·005	29·765	29·883	23rd	29·646	9th	·237	85·2	98·0	−0 2	79·6	+1·5	88·8	+0 7	18·4	110·6	9th	72·6	3rd
	Ahmedabad	163	29·633	−·004	29·744	29·726	23rd	29·531	9th	·195	86·7	107·6	+0·5	79·2	−0·3	93·4	+0·1	28·4	113·6	10th	71·7	3rd
26	Bombay	37	29·815	−·007	29 791	29·921	23rd	29·680	9th	·241	84·6	92·1	+1·4	81·8	+1·1	87·0	+1·3	10·3	94·0	1st, 30th & 31st.	79·5	2nd & 3rd
	Ratnagiri	110	29·738	−·005	29·756	29·830	23rd	29·597	8th	·233	85·1	91·2	+0·1	80·5	+0·9	85·9	+0·5	10·7	94·8	6th	77·9	11th
	Goa	199	29·639	−·033?	29 776	29·710	23rd & 24th.	29·447	8th	·263	83·4	87·1	−2·9?	80·2	−0·3	83·7	−1·6?	6·9	90·1	7th	75·1	8th
	Mormugao	*60*	29·753	−·018	29·787	29 877	25rd	29·607	8th	·270	85 3	89·8	−0·2	80·2	−0 9	85·0	−0·6	9·6	92·5	3rd & 29th.	76·2	8th & 9th
	Karwar	41	29·811*	−·010*	29·788*	29·904	23rd	29·596	8th	·308	82·6	89·3	−0·5	79·2	−0·5	84·3	−0·5	10·1	92·8	28th	74·0	7th
27	Malegaon	1,430	28·383	+·003	29·748	28 470	23rd	28·296	9th	·174	86·8	101·8	+0·3	74·9	−0·2	89·9	+0 3	29·9	110·4	2nd & 3rd	68·6	30th
	Ahmednagar	2,154	27·707†	+·018†	29·724†	27·755	17th	27·638	6th	·117	82·5	101·4	+2·0?	73·0	+1·2	87·2	+1·6?	28 4	108·4	4th	67·5	13th
	Poona	1,846	28·019§	+·016§	29·8.8§	28·098	23rd	27·953	1st	·145	80·5	99·5	+0·3	73·5	+1·6	86·5	+1·0	26·0	108 0	4th	66·8	12th
	Sholapur	1,590	28·230	−·001	29·757	28·300	23rd	28·144	7th	·156	83·0	103·6	−1·2	77·2	+0·7	90·4	−0·3	26·4	110·3	2nd & 3rd	72·9	29th
	Bijapur	*1,948*	27·885*	−·013*	29·702	27·947	16th & 17th.	27·795	7th	·152	81·4	100·5	+0 2	73·5	−1·2	87·0	−0·5	27·0	107·2	1st	69·2	10th
	Belgaum	2,539	27·324	+·002	29·781	27·396	23rd	27·201	8th	·195	77·1	92·5	−0·5	68·6	+0·4	80·6	−0·1	23·9	101·3	2nd	64·6	11th
	X.—Central India.																					
21	Neemuch	1,624	28·150‡	+·018‡	29 714‡	28·204	23rd	28·077	14th	·127	85·3	100·1	−3·9	76·0	−1·1	88·1	−2·5	24·1	105·0	15th	64·8	3rd
	Indore	1,823	27·966?	+·034?*	29·740*	28·056	23rd	27·913	31st	·143	85·3	103·1	+0·3	76 8	+0·9	90·0	+0·6	26·3	107·1	8th	70·1	2nd & 4th
22	Nowgong	754	28·938	0	29·638	29 042	3rd	28·825	31st	·217	88·5	105·6	−1 8	77·9	+1·9	91·8	+0·1	27·7	111·5	30th	69·0	3rd
	Sutna	1,040	28·645	−·005	29·624	28·757	4th	28·513	31st	·244	92·2	106·8	+1·3	81·2	+1·9	91·0	+1 6	25·6	110·5	30th	74·2	4th
	XI.—Central Provinces.																					
23	Buldana	2,132	27·700		29·745	27·754	18th	27·633	31st	·121	84·2	101·3		77·7		89·5		23·6	106·7	3rd	71·0	11th
	Akola	930	28 643	+·009	29·713	28·917	23rd	28·759	31st	·158	88·9	107·9	+0·2	81·5*	+0·4*	94·8*	+0·3*	26·4	113·7	3rd	74·1	11th
	Amraoti	1,215	28·546	+·006	29·692	28·814	23rd	28·469	31st	·145	89·1	106·8	−0 9	80·1	+0·1	93·4	−0·4	26·7	111·3	6th	73 8	4th
24	Khandwa	1,044	28·725‡	+·004‡	29·713‡	28·862	23rd	28·654	31 st	·148	87·9	107·4	+0·9	82 5	+1·6	95·0	+1·3	24·9	112·2	4th	75·1	2nd
	Hoshangabad	1,006	28·745	−·001	29·692	28·812	23rd	28·645	31st	·167	91·0	107·4	−0·2	80·5*	+0·2*	94·0*	0	26·9	111·1	4th	71·4	26th
	Saugor	1,867	27·933	−·002	29·653	28 001	4th	27·829	3 1st	·172	89·6	104·4	−0·7	79·8	+1·3	92·1	+0·3	24·6	108·6	30th	71·5	15th
	Jubbulpore	1,327	28·393	−·002	29·654	28·471	4th	28·266	31st	·205	88 3	104·8	−0 8	78·6	−0·3	91·7	−0·6	26·2	108·5	31st	69·8	17th
	Seoni	2,033	27·731	0	29·665	27·795	4th	27·614	31st	·181	83·9	102·4	−1·5						106·0	2nd & 30th.		
	Nagpur	1,017	28·716	+·005	29·668	28·779	4th	28·607	31st	·172	90·7‡	107·1*	−1·9*	81·7‡	−0·2	94·5‡	−1·1‡	25 7	111·1	2nd	77·3	9th & 26th.
25	Pendra	2,123?	27·720		29·644	27·808	4th	27·591	31st	·217	88·4	100·8		77·8		89·3		23·0	105·3	31st	72·7	13th
	Raipur	970	28·740	−·007	29·644	28·818	4th	28·613		·205	88 6	106·1	−1·3	82·5	+0·5	94·4	−0·4	23·0	110·2	31st	78 6	14th & 25th.
	Charda	*634*	29·098	−·003	29·662	29·183	4th	28·994	31st	·194	93·1	108·3	−1·2	83·2	+1·3	95·7	+0·1	25·1	111·5	21st	74·5	22nd

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

‡ Mean of 29 days.

† Mean of 28 days.

NOTE 2.—The barometric readings are not reduced to sea level.

§ Mean of 27 days.

—continued.

India, etc., in May, 1909—continued.

Wind direction. Number of winds from N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs., in inches of mercury. (43)	Departure from normal, in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st to 31st May, 1909. (53)	Normal rainfall for period, 1st to 31st May. (54)	Departure from normal of period, 1st to 31st May, 1909. (55)	Heaviest rainfall during month. (56)	Station. (57)
																														IX.—Bombay.
4	4	1	1		16	10	1	S 89° W	S 83° W	12·5 ‖	13·4	−0·9	43	−22	49	− 9	·592	−·107	2·1	−0·3	0	0·55	−0·55	0·05	0·25	−0·20	0·05	0·25	−0·20	0·05	Deesa.
3	1			1	10	10	5	S 88° W	S 77° W	15·0 ‖	17·4	−2·4	66	−17	63	0?	·735	−·035?	2·5	+1·2	0	0·30	−0·30	0	0·09	−0·09	0	0·09	−0·09	0	Bhuj.
3	2			8	13	2	3	S 49° W		20·1					56		·710		0·3		0			0			0			0	Jamnagar.
				6	13	7	5	S 59° W		14·3					79		·883		2·5		0			0			0			0	Dwarka.
3	2			10	11	5		N 87° W	N 89° W	14·4	14·4	0	66	−16	54	−17	·653	−·162	2·2	+0·6	0	0·60	−0·60	0·03	0·22	−0·19	0·03	0·22	−0·19	0·03	Rajkot.
7			1	2	5	14	2	N 83° W	N 89° W	13·0	9·4	+3·6	59	−17	72	− 9	·803	−·103	5·4	+1·4	0	0·10	−0·10	0	0·02	−0·02	0	0·02	−0·02	0	Veraval.
	1				15	4	11	S 84° W	S 62° W	10·3	14·1	−3·8	70	−11	54	−12	·676	−·162	3·1	−0·6	1	0·40	+0·60	0·17	0·10	+0·07	0·17	0·10	+0·07	0·12	Bhavnagar, Para.
3	1			5	11	4	1	S 53° W	S 54° W	8·2	11·1	−2·9	56	−12	60	− 8	·776	−·071	2·9	−0·5	0	0·30	−0·30	0	0·13	−0·13	0	0·13	−0·13	0	Surat.
2	1	1		5	4	3	4	S 56° W	S 81° W	6·8	7·0	−0·2	58	− 5	51	− 8	·632	−·122	1·9	−0·8	0	0·50	−0·50	0	0·01	−0·01	0	0·01	−0·01	0	Ahmedabad.
2			1	4	3	15	6	S 88° W	N 81° W	9·4 ‖	10·1	−0·7	69	+22	74	+ 1	·891	+·012	3·4	−0·7	0	0·70	−0·70	0	0·71	−0·71	0	0·71	−0·71	0	Bombay.
5		1	1	3		5	11	N 66° W	N 48° W	10·6	9·7	+0·9	40	−17	70	+ 1	·846	+·007	2·6	−0·9	0	1·50	−1·50	0·06	1·45	−1·39	0·06	1·45	−1·39	0·02	Ratnagiri.
6			2	3	5	5	10	N 64° W	N 38° W	8·6	7·9	+0·7	49	− 7	77	+ 4	·880	+·011	6·8	+2·8	4			1·73	2·33	−0·60	1·73	2·33	−0·60	1·25	Goa.
		1	3	2	1	4	17	N 62° W	N 28° W	10·9 ‖	10·9	0	49	−13	77	+ 1	·924	+·014	5·8	+1·2	3			2·03	2·57	−0·54	2·03	2·57	−0·54	1·22	Mormugao.
2	6			1	1		3	N 5° E	N 30° W	5·0 ‖	5·7	−0·7	56	− 7	76	− 1	·863	+·014	4·4	+0·5	3	3·60	−0·60	2·21	3·28	−1·07	2·21	3·28	−1·07	1·50	Karwar.
					3	4	4	N 83° W	N 79° W	10·0	13·3	−3·3	30	−50	43	−15	·535	−·022	0·2	−1·9	4	1·20	+2·80	4·07	0·73	+3·34	4·07	0·73	+3·34	2·86	Malegaon.
4		1		1		8	15	N 52° W	N 31° W	1[illegible]·9	14·9	−4·0	72	+ 4	49	−11	·531	−·143	0·8	−1·3	5	1·80	+3·20	3·18	0·88	+2·30	3·18	0·88	+2·30	1·95	Ahmednagar.
1			1		2	19	8	N 80° W	N 80° W	14·6 ‖	15·3	−0·7	82	− 1	58	+ 4	·581	+·036	3·9	+1·3	3	2·10	+0·90	2·11	1·33	+0·78	2·11	1·33	+0·78	1·65	Poona.
1		1	3		2		21	N 47° W	N 55° W	12·4	11·3	+1·1	59	−17	55	+10	·622	+·094	3·6	+0·5	4	2·00	+2·00	2·55	1·00	+1·55	2·55	1·00	+1·55	1·73	Sholapur.
1	1	2		3	4	14	6	W	N 81° W	10·9	8·3	+2·6	59	−18	60	− 4	·640	−·042	2·3	−0·9	2	3·30	−1·30	0·37	1·79	−1·42	0·37	1·79	−1·42	0·22	Bijapur.
2	2	1		2	4	14	5	N 84° W	N 67° W	17·5 ‖	17·6	−0·1	53	+ 5	57	− 2	·615	−·002	4·1	+0·4	5	4·70	+0·30	1·83	2·49	−0·61	1·88	2·49	−0·61	0·70	Belgaum.
																														X.—Central India.
5	4				11	10	1	N 87° W	S 84° W	9·9	12·0	−2·1	53	−16	57	+ 7	·683	+·051	0·5	−0·4	0	1·00	−1·00	0·07	0·45	−0·38	0·07	0·45	−0·38	0·07	Neemuch.
1	2	3				20	3	N 75° W	N 71° W	8·3	6·3	+2·0	59	−16	48	− 2	·583	−·037	0·9	−0·2	1	1·20	−0·20	0·33	0·59	−0·26	0·33	0·59	−0·26	0·33	Indore.
1		1	1	1	1	18	4	N 86° W	N 82° W	3·0	3·7	−0·7	66*	+12	38	+ 4	·522	+·032	1·8	+0·4	0	0·90	−0·90	0	0·33	−0·33	0	0·33	−0·33	0	Nowgong.
1			1		2	15	11	N 74° W	N 73° W	3·5	8·1	−4·6	79	+35	31	+ 2	·463	+·040	2·9	+1·9	0	1·10	−1·10	0·05	0·38	−0·33	0·05	0·38	−0·33	0·03	Sutna.
																														XI—Central Provinces.
																			1·8		3			1·86	0·58	+1·28	1·86	0·58	+1·28	0·95	Buldana.
2			2	2	3	10	12	N 75° W		9·2	12·2	−3·0	61		45		·508													
			2	1	2	12	14	N 75° W	N 68° W	9·6	9·6	0	76	−10	42	+ 4	·552	+·033	2·7	+0·8	2	0·80	+1·20	0·43	0·43	0	0·43	0·43	0	0·25	Akola.
1	1			1	4	11	11	N 77° W	N 77° W	8·0	6·9	+1·1	69	+ 1	47	+ 8	·637	+·095	2·6	+0·5	2	1·50	+0·50	0·74	0·63	+0·11	0·74	0·63	+0·11	0·55	Amraoti.
1	1	1		2	1	11	14	N 66° W	N 70° W	12·8	10·3	+2·5	72	−14	43	0	·557	+·008	1·1	0	0	0·80	−0·80	0	0·35	−0·35	0	0·35	−0·35	0	Khandwa.
3				1	4	16	1	S 81° W	S 66° W	4·5	4·1	+0·4	66	+ 4	39	− 2	·572	+·019	1·1	−0·2	3	1·00	+2·00	0·65	0·55	+0·10	0·65	0·55	+0·10	0·25	Hoshangabad
1		2	2	3		3	14	6	N 84° W	S 86° W	7·3	5·3	+2·0	49	− 1	29	− 7	·403	−·0837	1·3	+0·1	0	1·00	−1·00	0·12	0·50	−0·38	0·12	0·50	−0·38	0·06	Saugor.
			1	4	3	9	12	2	S 56° W	S 78° W	2·8	4·3	−1·5	62	+ 8	36	+ 3	·431	+·017	1·1	−0·3	1	1·30	−0·30	0·35	0·55	−0·20	0·35	0·55	−0·20	0·30	Jubbulpore.
3	9	2	2		2	1	2	10	N 24° W	N 39° W	5·6	4·7	+0·9	53	+15	35	+ 2	·466	+·005	2·6	+0·8	6	1·90	−1·10	2·46	0·68	+1·78	2·46	0·68	+1·78	1·12	Seoni.
2	2	1	1	3	1	5	10	6	N 89° W	N 48° W	5·7	8·0	−2·3	45	− 2	37½	+ 3	·511½	0	2·2	−0·5	4	1·40	+2·60	3·51	0·72	+2·79	3·51	0·72	+2·79	2·30	Nagpur.
6	4	1		1	4	3	4	8	N 71° W		5·3			37		34		·474		1·8		1		0·22			0·22			0·12	Pendra.
2	1	1			1	13	6	2	S 61° W	S 76° W	8·0	8·0	0	69	+26	39	+ 4	·518	+·006	2·3	−0·5	1	2·30	−1·30	0·70	0·94	−0·24	0·70	0·94	−0·24	0·66	Raipur.
1				4	4	2	11	9	S 82° W	S 84° W	6·8	4·8	+2·0	53	+30	42	+ 6	·649	+·111	3·1	+0·8	0	1·70	−1·70	0·15	0·74	−0·59	0·15	0·74	−0·59	0·08	Chanda.

ases of hill or plateau stations, the elevations of which exceed 3,000 feet.

* Mean of 30 days.

‖ Uncorrected for scale error.

T

(2) *Abstract of observations taken at 8 hrs., at 239 sta*

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	XII.—Hyderabad.																					
28	Aurangabad	1,905	27·926*	—·028*?	29·751*	28·004	23rd	27·866	7th	·138	84·6	103·1	—1·3?	75·1	—0·1	89·1	—0·7?	28·0	109·2	4th	66·2	31st
	Nizamabad	1,248	28·542†?	—·018†?	29·720†?	28·580	17th	28·505	7th	·075	83·6	106·6	+0·7	81·2	+0·1	93·9	+0·4	25·4	110·9	3rd	77·7	11th, 29th.
	Bidar	*2,165*	27·664		29·732	27·749	4th	27·581	9th & 31st.	·168	86·0	101·1		74·0		87·6		27·1	105·4	2nd	70·0	31st
29	Gulbarga	1,503	28·313	—·007	29·753	28·371	23rd	28·228	7th	·143	83·3	103·0	—1·8	78·2	—0·3	90·6	—1·1	24·8	108·5	2nd	66·3	31st
	Raichur	*1,311*	28·482?‡	—·021?‡	29·723?‡	28·535	17th	28·399	7th	·136	85·4	102·8	—0·5	80·1	+0·6	91·4	0	22·7	107·1	20th, 21st & 25rd.	75·6	29th
	Hyderabad (Deccan).	1,690	28·169	—·001	29·729	28·170	4th	28·014	31st	·156	86·2	102·9	—0·9	80·8	+2·2	91·9	+0·7	22·1	106·8	20th & 24th.	75·7	8th & 9th.
	Hanumkonda	871	28·888	—·013	29·689	28·891	4th	28·771	31st	·220	89·5	105·5	+0·9	83·9	+1·9	94·7	+1·4	21·6	110·5	24th	76·7	9th.
	XIII.—Mysore.																					
30	Chitaldroog	2,405	27·467	—·009	29·799	27·546	23rd	27·321	7th	·225	75·0	91·9	—1·8	69·9	—1·1	80·9	—1·5	22·0	95·1	1st	62·9	1st
	Hassan	3,139	26·775	—·008	29·830	26·832	23rd	26·601	7th	·251	72·2	86·5	—1·2	66·7	+0·1	76·6	—0·6	19·8	94·1	3rd	62·8	10th
	Bangalore	3,021	26·852	—·014	29·803	26·954	23rd	26·750	6th	·204	74·4	88·9	—2·4	69·1	0	79·1	—1·2	19·8	93·8	4 days	64·8	9th, 19th.
	Mysore	2,518	27·375	—·020	29·825	27·461	23rd	27·211	6th	·250	74·4	87·5	—4·6	68·9	—0·7	78·2	—2·7	18·6	94·5	2nd	64·0	9th
	XIV—Madras.																					
31	Mangalore	65	29·792	—·024	29·789	29·879	23rd	29·597	7th	·282	83·0	88·5	—1·8	78·9	+0·1	83·7	—0·9	9·6	92·7	2nd & 4th.	73·4	5th & 8th
	Calicut	27	29·840	—·014	29·796	29·911	23rd	29·703	6th	·208	82·2	87·6*	—2·8*	76·4	+0·5	83·0*	—1·2*	9·2	92·8	3rd	74·6	6th & 8th
	Cochin	9	29·874	0	29·811	29·940	23rd	29·775	7th	·165	82·5	88·8	—0·8	77·9	+0·3	83·4	—0·3	10·9	92·7	1st & 3rd.	74·2	7th & 24th
	Trivandrum	198	29·673	—·014	29·802	29·744	23rd	29·605	7th	·139	80·5	85·8	—0·5	77·1	—1·4	81·5	—1·0	8·7	88·5	2nd & 17th.	71·5	4th & 5th
32	Tinnevelly	169	29·657	—·025	29·753	29·703	18th	29·605	31st	·098	80·5	99·5	—0·9	79·4	—1·3	89·5	—1·1	20·1	105·2	2nd & 26th.	71·9	4th
	Pamban	37	29·783§	—·022§	29·747§	29·839	18th	29·718	7th	·121	84·3	90·2	—1·0	80·4	—1·0	85·3	—1·0	9·8	94·7	2nd & 3rd.	73·5	4th
	Madura	447	29·379	—·005	29·760	29·435	10th	29·321	31st	·114	84·1	98·5	—1·6	76·9	—0·6	87·7	—1·1	21·6	104·4	19th	70·6	5th & 24th
	Periyakulam	944						Observatory closed														
	Pudukkottai	318	29·499		29·748	29·551	23rd	29·435	7th	·116	84·1	99·0		78·3		88·7		20·7	104·6	22nd	71·6	5th
	Negapatam	31	29·769	—·025	29·728	29·811	18th	29·709	31st	·102	85·0	93·5	+2·2?	80·1	—0·1	89·8	+1·1?	19·4	105·4	23rd & 25th.	74·0	4th
	Trichinopoly	255	29·565	—·013	29·752	29·610	17th	29·498	31st	·112	84·7	98·2	—3·6	77·7	—1·0	87·9	—2·3	20·5	106·1	26th	67·8	13th
	Coimbatore	1,348	28·488	—·018	29·781	28·514	24th	28·376	6th	·138	78·1	90·7	—4·3	73·2	—0·2	82·0	—2·3	17·5	97·4	1st	67·3	10th
	Salem	940	28·917	—·012	29·793	28·968	23rd	28·829	6th	·139	82·8	97·7	—1·5	77·4	+1·5	87·5	0	20·3	103·0	2nd & 27th.	72·4	5th & 9th.
	Cuddalore	37	29·752	—·018	29·719	29·805	18th	29·694	31st	·112	86·1	96·6	—0·2	80·2	+0·1	89·4	—0·1	18·4	105·1	23rd	72·8	5th
	Vellore	707	29·096		29·739	29·160	18th	29·007	31st	·153	84·2	97·7*		77·4		87·6*		20·3	103·2	2nd	72·0	21st
	Madras	22	29·762	—·022	29·715	29·874	18th	29·665	31st	·209	85·7	97·2	—1·3	80·6	—0·5	88·9	—0·9	16·6	106·0	31st	74·5	5th
33	Cuddapah	453	29·372	—·006	29·738	29·422	11th 16th & 23rd.	29·300	7th	·122	83·2	105·7	—2·6	81·4	—2·1	92·6	—2·4	22·3	109·2	20th, 23rd & 24th.	72·6	31st
	Bellary	1,475	28·350	—·001	29·762	28·414	23rd	28·249	7th	·165	82·2	105·5	—1·9	77·8	+0·3	89·3	—0·8	22·7	107·0	2nd	72·3	7th
	Kurnool	923	28·880	—·008	29·737	28·945	16th	28·802	7th	·143	86·1	104·0	—0·8	82·0	+1·0	93·0	+0·1	22·0	109·7	20th	76·6	7th
34	Nellore	66	29·698‡	—·010‡	29·696‡	29·760	18th	29·600	31st	·160	88·9	103·0	—3·0	81·7	—0·3	92·4	—1·7	21·3	112·3	23rd	74·1	5th
	Masulipatam	15	29·765	+·009	29·714	29·849	4th	29·610	31st	·239	88·9	98·8	—1·3	82·3	+0·7	90·6	—0·3	16·5	109·8	15th	76·1	7th
	Cocanada	26	29·740	—·009	29·702	29·830	4th	29·578	31st	·252	87·4	96·5	—4·2	83·7	+0·9	90·1	—1·7	12·8	106·2	15th	79·0	16th
	Waltair (Vizagapatam).	*226*	29·530	—·007	29·693	29·632	4th	29·361	31st	·271	85·6	90·1		81·3		85·7		8·8	93·1	15th	75·9	19th
	Calingapatam	19	29·733		29·692	29·822	4th	29·585	31st	·237												
	Gopalpur	72	29·656	+·005	29·670	29·732	4th	29·511	31st	·231	84·5	8·8	0	80·7	+0·2	85·3	+0·1	9·1	92·2	25th & 27th.	74·0	30th

NB.—Elevations in italics indicate barometrical determinations.

* Mean of 30 days.
† „ „ 27 „
‡ „ „ 29 „
§ Mean of 28 days.

NOTE.—The barometric readings are not reduced to sea-level, in the cases of hill

B—*continued.*

in India, etc., in May, 1909—continued.

Wind direction. Number of winds from Calm. (25)	N. (26)	N. E. (27)	E. (28)	S. E. (29)	S. (30)	S. W. (31)	W. (32)	N. W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st to 31st May 1909. (53)	Normal rainfall for period, 1st to 31st May. (54)	Departure from normal of period, 1st to 31st May 1909. (55)	Heaviest rainfall during month. (56)	Station. (57)
																																XII.—Hyderabad.
1	2		1	3		2	8	14	N 63° W		14·7			59		49	+ 9	·565		1·7		4	1·60	+2·40	1·92	0·65	+ 1·27	1·92	0·65	+ ·127	0·90	Aurangabad.
11	1	1			2	9		7	S 81° W		4·9			37		39	−12	·525		2·5		1	1·20	−0·20	0·10	0·33	− 0·23	0·10	0·33	− 0·23	0·10	Nizamabad.
1	2	3	1	2	2	8	8	4	S 81° W		5·0			39		47		·581		1·2		2	2·50	−0·50	0·30	1·00	− 0·70	0·30	1·00	− 0·70	0·18	Bidar.
1	5	1		2	1	2	10	9	N 62° W	N 44° W	10·7	12·5	−1·8	59	− 2	59	+ 4	·674	+ ·027	2·7	−0·7	4	2·50	+1·50	3·74	1·16	+ 2·58	3·74	1·16	+ 2·58	1·13	Gulbarga.
	1	2	1	1		6	7	13	N 69° W	N 83° W	11·1	11·5	−0·4	59	−10	55	+ 1	·672	+·030	4·4	+1·1	0	1·80	−1·80	0·02	0·72	−0·70	0·02	0·72	− 0·70	0·02	Raichur.
15							6	10	N 62° W	S 82° W	5·7	6·4	−0·7	46	−14	45	− 5	·564	−·054	4·2	+1·3	0			0·09	0·99	− 0·90	0·09	0·99	− 0·90	0·09	Hyderabad (Deccan).
2	1			8	4	3	3	10	S 60° W		8·8			27		42	− 8	·586		4·4		1	1·00	0	0·11	0·61	− 0·50	0·11	0·61	− 0·50	0·10	Hanumkonda
																																XIII.—Mysore.
		1	2	1		8	13	6	S 86° W	S 81° W	8·3	9·0	−0·7	62	−21	72	+ 2	·618	−·016	4·8	−0·7	7	4·60	+2·40	6·27	3·74	+ 2·53	6·27	3·74	+ 2·53	2·48	Chitaldroog.
	1		2	1	1	4	13	9	N 81° W	N 80° W	8·8	4·0	+4·8	65	−13	83	+ 8	·659	+·020	5·7	0	9	7·80	+1·20	9·65	5·17	+ 4·49	9·66	5·17	+ 4·49	2·99	Hassan.
	1	1		2	2	4	18	3	S 84° W	S 75° W	7·7	6·3	+1·4	69	−14	76	0	·653	−·015	5·1	+0·4	6	6·50	−0·50	7·91	4·22	+ 3·69	7·91	4·22	+ 3·69	6·06	Bangalore.
	1	1		1	2	9	14	3	S 76° W	S 74° W	8·9	10·2	−1·3	69	− 7	79	+ 5	·675	+·008	6·3	+1·3	10	8·30	+1·70	10·59	3·37	+ 7·22	10·59	3·37	+ 7·22	2·85	Mysore.
																																XIV.—Madras.
4	10	4	4	2		1		6	N 12° E	N 18° E	6·7	3·8	+2·9	49	+24	80	+ 2	·903	+·027	5·8	−0·6	9	6·90	+2·10	26·48	6·66	+19·82	26·48	6·66	+19·82	14·21	Mangalore.
3	2		1	1	1		5	18	N 51° W	N 15° W	9·9	11·2	−1·3	66	+26	83	+ 4	·913	+·038	5·9	+0·5	11	9·00	+2·00	27·67	7·78	+19·89	27·67	7·78	+19·89	9·81	Calicut.
1	2	8	11	4	1	1	1	2	N 75° E	N 29° E	8·4	6·2	+2·2	53	+ 6	80	− 2	·883	−·014	5·8	+0·1	11	12·90	−1·90	10·88	12·39	− 1·51	10·88	12·39	− 1·51	2·98	Cochin.
6	5	1					3	16	N 38° W	N 16° W	6·8	7·1	−0·3	69	+ 1	83	+ 2	·872	+·001	6·1	−0·1	9	10·20	−1·20	14·94	9·05	+ 5·89	14·94	9·05	+ 5·89	4·75	Trivandrum.
1	1			1	1	4	12	11	N 79° W	N 75° W	5·1	5·6	−0·5	72	+24	59	− 2	·728	−·066	4·0	−0·9	5	3·30	+1·70	1·77	1·37	+ 0·40	1·77	1·37	+ 0·40	0·85	Tinnevelly.
4			1	1	10	11	4		S 29° W	S 22° W	10·1	11·7	−1·6	69	− 4	83	+ 4	·975		3·1		3	1·20	+1·80	3·16	0·55	+ 2·61	3·16	0·55	+ 2·61	1·97	Pamban.
2	3		1			4	11	10	N 70° W	N 38° W	5·8	6·2	−0·4	69	+12	65	− 1	·751	−·033	5·4	+1·4	8	4·20	+3·80	5·10	2·65	+ 2·45	5·10	2·65	+ 2·45	1·80	Madura.
																			Observatory closed													Periyakulam.
4		1			1	7	4	11	N 71° W		8·5			58		71		·827		5·4		4			2·91			2·91			2·00	Pudukkottai.
1				1	2	16	10	1	S 58° W	S 46° W	8·1	7·9	+0·2	79	+ 7	69	+ 1	·862	−·013	4·5	+0·4	4	2·10	+1·90	3·05	1·61	+ 1·44	3·05	1·61	+ 1·44	1·42	Negapatam.
1			1	2		5	21	1	S 79° W	S 76° W	4·5	6·1	−1·6	76	+ 1	65	+ 1	·738	−·013	3·9	−0·5	6	3·50	+2·50	6·58	2·94	+ 3·64	6·58	2·94	+ 3·64	2·85	Trichinopoly.
5				1	10	15			S 24° W	S 22° W	6·0	4·5	+1·5	76	+ 8	80	0	·807	−·010	4·4	+0·1	6	4·70	+1·30	4·93	2·28	+ 2·65	4·93	2·28	+ 2·65	2·25	Coimbatore.
3			1	1	1	6	14	5	S 83° W	S 48° W	4·9	4·1	+0·8	66	+16	80	+ 9	·900	+·088	5·7	+1·5	6	7·10	−1·10	2·68	5·01	− 2·33	2·68	5·01	− 2·33	1·63	Salem.
2	2				14	7	6		S 32° W	S 47° W	7·4	2·9	+4·5	66	− 2	69	− 4	·852	−·092?	3·9	−0·3	3	1·20	+1·80	2·62	0·28	+ 2·34	2·62	0·28	+ 2·34	1·30	Cuddalore.
5	1		6	8	2	1	3	4	S 45° E*		3·0*			27		70		·812		3·6		6	4·40	+1·60	11·96	3·02	+ 8·94	11·96	3·02	+ 8·94	6·35	Vellore.
	1	1	1	3	17	6	2		S 6° W	S 41° W	6·6	9·1	−2·5	72	0	75	+11	·928	+·064	4·2	+0·1	4	2·30	+1·70	9·49	0·90	+ 8·59	9·49	0·90	+ 8·59	5·22	Madras.
		1	4		4	19	3	5	S 80° W	N 89° W				66	+ 5	59	+ 6	·784	+·015	5·2	+1·6	6	2·50	+3·50	3·42	1·80	+ 1·62	3·42	1·80	+ 1·62	2·02	Cuddapah.
4	1	1	2	1		2	10	9	N 71° W	N 74° W	7·8	8·5	−0·7	49	−16	56	+ 3	·622	−·001	4·3	−0·4	4	3·20	+0·80	1·61	1·98	− 0·37	1·61	1·98	− 0·37	0·95	Bellary.
1	1	2	2		2	4	5	14	N 62° W	N 84° W	9·8*			49	+13	59	+ 7	·729	+·058	3·6	+0·2	0	2·90	−2·90	0·16	0·95	− 0·79	0·16	0·95	− 0·79	0·08	Kurnool.
2	1	2		3	4	2	4	16	N 70° W	S 69° W	6·5	8·8	−2·3	40	+ 8	63	0	·838	−·041?	5·3	+1·1	2	1·60	+0·40	1·91	0·39	+ 1·52	1·91	0·39	+ 1·52	1·47	Nellore.
6		1	1	4	7	3	5	4	S 33° W	S 38° W	7·2	8·9	−1·7	33	− 8	81	+ 5	1·092	+·047	5·0	−0·2	3	1·90	+1·10	0·98	1·27	− 0·29	0·98	1·27	− 0·29	0·33	Masulipatam.
9	1		2	2	4	10	3		S 30° W	S 56° W	6·3	8·1	−1·8	43	−11	78	+ 8	·990	+·069	6·4	+1·4	0	2·80	−2·80	0	0·93	− 0·93	0	0·93	− 0·93	0	Cocanada.
2					2	26	1		S 44° W	S 72° W	10·6			92	+ 9	73	− 2	·899	−·052	6·4	+0·5	4	3·40	+0·60	0·68	2·47	− 1·79	0·68	2·47	− 1·79	0·29	Waltair. (Vizagapatam).
	1			2	11	13	3	1	S 31° W		9·5			74						4·6		2			0·88			0·88			0·54	Calingapatam.
		1	1		6	23			S 34° W	S 30° W	16·7	17·5	−0·8	82	+14	81	− 3	·957	−·029	2·6	−2·8	2	3·30	−1·30	0·77	2·10	− 1·33	0·77	2·10	− 1·33	0·47	Gopalpur.

* Uncorrected for scale error.

stations, the elevations of which exceed 3,000 feet.

Tabl

(2) *Abstract of observations taken at 8 hrs., at 239 station*

Number of subdivisions.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	Bay Islands.																						
1	P. V. Fraser	8	29·731		29·653	29·850	4th	29·661	15th & 16th.	·189	85·4												
	Car Nicobar	25						Observations		not received													
	Port Blair	58	29·785	—·011	29·773	29·838	10th	29·699	31st	·139	81·0	85·9	—3·1	77·7	—0·7	81·3	—1·0	8·2	95·2	2nd, 5th & 7th.	75·0	4 days	1
	Slipper Island	50	?		?						82·4†	85·6†		78·6†		83·1†		9·2	92·1	6th & 9th	73·0	6th	1
	Kashmir.																						
14	Srinagar	5,204	24·836‡	—·012‡	24·807‡	25·011	23rd	24·653	1st	358	57·9	76·0	—0·9	50·4	—1·7	63·2	—1·3	25·6	86·6	30th	40·6	4th	4
	Gulmarg §	*8,569*	21·875	—·002	21·843	21·945	23rd	21·831	25th	·114	52·9	60·5¶	+3·3	40·3¶	+1·4	56·3	+2·5	13·4	70·2	31st	34·3	24th	3
	Sonemarg	*8,764*	21·827		21·795	21·913	23rd	21·648	1st	·265	41·4	53·0		35·5		47·3		23·5	71·4	31st	28·6	2nd & 3rd	4
	Dras	*10,059*	20·782	—·042	20·750	20·879	10th	20·620	1st	·259	45·1	62·3	+1·7	33·4	+0·3	47·9	+1·0	28·9	74·9	30th	27·0	2nd	5
	Leh	11,503	19·715	—·012	19·633	19·870	30th	19·573	1st	237	42·4	65·0	+1·0	36·5	—0·3	50·8	+0·4	28·5	74·6	28th	30·5	4th	5
	Skardu	*7,505*	22·842	—·023	22·812	22·961	8th	22·653	1st	298	58·6	73·0	+1·5	49·9	+0·4	61·5	+1·1	23·1	84·4	27th	40·1	2nd	
	Minimarg	*9,359*						Observations		not received													
	Astor	*7,955*						Observations		not received													
	Gilgit	4,890	25·093		25·071	25·250	8th	24·872	1st	·378	65·1	81·2	—4·2	58·4	—3·4	69·8	—3·8	22·8	86·2	31st	49·7	8th	5
	Baluchistan.																						
16	Quetta	5,502	24·610	+·020	24·570	24·696	23rd	24·517	31st	·179	68·2	80·6	—2·9	46·9	—5·3	63·8	—4·1	33·7	93·1	27th	35·0	2nd & 6th.	
	Chaman	4,311	25·633	+·008	25·601	25·761	1st	25·504	31st	·257	73·3	85·8	—7·9	59·3	—8·3	72·6	—8·1	26·5	99·3	27th	40·2	1st	
	Robat		26·924		26·882	27·153	4th	26·727	31st	·431	78·3	93·7		68·1		80·9		25·6	104·0	25th & 31st.	52·3	2nd	
	Hill Stations excluding Kashmir and Baluchistan.																						
	Chitral	*5,486*									60·6	79·0		51·0		65·0		28·0	93·7	27th	26·8	2nd	
	Para Chinar	6,000	24·288		24·255	24·448	8th	24·172	1st	·276	67·2	77·6		53·6		65·6		24·0	91·7	3rd	39·4	6th	
	Cherat	*4,256*	25·620	+·027	25·588	25·723	23rd	25·471	1st	·252	72·3	84·3	—5·3	65·4 §§	—2·9 §§	74·7 §§	—1·1 §§	18·9	98·1	31st	53·0	6th	
	Murree	6,433	23·789	—·008	23·757	23·863	23rd	23·645	1st	·218	66·7	74·4	—2·5	57·5	—2·0	65·0	—2·3	16·9	87·5	31st	42·0	23rd	
	Kailang	*10,087*	20·867 §§		20·922 §§	21·011	17th	20·853	1st	·188	48·8	65·5	+3·5	38·2	+0·1	51·9	+1·8	27·3	75·8	30th	33·1	16th	
	Simla	7,232	23·065	+·001	23·028	23·141	23rd	22·979	11th	·162	64·0	73·0	—0·1	58·8	+0·2	65·9	+0·1	14·2	80·4	31st	48·4	16th	
	Sarain		23·118		23·080	23·202	23rd	23·054	11th	·148	58·6	72·7		49·0		60·9		23·7	80·4	30th & 31st.	42·9	4th	
	Kalabagh (a)		20·141		20·103	20·173	23rd	20·113	21st	·060	48·3	55·4		44·0		49·7		11·4	60·0	31st	38·5	24th	
	Chakrata	7,022	23·263	+·017	23·223	23·338	5th	23·200	14th	·138	61·4	75·9	+1·6	58·0	+1·4	67·0	+1·5	17·9	81·3	29th	52·7	16th & 18th.	
	Muktesar	7,592	22·815	—·020	22·774	22·890	23rd	22·752	11th	·138	64·0	75·6	+0·1	55·0	+0·5	65·8	+0·3	19·6	79·5	5 days	48·0	23rd & 24th.	
	Darjeeling	7,373	23·986	+·005	22·941	23·051	23rd	22·907	16th	·144	58·5	65·0	+1·2	52·8	+0·2	58·9	+0·7	12·2	70·3	8th, 7th & 9th,	49·2	20th	
	Shillong	4,920	25·050 §§		25·002 §§	25·117	23rd	24·971	9th	·146	67·1	74·9		60·0		67·4		14·9	80·9	10th	51·7	17th	
	Cherra Poonjee	4,309	25·022		25·573	25·696	4th	25·550	15th	·146	66·3	72·5		61·8 §§	§§	67·2 §§	§§	10·7	76·2	28th	55·8	2nd	
	Maymyo	3,515				Barometer observations rejected					75·9	81·4	+1·5	69·5	+5·9	77·3	+3·7	14·9	91·9	8th & 9th	63·6	28th	
	Pachmarhi	3,528	26·379	+·012	26·323	26·443	23rd	26·289	31st	·154	82·5	95·5	+0·4	76·3	+1·2	85·9	+0·3	19·2	103·2	4th	68·1	26th	
	Mount Abu	3,945	25·991	+·011	25·931	26·079	23rd	25·917	15th	·162	73·1	86·7	—1·5	70·2	—0·9	78·5	—1·2	16·5	92·2	10th	61·9	19th	
	Mercara	3,781	25·185	—·014	26·113	26·260	23rd	26·059	6th	·201	67·8	76·3	—2·0	63·5	—1·4	70·9	—1·7	14·8	86·5	5th	60·0	4th	
	Ootacamund	*7,327*	23·037		22·973	23·107	23rd	22·837	6th	·220	62·1	68·2		52·4		60·3		15·8	73·5	2nd	45·2	10th	
	Kodaikanal	7,683	22·800	—·039	22·735	22·865	23rd	22·681	6th	·184	60·5	66·8	—2·5	54·6	—0·3	60·7	—1·4	12·2	71·0	2nd & 3rd	49·5	4th	

† Mean of 28 days.
‡ „ 29 „
§ „ 12 „

‖ Mean of 8 days.
¶ „ 11 „

(a) Observation of 11 days.

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

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

3—*continued.*

India, etc., in May, 1909—continued.

Wind direction. Number of observations. Calm.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Mean humidity.	Hygrometry, 8 hrs. Departure from normal.	Mean vapour tension, tenths of inches of mercury.	Departure from normal, tenths of inches of mercury.	Cloud. Mean cloud at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st to 31st May 1909.	Normal rainfall for period, 1st to 31st May.	Departure from normal for period, 1st to 31st May 1909.	Heaviest rainfall during month.	Station.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
																															Bay Islands.
		1		2	5	2	1	S 30° W		6·0			72		85	Records not received			4·1		4			3·3			3·6			1·07	P.V. Fraser.
																															Car Nicobar
7				1	2	7	10	4	N 75° W.	S 73° W	7·2*	7·4	0	56	−5	86	−1	−·01	−0·7	+1·5	23			29·8	17·09	+2·79	19·48	17·09	+2·39	6·06	Port Blair.
4					4	11	6	3	S 29° W		15·3†			67*		83†		·014			14			7·00			7·00			2·50	Shipper Island.
																															Kashmir.
1			3	4	2	1	4	S 7° E	S 49° E	3·7	4·3	−0·6	20	−6	91	0	·205	−·04	3·1	−1·3	5	5·80	−2·81	1·97	2·60	−0·63	1·97	2·60	−0·63	1·11	Srinagar.
7	3	1	1					N 69° E		3·2			33		70		·330		3·4		5			5·23			5·23			2·15	Gulmarg.
22	3	1		1	1			N 56° E		3·7			13		80		·312		3·3		6			4·83			4·83			1·76	Sonemarg.
16			1			3	8	3	W	5·6			4		64	−9	·195		3·5		2	6·20	−4·20	0·75	3·53	−2·78	0·75	3·53	−2·78	0·31	Dras.
17	2	3	2	3		4		S 31° E	S 44° W	4·8*	3·2	+1·6	13	−32	35	−10	·219	−·022	3·1	−1·6	0	0·90	−0·90	0·10	0·22	−0·12	0·10	0·22	−0·12	0·05	Leh.
26		2		1		1	1	S 25° E		9·9			1		42	−15	·207		5·6		1	1·90	−0·90	0·28	1·30	−1·02	0·28	1·30	−1·02	0·17	Skardu.
																Observations not received															Shinmarg.
																Observations not received															Astor.
28						3		W		2·5			10		46	+2	·311	0	4·1	0	2	1·70	+0·30	0·64	0·57	+0·07	0·64	0·57	+0·07	0·42	Gilgit.
																															Baluchistan.
26	3	1					1	N	N 80° W	2·5	3·3	−0·8	14	+10	31	−14	·219	−1·3	0·5	−0·5	0	1·10	−1·10	0	0·40	−0·40	0	0·40	−0·40	0	Quetta.
5				1	7	13	2	3	S 41° W	S 32° W	7·9	7·6	+0·3	66	+20	29	−1	·238	−0·03	0·8	+0·2	0	0·10	−0·10	0·04	0·05	−0·01	0·04	0·05	−0·01	0·02	Chaman.
3	1	3			1	11	5	3	S 78° W		8·6			56		46		·340		0·0		0			0			0			0	Robat.
																															Hill stations, excluding Kashmir and Baluchistan.
27	2	2						N 18° E		10·0			10		61		·317		1·2		5			1·26			1·26			0·38	Chitral.
25		1		1		2		2	W	6·4			39		48		·331		2·0		4	6·50	−2·50	0·92	2·02	−1·10	0·92	2·02	−1·10	0·40	Para Chinar.
1	12	5	1	1	1	1	11	N 13° W	N 6° W	13·9	12·1	+1·8	63	+19	26	−8	·212	−·082	1·5	−0·7	1			0·38	1·21	−0·83	0·38	1·21	−0·83	0·35	Cherat.
6	4	2	6	6	1		4	S 34° E	N 7° E	8·6	8·0	+0·6	17	+2	33	−1	·255	−·001	1·1	−1·7	5	6·30	−1·30	2·57	2·97	−0·40	2·57	2·97	−0·40	1·07	Murree.
	1	1	1	1	5	11	11	2	S 66° W		2·5*	2·2	+0·3	55		51		·174		3·3		4		1·37	2·58	−1·21	1·37	2·58	−1·21	0·61	Kailang.
																35	−10	·206	−·021	2·3	−0·5	2	5·20	−3·20	0·49	3·06	−2·57	0·49	3·06	−2·57	0·25	Simla.
11	1	1		1	1	3	2		S 17° W		3·3			45		50		·243		1·7		3		1·30			1·30			0·90	Sarain.
2	5	2				1		1	N		15·1			55		57		·181		2·5		2		1·08			1·08			0·76	Kalabagh (a)
11	13	1		1	4			1	N 4° E	N 21° E	5·8	7·8	−2·0	33	+23	41	−6	·251	−·007	1·3	−0·5	1	5·00	−4·00	0·43	2·45	−2·02	0·40	2·43	−2·03	0·18	Chakrata.
13		1	4	2	1		9	1	S 74° W		7·6			13		30	−11	·231		1·[illegible]		2		0·83	2·11	−1·28	0·83	2·11	−1·28	0·53	Muktesar.
4	2	7	6	7	1		2	2	N 79° E	S 59° W	5·1	6·8	−1·7	40	+29	91	+1	·452	+·033	5·3	+0·2	11	13·13	+0·57	9·85	8·78	+1·07	9·85	8·78	+1·07	3·50	Darjeeling.
14					5	11		1	S 35° W		7·0			49		71		·474		4·7		11	17·50	−3·83	6·77	10·15	−3·38	6·77	10·15	−3·38	1·11	Shillong.
7	1	7		1	2	10	2	1	S 53° W		6·9			17		80		·563		7·0		4	21·13	+2·90	54·49	49·93	+4·56	54·49	49·93	+4·56	10·91	Cherra Poonjee.
										Wind observations rejected					82	+3	·732		3·6		18	12·85	+5·20	11·35	10·40	+0·95	11·35	10·40	+0·95	2·55	Maymyo.
			1	1		8	11	10	N 88° W	N 81° W	8·5	7·5	+1·0	72	+9	40	+3	·441	+·034	0·5	−1·5	4	1·30	+2·70	1·45	0·50	+0·95	1·45	0·50	+0·95	0·90	Pachmarhi
	1	6		2	2	14	1	5	S 63° W	S 72° W	20·3	10·8	−0·5	33	−35	25	−5	·332	−·028	0·2	−0·6	0	1·30	−1·30	0·05	0·99	−0·94	0·05	0·99	−0·94	0·05	Mount Abu.
	5	2			2	3	3	16	N 48° W	N 45° W	5·8	5·3	+0·5	66	+1	81	−4	·511	−·071	0·2	+0·1	11	9·00	+2·00	21·45	5·78	+15·67	21·45	5·78	+15·67	0·85	Mercara.
4	4	7	5	3	2	2	2	2	N 56° E		4·3			27		70		·334		4·9		11	9·70	+1·30	13·67	5·93	+7·74	13·67	5·93	+7·74	3·48	Ootacamund
4	2	4	1		1	5	14		N 35° W		11·6*			56		76	+10	·401		4·7		11	9·33	+3·70	8·17	5·62	+2·55	8·17	5·62	+2·55	1·37	Kodaikanal.

Plateau stations, the elevations of which exceed 3,200 feet.

* Uncorrected for scale error.

‖‖ Mean of 10 days.

** " " 7 "

§§ Mean of 30 days.

††† Rainfall since 26th May 1909.

†† 8 hrs. velocity.

‡‡ Rainfall since 21st May 1909.

Tab

(2) *Abstract of observations taken at 8 hrs., at 239 statio*

Number of sub-division.	Station.	Elevation of bar cistern above sea-level in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	Extra India.																						
	Singapore (*a*)	10	29·901		29·832	29·954	19th	29·809	31st	·145	86·0	89·4		75·7		82·6		13·7	92·5	16th	73·0	4th & 16th.	1
	Penang (*a*)	20	29·898		29·843	29·954	24th	29·853	22nd	·101	82·5	91·3		75·4		83·4		15·9	93·0	15th, 16th & 27th.	74·0	4 days	1
	Trincomalee	12	29·825?	+·013?	29·763?	29·875	18th	29·766	1st	·109	79·6	92·3	−0·7	78·7	−0·1	85·5	−0·4	13·6	96·5	17th	74·5	4th	2
	Colombo	40	29·83[illegible]	−·017	29·805	29·919	23rd	29·780	1st	·139	80·6	87·5	−0·5	78·2	−0·2	82·9	−0·4	9·3	90·0	16th	63·0	2nd	9
	Minicoy	7	29·905			29·956	16th	29·845	6th	·111													
	Amini Divi	*13*	29·861	−·020	29·802	29·948	23rd	29·765	7th	·183	85·2	92·6	+2·4	80·4	−0·2	86·5	+1·1	12·2	98·3	30th	75·2	10th	2
	Gyantse	13,120	16·979		16·940	17·017	14th	16·958	28th	·059	47·8	57·6		35·0		51·3		32·6	73·3	5th & 6th.	21·7	20th	5
	Pharijong	14,400	17·929		17·888	18·031?	3rd	17·856	16th	·175?	41·4	60·7		17·4		39·1		43·3	69·1	2nd	0	1st	6
	Gangtok	5,660?	24·395		24·353	24·471	13th	24·297	16th	·174	64·6	72·1		57·2		64·7		14·9	76·9	8th & 28th.	50·5	28th	2
	Gartok (*c*)	15,100?	17·700			17·810	21st, 27th & 28th.	17·610	1st & 14th.	·200	38·9	51·3		23·6		37·5		27·7	63·4	31st	17·1	4th	4
	Kashgar (*c*)	4,255	25·574			25·940	15th	25·330	28th	·610	65·9	79·6	−1·2	57·7	−0·4	68·7	−0·8	21·9	94·1	28th	47·1	4th	9
	Kabul		24·243		24·212	24·304	4th & 10th.	24·144	1st	·160	65·0	79·1	−3·5	48·3	−4·8	63·7	−4·2	30·8	92·1	27th	31·4	2nd	6
	Meshed	3,104	26·504		26·732	27·068	3rd	26·607	31st	·461	65·1	79·6	‡	47·3	−9·8	63·5	§	32·3	90·9	24th	34·8	1st	5
	Jask	13	29·767†	+·016†	29·737†	30·018	4th	29·601	27th	·417	84·6†	92·1	−0·3	78·9	‡ +0·6	85·6	§ +0·2	13·2	100·8	26th	71·3	2nd	2
	Muscat	20	29·721 **	+·047	29·748 **	30·028	4th	29·610	26th	·418	90·5	97·9	+6·4	85·5	−0·4	91·7	+3·0	12·4	110·3	26th	75·6	6th	3
	Bahrein	18	29·829		29·796	30·019	3rd	29·710	22nd & 29th	·309	85·9†	92·0		78·2		85·1		13·8	107·1	23rd	65·3	2nd	9
	Bushire	14	29·794	+·027	29·767	29·979	3rd	29·674	29th	·305	83·2	89·1‖	0 ‖	77·5	+2·2	83·3‖	+1·1‖	11·6	101·3	23rd	64·1	1st	3
	Busrah	25	29·841		29·826	30·101	1st	29·716	22nd	·385	82·6	96·4		72·4		84·5		24·0	103·4	20th	59·1	1st	9
	Kerman										67·7	87·5		52·3		69·9		35·2	98·2	27th	32·5	1st	6
	Ispahan (*b*)	*5,817*	24·306			24·500	4th	24·000	7th & 8th.	·500	61·8	80·8	−3·4	52·2	−2·6	66·5	−2·7	28·6	90·4	14th	37·2	1st	5
	Tehran (*b*)	*4,002*	25·810			26·100	3rd	25·650	22nd, 30th & 31st.	·450	68·9	85·2	+2·4	59·7	+0·3	72·5	+1·4	25·5	93·5	30th	42·7	1st	
	Baghdad	127	29·666	−·026	29·785	29·874	5th	29·538	17th	·336	80·2	100·7	+9·0	71·6	+3·8	86·2	+6·4	29·1	109·4	30th	60·8	2nd	
	Beirut††				29·840						78·2	85·8		69·3		77·6		16·5	98·6	1st	66·0	4 days	
	Aden	94	29·781	+·013	29·806	29·879	4th	29·698	19th	·181	86·5	93·2	−0·1	82·1	+1·1	87·7	+0·5	11·1	97·8	31st	76·9	4th	
	Perim	201	29·609	−·023	29·743	29·703	3rd	29·515	19th	·188	86·6	92·8	+0·3	82·9	+0·9	87·8	+0·6	9·9	97·5	29th	80·0	2nd	
	Zanzibar	72	30·016	+·008	30·015	30·069	31st	29·956	1st	·113	78·0	83·8	+1·4	75·6	0	79·7	+0·7	8·2	86·0	3rd	72·4	8th	

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

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

(*a*) 9 hrs. observations. † Mean of 29 days. ‡ Mean of 28 days.

(*b*) Aneroid uncorrected for scale error.

(*c*) " corrected.

7½. observations. ** Mean of 25 days. †† 8½ hours' observations.

concluded.

ndia, etc., in May, 1909—concluded.

Wind direction. Number of winds from N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity miles per hr.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st to 31st May 1909.	Normal rainfall for period, 1st to 31st May.	Departure from normal of period, 1st to 31st May 1909.	Heaviest rainfall during month.	Station.
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																														Extra India.
	2	3		3	1	1	S 5° E		5·7*			11						5·1		7			4·70			4·70			3·07	Singapore.
13	9	2	4		4	4	N 50° E		11·0*			33						2·0		11			3·11			3·11			0·58	Penang.
				30			S 45° W	S 45° W	6·5*	12·1	−5·6	96	−1	89	+11	·901	−·017	2·8	+0·3	2			1·11	2·46	−1·35	1·11	2·46	−1·35	0·58	Trincomalee.
	1	1		27	1	1	S 45° W	S 45° W	7·6*	9·2	−1·6	89	+11	88	+10	·924	+·010	7·1	+0·6	12			6·21	11·12	−4·91	6·21	11·12	−4·91	1·29	Colombo.
				3	8	16	N 62° W	N 69° W	8·7	10·2	−1·5	74	−2					5·7	+0·4	5			1·90	6·40	−4·50	1·90	6·40	−4·50	0·69	Minicoy.
				2	4	15	N 58° W					58		75		·897		5·1		2			0·52	4·10	−3·58	0·52	4·10	−3·58	0·18	Amini Divi.
1	2	19	3	1		1	S 43° E		2·8			68		51		·167				2			0.41			0·41			0·31	Gyantse.
1	2	4	11	5	4	2	S 13° W		9·9			42		60		·154				1			0·14			0·14			0·14	Pharijong.
2				1		1	N		1·1			6		80		·162		2·6		17			19·21			19·21			3·21	Gangtok.
		5	5	1			S 18° E		9·1			29						3·3	+0·1	0			0			0			0	Gartok.
				5		1	S 53° W	N 50° W	?	4·5	?	16	+3	60	+16	·390	+·080	5·7	+2·5	2			0·30	0·88	−0·58	0·30	0·88	−0·58	0·15	Kashgar.
3	1		4	5	6	6	N 77° W	N 34° W				42	+31	50		·320		1·4	+0·7	2			1·69	0·54	+1·15	1·69	0·54	+1·15	0·85	Kabul.
1	2	2			1	2	N 10° E		1·3			36		53		·333		2·2	−0·3	1			0·14	0·74	−0·60	0·14	0·74	−0·60	0·13	Meshed.
1	7	2	1		3	4	N 47° E†	N 60° E	8·7†	11·0	−2·3	11†	+8	67†	−1	·795†	−·028	0†	−0·7	0			0	0	0	0	0	0	0	Jask.
		2			3	2	N 72° W	N 36° W	4·2	4·3	−0·1	10	−32	50	−12	·710	−·108	0·7	+0·3	0			0	0	0	0	0	0	0	Muscat.
																				0			0			0			0	Bahrein.
4	4	3	1	2	7	7	N 34° W		5·8			23		68†		·836†														
4	1	1		2	3	9	N 35° W	N 25° W	10·6	9·4	+1·2	37	−18	71	+11	·819	+·166	1·7	+0·3	0			0	0	0	0	0	0	0	Bushire
2		1		4	11	3	W		3·1			89		62		·690		1·4		0			0·07			0·07			0·07	Busrah.
3	1	1		6	4	5	N 34° W		2·7			48		30		·220		0·7												Kerman.
				1	7		S 83° W	N 58° W	2·6*	4·6	−2·0	53	+5	78	+17	·441	−·005	1·4	−0·3	1			0·17	0·11	+0·06	0·17	0·11	+0·06	0·13	Ispahan. ¶
4	2	2	3	2			S 79° E	S 46° W	4·3	3·6	+0·7	16	0	50	+10	·368	+052	1·1	−1·6	1			0·14	0·33	−0·19	0·14	0·33	−0·19	0·10	Tehran.
3	1				2	7	N 20° W	N 1° E	7·0	4·0	+3·0	39	−6	47	−9	·492	−·015	1·2	+0·4	1			0·14	0·24	−0·10	0·14	0·24	−0·10	0·11	Baghdad.
6		3		14		6	S 65° W					30		61		·531		0		0			0			0			0	Beirut.
25		1		3			N 48° E	S 87° E	13·3	11·2	+2·1	72	+33	74	−1	·924	+·006	2·3	−0·7	0			0	0·19	−0·19	0	0·19	−0·19	0	Aden.
1	7	5	13			4	S 31° E	S 59° E	12·7	13·7	−1·0	48	+23	74	−3	·951	+·013			0			0	0·37	−0·37	0	0·37	−0·37	0	Perim.
		1	12	11			S 18° W	S 7° W	6·6	8·1	−1·5	71	−16	84	−2	·804	−·003	6·2	−0·2	7			4·56	10·39	−5·83	4·56	10·39	−5·83	1·09	Zanzibar.

* Uncorrected for scale error.

§ Mean of 27 days.
" " 30 "

¶ Wind observations of 15 days.

Table C.—Abstract of observations taken at 8 hrs. at 31 fourth-class stations in India, etc., in May, 1909.

Abstract of observations taken at

Number of sub division.	Station.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.	Wind direction. Number of winds from Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	II.—Eastern Bengal and Assam.																						
6	Bishnath	74·9	85·6	...	61·2	...	73·4	...	24·4	94·5	24th	57·7	11th	36·8	...	...	...	...	...	...	...	...	...
	Borjuli	76·2	87·0	...	70·2	...	78·6	...	16·8	94·8	24th	66·1	1st	28·7	...	...	...	...	...	...	...	...	...
	Chandkhira	76·0	90·3	...	66·6	...	78·5	...	23·7	98·6	17th	50·7	21st	47·9	...	...	...	...	...	...	...	...	...
	Doom Dooma	74·3	85·5	...	69·0	...	77·3	...	16·5	98·1	23rd	65·0	12th	33·1	...	...	...	...	...	...	...	...	...
	Dikom	73·8	83·8	...	70·0	...	76·9	...	13·8	96·4	24th & 31st	66·0	1st	30·4	...	...	...	...	...	...	...	...	...
	Golaghat	76·1	84·9	...	71·0	...	78·0	...	13·9	94·9	24th & 31st.	67·1	14th	27·8	...	...	...	...	...	...	...	...	...
	Hailakandi	74·8	89·7	...	71·5	...	80·6	...	18·2	96·0	28th	66·0	20th	30·0	...	...	...	...	...	...	...	...	...
	Jorehat	75·6	84·8	...	71·1	...	78·0	...	13·7	95·9	31st	67·8	11th, 12th, 13th, 14th & 19th.	28·1	...	...	...	...	...	...	...	...	...
	Messa	80·7	92·9	...	67·2	...	80·1	...	25·7	97·2	25th	64·3	14th	32·9	...	...	...	...	...	...	...	...	...
	Panerihat	71·5	87·2	...	68·4	...	77·8	...	18·8	93·6	24th	63·6	2nd	30·0	...	...	...	...	...	...	...	...	...
	Srimangal	80·3	90·9	...	73·2	...	82·1	...	17·7	96·7	14th	67·4	17th	29·3	...	...	...	...	...	...	...	...	...
5	Brahmanbaria	80·5	91·0	...	73·7	...	82·4	...	17·3	101·6	9th	50·4	1st	51·2	...	...	...	...	...	...	...	...	...
	Dam Dim	78·7	91·1	...	71·3	...	81·2	...	19·8	96·7	24th	66·5	18th	30·2	...	...	...	...	...	...	...	...	...
	Goalundo	83·9	94·2	...	74·1	...	84·2	...	20·1	103·9	10th	66·2	22nd	37·7	...	...	...	...	...	...	...	...	...
	Kalchin	79·9	88·8	...	70·7	...	79·8	...	18·1	96·6	26th	66·9	19th & 20th.	29·7	...	...	...	...	...	...	...	...	...
	Nagrakata	76·7	89·2	...	71·4	...	80·3	...	17·8	94·1	25th & 31st.	69·0	14th, 15th 17th & 20th.	25·1	...	...	...	...	...	...	...	...	...
	Pabna	83·1	97·2	...	74·0	...	85·6	...	23·2	107·0	10th	64·3	22nd	42·7	...	...	...	...	...	...	...	...	...
	III.—Bengal.																						
	Fraserganj								Obser	vatory	closed.												...
	XI.—Central Provinces.																						
6	Chhindwara	87·8	102·2	...	77·8	...	90·0	...	24·4	105·7	2nd	72·0	12th	33·7	...	3	...	2	1	...	...	6	19
	Hill Stations.																						
	Panighatta	78·8	87·4	...	71·0	...	79·2	...	16·4	93·5	24th	65·0	14th	28·5	...	...	...	...	...	...	...	...	...
	Kurseong	67·0	72·7	...	61·3	...	67·0	...	11·4	77·3	24th	55·1	19th	22·2	...	...	...	...	...	...	...	...	...
	Poo*	...	67·2	...	40·3	...	53·8	...	26·9	78·9	31st	34·9	24th	44·0	27	1	...	...	...	1	1	...	...
	Kargil	52·8	73·1	...	41·5	...	57·3	...	31·6	80·9	31st	35·2	2nd	45·7	...	5	2	...	...	...	3	8	13
	Killa Drosh	62·4	80·1	...	54·6	...	67·4	...	25·5	94·2	27th, 30th & 31st.	45·1	2nd & 6th.	49·1	27	...	3	1	...	...	...	...	...
	Pishin	...	82·9	...	49·9	...	66·4	...	33·0	96·4	27th	36·6	6th	59·8	...	...	...	...	...	...	...	...	...
	Kalat	63·7†	76·7	−8·6	44·7	+1·4	60·7	−3·6	32·0	93·0	28th	30·9	6th	62·1	...	17	...	1	...	13	...	...	...
	Extra India.																						
	Ahwaz	...	101·3	...	78·8	...	90·1	...	22·5	107·7	31st	66·8	2nd	40·9	...	...	...	...	...	...	...	...	...
	Birjund	68·9‡	78·6	...	55·9‖	...	67·2‖	...	22·7	90·8	26th	38·2	1st	52·6	3	4	11	1	...	2	...	2	1
	Chumbi	48·3†	64·2†	...	42·6	...	53·4	...	21·6	70·6	6th	37·6	17th	33·0	30	...	...	...	...	...	...	...	...
	Karmanshah	64·3	78·8	...	52·3	...	65·5	...	26·5	86·0	24th	41·2	1st	44·8	...	...	...	...	...	...	...	...	...
	Koweit	...	97·8	...	77·9	...	87·9	...	19·9	107·9	21st	66·9	1st	41·0	1	...	...	...	4	3	1	9	13
	Maidan	...	102·0	...	74·0	...	88·1	...	28·0	108·2	21st, 22nd & 30th.	59·9	1st	48·3	...	...	...	...	...	...	...	...	...

† Uncorrected for scale error. ‡ Mean of 29 days. § Mean of 28 days.
¶ Mean of 27 days. * Observations of 30 days.

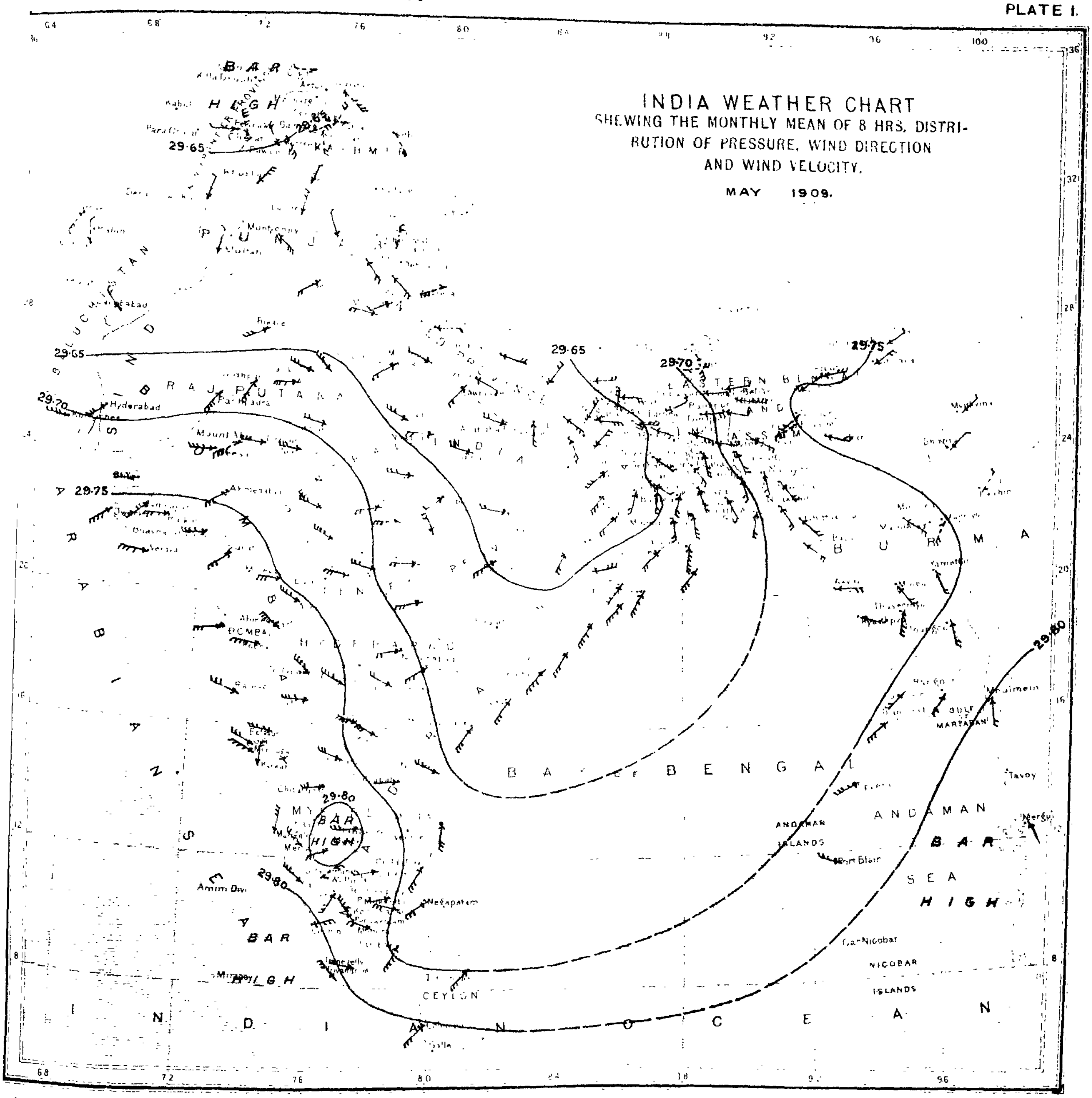
C.

at 31 fourth-class stations in India, etc., in May, 1909.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, miles per hour.	Normal.	Percentage departure from normal.	Actual percentage.	Departure from normal.	Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st to 31st May, 1909.	Normal rainfall for period, 1st to 31st May.	Departure from normal of period, 1st to 31st May, 1909.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					II.—Eastern Bengal and Assam.
...	...	...	...	...	95	...	·826	...	...	...	17	...	...	7·62	...	...	7·62	...	...	0·90	Bishnath.
...	...	...	...	...	87	...	·780	...	...	...	21	...	...	13·75	...	...	13·75	...	...	4·75	Borjuli.
...	...	...	...	...	84	...	·701	...	...	...	13	...	...	16·05	...	...	16·05	...	...	3·91	Chandkhira.
...	...	...	...	...	92	...	·724	...	...	...	15	...	...	8·28	...	...	8·28	...	...	1·65	Doom Dooma.
...	...	...	...	...	91	...	·793	...	...	...	17	...	...	9·71	...	...	9·71	...	...	1·48	Dikom.
...	...	...	...	...	87	...	·783	...	...	...	11	...	...	5·11	...	...	5·11	...	...	1·02	Golaghat.
...	...	...	...	...	92	...	·795	...	...	...	18	...	...	16·03	...	...	16·03	...	...	3·68	Hailakandi.
...	...	...	...	...	91	...	·804	...	...	...	15	...	...	9·85	...	...	9·85	...	...	2·11	Jorehat.
...	...	...	...	...	74	...	·773	...	...	...	13	...	...	6·80	...	...	6·80	...	...	1·23	Messa.
...	...	...	...	...	96	...	·747	...	...	...	20	...	...	14·57	...	...	14·57	...	...	2·81	Panerihat.
...	...	...	...	...	83	...	·862	...	...	...	14	...	...	15·44	...	...	15·44	...	...	4·98	Srimangal.
...	...	...	...	...	87	...	·906	...	...	...	11	...	...	9·06	...	...	9·06	...	...	1·94	Brahmanbaria.
...	...	...	...	...	81	...	·795	...	...	...	10	...	...	7·36	...	...	7·36	...	...	2·34	Dam Dim.
...	...	...	...	...	80	...	·932	...	...	...	7	...	...	6·08	...	...	6·08	...	...	1·90	Goalundo.
...	...	...	...	...	76	...	·795	...	...	...	18	...	...	10·62	...	...	10·62	...	...	2·25	Kalchini.
...	...	...	...	...	87	...	·804	...	...	...	14	...	...	10·51	...	...	10·51	...	...	1·90	Nagrakata.
...	...	...	...	...	80	...	·904	...	...	...	5	...	...	3·57	...	...	3·57	...	...	0·87	Pabna.
									Observatory closed.												**III.—Bengal.** Fraserganj.
																					XI.—Central Provinces.
6·5	...	...	74	...	56	...	·738	...	...	...	3	...	...	1·28	...	...	1·28	...	...	0·76	Chhindwara.
																					Hill Stations.
...	...	...	...	...	74	...	·717	...	...	...	12	...	...	5·72	...	...	5·72	...	...	1·40	Panighatta.
...	...	...	...	...	82	...	·538	...	...	...	13	...	...	8·02	...	...	8·02	...	...	1·82	Kurseong.
...	...	...	3	...	...	...	...	...	3·0	...	0	...	...	0·04	0·71	—0·67	0·04	0·71	—0·67	0·02	Poo.
...	...	...	71	...	41	...	·167	...	0·9	...	1	...	...	0·10	...	...	0·10	...	...	0·10	Kargil.
...	...	...	10	...	62	...	·342	...	2·1	...	5	...	...	1·67	...	...	1·67	...	...	0·52	Killa Drosh.
...	...	...	...	...	...	...	...	...	0·2	...	0	...	...	0·01	0·19	—0·18	0·01	0·19	—0·18	0·01	Pishin.
...	...	...	13	...	45	...	·278	...	...	...	0	0·90	—0·90	0	0·26	—0·26	0	0·26	—0·26	0	Kalat.
																					Extra India.
...	...	...	...	...	...	...	...	...	2·3	...	0	...	...	0	...	...	0	...	...	0	Ahwaz.
6·3¶	...	...	45	...	29§	...	·204§	...	1·4§	...	0	...	...	0·13	...	...	0·13	...	...	0·07	Birjund. ** ††
...	...	...	...	...	83§	...	·280§	...	...	...	14	...	...	4·10	...	...	4·10	...	...	0·77	Chumbi. ‡‡
...	...	...	...	...	53	...	·318	...	...	...	2	...	...	0·88	...	...	0·88	...	...	0·44	Karmanshah.
...	...	...	48	...	...	...	...	...	3·5	...	0	...	...	0	...	...	0	...	...	0	Koweit.
...	...	...	...	...	...	...	...	...	...	...	0	...	...	0	...	...	0	...	...	0	Maidan.

†† Wind observations less 2.
‖ Mean of 30 days.

‡‡ Wind variable 1.
** Wind variable 5.

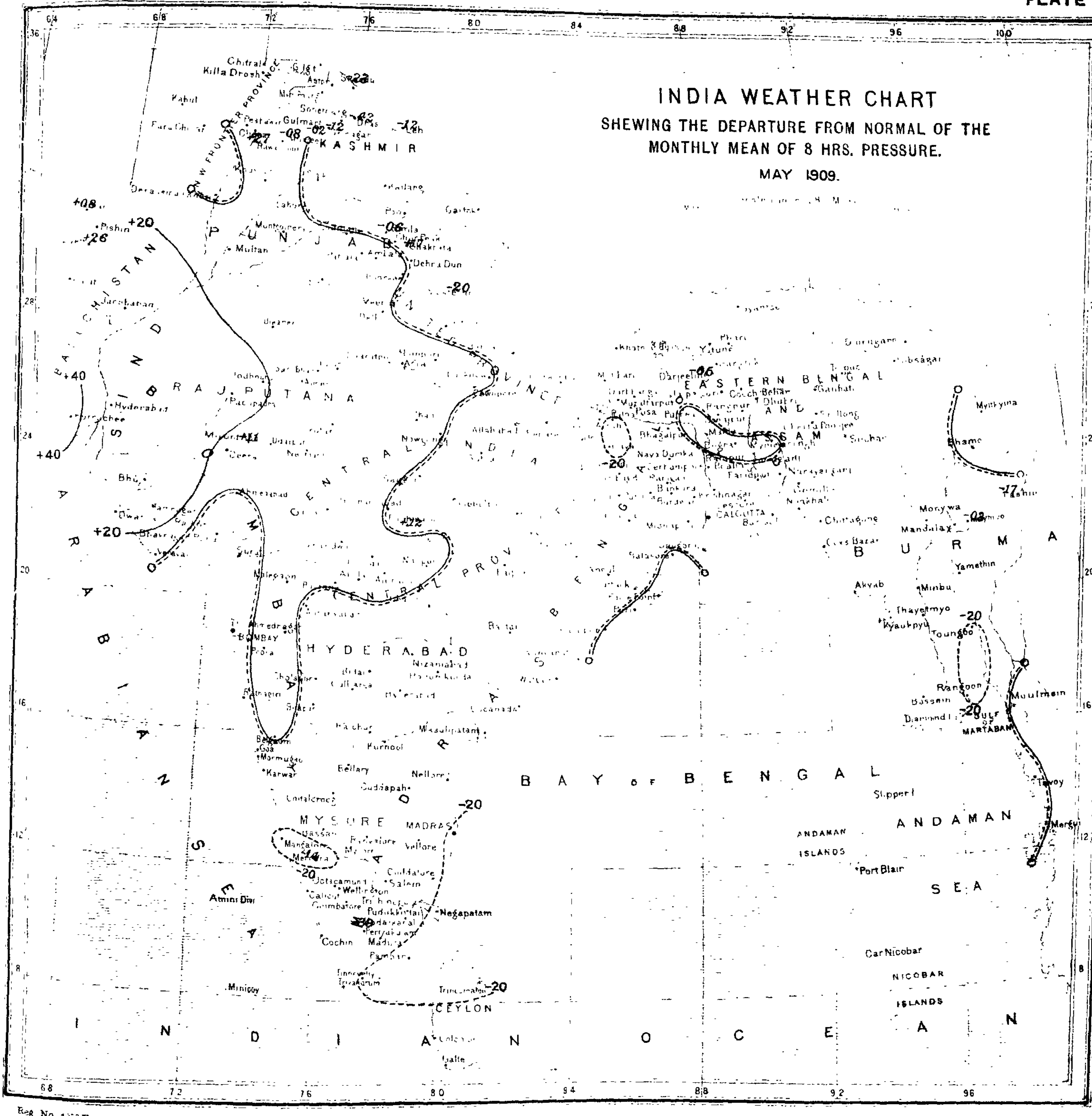


Reg. No. 1 63 B. 09.—L—6,500.

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

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

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



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

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

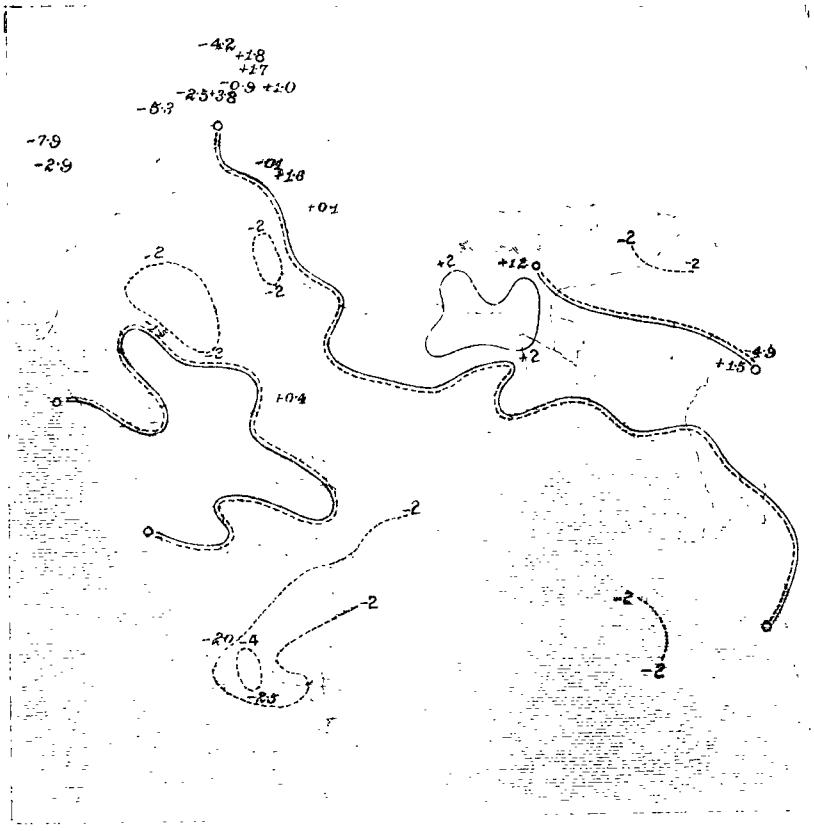


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.

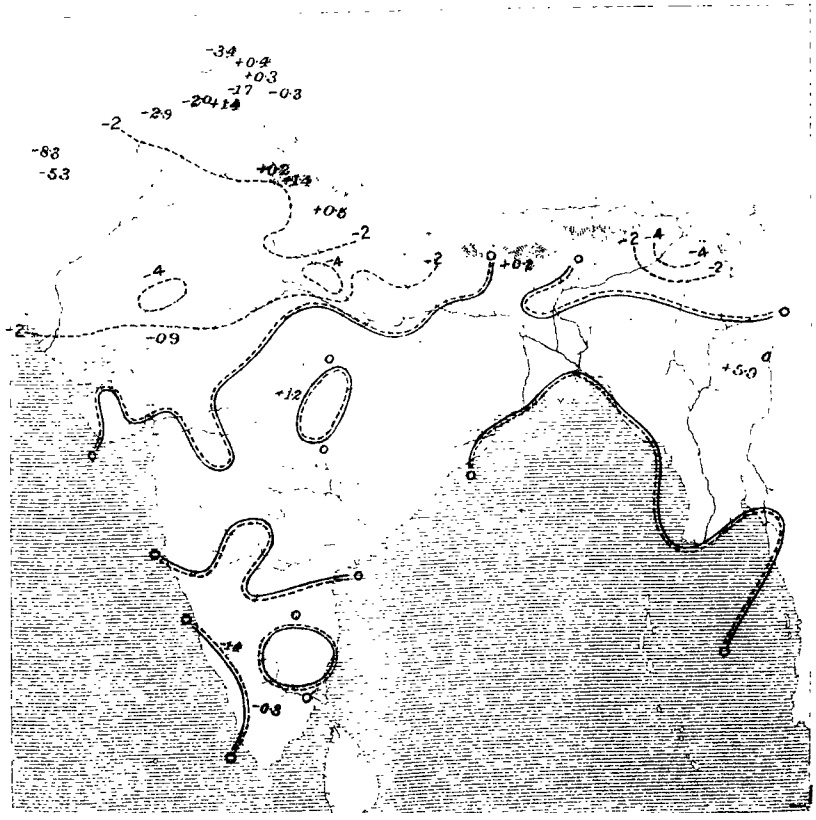


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MEAN TEMPERATURE.

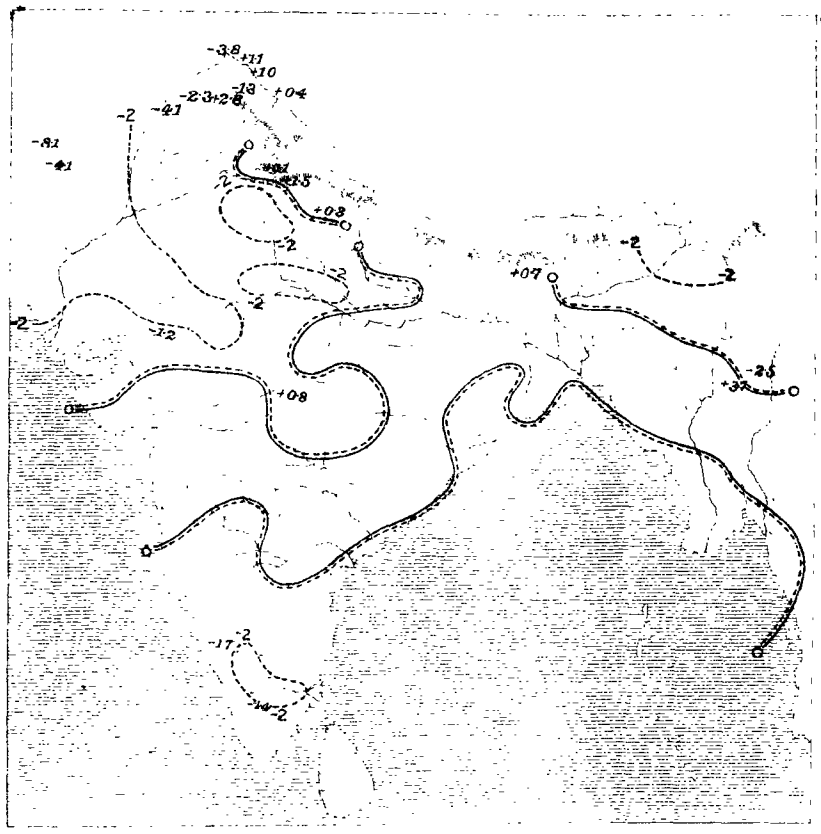


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.

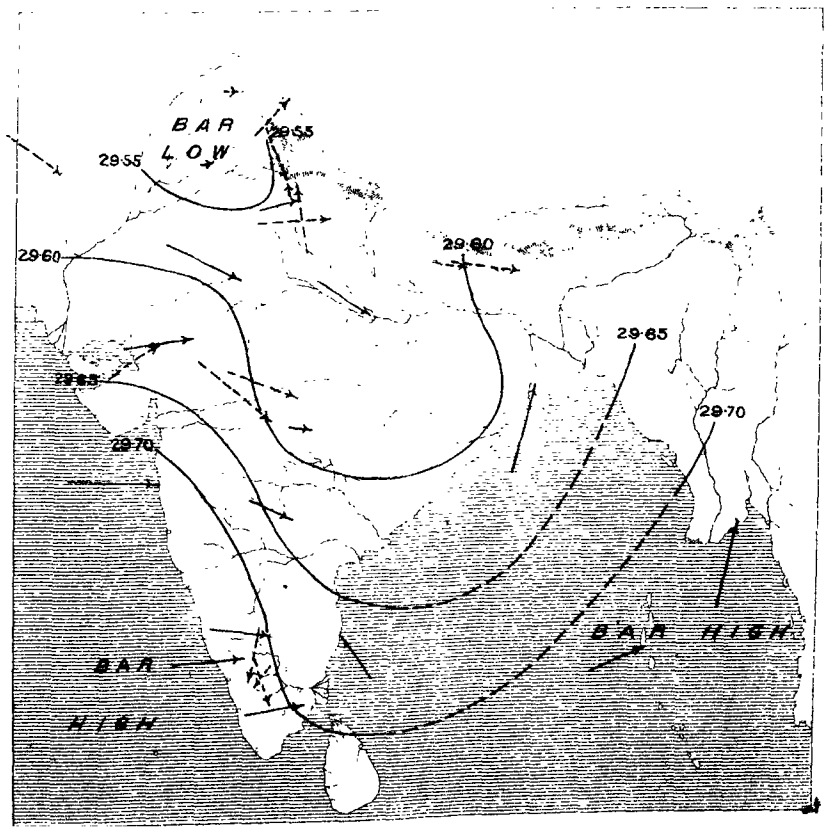


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF ABSOLUTE HUMIDITY AT 8 HRS.

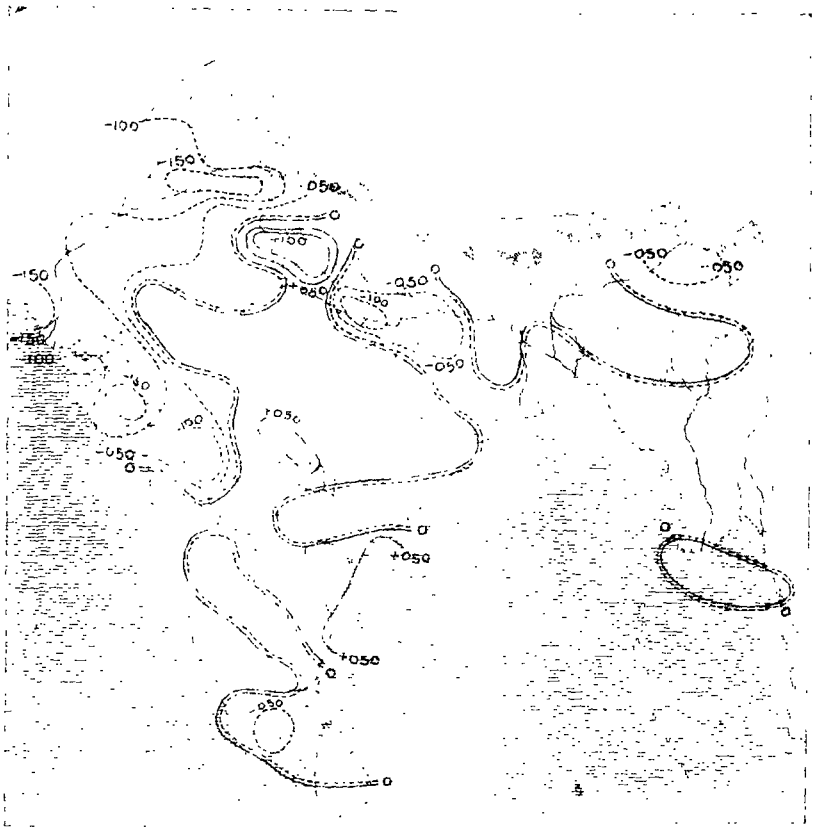


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 HRS.

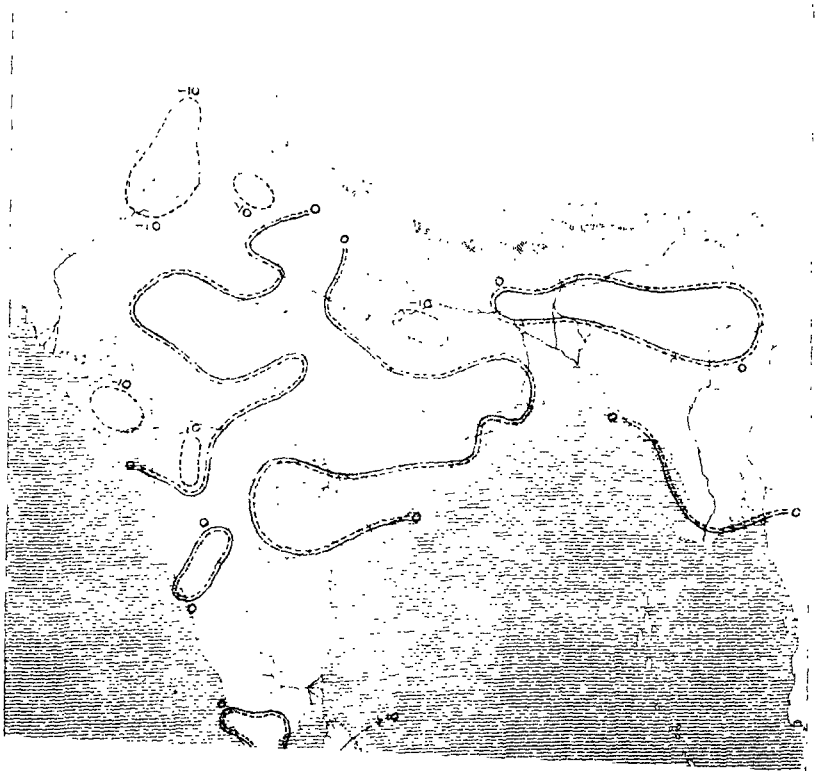


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF CLOUD AMOUNT AT 8 HRS.

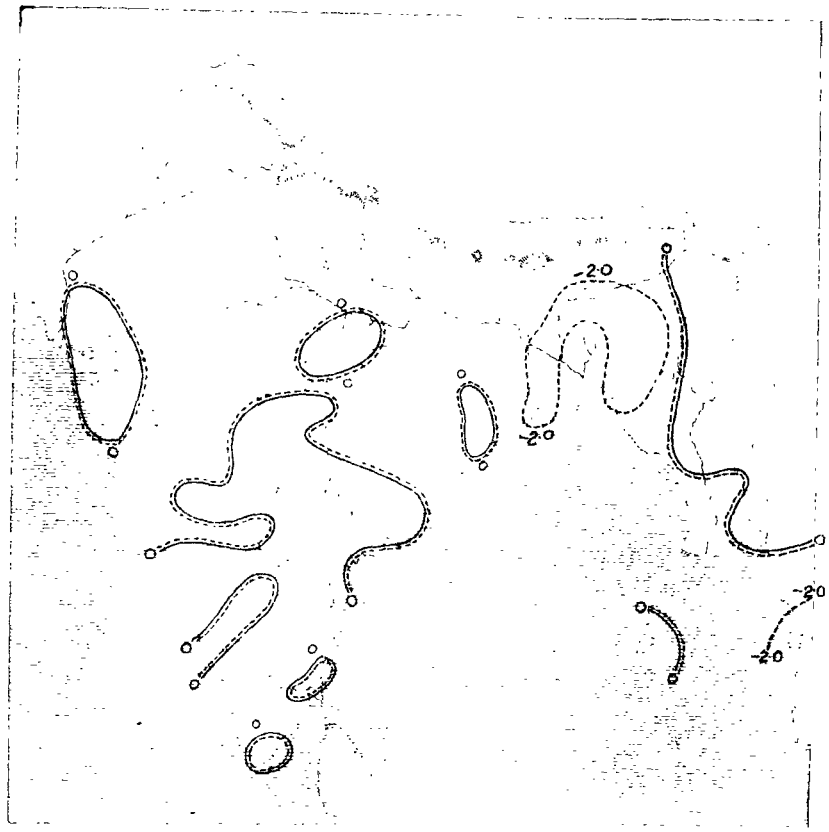
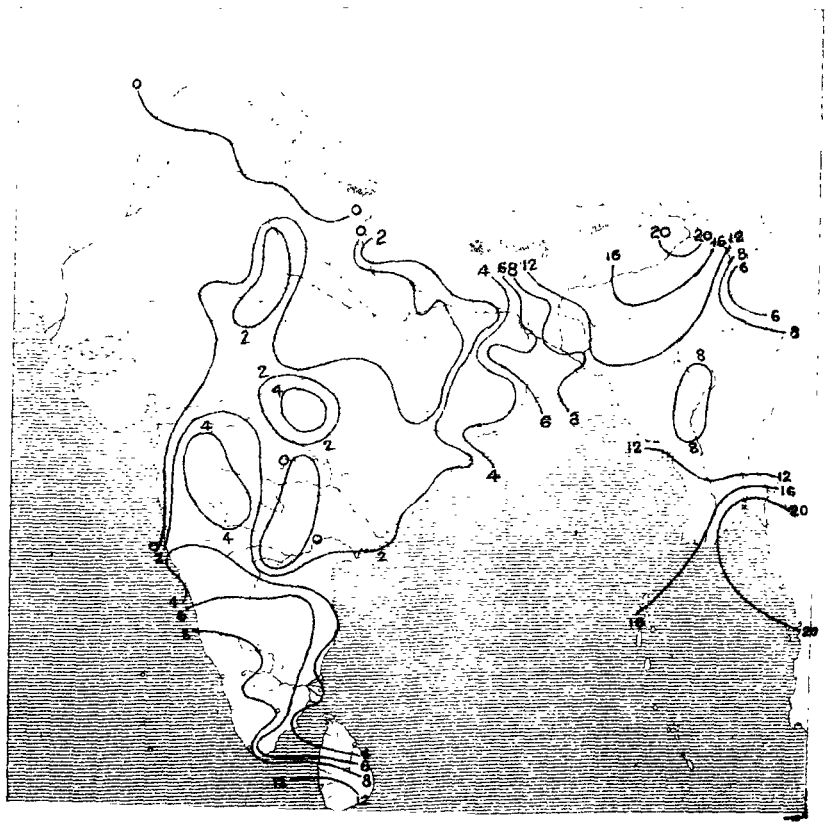
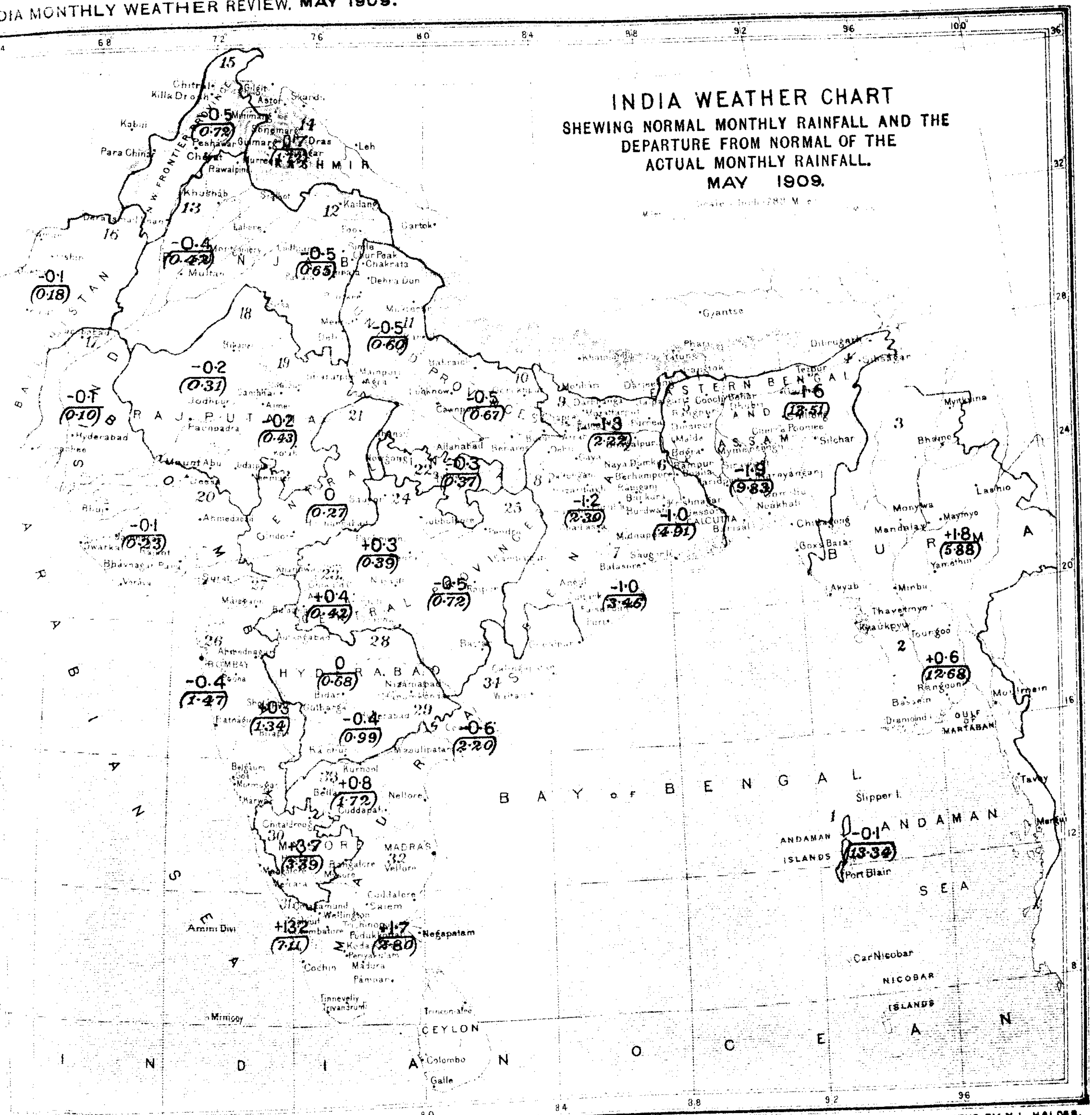


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EQUALLED OR EXCEEDED 0·10 INCH.

(BASED ON THE RETURNS OF TABLE B.)





LITHO. BY N. L. HALDER.

Reg. No. 4963 E.; 09 — L — 5500.

The country is divided into 34 areas as shown in the list below. The numbers in that list correspond with the red numbers on the chart, and serve to identify the areas. The numbers in brackets on the chart give the average over the divisions of the normal monthly rainfall; the numbers above these give the departures from normal of the average actual rainfall over the divisions.

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

GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW.

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, JUNE, 1909.

INTRODUCTION.

THIS review of the weather in India during the month of June, 1909, is based on observations taken daily at 8 hrs. at 239 stations, and on additional observations taken at 10 hrs. and 16 hrs. at 35 stations. In the rainfall summary the data furnished by the meteorological observatories, and such rainfall statements of the month as had been published by the Provincial Governments up to the date of the preparation of the review, have been utilized. The brief notes on solar, seismic and magnetic disturbances have been supplied by the chief observatories in the Indian area.

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

Summary of the chief features of the weather in India during the month of June, 1909.

2. As in June 1889, the first burst of the monsoon occurred about the normal date on the west coast of the peninsula, and a week before the usual time in north-east India. The Bay current extended with great rapidity over the Gangetic plain, with the result that the rains there were established by the 8th, nearly two weeks earlier than usual. The advance inland of the Arabian Sea current on the other hand was greatly retarded. In the result the month's rainfall was in marked excess over the greater part of northern India and up to the average in the peninsula, Central India and Burma.

Humidity was high in the United Provinces, the Punjab and Central India, and about normal elsewhere. The cloud amount was above normal except in the Punjab, Rajputana, parts of Sind and of the United Provinces, the west of the peninsula and the south coast of Madras.

Mean temperature was rather low in the region of excessive rainfall in northern India, owing chiefly to a defect of day temperature, but over the rest of the country the temperature conditions were practically normal.

Pressure was on the average of the month low almost everywhere, the defect being largest in Sind, Gujarat, Rajputana and the adjacent districts of Central India, where it ranged between ·02″ and ·04″.

Solar, seismic and magnetic disturbances.

KODAIKANAL OBSERVATORY.

3. *Solar observations.*—The month was on the whole unfavourable for solar observations. There was only one day which was too cloudy for any observation, but there were four on which prominences could not be observed, and ten on which the prominence record was imperfect.

Fifteen new spot groups were observed during the month with a daily average of 2·2; the average life of a spot was 4·5 days. There was one day, the 3rd, on which the sun was free from spots. All the new groups except

two formed on the visible disc. The latitude distribution was as follows :—

TABLE 1.

	0°—10°	11°—20°	Extreme latitudes.	Mean latitude.
	°	°	° °	°
North . . .	3	1	5, 12	7·5
South . . .	7	4	1, 18	8·4

Spot groups Nos. 1671, 1673, 1678, 1681, and 1683 contained large spots. Numbers 1671, 1678 and 1681 first appeared on the disc as small spots, some of which grew in size as they advanced westwards. Numbers 1673 and 1683 came round the east limb as large spots, but the former dwindled away and disappeared before it reached the west limb.

Only 1 eruptive and 29 large prominences were recorded during the month. The latter was observed at latitude +25° west on the 23rd. At 8^h 50^m C was displaced to violet over the whole prominence, the maximum displacement being 4A°. The prominence was changing rapidly. The height in Ca varied from 70″ at 8^h 7^m to 230″ at 9^h 21^m and 150″ at 9^h 50^m. A rather faint prominence 90″ high was photographed at this position on the next day.

There were "small" magnetic disturbances on 19 days but nothing of a greater intensity was recorded during the month.

C. MICHIE SMITH,
Director,
Kodaikanal and Madras Observatories.

BOMBAY OBSERVATORY.

Alibag Magnetic Record.

4. During the month of June 1909, the traces showed 13 calm days, 16 days of small and 1 day of moderate disturbance.

The days of the month selected as quiet for the purposes of the Magnetic Survey of India are the 6th, 9th, 13th, 20th and the 27th.

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

Easterly declination . . .	0° 59′ 53″
Horizontal force . . .	0·36861 C. G. S. unit.
Vertical force . . .	0·16015 ,,
Inclination (calculated) . .	23° 29′·0.
Inclination (observed) . . .	23° 27′·8.
Horizontal force range . .	0·00045 C. G. S. unit.
Horizontal force summed range .	0·00311 ,,
Declination range . . .	3′·8.
Declination summed range . .	17′·9.

NOTE.—Summed range means sum without regard to signs of 24 ordinates of diurnal inequality.]

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

TABLE 2.

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

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

Seismic disturbances recorded at Bombay.

Four seismic disturbances were recorded during the month on the 3rd, 8th, 9th and 12th.

List of disturbances.

TABLE 3.

Date.	Commencement.		Maximum.		End.		Maximum Amplitude.	Duration.	
	H.	M.	H.	M.	H.	M.	mm.	H.	M.
3rd June, 1909.	18	47·2	?		21	13·1	?	2	25·9
8th ,, ,, .	6	20·3	7	12·9	?		2·5	?	
9th ,, ,, .	1	46·2	1	53·8	2	21·1	0·5	0	34·9
12th ,, ,, .	21	3·4	21	13·8	21	49·9	1·0	0	46·5

All times given above denote G. M. T.

Sensibility to tilt, 1 mm. = 0″·36 between 1st and 22nd June and 1 mm. = 0″·37 between 23rd and 30th June.

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

CALCUTTA OBSERVATORY.

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

TABLE 4.

Date 1909.	P. T. Commencement. G.M.T.	L. W. Commencement. G.M.T.	Maximum. G.M.T.	End. G.M.T.	Duration.	Maximum displacement on trace from mean position.	REMARKS.
	H. M.	H. M.	H. M.	H. M.	H. M.	mm.	
June 3rd	5 36·4	5 40·5	5 44·0	5 53·7	0 17·3	0·50	
„ 3rd	18 47·8	18 50·2	18 59·0	21 26·9	2 39·1	?*	
			19 2·5				
			19 4·6				
			19 6·6				
„ 3rd	22 41·2	22 51·4	22 53·4	23 8·1	0 26·9	0·75	
„ 6th	3 32·3	—	—	3 46·9	0 14·6	—	Thickening of the line.
„ 6th	5 12·8	—	—	6 0·6	0 47·8	—	Ditto.
„ 8th	6 11·2	7 17·8	7 33·6	8 29·5	2 18·3	2·25	
„ 9th	1 51·2	2 0·3	2 7·4	2 36·9	0 45·7	0·50	
„ 12th	20 45·5	21 11·9	21 13·4	21 50·1	1 4·6	1·00	
„ 22nd	13 33·3	—	—	14 1·8	0 28·5	—	Thickening of the line.
„ 22nd	14 31·8	—	14 36·9	14 57·7	0 25·9	0·75	
							Sensibility 1 mm. = 0·38″ of tilt.

* Time of maximum amplitudes on trace from mean position cannot be determined as the boom moved throughout the trace four times, the times of which have been given.

E. P. HARRISON,
Offg. Meteorologist, Calcutta.

SIMLA OBSERVATORY.

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

TABLE 5.

Date 1909.		Commencement of 1st P. T. G. M. T.	Commencement of 2nd P. T. G. M. T.	Beginning of L. W. G. M. T.	Time of maximum amplitude. G. M. T.	End approximately. G. M. T.	Duration, approximate.	Maximum displacement of style.	REMARKS.
		H. M.	H. M.	H. M	H. M.	H. M.	H. M.	mm.	
June 3rd	A	18 48·3	18 54·3	18 57·1	?	22 15	3 30	29	Touched stops.
„	B	18 48·2	18 54·0	18 58·9	?	20 28	1 40	23·0	„ „
8th	A	6 6·7	6 44·7	7 9·9	7 12·9	8 17	2 10	3·0	
„	B	...	...	...	...	...	...	...	Under repair.
22nd	A	?	?	13 21·3	?	13 50	?	Small*	
„	B	...	...	...	...	...	...	...	Barely visible.

A = E—W component.
B = N—S component.
Magnification of each instrument = 15.
* Displacements less than 0·2 mm. are reported as "small."

Earthquakes reported :—

The only earthquake reported this month was felt at Rangoon on the 3rd at 5 hrs. 50 min. G. M. T. There were two shocks of slight intensity: they were not recorded in Simla.

Solar radiation.—Measurement of the intensity of solar radiation, by Angstrom's pyrheliometer was possible on one day only, the 6th of the month. The value, corrected to local noon and expressed in grammecalories per square centimetre per minute, was 1·32.

J. H. FIELD,
Imperial Meteorologist, Simla.

ROYAL ALFRED OBSERVATORY, MAURITIUS.

7. *Solar Observations.*—Observations were taken on the 2nd, 4th, 5th, 8th, 10th, 12th, 13th, 16th, 20th, 21st, 23rd to 27th and 29th. Groups of sunspots and faculæ were seen on each day of observation.

Magnetic disturbances.

TABLE 6.

Day.	Time.	Disturbance.
1st to 2nd	14h. to 16h.	Occasional small undulations in H. F.
10th	14h. to 14½h.	Decrease in H. F. (14).
11th, 12th & 14th	.....	Accentuated diurnal variations in H. F.
15th	1½h. to 3h.	Wave in H. F. (+18).
15th	15h. to 18½h.	Wave in H. F. (—30).
18th	1h. to 1½h.	Wave in H. F. (+10).
21st	9·28h.	Sharp increase in H. F. (28).
21st	14h. to 19h.	Decrease in H. F. (50).
21st	19h. to 22h.	Wave in H. F. (+20) with superposed fluctuations (+5). Occasional small fluctuations followed till 22nd 8h.
22nd to 23rd	18h. to 7h.	Occasional small fluctuations in H. F. with double wave.
22nd	21h. to 23h.	(—10 to +10) in H. F. and (+30 to —8) in declination.
24th	7h. to 10h.	Wave in H. F (+28).
28th	6·50h.	Sharp increase in H F. (11) followed by occasional small fluctuations and undulations till July 1st 6h. with waves 28th, 16h. to 18h. (—11) 29th 4½h. to 6½h. (—19) and 30th 22½h. to 1st 0h. (+11).

T. F. CLAXTON,
Director.

Weather in the Indian monsoon region.

8. In the subequatorial region pressure was normal at Zanzibar and slightly above it at the Seychelles. Winds over the area as a whole were of about the average strength but their direction was more southerly than usual; rainfall was markedly in defect, particularly at Zanzibar which received only 11 per cent. of its normal quantity. At Mauritius pressure was well below the average and rainfall decidedly above its normal value: the air movement was practically normal in character. Thus general conditions in the Indian Ocean as represented by the three insular stations were such as favour the occurrence of abundant rainfall over India during the monsoon period.

TABLE 7.

	Mauritius.	Zanzibar.	Seychelles.
Departure from normal of mean pressure.	—·034	+·001	+·014
Actual mean wind direction	S 63° E	S 2° E	S 11° E
Normal mean wind direction	S 61° E	S 4° E	S 27° E
Actual mean wind velocity (miles per diem).	257	223	243
Normal mean wind velocity (miles per diem).	269	211	258
Rainfall departure from normal	+5·37	—1·56	—3·77

Depressions and cyclonic storms.

9. No storms affected the weather during the month. The advance of the monsoon over the Indian seas resulted only in the production of a feeble depression of which the following is a brief history.

Depression of the 4th to the 10th.—The trough of low pressure which usually constitutes an important feature of the pressure distribution of the summer season over northern India was on the first three days of June, prolonged further east than usual into Orissa and the adjacent portion of the Bay, and it was here that a depression was generated by the advancing monsoon current during the 24 hours succeeding 8 hrs. of the 4th. The disturbance extended westwards on the 5th, and on the following morning covered a large area comprising Orissa, the southern half of Chota Nagpur and the east of the Central Provinces. It subsequently moved northwards, being deepest near Hazaribagh on the 7th, Benares on the 8th, Patna on the 9th, Purnea on the 10th and Darjeeling on the 11th, on which day it was but faintly marked. Its depth was not great, being about a quarter of an inch during the earlier stages and a seventh of an inch when breaking up.

Most of the disturbances formed in front of the first rush of the monsoon are strongly marked and travel in some westerly direction, and the abnormal behaviour in these respects of the depression described above was due almost solely to the failure of the Arabian Sea current to feed into it.

The advance of the monsoon over the Arabian Sea although not associated with a regular disturbance, was marked by winds of unusual violence which inflicted much damage on shipping at the north Malabar ports.

Pressure.

10. Pressure at 8 hrs. over the Indian land region averaged ·007″ lower than the corresponding normal, and the only important deviation from this mean condition occurred over a small area in northwest India, defined by the stations of Jacobabad, Hyderabad, Deesa, Ahmedabad, Surat, Udaipur, Neemuch, Kotah and Bikanir; over this region the barometer was still lower by about ·02″.

TABLE 8.

DIVISION.	Departure from normal of mean 8 hrs. pressure.
	″
Burma	+·002
Eastern Bengal and Assam	—·005
Bengal	—·009
United Provinces	—·002
Punjab	—·006
North-West Frontier Province	—·018
Sind	—·027
Rajputana	—·025
Bombay	—·015
Central India	—·021
Central Provinces	—·015
Hyderabad	—·010
Mysore	+·002
Madras	0

In the hills of Baluchistan and northern and central India, pressure was also low, but the defect was either less than or nearly equal to that in the neighbouring plains; in consequence the vertical gradients departed but little from the normal value except between Leh and Lahore where they were rather steep.

The pressure conditions over India were thus such as are conducive to a normal or abundant monsoon rainfall.

TABLE 9.

HILL STATION.	Departure from normal pressure. A.	PLAIN STATION.	Departure from normal pressure. B.	Departure of pressure difference. B.—A.
	"		"	"
Quetta	—·014	Jacobabad	—·031	—·017
Leh	—·032	Lahore	—·012	+·020
Murree	—·007	Peshawar	—·016	—·009
Simla	—·026?	Ludhiana	+·002	+·028?
Chakrata	+·002	Roorkee	+·018	+·016
Darjeeling	—·004	Dhubri	—·003	+·001
Mount Abu	—·019	Deesa	—·029	—·010
Pachmarhi	—·014	Khandwa	—·021	—·007

Temperature.

11. The temperature conditions agreed fairly well with the normal throughout the plains except in the tract stretching northwestwards from Orissa to the southeast Punjab, where day temperature was from 2° to 7° and the night temperature from 1° to 3½° lower than usual.

The stations on the southern face of the western Himalayas were slightly cooler than usual, both by day and night, but in Kashmir, Afghanistan and Baluchistan there were no marked deviations from the average condition; this is an indication that the snowfall in these regions was exercising no abnormal influence on the weather.

The highest temperatures of the month in northern India were in general recorded during the first week of the month: they were however in most cases much lower than the corresponding highest on record in previous years.

Of the temperature changes which occurred during the month the most marked were:—

(*a*) A cold wave which affected the northeast of the peninsula during the first week and between the 7th and the 15th spread northwestwards with the advance of monsoon winds and rainfall up the Gangetic plain. The largest defect recorded in this area was 16°.

(*b*) A spell of cold weather which prevailed over upper India from the 18th to the 21st; during this period the recorded readings of temperature were from 4° to 16° below their normal values.

TABLE 10.

SUB-DIVISION.	ACTUAL TEMPERATURE.					DEPARTURE FROM NORMAL OF		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
1. Bay Islands	85·2	76·8	81·0	8·4	16·1	—1·3	—1·0	— 0·3
2. Lower Burma	85·4	75·9	80·7	9·5	15·8	—0·7	+0·2	— 0·9
3. Upper do.	89·6	75·8	82·7	13·8	22·2	—2·0	0	— 2·0
4. Assam	87·4	75·5	81·4	11·9	22·9	—0·9	+0·2	— 1·1
5. Eastern Bengal	88·0	77·3	82·7	10·7	20·3	—0·1	+0·3	— 0·4
6. Bengal	90·1	78·5	84·3	11·5	21·1	—2·4	—0·7	— 1·7
7. Orissa	90·1	78·0	84·1	12·1	23·4	—3·5	—2·1	— 1·4
8. Chota Nagpur	90·3	76·2	83·3	14·1	25·3	—4·2	—1·2	— 3·0
9. Bihar	91·6	78·3	85·0	13·3	28·4	—4·0	—0·7	— 3·3
10. United Provinces, East	94·5	78·6	86·6	16·0	30·5	—5·8	—2·9	— 2·9
11. Do. do., West	96·2	78·6	87·4	17·7	35·3	—4·1	—1·9	— 2·2
12. Punjab, East and North	101·2	79·4	90·4	21·8	40·3	—2·7	—0·8	— 1·9

Sub-Division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
13. Punjab, Southwest	107·5	84·4	96·0	23·1	41·4	—0·8	+1·0	—1·8
14. Kashmir	79·1	51·8	65·4	27·3	42·7	+2·6	+1·4	+1·2
15. North-West Frontier Province	106·1	79·9	93·0	26·2	42·6	—0·9	+0·7	—1·6
16. Baluchistan	99·4	69·5	84·5	29·9	45·1	+1·5	—1·5	+3·0
17. Sind	103·1	83·8	93·5	19·3	30·1	—0·5	+1·1	—1·6
18. Rajputana, West	105·8	83·3	94·6	22·5	41·8	0	+0·3	—0·3
19. Do., East	101·4	81·9	91·6	19·5	38·2	—1·1	—1·0	—0·1
20. Gujarat	95·3	80·4	87·9	14·8	28·3	—0·8	+0·3	—1·1
21. Central India, West	95·5	76·5	86·0	19·0	35·4	—0·9	+0·2	—1·1
22. Do., East	95·8	80·3	88·1	15·5	34·7	—4·4	—1·5	—2·9
23. Berar	95·0	75·9	85·4	19·1	33·7	—0·7	+0·1	—0·8
24. Central Provinces, West	96·1	77·0	86·4	19·1	37·3	—1·0	—0·4	—0·6
25. Do., East	94·0	77·1	85·5	16·9	33·7	—1·8	—0·6	—1·2
26. Konkan	86·0	77·4	81·7	8·6	18·7	—0·4	—0·3	—0·1
27. Bombay Deccan	88·7	71·4	80·1	17·3	30·8	—1·4	—0·8	—0·6
28. Hyderabad, North	90·9	70·7	80·8	20·3	34·6	—	—	—
29. Do., South	93·3	74·7	84·0	18·6	31·8	—2·2	—1·0	—1·2
30. Mysore	83·1	67·3	75·2	15·8	24·6	—0·6	—0·4	—0·2
31. Malabar	84·3	75·3	79·8	9·0	17·4	—0·1	+0·8	—0·9
32. Madras, Southeast	96·2	78·0	87·1	18·3	26·8	+0·1	0	+0·1
33. Do. Deccan	96·9	77·5	87·3	19·4	29·0	—0·2	—0·2	0
34. Do. Coast, North	94·2	80·4	87·3	13·9	27·2	—0·6	—0·4	—0·2

TABLE II.

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

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

Winds.

12. In northern India generally winds were neither so strong nor so steady as usual except locally in the Punjab and the North-West Frontier Province, where the steadiness was high. In the peninsula the reverse was the case, both steadiness and velocity exceeding the normal values. The direction of movement was approximately normal over nearly the whole of the country, the only striking exception occurring at Darjeeling where the mean actual direction was N 63°W, while the normal for the month is S 76°E.

According to the marine information light unsteady winds prevailed over the central portion of the equatorial belt during the second and third weeks of June, and were almost certainly the cause of the weakness of the Arabian Sea current between the 15th and the 26th.

TABLE 12.

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

Humidity and cloud.

13. Humidity, both absolute and relative, was in excess in the United Provinces, the Punjab and Central India, but elsewhere the hygrometric conditions were nearly normal.

Skies also were covered to about the usual extent; the only important exceptions occurred in the North-West Frontier Province and Central India where the proportion of cloud was decidedly high.

TABLE 13.

Division.	Hygrometry; 8 hrs.				Cloud.	
	Mean humidity.	Departure from normal.	Mean vapour tension in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.
	%					
Burma	89	+2	·883	—·005	8·4	+0·7
Eastern Bengal and Assam.	89	0	·932	—·007	7·2	—0·4
Bengal	84	+ 3	·926	—·004	6·9	+0·6
United Provinces	77	+10	·877	+·089	4·8	0
Punjab	59	+ 6	·768	+·075	2·3	—0·5
North-West Frontier Province.	50	0	·686	—·009	2·2	+0·5
Sind	66	+ 3	·881	+·031	3·5	+0·2
Rajputana	59	+ 1	·772	+·011	3·5	—0·7
Bombay	78	+ 1	·842	—·002	6·7	+0·2
Central India	75	+ 9	·831	+·078	7·0	+2·1
Central Provinces	69	+ 2	·752	+·012	6·5	+0·8
Hyderabad	73	+ 3	·706	—·032	6·1	+0·3
Mysore	81	— 1	·642	—·012	8·0	—0·1
Madras	72	0	·799	—·012	6·6	+0·1

Rainfall.

14. The monsoon rains began on the 6th in northeast India and extending very rapidly westwards, were established over the Gangetic plain during the course of the next two days. The advance of the monsoon over the Bay was, as is frequently the case, attended with the formation of a depression; this disturbance followed a rather unusual course which led it eventually into the Assam Himalayas. Heavy rain accompanied its march through northeast India from the 7th to the 11th. The disappearance of the depression was followed by an appreciable decrease in the activity of the current, with the result that the rainfall due to it during the next two weeks was comparatively light and almost restricted to northeast India and Burma. The current strengthened considerably on the 27th and during the rest of the month gave satisfactory rain over practically the whole of the region usually dominated by it.

The Arabian Sea current arrived on the 2nd on the Malabar coast and four days later on the Konkan coast, but owing to the setting in of unfavourable conditions (described in the section on winds) over the central portion of the equatorial belt it failed to attain its proper intensity until the 27th. At that time contemporaneously with the Bay current it became very active, and penetrating quickly inland became established over the Central Provinces, Gujarat and Rajputana.

The most influential factors in the distribution of the rainfall of the month were thus—(*a*) the early commencement and rapid extension of the Bay current, (*b*) the timely arrival of the Arabian Sea current on the coast, with its inability to extend inland till nearly the end of the month. The statement below showing the normal and actual dates of the complete establishment of the monsoon illustrates these two peculiarities.

TABLE 14.

AREA.	Actual date of establishment of rains.	Normal date of establishme of rains.
Bengal	June 6th	June 15th
Bihar	„ 6th	„ 15th
Chota Nagpur	„ 6th	„ 15th
United Provinces, East	„ 7th	„ 16th
United Provinces, West	„ 8th	„ 25th
Punjab, East and North	Not established	„ 30th
Rajputana	June 28th	„ 15th
Gujarat	„ 27th	„ 15th
Central India	Not established	„ 15th
Central Provinces	June 28th	„ 10th
Konkan	„ 6th	„ 5th
Malabar	„ 2nd	„ 3rd

The aggregate rainfall of the month was abundant an favourably distributed over the greater part of the regio served by the Bay current; it was on the other hand norma though somewhat irregularly distributed, in the field of th Arabian Sea current. The excess was more than 20 pe cent. over a large part of the plains of northern India and i Hyderabad, and was absolutely greatest in Bihar (110 pe cent). The deficiency was nowhere marked, being less tha one inch in amount in all cases.

TABLE 15.

SUB-DIVISION.	NUMBER OF RAINY DAYS.		RAINFALL.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			"	"	"	
1. Bay Islands	22·5	19·7	17·94	15·50	+2·44	+ 16
2. Lower Burma	23·8	22·1	25·12	25·36	−0·24	— 1
3. Upper do.	9·8	9·6	6·53	6·61	—0·08	— 1
4. Assam	20·2	17·3	21·54	17·48	+4·06	+ 23
5. Eastern Bengal	18·5	15·4	23·88	16·70	+7·18	+ 43
6. Bengal	16·4	12·3	14·21	10·70	+3·51	+ 33
7. Orissa	15·3	10·5	11·84	9·45	+2·39	+ 25
8. Chota Nagpur	14·2	10·5	10·67	9·18	+1·49	+ 16
9. Bihar	14·5	8·5	16·66	7·94	+8·72	+110
10. United Provinces, East	11·3	5·9	9·30	5·34	+3·96	+ 74
11. Do., West	8·6	5·3	7·02	4·61	+2·41	+ 52

Sub-Division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			"	"	"	
12. Punjab, East and North	4·9	3·1	3·59	2·36	+1·23	+ 52
13. Punjab, Southwest	2·1	1·3	1·26	0·71	+0·55	+ 77
14. Kashmir	3·1	3·2	1·27	1·90	—0·63	— 33
15. North-West Frontier Province	2·2	1·5	0·99	0·83	+0·16	+ 19
16. Baluchistan	0·4	0·6	0·21	0·30	—0·09	— 30
17. Sind	0·4	0·6	0·09	0·41	—0·32	— 78
18. Rajputana, West	1·9	2·1	1·06	1·39	—0·33	— 24
19. Do., East	5·8	4·2	4·24	3·15	+1·09	+ 35
20. Gujarat	6·9	5·9	6·38	5·65	+0·73	+ 13
21. Central India, West	8·3	6·8	5·99	6·73	—0·74	— 11
22. Do., East	11·2	7·3	9·51	7·39	+2·12	+ 29
23. Berar	8·1	8·1	5·35	5·57	—0·22	— 4
24. Central Provinces, West	9·6	8·6	6·40	7·17	—0·77	— 11
25. Do, East	13·0	9·6	8·23	8·46	—0·23	— 3
26. Konkan	21·6	18·6	29·11	26·62	+2·49	+ 9
27. Bombay Deccan	9·1	8·4	6·20	5·57	+0·63	+ 11
28. Hyderabad, North	9·5	8·1	6·69	5·61	+1·08	+ 19
29. Do., South	8·8	6·8	5·53	4·05	+1·48	+ 37
30. Mysore	6·4	7·2	4·64	5·27	—0·63	— 12
31. Malabar	24·5	23·3	37·75	33·34	+4·41	+ 13
32. Madras, Sou heast	2·0	2·9	0·93	1·55	—0·62	— 40
33. Do. Deccan	3·6	4·6	1·62	2·53	—0·91	— 36
34. Do. Coast, North	7·5	6·2	4·60	4·30	+0·30	+ 7

TABLE 16.

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Burma	14·97	15·12	—0·15	— 1
Eastern Benga and Assam	22·70	17·09	+5·61	+33
Bengal	14·24	9·39	+4·85	+52
United Provinces	8·23	5·00	+3·23	+65
Punjab	3·10	2·03	+1·07	+53
North-West Frontier Province	0·99	0·83	+0·16	+19
Sind	0·09	0·41	—0·32	—78

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Rajputana	3·37	2·68	+0·69	+26
Bom ay	10·42	9·42	+1·00	+11
Central India	7·16	6·96	+0·20	+ 3
Central Provinces	6·38	6·81	—0·43	— 6
Hyderabad	6·06	4·76	+1·30	+27
Mysore	4·64	5·27	—0·63	—12
Madras	5·45	5·37	+0·08	+ 1
Mean of India when the size of the above areas is taken into account	8·83	7·45	+1·38	+19

Snowfall.

I.—AFGHANISTAN.

15. Light snow is reported to have fallen in the beginning of the month on the high hills of Paghman and Hazara.

II.—NORTH-WEST FRONTIER PROVINCE.

Very little snowfall occurred.

III.—KASHMIR.

There were some light falls on the higher mountains. At the end of the month scarcely any accumulations existed on the Deosai pass, while on the high mountains near Sonemarg the depth of accumulations was estimated at about 2 feet.

IV.—PUNJAB.

(*a*) *Kangra.*—The snowfall was confined to heights above 19,000 feet.

(*b*) *Kilba.*—There were feeble snowstorms on the 7th, 11th, 16th, 26th and 28th at levels above 11,000 feet. The depth of snow on the Shatul, Brua and Rupin passes was estimated at 4 feet, which is about the normal amount.

V.—UNITED PROVINCES.

Almora.—There were frequent falls during the month and the snowline descended to a distance of about four miles from the perpetual snows. The total fall measured about 10 feet in depth on the Nuwe pass, 8 feet in Byans, 2½ feet on the Binkaru pass and one foot in Malla Johar. At the close of the month there was about 22 feet of snow on the Nuwe pass and 14 feet on the Binkaru pass, as compared with 16 and 23 feet, the respective normal values.

SUMMARY.

16. (*a*) Except perhaps in Kumaon the snowfall of the month was slightly less than the average.

(*b*) The quantity of accumulations of snow at the close of the month was on the whole normal or in defect.

Crop report.

17. *Burma.*—Standing crops were generally in good condition. Ploughing for the main rice crop was in progress, and in upper Burma the cultivation of autumn crop was being carried on.

Eastern Bengal and Assam.—Floods had damaged crops on low lands. Prospects of rice on high lands and of jute were good; prospects of tea had improved.

Bengal.—Autumn crops were being sown and transplantation of winter rice had commenced. Crops had been damaged to some extent by floods and insects.

United Provinces.—Autumn sowings were in progress. Standing crops were in good condition. Fodder and water were adequate.

Punjab.—Extra spring crops were being harvested and autumn crops were being sown. Sugar, cotton and juar had been slightly damaged by insects.

North-West Frontier Province.—The condition of standing crops was average. Autumn crops were being sown.

Jummu and Kashmir.—The condition of standing crops was fair to good. Fodder was sufficient.

Rajputana.—Monsoon sowings were in progress. Fodder was sufficient and the condition of cattle was generally good.

Central India.—Autumn crops were being sown. The condition of agricultural stock was on the whole satisfactory.

Central Provinces.—The sowing of autumn crops was in progress, and the germination of the seed sown was reported good. More rain was required in some districts.

Bombay.—Land was being prepared and sowings made for autumn crops, but in several districts more rain was needed. The supply of fodder and of drinking water was generally adequate.

Hyderabad.—Early rice was being sown in some districts. Lands were under preparation for autumn crops and sowings were in progress in most parts.

Mysore.—Prospects of the season were fair. Ploughing and sowing were being carried on.

Coorg.—Ploughing for and transplantation of rice were in progress. Water and fodder were sufficient.

Madras.—Standing crops were generally fair but some required more rain. The outturn of the harvests was poor to normal. The condition of cattle was generally good.

HEM RAJ.

TABLE A.—Abstract of observations taken at 10 hrs. and 16 hrs. at 35 stations in India, etc., in June, 1909.

Table

Abstract of observations taken at 10 hrs. and 16 hrs. at 3

Number of subdivision.	Station.	Elevation of barometer cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Pressure. Mean of 16 hrs.	Pressure. Mean daily range.	Pressure. Mean of daily mean pressures.	Pressure. Departure from normal.	Pressure. Mean reduced to sea-level and gravity, 45° Lat.	Temperature of air. Mean maximum.	Temperature of air. Mean minimum.	Temperature of air. Mean daily range.	Temperature of air. Highest maximum.	Temperature of air. Lowest minimum.	Temperature of air. Absolute range.	Temperature of air. Mean 10 hrs.	Temperature of air. Mean 16 hrs.	Temperature of air. Mean of daily means.	Temperature of air. Departure from normal.	Temperature, wet-bulb. Mean minimum.	Temperature, wet-bulb. Mean 10 hrs.	Temperature, wet-bulb. Mean 16 hrs.	Temperature, wet-bulb. Mean of three previous columns.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	I.—Burma.																					
2	Rangoon	18	29·792	29·701	·088	29·753	+·021	29·709	85·5	77·1	8·4	89·7	74·5	15·2	81·9	82·2	79·3	− 0·2	75·4	78·0	77·7	77·0
	III.—Bengal.																					
6	Calcutta	21	·592	·497	·095	·551	+·002	·517	89·3	78·2	11·1	95·2	74·8	20·4	85·1	86·2	83·5	− 1·0	76·6	80·3	81·1	79·3
	IV.—United Provinces of Agra and Oudh.																					
10	Allahabad	309	·257	·151	·106	·205	+·005	·464	93·8	79·1	14·7	104·6	76·0	28·6	85·4	90·1	85·2	− 5·6	76·6	79·1	79·3	78·[illegible]
11	Dehra Dun	2,233	27·385†	27·299	·086	27·339	−·013	·486	88·4	72·4	16·0	97·9	64·8	33·1	81·3	84·8	78·9	− 3·3	68·8	73·5	74·4	72·[illegible]
	V.—Punjab.																					
12	Lahore	702	28·815	28·710	·105	28·754	−·019	·395	104·9	81·5	23·4	112·8	69·6	43·2	95·3	103·1	92·8	− 0·2	74·1	79·0	80·2	77·[illegible]
	VIII.—Rajputana.																					
19	Jaipur	1,431	·161	·048	·113	·103	−·030	·442	102·5	81·3	21·2	111·7	73·1	38·6	93·6	98·1	90·7	+ 0·1	73·8	79·0	78·8	77·[illegible]
	Udaipur	1,925	27·720	27·627	·093	27·678		·496	95·3	78·4	16·9	109·0	70·3	38·7	88·9	92·8	86·1		72·9	76·6	77·5	75·[illegible]
	IX.—Bombay.																					
26	Bombay	37	29·694	29·620	·074	29·658	−·015	·635	87·9	79·9	8·0	95·4	74·4	21·0	84·4	84·7	82·8	+ 0·4	77·0	79·5	79·5	78·[illegible]
	XI.—Central Provinces.																					
24	Nagpur	1,017	28·615	28·493	·122	28·560	−·018	·514	96·3	77·8	18·5	106·9	73·3	33·6	88·1	90·4	85·3	− 1·3	72·6	76·4	78·6	75·[illegible]
	XII.—Hyderabad.																					
29	Hyderabad	1,690	·037	27·922	·115	27·987	−·013	·594	91·3	74·0	17·3	101·5	69·2	32·3	82·6	88·1	80·9	− 1·7	69·3	72·7	74·1	72·[illegible]
	XIII.—Mysore.																					
30	Bangalore	3,021	26·841	26·751	·090	26·803	−·020	·683	85·5	67·0	18·5	91·8	64·7	27·1	77·8	82·2	74·5	+ 0·5	65·0	68·8	69·2	67·[illegible]
	Mysore	2,518	27·353	27·269	·084	27·318	+·008	·745	82·7	67·5	15·2	87·7	64·9	22·8	77·1	78·9	75·3	− 1·3	65·7	69·3	69·7	68·[illegible]
	XIV.—Madras.																					
32	Periyakulam	944								Observatory closed.												
	Pudukkottai	318	29·493	29·371	·122	29·432		·674	99·5	78·0	21·5	103·8	74·4	29·4	90·7	96·2	88·7		72·8	75·9	79·3	76·[illegible]
	Madras	22	·738	·623	·115	·680	−·009	·643	98·1	79·9	18·2	102·9	69·5	33·4	90·5	91·2	87·8	− 0·6	74·7	78·2	79·2	77·[illegible]
	Bay Islands.																					
1	Port Blair	58	·770	·695†	·075	·737	0	·723†	84·6	76·7	7·9	86·8	71·0	15·8	82·2	82·0	79·5	− 1·2	74·4	78·2	78·0	76·[illegible]
	Kashmir.																					
14	Srinagar	5,204	24·702	24·618	·084	24·662	−·034	24·633	84·2	59·3	24·9	93·6	55·7	37·9	73·8	81·4	70·7	+ 0·8	55·8	68·7	75·1	66·[illegible]
	Leh	11,503	19·637	19·539	·098	19·590	−·048	19·558	74·4	47·2	27·2	81·9	42·4	39·5	64·4	71·9	59·7	+ 1·9	40·0	47·6	50·4	46·[illegible]
	Baluchistan.																					
16	Quetta	5,502	24·469	24·395	·074	24·425	−·017	24·385	93·6	57·4	36·2	99·9	47·3	52·6	85·9	91·6	74·8	+ 0·7	51·3	60·3	60·8	57·[illegible]

† Mean of 29 days.

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

NOTE.—The barometric readings are not reduced to sea-level, in the cases o

A.

stations in India, etc., in June, 1909.

Vapour tension in inches of mercury.					Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity.		Rainfall.			
														Total number of 10 hrs. and 16 hrs. winds from																			
From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean 10 hrs.	Mean 16 hrs.	Mean of two previous columns.	Departure from normal.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.	Station.	Number of subdivision.
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
																									%	%						
																															I.—Burma.	
·863	·912	·895	·907	—·014	92	83	81	89	— 4	8·8	9·0	8·9	+0·1	1				3	34	17	2	3	S 17° W	S 24° W	80	71	55*	122	17·85	2·03	Rangoon	2
																															III.—Bengal.	
·899	·975	·991	·967	—·001	93	81	80	87	+ 4	7·5	8·8	8·2	+0·7	2		4	9	8	12	25			S	S 3° W	54	59	122	142	22·63	3·68	Calcutta	6
																															IV.—United Provinces of Agra and Oudh.	
·883	·871	·858	·887	+·114	88	67	63	74	+18	7·4	7·9	7·7	+2·6	4	8	12	11		1	2	14	8	N 5° W	N 10° W	33	16	103*	192	10·96	2·61	Allahabad	10
·667	·732	·729	·723	+·087	84	69	62	75	+13	5·9	6·2	6·1	+1·9	5	1	3	4	12	9	8	9	4	S 7° W	S 51° W	30	14	¶ 37	41	10·32	1·46	Dehra Dun§	11
																															V.—Punjab.	
·716	·773	·723	·765	+·138	70	48	36	52	+ 8	1·3	1·6	1·5	—1·4	4	1	4	6	17	12	3	8	5	S 21° E	N 18° E	33	7	98*	86	3·78	2·61	Lahore	12
																															VIII.—Rajputana	
·745	·797	·744	·769	+·113	70	53	44	57	+ 5	2·6	6·6	4·6	+0·2	1	3	4	4	3	4	7	21	13	N 82° W	N 70° W	45	43	147	163	2·31	0·94	Jaipur	19
·736	·776	·763	·769		77	59	52	64		5·0	5·7	5·4		1	2	1	3	1	3	17	26	6	S 77° W		65		176*		8·84	3·02	Udaipur	
																															IX.—Bombay.	
·884	·949	·914	·942	+·004	87	80	79	84	+ 1	7·8	7·9	7·9	+0·8		1			4	8	20	25	2	S 50° W	S 63° W	73	64	305	365	16·60	3·05	Bombay	26
																															XI.—Central Provinces.	
·737	·763	·743	·757	+·039	78	59	55	65	+ 6	5·8	7·2	6·5	—0·7	3	5	4	2	1	7	16	21	1	S 69° W	N 82° W	48	55	154*	216	7·67	1·92	Nagpur	24
																															XII.—Hyderabad.	
661	·682	667	·683	—·025	79	62	52	66	+ 2	6·9	7·5	7·2	+0·9	5	1						42	12	N 79° W	N 84° W	85	72	177*	218	6·37	1·93	Hyderabad.	29
																															XIII.—Mysore.	
·598	·600	·567	·595	—·028	90	63	52	70	— 4	7·7	7·9	7·3							1	27	29	3	S 70° W	S 72° W	89	81	287*	223	0·41	0·20	Bangalore	30
·610	·621	·614	·622	—·014	91	67	63	76	+ 1	8·2	8·8	8·5	0						1	28	30	1	S 68° W	S 75° W	90	79	348*	350	2·18	0·62	Mysore	
																															XIV.—Madras.	
													Observatory closed.																		Periyakulam	32
·712	·731	·784	·752		77	50	46	58		6·0	8·5	7·3			2			1	2	19	22	14	S 85° W		75		258*		0·52	0·13	Pudukkottai	
·792	·801	·840	·828	—·005	78	57	59	66	0	5·6	6·0	5·8	—0·4			1	6	5	2	13	23	5	S 66° W	S 37° W	56	57	183	211	1·65	1·03	Madras	
																															Bay Islands.	
·821	·914	·905	·896	—·039	90	83	83	87	— 1	9·3	9·4	9·4	+1·6	2				2	4	21	27	1	S 63° W	S 45° W	80	78	222*	250	21·55	4·02	Port Blair	1
																															Kashmir.	
·409	·648	·808	·574	+·039	80	77	75	77‡	— 2	1·6	3·9	2·8	—0·8	23	3	3	3	5	1	4	5	13	N 51° W	N 9° E	18	7	79*	91	1·04	0·28	Srinagar	44
·187	·185	·181	·180	+·012	58	30	23	38	— 1	3·6	3·9	3·8	—1·2		4	3			12	14	24	3	S 68° W	S 81° W	60	34	92	62	0·18	0·18	Leh	
																															Baluchistan	
·322	·261	·207	·262	—·079	67	21	13	34	— 5	0·4	0·9	0·7	—0·4	30	7				2	3	6	12	N 56° W	N 72° W	33	39	49*	72	0·24	0·24	Quetta	16

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

* Corrected. ‡ Mean of three previous columns. § Wind observations less.
¶ Mean of 28 days.

Tabl

Abstract of observations taken at 10 hrs. and 16 hrs. at 3

Number of subdivision.	Station.	Elevation of barometer cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Mean of 16 hrs.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to sea-level and gravity, 45° Lat.	Temperature of air. Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Temperature, wet-bul Mean minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of three
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	Hill Stations, excluding Kashmir and Baluchistan.																					
	Simla	7,232	22·991	22·942	·049	22·960	—·026	22·922	69·6	58·6	11·0	77·4	52·9	24·5	65·5	66·7	63·3	—3·6	55·3	60·0	61·7	59
	Sarain		23·042	·989	·053	23·011		·973	71·8	55·1	16·7	76·7	45·2	31·5	67·3	67·5	62·7			59·4	60·5	
	Kalabagh		20·083	20·049	·034	20·061			54·6	45·0	9·6	59·7	40·2	19·5	51·0	52·5	49·0			48·2	49·4	
	Chakrata	7,022	23·182	23·129	·053	23·154	—·003	23·114	71·2	58·4	12·8	78·3	53·2	25·1	67·4	66·0	64·0	—2·4	56·5	63·3	63·0	60
	Muktesar	7,592	22·732	22·674	·058	22·696		22·654	71·7	56·1	15·6	78·7	52·2	26·5	63·4	61·6	63·1		54·5	60·4	61·7	58
	Katmandu	4,388	25·451	25·363	·088	25·403	0†	25·357	82·3	67·6	14·7	87·4	64·7	22·7	76·4	78·6	74·2	+0·3†	65·7	70·0	71·0	68
	Darjeeling	7,376	22·923	22·887	·036	22·901	+·005	22·856	65·8	56·7	9·1	71·4	53·4	18·0	62·7	63·5	60·5	+0·6	55·9	61·3	62·2	59
	Pachmarhi	3,528	26·245	26·169	·076	26·208	—·023	26·155	84·9	71·5	13·4	99·5	66·1	33·4	76·6	81·2	77·4	—0·8	66·8	70·4	70·7	69
	Mount Abu	3,945	25·651	25·785	·066	25·819	—·027	25·769	82·2	69·2	13·0	95·8	64·2	31·6	75·2	80·0	74·8	—0·1	64·7	68·8	69·7	67
	Calkalda	3,642	26·145	26·050	·095	26·099	—·028	26·043	83·6	68·1	15·5	95·3	65·5	29·8	76·3	81·0	75·1	—0·3	63·7	67·2	69·9	63
	Ootacamund	7,327	23·003	22·946	·057	23·972		22·908	63·4	51·2	12·2	68·6	45·5	23·1	59·9	59·2	56·5		49·9	55·5	55·8	53
	Kodaikanal	7,688	22·773	·713	·060	·743		·678	64·4	53·0	11·4	70·2	50·8	19·4	61·3	59·4	58·7		48·4	55·6	56·4	52
	Dodabetta	8,539	21·999	21·947	·052	21·970		21·907	59·1	47·9	11·2	65·6	43·2	22·4	54·6	54·7	52·7		45·4	51·9	52·4	49
	Extra India.																					
	Minicoy	7	29·925	29·854	·071	29·895																
	Zanzibar	72	30·088	·991	·097	30·045	+·001	30·044	81·8	74·2	7·6	83·9	72·0	11·9	77·6	81·1	77·4	+0·1	69·1	72·3	71·9	71
	Diego Garcia								Register not received.													
	Seychelles	15	29·997	·921	·076	29·961	+·014†	29·900	82·0	76·7	5·3	84·0	73·1	10·9	80·0	81·0	78·3	+0·7†	70·4	74·5	74·8	73
	Mauritius	181				29·942	—·034	30·072				77·7	58·0	19·7			68·9	+0·2				65

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

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

A—*concluded.*

tations in India, etc., in June, 1909—concluded.

Vapour Tension, in inches of mercury.					Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity.		Rainfall.		Station.	Number of subdivision.
														Total number of 10 hrs. and 16 hrs. winds from																		
From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean 10 hrs.	Mean 16 hrs.	Mean of two previous columns	Departure from normal.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.		
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
																									%	%						
																															Hill Stations, excluding Kashmir and Baluchistan.	
·407	·464	·499	·456	+·059	82	74	77	78	+17	6·6	8·0	7·3	+1·6																11·65	2·03	Simla.	
	·430	·459				65	69			6·6	7·2	6·9		10	1	7	2	1	13	16	8	2	S 37° W		37		65*		10·31	3·22	Sarain.	
	·317	·328				81	82			8·2	8·7	8·5		15	13	1	1	10	8	1	2	9	N 5° W		7		219*		11·78	3·47	Kalabagh.	
·439	·542	·547	·508	+·098	90	81	86	86	+20	5·3	7·9	6·6	+1·5	21	3		1	6	27	1	1		S 7° E	S 66° W	48	48	96*	178	14·77	3·13	Chakrata.	
·411	·498	·505	·470		91	85	78	85		8·2	7·0	7·6		26	1	2	3			1	27		N 86° W		38		118*		14·78	3·38	Muktesar.	
·609	·661	·676	·648	+·008	91	73	69	78	+ 2	6·4	6·6	6·5	+0·3	4	1	3	25	1		2	23	1	N 56° E	N 87° W	5	20	34	31	13·39	1·88	Katmandu.	
·445	·530	·550	507	+·015	95	93	93	94	0	8·2	8·1	8·2	−0·6	7		2				24	17	10	S 78° W	S 15° W	68	8	89*	122	41·55	5·62	Darjeeling.	
·600	·673	·636	·639	+·025	79	75	63	72	+ 7	3·3	4·3	3·8	−3·0	2	1	6	1	2	1	11	19	17	N 78° W	N 81° W	55	63	‡ 259*	221	9·86	2·48	Pachmarhi.	
·562	·633	607	·603	+·037	80	75	62	73	+ 7	6·9	5·9	6·4	+1·6			3	1		9	32	5	10	S 55° W	S 48° W	65	66	292*	274	8·72	5·08	Mount Abu.	
·516	·563	·610	·576	−·021	80	65	60	68	− 2	6·3	7·0	6·7	0		2							58	N 44° W	N 42° W	100	58	173*	242	10·41	2·46	Chikalda.	
·347	·398	·411	·381		92	78	82	84		7·8	8·7	8·3		1	1					8	22	3	S 85° W		89		211*		68·9	1·66	Ootacamund.§	
·300	·389	428	·371		74	72	84	77		6·7	8·9	7·8			5	2	3		4	4	22	19	N 69° W		60		310		3·63	0·56	Kodaikanal.¶	
·281	361	·371	·338		84	85	87	85		8·4	9·2	8·8				1	1		1	10	25	3	S 81° W		80		686*		34·3	0·70	Dodabetta.‖	
																															Extra India.	
										6·6	6·8	6·7								11	41	8	S 88° W		90		364*		8·03	1·84	Minicoy.	
·646	·725	·659	·715	−·023	76	77	62	74	− 3	5·5	5·2	5·4	+0·6				1	15	28	13	1		S 2° E	S 4° E.	89	87	‡ 223*	211	0·19	0·10	Zanzibar.**	
													Register not received.																		Diego Garcia.	
·664	·783	·786	·760	−·021	72	76	74	76	− 3	6·2	5·5	5·9	† −1·2	4		1		18	31	6			S 11° E	S 27° E	80	81	243	258	1·42	0·50	Seychelles.	
			·577	+·039				81	+ 5			7·0	+2·1										S 63° E	S 61° E			257	289	7·57	1·89	Mauritius.	

† Departures from old normals.

* Corrected.

‡ Mean of 29 days.

§ Wind observations 25 less.

‖ " " 19 "

¶ Wind variable 1.

** Wind observations 2 less.

Table B.—Abstract of observations taken at 8 hrs. at 239 stations in India, etc., in June, 1909.

(1) Provincial means.

(2) Data of stations.

:) Provincial means based on the material in Table B (2) except that the statement of rainfall depends on the complete data of about 2,700 stations.

	Pressure departure from normal.	Temperature of air.								Wind.		Hygrometry.				Cloud.		Rainfall.		
		Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Absolute range during month.	Departure of velocity from normal.	Departure of steadiness from normal.	Mean humidity.	Departure from normal.	Mean vapour tension.	Departure from normal.	Mean cloud amount.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.
rma	+·002	87·5	—1·2	75·8	+0·1	81·7	—0·6	11·7	19·0	—1·1	+ 2	89	+ 2	·883	—·005	8·4	+0·7	14·97	15·12	—0·15
stern Bengal and Assam	—·005	87·8	—0·3	76·8	+0·3	82·3	0	11·0	21·1	—0·3	— 8	89	0	·932	—·007	7·2	—0·4	22·70	17·09	+5·61
ngal	—·009	90·7	—3·4	78·0	—1·1	84·4	—2·3	12·7	24·9	—0·7	— 3	84	+ 3	·926	—·004	6·9	+0·6	14·24	9·39	+4·85
ited Provinces of Agra and Oudh.	—·002	95·4	—4·8	78·6	—2·3	87·0	—3·6	16·9	33·1	—0·4	— 2	77	+10	·877	+·089	4·8	0	8·23	5·00	+3·23
njab	—·006	102·9	—2·1	80·8	—0·2	91·9	—1·2	22·2	40·6	+0·3	+15	59	+ 6	·768	+·075	2·3	—0·6	3·10	2·03	+1·07
rth-West Frontier Province	—·018	106·1	—0·9	79·9	+0·7	93·0	—0·2	26·2	42·6	—0·7	+ 8	50	0	·686	—·009	2·2	+0·5	0·99	0·83	+0·16
d	—·027	103·1	—0·5	83·8	+1·1	93·5	+0·3	19·3	30·1	—1·0	— 5	66	+ 3	·881	+·031	3·5	+0·2	0·09	0·41	—0·32
jputana	—·025	103·0	—0·6	82·4	—0·5	92·7	—0·5	20·6	39·6	—0·3	— 3	59	+ 1	·772	+·011	3·5	—0·7	3·37	2·68	+0·69
mbay	—·015	91·0	—0·9	77·0	—0·3	84·0	—0·6	14·0	26·7	—0·5	+ 7	78	+ 1	·842	—·002	6·7	+0·2	10·42	9·42	+1·00
ntral India	—·021	95·6	—2·7	78·4	—0·7	87·0	—1·7	17·2	35·0	—1·6	— 5	75	+ 9	·831	+·078	7·0	+2·1	7·16	6·96	+0·20
ntral Provinces	—·015	95·3	—1·1	76·8	—0·3	85·9	—0·7	18·5	35·5	+1·1	+ 1	69	+ 2	·752	+·012	6·5	+0·8	6·38	6·81	—0·43
derabad	—·010	92·5	—2·2	73·3	—1·0	82·9	—1·6	19·2	32·7	—0·5	+ 6	73	+ 3	·706	—·032	6·1	+0·3	6·06	4·76	+1·30
ysore	+·002	83·1	—0·6	67·3	—0·4	75·2	—0·5	15·8	24·6	+2·8	+ 4	81	— 1	·642	—·012	8·0	—0·1	4·64	5·27	—0·63
adras	0	93·8	—0·2	78·0	+0·1	85·9	0	15·8	25·5	+0·8	+ 8	72	0	·799	—·012	6·6	+0·1	5·45	5·37	+0·08

Tabl

(2) Abstract of observations taken at 8 hrs. at 23

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	I.—Burma.																						
2	Mergui	56	29·817†	+·007†	29·804†	29·895	14th	29·717	23rd	·178	78·0	84·3	−1·4	73·7	+0·6	79·1	−0·4	10·6	89·4	8th & 11th.	71·9	22nd	17·5
	Tavoy	19	29·843	−·002	29·794	29·933	14th	29·742	23rd	·191	77·4	83·0	−1·8	74·8	+0·1	78·9	−0·9	8·2	88·0	9th, 13th & 14th.	73·3	15th	14·7
	Moulmein	94	29·740	+·018	29·772	29·845	13th	29·626	23rd	·219	77·8	84·8	+0·2	75·2	+0·4	80·0	+0·3	9·6	89·0	9th	73·3	4 days	15·7
	Rangoon	18	29·782	+·002	29·738	29·907	13th	29·673	5th	·234	79·8	85·7	−0·8	77·1	+0·6	81·4	−0·1	8·6	89·6	15th	74·4	22nd	15·2
	Bassein	27?	29·753	+·005	29·717	29·888	14th	29·644	23rd	·244	79·1	86·1	−0·2	76·5	+0·2	81·3	0	9·6	89·7	10th	74·9	3rd, 21st & 22nd.	14·8
	Diamond Island	41	29·750	+·008	29·726	29·885	14th	29·640	1st	·245	81·6	85·4	−0·2	77·0	+0·6	81·2	+0·2	8·4	87·4	2nd & 4th	74·2	21st, 22nd & 23rd.	13·2
	Toungoo	164	29·618	+·007	29·724	29·757	13th	29·524	6th	·233	79·8	89·0	−0·1	75·7	+0·2	82·4	+0·1	13·3	93·0	1st	73·3	26th	19·7
	Kyaukpyu	18	29·714		29·673	29·874	14th	29·586	6th	·288													
	Akyab	20	29·700	−·001	29·663	29·875	14th	29·576	6th	·299	79·1	84·8	−1·2	76·9	−1·2	80·9	−1·2	7·9	88·9	17th	73·5	20th	15·4
2	Thayetmyo	121	29·622†	−·003†	29·685†	29·753	13th	29·515	6th	·238	80·5	90·1	−1·3	76·9	+0·1	83·5	−0·6	13·2	93·5	15th & 17th.	74·9	21st, 22nd & 27th.	18·6
	Minbu	*165*	29·564	−·002	29·674	29·684	14th	29·469	6th	·215	80·3	89·7†	−3·3†	77·4	−0·4	83·5†	−1·9	12·3	96·8	20th	75·5	27th	21·7
	Yamethin	657	29·091§	−·003§	29·706§	29·222	13th	28·989	6th	·233	75·8†	88·9	−3·0	75·3	0	82·1	−1·5	13·6	92·3	15th	73·5	20th, 21st & 26th.	18·4
	Mandalay	250	29·492	+·017	29·694	29·618	14th	29·405	6th	·213	81·7	93·4	−1·6	77·8	−0·7	85·6	−1·2	15·6	98·0	15th	74·4	1st	23·6
	Monywa	*280*	29·452†		29·671†	29·874	13th	29·374	21st	·203	81·9	92·1		78·6		85·4		13·5	97·8	15th & 16th.	74·1	1st	23·7
	Lashio	*2,751*	26·971‡	−·018†	26·920†	27·085	13th & 14th	26·898	21st	·188	73·6	83·2	−2·3	69·8	+0·5	76·5	−0·9	13·4	87·8	5th	68·0	1st, 15th & 17th.	19·8
	Bhamo	*381*	29·326‡	−·001‡	29·862‡	29·445	15th	29·251	5th	·194	78·7	95·2	−0·3	75·3	+0·4	82·8	+0·1	14·9	98·4	6th	72·1	12th	26·3
	Myitkyina	458	29·240‖		29·658‖	29·851	14th	29·16[illegible]	23rd	·192	78·1	88·8		75·1		82·0		13·7	97·7	4th	72·5	11th & 17th	25·2
	II.—Eastern Bengal and Assam.																						
6	Dibrugarh	353	29·310		29·623	29·442	13th	29·205	3rd	·237	77·7	86·5		73·7		80·1		12·8	95·4	2nd, 4th & 5th.	70·1	11th & 16th.	25·7
	Sibsagar	333	29·342†	−·009†	29·630†	29·474	13th & 14th	29·269	7th	·205	79·7	87·8	−1·5	71·8	−4·6?	79·8	−3·1?	16·0	94·6	4th & 5th.	69·6	4 days	25·1
	Tezpur	252	29·411		29·621	29·545	14th	29·338	29th	·207	79·0	88·6		77·5		83·0		11·1	96·1	4th	74·4	11th & 17th.	21·7
	Gauhati	195	29·469		29·619	29·624	13th	29·374	29th	·250	80·0	88·2		76·9		82·6		11·3	95·8	4th	72·6	28th	23·2
	Dhubri	115	29·553†	−·003†	29·604†	29·704	14th	29·439	30th	·265	78·6	84·0	−1·7†	76·3	−0·1	80·2†	−0·9	7·7	91·5	5th	72·3	11th	19·2
	Silchar	104	29·569‡	+·002‡	29·615‡	29·766	13th	29·474	29th	·292	80·1	89·3†	−0·1†	76·6	+0·4	82·9†	+0·2	12·7	95·8	1st	72·8	21st	23·0
5	Cox's Bazar	36	29·653		29·633	29·853	14th	29·526	7th	·337													
	Chittagong	87	29·592	−·005	29·627	29·812	14th	29·467	6th	·345	80·8	87·3	+0·7	76·8	+0·2	82·1	+0·5	10·5	90·5	5th & 25th	73·5	18th & 20th.	17·0
	Noakhali	43	29·636		29·626	29·841	14th	29·523	6th & 7th.	·318	80·5	85·4		77·5		81·5		7·9	88·8	1st & 23rd	74·9	5th	13·9
	Barisal	12	29·632	−·002	29·590	29·837	14th	29·505	6th	·332	81·2	87·4	−1·3	77·6	−0·6	82·5	−1·0	9·8	91·8	23rd	73·1	21st	18·7
	Comilla	36	29·627		29·611	29·831	14th	29·518	6th	·313	80·9	88·7							92·8	1st			
	Narayanganj	26	29·614†	0†	29·538†	29·778	14th	29·507	6th	·271	82·5	89·0	0	78·3	0	83·7	0	10·7	93·5	1st	75·8	18th & 26th.	17·7
	Faridpur	46	29·598		29·594	29·793	14th	29·483	6th	·311	81·7	87·8		77·4		82·6		10·4	91·3	1st, 16th & 23rd.	74·4	10th	16·9
	Sirajganj	49	29·587		29·586	29·791	14th	29·483	29th	·309	81·8	87·2		77·5		82·4		9·7	92·4	1st	73·8	19th	18·6
	Mymensingh	63	29·555	−·003	29·609	29·780	14th	29·493	7th & 29th	·287	81·7	88·5	+1·3	77·6	+0·7	83·0	+1·0	10·9	93·6	1st & 7th	74·6	17th	19·0
	Bogra	75	29·568?	+·007?	29·595†	29·754	14th	29·473	30th	·279	81·8	88·6	−1·2	78·2	+1·0	83·3	−0·1	10·4	93·7	7th	73·2	10th	20·5
	Rampur Boalia	70	29·555†		29·574†	29·753	14th	29·435	7th	·320	82·8	89·9		78·8		84·4		11·1	97·1	1st	74·1	10th	23·0
	Malda	72	29·525		29·548	29·681	13th	29·410	7th	·271	81·9	90·4		78·0		84·2		12·4	97·3	1st	73·5	10th & 19th.	23·8
	Dinajpur	123	29·489	−·009	29·567	29·674	14th	29·400	29th	·274	80·9	89·1	−0·4	77·4	−0·1	83·3	−0·3	11·7	97·3	5th	73·0	11th	24·2
	Rangpur	123	29·517		29·595	29·695	14th	29·421	30th	·275	80·9	87·3		74·7		81·0		12·6	93·6	4 days	70·0	19th	23·6

† Mean of 29 days.
‡ „ „ 28 „
§ „ „ 27 „
‖ „ „ 25 „

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

NOTE—The barometric readings are not reduced to sea-level, in the cases of hill or plateau stations, the elevations of which exceed 1,200 feet.

B.

stations in India, etc., in June, 1909.

Wind direction. Number of winds from Calm. (25)	N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st May to 30th June, 1909. (53)	Normal rainfall for period, 1st May to 30th June. (54)	Departure from normal of period, 1st May to 30th June, 1909. (55)	Heaviest rainfall during month. (56)	Station. (57)
																																I.—Burma.
			4	8	14	6			S 14° E	S 79° W		1·8		70	+19	94	+ 3	·891	—·003	5·3	—2·0	25	24·20	+0·80	36·20	30·29	+5·91	55·98	49·55	+6·43	6·34	Mergui.
30									(a)	S 55° W	1·1*	2·1	—1·0			92	0	·8.3	—·015	8·1	+0·5	27	25·80	+1·20	42·11	39·88	+2·23	71·04	65·93	+5·11	3·65	Tavoy.
6	1		1	4	1	3			S 2° E	S 14° E	3·9	3·7	+0·2	58	+ 7	94	+ 2	·900	+·010	8·3	+0·4	27	25·10	+0·90	33·42	36·3[illegible]	—2·96	55·94	55·78	— 0·14	4·92	Moulmein.
4			3	2	1				S	S 37° W	5·1	5·1	0	6[illegible]	— 1	89	— 4	·911	—·017	9·1	+0·[illegible]	24	24·80	—0·80	17·85	17·52	+0·33	40·18	28·74	+11·44	2·03	Rangoon.
9			1	3	1	[illegible]			S 3° W	S 13° W	4·5‡	4·6	—0·1	50	— 3	94	+ 2	·910	+·001	9·2	+1·2	28	24·50	+3·50	26·59	23·42	+3·17	39·35	33·72	+5·63	3·11	Bassein.
				1	6	8			S 35° W	S 39° W	8·5	9·6	—1·1	82	+12	87	+ 4	·848	+·015	8·2	—0·2	19	21·73	—2·73	24·23	23·17	+1·06	37·16	33·60	+3·56	3·87	Diamond Island.
7			1	15	[illegible]	1			S 32° E	S 32° E	4·5	5·1	—0·6	66	—19	90	0	·918	—·008	9·3	+0·[illegible]	16	20·80	—4·80	10·6[illegible]	14·15	—3·50	21·60	20·43	+1·26	2·19	Pourgoo.
			5	20	4	1			S 43° E		4·8			87						6·0		28			41·82			52·76			5·85	Kyaukpyu.
4			2	15	6	2	1		S 29° E	S 48° E	4·3	3·8	+0·5	65	+17	95	+ 2	·937	—·035	9·0	0	30	24·40	+5·60	53·58	44·79	+8·79	61·21	56·67	+4·57	5·68	Akyab.
				10	11	5			S 2° E	S 6° E	7·7*	7·7		73	—14	85	+ 2	·881	+·007	9·2	+0·9	14	13·90	+0·10	5·05	6·34	—1·31	15·39	10·47	+4·92	0·63	Thayetmyo.
1				26	[illegible]				S 41° E	S 48° E	6·0	11·7	—5·7	83	+18	84	+ 2	·863	—·027	8·6	+2·9	7	9·10	—2·10	5·60	4·54	+1·06	16·28	10·55	+5·73	1·96	Minbu.
				19	11				S 28° E	S 29° E	6·3	9·9	—3·6	80	+ 3	85†	+ 4	·832†	—·018	8·0	+3·7	12	7·40	+4·60	5·17	4·26	+0·91	16·48	11·02	+5·46	1·66	Yamethin.
6				15	8	3			S 20° E	S 1° W	7·6	8·8	—1·2	60	— 3	77	+ 2	·820	—·046	7·3	+0·7	8	6·50	+1·50	5·0[illegible]	5·79	—0·77	11·65	11·34	+0·35	1·60	Mandalay.
1				21	8				S 33° E		5·4			80		81		·885		8·9		5	6·80	—1·80	6·27	5·26	+1·01	10·91	8·80	+2·11	3·97	Monywa.
10		1	1		6	11		1	S 29° W		3·8*			46		83	+ 1	·729	—·001	8·3	+0·6	20			15·12	10·70	+4·42	21·72	16·83	+4·89	2·78	Lashio.
28		2							N 45° E	N 81° W	1·3	2·4	—1·1	3	— 7	94	+ 5	·927	+·011	8·1	+0·5	18	19·10	—1·10	13·81	13·72	+0·09	18·58	20·18	—1·60	2·04	Bhamo.
19	1	2	5	3					N 88° E		2·2*			28		91		·872		9·2		19			15·50			17·43			4·00	Myitkyina.
																																II.—Eastern Bengal and Assam.
12	3	7	3	1	1		1	2	N 39° E		2·1			33		92		·865		8·4		21	18·10	+2·90	25·06	19·03	+6·83	40·63	33·63	+7·00	3·39	Dibrugarh.
6	1	10		2	4	7			S 56° E	N 70° E	2·5	2·8	—0·3	1[illegible]	—12	88	— 4	·891	—·044	8·1	—0·7	18	16·70	+1·30	14·69	13·59	+1·10	24·05	26·21	—2·16	3·13	Sibsagar.
27		2	1						N 59° E		2·2			7		91		·906		8·1		16	16·00	0	6·92	11·87	—4·95	15·63	21·9[illegible]	—6·36	1·00	Tezpur.
21	2	3		2	1		1		N 55° E		1·6			16		90		·929		8·3		21	14·50	+6·50	18·37	11·22	+7·15	28·60	20·98	+7·62	3·43	Gauhati.
10		5	11	2		2			N 87° E	N 77° E	7·5‡	5·7	+1·8	49	+ 5	92	+ 1	·911	+·009	5·3	—2·8	19	18·10	+0·90	42·17	23·17	+19·00	53·52	38·60	+14·92	14·50	Dhubri.
21			3	1		1		1	N 73° E	N 85° E	3·6§	2·8	+0·8	7	+ 2	91	+ 2	·945	+·022	6·5	—2·5	26	21·10	+4·90	21·58	21·99	—0·41	35·09	39·23	—4·14	3·25	Silchar.
2		1	8	11	3	2			S 51° E		6·1			73						7·2		22			18·30			27·88			2·98	Cox's Bazar.
4			3	16	6	1			S 37° E	S 44° E	6·3	7·0	—0·7	72	— 2	85	— 1	·888	—·034	8·1	+0·3	16	16·74	—0·74	15·83	21·76	—5·93	24·03	32·07	—8·04	4·12	Chittagong.
1			5	20	3	1			S 45° E		7·3			83		89		·923		6·7		23	18·39	+4·61	22·44	23·29	—0·85	47·45	33·35	+14·10	4·74	Noakhali.
4		1	3	9	10	3			S 24°	S 17° E	3·4	4·4	—1·0	66	+25	93	+ 6	·992	+·008	8·0	—0·1	22	16·52	+5·48	22·14	15·02	+7·12	33·97	24·21	+6·76	4·43	Barisal.
1			5	16	8				S 40° E		5·4			80		88		·937		5·0		19	17·39	+1·61	12·83	17·91	—5·03	32·43	28·92	+3·51	2·81	Comilla.
		1	8	10	7	2	1		S 39° E	S 32° E	5·8	7·6	—1·8	66	— 4	88	— 1	·971	—·011	8·7	+0·2	13	15·39	—2·39	9·90	12·64	—2·74	14·04	22·08	—8·04	2·28	Narayanganj.
1			3	13	11	1	1		S 28° E		4·4			80		89		·975		7·8		18	14·28	+3·72	12·81	12·75	+0·06	19·05	21·05	—1·99	2·05	Faridpur.
11		1	2	10	4	2			S 31° E		3·5			50		89		·967		7·4		17	13·32	+3·68	13·43	11·57	+1·86	19·64	19·52	+0·12	2·99	Sirajganj.
4			9	9	6	2			S 45° E	S 61° E	3·2	4·0	—0·8	66	— 1	88	— 2	·955	+·018	8·6	+1·0	21	18·19	+2·81	21·79	17·34	+7·45	28·71	30·30	—1·59	4·65	Mymensingh.
13		1	9		7				S 57° E	S 66° E	2·3	4·0	—1·7	40	—27	84	— 4	·908	—·044	5·0	—1·7	19	14·35	+4·65	24·29	12·90	+11·39	32·24	20·94	+11·30	7·40	Bogra.
19			2	4	2	3			S 23° E		6·3			27		81		·951		6·4		15	12·58	+2·42	13·30	10·70	+2·60	15·32	16·24	—0·92	5·94	Rampur Boalia.
2	1	1	8	12	2	2	1	1	S 54° E		6·4			57		90		·985		5·2		16	12·16	+3·84	14·44	9·89	+4·55	16·19	13·74	+2·45	3·20	Malda.
2		3	11	6	3	1	2	2	S 72° E	S 78° E	5·4	4·4	+1·0	46	—28	89	0	·938	+·010	7·5	—0·5	20	13·45	+6·55	27·42	13·17	+14·25	29·40	21·62	+7·78	5·32	Dinajpur.
9		2	6	7	4	2			S 51° E		2·0			47		88		·933		4·2		20	15·61	+4·39	40·42	20·01	+20·41	45·98	30·32	+15·66	7·71	Rangpur.

(a) Indeterminate.

* Uncorrected for scale error.

Tabl

(2) *Abstract of observations taken at 8 hrs. at 239 station*

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	* 4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	II.—Eastern Bengal and Assam—*concld.*																						
5	Jalpaiguri	283	29·365**	—·031**	29·605**	29·529	14th	29·277	6th	·252	79·5	87·9	0	76·4	+1·2	82·2	+0·6	11·5	95·9	6th	70·9	11th	25
	Cooch Behar	156	29·489		29·600	29·671	13th	29·397	29th	·274	79·2	86·0		76·5		81·2		9·5	93·3	4th & 5th	71·6	11th	21
	III.—Bengal.																						
6	Sangor Island	25	29·576	—·007	29·545	29·785	14th	29·384	6th	·401	84·0	89·0	—1·4	80·0	—1·7	84·5	—1·6	9·0	93·5	1st	75·0	20th	18
	Midnapore	149	29·448		29·543	29·652	14th	29·269	6th	·383	82·8	91·2		78·7		85·0		12·5	97·2	21st	74·7	21st	22
	Calcutta	21	29·585	—·001	29·551	29·793	14th	29·418	6th	·381	82·3	89·5	—1·6	78·4	—0·1	84·0	—0·9	11·1	95·2	21st	75·0	22nd	20
	Jessore	33	29·584	—·005	29·564	29·798	14th	29·448	6th	·350	81·9	88·5	—3·0	77·6	—1·2	83·1	—2·1	10·9	94·0	1st	73·7	10th	20
	Krishnagar	47	29·563		29·558	29·780	14th	29·429	7th	·351	81·8	90·0		78·8		84·4		11·2	96·6	21st	75·0	19th	21
	Burdwan	99	29·502	—·004	29·549	29·723	14th	29·344	6th	·379	82·3	90·6	—3·2	79·0	—0·3	84·8	—1·8	11·6	98·4	21st	76·8	10th & 18th.	21
	Bankura	313	29·265		29·527	29·471	14th	29·089	7th	·382	82·5	90·9		78·6		84·7		12·3	97·1	21st	76·2	6th	20
	Raniganj	334	29·262		29·547	29·470	14th	29·089	7th	·381	81·3	90·7		78·1		84·5		12·6	96·5	1st & 21st	75·0	10th	21
	Berhampore	67	29·539	—·006	29·555	29·748	14th	29·401	7th	·347	82·1	89·8	—2·6	78·4	—0·1	84·1	—1·4	11·4	94·6	21st	75·2	10th	19
	Naya Dumka	489	29·098		29·541	29·291	14th	28·941	7th	·350	82·0	90·3		77·7		84·0		12·6	97·4	1st	73·5	11th	23
7	Balasore	50	29·551	—·002	29·545	29·759	14th	29·354	6th	·405	82·2	90·2	—1·7	78·0	—0·6	84·1	—1·2	12·2	95·9	23rd	76·1	8th & 19th.	19
	False Point	21	29·609?	+·008?	29·571?	29·799	14th	29·413	6th	·386	82·9	88·1	—2·2	77·4	—2·7	82·8	—2·5	10·7	96·1	21st	72·6	10th	23
	Cuttack	80	29·533	+·001	29·556	29·730	14th	29·325	6th	·405	82·3	91·7	—3·8	78·2	—1·9	84·9	—2·9	13·5	98·4	21st	75·2	8th	23
	Puri	24	29·595		29·558	29·791	14th	29·377	6th	·414	81·1	88·8		79·5		84·2		9·3	92·6	23rd & 24th.	62·6	18th	20
	Angul	455	29·153		29·565	29·344	14th	28·942	6th	·402	81·6	90·7		77·2		84·0		13·5	97·1	21st	74·0	8th & 11th.	23
	Sambalpur	486	29·118	—·011	29·550	29·292	14th	28·825	6th	·407	81·6	91·2	—6·1	77·6	—3·1	84·4	—4·6	13·6	104·1	1st	73·6	8th	30
8	Chaibassa	*738*	28·819‡	—·009‡	29·529‡	29·059	14th	28·635	6th	·424	80·8	92·0	—4·2	77·3	—1·5	84·7	—2·9	14·7	99·3	11th	74·7	11th	24
	Ranchi	2,128	27·487‡	—·011‡	29·547‡	27·680	14th	27·262	7th	·418	77·3	86·5	—4·6	73·8	—0·8	80·2	—2·7	12·7	93·2	1st & 2nd.	70·9	9th, 11th & 21st.	22
	Purulia	*816*	28·766		29·527	28·971	14th	28·562	7th	·409	80·3	90·9		77·1		84·0		13·8	98·5	21st	73·6	9th	24
	Hazaribagh	2,007	27·593	—·014	29·531	27·776	14th	27·370	7th	·406	78·9	88·6	—3·9	74·5	—1·3	81·6	—2·6	14·1	94·7	1st & 2nd.	71·8	8th & 10th.	22
	Daltonganj	*730*	28·847		29·527	29·026	14th	28·631	7th	·395	82·2	93·4		78·2		85·8		15·2	101·6	1st	70·0	21st	31
9	Purnea	134	29·474	—·006	29·562	29·661	14th	29·334	10th	·327	81·0	89·0	—3·1	76·9	—0·4	83·0	—1·8	12·1	97·0	1st	72·2	11th & 19th.	24
	Bhagalpur	160	29·424		29·536	29·618	14th	29·189	10th	·420	82·6	90·9		77·7		84·3		13·2	98·2	1st & 4th	74·3	11th & 19th.	23
	Monghyr	155	29·416		29·522	29·601	14th	29·207	10th	·394	82·2	90·8		77·6		84·2		13·2	101·9	1st	67·4	10th	34
	Darbhanga	165	29·416	—·019	29·536	29·596	14th	29·281	7th	·315	81·9	90·4	—2·0	78·7	—0·5	84·6	—1·3	11·7	101·1	1st	74·3	10th	29
	Pusa	188	29·392		29·533	29·568	14th	29·244	7th	·324	82·3	91·7		77·5		84·7		14·2	103·3	1st	73·0	10th	30
	Muzaffarpur ‡	178	29·406		29·538	29·589	14th	29·266	7th	·323	82·4	90·6		78·2		84·4		12·4	101·2	1st	73·5	11th	27
	Motihari	221	29·357		29·536	29·545	14th	29·228	7th	·317	82·3	91·1		78·0		84·6		13·1	99·4	4th	70·8	19th	28
	Chapra	181	29·385		29·519	29·559	14th	29·172	9th	·387	82·9	92·8		78·3		85·6		14·5	102·2	1st	73·4	11th	28
	Patna	183	29·384	—·019	29·519	29·556	14th	29·218	7th	·338	83·5	91·4	—5·0	79·0	—1·0	85·2	—3·0	12·4	102·5	2nd	73·7	11th	28
	Arrah	190	29·375		29·516	29·556	14th	29·086	9th	·470	84·0	92·5		79·2		85·8		13·3	102·9	2nd	75·2	16th	27
	Buxar	239	29·315		29·508	29·486	14th	29·144	8th	·342	83·4	92·7		78·2		85·5		14·5	103·0	2nd	73·1	1st	29
	Dehri	351	29·201		29·503	29·370	14th	29·017	7th	·353	83·8	93·7		79·4		86·5		14·3	103·3	1st & 2nd	75·0	9th & 16th.	28
	Gaya	372	29·188	—·017	29·511	29·370	14th	28·988	7th	·382	83·9	93·7	—5·9	79·2	—1·0	86·5	—3·5	14·5	104·4	1st	75·2	10th & 11th.	29
	IV.—United Provinces of Agra and Oudh.																						
10	Gorakhpur	257	29·213	—·002	29·526	29·497	14th	29·184	7th	·313	83·3	91·3	—5·6	77·0	—2·7	84·1	—4·2	14·3	99·1	4th & 5th	71·5	1st & 2nd	27
	Benares	267	29·288	—·009	29·508	29·460	14th	29·098	8th	·362	84·3	93·9	—6·2	79·2	—2·7	86·6	—4·5	14·7	103·1	3rd	72·1	18th	31
	Allahabad	309	29·248	—·004	29·508	29·407	14th	29·081	7th	·326	84·3	94·5	—7·2	79·1	—3·4	86·8	—5·3	15·4	104·6	1st & 5th	76·0	2nd & 3rd	28

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

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

* Mean of 22 days.

‡ Mean of 29 days.

** Mean of 14 days.

3—*continued.*

in India, etc., in June, 1909—continued.

Wind direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 30th June, 1909.	Normal rainfall for period, 1st May to 30th June.	Departure from normal of period, 1st May to 30th June, 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																II.—Eastern Bengal and Assam—*concld.*
20	1	3	4	1		1			N 75° E	S 86° E	3·1			23	−35	89	0	·906	−·001	8·5	+3·3	22	18·66	+ 3·34	41·11	22·86	+18·25	47·37	34·90	+12·47	5·90	Jalpaiguri.
0		1	8	4	4	2	1		S 48° E		2·3			40		90		·903		8·5		22	19·24	+ 2·76	52·00	32·15	+19·85	68·55	47·41	+21·14	10·42	Cooch Behar.
																																III.—Bengal.
		2	2	3	12	9	2		S 8° W	S 11° W	15·0	15·9	−0·9	62	+ 3	87	+ 2	1·016	+·002	8·2	−0·3	20	12·10	+ 7·90	16·09	10·02	+ 6·07	20·32	15·11	+ 5·21	2·60	Saugor Island.
1	2	5	2	5	15				S 25° E		3·2			53		83		·921		6·0		14	12·00	+ 2·00	10·57	10·51	+ 0·06	11·78	16·20	− 4·42	2·16	Midnapore.
1			8	4	5	12			S 9° E	S 4° E	5·0†	5·9	−0·9	53	+ 5	88	+ 3	·974	+·002	7·6	+0·3	22	12·88	+ 9·12	22·63	11·35	+11·28	27·15	17·03	+10·12	3·68	Calcutta.
5				10	8	5	2		S 5° E	S 27° E	3·2	4·5	−1·3	62	+10	87	− 1	·960	−·019	8·1	+0·2	18	14·55	+ 3·45	13·13	12·56	+ 0·57	16·32	20·50	− 4·18	2·98	Jessore.
5		6	8	8	3				S 32° E		3·6			63		91		·988		6·6		16	12·19	+ 3·81	11·20	9·88	+ 1·32	18·11	16·43	+ 1·68	1·86	Krishnagar.
4	1	7	3	5	7	3			S 10° E	S 4° E	3·2	4·9	−1·7	37	− 7	87	+ 5	·958	+·026	8·2	+0·7	18	12·71	+ 5·29	10·63	9·92	+ 0·71	17·23	16·27	+ 0·96	1·89	Burdwan.
0		3	5	8	2	2			S 13° E		3·4			43		83		·913		6·6		17	11·89	+ 5·11	18·44	10·32	+ 8·12	20·56	14·21	+ 6·35	4·66	Bankura.
5		4	8		3				S 45° E		2·2			37		89		·957		7·0		18	12·21	+ 5·79	7·86	9·93	− 2·07	11·32	13·70	− 2·38	1·50	Raniganj.
1		10	7		2				S 39° E	S 38° E	6·9	4·7	+1·3	69	+17	86	− 3	·952	−·020	8·5	+0·4	16	12·00	+ 4·00	10·45	9·54	+ 0·91	13·62	14·95	− 1·33	3·77	Berhampore.
6	1	3	6	3	1				S 45° E		3·9			33		84		·915		5·3		14	12·03	+ 1·97	13·34	9·96	+ 3·38	14·33	13·56	+ 0·77	3·83	Naya Dumka.
9	1	2		6	11			1	S 33° W	S 32° W	2·9	7·2	−4·3	43	−16	84	− 1	·901	−·081	6·7	−1·3	16	11·00	+ 5·00	11·76	11·32	+ 0·44	14·21	17·29	− 3·08	2·14	Balasore.
	1	2		3	14	7	3		S 58° W	S 43° W	9·4	12·5	−3·1	62	− 5	84	0	·951	−·045	8·0	0	15	9·27	+ 5·73	10·77	8·30	+ 2·47	14·85	13·53	+ 1·32	2·00	False Point.
1	1	2		1	8	6	1		S 61° W	S 47° W	2·4†	4·0	−1·6	37	−22	82	+ 4	·916	+·003	7·2	+0·2	17	11·26	+ 5·74	8·17	10·82	− 2·65	10·46	15·06	− 4·60	1·96	Cuttack.
5	5	1			17	2			S 65° W		12·7			47		82		·975		6·5		11	8·11	+ 2·89	9·70	7·99	+ 1·71	9·95	10·88	− 0·93	3·60	Puri.
9	2	2	3	3		2	2	6	N 14° W		5·9			14		83		·891		6·2		15			9·81			11·03			1·40	Angul.
	1			3	4	20	2		S 36° W	S 23° W	5·2	5·2	0	76	+18	81‖	+ 7	·892‖	+·033	7·8	+1·2	19	10·40	+ 8·60	17·97	11·35	+ 6·62	18·00	12·97	+ 5·03	3·23	Sambalpur.
5		1	1	2	2	15	1	3	S 43° W	S 52° W	3·4	2·9	+0·5	49	+ 8	80	+ 4	·831	−·039	7·6	+1·8	11	11·29	− 0·29	7·43	9·51	− 2·08	8·33	12·85	− 4·52	1·37	Chaibassa.
1	1	2	4	2	5	5	10		S 42° W	S 42° W	7·6	8·7	−1·1	32	−12	83	+ 7	·770	+·008	7·3	+1·4	14	12·47	+ 1·53	10·57	10·36	+ 0·21	12·07	12·44	− 0·37	2·25	Ranchi.
3		4	3	4	6	5	5		S 1° E		3·5			30		93		·962		7·1		17	12·39	+ 4·61	7·66	10·07	− 3·41	10·01	12·99	− 2·98	1·15	Purulia.
	1		4	3	6	5	6	5	S 44° W	S 27° W	8·1	9·3	−1·2	33	−11	77	+ 5	·746	+·007	7·4	+0·2	14	11·19	+ 2·81	6·37	9·11	− 2·74	6·45	11·44	− 4·99	1·24	Hazaribagh.
29									(a)		3·2					83		·905		6·4		17	8·48	+ 8·52	10·16	6·10	+ 4·06	10·19	7·14	+ 3·05	2·36	Daltonganj.¶
1	1	23	3	1					N 50° E‡	N 84° E	4·0	4·0	0	82	+16	91	+ 5	·953	+·021	7·6	+0·8	21	11·50	+ 9·50	29·59	10·02	+19·57	32·65	14·79	+17·86	5·39	Purnea.
7		2	6	7	2	2	4		S 45° E		3·6			33		83		·932		7·0		14	9·90	+ 4·10	21·44	8·28	+13·16	24·28	11·07	+13·21	5·99	Bhagalpur.
2	1	2	12	7	1	1	2	2	S 78° E		8·5			47		90		·990		7·5		17			19·43			19·92			4·72	Monghyr.
11		1	15			2	1		S 87° E	S 75° E	5·1	6·0	−0·9	43	−34	86	+ 4	·918	+·024	7·0	+1·6	17	8·43	+ 8·57	26·89	8·14	+18·75	28·25	11·21	+17·04	6·59	Darbhanga.
4		3	17	2			4		N 87° E					57		85		·940		4·9		18			28·96			30·30			5·43	Pusa.
	11		3	4				11	N 7° W		6·8			55		85		·928		5·1		16	8·06	+ 7·94	23·25	7·25	+16·00	23·89	9·65	+14·24	4·01	Muzaffarpur.
1		5	17	1	4	1	1		S 84° E		4·3			67		86		·941		5·9		16	9·39	+ 6·61	14·14	8·90	+ 5·24	15·67	11·55	+ 4·12	3·80	Motihari.
																82		·928		6·5		15	7·61	+ 7·39	9·50	6·40	+ 3·10	9·55	7·75	+ 1·80	1·31	Chapra.
3		2	17	2	2	2	1	1	S 80° E	S 87° E	10·1	5·6	+4·5	56	− 7	83	+ 6	·950	+·039	6·7	+0·9	15	7·81	+ 7·19	13·98	8·54	+ 5·44	14·12	10·47	+ 3·65	4·07	Patna.
4	2	4	7	5	3	3	2		S 66° E		4·0			33		79		·920		6·3		12	7·90	+ 4·10	11·84	6·95	+ 4·89	11·89	8·42	+ 3·47	2·45	Arrah.
2	1	1	17	1	2	4	2		S 74° E		6·2			50		82		·900		7·2		14	8·06	+ 5·94	11·51	5·44	+ 6·07	12·00	6·26	+ 5·74	3·10	Buxar.
			8	4	6	7	4	1	S 4° E		3·2			43		79		·914		7·4		15	8·06	+ 6·94	16·24	6·53	+ 9·71	16·24	7·35	+ 8·89	4·45	Dehri.
3		9	3	4	1	3	7		N 82° E	S 68° E	3·7	4·9	−1·2	10	−13	80	+ 5	·927	+·011	6·4	+1·1	16	8·32	+ 7·68	16·79	7·43	+ 9·36	16·79	8·41	+ 8·38	6·56	Gaya.
																																IV.—United Provinces of Agra and Oudh.
13	2	10	2	1	1		1		N 50° E	N 81° E	§2·5	3·2	−0·7	37	−13	85	+ 6	·967	+·061	3·7	−1·2	16	7·70	+ 8·30	14·67	9·09	+ 5·58	14·78	10·43	+ 4·35	3·07	Gorakhpur.
3	2	3	9	4		3	4	2	N 84° E	S 89° E	4·5	5·2	−0·7	20	0	80	+ 8	·753	−·094	6·3	+0·7	13	6·80	+ 6·20	11·83	6·23	+ 5·60	11·97	6·87	+ 5·10	2·55	Benares.
	2	8	6			4	7	3	N 2° W	N 46° E	4·9	8·0	−3·1	23	+10	76	+10	·890	+·065	6·8	+1·0	10	6·20	+ 3·80	10·96	6·42	+ 4·54	11·02	6·71	+ 4·31	2·61	Allahabad.

(a) Indeterminate.
§ Mean of 27 days.
¶ Wind one less.

† Uncorrected for scale error.
‖ Mean of 19 days.

Tabl

(2) *Abstract of observations taken at 8 hrs. at 239 station*

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	IV.—United Provinces of Agra and Oudh—*concld.*																						
10	Cawnpore	416	29·137	—·003	29·507	29·291	14th	29·010	29th	·281	81·8	96·7	—4·4	78·8	—3·2	87·8	—3·8	17·9	106·7	1st	75·0	13th	31·7
	Lucknow	368	29·200*	+·007*	29·525*	29·356	14th	29·066	29th	·290	83·5	95·1	—5·4	78·7	—2·6	85·9	—4·0	16·4	105·0	1st	72·1	12th & 15th.	32·9
	Bahraich	401	29·172†	—·006†	29·525†	29·332	14th	29·063	7th	·269	83·6	95·7	—1·7	78·6	—0·6	87·2	—1·2	17·1	104·1	25th	73·0	18th	31·1
11	Jhansi	824	28·756*	—·010*	29·522*	28·874	14th	28·639	6th	·235	87·7	99·7	—3·1	82·6	—1·4	91·2	—2·3	17·1	110·5	1st	76·0	30th	34·5
	Agra	556	29·004*	—·001*	29·506*	29·143	14th	28·897	28th	·246	87·5	100·7*	—3·6*	82·1	—2·4	91·4*	—3·0	18·6	108·5	1st	74·0	17th	34·5
	Mainpuri	516	29·047*	+·007*	29·515*	29·191	14th	28·933	29th	·258	85·3	99·0*	—2·2*	79·8	—1·7	89·4*	—2·0	19·2	110·3	5th	75·1	7th & 17th.	35·2
	Bareilly	568	28·996*	+·006*	29·524*	29·157	14th	28·891	29th	·266	82·7	91·7	—5·0	75·0	—1·8	86·4	—3·4	16·7	107·3	5th	71·0	20th	36·3
	Meerut	738	28·810	—·007	29·504	28·587	14th	28·711	28th	·276	81·1	97·3	—3·3	78·1	—2·3	87·7	—2·8	19·2	106·6	5th	69·8	18th	36·8
	Roorkee	899	28·675‡	+·018‡	29·537‡	28·860	14th	28·570	10th	·290	82·7	93·4	—7·0	77·0	—1·6	85·2	—4·3	16·4	105·0	1st	68·9	16th	36·1
	Dehra Dun	2,233	27·379	—·014	29·539	27·558	14th	27·274	10th	·284	77·7	88·8	—4·2	72·4	—2·0	80·6	—3·1	16·4	98·5	1st	65·0	12th	33·5
	V.—Punjab.																						
12	Delhi	718	28·839‖	+·001‖	29·513‖	29·002	14th	28·725	10th	·277	85·2	98·9	—4·3	80·5	—2·8	89·7	—3·6	18·4	108·7	1st	71·2	18th	37·5
	Sirsa	662	28·849*	—·023*	29·462*	29·035	14th	28·726	6th	·309	89·7	101·4	—2·3	82·5¶	—0·5¶	93·7¶	—1·4	21·9	112·3	1st	71·6	19th	40·7
	Patiala	*818*	28·753		29·529	28·950	14th	28·633	10th	·317	81·9	97·0		78·3		87·7		18·7	108·4	1st	71·1	19th	37·3
	Ambala	892	28·655*	—·012*	29·503*	28·847	14th	28·549	10th	·298	84·1	93·8	—2·6	78·1	—2·1	88·5	—2·4	20·7	108·5	1st & 5th	70·0	18th	38·5
	Ludhiana	812	28·728	+·002	29·439	28·928	14th	28·616	10th	·312	84·9	100·8	—4·0	79·5	—1·2	90·2	—2·6	21·3	112·0	1st	72·0	17th	40·0
	Lahore	702	28·815	—·005	29·473	29·020	14th	28·680	11th	·340	83·2	105·4	—2·0	81·2	+1·9	93·3	—0·1	24·2	112·9	1st & 27th.	69·7	29th	43·2
	Sialkot	830	28·699	0	29·485	28·901	14th	28·579	11th	·322	88·0	102·8	—2·7	79·4	—1·1	91·1	—1·9	23·4	112·0	1st	69·5	12th	42·5
	Rawalpindi	1,674	27·858*	—·001*	29·498*	28·089	14th	27·774	10th	·315	88·0*	101·7	—1·1	75·7*	+0·4*	88·9*	—0·4	26·0	111·9	1st	68·9	3rd	43·0
13	Khushab	612	28·903	+·003	29·472	29·117	14th	28·769	10th	·348	90·5	106·[illegible]	—0·2	83·2	+0·8	95·1	+0·3	23·7	114·9	27th	73·9	3rd	41·0
	Montgomery	558	28·938*	—·007*	29·449*	29·137	14th	28·788	6th	·349	91·6	106·6	—3·4	83·1	—1·0	94·8	—2·2	23·5	114·4	6th	70·1	19th	44·3
	Multan	420	29·068*	—·011*	29·44[illegible]*	29·203	14th	28·884	28th	·379	92·6	109·0	+1·2	87·0‖	+3·3‖	98·1‖	+2·3	22·0	117·8	27th	79·0	2nd	38·8
	VI.—North-West Frontier Province.																						
15	Peshawar	1,110	28·425	—·016	29·493	28·662	14th	28·262	27th	·400	88·6	105·3	—0·6	77·6*	+0·3*	91·4*	—0·2	27·7	113·2	27th	68·9	4th	44·3
	D. I. Khan	590	28·910*	—·019*	29·437*	29·130	14th	28·730	27th	·400	90·4	106·9	—1·1	82·2	+1·0	91·6	—0·1	24·7	116·4	27th	75·6	2nd	40·8
	VII.—Sind.																						
17	Jacobabad	186	29·282	—·031	29·425	29·464	14th	29·112	28th	·352	92·8	111·[illegible]	+1·5	85·6	+1·2	99·9	+1·4	23·6	122·6	6th & 7th.	79·3	7th	43·3
	Hyderabad	96	29·418	—·030	29·465	29·580	14th	29·250	25th	·330	88·5	101·1	—0·1	82·8	+1·1	93·5	+0·5	21·3	115·5	5th	80·5	2nd	35·0
	Kurrachee	13	29·559	—·021	29·622	29·660	14th	29·399	28th	·281	85·9	91·0	+0·1	83·1	+0·6	87·0	+0·4	7·9	93·0	14th, 15th & 16th.	81·0	7th	12·0
	VIII.—Rajputana.																						
18	Bikaner	*771*	28·745	—·031	29·464	28·883	14th	28·566	6th	·323	91·6	108·8	+2·3	85·9	+0·7	97·4	+1·5	22·9	117·1	7th	73·0	30th	44·1
	Jodhpur	780	28·785	—·035	29·532	28·915	14th	28·618	6th	·298	87·6	103·1	—2·0	82·1	—0·6	92·7	—1·3	21·0	114·5	6th	72·8	29th & 30th.	41·7
	Pachpadra	*380*	29·183	+·007?	29·515	29·333	14th	28·994	7th	·339	88·9	105·4	—0·3	81·9	+0·7	93·6	+0·2	23·5	117·9	6th	78·2	13th	39·7
19	Jaipur	1,431	28·160	—·015	29·524	28·267	14th	28·022	6th	·265	88·1	103·1	+0·6	81·3	+0·2	92·2	+0·4	21·6	111·7	6th	73·1	30th	38·6
	Sambhar	1,254	28·330*	—·005*	29·521*	28·451	14th	28·176	6th	·275	88·9	104·1	+1·8	81·7	—0·7	92·9	+0·6	22·4	112·4	6th	71·9	29th	40·5
	Ajmer	1,611	27·993	—·021	29·533	28·120	14th	27·843	6th	·277	86·3	100·9	+0·4	83·5	+2·7?	92·2	+1·6?	17·4	109·9	7th	75·2	29th	34·7
	Kotah	819?	28·729‖	—·039‖	29·531‖	28·853	14th	28·551	6th	·292	89·0	102·9	—3·9	84·2	—2·8	93·6	—3·4	18·7	112·5	6th	74·1	28th & 30th.	38·4
	Udaipur	1,925	27·713	—·040	29·555	27·835	15th	27·541	6th	·294	84·7	95·9	—2·8	78·6	—0·7	87·2	—1·8	17·3	109·0	6th	70·3	28th	38·7
	IX.—Bombay.																						
20	Deesa	466	29·151	—·029	29·566	29·269	17th	28·998	6th	·271	85·8	102·0	+0·1	80·8	+0·2	91·5	+0·2	21·2	115·3	5th & 6th.	77·4	29th & 30th.	37·9
	Bhuj	395	29·212	—·021	29·555	29·331	16th	29·038	6th	·293	84·9	96·8	—0·7	79·9	+0·1	88·4	—0·3	16·9	109·5	5th & 6th.	75·5	20th	34·0

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

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

* Mean of 29 days. † Mean of 26 days. ‡ Mean of 27 days.

B—*continued.*

in India, etc., in June, 1909—continued.

Wind direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 30th June 1909.	Normal rainfall for period, 1st May to 30th June.	Departure from normal of period, 1st May to 30th June 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																IV.—United Provinces of Agra and Oudh—*concld.*
3	2	4	11	2	1	2	3	2	N.76° E	S 59° E	2·6	5·5	−2·9	30	+ 8	74	+ 9	·878	+·012	3·5	−1·9	9	5·00	+4·00	5·82	4·09	+ 1·73	5·82	4·40	+1·42	1·92	Cawnpore.
2	2	6	9	5	2	2	1	1	E	S 89° E	4·5	4·2	+0·3	45	+ 9	76	+ 7	·874	+·037	5·9	+0·1	12	6·10	+5·90	4·09	5·71	− 1·62	4·09	6·72	−2·63	0·58	Lucknow.
11	2		9	3	1		1		S 88° E	S 69° E	4·7	4·9	−0·2	36	−24	75	0	·831	−·034	6·4	+1·6	10	7·30	+2·70	9·58	6·53	+ 3·05	9·89	8·48	+1·41	3·50	Bahraich.
6		3	3	3		8	5	2	S 49° W	N 89° W	8·4	5·5	+2·9	23	− 8	66	+16	·838	+·137	4·1	+0·5	8	5·80	+2·20	5·60	6·06	− 0·46	5·63	6·47	−0·84	2·50	Jhansi.
2	1	5	4	8	2	5	1	4	S 72° E	S 16° W	7·2	6·5	+0·7	23	− 3	63	+ 9	·849	+·085	4·9	+1·1	7	3·90	+3·10	2·17	2·90	− 0·73	3·29	3·46	−0·17	1·24	Agra.
1	3	1	9	3	6	1	3	3	S 13° E	N 89° E	3·7	2·9	+0·8	23	+ 7	85	+19	1·030	+·218	1·5	−3·4	10	4·60	+5·40	5·66	4·73	+ 0·93	5·66	5·16	+0·50	2·58	Mainpuri.
19		1	5	4				1	S 80° E	S 55° E	2·3	4·3	−2·0	27	−14	90	+20	1·008	+·131	6·6	+2·2	11	4·91	+6·09	9·05	5·96	+ 3·09	9·14	6·72	+2·42	4·20	Bareilly.
15		1	8	2	3			1	S 72° E	S 60° E	1·5	2·7	−1·2	30	− 3	74	+12	·866	+·119	3·7	−0·5	9	4·00	+5·00	7·96	3·49	+ 4·47	8·18	4·09	+4·09	3·09	Meerut.
7		1		19				3	S 43° E	S 41° E	4·1*	3·6	+0·5	53	+12	75	+12	·814	+·036	3·9	−0·3	9	6·00	+3·00	11·31	5·31	+ 6·03	11·34	6·13	+5·21	4·26	Roorkee.
29							1		W	S 33° E	§† 1·5	1·7	−0·2	3	− 3	78	+ 8	·740	+·062	5·1	+0·1	15	10·00	+5·00	10·32	10·26	+ 0·06	10·54	11·95	−1·41	1·46	Dehra Dun.
																																V.—Punjab.
4	1	1	3	13	2	2	2	2	S 41° E	S 44° E	6·4	4·9	+1·5	40	+27	7	+16	·859	+·137	4·2	−0·8	8	4·10	+3·90	8·76	3·41	+ 5·35	10·40	4·13	+6·27	3·93	Delhi.
5		2	2	10	3	8			S 19° E	S 27° W	6·0	7·1	−1·1	49	+23	56	+ 7	804	+·091	1·5	−3·0	4	3·20	+0·80	1·83	1·79	+ 0·04	1·91	2·50	−0·59	0·96	Sirsa.
1	1	1	9	14	2	2			S 56° E		7·3			70		70		·831		3·9		7			9·69			10·45			5·30	Patiala.
6				22	1				S 43° E	S 61° E	6·1	2·5	+3·6	69	+17	69	+ 2	·791	−·028	3·5	+0·5	8	4·30	+3·70	3·99	6·29	− 2·30	4·10	7·02	−2·92	0·90	Ambala.
8		1		21					S 43° E	S 37° E	2·4	2·8	−0·4	66	+29	64	+ 8	·775	+·049	2·3	−1·0	6	3·50	+2·50	3·91	3·02	+ 0·89	4·10	3·63	+0·47	1·02	Ludhiana.
1	2		4	17	5			1	S 47° E	S 60° E	4·1	3·6	+0·5	66	+36	59	+ 7	·830	+·107	1·4	−1·4	4	2·30	+1·70	3·78	2·09	+ 1·69	3·86	2·91	+0·95	2·61	Lahore.
2	1	6	10	8	2	1			S 81° E	N 81° E	2·9	3·1	−0·2	67	+18	59	+ 7	·767	+·068	1·5	−0·5	5	3·60	+1·40	1·87	3·08	− 1·21	1·87	4·11	−2·24	0·69	Sialkot.
10	5	2	4	4	2	1	1	1	N 74° E	N 89° E	3·2	2·2	+0·4	23	+ 3	49*	− 1	·647*	+·027	2·1	−0·7	6	3·30	+2·70	2·73	2·01	+ 0·72	3·14	3·48	−0·34	1·22	Rawalpindi.
2	1	12	10	1	1	1		2	N 64° E	N 69° E	7·4	7·1	+0·3	62	+16	48	+ 5	·672	+·078	1·8	0	2	1·50	+0·50	1·07	1·72	− 0·65	1·14	2·50	−1·36	0·60	Khushab.
	3	2	5	4	6	6	2	2	S 13° E	S 3° W	8·4	9·5	−1·1	23	−14	47	+ 4	·673	+·006	1·7	+0·2	2	2·00	0	2·50	1·14	+ 1·36	2·50	1·41	+1·0	2·38	Montgomery.
5		5		8	2	8	1		S 17° E	S 3° W	2·5	3·3	−0·8	33	+ 3	55	+ 7	·826	+·124	1·1	+0·4	0	1·10	−1·10	0	0·62	− 0·62	0	0·92	−0·92	0	Multan.
																																VI.—North-West Frontier Province.
10	6	3			2	1	3	5	N 30° W	N 6° W	3·2	4·4	−1·2	33	+11	44	0	·578	−·015	1·7	−0·2	2	0·90	+1·10	0·42	0·30	+0·12	0·62	1·05	−0·43	0·25	Peshawar.
11	3	7		6	1			2	N 62° E	N 51° E	2·4	2·5	−0·1	30	+ 4	56	0	·791	−·003	2·6	+1·2	0	1·30	−1·30	0·11	0·65	−0·54	0·11	0·99	−0·88	0·07	D. I. Khan.
																																VII.—Sind.
	6	7	3	6	3	2		3	N 63° E	S 51° E	6·8	5·3	+1·5	33	−22	54	+ 3	·816	+·030	0·9	−0·2	0	0·30	−0·30	0·01	0·09	−0·08	0·01	0·25	−0·24	0·01	Jacobabad.
					6	22	2		S 39° W	S 39° W	12·8	17·5	−4·7	83	+ 5	64	+ 3	·815	+·051	3·3	−0·5	0	0·70	−0·70	0	0·38	−0·38	0	0·56	−0·56	0	Hyderabad.
				1		8	21		S 75° W	S 75° W	17·6	17·5	+0·1	89	+ 3	80	− 2	·981	+·010	6·4	+1·2	0	0·50	−0·50	0	0·71	−0·71	0	0·71	−0·71	0	Kurrachee.
																																VIII.—Rajputana.
1	1		1	2	3	9	9	2	S 60° W	S 38° W	9·3	9·4	−0·1	53	−11	49	− 5	·708	−·066	2·0	−0·3	2	2·10	−0·10	2·13	1·70	+ 0·43	2·13	2·58	−0·45	2·02	Bikaner.
1	1		1		7	17	3		S 38° W		7·8			72		57	0	·730		3·8		1	2·60	−1·60	0·79	1·49	− 0·70	0·79	1·76	−0·97	0·70	Jodhpur.
1	1				2	23	1	2	S 50° W		13·2	13·6	−0·4	32		65	− 7	·872	−·039	3·0	−1·0	2	2·50	−0·50	2·16	1·46	+ 0·70	3·22	2·12	+1·10	1·71	Pachpadra.
2	1	2	2	2	1	2	10	8	N 71° W	S 88° W	§6·2	6·8	−0·6	43	+ 6	61	+ 4	·799	+·081	3·2	−1·0	6	4·40	+1·60	2·31	2·66	− 0·35	2·39	3·15	−0·76	0·94	Jaipur.
2	2	2	1	2		1	15	5	N 73° W	N 89° W	9·3	11·1	−1·8	53	− 6	56	− 1	·743	+·013	2·8	−1·2	4	3·60	+0·40	3·10	1·58	+ 1·52	3·36	2·34	+1·02	1·11	Sambhar.
3		1				6	13	7	N 86° W	S 82° W	10·7	9·4	+1·3	69	− 1	61	0	·759	+·009	3·5	−0·1	3	3·90	−0·90	1·87	2·48	− 0·61	2·07	3·09	−1·02	1·21	Ajmer.
2	5	1		1		8	8	5	N 80° W		6·0			53		61	− 15	·815		4·3		8	6·20	+1·80	7·20	1·98	+ 5·22	7·53	2·52	+5·01	3·37	Kotah.
2	1				1	10	12	4	S 79° W		8·4§			72		65	+ 4	·747		5·0		5	5·10	−0·10	8·84	1·68	+ 7·16	8·84	2·73	+6·11	3·02	Udaipur.
																																IX.—Bombay.
	1				6	15	7	1	S 51° W	S 69° W	16·0§	16·7	−0·7	76	+13	68	0	·838	+·018	5·8	−0·1	3	2·18	+0·82	1·04	2·27	−1·23	1·09	2·52	−1·43	0·42	Deesa.
	1		1	1		11	13	3	S 76° W	S 72° W	16·0	17·7	−1·7	69	− 9	77	+ 6	·922	+·049	6·6	+1·6	6	2·40	+3·60	2·31	2·03	+ 0·28	2·31	2·12	+0·19	0·73	Bhuj

§ Uncorrected for scale error.

¶ Mean of 25 days.
‖ „ „ 28 „

Tabl

(2) *Abstract of observations taken at 8 hrs. at 239 station*

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	IX.—Bombay—*concld.*																						
	Jamnagar	61	29·560		29·566	29·701	1st	29·398	6th	·303	87·6	95·6		80·6		88·1		15·0	99·5	6th	77·1	4th	22·4
	Dwarka	37?	29·598		29·580	29·726	17th	29·445	6th	·281	84·6	86·6		82·0		85·3		6·6	90·8	13th & 28th	75·2	28th	15·6
	Rajkot	429	29·214	—·014	29·589	29·346	16th	29·065	6th	·281	84·0	98·3	—1·5	78·4	+0·8	88·4	—0·4	19·9	108·9	6th	73·7	25th	35·2
	Veraval	*18*	29·643*	—·017*	29·603*	29·795	17th	29·485	28th	·310	82·6	85·2	—1·2	80·8	—0·2	83·0	—0·7	4·4	88·7	27th	77·8	14th & 26th	10·9
	Bhavnagar Para	55	29·597?	—·089?	29·596?	29·732	17th	29·455	6th	·277	85·5	98·8	+0·5?	80·4	—0·1	89·7	+0·2?	18·4	110·2	6th	76·5	29th	33·7
	Surat	39	29·633	—·027	29·616	29·770	17th	29·499	6th	·271	81·0	91·5	—2·2	80·1	+0·8	85·9	—0·7	11·4	100·1	4th	75·1	28th & 29th	25·0
	Ahmedabad	163	29·469	—·026	29·579	29·600	17th	29·325	6th	·275	85·2	100·5	+0·8	80·8	+0·1	90·7	+0·5	19·7	112·6	5th & 6th	72·7	28th	39·9
26	Bombay	37	29·684	—·025	29·661	29·837	17th	29·549	6th	·288	83·1	88·5	+0·9	80·0	+0·5	84·2	+0·7	8·5	95·5	3rd	74·5	5th	21·0
	Ratnagiri	110	29·646	—·014	29·694	29·782	17th	29·495	6th	·297	81·5	86·1	—0·5	77·2	0	81·7	—0·3	8·9	92·3	1st & 3rd	73·9	5 days	18·4
	Goa	199	29·560*	—·046?	29·697*	29·709	17th & 18th	29·417	6th	·292	79·4	83·6	—1·6	76·7	—1·1	80·1	—1·4	6·9	88·1	2nd & 3rd	72·6	25th	15·5
	Mormugao	*60*	29·730‡	—·005‡	29·725‡	29·877	17th	29·570	6th	·307	81·5	86·9	—0·1	77·2	—0·7	82·1	—0·4	9·7	92·0	3rd	72·7	25th	19·3
	Karwar	44	29·766*	0*	29·744*	29·910	17th	29·608	6th	·302	79·4	84·8	—0·5	75·7	—0·4	80·3	—0·5	9·1	90·3	1st, 2nd & 3rd	71·0	25th	19·3
27	Malegaon	1,430	28·254	—·021	29·628	28·405	17th	28·084	6th	·321	80·9	94·3	—0·6	74·4	—0·6	84·4	—0·6	19·9	103·4	4th & 7th	70·1	14th	33·3
	Ahmednagar	2,154	27·584§	—·010§	29·670§	27·731	18th	27·440	6th	·291	77·8	89·8	—0·6	71·4	—0·9	80·6	—0·8	18·4	97·9	7th	68·0	30th	29·9
	Poona	1,846	27·899*	—·006*	29·688*	28·038	17th	27·751	6th	·287	77·1	87·5	—1·7	72·3	—0·3	79·9	—1·0	15·2	99·0	3rd	63·3	20th	35·7
	Sholapur	1,590	28·142	—·023?	29·682	28·293	17th	27·989	6th	·304	77·6	91·3	—2·5	72·4	—0·8	81·9	—2·2	18·9	99·3	2nd	69·9	22nd	29·4
	Bijapur	*1,948*	27·808§	—·006§	29·697§	27·945	17th	27·651	6th	·294	76·1*	89·6	—0·9	70·3	—1·9	80·0	—1·4	19·3	98·7	3rd	67·7	4th	31·0
	Belgaum	2,539	27·248*	—·006*	29·717*	27·390	17th	27·108	6th	·282	72·3	79·8	—1·0	67·7	—0·4	73·7	—0·7	12·1	90·3	1st & 2nd	64·6	18th & 25th	25·7
	X.—Central India.																						
21	Neemuch	1,624	27·995*	—·030*	29·559*	28·112	15th	27·832	6th	·280	82·3	96·6	—1·7	78·0	+0·7	87·3	—0·5	18·6	107·0	7th	70·3	28th	36·7
	Indore	1,823	27·841?	—·005?	29·603?	27·984	17th	27·676	6th	·308	79·2	94·3	—0·1	75·0	—0·3	84·7	—0·2	19·3	104·1	3rd, 5th & 7th	70·1	7th	34·0
22	Nowgong	754	28·813	—·016	29·517	28·926	17th	28·683	7th	·243	84·2	96·1	—5·5	80·5	—1·9	88·3	—3·7	15·6	110·0	1st	75·0	11th	35·0
	Sutna	1,040	28·519	—·017	29·509	28·649	14th	28·345	7th	·304	84·2	95·4	—3·3	80·0	—1·1	87·8	—2·2	15·4	107·5	1st	73·2	11th	34·3
	XI.—Central Provinces.																						
23	Buldana	2,132	27·580		29·638	27·721	17th	27·427	6th	·291	78·5	90·9		73·1		82·0		17·8	100·0	7th	70·0	14th, 15th & 29th.	30·0
	Akola	930	28·732	—·013	29·608	28·883	17th	28·554	6th	·329	82·7	97·9	—0·3	77·5	—0·2	87·7	—0·3	20·4	108·7	2nd	74·1	6 days	34·6
	Amraoti	1,215	28·436	—·017	29·594	28·586	17th	28·240	6th	·346	81·7	96·1	—1·1	77·1	+0·3	86·6	—0·4	19·0	109·3	1st	72·8	13th, 14th & 29th	36·5
24	Khandwa	1,044	28·660	—·021	29·597	28·739	17th	28·428	6th	·311	81·4	96·7	—0·9	78·0	—0·7	87·4	—0·8	18·7	107·7	1st & 2nd	66·6	13th	41·1
	Hoshangabad	1,006	28·618	—·023	29·570	28·767	17th	28·427	6th	·340	85·9	99·7	+1·6	79·6*	+0·6*	89·7*	+1·1	20·1	110·6	1st & 2nd	73·4	28th & 29th.	37·2
	Saugor	1,807	27·805‖	—·019‖	29·541‖	27·933	17th	27·653	7th	·280	81·3	94·3	—3·5	76·3*	—1·3*	85·2*	—2·4	18·0	107·6	1st	70·0	21st	37·6
	Jubbulpore	1,327	28·278	—·014	29·542	28·421	17th	28·074	7th	·347	82·8	96·1	—0·8	78·5**	+0·1**	87·3**	—0·4	17·6	108·5	1st	73·3	29th	35·2
	Seoni	2,033	27·617	—·007	29·569	27·759	17th	27·429	6th	·230	82·2¶	92·7	—1·5	71·7	—3·4?	81·3	—2·5?	21·0	106·5	1st	70·0	19th	36·5
	Nagpur	1,017	28·615	—·010	29·577	28·759	17th	28·418	7th	·341	83·0	97·0	—1·3	77·9	—0·6	87·5	—1·0	19·1	109·6	1st	73·3	28th & 29th	38·3
25	Pendra	2,123?	27·591		29·514	27·741	14th	27·387	7th	·354	79·6	89·8		74·4		82·1		15·4	103·8	1st	71·7	30th	32·1
	Raipur	970	28·641	—·010	29·566	28·783	14th & 15th,	28·423	6th	·360	81·4	94·2*	—3·0*	77·6	—0·8	85·9*	—1·9	16·6	107·7	1st	73·6	8th & 28th	34·1
	Chanda	*634*	29·011*	—·012*	29·584*	29·165	17th	28·809	6th	·356	84·8	97·9	—0·6	79·3	—0·3	88·6	—0·5	18·6	110·0	1st	75·0	12th	35·0
	XII.—Hyderabad.																						
28	Aurangabad	1,905	27·829	—·030?	29·676	27·959	17th	27·642	6th	·317	77·5	91·4	—3·4?	71·4	—1·6	81·4	—2·5?	20·0	102·[illegible]	7th	68·2		34·0
	Nizamabad	1,248					No obse	rvations	(exce	pt rai	n fall)	are rec	orded.										

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

* Mean of 29 days. ‡ Mean of 26 days. NOTE.—The barometric readings are not reduced to sea-level, in the cases of hill or plateau. § Mean of 24 days.

B—*continued.*

in India, etc., in June, 1909—continued.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 30th June 1909.	Normal rainfall for period, 1st May to 30th June.	Departure from normal of period, 1st May to 30th June 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																IX.—Bombay—*concld.*
	1				2	17	7	3	S 63° W		20·7			79		67		·876		2·2		1			0·99			0·99			0·88	Jamnagar.
					4	18	6	2	S 53° W		16·1			82		82		·987		5·0		5			12·08			12·08			7·64	Dwarka.
1			1			16	11	1	S 64° W	S 81° W	16·4*	14·1	+2·3	79	+ 5	72	− 2	·846	−·029	5·7	+0·1	8	5·30	+2·70	4·82	5·12	−0·30	4·85	5·34	−0·49	2·62	Rajkot.
3					2	12	13		S 64° W	S 69° W	15·2	11·4†	+3·8	76	+ 7	87	+ 3	·973	+·009	7·1	+0·2	5	4·60	+0·40	4·11	5·23	−1·12	4·11	5·25	−1·14	2·69	Veraval.
					1	19	5	5	S 44° W	S 48° W	11·1	15·8	−4·7	82	+ 2	69	− 7	·844	−·109	6·2	+0·1	9	5·70	+3·30	7·16	5·02	+2·14	7·33	5·12	+2·21	1·92	Bhavnagar
				1	9	13	6	1	S 40° W	S 49° W	9·2	13·2	−4·0	76	+ 6	79	0	·918	0	6·9	0	9	8·70	+0·30	11·91	9·62	+2·29	11·91	9·75	+2·16	3·86	Para. Surat.
1	2				3	18	5	1	S 55° W	S 61° W	8·4	7·7	+0·7	72	+13	72	0	·856	−·020	6·7	+0·5	8	4·80	+3·20	7·25	6·76	+0·49	7·23	6·77	+0·48	3·36	Ahmedabad.
			1	2	3	11	11	2	S 59° W	S 58° W	12·6†	15·2	−2·6	66	+18	83	0	·942	+·013	7·8	−0·1	14	14·70	−0·70	16·60	19·63	−3·03	16·60	20·34	−3·74	3·05	Bombay.
3	2		2	2	2	14	3	2	S 48° W	S 60° W	11·3	10·2	+1·1	49	+18	83	0	·892	−·009	6·8	−0·8	21	20·50	+0·50	31·94	30·20	+1·74	32·00	31·65	+0·35	5·09	Ratnagiri.
	1	1	1	1	5	14	3	4	S 50° W	S 66° W	8·9	9·2	−0·3	56	+ 8	90	+ 5	·895	−·015	9·5	+1·4	26			32·55	28·72	+3·83	34·28	31·05	+3·23	4·30	Goa.
2				4	5	3	14	2	S 60° W	N 76° W	9·9†	10·9	−1·0	56	+ 7	87	+ 2	·928	−·007	8·6	+1·8	22			23·74	23·63	+0·11	25·77	26·20	−0·43	3·07	Mormugao.
14	3				7	6			S 27° W	S 82° W	4·6†	6·0	−1·4	30	−22	86	+ 3	·871	+·004	8·1	+0·1	22	23·30	−1·30	42·65	35·98	+6·67	44·86	39·26	+5·60	6·00	Karwar.
10						4	15	1	S 84° W	S 81° W	13·3	14·0	−0·7	62	−11	72	+ 1	·744	−·013	5·2	−1·0	7	7·70	−0·70	5·09	4·44	+0·65	9·16	5·17	+3·99	2·13	Malegaon.
1	1					9	13	6	S 88° W	N 88° W	12·2	16·2	−4·0	79	+24	71	− 7	·679	−·056	4·9	−1·6	6	7·40	−1·40	4·12	5·14	−1·02	7·30	6·02	+1·28	1·70	Ahmednagar.
1						2	27		S 87° W	S 82° W	15·7†	16·3	−0·6	92	+11	77	+ 4	·714	+·008	8·0	+0·7	9	8·50	+0·50	3·60	4·73	−1·13	5·71	6·06	−0·35	1·08	Poona.
						13	12	5	S 77° W	S 81° W	14·8	13·7	+1·1	86	+ 9	79	+13	·744	+·074	7·3	+0·6	9	6·20	+2·80	13·45	4·36	+9·09	16·00	5·36	+10·64	3·53	Sholapur.
	1					9	19	1	S 80° W	S 78° W	15·3	9·7	+5·6	86	+ 7	74*	− 3	·668*	−·053	6·7	−0·3	5	6·20	−1·20	4·07	3·55	+0·52	4·44	5·34	−0·90	1·80	Bijapur.
	1					14	14	1	S 72° W	S 75° W	20·8*†	22·9	−2·1	86	+16	88	+ 1	·693	−·002	8·6	+0·4	12	14·00	−2·00	7·51	8·44	−0·93	9·39	10·93	−1·54	2·30	Belgaum.
																																X.—Central India.
	3			1	1	12	11	2	S 74° W	S 81° W	10·8	13·5	−2·7	69	− 5	75	+ 5	·817	+·034	4·8	+0·4	4	6·20	−2·20	3·15	4·95	−1·80	3·22	4·40	−2·18	1·20	Neemuch.
1	1					5	20	3	S 89° W	S 87° W	9·0	7·0	+2·0	85	+11	76	+ 4	·770	+·012	7·7	+1·7	7	7·60	−0·60	2·67	6·35	−3·68	3·00	6·94	−3·94	0·90	Indore.
3	1	2	5	1	1	3	14		S 81° W	S 86° W	4·2	4·7	−0·5	30	−18	75	+14	·875	+·119	6·5	+1·8	10	7·30	+2·70	7·66	8·15	−0·49	7·66	8·48	−0·82	1·77	Nowgong.
	1	2	5	4	1	6	8	3	S 55° W	S 84° W	4·6	9·7	−5·1	23	− 6	74	+14	·860	+·146	8·9	+4·3	13	7·20	+5·30	8·23	7·32	+0·91	8·28	7·70	+0·58	1·69	Sutna.
																																XI.—Central Provinces.
	1				1	5	16	7	N 88° W		9·2	10·9	−1·7	83		70		·680		6·5		7			10·54	6·64	+3·90	12·40	7·22	+5·18	6·02	Buldana.
		1				4	13	12	N 75° W	N 81° W	11·8	9·8	+2·0	82	+ 9	67	− 1	·745	−·013	7·6	+1·4	9	8·10	+0·90	6·19	5·20	+0·99	6·62	5·63	+0·99	2·50	Akola.
						2	21	7	N 83° W	S 87° W	10·9	8·9	+2·0	89	+11	72	+ 1	·776	+·022	6·8	+0·8	10	9·00	+1·00	10·45	6·82	+3·63	11·19	7·45	+3·74	2·70	Amraoti.
	2					2	13	13	N 68° W	N 87° W	13·9	10·3	+3·6	86	+ 4	71	+ 3	·766	+·017	6·2	+0·7	6	7·50	−1·50	4·30	5·81	−1·51	4·30	6·16	−1·86	1·29	Khandwa.
4						6	18	2	S 83° W	S 62° W	7·1	5·1	+2·0	79	+ 8	63	− 8	·766	−·042	6·6	+0·6	6	8·20	−2·20	5·14	6·78	−1·64	5·79	7·33	−1·54	1·73	Hoshangabad.
3	1		2		1	6	14	3	S 84° W	S 80° W	8·8	6·5	+2·3	59	− 8	70	+ 5	·723	+·016	7·1	+2·1	12	8·90	+3·10	10·09	8·79	+1·30	10·21	9·29	+0·92	3·35	Saugor.
2	3	2	2	2	2	5	10	2	S 84° W	S 70° W	4·4*	5·1	−0·7	33	−26	70¶	+ 5	·774¶	+·052	5·9	+0·7	7	10·40	−3·40	5·40	9·50	−4·10	5·75	10·05	−4·30	2·35	Jubbulpore.
1	1	1		1	3	7	11	5	S 79° W	S 86° W	8·5	5·8	+2·7	59	+ 3	67	0	·714	+·008	6·0	+0·9	14	12·30	+1·70	6·76	9·95	−3·19	9·22	10·63	−1·41	1·57	Seoni.
		1		3	4	5	17		S 63° W	S 87° W	6·3	9·0	−2·7	66	+ 7	67	+ 3	·742	−·010	6·1	−0·5	12	9·70	+2·30	7·67	8·52	−0·85	11·18	9·24	+1·94	1·92	Nagpur.
2	1	2		4	6	8	3	4	S 38° W		6·7			37		76		·766		5·3		14			7·80			8·02			1·92	Pendra.
			3	1	1	21	3	1	S 43° W	S 56° W	10·6	9·7	+0·9	69	− 7	75	+ 7	·793	+·031	7·2	+0·8	12	10·40	+1·60	8·31	8·88	−0·57	9·01	9·82	−0·81	2·65	Raipur.
3					1	3	12	11	N 79° W	S 61° W	7·5	6·2	+1·3	72	+ 7	65	+ 1	·775	+·034	6·9	+0·3	10	9·40	+0·60	5·59	7·68	−2·09	5·74	8·42	−2·68	1·75	Chanda.
																																XII.—Hyderabad.
1						6	14	9	N 85° W		19·6			82		78	+ 9	·727		5·9		8	8·10	−0·10	10·90	5·04	+5·86	12·82	5·69	+7·13	4·30	Aurangabad.
																						11	8·90	+2·10	4·48	4·60	−0·12	4·58	4·93	−0·35	0·91	Nizamabad.

ations, the elevations of which exceed 3,200 feet. † Uncorrected for scale error. ‖ Mean of 28 days. " 18 " ¶ Mean of 23 days.

Tab

(2) *Abstract of observations taken at 8 hrs. at 239 statio*

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	2
	XII.—Hyderabad—*concld.*																						
	Bidar	*2,165*	27·555		29·652	27·675	20th	27·442	25th	·233	76·5	90·4		69·9		80·2		20·5	101·0	1st	65·8	30th	35
29	Gulbarga	1,503	28·234†	−·015†	29·687†	28·386	17th	28·090	6th	·296	77·1	92·2	−2·5	72·8	−0·9	82·5	−1·7	19·4	98·0	1st	70·3	28th & 29th,	27
	Raichur	*1,311*	28·416‡	−·023‡	29·674‡	28·551	17th	28·279	6th	·272	78·8	94·2	−0·5	73·7†	−1·1†	84·0†	−0·8	20·5	102·1	1st	70·6	2nd	31
	Hyderabad (Deccan)	1,690	28·03[illegible]	−·002†	29·671†	28·170	17th	27·880	4th	·290	77·6	91·8	−2·5	74·0	−0·4	82·9	−1·5	17·3	103·8	1st	69·2	6th	34
	Hanumkonda	871	28·81	−·014†	29·625†	28·943	19th	28·629	6th	·314	82·5	95·0	−3·1	78·2	−1·6	86·6	−2·4	16·8	106·0	1st	72·7	21st	33
	XIII.—Mysore.																						
30	Chitaldroog	2,405	27·411‡	+·005†	29·751†	27·538	18th	27·257	6th	·281	73·4	85·0	−0·8	63·9	−0·7	77·0	−0·8	16·1	91·6	1st	66·4	20th	25
	Hassan	3,149	26·737	+·013	29·801	26·856	17th & 18th	26·593	6th	·258	69·9	78·6	−0·9	65·8	−0·3	72·3	−0·6	12·8	86·4	1st	62·7	18th	23
	Bangalore	3,021	26·839	−·011	29·770	26·955	17th	26·708	4th	·250	72·0	85·8	+1·1	67·0	+0·2	76·4	+0·7	18·8	91·8	1st & 24th	64·8	28th & 29th,	27
	Mysore	2,518	27·348	+·001	29·803	27·473	17th	27·216	6th	·257	73·0	82·9	−1·7	67·5	−0·7	75·2	−1·2	15·4	87·5	18th	65·0	17th & 18th.	22
	XIV.—Madras.																						
31	Mangalore	65	29·772	−·011	29·770	29·908	17th	29·631	3rd	·277	79·1	84·3	−0·7	75·0	0	79·7	−0·4	9·3	89·7	2nd	70·4	9th	19
	Calicut	27	29·842	+·004	29·793	29·939	18th	29·715	3rd	·224	78·4	84·0	−0·6	75·4	+0·7	79·7	+0·1	8·6	87·8	1st & 19th	73·1	4 days	14
	Cochin	9	29·886	+·014	29·823	29·971	13th	29·782	4th	·189	79·4	85·7	+0·7	74·7	0	80·2	+0·4	11·0	89·7	1st	71·7	25th	18
	Trivandrum	198	29·655	+·011	29·815	29·775	18th	29·578	1st	·197	78·7	83·0	+0·1	76·1	+2·5	79·6	+1·3	6·9	90·0	20th	72·5	6th	17
32	Tinnevelly	168	29·666	+·011	29·762	29·755	15th	29·550	2nd	·205	85·7	96·5	−0·6	73·0	−0·6	87·8	−0·6	17·5	102·7	1st	75·9	3rd, 8th & 12th.	26
	Pamban	37	29·784†	+·008†	29·750†	29·880	18th	29·668	2nd	·212	83·3	89·5	−0·2	79·7	−0·6	84·6	−0·4	9·8	92·2	21st	78·0	29th	14
	Madura	447	29·372	+·016	29·753	29·470	16th & 17th.	29·258	2nd	·212	83·7	93·9	−1·3	76·6	−0·5	86·7	−0·9	20·3	101·9	18th	73·6	13th	28
	Periyakulam	944								Observatory closed.													
	Pudukkottai	318	29·492		29·740	29·585	15th & 17th.	29·380	1st	·205	84·4	99·5		78·1		88·8		21·4	103·8	20th	74·1	7th	29
	Negapatam	31	29·758	−·009	29·717	29·859	16th	29·633	1st	·221	85·7	100·5†	+2·9†	79·6	+0·4	89·5†	+1·7	20·4	104·4	22nd	76·0	5th	28
	Trichinopoly	255	29·551	0	29·737	29·657	15th	29·430	3rd	·227	85·3	93·9	−0·1	79·0	+0·6	88·9	+0·3	19·9	102·6	20th	76·3	4th	23
	Coimbatore	1,348	28·475	0	29·775	28·588	18th	28·353	3rd	·235	76·6	88·1	−1·8	71·7	+0·1	79·9	−0·9	16·4	94·9	1st	69·3	25th & 26th.	25
	Salem	940	28·898	−·002	29·778	29·010	17th	28·770	4th	·240	81·0	96·6	+1·4	75·4	+1·2	86·0	+1·3	21·2	101·0	20th	72·4	24th	28
	Cuddalore	37	29·740†	0 †	29·700†	29·857	15th	29·611	3rd	·246	85·1	98·6	+0·4	79·5	+0·1	89·1	+0·3	19·1	102·6	9th, 10th & 25th.	74·7	25th	27
	Vellore	707	29·068		29·712	28·200	17th	28·932	5th	·268	82·8	95·5		78·5		87·0		17·0	99·2	1st	74·0	16th	25
	Madras	22	29·736	−·010	29·689	29·869	15th	29·594	5th	·275	85·4	98·3	−0·2	80·4	−0·3	89·4	−0·3	17·9	103·0	10th	68·5	16th	34
33	Cuddapah	433	29·330	−·002	29·698	29·465	18th	29·174	7th	·291	85·2	99·0	−1·3	79·1	−1·5	89·1	−1·4	19·9	102·2	15th, 21th & 26th.	70·6	3rd	31
	Bellary	1,475	28·291	−·008	29·706	28·426	17th	28·141	5th	·295	80·5	95·5	+1·0	76·4	+0·7	86·0	+0·9	19·1	101·0	1st	74·3	3th	26
	Kurnool	923	28·822	−·010	29·685	28·959	17th	28·666	5th	·293	81·3	96·3	−0·4	77·0	+0·1	86·7	−0·2	19·3	102·2	1st	73·6	2nd & 7th,	28
34	Nellore	66	29·665	+·002	29·664	29·815	15th	29·511	4th	·304	86·4§	99·6§	−2·2§	81·6§	−0·5§	90·6§	−1·4§	18·0	103·3	5th	73·6	15th	29
	Masulipatam	15	29·707‖	+·016‖	29·657‖	29·846	14th	29·523	6th	·323	85·6	98·1	+0·4	80·6	+0·4	89·4	+0·4	17·5	103·8	19th & 24th	73·6	1st	30
	Cocanada	26	29·650	−·016	29·612	29·830	11th	29·474	6th	·356	83·9	95·5	+0·3	80·7	−0·2	88·1	0	14·8	101·7	24th	73·0	1st	28
	Waltair (Vizag.)	*226*	29·423	−·006	29·588	29·618	14th	29·208	6th	·410	83·2	89·7		79·4		84·6		10·3	103·1	20th	72·9	23rd	30
	Calingapatam	19	29·620		29·579	29·814	14th	29·398	6th	·416													
	Gopalpur	72	29·550	−·005	29·564	29·734	14th	29·327	6th	·407	82·9	88·3	−0·9	79·5	−1·1	83·9	−1·0	8·8	92·2	21st	75·0	21st	17

N.B.—Elevations in italics indicate barometrical determinations. † Mean of 29 days. ‡ Mean of 27 days.

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

B—*continued.*

in India, etc., in June, 1909—continued.

Wind direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 30th June 1909.	Normal rainfall for period, 1st May to 30th June.	Departure from normal of period, 1st May to 30th June 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																XII.—Hyderabad—*contd.*
1		3			1	13	9	3	S 72° W		13·0			63		79		·732		3·5		6	7·80	— 1·80	7·53	5·74	+ 1·79	7·83	6·74	+ 1·09	3·68	Bidar.
	2					8	14	6	N 89° W	S 86° W	12·3	14·1	−1·8	79	+12	78	+ 2	·730	−·011	6·1	−0·2	9	7·40	+ 1·60	5·22	5·71	− 0·49	8·96	6·87	+ 2·09	1·43	Gulbarga.
						17	9	4	S 69° W	S 74° W	14·5	14·0	+0·5	82	+ 7	67	− 3	·669	−·049	6·5	+0·1	7	6·20	+ 0·80	3·77	3·12	+ 0·65	3·79	3·84	− 0·05	0·95	Raichur.
5							24	1	N 88° W	N 87° W	8·8	9·1	−0·3	82	− 2	72	+ 1	·677	−·036	7·2	+1·0	10			6·37	4·37	+ 2·00	6·46	5·36	+ 1·10	1·93	Hyderabad (Deccan).
					1	8	8	13	N 83° W		10·7			76		64	+ 4	·702		7·4		9	6·70	+ 2·30	4·55	5·86	− 1·31	4·66	6·47	− 1·81	0·96	Hanumkonda.
																																XIII.—Mysore.
						12	15	3	S 76° W	S 68° W	12·7	11·1	+1·6	89	+ 3	80	− 2	·674	−·001	6·8	−1·8	6	6·00	0	1·42	3·80	− 2·38	7·69	7·54	+ 0·15	0·38	Chitaldroog.
1						14	14	1	S 70° W	S 83° W	12·2	5·0	+7·2	87	+ 6	83	+ 3	·632	−·003	8·9	+0·2	11	10·40	+ 0·60	2·64	5·01	− 2·37	12·30	10·18	+ 2·12	0·60	Hassan.
					1	16	13		S 63° W	S 70° W	11·9	9·3	+2·6	86	− 3	78	− 3	·619	−·021	8·3	+1·4	1	5·70	− 4·70	0·41	3·05	− 2·64	8·32	7·27	+ 1·05	0·20	Bangalore.
						15	14	1	S 69° W	S 62° W	14·3	14·6	−0·3	89	+ 3	79	− 1	·641	−·016	7·8	−0·3	7	6·00	+ 1·00	2·18	3·81	− 1·63	12·77	7·18	+ 5·59	0·62	Mysore.
																																XIV.—Madras.
2	1	3	6	1	1	9	6	1	S 45° W	S 83° W	6·8*	3·3	+3·5	20	+ 9	89	0	·884	+·011	8·5	−0·3	24	24·60	− 0·60	40·82	35·22	+ 4·60	67·30	42·88	+24·42	4·40	Mangalore.
7	2	3	2	2		7	4	3	S 89° W	N 22° E	8·8	9·7	−0·9	18	+ 7	91	+ 3	·885	+·027	8·7	+0·6	27	24·30	+ 2·70	34·16	35·61	− 1·45	61·83	43·39	+18·44	3·63	Calicut.
6		2	8	3	2	4	5		S 35° E	N 9° W	7·5*	6·1	+1·4	23	+ 1	84	− 3	·845	−·017	8·3	+0·7	24	24·20	− 0·20	22·60	28·99	− 6·39	33·48	41·38	− 7·90	3·55	Cochin.
2	5						7	16	N 48° W	N 16° W	6·5*	7·0	−0·5	76	+ 9	86	− 1	·815	+·005	7·8	−0·3	13	16·50	− 3·50	11·07	12·45	− 1·38	26·01	21·50	+ 4·51	2·72	Trivandrum.
2	1					5	17	5	N 88° W	N 73° W	8·3	7·8	+0·5	79	+ 8	62	0	·762	+·003	5·4	−1·1	1	1·20	− 0·20	0·27	0·56	− 0·29	2·04	1·93	+ 0·11	0·12	Tinnevelly.
						11	19		S 74° W	S 39° W	11·1	13·4	−2·3	92	+14	76	− 3	·361		3·2		0	0·50	− 0·50	0·03	0·12	− 0·09	3·19	0·67	+ 2·52	0·03	Pamban.
						3	15	12	N 76° W	N 79° W	10·9	4·1	+6·8	69	+29	61‡	− 3	·700‡	−·063	7·1	+1·7	1	2·50	− 1·50	0·57	1·25	− 0·68	5·67	3·90	+ 1·77	0·53	Madura.
																	Obser	vatory	closed.													Periyakulam.
1	2					6	10	11	N 75° W		10·8			77		69		·819		6·7		2			0·52			3·43			0·13	Pudukkottai.
						8	22		S 78° W	S 61° W	9·3	8·4	+0·9	96	+15	61	− 3	·753	−·037	4·0	−0·8	1	3·20	− 2·20	0·12	1·50	− 1·38	3·17	3·11	+ 0·06	0·12	Negapatam.
					1	11	17	1	S 72° W	S 80° W	9·0*	9·2	−0·2	86	+ 1	56	− 7	·674	−·058	4·9	−1·1	0	1·90	− 1·90	0	1·50	− 1·50	6·58	4·44	+ 2·14	0	Trichinopoly.
						30			S 45° W	S 45° W	11·3	7·0	+4·3	96	+18	81	0	·744	−·020	5·9	0	5	4·90	+ 0·10	1·26	1·65	− 0·39	6·19	3·93	+ 2·26	0·51	Coimbatore.
1	1				7	5	16		S 61° W	S 32° W	6·0	5·0	+1·0	72	+ 3	82	+ 8	·865	+·084	7·0	+1·0	4	4·80	− 0·80	2·28	2·97	− 0·69	4·96	7·98	− 3·02	0·70	Salem.
1					2	18	9		S 56° W	S 62° W	8·4	2·9	+5·5	89	+19	64	− 8	·780	−·102	6·0	+0·6	4	3·10	+ 0·90	2·82	2·00	+ 0·82	5·44	2·28	+ 3·16	2·19	Cuddalore.
3	2	1	6	5	1	3	3	6	N 71° E		5·3			4		63		·707		5·4		5	4·60	+ 0·40	2·15	2·62	− 0·47	14·11	5·61	+ 8·47	1·04	Vellore.
	1				6	10	13		S 59° W	S 66° W	7·7*	8·8	−1·1	76	+ 2	67	+ 4	·825	+·024	5·9	−0·3	3	8·10	− 5·10	1·65	2·21	− 0·56	11·14	3·11	+ 8·03	1·03	Madras.
		1				6	12	11	N 80° W	N 87° W				76	− 2	62	+ 1	·745	−·013	7·3	+0·9	4	4·60	− 0·60	2·11	3·35	− 1·24	5·53	5·15	+ 0·38	1·58	Cuddapah.
1						8	17	4	S 84° W	S 84° W	12·9	10·6	+2·3	82	+ 8	60	− 1	·620	−·020	6·9	−0·7	0	4·20	− 4·20	0·08	1·78	− 1·70	1·69	3·76	− 2·07	0·06	Bellary.
						10	5	15	N 81° W	S 89° W	13·5*			76	+12	66	0	·707	−·019	5·8	−0·6	4	5·90	− 1·90	1·78	3·36	− 1·58	1·94	4·31	− 2·37	0·50	Kurnool.
	1				2	3	17	7	N 86° W	N 73° W	8·7*	9·6	−0·9	79	+16	62§	0	·776§	−·046	7·1	+0·5	3	3·00	0	1·31	1·20	+ 0·11	3·22	1·59	+ 1·63	0·62	Nellore.
2						1	7	20	N 58° W	N 80° W	10·7	9·5	+1·2	82	+19	75	− 2	·919	−·031	6·7	+0·1	4	6·00	− 2·00	2·31	4·83	− 2·52	3·29	6·10	− 2·81	1·40	Masulipatam.
3						16	10	1	S 64° W	S 69° W	6·5	8·8	−2·3	79	+ 4	78	+ 6	·892	+·026	7·9	+0·9	6	6·20	− 0·20	2·32	4·76	− 2·44	2·32	5·69	− 3·37	0·73	Cocanada.
			1			22	7		S 54° W	S 73° W	11·3			86	+12	73	− 1	·822	−·067	8·5	+1·1	8	5·70	+ 2·30	5·29	3·83	+ 1·46	5·97	6·30	− 0·33	1·37	Waltair (Vizag.).
	1	1			2	11	11	4	S 77° W		7·8			70						7·4		8			3·07			3·95			0·93	Calingapatam.
3	8				3	12	3	1	S 77° W	S 39° W	10·9	15·1	−4·2	40	−34	85	+ 1	·952	−·011	6·0	−1·2	6	7·10	− 1·10	7·65	6·14	+ 1·51	8·42	8·24	+ 0·18	3·03	Gopalpur.

* Uncorrected for scale error. § Mean of 24 days. ‖ Mean of 28 days.

Tabl

(2) *Abstract of observations taken at 8 hrs. at 239 station*

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	Bay Islands.																						
1	P. V. Fraser	8	29·627*		29·554*	29·806	14th	29·410	6th	·396	84·8												
	Car Nicobar	25					Register	not rec	eived.														
	Port Blair	58	29·760	−·001	29·748	29·878	14th	29·621	1st	·257	80·6	84·7	−1·3	76·8	−1·0	80·7	−1·2	7·9	86·7	15th & 18th.	71·0	23rd	15·7
	Slipper Island	90	29·683†		29·707†	29·753	30th	29·609	23rd	·144	81·2	85·6		76·8		81·2		8·8	87·6	15th	71·1	2nd	16·5
	Kashmir.																						
14	Srinagar	5,204	24·704*	−·027*	24·675*	24·870	14th	24·599	19th	·271	66·8	84·0	+0·9	59·2	+0·4	71·6	+0·7	24·8	93·6	28th	55·6	7th & 12th	38·0
	Gulmarg	*8,569*	21·776	−·030	21·744	21·938	14th	21·679	29th	·259	61·2	69·2	+3·1	45·8	+2·7	57·5	+2·9	23·4	78·2	26th	40·3	17th	37·9
	Sonemarg	*8,764*	21·754		21·722	21·920	14th	21·639	29th	·281	48·0	68·4		41·7		55·1		26·7	78·9	26th	37·1	7th	41·8
	Dras	*10,059*	20·711	−·049	20·679	20·835	25th	20·601	29th	·231	55·4	75·9	+1·8	41·6	+0·6	58·8	+1·2	34·3	86·4	27th	35·5	7th	50·9
	Leh	11,503	19·648	−·032	19·616	19·774	25th	19·529	28th	·245	56·7	74·2	+1·1	47·2	+2·6	60·7	+1·9	27·0	82·1	27th	42·5	8th	39·6
	Skardu	*7,505*	22·703	−·075	22·673	22·834	25th	22·573	19th	·261	68·6	85·5	+6·9	58·9	+4·0	72·2	+5·5	26·6	94·9	27th	53·1	21st	41·8
	Minimarg	*9,359*								Data	not a	vailab	le.										
	Astor	*7,955*									Dit	to.											
	Gilgit	4,890	24·895		24·863	25·077	3rd	24·679	28th	·398	80·4	96·3	+1·7	68·2	−1·8	82·2	−0·1	28·1	107·2	19th	58·2	3rd	49·0
	Baluchistan.																						
16	Quetta	5,502	24·466	−·014	24·426	24·601	14th	24·316	28th	·285	77·3	93·5	+2·9	57·4	−1·7	75·5	+0·6	36·1	100·1	27th	47·5	3rd	52·6
	Chaman	4,311	25·459	−·029	25·421	25·597	14th	25·304	28th	·293	81·9	99·7	0	71·6	−1·3	85·7	−0·7	28·1	105·8	27th	64·2	3rd	41·6
	Robat		26·706		26·664	26·824	23rd	26·544	29th	·280	83·5	104·9		79·4		92·2		25·5	111·5	18th & 19th.	70·3	2nd	41·2
	Hill Stations, excluding Kashmir and Baluchistan.																						
	Chitral	*5,486*									77·6	93·5		61·9		77·7		31·6	104·2	30th	5·42	3rd	50·0
	Para Chinar	6,000	(a) 24·279		(a) 24·246	24·463	14th	24·120	7th	·343	77·3	88·6		63·6		76·1		25·0	96·9	27th	5·86	2nd	38·3
	Cherat	*4,256*	25·511	+·003	25·479	25·709	14th	25·412	27th	·297	79·4	93·2	−1·1	71·9*	−1·2*	82·5*	−1·2	21·3	103·1	27th	57·5	2nd	45·6
	Murree	6,333	23·725	−·007	23·693	23·896	14th	23·642	29th	·254	69·7	79·1	−2·6	61·8	−2·7	70·5	−2·7	17·3	88·0	1st	51·0	14th	37·0
	Kailang	*10,087*	20·871*		20·826*	20·995	14th	20·780	29th	·215	55·8	74·1	+2·3	47·2	+1·8	60·7	+2·1	26·9	81·9	27th	42·7	21st	39·2
	Simla	7,232	22·979	−·019	22·941	23·139	14th	22·881	28th	·258	63·3	70·0	−4·4	58·7	−2·3	64·3	−3·4	11·3	79·2	1st	52·9	17th	26·3
	Saraia		23·034		22·996	23·195	14th	22·944	29th	·251	64·5	72·1		55·1		63·7		17·0	79·0	1st	45·2	22nd	33·8
	Kalabagh		20·068		20·030	20·216	14th	19·990	28th	·226	49·6	54·6		44·9		49·8		9·7	59·7	14th	40·2	16th	19·5
	Chakrata	7,022	23·174*	+·002*	23·134*	23·328	14th	23·086	29th	·242	62·7	71·3	−3·0	58·3	−1·7	64·8	−2·4	13·0	78·3	4th	53·2	19th	25·1
	Muktesar	7,592	22·717	−·036	22·7	22·862	14th	22·630	28th	·232	60·8	72·1	−3·9	56·2	−2·0	64·1	−3·0	15·9	78·5	26th	52·0	12th & 29th.	26·5
	Darjeeling	7,376	22·921	−·004	22·876	23·061	13th	22·865	10th	·196	60·8	65·8	+0·6	56·6	+0·4	61·2	+0·5	9·2	71·3	5th	53·2	5th	18·1
	Shillong	4,920	24·995‡		24·947‡	25·067	8th	24·913	29th & 30th	·154	64·3	73·3		63·5		68·4		9·8	76·9	4 days	59·7	3rd & 22nd.	17·2
	Cherra Poonjee	4,309	25·533		25·484	25·675	14th	25·456	7th	·219	66·7	71·6		64·5		68·1		7·1	77·2	1st	58·3	24th	18·9
	Maymyo	3,545	§§ 26·320	§§ +·019	§§ 26·265	26·431	13th	26·241	21st	·190	70·8	77·1	−1·5	63·4	+0·8	71·8	−0·4	10·7	80·4	16th	64·1	29th	16·3
	Pachmarhi	3,528	26·240	−·014	26·187	26·369	17th	26·083	6th	·286	75·0	85·7	−0·2	71·4	−0·6	78·5	−0·4	14·3	99·7	2nd	66·1	29th	33·6
	Mount Abu	3,945	25·841	−·019	25·791	25·938	14th & 15th.	25·707	7th	·231	72·4	82·6	−0·7	69·1	+1·0	75·9	+0·	13·5	95·7	6th	64·4	17th	31·3
	Mercara	3,781	26·156	−·002	26·089	26·264	17th	26·046	6th	·218	65·5	72·0§	−0·9§	62·8	−0·5	67·5§	−0·7	9·2	79·0	2nd	60·5	18th	18·5
	Ootacamund	*7,327*	22·993		22·929	23·089	17th	22·875	6th	·214	57·0	67·7		51·3		57·5		12·4	69·5	1st	45·7	17th & 18th.	23·8
	Kodaikanal	7,688	22·759	−·032	22·694	22·857	17th	22·654	7th	·203	58·0	64·4	−0·9	53·0	−0·8	58·7	−0·9	11·4	70·0	20th	51·0	27th, 28th & 29th.	19·0

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

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

* Mean of 29 days.
† " " 11 "
‡ " " 28 "
§§ " " 19 "

(a) Mean of 27 days.

B—*continued.*

in India, etc., in June, 1909—continued.

Wind direction. Number of winds from Calm. (25)	N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st May to 30th June 1909. (53)	Normal rainfall for period, 1st May to 30th June. (54)	Departure from normal of period, 1st May to 30th June 1909. (55)	Heaviest rainfall during month. (56)	Station. (57)
																																Bay Islands.
				1	10	18	1		S 29° W		¶ 12·0			87		88		1·054		5·0		12			10·66			14·02			3·00	P. V. Fraser.
																Regis	ter not	received.														Car Nicobar.
2					2	11	14	1	S 68° W	S 57° W	8·3	10·4	−2·1	79	+ 5	86	−2	·907	−·047	9·1	+0·7	24			21·55	18·65	+ 2·90	41·03	35·74	+ 5·29	4·02	Port Blair.
					9	13	7	1	S 44° W		16·0			76		89		·952		7·6		21			14·32			21·32			2·52	Slipper Island.
																																Kashmir.
16	1		1	8		2	2		S 28° E	S 45° E	3·3	3·8	−0·5	23	+15	82	+ 1	·535	−·039	2·0	−1·2	4	3·80	+0·20	1·04	1·79	−0·75	3·01	4·39	−1·38	0·28	Srinagar.
7	1	9	9	2			1	1	N 65° E		4·5			53		70	−11	·377		2·3		9			3·28	3·74	−0·46	** 8·51			0·53	Gulmarg.
23	1	4	1	1					N 55° E		3·5			20		88		·296		2·3		8			2·23			7·06			0·60	Sonemarg.
21			1				5	3	N 71° W		6·6			23		57	− 4	·250		2·4		1	1·70	−0·70	0·28	0·71	− 0·43	1·03	4·24	−3·21	0·26	Dras.
21	1				2	2	4		S 66° W	S 72° W	3·8	2·6	+1·2	17	−20	41	− 1	·194	+ ·010	3·9	+0·3	1	9·60	+0·40	0·18	0·17	+ 0·01	0·28	0·39	−0·11	0·18	Leh.
27				3					S 45° E		8·9			10		37	−15	·259		1·8		0	1·10	−1·10	0·02	0·39	− 0·37	0·30	1·69	−1·39	0·02	Skardu.
														Da	ta not	avai	lable.															Minimarg.
															Ditto.																	Astor.
28			2						E		1·6			7		35	− 3	·354	−·001	1·9	−0·9	1	0·80	+0·20	0·19	0·35	− 0·16	0·83	0·92	−0·09	0·19	Gilgit.
																																Baluchistan.
23	1		2	1					N 83° E	S 8° W	2·0	3·0	−1·0	9	+ 3	38	−11	·354	−·101	0·2	−0·4	1	0·80	+0·20	0·24	0·19	+ 0·05	0·24	0·59	−0·35	0·24	Quetta.
4					7	14	3	2	S 43° W	S 53° W	7·7	9·0	−1·3	69	+21	24	− 5	·288	−·074	0·3	−0·2	0	0·10	−0·10	0·0	0·09	−0·09	0·04	0·14	−0·10	0	Chaman.
1	1	3				10	15		S 78° W		9·0			66		49		·675		0·8		0			0			0			0	Robat.
																																Hill Stations excluding Kashmir and Baluchistan.
22		4	1	1		2			N 72° E		2·4			10		42		·383		0·5		2			0·56			1·82			0·32	Chitral.
26				1				3	N 45° W		3·9			3		45		·400		0·9		5	3·40	+1·60	1·58	1·43	+0·15	2·50	3·45	−0·95	0·85	Para Chinar.
3	5	2		7	8	1	1	3	S 26° E	S 79° E	10·3	9·9	+0·4	20	+15	45	− 6	·430	−·073	1·6	−1·1	1			1·37	0·73	+ 0·64	1·75	1·94	−0·19	1·22	Cherat.
5	2		2	9	9			3	S 29° E	S 63° E	7·1	7·2	−0·1	43	+32	60	+ 8	·429	+·046	2·7	−0·8	8	8·00	0	4·96	3·52	+ 1·44	7·53	6·49	+1·04	1·47	Murree.
			1	1	3	12	11	2	S 60° W		2·7	2·1	+0·6	70		67		·297		4·8		1			0·27	1·34	− 1·07	1·64	3·92	−2·28	0·10	Kailang.
										N 41° E		4·5				77	+11	416	+·044	5·8	+0·8	17	9·80	+7·20	11·65	7·85	+ 3·80	12·14	10·91	+1·23	2·03	Simla.
16		4	4		1	1	4		N 63° E		2·8			7		71		·433		5·2		18			10·31			11·61			3·22	Sarain.
11	8			3	4			4	N 11° W		9·3			17		83		·298		7·9		18			11·78			†† 12·86			3·47	Kalabagh.
9	7		1	2	11				S 24° E	S 8° W	5·3	7·4	−2·1	20	+11	87	+16	·497	+·060	5·2	+1·2	17	10·60	+6·40	14·77	8·77	+ 6·00	15·17	11·20	+3·97	3·13	Chakrata.
17		1	4	1			6	1	N 60° W		5·1			3		90	+23	·475		7·5		16			14·88	4·90	+ 9·98	15·71	7·01	+8·70	3·38	Muktesar.
6	3	5	2	1	1	5	6	1	N 63° W	S 76° E	3·7	5·1	−1·4	13	− 2	94	− 1	·504	+·006	8·7	+0·1	23	20·81	+2·19	41·50	23·77	+17·73	51·35	32·55	+18·80	5·62	Darjeeling.
23		1		3		3			S 11° E		3·6			13		86		·586		8·7		19	20·40	−1·40	22·26	15·87	+ 6·39	29·03	26·02	+3·01	3·00	Shillong.
6		4	3	1	5	9		2	S 9° W		6·9			27		97		·638		9·3		27	24·70	+2·30	101·25	101·56	− 0·31	155·74	151·49	+4·25	12·99	Cherra Poonjee.
2				3	5	10			S 19° W		¶¶ 6·1			¶¶ 75		86	+ 1	·660		6·1		16	11·80	+4·20	9·32	7·20	+ 2·62	21·17	17·62	+3·55	2·81	Maymyo.
1		1	1			6	13	8	N 85° W	S 81° W	9·3	9·2	+0·1	69	+ 2	78	+ 6	·656	+·035	5·1	−1·4	14	11·00	+3·90	10·02	10·92	− 0·90	11·47	11·42	+0·05	2·48	Pachmarhi.
	1			1	1	22	1	4	S 54° W	S 59° W	10·0	11·4	−1·4	76	+ 9	83	+ 7	·617	+·046	6·2	+0·9	7	6·70	+0·30	8·72	6·21	+ 2·51	8·77	7·20	+1·57	5·08	Mount Abu.
1						10	17	2	S 77° W	N 88° W	9·3	7·8	+1·5	86	+12	93	0	·580	−·026	8·2	−0·8	23	24·80	−1·80	30·94	27·35	+ 3·59	52·39	33·13	+19·26	5·50	Mercara.
			1	1		6	6	3	‡‡ S 75° W		8·6			65		85		·395		7·8		11	13·30	−2·30	6·89	6·18	+ 0·71	20·57	12·11	+8·46	1·66	Ootacamund.
			1		2	1	17	9	N 81° W		14·0			76		72	− 3	·349		6·4		10	8·50	+1·50	3·62	3·49	+ 0·13	11·79	9·11	+2·68	0·56	Kodaikanal.

‡ Mean of 28 days.

¶ „ 20 days.

‖ Uncorrected for scale error.

‡‡ Wind direction of 17 days.

¶ 8 hrs. velocity.

** Rainfall since 20th May 1909.

†† „ „ 21st „ „

Tab

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

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	Extra India.																						
	Singapore (a)	10	29·921		29·852	30·013	18th	29·813	1st	·200	82·2	87·8		75·0		81·4		12·8	91·5	1st & 4th	73·0	10th & 11th,	1
	Penang (a)	20	29·905		29·850	29·989	20th	29·772	1st	·217	80·4	90·1		74·8		82·5		15·3	93·0	2nd	74·0	11 days	1
	Trincomalee	12	29·824?	+·029?	29·762?	29·914	18th	29·706	1st	·208	79·2	90·8	−0·8	78·4	0	84·6	−0·4	12·4	94·0	20th & 30th,	77·0	17th & 29th,	1
	Colombo	40	29·855	−·005	29·821	29·938	18th	29·747	1st	·191	79·3	86·1	+0·4	77·8	+0·3	82·0	+0·4	8·3	87·0	8 days	73·0	26th	1
	Minicoy	7	29·913			30·010	18th	29·804	3rd	·206													
	Amini Divi	*13*	29·847	+·012	29·788	29·973	17th & 18th	29·724	4th	·249	68·1	83·8	+2·7	78·4	+0·4	83·6	+1.6	10·4	95·6	2nd	76·0	3rd	1
	Gyantse	13,120	?		?	?	?	?	?	?	55·5	73·8		43·7		53·7		30·1	81·5	25th	32·9	1st	4
	Pharijong	14,400	17·908		17·867	17·986	14th	17·783	10th	·203	45·7	61·1		20·6		40·9		40·5	73·3	30th	19·3	19th	5
	Gangtok	5,660?	24·304		24·259	24·447	14th	24·199	7th	·248	65·9	72·6		61·3		66·9		11·3	78·6	2nd	58·0	11th	2
	Gartok (c)	15,100?	17·669			17·860	13th	17·560	7th, 20th & 21st.	·300	50·7	63·2		37·9		50·6		25·3	72·5	27th	33·0	19th	3
	Kashgar (c)	4,255	25·406			25·610	25th	25·160	28th	·450	75·3	89·8	−0·1	62·9	−2·7	76·4	−1·4	26·9	96·6	10th	56·6	6th	4
	Kabul		24·149		24·118	24·291	25th	23·977	29th	·314	76·3	89·4*	+0·2*	57·1	−1·5	73·2*	−0·7	32·3	101·1	27th	48·9	26th	5
	Meshed	3,104	26·660		26·638	26·838	23rd	26·462	29th	·376	73·1	89·8		53·3	−10·1	71·6		36·5	101·6	18th	44·0	22nd	5
	Jask	13	29·532	−·035	29·502	29·664	16th	29·386	7th	·278	86·8	94·8	−1·0	82·3	−0·8	88·5	−0·9	12·5	103·8	7th	77·3	14th	2
	Muscat *	20	29·537	−·016	29·504	29·649	17th	29·365	28th	·284	94·5	100·8	+7·0	89·3	+1·2	95·1	+4·1	11·5	110·8	8th	83·6	1st	2
	Bahrein	18	29·594		29·561	29·705	3rd	29·215	28th	·490	88·5	92·9		82·8		87·9		10·1	100·3	5th	72·3	15th	2
	Bushire	14	29·550	−·024	29·523	29·647	17th	29·355	29th	·292	85·4	90·0	−1·9	80·3*	−0·2*	85·2*	−1·1	9·7	99·8	6th	71·0	11th	2
	Busrah	25	29·615		29·629	29·806	8th	29·394	28th	·412	84·7	97·0		77·0		87·0		20·0	103·6	3rd	70·3	30th	3
	Kerman										81·8	102·4		64·3		83·4		38·1	109·1	25th	52·0	1st	5
	Ispahan (b)	*5,817*	24·142			24·250	4th, 5th & 18th.	23·990	13th & 28th.	·260	73·1	93·3	−1·2	63·9	+2·0	78·6	+0·4	29·4	98·4	21st & 26th	58·2	8th	4
	Tehran (b)	*4,009*	25·563			25·750	22nd	25·375	29th	·375	74·1	94·1	−0·3	66·1	−1·0	80·2	−0·7	28·0	100·6	18th	59·8	3rd, 15th & 16th.	4
	Baghdad	127	29·546	−·033	29·643	29·690	18th	29·303	28th	·387	93·6	103·4	+1·6	75·2	−0·2	89·3	+0·7	23·2	108·4	29th	70·1	6th	3
	Beirut (h)				29·838						78·5	84·8		69·7		77·3		15·1	89·3	26th	60·4	29th	2
	Aden	94	29·670	+·023	29·694	29·774	18th & 19th,	29·580	29th	·194	89·9	95·3	+0·6	85·0	+2·3	90·2	+1·5	10·3	98·3	2nd	80·9	20th	1
	Perim	201	29·511	−·026	29·643	29·591	15th	29·418	29th	·173	88·5	95·0	−0·2	85·0	+2·3	90·0	+1·1	10·0	98·3	30th	83·1	16th	1
	Zanzibar	72	30·072	−·005	30·071	30·153	21st	30·030	6th	·123	75·6	81·9	+0·4	74·2	0	78·1	+0·2	7·7	83·9	13th	72·0	29th	1

N. B.—The elevations in italics indicate barometrical determinations.

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

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

* Mean of 29 days.

B—*concluded.*

at 239 stations in India, etc., in June, 1909—concluded.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 30th June 1909.	Normal rainfall for period, 1st May to 30th June.	Departure from normal of period, 1st May to 30th June 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																Extra India.
22		3	3					1	N 57° E		5·5‖			17						6·3		10			10·29			14·99			3·25	Singapore.
	8	6	7	1	4		1	3	N 43° E		9·5‖			46						2·5		16			14·67			17·78			3·75	Penang.
						30			S 45° W	S 47° W	11·6‖	16·7	-5·1	93	+ 2	88	+12	·878	+·002	2·3	−1·2	0			0·02	1·51	−1·49	1·13	3·97	− 2·84	0·02	Trincomalee.
						26	4		S 51° W	S 62° W	8·0‖	10·5	−2·5	92	+ 6	89	+ 8	·893	+·007	7·1	−0·1	8			3·76	8·23	− 4·47	9·97	19·35	− 9·38	0·92	Colombo.
						4	21	5	N 88° W	S 81° W	15·1	16·2	−1·1	90	+ 2					6·6	−0·1	16			8·03	8·60	−0·57	9·93	15·00	− 5·07	1·84	Minicoy.
						13	14	3	S 74° W					87		81		·916		7·3		13			17·33	13·14	+4·19	17·35	17·24	+0·61	8·31	Amini Divi.
5	1		4	7	6	6			S 20° E		2·5			52		37		·246				4			0·63			1·04			0·12	Gyantse.§
	2	1	2	8	14	2			S 20° E		10·7			70		79		·241				12			3·92			4·06			1·08	Pharijong.
28		1							N 45° E		0·8			3		91		·577		7·4		26			26·93			46·14			3·67	Gangtok.
9	1			7	8	4	3		S 4° E		9·4			50						4·0		0			0·06			0·06			·06	Gartok.
23								7	N 45° W	N 28° W	P	4·8	P	27	+10	49	+10	·424	+·068	2·3	−0·2	0			0	0·31	−0·31	0·30	1·19	−0·89	0	Kashgar.
	4	4		1	2	7	8	4	N 81° W	N 23° E				40	+34	46		·413		0·5	+0·2	2			1·49	0·21	+1·28	3·18	0·75	+ 2·43	1·28	Kabul.
17	5	2	2	3	1				N 63° E		1·7			23		41		·337		1·6	+0·4	0			0·01	0·23	−0·22	0·15	0·97	− 0·82	0·01	Meshed.
1	2		9	4		7		7	N 1° W	S 48° E	16·0*	13·2	+2·8	14	−6	76	+ 9	·948	+·011	0·9	+0·2	0			0	0·11	−0·11	0	0·11	− 0·11	0	Jask.
11	4			2				9	N 29° W	N 27° E	4·8	4·7	+0·1	36	−17	51	−16	·813	+·135	4·6	+3·1	0			0	0·36	−0·36	0	0·36	− 0·36	0	Muscat.
	2	2	2	1		1	16	12	N 54° W		7·8			60		63		·836				0			0			0			0	Bahrein.
7					1	4	6	12	N 75° W	N 37° W	11·9	10·7	+1·2	56	0	69	+ 7	·840	+·055	0	−0·2	0			0	0	0	0	0	0	0	Bushire.
	4				1	1	11	13	N 60° W		7·5			80		50		·596				0			0			0·07			0	Busrah.
	2	3	2	6	6	8	2	1	S		3·6			37		18		·198		0·2												Kerman.
23	1						6		N 81° W	N 50° W	2·3	3·8	−1·5	20	−24	63	+12	·527	+·030	0	−0·1	0			0·06	0	+0·06	0·23	0·11	+0·12	0·06	Ispahan.
15	1	5	3		3	2	1		N 88° E	S 7° W	4·0	3·0	+1·0	14	− 3	51	+19	·432	+·105	0·7	−0·2	2			0·27	0·04	+0·23	0·41	0·37	+ 0·04	0·17	Tehran.
2	14	2						12	N 16° W	N 9° W	12·3	4·9	+7·4	83	+15	33	− 7	·378	−·111	0·5	+0·4	0			0		0	0·14	0·24	− 0·10	0	Baghdad.
1	3					26			S 50° W					76		65		·639		1·5		0			0			0			0	Beirut.
9		10		8		8			S 59° E	S 34° E	8·1	9·3	−1·2	27	+ 1	66	− 6	·898	−·040	2·8	−0·2	0			0	0·01	−0·01	0	0·20	− 0·20	0	Aden.
	6	2	6		1		6	9	N 21° W	N 72° W	10·2	13·4	−3·2	47	− 5	70	− 3	·945	−·010			0			0	0	0	0	0·37	− 0·37	0	Perim.
				14	16				S 24° W	N 13° W	9·3	8·8	+0·5	93	+ 6	82	− 1	·727	−·001	6·3	+1·2	1			0·19	1·75	−1·56	4·75	12·14	− 7·39	0·10	Zanzibar.

‖ Uncorrected for scale error.

§ Wind observations 1 less.

Table C.—Abstract of observations taken at 8 hrs. at 30 fourth-class stations in India, etc., in June, 1909.

Tab

Abstract of observations taken at 8 hr

Number of subdivision.	Station.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.	Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	II.—Eastern Bengal and Assam.																							
4	Bishnath	78·9	89·6	...	64·7	...	77·2	...	24·9	97·3	4th	62·7	11th	34·6	...	...	..	...	...	...	...	...	...	...
	Borjuli	80·0	89·6	...	74·8	...	82·2	...	14·8	97·0	5th	70·7	11th	26·3	...	...	...	...	...	...	...	...	...	...
	Chandkhira	80·9	90·5	...	74·2	...	82·4	...	16·3	97·4	14th	67·5	1st & 16th.	29·9	...	...	...	...	...	...	...	...	...	...
	Doom Dooma	79·2	91·2	...	74·5	...	82·9	...	16·7	99·8	4th	72·0	12th	27·8	...	...	...	...	...	...	...	...	...	...
	Dikom	78·9	89·4	...	75·0	...	82·2	...	14·4	98·4	2nd	72·0	1st	26·4	...	...	...	...	...	...	...	...	...	...
	Golaghat	80·4	89·9	...	75·8	...	82·9	...	14·1	97·5	4th	73·7	10th	23·8	...	...	...	...	...	...	...	...	...	...
	Hailakandi	78·1	90·6	...	75·6	...	83·1	...	15·0	98·0	7th	73·0	18th	25·0	...	...	...	...	...	...	...	...	...	...
	Jorehat	81·7	89·4	...	75·9	...	82·7	...	13·5	95·9	4th	73·8	28th	22·1	...	...	...	...	...	...	...	...	...	...
	Messa	81·8	92·5	...	72·4	...	82·5	...	20·1	97·5	4th	63·2	11th	34·3	...	...	...	...	...	...	...	...	...	...
	Panerihat	75·5	87·8	...	74·0	...	80·9	...	13·8	95·1	5th	71·0	12th	24·1	...	...	...	...	...	...	...		...	...
	Srimangal	81·0	91·2	...	76·3	...	83·8	...	14·9	95·7	5th & 7th	73·4	18th & 22nd	22·3	...	...	...	...	...	...	...	...	...	...
5	Brahmanbaria	80·9	89·1	...	75·9	...	82·5	...	13·2	95·0	1st	69·9	11th, 20th & 21st	25·1	...	...	...	...	...	...	...	...	...	...
	Dam Dim	77·2†	91·3†	...	70·8‖	...	81·1	...	20·5	96·1	6th	61·9	12th	34·2	...	...	...	...	...	...	...	...	...	...
	Goalundo	82·5	88·6	...	76·6	...	82·6	...	11·8	92·5	16th	73·4	19th	19·1	...	...	...	...	...	...	...	...	...	...
	Kalchini	79·0	87·9	...	73·2	...	80·6	...	14·7	94·1	4th	69·9	11th, 12th & 13th.	24·2	...	...	...	...	...	...	...	...	...	...
	Nagrakata	77·4	87·1	...	74·0	...	80·6	...	13·1	94·1	1st	69·0	11th	25·1	...	...	...	...	...	...	...	...	...	...
	Pabna	82·6	91·9	...	75·7	...	83·8	...	16·2	96·0	1st	72·1	19th	23·9	...	...	...	...	...	...	...	...	...	...
	III.—Bengal.																							
6	Fraserganj											Obser	vatory clos	ed.										
	XI.—Central Provinces.																							
24	Chhindwara	80·3	93·2	...	75·1	...	84·2	...	18·1	104·7	1st	70·5	29th	34·2	...	3	...	...	...	1	3	10	13	N 67° W
	Hill Stations.																							
	Panighatta	78·5	85·8	...	72·8	...	79·3	...	13·0	93·1	4th	69·1	11th	24·0	...	...	...	...	...	...	...	...	...	...
	Kurseong	67·6	72·7	...	64·0	...	68·4	...	8·7	77·3	4th	60·2	11th	17·1	...	...	...	...	...	...	...	...	...	...
	Poo	...	73·4	...	48·1	...	60·8	...	25·3	77·6	1st	43·9	20th	33·7	23	...	1	...	...	3	3	...	...	S 14° W
	Kargil	64·7	84·5	...	51·6	...	68·1	...	32·9	92·5	27th	45·2	20th	47·3	...	5	1	...	4	...	6	2	12	N 72° W
	Killa Drosh	77·5	93·8	..	66·1	...	80·0	...	27·7	105·2	27th	41·1	7th	64·1	21	2	2	...	4	...	1	...	...	S 88° E
	Pishin	...	96·6	...	61·7	...	79·2	...	34·9	102·4	27th	53·6	3rd	48·8	...	...	...	...	...	...	...	...	...	...
	Kalat	75·8*	90·1	−2·1	53·9	+5·0	72·0	+1·5	36·2	96·0	25th	46·9	3rd	49·1	...	2	...	5	...	22	...	1	...	S 11° E
	Extra India.																							
	Ahwaz ††	...	107·3	...	81·2	...	94·3	...	26·1	111·4	14th	72·4	14th	39·0	...	...	...	...	...	...	...	...	...	...
	Birjand	80·8‡	92·3	...	68·7	...	80·5	...	23·6	97·4	15th	50·9	2nd	46·5	3	2	11	2	...	2	...	...	1	N 45° E
	Chumbi	53·9*	64·8*	...	49·8	...	57·3	...	15·0	79·7	24th	45·1	11th	34·6	...	...	...	...	...	...	...	...	...	...
	Kermanshah											Regist	ered not re	ceived										
	Koweit	...	97·1	...	82·3	...	89·7	...	14·8	106·3	4th	77·7	14th	28·6	...	...	...	...	1	...	...	3	26	N 49° W
	Maidan	...	110·4	...	78·5	...	94·5	...	31·9	116·2	10th	70·9	24th	45·3	...	...	...	...	...	...	...	...	...	...

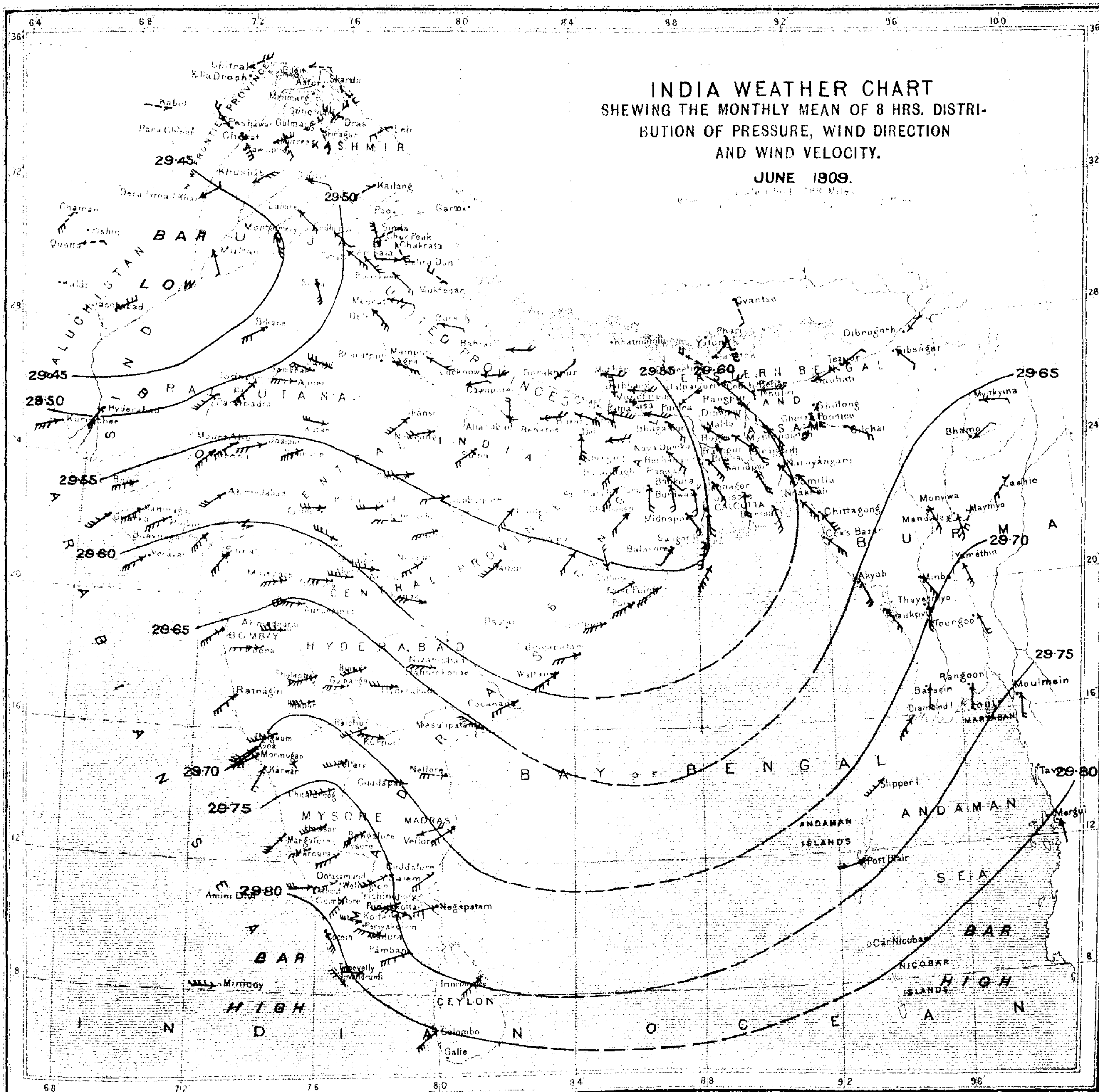
† Mean of 29 days. * Uncorrected for scale error. ‡ Mean of 27 days. ‖ Mean of 25 days.

C.

at 30 fourth-class stations in India, etc., in June, 1909.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.										Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 30th June 1909.	Normal rainfall for period, 1st May to 30th June.	Departure from normal of period, 1st May to 30th June 1909.	Heaviest rainfall during month.	
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					II.—Eastern Bengal and Assam.
...	...	...	...	...	93	...	·917	...	...	...	19	...	...	6·84	...	...	14·46	...	...	0·93	Bishnath.
...	...	...	...	...	92	...	·950	...	...	...	18	...	...	15·25	...	...	29·00	...	...	3·95	Borjuli.
...	...	...	...	...	88	...	·926	...	...	...	26	...	...	25·13	...	...	41·18	...	...	2·50	Chandkhira.
...	...	...	...	...	93	...	·937	...	...	...	22	...	...	23·82	...	...	32·10	...	...	3·40	Doom Dooma.
...	...	...	...	...	90	...	·887	...	...	...	21	...	...	24·63	...	...	34·34	...	...	3·57	Dikom.
...	...	...	...	...	90	...	·930	...	...	...	20	...	...	9·25	...	...	14·36	...	...	1·88	Golaghat.
...	...	...	...	...	93	...	·903	...	...	...	25	...	...	18·89	...	...	34·92	...	...	2·58	Hailakandi.
...	...	...	...	...	85	...	·918	...	...	...	21	...	...	7·88	...	...	17·73	...	...	0·95	Jorehat.
...	...	...	...	...	78	...	·857	...	...	...	19	...	...	15·02	...	...	21·82	...	...	2·45	Messa.
...	...	...	...	...	96	...	·847	...	...	...	17	...	...	15·34	...	...	29·91	...	...	3·97	Panerihat.
...	...	...	...	...	88	...	·929	...	...	...	21	...	...	12·13	...	...	27·57		...	1·98	Srimangal.
...	...	...	...	...	92	...	·973	...	...	...	19	...	...	15·92	...	...	24·98		...	3·65	Brahmanbaria.
...	...	...	...	...	94†	...	·884†	...	...	...	23	...	...	30·95	...	...	38·31	...	...	5·50	Dam Dim.
...	...	...	...	...	86	...	·958	...	...	...	17	...	...	11·27	...	...	17·35	...	...	1·50	Goalundo.
...	...	...	...	...	87	...	·871		...	...	22	...	...	39·98	...	...	50·60	...	...	4·36	Kalchini.
...	...	...	...	...	93	...	·874	...	...	...	23	...	...	33·67	...	...	44·18	...	...	5·27	Nagrakata.
...	...	...	...	...	86	...	·963	...	...	...	14	...	...	11·66	...	...	15·23	...	...	3·38	Pabna.
																					III.—Bengal.
											Observatory closed										Fraserganj.
																					XI.—Central Provinces.
5·8	...	...	77	...	78	...	·808	...	...	...	11	...	...	2·55	...	...	3·83	...	...	0·59	Chhindwara
																					Hill Stations.
...	...	...	...	...	85	...	·825†	...	...	...	25	...	...	41·04	...	...	46·76	...	...	6·03	Panighatta.
...	...	...	...	...	93	...	·627	...	...	...	25	...	...	43·16	...	...	51·18	...	...	4·85	Kurseong.
...	...	...	13	...	...	...	...	...	4·3	...	1	...	...	0·29	0·27	+0·02	0·33	0·98	−0·65	0·15	Poo.
...	...	...	77	...	44	...	·270	...	1·8	...	1	...	...	0·12	...	...	0·22	...	...	0·12	Kargil.
...	...	...	13	...	66	...	·612	...	1·2	...	4	...	...	0·65	...	...	2·32	...	...	0·21	Killa Drosn.
...	...	...	...	...	...	...	...	...	0·2	...	0	...	...	0·10	0·03	+0·07	0·11	0·22	−0·11	0·09	Pishin.
...	...	...	70	...	40	...	·357	...	...	...	1	0·50	+·050	0·23	0·46	−0·23	0·23	0·72	+0·49	0·21	Kalat.
																					Extra India.
...	...	...	...	...	...	...	...	...	...	...	0	...	...	0	...	...	0	...	...	0	Ahwaz.
7·8	...	...	52	...	19‡	...	·196‡	...	1·2‖	...	0	...		0·01	...	...	0·14	...	...	0·01	Birjand.§ ¶
...	...	...	...	...	88	...	·369	...	...	...	21	...	...	12·04	...	...	16·14	...	...	2·38	Chumbi.
											Register not received										Kermanshah
...	...	...	90	...	...	...	...	...	0·2	...	0	...	...	0	...	...	0	...	...	0	Koweit.
...	...	...	...	...	...	...	...	...	...	...	0	...	...	0	...	...	0	...	...	0	Maidan.

§ Wind variable 4. †† Observations of 22 days. ¶ Wind observations 5 less. ** Mean of 26 days.

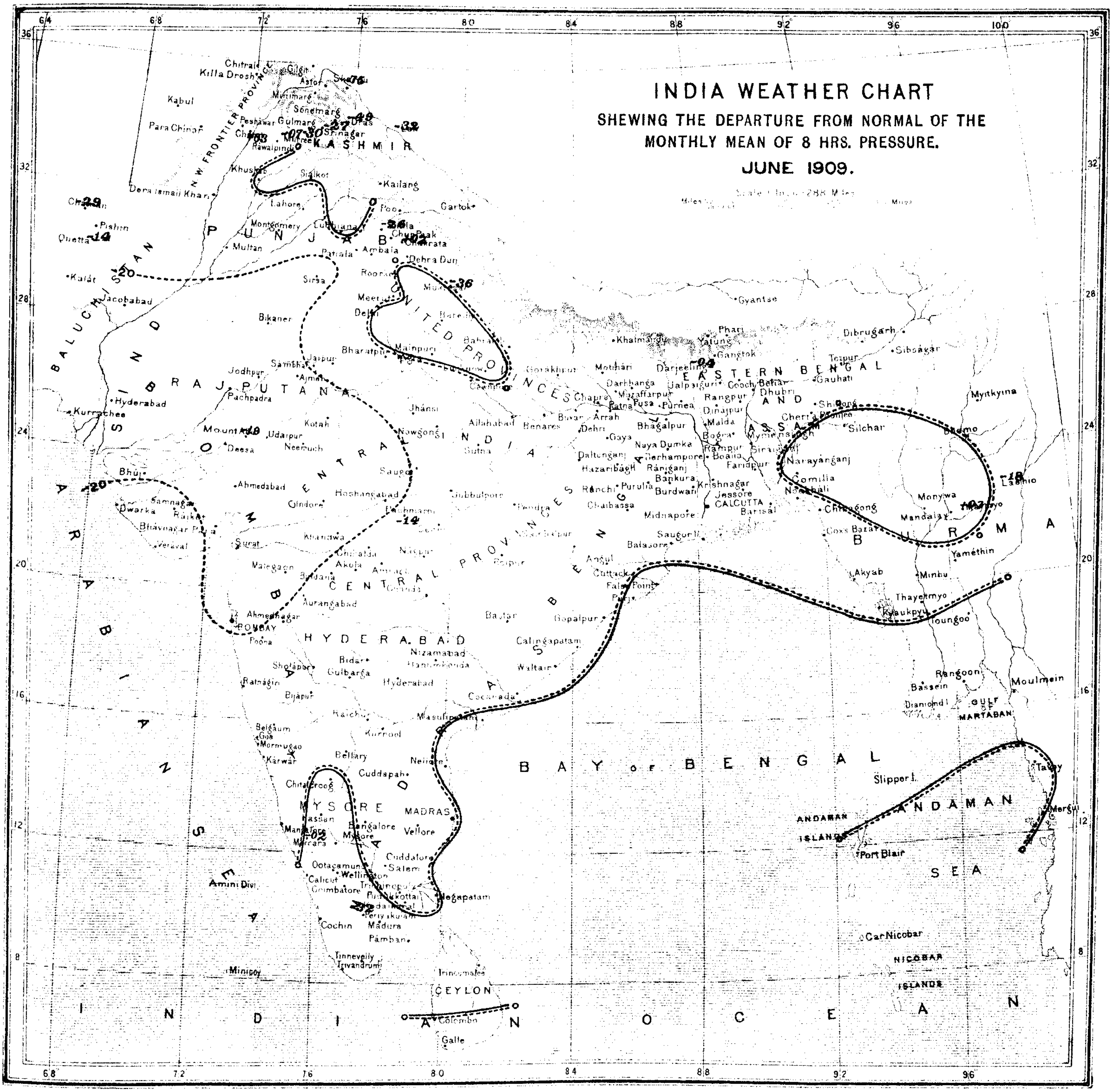


Reg. No. 4003 E. 09—1—5,500. LITHO. BY S. B. MUNDLE.

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

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

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



Reg No. 4003 E., 09—L—5,500. LITHO. by N.L.HALDER.

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

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

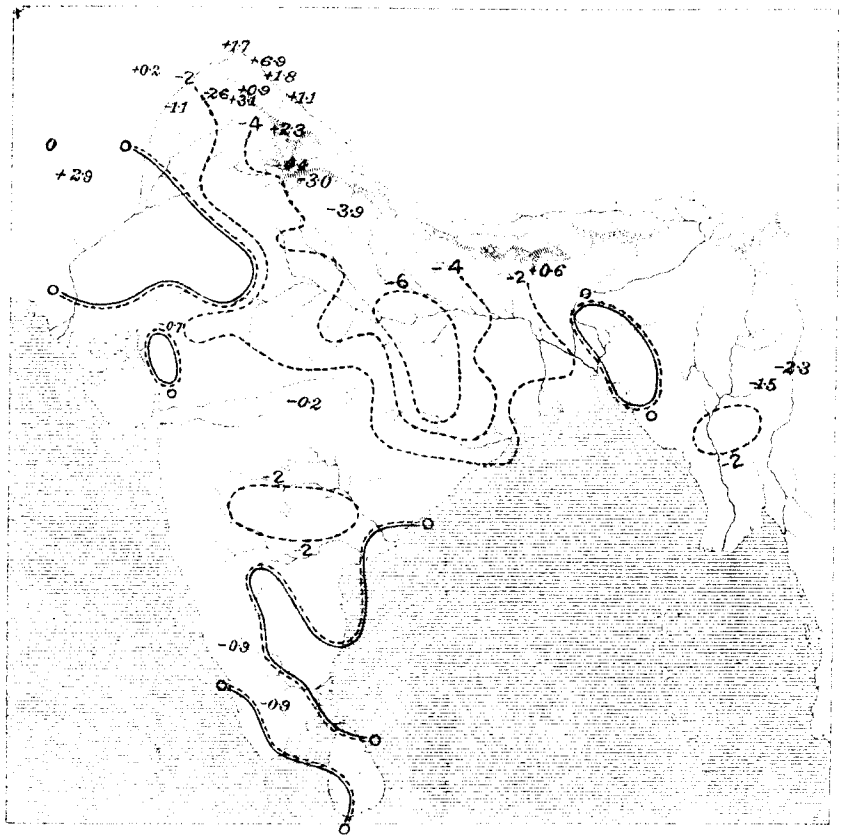


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.

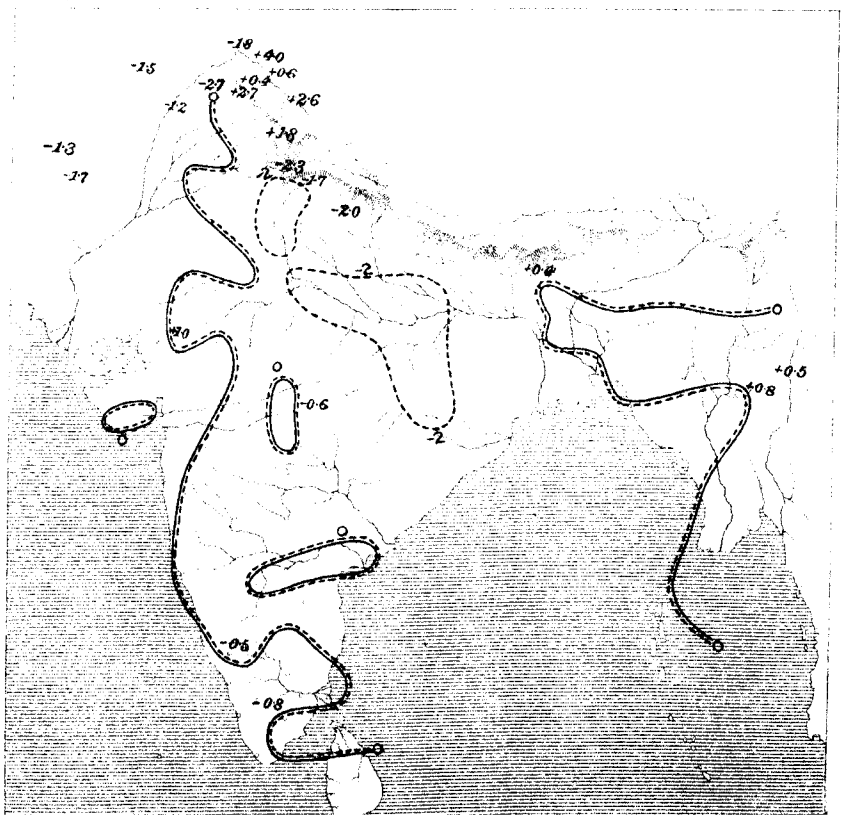


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MEAN TEMPERATURE.

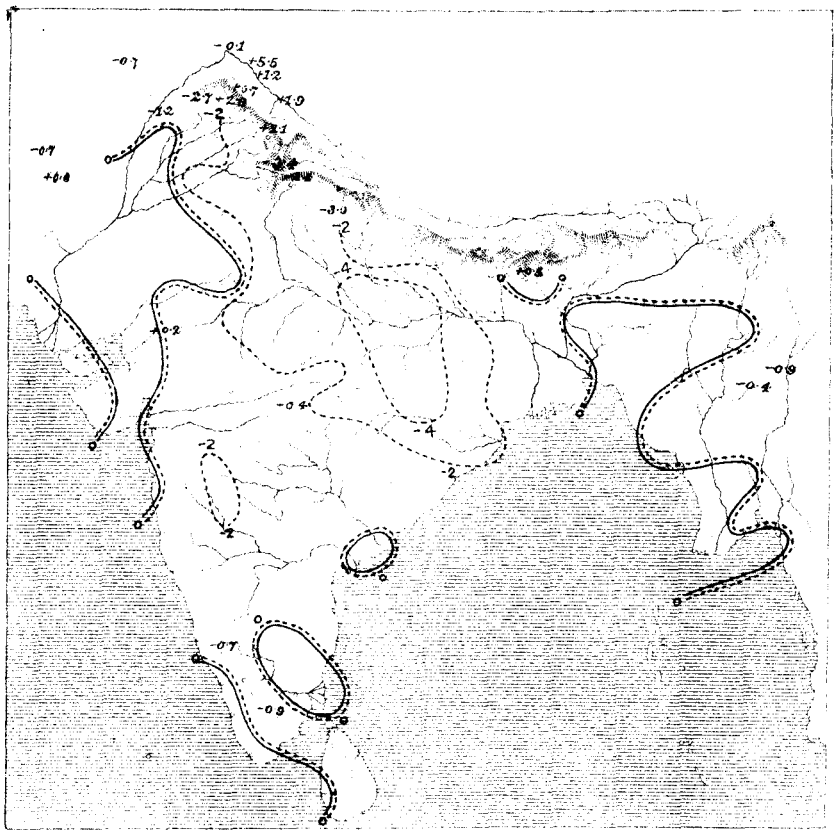


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.

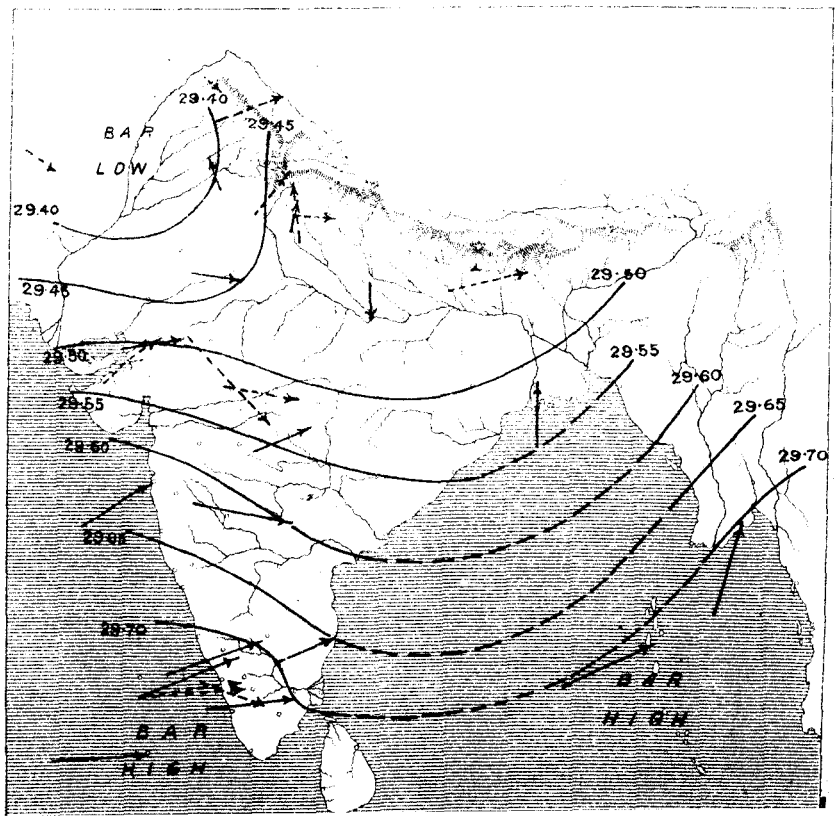


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF ABSOLUTE HUMIDITY AT 8 HRS.

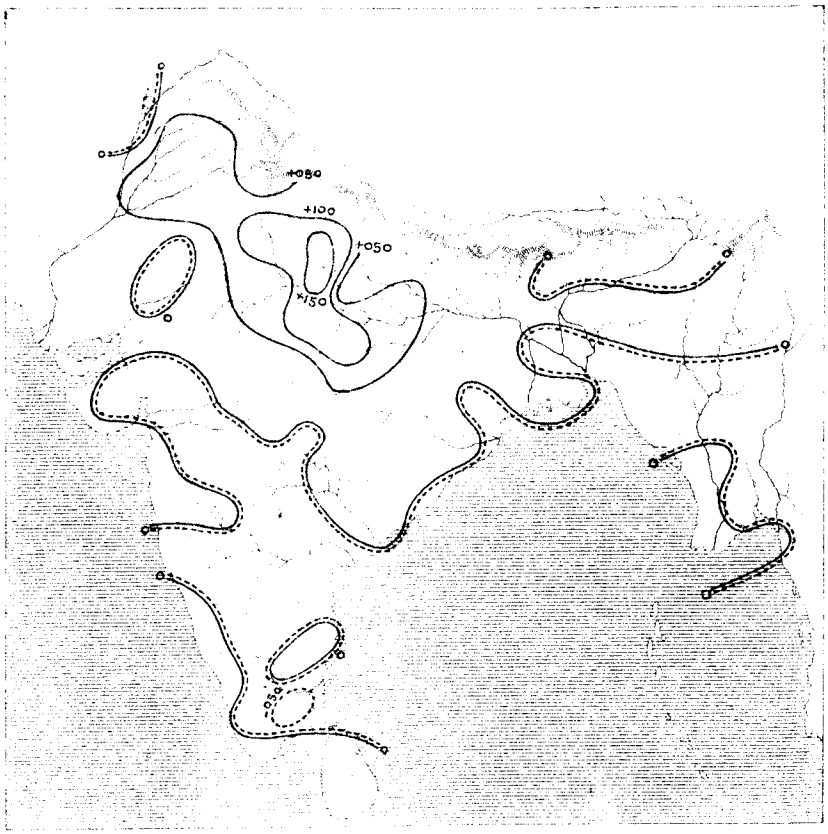


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 HRS.

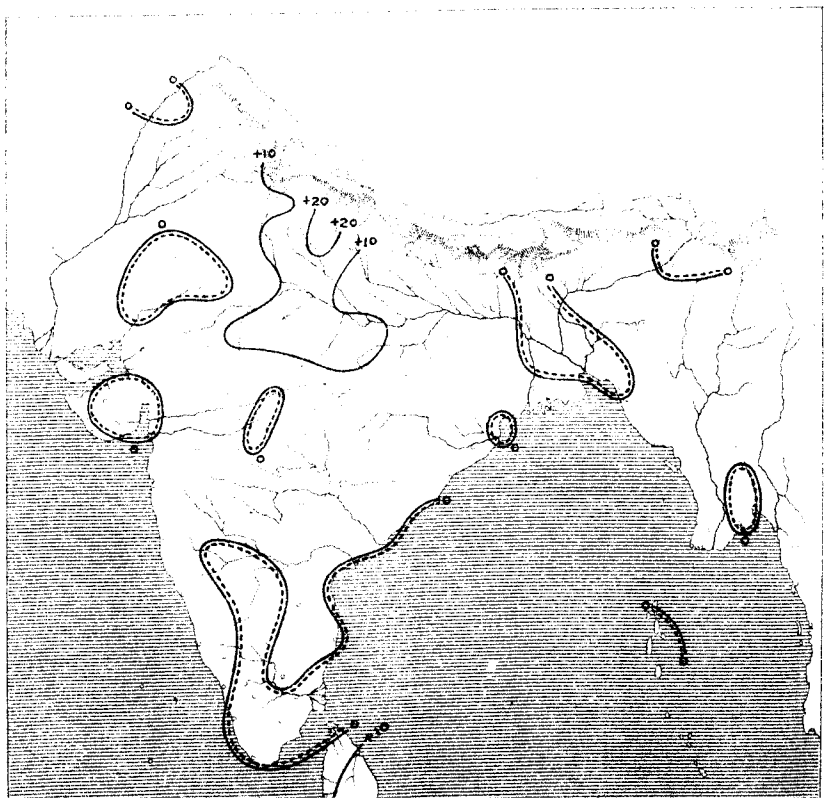


PLATE VI.

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

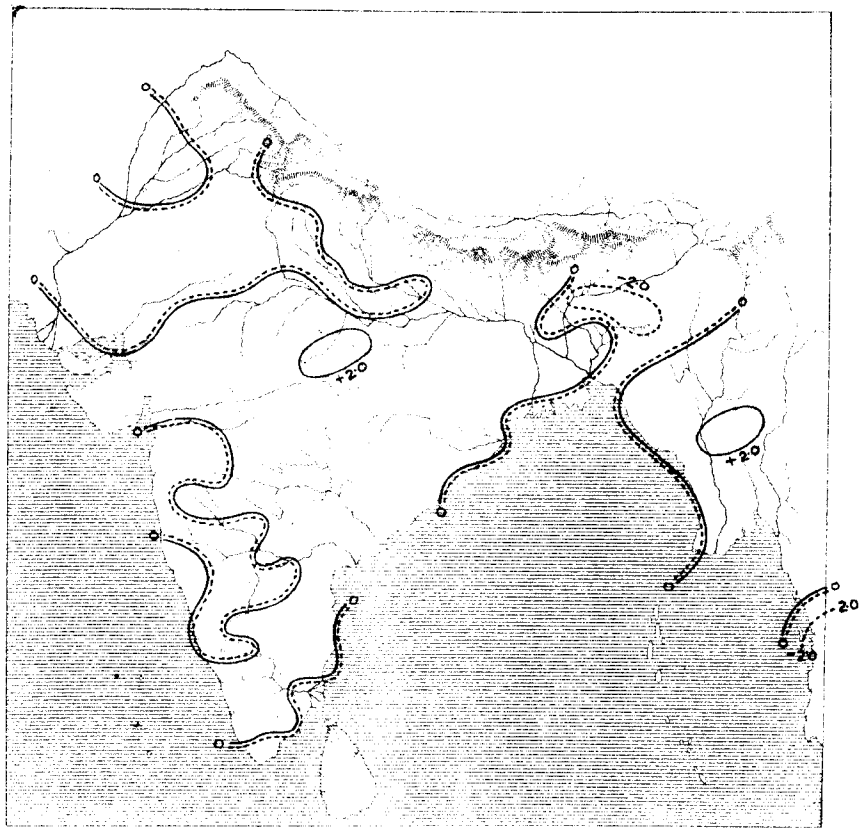
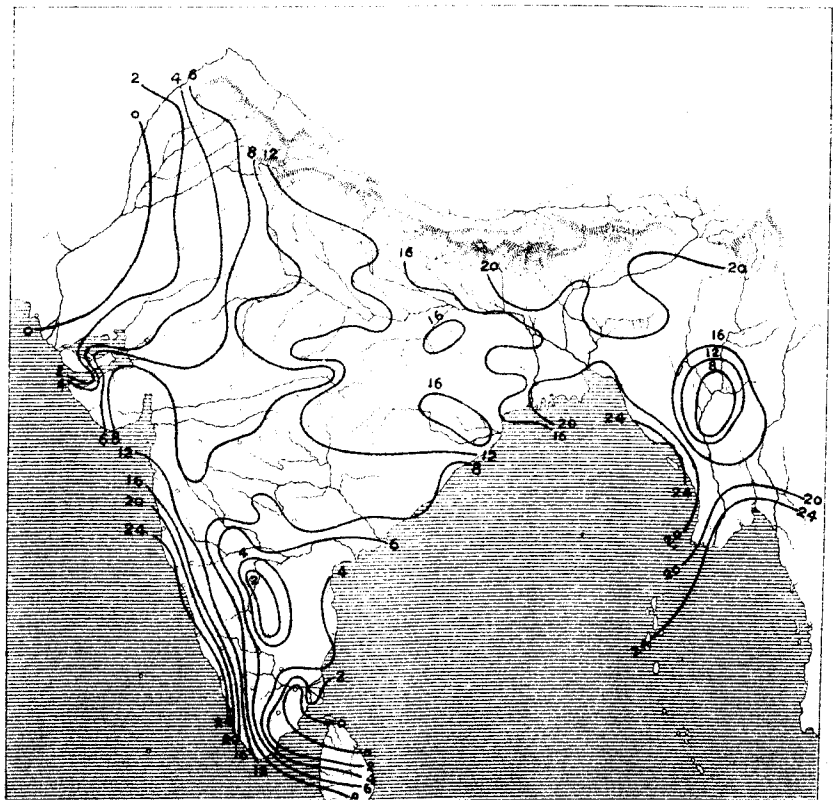
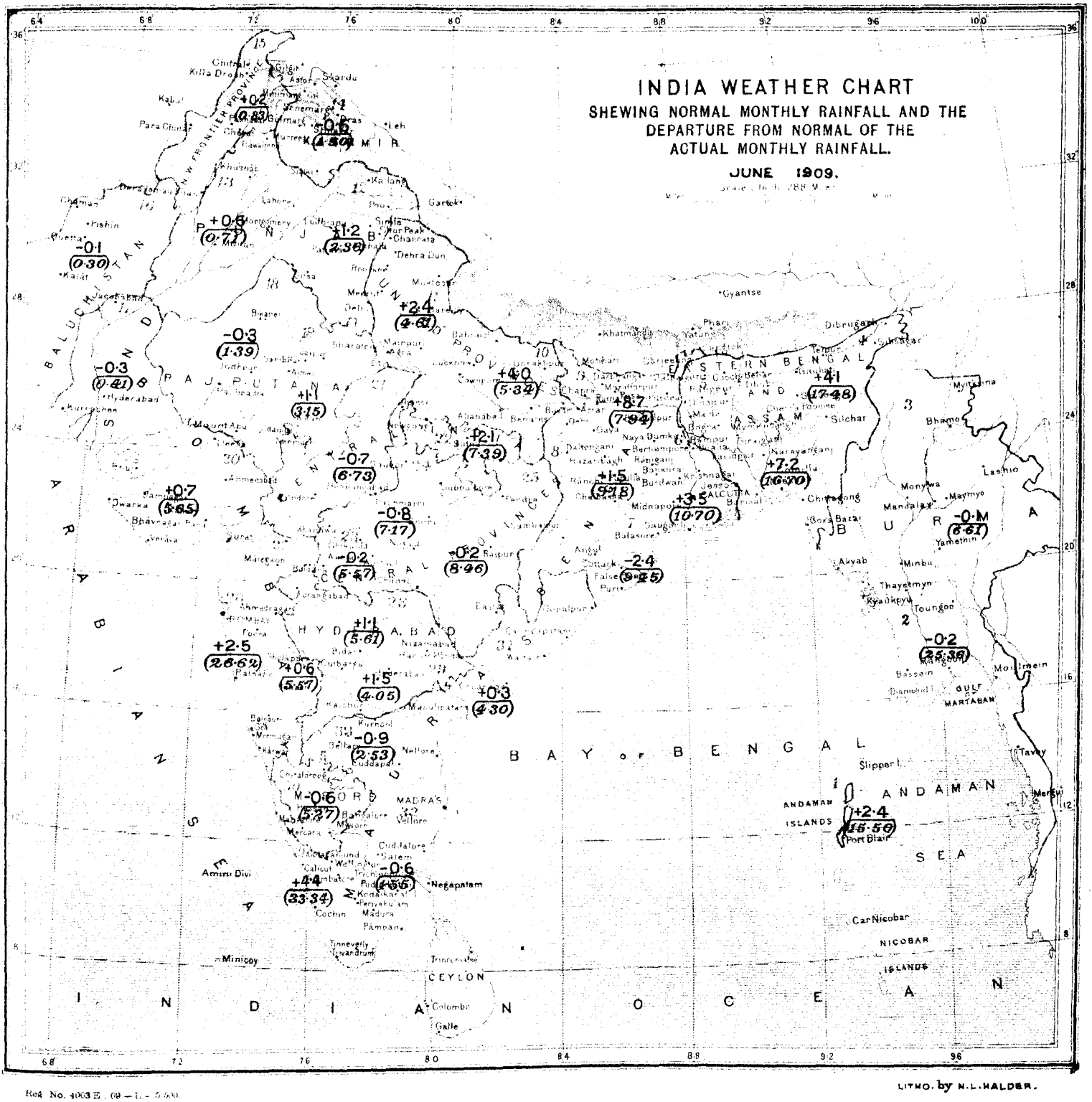


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EQUALLED OR EXCEEDED 0·10 INCH.

(BASED ON THE RETURNS OF TABLE B.)





Reg. No. 4063 E. 09—I.—5,500.

LITHO. by N. L. HALDER.

The country is divided into 34 areas as shewn in the list below. The numbers in that list correspond with the red numbers on the chart, and serve to identify the areas. The numbers in brackets on the chart give the average over the divisions of the normal monthly rainfall; the numbers above these give the departures from normal of the average actual rainfall over the divisions.

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

GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, JULY, 1909.

INTRODUCTION.

THIS review of the weather in India during the month of July, 1909, is based on observations taken daily at 8 hrs. at 238 stations, and on additional observations taken at 10 hrs. and 16 hrs. at 34 stations. In the case of the rainfall section of the review there are utilized the data afforded by the meteorological observatories, and such rainfall statements of the month as had been published in the Government Gazettes by the Provincial Governments prior to the date of the publication of the review. The brief notes on solar, seismic and magnetic disturbances have been supplied by the chief observatories in the Indian area.

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

Summary of the chief features of the weather in India during the month of July, 1909.

2. Strongly marked monsoon conditions prevailed on most days and cloud, relative humidity and rainfall were above normal over by far the greater part of the country. Indeed the only areas where the month's rainfall was deficient to any important extent were Madras Southeast (—43 per cent.) and Eastern Bengal (—34 per cent.). Both monsoon currents were directed more largely than usual to northwest India with the result that the month's total precipitation was from 40 to 87 per cent. in excess over a large part of that region.

As might be expected from the abundance of rainfall, humidity (relative) and the amount of cloud were high in most parts of the country.

The temperature conditions agreed closely with the normal, the departures of mean temperature being within 2° of the average value in all divisions with the exception of Rajputana (—3°·1) and the North-West Frontier Province (—2°·4). Mean monthly pressure was in defect by ·009″.

Solar, seismic and magnetic disturbances.

KODAIKANAL OBSERVATORY.

3. *Solar observations.*—The weather was very unfavourable for solar observations during the month. No observations could be made on 3 days (11th, 12th, and 20th) and on 16 other days it was not possible to observe prominences.

Sunspots.—There were 12 new spot groups observed with daily average of 2·2 as against 15 and 2·2 respectively in June. The average life of a spot was 5·8 days. Up till the 18th of the month there were never more than two groups visible at once, but on the 19th the number suddenly increased to six and the number exceeded two till the 28th. The region of the sun between longitude 30° and 75° and latitude 12° north and 6° north showed the greatest activity.

The distribution of spots in latitude was as follows:—

TABLE 1.

—	0° - 10°	11° - 20°	Extreme latitudes.	Mean latitude.
North . .	4	3	6°, 15°	9°·7
South . .	4	1	5°, 18°	8°·4

Two large spots were seen—Nos. 1690 and 1693. The former came round the east limb on the 16th and disappeared at the west on the 27th. When traversing the eastern half of the sun it developed a number of companions which began to vanish after it had crossed the central meridian. No. 1693 was the largest spot of the month and first appeared near the east limb on the 19th as a scattered group. It soon developed a main spot of round and regular outline which was visible to the naked eye. When crossing the central meridian on the 24th the group covered about 12° of longitude between 35° and 47°, and 5° of latitude between 5° and 10° north. Some of the smaller companions now began to disappear and except for one or two small dots the main spot alone traversed the greater part of the western half of the sun, and went round the west limb on the 30th.

Prominences.—There was a considerable falling off in the record of the large prominences, due to some extent to the bad observing weather of the month. Only 11 of about one minute in height were noted, and 36 of less than half a minute. One metallic prominence was observed on July 6th at latitude 8° south on the eastern limb of the sun.

Magnetic disturbances.—There was a "small" magnetic disturbance on the 13th, but otherwise the magnets were very quiet during the month.

C. MICHIE SMITH,
Director,
Kodaikanal and Madras Observatories.

BOMBAY OBSERVATORY.

Note on the Alibag Magnetic Record.

4. During the month of July 1909, the traces showed 16 calm days, and 15 days of small disturbance.

The days of the month selected as quiet for the purposes of the Magnetic Survey of India are the 6th, 7th, 18th, 19th and 26th.

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

Easterly declination . . .	0° 59′ 52″	
Horizontal force . . .	0·36860	C. G. S. unit
Vertical force . . .	0·16019	" "
Inclinat on (calculated) . . .	23° 29′·4	
Inclinaton (observed) . . .	23° 28′·9	
Horizontal force range . . .	0·00042	C. G. S. unit.
Horizontal force summed range .	0·00283	" "
Declination range . . .	3′·4	
Declination summed range . .	15′·9	

[NOTE.—Summed range means sum without regard to signs of 24 ordinates of diurnal inequality.]

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

TABLE 2.

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

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

Seismic disturbances.

Six seismic disturbances were recorded during the month on the 7th, 23rd, 26th, 30th, and 31st.

TABLE 3.

Date.	Commencement.	Maximum.	End.	Maximum amplitude.	Duration.
	H. M.	H. M.	H. M.	mm.	H. M.
July 7th, 1909 . .	21 41·9	21 45·7	23 33·4	15·2	1 51·5
23rd . .	20 27·2	20 40·2	20 58·8	0·2	0 31·6
26th . .	10 58·6	11 4·3	11 35·2	1·1	0 36·6
30th . .	?	12 25·1	13 31·9	0·9	...
31st . .	?	12 8·0	?	0·3	...
31st . .	20 35·0	20 51·6	21 28·0	0·2	1 3·0

All times given above denote G.M.T.
Sensibility to title ... 1 mm. = 0″·37.

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

CALCUTTA OBSERVATORY.

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

TABLE 4.

Date 1909.	P. T. Commencement. G. M. T.	L. W. Commencement. G. M. T.	Maximum. G. M. T.	End. G. M. T.	Duration.	Maximum displacement on trace from mean position.	REMARKS.
	H. M.	H. M.	H. M.	H. M.	H. M.	mm.	
July 7th .	...	21 43·3	21 47·4	23 32·6	1 49·3	?	Amplitude cannot be measured as the boom moved throughout the trace.
„ 22nd .	4 14·5	...	4 26·1	4 30·2	0 15·7	1·25	
„ 22nd .	7 4·2	...	?	7 12·3	0 8·1	?	Amplitude and time of maximum cannot be determined as displacement occurred at the time of checking the time of the watch.
„ 24th .	10 47·5	...	...	11 30·2	0 42·7	...	Thickening of the line
„ 26th .	10 57·5	...	...	11 33·6	0 36·1	...	Thickening of the line.
„ 31st .	19 24·4	...	...	19 30·5	0 6·1	...	Thickening of the line.
„ „ .	20 5·6	20 36·7	20 38·8	21 32·7	1 27·1	1·00	

Sensibility 1 mm. = ·038″ of tilt

E. P. HARRISON,
Offg. Meteorologist, Calcutta.

SIMLA OBSERVATORY.

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

TABLE 5.

Date		Beginning of 1st P. T.	Beginning of 2nd P. T.	Beginning of L. W.	Time of maximum amplitude.	End approximately.	Duration.	Maximum displacement of style.	REMARKS.
		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	mm.	
2nd	A	18 10·6	?	?	18 10·8	18 53	0 42	0·4	
„	B	18 10·4	?	?	18 10·7	18 16	0 6	0·7	
7th	A	21 39·5	?	21 40·8	?	24 0	2 20	?	Hit the stops.
„	B	21 39·6	?	21 40·9	21 41·3 21 43·4	22 28	0 48	?	„ „
9th	A	19 20·6	...	...	...	19 20·8	0 0·2	†Small	
„	B	19 20·6	...	...	...	19 20·9	0 0·3	„	
15th	A	?	?	?	20 48·6	?	?	„	
„	B	...	...	...	...	...	...	...	No record visible.
22nd	A	23 14·3	?	?	23 15·6	23 20	0 6	0·2	
„	B	23 14·4	?	?	23 15·8	23 24	0 10	0 6	
26th	A	10 58·5	11 2·6	11 6·1	11 6·3	11 49	0 50	0 5	
„	B	10 58·5	11 2·6	*	*	11 19	0 20	*	*Record defective.
30th	A	11 11	?	12 0·5?	12 16	13 12	2 1	1·9	
„	B	11 11·7?	11 29	12 9·5	12 11	12 36	1 24	0·4	

All times are given in G. M. T.
A = E—W component.
B = N—S component.

Magnification of each instrument was 15.
† Displacements less than 0·2 mm. are reported as "Small".

The shock recorded in Simla on the 7th was felt at many places in northwest India and is reported as consisting of 2 or 3 sharp shocks and many minor ones. The following places reported it:—Multan, Lahore, Sialkot, D. I. Khan, Khushab, Rawalpindi, Abbottabad, Murree, Mussooree, Cherat, Nowshera, Chitral, Srinagar, Dras, Gulmarg and Skardu.

In addition the following shocks were reported:—

TABLE 6.

Place at which felt.	Date.	G. M. T. of earthquake.		Intensity.	Duration.	REMARKS.
		H.	M.		Sec.	
Murree	8th	0	30	...	...	1 shock.
Drosh	9th	11	0	1	3	2 shocks.
„	22nd	23	10	1	10	2 „
Chitral	„	23	17	4	12	2 „
Rawalpindi . . .	„	23	40	3	3	1 shock.
Murree	„	23	25	1	3	2 shocks.

NOTE.—The scale of intensity was published in the Monthly Weather Review for January 1909.

Solar Radiation.—Cloudy weather prevented any measurement of the intensity of solar radiation in Simla by Angstrom's pyrheliometer.

J. H. FIELD,
Imperial Meteorologist, Simla.

ROYAL ALFRED OBSERVATORY, MAURITIUS.

7. *Solar observations.*—Observations were taken on the 1st, 4th, 6th to 10th, 12th, 13th, 18th, 19th, 21st, 22nd and from the 25th to the end of the month. Sunspots singly and in groups were observed throughout. The sunspots were numerous between the 21st and the 27th and faculæ were seen on each day of observation.

Magnetic disturbances.

TABLE 7.

Day.	Time.	Disturbance.
10th . .	1½ h. to 2½ h..	Wave in H. F. (+15).
12th . .	8 h. to 13·4 h.	Occasional undulations in H. F. (±6).
17th . .	2 h. to 3 h. .	Wave in H. F. (+9).
22nd . .	3 h. to 4 h. .	Double wave in H. F (−8 to +8).
23rd . .	4 h. to 12h .	Wave in H. F. (+35).
23rd . .	12 h. to 19½ h..	Double wave in H. F. (—8 to +8).
23rd . .	20 h. to 24 h..	Wave in H. F. (—20) : small undulations followed till 24th 22 h.
26th . .	9h. to 15 h. .	Wave in H. F. (—28).
27th . .	14 h. to 19 h..	Wave in H. F. (−24).
28th to 29th	22 h. to 1½ h. .	Double crested wave in H. F. (—15 and—18): undulations followed till 30th, 0 h.

T. F. CLAXTON,
Director

Weather in the Indian monsoon region.

8. Pressure was lower than usual at Mauritius and Seychelles and about normal at Zanzibar. Winds were approximately normal as regards strength, but were inclined to be more easterly than usual except at Zanzibar. Rainfall was within 10 per cent. of the average at Zanzibar, in marked excess at Mauritius, and nearly 40 per cent. in defect at the Seychelles.

The general conditions as represented by these data are such as are favourable to Indian rainfall.

TABLE 8.

	Mauritius.	Zanzibar.	Seychelle
Departure from normal of mean pressure.	—·009	+·004	—·020
Actual mean wind direction	S 75° E	S 2° W	S 42° E
Normal mean wind direction	S 64° E	S 6° E	S 33° E
Actual mean wind velocity (miles per diem).	225	202	284
Normal mean wind velocity (miles per diem).	287	197	289
Rainfall departure from normal	+5·76	+0·25	—0·98

Depressions and cyclonic storms.

9. Three depressions affected the weather during the month. The first lasted from the 9th to the 18th, the second from the 23rd to the 27th and the third from the 29th to the 4th of August. All the three appeared first over the north of the Bay as a mere prolongation of the trough of low pressure and were thence transmitted across northern India, the first and second to the centre of the Gangetic plain and the third to the Western Desert. Their intensity as measured by the departures of pressure at the centre was small, as is usually the case in disturbances of this class; they were however a potent factor in depriving northeast India of its normal share of rainfall.

Pressure.

10. The geographical mean of 8 hrs. pressure was ·009″ below the normal value, as compared with ·002″ in May and ·007″ in June. This steady diminution of pressure relatively to the normal conditions of the period was probably related to the strength of the monsoon currents, and indicated greater ascensional movement than usual over India.

Relatively to the general condition pressure was in excess over the peninsula to the south of the parallel of 17° N, in upper Burma and along the base of the Himalayas from Assam to the North West Frontier Province; and was in defect over the remainder of the country.

The monsoon trough of low pressure was thus even better defined than is ordinarily the case, and its western extremity occupied an unusually southerly position—a circumstance favourable to abundant precipitation in northwest India.

TABLE 9.

DIVISION.	Departure from normal of mean 8 hrs. pressure.
	″
Burma	—·014
Eastern Bengal and Assam	—·007
Bengal	—·019
United Provinces	—·009
Punjab	+·010
North-West Frontier Province	+·017
Sind	—·011
Rajputana	—·019
Bombay	—·013
Central India	—·026
Central Provinces	—·016
Hyderabad	—·009
Mysore	—·003
Madras	+·005

The vertical gradients were somewhat steeper than usual in the north and south, and of normal value in northeast and central India.

TABLE 10.

HILL STATION.	Departure from normal pressure. A	PLAIN STATION.	Departure from normal pressure. B	Departure of pressure difference. B—A.
	″		″	″
Quetta	+·007	Jacobabad	—·008	—·015
Leh	—·010	Lahore	+·013	+·023
Murree	0	Peshawar	+·018	+·018
Simla	—·003	Ludhiana	+·017	+·020
Chakrata	+·026	Roorkee	+·006	—·020
Darjeeling	+·010	Dhubri	+·005	—·005
Mount Abu	—·027	Deesa	—·021	+·006
Pachmarhi	—·011	Khandwa	—·018	—·007
Kodaikanal	—·007	Madura	+·025	+·018

Temperature.

11. Owing to the abundance of rainfall temperature was below normal over by far the greater part of the country. The departures were in general small in amount but reached values between 2° and 4° in the south of the North-West Frontier Province, the southeast Punjab, Rajputana and the adjacent districts of the United Provinces and at a few stations in Gujarat, Hyderabad and Madras. As usual during the rains this result was due largely to the lowness of the day temperature, which was from 2° to 5° in defect over the Bombay Deccan, the northeast of the peninsula and the greater part of northwest India. In the dry region of Baluchistan, on the other hand, the defect was shown almost solely in the night temperature.

The changes of temperature conditions from day to day were not large or important.

TABLE 11.

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

TABLE 12.

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
1. Bay Islands	84·2	76·1	80·2	8·2	15·4	—1·6	—0·9	—0·7
2. Lower Burma	84·0	75·0	79·5	9·0	16·9	—0·6	—0·1	—0·5
3. Upper do.	89·6	75·7	82·7	13·9	24·2	—0·2	+0·1	—0·3
4. Assam	89·4	77·3	83·4	12·1	21·5	+1·1	+0·8	+0·3
5. Eastern Bengal	88·8	78·8	83·8	10·0	17·7	+1·1	+0·5	+0·6
6. Bengal	89·0	78·6	83·8	10·4	17·1	—0·2	—0·5	+0·3
7. Orissa	86·3	77·2	81·8	9·1	18·2	—1·9	—1·1	—0·8
8. Chota Nagpur	86·8	75·2	81·0	11·6	20·4	—0·1	—0·1	0
9. Bihar	90·3	79·4	85·0	10·9	20·3	+0·2	+0·5	—0·3
10. United Provinces, East	89·6	78·2	83·9	11·5	21·6	—2·0	—1·2	—0·8
11. Do. do. West	88·9	77·5	83·2	11·4	21·1	—2·5	—1·0	—1·
12. Punjab East and North	93·8	78·8	86·2	15·0	28·9	—3·0	—0·8	—2·2
13. Punjab South west	101·0	82·8	91·9	18·2	34·4	—2·7	—0·4	—2·3

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
14. Kashmir	78·8	56·7	67·8	22·1	39·4	—1·5	+0·2	—1·7
15. North-West Frontier Province	99·9	79·6	89·8	20·3	38·1	—3·3	—1·4	—1·9
16. Baluchistan	99·0	72·1	85·6	26·8	42·5	—0·6	—2·9	+2·3
17. Sind	98·2	82·3	90·3	15·9	28·8	—0·1	+0·8	—0·9
18. Rajputana, West	94·3	79·5	86·9	14·7	27·1	—3·7	—1·2	—2·5
19. Do. East	88·3	77·1	82·7	11·2	22·2	—4·8	—1·8	—3·0
20. Gujarat	86·9	77·6	82·2	9·3	18·5	—2·6	—0·7	—1·9
21. Central India, West	84·5	73·2	78·8	11·3	22·1	—1·5	—0·2	—1·3
22. Do. East	86·5	77·7	82·1	8·9	17·9	—2·2	+0·1	—2·3
23. Berar	85·2	72·4	78·8	12·8	24·8	—1·3	—0·5	—0·8
24. Central Provinces, West	84·6	73·7	79·2	10·9	23·1	—1·6	—0·8	—0·8
25. Do. East	84·5	74·1	79·3	10·4	21·7	—2·4	—0·7	—1·7
26. Konkan	82·6	75·1	78·9	7·4	13·2	—0·9	—1·0	+0·1
27. Bombay Deccan	82·6	70·3	76·5	12·3	20·6	—1·8	—0·3	—1·5
28. Hyderabad, North	83·3	68·2	75·8	15·1	23·3	?	?	?
29. Do. South	86·7	72·4	79·6	14·4	25·2	—2·4	—0·8	—1·6
30. Mysore	78·9	66·2	72·6	12·8	20·3	—1·9	—0·4	—1·5
31. Malabar	81·8	73·6	77·7	8·1	13·6	—1·0	—0·7	—0·3
32. Madras, South east	93·9	76·4	85·2	17·4	26·4	—0·5	—0·4	—0·1
33. Do. Deccan	91·8	75·4	83·6	16·4	26·3	—0·6	—0·4	—0·2
34. Do. Coast, North	88·0	77·6	82·8	10·4	20·7	—3·4	—1·3	—2·1

Winds.

12. (*a*) The mean wind directions contained an unduly easterly element over the Indo-Gangetic plain, an indication that the field of the Arabian Sea current was smaller, and that of the Bay current more extensive, than usual. Further the westerly component was very weak over the east of Central India and strong over the Central Provinces.

(*b*) At Sibsagar the resultant direction of the wind was north-east instead of south as usual. A possible inference from this deflection is that there was a frequent flow of dry air from the north down the valley of the Brahmaputra.

(*c*) Except in the North-West Frontier Province, where it was decidedly low, the rate of air movement did not differ to any extent from the normal.

(*d*) The steadiness was considerably greater than the average in the United Provinces, the Punjab, the Central Provinces, Bombay and Hyderabad, and much below the normal in Rajputana where at Jaipur and Sambhar the prevalent direction of wind was northerly and not westerly as is normally the case.

TABLE 13.

Division.	Departure from normal of	
	Hourly wind velocity.	Wind steadiness.
Burma	—0·9	—7
Eastern Bengal and Assam	—0·6	0
Bengal	—0·4	—1
United Provinces	—0·6	+10
Punjab	—0·2	+6
North-West Frontier Province	—1·2	—2
Sind	—2·5	—7
Rajputana	—1·5	—27
Bombay	+0·2	+9
Central India	—1·7	—2
Central Provinces	+0·7	+11
Hyderabad	—0·5	+11
Mysore	+2·0	0
Madras	+0·6	+6

Humidity and cloud.

13. The air was on the mean of the month somewhat more humid than usual in Central India, the United Provinces, the Punjab, the North-West Frontier Province, Sind and Rajputana, but elsewhere in the plains the deviations from normal of the hygrometric conditions were small and of no significance. In the hills the air was excessively dry in Baluchistan in point both of absolute and relative humidity, and on the whole rather damp in the western Himalayas. These departures agreed roughly with those of rainfall.

Like rainfall, the cloud proportion also was in excess of the normal in most parts of the country, the only important exceptions being Eastern Bengal and Assam, and Bengal.

TABLE 14.

Division.	Hygrometry; 8 hrs.				Cloud.	
	Mean humidity.	Departure from normal.	Mean vapour tension in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.
	%					
Burma	90	+ 1	·872	—·004	8·5	+0·4
Eastern Bengal and Assam	88	— 2	·961	—·002	6·4	—2·0
Bengal	87	0	·941	—·008	7·6	0
United Provinces	88	+ 5	·951	+·035	7·1	0
Punjab	77	+ 6	·917	+·048	5·6	+1·0
North-West Frontier Province.	72	+ 6	·902	+·047	3·6	+0·8
Sind	75	+ 4	·929	+·037	6·7	+1·4
Rajputana	82	+ 9	·878	+·049	7·6	+1·3
Bombay	86	+ 2	·835	—·006	8·5	+0·5
Central India	90	+ 6	·858	+·026	9·0	+1·6
Central Provinces	85	+ 1	·786	—·015	8·9	+1·1
Hyderabad	82	+ 4	·709	—·012	7·9	+1·0
Mysore	86	+ 3	·630	—·004	9·3	+0·7
Madras	75	0	·769	—·015	7·6	+0·2

Rainfall.

14. The month's rainfall was abundant over a large part of India and its distribution bore a strong resemblance to that of the corresponding month of last year. Precipitation in the region served by the Bay current was deficient except in the Bay Islands, Burma and Orissa; while that in the field of the Arabian Sea current was above normal except in Berar, the Central Provinces West, Madras Southeast and Madras Deccan. The excess was more than 30 per cent. in amount over the whole tract of country extending from the western limits of Bihar to Sind and the North-West Frontier Province, and was greatest in the Punjab Southwest which received nearly double its normal quantity: it was considerable also in the Bay Islands, Orissa, the Central Provinces East, the Konkan, Hyderabad South, Mysore, Madras Coast North and Kashmir.

In the area of scanty rainfall the defect ranged from 3 per cent. in Berar to 34 per cent. in Eastern Bengal and 43 per cent. in Madras Southeast.

TABLE 15.

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure.
			"	"	"	
1. Bay Islands	21·0	21·0	19·01	14·73	+4·28	+29
2. Lower Burma	26·3	25·3	34·52	29·71	+4·81	+16

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure.
			"	"	"	
3. Upper Burma	10·7	9·7	6·97	6·73	+0·24	+ 4
4. Assam	15·1	19·2	13·31	18·05	—4·74	— 26
5. Eastern Bengal	14·3	17·8	11·66	17·71	—6·05	— 34
6. Bengal	14·8	15·9	9·39	12·33	—2·94	— 24
7. Orissa	18·5	15·0	15·70	12·52	+3·18	+ 25
8. Chota Nagpur	15·6	16·6	10·55	14·09	—3·54	— 25
9. Bihar	12·6	14·4	10·49	13·13	—2·64	— 20
10. United Provinces, East	16·8	12·7	15·88	11·96	+3·92	+ 33
11. Do., West	15·3	11·9	15·34	12·28	+3·06	+ 25
12. Punjab, East and North	10·0	6·9	9·02	6·70	+2·32	+ 35
13. Do., Southwest	5·5	2·9	4·49	2·43	+2·06	+ 85
14. Kashmir	7·3	5·4	5·43	4·25	+1·18	+ 28
15. North-West Frontier Province	6·8	4·1	5·41	3·16	+2·25	+ 71
16. Baluchistan	1·6	1·5	0·98	0·87	+0·11	+ 13
17. Sind	4·7	2·7	4·41	2·40	+2·01	+ 84
18. Rajputana, West	9·6	4·7	7·27	3·88	+3·39	+ 87
19. Rajputana, East	14·1	9·4	11·33	7·92	+3·41	+ 43
20. Gujarat	17·3	13·1	14·73	13·82	+0·91	+ 7
21. Central India, West	15·5	12·6	11·09	9·62	+1·47	+ 15
22. Do., East	19·1	14·2	15·18	13·58	+1·60	+ 12
23. Berar	12·8	12·0	8·89	9·12	—0·23	— 3
24. Central Provinces, West	16·4	15·3	12·33	14·40	—2·07	— 14
25 Do., East	22·3	16·7	20·48	16·66	+3·82	+ 23
26. Konkan	29·8	26·6	50·62	40·60	+10·02	+ 25
27. Bombay Deccan	13·8	11·6	8·86	7·99	+0·87	+ 11
28. Hyderabad, North	15·1	12·3	8·72	8·39	+0·33	+ 4
29. Do., South	13·8	10·2	7·02	5·73	+1·29	+ 23
30. Mysore	11·3	9·4	8·62	7·09	+1·53	+ 22
31. Malabar	29·4	27·5	44·12	39·25	+4·87	+ 12
32. Madras, Southeast	3·2	3·7	1·18	2·07	—0·89	— 43
33. Madras Deccan	6·3	5·9	2·42	2·94	—0·52	— 18
34. Madras Coast, North	14·0	9·7	8·28	6·38	+1·90	+ 30

TABLE 16.

DIVISION.	RAINFALL.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Burma	19·47	17·16	+2·31	+13
Eastern Bengal and Assam	12·48	17·88	−5·40	−30
Bengal	10·85	12·86	−2·01	−16
United Provinces	15·63	12·11	+3·52	+29
Punjab	8·09	5·83	+2·26	+39
North-West Frontier Province	5·41	3·16	+2·25	+71
Sind	4·41	2·40	+2·01	+84
Rajputana	10·19	6·82	+3·37	+49
Bombay	18·34	15·80	+2·54	+16

DIVISION.	RAINFALL.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Central India	12·48	10·99	+1·49	+14
Central Provinces	12·75	12·75	0	0
Hyderabad	7·79	6·94	+0·85	+12
Mysore	8·62	7·09	+1·53	+22
Madras	7·35	6·83	+0·52	+8
Mean of India when the size of the above areas is taken into account.	12·14	11·12	+1·02	+9

Snowfall.

I.—AFGHANISTAN.

15. No information has been received.

II.—NORTH-WEST FRONTIER PROVINCE.

No snow fell beyond a light shower on the 18th on the hills to the east of Chitral.

III.—KASHMIR.

Feeble local snowstorms occurred on the higher mountains on the 7th, 8th, 9th, 15th, 18th, 20th and 21st and 25th to 27th. The accumulations diminished materially, so much so that at the end of the month there was only about half a foot left on the higher mountains near Sonemarg.

IV.—PUNJAB.

(*a*) *Chamba.*—Snowstorms occurred on the Drati pass (elevation 13,000 feet) on the 18th, 19th, 24th and 25th; 18 inches were measured on the last two days.

(*b*) *Kangra.*—There was practically no snowfall below 19,000 feet.

(*c*) *Kilba.*—A snowstorm occurred on the 13th on the Shatul and Rupin passes resulting in a fall of 9 inches in the former locality, and of a few inches in the latter.

V.—UNITED PROVINCES.

(*a*) *Garhwal.*—There was on the whole probably less than the usual amount of snowfall.

(*b*) *Almora.*—During the first twenty days, for which alone information is available, snow fell to a total depth of 7 feet on the Nuwe pass, while 2 to 6 inches were received on the Untadhura, Ralamdhura, Pindari, Kuntela, Byans and Binkaru.

SUMMARY.

16. According to the available information there were in the Himalayan and Afghan mountain regions no heavy general falls of snow, and the previous accumulations had diminished largely in amount, particularly in Kashmir.

Crop report.

17. *Burma.*—The condition of crops generally was good except in parts of Katha and Bhamo. More rain was needed in some of the northern and central districts.

Eastern Bengal and Assam.—Tea was suffering from want of rain. The prospects of jute and rice were generally good.

Bengal.—Winter rice was being transplanted but more rain was wanted. Sugarcane, jute and other autumn crops were doing well.

United Provinces.—Standing crops were good almost everywhere, but a break in the rains was needed; some damage was reported from floods.

Punjab.—Standing crops were generally in good condition except in parts of Sialkot. Autumn crops were being sown.

The North-West Frontier Province.—The condition of crops was on the whole fairly good in Peshawar, and average elsewhere. Extra spring crops were being harvested in Bannu.

Jammu and Kashmir.—Standing crops were in fair to good condition. Fodder was sufficient.

Rajputana.—Standing crops were doing well and prospects were favourable.

Central India.—Autumn crops were being weeded and land prepared for spring crops.

Central Provinces.—Continuous rain had done some damage. Lands were being prepared for spring crops.

Bombay.—Some damage to standing crops was reported from insects and insufficient moisture. Autumn crops were being sown.

Hyderabad.—Crops were in fair to good condition, but some damage had been caused by excessive rain and insects. Early rice was being sown.

Mysore.—Prospects of the season were fair, but more rain was needed in parts.

Coorg.—Rice was being transplanted. Water and fodder were sufficient.

Madras.—Standing crops were generally in fair condition but in some parts they required more rain. Prospects were on the whole fair.

HEM RAJ.

TABLE A.—Abstract of observations taken at 10 hrs. and 16 hrs. at 34 stations in India, etc., in July, 1909.

Ta

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

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Mean of 16 hrs.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to sea-level and gravity, 45° Lat.	Temperature of air. Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Temperature Wet-bulb. Mean minimum.	Mean 10 hrs.	Mean 16 hrs.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	I.—Burma.																				
2	Rangoon . .	18	29·771	29·690	·081	29·734	+·002	29·690	84·6	76·2	8·4	90·4	73·9	16·5	81·2	79·5	78·6	−0·2	74·6	77·4	76·4
	III.—Bengal.																				
6	Calcutta . .	21	·553	·463	·090	·514	−·026	·481	88·5	78·8	9·7	92·3	76·4	15·9	83·9	84·8	83·4	+0·4	77·4	79·6	80·3
	IV.—United Provinces of Agra and Oudh.																				
10	Allahabad . .	309	·236	·141	·095	·193	−·012	·451	89·6	77·9	11·7	95·4	74·2	21·2	85·2	86·7	82·7	−1·8	77·0	80·0	80·6
11	Dehra Dun . .	2,233	27·378	27·300	·078	27·336	−·024	·497	84·6	73·1	11·5	89·3	70·8	18·5	79·6	79·8	77·8	−0·9	71·7	75·3	76·0
	V.—Punjab.																				
12	Lahore . .	702	28·831	28·736	·095	28·780	+·012	·431	96·8	80·7	16·1	105·0	74·3	30·7	89·4	94·4	87·9	−1·2	77·2	80·8	82·1
	VIII.—Rajputana.																				
19	Jaipur . .	1,431	·143	·054	·089	·097	−·018	·463	89·2	77·1	12·1	95·5	73·5	22·0	83·9	86·2	81·9	−2·8	75·3	78·8	79·3
	Udaipur . .	1,925	27·683†	27·609	·074	27·645		·493†	84·8	74·7	10·1	93·5	72·3	21·2	80·9	82·3	78·7		72·7	75·6	76·1
	IX.—Bombay.																				
26	Bombay . .	37	29·698	29·628	·070	29·662	−·010	·639	83·4	77·1	6·3	86·8	75·3	11·5	80·6	80·6	78·8	−0·7	75·4	77·7	77·4
	XI.—Central Provinces.																				
24	Nagpur . .	1,017	28·611	28·514	·097	28·565	−·009	·534	85·6	74·4	11·2	94·7	68·6	26·1	80·0	82·2	78·9	−1·5	72·5	75·0	75·8
	XII.—Hyderabad.																				
29	Hyderabad . .	1,690	·038	27·937	·101	27·993	−·003	·618	84·1	71·8	12·3	91·5	69·6	21·9	7·7	81·5	76·5	−1·4	68·8	71·3	73·3
	XIII.—Mysore.																				
30	Bangalore . .	3,021	26·860	26·776	·084	26·826	−·002	·732	80·9	65·6	15·3	87·5	64·0	23·5	73·9	77·8	71·4	−0·6	64·3	67·6	68·2
	Mysore . . .	2,518	27·371	27·301	·070	27·344	+·010	·784	80·1	66·5	13·6	85·8	64·4	21·4	75·5	76·1	71·4	−1·5	64·8	68·3	68·4
	XIV.—Madras.																				
	Periyakulam .	944							Observatory closed.												
	Pudukkottai .	318	29·522	29·402	·120	29·462		·707	95·5	76·4†	19·1	101·2	70·4	30·8	87·5	91·5	86·0†		71·6	74·5	75·5
	Madras . .	22	·771	·649	·122	·721	+·003	·675	94·7	77·5	17·2	102·2	71·7	30·5	86·9	90·3	84·6	−1·1	74·2	78·2	79·2
	Bay Islands.																				
1	Port Blair . .	58	·768	·698	·070	·737	−·008	·725	83·8	76·4	7·4	86·2	73·2	13·0	81·9	81·5	78·6	−1·3	74·0	77·7	77·4
	Kashmir.																				
14	Srinagar . .	5,204	24·677	24·598	·079	24·634	+·004	24·605	82·8	64·4	18·4	1·8	58·2	33·6	74·5	80·3	71·8	−1·2	60·7	69·3	74·3
	Leh . . .	11,503	19·628	19·528	·100	19·582	−·011	19·550	75·5	51·3	24·2	82·4	44·3	38·1	65·5	72·0	61·6	−1·0	46·2	53·5	57·3
	Baluchistan.																				
16	Quetta . .	5,502	24·438	24·352	·086	24·393	+·002	24·353	93·4	62·5	30·9	100·1	52·0	48·1	84·7	90·9	77·6	−0·7		62·8	63·4

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

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

† Mean of 30 days.

stations in India, etc., in July, 1909.

Vapour tension in inches of mercury.				Humidity.				Cloud.				Wind direction. Total number of 10 hrs. and 16 hrs. winds from											Wind steadiness.		Wind velocity.		Rainfall.		Station.	Number of subdivision.
Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean 10 hrs.	Mean 16 hrs.	Mean of two previous columns.	Departure from normal.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.		
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
																								%	%					I.—Burma.	
·894	·874	·883	—·019	93	84	87	91	− 2	9·2	9·6	9·4	+0·3	1	2	1		4	28	20	6		S 21° W	S 36° W	72	75	63*	122	21·51	2·59	Rangoon.	2
																														III.—Bengal.	
·954	·976	·952	—·019	94	82	82	87	0	8·3	8·7	8·5	—0·1	3		10	13	14	4	18			S 41° E	S 1° W	42	63	115	120	9·94	1·28	Calcutta	6
																														IV.—United Provinces of Agra and Oudh.	
·955	·963	·958	+·013	96	79	76	86	+ 6	9·2	9·4	9·3	+1·2	5	4	11	13	1	2	10	11	5	N 1° W	N 75° E	9	6	99*	175	21·26	4·60	Allahabad.	10
·825	·853	·842	+·021	93	82	81	89	+ 3	8·2	8·5	8·4	+0·9	17	1	2	2	7	10	8	7	5	S 27° W	S 12° W	28	14	19	26	42·82	8·69	Dehra Dun.‡	11
																														V.—Punjab.	
·937	·931	·938	+·075	85	69	58	72	+ 7	4·4	4·2	4·3	0	3	4	4	16	22	2	1	7	3	S 69° E	S 78° E	42	30	95*	82	9·73	3·67	Lahore.	12
																														VIII.—Rajputana.	
·925	·918	·909	+·075	92	80	74	84	+ 8	8·6	8·6	8·6	+1·2	1	3	5	10	7	5	5	15	11	N 84° W	N 78° W	13	30	111	130	8·91	2·12	Jaipur.	19
·832	·836	·820		91	78	76	82		8·9	8·6	8·8		10			1	4	6	16	23	2	S 60° W		60		103*		12·93	1·92	Udaipur.	
																														IX.—Bombay.	
·916	·903	·907	—·014	92	87	86	89	+2	9·1	9·6	9·4	+0·7							23	39		S 74° W	S 75° W	93	83	410	466	0·05	4·73	Bombay.	26
																														XI.—Central Provinces.	
·811	·811	·814	—·013	91	80	75	84	+ 2	8·0	8·3	8·2	—0·7		3	1			10	30	15	3	S 56° W	S 89° W	72	69	163*	209	23·09	3·33	Nagpur.	24
																														XII.—Hyderabad.	
·688	·721	·701	—·022	86	73	68	78	+ 4	8·7	8·5	8·6	+0·6	4							54	4	N 87° W	N 85° W	92	86	195*	238	8·04	1·59	Hyderabad	29
																														XIII.—Mysore.	
·607	·582	·593	—·014	93	73	62	77	0	9·0	9·4	9·2								23	38	1	S 79° W	S 72° W	92	88	291*	230	1·57	0·49	Bangalore.	30
·602	·602	·601	—·016	92	68	68	77	+ 1	9·3	9·6	9·7	+0·5							21	35	6	S 79° W	S 78° W	89	91	336*	346	1·98	0·83	Mysore.	
																														XIV—Madras.	
									Observatory closed																				Periyakulam.	32
·678	·664	·685		78†	52	45	58		7·3	8·6	8·0		3	2				1	21	12	19	S 89° W		69		218*		5·48	1·51	Pudukkottai.§	
·852	·850	·849	+·037	85	67	62	69	+ 1	6·2	7·5	6·9	—0·4	1			1	2	4	16	34	4	S 73° W	S 51° W	77	66	152	190	4·86	1·46	Madras.	
																														Bay Islands.	
·885	·889	·878	—·039	89	82	82	85	− 1	9·3	9·4	9·4	+1·3	2					1	32	26	1	S 65° W	S 48° W	87	86	339*	278	21·07	2·47	Port Blair.	1
																														Kashmir.	
·664	·796	·597	—·042	82	77	75	78‖	− 4	4·6	5·3	5·0	+1·0	14	3	1	3	12	3	1	5	20	N 55° W	N 48° W	16	15	75*	94	6·48	1·47	Srinagar.	4
·311	·344	·300	+·050	71	50	43	55	+ 9	5·9	5·5	5·7	+0·4		3	6	7	1	14	19	11	1	S 33° W	S 75° W	39	39	65	50	0·66	0·30	Leh.	
																														Baluchistan.	
·249	·292				29	19			2·1	3·5	2·8	+1·1	28	2			3	6	1	13	9	S 89° W	S 84° W	29	29	59*	79	0·15	0·03	Quetta.	16

* Corrected. ‡ Wind observations less 3. § Wind observations less 4. ‖ Mean of three previous columns.

T

Abstract of observations taken at 10 hrs. and 16 h

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Mean of 16 hrs.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to sea-level and gravity, 45° Lat.	Temperature of air. Mean maximum	Mean minimum	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Temperatu Wet-bulb Mean minimum.	Mean 10 hrs.	Mean 16 hrs.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	Hill Stations excluding Kashmir and Baluchistan.																				
	Simla . . .	7,232	22·980	22·932	·048	22·954	—·004	22·916	67·0	60·1	6·9	71·2	57·3	13·9	64·0	64·8	63·2	−1·1	58·9	62·2	62·[illegible]
	Sarain . .		22·029	·977	·062	·999		1·961	71·0	58·7	12·3	77·1	55·5	21·6	65·8	68·5	64·5			62·0	63·[illegible]
	Kalabagh . .		20·084	20·051	·033	20·063		20·025	57·4	50·1	7·3	61·6	46·8	14·8	53·8	56·1	53·4			51·8	53·[illegible]
	Chakrata . .	7,022	23·178	23·129	·049	23·148	+·024	23·108	70·1	59·0	10·1	75·3	57·3	19·0	36·3	65·9	64·7	0	59·7	64·3	64·[illegible]
	Muktesar . .	7,592	22·726	22·671	·055	22·697		22·652	71·9	56·9	15·0	75·3	53·[illegible]	21·9	63·2	64·9	64·1		56·5	61·6	62·4
	Katmandu . .	4,388	25·454	25·366	·088	25·408	+·018†	25·362	82·8	58·3	14·5	86·4	63·9	22·5	76·2	79·7‖	75·2	+0·1†	66·5	70·7	72·6
	Darjeeling . .	7,376	22·933	22·901	·032	22·915	+·019	22·870	67·3	58·2	9·1	70·4	56·6	13·8	64·4	65·3	62·4	+0·9	57·5	62·8	63·[illegible]
	Pachmarhi .	3,528	26·213	26·141	·072	25·177	—·023	26·124	74·8	67·6	7·2	81·2	64·1	17·1	70·1	72·8	70·8	−0·7	66·2‖	68·9	70·1
	Mount Abu . .	3,945	25·801	25·738	·063	25·769	—·035	25·720	72·9	66·5	7·4	79·8	63·0	16·8	69·7	71·4	69·8	0	65·5	68·4	69·3
	Chikalda . .	3,642	26·123	26·035	·088	26·079	—·027	26·023	73·2	65·2	8·0	80·7	60·0	20·7	68·8	71·5	68·8	−0·9	65·0	68·0	69·6
	Ootacamund .	*7,327*	23·011	22·956	·055	22·983		22·919	60·0	51·5	8·5	64·9	48·1	16·3	56·5	56·2	55·4		50·5	54·7	54·1
	Kodaikanal . .	7,688	22·777	·722	·055	·750		·685	62·0	52·1	9·9	66·6	48·9	17·7	58·5	57·4	57·0		49·5	54·9	54·7
	Dodabetta . .	8,539	21·995	21·943	·052	21·968		21·905	54·6	47·0	7·6	60·7	44·2	16·5	51·5	51·4	50·4		46·0	50·4	50·2
	Extra India.																				
	Minicoy . .	7																			
	Zansibar . .	72	30·107	30·020	·087	30·071	+·004	30·070	81·0	72·7	8·3	82·1	67·9	15·3	76·4	80·1	76·8	+0·4	67·9	72·0	71·7
	Diego Garcia .										Register	not received.									
	Seychelles . .	15	·007	29·937	·070	29·973	—·020†	29·913	80·6	76·0	4·6	81·9	74·2	7·7	79·0	79·8	77·0	+0·6†	69·7	74·0	73·5
	Mauritius . .	181				30·006	—·009	30·137				76·4	54·7	21·7			68·1	+0·6			

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

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

‖ Mean of 30 days.

A—*concluded.*

34 stations in India, etc., in July, 1909—concluded.

Vapour tension, in inches of mercury.					Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity		Rainfall.		Station.	Number of subdivision
														Total number of 10 hrs. and 16 hrs. winds from																		
From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean 10 hrs.	Mean 16 hrs.	Mean of two previous columns.	Departure from normal.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.		
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
																															Hill Stations excluding Kashmir and Baluchistan.	
·488	·542	·551	·531	+·001	93	91	90	91	+ 3	9·8	9·6	9·7	+0·9																20·68	2·75	Simla.	
	521	542				82	78			8·6	7·9	8·3		19	6	12	4		5	12	3	1	N 13° E		3		43*		12·10	1·51	Sarain.	
	·370	·395				89	87			9·7	9·6	9·7		22	6	5		10	10		1	8	S 62° E		6		123*		22·99	3·22	Kalabagh.	
·510	·582	·593	·566	+·040	93	90	93	94	+ 5	7·3	8·8	8·1	—0·2	29	3			2	27	1			S 2° E	S 66° W	42	42	70*	149	24·78	4·22	Chakrata.	
·453	·535	·541	·514		97	92	88	92		9·2	7·6	8·4		31		3	5	5	9	1	8		S 10° E		18		130*		20·58	3·21	Muktesar.	
·631	·688	·722‖	·684	—·009	91	76	71‖	73	− 2	6·5	6·7	6·6	—0·2	5	5	4	14	2	1	1	29		N 68° W	S 63° W	21	11	26	21	19·48	2·40	Katmandu. §	
·468	·556	·579	·538	+·014	95	92	93	93	− 2	7·7	7·7	7·7	—1·3	16						13	17	16	N 87° W	S 75° E	61	32	63*	86	32·71	6·53	Darjeeling.	
·626‖	·698	·710	·688	+·002	93‖	95	88	92	+ 4	7·9	7·5	7·7	—1·4	6						19	23	14	S 86° W	N 87° W	78	75	308*	259	23·20	5·04	Pachmarhi.	
·618	·682	·693	·674	+·021	95	94	89	93	+ 5	9·1	8·8	9·0	+0·5		1	6		11	5	31	4	4	S 32° W	S 51° W	51	68	245*	276	56·23	11·24	Mount Abu.	
·622	·679	·704	·673	+·012	99	96	91	95	+ 4	8·1	7·7	8·0	—0·9		18	1				1		22	N 52° W	N 54° W	90	67	176*	220	18·29	3·13	Chikalda.	
·356	·410	·399	·385		93	90	88	90		9·2	9·3	9·3								12	17	3	S 84° W		93		233*		5·42	0·30	Ootacamund.	
·329	·397	·403	·376		84	81	86	84		7·9	9·0	8·5		1	1		1	1		2	22	28	N 69° W		82		443		3·49	1·33	Kodaikanal.	
·301	·357	·353	·337		93	93	93	93		9·2	9·3	9·3			1					2	54	5	N 87° W		95		564*		9·15	0·67	Dodabetta.	
																															Extra India.	
																															Minicoy.	
·623	·731	·667	·696	−·021	77	80	65	73	− 4	6·5	5·4	8·0	+0·8	1		1		16	23	16	2		S 2° W	S 6° E	77	83	192*	197	2·72	0·48	Zanzibar.	
									Register not received.																						Diego Garcia.	
·647	·776	·760	·743	—·008	72	78	74	76	− 2	6·4	5·3	5·4	—0·2†	3			2	51	6				S 42° E	S 33° E	92	86	234	239	1·52	0·34	Seychelles.	
			·552	+·045				80	+4			5·7	+0·6										S 75° E	S 64° E			225	287	8·01	3·01	Mauritius.	

* Corrected.

† Departures from old normals.

§ Wind observation less 1.

Table B.—Abstract of observations taken at 8 hrs. at 238 stations in India, etc., in July, 1909.

(1) Provincial means.

(2) Data of stations.

1) Provincial means based on the material in Table B (2) except that the statement of rainfall depends on the complete data of about 2,700 stations.

	Pressure departure from normal.	Temperature of air.								Wind.		Hygrometry.				Cloud.		Rainfall.		
		Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Absolute range during month.	Departure of velocity from normal.	Departure of steadiness from normal.	Mean humidity.	Departure from normal.	Mean vapour tension.	Departure from normal.	Mean cloud amount.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.
Burma	—·014	86·8	—0·4	75·4	0	81·1	—0·2	11·4	20·6	—0·9	— 7	90	+ 1	·872	—·004	8·5	+0·4	19·47	17·16	+2·31
Eastern Bengal and Assam	—·007	89·0	+1·1	78·3	+0·6	83·7	+0·9	10·6	18·9	—0·6	0	88	— 2	·961	—·002	6·4	—2·0	12·48	17·88	—5·40
Bengal	—·019	88·8	—0·5	78·3	—0·3	83·6	—0·4	10·5	18·9	—0·4	— 1	87	0	·941	—·008	7·6	0	10·85	12·86	—2·01
United Provinces of Agra and Oudh.	—·009	89·2	—2·3	77·8	—1·1	83·5	—1·7	11·4	21·3	—0·6	+10	88	+ 5	·951	+·035	7·1	0	15·63	12·11	+3·52
Punjab	+·010	95·8	—2·9	79·9	—0·7	87·8	—1·8	15·9	30·4	—0·2	+ 6	77	+ 6	·917	+·048	5·6	+1·0	8·09	5·83	+2·26
North-West Frontier Province	+·017	99·9	—3·3	79·6	—1·4	89·8	—2·4	20·3	38·1	—1·2	— 2	72	+ 6	·902	+·047	3·6	+0·8	5·41	3·16	+2·25
Sind	—·011	98·2	—0·1	82·3	+0·8	90·3	+0·4	15·9	28·8	—2·5	— 7	75	+ 4	·929	+·037	6·7	+1·4	4·41	2·40	+2·01
Rajputana	—·019	90·5	—4·5	78·0	—1·6	84·3	—3·1	12·5	24·0	—1·5	—27	82	+ 9	·878	+·049	7·6	+1·3	10·19	6·82	+3·37
Bombay	—·013	84·5	—1·9	74·8	—0·6	79·7	—1·3	9·7	17·8	+0·2	+ 9	86	+ 2	·835	—·006	8·5	+0·5	18·34	15·80	+2·54
Central India	—·026	85·5	—1·8	75·4	0	80·5	—1·0	10·1	20·0	—1·7	— 2	90	+ 6	·858	+·026	9·0	+1·6	12·48	10·99	+1·49
Central Provinces	—·016	84·7	—1·7	73·5	—0·7	79·1	—1·2	11·2	23·2	+0·7	+11	85	+ 1	·786	—·015	8·9	+1·1	12·75	12·75	0
Hyderabad	—·009	85·3	—2·4	70·6	—0·8	78·0	—1·6	14·7	24·4	—0·5	+11	82	+ 4	·709	—·012	7·9	+1·0	7·79	6·94	+0·85
Mysore	—·003	78·9	—1·9	66·2	—0·4	72·6	—1·2	12·8	20·3	+2·0	0	86	+ 3	·630	—·004	9·3	+0·7	8·62	7·09	1·53
Madras	+·005	90·2	—1·2	76·1	—0·6	83·2	—0·9	14·2	22·9	+0·6	+ 6	75	0	·769	—·015	7·6	+0·2	7·35	6·83	+0·52

Tab

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

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	I.—Burma.																					
2	Mergui	56	29·793§	−·015§	29·780§	29·883	21st & 23rd.	29·695	29th	·188	76·7	84·0	−0·5	72·9	+0·4	78·5	−0·1	11·1	89·9	3rd	70·9	21st
	Tavoy	19	29·836†	−·010†	29·787†	29·856	18th	29·714	29th	·242	76·1	81·2	−2·1	74·1	0	77·6	−1·1	7·1	87·0	4th, 6th & 8th.	72·8	4 days.
	Moulmein	94	29·722*	+·004*	29·754*	29·831	18th	29·609	29th	·231	76·7	83·4	+0·4	74·1	−0·1	78·8	+0·2	9·[illegible]	89·5	5th	71·8	2nd
	Rangoon	18	29·757	−·022	29·713	29·869	18th	29·618	29th	·251	79·1	84·0	−0·7	76·2	+0·4	80·4	−0·2	8·[illegible]	90·6	5th	73·9	18th
	Bassein	27	29·726	−·021	29·691	29·838	18th	29·571	29th	·267	77·9	84·4	−0·3	75·7	−0·1	80·2	−0·2	8·7	89·7	6th	73·4	18th
	Diamond Island	41	29·727	−·019	29·703	29·832	18th	29·578	29th	·254	79·9	83·4	−0·9	75·6	0	79·5	−0·5	7·8	85·4	9 days	71·2	28th
	Toungoo	164	29·592†	−·017†	29·699†	29·694	18th	29·466	29th	·226	78·6	86·3	−0·4	74·6	−0·5	80·5	−0·5	11·7	94·5	6th	71·8	21st & 24th.
	Kyaukpyu	18	29·676		29·634	29·78[illegible]	20th	29·549	29th	·233												
	Akyab	20	29·657	−·032	29·620	29·766	20th	29·533	16th	·233	78·9	84·6	−0·3	76·8	−0·7	80·6	−0·5	7·6	89·9	7th & 8th	71·5	16th & 23rd.
3	Thayetmyo	121	29·595	−·024	29·658	29·682	21st	29·492	29th	·190	80·1	88·9	0	76·7	+0·4	82·8	+0·2	12·2	91·5	6th	73·9	18th & 24th.
	Minbu	*165*	29·536	−·018	29·645	29·607	19th	29·445	16th & 29th.	·162	79·8	89·3	−2·0	77·3	+0·1	83·4	−1·0	12·0	95·3	6th	75·6	24th & 25th.
	Yamethin	657	29·058	−·028	29·668	29·139	20th & 21st.	28·952	29th	·187	77·7	87·8	−2·2	74·6	0	81·2	−1·1	13·2	95·3	6th	71·[illegible]	24th
	Mandalay	250	29·473	+·014	29·672	29·560	31st	29·381	29th	·179	81·7	95·0	+0·8	77·6	−0·8	86·3	0	17·[illegible]	104·5	7th	74·1	21th
	Monywa	*980*	29·431		29·650	29·519	31st	29·336	12th	·183	81·4	93·1		79·7		85·9		14·[illegible]	102·8	7th	78·6	24th
	Lashio	*2,751*	26·960	−·019	26·906	27·[illegible]59	31st	26·854	12th	·205	72·9	83·5	−0·1	70·1	+0·8	76·8	+0·4	13·4	87·8	7th	68·0	24th
	Bhamo	*381*	29·325*	+·017*	29·661*	29·433	31st	29·222	29th	·207	78·7	90·0	+2·2	75·4	+0·3	82·7	+1·3	14·6	95·9	21th	70·1	8th
	Myitkyina	458	29·221		29·637	29·312	31st	29·109	12th	·233	75·8	89·0		75·4		82·2		13·6	96·2	21th	72·5	2nd & 30th.
	II.—Eastern Bengal and Assam.																					
4	Dibrugarh	353	29·324¶		29·636¶	29·410	27th	29·223	2nd	·187	79·2	87·4		76·1		81·8		11·3	95·9	31st	73·1	2th 21st & 22nd.
	Sibsagar		29·344	+·012	29·632	29·442	27th	29·274	2nd	·168	80·4	88·3	−1·7	73·2	−4·7‖	80·8	−3·2‖	15·1	94·6	23th	68·6	23th
	Tezpur	252	29·3[illegible]*		29·604*	29·508	27th	29·300	17th	·208	80·4	91·0		78·7		84·8		12·3	95·6	13th&31st	75·4	4th
	Gauhati	195	29·435*		29·584*	29·528	26th	29·356	15th	·172	82·1	91·3		78·7		85·0		12·6	93·8	31st	76·1	19th
	Dhubri	115	[illegible]514‡	+·005‡	29·585‡	29·640	27th	29·415	2nd	·225	81·1*	86·4*	+0·5*	79·7§	+1·4§	83·2‖	+1·0	6·7	89·5	13th	77·3	19th
	Silchar	104	29·[illegible]‡	−·008‡	29·616‡	29·690	27th	29·441	16th	·249	82·0	91·8	+1·6	77·4	+0·2	84·3	+0·9	12·4	99·3	8th	72·3	15th
5	Cox's Bazar	36	29·611		29·591	29·735	27th	29·467	16th	·268												
	Chittagong	87	29·546§	−·032§	29·580§	29·672	27th	29·413	16th	·259	80·5	86·2	+0·5	77·0	+0·4	81·6	+0·5	9·2	90·0	[illegible]th, 13th & 17th.	75·0	[illegible]8th & [illegible]th.
	Noakhali	43	29·587		29·577	29·720	27th	29·456	16th	·264	80·6	85·7		78·0		81·9		7·7	89·8	8th & 30th	75·9	15th
	Barisal	12	29·589	−·016	29·547	29·728	27th	29·443	16th	·285	81·7	87·4	+0·1	78·1	−0·5	82·8	−0·2	9·3	91·2	[illegible]th, 8th & 30th.	75·0	18th & [illegible]
	Comilla	36	29·589		29·574	29·710	27th	29·473	16th	·237	81·3	89·1		?		?		?	94·3	7th, 8th & 30th.	?	
	Narayanganj	26	29·579	−·019	29·553	29·698	27th	29·462	18th	·236	82·6	89·2	+0·9	79·2*	0 *	84·2*	+0·5	10·0	93·5	30th	75·8	19th
	Faridpur	46	29·561		29·556	29·683	27th	29·436	16th	·247	81·8	88·0		78·5		83·3		9·5	92·3	8th	75·4	[illegible]0th
	Sirajganj	49	29·559		29·558	29·603	[illegible]th	29·433	16th	·250	82·7	87·4		79·4		83·4		8·0	92·4	5th & 20th	76·8	[illegible]th, 22 & 26th
	Mymensingh	63	29·562	−·003	29·576	29·673	27th	29·447	[illegible]th	·226	83·0	88·3	+2·2	79·2	+0·9	84·3	+1·6	10·1	94·1	5th	76·1	[illegible]th & 22nd.
	Bogra	75	29·538	+·004	29·565	29·635	27th	29·403	16th	·252	83·4	88·7	−0·4	79·2	+0·7	84·0	+0·2	9·5	93·7	8th	75·2	21st
	Rampur Boalia	70	29·529		29·548	29·654	27th	29·403	16th	·251	82·9	89·6		79·3		84·4		10·3	93·1	8th & 30th	74·1	21st
	Malda	72	29·503		29·526	29·628	...	29·386	16th	·242	83·0	89·0		79·4		84·2		9·6	92·8	8th	74·5	5th
	Dinajpur	123	29·468	−·004	29·545	29·608	27th	29·355	16th	·253	82·5	90·4	+1·3	79·7	+0·8	85·1	+1·1	10·7	94·8	31st	77·0	20th & 21st.
	Rangpur	123	29·496		29·573	29·611	27th	29·389	16th	·222	84·2	90·1		78·0		84·0		12·1	95·6	31st	74·0	19th

* Mean of 30 days. † „ „ 28 „ ‡ Mean of 28 days. § „ „ 27 „ ‖ Mean of 25 days. ¶ „ „ 23 „

N.B.—Elevations in italics indicate barometrical determinations.
NOTE.—The barometric readings are not reduced to sea-level, in the cases of hill or plate

B

stations in India, etc., in July, 1909.

Wind direction. Number of winds from: Calm. (25)	N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs., in inches of mercury. (43)	Departure from normal, in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st May to 31st July, 1909. (53)	Normal rainfall for period, 1st May to 31st July. (54)	Departure from normal of period, 1st May to 31st July, 1909. (55)	Heaviest rainfall during month. (56)	Station. (57)
																																I.—Burma.
	3	1		5	6	10	4	2	S 36° W	S 70° W		1·8		46	− 9	96	+ 4	·872	−·003	6·4	−1·1	30	25·60	+4·40	47·49	31·50	+15·99	103·47	81·05	+22·42	5·03	Mergui.
29								2	N 45° W	S 61° W	1·0**	1·6	−0·6	3	−15	93	+ 1	·848	−·021	8·3	+0·1	29	28·00	+1·00	63·49	46·83	+16·66	134·53	112·76	+21·77	5·72	Tavoy.
4			1	3	17	4	2		S 4° W	S 2° E	4·6*	3·8	+0·8	72	+29	95	+ 2	·871	+·002	8·8	+0·3	28	28·20	−0·20	51·19	45·96	+ 5·23	106·83	101·74	+ 5·09	5·62	Moulmein.
2		1	1	4	13	7	2	1	S 9° W	S 45° W	6·0	5·1	+0·9	62	−12	90	− 4	·902	−·011	9·3	+0·3	30	25·70	+4·30	21·51	20·98	+ 0·53	61·69	49·72	+11·97	2·59	Rangoon.
15				1	9	5	1		S 16° W	S 18° W	5·3*	4·5	+0·8	46	−19	96	+ 2	·918	−·001	9·4	+0·6	26	26·80	−0·80	25·17	25·46	− 0·29	64·52	59·18	+ 5·34	2·14	Bassein.
					1	24	4	2	S 53° W	S 43° W	10·3	10·5	−0·2	89	+ 8	90	+ 4	·923	+·026	8·5	−0·3	27	24·00	+3·00	38·88	25·80	+13·08	76·04	59·40	+16·64	5·87	Diamond Island.
10			1	11	8	1			S 26° E	S 31° E	4·3	5·2	−0·9	59	−27	93	+ 1	·910	+·006	8·7	−0·6	27	25·00	+2·00	22·99	17·89	+ 5·10	44·68	38·32	+ 6·36	2·10	Toungoo.
2		1	1	17	5	3	2		S 27° E		6·5**			69						7·0		28			49·04			101·80			4·56	Kyaukpyu.
1		2	5	4	7	10	1	1	S 2° E	S 38° E	5·1	3·9	+1·2	49	− 6	95	+ 1	·932	−·028	8·7	+0·4	27	27·80	−0·80	57·43	52·62	+ 4·81	118·67	109·29	+ 9·38	9·14	Akyab.
1				13	12	5			S 13° E	S 7° E	6·4**	6·8	−0·4	86	− 4	85	0	·879	+·001	9·1	+1·0	14	15·20	−1·20	5·28	6·87	− 1·59	20·67	17·34	+ 3·33	1·27	Thayetmyo.
				27	3	1			S 39° E	S 39° E	7·0	12·3	−5·3	96	+ 4	84	+ 1	·846	−·027	9·0	+2·6	11	8·80	+2·20	6·28	4·34	+ 1·94	22·56	14·89	+ 7·67	1·74	Minbu.
				14	15	2			S 18° E	S 28° E	6·0	10·4	−4·4	92	0	83	+ 4	·830	−·004	9·3	+4·3	14	9·60	+4·40	9·50	4·12	+ 5·38	25·98	15·14	+10·84	2·50	Yamethin.
12				14	5				S 34° E	S 5° E	7·7	9·1	−1·4	59	−22	77	+ 2	·809	−·034	7·3	−0·9	7	6·20	+0·80	4·49	3·05	+ 1·44	16·18	14·39	+ 1·79	1·55	Mandalay.
3		1	1	22	4				S 42° E		5·7			79		81		·868		9·4		7	3·60	+3·40	4·75	2·61	+ 2·14	15·66	11·41	+ 4·25	1·32	Monywa.
13		2			7	9			S 22° W		3·5**			43		89	− 1	·722	−·002	8·8	−0·1	19			9·89	14·71	− 4·82	31·61	31·54	+ 0·07	2·17	Lashio.
30		1							N 45° E	N 70° W	1·2	1·9	−0·7	3	−16	95	+ 3	·932	+·036	8·2	−0·5	18	21·50	−3·50	9·95	19·01	− 9·06	28·53	39·19	−10·66	2·60	Bhamo.
13	1	1	9	5	1	1			S 74° E		2·4**			46		91		·894		8·7		12			7·78			25·21			2·35	Myitkyina.
																																II.—Eastern Bengal and Assam.
14	3	5	1	2	3	1		2	N 53° E		1·5			17		92		·912		8·1		21	20·40	+0·60	16·13	21·00	− 4·87	56·76	54·63	+ 2·13	2·71	Dibrugarh.
10	1	10	1	1	1	6		1	N 53° E	S 11° E	1·0	2·9	−1·9	17	+ 1	90	− 3	·931	−·044	8·1	−0·8	16	19·20	−3·20	15·82	17·12	− 1·30	39·87	43·33	− 3·46	3·54	Sibsagar.
22		3	5	1					N 80° E		3·2			27		91		·940		7·8		13	17·20	−4·20	9·55	13·33	− 3·78	25·18	35·32	−10·14	3·45	Tezpur.
22	1	1	1		2	3	1		S 31° W		1·7			7		88		·974		7·5		13	14·80	−1·80	11·50	10·83	+ 0·67	40·10	31·81	+ 8·29	1·83	Gauhati.
5		1	16	4	3	2			S 70° E	S 83° E	5·1	4·6	+0·5	62	+33	91*	0	·980*	+·036	4·6	−3·8	14	15·80	−1·80	12·34	15·49	− 3·15	65·86	54·09	+11·77	2·26	Dhubri.
26			2	3					S 62° E	N 84° E	3·4	2·7	+0·7	13	+ 6	87	− 3	·949	+·002	4·8	−4·4	15	22·50	−7·50	19·95	18·43	+ 1·52	55·04	57·66	− 2·62	2·78	Silchar.
1		1	6	9	11	3			S 30° E		6·0			71						7·4		19			38·00			65·88			8·47	Cox's Bazar.
4			1	16	9	1			S 29° E	S 36° E	5·8	7·3	−1·5	79	+ 5	88	− 1	·918	−·002	7·1	−1·2	20	19·45	+0·55	19·55	19·94	− 0·39	43·58	52·01	−8·43	4·50	Chittagong.
2			4	18	6	1			S 40° E		7·1			78		88		·921		5·8		21	22·81	−1·81	16·51	22·10	− 5·59	63·96	55·45	+ 8·51	2·00	Noakhali.
6		1	4	9	9	2			S 31° E	S 14° E	2·7	4·3	−1·6	62	+19	90	+ 2	·959	−·020	7·4	−1·5	24	20·58	+3·42	15·43	15·02	+ 0·41	46·40	39·23	+ 7·17	2·62	Barisal.
6			4	15	6				S 41° E		4·5			71		87		·930		4·1		16	19·07	−3·07	8·40	17·05	− 8·65	40·83	45·97	− 5·14	2·08	Comilla.
1		2	6	14	7	1			S 46° E	S 27° E	5·0	7·8	−2·8	76	+ 5	87	− 3	·871	−·010	7·7	−1·0	15	17·78	−2·78	8·70	12·31	− 3·61	22·74	34·39	−11·65	1·67	Narayanganj.
4		1	2	12	11			1	S 31° E		3·7			68		89		·872		8·0		15	17·13	−2·13	7·74	12·47	− 4·73	26·80	33·52	− 6·72	1·40	Faridpur.
2		2	5	16	5	1			S 47° E		4·1			74		87		·981		6·8		12	14·26	−2·26	8·35	11·30	− 2·95	27·99	30·82	− 2·83	3·96	Sirajganj.
6		1	9	12	3				S 60° E	S 49° E	3·0	4·1	−1·1	66	− 2	86	− 5	·971	+·011	7·9	0	12	19·65	−7·65	6·82	15·33	− 8·51	35·53	45·63	−10·10	1·45	Mymensingh.
12	2		15		2				E	S 48° E	1·4	4·2	−2·8	48	−17	81	− 8	·936	−·043	3·9	−4·3	11	15·94	−4·94	8·69	12·64	− 3·96	40·92	33·58	+ 7·34	1·83	Bogra.
25				2	2	2			S		4·2					86		·980		5·9		12	15·15	−3·15	4·18	11·46	− 7·28	19·50	27·70	− 8·20	0·95	Rampur Boalia.
2	1	4	10	9	5				S 67° E		4·8			68		92		1·041		3·2		9	15·45	−6·45	6·86	11·07	− 4·21	23·05	24·81	− 1·76	3·90	Malda.
7			18	3	2	1			S 76° E	S 86° E	4·6	4·0	+0·6	62	+ 5	89	− 1	·987	+·017	6·4	−2·0	10	16·36	−6·36	7·63	14·38	− 6·75	37·03	36·00	+ 1·03	1·52	Dinajpur.
7		1	7	12	4				S 53° E		2·0			65		82		·975		2·9		8	15·42	−7·42	6·21	16·01	− 9·80	52·19	46·33	+ 5·86	1·18	Rangpur.

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

** Uncorrected for scale error.

Ta

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

umber of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	II—Eastern Bengal and Assam—*concld.*																					
	Jalpaiguri	283	? 29·371†	? +·050†	? 29·609†	29·436	27th	29·294	29th	·142	81·7	91·6	+3·4	78·3	+1·5	84·9	+2·5	13·3	96·4	31st	75·9	2nd & 25th
	Cooch Behar	156	29·465		29·575	29·578	27th	29·370	16th	·208	82·4	90·2		70·3		84·8		10·9	94·8	25th & 31st	76·6	4 days
	III.—Bengal.																					
6	Saugor Island	25	29·533	—·030	29·502	29·673	22nd & 27th.	29·386	13th & 16th,	·287	81·9	87·6	—0·2	79·0	—1·6	83·3	—0·9	8·6	92·5	12th	76·5	23rd
	Midnapore	149	29·413		29·508	29·540	22nd	29·258	16th	·282	81·7	88·8		78·4		83·6		10·4	92·3	9th & 11th	76·7	6 days
	Calcutta	21	29·547	—·022	29·514	29·635	27th	29·386	16th	·299	81·3	88·5	+0·5	78·8	+0·3	83·7	+0·4	9·7	92·2	7th	76·5	22nd
	Jessore	33	29·549	—·023	29·529	29·685	27th	29·405	16th	·280	82·5	88·0	—1·2	78·3	—0·7	83·2	—1·0	9·7	93·0	8th	76·7	30th & 31st
	Krishnagar	47	29·532*		29·528*	29·670	27th	29·393	16th	·277	81·6	89·9		79·2		84·5		10·7	93·6	8th	77·0	31st
	Burdwan	99	29·475	—·014	29·522	29·605	27th	29·313	16th	·292	82·0	89·6	—0·6	79·0	—0·4	84·3	—0·5	10·6	94·4	30th	76·3	22nd
	Bankura	313	29·240		29·502	29·362	27th	29·081	16th	·281	81·9	89·3		78·4*		83·9*		10·9	93·1	4 days	75·7	22nd
	Raniganj	334	29·237		29·522	29·361	27th	29·087	16th	·274	80·8	89·6		78·4		84·0		11·2	93·0	8th & 13th	75·5	19th
	Berhampore	67	29·516	—·013	29·532	29·645	27th	29·376	16th	·269	81·9	89·7	+0·3	78·7	—0·1	84·2	+0·1	11·0	94·1	8th	74·7	31st
	Naya Dumka	489	29·084		29·528	29·205	27th	28·944	16th	·261	81·4	89·0		77·8		83·4		11·2	92·9	13th	75·0	22nd
7	Balasore	50	29·511	—·019	29·505	29·650	22nd	29·334	13th	·316	81·5	87·8	—0·7	77·8	—0·6	82·8	—0·7	10·0	91·4	4 days	74·6	17th
	False Point	21	29·564	—·023	29·526	29·720	21st	29·400	13th	·320	80·7	85·7	—1·9	76·8	—1·8	81·3	—1·9	8·9	90·6	12th	74·1	1st
	Cuttack	80	29·492	—·029	29·515	29·639	21st	29·342	13th	·297	80·6	87·7	—2·1	77·5	—1·1	82·6	—1·6	10·2	93·4	8th	74·2	17th
	Puri	24	29·549		29·512	29·727	21st	29·406	13th	·321	81·4	86·1		78·5		82·3		7·6	92·6	24th	74·1	4th
	Angul	455	29·117		29·530	29·258	21st	28·992	16th	·266	79·5	85·9		76·2		81·0		9·7	91·1	7th	73·5	17th
	Sambalpur	486	29·091	—·029	29·525	29·242	21st	28·955	16th	·287	78·9	84·7	—2·8	76·5	—0·8	80·6	—1·8	8·2	92·1	8th	71·6	18th
8	Chaibassa	*733*	28·817*	—·021*	29·499*	28·942	22nd	28·657	16th	·285	79·6	87·9	—1·7	77·7‡	0‡	83·8‡	—0·9	10·2	92·3	7th & 13th	75·7	2nd & 3rd
	Ranchi	2,128	27·463	—·009	29·528	27·568	27th	27·308	16th	·260	75·6	83·4	—0·6	73·4	+0·5	78·4	—0·1	10·0	88·2	11th & 12th.	69·9	18th
	Purulia	*816*	28·741		29·503	28·858	27th	28·582	16th	·276	78·9	89·6		76·6		83·1		13·0	94·5	30th	73·1	24th
	Hazaribagh	2,007	27·573	—·021	29·515	27·676	27th	27·418	16th	·258	77·4	85·1	+0·5	73·1	—0·6	79·1	—0·1	12·0	90·7	11th	70·8	22nd & 24th.
	Daltonganj	*730*	28·824		29·506	28·944	22nd	28·658	16th	·286	80·6*	88·9*		77·5*		83·2*		11·4	95·1	11th	73·5	9th
9	Purnea	124	29·461	+·001	29·549	29·581	27th	29·346	16th	·235	82·7	89·7	—0·3	79·2	+0·5	84·5	+0·1	10·5	94·0	9th	75·2	22nd
	Bhagalpur	160	29·416		29·528	29·536	27th	29·278	16th	·258	83·6	90·2		79·2		84·7		11·0	94·2	13th	74·8	30th
	Monghyr	155	29·405		29·510	29·524	27th	29·282	16th	·242	83·5	90·2		79·1		84·7		11·1	95·4	9th	74·9	25th & 30th
	Darbhanga	165	29·403	—·014	29·522	29·524	27th	29·285	16th	·239	83·3	90·2	+0·7	80·0	+0·2	85·1	+0·5	10·2	94·1	1st & 9th	75·8	30th
	Pusa	188	29·382		29·522	29·497	27th	29·260	16th	·237	83·5	91·0		79·1		86·1		11·9	94·8	14th	75·4	25th
	Muzaffarpur	177	29·395		29·527	29·514	27th	29·280	16th	234	83·5	90·5		79·4		85·0		11·1	95·2	9th	76·5	22nd, 23rd & 25th.
	Motihari	221	29·352		29·534	29·467	27th	29·229	16th	·238	82·2	90·4		79·0		84·7		11·4	94·6	14th	74·8	25th & 26th.
	Chapra	181	29·375		29·509	29·480	27th	29·251	16th	·229	83·1	90·8		79·2		85·0		11·6	96·7	14th	74·9	22nd
	Patna	183	29·370	—·020	29·505	29·489	27th	29·246	16th	·243	84·4	90·2	+0·1	80·3	+0·5	85·3	+0·3	9·9	96·0	14th	73·2	30th
	Arrah	190	29·364		29·505	29·459	27th	29·233	16th	·226	84·4	90·3		80·0		85·1		10·3	95·9	14th	76·2	22nd & 30th.
	Buxar	239	29·300		29·494	29·390	27th	29·172	16th	·218	82·3	89·1		78·7		83·9		10·4	95·0	14th	75·1	3rd, 25th & 30th.
	Dehri	351	29·183		29·490	29·283	22nd	29·047	16th	·236	82·7	90·1		79·8		85·0		10·3	97·3	12th	76·0	22nd
	Gaya	372	29·175*	—·022*	29·498*	29·270	27th	29·030	16th	·240	83·4	91·7	+0·3	79·7	+0·9	85·7	+0·8	12·0	97·9	9th & 14th	74·7	22nd
	IV.—United Provinces of Agra and Oudh.																					
10	Gorakhpur	257	29·302*	—·002*	29·514*	29·413	27th	29·147	2nd	·266	83·1	89·6	—1·5	78·0	—1·4	83·8	—1·5	11·6	94·6	14th & 18th	74·0	8th
	Benares	267	29·279	—·008	29·499	29·372	22nd	29·147	16th	·225	82·1	90·3	—0·9	78·3	—1·3	84·3	—1·1	12·0	96·1	10th	75·1	6th
	Allahabad	309	29·226	—·019	29·487	29·313	21st	29·099	2nd	·214	82·0	89·3	—2·3	77·8	—1·6	83·6	—2·0	11·5	95·6	8th	74·0	1st

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

NOTE.—The barometric readings are not reduced to sea-level, in the cases of hill or p

† Mean of 5 days. * Mean of 30 days. ‡ Mean of 15 days.

3—*continued.*

tations in India, etc., in July, 1909—continued.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal, in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st July 1909.	Normal rainfall for period, 1st May to 31st July.	Departure from normal of period, 1st May to 31st July 1909.	Heaviest rainfall during month.	Station.
5	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																II.—Eastern Bengal and Assam—*concld.*
9		1		1					E	N 88° E	3·0			5	−52	90	− 2	·986	+·037	7·6	−0·9	17	20·16	−3·16	18·41	33·38	−14·97	65·78	68·28	−2·50	3·76	Jalpaiguri.
3		1	11	13	1	1		1	S 63° E		2·5			71		87		·964		7·6		12	18·79	−6·79	18·07	25·58	−7·51	86·62	72·99	+13·63	5·03	Cooch Behar.
																																III.—Bengal.
1	2	7	2	3	6	8	2		S 12° E	S 27° W	15·0	15·3	−0·3	23	−31	90	+ 2	·971	−·025	8·6	−0·7	20	16·74	+3·26	13·24	15·95	−2·71	33·56	31·06	+2·50	2·03	Saugor Island.
2	6	6		2	12	2	1		S 31° E		3·0			19		85		·907		7·2		17	15·95	+1·05	10·00	12·56	−2·56	21·78	28·76	−6·98	1·45	Midnapore.
4		5	4	5	3	8	1	1	S 26° E	S 3° W	4·7§	5·0	−0·3	30	−20	88	− 1	·952	−·015	8·6	+0·2	23	18·96	+4·04	9·94	12·27	−2·33	37·09	29·30	+7·79	1·28	Calcutta.
1		1		8	7	2	1	1	S 14° E	S 21° E	1·5	4·1	−2·6	43	− 7	86	− 4	·970	−·033	7·4	−1·0	20	17·52	+2·48	12·07	12·02	+0·05	28·39	32·52	−4·13	2·00	Jessore.
7	1	2	9	5	3	2	1	1	S 66° E		2·8			39		91		·978		7·1		13	15·87	−2·87	8·53	10·36	−1·83	26·64	26·79	−0·15	2·62	Krishnagar.
6	1	4	9	2	2	5	2		S 68° E	S 3° E	2·9	4·2	−1·3	27	−12	87	+ 1	·954	+·012	8·8	+0·6	13	16·10	−3·10	6·20	12·48	−6·28	23·43	28·75	−5·32	1·55	Burdwan.
4		1	1	4	6	3	2		S 3° E		3·6			32		84		·902		6·9		17	16·46	+0·54	9·48	12·87	−3·39	30·04	27·08	+2·96	1·29	Bankura.
2	1	2	9	3	1	1	2		S 84° E		2·2			32		89		·947		7·5		13	16·39	−3·39	5·54	14·15	−8·61	16·86	27·85	−10·99	1·05	Raniganj.
2		2	13	4	7	2	1		S 56° E	S 25° E	4·3	4·5	−0·2	59	+ 7	87	− 5	·957	−·036	9·2	+0·4	15	15·71	−0·71	10·07	10·51	−0·44	23·69	25·46	−1·77	2·62	Berhampore.
4		1	6	5	4	1			S 51° E		2·8			42		86		·920		6·1		19	18·72	+0·28	7·02	14·14	−7·12	21·35	27·70	−6·35	3·19	Naya Dumka
3	3	5	2	1	2	13	1	1	S 45° W	S 37° W	3·8	5·9	−2·1	27	−27	86	− 2	915	−·055	7·5	−0·7	12	14·94	+2·94	8·55	11·68	−3·13	22·76	29·97	−6·21	1·80	Balasore.
2		1	1	1		7	13	6	N 88° W	S 59° W	9·9	11·2	−1·3	65	− 2	90	+ 3	·936	−·030	8·9	+0·5	15	14·90	+0·10	15·03	11·89	+3·14	29·88	25·42	+4·46	3·43	False Point.
8	1		1		1	8	9	3	S 77° W	S 60° W	3·1§	3·3	−0·2	53	+ 1	85	+ 4	·901	+·010	8·4	+0·9	20	16·13	+3·87	17·44	11·46	+5·98	27·90	26·52	+1·38	2·90	Cuttack.
2	3	3			18	3	2		S 68° W		12·7			52		87		·945		7·9		16	11·74	+4·26	17·02	9·96	+7·06	26·97	20·84	+6·13	5·77	Puri.
4		3		1	2	2	7	12	N 63° W		8·2			48		87		·883		7·1		17			10·57			21·60			1·82	Angul.
				1	1	20	8	1	S 56° W	S 34° W	5·8	4·8	+1·0	89	+29	88	+ 2	·886	−·004	9·6	+1·4	24	19·50	+4·50	21·24	22·82	−1·58	39·24	35·79	+3·45	4·27	Sambalpur.
7		5	1	2	2	10	4		S 37° W	S 66° W	3·5	2·7	+0·8	30	−14	87	+ 2	880	−·018	8·5	+0·8	16	16·68	−0·68	9·31	12·34	−3·03	17·64	25·19	−7·55	1·98	Chaibassa.
	3	4	5	2	5	6	6		S 12° W	S 63° W	7·3	7·9	−0·6	17	−15	89	+ 1	788	−·008	8·5	+0·5	17	19·10	−2·10	14·96	15·81	−0·85	27·03	28·25	−1·22	2·49	Ranchi.
5		9	8	1	2	2	4		N 79° E		3·8			32		95		·944		7·6		15	17·42	−2·42	8·89	12·23	−3·34	18·90	25·22	−6·32	1·98	Purulia.
1	2	2	7	4	6	2	4	3	S 38° E	S 40° W	7·4	8·7	−1·3	23	− 3	84	− 3	776	−·024	8·3	−1·1	13	18·74	−5·74	8·93	14·41	−5·48	15·36	25·85	−10·47	2·16	Hazaribagh.
7									(a) ‖		2·6					86*		·926*		7·2		19	16·16	+2·84	17·94	12·51	+7·43	28·13	19·65	+8·48	5·33	Daltonganj.
1		13	2	15					S 86° E	S 81° E	2·9	3·5	−0·6	72	+21	90	+ 1	1·001	+·020	7·6	+0·4	14	17·13	−3·13	7·92	14·56	−6·64	40·57	29·35	+11·22	1·96	Purnea.
6		1	9	13	1		1		S 61° E		2·9			65		83		·910		7·2		10	15·39	−5·39	5·86	12·22	−6·36	30·14	23·29	+6·85	0·95	Bhagalpur.
2			15	12			2		S 68° E		8·7			78		86		·997		7·5		15			7·33			27·25			1·25	Monghyr.
4		2	20	3	1	1			S 84° E	S 80° E	4·6	4·8	−0·2	76	+21	86	− 2	·986	+·017	7·3	+0·2	11	14·37	−3·37	14·22	11·81	+2·41	42·47	23·02	+19·45	7·34	Darbhanga.
2	1	3	23	1				1	N 81° E					81		86		·990		4·8		14			10·08			40·38			2·16	Pusa.
1	9	1	6	4		1		9	N 13° E		6·7			42		85		·958		4·5		11	14·39	−3·39	5·65	11·90	−6·25	29·54	21·55	+7·99	1·10	Muzaffarpur.
1		9	20	1					N 77° E		3·1			90		88		·980		5·9		12	12·48	−0·48	11·20	12·49	−1·29	26·87	24·04	+2·83	3·10	Motihari.
									?		?			?		86		·982		7·1		13	14·23	−1·23	11·33	11·29	+0·04	20·88	19·04	+1·84	1·50	Chapra.
		1	21	3	4		2		S 76° E	N 81° E	8·5	4·6	+3·9	72	+30	86	0	1·017	+·048	7·8	−0·8	13	14·16	−1·16	12·05	12·66	−0·61	26·17	23·13	+3·04	3·76	Patna.
2	1	7	6	8	3	2	2		S 73° E		3·0			45		82		·987		7·4		13	15·13	−2·13	11·36	13·35	−1·99	23·25	21·77	+1·48	2·75	Arrah.
2			21	1	1	1	4		S 83° E		4·4			57		89		·977		7·8		14	14·39	−0·39	15·23	11·78	+3·45	27·23	18·04	+9·19	2·86	Buxar.
	1	2	14	3	3	6	1	1	S 63° E		6·1			42		84		·955		8·5		16	14·72	+1·28	9·60	11·64	−2·04	25·84	18·99	+6·85	1·53	Dehri.
6	1	10	1	5	1	1	6		N 59° E	S 2° E	2·9	4·0	−1·1	20	+10	83	− 1	·948	+·019	6·7	−2·3	13	15·68	−2·68	16·20	13·67	+2·53	32·99	22·08	+10·91	3·08	Gaya.
																																IV.—United Provinces of Agra and Oudh.
4	2	9	3	2	1				N 61° E	N 63° E	‡‡ 0·9	2·3	−1·4	43	+11	87	+ 1	·988	+·027	3·9	−2·0	15	14·70	+0·30	10·37	13·75	−3·38	25·15	24·18	+0·97	1·86	Gorakhpur.
8		1	8	4	2	5	3		S 34° E	S 7° E	3·5	4·6	−1·1	33	+23	88	+ 2	·963	+·001	8·2	+0·2	18	14·60	+3·40	15·86	11·45	+4·41	27·83	18·32	+9·51	3·10	Benares.
3		8	9	1	1	4	4	1	N 76° E	S 27° W	4·5	7·3	−2·8	27	+21	86	+ 2	·948	+·007	9·6	+1·4	21	13·30	+7·70	21·26	12·15	+9·11	32·28	18·86	+13·42	4·60	Allahabad.

ations, the elevations of which exceed 3,200 feet.

‖ Mean of 27 days.

(a) Indeterminate.
‡‡ Mean of 28 days.

§ Uncorrected for scale error.

Table

(2) Abstract of observations taken at 8 hrs. at 238

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs. in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	IV.—United Provinces of Agra and Oudh—*concld.*																						
	Cawnpore	416	29·114	+·007	29·486	29·205	27th	28·972	2nd	·233	81·9	89·0	−3·5	77·7	−1·9	83·4	−2·7	11·3	95·7	14th	75·0	23rd & 24th.	20·7
	Lucknow	368	29·172	−·011	29·497	29·268	27th	29·029	2nd	·239	81·5	89·3	−2·9	78·2	−1·1	83·8	−2·0	11·1	94·0	14th	72·1	23rd	21·9
	Bahraich	401	29·137	−·021	29·495	29·232	26th	29·015	2nd	·217	82·7	90·2	−1·1	78·9*	+0·1*	84·5*	−0·5	11·3	96·1	18th	72·5	22nd	23·6
11	Jhansi	824	28·725	−·023	29·501	28·834	22nd	28·607	17th	·227	81·0	87·9	−3·3	78·1	−0·7	83·0	−2·0	9·8	96·5	14th	73·5	25th	23·0
	Agra	556	28·973	−·019	29·485	29·091	27th	28·858	3rd	·233	83·0	90·8	−2·5	79·6	−0·9	85·2	−1·7	11·2	97·5	14th	77·0	24th	20·5
	Mainpuri	516	29·029	+·002‡	29·499‡	29·125	27th	28·933	2nd	·192	82·2	90·0	−2·7	78·7	−0·8	84·4	−1·8	11·3	96·3	15th	76·1	5 days	20·2
	Bareilly	568	28·973	−·006	29·499	29·089	27th	28·863	2nd	·226	81·8	89·1	−2·5	78·1	−0·6	83·6	−1·6	11·0	95·3	18th	74·0	25th	21·3
	Meerut	738	28·797	−·006	29·494	28·935	27th	28·679	16th	·256	81·7	90·4	−2·4	77·5	−1·9	84·0	−2·2	12·9	97·1	17th	71·8	20th & 23rd.	25·3
	Roorkee	899	28·659	+·006	29·520	28·800	27th	28·550	16th	·250	81·1	89·3	−2·8	77·2	−1·6	83·3	−1·9	12·1	94·5	14th	74·4	4 days	20·1
	Dehra Dun	2,233	27·369	−·007	29·534	27·505	27th	27·255	2nd	·250	76·4	84·5	−1·0	73·2	−0·9	78·9	−1·0	11·3	88·0	5 days	71·0	1st	17·0
	V.—Punjab.																						
12	Delhi	718	28·824	+·002	29·501	28·954	27th	28·716	2nd	·238	82·2	90·1	−3·9	79·3	−1·4	84·7	−2·7	10·8	102·7	18th	74·7	29th	28·0
	Sirsa	662	28·857	0	29·476	29·000	27th	28·716	2nd	·284	85·6	96·3	−4·2	80·7§	−1·3§	88·2§	−2·8	15·6	103·3	12th	74·1	24th	29·2
	Patiala	*818*	28·732		29·509	28·864	27th	28·608	16th	·256	83·5	91·5		78·5		85·0		13·0	97·2	11th	74·6	21st & 24th.	22·6
	Ambala	892	28·648*	+·004*	29·499*	28·781	27th	28·527	16th	·254	82·3	93·1	−0·2	78·1	−0·7	85·6	−0·5	15·0	100·0	4th	73·0	9th	27·0
	Ludhiana	812	28·736‖	+·017‖	29·511‖	28·884	27th	28·583	16th	·301	82·4‖	93·3*	−3·7*	78·4†	−1·9†	85·5‡	−2·8	14·9	102·0	2nd	73·5	31st	28·5
	Lahore	702	28·821	+·013	29·483	28·988	27th	28·650	16th	·338	85·5	96·7	−3·9	80·8	+1·4	88·8	−1·3	15·9	104·9	12th & 14th.	74·2	20th	30·7
	Sialkot	830	28·699	+·010	29·490	28·858	27th	28·535	16th	·323	84·2	94·8	−2·8	78·7	−0·5	86·8	−1·8	16·1	103·5	2nd	72·0	20th	31·5
	Rawalpindi	1,674	27·884	+·013	29·508	28·067	26th	27·713	2nd	·354	83·2	94·8	−2·5	75·8	−0·9	85·3	−1·7	19·0	104·4	4th	70·9	20th	33·5
13	Khushab	612	28·914*	+·037?	29·487*	29·109	27th	28·723	2nd	·386	86·9	99·8	−2·8	81·7	−0·4	90·7	−1·6	18·1	109·4	2nd	74·9	20th	34·5
	Montgomery	558	28·948*	+·025?	29·463*	29·129	27th	28·773	2nd	·356	88·7	100·8	−3·9	82·4	−1·5	91·6	−2·7	18·4	108·4	4th	75·6	21st	32·8
	Multan	420	29·078	+·018	29·454	29·272	27th	28·905	2nd	·367	89·4	102·5	−1·3	84·3	+0·6	93·5	−0·4	18·2	111·3	4th	75·5	9th	35·8
	VI.—North-West Frontier Province.																						
15	Peshawar	1,110	28·432	+·018	29·506	28·606	27th	28·242	2nd	·364	85·7	100·9	−2·0	78·3	−1·1	89·6	−1·6	22·6	109·7	2nd	72·9	12th	36·8
	D. I. Khan	590	28·928	+·016	29·460	29·134	27th	28·711	2nd	·423	86·4	98·8	−4·6	80·9	−1·6	89·9	−3·1	17·9	110·9	3rd & 4th	71·6	8th	39·3
	VII.—Sind.																						
17	Jacobabad	186	29·280	−·008	29·424	29·465	27th	29·146	2nd & 20th.	·319	90·7	108·3	+0·5	85·9	+1·6	97·1	+1·1	22·4	114·6	14th	80·3	18th	34·3
	Hyderabad	96	29·403	−·012	29·451	29·550	28th	29·270	2nd	·280	84·7	97·7	−1·2	80·6	−0·2	89·2	−0·7	17·1	108·0	13th	74·0	15th	34·0
	Kurrachee	13	29·536	−·012	29·499	29·671	22nd	29·403	2nd	·268	82·7	88·6	+0·5	80·4	+0·9	84·5	+0·7	8·2	92·0	14th	75·0	26th	18·0
	VIII.—Rajputana.																						
18	Bikaner	*771*	28·737	−·019	29·466	28·852	27th	28·630	2nd	·222	85·2	96·8	−3·6	81·5	−1·3	89·2	−2·5	15·3	104·6	3rd & 4th	78·0	10th, 29th & 30th.	26·6
	Jodhpur	780	28·759	−·016	29·515	28·874	23rd	28·662	16th	·212	81·8	92·1	−7·1?	78·5	−2·6	85·4	−4·9?	13·6	101·5	8th	74·3	21st & 29th.	27·2
	Pachpadra	*380*	29·164	+·004?	29·500	29·293	23rd	29·050	15th	·243	82·2	93·9	−3·8	78·6	−1·1	86·2	−2·5	15·3	100·9	2nd	73·4	29th	27·5
19	Jaipur	1,431	28·132	−·017	29·515	28·243	23rd	28·044	16th	·199	80·6	89·3	−4·2	77·1	−1·1	83·2	−2·7	12·2	95·7	14th	73·6	7th	22·1
	Sambhar	1,254	28·200	−·008	29·510	28·411	22nd	28·213	17th	·198	81·0	90·1	−4·2	76·8*	−2·4*	83·5*	−3·3	13·3	97·4	12th	73·9	1st & 21st.	23·5
	Ajmer	1,611	27·959*	−·022*	29·519*	28·080	23rd	27·874	17th	·206	79·4	87·5	−3·8	78·0	+0·7?	82·8	−1·6?	9·5	95·9	3rd	73·7	21st	22·2
	Kotah	819?	28·702	−·027	29·514	28·831	22nd	28·590	17th	·241	82·0	89·6	−5·5	78·8	−2·2	84·3	−3·9	10·8	97·0	9th	76·1	25th	20·9
	Udaipur	1,925	27·673	−·024*	29·535*	27·797	23rd	27·589	16th	·208	78·3	84·9	−5·4	74·6	−1·6	79·8	−3·5	10·3	93·5	9th	71·3	3rd	22·2

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

* Mean of 30 days.
† " " 28 "
‡ " " 27 "
‖ " " 29 "

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

B—*continued.*

stations in India, etc., in July, 1909 —continued.

Wind direction. Number of winds from Calm. (25)	N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st May to 31st July 1909. (53)	Normal rainfall for period, 1st May to 31st July. (54)	Departure from normal of period, 1st May to 31st July 1909. (55)	Heaviest rainfall during month. (56)	Station. (57)
																																IV.—United Provinces of Agra and Oudh—*concld*
9		1	10	3	1	3	4		S 56° E	S 1° E	3·2	4·7	−1·5	27	+13	89	+ 7	·972	+·031	5·8	−1·6	20	12·10	+7·90	18·59	10·96	+7·63	24·41	15·36	+ 9·05	4·40	Cawnpore.
5	1	3	9	8	2	2	1		S 68° E	S 82° E	3·8	3·8	0	49	+25	89	+ 5	·968	+·027	7·5	+0·6	21	14·10	+6·90	23·47	11·53	+11·94	27·56	18·25	+ 9·31	5·48	Lucknow.
5			10	4	2				S 69° E	S 68° E	4·3	3·5	+0·8	46	+ 6	84	− 1	·942	−·015	7·9	+1·2	14	12·80	+1·20	9·00	11·85	−2·86	18·89	20·34	− 1·45	2·45	Bahraich.
6		2	2	2		13	4	2	S 51° W	S 72° W	5·5	4·4	+1·1	43	− 4	85	+ 7	·908	+·038	5·8	−0·7	14	13·10	+0·90	13·38	12·12	+1·26	19·01	18·59	+ 0·42	2·97	Jhansi.
4	1	2	7	12	2	2		1	S 59° E	S 24° W	5·4	5·5	−0·1	56	+14	86	+ 7	·965	+·043	8·5	+1·5	13	10·80	+2·20	12·71	10·60	+2·11	16·00	14·06	+ 1·94	3·70	Agra.
1	3	1	14	2	1	2	7		S 89° E	S 41° E	2·7	2·0	+0·7	25	+22	94	+12	1·037	+·109	3·6	−3·4	20	10·20	+9·80	12·73	8·75	+3·98	18·39	13·91	+ 4·48	4·10	Mainpuri.
2			7	2					S 81° E	S 47° E	1·6	3·3	−1·7	27	− 5	92	+ 7	1·003	+·071	8·4	+1·8	14	13·45	+0·55	17·90	15·47	+2·43	27·01	22·19	+ 4·85	4·61	Bareilly.
3			2	1	3	1			S 25° E	S 63° E	0·9	2·3	−1·4	17	− 9	86	+ 7	·937	+·051	6·9	+0·3	12	9·40	+2·60	15·82	9·35	+6·47	24·00	13·44	+10·56	8·94	Meerut.
5			2	13					S 51° E	S 38° E	2·8*	2·9	−0·1	46	+ 7	87	+ 5	·914	+·035	7·0	+0·6	13	11·90	+1·10	12·24	12·61	−0·37	23·58	18·74	+ 4·84	4·75	Roorkee.
1									(*a*)	S 38° E	1·0¶	1·1	−0·1			90	+ 2	·824	+·017	8·6	+0·6	26	21·20	+4·80	42·82	28·58	+14·24	53·36	40·53	+12·83	8·69	Dehra Dun.
																																V.—Punjab.
4	1	2	11	8	1	3	1		S 74° E	S 22° E	4·4	4·2	+0·2	53	+31	89	+14	·982	+·112	7·8	+1·5	16	9·20	+6·80	10·96	8·48	+2·48	21·36	12·61	+ 8·75	2·27	Delhi.
5		2	2	12	2	6		2	S 28° E	S 16° W	4·5	7·1	−2·6	46	+17	75	+ 8	·925	+·068	6·2	+0·3	6	5·00	+1·00	7·13	4·14	+2·99	9·04	6·64	+ 2·40	5·81	Sirsa.
2	1		7	16	3	1		1	S 53° E		5·3			68		83		·947		7·5		11			7·46			17·91			1·72	Patiala.
5		3	1	21			1		S 53° E	S 62° E	4·6	1·5	+3·1	69	+46	82	− 4	·908	−·029	7·8	+2·1	13	9·80	+3·20	11·99	7·65	+4·34	16·09	11·67	+ 1·42	3·76	Ambala.
0		3		8					S 65° E	S 34° E	1·1	2·4	−1·3	30	− 6	81‖	+ 5	·890‖	−·003	7·4	+1·0	13	7·60	+5·40	18·19	9·27	+8·92	22·29	12·90	+ 9·39	4·25	Ludhiana.
4	2	4	3	11	4		1	2	S 64° E	S 42° E	3·9	3·4	+0·5	43	+ 4	77	+ 6	·955	+·078	5·4	+1·1	7	3·30	+3·70	9·73	5·96	+3·77	13·59	8·87	+ 4·72	3·67	Lahore.
1	3	1	7	5	1	1		2	S 89° E	S 85° E	2·8	2·8	0	29	−18	78	+ 4	·904	+·019	4·3	+0·4	9	9·00	0	5·63	8·01	−2·38	7·50	12·12	− 4·62	1·25	Sialkot.
3	2	5	3	2	1	1	3	1	N 48° E	S 82° E	2·8	2·5	+0·3	17	− 8	73	+ 1	·829	+·021	4·5	+0·3	9	9·10	−0·10	14·10	8·53	+5·57	17·24	12·01	+ 5·23	5·04	Rawalpindi.
6		10	10	2	1	1		1	N 75° E	N 62° E	7·6	7·5	+0·1	56	+ 2	71	+ 6	·907	+·060	3·3	+0·6	5	3·50	+1·50	3·90	4·52	−0·62	5·04	7·02	− 1·98	1·25	Khushab.
1	2	7	8	4	3	4	2		S 81° E	S 15° E	8·5	9·6	−1·1	37	− 2	66	+ 6	·867	+·029	4·0	+1·1	7	3·20	+3·80	2·32	2·48	−0·16	4·82	3·89	+ 0·93	0·78	Montgomery.
7	6	8		6	2	2			N 64° E	S 89° W	1·7	3·1	−1·4	30	− 4	72	+10	·972	+·122	3·6	+1·5	5	2·50	+2·50	4·64	2·41	+2·23	4·64	3·33	+ 1·31	3·16	Multan.
																																VI.—North-West Frontier Province.
0	5	4	1		1		6	4	N 28° W	N 9° W	2·3	4·1	−1·8	37	− 5	66	+ 3	·825	+·027	3·9	+0·7	3	2·10	+0·90	2·47	1·66	+0·81	3·09	2·71	+0·38	1·15	Peshawar.
0	3	8	2	5		1	1	1	N 60° E	N 69° E	2·0	2·5	−0·5	33	+ 1	78	+ 9	·979	+·067	3·2	+0·8	6	3·10	+2·90	5·90	2·38	+3·52	6·01	3·37	+2·64	2·13	D. I. Khan.
																																VII.—Sind.
9	7	5	3	6	4	1		2	N 71° E	S 49° E	6·1	5·6	+0·5	30	−35	67	+ 2	·968	+·065	5·4	+2·8	0	1·60	−1·60	0·07	1·22	−1·15	0·08	1·47	−1·39	0·04	Jacobabad.
1	1				7	20	2		S 39° W	S 47° W	9·7	16·7	−7·0	82	+ 1	74	+ 7	·885	+·070	6·6	+0·6	8	3·30	+4·70	5·99	2·70	+3·29	5·99	3·26	+ 2·73	2·80	Hyderabad.
						6	25		S 82° W	S 76° W	16·1	17·2	−1·1	96	+12	84	+ 2	·934	−·023	8·2	+0·9	3	3·00	0	5·03	3·66	+1·37	5·03	4·37	+ 0·66	3·42	Kurrachee.
																																VIII.—Rajputana.
1	1		3	4	6	9	4		S 18° W	S 29° W	6·6	8·3	−1·7	49	−15	73	+ 7	·886	+·042	5·0	+0·6	11	4·90	+6·10	7·57	3·39	+4·18	9·70	5·97	+ 3·73	1·85	Bikaner.
	1		1	6	16	3	1		S 39° W		4·9			69		82	+15	·886		7·9		14	5·30	+8·70	8·86	4·19	+4·67	9·65	5·95	+ 3·70	1·78	Jodhpur.
						11·0										83	+ 3	·909	−·015	7·7	+0·1	9	5·40	+3·60	3·94	4·63	−0·69	7·16	6·75	+ 0·41	0·78	Pachpadra.
1	3	7	3	1	1	7	4		N 18° E	S 73° W	4·5¶	5·4	−0·9	7	−35	86	+10	·904	+·066	8·5	+1·7	14	10·90	+3·10	8·91	8·66	+0·25	11·30	11·81	− 0·51	3·12	Jaipur.
3	2	4	1			7	3		N 28° W	S 87° W	6·0	8·8	−2·8	23	−34	83	+10	·886	+·065	7·8	+1·6	16	8·80	+7·20	13·12	7·23	+5·89	16·48	9·57	+ 6·91	2·45	Sambhar.
1	2			2	5	7	7		N 83° W	S 87° W	7·3	8·0	−0·7	46	−22	85	+ 5	·860	+·022	7·9	+2·3	16	9·50	+6·50	12·29	7·42	+4·87	14·36	10·51	+ 3·85	1·85	Ajmer.
	2	1	1			9	14	4	S 88° W		4·1			69		82	+12	·885		6·7		16	10·90	+5·10	12·10	10·47	+1·63	19·63	12·99	+ 6·64	2·68	Kotah.
				6	9	6	1		S 48° W		4·3			59		83	+ 8	·804		9·1		16	9·50	+6·50	12·93	6·94	+5·99	21·77	9·67	+12·10	1·92	Udaipur.

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

** Mean of 23 days.
§ „ „ 26 „

¶ Uncorrected for scale error.

(*a*) Indeterminate.

Ta

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

Number of subdivision.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	2
	IX.—Bombay.																						
20	Deesa	466	29·115	—·021	29·534	29·256	22nd	29·021	15th	·235	80·6	90·6	—1·1	77·5	—0·1	81·1	—0·6	13·1	100·8	3rd	74·9	29th & 31st.	2
	Bhuj	395	29·184	—·013	29·530	29·320	23rd	29·086	12th & 15th.	·234	80·8	88·0	—2·0	77·5	—0·6	82·8	—1·3	10·5	94·0	6th	75·0	12th & 26th.	1
	Jamnagar	61	29·529		29·535	29·672	22nd	29·364	14th	·308	82·2	87·6		78·1		82·8		9·5	96·1	8th	74·4	29th	2
	Dwarka	37?	29·570		29·553	29·720	22nd	29·455	12th	·265	81·7	84·7		79·6		82·2		5·1	89·3	6th	75·7	27th	1
	Rajkot	429	29·188	—·010	29·567	29·332	22nd	29·091	12th	·241	80·2	88·4	—2·2	76·0	+0·2	82·2	—1·0	12·4	95·9	6th	72·2	29th	2
	Veraval	*18*	29·641*	+·003*	29·601*	29·772	22nd	29·565	3rd	·207	80·2	81·7§	—2·0§	78·3§	—0·9§	80·1‡	—1·5	3·4	85·2	6th	75·3	27th	9
	Bhavnagar Para	55	29·574	—·047?	29·573	29·723	22nd	29·476	13th & 14th.	·247	81·2	89·2	—4·1	77·4	—1·4	83·3	—2·8	11·8	94·1	4th	75·5	18th & 29th.	1
	Surat	39	29·608	—·025	29·592	29·762	22nd	29·512	14th	·250	79·2	83·4	—3·9	76·5	—0·8	79·9	—2·4	6·9	88·1	6th	73·6	17th	1
	Ahmedabad	163	29·436†	—·038†	29·548†	29·585	22nd	29·346	14th	·239	79·2	88·4	—3·0	77·2	—1·0	82·8	—2·0	11·2	94·1	6th	74·7	30th	1
26	Bombay	37	29·684	—·018	29·661	29·816	22nd	29·596	13th	·220	79·7	83·5	—0·9	77·1	—0·4	80·3	—0·7	6·4	87·0	4th	75·5	6 days	1
	Ratnagiri	110	29·664	—·003	29·713	29·796	22nd	29·596	13th	·200	79·1	83·1	—0·8	75·3	—0·4	79·2	—0·6	7·8	86·3	4 days	72·9	22nd	1
	Goa	199	29·527? a	—·090? a	29·655? a	29·562	10th	29·493	8th	·069	77·4	84·5	—0·9	74·9	—1·1	78·2	—1·0	6·6	85·1	18th	72·1	8th	1
	Mormugao	*60*	29·745†	—·006†	29·740†	29·868	22nd	29·667	8th	·201	78·7	82·4	—1·3	74·6	—1·6	78·5	—1·5	7·8	87·0	6th	72·7	8th & 25th.	1
	Karwar	44	29·775§	—·011§	29·75[illegible]§	29·895	22nd	29·703	8th	·193	78·1	82·4	—0·6	73·8	—1·3	78·1	—1·0	8·6	84·3	6 days	70·5	31st	1
27	Malegaon	1,430	28·21?*	—·039?*	29·598?*	28·359	22nd	28·143	13th	·216	77·8	85·9	—1·5	73·1	—0·2	79·5	—0·9	12·8	93·9	8th	71·1	17th & 1·th.	2
	Ahmednagar	2,154	27·578	—·002	29·675	27·704	21st & 22nd.	27·497	13th	·207	75·1	84·3	—0·9	70·6	+0·1	77·5	—0·4	13·7	89·9	9th	68·0	19th & 28th.	2
	Poona	1,846	27·893	—·002	29·699	28·018	22nd	27·818	12th	·200	74·0	79·7	—2·6	70·9	+0·1	75·3	—1·3	8·8	84·5	7th	67·3	2nd	1
	Sholapur	1,590	28·137	—·024	29·681	28·264	22nd	28·061	12th	·203	75·9	86·9	—2·6	71·4	—0·3	79·2	—1·5	15·5	93·8	8th	68·9	18th, 20th & 29th.	2
	Bijapur †	*1,948*	27·806	—·016	29·703	27·931	22nd	27·735	26th	·196	74·4	85·0	—1·2	69·6	—1·2	77·3	—1·2	15·4	90·2	6th	67·2	21st	2
	Belgaum	2,539	27·247	—·007	29·734	27·367	22nd	27·178	26th	·189	69·5	73·7	—2·0	66·4	—0·5	70·1	—1·3	7·8	77·3	6th	63·6	6th	1
	X.—Central India.																						
21	Neemuch	1,624	27·964 †	—·023	29·544 †	28·098	22nd	27·870	17th	·228	76·3	85·4	—2·0	73·8	—0·3	79·6	—1·2	11·6	94·0	8th	71·8	6 days	2
	Indore	1,823	27·819?	0? †	29·602?	27·960	22nd	27·726	17th	·234	75·1	83·5	—1·0	72·6	0	78·0	—0·5	10·9	91·1	2nd	69·1	18th	2
22	Nowgong	754	28·789	—·025	29·499	28·904	22nd	28·667	17th	·237	80·0	86·8	—3·1	77·6	—0·5	82·2	—1·8	9·2	92·5	8th & 13th.	74·5	25th	1
	Sutna	1,040	28·496	—·029	29·491	28·610	22nd	28·362	17th	·248	79·4	85·2	—1·2	77·7	+0·7	82·0	—0·3	8·5	92·0	11th	74·2	2nd	1
	XI.—Central Provinces.																						
23	Buldana	2,132	27·545		29·619	27·703	22nd	27·426	8th	·277	74·2	81·8		70·5		76·2		11·3	88·4	29th	67·5	18th	2
	Akola	930	28·724	—·011	29·607	28·869	22nd	28·639	17th	·230	78·5	87·8	—1·2	73·8	—0·5	80·8	—0·9	14·0	95·2	8th	68·6	18th	2
	Amraoti	1,215	28·455	—·016	29·596	28·562	22nd	28·321	17th	·241	76·3	86·0	—1·3	73·0	—0·5	79·5	—0·9	13·0	95·3	8th	68·3	18th	2
24	Khandwa	1,044	28·584	—·018	29·588	28·726	22nd	28·496	17th	·230	77·0	85·9	—1·7	75·0	—0·3	80·4	—1·0	10·9	92·2	6th	70·1	18th	2
	Hoshangabad	1,006	28·607	—·015	29·575	28·748	22nd	28·481	17th	·267	77·3	86·2	—0·5	74·1	—1·1	80·2	—0·8	12·1	95·1	7th	69·4	18th	2
	Saugor	1,807	27·775	—·027	29·532	27·903	22nd	27·646	17th	·257	75·7	82·6	—2·6	73·5	—0·4	78·1	—1·5	9·1	91·6	11th	71·5	4 days	2
	Jubbulpore	1,327	28·256	—·015	29·541	28·403	21st	28·110	17th	·293	76·4	84·7	—1·2	74·3	—0·3	79·5	—0·8	10·4	93·0	10th	71·3	18th & 19th.	2
	Seoni	2,033	27·596	—·011	29·571	27·739	22nd	27·458	17th	·281	75·2	82·2	—1·6	70·9	—1·7	76·6	—1·7	11·3	89·0	7th	66·0	18th	2
	Nagpur	1,017	28·605	—·011	29·579	28·752	22nd	28·481	17th	·271	77·3	85·8	—2·0	74·4	—0·7	80·2	—1·4	11·4	94·6	8th	68·8	18th	2
25	Pendra	2,123?	27·555		29·522	27·685	22nd	27·416	17th	·269	75·9	83·0		72·8		77·9		10·2	88·8	8th & 10th	69·2	18th	1
	Raipur	970	28·622	—·020	29·525	28·784	21st	28·489	17th	·295	76·8	84·2	—2·3	74·3	—0·6	79·3	—1·5	9·9	92·2	7th	69·6	18th	2
	Chanda	*632*	29·005†	—·018†	29·586†	29·150	21st	28·909	13th	·241	78·7	86·2	—2·4	75·1	—0·8	80·7	—1·6	11·1	94·5	7th	71·5	17th & 18th.	2

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

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

* Mean of 26 days. † Mean of 30 days. ‡ Mean of 28 days. § Mean of 29 days. a " " 11 "

B—*continued.*

Stations in India, etc., in July, 1909—continued.

Calm.	Wind direction: Number of winds from N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity: Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness: Actual percentage.	Departure from normal.	Hygrometry, 8 hrs.: Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs., in inches of mercury.	Departure from normal, in inches of mercury.	Cloud: Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall: Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st July 1909.	Normal rainfall for period, 1st May to 31st July.	Departure from normal of period, 1st May to 31st July 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																IX.—Bombay.
					6	15	9	1	S 52° W	S 61° W	¶ 14·4	15·3	−2·9	82	+17	84	+ 1	·883	+ ·017	9·2	+0·7	14	10·73	+3·27	8·28	10·16	−1·88	9·37	12·68	−3·31	1·86	Deesa.
	2					8	13	8	N 85° W	S 78° W	15·4	18·2	−2·8	79	+ 1	84	+ 4	·876	0	9·1	+1·4	9	6·20	+2·80	7·21	7·47	−0·26	9·52	9·59	−0·07	3·53	Bhuj.
				1	1	13	10	6	S 74° W		20·3			76		80		·916		4·7		12			16·39			17·38			4·42	Jamnagar.
1						18	11	1	S 63° W		18·7			86		87		·943		8·5		10			11·09			23·17			3·00	Dwarka.
						14	14	3	S 73° W	S 76° W	18·8	14·2	+4·6	89	+ 8	84	+ 1	·860	−·013	7·6	−0·4	12	11·20	+0·80	13·95	13·31	+0·64	18·80	18·65	+0·15	2·95	Rajkot.
1					1	10	19		S 73° W	S 75° W	21·2	13·4	+7·8	89	+ 6	90	+ 2	·927	−·005	9·7	+1·1	14	10·90	+3·10	10·92	7·24	+3·68	15·03	12·49	+2·54	1·50	Veraval.
					1	24	5	1	S 52° W	S 48° W	10·3	14·7	−4·4	92	+15	85	+ 5	·900	−·022	8·1	+0·5	14	10·20	+3·80	5·10	4·73	+0·37	12·43	9·85	+2·58	1·04	Bhavnagar Para.
1					3	15	12		S 60° W	S 55° W	9·3	13·0	−3·7	89	+12	89	+ 3	·891	−·022	9·6	+1·3	23	16·10	+6·90	27·84	17·68	+10·16	39·75	27·43	+12·32	5·12	Surat.
2		1	1	10	14	3			S 29° W	S 55° W	6·1	6·6	−0·5	79	+ 8	89	+ 6	·880	−·010	9·6	+0·8	18	13·50	+4·50	10·74	12·59	−1·85	17·99	19·36	−1·37	1·44	Ahmedabad.
						9	21	1	S 79° W	S 70° W	¶ 17·0	19·4	−2·4	96	+22	89	+ 3	·907	−·004	9·0	0	28	23·00	+5·00	30·05	26·05	+4·00	46·65	46·39	+0·26	4·73	Bombay.
2						13	15	1	S 71° W	S 65° W	15·6	11·7	+3·9	86	+18	88	0	·876	−·015	7·6	−1·1	29	25·90	+3·10	43·16	35·68	+7·48	75·16	67·33	+7·83	7·50	Ratnagiri.
		1			1	13	14	4	S 74° W	S 76° W	** 10·1	10·0	+0·1	79	+ 5	94	+ 6	·881	−·006	9·6	+0·5	30			40·35	32·68	+7·67	74·63	63·73	+10·90	5·10	Goa.
1						2	28		S 87° W	N 63° W	¶§ 14·9	13·2	+1·7	96	+16	92	+ 3	·900	−·006	9·2	+1·6	31			33·99	31·88	+2·11	59·76	58·08	+1·68	4·75	Mormugao.
4		1		1	12	12			S 19° W†	S 75° W	¶ 6·8	5·8	+1·0	63†	+ 2	86	0	·839	−·003	8·3	+0·3	30	27·40	+2·60	39·70	37·78	+1·92	84·56	77·04	+7·52	3·64	Karwar.
5						5	11		S 76° W	S 75° W	14·0	14·5	−0·5	53	−33	81	+ 3	·773	+·018	8·5	+0·8	9	7·30	+1·70	3·37	5·00	−1·63	12·53	10·17	+2·36	0·68	Malegaon.
						6	25		S 82° W	S 74° W	14·9	20·7	−5·8	96	+21	77	− 5	·671	−·045	8·3	+0·5	3	6·40	−3·40	1·24	2·84	−1·60	8·54	8·86	−0·32	0·42	Ahmednagar.
						1	30		S 89° W	S 76° W	¶ 17·5	16·9	+0·6	100	+14	85	+ 3	·709	0	8·4	−0·4	16	12·50	+3·50	6·28	7·05	−0·77	11·99	13·11	−1·12	1·08	Poona.
						23	8		S 56° W	S 69° W	14·1	14·4	−0·3	92	+ 8	82	+10	·739	+·058	8·4	+0·3	6	7·60	−1·60	3·64	4·19	−0·55	19·64	9·55	+10·09	0·97	Sholapur.
						8	22		S 78° W	S 74° W	17·7	10·2	+7·5	96	+11	78	− 2	·659	−·039	8·2	+0·1	3	5·10	−2·10	0·85	2·02	−1·17	5·29	7·36	−2·07	0·33	Bijapur.
						13	17	1	S 72° W	S 77° W	¶ 26·1	26·4	−0·3	92	+ 5	93	0	·671	−·011	9·3	0	31	21·80	+9·20	26·34	15·46	+10·88	35·73	26·39	+9·34	3·05	Belgaum.
																																X.—Central India.
1					2	13	14	1	S 68° W	S 71° W	10·1	12·2	−2·1	82	+ 2	89	+ 7	·814	+·014	8·5	+1·7	14	10·10	+3·90	7·69	8·96	−1·27	10·91	14·36	−3·45	1·75	Neemuch.
						6	24	1	S 83° W	S 81° W	7·8	6·7	+1·1	96	+21	88	+ 1	·777	−·005	9·1	+0·4	16	12·50	+3·50	6·88	9·00	−2·12	9·88	15·94	−6·06	1·90	Indore.
4		4	2	1	8	12			S 56° W	S 84° W	3·4	4·2	−0·8	46	−12	90	+ 7	·932	+·047	8·6	+1·6	20	14·80	+5·20	19·06	14·20	+4·86	26·72	22·68	+4·04	5·69	Nowgong.
6	1	6	3	2	6	7	1		S 24° W	S 74° W	4·3	9·2	−4·9	27	−18	91	+ 8	·907	+·049	9·9	+2·8	21	15·00	+6·00	13·59	14·28	−0·69	21·87	21·98	−0·11	1·75	Sutna.
																																XI.—Central Provinces.
					1	12	16	2	S 73° W		7·3	9·3	−2·0	87		81		·693		8·1		16			12·13	8·87	+4·26	25·53	16·09	+9·44	4·12	Buldana.
						12	17	2	S 75° W	N 88° W	8·9	9·1	−0·2	92	+10	77	− 2	·758	−·024	9·2	+1·3	8	12·30	−4·30	6·40	10·57	−4·17	13·02	16·20	−3·18	2·58	Akola.
						1	21	9	N 79° W	S 88° W	11·6	9·1	+2·5	96	+13	84	− 2	·762	−·032	9·5	+1·7	12	12·30	−0·30	6·23	9·88	−3·65	17·42	17·33	+0·09	1·56	Amraoti.
					1	5	16	9	N 86° W	W	11·2	9·4	+1·8	86	0	84	+ 3	·787	+·001	8·5	+1·0	12	11·10	+0·90	6·14	8·89	−2·75	10·44	15·05	−4·61	0·96	Khandwa.
4						7	19	1	S 80° W	S 54° W	6·9	4·8	+2·1	82	+ 7	89	+ 1	·839	−·013	9·8	+1·4	13	16·10	−3·10	15·71	16·82	−1·11	21·50	24·15	−2·65	5·45	Hoshangabad.
1		1				7	21	1	S 82° W	S 80° W	7·6	6·4	+1·2	86	+15	89	+ 2	·793	−·013	9·5	+2·3	16	16·50	−0·50	7·34	15·27	−7·93	17·55	24·56	−7·01	1·25	Saugor.
3	1		1		2	6	14	6	S 87° W	S 74° W	4·0	4·7	−0·7	69	+ 4	89	+ 2	·812	−·016	9·5	+1·4	17	18·40	−1·40	18·00	20·15	−2·15	23·75	30·20	−6·45	3·43	Jubbulpore.
	4				1	9	12	5	N 89° W	S 76° W	5·4	6·1	−0·7	70	+ 5	88	+ 1	·766	−·023	8·6	+0·4	20	18·60	+1·40	14·13	17·09	−2·96	23·25	27·72	−4·37	2·58	Seoni.
					4	14	13		S 60° W	S 76° W	6·8	8·7	−1·9	89	+21	85	+ 2	·802	−·023	8·3	−0·1	22	15·80	+6·20	23·09	14·66	+8·43	24·27	22·90	+10·37	3·23	Nagpur.
6	5	3	1	1	3	2	3	7	N 39° W		6·1			30		88		·794		7·1		26			14·53			22·55			1·30	Pendra.
1						23	6	1	S 58° W	S 49° W	13·0	11·1	+1·9	89	+24	89	+ 3	·819	−·022	9·4	+0·8	21	15·80	+5·20	18·78	15·89	+2·89	27·29	25·71	+2·08	7·20	Raipur.
						8	15	7	S 88°† W	S 69° W	9·3	6·0	+3·3	86†	+ 8	82	+ 4	·811	+·015	9·1	+1·1	23	16·80	+6·20	20·65	18·08	+2·57	26·39	26·50	−0·11	3·40	Chanda.

¶ Uncorrected to rscale error.

** Mean of 4 days.

Tat

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

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	XII.—Hyderabad.																						
28	Aurangabad	1,905	27·3§6	§-·021	§29·665	27·948	22nd	27·737	13th	·211	73·8	82·8	-4·1P	69·7	−0·9	76·3	2·5P	13·1	91·2	6th	67·2	18th, 28th & 29th.	2
	Nizamabad‡	1,248	28·459P	¶+·037P	¶29·669P	28·554	23rd	28·332	16th	·222	74·6	84·3	−2·8	70·2	−3·1P	77·3	−3·0P	14·1	86·9	16th, 20th & 23rd.	68·7	18th	1
	Bidar	*2,165*	27·576		29·690	27·728	23rd	27·497	25th	·231	72·8	82·9		64·8		73·9		18·1	90·1	6th	62·4	18th	2
29	Gulbarga	1,503	28·238‖	−·011	29·698‖	28·365	22nd	28·165	12th	·200	74·8	87·3	−2·5	71·2	−0·6	79·3	−1·6	16·1	95·0	4th	65·3	19th	2
	Raichur	*1,311*	§28·423P	§−·03_P	§29·688P	28·542	22nd	28·349	12th	·193	76·1	88·9	−1·2	71·9‖	−1·2‖	80·5‖	−1·2	17·0	96·1	5th	68·6	13th	2
	Hyderabad (Deccan)	1,690	28·031	−·011	29·676	28·163	21st	27·947	25th	·216	74·1	84·3	−2·8	71·8	+0·1	78·1	−1·4	12·5	91·3	4th, 5th & 6th.	69·7	18th & 25th.	2
	Hanumkonda	871	28·817‖	+·006‖	29·637‖	28·953	21st	28·728	25th	·225	77·9	86·3	−2·9	74·5	−1·6	80·4	−2·3	11·8	93·0	6th	71·2	17th & 18th.	2
	XIII.—Mysore.																						
30	Chitaldroog	2,405	27·420	−·002	29·774	27·536	22nd	27·362	3rd, 12th & 25th.	·174	70·9	79·5	−2·4	67·6	−0·8	73·6	−1·6	11·9	85·6	6th	66·0	7th & 8th.	1
	Hassan	3,149	26·745	+·006	29·823	26·851	22nd	26·685	8th	·166	68·0	74·9	−1·9	64·9	0	69·9	−1·0	10·0	79·3	22nd & 23rd.	62·7	19th	1
	Bangalore	3,021	26·850	−·012	29·798	26·961	22nd	26·788	25th	·173	69·2	81·1	−0·8	65·6	−0·2	73·4	−0·5	15·5	87·3	23rd	63·8	19th	2
	Mysore	2,518	27·361	−·004	29·828	27·467	22nd	27·298	8th	·169	71·0	80·1	−2·6	66·5	−0·4	73·3	−1·5	13·6	86·0	23rd	64·5	18th	2
	XIV.—Madras.																						
31	Mangalore	65	29·800	−·007	29·797	29·912	22nd	29·725	26th	·187	77·4	81·7	−1·3	73·5	−0·7	77·6	−1·0	8·2	85·7	4th	71·4	6th & 7th.	1
	Calicut	27	29·867	+·002	29·824	29·951	28th	29·800	8th	·151	75·6	80·6	−1·9	73·4‖	−0·5‖	77·0‖	−1·2	7·2	84·8	20th	71·6	5th & 9th.	1
	Cochin	9	29·915	+·019	29·852	29·985	23rd	29·863	8th	·122	77·1	83·5	0	73·3	−0·8	78·4	−0·4	10·2	86·7	19th, 22nd & 23rd.	71·7	4 days	1
	Trivandrum	198	29·712	+·018	29·842	29·779	23rd	29·661	8th	·118	76·4	81·2‖	−0·9‖	74·3	−0·9	77·8‖	−0·9	6·9	84·0	1st, 22nd & 23rd.	72·0	17th & 26th.	1
32	Tinnevelly	168	29·696	+·025	29·792	29·774	23rd	29·646	30th	·128	84·1	94·5	−1·3	78·1	−1·3	86·4	−1·3	16·4	98·7	22nd	75·4	7th	2
	Pamban	37	29·812	+·015	29·776	29·900	22nd	29·765	8th	·135	82·3	88·5	−0·6	78·4	−1·1	83·4	−0·9	10·1	90·7	20th	76·5	18th	1
	Madura	447	29·399	+·025	29·780	29·492	22nd	29·346	12th	·146	83·2	95·9	−1·3	75·9	−0·5	85·9	−0·9	20·0	100·4	19th, 20th & 22nd.	69·1	24th	3
	Periyakulam	944								Observatory closed.													
	Pudukkottai	318	29·518		29·769	29·616	22nd	29·466	7th	·150	81·9	95·6		76·3‖		86·0‖		19·3	101·2	19th	70·4	25th	3
	Negapatam	31	29·786	0	29·746	29·886	22nd	29·728	12th	·158	84·1	97·4	+1·5	78·4	+0·2	87·9	+0·9	19·0	101·4	13th	72·0	5th	2
	Trichinopoly	255	29·580	+·011	29·767	29·682	22nd	29·522	8th	·160	83·5	97·3	−0·2	78·4	+0·5	87·9	+0·2	18·9	101·1	19th, 21st & 22nd.	75·8	19th	2
	Coimbatore	1,348	28·494	+·003	29·795	28·600	22nd	28·424	8th	·176	76·1	86·9	−1·1	70·8	+0·1	78·9	−0·5	16·1	91·4	19th	67·8	6th	2
	Salem	940	28·919	+·003	29·805	29·020	22nd	28·856	8th	·164	78·0	93·0	−0·1	73·5	+0·5	83·3	+0·2	19·5	98·0	19th	71·4	13th	2
	Cuddalore	37	29·768	+·008	29·733	29·899	22nd	29·708	7th	·191	81·6	95·2	−0·7	77·2	−0·5	86·2	−0·6	18·0	99·6	19th	71·7	23rd	2
	Vellore	707	29·091		29·738	29·224	22nd	29·023	8th	·201	81·0	93·5		76·4		85·0		17·1	98·2	22nd & 23rd.	71·0	13th	2
	Madras	22	29·765	−·001	29·718	29·906	22nd	29·704	8th	·202	82·5	94·7	−1·0	77·4	−1·3	86·1	−1·2	17·3	102·5	19th	71·5	23rd	3
33	Cuddapah	433	29·347	+·001	29·718	29·465	22nd	29·273	8th	·192	82·3	94·8	−0·5	77·1	−0·9	86·0	−0·7	17·7	101·2	21st	72·6	25th	2
	Bellary	1,475	28·307	−·001	29·729	28·421	22nd	28·234	25th	·187	78·1	89·8	−1·1	74·7	+0·1	82·3	−0·5	15·1	96·0	6th	72·3	25th	1
	Kurnool	923	28·833	−·009	29·704	28·953	22nd	28·759	15th	·194	77·8	90·7	−0·3	74·3	−0·4	82·5	−0·4	16·4	97·7	5th & 6th.	71·1	20th & 24th.	2
34	Nellore	66	29·681a	+·002a	29·680a	29·821	22nd	29·603	8th	·218	84·0	95·0	−2·3	79·4	−0·2	87·2	−1·3	15·6	101·6	20th	72·1	11th	2
	Masulipatam	15	29·747a P	+·025a P	29·679a P	29·847	21st	29·638	12th	·209	80·6	89·8	−2·9	77·2	−0·9	83·5	−1·9	12·6	96·8	20th	73·6	27th	2
	Cocanada	26	29·665	+·008	29·627	29·799	21st	29·572	25th	·227	78·6	85·8	−5·9	76·8	−2·5	81·3	−4·2	9·0	93·7	20th	74·0	17th	1
	Waltair (Vizagapatam).	*226*	29·412	−·017	29·580	29·579	21st	29·301	25th	·278	78·7	84·5		76·6		80·6		7·9	91·1	19th	73·9	13th & 17th.	1
	Calingapatam	19	29·604		29·563	29·757	22nd	29·488	25th	·269													
	Gopalpur	72	29·525	−·013	29·538	29·675	21st	29·412	12th	·263	79·7	84·9	−2·5	77·8	−1·4	81·3	−2·0	7·1	88·2	7th, 8th, & 19th.	74·5	17th	1

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

‡ Mean of 9 days.
§ „ „ 25 „
¶ „ „ 5 „
a „ „ 28 „

B—*continued.*

stations in India, etc., in July, 1909—continued.

Wind direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs., in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st July, 1909.	Normal rainfall for period, 1st May to 31st July.	Departure from normal of period, 1st May to 31st July, 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																XII.—Hyderabad.
						8	17	6	S 87° W		18·3			89		87	+.6	·723		9·2		16	11·60	+4·40	9·23	6·58	+2·65	22·05	12·27	+9·78	1·68	Aurangabad.
					1	3		5	N 86° W					62		83	+ 3	·703		5·6		17	15·70	+1·30	7·85	10·53	−2·68	12·43	15·46	−3·03	1·60	Nizamabad.
					5	21	5		S 39° W		9·0			1·0		85		·688		6·5		14	12·60	+1·40	11·83	8·88	+3·03	19·66	15·54	+4·12	2·80	Bidar.
						15	16		S 68° W	S 84° W	13·6	15·8	−2·2	96	+15	85	+ 6	·737	+·019	8·4	+0·2	11	9·10	+1·90	4·20	5·31	−1·11	13·16	12·18	+0·98	0·78	Gulbarga.
						20	9	2	S 63° W	S 50° W	15·7	14·9	+0·8	86	+17	76	+ 1	·692	−·021	8·0	+1·4	10	9·20	+0·80	5·44	5·53	−0·09	9·23	9·37	−0·14	1·06	Raichur.
2							29		W	N 85° W	9·7	9·5	−0·2	94	+ 2	80	+ 2	·675	−·033	8·9	+1·3	15			8·01	6·73	+1·31	14·50	12·09	+2·41	1·59	Hyderabad (Deccan.)
					1	18	11	1	S 64° W		9·8			86		77	+ 5	·743		8·8		19	12·50	+6·50	12·81	9·14	+3·67	17·47	15·61	+1·86	2·71	Hanumkonda.
																																XIII.—Mysore.
						13	15	3	S 75° W	S 72° W	10·4	11·6	−1·2	89	− 4	86	+ 4	·656	−·003	8·7	−0·6	9	8·60	+0·40	2·50	2·79	−0·29	10·19	10·33	−0·14	0·56	Chitaldroog.
						13	16	2	S 73° W	S 87° W	12·1	5·0	+7·1	90	+ 1	91	+ 6	·624	+·001	9·8	+1·3	17	12·60	+4·40	8·21	3·85	+4·36	20·51	14·03	+6·48	1·76	Hassan.
						17	14		S 65° W	S 66° W	12·1	9·6	+2·5	92	+ 2	85	+ 1	·619	0	9·0	+0·8	5	8·20	−3·20	1·57	4·06	−2·49	9·89	11·33	−1·44	0·49	Bangalore.
						16	14	1	S 68° W	S 67° W	13·9	14·4	−0·5	92	+ 2	82	0	·619	−·013	9·6	+1·1	4	7·30	−3·30	1·98	2·32	−0·34	14·75	9·50	+5·25	0·63	Mysore.
																																XIV.—Madras.
7	1		1	1	1	3	11	6	N 84° W	N 76° W	6·9*	3·1	+3·8	53	+13	92	+ 1	·861	0	9·4	+0·4	29	27·80	+1·20	49·27	36·03	+13·24	116·57	78·91	+37·66	7·09	Mangalore.
2	2	4	1	3		1	2	6	N 9° W	N 11° W	5·3	7·9	−2·6	20	− 2	95	+ 4	·845	+·013	8·9	+0·3	29	26·20	+2·80	38·90	23·05	+9·85	100·73	72·44	+28·29	5·43	Calicut.
7	3	7	5	4		1	3	1	N 58° E	N 24° W	5·7*	6·3	−0·6	50	− 2	86	− 2	·799	−·036	8·9	+0·6	27	23·40	+3·60	25·47	21·21	+4·26	58·95	62·59	−3·64	2·40	Cochin.
2	8						2	19	N 36° W	N 18° W	6·2*	9·0	−2·8	82	+ 3	89	+ 1	·815	+·004	8·4	−0·1	21	13·10	+7·90	15·31	6·86	+8·45	41·32	28·36	+12·96	4·36	Trivandrum.
2	1				1	6	14	7	N 88° W	N 72° W	7·9	9·3	−1·4	76	− 5	59	0	·689	−·008	7·2	+0·4	0	0·60	−0·60	0	0·27	−0·27	2·04	2·20	−0·16	0	Tinnevelly.
2					1	18	10		S 60° W	S 51° W	10·6	12·0	−1·4	89	+14	77	0	·845		3·2		0	0·60	−0·60	0	0·17	−0·17	3·19	0·84	+2·35	0	Pamban.
	1					1	15	14	N 68° W	N 59° W	11·6	3·8	+7·8	89	+24	60	− 4	·679	−·046	7·6	+2·4	1	3·00	−2·00	0·23	2·06	−1·83	5·90	5·96	−0·06	0·15	Madura.
													Obse	rvat	ory cl	osed																Periyakulam
9	1				1	3	7	10	N 73° W		8·8			52		67		·736		7·9		10			5·48			8·91			1·51	Pudukkottai.
						10	19	2	S 78° W	S 77° W	9·0	7·4	+1·6	92	+ 9	61	− 6	·724	−·053	5·0	−0·8	1	3·50	−2·50	0·54	1·88	−1·34	3·71	4·99	−1·28	0·22	Negapatam.
						13	17		S 71° W	S 86° W	9·6*	9·8	−0·2	89	+ 2	58 **	− 4	·658 **	−·040	6·1	−1·0	0	1·90	−1·90	0	1·31	−1·31	6·58	5·75	+0·83	0	Trichinopoly.
						31			S 45° W	S 49° W	13·2	7·3	+5·9	100	+21	75	− 9	·689	−·059	5·8	−0·7	3	3·70	−0·70	0·92	1·23	−0·31	7·11	5·16	+1·95	0·28	Coimbatore.
					5	12	13	1	S 60° W	S 25° W	5·1	4·7	+0·4	82	+ 9	83	+ 5	·796	+·030	7·8	+1·4	10	7·00	+3·00	3·33	3·48	−0·15	8·29	11·46	−3·17	0·63	Salem.
					4	19	4		S 45° W	S 76° W	5·5	2·4	+3·1	76	+ 4	71	− 6	·771	−·101	6·5	0	11	5·50	+5·50	3·49	3·53	−0·04	8·93	5·81	+3·12	0·78	Cuddalore.
1	3	7	15					3	S 74° E		5·0			58		67		·702		7·3		4	6·30	−2·30	3·26	3·58	−0·32	17·37	9·22	+8·15	2·33	Vellore.
					7	9	14		S 57° W	S 72° W	6·2*	7·9	−1·7	79	− 5	75	+ 6	·836	+·044	6·5	−0·9	12	12·70	−0·70	4·86	4·02	+0·81	16·00	7·13	+8·87	1·46	Madras.
		1				3	12	15	N 68° W	S 88° W				82	+ 3	67	− 1	·738	−·015	7·9	+0·1	6	6·20	−0·20	2·63	3·72	−1·09	8·16	8·87	−0·71	0·81	Cuddapah.
						9	20	2	S 80° W	S 87° W	11·2	11·9	−0·7	92	+ 2	64	− 1	·615	−·032	7·5	−0·7	3	3·70	−0·70	0·98	1·68	−0·70	2·67	5·44	−2·77	0·28	Bellary.
						21	6	4	S 63° W	S 87° W	14·1* ‖			86	+14	75	+ 3	·711	−·009	7·9	−0·2	9	9·30	−0·30	3·96	4·95	−0·99	5·90	9·26	−3·36	1·40	Kurnool.
					2	3	16	10	N 83° W	N 78° W	8·9*	10·0	−1·1	82	+10	64	− 4	·714	−·064	7·2	−0·4	5	4·80	+0·20	3·22	2·84	+0·38	6·44	4·43	+2·01	2·30	Nellore.
1						1	15	13	N 69° W	N 69° W	9·5	8·7	+0·8	86	+ 4	85	+ 6	·872	0	9·3	+1·3	16	9·40	+6·60 **	7·83	5·65	+2·18	11·12	11·75	−0·63	2·27	Masulipatam
						8	20		S 77° W	S 74° W	6·9	8·4	−1·5	89	+ 5	87	+10	·847	+·013	9·5	+1·5	21	9·90	+11·10	8·59	5·94	+2·65	10·91	11·63	−0·72	1·51	Cocanada.
						26	5		S 52° W	S 75° W	12·3			96	+16	82	+ 6	·811	−·056	9·4	+1·1	11	7·70	+3·30	4·09	4·53	−0·44	10·06	10·83	−0·77	1·41	Waltair (Vizag.).
1				4	12	10	3		S 67° W		8·4			74						8·4		11			4·85			8·80			0·79	Calingapatam
3	1			2	19	2	1		S 55° W	S 49° W	13·2	12·7	+0·5	59	− 6	90	+ 5	·907	−·023	7·8	−0·5	18	9·40	+8·60	7·90	7·75	+0·15	16·32	15·99	+0·33	0·96	Gopalpur.

* Uncorrected or scale error.

** Mean of 18 days.

‖ „ „ 20 „

Tal

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

Number of sub-division.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	Bay Islands.																						
1	P. V. Fraser	8	29·593		29·519	29·740	22nd & 27th.	29·460	12th & 31st.	·280	82·7												
	Car Nicobar	25	29·816		29·768	29·842	31st	29·786	1st	·056	81·5	8·55		77·5		31·5		9·0	87·7	3rd	72·5	5th	15
	Port Blair	58	29·753	−·019	29·741	29·864	18th	29·629	29th	·235	80·3	83·8	−1·6	76·5	−0·9	80·2	−1·3	7·3	87·2	22nd	73·0	5th	14
	Slipper Island	90	29·680†		29·703†	29·791	21st	29·575	30th	·216	80·7	84·6		75·6‡		80·1‡		9·0	87·1	12th	70·6	15th	16
	Kashmir.																						
14	Srinagar	5,204	24·668	+·001	24·639	24·832	27th	24·519	2nd	·313	68·9	82·8	−2·1	64·3	−0·3	73·6	−1·2	18·5	91·6	4th	58·1	9th	33
	Gulmarg	*8,569*	21·757	−·007	21·725	21·877	27th	21·641	2nd	·236	61·1	69·3	+0·9	50·8	+0·7	60·0	+0·8	18·5	75·7	5th	41·3	10th	34
	Sonemarg	*8,764*	21·727		21·695	21·860	27th	21·611	2nd	·249	54·2	68·0		49·5		58·8		18·5	78·4	22nd	40·6	9th	37
	Dras	*10,059*	20·679	−·030	20·647	20·789	27th	20·573	20th	·216	59·1	76·4	−2·8	48·7	+1·3	62·6	−0·8	27·7	85·9	20th	39·5	10th	46
	Leh	11,503	19·633	−·010	19·601	19·744	27th	19·522	20th	·222	58·9	75·6	−2·6	51·3	+0·7	63·5	−1·0	24·3	82·6	18th	44·5	10th	38
	Skardu	*7,505*	22·662‡	−·032‡	22·622‡	22·826	27th	22·526	20th	·300	68·9	86·8	+1·9	82·6	+2·0	74·7	+2·0	24·2	92·9	3rd, 4th & 12th.	52·6	9th	40
	Minimarg	*9,359*								Observations not available.													
	Astor	*7,955*								Observations not available.													
	Gilgit	4,890	24·857		24·830	25·100	9th	24·748	20th	·352	77·9	92·6	−4·0	69·8	−3·5	81·2	−3·8	22·8	103·7	3rd & 15th.	58·2	9th	45
	Baluchistan.																						
16	Quetta	5,502	24·432	+·007	24·393	24·548	31st	24·330	2nd	·218	77·1	93·4	+0·7	62·5	−2·2	78·0	−0·8	30·9	100·1	4th	52·0	12th & 13th.	48
	Chaman	4,311	25·418	−·021	25·380	25·556	31st	25·312	2nd	·244	85·7	99·2	−1·8	73·5‡	−3·5‡	86·4‡	−2·7	25·7	106·8	4th	65·7	12th	41
	Robat	...	26·665		26·623	26·756	11th	26·562	2nd	·194	88·8	104·3		80·4		92·4		23·9	111·0	2nd	72·8	30th	38
	Hill Stations, excluding Kashmir and Baluchistan.																						
	Chitral	*5,486*									79·8	97·1		63·5		80·3		33·6	106·2	1st	59·0	13th	47
	Para Chinar	6,000	24·259§		24·226§	24·439	27th	24·102	2nd	·337	76·4	84·5		65·3		74·9		19·2	94·5	3rd	57·0	12th	37
	Cherat	*4,256*	25·504	+·022	25·472	25·663	27th	25·359	2nd	·304	75·0	87·1	−1·5	69·3	−1·4	78·2	−1·5	17·8	97·6	3rd	62·0	6th	36
	Murree	6,333	23·704	0	23·672	23·828	31st	23·590	20th	·238	66·7	73·7	−3·3	60·8	−1·7	67·3	−2·5	12·9	81·5	14th & 15th.	54·0	6th & 10th.	27
	Kailang	*10,037*	20·854		20·809	20·961	27th	20·742	2nd	·219	57·5	72·7	−1·2	51·5	+0·4	62·1	−0·4	21·2	79·6	17th	42·1	9th	37
	Simla	7,232	22·971	+·004	22·933	23·083	27th	22·865	2nd	·218	62·5	67·0	−2·2	60·1	0	63·5	−1·1	6·9	71·2	14th	57·3	21st	13
	Sarain	...	23·017		22·979	23·129	31st	22·916	2nd	·213	63·2	70·9		58·7		64·9		12·2	77·1	14th	55·5	9th	27
	Kalabagh	...	20·069		20·031	20·170	27th	19·978	2nd	·192	52·6	57·2		49·9		53·6		7·3	61·6	4th	46·8	1st & 2nd.	16
	Chakrata	7,022	23·168	+·026	23·128	23·278	27th	23·060	2nd	·218	62·8	69·9	0	60·0	−0·2	65·0	−0·1	8·9	75·3	4th	57·2	25th	17
	Muktesar	7,592	22·712	−·012	22·671	22·810	27th	22·605	2nd	·205	61·2	71·7	+0·6	57·0	−1·7	64·4	−0·6	14·7	75·5	7th & 19th.	53·5	25th	22
	Darjeeling	7,376	22·929	+·010	22·884	23·013	31st	22·849	1st	·164	62·4	67·2	+1·2	58·3	+0·6	62·7	+0·9	8·9	70·3	18th	56·7	6th & 27th.	17
	Shillong	4,920	24·975		24·927	25·068	27th	24·894	15th	·174	69·1	76·8		64·2		70·5		12·6	81·9	3rd	60·7	6th & 7th.	22
	Cherra Poonjee	4,309	25·514		25·465	25·607	27th	25·438	15th & 16th.	·169	68·3	74·3		66·2		70·3		8·1	81·2	8th	63·3	19th	17
	Maymyo	3,545	26·292§	+·005§	26·237§	26·375	31st	26·218	15th	·157	70·7	77·7	+0·6	66·2	+0·8	72·0	+0·7	11·5	84·4	7th	63·6	6th	20
	Pachmarhi	3,528	26·208	−·011	26·155	26·345	22nd	26·088	17th	·257	69·2	74·4	−1·4	67·3	−0·7	70·9	−1·1	7·1	81·2	10th	60·1	4th	21
	Mount Abu	3,945	25·789	−·027	25·739	25·889	22nd	25·713	16th	·176	68·5	73·9	−0·7	66·4	+0·7	70·2	0	7·5	79·7	14th	62·9	24th	16
	Mercara	3,781	26·167‡	0‡	26·100‡	26·267	22nd	26·110	8th	·157	63·6	67·0‡	−1·9‡	61·7	−0·5	64·4‡	−1·2	5·3	71·0	20th	59·5	9th	11
	Ootacamund	7,397	22·997		22·933	23·083	22nd	22·941	8th	·142	54·7	60·3		51·7		56·0		8·6	67·0	1st	48·2	21st	18
	Kodaikanal	7,688	22·760	−·007	22·695	22·845	22nd	22·708	8th	·137	55·6	62·0	−0·9	52·2	−0·5	57·1	−0·7	9·8	66·5	20th	48·0	18th	17

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

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

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

B—*continued.*

***stations in India, etc., in July, 1909*—continued.**

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st July 1909.	Normal rainfall for period, 1st May to 31st July.	Departure from normal of period, 1st May to 31st July 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																Bay Islands.
		1	3	2	8	9	7	1	S 33° W		14·05			55		89		1·005		7·1		18			7·42			21·44			1·88	P. V. Fraser.
						9	8		S 67° W					48		87		·942		9·7		14			6·40			30·89			** 2·16	Car Nicobar.
4						13	13	1	S 70° W	S 61° W	12·81	11·6	+1·2	79	− 2	85	− 2	·891	−·036	9·1	+0·6	23			21·07	15·68	+5·39	62·10	51·42	+10·68	2·47	Port Blair.
					1	21	9		S 56° W		23·9			92		92		·956		9·0		19			16·95			38·27			3·90	Slipper Island.
																																Kashmir.
13	1	1		7	1		1	7	N 23° W	S 48° E	2·9	3·9	−1·0	1	−21	82	− 3	·579	−·063	5·1	+0·5	9	5·30	+3·70	6·48	2·97	+3·51	9·49	7·36	+ 2·13	1·47	Srinagar.
11		7	8	2		1	2		N 77° E		2·9			40		77	− 4	·413		5·9		11			4·59	4·36	+0·23	13·10			1·29	Gulmarg.
29	1	7	3						N 53° E		3·3			33		89		·382		6·1		16			4·78			11·84			0·84	Sonemarg.
10	2					1	13	5	N 75° W		7·1			56		66	+ 5	·332		5·2		2	0·90	+1·10	0·48	0·89	−0·41	1·51	5·13	− 3·62	0·23	Dras.
28		1			2				S 30° E	S 85° W	2·7¶	2·1	+0·6	3	−40	61	+ 9	·309	+·064	6·5	+2·3	2	1·29	+0·80	0·60	0·40	+0·20	0·88	0·79	+ 0·09	0·30	Leh.
23			1	1	3	1	2		S 13° W		7·3			13		47	− 4	·332		5·1		1	0·70	+0·30	0·33	0·63	−0·30	0·63	2·32	− 1·69	0·18	Skardu.
															Observations not available.																	Minimarg.
															Observations not available.																	Astor.
21		2	1	2		4		1	S 9° E		1·2			7		51	+ 5	·470	+·019	5·1	+1·0	2	2·00	0	0·74	0·84	−0·10	1·57	1·76	−0·19	0·26	Gilgit.
																																Baluchistan.
25	1			1	3	1			S	S 6° W	2·5	3·3	−0·8	11	+ 4	50	− 7	·472	−·065	1·5	+0·4	0	0·60	−0·60	0·15	0·98	−0·83	0·39	1·57	− 1·18	0·08	Quetta.
3				2	11	10	3	2	S 29° W	S 33° W	7·4	9·4	−2·0	69	+ 9	23	−11	·282	−·146	1·1	+0·5	0	0·30	−0·30	0	0·14	−0·14	0·04	0·28	− 0·24	0	Chaman.
4	3	7			1	5	8	3	N 58° W		10·8			37		57		·776		0·6		0			0			0			0	Robat.
																																Hill Stations, excluding Kashmir and Baluchistan.
28		2						1	N 27° E		5·0			6		49		·480		0·3		1			0·32			2·14			0·13	Chitral.
24				1	4	2			S 9° W		3·3			19		61		·547		3·1		11	7·80	+3·20	5·23	3·81	+1·42	7·73	7·26	+ 0·47	1·08	Para Chinar.
7	3	1	1	6	7	2	1	3	S 12° E	S 18° E	8·9	9·1	−0·2	23	− 9	73	+ 1	·617	−·016	4·8	+0·6	8			2·74	4·88	−2·14	4·49	6·82	− 2·33	0·59	Cherat.
7	3			10	6	1	1	3	S 20° E	S 86° E	6·7	6·1	+0·6	30	+25	83	+ 6	·553	+·036	5·5	+0·8	17	16·20	+0·80	19·65	11·85	+7·80	27·18	18·34	+ 8·84	3·75	Murree.
				3		9	10	8	‡ S 81° W		2·2	2·1	+0·1	67		81		·380		7·3		8			2·96	1·30	+1·66	4·60	5·22	− 0·62	1·10	Kailang.
																92	+ 4	·525	+·013	9·5	+1·1	24	18·90	+5·10	20·68	16·84	+3·84	32·82	27·75	+ 5·07	2·75	Simla.
25		1	2			1	1	1	N 19° E		1·8			4		87		·507		8·8		21			12·10			23·71 *			1·51	Sarain.
11	1	1		7	6			5	S 18° E		5·0			19		89		·354		9·5		24			22·99			35·85			3·22	Kalabagh.
13	8	1		2	6			1	N 34° E	S 48° W	3·7	6·2	−2·5	7	− 4	92	+ 1	·536	−·001	8·2	+2·3	25	19·80	+5·20	23·29	20·07	+3·22	38·46	31·27	+ 7·19	4·22	Chakrata.
17		2	8	2	1		1		S 84° E		5·4			33		94	+ 4	·508		8·9		21			20·58	12·98	+7·60	36·29	19·99	+16·30	3·21	Muktesar.
6	3	5	4	4		1	4	4	N 26° E	S 83° E	2·6	3·6	−1·0	23	− 7	93	− 4	·525	+·001	8·7	−0·9	28	22·94	+5·06	33·43	33·50	−0·07	84·78	66·05	+18·73	6·59	Darjeeling.
22		1		6	1	1			S 39° E		3·4			23		82		·585		6·5		12	18·00	−6·00	4·82	13·19	−8·37	33·85	39·21	− 5·36	1·10	Shillong.
6		4	7	2	8	2		2	S 52° E		4·2			33		92		·638		9·1		21	27·30	−6·30	51·01	96·70	−45·69	206·75	248·19	−41·44	8·30	Cherra Poonjee.
8		7	1	1	4	9		1	S 5° W		5·5			17		38	+ 2	·668		5·3		15	12·10	+2·90	3·88	7·97	−4·09	25·05	25·59	− 0·54	1·15	Maymyo.
	1					6	16	8	N 85° W	S 85° W	11·2	10·8	+0·4	86	+11	96	+ 6	·688	+·023	9·3	+0·5	25	22·00	+3·00	23·00	25·11	−2·11	34·47	36·53	− 2·06	5·04	Pachmarhi.
3	1	2		2	2	14	5	2	S 55° W	S 55° W	8·2	11·5	−3·3	53	−15	96	0	·674	+·029	9·1	+0·1	22	17·60	+4·40	56·28	23·23	+33·05	65·05	30·43	+34·62	11·24	Mount Abu.
						5	24	2	S 86° W	N 84° W	10·6	9·8	+0·8	96	+ 6	96	0	·558	−·029	9·8	+1·0	31	29·10	+1·90	50·07	40·35	+9·72	102·46	73·48	+28·98	5·51	Mercara.
1						8	19	3	S 83° W		9·6			89		93		·404		9·3		18	12·30	+5·70	5·44	5·94	−0·50	26·01	18·05	+ 7·96	0·80	Ootacamund.
				1			21	9	N 78° W		11·7¶			92		88	+ 2	·379		7·4		8	8·40	−0·40	3·49	4·48	−0·97	15·28	13·57	+ 1·71	1·88	Kodaikanal.

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

* Rainfall since 21st May 1909.
¶ Uncorrected for scale error.

‡ 8 hrs. velocity.

** Wind observations less 14.

Tab

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

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure 8 hrs. in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	2
	Extra India.																						
	Singapore (*a*)	10	29·904		29·835	29·961	19th	29·832	3rd	·129	84·2	88·6		75·2		81·9		13·4	91·8	15th	73·0	3rd & 4th.	1
	Penang (*a*)	20	29·917		29·862	29·997	9th	29·760	29th	·237	80·9	90·0		74·7		82·4		15·3	92·0	19th	74·0	11 days	1
	Trincomalee	12	29·853?	+·041?	29·791?	29·939	22nd	29·802	12th	·137	78·6	91·6	0	77·9	+0·3	84·8	+0·2	13·7	95·0	19th & 23rd.	76·5	4th & 18th	1
	Colombo	40	29·875*	0*	29·841*	29·956	23rd	29·832	12th	·124	77·5*	84·8	−0·6	75·9	−1·7	80·4	−1·2	8·9	86·5	1st & 22nd.	70·5	4th	1
	Minicoy	7						Register	not rece	ived.													
	Amini Divi	*13*	29·872	+·004	29·813	29·971	22nd	29·815	26th	·156	81·5	86·8	+1·8	76·9	−0·6	81·9	+0·6	9·9	90·6	19th	74·2	26th	1
	Gyantse	13,120									55·0	7v.6		44·7†		62·0†		28·9	88·9	2nd	39·9	5th	4
	Pharijong	14,400	17·923		17·882	17·984	26th	17·873	15th & 17th.	·111	47·3	61·9		23·0		42·5		38·9	68·9	18th	22·0	1st	4
	Gangtok	5,660?	24·304*		24·259*	24·472	31st	24·222	16th	·250	67·7	74·5		62·2		68·4		12·3	80·3	13th	60·2	8th & 30th.	2
	Gartok (*c*)	14,240	17·787			17·930	31st	17·595	1st	·375	54·0	66·7		42·8		54·8		23·9	74·5	16th	38·1	25th & 29th.	3
	Kashgar (*c*)	4,255	25·398			25·520	23rd	25·280	7th	·240	75·8	90·1	−1·4	66·3	−2·3	78·2	−1·9	23·8	97·6	28th	61·3	9th	3
	Kabul		24·095		24·064	24·197	22nd	24·007	11th & 20th.	·190	78·8	91·6	−0·8	62·8	−0·8	76·2	−0·8	30·3	98·1	18th	53·9	17th	4
	Meshed	3,104	26·647		26·625	26·769	28th	26·536	2nd	·233	77·5	91·4		56·1	−9·4	73·8		35·3	97·4	6th	46·0	31st	5
	Jask	13	29·499	−·031	29·469	29·627	23rd & 28th.	29·364	2nd	·263	89·7	97·0	+1·2	85·9	+1·1	91·5	+1·2	11·1	111·8	15th	80·8	1st	3
	Muscat §	29	29·497	−·019	29·464	29·607	23rd & 28th.	29·386	3rd	·221	91·5	99·3	+7·9	88·4	+0·9	93·9	+4·4	10·9	110·3	21st	83·6	27th	2
	Bahrein	18	29·507		29·477	29·631	19th	29·413	10th	·218	93·1	98·0		85·8§		91·8§		12·2	103·7	28th	81·7	11th	2
	Bushire	14	29·459	−·022	29·432	29·563	28th	29·289	3rd	·274	91·6	97·2	+1·9	85·7	+1·4	91·5	+1·7	11·5	111·3	15th & 16th.	79·0	10th	3
	Basrah	25	29·500		29·483	29·572	23rd	29·394	10th	·178	89·7	102·2		83·6*		93·2*		19·2	107·8	15th	75·3	9th	3
	Kerman							Register	not rece	ived.													
	Ispahan (*b*)	*5,817*	24·194††			24·300	4 days	24·000	2nd & 3rd.	·300	73·1	91·4	−3·9	64·8	−1·5	79·6	−2·7	29·6	104·4	6th	59·2	16th & 21st.	4
	Tehran (*b*)	*4,002*	25·622			25·750	15, 19th & 28th.	25·400	2nd	·350	77·8	97·6	−0·7	69·4	−2·8	83·6	−1·8	28·2	104·6	5th	61·8	1st, 2nd & 3rd.	4
	Baghdad	127	29·402	−·043	29·496	29·496	1st	29·260	10th	·236	90·5	113·3	+6·1	82·6	+3·2	98·0	+4·7	30·7	120·2	20th	76·9	1st	4
	Beirut (*d*)				29·751						82·8	87·4		73·5		80·5		13·9	89·0	18th	68·2	8th	2
	Aden	94	29·619	−·001	29·643	29·742	23rd & 24th.	29·501	9th	·241	85·8	93·2	+0·1	82·3	0	87·8	+0·1	10·9	97·3	21st	76·4	24th	2
	Perim	201	29·477	−·047	29·609	29·625	24th	29·337	16th	·288	88·8	96·0	−0·4	85·2	+1·7	90·6	+0·7	10·8	99·5	14th	81·4	18th & 24th.	1
	Zanzibar	72	30·089	−·009	30·089	30·165	23rd	30·019	4th & 30th.	·146	74·5	81·0	+0·8	72·7	0	76·8	+0·4	8·3	83·1	7th	67·8	19th	1

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

(*a*) 9 hrs. observations.
(*b*) Aneroid uncorrected for scale error.
(*c*) Aneroid corrected.
(*d*) 8½ hrs. observations.

§ Mean of 29 days.
** „ „ 27 „

* Mean of 30 days.
† „ „ 5 „

—*concluded.*

ations in India, etc., in July, 1909—concluded.

Wind direction. Number of winds from N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from Normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st July 1909.	Normal rainfall for period, 1st May to 31st July.	Departure from normal of period, 1st May to 31st July.	Heaviest rainfall during month.	Station.
26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																															Extra India.
		1	9	3	4			S 20° E		6·41			43						5·4		5			1·30			16·29			0·31	Singapore.
1	6	4	2	8	1	6	3	S 16° E		11·31			9						2·5		11			6·86			24·64			1·41	Penang.
					31			S 45° W	S 45° W	11·61‡	16·3	−4·7	100	0	91	+13	·898	+·031	3·0	−0·2	0			0	1·97	− 1·97	1·13	5·94	− 4·81	0	Trincomalee.
				1	25	4		S 50° W	S 65° W	6·8*‡	9·3	−2·5	96	+13	91*	+12	·859*	+·007	7·5*	+1·3	16			10·36	4·83	+ 5·53	20·33	24·18	− 3·85	2·18	Colombo.
																												21·66			Minicoy.
					18	10	3	S 66° W					87		82	− 2	·884	−·022	7·5	0	16			9·15	9·91	− 0·76	27·00	27·15	− 0·15	1·32	Amini Divi.
1		4	9	2	1			S 50° E		1·3			26		64		·278				15			5·00			6·04			0·82	Gyantse.
2		2	9	13	4		1	S 14° E		10·4			68		78		·256				14			4·97			9·03			0·72	Pharijong.
			1	1				S 27° E*		0·5			7		90		·610		5·3		30			27·62			73·76			2·20	Gangtok.
			10	9	1			S 19° E		9·8			58						5·3		4			1·53			1·59			0·41	Gartok.
				2			4	N 72° W	N 52° W	?	4·9	?	10	+ 3	56	+13	·494	+·083	4·7	+1·3	0			0·25	0·29	− 0·04	0·55	1·48	−0·93	0·08	Kashgar.
2	2	2	1	5	11	5		S 86° W	S 68° E				52	+49	44		·435		0·9	+0·7	1			0·28	0·20	+ 0·08	3·46	0·95	+ 2·51	0·28	Kabul.
6	2		1			2		S 17° E		2·5			55		38		·355		1·0	+0·5	0			0	0·01	− 0·01	0·15	0·98	− 0·83	0	Meshed.
	12	5	1		2	4		N 88° E	S 66° E	14·6*	15·2	−0·6	35	−22	72	0	·991	−·038	1·6	−0·1	0			0	0·02	− 0·02	0	0·13	− 0·13	0	Jask.
	3	8			1	4		S 68° E	N 72° E	3·5‖	4·6	−1·1	18	−28	67	− 9	·958	−·073	4·4	+1·9	0			0	0·04	− 0·04	0	0·40	− 0·40	0	Muscat.
1	2		2	3	8	11		N 62° W		5·9			55		65		1·015		0·1		0			0			0			0	Bahrein.
	5	1		2	2	7		N 24° W	N 37° W	8·7	8·5	+0·2	23	−21	70	+ 6	1·022	+·106	1·0	−0·9	0			0	0	0	0	0	0	0	Bushire.
2	2	1	3	3	15	3		S 86° W		5·8			48		53*		·744*		0		0			0			0·07			0	Busrah.
													Register	not re	ceived.																Kerman.
		1			1			N 13° W¶	N 49° W	1·9	3·6	−1·7	4	−28	82	+33	·686	+·160	1·0	+0·2	0				0·06	− 0·06	0·23	0·17	+ 0·06	0	Ispahan.
2	1	4	1	4	1			S 18° E	S 44° W	3·7¶	2·3	+1·4	10	−11	51	+16	·484	+·088	0	−1·0	0			0	0·41	− 0·41	0·41	0·78	− 0·37	0	Tehran.
2					1	14		N 32° W	N 11° W	9·8	4·6	+5·2	61	−13	34	− 8	·496	−·085	0·3	+0·3	0			0	0	0	0·14	0·24	− 0·10	0	Baghdad.
	2		2	22				S 37° W					69		72		·787		2·0		0			0			0			0	Beirut.
2		16		8				S 25° E	S 12° W	12·2	10·6	+1·6	56	+ 4	71	0	·865	−·013	3·6	−0·1	0			0	0·03	−0·03	0	0·23	− 0·23	0	Aden.
	2	1	1		19	5		N 76° W	S 86° W	13·9	15·3	−1·4	65	+18	64	− 1	·869	−·017			0			0	0·03	− 0·03	0	0·40	− 0·40	0	Perim.
		1	14	15	1			S 24° W	S 15° W	8·4	8·2	+0·2	90	0	84	− 1	·721	+·005	6·9	+0·9	9			2·72	2·47	+ 0·25	7·47	14·61	− 7·14	0·48	Zanzibar.

‡ Uncorrected for scale error.

‖ Mean of 28 days.
¶ „ „ 24 „

Table C.—Abstract of observations taken at 8 hrs. at 31 fourth class stations in India, etc., in July, 1909.

Tab

Abstract of observations taken at 8 hrs. at 31 four

Number of subdivision.	Station.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.	Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	II.—Eastern Bengal and Assam.																							
4	Bishnath	79·1	91·3	...	66·1	...	78·7	...	25·2	96·3	31st	61·4	7th	34·9	...	...	...	...	...	...	...	...	...	...
	Borjuli	82·0	93·4	...	76·1	...	84·8	...	17·3	97·0	26th	73·4	4th & 22nd	23·6	...	...	...	...	...	...	...	...	...	...
	Chandkhira	80·2	91·1	...	75·3	...	83·2	...	15·8	99·4	16th	70·7	6th	28·7	...	...	...	...	...	...	...	...	...	...
	Doom Dooma	80·5	92·6	...	75·6	...	84·1	...	17·0	100·1	26th	72·2	30th	27·9	...	...	...	...	...	...	...	...	...	...
	Dikom	80·0	90·5	...	76·5	...	83·5	...	14·0	98·6	26th	73·8	4th	24·8	...	...	...	...	...	...	...	...	...	...
	Golaghat	81·7	90·1	...	80·7	...	85·4	...	9·4	99·1	28th	74·9	13th	24·2	...	...	...	...	...	...	...	...	...	...
	Hailakandi	79·3	92·3	...	76·4	...	84·4	...	15·9	95·4	24th	74·0	7th	21·4	...	...	...	...	...	...	...	...	...	...
	Jorehat	81·3	90·8	...	76·7	...	83·8	...	14·1	96·4	26th & 31st	73·8	7th	22·6	...	...	...	...	...	...	...	...	...	...
	Messa	84·5	95·3	...	75·1	...	85·2	...	20·2	101·3	31st	69·8	16th	31·5	...	...	...	...	...	...	...	...	...	...
	Panerihat	76·8	90·8	...	75·4	...	83·1	...	15·4	94·3	26th	72·5	4th	21·8	...	...	...	...	...	...	...	...	...	...
	Srimangal	83·7	91·9	...	76·9	...	84·4	...	15·0	96·9	30th	72·2	5th	24·7	...	...	...	...	...	...	...	...	...	...
5	Brahmanbaria	81·9	89·8	...	77·3	...	83·6	...	12·5	94·8	8th	73·4	29th	21·4	...	...	...	...	...	...	...	...	...	...
	Dam Dim	80·1¶	92·4	...	74·6‡	...	83·5	...	17·9	97·9	31st	69·9	5th	28·0	...	...	...	...	...	...	...	...	...	...
	Goalundo	83·6	88·5	...	77·2	...	82·9	...	11·3	92·7	30th	72·3	30th	20·4	...	...	...	...	...	...	...	...	...	...
	Kalchini	83·2	91·9	...	75·4	...	83·7	...	16·5	96·6	31st	72·9	15th	23·7	...	...	...	...	...	...	...	...	...	...
	Nagrakata	80·8	91·3	...	75·7	...	83·5	...	15·6	97·1	31st	74·0	4 days	23·1	...	...	...	...	...	...	...	...	...	...
	Pabna	83·1	92·1	...	76·6	...	84·4	...	15·5	96·5	8th	73·1	30th & 31st.	23·4	...	...	...	...	...	...	...	...	...	...
	III.—Bengal.																							
6	Fraserganj									Ob	servatory	closed	.											
	XI.—Central Provinces.																							
24	Chhindwara	74·1	(a) 82·1	...	71·3	...	(a) 76·7	...	10·5	90·7	7th	66·0	18th	24·7	...	...	...	...	...	...	7	13	11	N 83° W
	Hill Stations.																							
	Panighatta	81·0	89·1	...	74·8	...	82·0	...	14·3	93·9	31st	72·9	19th, 21st & 25th.	21·0	...	...	...	...	...	...	...	...	...	...
	Kurseong	69·4	74·5	...	65·3	...	69·9	...	9·2	80·7	25th	63·3	19th	17·4	...	...	...	...	...	...	...	...	...	...
	Poo	...	74·9	...	51·4	...	63·2	...	23·5	79·6	13th	48·3	21st	31·3	20	...	1	...	4	1	3	...	2	S
	Kargil	68·9	85·3	...	54·7	...	70·0	...	30·6	92·5	3rd	47·6	26th	44·9	...	7	7	...	2	...	...	...	15	N 11° W
	Killa Drosh	78·3	95·8	...	72·7	...	84·3	...	23·1	103·2	3rd	65·1	8th	38·1	23	...	3	...	1	...	...	4	...	N 45° W
	Pishin	...	96·1	...	67·2	...	81·7	...	28·9	103·4	4th	57·1	13th	46·3	...	...	...	...	...	...	...	...	...	...
	Kalat	75·6	90·0	...	58·6	...	74·4	...	31·4	95·8	4th	48·9	12th	46·9	...	5	...	4	...	21	...	1	...	S 11° E
	Extra India.																							
	Ahwaz†	...	112·5	...	87·9	...	100·2	...	24·6	116·8	7th	79·8	2nd	37·0	...	...	...	...	...	...	...	...	...	...
	Birjand§	80·2	89·7	...	69·8	...	79·7	...	19·9	99·6	3rd	59·4	23rd	40·2	...	2	15	...	...	2	...	1	1	N 39° E
	Chumbi	57·5*	67·1*	...	51·9	...	59·5	...	15·2	72·5	14th	45·7	27th	26·8	...	...	...	...	...	...	...	...	...	...
	Kirmanshah	79·7	95·3	...	69·6	...	82·5	...	25·7	99·4	27th, & 28th	58·0	1st	41·4	...	...	...	...	...	...	...	...	...	...
	Koweit	...	106·8	...	87·1	...	97·0	...	19·7	117·3	31st	78·8	12th	38·5	2	1	...	...	2	...	...	8	18	N 58° W
	Maidan	...	116·7	...	89·8	...	103·3	...	26·9	126·2	6th	75·9	6th	50·3	...	...	...	...	...	...	...	...	...	...

(a) Mean of 30 days.

* Uncorrected for scale error.
§ Observations of 30 days.

† Mean of 28 days.
‡ Mean of 29 days.

C.

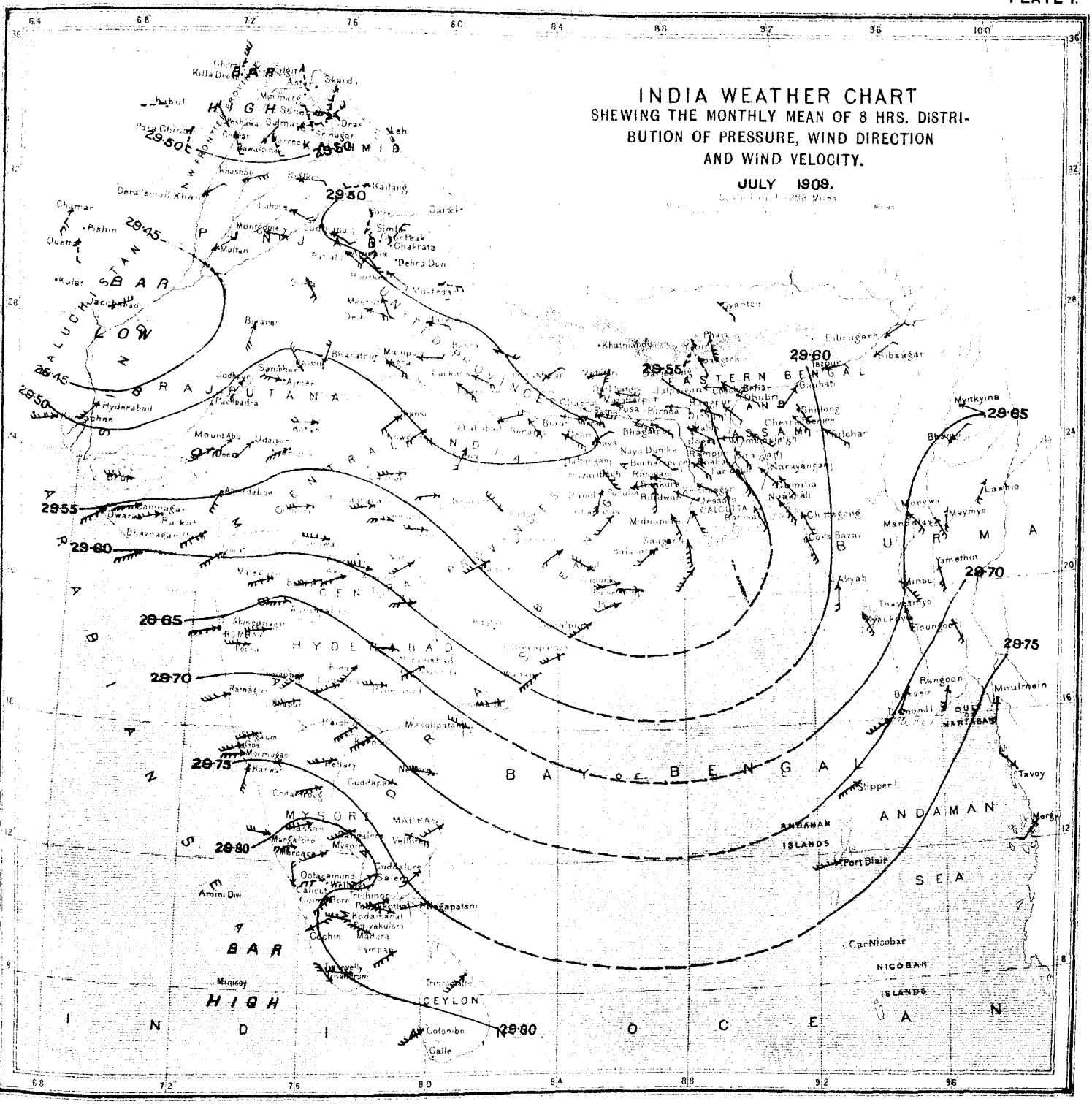
class stations in India, etc., in July, 1909.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.										Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal, in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st July 1909.	Normal rainfall for period, 1st May to 31st July.	Departure from normal of period, 1st May to 31st July 1909.	Heaviest rainfall during month.	
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					II.—Eastern Bengal and Assam.
...	...	...	...	...	93	...	·924	...	...	...	10	...	...	9·85	...	...	24·31	...	...	2·66	Bishnath.
...	...	...	..	...	90	...	·989	...	...	...	15	...	...	11·08	...	...	40·08	...	...	2·10	Borjuli.
...	...	...	...	...	90	...	·928	...	...	...	22	...	...	12·70	...	...	53·88	...	...	3·10	Chandkhira.
...	...	...	...	...	93	...	·978	...	...	...	22	...	...	18·01	...	...	50·11	...	...	3·85	Doom Dooma.
...	...	...	...	...	91 (b)	...	·926 (b)	...	...	...	19	...	...	20·24	...	...	54·58	...	...	2·47	Dikom.
...	...	...	...	...	88	...	·964	...	...	...	16	...	...	11·37	...	...	25·73	...	...	1·70	Golaghat.
...	...	...	...	...	92	...	·925	...	...	...	20	...	...	12·96	...	...	47·88	...	...	1·54	Hailakandi.
...	...	...	...	...	91	...	·978	...	...	...	16	...	...	11·75	...	...	29·48	...	...	3·15	Jorehat.
...	...	...	...	...	77	...	·920	...	...	...	11	...	...	4·97	...	...	26·79	...	...	0·90	Messa.
...	...	...	...	...	94	...	·866	...	...	...	14	...	...	6·37	...	...	36·28	...	...	2·30	Panerihat.
...	...	...	...	...	84	...	·966	...	...	...	21	...	...	10·41	...	...	37·98	...	...	1·76	Srimangal.
...	...	...	...	...	89	...	·975	...	...	...	18	...	...	8·25	...	...	33·23	...	...	1·47	Brahmanbaria.
...	...	...	...	...	99¶	...	1·019¶	...	...	...	24	...	...	29·37	...	...	67·68	...	...	3·70	Dam Dim.
...	...	...	...	...	84	...	·971	...	...	...	14	...	...	7·12	...	...	24·47	...	...	2·50	Goalundo.
..	...	...	...	...	85	...	·986	...	...	...	13	...	...	16·71	...	..	67·31	...	...	4·87	Kalchini.
...	...	...	...	...	90	...	·947	...	...	...	23	...	...	33·35	...	...	77·53	...	..	7·94	Nagrakata.
...	...	...	...	...	86	...	·972	...	...	...	12	...	...	6·25	...	...	21·48	...	...	1·82	Pabna.
																					III.—Bengal.
					Observatory closed.																Fraserganj.
																					XI.—Central Provinces.
5·2	...	...	84	...	89	...	·754	...	...	...	11	...	...	8·11	...	...	11·94	...	...	1·45	Chhindwara.
																					Hill Stations.
...	...	...	...	...	82	...	·862	...	...	...	21	...	...	27·35	...	...	74·11	...	...	6·05	Panighatta.
...	...	...	...	...	89	...	·636	...	...	...	28	...	...	37·67	...	...	88·85	...	...	6·08	Kurseong.
...	...	...	12	...	...	...	...	...	7·0	...	6	...	...	1·11	1·14	—0·03	1·44	2·12	—0·68	0·32	Poo.
...	...	...	71	...	43	...	·306	...	3·5	...	0	...	...	0·16	...	...	0·38	...	...	0·07	Kargil.
...	...	...	3	...	70	...	·670	...	1·6	...	1	...	...	0·28	...	...	2·60	...	...	0·18	Killa Drosh.
...	...	...	...	...	...	...	...	...	1·4	...	...	...	...	0	0·08	—0·08	0·11	0·30	—0·19	0	Pishin.
...	...	...	52	...	43	...	·388	...	...	...	2	1·00	—1·00	1·08	0·62	+0·46	1·31	1·34	—0·03	0·56	Kalat.
																					Extra India.
...	...	...	...	...	...	...	...	...	...	...	0	...	...	0	...	...	0	...	...	0	Ahwaz.
9·0††	...	...	54	...	25**	...	·256**	...	1·9†	...	0	...	...	0	...	...	0·14	...	...	0	Birjand. ‡‡ ‖
...	...	...	...	...	84	...	·402	...	...	...	21	...	...	5·74	...	...	21·88	...	...	0·62	Chumbi.
...	...	...	...	...	37	...	·374	...	...	...	0	...	...	0	...	...	0·94	...	...	0	Kirmanshah.
...	...	...	71	...	...	...	...	...	1·6	...	0	...	...	0	...	...	0	...	...	0	Koweit.
...	...	...	...	...	...	...	...	...	...	...	...	...	...	0	...	...	0	...	...	0	Maidan.

(b) Mean of 26 days.

†† Mean of 22 days.
** „ „ 27 „
¶ „ „ 25 „

‡‡ Wind variable 5.
‖ Wind observations less 4.



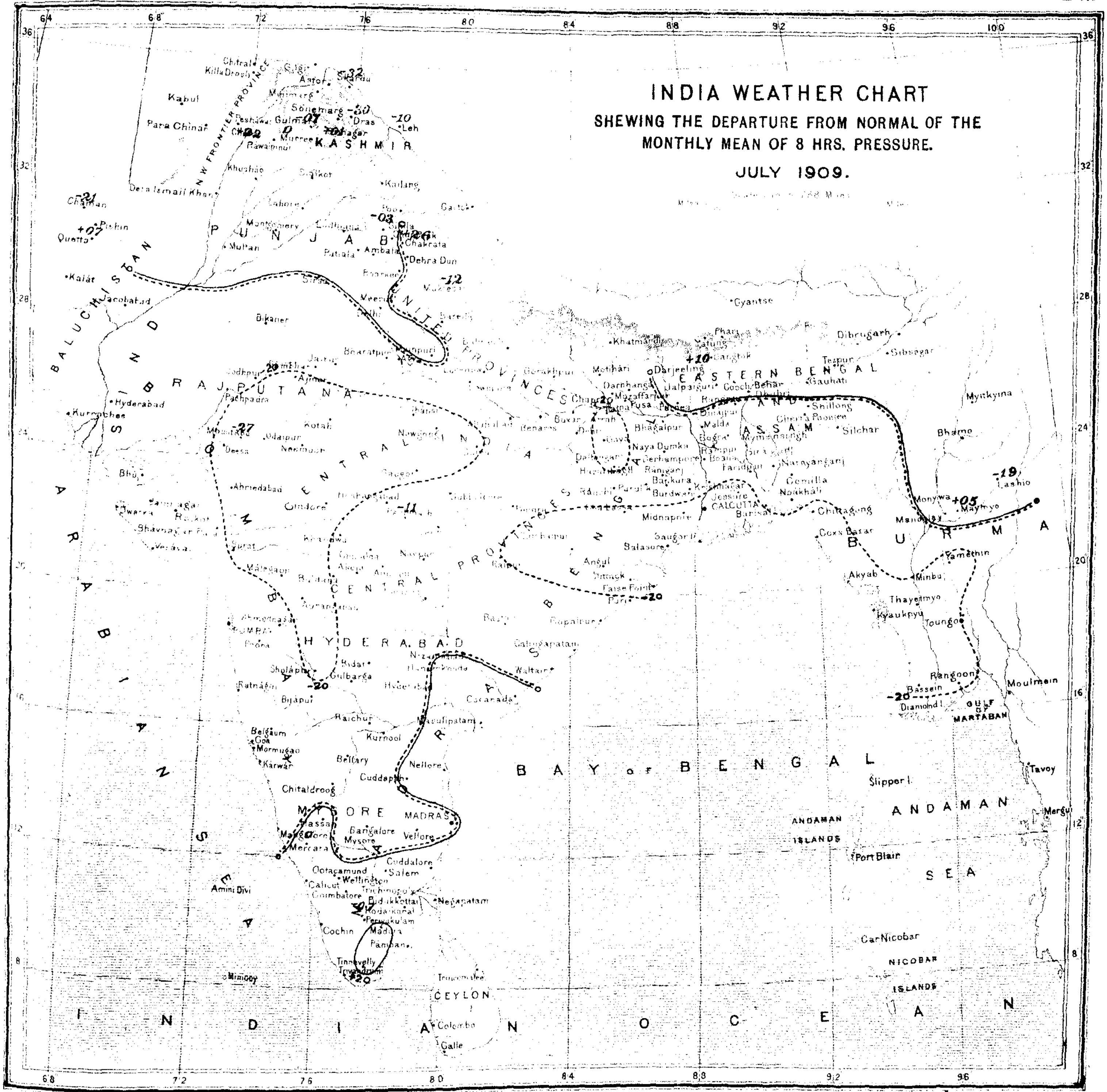
Reg. No. 4003 E. 09.—L.—5 500.

Litho. by S.B. Mundle.

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

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

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



Reg. No. 4003 E . 09.—L.—5.500.

LITHO. BY H.L.HALDER.

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

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

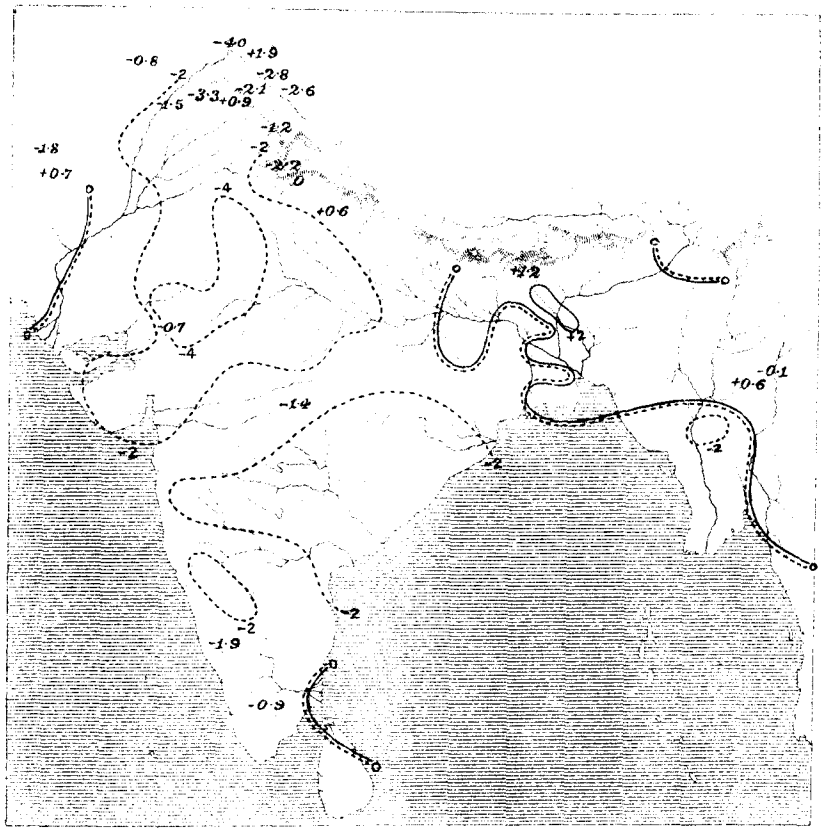


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.

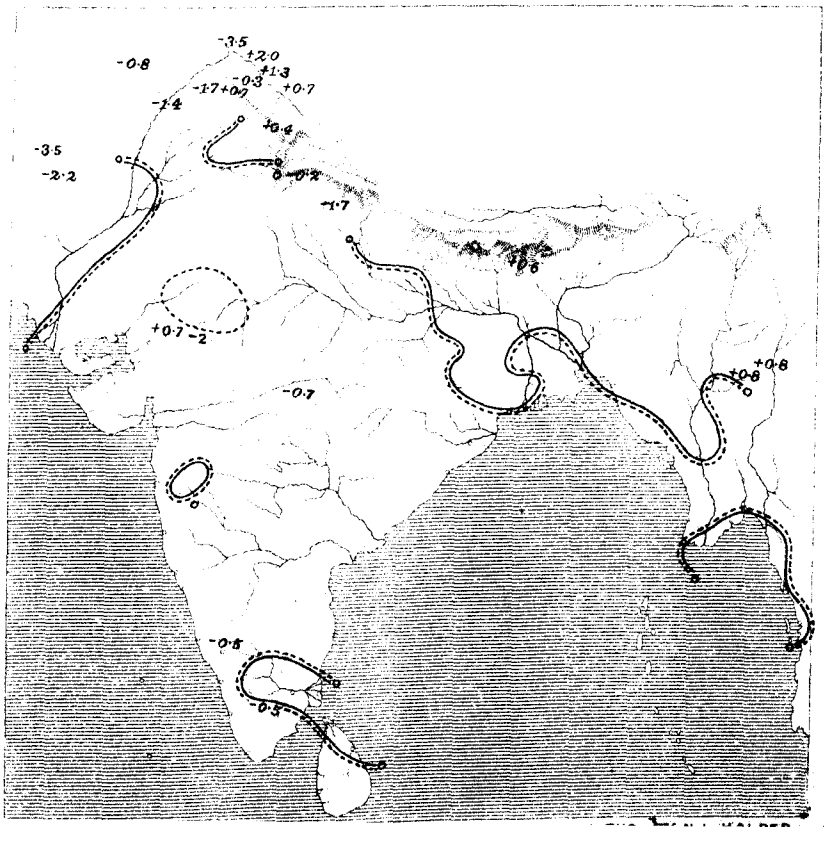


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MEAN TEMPERATURE.

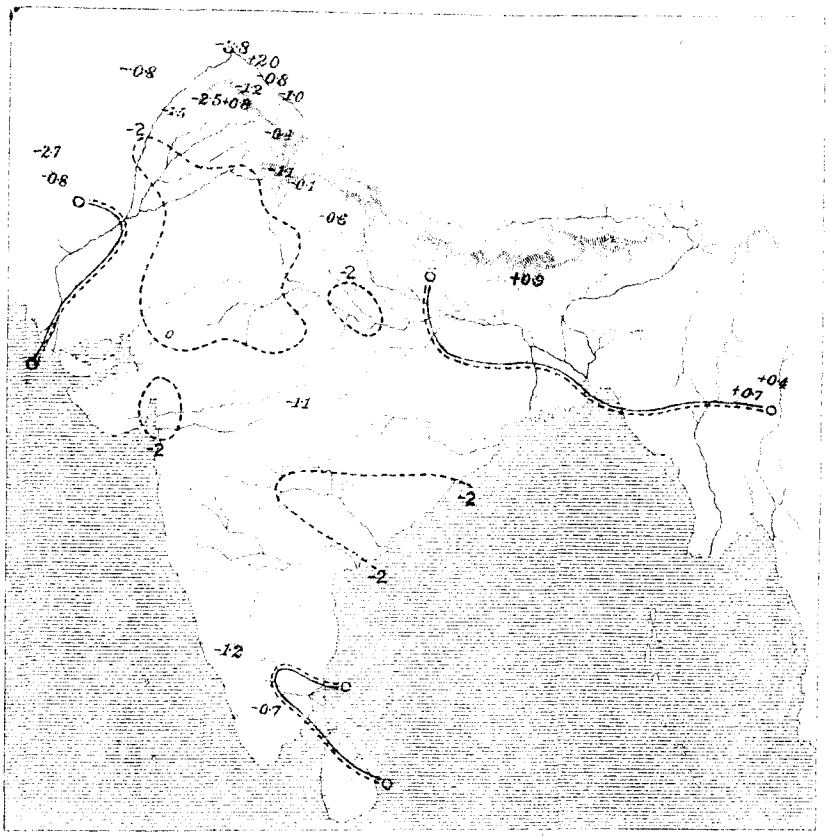


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.

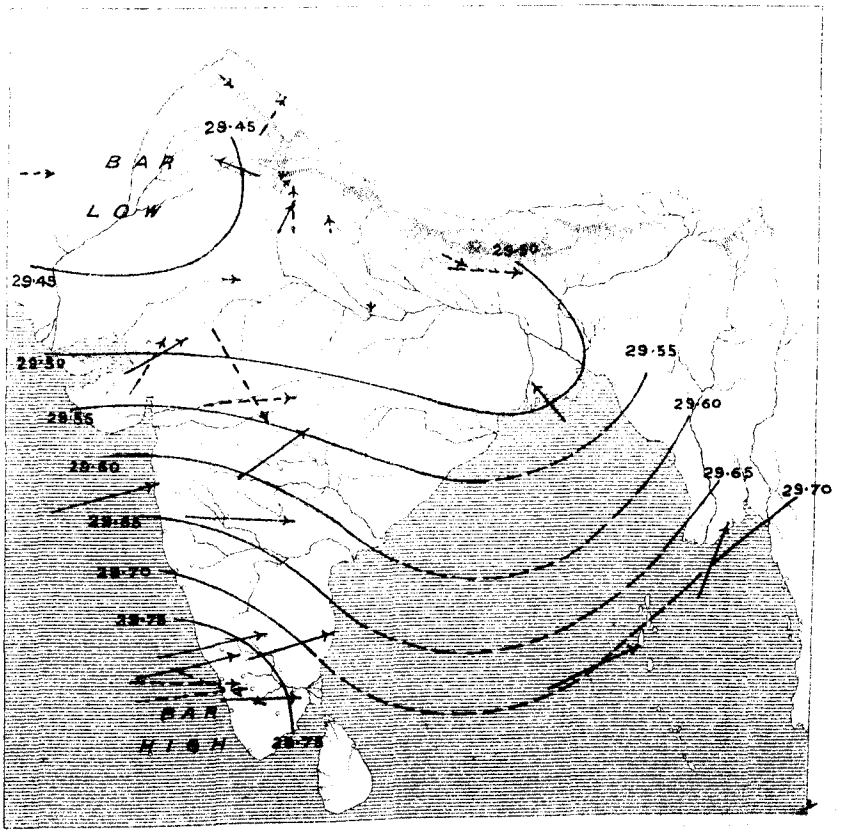


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF ABSOLUTE HUMIDITY AT 8 HRS.

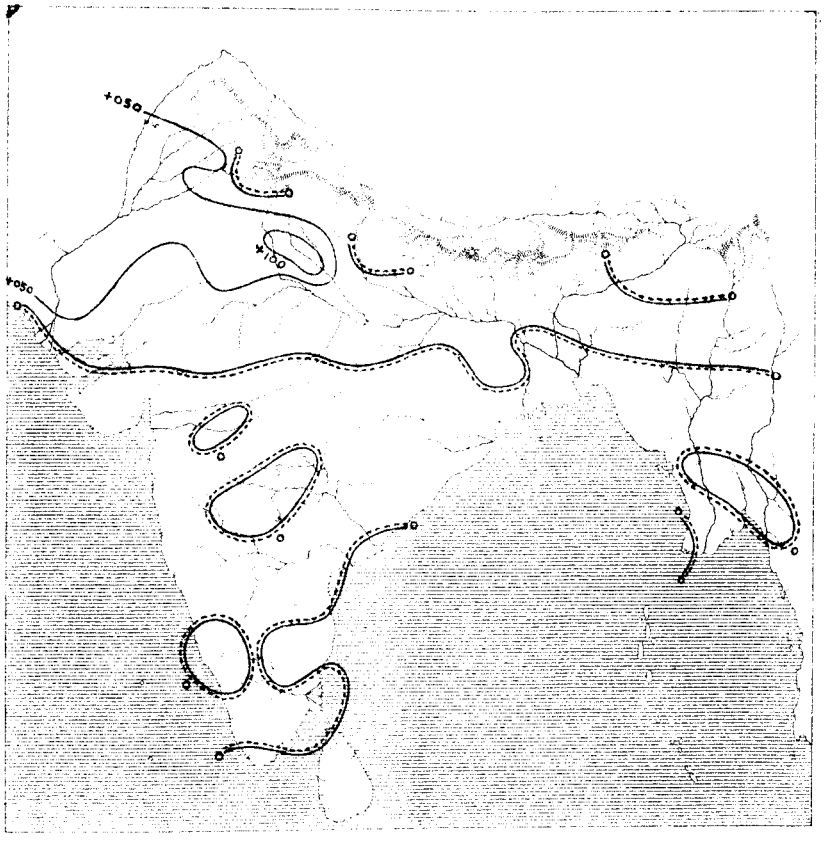


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 HRS.

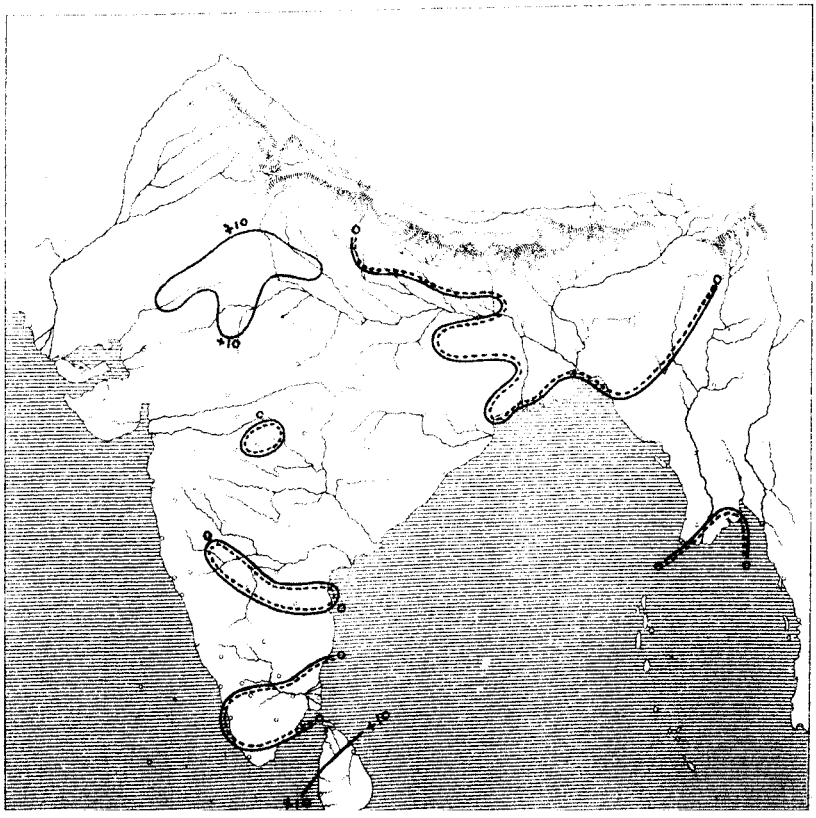


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF CLOUD AMOUNT AT 8 HRS.

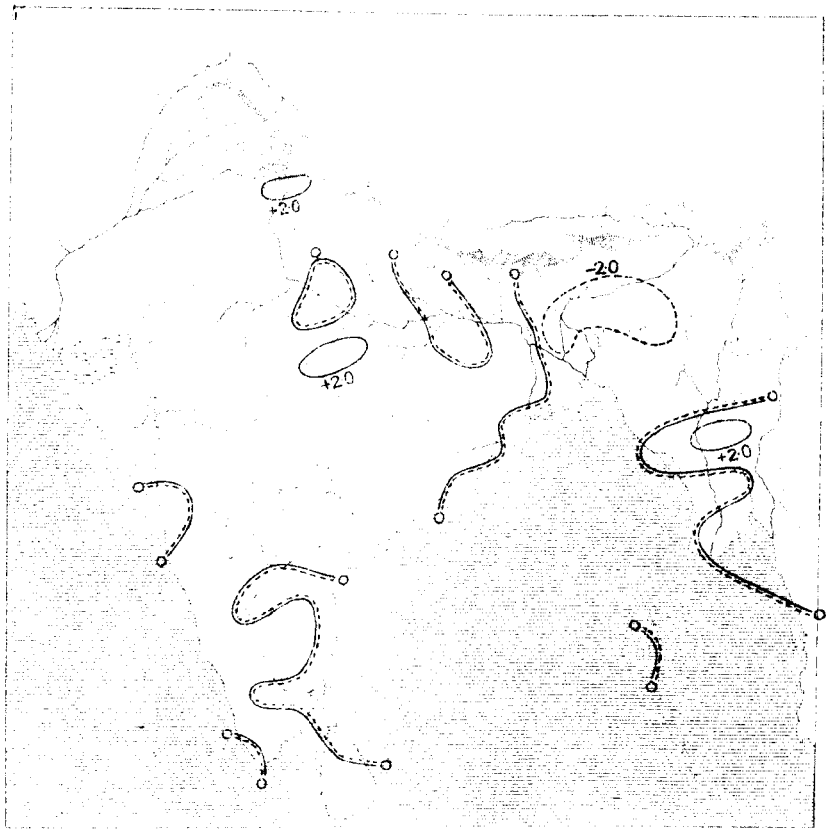
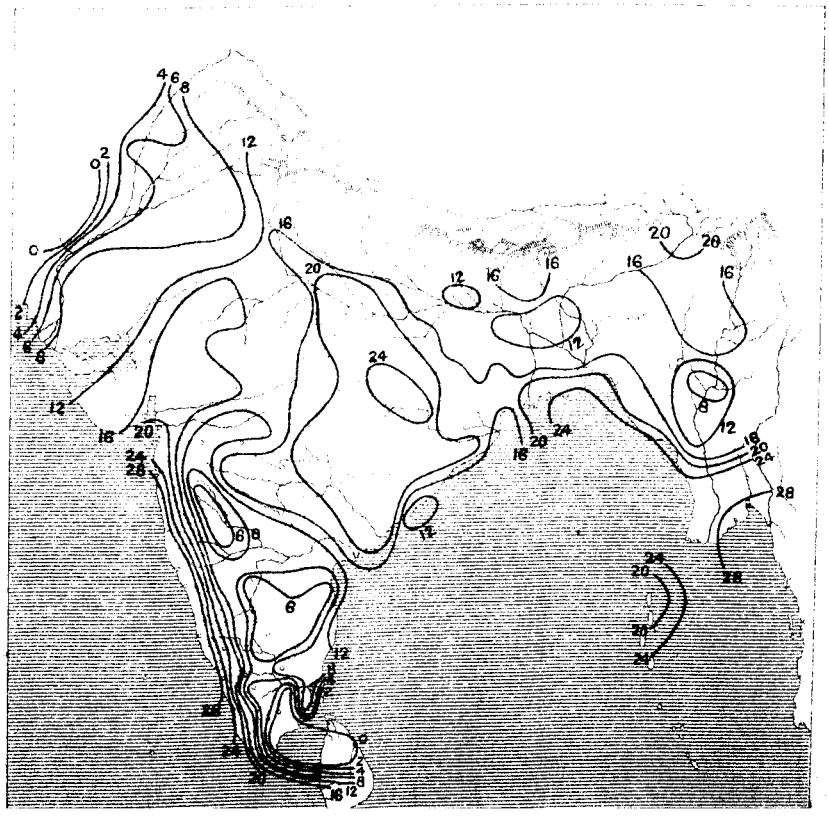
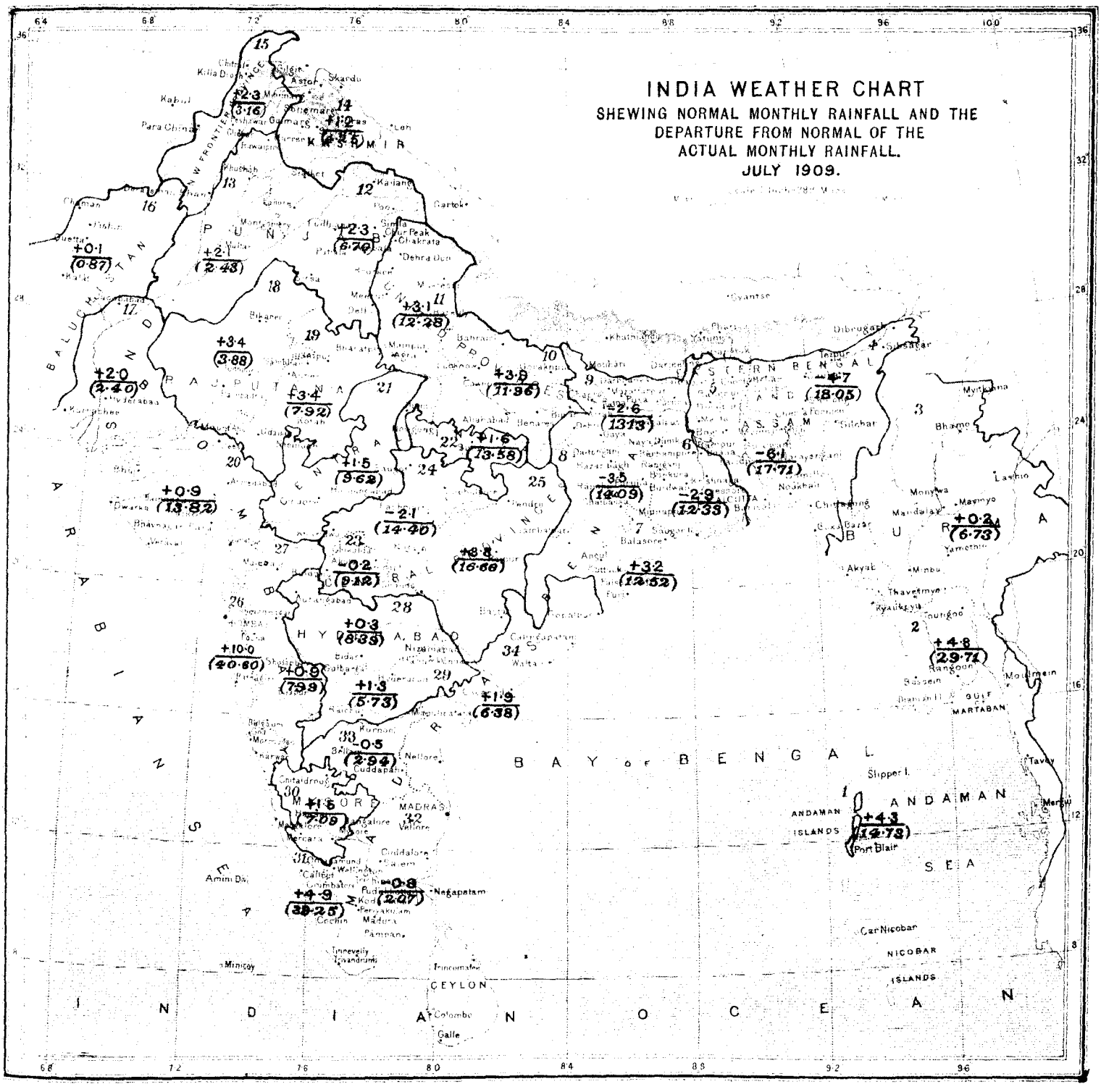


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EQUALLED OR EXCEEDED 0·10 INCH.

(BASED ON THE RETURNS OF TABLE B.)





Reg. No. 4003 E.—09—I.—5,500.

The country is divided into 34 areas as shewn in the list below. The numbers in that list correspond with the red numbers on the chart, and serve to identify the areas. The numbers in brackets on the chart give the average over the divisions of the normal monthly rainfall; the numbers above these give the departures from normal of the average actual rainfall over the divisions.

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

GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW.

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, AUGUST, 1909.

INTRODUCTION.

THIS review of the weather in India during the month of August, 1909, is based on observations taken daily at 8 hrs. at 240 stations and on additional observations recorded at 10 hrs. and 16 hrs. at 34 stations. In the rainfall summary the data furnished by the meteorological observatories and such rainfall statements of the month as had been published by the Provincial Governments up to the date of the publication of the review have been utilized. The brief notes on solar, seismic and magnetic disturbances have been supplied by the chief observatories.

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

Summary of the chief features of the weather in India during the month of August, 1909.

2. Both monsoon currents were less steady than usual, and a well-marked break in the rains obtained over the greater part of the country from the 8th to the 19th. The total measurements of rainfall were short of the normal in all the larger provinces with the exception of Eastern Bengal and Assam, Bengal, the North-West Frontier Province, Mysore and Madras. The excess in these districts was, however, sufficient exactly to counterbalance, in the average for India, the defect recorded in the remainder of the country.

The actual values of relative humidity and vapour tension differed to no important extent from the normal; skies were covered more fully than is customary in the North-West Frontier Province and at most stations in Rajputana, and were clearer than usual in Assam, the central districts of the United Provinces, the east of the Central Provinces and at Tavoy and Mergui. The departures of temperature were feebly marked, being less than 1° in amount everywhere except locally in Rajputana where weather was cooler than usual throughout the 24 hours. The barometer over India stood ·043" higher than is ordinarily the case in August, and the trough of low pressure was considerably to the north of its normal position.

Solar, seismic and magnetic disturbances.

KODAIKANAL

3. *Solar Observations.*—The observing conditions were slightly better than in July. There was only one day which was too cloudy for any observations and five others on which prominences could not be observed, but the prominence record was imperfect on ten days.

Sunspots.—There were 16 new spot groups with a daily average of a 2·3, and the average life of a spot was 4·4 days. Three of the new groups were returns of old ones. There

was one day—the 28th—on which no spots were seen, but the weather was poor and a small spot might have been missed. In July, for the first time for many months, the northern spots had a higher mean latitude than the southern, but in August the usual condition was restored. The latitude distribution was as follows :—

TABLE 1.

—	1°—10°.	11°—20°.	Extreme latitudes.	Mean latitude.
North	6	...	3°, 10°	7°·8
South	2	8	6°, 17°	12°·9

There were only 2 groups—No. 1695 of the previous month and No. 1704—which contained spots of any size, but even they were small ; and there is nothing special to be recorded regarding any of the groups.

Prominences.—24 prominences one minute or more in height were recorded during the month. The highest recorded was only 120″ high. The only prominence which showed any striking activity was a very bright one, 45″ high, seen at latitude + 9° east at 10h. 10m. on the 14th. At 10h. 20m. there was only a detached streak, 20″ high, left of it. There was nothing at this position at 9h. 6m, nor on the calcium photographs of that day (8h. 28m., 8h. 35m. and 8h. 49m.)

Magnetic disturbances.—"Moderate" magnetic disturbances were recorded from the 7th to the 10th, on the 19th andfrom the 28th to the 31st and "slight" ones on ten other days. There were 3 small spot groups near the central meridian on the 19th, but on the other hand the sun was free from spots on the 28th, as mentioned above.

C. MICHIE SMITH,

Director,

Kodaikanal and Madras Observatories.

BOMBAY OBSERVATORY.

Note on the Alibagh Magnetic Record.

4. The report of this observatory will be published in the September Monthly Weather Review.

CALCUTTA OBSERVATORY.

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

TABLE 2.

Date, 1909.	P. T. Commencement. G.M.T.	L. W. Commencement. G.M.T.	Maximum. G.M.T.	End. G.M.T.	Duration.	Maximum displacement on trace from mean position.	REMARKS.
	H. M.	H. M.	H. M.	H. M.	H. M.	mm.	
Aug. 2nd	9 34·7	...	10 22·0	10 36·8	1 2·1	1·50*	* The box was drawn out for winding the watch when the displacement occurred. Therefore the amplitude cannot be measured accurately.
„ 9th	4 29·0	—	4 30·6	4 35·1	0 6·1	0·50	
„ 11th	11 53·1	—	...	12 35·8	0 42·7	...	Thickening of the line.
„ 12th	11 41·2	—	...	11 51·4	0 10·2	...	Ditto.
„ 14th	6 30·6	6 49·4	6 59·1	7 35·7	1 5·1	2·00	
„ 15th	10 28·3	...	10 32·9	10 40·0	0 11·7	0·75	
„ 16th	8 13·8	...	8 29·6	9 8·2	0 54·4	1·25	
„ 22nd	15 48·8	...	15 50·9	15 59·0	0 10·2	0·50	
„ „	17 54·9	...	...	18 2·6	0 7·7	...	Thickening of the line.
„ 28th	7 17·6	...	7 19·1	7 25·7	0 8·1	3·00†	† Measured from the base line.
„ „	8 1·3	...	8 3·9	8 10·5	0 9·2	4·00	Sensibility 1 mm.=0·38″ of tilt.

E. P. HARRISON,

Offg. Meteorologist, Calcutta.

SIMLA OBSERVATORY.

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

TABLE 3.

Date, 1909.		Beginning of 1st P. T.	Beginning of 2nd P. T.	Beginning of L. W.	Time of maximum amplitude.	End approximately.	Duration.	Maximum displacement of style.	REMARKS.
		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	mm.	
July 31st	A	...	...	...	...	...	...	...	Tremors between 19½ hrs. and 21½ hrs. Nothing recorded.
„	B	...	...	...	...	...	...	...	
August 2nd	A	?	?	10 25·2	10 25·6	?	?	2·2	
„	B	10 21·2	10 23·2	10 25·5	10 25·7	10 42	0 21	0·9	

Date, 1909.		Beginning of 1st P. T.	Beginning of 2nd P. T.	Beginning of L. W.	Time of maximum amplitude.	End approximately.	Duration.	Maximum displacement of style.	REMARKS.
		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	mm.	
August 14th	A	6 39·6	6 49·4	6 57·4	7 2·4	9 5	2 26	1·6	
,,	B	...	...	...	...	...	...	...	Under repair.
16th	A	7 25	P	8 9	8 18	10 15	2 50	0·7	
,,	B	...	...	...	...	...	...	...	Under repair.
22nd	A	P	P	6 33·9	6 36·9	6 54	P	0·4	
,,		15 40·2	15 41·5	15 42·7	15 43·0	15 54	0 14	1·0	
,,		17 46·5	17 47·6	17 48·8	17 48·9	17 58	0 12	0·2	
,,	B	P	P	6 34·1	6 36·5	6 52	P	Small.	
,,		15 40·1	15 41·6	15 43·9	15 44·0	15 56	0 16	0·5	
,,		17 46·0	17 47·6	17 49·5	17 49·8	17 55	0 9	Small.	

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

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

TABLE 4.

Place at which felt.	Date.	G. M. T. of earthquake.		Duration.	Intensity.	No. of shocks.	REMARKS.
		H.	M.				
Kyelang (Kangra) .	2nd	7	17	4 sec.	2	3	
Do. do. .	4th	0	45	2 ,,	2	1	
Gyantse . . .	3rd	10	0?	...	...	2	
Berhampore . .	28th	7	21	1 min.	5	2	
Raniganj . . .	,,	7	19	3 sec.	4	6	
Burdwan . . .	,,	7	21	6	2	1	
Midnapur . .	,,	8	0	Few	...	...	Slight.

Solar radiation.—Cloudy weather prevented any measurement of the intensity of solar radiation in Simla by Angstrom's pyrheliometer.

J. H. FIELD,
Imperial Meteorologist, Simla.

ROYAL ALFRED OBSERVATORY, MAURITIUS.

7. The report of this observatory will be published in the September Monthly Weather Review.

Weather in the Indian monsoon region.

8. Pressure was almost normal at Zanzibar and the Seychelles. The air movement was of the normal character at the Seychelles but was inclined to be weak and less easterly than usual at the other station. Rainfall was very irregularly distributed, being 84 per cent. in excess at Zanzibar, and markedly in defect at the Seychelles.

The abnormalities of rainfall and air movement at Zanzibar were such as are prejudicial to good rain over India from the Arabian Sea current.

TABLE 5.

—	Mauritius.	Zanzibar.	Seychelles.
Departure from normal of mean pressure.		—·001	+·005
Actual mean wind direction .		S 2° W	S 32° E
Normal mean wind direction .		S 9° E	S 35° E
Actual mean wind velocity (miles per diem).		142	320
Normal mean wind velocity (miles per diem).		166	316
Rainfall departure from normal		+1·42	—2·37

Depressions and cyclonic storms.

9. The month was singularly free from disturbance, no well-defined depression or storm having formed over or crossed into India.

Pressure.

10. The low pressure conditions which had prevailed over India during May, June and July were reversed completely during August, for which the mean 8 hrs. pressure was as much as ·043" above the normal. The excess was common to the whole Indian area with the exception of Malabar and Ceylon, but was by no means uniformly distributed as will be seen from the statement below :—

TABLE 6.

DIVISION.	Departure from normal of mean 8 hrs. pressure.
	"
Burma	+·030
Eastern Bengal and Assam	+·054
Bengal	+·071
United Provinces	+·034
Punjab	+·045
North-West Frontier Province	+·029
Sind	+·040
Rajputana	+·049
Bombay	+·036
Central India	+·048
Central Provinces	+·063
Hyderabad	+·030
Mysore	+·012
Madras	+·021

As ordinarily the barometer stands highest in the extreme south and lowest in the north the effect of the deviations from the normal conditions was a marked diminution of the barometric gradient. Thus the range of pressure between Ceylon and the north of the Bay and of the Arabian Sea was reduced to about half of the normal value. Also the trough of low pressure lay further north than usual, with its axis running eastwards from Multan to Darbhanga instead of from Multan to Calcutta.

No great connection is traceable between the departures of pressure and those of temperature; the latter differed by less than 1° from the normal over practically the whole of the country.

The atmospheric strata at and above the level of the hill stations in northern India and Burma were denser than usual though not to the same extent as those near the earth's surface. In southern India, on the other hand, the excess of pressure disappeared below the level of Kodaikanal:—

TABLE 7.

HILL STATION.	Departure from normal pressure. A	PLAIN STATION.	Departure from normal pressure. B	Departure of pressure difference. B—A.
	"		"	"
Quetta	+·025	Jacobabad	+·028	+·003
Leh	+·028	Lahore	+·035	+·007
Murree	—·009	Peshawar	+·030	+·039
Simla	+·031	Ludhiana	+·047	+·016
Chakrata	+·051	Roorkee	+·055	+·004
Darjeeling	+·032	Dhubri	+·051	+·019
Mount Abu	+·029	Deesa	+·046	+·017
Pachmarhi	+·054	Khandwa	+·051	—·003

Temperature.

11. On the mean of the month temperature was approximately normal in all the provinces with the exception of Rajputana where day temperature was 3½° and night temperature 2½° lower than usual. This average condition was not a feature of the whole month but was the result of a series of rises and falls which very nearly counterbalanced each other. The most noticeable of these fluctuations occurred from the 6th to the 13th and towards the end of the month; on these occasions the weather was from 2° to 8° cooler over the tract of country stretching eastwards from the Indus to Upper Burma.

TABLE 8.

DIVISION.	DEPARTURE FROM NORMAL OF		
	Mean maximum temperature.	Mean minimum temperature.	Mean temperature.
	°	°	°
Burma	+0·4	+0·4	+0·4
Eastern Bengal and Assam	—1·1	—0·5	—0·8
Bengal	—0·4	—0·6	—0·5
United Provinces	—0·4	—0·8	—0·6
Punjab	—1·3	+0·4	—0·5
North-West Frontier Province	—1·6	+0·8	—0·5
Sind	—0·2	—0·6	—0·4
Rajputana	—3·5	—2·4	—3·0
Bombay	0	—0·4	—0·2
Central India	—0·2	0	—0·1
Central Provinces	+1·4	—0·1	+0·6
Hyderabad	—0·3	+0·8	+0·2
Mysore	0	+0·7	+0·3
Madras	—1·1	—0·4	—0·7

TABLE 9.

SUB-DIVISION.	ACTUAL TEMPERATURE.					DEPARTURE FROM NORMAL OF		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
1. Bay Islands	84·3	76·9	80·6	7·4	14·4	—1·0	—0·8	—0·2
2. Lower Burma	85·6	75·7	80·6	9·9	17·1	+1·2	+0·7	+0·5
3. Upper do.	88·3	75·4	81·9	12·9	20·7	—0·7	+0·1	—0·8
4. Assam	87·4	77·4	82·4	10·1	19·6	—1·9	+0·4	—2·3
5. Eastern Bengal	86·4	77·2	81·9	9·2	17·2	—0·9	—0·7	—0·2
6. Bengal	88·3	77·3	82·8	11·0	18·5	—0·6	—0·9	+0·3

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
7. Orissa	88·5	78·2	83·4	10·3	17·7	+0·7	0	+0·7
8. Chota Nagpur	86·3	74·4	80·4	11·8	19·4	+0·1	—0·3	+0·4
9. Bihar	87·9	77·9	83·0	10·0	19·3	—1·5	—0·8	—0·7
10. United Provinces, East	89·9	77·6	83·7	12·3	20·7	0	—1·0	+1·0
11. Do., West	88·8	76·7	82·7	12·2	20·8	—0·7	—0·6	—0·1
12. Punjab, East and North	92·8	78·1	85·4	14·7	25·0	—1·9	0	—1·9
13. Do., Southwest	101·1	82·8	92·0	18·3	31·0	+0·2	+1·3	—1·1
14. Kashmir	79·8	56·5	68·2	23·2	36·3	—0·4	+0·4	—0·8
15. North-West Frontier Province	98·6	80·2	89·3	18·4	30·3	—1·6	+0·8	—2·4
16. Baluchistan	99·8	70·5	85·2	29·3	41·5	+2·4	—0·3	+2·7
17. Sind	94·4	78·5	86·4	15·9	24·9	—0·2	—0·6	+0·4
18. Rajputana, West	91·8	76·5	84·1	15·2	28·0	—3·8	—2·2	—1·6
19. Rajputana, East	86·3	74·4	8[illegible]·4	12·0	21·2	—3·2	—2·5	—0·7
20. Gujarat	86·3	75·8	81·0	10·5	17·1	—1·8	—0·7	—1·1
21 Central India, West	82·4	71·3	76·9	11·1	19·1	—1·6	—0·7	—0·9
22. Do., East	88·2	77·0	82·6	11·2	18·4	+1·3	+0·7	+0·6
23. Berar	86·2	71·7	79·0	14·5	21·3	+1·7	+0·1	+1·6
24. Central Provinces, West	86·0	73·0	79·5	13·0	20·1	+1·1	—0·5	+1·6
25. Do., East	86·9	74·5	80·7	12·5	19·2	+1·9	+0·7	+1·2
26. Konkan	83·2	75·5	79·4	7·7	12·0	+0·1	—0·2	+0·3
27. Bombay Deccan	85·6	69·2	77·4	16·4	24·5	+1·6	—0·3	+1·9
28. Hyderabad, North	84·5	66·0	75·3	18·5	24·9	...	...	...
29. Do., South	87·4	73·3	80·4	14·2	23·3	—0·3	+0·8	—1·1
30. Mysore	81·5	66·9	74·2	14·7	20·9	0	+0·7	—0·7
31. Malabar	82·1	74·1	78·1	8·0	13·4	—0·8	+0·2	—1·0
32 Madras, Southeast	92·1	75·2	83·6	16·9	26·3	—1·5	—0·7	—0·8
33. Do., Deccan	90·8	74·3	82·6	16·5	28·8	—0·6	—0·4	—0·2
34. Do. Coast, North	89·8	78·1	84·0	11·7	21·1	—0·5	—0·2	—0·3

Winds.

12. Owing to the prevalence of unusual pressure conditions the air movement departed from the normal type in some important respects. The chief abnormalities were:—

(*a*) There was an excess of the southerly element in the wind direction over the Arakan coast, Eastern Bengal and the greater part of the Gangetic plain. At the stations along the base of the Himalayas from Lahore to Tezpur the easterly element was suppressed or weak, while at the hill stations of Darjeeling and Chakrata the mean direction contained an abnormal northerly component. These deviations indicate that the activity of the Bay current was almost restricted to northeast India; and that the region of ascensional movement over the Gangetic plain was situated near the foot of the Himalayas, considerably to the north of its normal position.

(*b*) The resultant direction over the west and centre of the peninsula was more westerly than usual, and in some cases northerly.

(*c*) Both monsoon currents were on the whole below their normal strength and steadiness over the land area, as is shown below:—

TABLE 10.

Division.	Departure from normal of	
	Hourly wind velocity.	Wind steadiness.
Burma	−1·2	−11
Eastern Bengal and Assam	−1·1	−12
Bengal	−0·3	+ 3
United Provinces	+0·1	+ 4
Punjab	+0·5	0
North-West Frontier Province	−0·6	+ 4
Sind	−1·8	0
Rajputana	+0·3	−12
Bombay	−2·0	−11
Central India	−1·1	+ 5
Central Provinces	−1·1	− 8
Hyderabad	−4·6	−16
Mysore	−1·8	− 1
Madras	−0·8	− 8

(*d*) The limited information available at present for the Indian Ocean shows that during the second and third weeks light unsteady and irregular winds prevailed in parts of the equatorial belt.

Humidity and cloud.

13. The comparative unsteadiness of the monsoon currents was reflected also in the humidity conditions which were more than usually variable. The high humidities recorded during rainy periods, however, very nearly compensated for the dryness experienced at other times, with the result that the monthly values of both vapour pressure and percentage of saturation differed but little from the corresponding normals.

The cloud proportion was unusually high in the North-West Frontier Province and the greater part of Rajputana, and low in Assam, the central parts of the United Provinces, the east of the Central Provinces, and the south Tenasserim coast; elsewhere the deviations from the average were not significant.

TABLE 11.

Division.	Hygrometry; 8 hrs.				Cloud.	
	Mean humidity.	Departure from normal.	Mean vapour tension in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.
	%					
Burma	91	+ 1	·886	+·013	7·9	−0·2
Eastern Bengal and Assam.	91	0	·935	−·022	7·5	−0·6
Bengal	88	− 1	·923	−·019	7·8	+0·1
United Provinces.	84	− 2	·887	−·032	6·5	−0·7
Punjab	76	0	·862	−·015	4·9	+0·3
North-West Frontier Province.	74	+ 1	·886	+·040	4·0	+1·3
Sind	76	0	·831	−·035	4·7	−0·3
Rajputana	80	+ 4	·784	−·032	7·3	+0·8
Bombay	84	0	·796	−·014	7·7	0
Central India	85	− 3	·795	−·029	8·1	+0·3
Central Provinces.	82	− 6	·766	−·026	7·2	−0·9
Hyderabad	81	+ 1	·727	+·004	6·9	−0·1
Mysore	86	+ 4	·649	+·019	8·8	+0·4
Madras	81	+ 4	·825	+·026	6·9	+0·1

Rainfall.

14. During the first four days the monsoon was on the whole of more than the average strength, but its activity was focussed chiefly in a depression which advanced westwards from the east of the Central Provinces and Chota Nagpur on the 1st to the western desert on the 3rd. The rainfall was heaviest on the southern margin of the depression, and particularly at Mount Abu and Deesa which recorded 19 and 11 inches respectively between the mornings of the 2nd and 4th. The disappearance of the depression on the 4th was followed by a displacement to the foot of the Himalayas of the trough of low pressure, in consequence of which rainfall became almost confined to Burma and northeast India. The break thus initiated lasted until the 19th after which a slow improvement took place, with the result that by the 27th rainfall had again become general and abundant.

A notable feature of the last four days was the occurrence of heavy downpours of rain in Bengal in connection with a small low pressure area. Thus Burdwan recorded a total of 16·78″, and Jessore of 15·55″ on the 28th and 29th.

Notwithstanding the prevalence of an almost complete "break" in the rains from the 8th to the 19th, the month's aggregate precipitation over the whole Indian land area was equal to the normal. An excess occurred in Upper Burma, northeast India, the Punjab East and North, Kashmir, the North-West Frontier Province, Rajputana West, Central India West, Mysore and Madras and a defect elsewhere. The region driest by percentage comparison with the normal was defined by Sind, Baluchistan and the Punjab Southwest, which obtained only one-fifth of their normal supply. Eastern Bengal, Bengal and Madras Southeast and Madras Deccan, on the other hand, received almost double the normal quantity.

The defect was thus almost confined to the region served by the Arabian Sea current.

TABLE 12.

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			Inches	Inches.	Inches.	
1. Bay Islands	12·5	20·9	10·27	14·16	—3·89	— 27
2. Lower Burma	21·8	24·0	23·64	26·89	—3·25	— 12
3. Upper do.	11·2	10·6	8·88	7·27	+1·61	+ 22
4. Assam	18·7	17·5	17·42	16·13	+1·29	+ 8
5 Eastern Bengal	20·5	16·6	27·20	15·53	+11·67	+ 75
6. Bengal	18·6	16·0	20·39	11·87	+8·52	+ 72
7. Orissa	13·4	15·3	9·62	12·22	—2·60	— 21
8. Chota Nagpur	17·2	16·1	14·15	13·35	+0·80	+ 6
9. Bihar	15·1	13·4	13·61	12·02	+1·59	+ 13
10. United Provinces, East	9·2	12·5	7·19	11·35	—4·16	— 37
11. Do. do., West	10·2	11·8	9·57	11·71	—2·14	— 18
12. Punjab, East and North	7·8	6·8	6·58	6·54	+0·04	+ 1
13. Do., Southwest	1·3	2·9	0·67	2·11	—1·44	— 68
14. Kashmir	6·0	5·3	4·41	3·89	+0·52	+ 13
15. North-West Frontier Province	6·2	4·2	4·93	3·38	+1·55	+ 46
16. Baluchistan	0·3	1·3	0·12	0·83	—0·71	— 86
17. Sind	0·9	2·2	0·65	2·21	—1·56	— 71
18. Rajputana, West	4·5	4·3	3·44	3·32	+0·12	+ 4
19. Do., East	8·2	9·1	6·65	7·32	—0·67	— 9

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			Inches.	Inches.	Inches.	
20. Gujarat	9·8	11·1	7·12	8·40	—1·28	— 15
21. Central India, West	10·8	12·3	10·83	10·24	+0·59	+ 6
22. Do., East	8·4	14·6	5·44	13·13	—7·69	— 59
23. Berar	8·5	10·1	5·17	6·68	—1·51	— 23
24. Central Provinces, West	11·7	13·7	9·65	11·78	—2·13	— 18
25. Do. do., East	13·1	15·1	8·60	13·97	—5·37	— 38
26. Konkan	20·8	24·7	14·18	24·84	—10·66	— 43
27. Bombay Deccan	7·7	9·7	4·30	5·53	—1·23	— 22
28. Hyderabad, North	8·2	11·4	5·90	7·92	—2·02	— 26
29. Do., South	12·0	10·4	6·24	6·43	—0·19	— 3
30. Mysore	11·8	8·5	7·88	5·42	+2·46	+ 45
31. Malabar	15·5	20·9	11·42	19·32	—7·90	— 41
32. Madras, Southeast	10·0	5·3	8·53	3·54	+4·99	+141
33. Do. Deccan	12·1	6·5	8·83	3·86	+4·97	+129
34. Do. Coast, North	11·1	10·1	7·39	6·78	+0·61	+ 9

TABLE 13.

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Burma	15·51	16·08	—0·57	— 4
Eastern Bengal and Assam	22·34	15·83	+6·51	+ 41
Bengal	15·68	12·17	+3·51	+ 29
United Provinces	8·30	11·52	—3·22	— 28
Punjab	5·37	5·64	—0·27	— 5
North-West Frontier Province	4·93	3·38	+1·55	+ 46
Sind	0·65	2·21	—1·56	— 71
Rajputana	5·80	6·24	—0·44	— 7

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Bombay	7·01	9·96	—2·95	—30
Central India	9·58	11·24	—1·66	—15
Central Provinces	7·59	10·19	—2·60	—26
Hyderabad	6·08	7·10	—1·02	—14
Mysore	7·88	5·42	+2·46	+45
Madras	8·48	5·98	+2·50	+42
Mean of India when the size of the above areas is taken into account.	9·76	9·76	0	0

Snowfall.

15. I. and II.—AFGHANISTAN AND THE NORTH-WEST FRONTIER PROVINCE.

No reports have been received.

III.—KASHMIR.

A feeble snowstorm occurred on the ranges above Dras on the last day of the month.

IV.—PUNJAB.

Kilba.—There were slight falls on the surrounding hills down to about 10,000 feet on the 30th and 31st. The accumulations of snow on the higher passes were of about the usual depth.

V.—UNITED PROVINCES.

Almora.—There were frequent falls in Malla Darma, and occasional falls in Byans and Chaudans. The total quantity was reported to measure 11¼ feet on the Nuwe pass, 1½ feet on the Binkaru pass, and 3 feet in Byans.

The snow line came down to about half a mile from the region of perpetual snows.

TABLE 14.

Name of Pass.	Depth of accumulation at the end of the month.	
	Reported.	Normal.
Nuwe Pass	23 feet	16 feet
Binkaru "	8 "	9 "
Lipulekh "	3 "	3 "
Lampia "	3 "	5½ "

SUMMARY.

16. (*a*) No information is available for the Afghan mountains. It is probable, however, that no snowfall occurred there during the month.

(*b*) Scarcely any snow fell in Kashmir and perhaps also in the Punjab Himalayas. At the end of the month the higher passes near Kilba were covered with snow to about the usual depth, while the passes and peaks near Kargil in Kashmir were quite bare.

(*c*) Several snowstorms occurred on the higher passes and peaks in Almora. The total fall was probably not excessive. The accumulations were on the whole about normal.

Crop report.

17. *Burma.*—Winter rice was being transplanted in Lower Burma, and cultivation was also progressing favourably in Upper Burma. Crop prospects were generally good, but considerable damage had been caused by floods in the Sittang valley.

Eastern Bengal and Assam.—Autumn rice and jute were being harvested and winter rice transplanted. The condition of tea had improved, and the prospects of standing crops generally were fair.

Bengal.—Autumn paddy had suffered in Sambalpur from want of moisture, but in some other parts of the province crops had been damaged by excessive rain. Prospects were on the whole fair.

United Provinces.—Agricultural operations were well advanced, and early autumn crops were being harvested. The condition of agricultural stock was generally good.

Punjab.—Some injury had been caused by westerly winds and want of rain, but towards the close of the month crop prospects greatly improved and the condition of standing crops was generally good.

North-West Frontier Province.—The outturn of extra spring crops was average. The condition of standing crops was on the whole fairly good in Peshawar and average elsewhere.

Jammu and Kashmir.—The condition of standing crops was fair to good. Fodder was sufficient.

Rajputana.—Standing crops were good but more rain was needed in Jodhpur. Insects had caused some damage. Pasturage and fodder were ample.

Central India.—Autumn crops were being weeded and land prepared for spring crops. More rain was needed in Gwalior.

Central Provinces.—Weeding, transplantation and preparation of land for spring crops were in progress. Opportune rainfall occurred towards the end of the month and was of great benefit to the standing crops.

Bombay.—Autumn crops were being sown. Some damage to the standing crops was reported from insufficient moisture, rats and insects, but otherwise the crops were in good condition.

Hyderabad.—The standing autumn and early rice crops were generally in fair to good condition. Land was being prepared for spring crops.

Mysore.—Standing crops were in good condition and prospects of the season were good.

Coorg.—Rice was being transplanted. Water and fodder supplies were sufficient.

Madras.—Crops were being harvested in parts of the presidency, mostly with fair to normal outturn. Standing crops were in fair to good condition, and prospects were generally good.

HEM RAJ.

Table A.—Abstract of observations taken at 10 hrs. and 16 hrs. at 34 stations in India, etc., in August, 1909.

Tab

Abstract of observations taken at 10 hrs. and 16 hr

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Pressure. Mean of 16 hrs.	Pressure. Mean daily range.	Pressure. Mean of daily mean pressures.	Pressure. Departure from normal.	Pressure. Mean reduced to sea-level and gravity, 45° Lat.	Temperature of air. Mean maximum.	Temperature of air. Mean minimum.	Temperature of air. Mean daily range.	Temperature of air. Highest maximum.	Temperature of air. Lowest minimum.	Temperature of air. Absolute range.	Temperature of air. Mean 10 hrs.	Temperature of air. Mean 16 hrs.	Temperature of air. Mean of daily means.	Temperature of air. Departure from normal.	Temperature, wet-bulb. Mean minimum.	Temperature, wet-bulb. Mean 10 hrs.	Temperature, wet-bulb. Mean 16 hrs.	Temperature, wet-bulb. Mean of three pre-
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	2
	I.—Burma.																					
2	Rangoon . .	18	29·846	29·752	·094	29·802	+·050	29·758	86·3	76·8	9·5	90·3	73·9	16·4	82·6	82·0	79·9	+1·2	75·0	78·1	77·3	7
	III.—Bengal.																					
6	Calcutta . .	21	·710	·611	·099	·663	+·072	·629	88·1	77·9	10·2	92·3	74·0	18·3	84·0	85·1	82·7	+0·3	76·6	80·0	80·2	7
	IV.—United Provinces of Agra and Oudh.																					
10	Allahabad . .	309	·381	·271	·110	·329	+·063	·589	90·1	77·8	12·3	96·4	73·8	22·6	85·1	88·3	85·0	+1·8	75·6	77·8	78·6	7
11	Dehra Dun . .	2,233	27·469	27·390	·079	27·428	+·024	·604	82·3	72·6	9·7	86·8	70·5	16·3	76·9	78·1	76·2	−1·1	71·1	74·0	74·9	7
	V.—Punjab.																					
12	Lahore . . .	702	28·926	28·826	·100	28·866	+·034	·522	95·9	80·9	15·0	102·6	72·2	30·4	89·0	93·7	87·5	+0·4	76·4	79·9	81·6	7
	VIII.—Rajputana.																					
19	Jaipur . . .	1,431	·275	·182	·093	·228	+·049	·602	89·1	74·2	14·9	95·3	71·0	24·3	82·2	85·7	80·0	−2·3	72·2	75·2	76·5	7
	Udaipur . .	1,925	27·803	27·728‡	·075	27·764		·635‡	81·7	72·0	9·7	86·7	68·3	18·4	77·7	78·6	76·3		69·4	72·9	73·5	7
	IX.—Bombay.																					
26	Bombay . .	37	29·802	29·724	·078	29·761	+·032	·738	85·1	77·2	7·9	88·0	74·8	13·2	80·7	82·2	80·1	+0·7	75·1	77·4	77·5	7
	XI.—Central Provinces.																					
24	Nagpur . .	1,017	28·742	28·624	·118	28·686	+·061	·656	88·5	74·5	14·0	92·6	71·8	20·8	82·4	84·7	80·1	+0·7	72·3	75·3	76·2	7
	XII.—Hyderabad.																					
29	Hyderabad . .	1,690	·119	·011	·108	·071	+·040	·695	86·6	73·2	13·4	90·2	70·2	20·0	80·0	83·7	78·4	+1·3	70·0	73·0	74·6	7
	XIII.—Mysore.																					
30	Bangalore . .	3,021	26·891	26·782	·109	26·846	+·002	·747	81·7	66·9	14·8	86·5	65·0	21·5	74·5	79·3	72·4	+0·6	65·7	69·4	70·9	6
	Mysore . . .	2,518	27·393	27·278	·115	27·345	−·001	·778	82·1	67·2	14·9	85·8	65·0	20·8	75·9	78·5	72·8	−0·6	65·8	69·1	70·3‡	6
	XIV—Madras.																					
32	Periyakulam .	944								Observatory closed.												
	Pudukkottai .	318	29·537	29·407	·130	29·472		·718	94·0	75·2	18·8	99·6	70·4	29·2	86·2	90·4	84·7		72·1	75·3	76·4	7
	Madras . .	22	·803	·696	·107	·759	+·013	·712	91·5	76·9	14·6	96·5	73·2	23·3	84·9	86·4	83·1	−1·4	75·7	78·9	80·0	7
	Bay Islands.																					
1	Port Blair . .	58	·827	·745	·082	·788	+·028	·776	84·3	76·2	8·1	87·6	72·0	15·6	82·2	81·7	79·1	−1·1	74·0	77·8	77·0	7
	Kashmir.																					
14	Srinagar . .	5,204	24·730	24·648	·082	24·686	+·018	24·657	84·1	64·9	19·2	89·0	60·1	28·9	75·6	81·5	71·9	+1·1	61·6	70·7	75·5	6
	Leh . . .	11,503	19·682	19·575	·107	19·636	+·013	19·604	75·9	50·8	25·1	81·9	46·0	35·9	66·3	71·9	60·8	−0·2	47·0	54·2	56·2	5
	Baluchistan.																					
16	Quetta . .	5,502	24·508	24·420	·088	24·462	+·017	24·422	94·1	61·2	32·9	97·0	53·4	43·6	84·7	92·3	77·2	+1·9	57·1	61·8	60·7	6

N.B.—Elevations in italics indicate barometric determinations.
NOTE.—The barometric readings are not reduced to sea-level, in the cases of hill or plateau stations, the elevations of which exceed 3,200 feet.
‡ Mean of 30 days.

A.

at 34 stations in India, etc., in August, 1909.

Vapour tension in inches of mercury.					Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity.		Rainfall.		Station.	Number of subdivision.
														Total number of 10 hrs. and 16 hrs. winds from																		
From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean 10 hrs.	Mean 16 hrs.	Mean of two previous columns.	Departure from normal.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.		
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
																															I.—Burma.	
·848	·910	·879	·893	—·011	92	82	80	88	— 5	8·5	9·0	8·3	—0·2	5			1	2	17	26	7	4	S 37° W	S 39° W	69	66	42	106	12·22	2·60	Rangoon . .	2
																															III.—Bengal.	
·898	·971	·968	·948	—·019	94	83	80	87	— 1	8·1	8·6	8·4	—0·3	4	1		3	8	12	29	4	1	S 24° W	S 2° E	65	56	109*	113	15·17	3·56	Calcutta . .	6
																															IV.—United Provinces of Agra and Oudh.	
·859	·857	·851	·868	—·078	90	71	64	78	— 6	8·7	9·0	8·9	+0·8	7	3	4	6	3	3	6	26	4	S 88° W	N 6° E	26	5	98	158	4·55	1·57	Allahabad. .	10
·745	·806	·830	·821	—·001	93	87	56	94	+ 3	9·1	8·9	9·0	+1·4	24	3	3	4	7	8	3	5	3	S 16° E	S 23° W	13	13	22*	24	42·71	7·30	Dehra Dun † .	11
																															V.—Punjab.	
·851	·901	·920	·915	+·031	81	67	60	70	— 1	3·7	4·4	4·1	+0·1	6	4	4	8	12	6	1	16	5	S 10° W	S 73° E	8	24	78	67	3·98	1·40	Lahore . .	12
																															VIII.—Rajputana.	
·770	·792	·800	·790	—·026	91	72	66	78	0	7·9	7·8	7·9	+0·3	1	2	4	4	2	1	14	23	11	N 89° W	N 69° W	52	42	152*	113	7·09	3·90	Jaipur . .	19
·686	·762	·768	·752		88	79	78	84		9·1	9·2	9·2		8		1	1	3	2	22	23	2	S 64° W		64		103		13·43	5·07	Udaipur.	
																															IX.—Bombay.	
·841	·899	·886	·883	—·002	90	86	80	86	— 1	7·7	7·3	7·5	—0·9			1	2	1	2	7	40	9	S 89° W	S 81° W	77	79	237*	370	8·52	1·71	Bombay . .	26
																															XI.—Central Provinces.	
·769	·788	·798	·800	—·012	90	72	68	81	— 2	6·3	7·5	6·9	—1·8	3	3	1	3	4	12	12	20	4	S 56° W	N 78° W	48	64	93	173	7·87	1·98	Nagpur . .	24
																															XII.—Hyderabad.	
·701	·727	·745	·735	+·004	85	71	65	77	— 3	6·8	8·5	7·7	+0·1	26	1						24	11	N 75° W	N 85° W	53	85	87	202	4·52	1·77	Hyderabad .	29
																															XIII.—Mysore.	
·622	·661	·663	·653	+·040	94	77	66	81	+ 2	9·1	8·2	8·7			5				1	5	32	19	N 74° W	S 81° W	82	88	159	199	12·18	3·00	Bangalore . .	30
·620	·632	·642‡	·635	+·010	93	71	67‡	79	+ 3	9·5	9·1	9·3	+0·5		2	2			2	18	32	6	S 81° W	S 84° W	77	86	180	300	7·33	1·28	Mysore.	
																															XIV.—Madras.	
																							Observatory closed.								Periyakulam .	32
·751	·733	·721	·735		83	59	51	64		6·5	7·4	7·0		3	5			3	5	14	10	22	N 94° W		55		176		7·75	2·48	Pudukkottai,	
·878	·910	·937	·919	+·083	95	76	75	83	+10	5·8	6·1	6·0	—0·9		1	2	7	12	4	16	13	7	S 37° W	S 36° W	29	56	121*	166	4·91	1·51	Madras.	
																															Bay Islands.	
·811	·892	·869	·865	—·041	90	81	80	85	— 2	8·6	8·8	8·7	+0·8	3	1			4	7	27	20		S 53° W	S 51° W	74	81	212	259	16·56	3·93	Port Blair .	1
																															Kashmir.	
·515	·703	·823	·633	+·020	83	79	75	79§	— 1	4·4	4·7	4·6	+0·8	23	6		1	17	3	1	1	10	S 60° E	N 48° W	8	9	59	86	0·77	0·21	Srinagar . .	14
·291	·321	·319	·307	+·042	78	50	41	59	+ 8	4·1	6·0	5·1	—0·2			2	1	3	22	11	20	3	S 42° W	S 72° W	61	42	54*	43	0·46	0·11	Leh.	
																															Baluchistan.	
·233	·312	·204	·316	—·058	79	26	12	40	— 4	0·8	1·4	1·1	—0·4	31	3		1			2	15	10	N 69° W	N 78° W	39	33	58	65	0	0	Quetta . .	16

* Uncorrected for scale error. † Wind observations less 2. § Mean of three previous columns.

Tab

Abstract of observations taken at 10 hs. and 16 hrs., at 34 statio

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Mean of 16 hrs.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to sea-level and gravity, 45° Lat.	Temperature of air. Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Temperature, wet-bulb. Mean minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of three pre-
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	Hill Stations excluding Kashmir and Baluchistan.																					
	Simla	7,232	23·060	23·005	·055	23·031	+·034	22·993	65·6	59·0	6·6	68·2	56·6	11·6	62·6	64·0	61·8	−1·0	58·2	61·2	62·4	60·
	Sarain		·092	·037	·055	·062		*23·024	70·6	59·3	11·3	75·0	55·9	19·1	66·0	67·8	64·4			61·6	62·7	
	Kalabagh		20·132	20·090	·042	20·106		20·068	55·2	48·4	6·8	59·5	45·3	14·2	52·7	53·5	51·3			51·5	52·0	
	Chakrata	7,022	23·243	23·193	·050	23·214	+·053	·174	68·3	59·9	8·4	71·9	56·7	15·2	65·3	64·3	63·6	−0·1	59·6	64·1	63·6	62·
	Muktesar	7,592	22 785	22·722	·063	22·752		22·710	71·9	56·8	15·1	76·3	54·2	22·1	62·6	64·1	63·9		56·6	61·3	62·2	60·
	Katmandu	4,388	25·521	25·433	·088	25·475	+·038†	25·429	81·0	67·5	13·5	85·6	65·9	19·7	75·2	76·3	73·8	−0·7†	65·7	70·2	70·6	68·
	Darjeeling	7,376	22·983	22·950	·033	22·965	+·031	22·920	66·3	57·4	8·9	68·7	54·2	14·5	63·3	64·4	61·4	+0·5	56·8	62·1‡	63·2	60·
	Pachmarhi	3,528	26·334	26·259	·075	26·295	+·051	26·242	76·1	66·9	9·2	80·7	65·1	15·6	70·2	73·8	71·0	+0·6	65·1	68·2	69·6	67·
	Mount Abu	3,945	25·910	25·848	·062	25·877	+·024	25·827	69·9	63·1	6·8	78·0	60·4	17·6	66·0	67·7	66·0	−1·6	62·4	65·3	66·6	64·
	Chikalda	3,642	26·231	26·138	·093	26·183	+·034	26·127	74·8	64·6	10·2	78·3	62·2	16·1	70·1	72·6	69·2	+0·8	64·4	68·5	69·8	67·
	Ootacamund	*7,327*	23·029	22·956	·073	22·992		22·927	63·3	52·5	10·8	68·1	48·3	19·8	59·3	59·2	57·4		51·7	56·4	57·1	55·
	Kodaikanal	7,688	22·793	·722	·071	·758		·693	62·0	52·8	9·2	65·5	50·7	14·8	59·5	57·8	57·4		50·9	56·6	56·5	54·
	Dodabetta	8,539?	·038	21·973	·065	·005		21·937	57·0	48·9	8·1	60·7	43·5	17·2	54·2	54·1	52·4		47·3	52·4	53·2	51·
	Extra India.																					
	Minicoy	7	29·936	29·891	·045	29·921																
	Zanzibar	72	30·097	29·994	·103	30·053	−·001	30·052	80·9	72·1	8·8	83·5	68·0	15·5	76·6	79·9	76·8	−0·3	67·7	71·8	71·1	70·
	Diego Garcia								Register not received.													
	Seychelles	15	·016	·934	·082	29·978	+·005†	29·917	80·1	75·2	4·9	82·4	71·7	10·7	78·3	79·2	76·2	−0·4†	68·6	72·5	72·8	71·
	Mauritius	181							Register not received.													

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

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

A—*concluded.*

in India, etc., in August, 1909—concluded.

Vapour tension in inches of mercury.					Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity.		Rainfall.		Station.	Number of subdivision.
														Total number of 10 hrs. and 16 hrs. winds from																		
From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean 10 hrs.	Mean 16 hrs.	Mean of two previous columns.	Departure from normal.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles, per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.		
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
																															Hill Stations excluding Kashmir and Baluchistan.	
·480	·525	·545	·518	—·008	96	93	92	95	+ 4	9·8	9·9	9·9	+1·0																13·16	2·13	Simla.	
	·506	·522				79	77			7·9	7·8	7·9		18	3	9			12	16	4		S 34° W		26		59		7·62	1·60	Sarain.	
	·373	·378				93	91			9·8	9·9	9·9		13	6			8	7		1	27	N 49° W		31		201		9·51	2·50	Kalabagh.	
·508	·587	·582	·560	+·018	98	91	96	97	+ 5	8·9	9·8	9·4	+0·8	22				6	34				S 6° E	S 66° W	61	42	75	130	19·57	2·35	Chakrata.	
·455	·528	·543	·509		99	93	91	95		9·2	8·8	9·0		25			1	4	5	2	25		S 68° W		39		137		12·30	2·17	Muktesar.	
·611	·682	·691	·661	—·021	91	78	76	83	+ 1	6·6	7·7	7·2	+0·1	7	2	3	19	1			30		N 68° W	N 66° W	14	2	23*‡	18	22·34	3·43	Katmandu.	
·458	·547‡	·570	·525	+·014	96	93‡	94	95	— 1	7·8	§8·6	8·2	—0·7	13	1					13	15	20	N 81° W	S 84° E	63	28	61	89	22·27	2·83	Darjeeling.	
·594	·668	·678	·653	—·015	90	91	82	89	— 2	7·4	6·9	7·2	—1·9	2				2		21	30	7	S 77° W	N 84° W	81	73	244	223	15·88	4·08	Pachmarhi.	
·557	·620	·641	·612	—·004	96	97	94	97	+ 6	9·7	9·7	9·7	+1·3		1	3		2	3	48	3	2	S 45° W	S 57° W	78	75	338	269	29·89	12·96	Mount Abu.	
·609	·681	·697	·668	+·017	99	93	87	94	— 1	7·3	6·9	7·1	—1·8		17			2	2	2	1	38	N 35° W	N 36° W	77	74	174	274	11·80	2·45	Chikalda.	
·378	·429	·448	·413		95	85	89	93		9·2	9·7	9·5		7	2	1	3	3	3	5	28	10	N 88° W		53		135		11·15	2·38	Ootacamund.	
·358	·432	·445	·412		89	84	93	89		7·9	9·5	8·7			4	2	2	8	14		6	26	N 75° W		26		260*		16·01	2·76	Kodaikanal.	
·312	·377	·397	·362		90	90	94	91		9·6	10·0	9·8			8	4	3	5	5	2	9	26	N 49° W		47		425		16·13	2·79	Dodabetta.	
																															Extra India.	
										6·4	6·8	6·6			1					1	18	42	N 58° W		92		220		14·52	2·72	Minicoy.	
·623	·718	·644	·684	—·033	79	78	68	74	— 4	5·7	5·7	5·7	+0·8	1	1	1		18	21	16	3	1	S 2° W	S 9° E	69	77	142	166	3·11	0·95	Zanzibar.	
												Regis	ter	not	rece	ived.															Diego Garcia.	
·612	·726	·726	·696	—·051	70	74	72	73	— 5	5·7	5·4	5·6	—0·8†				1	43	16	2			S 32° E	S 35° E	90	89	303*	316	0·34	0·08	Seychelles.	
												Regis	ter	not	rece	ived.															Mauritius.	

† Departures from old normals. ‡ Mean of 30 days. * Uncorrected for scale error. § Mean of 29 days.

Table B.—Abstract of observations taken at 8 hrs., at 240 stations in India, etc., in August, 1909.

(1) Provincial means.

(2) Data of stations.

(1) Provincial means based on the material in Table B (2) except that the statement of rainfall depends on the complete data of about 2,700 stations.

	Pressure departure from normal.	Temperature of air.								Wind.		Hygrometry.				Cloud.		Rainfall.		
		Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Absolute range during month.	Departure of velocity from normal.	Departure of steadiness from normal.	Mean humidity.	Departure from normal.	Mean vapour tension.	Departure from normal.	Mean cloud amount.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.
ma	+·030	86·9	+0·4	75·5	+0·4	81·2	+0·4	11·4	18·9	—1·2	—11	91	+ 1	·886	+·013	7·9	—0·2	15·51	16·08	—0·57
tern Bengal and Assam	+·054	86·7	—1·1	77·3	—0·5	82·0	—0·8	9·4	17·8	—1·1	—12	91	0	·935	—·022	7·5	—0·6	22·34	15·83	+6·51
gal	+·071	87·9	—0·4	77·4	—0·6	82·7	—0·5	10·6	18·8	—0·3	+ 3	88	— 1	·923	—·019	7·8	+0·1	15·68	12·17	+3·51
ted Provinces of Agra and Oudh	+·054	89·3	—0·4	77·1	—0·8	83·2	—0·6	12·2	20·8	+0·1	+ 4	84	— 2	·887	—·032	6·5	—0·7	8·30	11·52	—3·22
jab	+·045	95·1	—1·3	79·4	+0·4	87·2	—0·5	15·7	26·6	+0·5	0	76	0	·862	—·015	4·9	+0·3	5·37	5·64	—0·27
h-West Frontier Province	+·029	98·6	—1·6	80·2	+0·8	89·3	—0·5	18·4	30·3	—0·6	+ 4	74	+ 1	·886	+·040	4·0	+1·3	4·93	3·38	+1·55
	+·040	94·4	—0·2	78·5	—0·6	86·4	—0·4	15·9	24·9	—1·8	0	76	0	·831	—·035	4·7	—0·3	0·65	2·21	—1·56
utana	+·049	88·4	—3·5	75·2	—2·4	81·8	—3·0	13·2	23·8	+0·3	—12	80	+ 4	·784	—·032	7·3	+0·8	5·80	6·24	—0·44
bay	+·036	85·3	0	73·7	—0·4	79·5	—0·2	11·6	18·0	—2·0	—11	84	0	·796	—·014	7·7	0	7·01	9·96	—2·95
ral India	+·048	85·3	—0·2	74·1	0	79·7	—0·1	11·2	18·8	—1·1	+ 5	85	— 3	·795	—·029	8·1	+0·3	9·58	11·24	—1·66
ral Provinces	+·063	86·3	+1·4	73·0	—0·1	79·7	+0·6	13·2	20·2	—1·1	— 8	82	— 6	·766	—·026	7·2	—0·9	7·59	10·19	—2·60
erabad	+·030	86·5	—0·3	71·2	+0·8	78·9	+0·2	15·3	23·4	—4·6	—16	81	+ 1	·727	+·004	6·9	—0·1	6·08	7·10	—1·02
re	+·012	81·5	0	66·9	+0·7	74·2	+0·3	14·7	20·9	—1·8	— 1	86	+ 4	·649	+·019	8·8	+0·4	7·88	5·42	+2·46
as	+·021	89·7	—1·1	75·5	—0·4	82·6	—0·7	14·2	23·2	—0·8	— 8	81	+ 4	·825	+·026	6·9	+0·1	8·48	5·98	+2·50

Tab

(2) *Abstract of observations taken at 8 hrs., at 240 statio*

Number of subdivision	Station.	Elevation of bar-cistern above sea-level, in feet	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	2
	I.—Burma.																						
2	Mergui	56	29·844†	+·018†	29·831†	29·911	10th	29·770	3rd	·141	77·9	86·0	+1·8	73·3	+0·7	79·7	+1·3	12·7	92·9	31st	69·4	23rd	23
	Tavoy	19	29·877	+·013	29·828	29·952	10th	29·748	21st	·204	77·2	84·0	+1·2	74·8	+1·0	79·4	+1·1	9·2	89·0	26th & 31st.	73·3	3rd & 9th	15
	Moulmein	94	29·779‡	+·041‡?	29·811‡	29·842	31st	29·670	21st	·172	77·9	84·5	+1·5	75·2	+1·1	79·9	+1·3	9·3	90·5	31st	72·8	14th	17
	Rangoon	18	29·832	+·027	29·788	29·911	31st	29·717	21st	·194	79·6	86·4	+1·3	77·0	+1·3	81·7	+1·3	9·4	90·1	20th	73·9	3rd	16
	Bassein	27?	29·814	+·040	29·779	29·880	31st	29·695	21st	·185	79·1	86·7‡	+2·2‡	76·5	+0·8	81·6‡	+1·5	10·2	90·2	31st	74·4	13th	15
	Diamond Island	41	29·811	+·042	29·790	29·876	31st	29·699	21st	·177	81·4	84·7	+0·4	77·3	+1·7	81·0	+1·1	7·4	86·9	31st	73·7	13th	13
	Toungoo	164	29·666‡	+·031‡	29·773‡	29·759	31st	29·566	21st	·193	79·0	88·1	+1·4	74·9	−0·1	81·5	+0·7	13·2	92·5	21st	71·8	2nd	20
	Kyaukpyu	18	29·785		29·745	29·859	24th	29·687	21st	·172	78·4	83·7‡		76·2§		80·2§		7·5	88·0	14th	74·4	31st	13
	Akyab	20	29·779‡	+·047‡	29·742‡	29·899	31st	29·675	4th	·224	78·6	84·1	−0·3	76·4	−0·9	80·3	−0·6	7·7	88·4	19th, 23rd & 24th.	74·5	4 days	13
3	Thayetmyo	121	29·674‡	+·022‡	29·737‡	29·766	31st	29·575	3rd	·191	80·7	90·0	+1·1	76·5	+0·4	83·3	+0·8	13·5	93·5	19th	72·9	8th	20
	Minbu	*165*	29·612	+·030	29·721	29·711	23rd	29·514	3rd	·197	80·7	92·0	+1·4	77·3	+0·3	84·7	+0·9	14·7	97·8	16th	75·0	26th	22
	Yamethin	657	29·129	+·021	29·742	29·218	31st	29·034	3rd	·184	77·2	88·3‖	−1·5‖	74·6‡	+0·3‡	81·4†	−0·6	13·7	93·3	20th	72·0	27th	21
	Mandalay	250	29·535‖	+·040‖	29·735‖	29·643	23rd	29·417	3rd	·226	80·6	92·2	−1·1	77·4	−0·2	84·8	−0·7	14·8	97·0	18th	74·9	23rd & 25th.	22
	Monywa	*280*	29·498		29·717	29·616	23rd	29·376	3rd	·240	80·9	90·8		78·4		84·6		12·4	95·3	13th, 16th & 17th.	75·1	23rd	20
	Lashio	*2,751*	27·008	+·019	26·954	27·107	23rd	26·900	3rd	·207	71·9	80·6	−2·5	69·3	+0·2	75·0	−1·2	11·3	85·3	30th	66·5	22nd	18
	Bhamo	*381*	29·382‡	+·037‡	29·721‡	29·506	23rd	29·246	3rd	·260	76·8	86·4	−1·7	74·7	−0·7	80·6	−1·2	11·7	92·4	30th	70·6	5th	21
	Myitkyina	458	29·279		29·698	29·412	23rd	29·138	3rd	·274	77·3	85·8		74·9		80·4		10·9	91·2	30th	73·0	4 days	18
	II.—Eastern Bengal and Assam.																						
4	Dibrugarh	353	29·381		29·695	29·534	31st	29·200	3rd	·334	78·2	86·2		75·8		81·0		10·4	93·9	1st	73·1	4th	20
	Sibsagar	333	29·430‖	+·047‖	29·720‖	29·564	31st	29·284	3rd	·280	79·4	87·2	−2·0	?	?	?	?	?	94·6	1st	?		?
	Tezpur	252	29·466¶		29·677¶	29·586	30th	29·295	3rd	·291	79·6	89·1		77·6		83·4		11·5	95·1	1st	75·4	24th	19
	Gauhati	195	29·535‡		29·685‡	29·702	31st	29·354	3rd	·348	81·0	90·2		77·6		83·9		12·6	96·3	1st	74·1	30th	22
	Dhubri	115	29·614	+·051	29·685	29·777	31st	29·447	3rd	·330	80·0	84·7	−1·3	79·6‖	+1·3‖	82·1‖	0	5·1	90·0	1st	77·8	6th, 14th & 23rd.	12
	Silchar	104	29·665†	+·050†	29·723†	29·808	31st	29·538	4th	·270	78·9	87·0	−2·5	76·3	−0·5	81·7	−1·5	10·7	97·3	1st	74·3	30th	23
5	Cox's Bazar	36	29·746		29·726	29·854	31st	29·625	4th	·229													
	Chittagong	87	29·678	+·051	29·713	29·805	31st	29·559	3rd	·246	78·7	83·7	−1·8	75·7	−0·4	79·8	−1·1	8·0	88·0	22nd & 23rd.	73·0	11th	15
	Noakhali	43	29·714		29·704	29·848	31st	29·582	4th	·266	79·0	84·1		76·4		80·3		7·7	87·3	22nd	73·9	29th & 30th.	13
	Barisal	12	29·724	+·072	29·682	29·866	31st	29·586	4th	·280	80·4	86·1	−0·7	76·7	−1·5	81·5	−1·1	9·4	90·8	4th & 19th	73·6	13th	17
	Comilla	36	29·715		29·699	29·853	31st	29·582	4th	·271	79·3	85·8		?		?		?	90·8	4th	?		?
	Narayanganj	26	29·707	+·060	29·681	29·866	31st	29·573	3rd & 4th.	·293	80·7	86·4	−1·1	77·5	−1·5	82·0	−1·3	8·9	91·0	4th	74·8	7th, 8th & 29th.	16
	Faridpur	46	29·685		29·681	29·845	31st	29·557	3rd	·288	80·0	86·2		77·1		81·7		9·1	91·3	4th	73·4	30th	17
	Sirajganj	49	29·678		29·678	29·847	31st	29·530	3rd	·317	80·3	85·1		77·4		81·2		7·7	89·4	22nd	72·8	28th	16
	Mymensingh	63	29·677	+·059	29·692	29·835	31st	29·533	3rd	·302	80·0	85·3	−1·6	77·0	−1·1	81·2	−1·4	8·3	92·1	1st	75·1	29th & 30th.	17
	Bogra	75	29·651	+·060	29·678	29·828	31st	29·498	3rd	·330	81·5	87·3	−1·0	77·8	−0·6	82·6	−0·8	9·5	91·2	1st & 17th.	74·7	23rd	16
	Rampur Boalia	70	29·655		29·674	29·829	31st	29·495	3rd	·334	81·2	87·4		78·2		82·8		9·2	91·1	3rd & 22nd.	75·1	30th	16
	Malda	72	29·616‡		29·640‡	29·809	31st	29·459	3rd	·350	81·5	87·4		78·0		82·7		9·4	91·3	1st	74·5	30th	16
	Dinajpur	123	29·572	+·044	29·650	29·753	31st	29·414	3rd	·339	80·4	87·7	−1·1	77·9	−0·7	82·9	−0·9	9·8	93·3	1st	73·5	30th & 31st.	19
	Rangpur	123	29·598		29·677	29·780	31st	29·430	3rd	·350	81·8	87·1		76·4		81·8		10·7	92·6	1st	74·5	23rd	18

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

† Mean of 28 days. ‡ Mean of 30 days.

§ „ „ 5 „ ‖ „ „ 29 „ ¶ Mean of 25 days.

NOTE.—The barometric readings are not reduced to sea-level in the cases of hill or plate

B.

in India, etc., in August, 1909.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st August 1909.	Normal rainfall for period, 1st May to 31st August.	Departure from normal of period, 1st May to 31st August 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																I.—Burma.
13			2	1	7	5	1	2	S 18° W	N 87° W	1·7‡	1·7	0	33	−27	95	+ 3	·896	+·102	2·9	−4·7	25	25·00	0	21·98	29·97	− 7·99	125·45	111·02	+14·43	3·79	Mergui.
31									(a)	S 62° W	1·0*	1·6	−0·6			92	− 1	·868	+·003	6·0	−2·4	24	27·40	−3·40	26·98	47·29	−20·31	161·51	160·05	+ 1·46	3·77	Tavoy.
4		1	2	3	10	7	4		S 14° W	S 4° W	3·4	3·8	−0·4	56	+ 1	94	0	·901	+·031	8·1	+0·1	23	27·10	−4·10	40·16	40·63	− 0·47	146·99	142·37	+ 4·62	7·70	Moulmein.
4		1			10	11	4	1	S 36° W	S 57° W	4·1	4·4	−0·3	66	+ 5	89	− 5	·907	−·004	8·4	−0·8	18	23·90	−5·90	12·22	19·85	− 7·63	73·91	69·57	+ 4·34	2·60	Rangoon.
24					3	3	1		S 31° W	S 15° W	4·5‡	4·2	+0·3	20	−37	95	+ 1	·952	+·037	7·9	−0·7	18	25·40	−7·40	14·15	23·17	− 9·02	78·67	82·35	− 3·68	2·77	Bassein.
3			1	3	3	17	4		S 37° W	S 46° W	5·5	8·9	−3·4	69	− 6	88	+ 2	·960	+·070	7·2	−1·4	20	22·10	−2·10	10·75	23·45	−12·70	86·79	82·85	+ 3·94	1·81	Diamond Island.
12		2	1	9	6	1			S 35° E	S 34° E	2·9	4·2	−1·3	49	−26	95	+ 3	·950	+·049	9·5	+0·2	23	24·30	−1·30	22·61	18·68	+ 3·93	67·29	57·00	+10·29	3·27	Toungoo.
	2	1	6	11	3	3	5		S 36° E		4·4*			40		92		·900		6·1		28			43·99			145·79			8·48	Kyaukpyu.
8			8	1	6	5	2	1	S 3° E	S 39° E	3·6	3·4	+0·2	33	−21	95	+ 1	·920	−·029	8·5	−0·5	26	26·60	−0·60	43·35	42·00	+ 1·35	162·02	151·29	+10·73	5·27	Akyab.
				7	16	8			S 1° W	S 10° E	6·7*	6·4	+0·3	89	+ 7	83	− 2	·873	0	8·2	−0·5	9	13·20	−4·20	3·76	6·43	− 2·67	24·43	23·77	+ 0·66	0·68	Thayetmyo
			1	20	9			1	S 32° E	S 39° E	5·4	12·2	−6·8	86	− 6	82	− 3	·860	−·012	7·7	+1·5	9	8·60	+0·40	2·05	5·10	− 3·05	24·61	19·99	+ 4·62	0·42	Minbu.
1		1		13	15	1			S 21° E	S 28° E	5·4	8·3	−2·9	86	− 2	89	+ 2	·825	−·020	9·5	+4·5	9	11·50	−2·50	6·25	6·40	− 0·15	32·23	21·54	+10·69	1·95	Yamethin.
8				11	10	2			S 19° E	S 1° W	7·3	8·0	−0·7	66	−14	80	+ 1	·820	−·038	8·2	+0·6	8	7·00	+1·00	4·84	3·99	+ 0·85	21·02	18·38	+ 2·64	1·32	Mandalay.
5		1	3	17	5				S 44° E		4·5			72		87		·921		9·1		6	7·70	−1·70	6·06	4·62	+ 1·44	21·72	16·03	+ 5·69	3·66	Monywa.
14	1	1			6	9			S 28° W		3·2*			43		91	0	·711	−·031	9·4	+0·4	23			17·92	12·84	+ 5·08	49·53	44·38	+ 5·15	2·74	Lashio.
30						1			S 45° W	N 89° W	1·3	1·6	−0·3	3	− 9	99	+ 7	·917	+·019	9·0	+0·8	23	19·60	+3·40	20·04	16·55	+ 3·49	48·57	55·74	− 7·17	3·21	Bhamo.
15		1	5	5	3	2			S 47° E		2·2*			33		93		·874		9·4		16			11·16			36·37			2·76	Myitkyina.
																																II.—Eastern Bengal and Assam.
10	1	6	2	2	3	6	1		S 36° E		1·5			13		94		·901		8·6		20	18·40	+1·60	25·13	19·25	+ 5·88	81·89	73·88	+ 8·01	3·87	Dibrugarh.
13		1		8	1	4		4	S 7° E	S 1° W	2·5	2·7	−0·2	20	+ 4	90	− 4	·904	−·060	7·4	−1·7	24	17·70	+6·30	23·66	16·54	+ 7·12	63·53	59·87	+ 3·56	2·94	Sibsagar.
30		1							N 45° E		2·0			2		92		·924		7·6		18	15·50	+2·50	11·14	13·14	− 2·00	36·32	48·46	−12·14	1·95	Tezpur.
22		1	1	1	3	1	2		S 5° W		1·8			12		86		·919		8·0		13	13·30	−0·30	6·16	10·56	− 4·40	46·26	42·37	+ 3·89	1·37	Gauhati.
11		3	6	4	2	5			S 50° E	S 69° E	4·6†	4·4	+0·2	30	− 2	91	0	·933	−·008	3·6	−4·9	13	14·50	−1·50	5·69	13·29	− 7·60	71·55	67·38	+ 4·17	1·15	Dhubri.
24		1	4	1	1				S 80° E	S 87° E	2·9	2·5	+0·4	17	+15	93	+ 2	·925	−·012	7·5	−1·8	24	21·50	+2·50	18·86	20·26	− 1·40	73·90	77·92	− 4·02	2·58	Silchar.
1		1	6	10	9	4			S 31° E		5·2			68						7·5		23			46·55			112·43			7·60	Cox's Bazar.
2				19	6	3	1		S 25° E	S 41° E	5·0	6·3	−1·3	76	+ 4	91	+ 2	·894	−·018	9·1	+0·9	19	17·94	+1·06	45·91	16·86	+29·05	89·49	68·87	+20·62	8·02	Chittagong.
1			4	12	4	7	3		S 16° E		5·1			58		92		·910		7·1		25	22·58	+2·42	62·38	23·93	+38·45	126·34	79·38	+46·96	8·52	Noakhali.
6		2	1	3	10	8	1		S 7° W	S 17° E	2·3	3·6	−1·3	53	+17	91	+ 2	·937	−0·28	7·9	−0·7	20	18·74	+1·26	32·65	12·29	+20·36	79·05	51·52	+27·53	6·05	Barisal.
5			3	14	8	1			S 32° E		3·8			74		92		·935		6·2		27	17·14	+9·86	38·51	15·80	+22·71	79·34	61·77	+17·57	10·55	Comilla.
2			3	4	5	10	6	1	S 30° W	S 32° E	4·0	7·1	−3·1	53	−15	90	0	·946	−·026	9·0	+0·3	20	17·83	+2·17	23·04	12·01	+11·03	45·78	46·40	− 0·62	4·28	Narayanganj
7			2	3	16	2	1		S 8° E		3·1			65		91		·942		9·1		20	16·22	+3·78	27·26	12·08	+15·18	54·06	45·60	+ 8·46	4·45	Faridpur.
1		1		11	10	7		1	S 8° E		5·3			68		92		·959		8·7		19	13·87	+5·13	19·20	10·86	+ 8·34	47·19	41·68	+ 5·51	3·16	Sirajganj.
8			6	6	6	3	1	1	S 29° E	S 56° E	2·2	3·6	−1·4	46	−22	91	0	·936	−·019	9·3	+1·3	27	18·90	+8·10	25·51	14·34	+11·17	61·04	59·97	+ 1·07	5·36	Mymensingh.
17	1	1	4	1	7				S 42° E	S 55° E	1·6	3·6	−2·0	27	−44	85	−4	·922	−·046	6·8	−0·4	22	15·90	+6·10	18·33	11·62	+ 6·71	59·25	45·20	+14·05	3·22	Bogra.
18				1	4	6	2		S 34° W		5·5			36		88		·951		7·5		17	14·68	+2·32	16·57	10·55	+ 6·04	36·07	38·23	− 2·16	3·45	Rampur Boalia.
5		1	6	5	5	9			S 16° E		5·0			48		90		·977		5·5		18	14·48	+3·52	14·29	10·27	+ 4·02	37·34	35·08	+ 2·26	2·45	Maida.
8			7	6	4	3	2	1	S 34° E	S 68° E	2·3	3·8	−1·0	40	−28	93	+ 3	·965	+·002	8·4	+0·4	19	15·71	+3·29	14·27	14·01	+ 0·26	51·30	50·01	+ 1·29	3·01	Dinajpur.
16			2	3	5	4	1		S 2° E		1·7			32		88		·962		3·6		20	13·35	+6·65	22·12	13·02	+9·10	74·31	59·35	+14·96	3·00	Rangpur.

(a) Indeterminate.

* Uncorrected for scale error.

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

Ta

(2) *Abstract of observations taken at 8 hrs., at 240 stati*

Number of subdivisions.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	II.—Eastern Bengal and Assam—*concld.*																					
	Jalpaiguri	283	29·436†	+·047†	29·677†	29·613	31st	29·280	4th	·333	80·3	88·9	+0·8	77·4	+0·7	83·2	+0·8	11·5	95·4	1st	73·9	24th
	Cooch Behar	156	29·563		29·674	29·732	31st	29·401	3rd	·331	80·0	87·5		77·6		82·5		9·9	93·8	1st	75·6	13th, 29th & 30th.
	III.—Bengal.																					
6	Saugor Island	25	29·695	+·074	29·664	29·640	31st	29·583	4th	·257	82·8	87·6	+0·4	79·6	−0·2	83·6	+0·1	8·0	92·5	22nd	75·5	5th & 14th.
	Midnapore	146	29·564		29·660	29·703	31st	29·448	3rd	·255	80·9	92·6		74·7		83·6		17·9	93·3	4th	74·7	5th & 30th.
	Calcutta	21	29·699	+·075	29·656	29·852	31st	29·573	4th	·279	80·9	88·0	+0·9	77·8	−0·5	82·9	+0·2	10·2	92·2	14th	74·0	14th
	Jessore	33	29·639	+·064	29·669	29·851	31st	29·554	3rd	·297	80·8	86·4	−2·2	77·1	−1·6	81·8	−1·9	9·3	91·0	22nd	73·7	8th & 29th
	Krishnagar	47	29·664		29·659	29·812	31st	29·538	4th	·274	79·8	88·6		78·0		83·3		10·6	94·1	22nd	72·0	18th
	Burdwan	98	29·617	+·072	29·665	29·777	31st	29·485	3rd	·292	80·8	88·5	−0·7	77·9	−1·2	83·2	−1·0	10·6	93·4	4th	72·8	30th
	Bankura	313	29·385		29·649	29·538	31st	29·260	4th	·278	81·0	88·8		77·3		83·1		11·5	93·1	14th	74·2	30th & 31st.
	Raniganj	334	29·378		29·666	29·532	31st	29·245	3rd	·287	76·4	88·5		77·1		82·8		11·4	93·0	4th	74·0	30th.
	Berhampore	67	29·643	+·057	29·659	29·822	31st	29·505	3rd	·317	80·3	87·1†	−1·5†	77·7	−1·0	82·5†	−1·3	9·4	91·6	22nd	74·7	5th, 12th & 30th.
	Naya Dumka	489	29·210		29·658	29·370	31st	29·074	3rd	·296	80·2	86·9		76·2		81·6		10·7	90·4	22nd	72·5	31st
7	Balasore	50	29·674	+·088	29·668	29·818	31st	29·567	4th	·251	82·1	88·4	+0·5	78·1	+0·1	83·3	+0·3	10·3	92·4	13th	74·6	6th
	False Point	21	29·720†	+·096†	29·693†	29·834	31st	29·625	21st	·219	82·9	87·1	+0·1	77·8	−0·1	82·6	−0·2	9·3	92·1	14th	73·6	6th & 27th
	Cuttack	80	29·654	+·085	29·678	29·757	31st	29·549	1st & 21st.	·208	82·1	90·0	+0·9	78·4	+0·1	84·3	+0·5	11·6	93·4	4 days	75·2	6th & 27th
	Puri	24	29·726		29·689	29·833	31st	29·604	21st	·229	83·6	88·4		80·1		84·3		8·3	93·6	14th	76·1	27th
	Angul	455	29·277		29·692	29·377	31st	29·148	1st	·229	80·9	88·6		77·1		82·9		11·5	92·6	13th	75·0	1st, 2nd & 27th
	Sambalpur	486	29·249	+·079	29·681	29·313	31st	29·087	1st	·256	80·7	88·4	+1·2	77·4	+0·2	82·9	+0·7	11·0	91·1	15th	74·6	27th
8	Chaibassa	*733*	28·977‡	+·090‡	29·663‡	29·081	31st	28·849	1st	·232	79·4	88·8	+0·2	P	P	P	P	P	92·1	17th	P	P
	Ranchi	2,128	27·604	+·085	29·681	27·712	31st	27·463	1st	·249	75·4	83·6	+0·3	72·6	0.	78·1	+0·2	11·0	86·7	4th	69·9	31st
	Purulia	*816*	28·887		29·654	29·020	31st	28·774	3rd & 4th	·246	78·0	88·7		75·6		82·2		13·1	92·5	14th	72·1	31st
	Hazaribagh	2,007	27·710	+·069	29·667	27·804	31st	27·564	1st	·220	76·0	83·5	−0·2	72·6	−0·6	78·1	−0·4	10·9	86·7	4th	69·8	19th
	Daltonganj	*730*	28·974		29·661	29·058	14th	28·748	1st	·310	80·1	89·2		76·9		83·1		12·3	96·6	17th	73·0	20th
9	Purnea	134	29·573	+·057	29·662	29·773	31st	29·416	3rd	·357	80·3	87·0	−2·2	77·3	−1·1	82·2	−1·7	9·7	92·5	22nd	71·2	31st
	Bhagalpur	160	29·537		29·649	29·725	31st	29·384	3rd	·341	81·6	87·8		77·6		82·7		10·2	92·2	23rd	71·8	31st
	Monghyr	155	29·529		29·636	29·698	31st	29·377	3rd	·321	81·3	87·4		77·5		82·5		9·9	92·4	23rd	71·9	31st
	Darbhanga	165	29·520	+·046	29·641	29·706	31st	29·360	3rd	·346	81·3	87·7	−0·8	78·4	−0·9	83·1	−0·9	9·3	93·1	1st	73·3	31st
	Pusa	188	29·500		29·643	29·675	31st	29·345	3rd	·330	81·3	88·2		77·6		82·9		10·6	92·9	1st & 23rd	73·0	31st
	Muzaffarpur	177	29·515		29·649	29·685	31st	29·362	3rd	·323	81·2	87·6		77·5		82·6		10·1	93.7	1st	73·5	31st
	Motihari	221	29·465		29·627	29·620	31st	29·310	4th	·310	80·4	87·6		77·6		82·6		10·0	94·1	1st	73·3	31st
	Chapra	181	29·501		29·637	29·617	23rd	29·363	3rd	·254	81·2	88·2		77·9		83·1		10·3	91·7	1st, 17th 23rd.	74·6	22nd & 31st
	Patna	183	29·500†	+·050†	29·636†	29·638	31st	29·364	3rd	·274	82·2	87·2	−1·9	78·7	−0·8	83·0	−1·4	8·5	93·0	23rd	74·7	31st
	Arrah	190	29·494		29·636	29·506	23rd	29·364	3rd	·242	82·7	88·2		78·6		83·4		9·6	92·9	23rd	75·7	31st
	Buxar	239	29·435		29·631	29·544	23rd	29·290	4th	·254	80·8	88·3		77·8		83·0		10·5	93·0	23rd	75·1	22nd, 28th & 31st.
	Dehri	351	29·327		29·631	29·426	23rd	29·189	1st	·237	82·1	89·0		78·7		83·9		10·3	94·3	18th	75·5	31st
	Gaya	372	29·305†	+·052†	29·631†	29·398	23rd	29·183	1st	·215	81·8	89·1	−0·9	78·0	−0·4	83·6	−0·7	11·1	93·9	23rd	74·2	29th & 31st.
	IV.—United Provinces of Agra and Oudh.																					
10	Gorakhpur	257	29·415	+·054	29·680	29·552	23rd	29·259	4th	·293	81·5	88·0	−1·8	76·8	−2·0	82·4	−1·9	11·2	93·6	1st	74·0	17th, 26th & 31st.
	Benares	280	29·446	+·070	29·638	29·504	23rd	29·289	4th	·215	81·9	90·5	+1·0	78·1	−0·7	84·3	+0·2	12·4	95·1	18th	75·1	8th, 9th & 31st.
	Allahabad	309	29·367	+·064	29·630	29·463	14th	29·247	3rd	·216	82·2	90·4	+0·6	77·8	−0·8	84·1	−0·1	12·6	96·6	23rd	74·0	31st

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

NOTE.—The barometric readings are not reduced to sea-level, in the cases of hill or pla

† Mean of 30 days.

B—*continued.*

in India, etc., in August, 1909—continued.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st August 1909.	Normal rainfall for period, 1st May to 31st August.	Departure from normal of period 1st May to 31st August 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																II.—Eastern Bengal and Assam—*concld.*
16	1	4	2	3	1	2		2	N 80° E	N 78° E	2·2			13	−44	90	− 2	·943	−·003	8·6	+0·3	21	18·38	+ 2·62	22·79	24·87	− 2·08	88·57	93·15	− 4·58	3·81	Jalpaiguri.
14			6	7		3	1		S 49° E		1·3			52		92		·941		8·8		21	16·72	+ 4·28	19·80	20·42	− 0·62	106·42	93·41	+13·01	2·94	Cooch Behar.
																																III.—Bengal.
		1		3	9	12	4	2	S 32° W	S 10° W	15·2	13·4	+1·8	66	+19	88	− 1	·989	−·001	8·8	−0·3	15	17·00	− 2·00	13·93	15·68	− 1·75	47·49	46·74	+ 0·75	4·06	Saugor Island.
5	3	1		1	17	3	1		S 7° W		2·6			52		86		·902		8·2		18	16·00	+ 2·00	20·56	12·51	+ 8·05	42·34	41·27	+ 1·07	5·85	Midnapore.
8			2	5	3	11	1	1	S 16° W	S 18° E	4·6*	4·7	−0·1	49	+ 2	91	+ 2	·966	+·002	8·6	+0·1	20	18·88	+1·12	15·17	12·38	+ 2·79	52·26	41·68	+10·58	3·56	Calcutta.
24		1		2	2	1	1		S 7° E	S 25° E	0·9	3·7	−2·8	11	−39	89	− 2	·949	−·049	8·4	0	20	17·03	+ 2·97	29·36	10·55	+18·81	57·75	43·07	+14·68	11·35	Jessore.
14			1	5	5	2	3	1	S 6° W		2·1			29		93		·956		8·1		19	14·26	+ 4·74	28·12	10·25	+17·87	54·76	37·04	+17·72	6·37	Krishnagar.
12	1		1	1	2	7	6	1	S 58° W	S 32° E	2·5	3·4	−0·9	40	+ 8	90	+ 3	·947	+·004	8·9	+0·2	22	16·48	+5·52	33·98	11·25	+22·73	57·41	40·00	+17·41	10·26	Burdwan.
17				3	3	1	5	2	S 51° W		3·0			23		86		·892		7·8		19	16·66	+ 2·34	24·76	11·66	+13·10	54·10	38·74	+15·06	7·49	Bankura.
26			1	1	1	2			S 5° E		1·3			10		92		·935		8·5		21	16·00	+ 5·00	15·53	13·01	+ 2·52	32·33	40·86	− 8·47	2·35	Raniganj.
14			1	2	6	8			S 14° W	S 79° E	3·3	4·0	−0·7	43	+ 3	91	− 1	·944	−·043	9·7	+0·8	26	16·39	+ 3·61	28·38	11·71	+16·67	52·07	37·17	+14·90	6·52	Berhampore.
25	1			2	2			1	S 27° E		1·3			6		88		·908		6·6		24	18·23	+ 5·77	19·97	13·41	+ 6·56	41·32	41·11	+ 0·21	3·75	Naya Dumka.
8	1	3				18	1		S 50° W	S 41° W	3·2	4·3	−1·1	53	+13	85	− 4	·928	−·046	7·1	−1·2	14	16·03	− 2·03	12·23	11·34	+ 0·89	34·89	40·31	− 5·32	2·26	Balasore.
1	1		1	1	2	13	9	3	S 64° W	S 57° W	3·0	9·8	−0·8	69	+ 8	86	− 2	·966	+·008	8·3	0	13	16·16	− 3·16	9·32	13·68	− 4·36	39·20	39·10	+ 0·10	1·94	False Point.
6		1	1		2	12	9		S 58° W	S 66° W	2·4*	2·7	−0·3	62	+15	84	+ 1	·931	+·035	7·3	−0·3	13	16·19	− 3·19	12·85	13·20	− 0·35	40·75	39·72	+ 1·03	3·80	Cuttack.
3	3		1		2	19	1	2	S 54° W		13·5			58		84		·978		6·3		6	12·85	− 6·85	5·07	12·13	− 7·06	32·04	32·97	− 0·93	1·42	Puri.
2	4	3	2	2	1	1	3	13	N 30° W		5·3			45		85		·898		5·5		11			7·06			28·66			1·45	Angul.
1		1	1	3	4	19	1	1	S 32° W	S 30° W	4·7	4·4	+0·3	69	+ 9	84	− 2	·888	+·002	8·8	+0·7	16	17·10	−1·10	12·15	17·63	− 5·48	51·39	53·42	− 2·03	2·78	Sambalpur.
8		1	1	1	2	16	2		S 39° W	S 54° W	2·6†	1·8	+0·8	56	+23	86	− 1	·869	−·034	8·6	+ 0·9	18	16·94	+ 1·06	20·11	11·77	+ 8·34	37·75	36·96	+ 0·79	3·80	Chaibassa.
	2		1	4	4	5	9	6	S 72° W	S 56° W	6·5	7·3	−0·8	45	+32	86	− 3	·759	−·040	8·3	+ 0·3	18	17·84	+ 0·16	13·88	11·27	+ 2·61	40·91	39·52	+ 1·39	1·74	Ranchi.
5			3	2	4	7	9	1	S 45° W		3·3			45		96		·922		8·2		20	16·52	+ 3·48	13·52	12·30	+ 1·22	32·42	37·52	− 5·10	1·68	Purulia.
	1			2	7	4	11	6	S 70° W	S 5° W	7·1	7·7	−0·6	59	+34	84	− 5	·744	−·059	8·3	−0·5	18	17·77	+ 0·23	19·37	12·60	+ 6·77	34·75	38·45	− 3·70	3·85	Hazaribagh.
29			1						E†		2·5			3		83		·900		6·5		16	15·74	+ 0·26	7·53	12·11	− 4·58	35·66	31·76	+ 3·90	1·35	Daltonganj.
9	2	5	2	5	3	3		2	S 72° E	S 89° E	6·1	3·0	+3·1	23	−31	93	+ 3	·955	−·025	8·6	+1·0	14	16·57	− 2·57	10·10	14·40	− 4·30	50·67	43·75	+ 6·92	2·33	Purnea.
13		3	1	2	3	6	3		S 23° W		3·1			26		88		·958		8·4		17	13·32	+ 3·68	12·00	11·26	+ 0·74	42·14	34·55	+ 7·59	4·14	Bhagalpur.
7			7	6		3	7	1	S 9° E		6·3			19		89		·960		8·8		16			16·48			43·73			3·40	Monghyr.
12		1	8		2	3	5		S 23° E	S 74° E	2·9	4·4	−1·5	13	−51	83	− 1	·949	−·023	8·6	+1·8	15	14·07	+ 0·93	11·20	13·66	− 2·46	53·67	36·68	+16·99	3·26	Darbhanga.
10		5	10	1			3	2	N 68° E					36		89		·951		6·5		20			24·11			64·49			4·59	Pusa.
6		4	7	4		5	5		S 45° E		4·1			19		88		·931		4·5		16	13·03	+ 2·97	18·48	10·64	+ 7·84	48·02	32·19	+15·83	3·32	Muzaffarpur.
6		3	10				1	1	N 73° E		1·8			32		91		·956		7·1		19	12·97	+ 6·03	18·31	12·23	+ 6·08	45·18	36·27	+ 8·91	3·38	Motihari.
														P		87		·932		6·4		16	12·61	+ 3·39	9·82	9·73	+ 0·09	30·70	28·77	+ 1·93	2·50	Chapra.
1		2	7	2	3	11	3	2	S 14° W	S 78° E	4·4	4·4	0	30	−24	86	− 1	·961	−·008	8·1	−0·8	16	13·52	+ 2·48	15·11	12·58	+ 2·53	41·28	35·71	+ 5·57	3·46	Patna.
3		3	2	3	4	13	3		S 25° W		2·7			45		83		·935		7·8		16	12·87	+ 3·13	7·23	10·50	− 3·27	30·48	32·27	− 1·79	1·48	Arrah.
2		1	7	3	1	9	8		S 29° W		6·1			32		87		·908		7·0		11	13·35	− 2·35	10·19	11·29	− 1·10	37·42	29·33	+ 8·09	3·24	Buxar.
	1	3	4	5	13	5			S 27° W		4·5			58		83		·920		9·3		11	14·44	− 3·44	7·71	12·92	− 5·21	33·55	31·91	+ 1·64	1·75	Dehri.
3		2	1	3	3	4	13	2	S 68° W	S 52° E	2·8	3·7	−0·9	46	+27	83	− 3	·910	−·021	6·9	−1·1	14	14·26	− 0·26	15·97	13·18	+ 2·79	48·96	35·25	+13·70	3·44	Gaya.
																																IV.—United Provinces of Agra and Oudh.
3		2							N 45° E	S 88° E	P	2·2	P	3	−33	89	+ 1	·963	+·008	5·7	−0·2	20	14·10	+ 5·90	13·73	13·24	+ 0·49	38·88	37·42	+ 1·46	2·21	Gorakhpur.
4		1	1	6	3	9	4	3	S 32° W	S 54° E	3·4	4·1	−0·7	43	+32	83	− 6	·904	−·059	7·5	−0·5	12	13·40	−1·40	7·85	12·05	− 8·20	31·68	30·37	+ 1·31	0·66	Benares.
6	1	2	2	3	5	9	3		S 62° W	N 79° W	4·6	6·6	−2·0	40	+38	79	− 8	·872	−·082	8·6	−0·1	8	11·80	−3·80	4·65	12·03	− 7·48	38·83	30·89	+ 5·94	1·57	Allahabad

ations, the elevations of which exceed 3,200 feet.

‡ Mean of 29 days.

* Uncorrected for scale error.

Tab

(2) *Abstract of observations taken at 8 hrs., at 240 statio*

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	IV.—United Provinces of Agra and Oudh—*concld.*																						
	Cawnpore	416	29·245	+·054	29·620	29·347	23rd	29·112	4th	·235	81·4	90·5	+0·6	76·6	−1·7	83·6	−0·6	13·9	95·2	21st	73·5	14th	21
	Lucknow	368	29·299	+·057	29·626	29·411	23rd	29·164	4th	·247	81·0	90·0	−0·3	77·9	−0·7	84·0	−0·5	12·1	94·5	17th	75·1	7th, 8th & 31st.	19
	Bahraich	461	29·264*	+·052*	29·624*	29·355	24th	29·104	4th	·251	81·3	89·7	−0·2	78·2	+0·2	84·0	0	11·5	95·6	23rd	74·5	31st	21
11	Jhansi	824	28·868	+·062	29·649	28·978	16th	28·675	2nd	·303	81·0	89·5	+0·6	76·8	−0·3	83·2	+0·2	12·7	94·5	21st	74·0	31st	20
	Agra	556	29·105	+·048	29·620	29·208	15th	28·951	3rd	·257	81·8	92·0	+0·9	77·8	−1·0	84·9	−0·1	14·2	97·0	17th	74·5	7th	22
	Mainpuri	516	29·148†	+·066†	29·622†	29·246	23rd	29·000	4th	·246	81·8	90·4	−0·4	77·5	−0·9	83·9	−0·7	12·9	96·3	20th	75·1	14th & 28th.	21
	Bareilly	568	29·082	+·046	29·613	29·215	23rd	28·943	4th	·272	81·3	89·6	−0·3	78·0	0	83·8	−0·2	11·6	95·3	2nd	73·0	26th	22
	Meerut	738	28·907	+·042	29·610	29·026	23rd	28·743	4th	·283	80·0	89·5	−1·4	76·7	−1·6	83·1	−1·5	12·8	93·6	1st	73·8	20th	19
	Roorkee	899	28·766	+·055	29·631	28·910	23rd	28·591	4th	·319	80·3	88·3	−2·4	77·0	0	82·7	−1·2	11·3	94·0	1st	73·9	25th	20
	Dehra Dun	2,233	27·457	+·033	29·637	27·591	23rd	27·305	4th	·286	74·5	82·4	−1·6	72·8	−0·3	77·5	−1·0	9·6	89·5	1st	70·5	28th & 31st	19
	V.—Punjab.																						
12	Delhi	718	28·937†	+·053†	29·616†	29·059	15th	28·772	4th	·287	81·2	90·9	−0·9	78·8	−0·5	84·9	−0·7	12·1	96·2	22nd	76·2	15th	20
	Sirsa	662	28·964‡	+·042‡	29·587‡	29·076	15th	28·806	4th	·270	84·0	96·5	−1·9	79·9‡	−0·3‡	87·7‡	−1·1	16·6	102·8	22nd	74·6	27th	28
	Patiala	*818*	28·832		29·614	28·961	23rd	28·670	4th	·291	81·9	90·6		77·6		84·1		13·0	95·8	20th	73·4	16th	22
	Ambala	892	28·750	+·056	29·607	28·889	23rd	28·588	4th	·301	80·9	91·2	−1·6	77·2	−0·9	84·2	−1·3	14·0	97·0	2nd	74·0	15th & 16th.	23
	Ludhiana	812	28·824‡	+·047‡	29·603‡	28·963	23rd	28·668	4th	·295	81·0	92·6†	−2·4†	78·5	−0·5	85·6†	−1·5	14·1	98·0	20th	74·0	29th	24
	Lahore	702	28·908	+·035	29·574	29·040	23rd	28·760	4th	·280	84·6	96·4	−1·8	81·0	+3·2	88·7	+0·7	15·4	102·4	22nd & 23rd.	74·7	31st	27
	Sialkot	830	28·792	+·039	29·592	28·930	23rd	28·638	4th	·292	81·3	92·7	−2·0	77·3	−0·4	85·0	−1·2	15·4	99·5	5th	72·5	26th & 31st.	27
	Rawalpindi	1,674	27·969	+·038	29·610	28·114	23rd	27·831	4th	·283	79·5	91·4	−2·5	74·4	−0·8	82·9	−1·7	17·0	97·9	2nd	70·4	16th, 24th & 30th.	27
13	Khushab	612	28·906†	+·054†	29·574†	29·147	23rd	28·849	5th	·298	88·1	100·1	−0·1	82·8	+2·0	91·5	+1·0	17·3	105·4	23rd	76·9	31st	28
	Montgomery	558	29·043	+·042	29·561	29·167	23rd	28·886	4th	·281	87·7	101·0	−1·0	82·3	+0·7	91·7	−0·2	18·7	107·4	26th	72·1	27th	35
	Multan	420	29·177	+·045	29·556	29·291	31st	29·021	4th	·270	87·8	102·3	+1·6	83·4	+1·3	92·9	+1·5	18·9	108·3	3rd	79·0	12th & 31st.	29
	VI.—North-West Frontier Province.																						
15	Peshawar	1,110	28·509	+·030	29·590	28·661	23rd	28·377	4th	·284	83·7	97·7	−1·5	78·8	+1·0	88·2	−0·3	18·9	103·2	2nd & 10th.	73·4	30th	29
	D. I. Khan	590	29·004§	+·028§	29·538§	29·151	23rd	28·863	5th	·288	85·9	99·4	−1·7	81·5	+0·5	90·4	−0·6	17·9	102·9	3rd	72·1	27th	30
	VII.—Sind.																						
17	Jacobabad	186	29·394	+·028	29·539	29·533	23rd	29·218	3rd	·315	86·4	105·9	+2·1	82·3	+0·9	94·1	+1·5	23·6	112·1	4th	77·8	12th	34
	Hyderabad	96	29·525†	+·032†	29·574†	29·638	23rd	29·350	3rd	·288	81·9	93·9	−1·6	78·0	−0·7	85·9	−1·2	15·9	101·5	29th	73·0	18th	28
	Kurrachee	13	29·636	+·061	29·649	29·788	14th	29·504	3rd	·284	77·1	83·4	−1·1	75·2	−2·0	79·3	−1·6	8·2	85·5	3rd	73·5	19th	12
	VIII.—Rajputana.																						
18	Bikaner	*771*	28·863	+·041	29·599	28·973	16th	28·649	3rd	·324	82·8	96·5	−0·6	79·1	−1·5	87·8	−1·1	17·4	103·6	25th	75·0	18th & 30th.	28
	Jodhpur	780	28·896	+·046	29·661	29·011	16th	28·601	3rd	·410	72·5	88·0	−6·7	75·2	−3·2	81·6	−5·0	12·8	97·5	25th	71·3	27th	26
	Pachpadra	*380*	29·299	+·057	29·637	29·405	15th	29·027	3rd	·378	79·3	90·8	−4·1	75·3	−2·0	83·0	−3·1	15·5	101·5	25th	72·2	19th	29
19	Jaipur	1,431	28·267	+·052	29·661	28·372	16th	28·034	3rd	·338	78·4	89·3	−2·3	74·1	−2·0	81·7	−2·2	15·2	95·2	21st & 25th.	71·1	13th, 16th & 18th.	24
	Sambhar	1,254	28·436	+·064	29·657	28·542	16th	28·185	3rd	·357	78·6	89·4	−1·9	74·3	−2·9	81·9	−2·4	15·1	95·4	24th & 25th.	69·9	18th	25
	Ajmer	1,611	28·095	+·050	29·673	28·200	15th	27·794	3rd	·406	76·1	83·9	−4·3	74·8	−0·5?	79·4	−2·4?	9·1	90·9	25th	71·7	4th	19
	Kotah	819 ?	28·845	+·046	29·665	28·973	16th	28·598	3rd	·375	79·7	87·3	−4·4	76·6	−2·9	81·9	−3·7	10·7	93·0	22nd & 24th.	74·1	26th	18
	Udaipur	1,925	27·798†	+·037†	29·679†	27·905	16th	27·526	3rd	·379	75·5	81·7	−4·3	72·0	−2·0	76·9	−3·2	9·7	86·5	2nd & 25th.	68·3	16th	18

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

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

* Mean of 20 days. † Mean of 30 days. ‡ Mean of 29 days.

B—*continued.*

in India, etc., in August, 1909—continued.

Wind direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st August 1909.	Normal rainfall for period, 1st May to 31st August.	Departure from normal of period, 1st May to 31st August 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																IV.—United Provinces of Agra and Oudh—*concld.*
3		1	7	3		10	6	1	S 28° W	S 2° W	4·2	4·0	+0·2	30	+23	82	−5	·877	−·077	3·5	−4·0	8	12·30	−4·30	4·30	11·96	−7·66	28·71	27·32	+1·39	1·20	Cawnpore.
5			6	5	3	9	1	2	S 4° E	S 88° E	3·5	2·9	+0·6	37	+11	85	−3	·905	−·047	5·8	−2·1	8	14·20	−6·20	5·63	11·83	−6·20	33·19	30·08	+3·11	2·14	Lucknow.
20			6	2		1	2		S 66° E	S 70° E	3·3	2·8	+0·5	17	−31	86	−2	·930	−·025	7·6	+1·6	13	12·70	+0·30	17·25	16·80	+0·45	36·14	37·14	−1·00	4·08	Bahraich.
8	2	2	1	1	1	11	4	1	S 60° W	S 85° W	5·7	3·8	+1·9	33	−3	79	−3	·847	−·023	4·4	−2·3	9	12·70	−3·70	4·05	11·61	−7·56	22·06	30·20	−7·14	0·89	Jhansi.
2		2	4	3	6	12	2		S 11° W	S 40° W	7·1	4·9	+2·2	49	+20	78	−4	·848	−·065	6·1	−0·5	11	10·00	+1·00	5·92	8·14	−2·22	21·92	22·20	−0·28	1·24	Agra.
1		2	5	4	2	3	12	2	S 57° W	S 13° W	2·7	1·6	+1·1	27	+21	87	+2	·940	+·007	3·5§	−3·3	9	10·90	−1·90	6·19	10·13	−3·94	24·58	24·04	+0·54	2·30	Mainpuri.
24				1	3	1	1	1	S 26° W	S 71° E	1·4	2·6	−1·2	17	−5	84	−4	·903	−·024	8·2	+1·3	7	12·18	−5·18	5·16	14·43	−9·27	32·20	36·62	−4·42	1·61	Bareilly.
22				1			8		S 84° W	S 45° E	1·0	1·9	−0·9	23	+5	83	+2	·860	+·077?	6·8	−0·1	8	9·40	−1·40	11·22	9·30	+1·92	35·22	22·74	+12·48	5·18	Meerut.
15				10				6	S 45° E	S 36° E	2·2	2·4	−0·2	13	−19	85	−1	·877	−·001	7·0	+0·3	11	12·10	−1·10	7·43	13·09	−5·66	31·01	31·83	−0·82	2·20	Roorkee.
30			1						E	S 11° E	§‖ 1·1	1·0	+0·1	3	−1	93	+3	·803	+·003	9·3	+1·0	25	21·30	+3·70	42·71	30·68	+12·03	95·07	71·21	+24·86	7·30	Dehra Dun.
																																V.—Punjab.
1			4	7	2	1	12	4	S 54° W	S 27° W	4·7	3·9	+0·8	27	+9	81‡	+3	·856‡	−·005	7·2	+0·5	4	9·30	−5·30	3·05	8·52	−5·47	24·41	21·13	+3·28	1·30	Delhi.
2		1	2	9	1	10	1	5	S 14° W	S 42° W	6·1	6·3	−0·2	33	−7	71	0	·836	−·019	4·2	−0·5	6	4·80	+1·20	5·59	3·87	+1·72	14·63	10·51	+4·12	2·00	Sirsa.
	1		7	7	4	4	6	2	S 13° E		4·8			29		83		·901		7·5		9			6·07			23·98			2·04	Patiala.
7			13	1	6			4	S 10° E	S 51° E	3·3	1·3	+2·0	40	+16	82	−6	·861	−·080	8·0	+2·5	10	7·90	+2·10	6·85	8·03	−1·18	22·94	22·70	+0·24	2·75	Ambala.
24		2	4		1				S 58° E	S 29° E	0·8	1·8	−1·0	13	−26	80	+1	·849	−·043	6·5	+0·2	11	7·30	+3·70	5·45	6·35	−0·90	27·74	19·25	+8·49	1·54	Ludhiana.
3	2		3	6	2	2	11	2	S 57° W	S 41° E	3·1	2·8	+0·3	27	−13	74	−1	·883	−·007	4·1	+0·3	7	5·20	+1·80	3·98	5·30	−1·32	17·57	14·17	+3·40	1·40	Lahore.
8	1	3	16	2	1				N 88° E	N 83° E	2·3	2·5	−0·2	66	+19	86	+7	·922	+·030	4·7	+0·5	12	8·40	+3·60	4·93	9·69	−4·76	12·43	21·81	−9·38	1·30	Sialkot.
13	9	3	3	2				1	N 29° E	S 82° E	2·3	1·7	+0·6	40	+11	84	+4	·848	+·009	6·6	+2·4	11	8·00	+3·00	9·21	8·70	+0·51	26·45	20·71	+5·74	2·54	Rawalpindi.
4		9	8	5	4	1			S 83° E	N 68° E	7·4	6·1	+1·3	56	−1	66	−3	·885	+·026	2·0	−0·8	1	22·0	−1·80	0·51	2·73	−2·22	5·65	9·75	−4·20	0·48	Khushab.
1		3	4	2	10	10	1		S 2° W	S 12° W	10·5	8·2	+2·3	53	−1	61	−2	·788	−·043	1·8	−0·8	2	3·20	−1·20	1·38	2·99	−1·11	6·70	6·88	−0·18	1·58	Montgomery.
8	1	3	1	5	4	9			S 2° E	S 14° E	1·7	2·9	−1·2	35	−8	65	−3	·851	−·017	0·9	−1·2	1	2·30	−1·30	0·10	2·02	−1·92	4·74	5·35	−0·61	0·10	Multan.
																																VI.—North-West Frontier Province.
9	5	7	1				6	3	N 10° W	N 10° W	2·5	3·6	−1·1	40	−3	74	+3	·863	+·040	5·2	+1·9	1	2·30	−1·30	0·27	2·36	−2·09	3·36	5·07	−1·71	0·10	Peshawar.
6	1	10	1	8	5				S 79° E	N 72° E	2·0	2·0	0	46	+10	73	−1	·909	−·010?	2·8	+0·6	2	2·40	−0·40	3·00	1·63	+1·37	9·01	5·00	+4·01	2·50	D. I. Khan.
																																VII.—Sind.
2	2	9	7	7	1	2	1		N 86° E	S 41° E	5·0	4·2	+0·8	53	−17	71	0	·902	+·017	1·7	−0·4	1	1·90	−0·90	0·45	1·13	−0·68	0·53	2·60	−2·07	0·45	Jacobabad.
1					3	25	2		S 43° W	S 43° W	12·1	16·3	−4·2	92	+6	70	0	·775	+·001?	4·6	−0·5	1	2·40	−1·40	0·63	2·40	−1·77	6·62	5·66	+0·96	0·59	Hyderabad.
						7	24		S 80° W	S 76° W	14·5	16·4	−1·9	96	+10	88	+1	·815	−·087	7·7	−0·1	1	1·90	−0·90	0·63	1·77	−1·14	5·66	6·14	−0·48	0·59	Kurrachee.
																																VIII.—Rajputana.
3			2	1	10	12	3		S 24° W	S 36° W	6·3	7·7	−1·4	69	−11	70	+1	·785	−·045	4·1	−0·4	4	4·90	−0·90	6·67	3·12	+3·55	16·37	9·09	+7·28	5·59	Bikaner.
1		1		1	4	21	2	1	S 42° W		6·0			76		80	+7	·785		8·1		3	5·90	−2·90	0·71	4·56	−3·85	10·36	10·51	−0·15	0·25	Jodhpur.
												10·7				78	−1	·793	−·062	8·4	+0·9	2	4·90	−2·90	1·92	3·56	−1·64	9·08	10·31	−1·23	1·58	Pachpadra.
1		3	1	2		3	13	8	N 76° W	N 88° W	6·3‖	4·7	+1·6	53	−4	81	+2	·794	−·019	7·4	+0·5	9	11·60	−2·60	7·09	8·89	−1·80	18·39	20·70	−2·31	3·90	Jaipur.
5	1	1	2		1	1	15	5	N 78° W	N 84° W	6·3	7·7	−1·4	56	−16	81	+4	·795	0	7·4	+1·1	7	9·40	−2·40	3·81	6·77	−2·96	20·29	16·34	+3·95	1·24	Sambhar.
1		1		2		9	12	6	S 82° W	S 85° W	9·1	6·9	+2·2	66	−16	84	+2	·766	−·033	8·2	+1·9	8	8·90	−0·90	3·91	7·25	−3·34	18·27	17·76	+0·51	1·33	Ajmer.
	1	3		1	1	14	8	3	S 70° W		4·6			59		82	+10	·832		5·5		10	10·60	−0·60	11·12	7·04	+4·08	30·75	20·03	+10·72	5·65	Kotah.
12						7	11	1	S 76° W		4·2			56		81	+3	·721		9·1		12	8·70	+3·30	13·40	6·05	+7·35	35·17	15·72	+19·45	5·07	Udaipur.

§ Mean of 28 days.

‖ Uncorrected for scale error.

Tab

(2) *Abstract of observations taken at 8 hrs., at 240 statio*

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	IX.—Bombay.																					
20	Deesa	466	29·257	+·046	29·681	29·367	16th	28·994	3rd	·373	77·5	86·2	−2·7	74·1	−1·5	80·2	−2·1	12·1	91·8	24th	71·4	19th
	Bhuj	395	29·333	+·063	29·682	29·425	10th & 16th.	29·154	3rd	·271	78·7	87·3	−1·4	75·3	−0·9	81·3	−1·2	12·0	91·5	5th	73·5	14th
	Jamnagar	61	29·688		29·694	29·794	14th	29·510	3rd	·284	80·9	86·8		76·1		81·5		10·7	91·0	24th	72·6	14th
	Dwarka	37?	29·724		29·707	29·827	14th	29·564	3rd	·263	78·9	83·5		76·9		80·2		6·6	85·3	26th & 27th.	74·7	22nd
	Rajkot	429	29·337	+·063	29·719	29·432	14th	29·158	3rd	·274	79·0	87·1	−1·8	73·5	−1·0	80·3	−1·4	13·6	91·9	13th	69·0	13th
	Veraval	*18*	29·777†	+·053†	29·737†	29·893	10th	29·609	3rd	·284	78·9	82·4§	−0·4§	77·7	0	80·1§	−0·2	4·7	84·2	5th & 6th.	75·8	22nd & 29th.
	Bhavnagar Para	55	29·717	+·005?	29·716	29·820	14th	29·524	3rd	·296	80·3	90·3	−2·5?	75·6	−1·5	82·9	−2·0?	14·7	95·1	14th	72·5	18th
	Surat	39	29·747	+·048	29·731	29·853	10th	29·578	3rd	·275	80·3	85·6	−1·4	76·8	+0·3	81·2	−0·6	8·8	88·1	22nd	74·1	29th
	Ahmedabad	163	29·580	+·037	29·693	29·685	15th	29·371	3rd	·314	78·6	87·3	−2·8	75·8	−1·3	81·6	−2·1	11·5	91·6	13th & 20th.	74·2	28th
26	Bombay	37	29·790	+·033	29·767	29·885	10th & 15th.	29·644	2nd	·241	79·5	85·0	+1·0	77·2	+0·2	81·1	+0·6	7·8	88·0	15th	75·0	1st
	Ratnagiri	110	29·735†	+·026†	29·754†	29·837	10th	29·645	2nd & 3rd.	·192	78·6	83·6	−0·1	75·0	−0·2	79·3	−0·2	8·6	85·8	15th	72·9	18th & 24th.
	Goa	199	?		?	?		?		?	77·5	81·1	−0·8	75·4	−0·4	78·3	−0·6	5·7	83·1	16th, 17th & 20th.	73·1	1st & 12th.
	Mormugao	*60*	29·758	+·002	29·793	29·905	10th	29·722	3rd	·183	78·8	83·0	−0·4	75·2	−0·6	79·1	−0·5	7·8	85·0	3rd	73·2	12th
	Karwar	44	29·831‡	+·011‡	29·809‡	29·920	10th	29·761	3rd	·159	77·0	83·2	+0·7	74·7	+0·1	79·0	+0·4	8·5	85·3	15th & 16th.	73·0	1st, 6th & 13th.
27	Malegaon	1,430	28·338‡	+·026‡	29·727‡	28·439	14th	28·165	2nd	·274	77·6	89·1	+2·5	70·8	−0·7	80·0	+0·9	18·3	92·4	15th & 21st.	66·6	19th & 20th.
	Ahmednagar	2,154	27·684	+·048	29·787	27·780	14th	27·546	2nd	·234	75·4	87·5	+2·7	68·2	−0·8	77·9	+1·0	19·3	92·4	21st	63·0	13th
	Poona	1,846	27·987§	+·044§	29·794§	28·085	10th	27·866	2nd	·219	73·8	82·7	+0·8	69·1	−0·4	75·9	+0·2	13·6	86·0	20th, 22nd & 24th.	65·8	13th
	Sholapur	1,590	28·231†	+·031†	29·780†	28·326	10th	28·123	3rd	·203	75·7	88·9	+0·1	71·4	+0·8	80·2	+0·5	17·5	95·3	14th	68·4	4th
	Bijapur	*1,948*	27·884	+·026	29·787	27·978	10th	27·797	2nd	·181	74·0	86·7	+0·6	69·5	−0·4	78·1	+0·1	17·2	92·2	15th	67·2	4th & 13th.
	Belgaum	2,539	27·310	+·021	29·797	27·395	10th	27·224	3rd	·171	70·6	78·7	+2·6	66·2	0	72·4	+1·3	12·5	82·3	27th & 29th.	62·6	13th
	X.—Central India.																					
21	Neemuch	1,624	28·092	+·036	29·684	28·193	15th	27·830	3rd	·368	74·7	82·9 ¶	−2·1 ¶	71·4	−1·1	77·2 ¶	−1·6	11·5	88·0	22nd, 24th & 25th.	68·8	5 days
	Indore	1,823	27·952?	+·075?	29·736?	28·055	10th	27·727	2nd	·328	74·4	81·8	−1·1	71·1	−0·2	76·5	−0·7	10·7	86·1	22nd	67·1	13th
22	Nowgong	754	28·927	+·054	29·641	29·030	15th	28·752	2nd	·278	79·5	83·1	+0·2	76·6	−0·1	82·4	+0·1	11·5	92·0	21st & 24th.	73·5	14th
	Sutna	1,040	28·637	+·055	29·639	28·730	14th & 15th	28·504	2nd	·226	80·2	88·2	+2·3	77·3	+1·4	82·8	+1·9	10·9	93·0	24th	74·7	14th & 31st.
	XI.—Central Provinces.																					
23	Buldana	2,132	27·673		29·759	27·775	15th	27·500	2nd	·275	73·5	82·0		69·1		75·6		12·9	85·2	20th	67·0	11th
	Akola	930	28·815	+·056	29·733	28·943	10th & 14th.	28·662	2nd	·281	78·4	88·8	+1·6	73·3	0	81·1	+0·8	15·5	93·7	21st	70·6	11th
	Amraoti	1,215	28·544	+·055	29·718	28·636	10th & 14th.	28·386	2nd	·250	77·2	87·8	+1·7	72·8	+0·2	80·3	+1·0	15·0	93·3	21st	70·8	13th
24	Khandwa	1,044	28·710	+·051	29·722	28·820	15th	28·514	2nd	·306	76·6	86·4	+0·9	74·0	−0·1	80·2	+0·4	12·4	90·2	20th	70·1	10th
	Hoshangabad	1,006	28·741†	+·065†	29·715†	28·851	14th	28·490	2nd	·361	76·8	85·4	+0·4	72·9	−0·9	79·1	−0·3	12·5	90·1	22nd	70·4	13th & 15th.
	Saugor	1,807	27·811	+·054†	29·677†	28·012	15th	27·687	2nd	·325	75·4	84·2	+0·6	72·0	−0·8	78·1	−0·1	12·2	88·6	18th & 25th.	69·5	13th & 15th.
	Jubbulpore	1,327	28·299	+·077	29·689	28·505	10th	28·221	2nd	·284	77·3	86·5	+1·8	74·2	+0·3	80·3	+1·1	12·3	90·5	20th	71·3	14th & 15th.
	Seoni	2,033	27·730†	+·070†	29·714†	27·822	10th	27·568	2nd	·254	75·6	84·6	+1·5	70·2	−1·4	77·4	+0·1	14·4	86·0	15th & 17th.	66·5	13th
	Nagpur	1,044	28·732	+·066	29·707	28·839	10th	28·572	2nd	·258	78·7	88·6	+1·6	74·5	−0·1	81·6	+0·8	14·1	92·6	19th	71·8	14th
25	Pendra	2,122	27·701		29·679	27·785	10th	27·518	1st	·267	75·5	83·6		72·1		77·9		11·5	86·6	1st, 6th & 16th.	69·2	28th & 28th.
	Raipur	970	28·766	+·077	29·689	28·852	10th	28·610	1st	·243	79·2	87·8	+1·9	75·7	+0·8	81·7	+1·4	12·1	91·7	15th	73·1	28th
	Chanda	634	29·124†	+·052†	29·705†	29·217	10th	29·000	2nd	·217	80·3	89·4	+1·8	75·6	+0·3	82·5	+1·2	13·8	94·0	13th	72·6	31st

N.B.—Elevations in italics indicate barometrical determinations. ‡ Mean of 28 days.

† Mean of 30 days.

§ Mean of 27 days.

NOTE 2.—The barometric readings are not reduced to sea-level, in the

¶ Mean of 29 days.

B—*continued.*

in India, etc., in August, 1909—continued.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs., in inches of mercury.	Departure from normal, in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st August 1909.	Normal rainfall for period, 1st May to 31st August.	Departure from normal of period, 1st May to 31st August 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																IX.—Bombay.
						18	12	1	S 64° W	S 71° W	‖ 10·7	12·0	−1·3	89	+14	88	+ 4	·830	−·010	9·3	+1·2	9	10·09	−1·09	12·90	6·67	+6·23	22·27	19·35	+2·92	6·70	Deesa.
						9	15	7	S 87° W	S 76° W	16·2	15·7	+0·5	86	− 4	80	− 2	·779	−·058	8·5	+1·2	2	3·70	−1·70	0·48	2·44	−1·96	10·00	12·03	−2·03	0·13	Bhuj.
						16	11	4	S 71° W		19·0			85		80		·844		4·1		3			0·38			18·36			0·34	Jamnagar.
2					2	17	9	1	S 58° W		14·5			82		87		·866		8·1		2			0·52			23·69			0·12	Dwarka.
						15	15	1	S 70° W	S 77° W	15·2	12·4	+2·8	92	+ 2	82	− 2	·801	−·037	6·9	−0·6	7	6·60	+0·40	1·91	4·52	−2·61	20·71	23·17	−2·46	0·36	Rajkot.
3						7	17	4	S 85° W	S 77° W	14·9	11·8	+3·1	82	0	90	+ 2	·887	+·007	8·6	+0·4	2	8·10	−6·10	1·09	2·30	−1·21	16·12	14·79	+1·32	0·36	Veraval.
1						21	7	2	S 60° W	S 48° W	8·4	11·8	−3·4	87	− 3	80	− 1	·826	−·054	7·9	+0·8	9	8·80	+0·20	7·77	4·42	+3·35	20·20	14·27	+5·93	3·19	Bhavnagar Para.
3	1	2	2		1	10	11	1	S 73° W	S 66° W	6·2	9·8	−3·6	53	−27	82	− 3	·849	−·040	8·4	+0·8	7	12·30	−5·30	6·22	7·29	−1·07	45·97	34·72	+11·25	2·83	Surat.
2	1				3	12	11	2	S 67° W	S 63° W	5·1	4·9	+0·2	76	+ 4	85	+ 2	·825	−·034	9·5	+1·2	10	10·90	−0·90	8·10	7·63	+0·44	26·09	27·02	−0·93	2·52	Ahmedabad.
1	1	1	1	4	1	4	13	5	S 84° W	S 77° W	‖ 10·0	15·4	−5·4	49	−34	88	+ 2	·889	+·008	8·3	−0·6	14	19·50	−5·50	8·52	14·07	−5·55	55·17	60·46	−5·29	1·71	Bombay.
11	6	3	1		1	3	5	1	N 40° W	S 74° W	8·0	9·5	−1·5	27	−41	88	0	·856	−·019	6·7	−1·3	25	23·70	+1·30	12·25	22·29	−10·04	87·41	89·62	−2·21	2·18	Ratnagiri.
3	4	5	6	1	1	1	5	5	N 6° E	S 85° W	6·7	8·7	−2·0	30	−21	90	+ 1	·850	−·030	9·6	+1·1	18			8·27	19·14	−10·87	82·90	82·87	+0·03	3·53	Goa.
8	4	1				2	7	9	N 55° W	N 56° W	‖ 8·6	11·2	−2·3	56	−21	92	+ 2	·904	+·006	8·5	+1·5	20			8·89	18·59	−9·70	68·65	76·67	−8·02	2·86	Mormugao.
15	8	1		1	3	2		1	N 9° W	N 81° W	‖ 4·0	4·3	−0·3	13	−34	89	+ 1	·835	+·001	7·4	+0·1	14	24·00	−10·00	7·66	23·91	−16·25	92·22	100·95	−8·73	2·07	Karwar.
13						3	7	2	S 86° W	S 78° W	10·0	12·7	−2·7	37	−49	76	− 1	·724	+·004	6·6	−0·7	5	5·80	−0·80	1·41	3·55	−2·14	13·94	13·72	+0·22	0·33	Malegaon.
						4	15	12	N 78° W	S 86° W	9·1	18·5	−9·4	89	+14	73	−10	·646	+·014	4·5	−2·7	5	5·20	−0·20	3·66	2·29	+1·37	12·20	11·15	+1·05	1·36	Ahmednagar.
							26	5	N 83° W	S 83° W	‖ 12·0	14·8	−2·8	99	+ 9	83	0	·685	−·008	7·2	−1·2	5	8·60	−3·60	2·33	3·31	−0·98	14·32	16·42	−2·10	0·71	Poona.
2						7	5	17	N 72° W	S 83° W	9·9	12·8	−2·9	76	− 8	79	+ 4	·707	+·037	7·1	−0·6	11	8·00	+3·00	9·34	6·09	+3·25	28·98	15·64	+13·34	2·25	Sholapur.
	1					4	21	5	N 87° W	S 82° W	11·0	10·7	+0·3	89	+ 4	79	− 3	·666	−·029	6·5	−1·0	9	5·60	+3·40	4·14	2·47	+1·67	9·43	9·83	−0·40	1·36	Bijapur.
1						5	17	8	N 86° W	S 83° W	‖ 16·0	21·5	−5·5	86	− 5	89	− 3	·658	−·010	9·3	+0·6	6	17·40	−11·40	2·09	8·67	−6·58	37·82	35·06	+2·76	0·91	Belgaum.
																																X.—Central India.
1	4	2				7	15	2	N 84° W	S 75° W	9·4	11·0	−1·6	66	−18	87	+ 2	·755	−·021	5·8	−1·0	9	10·50	−1·50	10·64	9·22	+1·42	21·55	23·58	−2·03	6·22	Neemuch.
1	1					4	20	5	N 87° W	S 85° W	6·6	5·7	+0·9	86	+ 4	87	− 2	·751	−·015	9·0	+0·1	9	10·60	−1·60	7·61	7·56	+0·08	17·52	23·50	−5·98	2·91	Indore.
4	1		1		4	3	18		S 75° W	S 89° W	3·5	3·1	+0·4	62	+11	84	− 3	·846	−·036	7·6	−0·4	6	14·10	−8·10	3·96	13·51	−9·55	30·68	36·19	−5·51	1·73	Nowgong.
2			2	2	1	11	12	1	S 61° W	S 89° W	3·5	7·7	−4·2	62	+21	80	− 7	·826	−·045	9·8	+2·4	9	14·40	−5·40	4·94	12·47	−7·53	26·81	34·45	−7·64	1·49	Sutna.
																																XI—Central Provinces.
	1					3	17	10	N 77° W		6·9	8·6	−1·7	87		82		·677		6·5		10			4·32	7·28	−2·96	29·85	23·37	+6·48	0·77	Buldana.
	1					4	18	8	N 82° W	N 78° W	7·0	8·6	−1·6	86	0	75	− 8	·738	−·030	7·8	0	8	8·90	−0·90	6·29	6·28	+0·01	19·31	22·48	−3·17	3·34	Akola.
	1				1	5	15	9	N 83° W	N 89° W	7·1	7·8	−0·7	82	− 4	80	− 9	·749	−·033	6·7	−1·2	7	10·00	−3·00	2·84	6·44	−3·60	20·26	23·77	−3·51	1·06	Amraoti.
	2					2	19	8	N 77° W	N 86° W	8·6	8·7	−0·1	89	− 4	83	− 2	·774	+·006	6·6	−1·1	12	10·70	+1·30	3·89	7·05	−3·16	14·33	22·10	−7·77	0·97	Khandwa.
10					1	6	13	1	S 75° W	S 53° W	3·9	3·9	0	59	−20	88	− 3	·816	−·020	8·3	−0·3	11	15·00	−4·00	11·23	14·68	−3·45	32·73	38·83	−6·10	4·25	Hoshangabad
1	1	2			1	10	13	3	S 81° W	S 87° W	6·9	5·3	−1·6	69	+ 4	84	− 6	·742	−·057	9·0	+1·4	13	15·40	−2·40	15·13	12·97	+2·16	32·68	37·53	−4·85	4·85	Sauger.
	2			3	3	9	11	3	S 67° W	S 77° W	2·8	4·3	−1·5	59	− 9	82	− 8	·767	−·061	7·3	−1·0	11	16·30	−5·30	9·58	16·48	−6·90	33·33	46·68	−13·35	2·77	Jubbulpore.
	5	3			4	8	7	4	N 89° W	N 76° W	†† 5·6	4·9	+0·7	43	0	84	− 6	·731	−·055	6·9	−1·6	10	16·40	−6·40	10·31	12·49	−2·18	33·66	40·21	−6·55	2·47	Seoni.
1	3		1	3	5	5	7	6	S 74° W	S 88° W	3·9	7·2	−3·3	40	−21	79	− 6	·781	−·029	5·8	−2·9	14	12·60	+1·40	7·85	11·06	−3·21	42·12	34·96	+7·16	1·98	Nagpur.
9	2		1	2	5	4	2	6	S 65° W		4·3			23		85		·756		6·8		16			8·54			31·09			1·50	Pendra.
6			2			19	2	2	S 51° W	S 56° W	7·0	8·4	−1·4	62	−10	88	− 3	·849	+·007	7·4	−1·3	12	14·20	−2·20	5·18	13·02	−7·84	32·97	38·73	−5·76	1·55	Raipur.
5	1				2	4	11	8	N 85° W	S 76° W	4·9	5·6	−0·7	62	−16	78	− 4	·809	+·010	7·2	−1·2	11	13·60	−2·60	9·35	13·90	−4·55	35·74	40·40	−4·66	3·40	Chanda.

cases of hill or plateau stations, the elevations of which exceed 3,000 feet.

†† Mean of 23 days.

‖ Uncorrected for scale error.

Ta

(2) *Abstract of observations taken at 8 hrs., at 240 stat*

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	XII.—Hyderabad.																					
28	Aurangabad	1,905	27·929*	+·044*	29·794*	28·011	10th	27·770	2nd	·241	74·2	85·0	−0·1?	66·1	−0·9	76·7	−0·5?	16·6	88·2	14, 15th & 22nd.	65·7	11th & 19th.
	Nizamabad	1,248	28·528†	+·054†	29·735†	28·547	27th	28·508	26th	·039	77·3§	87·9§	+1·9§	73·1§	+0·6§	80·5§	+1·3§	14·8	92·4	23th	71·7	26th & 29th.
	Bidar	*2,165*	27·662		29·778	27·732	14th & 15th.	27·563	2nd	·169	74·2	84·5		66·0		75·3		18·5	88·5	14th & 16th.	63·6	4th
29	Gulbarga	1,503	28·316	+·030	29·779	28·415	10th	28·228	2nd	·187	75·1	87·5	−0·8	72·3	+1·2	79·9	+0·2	15·2	94·0	14th	68·3	18th
	Raichur	*1,311*	28·489‡	+·004‡	29·756‡	28·586	10th	28·416	2nd	·170	76·4	87·9	−0·6	72·4	−0·1	80·2	−0·4	15·5	96·1	5th	69·6	15th
	Hyderabad (Deccan).	1,690	28·110	+·031	29·754	28·195	10th	28·035	2nd	·160	76·2	86·5	+0·4	73·3‖	+2·2‖	79·9‖	+1·3	13·2	90·3	5th	70·2	28th
	Hanumkonda	871	28·901	+·039	29·720	28·981	10th	28·823	21st	·158	79·3	87·8	−0·2	75·0	−0·3	81·4	−0·3	12·8	91·0	4 days.	70·2	13th & 15th.
	XIII.—Mysore.																					
30	Chitaldroog	2,405	27·474‖	+·030‖	29·828‖	27·556	10th	27·412	21st & 22nd.	·144	71·5	82·9	+0·8	68·0‖	0‖	75·4‖	+0·4	14·9	87·6	16th	66·0	13th
	Hassan	3,149	26·778	+·013	29·850	26·853	10th	26·712	21st	·141	69·5	79·3	+1·0	65·3	+0·8	72·3	+0·9	14·0	82·5	27th	62·9	13th
	Bangalore	3,021	26·884	+·001	29·828	26·971	10th	26·807	21st	·164	70·4	81·7	−0·1	66·9	+1·3	74·3	+0·6	14·8	86·3	4th	64·8	28th
	Mysore	2,518	27·388	+·004	29·857	27·471	10th	27·317	21st	·154	70·8	82·2	−1·8	67·2	+0·7	74·7	−0·6	15·0	86·0	5th	65·0	13th & 16th.
	XIV—Madras.																					
31	Mangalore	65	29·823	−·010	29·821	29·918	10th	29·763	3rd	·155	76·8	81·1	−1·7	73·7	−0·3	77·4	−1·0	7·4	84·2	14th, 16th & 17th.	71·9	9th & 21st.
	Calicut	27	29·870	−·010	29·827	29·950	10th	29·794	22nd	·156	76·2	81·7	−1·1	74·1	0	77·9	−0·6	7·6	84·8	4 days.	71·1	9th
	Cochin	9	29·909	+·001	29·846	29·981	9th & 10th.	29·831	22nd	·150	77·6	84·0	+0·3	74·3	0	79·2	+0·2	9·7	87·2	17th	71·7	9th
	Trivandrum	198	29·705	−·001	29·836	29·785	1st	29·616	22nd	·169	76·7	81·5	−0·8	74·1	+1·1	77·8	+0·2	7·4	84·5	17th	72·5	28th
32	Tinnevelly	168	29·696	+·010	29·793	29·770	10th	29·610	22nd	·160	84·5	96·5	−0·2	78·2	−0·9	87·4	−0·6	18·3	101·2	19th	75·9	5 days.
	Pamban	37	29·816‖	+·003‖	29·781‖	29·898	10th	29·734	22nd	·164	81·4	88·5	−0·5	76·4	−2·2	82·6	−1·4	12·1	92·2	19th	72·0	9th
	Madura	447	29·413	+·002	29·796	29·502	10th	29·335	21st	·167	81·5	94·0	−2·6	74·5	−1·3	84·2	−2·0	19·5	99·9	4th	70·1	5th & 24th.
	Periyakulam	944						Obser	vatory cl	osed												
	Pudukkottai	318	29·533		29·784	29·616	10th	29·447	21st	·169	80·7	94·5		75·2		84·9		19·3	99·6	4th	70·4	27th
	Negapatam	31	29·803	−·003	29·763	29·877	10th	29·710	21st	·167	81·8	91·8	−1·9	77·3	0	84·6	−1·0	14·5	97·5	4th	74·5	9th & 19th.
	Trichinopoly	255	29·597	+·010	29·786	29·675	10th	29·504	21st	·171	80·8	93·1	−3·5	75·2	−1·5	84·2	−2·5	17·9	101·6	4th	70·8	26th
	Coimbatore	1,348	28·515	+·006	29·823	28·599	10th	28·443	22nd	·156	74·4	87·8	−0·9	70·7	+0·1	79·3	−0·4	17·1	90·9	26th	68·8	2nd
	Salem	940	28·941	+·007	29·829	29·018	10th	28·861	21st	·157	77·8	90·3	−1·9	72·8	+0·3	81·5	−0·8	17·5	97·5	3rd	66·9	3rd
	Cuddalore	37	29·791	+·007	29·758	29·867	10th	29·692	21st	·175	81·2	93·4	−0·3	76·2	−0·1	84·8	−0·2	17·2	100·1	3rd	71·7	23rd
	Vellore	707	29·132		29·784	29·212	10th	29·035	21st	·177	78·5	91·0		73·8		82·4		17·2	97·7	3rd	71·5	8th & 16th.
	Madras	22	29·799	+·009	29·752	29·868	15th	29·689	21st	·179	80·9	91·7	−2·1	76·6	−0·7	84·2	−1·4	15·1	96·5	2nd & 3rd.	73·0	20th & 22nd.
33	Cuddapah	433	29·407	+·026	29·782	29·482	10th	29·323	21st	·159	79·1	92·3	−1·4	74·9	−1·9	83·6	−1·7	17·4	102·2	3rd	70·6	21st
	Bellary	1,475	28·361	+·020	29·791	28·450	10th	28·291	3rd	·159	76·5	91·0	+0·2	73·7	+0·1	82·4	+0·2	17·3	97·0	5th	68·3	27th
	Kurnool	923	28·894‖	+·016‖	29·768‖	28·981	10th	28·806	22nd	·175	77·2	89·1	−0·7	74·2	+0·5	81·7	−0·1	14·9	96·7	4th	70·6	15th
34	Nellore	66	29·734	+·022	29·733	29·807	10th	29·633	21st	·174	83·0	95·0	−0·6	78·1	−0·6	88·6	−0·6	16·9	100·6	4th & 12th.	72·6	15th
	Masulipatam	15	29·798*	+·064*	29·748*	29·872	10th	29·712	22nd	·160	82·3	90·3	−1·0	77·9‖	+0·3‖	84·2‖	−0·4	12·4	96·3	4th & 6th.	75·1	4 days.
	Cocanada	26	29·759	+·066	29·721	29·840	10th	29·616	21st	·194	81·6	89·7	0	78·1	−0·4	83·9	−0·2	11·6	95·2	5th	73·0	15th
	Waltair (Vizagapatam).	*226*	29·544	+·074	29·712	29·617	10th & 31st.	29·441	21st	·176	81·1	86·9		77·4		82·2		9·5	91·6	7th	73·9	27th
	Calingapatam	19	29·747		29·706	29·827	31st	29·639	21st	·188												
	Gopalpur	72	29·677	+·097	29·691	29·773	31st	29·574	1st	·199	81·6	86·9	−0·5	78·8	0	82·9	−0·3	8·1	90·7	14th	74·5	9th

NB.—Elevations in italics indicate barometrical determinations.

* Mean of 26 days.
† „ „ 7 „
‡ „ „ 27 „

‖ Mean of 30 days.

NOTE.—The barometric readings are not reduced to sea-level, in the cases of hill or

§ Mean of 8 days.

B—*continued.*

in India, etc., in August, 1909—continued.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st August 1909.	Normal rainfall for period, 1st May to 31st August.	Departure from normal of period, 1st May to 31st August 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																XII.—Hyderabad.
	1					2	15	13	N 71° W		13·2			89		82‖	− 1	·696‖		7·1‖		8	9·50	−1·50	5·94	5·20	+ 0·74	27·99	17·47	+10·52	1·43	Aurangabad.
6							2		W§					25		78		·742		0·6	§	6	14·50	−8·50	3·62	11·36	− 7·74	16·05	26·82	−10·77	1·56	Nizamabad.
1	2					3	11	14	N 67° W		6·4			81		83		·703		3·9		12	12·50	−0·50	7·02	8·39	− 1·37	26·68	23·93	+ 2·75	1·95	Bidar.
	7	1				4	9	10	N 65° W	N 75° W	8·6	13·7	−5·1	69	−12	84	+ 4	·735	+ ·031	7·6	0	13	8·10	+4·90	13·25	4·75	+ 8·50	26·41	16·93	+ 9·48	3·25	Gulbarga.
						5	8	18	N 69° W	S 81° W	8·4	13·0	−4·6	82	+ 1	77	− 1	·703	− ·010	7·6	0	11	8·70	+2·30	9·86	6·52	+3·34	19·09	15·89	+ 3·20	1·83	Raichur.
13							13	5	N 78° W	N 83° W	4·4	8·4	−4·0	56	−37	79	− 3	·707	− ·009	7·2	−0·4	11			4·52	7·61	− 3·09	19·02	19·70	− 0·68	1·77	Hyderabad (Deccan).
4	1			4	5	3	4	1	S 80° W		6·5			33		81	+ 6	·816		7·4		15	12·00	+3·00	6·68	6·58	+ 0·10	24·15	22·19	+ 1·96	1·41	Hanumkonda.
																																XIII.—Mysore.
						10	15	6	S 24° W	S 78° W	6·5	10	−4·2	86	− 2	85	+ 3	·658	+ ·011	8·1	−0·8	7	7·80	−0·80	6·17	2·68	+ 3·49	16·33	13·01	+ 3·35	2·90	Chitaldroog.
3	1					1	14	12	N 69° W	N 87° W	7·7	4·4	+3·3	76	−10	88	+ 5	·635	+ ·021	8·0	−0·7	11	9·60	+1·40	7·96	3·37	+ 4·59	28·47	17·40	+11·07	2·13	Hassan.
						5	22	4	S 89° W	S 78° W	6·8	8·3	−1·5	92	+24	87	+ 2	·651	+ ·035	9·5	+1·3	16	10·40	+5·60	12·18	5·36	+ 6·82	22·07	16·69	+ 5·38	3·00	Bangalore.
2	1	1			2	14	11		S 63° W	S 72° W	7·7	12·5	−4·8	72	−16	85	+ 4	·651	+ ·009	9·6	+1·7	13	6·40	+6·60	7·33	2·93	+ 4·40	22·08	12·43	+ 9·65	1·28	Mysore.
																																XIV.—Madras.
14	3	3	1	1	1		3	5	N 22° W	N 72° W	(a) 4·8	2·5	+2·3	27	+ 2	92	0	·844	−·011	8·7	+0·2	23	24·40	−1·40	16·61	22·26	− 5·65	133·18	101·17	+32·01	2·14	Mangalore.
10	2	1				1	7	10	N 57° W	N 22° W	5·7	7·7	−2·0	53	+13	93	+ 2	·841	+·007	9·2	+1·9	10	18·80	−8·80	7·46	15·80	− 8·34	108·19	88·24	+19·95	1·89	Calicut.
6	1	5	6	1			5	7	N 2° E	N 13° W	(a) 6·3	5·8	+2·5	28	−19	85	− 1	·804	−·037	8·3	+1·2	14	18·60	−4·60	8·59	13·47	− 4·88	67·54	76·06	− 8·52	1·30	Cochin.
	12						1	18	N 29° W	N 13° W	(a) 7·8	9·1	−1·3	96	+13	87	+ 1	·802	−·005	8·1	+0·7	6	9·30	−3·30	2·97	4·15	− 1·18	44·29	32·51	+11·78	0·32	Trivandrum.
1	2				1	5	11	11	N 77° W	N 75° W	7·4	8·7	−1·3	72	− 8	64	+ 5	·762	+·062	5·3	−0·2	5	1·00	+4·00	1·99	0·48	+ 1·51	4·03	2·68	+ 1·35	0·70	Tinnevelly.
13	3	1			7	3	4		S 45° W	S 43° W	6·2	10·0	−3·8	27	−38	84	+ 8	·898		3·6		3	0·60	+2·40	1·36	0·81	+ 0·55	4·55	1·65	+ 2·90	0·87	Pamban.
	6	1				1	9	14	N 50° W	N 41° W	4·9	3·2	+1·7	79	0	69	+ 3	·735	+·001	7·2	+1·9	11	6·20	+4·80	9·99	3·69	+ 6·30	15·89	9·65	+ 6·24	2·78	Madura.
																			Observa	tory	closed											Periyakulam.
2	4	1				1	4	19	N 45° W		7·7			74		72		·755		6·6		9			7·75			16·66			2·48	Pudukkottai.
	1				1	11	17	1	S 74° W	S 72° W	6·7	6·1	+0·6	86	+ 3	72	+ 1	·794	−·002	5·0	−0·7	7	5·70	+1·30	5·00	3·66	+ 1·34	8·71	8·65	+ 0·06	1·64	Negapatam.
2					1	10	17	1	S 73° W	S 85° W	(a) 4·6	8·0	−3·4	86	− 2	73	+ 6	·758	+·032	5·1	−1·8	14	5·40	+8·60	10·37	4·35	+ 6·02	16·95	10·10	+ 6·85	1·81	Trichinopoly.
17				1	1	12			S 38° W	S 36° W	4·7	6·5	−1·8	43	−36	90	+ 6	·775	+·022	5·3	−0·5	2	3·00	−1·00	1·15	1·12	+ 0·03	8·26	6·28	+ 1·98	0·69	Coimbatore.
4					1	9	17		S 73° W	S 37° W	4·2	4·0	+0·2	79	+ 7	88	+ 9	·841	+·070	7·8	+1·4	17	9·50	+7·50	18·35	7·47	+10·88	26·64	18·93	+ 7·71	4·48	Salem.
8	1				8	7	7		S 45° W	S 73° W	5·2	2·3	+2·9	56	−16	77	− 3	·829	−·051	6·2	−0·5	6	8·00	−2·00	3·27	5·33	− 2·06	12·20	11·14	+ 1·06	1·46	Cuddalore.
15		2	7	6				1	S 81° E		2·0			39		85		·824		6·4		18	7·90	+10·10	28·29	5·31	+22·98	45·66	14·53	+31·13	4·18	Vellore.
1					15	8	6	1	S 32° W	S 66° W	(a) 5·2	6·9	−1·7	76	− 3	86	+11	·913	+·087	6·0	−1·3	7	12·50	−5·50	4·91	5·34	− 0·43	20·91	12·47	+ 8·44	1·51	Madras.
	1	1		2		2	13	12	N 71° W	N 82° W				72	−11	81	+ 8	·799	+·026	8·0	+0·2	17	8·00	+9·00	22·28	6·15	+16·13	30·44	15·02	+15·42	3·14	Cuddapah.
	1					2	15	13	N 71° W	N 85° W	7·2	11·2	−4·0	89	+ 3	71	+ 3	·654	+·006	8·0	+0·1	6	4·10	+1·90	6·30	2·32	+ 3·98	8·97	7·76	+ 1·21	3·27	Bellary.
					1	10	4	16	N 82° W	N 89° W	(a) 7·5			72	+ 7	81	+ 6	·747	+·032	8·8	+1·3	12	9·20	+2·80	5·95	5·94	+ 0·01	11·85	15·20	− 3·35	2·39	Kurnool.
4	1	1			4	10	8	3	S 66° W	N 68° W	(a) 6·3	9·5	−3·2	56	−19	76	+ 4	·857	+·041	6·8	−0·9	6	5·40	+0·60	5·93	4·03	+ 1·90	12·37	8·46	+ 3·91	2·00	Nellore.
5	1				3	7	6	9	S 88° W	N 72° W	6·3	7·7	−1·4	56	−27	88	+ 5	·965	+·075	7·3	−0·5	14	9·80	+4·20	11·00	6·89	+ 4·11	22·12	18·64	+ 3·48	2·00	Masulipatam.
8		1				7	13	2	S 82° W	S 74° W	4·6	7·7	−3·1	62	−17	85	+ 4	·912	+·062	7·8	+0·2	10	9·70	+0·30	6·34	5·40	+ 0·94	17·25	17·03	+ 0·22	2·25	Cocanada.
1	1	1		1		18	8	1	S 61° W	S 84° W	3·4			72	− 9	83	+ 4	·888	−·027	7·8	0	14	8·10	+5·60	6·96	5·32	+ 1·64	17·02	16·15	+ 0·87	1·36	Waltair. (Vizagapatam).
3		1			4	8	9	6	S 74° W		6·8			58						6·2		9			7·60			16·40			1·53	Calingapatam.
8	3				5	14	2	4	S 58° W	S 63° W	12·7	10·9	+1·8	56	− 2	92	+ 7	·983	+·058	6·0	−1·5	10	10·60	−0·60	5·46	7·96	− 2·50	21·78	23·95	− 2·17	2·50	Gopalpur.

stations, the elevations of which exceed 3,000 feet.

¶ Mean of 6 days.

(a) Uncorrected for scale error.

Tal

(2) *Abstract of observations taken at 8 hrs., at 240 stati*

Number of subdivisions.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure, reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	Bay Islands.																					
1	P. V. Fraser	8	29·721?		29·647?	29·860	31st	29·620	3rd	·240	82·2	?		?		?		?	?	?	?	?
	Car Nicobar	25	29·627		29·779	29·874	19th	29·764	1st	·110	81·3	86·2		75·9		81·1		10·3	86·9	12th	73·3	26th
	Port Blair	58	29·813	+·024	29·801	29·883	10th	29·684	21st	·199	79·5	84·3	—1·0	76·4	—0·8	80·3	—0·9	7·9	88·2	2nd	72·0	13th
	Slipper Island	90	29·759		29·788	29·829	10th	29·644	21st	·185	80·4	84·2		77·4		80·8		6·8	86·1	6 days	73·6	17th
	Kashmir.																					
14	Srinagar	5,204	24·723	+·016	24·694	24·843	23rd	24·605	4th	·238	69·3	84·4	+0·5	64·9	+2·0	74·7	+1·3	19·5	89·1	18th	60·1	8th
	Gulmarg	*8,569*	21·809	+·014	21·777	21·918	23rd	21·715	6th	·203	60·5	68·0	—0·4	50·9	+0·2	59·5	—0·1	17·1	75·7	13th	46·8	8th
	Sonemarg	*8,764*	21·778		21·746	21·886	23rd	21·687	6th	·199	54·5	69·7		49·5		59·7		20·2	76·4	5th	43·1	8th
	Dras	*10,059*	20·729	+·001	20·697	20·826	23rd	20·641	6th	·185	58·7	79·0	—1·2	47·7	—0·8	63·4	—1·0	31·3	86·9	5th	40·1	8th
	Leh	11,503	19·632*	+·028*	19·660*	19·768	23rd	19·597	6th	·171	59·2	76·1	—1·3	50·6	+0·8	63·4	—0·3	25·5	82·1	15th	46·0	31st
	Skardu	*7,505*	22·717	+·014	22·687	22·823	22nd	22·622	3rd	·201	68·7	87·6	+0·9	61·2	+0·3	74·4	+0·6	26·4	96·4	14th	55·1	8th
	Minimarg	*9,359*						Observa	tions	not av	ailabl	e.										
	Astor	*7,955*						Observa	tions	not av	ailabl	e.										
	Gilgit	4,890	24·928		24·901	25·095	9th	24·791	3rd	·304	77·1	93·5*	—0·7*	70·8	—1·3	82·1*	—1·0	22·7	104·7	3rd	66·2	9th
	Baluchistan.																					
16	Quetta	5,502	24·504	+·025	24·464	24·606	23rd	24·396	6th	·210	76·2	94·3	+3·8	61·2	+0·1	77·8	+2·0	33·1	97·1	13th	53·5	30th
	Chaman	4,311	25·491	+·004	25·453	25·592	31st	25·370	3rd & 6th.	·222	84·0	98·7	+0·9	74·9	—0·7	85·3	+0·1	26·8	102·8	4th	62·7	31st
	Robat		26·708		26·666	26·841	31st	26·612	3rd	·229	88·2	106·5		78·4*		92·5*		28·1	111·0	17th	70·3	31st
	Hill Stations excluding Kashmir and Baluchistan.																					
	Chitral	*5,486*									77·8	97·0		63·5		81·8		30·5	102·2	14th	63·0	25th
	Para Chinar	6,000	24·344		24·311	24·456	23rd	24·262	6th	·194	75·1	84·6		65·1		74·8		19·5	89·1	13th	60·4	31st
	Cherat	*4,256*	25·574	+·052	25·542	25·716	23rd	25·462	4th	·254	72·6	82·9	—4·0	68·8	—1·4	75·9	—2·7	14·1	90·1	10th	62·5	30th
	Murree	6,333	23·734*	—·009*	23·702*	23·846	1st	23·670	6th	·176	68·6	71·6	—2·8	60·8	—0·2	66·2	—1·5	10·8	75·5	1st & 2nd.	56·5	31st
	Kailang	*10,087*	20·897		20·852	20·991	23rd	20·811	6th	·180	58·8	75·0	+1·3	51·8	+1·6	63·5	+1·5	23·2	79·7	26th	47·9	15th
	Simla	7,232	23·033	+·031	22·995	23·148	23rd	22·917	4th	·231	61·4	65·6	—1·5	59·0	—0·5	62·3	—1·0	6·6	68·2	9th & 10th.	56·6	31st
	Sarain		23·078		23·040	23·199	23rd	22·968	4th	·231	63·5	70·7		59·3		65·0		11·4	75·0	3rd	55·9	23rd & 31st.
	Kalabagh		20·112		20·074	20·215	23rd	20·014	8th	·201	50·9	55·4		48·3		51·9		7·1	60·7	1st	45·3	8th
	Chakrata	7,022	23·229	+·051	23·189	23·362	23rd	23·107	4th	·255	62·3	68·3	—0·5	59·9	+0·4	64·1	—0·1	8·4	76·3	1st	56·7	31st
	Muktesar	7,592	22·770	+·014	22·729	22·894	23rd	22·646	4th	·248	60·3	72·1	+2·9	56·7	—1·3	64·4	+0·8	15·4	76·5	2nd	54·0	27th
	Darjeeling	7,376	22·983*	+·032*	22·938*	23·097	31st	22·863	3rd	·234	61·3	66·3	+0·8	57·3	+0·1	61·9	+0·5	9·0	69·3	1st	54·2	30th
	Shillong	4,920	25·053†		25·005†	25·177	31st	24·952	7th	·225	67·2	74·5		62·6		68·5		11·9	80·9	1st	57·7	30th
	Cherra Poonjee	4,309	25·588		25·537	25·715	31st	25·457	3rd & 4th.	·258	66·4	71·0		64·5		67·8		6·5	78·7	1st	60·3	30th
	Maymyo	3,545	25·344	+·010	26·289	26·433	23rd	26·249	3rd	·184	69·4	75·7	—0·8	66·0	+0·7	70·9	—0·1	9·7	78·9	23rd	61·1	28th & 30th.
	Pachmarhi	3,528	25·330	+·054	26·277	26·425	10th	26·138	2nd	·287	69·2	76·1	+1·4	66·9	—0·2	71·5	+0·6	8·9	80·7	21st	65·1	5 days
	Mount Abu	3,945	25·895	+·029	25·845	25·971	16th	25·653	3rd	·318	64·8	70·5	—1·5	63·1	—1·1	66·8	—1·3	7·4	80·7	31st	60·4	12th, 15th & 18th.
	Mercara	3,781	26·192	+·011	26·125	26·239	14th	26·117	21st & 22nd	·122	64·5	71·4	+1·7	62·0	0	66·7	+0·9	9·4	77·0	27th	60·0	8th
	Ootacamund	*7,397*	23·019		22·955	23·089	10th	22·961	22nd	·128	56·7	63·1		52·5		57·8		10·6	68·0	28th	48·2	17th
	Kodaikanal	7,633	22·778	—·016	22·713	22·837	10th	22·716	22nd	·121	56·7	62·1	—1·2	52·8	+0·4	57·5	—0·4	9·3	65·5	4th & 7th	50·5	1st

* Mean of 30 days.
† „ 29 „

NOTE.—The barometric readings are not reduced to sea-level, in the cases of hill

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

B—*continued.*

in India, etc., in August, 1909—continued.

Wind direction. Number of winds from: Calms.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st August 1909.	Normal rainfall for period, 1st May to 31st August.	Departure from normal of period, 1st May to 31st August 1909.	Heaviest rainfall during month.	Station.
25	25	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																Bay Islands.
	2			5	2	17	1	2	S 38° W†		5·0			62		92		1·010		3·9		13			14·44			35·88			3·30	P.V.Fraser.
					8	15	8		S 45° W		3·5			87		88		·944		9·3		18			13·11			44·00			4·73	Car Nicobar
11					3	9	8		S 57° W	S 62° W	7·8‡	10·8	−3·0	53	−26	87	− 2	·883	− ·037	8·4	0	15			16·56	14·06	+ 2·50	78·66	65·48	+13·18	3·93	Port Blair.
			1	1	3	17	8	1	S 52° W		15·3			79		88		·912		7·3		10			3·97			42·24			0·81	Slipper Island.
																																Kashmir.
12		1		9	2	2	1	4	S 16° E	S 48° E	2·4	3·6	−1·2	20	−12	84	− 2	·601	−·024	5·3	+0·7	4	4·70	−0·70	0·77	1·94	− 1·17	10·26	9·30	+ 0·96	0·21	Srinagar.
17		4	5				2	3	N 37° E		2·6			23		83	+ 3	·443		6·7		11			2·93	4·32	− 1·39	16·03 ††	12·42 ††	+ 3·61	0·69	Gulmarg.
19		7	5						N 63° E		2·9			37		92		·396		5·1		7			1·71			13·55			0·35	Sonemarg.
24							7		W		7·8			23		68	+ 7	·339		4·1		0	1·40	−1·40	0·05	0·46	− 0·41	1·56	5·59	−4·03	0·03	Dras.
27					3		1		S 18° W	N 85° W	2·3‡	1·8	+0·5	10	−50	62	+ 3	·317	+·035	4·5	+0·3	1	1·70	−0·70	0·46	0·54	− 0·08	1·34	1·33	+ 0·01	0·11	Leh.
22			1	4	4				S 29° E		6·5			30		58	+ 4	·407		3·5		1	1·10	−0·10	0·36	0·43	− 0·07	0·99	2·75	− 1·76	0·10	Skardu.
																	Observations		not available													Minimarg.
																	Observations		not available													Astor.
29	1						1		N 45° W		1·7			3		58	+ 8	·534	+·040	5·0	+0·8	1	1·80	−0·80	0·48	0·34	+0·14	2·05	2·10	− 0·05	0·24	Gilgit.
																																Baluchistan.
28			1			2			S 18° W	S 22° W	2·4	2·7	−0·3	5	−1	53	− 5	·473	−·001	0·7	−0·4	0	0·70	−0·70	0	0·62	− 0·62	0·39	2·19	− 1·80	0	Quetta.
4			1	2	10	12	1	1	S 22° W	S 61° W	6·9	8·4	−1·5	69	+18	27	− 3	·322	−·017	0·7	+0·1	0	0	0	0	0	0	0·04	0·28	− 0·24	0	Chaman.
5	2	12	10			1	1		N 60° E		8·1			66		51		681		0		0			0			0			0	Robat.
																																Hill stations, excluding Kashmir and Baluchistan.
30		1							N 45° E		6·7			3		62		·602		0·5		1			[illegible]			2·40			0·11	Chitral.
29				1	1				S 27° E		2·8			6		64		·560		2·1		7	6·40	+0·60	2·23	2·57	− 0·28	10·02	9·83	+ 0·19	0·85	Para Chinar.
16	1			5	6	1		2	S 10° E	S 31° E	7·3	8·1	−0·8	7	−21	86	+13	·687	+·099	7·1	+3·2	12			5·92	3·21	+ 2·71	10·41	10·03	+ 0·38	1·18	Cherat.
7	7	1		7	2	1		6	N 9° E	N 46° W	5·1	5·3	−0·2	13	− 9	93	+11	·556	+·042	7·5	+2·7	23	15·60	+7·40	26·58	13·62	+12·96	53·76	31·96	+21·80	3·44	Murree.
	1			1		15	8	5	S 72° W*		2·0‡	1·8	+0·2	73		79		·393		6·9		1			0·70	1·43	− 0·73	5·30	6·65	− 1·35	0·17	Kailang.
																91	+ 3	·509	+·003	9·6	+1·6	21	18·90	+2·10	13·16	17·67	− 4·51	45·98	45·42	+0·56	2·13	Simla.
26		2	1		1	1	1		S 71° E		2·5			2		84		·498		7·9		16			7·62			31·33 §			1·60	Sarain.
9	2			5	4		1	10	N 68° W		8·3			16		95		·356		10·0		22			9·51			45·36			2·50	Kalabagh.
12	9			2	7				N 65° E	S 39° E	4·0	5·4	−1·4	3	− 5	94	+ 1	·532	+·001	8·4	+2·5	23	20·10	+2·90	19·47	19·18	+ 0·29	59·42	50·45	+8·97	2·35	Chakrata.
15			4	4			8		S 23° W		5·7			10		96	+ 2	·503		9·1		23			12·25	12·38	−0·13	48·54	32·37	+16·17	2·17	Muktesar.
9	2	8	3	2		1	3	4	N 23° E	N 68° E	2·6	3·7	−1·1	30	−10	94	− 2	·515	+·001	8·5	−0·5	30	24·13	+5·87	28·10	26·83	+1·27	112·95	92·88	+20·07	2·83	Darjeeling.
27		1		1	1	1			S 24° E		2·7			7		87		·582		7·3		18	18·50	−0·50	15·53	12·70	+2·83	49·38	51·91	− 2·53	2·20	Shillong.
7	1	2	2	4	5	8	1	1	S 6° W		4·0			33		97		·631		8·5		29	25·20	+3·30	69·59	74·79	−5·20	276·24	322·88	−46·64	7·50	Cherra Poonjee.
13					3	13	2		S 43° W		6·8			53		89	0	·650		5·6		17	16·20	+0·80	10·48	9·67	+ 0·81	35·53	35·26	+ 0·27	1·80	Maymyo.
	1		1			8	15	6	S 89° W	S 87° W	10·1	9·3	+0·8	77	+ 1	92	0	·658	+·007	8·2	−0·9	17	21·80	−4·80	15·88	20·68	− 4·80	50·55	57·21	−6·66	4·08	Pachmarhi
1		3		2		21	4		S 47° W	S 59° W	13·9	11·2	+2·7	66	−12	97	+ 1	·597	−·012	9·7	+1·0	23	17·20	+5·80	29·85	20·21	+ 9·64	91·90	50·64	+41·26	12·56	Mount Abu.
1	2	1					5	22	N 48° W	N 76° W	7·7	8·3	−0·6	89	− 1	96	+ 1	·575	−·002	8·9	+0·3	24	26·70	−2·70	12·11	26·36	−14·25	114·57	99·84	+14·73	1·54	Mercara.
7			2	2	2	5	13		S 62° W		5·5			46		91		·423		9·1		19	11·30	+7·70	11·15	4·70	+ 6·45	37·16	22·75	+14·41	2·38	Ootacamund
2			1		5	2	5	16	N 74° W		11·2‡			56		87	+ 7	·407		6·1		22	11·30	+10·70	16·01	6·51	+ 9·50	31·30	20·08	+11·22	2·76	Kodaikanal.

plateau stations, the elevations of which exceed 3,200 feet.
‡ Uncorrected for scale error.

†† Rainfall since 24th May 1909 and normal rainfall since 1st June.
§ Do. 21st May 1909.

Ta

(2) *Abstract of observations taken at 8 hrs., at 240 stat*

Number of sub-division.	Station.	Elevation of barometer above sea-level in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	Extra India.																					
	Singapore (*a*)	10	29·934		29·865	30·016	9th	29·865	29th	·151	82·6	87·0		74·2		80·6		12·8	90·0	7th & 20th.	72·5	17th
	Penang (*a*)	20	29·857		29·802	29·988	25th	29·503	6th	·485	81·0	89·3		74·9		82·1		14·4	90·0	10 days	74·0	10 days
	Trincomalee	12	29·855?	+·023?	29·793?	29·941	10th	29·761	22nd	·183	76·9	90·4	−1·7	75·8	−1·2	83·1	−1·5	14·6	95·0	20th	73·0	9th
	Colombo	40	29·858	−·027	29·824	29·943	10th	29·780	21st	·163	77·4	84·6	−1·0	76·1	−1·4	80·4	−1·2	8·5	86·0	4 days	72·0	12th
	Minicoy	7	29·922			29·993	10th	29·849	22nd	·144												
	Amini Divi	*13*	29·900	+·009	29·841	29·985	10th	29·831	21st	·154	79·9	84·5	−0·7	76·3	−1·1	80·4	−0·9	8·2	89·5	14th	73·1	28th
	Gyantse	13,120	?		?	?	?	?	?	?	51·6	71·8							83·3	4th		
	Pharijong	14,400	17·944		17·903	18·005	31st	17·824	14th	·181	47·0	60·7		23·5		42·1		37·2	68·9	2nd	22·8	1st
	Gangtok	5,660?	24·369		24·324	24·497	30th	24·220	4th	·277	66·6	73·4		61·5		67·4		11·9	79·6	22nd	58·2	31st
	Gartok (*c*)	14,240	17·885			17·960	31st	17·785	11th	·175	51·2	64·2		40·9		52·6		23·3	69·4	11th	34·3	15th
	Kashgar (*c*)	4,255	25·428			25·620	31st	25·320	6th & 22nd.	·300	73·3	94·1	+5·9	69·7	+4·4	81·9	+5·2	24·4	102·1	12th	57·3	31st
	Kabul		24·138		24·107	24·238	24rd	24·042	4th	·196	79·1	96·8	+4·3	63·1	+3·6	80·0	+4·0	33·7	101·1	12th & 15th.	58·3	25th
	Meshed	3,104	26·695		26·673	26·821	24th	26·556	7th	·265	75·6	91·8		52·9	−7·5	72·4		38·9	102·6	17th	42·6	31st
	Jask	13	29·622	+·014	29·592	29·710	15th	29·456	3rd	·254	84·8	91·9	−2·6	83·1	−0·9	87·5	−1·8	8·8	99·3	3rd	76·8	20th
	Muscat	20	29·618	+·025	29·585	29·693	23rd	29·449	3rd	·244	84·1	89·9	+2·0	82·1	−2·2	86·0	−0·1	7·8	101·8	3rd	76·1	20th
	Bahrein	18	29·605		29·574	29·707	30th	29·449	4th	·258	93·1	97·7		87·2		92·5		10·5	104·6	12th	79·4	27th
	Bushire	14	29·557	+·013	29·530	29·674	30th	29·414	3rd	·260	91·1	97·7	+0·7	84·5	+0·5	91·1	+0·6	13·2	104·3	4th	79·0	25th&26th
	Busrah	25	29·581		29·564	29·704	30th	29·433	3rd	·271	89·0	101·2		83·6		92·4		17·6	108·4	1st	77·1	27th&29th
	Kerman										74·3	100·4		60·9		80·7		39·5	106·0	22nd	53·0	1st
	Ispahan (*b*)	*5,817*	24·175			24·300	1st & 2nd.	24·050	14th & 21st.	·250	71·9	95·6	+0·2	65·3	+3·9	80·5	+2·1	30·3	100·4	12th	59·2	4th
	Tehran (*b*)	*4,002*	25·604			25·725	2nd	25·500	13, 16th & 21st.	·225	77·9	98·6	+1·8	72·1	+1·4	85·4	+1·6	26·5	106·6	17th	63·8	27th
	Baghdad	127	29·490	−·018	29·585	29·622	30th	29·328	3rd	·294	86·7	109·3	+0·9	79·0	+0·2	94·2	+0·6	30·3	118·9	1st	71·6	27th
	Beirut				29·756						83·2	89·0		74·6		81·8		14·4	92·4	2nd	71·5	22nd
	Aden	94	29·655	+·005	29·679	29·751	15th	29·546	3rd	·205	85·9	92·8	+1·3	82·7	+3·1	87·8	+2·2	10·1	97·3	31st	78·4	20th
	Perim	201	29·502	−·038	29·635	29·590	19th	29·401	4th	·189	87·6	94·9	−1·2	84·4	+1·0	89·7	−0·1	10·5	98·7	11th	81·4	7th
	Zanzibar	72	30·080	−·008	30·080	30·146	1st	30·009	30th	·137	74·2	80·9	+0·1	72·0	−0·7	76·4	−0·2	8·9	83·5	28th	68·0	23rd

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

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

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

B—*concluded.*

in India, etc., in August, 1909—concluded.

Wind direction. Number of winds from Calm. (25)	N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity miles per hr. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st May to 31st August 1909. (53)	Normal rainfall for 1st May to 31st August. (54)	Departure from normal of period, 1st May to 31st August 1909. (55)	Heaviest rainfall during month. (56)	Station (57)
																																Extra India.
18			5	2	1	3		2	S 43° E		4·9*			13						6·1		10			7·25			23·54			3·44	Singapore
	3	5	4	9	4		2	4	S 84° E		11·0*			30						2·7		18			14·76			39·40			4·70	Penang.
1						28	2		S 47° W	S 45° W	6·5*	14·0	-7·5	99	+2	87	+9	·812	—·057	3·9	+1·0	9			11·57	4·64	+6·93	12·70	10·58	+2·12	3·67	Trincomalee
				1	24	6			S 53° W	S 61° W	7·0*	9·2	—2·2	96	+8	90	+13	·851	+·005	7·8	+1·7	13			7·48	3·93	+3·58	27·81	28·08	—0·27	2·78	Colombo.
	1						11	19	N 60° W	N 76° W	9·2	14·9	—5·7	87	—3					7·2	+2·0	14			14·52	6·49	+8·03	29·27	28·15	+1·12	2·72	Minicoy.
	3					3	25		N 45° W					94		82	—1	·839	—·060	7·7	+1·0	13			19·62	5·04	+14·58	46·62	32·19	+14·43	9·52	Amini Div
12	9		1	8					N 71° E		1·2			4		66		·251				8			3·40			9·44			1·41	Gyantse.
	5	3	9	10	1		3		S 35° E		7·6			39		79		·253				16			4·28			13·41			0·59	Charijong.
31									(d)		0·5					91		·596		5·3		29			21·82			95·58			2·59	Gangtok.
23	1		3	3			1		S 18° E		7·7			10						5·4		5			1·60			3·19			0·35	Gartok.
28					3				S 45° W	N 48° W	?	4·3	?	10	+3	56	+3	·533	+·101	3·6	—1·2	3			0·71	1·10	—0·39	1·26	2·58	—1·32	0·40	Kashgar.
	7	1	2		1	5	11	4	N 68° W	S 38° E				52	+38	42		·413		0·8	+0·6	0			0	0·18	—0·18	3·46	1·13	+2·33	0	Kabul.
18	5	2		5	1				N 68° E		1·4			16		40		·358		0·5	?	0			0	0·01	—0·01	0·15	0·99	—0·84	0	Meshed.
		30		1					S 88° E	S 74° E	14·7†	14·4	+0·3	99	+23	86	+11	1·038	+·017	2·1	0	0			0	0	0	0	0·13	—0·13	0	Jask.
23		4	4						S 66° E	S 76° E	3·3	4·4	—1·1	22	—37	81	—1	·957	—·045	3·7	+1·5	0			0	0	0	0	0·40	—0·40	0	Muscat.
	11	2	3	1			4	9	N 15° W		5·4			65		74†		1·146†		1·0		0			0			0			0	Bahrein.
8	5	1	2		1	1	1	2	S 38° E	N 58° E	8·4†	7·2	+1·2	17	—5	76	+9	1·110	+·121	0·2		0			0	0	0	0	0	0	0	Bushire
	1	2	2		1	2	16	7	N 75° W		4·5			61		51		·701				0			0			0·07			0	Busrah.
	4	3	8	5	1	4	4	2	N 88° E		3·4†			16		40		·341		0·3					No rain gauge.							Kerman.
4	1		1				2	1	N 45° W	N 34° W	1·8	3·3	—1·5	10	—9	68	+19	·550	+·089	1·2	+0·7	0			0	0	0	0·23	0·17	+0·06	0	Ispahan.‡
2		10	1	3	1	1	2	1	N 60° W	S 14° W	2·1	2·2	+0·9	26	+15	49	+17	·456	+·097	1·3	+0·5	0			0	0·05	—0·05	0·41	0·83	—0·42	0	Tehran.
5	4	2	1				1	18	N 21° W	N 4° W	9·4	3·9	+5·5	68	+7	37	—8	·468	—·146	0·3	+0·1	0			0	0·09	—0·09	0·14	0·33	—0·19	0	Baghdad.
1		3	1			26			S 42° W					69		66		·751		1·2		0			0			0			0	Beirut.
3		7		9		8		1	S 38° E	S 12° W	10·0	10·7	—0·7	27	—27	75	+3	·924	+·086	3·4	—0·3	2			0·60	0·14	+0·46	0·60	0·37	+0·23	0·39	Aden.
	7		7	1	3	1	6	6	N 23° W	W	11·0	13·8	—2·8	26	—16	72	+6	·945	+·056			1			0·88	0·43	+0·45	0·88	0·82	+0·05	0·86	Perim.
			5	9	13	2			S 20° W	S 1° W	6·0	6·9	—0·9	78	—8	84	—1	·714	—·014	6·8	+0·6	9			3·11	1·69	+1·42	10·58	16·30	—5·72	0·95	Zanzibar.

* Uncorrected for scale error.
† Mean of 30 days.
‡ Wind observations less 2.
(d) Indeterminate.

Table C.—Abstract of observations taken at 8 hrs. at 31 fourth-class stations in India, etc., in August, 1909.

Ta

Abstract of observations taken at 8

Number of subdivision.	Station.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.	Wind direction. Number of winds from: Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Resultant direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	II.—Eastern Bengal and Assam.																							
4	Bishnath	79·3	88·7	...	75·6	...	82·2	...	13·1	96·1	1st	66·7	29th	29·4	...	...	...	...	...	...	...	...	...	...
	Borjuli	80·0	90·2	...	75·4	...	82·8	...	14·8	97·7	1st	72·7	29th	25·0	...	...	...	...	...	...	...	...	...	...
	Chandkhira	78·9	88·3	...	75·0	...	81·7	...	13·3	94·1	1st	72·5	30th	21·6	...	...	...	...	...	...	...	...	...	...
	Doom Dooma	79·1	90·6	...	73·9	...	82·3	...	16·7	99·8	1st	72·2	7th	27·6	...	...	...	...	...	...	...	...	...	...
	Dikom	78·0	88·9	...	75·8	...	82·4	...	13·1	98·0	1st	74·0	4th	24·0	...	...	...	...	...	...	...	...	...	...
	Golaghat (*a*)	80·1	87·9	...	76·0	...	82·0	...	11·9	95·1	1st	71·3	24th	23·8	...	...	...	...	...	...	...	...	...	...
	Hailakandi	77·7	87·9	...	75·4	...	81·7	...	12·5	97·0	1st	73·8	8th	23·2	...	...	...	...	...	...	...	...	...	...
	Jorehat	79·5	88·9	...	75·4	...	82·2	...	13·5	97·9	1st	72·8	26th	25·1	...	...	...	...	...	...	...	...	...	...
	Messa	82·6	93·9	...	75·0	...	84·5	...	18·9	105·8	28th	72·0	31st	33·8	...	...	...	...	...	...	...	...	...	...
	Panerihat	76·0	89·2	...	74·6	...	81·9	...	14·6	96·1	1st	71·5	30th	24·6	...	...	...	...	...	...	...	...	...	...
	Srimangal	79·2	87·9	...	75·6	...	81·8	...	12·3	95·9	1st	73·4	28th	22·5	...	...	...	...	...	...	...	...	...	...
	Brahmanbaria	79·7	86·5	...	76·0	...	81·3	...	10·5	93·6	1st	73·7	21st & 29th	19·9	...	...	...	...	...	...	...	...	...	...
5	Dam Dim	78·8	91·0	...	74·4	...	82·7	...	16·6	96·3	16th	68·9	31st	27·4	...	...	...	...	...	...	...	...	...	...
	Goalundo	80·9	86·9	...	76·6	...	81·8	...	10·3	92·1	4th	69·8	29th	22·3	...	...	...	...	...	...	...	...	...	...
	Kalchini	81·5	88·4	...	74·0	...	81·2	...	14·4	95·6	1st	70·4	31st	25·2	...	...	...	...	...	...	...	...	...	...
	Nagrakata	79·1	89·1	...	74·3	...	81·7	...	14·8	97·1	1st	71·0	31st	26·1	...	...	...	...	...	...	...	...	...	...
	Pabna	80·9	90·1	...	75·2	...	82·7	...	14·9	94·7	17th	72·9	6th	21·8	...	...	...	...	...	...	...	...	...	...
	III.—Bengal.																							
6	Fraserganj								Obser	vatory	closed.													
	XI.—Central Provinces.																							
24	Chhindwara	74·3	83·8	...	70·3	...	77·1	...	13·5	88·7	19th	66·5	12th	22·2	...	2	...	...	1	1	7	10	10	N 85° W
	Hill Stations.																							
	Panighatta	78·4	86·7	...	73·4	...	80·1	...	13·3	94·1	1st	70·1	31st	24·0	...	..	...	...	...	...	...	...	...	...
	Kurseong	67·6	72·2	...	63·9	...	68·1	...	8·3	79·7	1st	60·9	31st	18·8	...	...	...	...	...	...	...	...	...	...
	Poo**	...	75·8	...	52·5	...	64·2	...	23·3	79·3	11th	48·3	31st	31·0	22	...	1	...	3	...	4	...	...	S
	Kargil	68·7	85·6	...	54·3	...	70·0	...	31·3	89·2	14th	50·5	17th	38·7	...	8	1	1	4	...	2	1	14	N 33° W
	Killa Drosh	78·2	96·1	...	73·2	...	84·7	...	22·9	100·2	12th & 13th	64·1	30th	36·1	24	...	...	1	...	...	...	3	3	N 63° W
	Pishin	...	97·4	...	64·7	...	81·1	...	32·7	100·7	13th	56·1	30th & 31st.	44·6	...	...	...	...	...	...	...	...	...	...
	Kalat	76·4	90·3	−0·1	57·2	+9·1	73·8	+4·5	33·1	94·2	14th	48·1	30th & 31st.	46·1	...	6	...	...	...	25	...	...	...	W
	Extra India.																							
	Ahwaz‡‡	...	112·2	...	84·7	...	98·5	...	27·5	117·4	3rd	76·2	31st	41·2	...	...	...	...	...	...	...	...	...	...
	Birjand††	78·8†	91·5†	...	68·8†	...	80·2†	...	22·7	95·6	24th	58·4	31st	37·2	...	2	10	...	...	5	...	...	...	N 68° E
	Chumbi	56·2*	65·6*	...	50·1	...	57·9	...	15·5	70·6	21st	42·5	31st	28·1	...	...	...	...	...	...	...	...	...	...
	Kirmanshah	77·5	95·3	...	61·3	...	78·3	...	34·0	99·2	20th	53·0	29th	46·2	...	...	...	...	...	...	...	...	...	...
	Koweit	...	106·2	...	85·9	...	96·1	...	20·3	115·5	3rd	80·7	30th	34·8	...	...	...	...	1	...	...	8	20	N 58° W
	Maidan	...	112·7	...	81·3	...	97·1	...	31·4	118·2	4 days.	77·9	23rd & 30th.	40·3	...	...	...	...	...	...	...	...	...	...

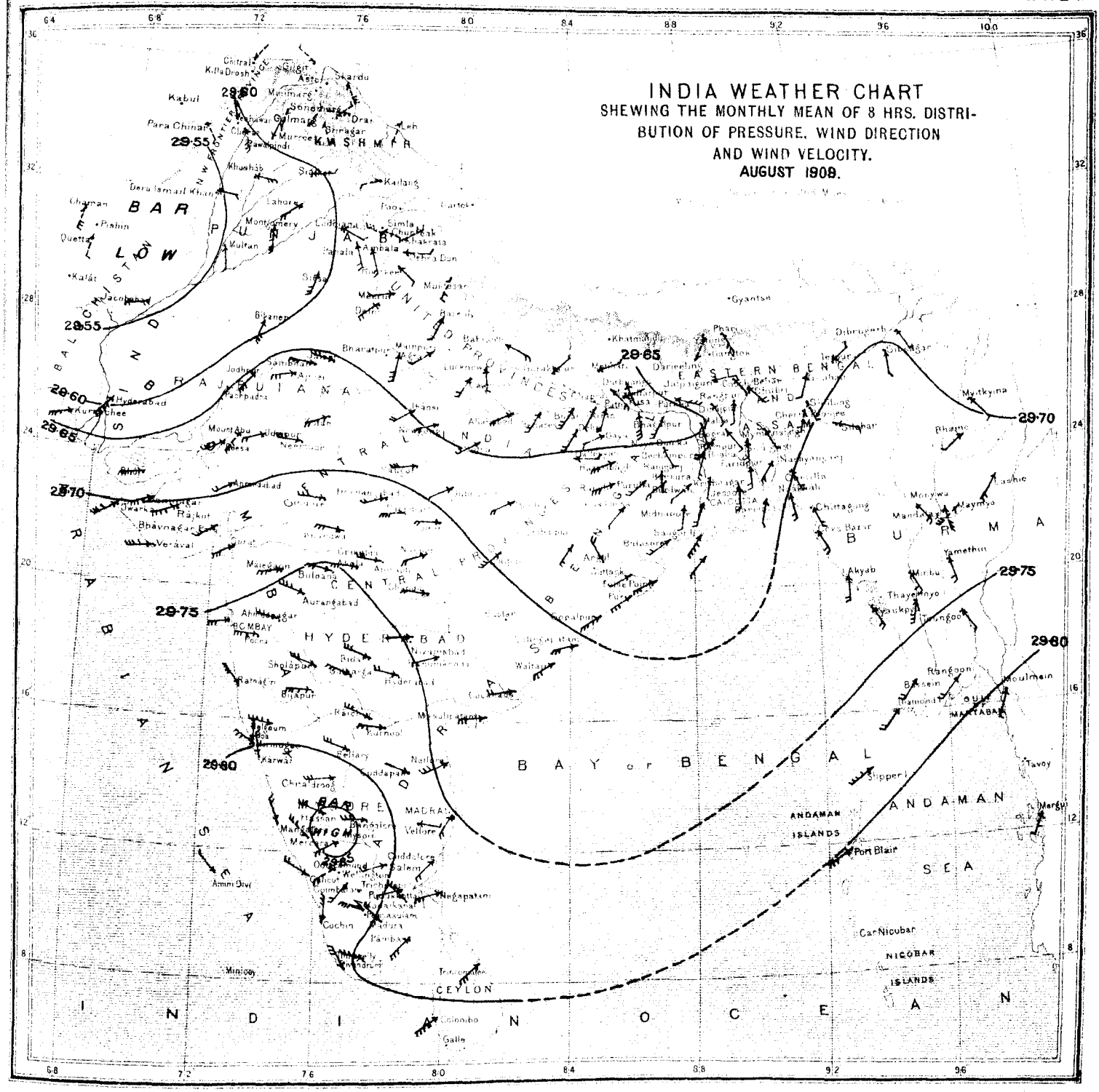
* Uncorrected for scale error. † Mean of 20 days. ‡‡ Observations of 23 days. (*a*) Observations of 24 days.
** Observations of 30 days. †† Observations of 21 days.

C.

at 31 fourth-class stations in India, etc., in August, 1909.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, miles per hour.	Normal.	Percentage departure from normal.	Actual percentage.	Departure from normal.	Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st August 1909.	Normal rainfall for period, 1st May to 31st August.	Departure from normal of period, 1st May to 31st August 1909.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					II.—Eastern Bengal and Assam.
...	...	...	...	...	95	...	·941	...	...	...	16	...	...	14·89	...	...	39·20	...	...	2·24	Bishnath.
...	...	...	...	...	90	...	·925	...	...	...	18	...	...	12·40	...	...	52·48	...	...	2·40	Borjuli.
...	...	...	...	...	96	...	·953	...	...	...	22	...	...	14·54	...	...	68·42	...	...	2·34	Chandkhira.
...	...	...	...	...	92	...	·927	...	...	...	18	...	...	13·64	...	...	63·75	...	...	2·37	Doom Dooma.
...	...	...	...	...	93	...	·900	...	...	...	22	...	...	16·48	...	...	71·06	...	...	1·46	Dikom.
...	...	...	...	...	89	...	·908	...	...	...	15	...	...	10·22	...	...	35·95	...	...	2·30	Golaghat.
...	...	...	...	...	93	...	7	...	...	...	27	...	...	13·95	...	...	61·83	...	...	2·04	Hailakandi.
...	...	...	...	...	90	...	·899	...	...	...	19	...	...	19·64	...	...	49·12	...	...	4·15	Jorehat.
...	...	...	...	...	84	...	·941	...	...	...	22	...	...	13·02	...	...	39·81	...	...	1·80	Messa.
...	...	...	...	...	95	...	·855	...	...	...	13	...	...	7·83	...	...	44·11	...	...	1·68	Panerihat.
...	...	...	...	...	91	...	·910	...	...	...	22	...	...	13·19	...	...	51·17	...	...	2·33	Srimangal.
...	...	...	...	...	93	...	·947	...	...	...	25	...	...	23·52	...	...	56·75	...	...	3·10	Brahmanbaria.
...	...	...	...	...	99	...	·976	...	...	...	26	...	...	38·85	...	...	106·53	...	...	7·70	Dam Dim.
...	...	...	...	...	90	...	·950	...	...	...	18	...	...	20·36	...	...	44·83	...	...	4·20	Goalundo.
...	...	...	...	...	86	...	·942	...	...	...	21	...	...	34·72	...	...	102·03	...	...	5·78	Kalchini.
...	...	...	...	...	91	...	·906	...	...	...	26	...	...	27·80	...	...	105·33	...	...	5·40	Nagrakata.
...	...	...	...	...	90	...	·953	...	...	...	22	...	...	13·05	...	...	34·53	...	...	2·96	Pabna.
																					III.—Bengal.
									Observatory		closed.										Fraserganj.
																					XI.—Central Provinces.
1·5	...	...	63	...	86	...	·735	...	...	...	10	...	...	7·66	...	...	19·60	...	...	1·45	Chhindwara.
																					Hill Stations.
...	...	...	...	...	88	...	·848	...	...	...	26	...	...	34·95	...	...	109·06	...	...	6·50	Panighatta.
...	...	...	...	...	93	...	·631	...	...	...	28	...	...	37·81	...	...	126·66	...	...	3·91	Kurseong.
...	...	...	14	...	...	...	...	...	6·6	...	2	...	...	0·82	0·45	+0·37	2·26	2·57	—0·31	0·36	Poo.
...	...	...	52	...	44	...	·304	...	2·6	...	0	...	...	0	...	...	0·38	...	...	0	Kargil.
...	...	...	13	...	69	...	·665	...	1·7	...	2	...	...	0·35	...	...	2·95	...	...	0·22	Killa Drosh.
...	...	...	...	...	...	...	...	...	0·1	...	0	...	...	0	0·15	—0·15	0·11	0·45	—0·34	0	Pishin.
...	...	...	61	...	49	...	·458	...	...	...	0	0·50	—0·50	0	0·31	—0·31	1·31	1·65	—0·34	0	Kalat.
																					Extra India.
...	...	...	...	...	...	...	...	...	0·4	...	0	...	...	0	...	...	0	...	...	0	Ahwaz.
...	...	...	44	...	40‡	...	·394‡	...	0·4†	...	0	...	...	0	...	...	0	...	...	0	Birjand. §
...	...	...	...	...	85	...	·384	...	...	...	17	...	...	4·60*	...	...	26·48	...	...	0·54	Chumbi.
...	...	...	...	...	37	...	·352	...	...	...	0	...	...	0	...	...	0·06	...	...	0	Kirmanshah.
...	...	...	78	...	...	...	...	...	...	...	0	...	...	0	...	...	0	...	...	0	Koweit.§§
...	...	...	...	...	...	...	...	...	...	...	0	...	...	0	...	...	0	...	...	0	Maidan.

‡ Mean of 15 days.
§ Wind observations less 3 and wind variable 1.
§§ Wind variable 2.



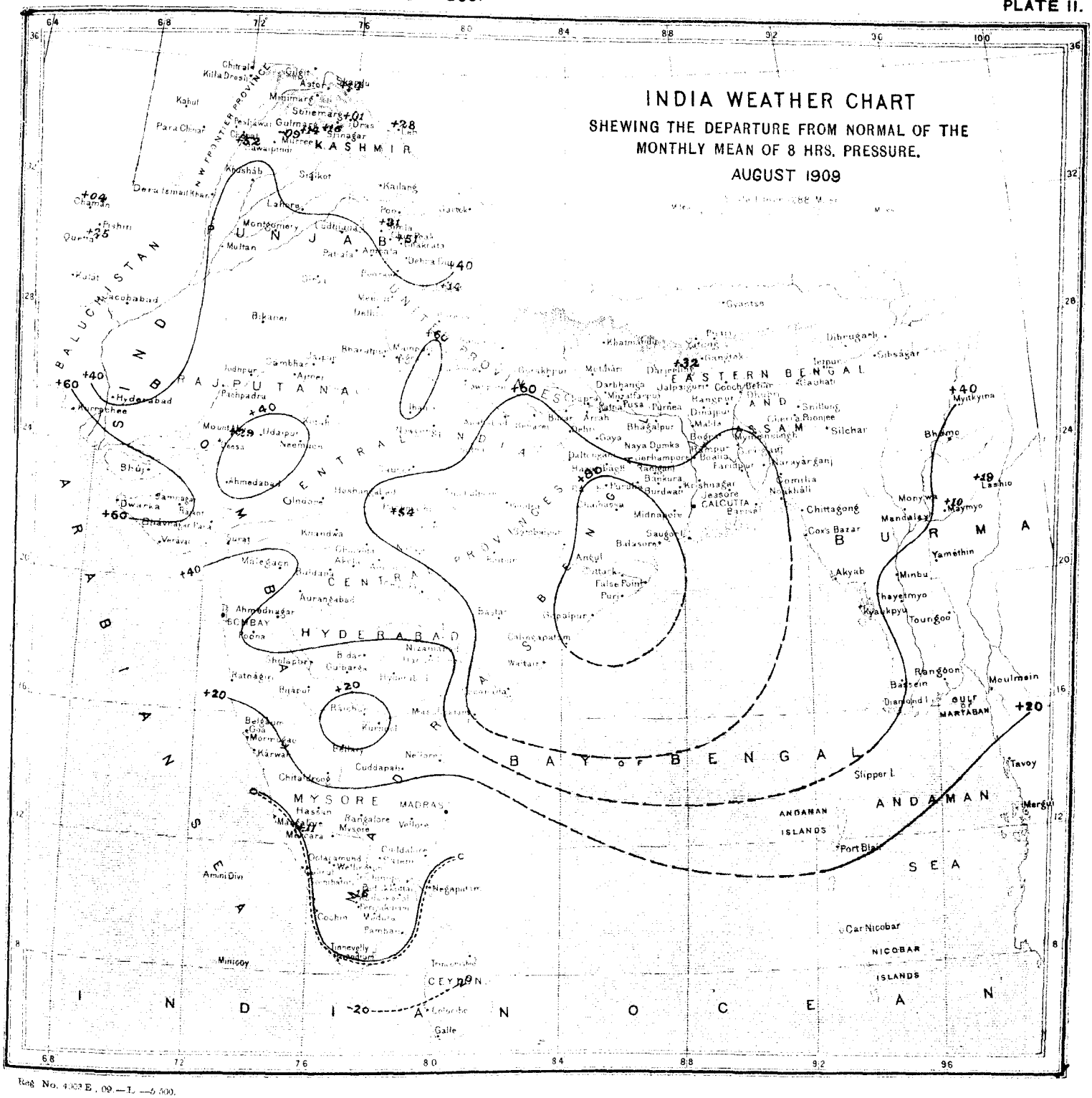
Reg. No. 4103 E., 09—L.—5,500.

LITHO. BY S.S.M.

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

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

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



Reg. No. 4303 E. 09.—L.—6 500.

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

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

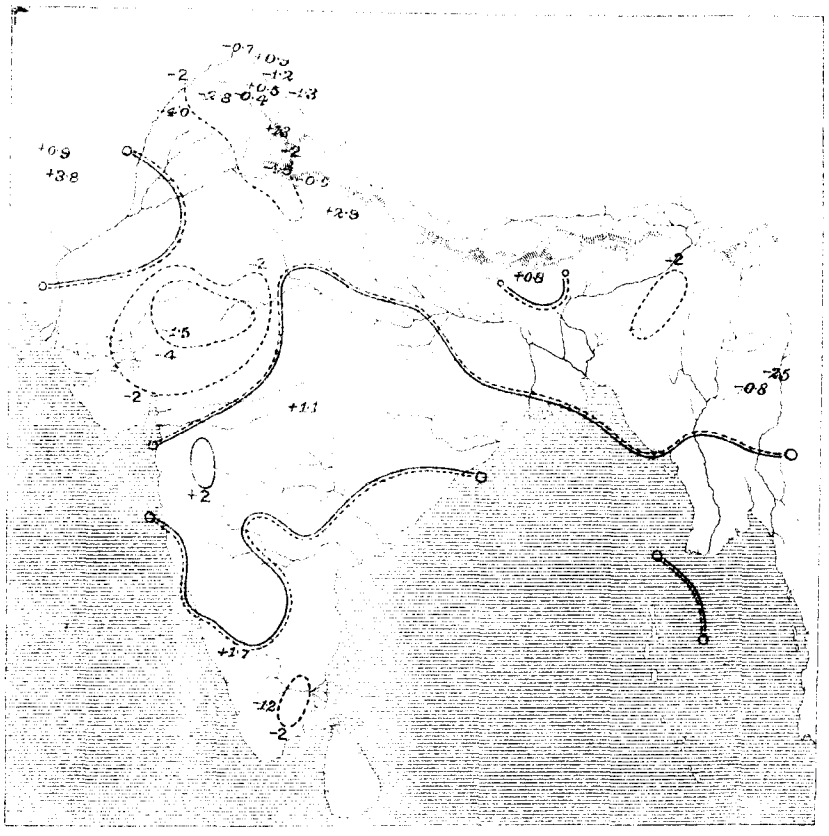


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.

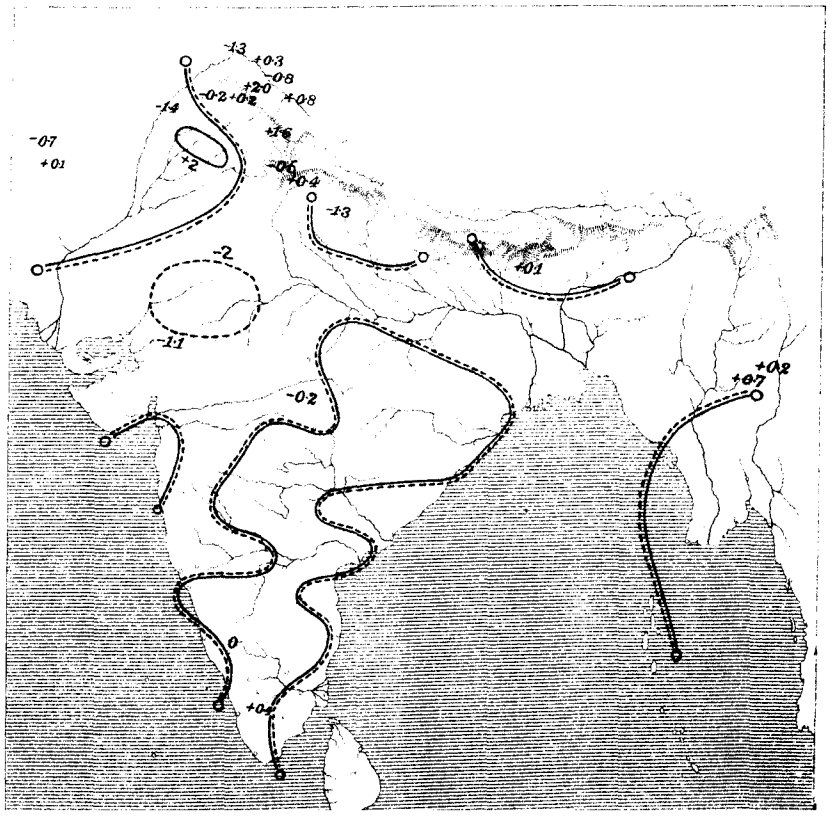


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MEAN TEMPERATURE.

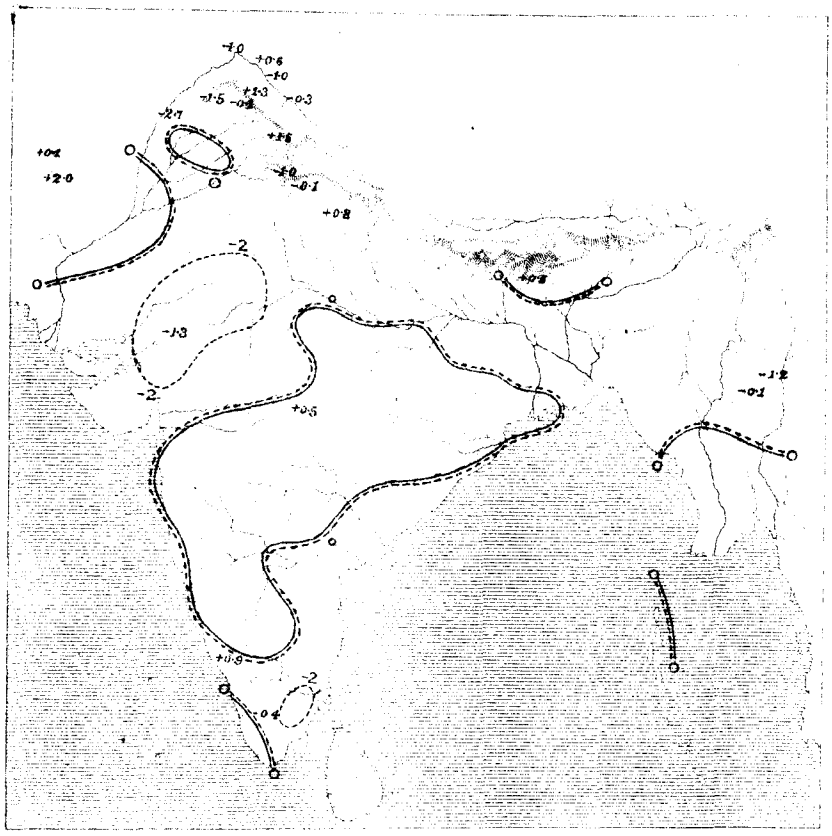


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.

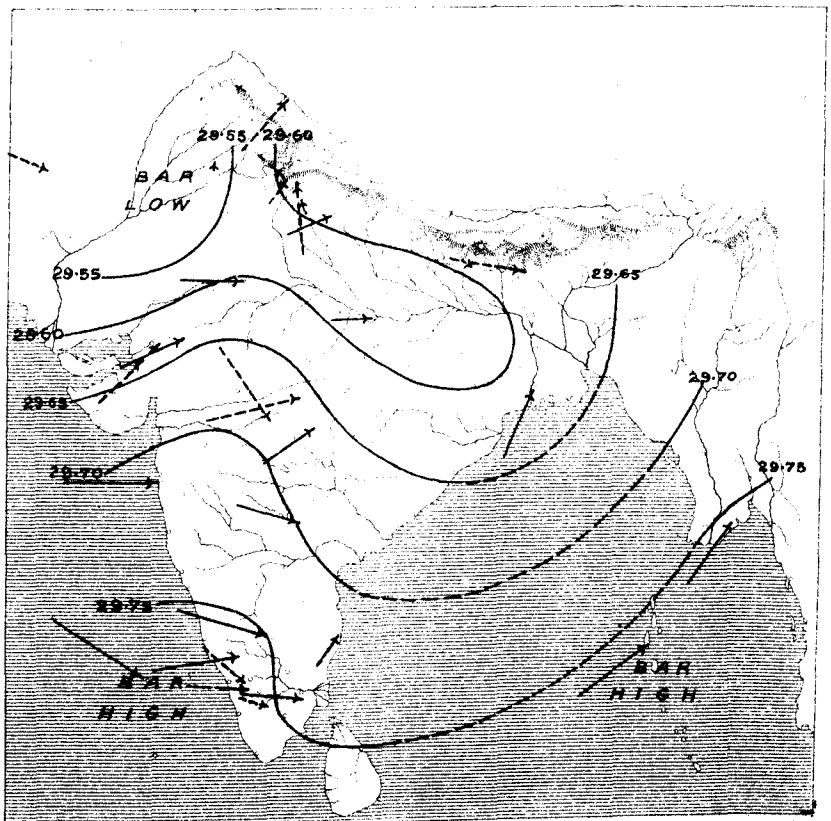


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF ABSOLUTE HUMIDITY AT 8 HRS.

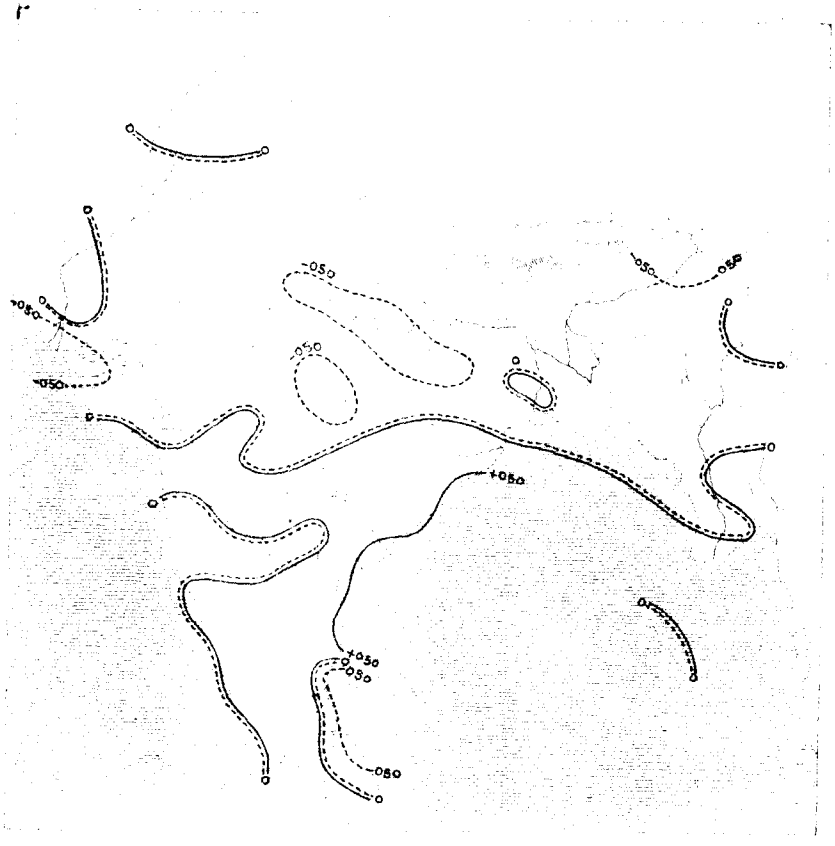


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 HRS.

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

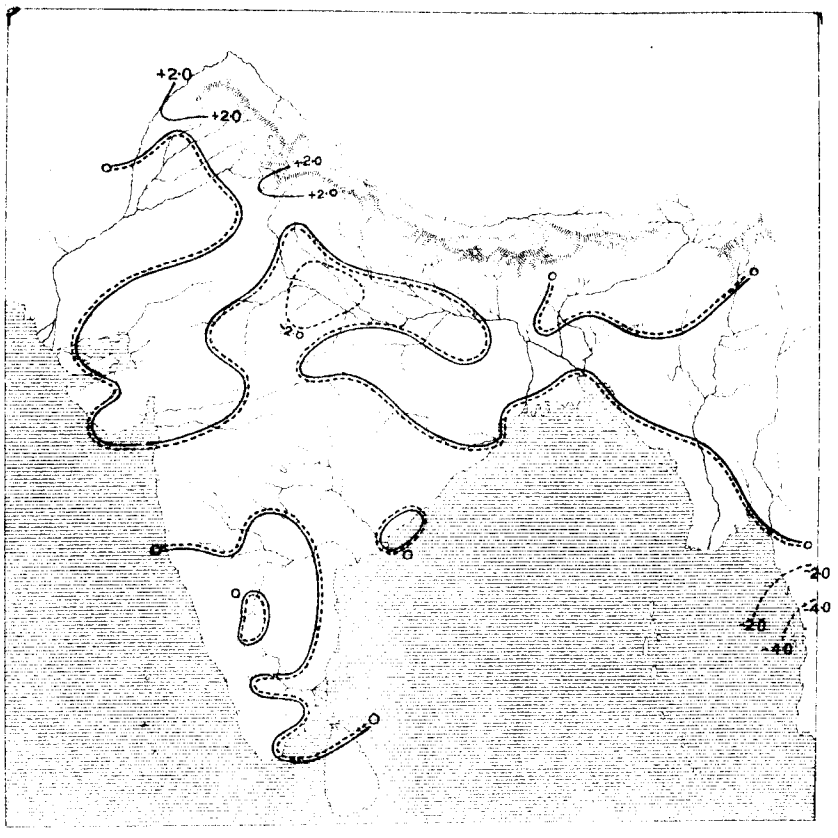
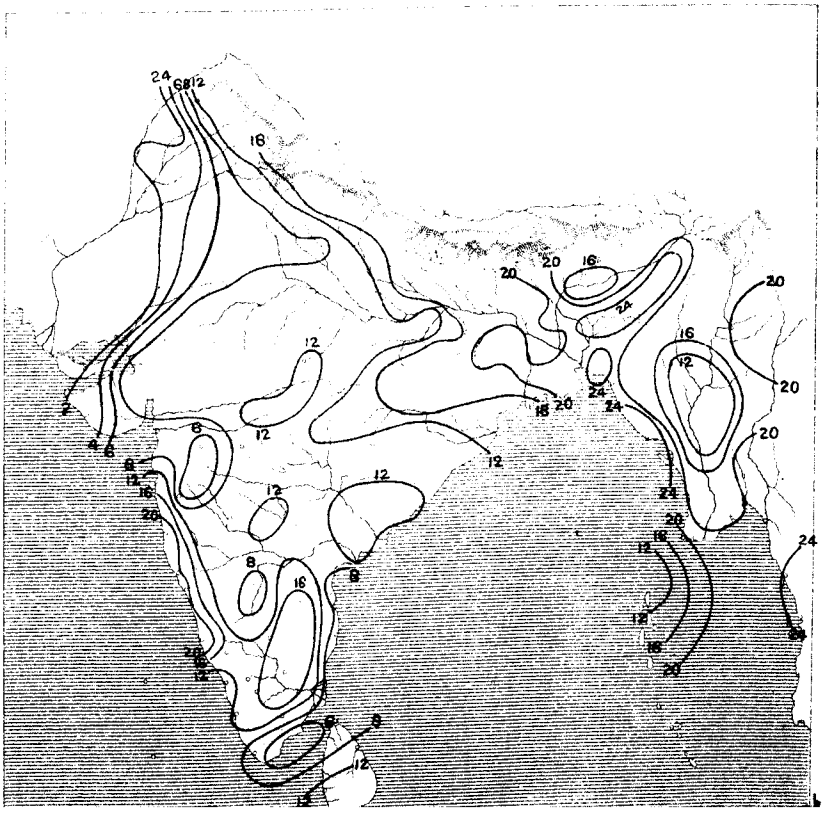
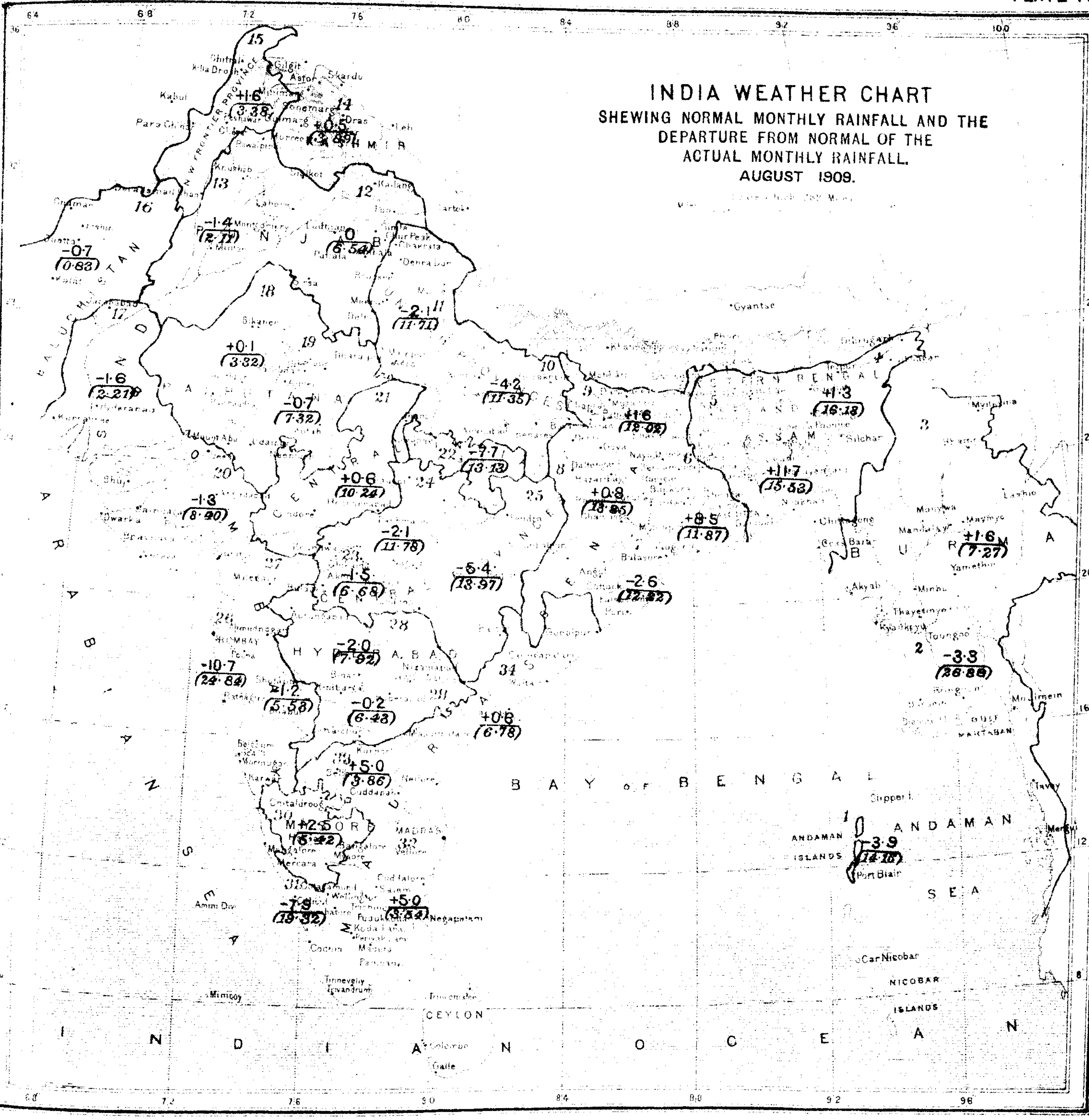


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EQUALLED OR EXCEEDED 0·10 INCH.

(BASED ON THE RETURNS OF TABLE B.)





Reg. No. 4303 E.—09—1.—5-500. LITHO. BY S. B. MUNDLE.

The country is divided into 34 areas as shown in the list below. The numbers in that list correspond with the red numbers on the chart, and serve to identify the areas. The numbers in brackets on the chart give the average over the divisions of the normal monthly rainfall; the numbers above these give the departures from normal of the average actual rainfall over the divisions.

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

GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, SEPTEMBER, 1909.

INTRODUCTION.

THIS review of the weather in India during the month of September, 1909, is based on observations taken daily at 8 hrs. at 238 stations, and on additional observations taken at 10 hrs. and 16 hrs. at 34 stations. In the rainfall summary the data furnished by the meteorological observatories, and such rainfall statements of the month as had been published by Provincial Governments up to the date of the preparation of the review have been utilized. The brief notes on solar, seismic and magnetic disturbances have been supplied by the chief observatories.

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

Summary of the chief features of the weather in India during the month of September, 1909.

2. The rain-producing capacity of the monsoon currents, considered over the whole month, was lower than usual, the total quantity of precipitation recorded over the country falling short of the normal by 5 per cent. The defect was not universal, for the month's usual aggregate measurements were exceeded over the greater part of northwest India as well as in Chota Nagpur, Berar, the Konkan, the Madras Deccan and Lower Burma. The region of largest defect was defined by Central India and the Central Provinces which obtained only two-thirds of the usual fall, while the excess was most pronounced in Baluchistan, Kashmir, Rajputana West and the Punjab, all of which received more than double their normal quantity. As in 1908 the final cessation of the monsoon rains in upper India occurred about the 11th, which is within a few days of the normal date.

There was about the usual amount of vapour in the air in almost all parts of the country, but owing to the defect of temperature the relative humidity exceeded the normal value in Rajputana, the Punjab and Kashmir. Cloud amount was conspicuously high over the greater part of the plains of northwest India, and in decided defect in Eastern Bengal and Assam, and the United Provinces.

Mean temperature was from 2° to 5° lower than usual in Rajputana, the Punjab, Kashmir and Baluchistan, in the first three areas owing chiefly to a defect of day temperature; elsewhere the monthly conditions were very nearly normal.

Pressure was low on the average of the whole month by ·015″, the defect being most marked in Burma and Eastern Bengal and Assam.

In the hills the departures of pressure were similar to those in the plains below and vertical gradients were thus closely coincident with the normal values.

Solar, seismic and magnetic disturbances.

KODAIKANAL.

3. *Solar observations.*—The weather was on the whole favourable for solar observations. There were only two days on which no observations were possible, two other days on which prominences could not be observed, and three others on which the prominence record was imperfect.

Sunspots.—During the month there was a very remarkable outburst of solar activity such as is unusual at this epoch of the spot cycle. It was shown not so much in the number as in the size and persistence of the spot groups. Thirteen new groups of spots were recorded during the month with a daily average of 2·4 and an average life for each spot of 6·7 days. The northern and southern spots were nearly equal in number and the former had a higher mean latitude than the latter; but while all the northern spots were comparatively small and unimportant most of the southern groups were large and active. The latitude distribution was as follows :—

TABLE 1.

	1°—10°	11°—20°	Extreme latitudes.	Mean latitude.
North . . .	2	1	4°, 16°	11°.3
South . . .	3	4	1°, 16°	8°.9

Spot groups Nos. 1714, 1715, 1719, 1725 and 1726 contained large spots. Groups Nos. 1725 and 1726 were returns of 1714 and 1715. No. 1714 was first seen on the 5th as a train of small spots at about four days' march from the east limb. On the 6th a similar group No. 1715 formed in nearly the same longitude, but nearer the equator. A day after crossing the central meridian both the groups developed suddenly into trains of large spots. When they reached the west limb No. 1715 was associated with a metallic and highly eruptive prominence. Spot No. 1719 came round the east limb on the 18th as quite a large spot. There was nothing striking about it till the 28th, except that C was observed reversed on and near it on several days, but on the 28th at or a little before $10^h\ 30^m$ there was a sudden and very violent outburst of bright gases on and near the spot. The whole thing was seen as a bright prominence projected on the sun's disc, though the observing conditions were poor. The prominence showed displacements of the hydrogen lines but the direction and amount of the motion indicated, as well as the form of the prominence, were rapidly changing. D_1, D_2, D_3 b_1, b_2, b_3, b_4 were bright on one of the umbræ of the spot and D_3 was very dark on the whole prominence between the spot and the west limb. A Ca flocculus photograph taken at $10^h\ 39^m$ showed the spot region to be completely filled with bright matter and the spot itself was not visible. It is not possible to give the exact time of the outburst as it was cloudy from $10^h\ 3^m$ to $10^h\ 30^m$ but it was not visible at 10^h. The 29th was cloudy and on the 30th when the spot was at the west limb a highly eruptive prominence was observed near it.

Prominences.—Forty-six large, three metallic, and seven eruptive prominences were recorded during the month. The tallest and one of the most eruptive of them was photographed at latitude —15° west on the 23rd and reached a height of 330″. On several days in the month the sun's limb was covered with numerous little jets, the total number of separate prominences rising to nearly 50 a day. Another feature noticed on seven days of the month was the continuation of prominences inside the disc on flocculi photographs.

Magnetic disturbances.—A "very great" magne disturbance was recorded on the 25th and 26th, a "grea one on the 30th and "moderate" ones on the 3rd, 4 21st, and 22nd. On the 22nd spot No. 1719 was 21° e of the central meridian and on the 25th 18° west of it. the 28th, about the time of the outburst near this sp referred to above, there was a sudden and large rise in horizontal force record; the time of the rise was 10^h I. S. T. and there is no reasonable doubt that the so outburst and the magnetic disturbance were directly c nected with each other.

C. MICHIE SMITH,

Direct

Kodaikanal and Madras Observatori

BOMBAY OBSERVATORY.

Alibag magnetic record for August 1909.

4. During the month of August 1909 the traces show 10 calm days, 19 days of small and 2 days of moderate d turbance.

The days of the month selected as quiet for purposes of the Magnetic Survey of India are the 6th, 15 16th, 17th and the 24th.

The mean observed absolute values of the seve magnetic elements, reduced to the mean monthly tabulatio of the magnetograms, as also the ranges and the summ ranges of the horizontal force and the declination for t month are as follow :—

Easterly declination . . .	0° 59′ 57″	
Horizontal force . . .	0·36851	C. G. S.
Vertical force . . .	0·16023	"
Inclination (calculated) . . .	23° 30′·0	
Inclination (observed) . . .	23° 29′·1	
Horizontal force range . . .	0·00041	C. G. S.
Horizontal force summed range .	0·00269	"
Declination range . . .	5′·2	
Declination summed range . .	21′·2	

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

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

TABLE 2.

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

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

Seismic disturbances recorded at Bombay.

Four seismic disturbances were recorded dusing the month, on the 2nd, 14th, 16th and 22nd.

List of disturbances.

TABLE 3.

Date.	Commencement.	Maximum.	End.	Maximum amplitude.	Duration.
	H. M.	H. M.	H. M.	mm.	H. M.
Aug. 2, 1909 . .	10 27·1	10 29·1	10 41·9	0·2	0 14·8
„ 14 „ . .	6 49·1	7 4·5	7 32·3	1·0	0 43·2
„ 16 „ . .	8 21·6	8 30·3	9 2·3	0·3	0 40·7
„ 22 „ . .	15 48·5	15 51·4	15 56·4	0·3	0 7·9

All times given above denote G .M. T.
Sensibility to title, 1 mm. = 0″·36.

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

(September report will be given in October Review.)

CALCUTTA OBSERVATORY.

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

TABLE 4.

Date. 1909.	P. T. Commencement. G.M.T.	L. W. Commencement. G.M.T.	Maximum. G.M.T.	End. G.M.T.	Duration.	Maximum displacement on trace from mean position.	REMARKS.
	H. M.	H. M.	H. M.	H. M.	H. M.	mm.	
Sept. 7th	15 37·7	15 39·8	15 41·3	16 2·1	0 24·4	2·25	
„ 8th	17 11·8	17 17·4	17 18·4	17 50·9	0 39·1	0·50	
„ 11th	11 1·4	11 19·2	11 21·7	11 44·2	0 42·8	0·50	
„ 16th	19 1·1	19 10·8	19 18·4	19 38·7	0 37·6	0·50	
„ 16th	19 53·9	20 7·6	20 9·7	20 28·0	0 34·1	0·50	
„ 21st	19 6·7	—	—	19 43·9	0 37·2	—	Thickening of the line.
„ 23rd	6 42·8	—	6 44·8	6 49·4	0 6·6	0·75	
„ 26th	5 11·1	—	—	5 15·2	0 4·1	—	Thickening of the line.
„ 27th	7 42·0	—	7 46·1	7 54·2	0 12·2	2·00	

Sensibility 1 mm. = 0·38″ of tilt.

E. P. HARRISON,
Offg. Meteorologist, Calcutta.

SIMLA OBSERVATORY.

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

TABLE 5.

Date	Beginning of 1st P. T.	Beginning of 2nd P. T.	Beginning of L. W.	Time of maximum amplitude.	End approximately.	Duration.	Maximum displacement of style.	REMARKS.
	H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	mm.	
31st August. (A)	12 28	...	...	12 38	12 49	0 21	Small	
(B)	...	...	...	...	...	...	...	Nothing recorded.
1st September. (A)	3 6·8	...	...	3 7·8	3 9·8	0 3	0·5	
(B)	3 6·6	3 6·9	3 7·6	3 8·0	3 10·6	0 4	0·5	
5th (A)	9 24	...	...	9 39·3	10 6	0 42	0·5	
(B)	...	...	...	...	...	...	...	Nothing recorded.
7th (A)	15 31	15 32·1	15 32·8	...	16 10	0 39	...	Hit stops.
(B)	15 31	15 32·2	15 32·5	15 32·9	15 55	0 24	9·0	
8th (A)	17 1	17 11·2	17 27·3	17 30	18 30	1 29	0·9	
(B)	17 1·3	17 11·3	...	...	...	...	Small	
(A)	20 27	20 29	20 29·8	20 30	20 38	0 11	„	
(B)	20 28	20 28·7	20 29·8	20 30	20 38	0 10	„	
11th (A)	5 13	...	...	5 18·6	5 33	0 20	0·5	
(B)	...	...	...	5 19·3	...	...	...	
(A)	11 10	...	...	...	11 34	0 24	0·2	
(B)	...	...	...	...	...	...	...	Nothing recorded.
16th (A)	18 57	19 3·4	19 11·9	19 3·5	19 32	0 35	Small	
(B)	18 57·5	...	...	...	...	...	„	
(A)	19 55	...	...	20 11	...	...	„	
(B)	19 55·2	...	...	...	...	...	„	
23rd (A)	...	..	...	6 45	...	...	„	
(B)	...	...	...	...	...	...	...	Nothing recorded.
28th (A)	23 47·4	...	...	23 47·7	23 51·4	0 4	0·2	
(B)	23 47	...	...	23 47·8	...	...	Small	

All times are given in G. M. T.
A = E—W component.
B = N—S component.

Magnification of each instrument was 15.
† Displacements less than 0·2 mm. are reported as "Small".

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

TABLE 6.

Place at which felt.	Date.	G. M. T. of earthquake.	Duration.	Intensity.	No. of shocks.	REMARKS.
		H. M.				
Murree . . .	3rd	15 27	4 secs.	4	1	
Rawalpindi . .	7th	15 25	3 „	3	1	
Murree . . .	„	15 37	4 „	3	2	
Sialkot . . .	„	15 40	2 „	4	3	

Place at which felt.	Date.	G. M. T. of earthquake.		Duration.	Intensity.	No. of shocks.	REMARKS.
		H.	M.				
Lahore . . .	7th	15	30	40secs.	1	1	
Skardu . . .	"	15	30	1½min.	...	3	Slight.
Minimarg . .	"	15	30	...	...	...	
Gulmarg . . .	"	15	23	25secs	...	2	
Nowshera . .	"	15	0?	1 min.	...	1	
Rawalpindi . .	"	21	30	12secs	3	3	
Murree . . .	8th	15	1	3 "	3	1	
Ditto . .	"	20	37	4 "	4	1	
Bassein . . .	19th	1	5	3 "	4	2	
Drosh . . .	28th	23	45	10 "	4	1	
Murree . . .	"	23	47	3 "	3	1	

Solar radiation.—Measurements of the intensity of solar radiation in Simla by Angstrom's pyrheliometer were possible only towards the latter end of the month when the monsoon cloud had disappeared. Observations on four days only were taken, and showed a mean value at local noon of 1·41 gramme-calories per square centimeter per minute.

J. H. FIELD,

Imperial Meteorologist, Simla.

ROYAL ALFRED OBSERVATORY, MAURITIUS.

7. *Solar observations.*—August and September reports not received.

Weather in the Indian monsoon region.

8. In the subequatorial region as represented by Zanzibar and the Seychelles pressure and air movement were fairly normal in character; rainfall was about 30 per cent. in excess at the former station and about 70 per cent. in defect at the latter.

TABLE 7.

	Mauritius.	Zanzibar.	Seychelles.
Departure from normal of mean pressure.	...	—·009	+·004
Actual mean wind direction .	...	S 2° W	S 40° E
Normal mean wind direction .	...	S 6° E	S 40° E
Actual mean wind velocity (miles per diem).	...	123	320
Normal mean wind velocity (miles per diem).	...	134	288
Rainfall departure from normal	...	+0·59	−3·54

Depressions and cyclonic storms.

9. Four depressions occurred in the course of the month but they were, with one exception, of no great barometric depth.

The first was formed by the deepening over the southwest of the Bay of a low pressure wave which appeared on the 1st in the extreme south, and thence advanced northwards over the peninsula and the adjacent seas during the next two days. By the morning of the 4th it had become definitely marked with a depth of about one-eighth of an inch. During the day it moved in a northwesterly direction and crossing the central Madras coast lay over the Nizam's Dominions at 8 hrs. of the 5th. It continued to travel in the same direction during the succeeding 24 hrs. and by the morning of the 6th had coalesced with an area of low pressure which was approaching Gujarat from the south. The resulting disturbance, which had a depth of about a sixth of an inch, subsequently advanced in a northeasterly direction towards the Simla-Mussoorie hills, which it reached in a greatly reduced form on the 10th. General and moderate to heavy rain was induced by its action in the peninsula, Gujarat, Rajputana and the Punjab.

The disturbance although of slight intensity was nevertheless remarkable, as being the only one on the September record which formed to the south of latitude 16°N.

The second depression, which was as diffuse and shallow as its predecessor, appeared on the 13th at the southern extremity of the trough which at that time stretched almost due north from the head of the Bay to the foot of the Sikkim and Nepal Himalayas. It travelled north-westwards to the neighbourhood of Benares during the next three days, and had disappeared by the morning of the 17th after having caused general rain, in places heavy, over northeast India, and light rain in the east of the United Provinces and of central India.

The third disturbance was the development of an area of deficient pressure which on the 17th and 18th covered the whole of northern India and Burma and was most marked in upper Burma. Slight development occurred on the 19th and by the morning of the 20th the depression, at the centre of which pressure was over a quarter of an inch in defect, had passed into Eastern Bengal and the north of the Bay. During the day it deepened still further, and on morning of the 21st its centre was crossing inland near Saugor Island and Balasore where pressure was three-tenths of an inch below the normal. The westerly move-

ment was maintained during the next two days and by 8 hrs. of the 23rd it had reached the west of the Central Provinces. It had however become very much reduced in intensity and it disappeared in the course of the next 36 hrs. Moderate to heavy rainfall occurred along its path.

The final depression of the series was formed on the 28th over Orissa and the adjacent portion of the Bay; from there it moved northwards into Bihar where it was very faintly shown on the 30th. It was throughout very feeble, and exercised no appreciable influence on the weather.

Pressure.

10. The mean pressure of the Indian land area as determined from the 8 hrs. observations was ·015″ below the normal. Since August, when the geographical mean was ·043″ in excess, there had thus occurred a rapid decrease relatively to the normal pressure conditions of the month. The defect was least and unimportant in upper and central India (about ·005″) and greatest in Burma and Eastern Bengal and Assam where it ranged between ·02″ and ·06″.

TABLE 8.

DIVISION.	Departure from normal of mean 8 hrs. pressure.
	″
Burma	—·038
Eastern Bengal and Assam	—·027
Bengal	—·019
United Provinces	—·010
Punjab	—·004
North-West Frontier Province	—·009
Sind	—·001
Rajputana	—·011
Bombay	—·012
Central India	—·005
Central Provinces	—·003
Hyderabad	—·017
Mysore	—·010
Madras	—·014

The departures of pressure at the level of the hill stations in northern and central India were almost identical with those of the adjacent plains, and the vertical gradient was thus approximately normal in value. In southern India, on the other hand, the defect of pressure was considerably greater at the altitude of Kodaikanal than at the earth's surface, and the vertical gradient there was accordingly very steep.

TABLE 9.

HILL STATION.	Departure from normal pressure. A	PLAIN STATION.	Departure from normal pressure. B	Departure of pressure difference. B—A.
	″		″	″
Quetta	+·002	Jacobabad	+·003	+·001
Leh	—·003	Lahore	—·002	+·001
Murree	—·011	Peshawar	—·014	—·003
Simla	0	Ludhiana	—·011	—·011
Chakrata	+·022?	Roorkee	—·003	—·025?
Darjeeling	—·038	Jalpaiguri	—·030	+·008
Mount Abu	—·026	Deesa	—·016	+·010
Pachmarhi	—·008	Khandwa	—·009	—·001
Kodaikanal	—·040	Madura	+·002	+·042

Temperature.

11. The mean temperature conditions of the month were normal over the greater part of the country. In the north-west, however, Kashmir and the Punjab experienced appreciably lower day temperatures than usual, while in Baluchistan and the greater part of Rajputana both maximum and minimum temperatures were in defect.

Weather was continuously cooler than the normal in the Punjab, Rajputana and Kashmir during the first fortnight, and in Madras and Mysore during the first week,

but no large persistent departures from the ordinary conditions occurred during the second half of the month.

TABLE 10.

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

TABLE 11.

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
1. Bay Islands	84·3	76·6	80·5	7·7	15·1	−1·0	−0·2	−0·8
2. Lower Burma	85·4	75·9	80·7	9·5	17·0	−0·3	+0·6	−0·9
3. Upper do.	90·0	75·3	82·7	14·7	24·5	−0·3	+0·4	−0·7
4. Assam	89·8	77·4	83·7	12·4	22·0	+1·3	+1·4	−0·1
5. Eastern Bengal	89·2	78·0	83·7	11·2	19·7	+1·7	+0·6	+1·1
6. Bengal	89·4	78·3	83·9	11·1	19·8	+0·3	0	+0·3
7. Orissa	88·1	77·3	82·8	10·8	20·4	−1·2	−0·5	−0·7
8. Chota Nagpur	86·6	74·5	80·6	12·1	21·3	−1·3	+0·3	−1·6
9. Bihar	90·2	78·5	84·3	11·7	20·1	+0·5	+0·5	0
10. United Provinces, East	91·6	76·6	84·1	15·0	23·7	+0·2	−0·3	+0·5
11. Do. do. West	90·4	74·3	82·4	16·2	27·3	−0·4	−0·3	−0·1
12. Punjab, East and North	91·4	73·1	82·3	18·3	30·2	−4·0	−0·8	−3·2
13. Punjab, South-west	96·8	75·4	86·1	21·5	34·2	−3·7	−1·1	−2·6
14. Kashmir	68·9	46·8	57·8	22·1	37·5	−4·8	−1·4	−3·4
15. North-West Frontier Province	96·0	71·8	83·9	24·2	38·3	−2·3	−0·8	−1·5
16. Baluchistan	91·4	58·4	74·9	33·0	45·3	−1·0	−4·2	+3·2
17. Sind	95·1	75·5	85·3	19·6	32·3	−0·3	−0·4	+0·1
18. Rajputana, West	91·7	73·4	82·5	18·3	31·6	−4·3	−3·5	−0·8
19. Do. East	88·2	72·9	80·6	15·3	26·1	−3·0	−1·7	−1·3
20. Gujarat	87·8	74·2	81·0	13·5	21·6	−2·1	−0·9	−1·2
21. Central India, West	84·8	69·9	77·4	15·0	25·1	−1·9	−0·7	−1·2

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
22. Central, India East	88·1	75·1	81·6	13·0	21·2	—1·2	+0·3	—1·5
23. Berar	85.0	70·4	77·7	14·7	24·0	—1·8	—1·1	—0·7
24. Central Provinces, West	86·0	71·6	78·8	14·4	23·6	—1·5	—0·7	—0·8
25. Do. East	86·3	72·5	79·4	13·7	24·4	—0·9	—1·1	+0·2
26. Konkan	83·0	74·6	78·8	8·4	13·4	—0·5	—0·5	0
27. Bombay Deccan	84·2	68·4	76·3	15·8	24·9	—1·0	—0·3	—0·7
28. Hyderabad, North	85·4	68·4	76·9	17·0	26·4	—0·7	—0·7	0
29. Do. South	87·6	72·5	80·0	15·2	23·5	+0·1	+0·3	—0·2
30. Mysore	80·5	65·4	73·0	15·1	23·2	—2·0	—0·4	—1·6
31. Malabar	83·2	73·7	78·5	9·5	13·9	—0·8	—0·2	—0·6
32. Madras, Southeast	90·8	75·2	83·0	15·6	23·9	—2·1	—0·3	—1·8
33. Do. Deccan	89·9	73·8	81·9	16·1	25·5	—0·9	—0·1	—0·8
34. Do. Coast, North	89·1	77·8	83·5	11·4	21·1	—1·2	—0·1	—1·1

Winds.

12. (*a*) The air motion was on the whole neither as steady nor as strong as usual in northern India and Bombay. Over the rest of the peninsula on the other hand the steadiness was in general high, and the velocity about the average. In Burma the air motion was normal in both these respects.

(*b*) The direction of the air motion departed considerably from the average, being unusually southerly at the great majority of stations in Burma and northeast India, and more westerly than usual in Rajputana and the Central Provinces. The direction was conspicuously abnormal along the foot of the Himalayas from Gorakhpur to Roorkee where the easterly element was altogether suppressed, thus indicating the entire exclusion of the Bay current from the region lying to the west of Bihar. At Darjeeling the prevailing direction was north-by-west instead of east: this would indicate the existence of a dry air current at that elevation.

TABLE 12.

Division.	Departure from normal of	
	Hourly wind velocity.	Wind steadiness.
Burma	—0·6	0
Eastern Bengal and Assam	—1·2	—11
Bengal	—0·7	— 3
United Provinces	0	— 3
Punjab	—0·2	—11
North-West Frontier Province	—1·0	— 2
Sind	—2·0	—14
Rajputana	+0·3	—17
Bombay	—1·1	— 9
Central India	—1·2	0
Central Provinces	+0·7	+ 2
Hyderabad	—0·5	+ 3
Mysore	+1·3	+ 9
Madras	0	+ 4

Humidity and cloud.

13. Over the region of low temperature in the northwest the percentage of saturation was somewhat higher than usual, but in the rest of the country there was nothing anomalous in the hygrometric conditions of the month.

The proportion of cloud was decidedly low in Eastern Bengal and Assam, the United Provinces and Hyderabad and above the normal in upper and central India.

TABLE 13.

Division.	Hygrometry; 8 hrs.				Cloud.	
	Mean humidity.	Departure from normal.	Mean vapour tension in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.
	%					
Burma	90	+ 1	·891	+·003	7·4	+0·6
Eastern Bengal and Assam	87	— 3	·953	+·007	5·3	—2·0
Bengal	86	0	·928	0	5·9	+0·2
United Provinces . .	81	+ 1	·854	+·015	3·0	—1·2
Punjab	75	+ 7	·757	+·021	2·6	+0·6
North-West Frontier Province.	68	+ 2	·685	+·003	1·2	+0·4
Sind	74	+ 1	·766	—·018	2·6	+0·2
Rajputana . . .	78	+ 8	·760	+·023	4·2	+1·0
Bombay . . .	84	+ 1	·785	—·009	6·0	0
Central India . . .	86	+ 5	·787	+·005	6·2	+1·0
Central Provinces . .	82	— 1	·740	—·039	6·3	+0·6
Hyderabad . . .	78	— 2	·696	—·041	5·4	—0·9
Mysore	86	+ 3	·627	—·002	7·9	0
Madras	78	0	·791	—·010	6·2	—0·1

Rainfall.

14. During the first nine or ten days the activity of the monsoon was displayed chiefly in the peninsula and north-west India, but during the rest of the month the effect of the depressions was to confine the rainfall to Burma, north-east India, and the central parts of the country. Little or no rain fell in upper India during this period, and the monsoon rains of 1909 may therefore be regarded to have terminated there on the 11th, only five days before the normal date.

The total monthly amounts failed to reach their normal values in most parts of the country, the only districts which received appreciably more than their ordinary share being Lower Burma, Chota Nagpur, the Punjab, Kashmir, Baluchistan, Rajputana West, Berar and the Madras Deccan.

The deficiency was however less than 25 per cent. except in the case of Assam (27 per cent.), Central India (32 per cent.), the Central Provinces West and East (35 per cent.).

On the mean of the whole country there resulted a defect of 0·37 or 5 per cent.

TABLE 14.

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure.
			"	"	"	
1. Bay Islands	19·0	20·4	14·69	15·76	—1·07	— 7
2. Lower Burma	19·6	18·7	19·60	17·27	+2·33	+13

Sub-division.	Number of Rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure.
			"	"	"	
3. Upper Burma	8·6	10·1	5·92	7·37	−1·45	− 20
4. Assam	11·3	13·6	9·15	12·46	−3·31	− 27
5 Eastern Bengal	11·6	13·0	10·02	12·91	−2·89	− 22
6. Bengal	11·0	11·5	9·42	9·76	−0·34	− 3
7. Orissa	12·5	11·9	9·80	9·79	+0·01	0
8. Chota Nagpur	11·4	10·4	12·18	8·25	+3·93	+ 48
9. Bihar	8·3	9·0	6·99	9·02	−2·03	− 23
10. United Provinces, East	6·1	7·3	5·24	6·79	−1·55	− 23
11. Do., West	5·2	5·9	4·52	5·86	−1·34	− 23
12. Punjab, East and North	6·3	3·2	6·38	3·10	+3·28	+106
13. Do., Southwest	2·2	1·1	1·80	0·80	+1·00	+125
14. Kashmir	6·4	3·0	4·81	1·78	+3·03	+170
15. North-West Frontier Province	1·4	1·8	0·93	1·23	−0·30	− 24
16. Baluchistan	0·7	0·3	0·41	0·14	+0·27	+193
17. Sind	0·9	0·7	0·53	0·47	+0·06	+ 13
18. Rajputana, West	5·1	2·3	4·49	2·08	+2·41	+116
19. Do., East	5·3	4·9	3·19	3·96	−0·77	− 19
20. Gujarat	7·3	6·3	5·88	5·60	+0·28	+ 5
21. Central India, West	6·5	7·5	3·88	5·73	−1·85	− 32
22. Do., East	7·3	8·2	4·78	6·94	−2·16	− 31
23. Berar	8·5	7·9	6·84	5·79	+1·05	+ 18
24. Central Provinces, West	8·0	9·5	5·53	7·96	−2·43	− 31
25. Do., East	6·9	10·3	5·17	8·40	−3·23	− 38
26. Konkan	17·5	16·0	14·61	13·50	+1·11	+ 8
27. Bombay Deccan	8·2	8·6	5·17	5·94	−0·77	− 13
28. Hyderabad, North	7·7	10·5	5·86	8·24	−2·38	− 29
29. Do., South	7·8	10·3	6·76	6·80	−0·04	− 1
30. Mysore	8·1	8·0	4·03	5·20	−1·17	− 23
31. Malabar	14·7	15·2	8·99	10·91	−1·92	− 18
32. Madras, Southeast	6·3	6·4	4·69	4·73	−0·04	− 1
33. Do. Deccan	8·2	7·6	7·31	5·34	+1·97	+ 37
34. Do. Coast North	8·5	9·4	6·90	6·86	+0·04	+ 1

TABLE 15.

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Burma	12·13	11·86	+0·27	+ 2
Eastern Bengal and Assam	9·59	12·68	−3·09	−24
Bengal	8·94	9·32	−0·38	− 4
United Provinces	4·90	6·36	−1·46	−23
Punjab	5·45	2·63	+2·82	+107
North-West Frontier Province	0·93	1·23	−0·30	−24
Sind	0·53	0·47	+0·06	+13
Rajputana	3·55	3·45	+0·10	+ 3
Bombay	7·12	7·21	−0·09	− 1
Central India	4·20	6·15	−1·95	−32
Central Provinces	5·98	7·17	−1·19	−17
Hyderabad	6·37	7·46	−1·09	−15
Mysore	4·03	5·20	−1·17	−23
Madras	6·08	6·01	+0·07	+1
Mean of India when the size of the above areas is taken into account.	6·61	6·98	−0·37	− 5

Snowfall.

15. I AND II.—AFGHANISTAN AND THE NORTH-WEST FRONTIER PROVINCE.

No information is available regarding these regions.

III.—KASHMIR.

Snow fell on the Afferwata mountains on the 2nd and 25th; on the higher ranges near Srinagar on the 9th; on the Olding, Sadpara, Kawardos and Nar ranges in Skardu on the 2nd, 3rd and 5th to 11th; on the ranges and passes near Dras on the 1st, 2nd, 8th to 10th, 12th and 24th, and on the Nakthula and Chaskar (near Kargil) on the 11th and 25th. The fall was heavy on the Skardu hills where it amounted to about 3 feet. The Deosai pass was blocked for a fortnight.

IV.—PUNJAB.

Kilba.—Feeble snowstorms occurred on ten days on the hills near Kilba down to a level of about 10,500 feet. At the end of the month the depth of snow accumulations on the Brua and Shatul passes was considered as normal.

V.—UNITED PROVINCES.

Almora.—Snow fell on several days on the Nuwe and Binkaru passes and in Byans, and on one day in Malla Johar. The total fall measured 12½ feet on the Nuwe pass, 3 feet in Byans, about 2 feet on the Binkaru pass, one foot on the Untadhura and six inches on the Ralamdhura. The snowline descended to a distance of about a mile from the perpetual snows.

The statement below gives the reported and normal depths of snow accumulations on the well known peaks and passes :—

TABLE 16.

Name of pass.	Depth of accumulation at the end of the month.	
	Reported.	Normal.
Nuwe Pass	26 feet	20 feet
Lipulekh "	3½ "	4½ "
Lampia "	3½ "	5 "
Binkaru "	12 "	12½ "

SUMMARY.

16. The information available is very limited but suffices to indicate that there were several falls of snow in Almora, the Simla Hills and parts of Kashmir. The total quantity received on some of the ranges near Skardu in Kashmir was heavy for the time of year, and had the effect of blocking the Deosai pass for a fortnight.

The accumulations in the Simla and Almora hills were apparently of about the average thickness.

Crop report.

17. *Burma.*—The transplanting of winter rice was completed. In upper Burma cultivation of miscellaneous winter crops was in progress. Standing crops were generally in good condition and prospects were satisfactory.

Eastern Bengal and Assam.—The prospects of sugarcane, tea and winter rice were good, but cotton did not promise well. The harvesting of jute was almost completed.

Bengal.—Sugarcane and winter paddy were doing well, but some damage had been done to the latter crop in flooded tracts.

United Provinces.—Rain was urgently needed in Bahraich, Farrukhabad and parts of Kheri, but elsewhere the prospects of standing crops were most favourable. Autumn crops were being harvested and gram was being sown.

Punjab.—Standing crops in parts of the Mianwali district were suffering for want of rain, autumn crops were being harvested, and the picking of cotton had commenced in some districts.

North-West Frontier Province.—Rain was needed in the Peshawar district. The condition of standing crops was generally average. Spring crops were being sown.

Jammu and Kashmir.—The condition of crops was generally fair, but floods in Kashmir had caused some damage. Land was being prepared for spring crops.

Rajputana.—Standing crops were good and prospects hopeful. Harvesting of autumn crops had commenced and land was being prepared for spring crops.

Central India.—Autumn crops were being harvested and the sowing of spring crops had commenced in parts of Baghelkhand and Bhopawar.

Central Provinces.—The condition of autumn crops was generally good. Early crops were being harvested and linseed and gram were being sown; more rain was required in Seoni, Chhindwara, Nagpur and Chhattisgarh.

Bombay.—The autumn harvest was progressing generally and lands were being prepared for spring crops. In some parts crops were suffering from insufficient moisture and in other parts some damage had been caused by rats and insects.

Hyderabad.—The autumn crop was generally fair, but had been damaged in some parts by excessive rain and in others had suffered from want of moisture. Early rice was being weeded and lands were being prepared for spring crops.

Mysore.—Standing crops were in good condition, and the prospects of the season were favourable.

Coorg.—Cardamom was being picked. Water and fodder for cattle were sufficient.

Madras.—Standing crops were in fair to good condition and harvests continued in parts with a fair to normal outturn. Prospects were generally good.

HEM RAJ.

TABLE A.—Abstract of observations taken at 10 hrs. and 16 hrs. at 34 stations in India, etc., in September, 1909.

Ta

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

Number of subdivision.	Station.	Elevation of barometer cistern above sea-level, in feet.	Pressure.						Temperature of air.										Temperature, we		
			Mean of 10 hrs.	Mean of 16 hrs.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to sea-level and gravity, 45° Lat.	Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean minimum.	Mean 10 hrs.	Mean 16 hrs.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	I.—Burma.																				
2	Rangoon	18	29·817	29·706	·111	29·765	—·028	29·721	86·0	76·8	9·2	90·9	74·1	16·8	82·0	82·4	79·7	+ 0·6	75·1	78·0	77·2
	III.—Bengal.																				
6	Calcutta	21	·721	·606	·115	·665	—·027	·631	88·8	78·1	10·7	93·5	75·5	18·0	85·4	85·7	83·2	+ 0·6	76·8	80·3	80·1
	IV.—United Provinces of Agra and Oudh.																				
10	Allahabad	309	·424	·311	·113	·370	—·010	·629	90·8	76·6	14·2	95·9	70·5	25·4	85·9	89·0	82·5	— 0·5	75·1	78·6	78·6
11	Dehra Dun	2,233	27·524	27·441	·083	27·477	—·031	·641	85·9	70·1	15·8	90·5	64·7	25·8	79·8	82·8	76·9	+ 0·8	68·0	73·6	74·8
	V.—Punjab.																				
12	Lahore	702	29·019	28·932	·087	28·967	—·005	·628	92·9	73·5	19·4	98·9	67·5	31·4	85·2	90·9	82·2	— 2·6	71·1	76·6	78·0
	VIII.—Rajputana.																				
19	Jaipur	1,431	28·342	·243	·099	·289	—·015	·658	91·2	72·3	18·9	96·8	66·9	29·9	83·7	88·8	80·2	— 2·2	69·8	74·5	74·8
	Udaipur	1,925	27·871	27·787	·084	27·827		·687	85·3	70·6	14·7	90·7	64·9	25·8	81·4	82·5	77·3		68·8	74·8	75·5
	IX.—Bombay.																				
26	Bombay	37	29·820	29·724	·086	29·775	—·016	·752	83·7	76·2	7·5	87·2	74·2	13·0	79·6	80·8	78·9	— 0·5	74·6	76·6	76·7
	XI.—Central Provinces.																				
24	Nagpur	1,017	28·753	28·635	·118	28·698	0	·668	88·3	72·9	15·4	93·6	69·2	24·4	81·3	86·2	79·4	— 1·0	70·4	74·2	75·0
	XII.—Hyderabad.																				
29	Hyderabad	1,690	·123	·010	·113	·074	—·011	·698	86·3	71·9	14·4	91·3	67·9	23·4	80·0	83·4	77·8	+ 0·4	68·8	72·1	73·3
	XIII.—Mysore.																				
30	Bangalore	3,021	26·902	26·786	·116	26·852	—·022	·758	80·6	65·3	15·3	85·2	61·9	23·3	74·1	78·7	71·2	— 0·6	64·4	68·4	69·8
	Mysore	2,518	27·404	27·292	·112	27·356	—·015	·789	81·7	65·7	16·0	88·0	62·8	25·2	75·9	78·8	71·9	— 1·8	65·0	68·5	69·9
	XIV.—Madras.																				
32	Periyakulam	944								Observatory closed.											
	Pudukkottai	318	29·541	29·406	·135	29·474		·719	93·5	75·3	18·2	99·1	72·4	26·7	85·8	91·6	84·4		70·6	73·5	76·0
	Madras	22	·805	·690	·115	·757	—·020	·711	90·4	76·9	13·5	96·0	72·1	23·9	84·5	86·6	82·5	— 1·4	75·4	78·8	80·1
	Bay Islands.																				
1	Port Blair	58	·796	·708	·088	·754	—·036	·742	84·0	76·2	7·8	86·2	73·8	12·4	81·8	81·2	79·0	— 0·7	74·1	77·5	77·0
	Kashmir.																				
14	Srinagar	5,204	24·864	24·782	·082	24·822	+·019	24·793	73·2	54·1	19·1	80·2	47·2	33·0	63·9	71·4	61·5	— 2·5	51·3	60·2	66·6
	Leh	11,503	19·724	19·609	·115	19·669	—·014	19·637	68·1	41·6	26·5	75·5	35·5	40·0	58·1	64·9	52·6	— 1·1	37·5	45·4	47·5
	Baluchistan.																				
16	Quetta	5,502	24·613	24·530	·083	24·564	+·005	24·524	85·7	45·3	40·4	90·9	37·8	53·1	75·8	83·3	65·1	— 2·0	42·7	52·9	55·5

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

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

A

stations in India, etc., in September, 1909.

Vapour tension in inches of mercury.					Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity.		Rainfall.			
														Total number of 10 hrs. and 16 hrs. winds from																			
From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean 10 hrs.	Mean 16 hrs.	Mean of two previous columns.	Departure from normal.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.	Station.	Number of subdivision.
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
																															I.—Burma.	
·856	·909	·870	·893	—·017	92	83	79	88	— 4	8·8	8·2	8·5	+0·3	2	2	3	2	4	14	22	7	4	S 36° W	S 24° W	52	51	37	84	11·71	1·63	Rangoon	2
																															III.—Bengal.	
·909	·968	·952	·949	—·003	95	79	78	85	— 1	6·3	7·7	7·0	—0·9	2	1		5	13	9	20	2	8	S 17° W	S 9° W	45	46	97*	98	9·29	2·50	Calcutta	6
																															IV.—United Provinces of Agra and Oudh.	
·854	·881	·838	·875	—·006	93	71	62	80	— 1	5·5	5·8	5·7	+0·2	11	2	5	8	2	1	2	20	9	N 61° W	N 15° W	28	13	103	142	7·00	2·03	Allahabad	10
·662	·753	·756	·747	+·035	89	74	69	82	0	3·9	4·7	4·3	—0·5	13	3		1	7	8	3	15	8	S 69° W	N 76° W	31	20	23*	24	6·03	1·33	Dehra Dun‡	11
																															V.—Punjab.	
·733	·802	·787	·785	+·067	88	67	57	74	+13	2·4	2·7	2·6	+0·7	13	9	3		2	6	2	17	8	N 69° W	N 46° E	37	59	43	50	6·41	2·26	Lahore	12
																															VIII.—Rajputana	
·706	·742	·691	·731	+·039	88	65	53	74	+ 5	4·7	5·1	4·9	+0·4		2	2	8	3	3	4	15	23	N 62° W	N 42° W	42	43	129*	101	3·65	1·45	Jaipur	19
·685	·793	·811	·777		91	73	73	82		5·5	6·3	5·9		8	4	3	5	1	3	11	22	3	S 82° W		40		75		3·74	1·49	Udaipur	
																															IX.—Bombay.	
·834	·877	·870	·867	—·005	93	87	83	89	+ 3	8·2	7·7	8·0	+1·1		1		2	6	7	6	23	15	S 83° W	N 84° W	53	52	190*	259	16·05	2·77	Bombay	28
																															XI.—Central Provinces.	
·719	·761	·732	·757	—·032	88	72	59	77	— 2	5·3	6·2	5·8	—1·5	1	10	5	6	4	1	3	20	10	N 48° W	N 52° W	37	36	108	127	6·14	2·24	Nagpur	24
																															XII.—Hyderabad.	
·685	·693	·695	·700	—·055	85	68	61	74	— 7	6·0	7·2	6·6	0	23							20	17	N 70° W	N 75° W	57	52	92	134	8·20	2·50	Hyderabad.	29
																															XIII.—Mysore.	
·596	·631	·618	·627	+·004	95	75	64	81	+ 1	7·8	8·1	8·0			1				1	9	39	10	N 89° W	S 84° W	87	83	208	168	5·15	1·86	Bangalore	30
·611	·604	·604	·618	—·012	96	68	62	78	+ 1	8·7	8·9	8·8	+0·6		1			1		19	37	2	S 77° W	S 89° W	87	68	220	240	3·56	1·08	Mysore	
																															XIV.—Madras.	
														Observatory			closed.														Periyakulam	32
·693	·675	·663	·677		79	55	47	66		5·8	7·3	6·6		4	5	1			3	13	11	23	N 75° W		62		188		3·48	0·89	Pudukkottai	
·861	·908	·911	·915	+·067	93	77	75	84	+ 7	5·6	6·9	6·3	0		2		4	2	3	8	24	17	S 84° W	S 36° W	61	53	128*	144	8·52	2·82	Madras	
																															Bay Islands.	
·812	·892	·879	·868	—·037	90	82	82	87	— 2	8·8	9·3	9·1	+1·3					3	6	24	23	4	S 61° W	S 54° W	77	73	311	228	18·38	4·29	Port Blair	1
																															Kashmir.	
·352	·484	·605	·450	—·018	83	81	78	80†	0	3·7	3·7	3·7	+0·4	29	3	1	2	11	1	1	1	11	N 29° E	N 33° W	3	17	62	79	7·12	2·06	Srinagar	14
·197	·200	·182	·197	+·022	72	41	30	51	+ 7	3·1	4·5	3·8	—0·5		1				7	18	34		S 68° W	S 66° W	84	42	65*	46	0·23	0·08	Leh	
																															Baluchistan	
·255	·166	·154	·194	—·058	83	19	13	40	0	0	0·1	0·1	—0·4	29	5				2		8	16	N 53° W	N 60° W	40	40	37	53	0	0	Quetta	18

* Uncorrected for scale error. † Mean of three previous columns. ‡ Wind observations less 2.

ill or plateau station, the elevations of which exceed 3,000 feet.

Table

Abstract of observations taken at 10 hrs. and 16 hrs. at 34

Number of subdivision.	Station.	Elevation of barometer cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Pressure. Mean of 16 hrs.	Pressure. Mean daily range.	Pressure. Mean of daily mean pressures.	Pressure. Departure from normal.	Pressure. Mean reduced to sea-level and gravity, 45° Lat.	Temperature of air. Mean maximum.	Temperature of air. Mean minimum.	Temperature of air. Mean daily range.	Temperature of air. Highest maximum.	Temperature of air. Lowest minimum.	Temperature of air. Absolute range.	Temperature of air. Mean 10 hrs.	Temperature of air. Mean 16 hrs.	Temperature of air. Mean of daily means.	Temperature of air. Departure from normal.	Temperature, wet-bulb. Mean minimum.	Temperature, wet-bulb. Mean 10 hrs.	Temperature, wet-bulb. Mean 16 hrs.	Temperature, wet-bulb. Mean of three previous columns.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	Hill Stations, excluding Kashmir and Baluchistan.																					
	Simla	7,232	23·108	23·054	·054	23·073	−·007	23·035	66·7	56·7	10·0	72·5	53·1	19·4	62·8	63·8	61·3	+0·4	52·8	57·4	59·2	56·5
	Sarain		·142	·079	·063	·104		·066	69·9	51·3	18·6	74·1	45·3	28·8	64·1	67·2	60·2			56·7	58·9	
	Kalabagh		20·158	20·122	·036	20·133		20·095	55·7	45·9	9·8	60·6	41·4	19·2	51·4	53·3	50·5			46·3	48·9	
	Chakrata	7,022	23·295	23·244	·051	23·264	+·024	23·224	71·4	57·3	14·1	75·3	55·2	20·1	67·5	65·3	64·0	+1·5	55·4	62·8	61·9	60·0
	Muktesar	7,592	22·836	22·769	·067	22·795		22·753	72·9	55·3	17·6	77·1	52·8	24·3	64·0	66·6	63·7		52·8	59·9	61·6	58·1
	Katmandu	4,388	25·573	25·476	·097	25·522	−·001†	25·476	82·2	66·1	17·1	86·4	63·1	23·3	76·4	78·0	74·3	+1·1†	64·4	70·1	70·6	68·4
	Darjeeling	7,376	22·998‡	22·940§	·058	22·966	−·038	22·921‡	66·6	56·6	10·0	72·3	51·4	20·9	62·6§	63·2§	61·2	+1·8	56·0	61·0§	61·3§	59·4
	Pachmarhi	3,528	26·357	26·279	·078	26·318	−·020	26·265	76·1¶	65·8	10·3	80·7	63·1	17·6	69·9	74·0	70·5¶	−0·9	63·7	67·2	68·9	66·6
	Mount Abu	3,945	25·972	25·904	·068	25·938	−·030	25·888	73·5	63·5	10·0	80·8	58·8	22·0	70·1	70·9	68·1	−1·5	60·8	65·4	66·3	64·2
	Chikalda	3,642	26·244	26·146	·098	26·195	−·035	26·139	75·0	63·9	11·1	80·1	60·0	20·1	69·6	72·6	69·1	−0·6	63·7	68·9	70·5	67·7
	Ootacamund	*7,397*	23·035	22·961	·074	22·995		22·932	63·3	50·3	13·0	68·5	44·5	24·0	59·7	58·8	56·5		48·7	55·3	55·8	53·3
	Kodaikanal	7,688	22·797	·729	·068	·763		·698	62·7	51·7	11·0	67·2	48·7	18·5	59·7	58·3	57·2		48·1	55·4	56·2	53·2
	Dodabetta	8,539‖	·037	21·969	·068	·000		21·937	57·0	47·5	9·5	64·4	43·7	20·7	53·7	53·5	51·8		44·5	51·5	52·0	49·3
	Extra India.																					
	Minicoy	7	29·953	29·895	·058	29·930																
	Zanzibar	72	30·068	29·954	·114	30·017	−·009	30·016	83·0	73·9	9·1	85·3	72·3	13·0	78·3	82·2	77·8	+0·8	69·3	73·4	72·8	71·8
	Diego Garcia									Register not received.												
	Seychelles	15	·021	·930	·091	29·984	+·004†	29·923	81·9	78·8	5·1	83·2	75·1	8·1	80·0§	81·0	78·1	+0·4†	70·0	74·5	74·4	73·0
	Mauritius	181								Register not received.												

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

Note.—The barometric readings are not reduced to sea-level, in the cases of hill or plateau stations, the elevations of which exceed 3,500 feet.

—concluded.

ations in India, etc., in September, 1909—concluded.

Vapour tension, in inches of mercury.				Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity.		Rainfall.		Station.	Number of subdivision.
													Total number of 10 hrs. and 16 hrs. winds from																			
Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean 10 hrs.	Mean 16 hrs.	Mean of two previous columns	Departure from normal.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.		
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
																														Hill Stations, excluding Kashmir and Baluchistan.	
·419	·458	·416	—·018	79	73	78	79	− 1	5·2	6·6	5·9	+0·1																3·62	0·76	Simla.	
·392	·418				65	63			3·7	5·7	4·7		20	5	4	1		7	17	3	3	S 55° W		27		65		6·25	2·34	Sarain.	
·274	·311				72	76			5·5	7·7	6·6		19	1			14	18	1	2	5	S 9° E		40		114		12·67	5·14	Kalabagh.	
·523	·520	·490	+·021	89	78	83	85	− 1	4·4	6·8	5·6	−0·6	16				5	38	1			S 4° E	S 63° W	70	36	76	144	5·52	2·03	Chakrata.	
·426	·498	·436		86	80	76	83		6·7	6·2	6·5		28			2	4	3	6	17		S 58° W		32		113		2·91	1·28	Mukteswar.	
·664	·665	·640	+·007	92	73	70	80	− 1	5·0	6·6	5·8	−0·5	1	5	3	23			2	25	1	N 17° W	N 87° W	12	11	21*	17	4·64	1·83	Katmandu.	
·527§	·526§	·499	+·019	96	92§	90§	95	− 1	8·7	8·1	8·4	+0·1	19	4	2	3	3		7	12	10	N 72° W	S 85° E	30	39	63‖	89	14·09	2·21	Darjeeling.	
·641	·650	·631	—·008	89	88	78	89	+ 3	4·3	5·9	5·1	−2·1	7	1	4	1	3		17	13	14	S 89° W	N 60° W	46	44	177	149	6·14	1·59	Pachmarhi.	
·577	·597	·572	+·013	86	79	79	85	+ 4	7·3	7·7	7·5	+2·0		4	10	1	4	1	30	6	4	S 63° W	S 66° W	37	40	228	190	12·06	3·77	Mount Abu.	
·702	·724	·686	+·043	99	97	91	100	+ 8	7·2	6·6	6·9	−0·5		3			6	3	3		45	N 49° W	N 21° W	65	62	172§	242	13·14	5·60	Chikalda.	
·393	·416	·372		89	76	84	83		7·4	8·7	8·1		3	1	2	1	1	1	9	29	13	N 85° W		70		115		3·59	1·22	Ootacamund.	
·398	·432	·379		79	78	88	82		5·9	8·9	7·4			3	1	1	6	3	1	15	30	N 61° W		59		344*		2·23	0·54	Kodaikanal.	
·361	·376	·304		80	87	92	86		7·7	9·4	8·6		1	10	14	10	3	1		2	19	N 12° E		52		309		4·56	1·56	Dodabetta.	
																														Extra India.	
									4·3	4·6	4·5								4	33	23	N 76° W		90		185		4·13	1·57	Minicoy.	
·760	·684	·716	—·022	78	78	62	74	− 4	6·0	4·1	5·1	+0·3		4	3	1	16	16	14	5	1	S 2° W	S 6° E	50	62	123	134	2·46	0·72	Zanzibar.	
									Reg	ister	not	receiv	ed.																	Diego Garcia.	
·787§	·770	·742	—·025	79	76§	72	75	− 5	4·4	5·1	4·8	−0·8†				1	51	7	1			S 40° E	S 40° E	95	87	320*	288	1·62	1·29	Seychelles.	
									Reg	ister	not	receiv	ed.																	Mauritius.	

† Departure from old normal.

* Uncorrected for scale errors.

‡ Mean of 28 days.
§ " " 29 "
‖ " " 28½ "
¶ " " 23 "

Table B.—Abstract of observations taken at 8 hrs. at 238 stations in India, etc., in September, 1909.

(1) Provincial means.

(2) Data of stations.

Provincial data based on the material in Table B (2) except that the statement of rainfall depends on the complete data of about 2,700 stations.

	Pressure departure from normal.	Temperature of air.								Wind.		Hygrometry.				Cloud.		Rainfall.		
		Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Absolute range during month.	Departure of velocity from normal.	Departure of steadiness from normal.	Mean humidity.	Departure from normal.	Mean vapour tension.	Departure from normal.	Mean cloud amount.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.
na	—·038	87·6	—0·3	75·6	+0·5	81·6	+0·1	11·9	20·5	—0·6	0	90	+ 1	·891	+·003	7·4	+0·6	12·13	11·86	+0·27
ern Bengal and Assam	—·027	89·4	+1·6	77·9	+0·8	83·7	+1·2	11·5	20·3	—1·2	—11	87	— 3	·953	+·007	5·3	—2·0	9·59	12·68	—3·09
gal	—·019	89·1	—0·3	77·6	+0·1	83·4	—0·1	11·4	20·3	—0·7	— 3	86	0	·928	0	5·9	+0·2	8·94	9·32	—0·38
ed Provinces of Agra and dh.	—·010	91·0	—0·1	75·4	—0·3	83·2	—0·2	15·6	25·6	0	— 3	81	+ 1	·854	+·015	3·0	—1·2	4·90	6·36	—1·46
ab	—·004	92·9	—3·9	73·7	—0·9	83·3	—2·4	19·2	31·3	—0·2	—11	75	+ 7	·757	+·021	2·6	+0·6	5·45	2·63	+2·82
n-West Frontier Province	—·009	96·0	—2·3	71·8	—0·8	83·9	—1·6	24·2	38·3	—1·0	— 2	68	+	·685	·003	1·2	+0·4	0·93	1·23	—0·30
	—·001	95·1	—0·3	75·5	—0·4	85·3	—0·4	19·6	32·3	—2·0	—14	74	+ 1	·766	—·018	2·6	+0·2	0·53	0·47	+0·06
utana	—·011	89·5	—3·6	73·1	—2·4	81·3	—3·0	16·5	28·2	+0·3	—17	78	+ 8	·760	+·023	4·2	+1·0	3·55	3·45	+0·10
bay	—·012	85·5	—1·3	72·6	—0·6	79·1	—0·9	12·9	20·5	—1·1	— 9	84	+ 1	·785	—·009	6·0	0	7·12	7·21	—0·09
al India	—·005	86·4	—1·5	72·5	—0·2	79·5	—0·9	14·0	23·1	—1·2	0	86	+ 5	·787	+·005	6·2	+1·0	4·20	6·15	—1·95
al Provinces	—·003	85·8	—1·4	71·5	—0·9	78·7	—1·2	14·3	23·9	+0·7	+ 2	82	— 1	·740	—·039	6·3	+0·6	5·98	7·17	—1·19
rabad	—·017	86·7	—0·2	70·7	0	78·7	—0·1	16·0	24·8	—0·5	+ 3	78	— 2	·696	—·041	5·4	—0·9	6·37	7·46	—1·09
re	—·010	80·5	—2·0	65·4	—0·4	73·0	—1·2	15·1	23·2	+1·3	+ 9	86	+ 3	·627	—·002	7·9	0	4·03	5·20	—1·17
as	—·014	89·0	—1·5	75·3	—0·2	82·2	—0·9	13·7	21·8	0	+ 4	78	0	·791	—·010	6·2	—0·1	6·08	6·01	+0·07

Tabl

(2) Abstract of observations taken at 8 hrs. at 23

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches.								Temperature of air.											
			Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure, reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	I.—Burma.																						
2	Mergui	56	29·820†	—·029†	29·807†	29·943	28th	29·681	19th	·262	78·0	85·0	+0·6	73·7	+1·5	79·4	+1·1	11·3	88·9	15th	71·9	8th	17
	Tavoy	19	29·852	—·042	29·803	29·964	28th	29·700	19th	·264	77·3	83·9	−0·1	74·9	+1·2	79·4	+0·6	9·0	89·0	1st	73·3	29th & 30th.	15
	Moulmein	94	29·756	—·023	29·788	29·856	4th	29·571	19th	·285	78·1	84·1	—0·7	75·3	+0·8	79·7	+0·1	8·8	90·5	4th	72·8	22nd	17
	Rangoon	18	29·804	—·042	29·760	29·911	4th	29·617	19th	·294	79·6	85·9	+0·2	76·9	+1·0	81·4	+0·6	9·0	91·1	8th	73·9	18th	17
	Bassein	27?	29·784	—·032	29·749	29·901	28th	29·624	19th	·277	78·7	85·4	—0·1	76·5	+0·7	81·0	+0·3	8·9	91·7	8th	71·4	20th	17
	Diamond Island	41	29·781	—·031	29·757	29·898	28th	29·618	19th	·280	81·3	84·7	—0·1	77·0	+1·2	80·9	+0·6	7·7	87·4	8th	73·7	27th	13
	Toungoo	164	29·650‡	—·033‡	29·756‡	29·770	3rd	29·454	19th	·316	79·4	88·0	—1·0	75·0	—0·6	81·5	—0·8	13·0	93·5	8th	71·8	2nd	21
	Kyaukpyu	18	29·769		29·727	29·899	4th	29·558	19th	·341	79·5	85·9		77·0		81·5		8·9	90·0	4th	74·4	1st, 2nd, & 23rd.	15
	Akyab	20	29·762	—·036	29·725	29·909	4th	29·534	20th	·375	79·2	85·6	—1·0	77·1	—0·9	81·4	—1·0	8·5	90·9	9th	74·0	2nd	16
3	Thayetmyo	121	29·668†	—·042†	29·731†	29·804	3rd	29·469	19th	·335	80·6	90·4	+0·5	76·4	+0·4	83·4	+0·5	14·0	96·5	7th	73·9	2nd & 19th,	22
	Minbu	*165*	29·620	—·046	29·726	29·753	3rd	29·427	19th	·326	80·5	90·6	—0·3	77·0	+0·1	83·8	—0·1	13·6	98·3	17th	74·5	21st & 27th.	23
	Yamethin	657	29·127	—·058	29·739	29·239	4th	28·934	19th	·305	77·8	89·0	—2·7	74·8	0	81·9	—1·4	14·2	96·3	17th	72·0	2nd & 18th	24
	Mandalay	250	29·548‡	—·029‡	29·747‡	29·681	4th	29·348	19th	·333	81·3	92·9	+0·1	77·3	+0·4	85·1	+0·3	15·6	100·5	17th	73·9	1st	26
	Monywa	*280*	29·519†		29·738†	29·615	3rd	29·326	19th	·319	81·1	91·2		78·0		84·6		13·2	97·8	17th	72·1	26th	25
	Lashio	*2,751*	27·026	—·050	26·972	27·142	3rd	26·880	19th	·262	72·4	83·7	—1·1	68·4	+0·6	76·1	—0·3	15·3	89·3	17th	65·0	3rd	24
	Bhamo	*381*	29·399†	—·037†	29·737†	29·518	3rd	29·230	19th	·288	78·0	91·7	+1·6	75·1	+0·6	83·4	+1·1	16·6	96·4	21st	71·1	5th	25
	Myitkyina	458	29·305‡		29·723‡	29·432	3rd	29·133	19th	·299	78·9	90·5		75·5		83·0		15·0	96·2	21st	73·0	6th, 23rd, & 30th.	23
	II.—Eastern Bengal and Assam.																						
4	Dibrugarh	353	29·410		29·722	29·540	3rd	29·258	19th & 20th.	·282	79·9	88·3		76·4		82·4		11·9	95·9	21st	74·1	27th	21
	Sibsagar	333	29·453†	—·027†	29·743†	29·608	3rd	29·292	19th	·316	80·0	88·5	+0·4	75·7‖	+0·5‖	81·2‖	+0·5	12·8	93·6	21st & 22nd,	74·0	30th	19
	Tezpur	252	29·518†		29·729†	29·656	3rd	29·332	20th	·324	79·8	91·3		77·4		84·4		13·9	97·6	16th	71·9	10th & 23rd.	25
	Gauhati	195	29·575§?		29·725	29·739	3rd	29·381	20th	·358	81·8	92·2		77·1		84·7		15·1	97·8	22nd	73·1	24th & 25th.	24
	Dhubri	115	29·686§?	+·055§?	29·757§?	29·792	4th	29·563	11th	·229	80·8†	87·0	+1·9	79·3	+2·3	83·2	+2·1	7·7	90·5	9th	76·8	10th, 26th, & 27th.	13
	Silchar	104	29·687	—·016	29·744	29·840	4th	29·434	20th	·406	80·5	90·4	+0·6	76·9	+0·5	83·6	+0·6	13·5	97·3	23rd	73·3	1st	24
5	Cox's Bazar	36	29·736		29·716	29·902	4th	29·493	20th	·409													
	Chittagong	87	29·683	—·032	29·717	29·852	4th	29·433	20th	·419	80·9	87·8	+1·0	76·4	+0·1	82·1	+0·6	11·4	91·0	8th, 11th & 18th.	74·0	3rd, 4th & 27th.	17
	Noakhali	43	29·724		29·714	29·893	4th	29·471	20th	·422	81·6	86·9		78·1		82·5		8·8	90·8	11th & 13th.	75·4	4th & 5th	15
	Barisal	12	29·738	—·030	29·696	29·889	4th	29·501	20th	·388	82·2	87·8	—0·7	77·8	—0·5	82·8	—0·6	10·0	92·3	10th & 18th.	74·6	4 days	17
	Comilla	36	29·728		29·712	29·901	4th	29·472	20th	·429	82·2	89·4		?		?		?	93·8	8th			
	Narayanganj	26	29·729	—·022	29·703	29·882	4th	29·486	20th	·396	83·3	89·6	+1·1	79·1	+0·2	84·4	+0·7	10·5	94·0	11th	75·3	27th	18
	Faridpur	46	29·708		29·704	29·863	4th	29·481	20th	·382	82·6	88·4		78·6		83·5		9·8	92·3	11th	75·4	2nd	16
	Sirajganj	49	29·708		29·707	29·866	4th	29·475	20th	·391	82·9	88·4		78·7		83·6		9·7	92·4	20th	73·8	22nd	18
	Mymensingh	63	29·703	—·020	29·717	29·859	3rd	29·471	20th	·388	83·5	90·2	+3·1	78·8	+1·3	84·5	+2·2	11·4	94·1	19th	74·1	22nd	20
	Bogra	75	29·685?	—·015?	29·712?	29·832	4th	29·470	20th	·362	84·3	90·2	+1·8	78·3	+0·8	84·3	+1·3	11·9	94·2	4 days	72·7	27th	21
	Rangpur-Boadla	70	29·678		29·698	29·834	4th	29·476	20th	·358	83·5	89·5		79·6		84·6		9·9	94·1	19th	74·1	28th	20
	Malda	72	29·652		29·675	29·807	4th	29·461	20th	·346	83·1	89·4		78·7		84·0		10·7	94·3	13th & 19th	73·5	27th & 28th.	20
	Dinajpur	123	29·602	—·039	29·681	29·752	4th	29·420	20th	·332	81·7	90·5	+2·3	78·1	+0·7	84·4	+1·5	12·4	94·3	4 days	73·5	27th	20
	Rangpur	123	29·632		29·711	29·789	3rd & 4th	29·435	20th	·354	83·1	90·2		75·8		83·0		14·4	95·1	21st	72·0	26th	23

† Mean of 29 days.
‡ „ „ 28 „
§ „ „ 11 „
‖ „ „ 7 „

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

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

...tions in India, etc., in September, 1909.

Wind direction. Number of winds from N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 30th September 1909.	Normal rainfall for period, 1st May to 30th September.	Departure from normal of period, 1st May to 30th September, 1909.	Heaviest rainfall during month.	Station.
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																														I.—Burma.
1		5	7	2	1	1	S 6° E	N 76° W	1·9	1·6	+0·3	37	−21	96	+ 4	·908	+·050	4·2	−2·9	27	23·40	+3·60	31·61	28·07	+3·54	157·06	139·09	+17·97	5·36	Mergui.
							(a)	S 64° W	1·0*	1·3	−0·3			93	0	·877	+·011	6·7	−0·8	24	24·10	−0·10	33·93	31·88	+2·05	195·44	191·93	+3·51	4·82	Tavoy.
	2	6	10	3	1	1	S 9° E	S 12° E	3·3	3·2	+0·1	53	+16	94	+ 2	·909	+·029	7·9	+0·7	24	21·90	+2·10	36·41	27·52	+8·89	183·40	169·89	+13·51	6·05	Moulmein.
1	3		8	11	2		S 22° W	S 50° W	3·3	3·5	−0·2	53	+ 5	89	− 5	·909	−·006	8·9	+1·9	22	19·70	+2·30	11·71	15·84	−4·13	85·62	85·41	+ 0·21	1·63	Rangoon.
	1	3	9	2	2	1	S 5° W	S 5° W	3·4†	4·0	−0·6	40	+ 3	96	+ 3	·941	+·019	8·1	+1·2	18	20·80	−2·80	16·01	15·89	+0·12	94·68	98·24	−3·56	2·50	Bassein.
		4	2	11	6	1	S 45° W	S 51° W	7·7	7·9	−0·2	56	+15	85	− 1	·911	+·020	7·6	+0·2	18	18·90	−0·90	16·14	17·33	−1·19	102·93	100·18	+2·75	2·82	Diamond Island.
1	3	8	1	3			S 50° E	S 32° E	2·6	3·1	−0·5	30	−25	93	+ 2	·935	+·021?	8·4	+0·2	21	17·50	+3·50	19·83	11·56	+8·27	87·12	68·56	+18·56	4·26	Toungoo.
3	7	14	1		2	1	S 71° E		4·5*			53		89		·907		4·7		18			17·63			163·42			3·60	Kyaukpyu.
4	6	7	2		1	3	S 85° E	N 87° E	3·0	3·0	0	37	−18	93	+ 1	·927	−·032	7·7	−0·1	22	13·80	+8·20	46·92	22·18	+24·74	208·91	173·47	+35·47	7·52	Akyab.
		9	14	6	1		S 2° E	S 20° E	5·3*	5·1	+0·2	82	+ 4	84	0	·875	−·001	8·1	+0·6	10	11·70	−1·70	4·31	6·07	−1·76	23·74	29·84	−1·10	1·42	Thayetmyo.
		23	2	2			S 37° E	S 42° E	4·5	8·2	−3·7	82	+15	83	− 2	·859	−·022	7·7	+2·1	10	9·30	+0·70	9·67	5·46	+4·21	34·28	25·45	+8·83	3·15	Minbu.
		16	8	3			S 23° E	S 30° E	3·7	5·5	−1·8	76	+ 9	89	+ 2	·838	−·026	8·7	+4·7	7	10·30	−3·30	5·41	6·65	−1·24	37·64	28·19	+9·45	1·43	Yamethin.
		12	7	2			S 22° E	S 3° W	4·6‡	4·7	−0·1	62	+ 7	81	− 2	·854	−·039	7·3	+1·0	5	8·80	−3·80	4·14	5·62	−1·48	25·16	24·00	+1·16	1·41	Mandalay.
1	2	14	6	1	1	2	S 25° E		3·2			53		88		·945		7·4		7	8·90	−1·90	5·51	6·31	−0·80	27·23	22·34	+4·89	1·83	Monywa.
1	1			1			E		1·9*			3		92	0	·735	+·003	7·3	−0·7	13			8·15	6·92	+1·23	57·68	51·30	+6·38	2·12	Lashio.
				1			S 45° W	N 72° W	1·2	2·0	−0·8	3	−11	95	+ 5	·918	+·039	6·6		12	11·50	+0·50	7·88	9·31	−1·43	56·45	65·05	−8·60	1·95	Bhamo.
3	9	2	1		2	1	N 88° E		1·7*			33		90		·891		8·0		10			5·83			42·20			1·15	Myitkyina.
																														II.—Eastern Bengal and Assam.
4	3	1	1	2	2		N 61° E		1·2			10		92		·925		7·1		12	14·90	−2·90	6·83	14·91	−8·08	88·72	88·79	−0·07	1·59	Dibrugarh.
5		3		8	1	1	S 47° W	S 79° E	2·3	2·4	−0·1	13	+ 2	90	− 5	·903	−·028	7·1	−1·6	13	14·50	−1·50	7·80	11·95	−4·15	71·33	71·82	−0·49	1·77	Sibsagar.
		1					S 45° E		1·5			2		90		·916		6·3		7	12·50	−5·50	5·19	8·58	−3·39	41·51	57·04	−15·53	1·57	Tezpur.
2	2	1	1	2	3	1	N 45° W		2·1			3		86		·935		6·2		9	10·00	−1·00	4·15	7·49	−3·34	50·41	49·86	+0·55	1·66	Gauhati.
2	4	1	5	4			S 25° E	N 82° E	3·6	4·3	−0·7	27	+ 5	89†	− 3	·950†	+·039	2·3	−5·2	11	11·90	−0·90	9·75	14·61	−4·86	81·30	81·99	−0·69	2·50	Dhubri.
	3						E	N 77° E	1·5	2·2	−0·7	10	+ 7	90	− 1	·942	+·018	4·7	−4·0	12	15·30	−3·30	11·97	13·95	−1·98	85·87	91·87	−6·00	2·47	Silchar.
4	5	11	3	1		1	S 74° E		3·5			50						4·9		15			7·37			119·80			2·09	Cox's Bazar.
3		17	2	1			S 49° E	S 60° E	3·2	4·4	−1·2	59	− 4	87	− 1	·922	−·005	6·8	−0·5	15	13·06	+1·94	9·52	11·08	−1·56	99·01	79·95	+19·06	1·63	Chittagong.
	3	11	5	2	4	1	S 20° E		3·9			50		87		·943		4·8		15	15·48	−0·48	11·32	15·54	−4·22	137·66	94·92	+42·74	2·02	Noakhali.
	1	5	5	3	2	1	S 2° W	S 27° E	1·1	2·8	−1·7	33	+ 7	88	0	·951	−·016	6·0	−1·2	15	14·35	+0·65	7·09	10·74	−3·65	36·14	62·26	+23·88	1·53	Barisal.
	7	7	2			1	S 61° E		3·0			43		87		·968		2·9		11	13·28	−2·28	5·02	11·11	−6·09	84·36	72·88	+11·48	1·03	Comilla.
1	5	6	3	3	6	4	S 9° W	S 18° E	3·1	5·2	−2·1	20	−28	85	− 3	·969	−·002	7·0	−0·8	9	11·83	−2·83	8·29	8·57	−0·28	54·07	54·97	−0·90	2·28	Narayanganj.
	3	8	7	2	1	1	S 20° E		2·0			40		87		·975		5·3		7	11·78	−4·78	3·92	9·09	−5·17	57·98	54·69	+3·29	1·12	Faridpur.
2	2	6	10	7			S 9° E		2·9			60		88		·991		6·6		9	11·61	−2·61	6·25	9·08	−2·83	53·44	50·76	+2·68	1·68	Sirajganj.
1	5	6	3	3			S 42° E	S 63° E	1·6	2·7	−1·1	40	−10	86	− 5	·987	+·020	7·1	0	9	15·03	−6·03	3·72	12·83	−9·11	64·76	72·80	−8·04	0·76	Mymensingh.
1	4	1	10				S 34° E	S 49° E	1·4	3·0	−1·6	33	−23	80†	− 9	·950†	−·012	1·7	−5·3	10	12·10	−2·10	11·30	12·11	−0·81	70·55	57·31	+13·24	5·95	Bogra.
		2		5	3		S 45° W		3·5			27		84		·978		4·7		10	12·36	−2·36	5·74	10·38	−4·64	41·81	48·61	−6·80	1·85	Rampur Boalia.
3	6	6	5	6		2	S 41° E		5·0*			33		88		1·002		3·0		8	11·45	−3·45	4·26	10·86	−6·60	41·60	45·94	−4·34	1·24	Malda.
2	8	4	4	2	1	1	S 68° E	S 76° E	2·3	3·6	−1·3	33	−19	89	− 1	·969	+·026	4·8	−2·0	11	12·56	−1·56	7·27	14·00	−6·73	58·57	64·01	−5·44	1·56	Dinajpur.
2	3	4	1	3	3	1	S 27° E		1·7			7		84		·960		2·9		13	13·55	−0·55	11·04	14·16	−3·12	85·35	73·51	+11·84	2·03	Rangpur.

(a) Indeterminate.

* Uncorrected for scale error.

† Mean of 29 days.

‡ „ „ 28 „

Tab

(2) *Abstract of observations taken at 8 hrs. at 238 statio*

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches.								Temperature of air.											
			Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	II.—Eastern Bengal and Assam—*concld.*																					
5	Jalpaiguri	283	29·464	—·030	29·705	29·609	3rd	29·298	20th	·311	80·2	90·5	+3·3	77·0	+1·7	83·8	+2·5	13·5	96·4	21st	72·9	23rd
	Cooch Behar	156	29·594		29·706	29·754	3rd	29·410	13th	·344	80·8	89·5		77·6		83·6		11·9	91·8	21st	73·6	23rd
	III.—Bengal.																					
6	Saugor Island	25	29·698	—·024	29·668	29·821	4th	29·426	21st	·395	82·5	88·4	+0·2	79·3	—0·4	83·9	—0·1	9·1	91·0	4 days.	75·0	3rd & 19th.
	Midnapore	149	29·577		29·673	29·715	4th	29·353	21st	·362	81·1	89·6		77·6		83·6		12·0	94·8	10th	74·7	10th & 14th.
	Calcutta	21	29·712	—·022	29·679	29·852	4th	29·502	21st	·350	82·0	88·9	+1·3	78·2	+0·2	83·6	+0·8	10·7	93·7	11th	75·5	3rd & 21st.
	Jessore	33	29·709	—·024	29·689	29·853	4th	29·493	20th	·360	82·7	88·8	† +0·6	78·4	—0·1	† 83·6	—0·4	10·4	93·5	11th	74·2	3rd
	Krishnagar	47	29·683		29·678	29·813	4th	29·475	20th	·338	81·9	90·4		79·4		84·9		11·0	94·1	11th & 20th.	75·0	3rd
	Burdwan	99	29·635	—·027	29·682	29·783	4th	29·452	20th	·331	81·9	89·8	+0·1	78·9	0	84·4	+0·1	10·9	95·4	11th	74·3	3rd
	Bankura	313	29·404		29·667	29·545	4th	29·200	21st	·345	81·6	89·9		77·4		83·6		12·5	96·6	10th	74·7	14th
	Raniganj	334	29·39[illegible]†		29·686†	29·546	4th	29·241	20th	·305	80·0	89·7		77·5		83·6		12·2	95·5	10th	74·0	2nd & 3rd.
	Berhampore	67	29·668†	—·025†	29·681†	29·818	4th	29·484	20th	·334	82·1	89·2	+0·3	79·0	+0·5	84·1	+0·4	10·2	93·6	3rd	73·2	3rd
	Naya Dumka	489	29·236		29·681	29·382	4th	29·080	20th	·302	82·0	89·2		77·2		83·2		12·0	93·4	13th & 19th.	73·0	3rd
7	Balasore	50	29·681	—·015	29·676	29·804	5th	29·422	21st	·382	81·7	88·3	—0·6	77·6	—0·2	83·0	—0·4	10·7	93·9	19th	74·1	21st
	False Point	21	29·730†	+·004†	29·692†	29·832	1st	29·516	21st	·316	81·6	86·5	—1·4	77·1	—1·0	81·8	—1·2	9·4	91·1	12th, 19th & 20th.	72·6	14th
	Cuttack	80	29·656	—·005	29·679	29·752	1st	29·467	21st	·285	81·1	89·3	—0·9	77·4	—0·7	83·4	—0·8	11·9	94·4	10th & 11th.	74·7	13th
	Puri	24	29·723		29·686	29·829	1st	29·541	21st	·288	82·3	88·9		78·6		83·8		10·3	94·6	11th	74·1	3rd & 13th.
	Angul	155	29·279		29·694	29·364	24th	29·101	21st	·263	80·4	88·1		76·0		82·1		12·1	93·6	10th	70·5	22nd
	Sambalpur	486	29·256	—·018	29·691	29·345	1st	29·104	21st	·241	80·6	87·5	—1·8	77·1	—0·2	82·4	—1·0	10·4	93·1	10th	72·6	22nd & 23rd.
8	Chaibassa	*733*	28·988	—·016	29·675	29·091	4th	28·794	21st	·297	79·2	88·3	—1·6	75·9	—0·2	82·1	—0·9	12·4	96·6	10th	72·8	21st
	Ranchi	2,128	27·627?	—·002?	29·707?	27·736	4th	27·485	21st	·251	75·0	83·2	—1·2	72·2	+0·5	77·7	—0·4	11·0	89·2	9th	69·9	23rd
	Purulia	*816*	28·906		29·674	29·041	4th	28·755	21st	·286	78·1	83·1		75·4		82·3		13·7	96·0	10th	72·6	10th & 14th.
	Hazaribagh	2,007	27·735	—·012	29·693	27·851	4th	27·609	21st	·242	76·3	83·7	—1·9	72·9	+0·7	78·3	—0·2	10·8	89·7	9th & 10th.	70·3	4th & 5th.
	Daltonganj	*730*	29·007		29·695	29·105	4th & 28th.	28·912	20th	·193	79·8	88·7		76·2		82·5		12·5	94·1	9th & 10th.	73·5	29th
9	Purnea	134	29·608	—·015	29·696	29·758	4th	29·445	20th	·313	82·1	90·0	+1·1	77·7	+0·3	83·9	+0·7	12·3	95·5	19th	73·2	1st & 27th.
	Bhagalpur	160	29·574		29·686	29·727	4th	29·422	20th	·309	84·0	90·3		78·1		84·2		12·2	94·7	19th	75·3	4th & 28th.
	Monghyr	155	29·564		29·670	29·716	4th	29·424	12th	·292	83·6	89·8		76·4		84·1		11·4	93·9	9th	72·9	28th & 30th.
	Darbhanga	165	29·555	—·031	29·676	29·713	4th	29·396	12th	·317	83·2	90·6	+2·3	79·1	+0·3	84·8	+1·3	11·5	95·6	19th	74·3	21st
	Pusa	183	29·535		29·677	29·696	4th	29·395	12th	·301	83·3	90·8		76·2		84·5		12·6	95·3	9th	73·6	1st
	Muzaffarpur	177	29·550		29·683	29·705	4th	29·403	12th	·302	83·7	90·3		78·3		84·3		12·0	94·2	19th	73·5	1st
	Motihari	221	29·500		29·682	29·655	4th	29·350	12th	·305	82·2	90·7		76·3		84·5		12·4	94·6	19th & 21st.	74·3	1st
	Chapra	181	29·535		29·671	29·674	4th	29·410	12th	·264	82·8	90·0		78·1		84·0		11·9	94·2	8th	73·9	1st
	Patna	183	29·585	—·028	29·672	29·686	4th	29·409	12th	·277	84·3	89·3	—0·6	79·4	+0·3	84·4	—0·2	9·9	92·5	8th, 9th & 14th.	75·7	30th
	Arrah	190	29·535		29·677	29·676	4th	29·415	20th	·259	83·9	90·0		78·8		84·4		11·2	93·9	8th & 9th	75·7	3rd
	Buxar	239	29·476		29·671	29·603	4th	29·368	19th	·244	82·4	90·6		78·5		84·6		12·1	94·5	8th & 9th	75·1	21st
	Dehri	351	29·359		29·683	29·485	4th	29·254	20th	·231	82·9	89·9		78·8		84·4		11·1	95·3	9th	75·9	30th
	Gaya	372	29·342	—·022	29·687	29·447	4th	29·226	20th	·221	83·0	90·1	—0·9	78·7	+0·9	84·4	0	11·4	95·4	9th & 10th.	75·2	30th
	IV.—United Provinces of Agra and Oudh.																					
10	Gorakhpur	257	29·460	—·017	29·673	29·593	4th	29·325	12th	·268	83·3	91·5	+1·0	76·9	—0·8	84·2	+0·1	14·6	95·1	9th	73·0	1st
	Benares	267	29·456	—·008	29·679	29·585	4th	29·356	19th	·209	82·5	91·3	+0·2	77·6	+0·2	84·5	+0·3	13·7	95·1	8th, 9th & 10th.	74·6	1st
	Allahabad	309	29·412	—·009	29·677	29·508	4th	29·286	19th	·182	81·9	90·5	—1·0	76·6	—0·2	83·5	—0·7	13·9	96·1	9th	70·5	30th

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

† Mean of 29 days.

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

—*continued.*

India, etc., in September, 1909—continued.

Wind direction. Number of winds from N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st May to 30th September, 1909. (53)	Normal rainfall for period, 1st May to 30th September. (54)	Departure from normal of period, 1st May to 30th September 1909. (55)	Heaviest rainfall during month. (56)	Station. (57)
																																II.—Eastern Bengal and Assam—*concld.*
2	2	3	5			2	3	N 62° E	N 73° E	1·2			13	−47	90†	−1	·931†	+·028	7·3	+0·3	19	14·75	+ 4·25	13·76	20·03	— 6·27	102·33	113·18	—10·85	4·14	Jalpaiguri.
	3	5	5	1	3	1		S 58° E		1·5			30		88		·933		6·8		14	14·34	— 0·34	15·87	21·82	— 5·95	122·29	115·23	+ 7·06	3·68	Cooch Behar.
																																III.—Bengal.
1	2	4	1	6	9	2	4	S 33° W	S 2° W	11·2	11·0	+0·2	33	+ 4	87	− 1	·967	—·017	7·1	−1·1	10	13·29	— 3·29	11·39	11·30	+ 0·09	58·88	58·04	+ 0·84	2·78	Saugor Island.
4	3		1	16		1	2	S 2° E		2·6			30		86		·905		5·8		12	12·13	— 0·13	11·17	9·39	+ 1·78	53·51	50·66	+ 2·85	2·42	Midnapore.
1	1	4	4	1	11		2	S 11° W	S 13° E	4·0*	4·1	—0·1	27	− 6	87	0	·966	+·009	6·6	—0·1	12	13·38	— 1·38	9·29	8·91	+ 0·38	61·55	50·59	+10·96	2·50	Calcutta.
	1	1	3	2	1			S 37° E	S 32° E	0·3	3·2	−2·9	17	—20	86	— 4	·970	—·031	6·4	—0·7	9	11·94	− 2·94	5·89	8·28	— 2·39	63·61	51·35	+12·29	1·44	Jessore.
1		5	6	3	2	3	3	S 27° E		1·8			23		90		·982		4·7		12	10·45	+ 1·55	7·67	7·97	— 0·90	61·83	45·01	+16·82	2·03	Krishnagar.
		8	1	3	8	3	2	S 10° W	S 18° E	2·1	3·0	−0·9	27	+ 5	88	+ 3	·957	+·027	7·5	+0·5	12	12·10	— 0·10	9·89	8·59	+ 1·30	67·30	48·59	+18·71	1·85	Burdwan.
		3	9	2	1			S 45° E		3·3			43		84		·890		6·3		13	12·53	+ 0·47	10·11	8·77	+ 1·34	64·91	47·51	+17·40	1·80	Bankura.
1	1	4	3		1		1	S 84° E		1·4			16		92		·945		7·5		17	11·61	+ 5·39	11·27	7·60	+ 3·67	43·66	48·46	— 4·80	2·35	Raniganj.
3	3	5	4	5	6			S 40° E	S 19° E	2·8	3·7	—0·9	30	— 8	88	— 2	·966	—·010	7·6	+0·2	12	12·48	— 0·48	12·73	9·72	+ 3·06	64·85	46·89	+17·96	3·34	Berhampore.
	1	2	2	1				S 63° E		1·0			13		83		·912		5·7		7	13·30	— 6·30	9·29	10·01	— 0·72	50·61	51·12	— 0·51	3·28	Naya Dumka.
1	1	1	1	2	10	2	3	S 56° W	S 59° W	2·0	3·5	—1·5	37	+15	87	— 1	·929	—·015	5·9	—1·1	14	13·87	+ 0·13	10·12	12·08	— 1·96	45·11	52·39	— 7·28	2·37	Balasore.
	1	1	3	1	4	12	4	S 80° W	S 58° W	7·0	8·5	−1·5	46	+ 9	87	+ 2	·929	—·031	7·8	+0·7	13	12·90	+ 0·10	11·44	11·11	+ 0·33	50·64	50·21	+ 0·43	2·50	False Point.
	2	3	2	2	6	6	3	S 57° W	S 81° W	2·2*	2·4	—0·2	27	− 3	84	+ 2	·907	+·013	6·8	+0·8	16	13·00	+ 3·00	11·69	9·97	+ 1·72	52·44	49·69	+ 2·75	2·47	Cuttack.
7		1		2	7	2	2	N 74° W		9·8			23		84		·922		5·1		13	12·18	+ 0·82	14·97	10·07	+ 4·90	47·01	43·04	+ 3·97	3·04	Puri.
1	2	2	4			6	9	N 45° W		6·5			27		87		·905		4·7		9			3·00			31·66			0·77	Angul.
		4	1	5	14	4	2	S 37° W	S	4·5	3·9	+0·6	59	+37	83	+ 1	·878	—·010	7·8	+1·8	7	11·80	— 4·80	8·56	8·76	— 0·20	59·95	62·18	— 2·23	5·62	Sambalpur.
	2	3		3	10	2	4	S 51° W	S 53° W	2·6	1·4	+1·2	33	+10	88‡	+ 3	·873	—·013	7·6	+1·8	16	12·00	+ 4·00	16·24	7·36	+ 8·88	53·99	44·32	+ 9·67	3·11	Chaibassa.
2	2	3	3	4	3	5	8	N 83° W	S 79° W	6·8	6·9	—0·1	18	— 4	87	+ 4	·758	+·008	7·3	+1·6	13	13·66	— 0·66	10·69	9·01	+ 1·68	51·60	48·53	+ 3·07	2·32	Ranchi.
1	4	2	2	4	3	7	2	S 63° W		2·8			13		97‡		·938‡		6·6		9	11·61	— 2·61	17·80	8·14	+ 9·66	50·22	45·66	+ 4·56	7·20	Purulia.
2	4	1	2	6	4	4	7	S 86° W	S 27° W	6·2	7·4	—1·2	23	— 3	84	0	·751	—·014	6·3	—0·4	11	11·97	— 0·97	11·81	8·88	+ 2·93	46·56	47·33	— 0·77	5·13	Hazaribagh.
1		4				1		N 72° E		2·5			13		86		·880		5·7		10	10·48	— 0·48	5·90	7·54	— 1·64	41·56	39·30	+ 2·26	3·00	Daltonganj.
1	6		7	2	4		2	S 58° E†	N 88° E	1·1	3·0	—1·9	20	—18	89	— 1	·974	+·020	5·5	−0·5	8	11·40	— 3·40	8·42	14·82	— 6·40	59·09	58·57	+ 0·52	1·92	Purnea.
	2	2	7	3	5	3	1	S 6° E		2·3			30		83		·980		5·5		10	9·39	+ 0·61	8·63	8·48	+ 0·15	50·77	43·03	+ 7·74	3·77	Bhagalpur.
2	1	10	6	1		3	4	N 88° E		5·2			30		83		·954		5·7		10			9·27			53·00			3·55	Monghyr.
	3	6	2	1	1	2	3	N 77° E	S 76° E	2·5	3·8	—1·3	17	—33	84	— 2	·965	+·024	5·5	+0·4	5	9·27	— 4·27	4·05	8·70	— 4·65	57·72	45·38	+12·34	1·48	Darbhanga.
3	2	8	5	1		4	2	N 83° E					27		84		·960		3·3		7			4·51			69·00			1·33	Pusa.
1	1	6	6		2	4	1	S 59° E		3·1*			20		84		·954		3·4		7	8·94	— 1·94	4·44	8·17	— 3·73	52·46	40·36	+12·10	1·85	Muzaffarpur.
2	3	10	1			2	2	N 61° E		1·4			33		87		·968		3·6		4	8·97	— 4·97	1·89	9·62	— 7·73	47·07	45·89	+ 1·18	0·67	Motihari.
															85		·958		4·7		12	8·35	+ 3·65	6·1[illegible]	7·22	— 1·03	36·89	35·99	+ 0·90	2·05	Chapra.
1	1	9	1	3		5	2	S 81° E	S 74° E	4·2	3·9	+0·3	13	—17	82	— 1	·968	+·038	5·4	−0·7	10	9·29	+ 0·71	6·78	6·93	— 0·15	48·06	42·64	+ 5·42	2·27	Patna.
1	3	1	6	3	3	5	4	S 45° W		1·8			13		81		·917		5·3		11	9·29	+ 1·71	7·63	8·23	— 0·60	38·11	40·50	— 2·39	2·36	Arrah.
1	1	7	2	1	4	7	3	S 72° W		4·3			10		85		·939		5·3		11	9·93	+ 1·97	4·94	6·93	— 1·99	42·36	36·26	+ 6·10	1·72	Buxar.
2	1	4	4	1	7	9	1	S 54° W		2·3			27		81		·925		6·3		7	8·94	— 1·94	4·66	6·46	— 1·80	38·21	38·37	—0·16	1·15	Dehri.
2	2	1	4	1		9		S 84° W	S 37° W	2·7	3·8	—1·1	13	—20	81	— 1	·914	+·028	5·3	—0·5	11	9·13	+ 1·87	9·24	6·98	+ 2·26	58·20	42·24	+15·96	2·94	Gaya.
																																IV.—United Provinces of Agra and Oudh.
	1			1	2	1		N 75° W	N 62° E	?	2·0	?	10	—16	86	+ 2	·889	+·084	2·2	—2·2	9	8·60	+ 0·40	8·45	8·08	+ 0·37	47·33	45·50	+ 1·83	3·60	Gorakhpur.
2	1	3	2	1	2	5	2	N 83° W	S 31° W	2·3	3·8	−1·5	9	—2	82	— 2	·900	—·009	4·7	—0·5	6	8·40	— 2·40	7·02	6·03	+ 0·99	38·70	36·40	+ 2·30	1·93	Benares.
1	2	6	2		2	12	2	N 81° W	N 63° W	4·0	5·9	−1·9	20	+ 5	80	0	·869	—·020	5·3	—0·2	8	7·40	+ 0·60	7·00	5·16	+ 1·84	42·83	36·05	+ 7·78	2·03	Allahabad.

* Uncorrected for scale error.
† Mean of 29 days.
‡ Mean of 21 days.

Tab

(2) *Abstract of observations taken at 8 hrs. at 238 statio*

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	2
	IV.—United Provinces of Agra and Oudh—*concld.*																						
10	Cawnpore	416	29·301	—·009	29·676	29·391	3rd & 28th.	29·209	19th	·182	82·3	91·8	—0·6	75·2	—1·4	83·5	—1·0	16·6	96·2	28th	70·0	29th	26
	Lucknow	368	29·356	—·006	29·681	29·457	4th	29·249	19th	·208	81·4	91·6	—0·5	76·5	0	84·1	—0·3	15·1	96·0	28th	72·1	29th & 30th.	22
	Bahraich	401	29·323	—·004	29·685	29·431	28th	29·207	20th	·224	82·1	93·1	+2·1	76·9	+0·7	85·0	+1·4	16·2	97·1	28th	73·5	1st, 4th & 5th.	22
11	Jhansi	824	28·925	0	29·708	29·029	28th	28·860	19th	·169	81·1	90·1	—1·6	75·7	—0·1	82·9	—0·9	14·4	94·0	9th, 28th & 30th.	72·5	13th & 20th	21
	Agra	556	29·166	—·013	29·683	29·268	28th	29·080	19th	·188	81·6	92·6	—0·5	76·1	—0·6	84·3	—0·6	16·5	97·5	19th & 29th.	70·0	30th	27
	Mainpuri	516	29·201§	—·009	29·676§	29·304	3rd	29·107	19th	·197	80·9	92·7	—0·4	75·6	—0·3	84·1	—0·4	17·1	97·8	23rd	67·6	30th	30
	Bareilly	568	29·137	—·014	29·670	29·249	4th	29·012	12th	·237	80·9	92·0	+1·5	75·9	0	84·1	+0·8	16·1	97·3	23rd	70·5	29th	26
	Meerut	738	28·965	—·018	29·672	29·093	24th	28·858	1st	·235	77·9	89·6	—2·2	73·1	—1·5	81·4	—1·9	16·5	95·1	23rd	65·8	30th	29
	Roorkee	899	28·825	—·003	29·695	28·964	4th	28·705	12th	·259	78·7	90·1	—1·2	73·4	+0·1	81·8	—0·6	16·7	95·0	23rd	65·4	28th & 30th	29
	Dehra Dun	2,233	27·513	—·018	29·695	27·655	4th	27·383	19th	·272	75·1	85·9	+1·6	70·1	+0·1	78·0	+0·9	15·8	90·5	22nd & 23rd.	64·5	29th & 30th	26
	V.—Punjab.																						
12	Delhi	718	29·000	—·005	29·687	29·140	21th	28·892	1st	·248	78·7	90·5	—2·5	75·3	—1·7	82·9	—2·1	15·2	96·7	24th	71·2	29th	25
	Sirsa	662	29·046	—·009	29·677	29·156	3rd	28·938	19th	·218	79·8	91·5	—7·4	74·4	—1·2	83·0	—4·4	17·1	99·8	27th	66·6	30th	32
	Patiala	*818*	28·893		29·680	29·022	4th	28·785	19th	·237	80·2	90·8		73·5		82·2		17·3	96·8	23rd	67·9	30th	23
	Ambala	892	28·812‡	—·015‡	29·674‡	28·946	4th	28·709	12th & 19th	·237	79·2	92·8	—0·9	73·4	—0·5	83·1	—0·7	19·4	99·0	23rd	65·0	30th	34
	Ludhiana	812	28·897	—·011	29·683	29·013	4th	28·771	19th	·242	78·7	91·1	—3·8	74·4	—0·4	82·8	—2·1	16·7	97·5	24th	71·0	29th & 30th	26
	Lahore	702	29·003	—·002	29·680	29·132	3rd	28·871	19th	·261	79·1	92·4	—6·5	73·5	+0·9	83·0	—2·8	18·9	98·9	27th	67·7	30th	31
	Sialkot	830	28·877	—·003	29·685	29·012	3rd	28·737	19th	·275	77·4	90·3	—5·4	72·0	—1·8	81·1	—3·6	18·3	96·0	4 days	66·5	28th	29
	Rawalpindi	1,674	28·059	—·009	29·712	28·203	3rd	27·918	19th	·285	77·0	91·8	—1·8	68·1	—0·8	80·0	—1·2	23·7	95·9	4 days	62·9	28th & 29th	33
13	Khushab	612	29·104	+·016	29·687	29·259	3rd	28·954	19th	·305	82·7	97·7	—1·9	75·6	—0·2	86·7	—1·1	22·1	106·4	19th	70·4	27th	36
	Montgomery	558	29·165‖	+·073‖	29·695‖	29·258	3rd	29·086	10th	·172	81·3	94·6	—7·1	73·7	—2·4	84·2	—4·8	20·9	101·9	27th	67·6	29th & 30th	34
	Multan	420	29·278	+·006	29·664	29·398	4th	29·122	19th	·276	81·6	98·2	—2·1	76·8	—0·8	87·5	—1·5	21·4	104·8	25th	72·5	30th	32
	VI.—North-West Frontier Province.																						
15	Peshawar	1,110	28·618	—·014	29·714	28·786‡	3rd	28·472	13th & 19th.	·314	78·6	94·6	—1·4	70·0	—0·1	82·3	—0·8	24·6	101·7	19th	60·9	30th	40
	D. I. Khan	590	29·117	—·003	29·680	29·263	3rd	28·947	19th	·316	80·2	97·3	—3·2	73·5	—1·4	85·4	—2·3	23·8	102·9	19th	67·1	30th	35
	VII.—Sind.																						
17	Jacobabad	186	29·518	+·003	29·667	29·654	28th	29·391	13th & 19th.	·263	82·3	103·5	0	75·7	—0·3	89·6	—0·2	27·8	108·1	18th	69·2	30th	39
	Hyderabad	96	29·631	—·002	29·681	29·769	28th	29·521	19th	·248	80·6	95·8	—1·7	75·6	—0·6	85·7	—1·2	20·2	102·5	6th	72·0	22nd	30
	Karachi	13	29·763	—·004	29·726	29·803	28th	29·643	8th	·260	78·8	86·1	+0·7	75·2	—0·8	80·7	+0·2	10·9	99·5	7th	72·0	22nd	27
	VIII.—Rajputana.																						
18	Bikaner	*771*	28·950	—·011	29·693	29·080	28th	28·813	1st	·267	79·6	93·4	—5·1	75·2	—4·0	84·3	—4·6	18·2	100·0	24th, 26th & 27th.	69·5	29th	30
	Jodhpur	780	28·977	—·016	29·745	29·110	28th	28·793	9th	·317	77·9	89·7	—6·0	72·8	—3·3	81·2	—4·7	16·9	97·0	28th	67·3	15th	29
	Pachpadra	*380*	29·366	—·014	29·706	29·470	28th	29·154	9th	·316	78·0	92·0	—1·9	72·1	—3·1	82·0	—2·5	19·9	101·1	28th	66·4	16th	34
19	Jaipur	1,431	28·332	—·011	29·730	28·450	28th	28·231	10th	·219	78·5	90·9	—3·3	72·3	—1·2	81·6	—2·3	18·6	96·7	27th	67·1	20th	29
	Sambhar	1,254	28·505	+·006	29·729	28·633	28th	28·394	1st	·238	78·7	90·4	—3·3	72·8	—2·2	81·6	—2·8	17·6	97·4	24th	66·9	20th	30
	Ajmer	1,611	28·169	+·002	29·752	28·294	28th	28·058	9th	·236	75·7	84·3**	—6·2	73·5‡	—0·1‡	78·9†	—3·2†	10·8	89·9	25th	70·2	21st & 29th.	19
	Kotah	819†	28·914	—·016	29·723	29·035	28th	28·828	1st	·207	81·2	90·4	—2·4	75·3	—2·3	82·9	—2·4	15·1	96·0	28th	71·1	15th	24
	Udaipur	1,925	27·863	—·028	29·741	27·989	28th	27·760	9th	·229	77·4	85·2	—2·9	70·6	—0·7	77·9	—1·8	14·6	90·5	25th, 26th & 27th.	64·8	21st	25
	IX.—Bombay.																						
20	Deesa	466	29·219	—·016	29·743	29·453	28th	29·134	8th	·319	79·0	90·6	—2·2	73·1	—0·8	81·9	—1·5	17·5	97·2	25th & 26th.	68·4	16th	28
	Bhuj	395	29·390	—·007	29·742	29·534	28th	29·188	8th	·346	77·8	89·0	—3·1	72·9	—1·7	81·0	—2·4	16·1	95·0	4th	69·0	30th	25

N.B.—Elevations in italics indicate barometrical determinations.
NOTE.—The barometric readings are not reduced to sea-level in the cases of hill or plateau stations, the elevations of which exceed 3,200 feet.
‡ Mean of 29 days. § Mean of 28 days. ¶ Mean of 24 days. ‖ Mean of 11 days. ** Mean of 26 days. † „ „ 25 „

B—*continued.*

in India, etc., in September, 1909—continued.

Wind direction. Number of winds from Calm. (25)	N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st May to 30th September, 1909. (53)	Normal rainfall for period, 1st May to 30th September. (54)	Departure from normal of period, 1st May to 30th September 1909. (55)	Heaviest rainfall during month. (56)	STATION. (57)
																																IV.—United Provinces of Agra and Oudh—*concld.*
3	2	1	4	3	2	3	8	4	S 83° W	S 45° W	3·3	3·6	−0·3	20	+12	77	− 3	·855	−·020	0·7	−3·3	8	6·70	+1·30	5·19	5·14	+ 0·05	33·90	32·46	+1·44	1·67	Cawnpore.
1	1	4	5	3		2	3	1	N 78° E	S 83° E	2·4	2·8	−0·4	17	+10	83	+ 2	·902	+·025	3·3	−1·6	8	8·10	−0·10	5·04	5·39	− 0·35	38·23	35·47	+2·76	3·05	Lucknow.
2		1	2	1	1		3		S 22° E	S 68° E	3·0	3·2	−0·2	3	−38	81	− 1	·895	−·010	3·4	−0·6	4	7·40	−3·40	6·24	6·58	− 0·34	42·38	43·72	−1·34	3·96	Bahraich.
4	1	2	1	3	1	6	9	3	S 75° W	N 1° E	5·6	3·3	+2·3	37	+ 2	78	+ 3	·830	+·028	2·9	−0·1	8	6·80	+1·20	4·97	5·89	− 0·92	28·03	36·09	−8·06	1·23	Jhansi.
3		3	2	4	4	7	5	2	S 28° W	S 59° W	7·4	4·5	+2·9	30	+ 8	75	+ 1	·811	+·004	2·8	−0·7	6	4·80	+1·20	2·96	4·23	− 1·27	24·88	26·43	−1·55	1·30	Agra.
1	1	1	4	2	4	3	7	6	S 70° W	S 86° W	2·41	1·5	+0·9	23	+ 4	83	+ 5	·879	+·046	1·6	−2·6	4	6·70	−2·70	2·34	3·74	− 1·40	26·92	27·78	−0·86	0·80	Mainpuri.
2	1		1				5	1	N 69° W	S 56° E	0·8	2·3	−1·5	17	− 9	80	− 2	·848	+·002	2·7	−1·1	6	6·73	−0·73	6·70	7·01	− 0·31	38·90	43·63	−4·73	3·34	Bareilly.
0			1	2	1	1	5		S 47° W	S 56° W	1·0	1·8	−0·8	13	+ 6	83	+ 7	·801	+·032	2·7	−0·3	8	5·00	+3·00	7·07	5·30	+ 1·77	42·29	28·04	+14·25	1·74	Meerut.
0				4				6	N 45° W	S 58° E	2·1	1·9	+0·2	3	−12	82	+ 1	·802	+·017	2·8	−0·8	3	5·70	−2·70	3·88	6·04	− 2·18	34·87	37·87	−3·00	1·42	Roorkee.
0									(a)	S 5° W	0·9*	1·0	−0·1			82	− 1	·715	+·018	3·5	−1·3	9	10·20	−1·20	6·03	9·74	− 3·71	102·10	80·95	+21·15	1·33	Dehra Dun.
																																V.—Punjab.
3		2	3	5	1	2	12	2	S 66° W	S 85° W	4·8	3·5	+1·3	23	− 6	82	+13	·796	+·051	3·4	+0·2	8	4·10	+3·90	6·74	3·61	+ 3·13	31·15	21·74	+6·41	2·36	Delhi.
	2	4	2	1	1	8	8	2	S 87° W	S 59° W	4·0	4·9	−0·9	31	+ 9	76	+12	·774	+·051	2·8	+0·7	9	3·20	+5·80	6·72	1·74	+ 4·98	21·35	12·25	+9·10	2·56	Sirsa.
5			4	4	1		6	4	N 27° W		3·6			17		80		·826		2·6		8			5·21			29·19			1·75	Patiala.
	1			8	2		3	7	S 38° W	S 39° W	3·5	1·5	+2·0	10	−19	79	− 3	·793	−·009	2·9	+0·2	5	3·90	+1·10	3·03	4·24	− 1·21	25·97	26·94	−0·97	1·48	Ambala.
	1		1			2			S	S 20° E	0·6	1·4	−0·8	5	− 7	80	+ 5	·786	+·032	2·8	−0·3	7	3·40	+3·60	6·55	3·61	+ 2·94	34·29	22·86	+11·43	2·01	Ludhiana.
5		3	2	5		5			S 25° W	S 34° E	1·8	2·1	−0·3	3	−12	81	+14	·806	+·072	3·0	+1·6	7	2·30	+4·70	6·41	1·99	+ 4·42	23·98	16·16	+7·82	2·26	Lahore.
5	6	3	3					1	N 48° E	N 73° E	1·4	1·8	−0·4	40	− 1	84	+14	·787	+·047	2·3	+0·1	9	3·30	+5·70	9·24	2·83	+ 6·41	21·67	24·64	−2·97	2·92	Sialkot.
3		1				1		3	N 23° W	N 56° E	1·6	1·5	+0·1	17	+ 2	68	− 4	·638	−·027	2·6	+0·7	2	4·20	−2·20	1·24	3·23	− 1·99	27·69	23·94	+3·75	0·80	Rawalpindi.
1	7	5	2	2	1	3			N 76° E	N 65° E	4·7	5·4	−0·7	27	−29	63	+ 3	·695	+·016	1·8	+0·7	3	1·60	+1·40	1·32	0·54	+ 0·78	6·87	10·29	−3·42	0·46	Khushab.
2	3	3	1	6	11	1			S 16° W	S 4° W	6·2	6·9	−0·7	33	−11	66	+ 7	·690	−·012	2·6	+1·4	6	1·30	+4·70	4·44	0·87	+ 3·57	11·14	7·75	+3·39	1·60	Montgomery.
1	5		1	1	2		1		N 45° E	S 5° W	1·4	2·6	−1·2	10	−31	69	+ 4	·740	−·009	1·6	+1·0	0	0·70	−0·70	0·06	0·32	− 0·26	4·80	5·67	−0·87	0·04	Multan.
																																VI.—North-West Frontier Province.
5	1			1		2	3		N 27° W	N 34° W	1·5	2·8	−1·3	27	− 3	64	+ 1	·640	+·007	1·3	+0·2	2	1·40	+0·60	0·72	0·52	+0·21	4·09	5·59	−1·50	0·61	Peshawar.
1	7	1	4				1		N 64° E	N 67° E	1·2	1·8	−0·6	30	0	71	+ 3	·730	−·001	1·1	+0·5	0	1·00	−1·00	0	0·28	−0·28	9·01	5·28	+3·73	0	D. I. Khan.
																																VII.—Sind.
6	6	1	4	2	2	1	1		N 48° E	S 48° E	3·5	2·9	+0·6	27	−21	71	+ 2	·779	−·004	1·1	+0·5	0	0·50	−0·50	0	0·07	−0·07	0·53	2·67	−2·14	0	Jacobabad.
2	1		1	7	15	1	1		S 36° W	S 39° W	9·8	13·6	−3·8	62	−12	71	+ 3	·738	+·021	2·4	+0·8	2	0·80	+1·20	0·22	0·41	−0·18	6·85	6·07	+0·78	0·12	Hyderabad.
1	1	1			4	19	2		N 87° W	S 77° W	11·8	14·6	−2·8	72	− 9	80	− 1	·781	−·070	4·4	−0·6	0	0·60	−0·60	0·02	0·51	−0·49	5·68	6·65	−0·97	0·01	Karachi
																																VIII.—Rajputana.
	4	2	1	1	8	7	2		S 70° W	S 46° W	5·2	6·8	−1·6	30	−30	72	+ 9	·728	−·011	2·9	+0·5	6	1·90	+4·10	4·57	0·94	+ 3·63	20·94	10·03	+10·91	1·38	Bikaner.
1	5		1	2	13	6	1		S 60° W		4·6			43		79	+11	·752		5·3		6	2·50	+3·50	7·37	1·75	+ 5·62	17·73	12·26	+5·47	4·71	Jodhpur.
	2		5		15		8		S 59° W			7·5		44		81	+ 5	·779	−·032*	4·6	+1·1	7	2·50	+4·50	4·20	2·11	+ 2·09	13·28	12·42	+0·86	1·50	Pachpadra.
2	2	5	1	1	2	4	12		N 38° W	N 68° W	5·3*	4·2	+1·1	37	− 4	76	+ 3	·747	+·025	4·3	+0·7	5	4·90	+0·10	3·65	3·56	+ 0·09	22·04	24·26	−2·22	1·45	Jaipur.
	1	4		1	2	11	5		N 71° W	N 86° W	6·4	6·8	−0·4	40	− 8	80	+11	·782	+·053	3·8	+0·9	6	3·80	+2·20	3·55	2·80	+ 0·75	23·84	19·14	+4·70	1·50	Sambhar.
2	1	1	4		2	12	5		W	S 89° W	7·5	5·6	+1·9	41	−26	85	+10	·759	+·025	5·0	+1·9	5	4·10	+0·90	7·49	2·33	+ 5·16	25·76	20·09	+5·67	3·25	Ajmer.
6		1	2	1	4	8	5		N 71° W		3·8			43		73	+ 5	·778		3·2		4	5·10	−1·10	2·76	5·48	− 2·72	33·51	25·51	+8·00	2·25	Kotah.
	2	2			4	8	2		W		3·1			29		80	+ 8	·752		4·8		6	6·10	−0·10	3·74	4·91	− 1·17	38·94	20·63	+18·31	1·19	Udaipur.
																																IX.—Bombay.
		2	1		4	16	3		S 88° W	S 79° W	6·5*	8·3	−1·8	59	0	81	+ 5	·803	+·025	5·8	+0·8	6	3·73	+2·27	5·57	3·98	+ 1·59	27·84	23·33	+4·51	1·80	Deesa.
1	2				5	10	12		N 71° W	N 87° W	10·4	12·2	−1·8	72	− 6	81	+ 6	·772	−·014	5·8	+1·4	3	2·00	+1·00	3·69	1·68	+ 7·51	18·69	13·71	+4·98	4·94	Bhuj.

* Uncorrected for scale error. (a) Indeterminate.

Tab

(2) *Abstract of observations taken at 8 hrs. at 238 statio*

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	IX.—Bombay—*concld.*																						
	Jamnagar	61	29·733?		29·739?	29·878	28th	29·533	8th	·345	80·7	87·1		73·2		80·2		13·9	92·0	5th	69·6	9th	
	Dwarka	37?	29·777		29·760	29·914	28th	29·613	6th	·301	79·5	83·9		76·6		80·2		7·3	85·3	4 days	71·7	9th	
	Rajkot	429	29·391†	+·007†	29·775†	29·516	28th	29·173	8th	·343	78·6	89·5	−1·9	71·2	−1·2	80·4	−1·6	18·3	93·4	27th	68·0	30th	
	Veraval	*18*	29·810	−·012	29·770	29·938	28th	29·625	7th	·313	78·9	82·8	−1·0	76·1	−0·2	79·4	−0·6	6·7	85·6	5th	72·3	30th	
	Bhavnagar Para	55	29·758?	−·045?	29·757?	29·868	28th	29·551	7th	·317	79·6	90·9	−2·1	74·0	−1·5	82·4	−1·8	16·9	94·1	19th	69·5	14th	
	Surat	39	29·786	−·014	29·770	29·906	28th	29·601	7th	·305	79·6	86·4	−2·1	75·6	+0·1	81·0	−1·0	10·8	90·1	29th	72·6	14th	
	Ahmedabad	163	29·626?	−·038?	29·740?	29·751	28th	29·446	8th	·305	78·7	89·8	−2·3	75·4	−0·8	82·6	−1·6	14·4	94·6	25th	71·7	13th	
26	Bombay	37	29·814	−·020	29·791	29·923	28th	29·636	5th	·287	78·0	83·7	−0·8	76·1	−0·4	79·9	−0·6	7·6	87·0	4th & 5th	74·0	26th	
	Ratnagiri	110	29·755	−·008	29·805	29·847	28th	29·602	5th	·245	78·1	83·9	−0·3	74·1	−0·3	79·0	−0·3	9·8	88·8	8th	71·9	12th	
	Goa	199	?	?	?	?	?	?	?	?	77·6	81·2	−1·4	74·7	−0·8	78·0	−1·1	6·5	82·1	12 days	73·1	18th, 21st & 22nd.	
	Mormugao	*60*	29·820	−·025	29·815	29·907	28th	29·693	5th	·224	78·7	83·1	−0·4	74·4	−0·7	78·8	−0·6	8·7	86·0	8th	72·2	21st	
	Karwar	44	29·857	−·004	29·835	29·934	27th & 28th.	29·720	5th	·214	76·4	83·0	+0·3	73·6	−0·3	78·3	0	9·4	85·3	8th	71·0	18th	
27	Malegaon	1,430	28·374†	−·020†	29·767†	28·491	28th	28·251	6th	·240	76·3	87·4	−0·5	69·4	−0·8	78·4	−0·7	18·0	92·4	17th	63·1	14th	
	Ahmednagar	2,154	27·700	−·003	29·813	27·805	28th	27·563	5th	·242	73·4	84·7	−0·5	66·9	−1·1	75·8	−0·8	17·8	89·4	18th	60·0	12th & 14th	
	Poona	1,846	28·011	−·006	29·821	28·114	28th	27·878	5th	·236	73·6	82·8	−1·6	68·4	−0·2	75·6	−0·9	14·4	87·5	3rd & 28th.	63·3	14th	
	Sholapur	1,590	28·241	−·020	29·795	28·331	28th	28·097	5th	·234	74·4	85·9	−2·5	69·8	−0·6	77·9	−1·6	16·1	90·8	15th & 22nd.	65·9	8th & 14th.	
	Bijapur	*1,948*	27·892§	−·019§	29·799§	27·950	17th	27·758	5th	·192	73·7	85·1	−0·8	71·2	+1·6	78·2	+0·4	13·9	89·2	20th	69·2	7th	
	Belgaum	2,539	27·326	−·013	29·816	27·409	27th	27·206	5th	·203	70·4	79·1	+0·2	64·8	−0·5	72·0	−0·2	14·3	82·8	28th	61·5	18th	
	X.—Central India.																						
21	Neemuch	1,624	28·152	−·012	29·748	28·268	28th	28·066	6th & 7th.	·202	74·8	86·1	−1·8	70·1	−0·8	78·1	−1·2	16·0	92·0	30th	64·8	15th	
	Indore	1,823	27·989	+·016	29·782	28·096	28th	27·880	6th	·216	73·5	83·5	−1·9	69·6	−0·5	76·6	−1·2	13·9	88·1	29th	65·1	14th & 15th.	
22	Nowgong	754	28·980	−·008	29·698	29·080	28th	28·923	19th	·157	78·3	88·2	−2·2	74·7	−0·3	81·5	−1·3	13·5	91·5	28th	69·5	30th	
	Sutna	1,040	28·680	−·015	29·686	28·771	28th	28·610	22nd	·161	79·1	87·9	−0·1	75·5	+0·9	81·7	+0·4	12·4	92·0	8th	71·7	29th	
	XI.—Central Provinces.																						
23	Buldana	2,132	27·691		29·782	27·796	28th	27·582	6th	·214	72·6	81·1		68·4		74·8		12·7	85·4	30th	64·0	23rd	
	Akola	930	28·868	−·002	29·760	28·957	28th	28·768	6th	·189	77·1	87·7	−1·4	71·7	−1·0	79·7	−1·2	16·0	92·7	29th	68·1	14th & 23rd.	
	Amraoti	1,215	28·565	−·004	28·744	28·650	28th	28·493	23rd	·157	75·6	86·3	−2·1	71·0	−1·1	78·7	−1·6	15·3	91·8	29th	65·8	14th	
24	Khandwa	1,044	28·740	−·009	29·753	28·840	28th	28·632	6th	·208	75·8	87·0	−1·1	72·9	−0·2	80·0	−0·7	14·1	91·2	29th & 30th.	68·1	14th	
	Hoshangabad	1,006	28·777	+·001	29·752	28·883	28th	28·689	6th	·194	76·6	86·8‡	−1·3‡	71·7‡	−1·6‡	79·3‡	−1·5‡	15·1	94·1	28th	66·9	14th	
	Saugor	1,807	27·956	−·006	29·725	28·058	28th	27·885	22nd	·173	75·3	84·5	−2·1	70·9	−0·6	77·7	−1·4	13·6	89·6	28th & 30th.	67·5	4 days	
	Jubbulpore	1,327	28·430	+·004	29·724	28·514	28th	28·300	22nd	·214	76·2	86·0	−1·4	72·5	−0·3	79·2	−0·9	13·5	90·0	9th&30th	67·8	30th	
	Seoni	2,033	27·750	+·006	29·738	27·834	28th	27·617	22nd	·217	74·7	83·7	−1·9	68·5	−2·1?	76·1	−2·0?	15·2	88·0	10th	64·5	13th	
	Nagpur	1,017	28·749	−·002	29·729	28·833	28th	28·638	22nd	·195	77·2	87·9	−1·4	73·0	−0·8	80·4	−1·1	14·9	92·6	29th	69·3	22nd	
25	Pendra	2,123?	27·720		29·700	27·795	1st	27·571	22nd	·224	75·5	83·3		70·5		76·9		12·8	88·8	9th&10th	67·2	23rd	
	Raipur	970	28·770	−·011	29·696	28·854	1st	28·539	22nd	·315	77·8	87·5	−0·7	74·1	−0·7	80·8	−0·7	13·4	92·7	10th	67·6	23rd	
	Chanda	*634*	29·139	−·008	29·722	29·217	28th	29·047	5th	·170	78·2	88·0	−1·1	73·0	−1·5	80·5	−1·3	15·0	92·5	18th	66·0	23rd	
	XII.—Hyderabad.																						
28	Aurangabad	1,905	27·934	−·028	29·804	28·016	28th	27·819	5th	·197	73·4	81·4	−2·1	68·2	−0·5	76·3	−1·3	16·2	88·2	3rd	63·2	14th	
	Nizamabad	1,248	28·540‖	+·002‖	29·748‖	28·617	27th	28·385	5th	·232	76·8	87·7	+0·8	71·8‡	−0·8‡	79·8‡	0	15·9	91·9	18th	64·7	12th	

N.B.—Elevations in italics indicate baro-metrical determinations.

† Mean of 28 days.

‡ Mean of 29 days.

NOTE.—The barometric readings are not reduced to sea-level in the cases of hill or plate

‖ Mean of 26 days.

B—*continued.*

in India, etc., in September, 1909—continued.

Wind direction. Number of winds from Calm. (25)	N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st May to 30th September, 1909. (53)	Normal rainfall for period, 1st May to 30th September. (54)	Departure from normal of period, 1st May to 30th September, 1909. (55)	Heaviest rainfall during month. (56)	Station. (57)
																																IX.—Bombay—*concld.*
4	1	1			1	9	12	2	S 72° W		12·4			67		79		·824		3·4		4			12·79			31·15			4·53	Jamnagar.
3	1				4	10	9	3	S 66° W		9·0			66		84		·856		4·6		2			2·78			26·47			1·41	Dwarka.
	1		1	1		10	11	6	S 83° W	N 87° W	9·6	9·1	+0·5	69	−5	79	−3	·761	−·050	5·7	+0·9	5	5·10	−0·10	6·40	3·96	+2·44	27·11	27·13	−0·02	2·07	Rajkot.
9	2					2	13	4	N 79° W	N 86° W	7·8	7·9	−0·1	56	+1	90	+5	·882	+·030	5·9	+0·2	3	4·60	−1·60	5·46	1·99	+3·47	21·58	16·78	+4·80	3·54	Veraval.
	1		1			13	5	10	S 79° W	S 63° W	6·5	10·8	−4·3	19	−54	80	−2	·813	−·043	6·4	+0·7	8	7·80	+0·20	4·43	4·43	0	24·63	18·70	+5·93	2·04	Bhavnagar
3	5	2		1	5	4	9	1	S 82° W	S 78° W	4·6	6·9	−2·3	33	−19	82	−1	·838	−·023	6·5	+0·8	9	7·00	+2·00	6·75	7·01	−0·26	52·72	41·73	+10·99	1·97	Para. Surat.
1	2	1		1	1	9	2	13	N 77° W	N 68° W	‡ 4·7	3·9	+0·8	53	−4	83	+5	·805	−·009	6·3	+0·5	5	5·80	−0·80	3·53	4·77	−1·24	29·62	31·79	−2·17	0·98	Ahmedabad.
1		3	4	6	3	1	6	6	S 23° W	S 56° W	* 8·0	10·8	−2·8	7	−8	90	+3	·872	−·008	8·1	+0·8	20	14·00	+6·00	16·05	11·75	+4·30	71·22	72·21	−0·99	2·77	Bombay.
4	3	2	4	1	2		3	1	N 45° E	S 73° W	6·6	6·8	−0·2	10	+3	86	−1	·827	−·032	4·9	−1·6	14	15·60	−1·60	11·79	12·52	−0·73	99·20	102·14	−2·94	2·80	Ratnagiri.
3	5	3	7	1	4	2	2	3	N 54° E	N 10° E	* 6·0	5·6	+0·4	17	+7	89	0	·838	−·032	7·7	+0·3	22			9·15	8·37	+0·78	92·05	91·24	+0·81	1·90	Goa.
4	2		2	1	3		6	2	S 87° W	N 54° W	* 5·2	7·4	−2·2	16	−37	92	+1	·900	+·015	7·2	+1·4	21			8·85	8·34	+0·51	77·50	85·01	−7·51	1·10	Mormugao.
8					1	3			S 34° W	N 36° W	2·8	2·9	−0·1	13	−21	90	0	·831	+·008	6·0	+0·1	19	15·10	+3·90	16·23	12·76	+3·47	108·45	113·71	−5·26	3·34	Karwar.
0		1			1	2	5	1	S 81° W	N 87° W	7·2	9·1	−1·9	20	−50	79	+2	·722	+·013	3·5	−2·1	10	7·80	+2·20	5·42	6·90	−1·48	19·36	20·62	−1·26	1·72	Malegaon.
	2	1				5	3	19	N 57° W	N 70° W	* 7·9	12·5	−4·6	76	−13	79	−3	·650	−·035	5·5	−0·4	9	9·80	−0·80	9·42	6·98	+2·44	21·62	18·13	+3·49	4·92	Ahmednagar.
	1					2	17	10	N 75° W	N 87° W	10·0	11·1	−1·1	86	+16	83	+2	·685	+·006	8·0	+0·8	12	8·10	+3·90	7·92	5·00	+2·92	22·24	21·42	+0·82	3·50	Poona.
5	1				1	2	5	16	N 61° W	N 68° W	6·8	8·4	−1·6	66	−1	83	+5	·706	+·031	5·7	−1·6	9	9·50	−0·50	7·44	8·77	−1·33	36·42	24·41	+12·01	1·87	Sholapur.
						9	15	6	S 85° W	N 87° W	* 10·0	7·3	+2·7	86	+11	79‡	−5	·660‡	−·040	5·0	−2·3	8	9·70	−1·70	7·15	7·61	−0·46	16·58	17·44	−0·86	2·06	Bijapur.
1	1					7	16	5	S 89° W	N 81° W	15·6	15·7	−0·1	81	+11	88	−1	·652	−·005	7·5	0	8	9·10	−1·10	3·47	4·83	−1·36	41·29	39·89	+1·40	1·64	Belgaum.
																																X.—Central India.
1	4	2	2	1	1	4	13	2	N 80° W	N 89° W	7·3	8·8	−1·5	43	−12	85	+7	·740	−·001	4·0	+0·6	4	6·50	−2·50	0·94	5·11	−4·17	22·49	28·69	−6·20	0·29	Neemuch.
3		1				4	7	15	N 62° W	N 60° W	3·6	4·1	−0·5	69	+17	89	+3	·742	−·006	7·7	+1·4	11	8·80	+2·20	5·48	7·68	−2·20	23·00	31·18	−8·18	1·33	Indore.
1	1	1	5		2	5	12	3	S 81° W	N 89° W	2·6	2·3	+0·3	40	+1	87	+6	·841	+·020	3·9	−1·0	7	7·00	0	5·01	5·24	−0·23	35·69	41·43	−5·74	1·34	Nowgong.
3		1	3	4	1	6	9	3	S 59° W	N 69° W	3·2	6·1	−2·9	32	−5	83	+3	·823	+·006	9·0	+3·1	7	8·70	−1·70	5·29	6·10	−0·31	32·10	40·55	−8·45	1·57	Sutna.
																																XI.—Central Provinces.
	2	1		2	1	2	11	11	N 69° W		7·3	8·1	−0·8	63		83		·671		7·1		12			5·23	8·09	−2·86	35·08	31·46	+3·62	1·31	Buldana.
		1	1			2	13	12	N 70° W	N 69° W	6·3	6·5	−0·2	72	−2	78	−3	·733	−·028	7·9	+2·1	6	8·40	−2·40	5·16	6·52	−1·36	24·47	29·00	−4·53	2·11	Akola.
		2	2		1	3	12	10	N 73° W	S 88° W	5·8	5·3	+0·5	59	0	83	−2	·741	−·037	7·1	+1·1	8	7·30	+0·70	9·41	6·26	+3·15	29·67	30·03	−0·36	3·62	Amraoti.
4	1			2	3	1	5	14	N 55° W	N 79° W	7·2	6·4	+0·8	58	−25	84	+2	·760	+·004	5·3	+0·1	7	7·70	−0·70	4·06	6·58	−2·52	18·39	28·68	−10·29	1·48	Khandwa.
		1	3			5	8	1	S 76° W	S 51° W	2·9	2·6	+0·3	30	−18	86	−1	·793	−·021	6·6	+0·5	5	10·50	−5·50	4·31	9·66	−5·35	37·04	48·49	−11·45	1·55	Hoshangabad.
1			4	1	1	5	11	6	W	S 80° W	6·9	4·4	+2·5	47	+3	82	−1	·722	−·041	7·1	+1·6	6	9·70	−3·70	3·78	7·31	−3·53	36·46	44·84	−8·38	0·92	Saugor.
1	1	1	3	3	5	9	6		S 77° W	S 66° W	2·6	3·0	−0·4	43	+10	82	−2	·746	−·052	5·7	+0·2	9	9·80	−0·80	4·44	7·90	−3·46	37·77	54·58	−16·81	1·30	Jubbulpore.
6	3	2	2	2	1	4	9		N 28° W	N 53° W				40	+10	82	−2	·698	−·070	6·3	+1·8	10	11·90	−1·90	7·48	9·51	−2·03	41·14	49·72	−8·58	2·86	Seoni.
	3	6	1			16	4		N 67° W	N 72° W	4·5	5·3	−0·8	37	+4	79	−1	·742	−·056	8·3	−1·1	8	10·30	−2·30	6·14	9·04	−2·90	48·26	44·00	+4·26	2·24	Nagpur.
3	2		2	2	2	1	10		N 45° W		4·7		+4·7	33		81		·718		5·5		8			2·67			33·76			0·58	Pendra.
	1	3	1	1	9	6	5		S 71° W	S 63° W	7·0	5·9	+1·1	40	+6	82	−2	·775	−·063	6·4	−0·1	6	10·60	−4·60	5·21	7·39	−2·18	38·18	46·12	−7·94	4·05	Raipur.
1	2			2	3	11	6		N 81° W	N 79° W	4·0	4·0	0	53	+23	81	+1	·732	−·028	5·3	−0·3	8	11·30	−3·30	5·21	9·48	−4·27	40·95	49·88	−8·93	2·10	Chanda.
																																XII.—Hyderabad.
2			1		1	13	8		N 71° W		11·1			66		83	+5	·682		6·3		9	9·60	−0·60	10·99	6·76	+4·14	38·99	24·23	+14·66	3·88	Aurangabad.
2	1			1	5	14	1		S 87° W					56		79	−1	·725		4·8		8	10·30	−2·30	5·51	9·50	−3·99	21·56	36·32	−14·76	2·43	Nizamabad.

tions, the elevations of which exceed 3,200 feet. * Uncorrected for scale error. ‖ Mean of 27 days.

Tabl

(2) *Abstract of observations taken at 8 hrs. at 238 station*

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	XII.—Hyderabad—*concld.*																						
28	Bidar	*2,165*	27·670		29·788	27·758	28th	27·538	5th	·220	73·6	84·1		65·1		74·7		19·0	88·1	29th	61·0	7th	27
29	Gulbarga	1,503	28·324	−·020	29·787	28·412	28th	28·184	5th	·228	75·4	88·0	+0·5	71·3	+0·4	79·6	+0·5	16·7	92·0	17th & 18th.	66·8	7th	25
	Raichur	*1,311*	28·494‡?	−·043‡?	29·763‡?	28·582	28th	28·380	5th	·202	76·3	88·0	+0·3	72·1	−0·1	80·0	+0·1	15·5	92·6	18th	68·1	7th	24
	Hyderabad (Deccan)	1,690	28·123*	−·017*	29·770*	28·192	28th	28·057	4th	·135	75·3	86·3	−0·4	72·0	+1·2	79·1	+0·4	14·3	91·3	30th	67·7	3rd	23
	Hanumkonda	871	28·907	−·024	29·726	28·980	28th	28·802	5th	·178	79·7	88·2	−0·1	74·4	−0·2	81·3	−0·2	13·8	92·0	30th	71·2	3rd & 23rd.	20
	XIII.—Mysore.																						
30	Chitaldroog	2,405	27·489	−·006	29·849	27·562	27th	27·364	5th	·198	70·8	81·5	−2·0	66·5	−1·0	74·0	−1·5	15·0	86·1	29th	63·9	18th	22
	Hassan	3,149	26·793	−·004	29·872	26·860	28th	26·693	5th	·167	68·7	78·2	−1·6	64·1	0	71·2	−0·8	14·1	83·4	29th	61·2	13th	22
	Bangalore	3,021	26·898	−·021	29·853	26·979	28th	26·789	5th	·190	68·7	80·7	−1·2	65·3	0	73·0	−0·6	15·4	85·3	27th & 29th.	61·8	13th	23
	Mysore	2,518	27·406	−·010	29·877	27·477	28th	27·305	5th	·172	70·7	81·5	−3·0	65·8	−0·6	73·6	−1·8	15·7	88·0	29th	63·0	13th & 18th.	25
	XIV.—Madras.																						
31	Mangalore	65	29·946	−·020	29·844	29·916	27th	29·724	4th	·192	77·4	82·9	−1·2	71·9	−1·7	77·4	−1·5	11·0	85·8	27th & 30th.	69·8	21st	16
	Calicut	27	29·890	−·017	29·847	29·953	24th	29·795	4th & 5th.	·158	77·2	82·7	−1·6	74·3	−0·1	78·6	−0·9	8·4	85·8	15th, 16th & 26th.	72·6	2nd, 3rd & 4th.	13
	Cochin	9	29·927	−·004	29·864	29·978	27th	29·844	5th	·134	78·1	85·2	+0·6	74·5	0	79·9	+0·3	10·7	87·7	26th & 27th.	72·2	12th	15
	Trivandrum	198	29·727	−·003	29·858	29·793	10th	29·657	3rd	·136	76·9	81·8	−1·1	74·1	+1·0	77·9	−0·1	7·7	83·5	17th & 18th.	72·5	16th, 21st & 23rd.	11
32	Tinnevelly	168	29·707	−·010	29·804	29·767	27th	29·630	3rd	·137	84·9	95·8	−2·0	78·7	+0·1	87·3	−1·0	17·1	101·2	27th & 29th.	74·9	5th	26
	Pamban	37	29·828	−·019	29·792	29·890	24th	29·726	3rd	·164	82·3	89·2	+0·2	77·3	−1·0	83·3	−0·4	11·9	92·2	29th	75·5	1st, 8th & 26th.	16
	Madura	447	29·423*	+·002*	29·807*	29·494	27th	29·332	3rd	·162	81·1	93·1	−2·2	74·4	−0·9	83·7	−1·6	18·7	96·4	21st & 28th.	70·6	19th	25
	Periyakulam	944								Observatory closed.													
	Pudukkottai	318	29·542		29·793	29·613	27th	29·454	4th	·159	80·3	93·1		75·3		84·2		17·8	99·1	21st	72·4	5th	26
	Negapatam	31	29·829†	−·011†	29·789†	29·890	17th	29·748	4th	·142	80·0	90·4	−2·1	76·5	0	83·5	−1·1	13·9	95·0	19th, 20th & 25th.	74·0	8th, 13th & 25th.	21
	Trichinopoly	255	29·606	−·015	29·795	29·678	24th	29·511	4th	·167	80·3	91·7	−3·8	75·2	−0·5	83·5	−2·2	16·5	97·6	27th	72·8	4th & 17th.	24
	Coimbatore	1,348	28·527	−·014	29·834	28·600	27th	28·387	4th	·213	74·5	87·6	−2·0	70·2	−0·5	78·9	−1·3	17·4	91·9	16th & 27th.	67·8	13th & 18th.	24
	Salem	940	28·954	−·014	29·841	29·019	24th	28·854	4th	·165	78·0	88·8	−2·5	73·1	+1·2	80·9	−0·7	15·7	97·0	30th	70·4	5th	26
	Cuddalore	37	29·799	−·020	29·766	29·870	24th	29·703	4th	·167	79·7	90·1	−1·8	75·1	−0·6	82·6	−1·2	15·0	94·1	15th, 21st & 24th.	69·7	17th	24
	Vellore	707	29·140		29·791	29·210	27th	29·042	4th	·168	79·4	89·2*		75·0		82·1*		14·2	95·2	28th	72·5	5 days	22
	Madras	22	29·802	−·025	29·755	29·888	28th	29·690	4th	·198	81·2	90·2	−2·8	76·8	−0·2	83·5	−1·5	13·4	96·0	21st	72·0	4th & 12th.	24
33	Cuddapah	433	29·412	−·011	29·786	29·509	28th	29·287	5th	·222	79·6	91·4	−1·1	75·2	−0·6	83·3	−0·9	16·2	99·2	28th	71·6	3rd & 5th.	27
	Bellary	1,475	28·374	−·011	29·805	28·457	28th	28·240	5th	·217	76·1	89·1	−1·5	72·5	−0·2	80·8	−0·9	16·6	94·5	17th	69·3	7th	25
	Kurnool	923	28·904	−·016	29·778	28·985	28th	28·771	5th	·214	77·4	89·2	0	73·6	+0·5	81·5	+0·3	15·6	93·2	17th & 18th.	69·6	7th	23
34	Nellore	66	29·734	−·022	29·734	29·830	28th	29·650	4th & 5th.	·180	81·8	91·0	−3·6	77·6	−0·1	84·3	−1·9	13·4	97·6	28th	72·1	3rd	25
	Masulipatam	15	29·762	−·024	29·712	29·844	28th	29·651	5th	·193	81·9	89·7	−1·0	77·3	−0·1	83·6	−0·6	12·4	96·3	18th	72·2	27th	24
	Cocanada	26	29·739	−·023	29·701	29·819	25th	29·626	20th	·193	81·2	89·4	+0·2	77·6	−0·5	83·5	−0·2	11·8	95·2	18th	72·0	9th	23
	Waltair (Vizag.)	*296*	29·528	−·013	29·695	29·616	24th	29·399	20th	·217	81·8	87·5		77·9		82·7		9·6	91·1	19th	74·9	3rd & 7th.	16
	Calingapatam	19	29·731		29·690	29·823	24th	29·587	21st	·236													
	Gopalpur	72	29·669	−·010	29·683	29·764	6th	29·498	21st	·266	81·9	88·1	−0·2	78·5	+0·2	83·3	0	9·6	92·7	11th	76·0	7th	16

N.B.—Elevations in italics indicate barometrical determinations. * Mean of 29 days. † Mean of 27 days.

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

3—continued.

in India, etc., in September, 1909—continued.

Wind direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 30th September, 1909.	Normal rainfall for period, 1st May to 30th September.	Departure from normal of period, 1st May to 30th September, 1909.	Heaviest rainfall during month.	Station.
26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																															XII.—Hyderabad—*concld.*
2	1	1			3	8	14	N 59° W		7·8			67		82		·680		3·3		6	11·90	− 5·90	3·96	9·21	− 5·25	30·64	33·14	− 2·50	1·40	Bidar.
4	2				3	8	13	N 55° W	N 54° W	9·6	10·8	−1·2	69	+11	80	0	·710	−·001	5·2	−1·6	6	11·20	− 5·20	2·50	9·33	− 6·83	28·91	26·26	+ 2·65	0·72	Gulbarga.
1					4	8	17	N 66° W	S 89° W	10·5	9·7	+0·8	82	+13	72	− 8	·661	−·064	6·1	−0·6	10	9·80	+ 0·20	5·59	8·44	− 2·85	21·68	24·33	+ 0·35	0·97	Raichur.
						9	8	N 69° W	N 83° W	4·5	5·6	−1·1	53	−14	77	− 6	·677	−·057	6·1	−0·4	7			8·20	6·04	+ 2·16	27·22	25·74	+ 1·48	2·50	Hyderabad (Deccan).
2			2	1	2	4	18	N 58° W		7·7*			66		72	− 4	·733		5·9		7	10·30	− 3·30	4·00	5·86	− 1·86	28·15	28·05	+ 0·10	2·28	Hanumkonda.
																															XIII.—Mysore.
					8	15	7	S 88° W	S 80° W	7·7	8·8	−1·1	86	0	85	+ 3	·644	+·001	7·5	−0·6	9	6·90	+ 2·10	3·24	4·71	− 1·47	19·60	17·72	+ 1·88	0·74	Chitaldroog.
					7	15	8	N 88° W	N 79° W	8·9	3·5	+5·4	87	+11	88	+ 6	·614	+·009	7·3	−0·9	5	7·40	− 2·40	3·46	4·68	− 1·22	31·93	22·06	+ 9·85	1·86	Hassan.
					7	20	3	S 84° W	S 82° W	8·6	7·0	+1·6	89	+ 8	88	+ 2	·618	−·014	8·9	+1·0	9	9·60	− 0·60	5·15	6·23	− 1·08	27·22	22·92	+ 4·30	1·86	Bangalore.
					14	14	2	S 71° W	S 74° W	9·2	10·0	−0·8	86	+15	83	0	·632	−·003	8·0	+0·5	9	7·70	+ 1·30	3·56	5·60	− 2·04	25·64	18·03	+ 7·61	0·10	Mysore.
																															XIV.—Madras.
4	4	7	3	3	1	2	2	N 73° E	N 52° E	3·9§	2·2	+1·7	27	+16	89	− 1	·843	−·002	7·2	−0·4	15	16·90	− 1·90	8·44	10·32	− 1·88	141·62	111·49	+30·13	1·99	Mangalore.
4	1	4	2		1		6	N 10° E	N 30° W	4·0	7·1	−3·1	23	−10	90	+ 2	·837	+·005	6·5	+0·2	12	12·20	− 0·20	7·19	6·13	+ 1·06	115·38	94·37	+21·01	1·76	Calicut.
2	12	7	2		1	2	3	N 49° E	N 5° E	6·6§	5·1	+1·5	53	+12	83	− 3	·807	−·038	6·7	+0·7	13	14·20	− 1·20	7·15	8·98	− 1·83	74·69	85·04	−10·35	1·51	Cochin.
7							20	N 34° W	N 16° W	6·9§	8·1	−1·2	82	+ 1	87	+ 3	·814	+·011	8·2	+1·4	11	7·10	+ 3·90	4·30	3·63	+ 0·67	48·59	36·14	+12·45	0·72	Trivandrum.
1					4	15	10	N 78° W	N 74° W	9·9	7·5	+2·4	82	+ 7	58	− 2	·695	−·022	4·8	−0·6	0	2·00	− 2·00	0·04	1·30	− 1·26	4·07	3·98	+ 0·09	0·03	Tinnevelly.
		4	2	4	6	4		S 16° W	S 42° W	7·0	9·7	−2·7	33	−19	79	+ 2	·866		3·2		1	2·20	− 1·20	0·40	1·31	− 0·91	4·95	2·96	+ 1·99	0·26	Pamban.
6						9	15	N 49° W	N 29° W	4·9	2·9	+2·0	66	+ 8	68	0	·712	−·025	6·7	+1·5	7	6·10	+ 0·90	6·08	4·99	+ 1·09	21·97	14·64	+ 7·33	1·52	Madura.
																Obser	vatory	closed.													Periyakulam.
3	1	2			1	5	17	N 45° W		7·9			70		69		·717		6·5		11			3·48			20·14			0·89	Pudukkottai.
1					14	13	2	S 73° W	S 72° W	6·5	5·5	+1·0	82	+ 8	72	− 3	·739	−·081	4·5	−1·2	10	5·60	+ 4·40	4·75	3·45	+ 1·30	13·46	12·10	+ 1·36	2·55	Negapatam.
					5	19	2	S 85° W	N 87° W	4·2§	6·4	−2·2	79	+ 9	71	− 1	·731	−·019	5·7	−0·3	7	5·90	+ 1·10	5·50	3·91	+ 1·59	22·45	14·01	+ 8·44	1·80	Trichinopoly.
					26			S 45° W	S 33° W	5·6	5·5	+0·1	82	+ 8	86	+ 2	·710	−·008	4·9	−0·4	3	3·20	− 0·20	1·60	1·32	− 0·32	9·26	7·60	+ 1·66	0·58	Coimbatore.
1				5	6	17		S 69° W	S 43° W	4·0	3·4	+0·6	72	+12	81	+ 1	·774	+·003	6·3	+0·4	10	8·70	+ 1·30	6·05	6·55	− 0·50	32·69	25·48	+ 7·21	1·43	Salem.
				3	18	8		S 52° W	S 84° W	6·1	2·6	+3·5	86	+16	80	− 2	·821	−·059	6·9	+0·9	11	6·60	+ 4·40	14·29	6·21	+ 8·08	26·49	17·35	+ 9·14	3·54	Cuddalore.
	1	2	19					S 51° E		2·0			63		73		·731		5·4		7	8·60	− 1·60	7·04	6·14	+ 0·90	52·70	20·67	+32·03	1·75	Vellore.
1				8	7	14		S 58° W	S 68° W	5·3§	6·0	−0·7	72	+ 2	84	+ 6	·902	+·060	6·2	−0·5	10	10·70	− 0·70	8·52	5·01	+ 3·51	29·43	17·48	+11·95	2·82	Madras.
	2				1	14	13	N 67° W	N 84° W				79	+ 1	77	+ 3	·780	+·058	7·5	+0·3	11	8·30	+ 2·70	9·71	5·93	+ 3·78	40·15	20·95	+19·20	3·41	Cuddapah.
					2	16	10	N 77° W	N 79° W	7·6	9·2	−1·6	82	+ 4	71	+ 1	·638	−·014	5·9	−1·5	11	6·90	+ 4·10	7·23	4·62	+ 2·61	16·20	12·38	+ 3·82	2·26	Bellary.
				1	11	7	11	S 87° W	N 88° W	9·4§			72	+24	77	− 1	·718	−·016	5·4	−1·5	7	9·20	− 2·20	4·64	6·60	− 1·96	16·49	21·80	− 5·31	2·05	Kurnool.
3	1			1		11	13	N 59° W	N 68° W	6·6§	6·7	−0·1	72	+13	74	− 2	·797	−·052	6·7	−0·5	8	5·60	+ 2·40	13·34	4·35	+ 8·99	25·71	12·81	+12·90	5·26	Nellore.
	2	1			2	9	15	N 60° W	N 68° W	5·3	5·8	−0·5	69	+10	83	− 1	·902	−·005	7·4	+0·4	7	9·40	− 2·40	10·32	5·89	+ 4·43	32·44	24·53	+ 7·91	4·25	Masulipatam.
1	3		1		3	14	1	N 86° W	N 87° W	6·1	6·4	−0·3	46	−19	83	+ 3	·887	+·027	7·6	+0·2	9	9·00	0	7·53	5·89	+ 1·64	24·78	22·92	+ 1·86	1·84	Cocanada.
	6	1	1	1	8	8	1	S 74° W	N 86° W	7·5			27	−40	75	− 6	·825	−·057	7·6	+0·3	9	8·80	+ 0·20	5·41	8·01	− 2·60	22·43	24·16	− 1·73	1·36	Waltair (Vizag.).
3	2				5	7	10	N 57° W		5·9			53						6·2		8			5·33			21·73			2·34	Calingapatam.
	2				4	2	11	N 37° W	N 61° W	8·3	9·3	−1·0	59	+18	85	0	·919	−·010	4·3	−2·3	7	9·90	−2·90	5·18	7·14	− 1·96	26·96	31·09	− 4·13	1·10	Gopalpur.

Uncorrected for scale error.

‡ Mean of 24 days.

Tal

(2) *Abstract of observations taken at 8 hrs. at 238 stati*

Number of subdivision.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	2
	Bay Islands.																						
1	P. V. Fraser	8	29·752		29·679	29·858	6th	29·520	21st	·338	82·1												
	Car Nicobar	25	29·835		29·787	29·960	30th	29·792	9th	·108	80·9	85·1		76·7		80·9		8·4	87·4	30th	73·7	21st	1
	Port Blair	58	29·786	−·036	29·774	29·895	24th	29·674	19th	·221	79·9	84·1	−1·0	76·3	−0·2	80·2	−0·6	7·8	87·2	1st	74·0	19th	1
	Slipper Island	90	29·725*		29·748*	29·838	24th	29·596	20th	·242	80·5	84·5		76·9*		80·7*		7·6	88·1	6th	71·1	21st	1
	Kashmir.																						
14	Srinagar	5,204	24·853	+·007	24·824	24·965	25th	24·721	19th	·244	58·3	73·2	−6·2	54·0	+1·0	63·6	−2·6	19·2	80·1	20th	47·1	28th	3
	Gulmarg	*8,569*	21·868	−·016	21·836	21·969	4th	21·756	19th	·213	50·0	59·2	−3·9	41·6	−1·1	50·5	−2·5	17·6	64·7	24th	35·3	4 days	2
	Sonemarg	*8,764*	21·846		21·814	21·929	16th	21·720	2nd	·209	44·2	62·2		40·6		51·4		21·6	69·4	18th	33·1	28th & 29th.	3
	Dras	*10,059*	20·793	−·024	20·761	20·892	16th	20·687	19th	·205	46·1	65·6	−5·4	38·4	−1·2	52·1	−3·3	27·2	70·9	19th & 20th,	30·5	28th	4
	Leh	11,503	19·727	−·003	19·695	19·846	16th	19·614	2nd	·232	50·6	68·0	−2·3	41·6	+0·1	54·8	−1·1	26·4	75·6	6th	35·5	27th	4
	Skardu	*7,505*	22·850*	+·001*	22·820*	22·959	28th	22·717	19th	·242	56·9	72·3	−5·6	51·6	−2·2	61·9	−3·9	20·7	87·4	1st	45·1	27th	4
	Minimarg	*9,359*									Register not available.												
	Astor	*7,955*									Do.	do.											
	Gilgit	4,890	25·063		25·036	25·212	4th	24·919	1st	·293	67·1	81·6	−5·1	59·6	−4·9	70·6	−5·0	22·0	91·2	19th & 23rd,	50·2	30th	4
	Baluchistan.																						
16	Quetta	5,502	24·605	+·002	24·565	24·719	28th	24·502	13th	·217	65·9	85·9	+0·5	45·3	−4·2	65·6	−1·9	40·6	91·1	18th	38·0	26th, 27th & 28th,	5
	Chaman	4,311	25·622	−·026	25·584	25·732	28th	25·520	13th	·212	75·1	89·2	−2·4	60·6	−4·2	74·9	−3·3	28·6	94·8	18th	55·2	25th	3
	Robat		26·850		26·808	26·916	4th & 28th.	26·744	30th	·172	81·5	99·0		69·2		84·1		29·8	105·0	17th & 18th.	61·8	22nd	4
	Hill Stations, excluding Kashmir and Baluchistan.																						
	Chitral	*5,486*									63·3	88·6		54·1		71·4		34·5	95·2	1st & 3rd	48·0	29th	4
	Para Chinar	6,000	24·423		24·390	24·537	17th	24·291	2nd	·246	70·5	82·1		56·7		69·5		25·4	87·1	17th	52·6	16th	2
	Cherat	*4,256*	25·660†	+·017†	25·628†	25·762	3rd	25·512	2nd	·250	71·7	82·5	−3·3	61·9	−1·0	73·7	−2·2	17·6	87·2	22nd, 23rd & 24th.	59·5	2nd	2
	Murree	6,323	23·819	−·011	23·787	23·917	4th	23·682	2nd	·235	62·0	71·7	−2·1	58·8	0	65·2	−1·1	12·9	78·0	17th	47·0	25th	3
	Kailang	*10,087*	20·966		20·921	21·045	5th	20·867	13th	·178	50·9	69·2	−0·1	41·9	−0·2	55·6	−0·2	27·3	75·6	19th	36·0	28th	3
	Simla	7,232	23·090	0	23·052	23·188	4th	22·980	19th	·208	60·5	66·8	+0·7	56·7	+0·3	61·8	+0·5	10·1	72·5	22nd	53·1	29th & 30th.	1
	Saraia		23·127		23·089	23·228	5th	23·014	13th	·214	55·5	70·0		51·3		60·7		18·7	74·1	21st	45·3	29th & 30th.	2
	Kalabagh		20·139		20·101	20·217	23rd	20·038	13th	·179	48·8	55·8		45·8		50·8		10·0	60·6	21st	41·4	27th	1
	Chakrata	7,022	23·281	+·022	23·241	23·385	4th	23·160	13th	·225	61·6	71·4	+2·7	57·3	+0·3	64·3	+1·5	14·1	75·3	22nd	55·2	29th & 30th.	2
	Muktesar	7,592	22·819	−·024	22·778	22·912	4th	22·703	19th	·209	60·9	72·8	+3·5	55·3	−0·2	64·1	+1·7	17·5	77·0	19th	53·0	2nd & 26th.	2
	Darjeeling	7,376	22·991†	−·038†	22·946†	23·111	4th	22·901	12th	·210	60·7*	66·8‡	+2·7‡	56·6‡	+1·1‡	61·7‡	+1·9‡	10·2	72·3	22nd	51·7	2nd	2
	Shillong	4,920	25·074*		25·026*	25·181	4th	24·940	20th	·241	67·8	75·2		61·4		68·3		13·8	78·9	10th, 22nd & 23rd,	56·7	4th & 5th.	2
	Cherra Poonjee	4,309	25·613		25·564	25·755	3rd	25·460	20th	·295	68·8	75·1		65·2		70·2		9·9	79·7	20th	63·3	2nd	1
	Maymyo	3,545	26·353‡	−·029‡	26·298‡	26·474	4th	26·216	19th	·258	70·5	77·2	−0·7	64·8	+0·7	71·1	0	12·4	81·4	18th	59·6	9th	2
	Pachmarhi	3,528	26·355	−·008	26·302	26·457	28th	26·272	22nd	·185	68·7	76·1§	−0·8§	65·8	−0·5	70·9§	−0·7	10·3	80·7	6th & 9th	63·1	12th, 14th & 18th.	1
	Mount Abu	3,945	25·957	−·026	25·907	26·088	28th	25·831	9th	·257	67·5	73·3	−2·0	63·5	−1·1	68·4	−1·6	9·8	80·7	25th	58·9	11th	2
	Mercara	3,781	26·206	−·005	26·139	26·289	27th	26·109	5th	·160	63·9	70·7	−1·5	61·7	−0·2	66·2	−0·9	9·0	76·0	30th	59·5	17th	1
	Ootacamund	*7,327*	23·027		22·963	23·089	28th	22·949	5th	·140	56·1	63·1		50·4		56·8		12·7	68·5	29th	44·7	18th	2
	Kodaikanal	7,688	22·786	−·040	22·721	22·855	28th	22·707	3rd	·148	56·4	62·4	−0·9	51·8	−0·4	57·1	−0·7	10·6	67·0	25th	49·6	2nd, 10th & 19th.	1

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

* Mean of 29 days.
† " " 27 "
‡ " " 28 "
§ " " 24 "

B—*continued.*

in India, etc., in September, 1909—continued.

Wind direction. Number of winds from Calm. (25)	N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st May to 30th September, 1909. (53)	Normal rainfall for period, 1st May to 30th September. (54)	Departure from normal of period, 1st May to 30th September, 1909. (55)	Heaviest rainfall during month. (56)	Station. (57)
																																Bay Islands.
	3		1	3	5	10	5	3	S 51° W		*†‡ 15·0?			47		90**		·997**		6·2		10			7·73			43·61			2·25	P. V. Fraser.
					10	14	3		S 33° W		4·0			89		88		·934		9·7		11			8·13			52·13			2·24	Car Nicobar. (b)
3					4	10	11	2	S 64° W	S 61° W	11·4*	9·5	+1·9	69	+ 3	86	− 4	·885	−·040	8·5	+0·4	18			18·38	19·42	−1·04	97·04	84·90	+12·14	4·29	Port Blair.
					5	14	11		S 54° W		17·8			86		81		·946		8·1		20			10·99			53·23			2·27	Slipper Island.
																																Kashmir.
1	2	2		8	4		1	2	S 44° E	S 43° E	2·6	3·3	−0·7	27	+ 2	86	− 1	·417	−·051	4·1	+0·8	9	3·30	+5·70	7·12	1·11	+6·06	17·38	10·41	+6·97	2·06	Srinagar.
3			2		1	2	1	1	S 34° W		3·5			7		81	0	·296		4·0		12			9·79	2·95	+6·84	‖ 25·82	‖ 15·37	+10·45	2·90	Gulmarg.
0		7	3						N 57° E		2·0			30		91		·272		3·8		13			8·08			21·63			1·91	Sonemarg.
8						3	8	1	S 83° W		5·8			37		74	+12	·235		4·0		6	2·00	+4·00	1·76	1·39	+ 0·37	3·32	6·98	−3·66	0·41	Dras.
8							2		W	N 85° W	2·6*	1·9	+0·7	7	−43	55	+ 7	·209	+·033	3·9	+0·3	0	0·50	−0·50	0·23	0·20	+ 0·03	1·57	1·53	+0·04	0·08	Leh.
2		1		4	2	1			S 31° E		4·6			20		66	+ 5	·303		4·1		7	0·40	+6·60	2·37	1·04	+ 1·33	3·36	3·79	−0·43	0·76	Skardu.
																			Register	not	availa	ble.										**Minimarg.**
																				Do.	do											**Astor.**
9							1		W		1·2			3		62	+11	·410	+·025	3·9	+0·4	4	1·10	+2·90	0·91	0·25	+ 0·66	2·96	2·35	+0·61	0·30	Gilgit.
																																Baluchistan.
9	1								N	S 45° W	1·6	2·2	−0·6	3	+ 1	36	−14	·232	−·098	0	−0·2	0	0·20	−0·20	0	0·13	− 0·13	0·39	2·32	−1·93	0	Quetta.
1	1			1	7	8	1	1	S 30° W	S 8° E	5·6	7·8	−2·2	46	+ 8	29	+ 6	·252	−·017	0·2	0	0	0	0	0	0	0	0·04	0·28	−0·24	0	Chaman.
9			8		2	11			S 2° E		9·1			32		40		·427		0		0			0			0			0	Robat.
																																Hill Stations excluding Kashmir and Baluchistan.
9	1								N 45° E		5·3			3		56		·331		0·3		1			0·38			2·78			0·13	Chitral.
									(a)		4·3*					45		·332		0·5		2	5·30	−3·30	0·42	2·63	− 2·21	10·44	12·46	−2·02	0·15	Para Chinar.
3	1	1	4	4	4	2	4		S 45° W	S 32° W	5·7	7·9	−2·2	13	+ 8	57	− 1	·436	−·032	2·0	+0·1	2			0·63	1·80	− 1·17	11·04	11·83	−0·79	0·41	Cherat.
8	1	2	7	2			5		N 38° E	N 37° W	5·8 ¶*	5·7	+0·1	23	+ 4	65	0	·357	−·024	2·8	+0·3	7	8·00	−1·00	4·40	5·62	− 1·22	58·16	37·58	+20·58	2·53	Murree.
1		1	3	6	17	2			S 30° W		1·4	1·7	−0·3	73		68		·256		4·0		6			1·84	1·67	+ 0·17	7·14	8·32	−1·18	0·45	Kailang.
																75	− 1	·390	−·007	3·4	−0·6	9	8·70	+0·30	3·62	5·87	− 2·25	49·60	51·29	−1·69	0·76	Simla.
	1			7	8				S 23° W		2·8			43		80		·366		3·0		7			6·25			37·53			2·34	Sarain.
																												‡‡ 58·03				
1			9	6			2		S 37° E		4·8			37		69		·240		4·0		9			12·67						5·14	Kalabagh.
12				2					N	N 21° E	4·2	6·0	−1·8	33	+20	85	+ 2	·472	+·022	4·1	+0·4	6	8·30	−2·30	5·52	6·10	− 0·58	65·04	56·55	+8·49	2·03	Chakrata.
1		8	2			1			S 83° E		4·8 ¶			30		84**	+ 2	·455**		5·1 ††		4			2·91	6·29	− 3·38	51·50	38·66	+12·84	1·28	Muktesar.
	2	1	2			1	5		N 11° W	S 89° E	2·8			14	− 5	95	+ 1	·510	+·036	8·2	−0·3	18	17·71	+0·29	13·39	18·95	− 5·56	126·51	111·83	+14·68	2·21	Darjeeling.
			2		4				S 19° W		2·1	3·7	−1·6	13		80		·546		5·5		19	17·50	+1·50	6·96	13·67	− 6·71	56·34	65·58	−9·24	1·22	Shillong.
3	4	2	2	2	7	2			S 16° W		4·5			10		88		·619		6·9		15	18·80	−3·80	16·46	51·49	−35·03	292·80	374·47	−81·67	2·95	Cherra Poonjee.
1	4		1	1	10	2			S 48° W		2·3			27		91	+ 1	·685		5·3		15	15·20	−0·20	10·81	9·06	+ 1·75	46·34	44·32	+2·02	2·96	Maymyo.
1	1	1	2	1	3	8	11		N 71° W	N 85° W	7·4	6·2	+1·2	53	+ 9	89	+ 6	·622	−·005	7·2†	+0·6	10	13·80	−3·80	6·14	14·09	− 7·95	56·49	71·30	−14·81	1·59	Pachmarhi.
1	4	1	3		17	2	1		S 43° W	S 70° W	9·5	7·9	+1·6	46	+ 2	84	+ 4	·566	+·015	6·6	+2·0	9	8·00	+1·00	12·06	9·12	+ 2·94	107·00	59·76	+47·24	3·77	Mount Abu.
					1	12	17		N 65° W	N 67° W	7·3	7·2	+0·1	89	+15	97	+ 5	·572	−·002	8·6	+0·1	22	18·00	+4·00	9·53	10·48	− 0·95	124·10	110·32	+13·78	1·17	Mercara.
			1		5	9	10		N 82° W		4·8			62		85		·889		7·1		7	10·10	−3·10	3·59	4·44	− 0·85	40·75	27·19	+13·56	1·22	Ootacamund.
			2			17	11		N 75° W		14·6*			79		79	− 1	·864		5·6		7	12·40	−5·40	2·23	6·98	− 4·75	33·53	27·06	+6·47	0·54	Kodaikanal.

† Mean of 24 days.

* Uncorrected for scale error.

(a) Indeterminate.
** Mean of 28 days.
†† „ „ 27 „

‡ 8 A.M. velocity.
¶ Mean of 29 days.
(b) Wind observations less 3.

‖ Rainfall since 24th May 1909 and normal rainfall since 1st June.
‡‡ Rainfall since 21st May 1909.

Tab

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

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches.								Temperature of air.												
			Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constantgravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	Extra India.																						
	Singapore (a)	10	29·934		29·865	30·021	21st	29·843	19th	·178	83·0	88·9		74·3		81·6		14·6	91·8	20th	72·4	9th	19
	Penang (a)	20	29·858		29·803	29·947	25th	29·779	4th	·168	82·0	89·1		75·0		82·1		14·1	93·0	2nd	73·0	15th, 29th & 30th.	20
	Trincomalee	12	29·869?	+·015?	29·807?	29·944	24th	29·782	3rd	·162	77·8	90·1	−1·1	76·5	−0·1	83·3	−0·6	13·6	94·0	27th	73·0	15th	21
	Colombo	40	29·887	−·023	29·853	29·955	24th & 28th	29·793	2nd	·162	76·2	85·3	−0·7	77·3	+0·3	81·3	−0·2	8·0	87·0	27th, 28th & 30th.	74·0	5th	13
	Minicoy	7	29·940			30·000	28th	29·859	5th	·141													
	Amini Divi	*13*								Register not received.													
	Gyantse	13,120	?		?	?	?	?	?	?	51·5	73·0		40·3†		56·5†		32·7	76·3	17th, 18th & 19th.	35·2	29th	41
	Pharijong	14,400	17·563††		17·922††	18·039	3rd	17·907	20th	·132	44·3	60·0		24·3		42·5		35·7	68·9	18th	23·3	9th	45
	Gangtok	5,660?	24·397§		24·352	24·528	4th	24·223	13th	·305	65·7	74·8		61·1		68·0		13·7	79·3	1st	58·0	2nd	21
	Gartok (c)	14,240	17·880‡			17·960	4th & 7th	17·785	10th	·175	46·1	59·2		33·1		46·2		26·1	63·9	5th	17·6	26th	46
	Kashgar (c)	4,255	25·581			25·770	21st	25·440	10th	·330	63·9	78·5	−3·1	55·6	−1·3	67·1	−2·2	22·9	87·6	11th	47·8	26th	39
	Kabul		24·229		24·198	24·324	28th	24·147	13th	·177	67·8	87·6	+0·3	51·9	+0·9	69·8	+0·6	35·7	95·6	14th	43·9	20th	51
	Meshed	3,104	26·794		26·772	26·951	18th	26·692	27th	·259	65·6	85·1		40·9	−13·4	63·0		44·2	91·0	13th	30·8	21st	60
	Jask	13	29·719	−·029	29·689	29·856	16th	29·629	8th	·227	82·9	92·6	−0·9	80·7	−0·2	86·3	−0·6	11·9	99·3	14th	76·3	22nd	23
	Muscat *	20	29·743	−·012	29·711	29·863	28th	29·636	14th	·227	84·5	92·5	+5·3	81·2	−2·2	86·9	+1·6	11·3	99·3	9th & 13th	77·1	18th	22
	Bahrein	18	29·756		29·726	29·929	27th	29·627	1st	·302	89·5	94·1		82·8		88·5		11·3	97·7	1st	74·4	25th	23
	Bushire	14	29·719	−·010	29·692	29·863	28th	29·586	1st & 20th	·277	86·3	93·5	−0·8	79·6	+0·5	86·6	−0·2	13·9	99·3	12th	73·0	24th	26
	Busrah	25	29·750		29·734	29·917	28th	29·579	1st	·338	85·5	98·3		79·7		89·0		18·6	102·8	5th	71·5	26th	31
	Kerman										60·2	92·9		48·1		70·5		44·8	98·3	15th	41·0	20th	57
	Ispahan (b)	*5,817*	24·276§			24·400	29th	24·160	14th	·240	63·3§	88·1§	−2·0	56·6§	+1·5	72·5§	−0·3	31·8	93·4	14th	47·7	29th	45
	Tehran (b)	*4,002*	25·732			25·850	18th, 19th & 29th.	25·550	14th	·300	70·2	91·9	+1·2	64·9	0	78·5	+0·6	27·0	94·5	5th, 6th & 11th.	56·7	28th	37
	Baghdad	127	29·651	−·021	29·748	29·864	28th	29·478	9th	·386	80·6	103·0	+1·0	73·1	+1·4	88·1	+1·2	29·9	111·7	2nd	69·6	14th, 22nd & 24th.	42
	Beirut									Register not received.													
	Aden	94	29·737	0	29·761	29·837	28th	29·645	16th	·192	87·4	94·6	+1·0	84·2	+2·0	89·4	+1·5	10·4	97·3	12th	77·9	30th	19
	Perim	201	29·577	−·031	29·710	29·665	25th	29·522	15th	·143	84·8	94·7	−0·1	84·5	+1·4	89·6	+0·7	10·2	98·9	22nd	80·6	1st	18
	Zanzibar	72	30·054	−·012	30·053	30·113	28th	30·004	15th	·109	76·9	83·0	+1·1	73·9	+0·4	78·5	+0·8	9·1	85·3	14th	72·3	9th	13

N.B.—The elevations in italics indicate barometrical determinations.

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

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

† Mean of 14 days.
‡ " " 10 "
†† " " 25 "
§ Mean of 29 days.

B—*concluded.*

t 238 stations in India, etc., in September, 1909—concluded.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction	Normal direction	Wind velocity. Mean velocity, miles per hour	Normal	Departure from normal	Wind steadiness. Actual percentage	Departure from normal	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal	Mean vapour tension at 8 hrs. in inches of mercury	Departure from normal in inches of mercury	Cloud. Mean cloud amount at 8 hrs.	Departure from normal	Rainfall. Number of rainy days	Normal number of rainy days	Departure from normal	Rainfall of month	Normal rainfall of month	Departure from normal	Total rainfall from 1st May to 30th September, 1909	Normal rainfall for period, 1st May to 30th September	Departure from normal of period, 1st May to 30th September, 1909	Heaviest rainfall during month	Station
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																Extra India.
1	1			2	1	9	2	1	S 34° W		5·1*			30						6·2		12			5·81			29·35			1·08	Singapore.
	1	10	7	5	4		2	1	N 85° E		10·4*			49						2·9		13			26·57			65·97			8·90	Penang.
						30			S 45° W	S 43° W	6·4*	12·8	−6·4	93	+ 2	81	+ 4	·805	−·060	3·4	+0·4	6			3·33	4·56	−1·23	16·03	15·14	+ 0·89	1·55	Trincomalee.
						27	3		S 50° W	S 57° W	8·1‡‡	9·2	−1·1	96	+15	87	+ 9	·845	−·007	6·0	0	3			0·95	4·82	−3·87	28·76	32·90	− 4·14	0·28	Colombo.
						2	12	16	N 68° W	N 75° W	7·8	11·6	−3·8	90						4·6		7			4·13	5·97	−1·84	33·40	34·12	− 0·72	1·57	Minicoy.
																		Register not received.														Amini Divi.
9	4			3	4				S 45° E		1·5			10		59		·226		0		1			0·31			9·75			0·18	Gyantse.
	4			11	13	1		1	S 19° E		§§ 8·4			60		77		·225		5·0		5			1·31			14·72			0·38	Pharijong.
7		1	1	1					E		0·6			89		90		·572		5·5		23			19·18			114·76			2·53	Gangtok.
4				18	8				S 32° E		10·2			80						2·0		0			0			3·19			0	Gartok.
0									(a)	N 29° W	P	3·0	P			74		·438		4·0		3			0·99	0·43	+0·56	2·25	3·01	− 0·76	0·38	Kashgar.
	4	8				5	6	7	N 39° W	S 13° W				47	+38	47		·326		0·2	+0·1	0			0	0·03	−0·03	3·46	1·16	+ 2·30	0	Kabul.
6	2	1			1				N 27° E		1·2			7		36		·231		0·2		0			0	0·02	−0·02	0·15	1·01	− 0·86	0	Meshed.
2	4	7	12	2				3	N 59° E	S 81° E	9·3	13·4	−4·1	62	− 1	77	+ 4	·836	−·089	0·4	−1·1	0			0	0	0	0	0·13	− 0·13	0	Jask.
3	2		9	1				4	N 59° E	N 72° E	4·1	3·8	+0·3	27	− 2	69	− 8	·807	−·123	0·9	−0·1	0			0	0	0	0	0·40	− 0·40	0	Muscat.
	12	3	3	1	1		4	6	N 7° W		6·0			57		77		1·070		0·2		0			0			0			0	Bahrein.
0	3	1		1				5	N 18° W	N 60° E	8·7	6·9	+1·8	23	−29	77	+14	·971	+·145	0·1		0			0	0	0	0	0	0	0	Bushire.
3	4			2		5	13	3	N 87° W		4·0			57		56		·085				0			0			0·07			0	Busrah.
	5	2	9	6	3	2	2	1	S 80° E		3·6			37		41		·214		0												Kerman.
	1			1		1	3	2	N 76° W	N 72° W	¶ 2·6	3·4	−0·8	14		65§		·383§		0·3§		0			0	0	0	0·23	0·17	+ 0·06	0	Ispahan.
	9	15			1	1			N 29° E	N 62° E	1·9	2·8	−0·9	70		51		·379		0·4		0			0	0·14	−0·14	0·41	0·97	− 0·56	0	Tehran.
	3	4					2	10	N 25° W	N 11° W	6·8	2·4	+4·4	47	− 5	41	− 7	·426	−·081	0·3	+0·1	0			0	0	0	0·14	0·33	− 0·19	0	Baghdad.
																		Register not received.														Beirut.
		7		6		11			S 11° E	S 56° E	8·5	9·6	−1·1	23	− 7	79	+ 4	1·024	+·092	3·3	−0·6	0			0	0·13	−0·13	0·60	0·50	+ 0·10	0	Aden.
	10		9	2	1		2	6	N 18° E	N 72° E	8·8	12·0	−3·2	43	+30	74	0	·993	+·029	0	−3·8	0			0	0·01	−0·01	0·88	0·84	+ 0·04	0	Perim.
				12	3	7	3		S 4° E	S 5° E	5·1	5·6	−0·5	53	−33	81	− 2	·748	+·004	6·4	+0·5	7			2·46	1·87	+0·59	13·04	18·17	−5·13	0·72	Zanzibar.

* Uncorrected for scale error.

‡‡ Mean of 22 days.

¶ Mean of 23 days.

§§ „ 27 „

(a) Indeterminate.

Table C.—Abstract of observations taken at 8 hrs. at 31 fourth-class stations in India, etc., in September, 1909.

Ta

Abstract of observations taken at 8 h

Number of subdivision.	Station.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.	Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	II.—Eastern Bengal and Assam.																							
4	Bishnath	78·2	90·7	...	77·5	...	84·1	...	13·2	96·6	22nd	75·7	23rd & 30th.	20·9	...	...	..	...	...	...	...	...	...	...
	Borjuli	80·1	91·5	...	74·5	...	83·0	...	17·0	98·3	23rd	62·7	30th	35·6	...	...	...	...	...	...	...	...	...	...
	Chandkhira	79·4	91·6	...	74·8	...	83·2	...	16·8	4·6	4 days	71·5	26th	23·1	...	...	...	...	...	...	...	...	...	...
	Doom Dooma	79·2	93·0	...	72·8	...	82·9	...	20·2	97·9	19th	70·6	9th	27·3	...	...	...	...	...	...	...	...	...	...
	Dikom	79·7	90·2	...	75·7	...	83·0	...	14·5	96·6	21st	73·8	29th	22·8	...	...	...	...	...	...	...	...	...	...
	Golaghat	81·4	89·1	...	60·3	...	74·7	...	28·8	95·1	22nd	49·9	19th	45·2	...	...	...	...	...	...	...	...	...	...
	Hailakandi	78·0	91·3	...	75·7	...	83·5	...	15·6	97·0	23rd	72·0	1st	25·0	...	...	...	...	...	...	...	...	...	...
	Jorehat	80·9	90·5	...	76·3	...	83·4	...	14·2	96·4	21st	72·8	29th	23·6	...	...	...	...	...	...	...	...	...	...
	Messa	84·5	95·0	...	74·8	...	84·9	...	20·2	103·3	22nd	72·0	4th	31·3	...	...	...	...	...	...	...	...	...	...
	Panerihat	75·1	90·7	...	73·6	...	82·2	...	17·1	96·9	22nd	71·5	16th & 24th.	25·4	...	...	...	...	...	...	...		...	...
	Srimangal	81·6	92·0	...	75·5	...	83·8	...	16·5	95·5	11th	73·2	1st, 3rd & 5th.	22·3	...	...	...	...	...	...	...	...	...	...
5	Brahmanbaria	82·8	90·6	...	77·8	...	84·2	...	12·8	95·3	19th & 22nd.	74·9	29th	20·4	...	...	...	...	...	...	...	...	...	...
	Dam Dim	78·1	92·5	...	73·6	...	83·1	...	18·9	96·4	20th, 22nd & 23rd.	70·1	30th	26·3	...	...	...	...	...	...	...	...	...	...
	Goalundo	83·7	89·5	...	77·6	...	83·6	...	11·9	95·3	11th	74·4	2nd	20·9	...	...	...	...	...	...	...	...	...	...
	Kalchini	82·1	90·2	...	73·9	...	82·1	...	16·3	99·6	21st	69·9	1st	29·7	...	...	...	...	...	...	...	...	...	...
	Nagrakata	80·1	91·6	...	73·5	...	82·6	...	18·1	96·1	4 days	70·0	28th & 30th.	26·1	...	...	...	...	...	...	...	...	...	...
	Pabna	83·6	93·4	...	77·2	...	85·3	...	16·2	96·5	11th	72·9	3rd	23·6	...	...	...	...	...	...	...	...	...	...
	III.—Bengal.																							
6	Fraserganj										Observatory closed.													
	XI.—Central Provinces.																							
24	Chhindwara	73·8	83·3	...	68·6	...	76·0	...	14·7	87·7	3rd & 29th.	64·0	30th	23·7	...	2	1	3	1	2	1	5	15	N 50° W
	Hill Stations.																							
	Panighatta	79·4	87·8	...	73·2	...	80·5	...	14·6	94·7	21st	69·5	30th	25·2	...	...	...	...	...	...	...	...	...	...
	Kurseong	68·2	74·6	...	64·0	...	69·3	...	10·6	84·8	21st	60·5	30th	24·3	...	...	...	...	...	...	...	...	...	...
	Poo	...	72·7	...	47·0	...	59·9	...	25·7	76·9	12th	40·1	30th	36·8	18	...	1	...	2	4	4	...	1	S 8° W
	Kargil	56·7	75·9	...	45·4	...	60·7	...	30·5	80·3	8th	39·4	26th	40·9	...	7	4	...	6	3	...	1	9	N 2° W
	Killa Drosh	67·5	88·5	..	63·1	...	75·9	...	25·4	94·2	17th	57·1	27th	37·1	28	...	...	1	...	...	...	1	...	(a)
	Pishin	...	88·3	...	49·8	...	69·1	...	38·5	93·4	17th & 18th.	43·1	27th	50·3	...	...	...	...	...	...	...	...	...	...
	Kalat	66·6*	83·4	−1·7	43·4	+3·9	63·4	+1·1	40·0	88·1	1st	37·9	27th	50·2	...	9	...	3	...	17	...	1	...	S 14° E
	Extra India.																							
	Ahwaz †	...	108·3	...	80·7	...	94·5	...	27·6	111·4	9th	74·4	29th	37·0	...	...	...	...	...	...	...	...	...	...
	Birjand	69·3‡	82·5	...	55·0	...	68·8	...	27·5	89·4	16th	45·6	23rd	43·8	...	...	...	...	...	...	...	...	...	...
	Chumbi	54·2*	66·0*	...	48·1	...	57·0	...	17·9	71·3	22nd	41·8	30th	29·5	...	...	...	...	...	...	...	...	...	...
	Kirmanshah	69·6	86·7	...	52·2	...	69·4	...	34·5	95·8	1st	42·0	29th & 30th.	53·8	...	...	...	...	...	...	...	...	...	...
	Koweit	...	10·20	...	81·5	...	91·8	...	20·5	110·9	7th	73·5	27th	37·4	2	4	...	...	...	...	5	7	12	N 650 W
	Maidan	...	106·1	...	73·9	...	90·1	...	32·2	112·2	1st	68·9	4 days	43·3	...	...	...	...	...	...	...	...	...	...

* Uncorrected for scale error. ‡ Mean of 29 days. ‖ Mean of 27 days.

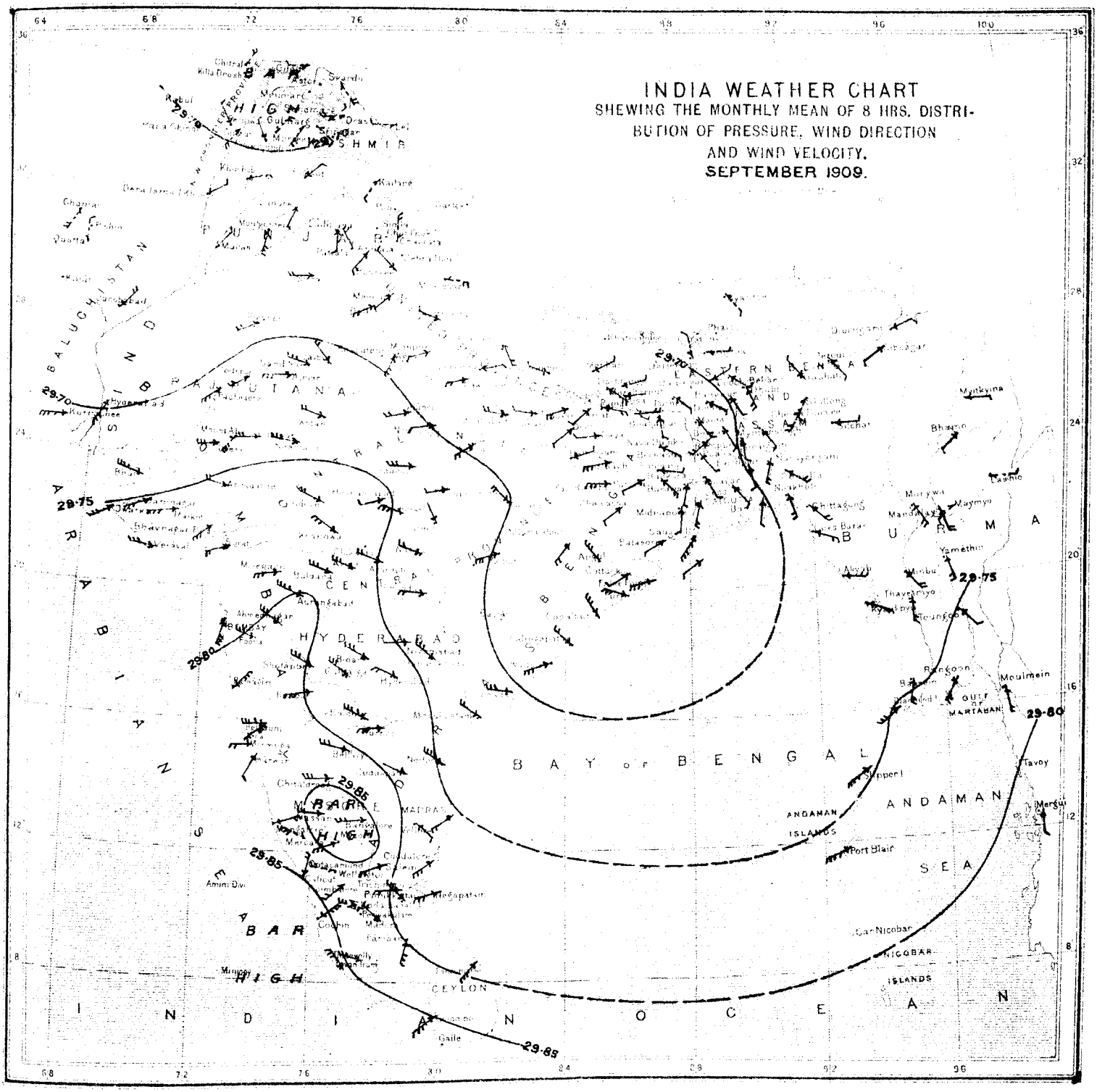
C.

at 31 fourth-class stations in India, etc., in September, 1909.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 30th September, 1909.	Normal rainfall for period, 1st May to 30th September.	Departure from normal of period, 1st May to 30th September, 1909.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					II.—Eastern Bengal and Assam.
...	...	...	...	...	97	...	·939	...	...	...	13	...	...	12·02	...	...	51·22	...	...	2·88	Bishnath.
...	...	...	...	...	88	...	·911	...	...	...	11	...	...	10·27	...	...	62·75	...	...	1·80	Borjuli.
...	...	...	...	...	92	...	·930	...	...	...	19	...	...	11·15	...	...	79·57	...	...	3·78	Chandkhira.
...	...	...	...	...	91	...	·912	...	...	...	12	...	...	8·48	...	...	72·23	...	...	3·03	Doom Dooma.
...	...	...	...	...	90	...	·915	...	...	...	14	...	...	10·73	...	...	81·79	...	...	3·45	Dikom.
...	...	...	...	...	87	...	·932	...	...	...	13	...	...	8·99	...	...	44·94	...	...	1·94	Golaghat.
...	...	...	...	...	94	...	·904	...	...	...	16	...	...	9·17	...	...	71·00	...	...	1·70	Hailakandi.
...	...	...	...	...	90	...	·947	...	...	...	13	...	...	8·60	...	...	57·72	...	...	1·90	Jorehat.
...	...	...	...	...	83	...	·998	...	...	...	13	...	...	8·69	...	...	48·50	...	...	2·24	Messa.
...	...	...	...	...	97	...	·843	...	...	...	13	...	...	5·76	...	...	49·87	...	...	1·35	Panerihat.
...	...	...	...	...	87	...	9·41	...	...	...	12	...	...	6·49	...	...	57·66	...	...	1·44	Srimangal.
...	...	...	...	...	88	...	·993	...	...	...	11	...	...	8·76	...	...	65.51	...	...	2·03	Brahmanbaria.
...	...	...	...	...	98	...	·951	...	...	...	21	...	...	22·17	...	...	128·70	...	...	3·10	Dam Dim.
...	...	...	...	...	84	...	·967	...	...	...	8	...	...	4·87	...	...	49·70	...	...	1·02	Goalundo.
...	...	...	...	...	84	...	·936	...	...	...	16	...	...	21·78	...	...	123·81	...	...	2·89	Kalchini.
...	...	...	...	...	86	...	·883	...	...	...	21	...	...	34·70	...	...	140·03	...	...	5·90	Nagrakata.
...	...	...	...	...	83	...	·966	...	...	...	11	...	...	5·85	...	...	40·38	...	...	1·55	Pabna.
																					III.—Bengal.
									Observatory closed.												Fraserganj.
																					XI.—Central Provinces.
1·3	...	...	53	...	84	...	·704	...	...	...	10	...	...	5·46	...	...	25·06	...	...	1·30	Chhindwara.
																					Hill Stations.
...	...	...	...	...	83	...	·822	...	...	...	21	...	...	28·85	...	...	137·91	...	...	6·33	Panighatta.
...	...	...	...	...	89	...	·613	...	...	...	18	...	...	26·48	...	...	153·14	...	...	5·91	Kurseong.
...	...	...	23	...	...	...	...	...	3·3	...	0	...	...	0·10	0·45	—0·35	2·36	3·02	—0·66	0·04	Poo.
...	...	...	30	...	46	...	·218	...	3·3	...	2	...	...	0·24	...	...	0·62	...	...	0·10	Kargil.
...	...	...	...	...	60	...	·403	...	1·8	...	1	...	...	0·36	...	...	3·31	...	...	0·14	Killa Drosh.
...	...	...	...	...	...	...	...	...	0	...	0	0·10	—0·10	0	0·01	—0·01	0·11	0·46	—0·35	0	Pishin.
...	...	...	27	...	48	...	·313	...	...	...	0	0·10	—·010	0	0	0	1·31	1·65	—0·34	0	Kalat.
																					Extra India.
...	...	...	...	...	...	...	...	...	...	...	0	...	...	0	...	...	0	...	...	0	Ahwaz.
...	...	...	...	...	25‖	...	·182‖	...	0	...	0	...	...	0	...	...	0	...	...	0	Birjand.
...	...	...	...	...	85	...	·357		...	...	8	...	...	3·38	...	...	29·86	...	...	1·15	Chumbi.
...	...	...	...	...	36	...	·585	...	...	...	0	...	...	0	...	...	0·94	...	...	0	Kirmanshah.
...	...	...	70	...	...	...	...	...	0·3	...	0	...	...	0	...	...	0	...	...	0	Koweit.
...	...	...	...	...	...	...	...	...	...	...	0	...	...	0	...	...	0	...	...	0	Maidan.

† Observations of 20 days.

(*a*) Indeterminate.

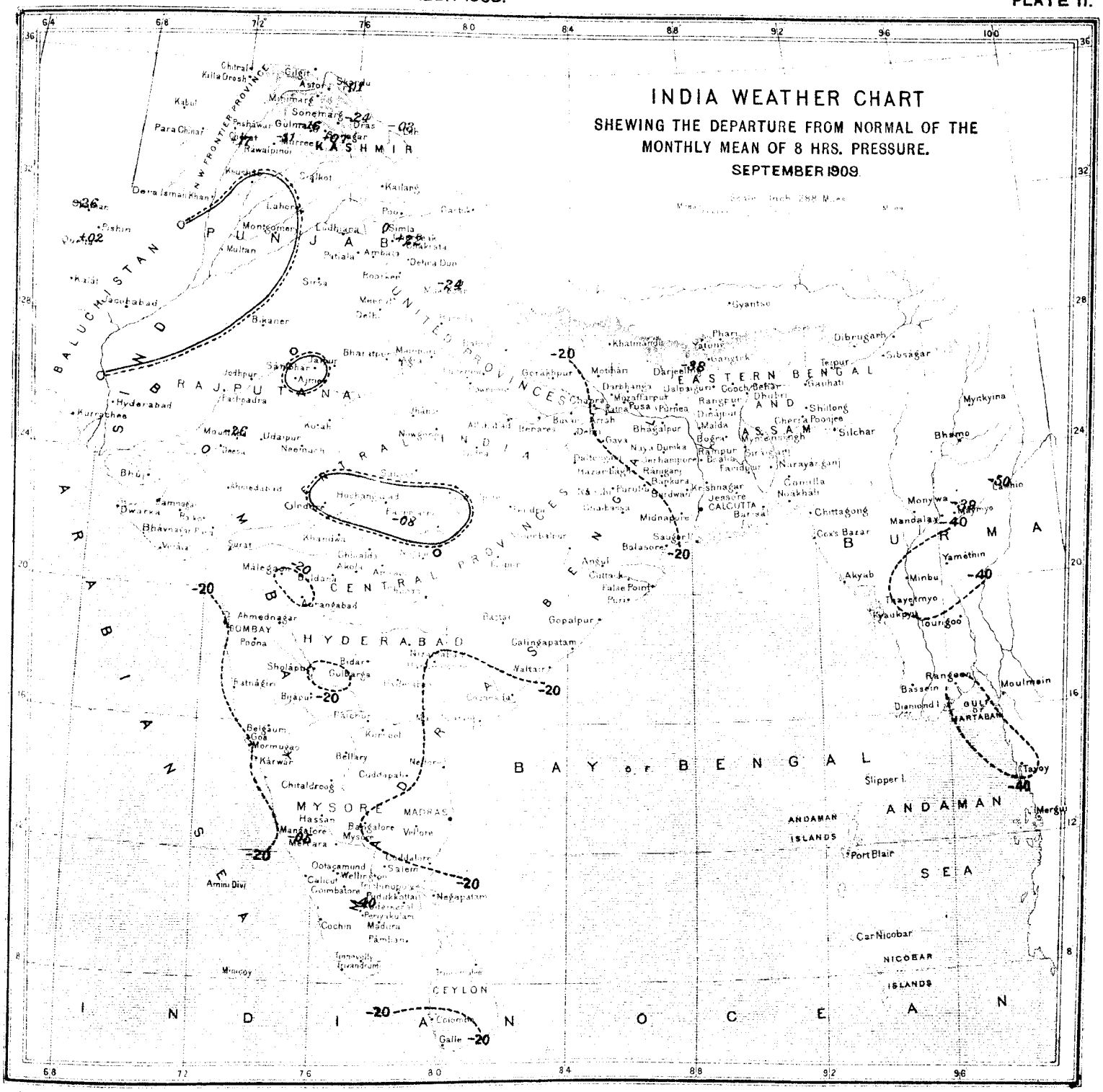


Reg. No. 4903 E. (9—1—5 500).

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

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

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



Reg. No. 4903 E. 09 — L. — 5 500.

LITHO. BY S.B.M.

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

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

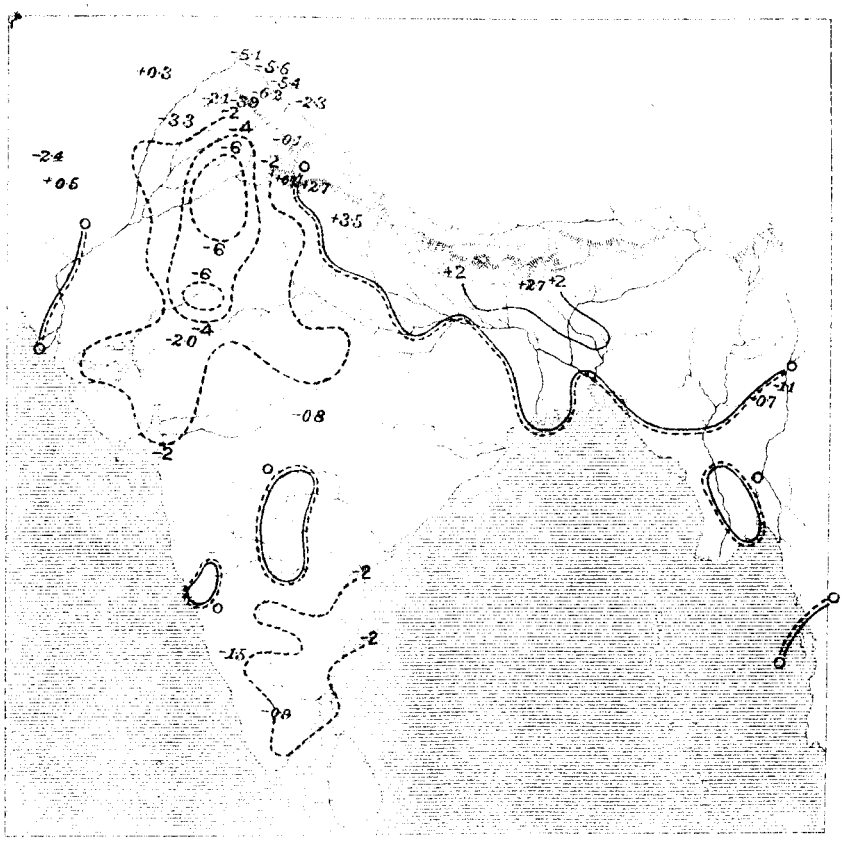


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.

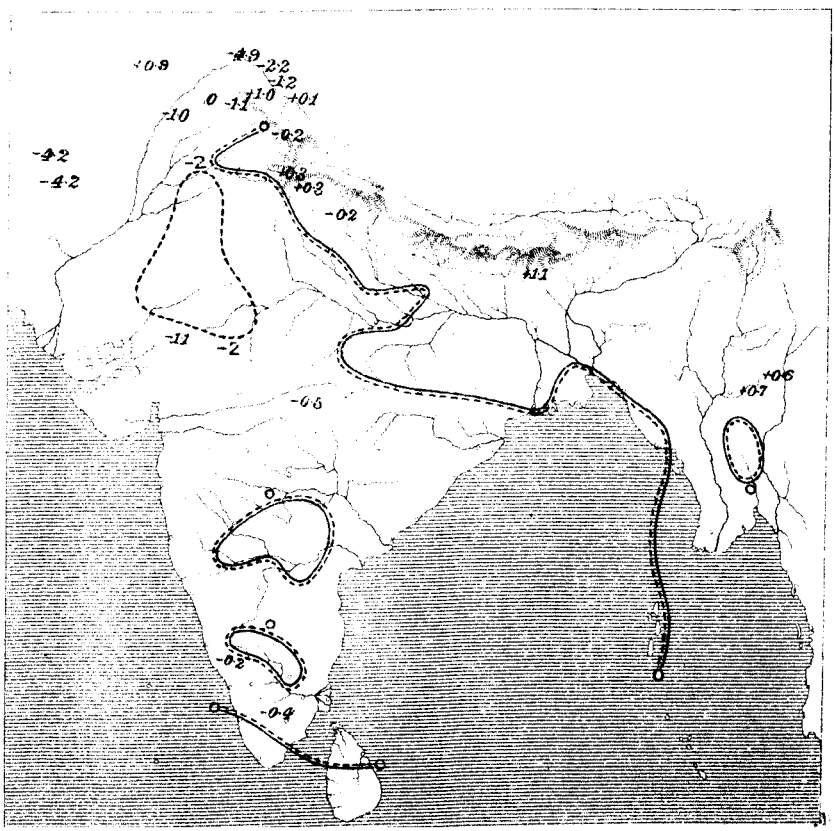


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MEAN TEMPERATURE.

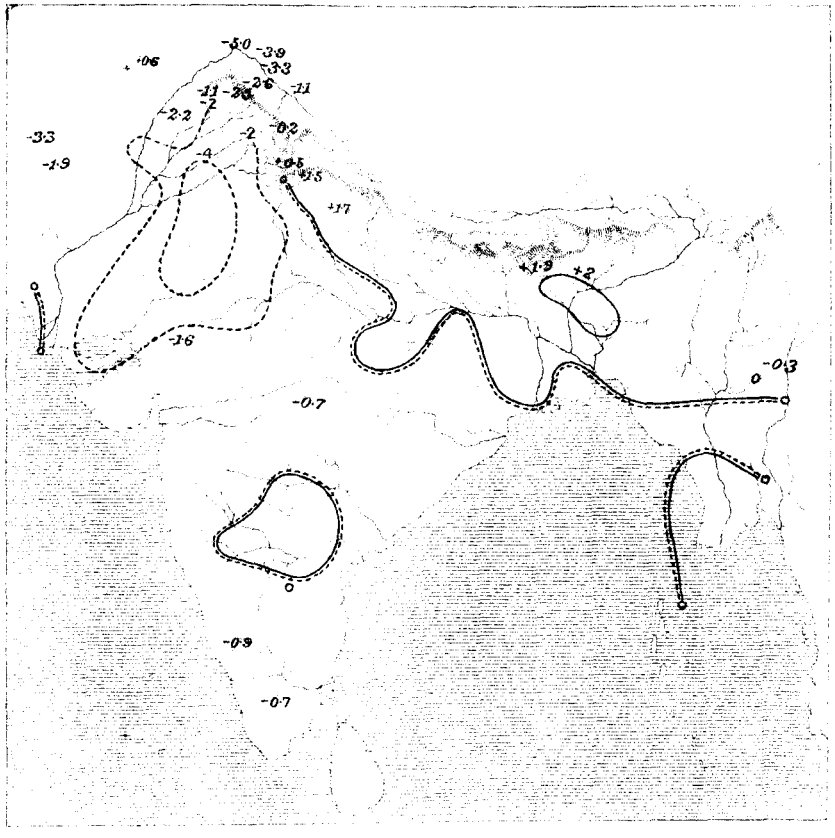


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.

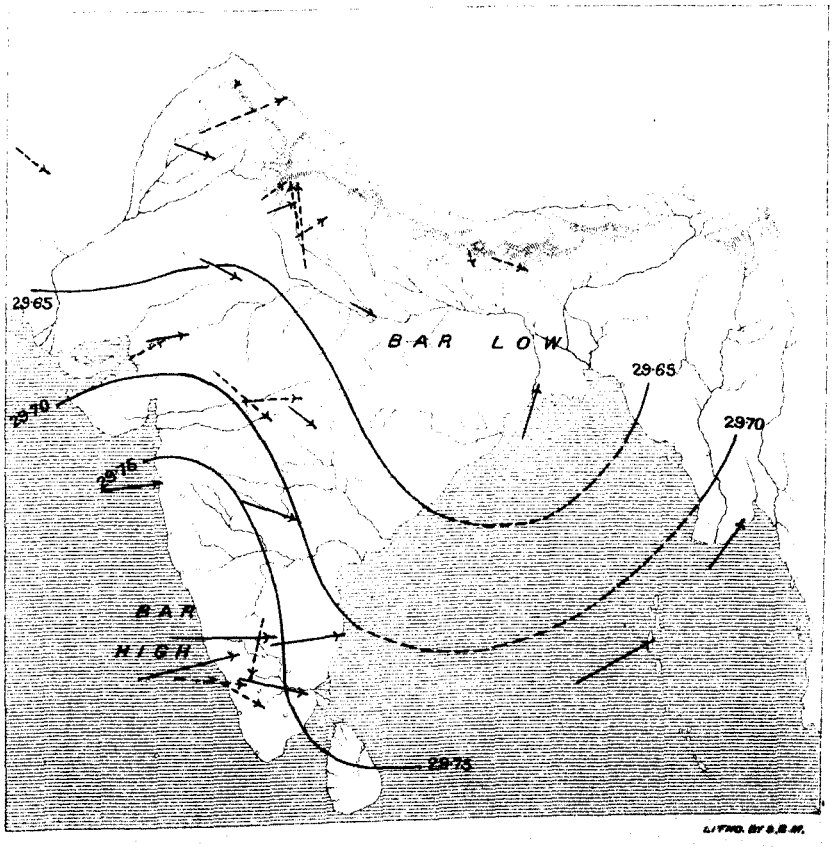


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF ABSOLUTE HUMIDITY AT 8 HRS.

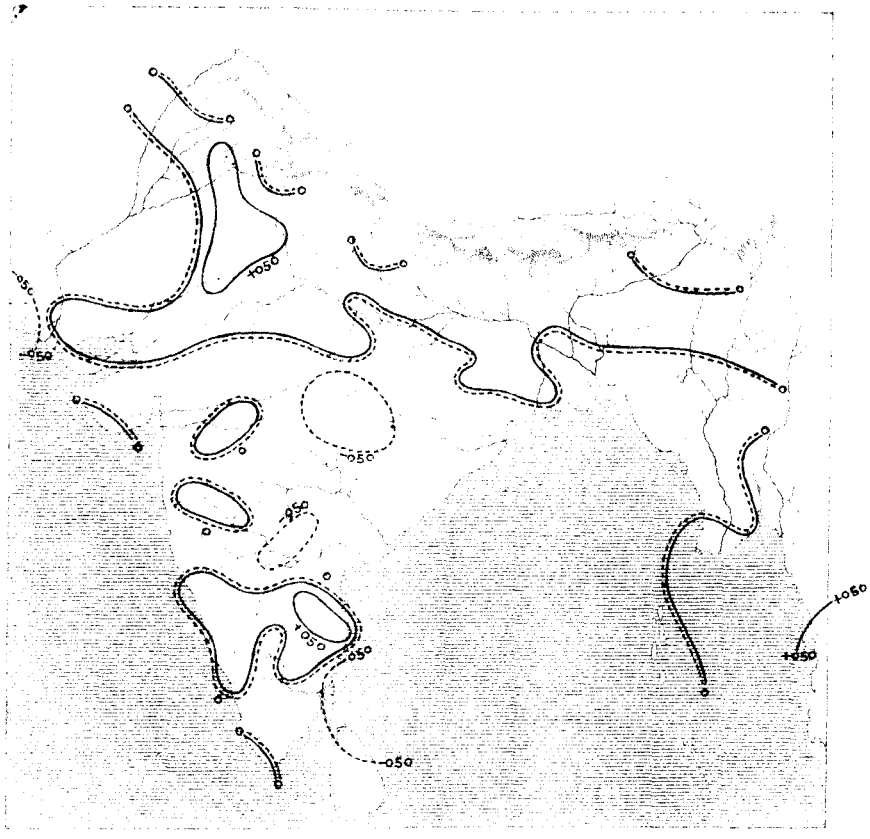


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 HRS.

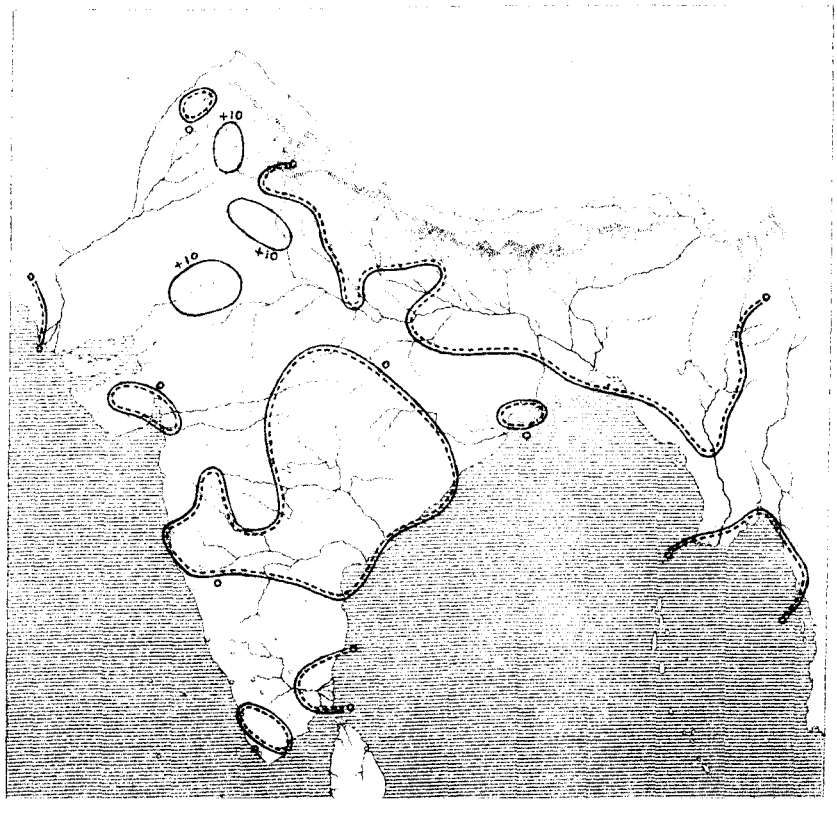


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF CLOUD AMOUNT AT 8 HRS.

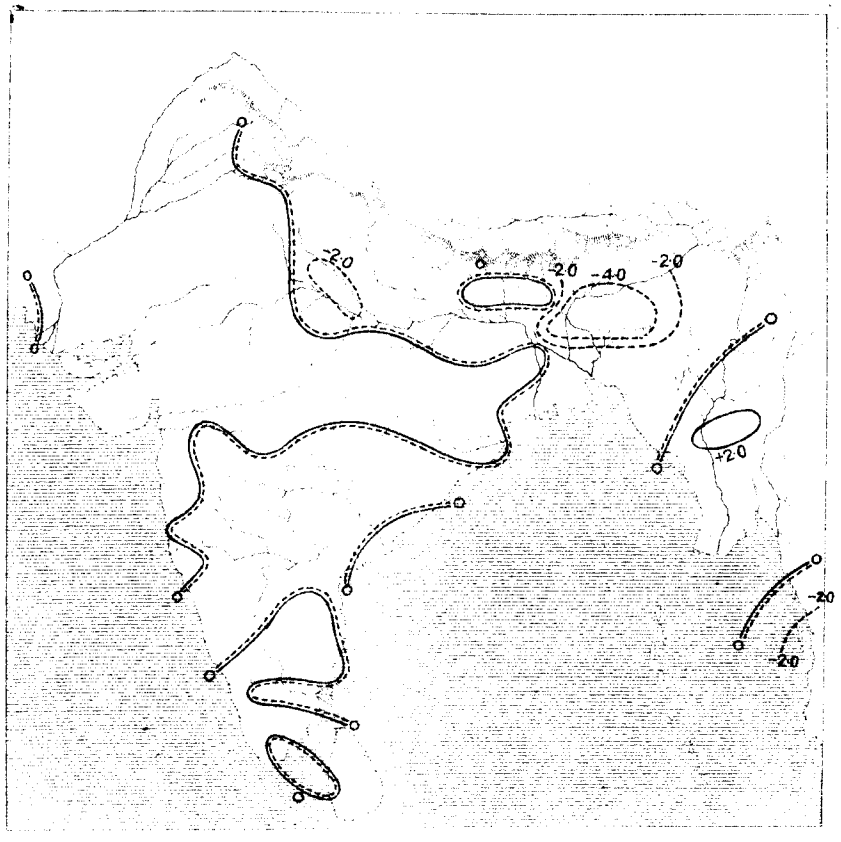
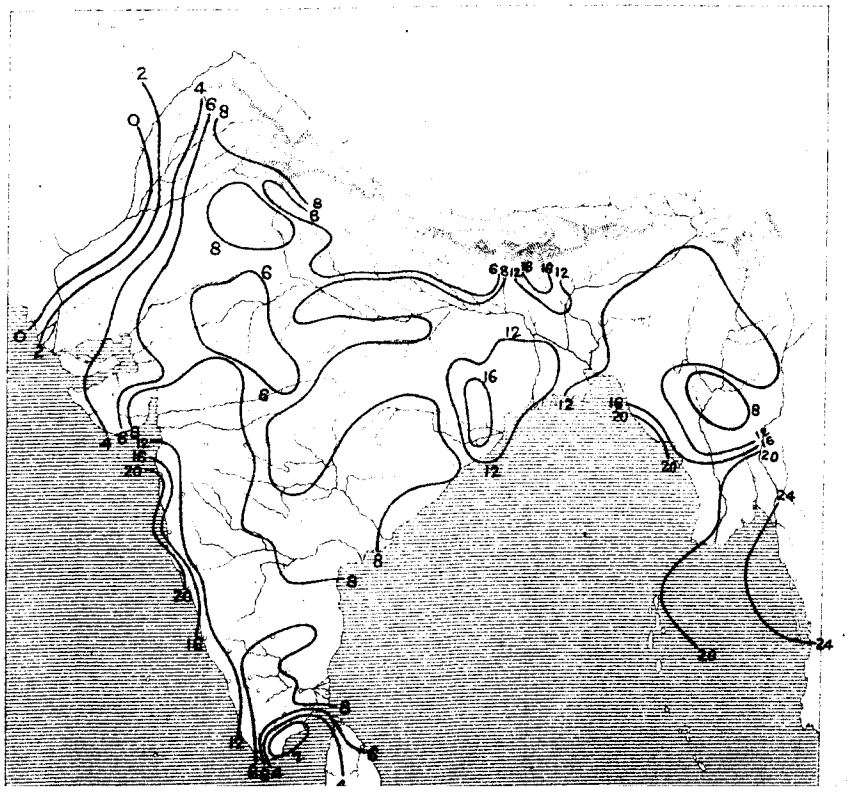
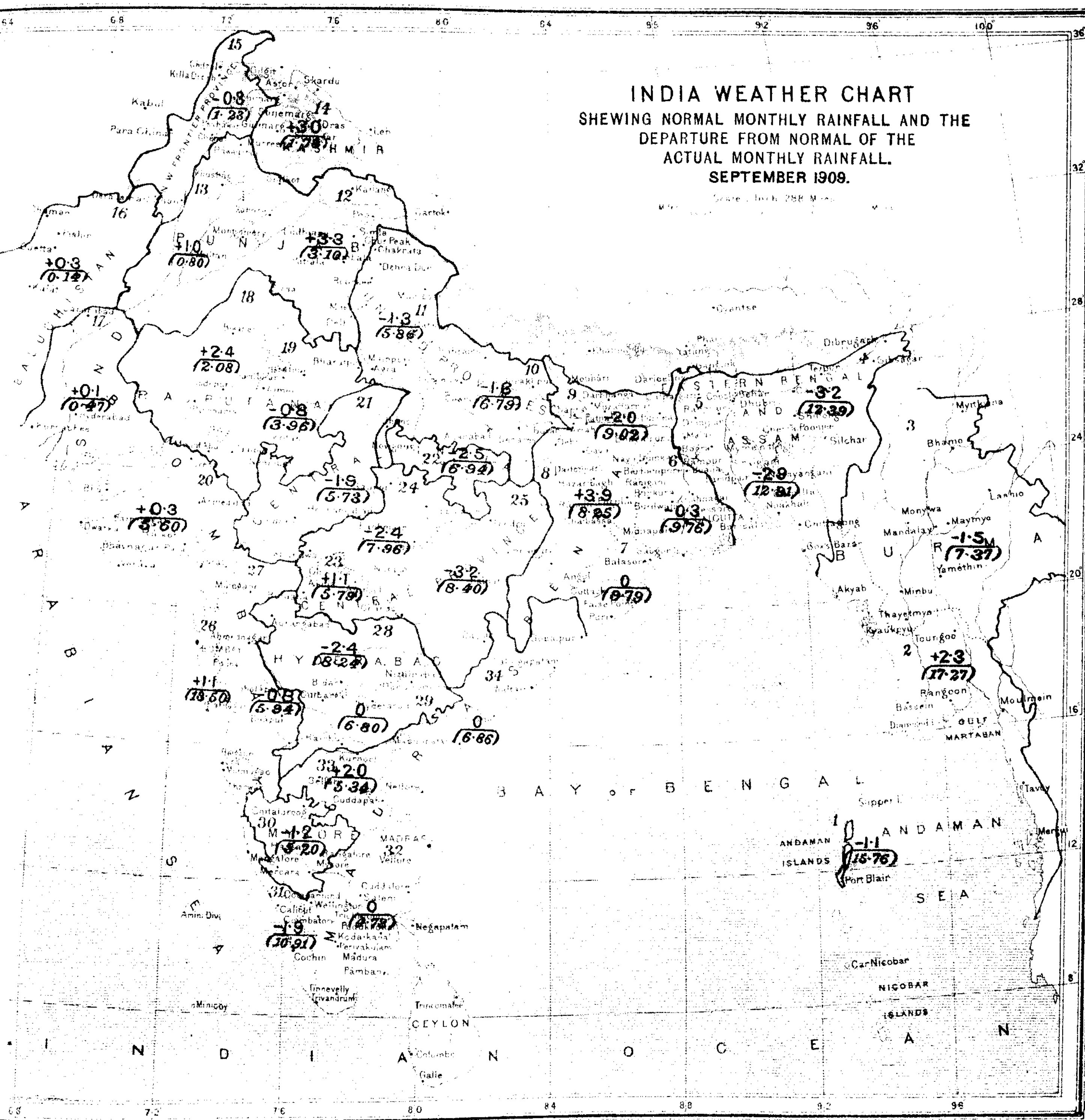


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EQUALLED OR EXCEEDED 0·10 INCH.

(BASED ON THE RETURNS OF TABLE B.)





No. 4093 E. 09 ... LITHO. BY S. B. MUNDLE

The country is divided into 34 areas as shewn in the list below. The numbers in that list correspond with the red numbers on the chart, [an]d serve to identify the areas. The numbers in brackets on the chart give the average over the divisions of the normal monthly rainfall; [th]e numbers above these give the departures from normal of the average actual rainfall over the divisions.

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

LIBRARY
MAR 10 1910
Weather Bureau

GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW.

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, OCTOBER, 1909.

INTRODUCTION.

THIS review of the weather in India during the month of October, 1909, is based on observations taken daily at 8 hrs. at 240 stations, and on additional observations taken at 10 hrs. and 16 hrs. at 34 stations. In the rainfall summary the data furnished by the meteorological observatories, and such rainfall statements of the month as had been published by the Provincial Governments up to the date of the preparation of the review, have been utilized. The brief notes on solar, seismic and magnetic disturbances have been supplied by the chief observatories.

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

Summary of the chief features of the weather in India during the month of October, 1909.

2. October 1909, like the corresponding months of the three previous years, was drier than usual over a large part of the country. After retreating from the Gangetic plain and the Central Provinces in the fourth week of September the monsoon current was directed chiefly to the Bay Islands, Burma and Eastern Bengal which areas accordingly received abundant rainfall in October at the expense of the peninsula. The defect in the latter region was universal and was most marked in the north coast of Madras where the autumnal rains which ordinarily set in during the second week had not begun by the end of the month. In north-western and central India the precipitation was even less than usual.

As might be expected from the shortness of the rainfall, humidity and the amount of cloud were low in most districts. A significant exception occurred however in the case of northwest India, where in the plains in spite of the prevalence of unusually dry weather humidity, both relative and absolute, was in excess.

The mean monthly temperature agreed with the normal within $1\frac{1}{2}^{\circ}$ in the case of all the larger divisions. Day and night temperatures also differed but little from the average at the great majority of stations, although the former was inclined to be above and the latter below the mean.

Pressure was below normal on the average of the whole country by ·022″, the defect being insignificant in the peninsula and large in amount over Burma and the greater part of northern India—a type of distribution unfavourable to the proper occurrence of autumnal rains.

Two storms of great severity visited the Bay during the second half of the month and in conjunction with the unfavourable pressure conditions noted above were instrumental in depriving the peninsula of its normal share of rainfall.

Solar, seismic and magnetic disturbances.

KODAIKANAL.

3. *Solar Observations.*—There was one day on which solar observations were not possible, one other on which prominences could not be observed, and seven others on which the prominence record was imperfect.

Sunspots.—The great solar activity noticed in the previous month continued in October. There were 23 new spot groups (the largest number since March) with a daily average of 4·5, and an average life for each spot of 6·3 days. This is quite an unusual development of spots for the present epoch of the spot cycle. Ten groups contained

fairly large spots; two of them, Nos. 1744 and 1748, were returns of Nos. 1726 and 1731. Northern groups slightly exceeded the southern in number; but only two among the northern contained large spots. The latitude distribution was as follows:—

TABLE 1.

	1° - 10°	11° - 20°	Extreme latitudes.	Mean latitude.
North . .	11	2	2°, 12°	7°·7
South . .	6	4	3°, 16°	9°·1

Though there were 10 groups containing large spots, few of them call for any special remarks. Groups Nos. 1729 and 1734 (*a*) contained only small spots, till they reached about 25° west of the central meridian, at which position they developed into trains of large spots. No. 1731 was a very long group extending over 15° of longitude. It was found to drift steadily westwards, and its position in longitude differed very much when it returned as No. 1748. It underwent much change of form from day to day, and bright C and dark D_3 were frequently observed in it. On October 15, when the group was within 2 days of the west limb, C was brightly reversed over an extensive area on, and near the easternmost spot, and it was seen as a changing prominence projected on the sun's disc. It was first observed at 9 h. 13 m. and there was nothing left of it by 10 h. 30 m.

Prominences.—Thirty-seven large, 2 metallic, and 2 eruptive prominences were recorded during the month. The tallest of them was 240″ in height.

Magnetic disturbances.—"Moderate" magnetic disturbances were recorded on the 2nd, 18th to 20th, and 23rd to 26th. The disturbance of the 18th to 20th was a return after one rotation of the very great disturbance of September 25. Spot groups Nos. 1725 and 1726 were 25° east of the central meridian on the 2nd; and on the 19th group No. 1738 was 19° to 26° east of the central meridian.

C. MICHIE SMITH,
Director,
Kodaikanal and Madras Observatories.

BOMBAY OBSERVATORY (ALIBAG).

Magnetic Observations for September, 1909.

4. During the month of September, 1909, the traces showed 10 calm days, 15 days of small, 2 days of moderate, 2 days of great, and 1 day of very great disturbance which occurred on the 25th.

The horizontal force trace of the 24th September shows that it was a quiet day, and these conditions prevail practically up to 13 h. of the 25th, when a slight disturbance with increasing force just begins to be indicated. The large disturbance seems to overlap the former and appears to have commenced at 16·5 h., with a sudden large increase of force equal to about 100γ. After this the curve, for about one hour, shows large irregular movements, but without any marked decrease in the value of force. At 17·4 h., however, a sudden drop occurs and the trace passes beyond the paper at about 18·5 h. The time hence of the attainment of the maximum of the disturbance in the horizontal force, indicating the least value of force is lost. The indications of the vertical force show that it must have been attained at about 18·5 h., while the maximum effect in the declination curve shows that it must have occurred at 19·5 h. A deflector was subsequently employed to get the trace back on the paper which showed roughly that the total fall of force must have exceeded 800γ. After 22 h. the disturbance appears to have spent its force and conditions of restitutions supervening, the curve rises rapidly till 5 A.M. and slowly thereafter for the next 24 hours. Normal conditions were not reached till after the 28th.

The days of the month selected as quiet for the purposes of the Magnetic Survey of India are the 11th, 12th, 13th, 18th, and 20th.

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

Easterly declination . . .	1° 0′ 3″
Horizontal force	0·36823 C. G. S. unit.
Vertical force	0·16026 ,, ,,
Dip (calculated) . . .	23° 31′·2.
Dip (observed)	23° 29′·4.
Horizontal force range . .	0·00064 C. G. S. unit.
Horizontal force summed range .	0·00397 ,, ,,
Declination range . . .	4′·4.
Declination summed range . .	18′·5.

NOTE.—Summed range means sum without regard to signs of 24 ordinates of diurnal inequality.]

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

TABLE 2.

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

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

Seismic disturbances recorded at Bombay.

Three small seismic disturbances were recorded during the month on the 7th, 8th and the 16th, of which that on the 7th was lost as it occurred during the shifting time.

List of seismic disturbances.

TABLE 3.

Date.	Commencement.		Maximum.		End.		Maximum amplitude.	Duration.	
	H.	M.	H.	M.	H.	M.	mm.	H.	M.
September 8th.	17	12·9	17	48·5	18	14·1	0·6	1	1·2
" 16th.	19	4·3	19	13·1	19	20·2	0·2	0	15·9

All times given above denote G. M. T.
Sensibility to tilt, 1 mm. = 0″·36.

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

BOMBAY OBSERVATORY.

Note on the Alibag magnetic record.

During the month of October, 1909, the traces showed 12 calm days, 16 days of small, 2 days of moderate and 1 day of great disturbance.

The days of the month selected as quiet for the purposes of the Magnetic Survey of India are the 5th, 14th, 15th, 17th and 28th.

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

Easterly declination	1° 0′ 3″.
Horizontal force	0·36808′ C. G. S. unit.
Vertical force	0·16027 " "
Dip (calculated)	23° 31′·8.
Dip (observed)	23° 31′·7.
Horizontal force range	0·00046 C. G. S. unit.
Horizontal force summed range	0·00262 " "
Declination range	2′·3.
Declination summed range	8′·4.

(NOTE.—Summed range means sum without regard to signs of 24 ordinates of diurnal inequalty.)

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

TABLE 4.

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

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

Seismic disturbances recorded at Bombay.

Three seismic disturbrnces were recorded during the month on the 20th, 30th and 31st.

TABLE 5.

Date.	Commencement.		Maximum.		End.		Maximum amplitude.	Duration.	
	H.	M.	H.	M.	H.	M.	mm.	H.	M.
October 20th and 21st.	23	45·3	23	47·9	1	30·7	16·1	1	45·4
Oetober, 30th	10	36·5	10	54·6	11	15·6	0·3	0	39·1
" 31st	11	43·8	11	49·9	12	37·1	0·5	0	53·3

All times given above denote G. M. T.
Sensibility to tilt, 1 mm. = 0″·36.

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

CALCUTTA OBSERVATORY.

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

TABLE 6.

Date 1909.	P. T. Commencement. G. M. T.		L. W. Commencement. G. M. T.		Maximum. G. M. T.		End. G. M. T.		Duration.		Maximum displacement on trace from mean position.	REMARKS.
	H.	M.	H.	M.	H.	M.	H.	M.	H.	M.	mm.	
October 20th	23	46·2	23	49·7	23	54·8	21-10-09 2	0·9	2	14·7	9·50*	*Measured from the base line.
" 31st	11	16·3	11	41·8	11	42·3	12	51·8	1	35·5	0·75	

Sensibility 1 mm. = 0″·38 of tilt.

E. P. HARRISON,
Offg. Meteorologist, Calcutta

SIMLA OBSERVATORY.

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

TABLE. 7.

Date.		Beginning of 1st P. T.	Beginning of 2nd P. T.	Beginning of L. W.	Time of maximum amplitude.	End approximately.	Duration approximately.	Maximum displacement of style.	REMARKS.
		H. M.	H. M.	H. M	H. M.	H. M.	H. M.	mm.	
17th	A	22 23·6	...	22 24·8	22 24·9	22 40	0 16	1·5	Local.
"	B	22 23 5	...	...	22 24·9	22 35	0 11	1·5	"
20th - 21st.	A	23 42·9	...	23 45 3	23 45·6	2 10	2 27	42	
"	B	23 43·2	...	23 45·2	...	1 50	2 7	H.t stops.	Origin in Baluchistan.
23rd	A	...	...	10 8·2	...	10 10	0 1·8	...	Tremor.
"	B	...	...	10 8·2	...	10 10	0 1·8	...	"
26th	A	...	...	22 18 3	22 18·4	22 20	0 1·7	2	Local.
"	B	...	...	22 18·3	22 18·4	22 20	0 1·7	2	"
29th	A	...	...	2 28·2	...	2 38	0 10	...	Tremor.
"	B	...	...	2 33·4	...	2 38	0 5	...	"
30th	A	10 27·5	...	10 35·7	10 36·8	11 0	0 33	1	"
"	B	...	...	10 35·8	10 35·8	10 50	0 14	1	"

All times are given in G. M. T. A=E—W component. B=N—S component. Magnification = 15.

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

TABLE 8.

Place at which felt.	Date.	G. M. T. of earthquake.		Duration.	Intensity.	No. of shocks.	REMARKS.
		H.	M.				
Kailang (Kangra) .	8th	14	4	6 Sec.	2	3	
" " .	15th	21	45	9 "	2	3	
Rawalpindi . .	17th	22	21	8 "	3	1	
Murree . .	"	22	28	9 "	1	2	
Quetta . . .	20th	23	42	12 "	4	1	
Jacobabad . .	"	23	42	40 "	4	3	
" . .	21st	0	30	4 "	1	2	
Kalabagh . . .	25th	22	30	2 Min.	4	3	
Sarain . . .	"	22	30	3 "	4	2	
Bushire (Persia) .	29th	12	5	5 Sec.	2	10	
" " .	"	22	42	5 "	2	10	

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

Maximum	1·51
Minimum	1·35
Mean	1·44
Number of days of observation . . .	18

J. PATTERSON,
Imperial Meteorologist.

ROYAL ALFRED OBSERVATORY, MAURITIUS.

7. *Solar observations.*—Observations not received.

Weather in the Indian monsoon region.

8. Barometric pressure was well above the normal both at Zanzibar and the Seychelles; this is an indication that the actions giving rise to the low pressure conditions in India did not extend southwards to equatorial regions. Wind direction was nearly normal at the Seychelles and much more easterly than usual at Zanzibar: the velocity was much in excess at the former and in defect at the latter station.

The rainfall of the month was above normal, the excess being as much as 85 per cent. at Zanzibar.

Thus the general conditions in the equatorial belt as represented by the two stations were, if anything, detrimental to the Indian rainfall.

TABLE 9.

	Mauritius,	Zanzibar.	Seychelles.
Departure from normal of mean pressure.	...	+·025	+·031
Actual mean wind direction .	...	S 34° E	S 41° E
Normal mean wind direction .	...	S 6° E	S 39° E
Actual mean wind velocity (miles per diem).	...	94	256
Normal mean wind velocity (miles per diem).	...	120	191
Rainfall departure from normal .	...	+3·15	+0·72

Depressions and cyclonic storms.

9. Weather was unusually disturbed over the Bay where two storms of great intensity occurred during the second half of the month. The marine information received up to the present respecting this period is however very scanty, and the account of their origin, character and course given below is therefore to some extent doubtful.

Storm of the 14th to the 19th.—This storm appears to have advanced into the Bay from the Gulf of Siam on the

14th. It lay over the Andaman Sea on the morning of the 15th, to the west of the coast between Diamond Island and Akyab on the 16th and over the north of the Bay on the 17th. It had thus travelled over a distance of about 600 miles in two days or at an average rate of 13 miles an hour.

The S.S. *Malda* proceeding to Chittagong from Calcutta was involved in the northern semi-circle of the storm on the morning of the 17th. She experienced violent squalls and tremendous seas, and a barometric pressure more than three-quarters of an inch below the normal. The Light vessels *Comet*, *Hesperus* and *Luna* also experienced winds of great violence (force 10-12) in the western quadrant, thus showing that the storm was one of dangerous character at this stage.

The centre passed over the Sandheads in the afternoon and had reached Faridpur by 8 hrs. of the 18th: the passage over land had as usual weakened the storm very considerably, pressure at the centre having increased by probably about half an inch. It continued to travel in a northerly direction during the succeeding 24 hours and on the morning of the 19th was situated over Mymensingh and the adjoining districts. It had become reduced still further and disappeared almost entirely during the day.

The rainfall produced by the storm over the land was by no means remarkable but the violent winds associated with it inflicted much injury on life and property in Eastern Bengal, particularly in the Backergunge district where 172 human beings and over 15,000 cattle are reported to have been lost.

Storm of the 22nd to the 29th.—This storm was the severest that has occurred in October in the Bay of Bengal for at least fifteen years. It was generated in the Andaman Sea on the 22nd and after intensifying rapidly on the 23rd while travelling northwestwards, it became on the 24th a dangerous cyclone with an inner area of hurricane wind and probably a calm centre.

The S.S. *Shahzada* and *Bharat* ran into it on the 24th; the former was involved in the inner area for upwards of 24 hours. Both experienced a perfect hurricane, while the barometric records of the *Shahzada* make it not improbable that on the early morning of the 25th pressure at the centre was at least an inch below normal. No large change occurred in its line of advance till the morning of the 26th when owing to some unknown circumstance it became westerly and the cyclone, travelling much faster than hitherto, struck the north Madras coast near and to the north of Gopalpur about midnight on the 26th.

According to the Gopalpur observatory records there was a fall in pressure of a little over an inch between midnight and 3 hrs. on the 27th and an equally rapid rise during the succeeding three hours. The barometer there stood lowest a little after 3 hrs and was no less than 1·4″ in defect of the normal value. Winds of destructive violence were felt at the station and caused much damage to property, the loss in the Gopalpur district alone being estimated at about 15 lacs of rupees.

The rotary motion was, as is usual in the case of storms of low elevation, broken up speedily by the high ground to the west of Gopalpur, so that by 8 hrs. (that is only five hours after its passage inland) the defect at the centre had diminished to less than two-tenths of an inch.

The residual depression continued advancing westwards and by the morning of the 29th had reached the east of the Arabian Sea. It was however no longer of any significance.

The storm was of a very unusual character and in some important features resembled that of November, 1886.

Pressure.

10. Barometric pressure at 8 hrs. was in somewhat larger defect than in September, the geographical mean of the whole month being ·022″ below the corresponding normal value. The low pressures contributing most largely to this result were recorded in Burma and northeast India —areas affected to the greatest extent by the two storms of the month.

The deficit was moderately large also in the United Provinces, the Punjab and the North-West Frontier Province, but over the regions lying to the south the departures were much less marked and in the region comprised by Gujarat, Lower Sind and the Konkan, on the other hand, a small excess was recorded.

The defect in the plains of northern India extended upwards in only a modified degree and was replaced by a trifling excess at the level of Leh. Opposite conditions obtained in southern India.

TABLE 10.

DIVISION.	Departure from normal of mean 8 hrs. pressure.
	″
Burma	—·046
Eastern Bengal and Assam	—·051
Bengal	—·040
United Provinces	—·032
Punjab	—·028
North-West Frontier Province	—·041

Division.	Departure from normal of mean 8 hrs. pressure.
	"
Sind	—·001
Rajputana	0
Bombay	+·003
Central India	—·013
Central Provinces	—·004
Hyderabad	—·013
Mysore	—·007
Madras	—·012

TABLE 11.

Hill Station.	Departure from normal pressure. A	Plain Station.	Departure from normal pressure. B	Departure of pressure difference B—A.
	"		"	"
Quetta	0?	Jacobabad	—·014	—·014?
Leh	+·002	Lahore	—·031	—·033
Murree	—·020	Peshawar	—·038	—·018
Simla	—·013	Ludhiana	—·025	—·012
Chakrata	—·011	Roorkee	—·019	—·008
Darjeeling	—·033	Jalpaiguri	—·059	—·026
Mount Abu	—·001	Deesa	+·014	+·015
Pachmarhi	—·004	Khandwa	0	+·004
Kodaikanal	—·020	Madura	+·006	+·026

Temperature.

11. Days were warmer than usual in the United Provinces, Chota Nagpur, Eastern Bengal and Assam, Central India and the greater part of the peninsula, but more especially in south Hyderabad, the Madras Deccan and the coast districts from Negapatam to Gopalpur, where maximum temperature was from 2° to 4½° above normal. Night temperature on the other hand ruled below the average everywhere in the plains except locally in the Indus valley, Burma, Assam and Eastern Bengal and the coast districts of Madras. The defect averaged 3° in amount in the Central Provinces where it was greatest.

The distinction between the departures of day and night temperature was caused mainly by the abnormalities of cloud; the only notable exception occurred in the Indus valley and here the excess of night temperature was a result of high humidity, the effect of this on heat radiation being similar to that of cloud.

Of the temperature changes which occurred during the course of the month the most noteworthy was a very large fall in Kashmir from the 14th to the 17th: it was induced by heavy snowfall and was subsequently transmitted to the plains of north-west and central India by an outflow of air.

TABLE 12.

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
1. Bay Islands	85·1	76·3	80·8	8·8	14·7	—1·6	—1·0	—0·6
2. Lower Burma	86·5	75·7	81·1	10·8	17·4	—1·4	+0·7	—2·1
3. Upper do.	89·0	73·9	81·5	15·2	23·3	—0·2	+2·0	—2·2
4. Assam	86·7	73·0	79·9	13·7	25·7	—0·1	+1·8	—1·9
5. Eastern Bengal	87·1	73·6	80·3	13·5	23·5	+0·4	+0·9	—0·5
6. Bengal	88·4	73·6	81·0	14·8	26·3	+0·2	0	+0·2
7. Orissa	89·3	72·4	80·9	16·9	29·2	+0·6	—1·4	+2·0
8. Chota Nagpur	87·1	67·1	77·1	20·0	31·9	+0·5	—0·3	+0·8
9. Bihar	88·9	70·5	79·7	18·4	29·9	+0·3	—0·9	+1·2
10. United Provinces, East	92·0	65·8	78·9	26·1	36·9	+1·6	—1·6	+3·2

Sub-Division	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
11. United Provinces, West	91·3	64·4	77·9	26·9	36·4	+1·1	—0·5	+ 1·6
12. Punjab, East and North	92·0	63·0	77·5	29·0	42·2	—0·6	+1·2	— 1·8
13. Punjab, Southwest	95·0	65·2	80·1	29·8	42·7	—0·3	+2·4	— 2·7
14. Kashmir	62·2	36·4	49·3	25·9	44·6	—1·0	—0·1	— 0·9
15. North-West Frontier Province	91·1	61·5	76·3	29·5	44·8	—0·1	+2·6	— 2·7
16. Baluchistan	83·7	51·5	67·7	32·2	49·1	+2·9	+0·7	+ 2·2
17. Sind	94·3	70·2	82·3	24·1	36·3	—0·2	+2·3	— 2·5
18. Rajputana, West	95·7	66·6	81·1	29·0	40·5	—1·1	—1·3	+ 0·2
19. Do., East	92·3	65·4	78·9	26·9	37·8	—0·5	—0·1	— 0·4
20. Gujarat	92·6	70·1	81·4	22·5	33·2	—0·9	—0·7	— 0·2
21. Central India, West	90·5	62·4	76·5	28·1	37·9	+1·4	—1·7	+ 3·1
22. Do., East	90·8	63·6	77·3	27·2	38·7	+1·7	—1·8	+ 3·5
23. Berar	90·5	66·5	78·5	24·0	34·5	+1·9	—2·3	+ 4·2
24. Central Provinces, West	90·3	63·0	76·7	27·2	37·2	+1·5	—2·9	+ 4·4
25. Do., East	87·2	64·9	76·1	22·3	31·8	+0·6	—3·5	+ 4·1
26. Konkan	85·6	73·9	79·7	11·7	21·0	—0·9	—1·1	+ 0·2
27. Bombay Deccan	89·1	65·7	77·4	23·4	35·1	+1·0	—0·6	+ 1·6
28. Hyderabad, North	89·1	64·6	76·9	24·5	35·9	—0·3	—3·1	+ 2·8
29. Do., South	91·9	69·1	80·5	22·8	33·3	+2·7	—1·1	+ 3·8
30. Mysore	84·1	65·7	74·9	18·5	27·6	+1·3	—0·4	+ 1·7
31. Malabar	85·9	74·6	80·3	11·3	15·9	+0·4	+0·6	— 0·2
32. Madras, Southeast	91·4	74·4	82·9	17·1	25·8	+1·7	+0·2	+ 1·5
33. Do. Deccan	94·1	71·5	82·8	22·6	33·3	+3·3	—0·6	+ 3·9
34. Do. Coast, North	91·6	75·9	83·8	15·7	26·4	+3·1	+0·1	+ 3·0

TABLE 13.

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

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

Winds.

12. (*a*) The air movement was on the whole even feebler than usual during October, particularly in the peninsula. The steadiness was however decidedly greater than the normal except in Burma and Eastern Bengal and Assam.

(*b*) The mean direction of air motion was westerly to north-westerly over the Central Provinces and the Bombay Deccan, where ordinarily winds from between north and east are prevalent; elsewhere the deviations from the normal were very irregular and of no significance.

TABLE 14.

Division.	Departure from normal of	
	Hourly wind velocity.	Wind steadiness.
Burma	−0·4	+ 2
Eastern Bengal and Assam	+0·1	− 5
Bengal	−0·2	+ 9
United Provinces	0	+11
Punjab	+0·6	+ 9
North-West Frontier Province	−0·7	+ 5
Sind	−0·5	+22
Rajputana	+1·3	+13
Bombay	−0·7	+11
Central India	−1·0	+19
Central Provinces	−0·4	+18
Hyderabad	−1·0	+29
Mysore	−1·1	+19
Madras	−0·7	+ 6

Humidity and cloud.

13. The amount of aqueous vapour present in the air was in defect of the normal throughout the country with the exception of Burma, Eastern Bengal and Assam, the south of the peninsula and the plains of northwest India. The defect was most marked in the Deccan and the northern coast districts of Madras—the area of exceedingly dry weather. Departures of relative humidity were generally parallel with those of absolute humidity.

Skies were more clouded than usual in Burma, Ceylon and at some stations in the peninsula, but over the rest of the plains the cloud amount was more or less below normal and this condition was present also in the hill districts of north-western and central India. The region of maximum defect was defined by the coast stations from Madras to Gopalpur and thus coincided roughly with that of lightest rainfall.

TABLE 15.

Division.	Hygrometry; 8 hrs.				Cloud.	
	Mean humidity.	Departure from normal.	Mean vapour-tension in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.
	%					
Burma	90	+ 3	·874	+·020	6·2	+1·2
Eastern Bengal and Assam.	87	− 2	·843	+·011	3·6	−0·7
Bengal	78	− 3	·744	−·023	2·3	−0·7
United Provinces	63	− 6	·539	−·040	0·6	−0·6
Punjab	57	+ 1	·457	+·028	0·3	−0·4
North-West Frontier Province.	59	+ 1	·431	+·037	0·7	0
Sind	70	+13	·657	+·127	0·7	0
Rajputana	55	+ 5	·496	+·034	0·6	−0·6
Bombay	71	− 1	·671	−·018	2·2	−0·5
Central India	59	− 3	·487	−·047	1·2	−0·3
Central Provinces	60	− 7	·510	−·070	1·8	−0·6
Hyderabad	56	−12	·531	−·122	2·5	−0·5
Mysore	80	− 1	·629	−·010	5·1	−1·5
Madras	76	− 4	·792	−·021	4·4	−1·1

Rainfall.

14. October is essentially a month of transition from the conditions characteristic of the summer to those of the autumnal rains. The retreat of the monsoon which usually begins in upper India about the middle of September is continued during the next three weeks, and about October 10 the current in the Bay is expected to bring the first burst of what are known as the retreating monsoon rains to the coast districts of Madras. During the present October the pressure and other conditions were such as usually tend to deflect the moist current from its proper course and to concentrate its activity over Burma and Eastern Bengal. The abnormal set of the Bay current to regions constituting the eastern margin of its usual field was strengthened still further by the two storms which occurred during the month. As a result the month's aggregate rainfall measurements were considerably short of the normal in all parts of the peninsula but more especially in the Madras Coast North which obtained only an inch in place of the usual seven inches, while the Bay Islands, Burma and Eastern Bengal received total amounts much in excess of the normal. Over north-western and central India conditions were even more settled than is ordinarily the case in October.

There was also a marked defect in Chota Nagpur, Bihar and the east of the United Provinces which usually receive moderate falls during the first half of the month.

TABLE 16.

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			"	"	"	
1. Bay Islands	14·5	14·2	14·53	8·94	+5·59	+ 63
2. Lower Burma	13·6	9·6	9·26	6·98	+2·28	+ 33
3. Upper do.	9·4	6·2	6·01	4·44	+1·57	+35
4. Assam	6·1	6·2	4·99	5·08	—0·09	— 2
5. Eastern Bengal	6·2	5·0	7·11	5·10	+2·01	+ 39
6. Bengal	3·6	4·6	3·53	3·87	—0·34	— 9
7. Orissa	1·8	5·9	1·73	5·37	—3·64	— 68
8. Chota Nagpur	1·5	3·7	0·84	2·77	—1·93	— 70
9. Bihar	1·5	2·8	1·32	2·59	—1·27	— 49
10. United Provinces, East	0·3	1·6	0·23	1·87	—1·64	— 88
11. Do., West	0·2	0·7	0·05	0·68	—0·63	— 93
12. Punjab, East and North	0·4	0·5	0·12	0·26	—0·14	— 54
13. Do., Southwest	0	0·2	0·01	0·07	—0·06	— 86
14. Kashmir	2·1	1·5	1·05	0·69	+0·36	+ 52
15. North-West Frontier Province	0·4	0·6	0·12	0·27	—0·15	— 56
16. Baluchistan	0	0·2	0	0·06	—0·06	—100
17. Sind	0	0	0	0·02	—0·02	—100
18. Rajputana, West	0·1	0·1	0·02	0·07	—0·05	— 71
19. Do., East	0·1	0·3	0·04	0·19	—0·15	— 79
20. Gujarat	0·2	1·1	0·08	0·83	—0·75	— 90
21. Central India, West	0·1	0·9	0·08	0·60	—0·52	— 87
22. Do., East	0	1·7	0	1·58	—1·58	—100
23. Berar	1·2	2·3	0·26	1·71	—1·45	— 85
24. Central Provinces, West	0·2	2·3	0·04	1·70	—1·66	— 98

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			"	"	"	
25. Central Provinces, East	0·8	2·7	0·25	1·95	—1·70	— 87
26. Konkan	1·9	6·1	1·08	4·49	—3·41	— 76
27. Bombay Deccan	2·9	5·1	1·65	3·54	—1·89	— 53
28. Hyderabad, North	1·0	3·7	0·46	2·59	—2·13	— 81
29. Do., South	0·5	4·6	0·31	2·98	—2·67	— 90
30. Mysore	7·2	7·9	4·87	5·29	—0·42	— 8
31. Malabar	7·8	12·0	5·90	9·76	—3·86	— 40
32. Madras, Southeast	6·4	8·8	5·11	7·19	—2·08	— 29
33. Do. Deccan	1·6	6·4	0·82	4·68	—3·86	— 82
34. Do. Coast, North	1·3	7·3	0·96	7·22	—6·26	— 87

TABLE 17.

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Burma	7·48	5·59	+1·89	+34
Eastern Bengal and Assam	6·07	5·09	+0·98	+19
Bengal	2·20	3·53	—1·33	—38
United Provinces	0·15	1·31	—1·16	—89
Punjab	0·10	0·23	—0·13	—57
North-West Frontier Province	0·12	0·27	—0·15	—56
Sind	0	0·02	—0·02	—100

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	"	"	"	
Rajputana	0·03	0·16	—0·13	—81
Bombay	1·04	2·84	—1·80	—63
Central India	0·05	0·94	—0·89	—95
Central Provinces	0·18	1·76	—1·58	—90
Hyderabad	0·38	2·80	—2·42	—86
Mysore	4·87	5·29	—0·42	—8
Madras	3·38	7·11	—3·73	—52
Mean of India when the size of the above areas is taken into account	2·07	2·91	—0·84	—29

Snowfall.

I AND II.—AFGHANISTAN AND THE NORTH-WEST FRONTIER PROVINCE.

15. No reports have been received.

III.—KASHMIR.

(*a*) *Dras.*—There were snowfalls from the 13th to the 16th and again on the 22nd and 23rd. The quantity received at Dras itself was small, not exceeding 3 inches altogether, but it was said that about 2 feet of snow fell on the Zoji-la.

(*b*) *Sonemarg.*—A total fall of about 3 feet occurred in the grounds of the observatory and about 7 or 8 feet was reported on the Zoji-la.

(*c*) *Gulmarg.*—There were in all three falls on the surrounding mountains, while in the valley itself sleet occurred on the 14th and 15th.

(*d*) *Srinagar.*—Snow fell on the higher mountains on the 14th, 15th and 16th. The fall of the 16th was heavy and extended unusually low.

(*e*) *Kargil.*—Snowstorms of feeble intensity occurred on the Nakthula, Barula and Darket passes on the 14th, 15th, 16th and 23rd.

(*f*) *Leh.*—On the 17th there was a fall of snow on all the heights beyond the Indus as well as on the Kardong pass north of Leh. In the latter locality it extended down to the level of Gonpa, a village situated at the foot of the pass.

IV.—PUNJAB.

(*a*) *Kailang.*—There was a fall of 4½ inches on the 16th and 17th.

(*b*) *Kilba.*—Snowstorms occurred on the surrounding hills on the 6th, 14th, 15th and 16th. The snowline was at 9,000 feet on the last three dates. The storm of the 14th is said to have extended over a large area. The amount of each fall on the higher passes was estimated at 2 to 2½ feet. It however melted away fast, so that at the close of the month all the higher passes in the district were open.

V.—UNITED PROVINCES.

(*1*) *Garhwal.*—Snow fell on the 15th and 23rd, but the falls were not heavy and were confined to the higher peaks in the north.

(*2*) *Almora.*—There were occasional snow storms, chiefly during the first half of the month. The total quantity received was estimated at 7¾ feet on the Nuwe pass, 4⅓ feet in Byans, 2¾ feet on the Binkaru pass and a few inches on the Untadhura and the Ralamdhura. In Malla Darma the snowline came down to a distance of about 7 miles from the perpetual snows.

TABLE. 18.

NAME OF PASS.	DEPTH OF ACCUMULATION AT THE END OF THE MONTH.	
	Reported.	Normal.
Nuwe Pass	28 feet	23 feet.
Binkaru ,, ...	16 ,,	12 ,,
Lipulekh ,, ...	4 ,,	3 ,,
Lampia ,, ...	4 ,,	4½ ,,

Temperature was lower than usual.

SUMMARY.

16. The available data indicate that there was an extensive, and in places heavy, fall of snow on the higher ranges of the North-West Himalayas from the 13th to the 16th. As little or no snowfall occurred at other times, it is almost certain that the snowfall conditions of the month as a whole were not of an unusual character. The accumulations at the end of the month in Kumaon, for which alone actual data are forthcoming, were on the whole greater than usual.

Crop report.

17. *Burma.*—The cultivation of miscellaneous winter crops was in progress and the transplanting of winter rice was practically completed. Standing crops were generally in good condition.

Eastern Bengal and Assam.—The prospects of winter rice, tea and pulses were good and of cotton fair. Storms caused some damage to crops in Faridpur, Noakhali and the Chittagong Hill Tracts.

Bengal.—Sowings of spring crops were being made. Much damage was caused by the storm which crossed the coast on the 17th to all crops in Nadia, Murshidabad, Jessore and Khulna; in the last district cattle also suffered considerably.

United Provinces.—Autumn crops were being harvested and spring crops sown. The outturn of harvested crops and the condition of standing crops were good.

Punjab.—The condition of standing crops was generally good to average, except in parts of Shahpur and Mianwali where rain was badly wanted. Spring crops were being sown and autumn crops harvested.

Jammu and Kashmir.—Autumn crops in Kashmir had been damaged by floods and were below the average. In Jammu standing crops were in fair condition.

Rajputana.—Ploughing and sowing for spring crops were in progress. Standing crops and prospects were good.

Central India.—Crops had sustained some damage from insects. Harvesting of autumn and sowing of spring crops were in progress.

Central Provinces.—Spring crops were being sown and the germination was good except in Chanda. Cotton was being picked and autumn crops harvested.

Bombay.—Standing crops had suffered from insufficient moisture in Kolhapur and had been damaged by rats and insects in some other parts. Autumn crops were being harvested. Agricultural stock was generally sufficient and in good condition.

Hyderabad.—Autumn crops were generally fair to good and were being harvested. Spring sowings were in progress. More rain was needed in many parts.

Mysore.—Standing crops were generally in good condition, but more rain was wanted. Prospects of the season were good.

Coorg.—Rice was in good condition. Cardamom was being picked; water and fodder were sufficient.

Madras.—Crops were being harvested with fair to normal outturn. Standing crops were fair to good, but some required more rain and some in Ganjam had been damaged by the cyclonic storm which crossed the coast on the 26th. Prospects were generally good.

HEM RAJ.

TABLE A.—Abstract of observations taken at 10 hrs. and 16 hrs. at 34 stations in India, etc., in October, 1909.

Table

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

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Mean of 16 hrs.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to sea-level and gravity, 45° Lat.	Temperature of air. Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of three preceding columns.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	I.—Burma.																					
2	Rangoon	18	29·886	29·767	·119	29·831	−·021	29·786	87·5	76·8	10·7	91·1	72·3	18·8	83·7	81·8	80·5	+0·5	75·2	78·2	77·9	77·1
	III.—Bengal.																					
6	Calcutta	21	·853	·711	·109	·795	−·045	·762	88·4	74·1	14·3	91·7	65·8	25·9	84·7	85·7	80·7	+0·7	72·9	76·8	76·4	75·4
	IV.—United Provinces of Agra and Oudh.																					
10	Allahabad	309	·587	·470	·117	·522	−·034	·783	92·3	65·9	26·4	95·0	56·8	38·2	84·0	91·2	77·6	0	62·2	69·0	69·3	66·[illegible]
11	Dehra Dun	2,233	27·655†	27·578	·077	27·607	−·045	·792†	84·7	60·9	23·8	87·5	55·5	32·0	77·2	81·3	72·1	+1·4	57·3	65·0†	66·4	62·[illegible]
	V.—Punjab.																					
12	Lahore	702	29·169	29·083	086	29·115	−·034	·781	93·5	62·0	31·5	98·3	52·3	46·0	82·7	91·9	76·4	+0·7	58·6	68·3	71·1	66·[illegible]
	VIII.—Rajputana.																					
19	Jaipur	1,431	28·505	28·405	·100	28·449	−·010	·819	95·2	65·3	29·9	97·3	57·7	39·6	86·9	92·9	78·9	+1·0	57·8	67·1	67·1	64·[illegible]
	Udaipur	1,925	035	27·939	·096	27·982		·837	89·8	62·6	27·2	91·7	54·4	37·3	84·5	88·5	76·1		59·8	69·0	70·9	66·[illegible]
	IX.—Bombay.																					
26	Bombay	37	29·907	29·802	·105	29·852	+·005	·829	88·1	75·7	12·4	91·7	72·0	19·7	81·3	83·6	80·6	−0·1	72·7	75·6	77·5	75·[illegible]
	XI.—Central Provinces.																					
24	Nagpur	1,017	28·905	28·783	·122	28·845	+·002	·814	92·4	66·4	26·0	94·6	58·6	36·0	84·6	90·5	78·5	+0·1	60·9	69·0	68·7	66·[illegible]
	XII.—Hyderabad.																					
29	Hyderabad	1,690	·223	·115	·108	·171	−·005	·786	91·2	67·1	24·1	94·1	60·0	34·1	85·3	87·6	78·1	+1·3	62·2	67·2	67·4	65·[illegible]
	XIII.—Mysore.																					
30	Bangalore	3,021	26·947	26·834	·113	26·892	−·015	·788	83·8	64·9	18·9	85·8	57·9	27·9	77·5	80·1	72·8	+1·0	63·1	68·5	68·2	66·[illegible]
	Mysore	2,518	27·439	27·314	·125	27·378	−·016	·800	84·5	66·5	18·0	86·8	61·1	25·7	77·4	82·8	74·0	−0·1	65·3	69·5	69·2	68·[illegible]
	XIV.—Madras.																					
32	Periyakulam	944							Observatory closed.													
	Pudukkottai	318	29·588	29·461	·127	29·525		·772	92·5	74·7	17·8	97·1	69·7	27·4	85·3	88·9	83·6		72·0	75·8	75·8	74·[illegible]
	Madras	22	·879	·770	·109	·836	−·015	·783	93·3	75·2	18·1	98·1	68·7	29·4	88·3	88·0	82·9	+2·1	74·5	79·7	79·3	77·[illegible]
	Bay Islands.																					
1	Port Blair	58	·839	·744	·095	·794	−·028	·781	85·2	76·1	9·1	88·0	72·4	15·6	82·5	81·8	79·3	−1·5	74·2	78·3	77·5	76·[illegible]
	Kashmir.																					
14	Srinagar	5,204	24·986	24·900	·086	24·941	+·006	24·912	66·9	43·0	23·9	76·5	37·9	38·6	56·7	63·9	53·4	+0·2	40·6	53·3	59·4	51·[illegible]
	Leh	11,503	19·784	19·674	·110	19·730	−·003	19·698	59·3	29·8	29·5	66·9	22·8	44·1	48·5	55·3	43·0	+0·3	25·9	35·[illegible]†	39·0	33·[illegible]
	Baluchistan.																					
16	Quetta	5,502	24·738	24·663	·075	24·692	+·003	24·651	77·6	38·1	39·5	83·9	36·1	53·8	69·3	73·7	57·9	+1·4	37·2	49·8	50·9	46·[illegible]

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

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

† Mean of 30 days.

stations in India, etc., in October, 1909.

UR TENSION IN INCHES OF MERCURY.				HUMIDITY.					CLOUD.				WIND DIRECTION. Total number of 10 hrs. and 16 hrs. winds from											WIND STEADINESS		WIND VELOCITY.		RAINFALL.		STATION.	Number of subdivision.
Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean 10 hrs.	Mean 16 hrs.	Mean of two previous columns.	Departure from normal.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.		
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
																								%	%						
																														I.—Burma.	
·895	·867	·889	—·016	93	77	73	83	— 3	7·7	7·5	7·6	+1·7	6	2	7	5	4	11	12	12	3	S 37° W	S 36° E	26	30	34	70	10·69	1·46	Rangoon.	2
																														III.—Bengal.	
·819	·790	·822	+·006	94	69	65	79	— 3	3·1	4·7	3·9	—0·7	4	6	4	2	3	2	16	7	18	N 76° W	N 18° W	40	11	86*	67	3·77	3·21	Calcutta	6
																														IV.—United Provinces of Agra and Oudh.	
·512	·430	·488	—·129	80	44	29	54	—12	1·2	0·8	1·0	—1·2	17	5	4	1			4	21	10	N 66° W	N 48° W	48	19	57	74	0	0	Allahabad.	10
·470†	·467	·460	+·009	80	50†	43	63	— 3	0·1†	0·6	0·4	—0·9																0·02	0·02	Dehra Dun.	11
																														V.—Punjab.	
·506	·486	·439	+·044	81	45	32	57	+ 5	0·2	0·1	0·2	—0·6	16	5	1	3	3	4	3	13	14	N 69° W	N 9° W	34	11	45	38	0	0	Lahore.	12
																														VIII.—Rajputana.	
·422	·341	·389	—·013	62	33	22	43	— 3	0·3	1·3	0·8	—0·9	1	6	3	1	1		2	14	34	N 50° W	N 27° W	76	38	93*	74	0	0	Jaipur.	19
·528	·546	·533		85	44	41	61		1·0	2·3	1·7		20	3	4	4	2	4	3	17	5	N 83° W		24		43		0·54	0·51	Udaipur.	
																														IX.—Bombay.	
·814	·864	·828	—·024	86	75	75	81	0	2·4	1·8	2·1	—1·0		2	6	11	2			6	35	N 25° W	N 9° E	53	32	181*	218	0	0	Bombay.	26
																														XI.—Central Provinces.	
·520	·435	·478	—·092	72	43	30	51	—10	1·5	2·0	1·8	—1·9	7	27	9	1			1	7	10	N 11° W	N 39° E	61	50	58	94	0·20	0·20	Nagpur.	24
																														XII.—Hyderabad.	
·446	·421	·468	—·166	75	38	33	53	—16	2·9	4·1	3·5	—0·7	39	1	16	1	1			1	3	N 35° E	S 81° E	27	32	56	94	0·05	0·05	Hyderabad	29
																														XIII.—Mysore.	
·606	·557	·587	—·021	99	64	55	73	— 5	4·2†	6·0†	5·1			12	10	5	4	6	6	8	11	N 20° W	N	24	8	117	113	6·29	2·00	Bangalore.	30
·624	·553	·611	—·017	94	66	49	73	— 2	7·0	6·8	6·9	—0·4	3	7	16	9	6	2	8	8	3	N 47° E	N 63° E	19	12	120	175	4·15	0·90	Mysore.	
																														XIV—Madras.	
									Obs	erva	tory	closed																	Periyakulam.	32
·769	·702	·740		88	63	52	68		6·1	7·6	6·9		3	10	3	2	4	4	12	6	18	N 64° W		35		151		4·50	1·95	Pudukkottai.	
·897	·885	·891	+·035	97	67	67	79	— 4	3·3	3·9	3·6	—2·4		6	13	13	8	3	4	14	1	N 67° E	N 54° E	18	20	91*	115	0·61	0·23	Madras.	
																														Bay Islands.	
·913	·889	·888	—·039	92	82	82	87	— 1	7·7	7·7	7·7	+1·3	15	1			11	11	8	12	4	S 31° W	S 1° W	39	26	162	151	17·00	5·04	Port Blair.	1
																														Kashmir.	
·379	·471	·315	+·013	82	80	77	79‡	— 1	2·1	2·6	2·4	—0·3	26	6	2	1	14	3	1	1	8	S 84° E	N 23° W	8	18	58	72	1·65	0·41	Srinagar.	4
·096†	·102	·101	—·003	66	28†	23	39	— 3	1·7	3·5	2·6	—1·4		1	1	1	2	13	18	24	2	S 56° W	S 60° W	69	45	78*	48	0	0	Leh.	
																														Baluchistan.	
·158	·135	·168	—·014	93	22	17	45	+ 3	0	0·3	0·2	—0·4	27	6					3	12	14	N 61° W	N 60° W	45	42	38	46	0	0	Quetta.	16

* Uncorrected for scale error.

‡ Mean of three previous columns.

Ta

Abstract of observations taken at 10 hrs. and 16 hrs

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Mean of 16 hrs.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to sea-level and gravity, 45° Lat.	Temperature of air. Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Temperature, Wet-bulb. Mean minimum.	Mean 10 hrs.	Mean 16 hrs.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	Hill Stations excluding Kashmir and Baluchistan.																				
	Simla . . .	7,232	23·181	23·135	·046	23·149	—·013	23·111	63·8	51·8	12·0	66·5	49·1	17·4	58·2	60·5	57·8	+1·1	43·4	47·3	49·9
	Sarain . .		·211	·160	·051	·178		·140	66·3	42·2	24·1	71·2	37·0	34·2	58·0	63·4	54·2			47·0	49·8
	Kalabagh . .		20·192	20·163	·029	20·170		20·132	49·8	39·3	10·5	56·8	30·7	26·1	45·4	47·6	41·5			35·6	39·1
	Chakrata . .	7,022	23·343	23·289	·054	23·310	—·025	23·270	70·6	51·8	18·8	73·5	45·8	27·7	65·3	62·7	61·2	+2·6	45·3	54·0	53·2
	Muktesar . .	7,592	22·908	22·843	·065	22·867		22·825	71·0	50·6	20·4	76·5	41·0	35·5	60·4	63·9	60·8		43·1	50·9	54·9
	Katmandu . .	4,388	25·681	25·575	·106	25·625	—·012†	25·579	80·6	56·2	24·4	83·9	48·3	35·6	71·6	76·6	68·4	+1·5†	54·4	64·0	65·0
	Darjeeling . .	7,376	23·058	22·996	·062	23·024	—·044	22·979	65·0	51·3	13·7	72·0	47·0	25·0	61·1	59·8	58·2	+3·0	48·4§	56·9	56·5
	Pachmarhi .	3,528	26·494	26·427	·067	26·455	—·010	26·402	80·0	56·6	23·4	82·0	49·1	32·9	72·9	78·3	68·3	—0·6	52·0	61·2	62·1
	Mount Abu . .	3,945	·124	·053	·071	·082	—·008	·033	77·5	63·3	14·2	80·4	60·8	19·6	74·2	76·0	70·4	—1·2	54·4	60·4	61·6
	Chikalda . .	3,642	·390	·290	·100	·334	—·016	·278	79·2	63·0	16·2	81·7	60·0	21·7	74·9	76·8	71·2	0	56·9	63·4	64·9
	Ootacamund .	*7,327*	23·072	22·990	·082	23·029		22·965	65·0	49·6	15·4	68·8	42·1	26·7	61·3	58·6	57·3		48·4	55·4	55·3
	Kodaikanal . .	7,688	22·833	·757	·076	22·795		·730	61·9	51·3	10·6	65·7	45·9	20·8	59·4	57·1	56·6		49·3	55·6	55·1
	Dodabetta . .	8,539	·078	·003	·075	·039		21·976	58·2	47·5	10·7	60·9	42·7	18·2	54·8	53·2	52·9		44·9	51·4	51·6
	Extra India.																				
	Minicoy . .	7	29·951	29·896	·055	29·929															
	Zanzibar . .	72	30·041	·935	·106	·993	+·025	29·992	82·9	74·5	8·4	86·1	72·2	13·9	79·1	82·3	77·1	—0·6	70·4	74·1	73·9
	Diego Garcia .							Observations not received.													
	Seychelles . .	15	·019	·930	·089	·986	+·031†	·925	82·3	76·6	5·7	85·1	73·1	12·0	80·5	81·3	78·1	+0·4†	70·3	74·9	75·6
	Mauritius . .	181						Observations not received.													

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

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

§ Mean of 29 days.

A—*concluded.*

4 stations in India, etc., in October, 1909—concluded.

Vapour tension, in inches of mercury.					Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity		Rainfall.		Station.	Number of subdivision.
														Total number of 10 hrs. and 16 hrs. winds from																		
From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean 10 hrs.	Mean 16 hrs.	Mean of two previous columns.	Departure from normal.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.		
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
																															Hill Stations excluding Kashmir and Baluchistan.	
·193	·216	·250	·219	−·017	51	44	47	48	−5	0·3	0·8	0·6	−0·8																0·74	0·74	Simla.	
	·277	·222				44	39			0·6	1·8	1·2		10		9	1	1	22	18		1	S 11° W		47		109		0·24	0·12	Sarain.	
	·128	·170				42	51			1·0	2·9	2·0		24	3			5	6	2	4	18	N 71° W		24		181		0·20	0·16	Kalabagh.	
·236	·305	·311	·282	+·003	61	48	54	55	−5	0·5	1·0	0·8	−0·9	13	3			12	33			1	S 12° E	S 51° W	63	32	97	149	0·39	0·21	Chakrata.	
·204	·279	·341	·273		55	53	58	56		2·2‡	3·1	2·7		31			2		1	2	24	2	S 83° W		40		78		0·31	0·11	Muktesar.	
·407	·513	·491	·468	−·008	88	66	54	70	−5	0·9	1·2	1·1	−2·9	1	2	1	20		2	1	35		W	S 86° W	24	34	19*	16	1·03	0·90	Katmandu.	
·315	·424	·429	·354	−·016	83§	79	83	83	−2	7·1	8·2	7·7	+1·7	30	6	1	3	2	1	2	13	4	N 64° W	S 88° W	21	15	44	79	3·71	2·94	Darjeeling.	
·340	·411	·377	·377	−·052	74	51	39	58	−4	0·3	0·1	0·2	−3·2	15	8	9	3			4	6	17	N 26° W	N 30° E	42	28	†† 64	77	0	0	Pachmarhi.	
·324	·370	·388	·362	+·029	56	44	45	51	+5	2·1	2·5	2·3	+0·5		1	12	1	9	6	26	5	2	S 22° W	N 46° W	35	13	110	118	1·61	1·38	Mount Abu.	
·404	·453	·481	·447	−·011	69	53	53	61	−2	2·1	2·1	2·1	−1·3		24	5		1			1	31	N 21° W	N 3° E	84	40	166	116	0·73	0·70	Chikalda.	
·331	·381	·404	·367		93	70	82	82		6·7	8·6	7·7		8	5	7	21	9	4	1	3	4	N 86° E		42		69		7·16	1·34	Ootacamund.	
·339	·407	·416	·387		89	80	89	86		6·7	8·8	7·8		1	10	5	10	7	5	1	1	22	N 4° E		29		205*		11·23	1·78	Kodaikanal.	
·274	·349	·368	·330		82	80	90	84		7·5	9·3	8·4			15	19	2	8	9	3	3	3	N 45° E		32		309		8·74	1·16	Dodabetta.	
																															Extra India.	
										4·6	5·5	5·1			10	1	2			4	17	28	N 53° W		74		134		13·40	4·60	Minicoy.	
·695	·775	·729	·777	−·033	81	78	66	81	−2	7·2	5·3	6·3	+1·2	7	3	7	7	16	9	10	3		S 34° E	S 6° E	37	47	94	120	6·85	2·63	Zanzibar.	
														Observations not received																	Diego Garcia.	
·664	·795	·789	·762	−·032	72	76	73	79	−2	5·3	5·6	5·5	−0·7†		2		6	41	9	2	1	1	S 41° E	S 39° E	79	51	256*	191	5·63	2·59	Seychelles.	
														Observations not received																	Mauritius.	

* Uncorrected for scale error.

† Departure from old normal.

‡ Mean of 30 days.

†† Mean of 30¼ days.

Table B.—Abstract of observations taken at 8 hrs. at 240 stations in India, etc., in October, 1909.

(1) Provincial means.

(2) Data of stations.

) Provincial means based on the material in Table B (2) except that the statement of rainfall depends on the complete data of about 2,700 stations.

	Pressure departure from normal.	Temperature of air.								Wind.		Hygrometry.				Cloud.		Rainfall.		
		Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Absolute range during month.	Departure of velocity from normal.	Departure of steadiness from normal.	Mean humidity.	Departure from normal.	Mean vapour tension.	Departure from normal.	Mean cloud amount.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.
rma	—·046	87·7	—1·0	74·8	+1·2	81·3	+0·1	12·8	20·2	—0·4	+ 2	90	+ 3	·874	+·020	6·2	+1·2	7·48	5·59	+1·89
stern Bengal and Assam	—·051	86·9	+0·2	73·4	+1·1	80·2	+0·7	13·6	23·6	+0·1	— 5	87	— 2	·843	+·011	3·6	—0·7	6·07	5·09	+0·98
ngal	—·040	88·6	+0·4	71·2	—0·6	79·9	—0·1	17·3	29·0	—0·2	+ 9	78	— 3	·744	—·023	2·3	—0·7	2·20	3·53	—1·33
ited Provinces of Agra and Oudh.	—·032	91·6	+1·4	65·1	—1·0	78·3	+0·2	26·5	36·6	0	+11	63	— 6	·539	—·040	0·6	—0·6	0·15	1·31	—1·16
njab	—·028	92·8	—0·5	63·6	+1·6	78·3	+0·5	29·2	42·3	+0·6	+ 9	57	+ 1	·457	+·028	0·3	—0·4	0·10	0·23	—0·13
rth-West Frontier Province	—·041	91·1	—0·1	61·5	+2·6	76·3	+1·3	29·5	44·8	—0·7	+ 5	59	+ 1	·431	+·037	0·7	0	0·13	0·27	—0·15
d	—·001	94·3	—0·2	70·2	+2·3	82·3	+1·0	24·1	36·3	—0·5	+22	70	+13	·657	+·127	0·7	0	0	0·02	—0·02
putana	0	93·5	—0·7	65·9	—0·5	79·7	—0·6	27·7	38·8	+1·3	+13	55	+ 5	·496	+·034	0·6	—0·6	0·03	0·16	—0·13
mbay	+·003	89·8	—0·2	69·7	—0·8	79·8	—0·6	20·1	30·7	—0·7	+11	71	— 1	·671	—·018	2·2	—0·5	1·04	2·84	—1·80
ntral India	—·013	90·7	+1·5	63·0	—1·7	76·9	—0·1	27·7	38·3	—1·0	+19	59	— 3	·487	—·047	1·2	—0·3	0·05	0·94	—0·89
ntral Provinces	—·004	89·4	+1·4	64·4	—2·9	76·9	—0·8	25·0	34·9	—0·4	+18	60	— 7	·510	—·070	1·8	—0·6	0·18	1·76	—1·58
derabad	—·013	90·7	+1·7	67·2	—1·8	79·0	0	23·5	34·4	—1·0	+29	56	—12	·531	—·122	2·5	—0·5	0·38	2·80	—2·42
sore	—·007	84·1	+1·3	65·7	—0·4	74·9	+0·4	18·5	27·6	—1·1	+19	80	— 1	·629	—·010	5·1	—1·5	4·87	5·29	—0·42
dras	—·012	90·9	+2·0	74·4	+0·1	82·6	+1·1	16·5	25·2	—0·7	+ 6	76	— 4	·792	—·021	4·4	—1·1	3·38	7·11	—3·73

Tabl

(2) Abstract of observations taken at 8 hrs. at 24

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	I.—Burma.																						
2	Mergui	56	29·850‖	—·032‖	29·837‖	29·900	2nd	29·760	14th	·140	78·1‖	85·2¶	−2·1¶	73·4¶	+1·1¶	79·4¶	−0·4¶	11·8	88·4	2nd & 13th.	71·4	1st & 13th.	17·0
	Tavoy	19	29·891	—·035	29·842	29·962	2nd	29·815	20th	·147	77·7	86·3	−1·7	74·7	+1·4	80·6	−0·2	11·6	89·0	29th & 29th.	72·3	1st, 7th & 14th.	16·7
	Moulmein	91	29·807	—·025	29·839	29·882	2nd	29·731	20th	·151	78·2	86·3	−2·1	75·3	+0·6	80·9	−0·8	11·0	92·5	29th	73·3	1st, 2nd & 26th.	19·2
	Rangoon	18	29·869	—·046	29·825	29·913	29th	29·795	20th	·148	79·6	87·3	−0·4	76·8	+1·2	82·1	+0·4	10·5	91·1	21st, 22nd & 29th.	72·4	30th	18·7
	Bassein	27?	29·854	—·039	29·819	29·930	29th	29·759	24th	·171	78·5	86·7	−0·7	76·0	+0·8	81·3	+0·1	10·7	89·7	15th & 30th.	74·4	2nd & 30th.	15·3
	Diamond Island	41	29·840	—·041	29·816	29·920	3rd	29·613	24th	·307	81·4	85·4	−1·1	76·8	+0·1	81·1	−0·5	8·6	87·4	11th, 23rd & 29th.	71·2	30th	16·2
	Toungoo	164	29·721	—·042	29·827	29·768	27th	29·641	20th	·147	79·3	88·6	−1·7	74·9	+0·1	81·8	−0·8	13·7	92·5	16th	72·8	18th & 31st.	19·7
	Kyaukpyu	18	29·848		29·806	29·926	27th	29·765	16th	·161	79·9	86·0		76·8		81·4		9·2	91·0	17th	73·4	18th	17·6
	Akyab	20	29·850	—·048	29·813	29·939	27th	29·770	16th	·169	78·7	86·3	−1·5	76·6‡	−0·1‡	81·4‡	−0·8	9·7	89·9	30th	74·0	20th & 21st.	15·9
3	Thayetmyo	121	29·748	—·050	29·812	29·821	27th	29·666	10th	·155	79·6	89·9	−0·5	75·3	+1·2	82·6	+0·4	14·6	92·5	21st, 22nd & 23rd.	73·9	4 days.	18·6
	Minbu	*165*	29·703	—·064	29·813	29·732	27th	29·618	10th	·164	79·1	90·5	−0·8	75·9	+0·9	83·2	+0·1	14·6	97·3	16th	74·0	18th, 19th & 31st.	23·3
	Yamethin	657	29·199	—·079	29·813	29·276	27th	29·103	10th	·173	77·7	89·0	−3·5?	74·6	+1·0	81·9	−1·3?	14·2	92·8	24th	72·0	31st	20·8
	Mandalay	250	29·633	—·035	29·834	29·720	27th	29·550	10th	·170	80·5	92·4	+0·6	75·8	+1·6	81·2	+0·8	16·6	96·0	8th & 30th.	70·4	31st	25·6
	Monywa	*280*	29·605*		29·824*	29·699	27th	29·515	10th	·184	79·5	90·3		76·8		83·6		13·5	97·8	11th	71·6	31st	26·2
	Lashio	*2,751*	27·114	—·059	27·060	27·202	28th	27·023	10th	·179	70·5	82·6	−0·9	67·6	+4·1	75·1	+1·6	15·0	85·3	8 days.	61·0	20th	21·3
	Bhamo	*381*	29·495	—·051	29·836	29·599	29th	29·378	20th	·221	75·6	89·1	+0·5	72·3	+2·7	80·7	+1·6	16·8	93·9	3rd	67·1	29th	26·8
	Myitkyina	458	29·404		29·826	29·508	28th	29·302	10th	·206	76·0	83·5		72·5		80·5		16·0	91·2	3rd & 18th.	67·5	30th	23·7
	II.—Eastern Bengal and Assam																						
4	Dibrugarh	353	29·525*		29·812*	29·656	29th	29·425	5th	·231	75·3	86·3		71·4		78·9		14·9	89·9	14th	61·1	27th & 29th.	25·8
	Sibsagar	233	29·567	—·053	29·861	29·684	29th	29·465	5th	·219	75·1	85·1	+0·3	71·5	+0·7	78·3	+0·5	13·6	89·6	3rd, 15th & 26th.	63·0	28th	26·6
	Tezpur	252	29·638		29·852	29·758	28th & 29th.	29·535	5th	·223	75·5	88·0		72·9		80·5		15·1	91·1	8th, 13th & 15th.	65·9	28th	25·2
	Gauhati	195	29·694		29·817	29·819	28th	29·588	5th	·231	77·0	88·2		72·2		80·2		16·0	91·8	9th	67·1	29th & 31st.	24·7
	Dhubri*	115									76·3	83·7	−0·8	74·9	+2·1	79·3	+0·7	8·8	88·0	9th	70·3	19th	17·2
	Silchar	104	29·789	—·036	29·847	29·892	28th	29·680	18th	·212	79·1	88·8	+0·1	75·0	+2·7	81·9	+1·4	13·8	92·8	16th	70·3	31st	22·5
5	Cox's Bazar	36	29·818*		29·798*	29·922	28th	29·741	16th	·181													
	Chittagong	87	29·777	—·051	29·813	29·876	27th & 28th,	29·673	17th	·203	79·1	86·5*	0*	74·7	+1·3	80·6*	+0·7	11·8	90·0	14th	71·5	23rd	18·5
	Noakhali	43	29·825		29·815	29·940	28th	29·672	18th	·268	79·1	85·8		75·6		80·7		10·2	88·8	13th & 14th.	71·4	23rd	17·4
	Barisal	12	29·843	—·057	29·801	29·965	28th	29·670	18th	·295	80·1	87·3	−0·3	74·6	0	81·0	−0·2	12·7	91·3	11th	69·6	21st, 22nd & 24th.	21·7
	Comilla	36	29·825		29·809	29·938	28th	29·653	18th	·285	79·5	87·7							91·3	11th, 12th & 13th.	69·8	22nd & 31st.	21·2
	Narayanganj	26	29·834	—·049	29·808	29·953	28th	29·562	18th	·391	79·8	87·1	−0·8	75·1	−0·2	81·1	−0·5	12·0	91·0	10th	58·9	18th	31·4
	Faridpur	46	29·818		29·814	29·937	29th	29·429	18th	·508	79·3	86·6		73·6		80·1		13·0	90·3	10th	68·8	19th, 22nd & 24th.	21·6
	Sirajganj	49	29·812		29·812	29·938	29th	29·292	18th	·646	78·5	85·7		74·1		79·9		11·6	90·4	17th	70·1	22nd	21·5
	Mymensingh	63	29·806	—·055	29·821	29·923	28th	29·512	18th	·411	80·6	87·6	+1·4	74·8	+1·6	81·2	+1·5	12·8	91·6	11th	68·2	21st	23·0
	Bogra	75	29·797	—·044	29·825	29·919	28th	29·409	18th	·510	81·3	87·0	−0·2	74·3	+1·6	80·7	+0·7	12·7	91·2	8th, 9th & 10th.	67·1	24th	24·0
	Rampur Boalia	70	29·803		29·823	29·933	28th	29·431	18th	·502	80·1	87·8		74·1		81·0		13·7	91·1	4 days	64·0	21st	27·2
	Malda	72	29·781?		29·808?	29·905	28th	29·584	18th	·321	79·2	87·4		72·4		80·0		15·0	91·3	8th	65·5	23rd	26·3
	Dinajpur	123	29·723?	—·072?	29·802?	29·856	28th	29·572	18th	·284	77·3	87·8	+0·4	72·3	+0·3	80·0	+0·4	15·5	91·8	9th	65·0	24th	26·1
	Rangpur	123	29·757		29·835	29·877	28th	29·596	18th	·281	79·1	87·5		70·9		79·2		16·6	91·1	9th & 10th.			

* Mean of 30 days. ‡ Mean of 29 days. § „ „ 28 „ ‖ Mean of 26 days. ¶ „ „ 25 „

N.B.—Elevations in italics indicate barometrical determinations.
NOTE.—The barometric readings are not reduced to sea-level, in the cases of hill or plat

3

ations in India, etc., in October, 1909.

Wind direction. Number of winds from N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs., in inches of mercury. (43)	Departure from normal, in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st May to 31st October, 1909. (53)	Normal rainfall for period, 1st May to 31st October. (54)	Departure from normal of period, 1st May to 31st October, 1909. (55)	Heaviest rainfall during month. (56)	Station. (57)
																															I.—Burma.
	1		7	4	1			S 29° E‖	N 5° E	1·4	1·5	−0·1	39	+21	95‖	+ 8	·898‖	+ ·043	2·7‖	−2·2	22	16·10	+5·90	13·71	12·74	+ 0·97	170·77	151·83	+18·94	3·00	Mergui.
								(a)	N 8° E	1·1†	1·1	0			91	+ 3	·877	+ ·009	4·8	0	17	12·30	+4·70	10·48	9·45	+ 1·03	205·92	201·38	+ 4·54	1·59	Tavoy.
1	4	2	4	4	3			S 47° E	S 85° E	2·6	2·2	+0·4	27	− 5	93	+ 5	·899	+ ·023	7·1	+2·1	18	10·70	+7·30	20·87	7·97	+12·90	204·27	177·86	+26·41	4·00	Moulmein.
1	6	4	1	4	4	3	2	S 61° E	S 53° E	3·1	2·9	+0·2	7	−15	88	− 4	·900	− ·007	8·1	+2·5	16	8·50	+7·50	10·69	6·39	+ 4·30	96·31	91·80	+ 4·51	1·46	Rangoon.
		2	2	2	1	2	1	S	N 80° E	2·7	3·3	−0·6	11	− 7	95	+ 4	·935	+ ·020	5·3	+0·1	14	12·10	+1·90	8·04	8·13	− 0·09	102·72	106·37	− 3·65	1·21	Bassein.
	6	1	8	2	3		1	S 59° E	N 53° E	7·5	7·5	0	30	− 2	85	+ 2	·920	+ ·021	6·9	+1·2	15	11·60	+3·40	13·99	8·00	+ 5·99	116·92	108·18	+ 8·74	2·50	Diamond Island.
2	3		3	1	1	1		N 83° E	N 84° E	1·8†	1·8	0	8	−10	89	0	·900	+ ·013	6·5	+1·0	14	9·60	+4·40	13·43	6·56	+ 6·87	100·55	75·12	+25·43	2·50	Toungoo.
1	5	9	14	1				S 74° E		4·1†			76		87		·900		3·9		12			10·19			173·60			3·53	Kyaukpyu.
3	11	6	3	1				N 64° E	N 50° E	3·0	2·5	+0·5	59	−16	93	+ 2	·903	− ·010	6·0	+0·1	14	8·30	+5·70	12·98	10·28	+ 2·70	221·92	183·75	+38·17	2·99	Akyab.
4	4		7	10	4	1	1	S 18° E	S 37° E	4·2*	3·5	+0·7	33	+11	87	+ 3	·881	+ ·031	7·8	+2·1	13	6·90	+6·10	5·76	4·00	+ 1·76	34·50	33·84	+ 0·66	0·81	Thayetmyo.
1			14	3	3	1	6	S 14° E	S 10° W	2·8	6·5	−3·7	33	+22	85	+ 1	·816	+ ·003	6·9	+2·4	10	5·20	+4·80	7·79	4·41	+ 3·38	42·07	29·86	+12·21	2·07	Minbu.
	1		13	6			4	S 31° E	S 45° E	1·9	3·4	−1·5	46	+ 9	90	+ 4	·846	− ·011	6·6	+3·5	12	6·60	+5·40	7·26	5·72	+ 1·54	44·90	33·91	+10·99	1·47	Yamethin.
		1	9	2	2			S 32° E	S	2·9*	3·2	−0·3	40	+15	84	+ 1	·860	0	6·6	+2·5	13	5·60	+7·40	6·98	4·98	+ 2·00	32·14	28·98	+ 3·16	1·90	Mandalay.
7	1	1	6	2				N 75° E		2·2			23		91		·931		7·3		8	5·50	+2·50	9·86	3·95	+ 5·91	37·09	26·29	+10·80	3·19	Monywa.
1	2	2			1		1	N 41° E		1·4*			10		94	+ 2	·727	+ ·080	8·5	+0·9	12			5·21	3·68	+ 1·53	62·89	54·98	+ 7·91	1·08	Lashio.
								(a)	N 4° W	1·1	1·9	−0·8			93	+ 6	·834	+ ·060	5·2	+1·1	3	5·70	−2·70	3·66	3·47	+ 0·19	60·11	68·52	− 8·41	2·13	Bhamo.
1	3	3	6	1				S 77° E		1·8†			30		89		·795		6·0		5			2·05			44·25			0·72	Myitkyina.
																															II.—Eastern Bengal and Assam.
3	6	3	1	1		1	2	N 39° E		1·0			30		90		·781		4·7		7	7·70	−0·70	2·83	5·40	− 2·57	91·55	94·19	− 2·64	0·65	Dibrugarh.
1	8	1	1		5		1	N 45° E	N 86° E	1·6	1·9	−0·3	13	−12	93	− 3	·808	+ ·006	7·3	+0·1	6	4·20	+1·80	7·58	4·99	+ 2·59	78·91	76·81	+ 2·10	1·90	Sibsagar.
	1							N 45° E		1·9			3		90		·794		4·5		6	5·50	+0·50	7·03	3·66	+ 3·37	48·54	60·70	−12·16	5·54	Tezpur.
3	3	1	3	1	1		1	N 62° E		1·7			13		88		·828		4·7		5	4·10	+0·90	4·23	2·92	+ 1·31	54·64	52·78	+ 1·86	1·98	Gauhati.
	7	9	1	1				N 78° E	N 67° E	5·5	3·8	+1·7	49	+ 6	89	0	·830	+ ·039	1·6	−2·2	5	4·10	+0·90	6·05	3·48	+ 2·57	87·35	85·47	+ 1·88	2·25	Dhubri.
			1					S 45° E	N 63° E	1·4	1·6	−0·2	3	− 1	89	0	·890	+ ·062	3·8	−2·3	7	7·00	0	8·15	6·03	+ 2·12	94·02	97·90	− 3·88	2·95	Silchar.
5	7	5	6	1				N 70° E		3·1			50						3·5		10			7·86			127·66			2·26	Cox's Bazar.
2	3	1	7	4	4		4	S 27° E	N 67° E	2·9	2·8	+0·1	20	−27	88	− 2	·878	+ ·014	5·4	+0·4	11	6·90	+4·20	14·02	6·37	+ 7·65	113·03	86·32	+26·71	5·54	Chittagong.
3	8	3	3	2	1	2		N 63° E		2·9			29		89		·877		3·2		10	7·13	+2·87	9·61	7·92	+ 1·69	147·27	102·84	+44·43	1·88	Noakhali.
8	4	2		2	2		3	N 8° E	N 20° E	1·7	2·0	−0·3	33	+22	84	0	·857	− ·028	3·6	−0·1	6	5·94	+0·06	6·47	6·69	− 0·22	92·61	68·95	+23·66	2·96	Barisal.
		1	5	2	1			S 34° E		2·0			23		89		·905		3·4		9	5·62	+3·38	6·52	5·43	+ 1·09	90·88	78·31	+12·57	2·17	Comilla.
6	4	4	2	3	4	2	5	N 1° W	N 50° E	2·5	2·7	−0·2	16	+ 5	85	+ 1	·868	+ ·020	5·3	+1·0	10	5·06	+4·94	15·25	4·48	+10·77	69·32	59·45	+9·87	7·80	Narayanganj.
7			1	9		2	2	S 72° W		2·1			10		86		·861		3·9		6	5·31	+0·69	5·60	4·49	+ 1·11	63·58	59·18	+ 4·40	3·92	Faridpur.
1		5	5		3	5	3	S 18° W		3·2			10		83		·860		4·3		5	4·77	+0·23	6·32	4·37	+ 1·95	59·76	55·13	+ 4·63	4·53	Sirajganj.
1	1	4	4	1			1	S 78° E	S 85° E	1·5	1·6	−0·1	23	−14	84	− 4	·881	+ ·031	4·7	+0·4	7	5·58	+1·42	5·82	5·12	+ 0·70	70·58	77·92	− 7·34	2·10	Mymensingh.
3	2	2		2				N 54° E	N 86° E	2·2	1·6	+0·6	10	− 6	76	−10	·825	− ·040	0·8	−2·7	4	4·84	−0·84	7·00	4·21	+ 2·79	77·55	61·52	+16·03	3·88	Bogra.
2			1					N 45° E		2·4			3		79		·824		2·4		5	4·90	+0·10	4·45	4·49	− 0·04	46·26	53·10	− 6·84	1·83	Rampur Boalia.
3	5	2	6	2	3	1	3	N 87° E		3·4		−0·6	16		92		·937		1·6		6	4·39	+1·61	4·10	4·18	− 0·08	45·70	50·12	− 4·42	2·15	Malda.
1	3	4	1		1	1		N 71° E	N 53° E	1·8	2·4		17	− 5	87	+ 2	·823	+ ·015	2·5	−0·6	4	3·64	+0·36	4·83	3·02	+ 1·81	63·40	67·03	− 3·63	2·00	Dinajpur.
2	4	3		2	3	2		N 63° E		1·8			6		82		·820		1·7		6	4·03	+1·97	7·03	4·94	+ 2·09	92·38	78·45	+13·93	2·14	Rangpur.

tions, the elevations of which exceed 3,200 feet. (a) Indeterminate. † Uncorrected for scale error.

Tal

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

Number of sub-division.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	II—Eastern Bengal and Assam—*concld.*																					
5	Jalpaiguri	283	29·586	−·059	29·831	29·705	28th	29·467	18th	·238	76·0	88·0	+2·2	71·2	+1·4	79·6	+1·8	16·8	91·9	9th	65·4	27th
	Cooch Behar	156	29·724		29·838	29·847	28th	29·592	18th	·255	76·9	86·6		72·1		79·3		14·5	89·8	5 days	66·6	26th & 31st
	III.—Bengal.																					
6	Saugor Island	25	29·831	−·049	29·800	29·957	28th	29·623	17th	·334	80·3	88·0	+1·1	76·3	+0·1	82·1	+0·6	11·7	91·0	12th	67·0	24th
	Midnapore	149	29·712		29·809	29·822	29th	29·573	18th	·249	78·9	89·4		72·9		81·2		16·5	93·3	8th	64·7	24th & 25th
	Calcutta	21	29·844	−·044	29·811	29·967	28th	29·664	18th	·303	79·2	88·2	+1·5	71·1	−0·2	81·2	+0·7	14·1	91·7	7th & 8th	66·0	24th
	Jessore	33	29·828	−·052	29·808	29·949	28th	29·532	18th	·417	79·6	87·2	−1·2	74·1	−0·5	80·7	−0·9	13·1	90·5	6th, 9th & 31st.	68·2	24th
	Krishnagar	47	29·807		29·804	29·926	28th	29·497	18th	·429	76·1	88·4		71·0		81·2		14·4	92·6	8th	66·0	24th
	Burdwan	99	29·768	−·046	29·816	29·884	28th	29·588	18th	·296	78·9	88·8	+0·1	74·7	+0·1	81·8	+0·1	14·1	92·4	7th & 13th	66·8	25th
	Bankura	313	29·544		29·811	29·661	28th	29·410	18th	·251	78·8	89·6		72·8		81·3		16·8	93·1	31st	63·7	25th
	Raniganj	334	29·540		29·833	29·648	28th & 29th.	29·403	18th	·245	75·2	89·3		71·5		80·5		17·8	91·5	6th, 8th & 9th.	62·5	25th
	Berhampore	67	29·800	−·049	29·817	29·924	28th	29·507	18th	·417	78·8	87·1	−0·4	74·6	+0·3	80·9	−0·1	12·5	90·6	7th, 8th & 9th.	68·2	25th
	Naya Dumka	489	29·373		29·826	29·494	28th	29·217	18th	·277	77·8	87·9		70·7		79·3		17·2	90·9	8th	61·5	24th & 25th
7	Balasore	50	29·821	−·046	29·816	29·937	28th	29·673	17th	·264	77·9	89·0	+1·0	72·6	−0·5	80·8	+0·3	16·4	92·4	9th	63·1	24th
	False Point	21	29·857	−·029	29·820	29·975	29th	29·714	17th	·261	79·5	88·5	+1·1	73·1	−1·5	80·8	−0·2	15·4	92·1	8th, 11th & 12th.	63·6	25th
	Cuttack	80	29·793	−·032	29·817	29·896	29th	29·681	17th	·215	77·6	90·3	+0·6	73·3	−1·3	81·9	−0·4	17·0	93·4	7th	64·2	24th
	Puri	24	29·859		29·822	29·980	29th	29·740	17th	·240	80·9	90·3		76·3		83·3		14·0	93·6	4 days	68·6	25th
	Angul	455	29·423		29·843	29·529	29th	29·318	17th	·211	77·3	89·5		69·6		79·6		19·9	92·1	20th	60·0	24th
	Sambalpur	486	29·413	−·019	29·856	29·525	29th	29·315	1st	·210	76·7	88·4	−0·4	69·6	−2·3	79·0	−1·4	18·8	91·1	8th & 31st	60·1	24th
8	Chaibassa	*733*	29·132	−·038	29·830	29·234	28th & 29th.	29·032	18th	·202	74·4	89·0	+0·3	68·8	−1·5	78·9	−0·6	20·2	92·1	6th, 7th & 8th.	57·8	25th
	Ranchi	2,128	27·759	−·025	29·857	27·858	29th	27·661	1st	·197	73·1	83·7	+0·7	66·4	+0·8	75·1	+0·8	17·3	89·2	10th	58·9	24th
	Purulia†	*816*	29·036		29·814	29·142	28th	28·933	18th	·209	73·9	89·3		69·6		79·5		19·7	92·5	2nd & 11th	60·1	24th
	Hazaribagh	2,007	27·865	−·032	29·838	27·962	29th	27·763	1st	·193	74·8	83·7	+0·4	66·6	−0·2	75·1	+0·1	17·1	86·2	7th	60·8	20th & 25th.
	Daltonganj	*730*	29·166		29·870	29·257	28th	29·057	1st	·200	72·1	89·6		63·9		76·8		25·7	91·6	7th, 8th & 31st.	54·5	23rd & 24th.
9	Purnea	134	29·745	−·036	29·837	29·866	28th	29·629	5th & 18th.	·237	75·9	87·3	−0·1	70·1	−1·1	78·7	−0·6	17·2	90·5	6th & 8th	62·2	24th & 25th.
	Bhagalpur	160	29·717		29·820	29·834	28th	29·603	5th	·231	81·2	89·0		71·2†		80·1†		17·8	92·2	8th	61·8	25th
	Monghyr	155	29·712		29·821	29·824	28th	29·592	5th	·232	79·7	88·2		71·7		80·0		16·5	90·9	8th	64·4	20th
	Darbhanga	165	29·701	−·049	29·825	29·816	28th	29·583	5th	·233	78·2	88·5	+1·8	70·7	−2·4	79·6	−0·3	17·8	91·6	6th	61·3	24th
	Pusa	188									76·8	89·1		69·3		79·2		19·8	91·4	9th	59·8	24th
	Muzaffarpur	177	29·699		29·835	29·817	28th	29·580	5th	·237	78·4	88·2		69·4		78·8		18·8	91·7	6th	60·0	24th
	Motihari	221	29·647		29·822	29·778	28th	29·524	5th	·254	74·7	88·8		69·7		79·3		19·1	92·1	18th	61·3	24th
	Chapra	181	29·677†		29·816†	29·794	28th & 29th.	29·561	5th	·233	76·6	89·6		70·0		79·8		19·6	92·2	7th	60·9	24th
	Patna	183	29·686	−·047	29·825	29·797	29th	29·566	5th	·231	80·1	87·9	−0·3	72·7	+0·2	80·3	−0·1	15·2	90·5	5th & 6th	64·7	24th
	Arrah	190	29·681		29·827	29·783	28th & 29th.	29·563	5th	·220	77·1	88·8		69·6		79·2		19·2	90·9	7 days	59·2	24th
	Buxar	239	29·629		29·828	29·738	27th & 28th.	29·499	5th	·239	76·8	91·0		70·4		80·7		20·6	94·0	14th & 15th	63·1	20th & 23rd
	Dehri	351	29·511		29·823	29·612	29th	29·395	5th	·217	76·2	90·5		70·8		80·7		19·7	93·3	11th, 12th & 15th.	63·0	24th
	Gaya	372	29·488†	−·048†	29·820†	29·587	28th	29·363	1st	·224	77·9	89·3	−0·3	70·9	−0·1	80·1	−0·2	18·4	91·9	6th, 16th & 30th.	62·2	22nd
	IV.—United Provinces of Agra and Oudh.																					
10	Gorakhpur	257	29·599	−·045	29·818	29·712	28th	29·481	5th	·231	76·6	89·7	+1·0	66·5	−3·5	78·1	−1·3	23·2	92·1	4 days	58·5	22nd & 23rd.
	Benares	267	29·612	−·027	29·839	29·717	28th	29·488	5th	·229	76·7	91·9	+2·0	65·6	−2·7	78·8	−0·4	26·3	93·6	6 days	56·1	23rd
	Allahabad	309	29·568	−·029	29·838	29·672	29th	29·456	5th	·216	75·5	92·3	+1·8	65·9	−1·7	79·1	+0·1	26·4	95·1	7th	57·0	23rd

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

NOTE.—The barometric readings are not reduced to sea-level, in the cases of hill or plateau

B—*continued.*

stations in India, etc., in October, 1909—continued.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal, in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st October, 1909.	Normal rainfall for period, 1st May to 31st October.	Departure from normal of period, 1st May to 31st October, 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																II.—Eastern Bengal and Assam—*concld.*
17	4	2	1	1	1			5	N 3° W	N 51° E	1·0†			23	−20	84	−4	·765	−·012	2·5	−0·8	7	4·71	+2·29	12·20	3·82	+8·38	114·53	117·00	−2·47	9·62	Jalpaiguri.
15		5	7	1	1	2			N 87° E		1·4			32		85		·792		2·8		6	4·17	+1·83	9·87	4·79	+5·08	132·16	120·02	+12·14	5·01	Cooch Behar.
																																III.—Bengal.
	6	3	2		3	5	3	9	N 47° W	N 14° W	7·9	7·4	+0·5	40	+18	84	−2	·870	−·018	3·9	−1·5	5	7·90	−2·90	6·01	8·64	−2·63	64·89	66·68	−1·79	2·93	Sangor Island.
3	8	3	1	1	5		3	7	N 24° W		1·8			32		76		·745		2·1		5	5·27	−0·27	3·08	4·51	−1·43	56·59	55·17	+1·42	1·53	Midnapore.
6	2	3	1	2		6	3	8	N 63° W	N 58° W	3·6*	2·8	+0·8	30	+11	84	0	·854	+·011	3·0	−0·4	4	5·33	−1·33	3·77	4·12	−0·35	65·32	54·71	+10·61	3·21	Calcutta.
26	2		1		1	1			N 45° E	S 67° E	0·5	2·0	−1·5	1	−21	82	−4	·840	−·036	3·8	−0·1	5	5·74	−0·74	13·35	4·33	+8·97	76·93	55·73	+21·26	12·07	Jessore.
24		1	1	1			2	2	N 45° W		1·6			3		93		·845		3·4		6	4·97	+1·03	5·19	4·20	+0·99	67·02	49·21	+17·81	2·53	Krishnagar.
13	4	3		2		1	1	7	N 19° W	N 28° W	1·8	1·9	−0·1	30	+16	83	+3	·825	+·031	3·4	−0·3	4	4·10	−0·10	1·73	3·27	−1·54	69·03	51·86	+17·17	0·93	Burdwan.
21	1	1	1			2		5	N 37° W		2·5			16		78		·762		1·8		1	4·81	−3·81	0·42	4·08	−3·66	65·33	51·59	+13·74	0·37	Bankura.
21	2						3	5	N 42° W		1·4			29		87		·771		2·6		1	4·23	−3·23	0·28	3·22	−2·94	43·91	51·68	−7·74	0·21	Raniganj.
14	2	1	1	4	4	1	1	3	S 15° E	S 39° W	1·8	2·0	−0·2	10	+5	84	−2	·832	−·003	3·6	−0·1	6	5·04	+0·96	2·87	3·95	−1·08	67·72	50·84	+16·88	0·99	Berhampore.
30								1	N 45° W		1·0			3		76		·733		1·8		2	4·70	−2·70	0·88	3·94	−3·06	51·49	55·06	−3·57	0·56	Naya Dumka
13	7		1			1		9	N 26° W	N 41° W	0·9	2·6	−1·7	46	+10	79	−7	·756	−·084	3·0	−1·6	2	6·32	−4·32	1·04	5·74	−4·70	46·15	58·13	−11·98	0·71	Balasore.
3	4			1		1	10	12	N 59° W	N 45° W	4·8	6·0	−1·2	65	+19	83	−1	·844	−·033	3·9	−0·7	3	7·74	−4·74	2·15	8·58	−6·43	52·79	58·79	−6·00	1·45	False Point.
10		1	1	1		8	8	2	S 72° W	N 51° W	1·6*	1·8	−0·2	46	+28	79	0	·760	−·027	3·4	−0·2	1	6·06	−5·06	1·23	5·24	−4·01	53·67	54·93	−1·26	1·13	Cuttack.
3	18			1		2	3	4	N 20° W		6·8†			68		75		·794		2·5		1	7·62	−6·62	2·77	8·98	−6·21	49·78	52·02	−2·24	2·74	Puri.
3			1			1	6	20	N 57° W		5·7			78		75		·703		2·2		2			1·00			32·66			0·88	Angul.
	6	4	3	6	7	4	1		S 5° E	N 33° E	4·0	2·9	+1·1	27	−30	75	−3	·698	−·051	2·2	−0·4	0	3·60	−3·60	0·04	1·92	−1·88	59·99	64·10	−4·11	0·04	Sambalpur.
6		5	1		1	15	4	1	S 54° W	S 63° W	2·2	0·9	+1·3	49	+27	78	−2	·673	−·066	2·9	−0·3	3	4·19	−1·19	0·95	2·29	−1·34	54·94	46·61	+8·33	0·54	Chaibassa.
3	2	2	2	1	1	2	10	8	N 65° W	N 69° W	5·8	4·5	+1·3	46	+25	64	−8	·528	−·058	2·4	−0·7	1	4·35	−3·35	2·60	2·92	−0·32	54·20	51·45	+2·75	2·53	Ranchi.
2	1	2				4	18	4	N 85° W		2·5			71		80		·678		2·2		5	3·80	+1·20	2·11	3·17	−1·06	52·33	48·83	+3·50	0·85	Purulia.
2	2				3	4	10	10	N 80° W	S 72° W	4·3	5·2	−0·9	66	+41	60	−10	·518	−·061	1·8	−1·7	0	4·48	−4·48	0·06	3·14	−3·08	46·62	50·47	−3·85	0·06	Hazaribagh.
1									(a)		2·4					77		·611		1·5		0	3·06	−3·06	0	2·49	−2·49	41·56	41·70	−0·14	0	Daltonganj.
5		4				1			N 45° E	N 79° E	0·2	2·0	−1·8	10	−5	83	0	·795	−·005	1·9	−0·7	4	3·39	+0·61	6·34	3·44	+2·90	65·43	62·01	+3·42	4·19	Purnea.
9	1	3		2	1	3	2		S 45° W		1·5			3		70		·758		1·8		4	3·03	+0·97	2·15	3·54	−1·39	52·92	46·57	+6·35	1·34	Bhagalpur.
4		2	1	1		2	8	3	N 83° W		2·7			26		74		·755		1·6		1			0·78			53·78			0·73	Monghyr.
1			5			2	2	1	S 52° E	S 68° E	1·3	2·1	−0·8	3	−18	80	−3	·781	−·002	1·6	−0·4	3	3·03	−0·03	1·03	3·24	−2·21	58·75	48·62	+10·13	0·40	Darbhanga.
1	1	3	2	6	3	3	1	1	S 40° E					26		82		·867		1·1		2			2·90			71·90			2·27	Pusa.
3			3	2	2	2	4		S 11° W		1·7*			16		78		·753		0·8		2	2·87	−0·87	3·54	2·92	+0·62	56·00	43·28	+12·72	2·99	Muzaffarpur.
2	1	3	5						N 67° E		0·8			23		87		·769		1·2		2	2·71	−0·71	4·14	3·38	+0·76	51·21	49·27	+1·94	2·82	Motihari.
									?		?		?	?		80		·735		1·8		1	2·81	−1·81	0·72	2·63	−1·91	37·61	38·62	−1·01	0·70	Chapra.
	1	1	2	1	7	8	3		S 24° W	S 8° W	2·4	2·2	+0·2	43	+21	72	−1	·749	+·018	1·0	−1·4	1	3·13	−2·13	1·00	3·26	−2·26	49·06	45·90	+3·16	0·96	Patna.
					2	10	5		S 53° W		1·2			48		77		·721		1·7		0	3·48	−3·48	0·05	2·77	−2·72	38·16	43·27	−5·11	0·05	Arrah.
		1	3	1	2	11	8	2	S 58° W		3·6			48		68		·630		2·1		1	2·84	−1·84	0·93	2·96	−2·03	43·29	39·22	+4·07	0·88	Buxar.
				1	2	21	3	1	S 47° W		1·4			78		71		·660		2·6		1	2·78	−1·78	0·10	2·49	−2·39	38·31	40·86	−2·55	0·10	Dehri.
		1		2	7	1	3	1	S 17° W	S 8° W	2·4	2·7	−0·3	27	−5	72	−2	·699	+·015	1·9	−1·1	1	2·90	−1·90	0·17	2·20	−2·03	58·37	44·44	+13·93	0·17	Gaya.
																																IV.—United Provinces of Agra and Oudh.
									(a)	N 27° W	?	1·2	?	(a)		80	+3	·742	+·023	0·7	−0·9	2	2·10	−0·10	1·10	4·19	−3·09	48·43	49·69	−1·26	0·91	Gorakhpur.
						9	4	1	S 63° W	S 50° W	1·5	2·5	−1·0	43	+25	63	−14	·583	−·096	1·2	−1·0	0	2·20	−2·20	0·03	2·56	−2·53	38·73	38·96	−0·23	0·03	Benares.
		1	2			3	16	4	N 86° W	N 86° W	2·6	3·1	−0·5	59	+34	58	−11	·518	−·116	1·5	−0·5	0	1·90	−1·90	0	2·57	−2·57	43·83	38·62	+5·21	0	Allahabad.

ions, the elevations of which exceed 3,200 feet.

† Mean of 30 days.

(a) Indeterminate.

* *Uncorrected for scale error.*

Tab

(2) Abstract of observations taken at 8 hrs. at 24

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	IV.—United Provinces of Agra and Oudh—*concld.*																						
10	Cawnpore	416	29·450	−·037	29·834	29·558	28th & 29th.	29·340	5th	·218	75·5	93·0	+1·5	63·5	−2·3	78·3	−0·4	29·5	96·2	6th	55·0	21st & 23rd.	41
	Lucknow	368	29·509	−·022*	29·844*	29·627	28th	29·396	4th	·231	74·6	92·6	+1·4	65·6	+0·1	79·1	+0·8	27·0	95·0	6th & 7th.	57·6	21st	37
	Bahraich	401	29·458	−·039	29·827	29·584	28th	29·323	5th	·261	75·6	92·2	+2·1	67·8	+0·6	80·0	+1·4	24·4	95·1	1st	61·5	23rd & 26th.	33
11	Jhansi	824	29·087	−·006	29·872	29·183	29th	28·988	5th	·195	82·1	94·3	+1·4	72·1*	+3·0?	83·2*	+2·2?	22·2	96·5	5 days	66·5	21st	30
	Agra	556	29·328	−·025	29·854	29·428	29th	29·217	5th	·211	77·0	95·2	+1·9	67·2	−0·4	81·2	+0·8	28·0	98·0	4th, 6th & 12th.	60·0	19th & 20th.	38
	Mainpuri	516	29·344	−·032	29·830	29·458	29th	29·217	5th	·241	74·0	94·5	+1·6	64·0	−0·6	79·2	+0·5	30·5	97·8	6th	56·6	22nd	41
	Bareilly	568	29·181	−·043	29·827	29·412	28th	29·164	5th	·248	72·3	91·4	+1·9	64·7	−0·6	78·0	+0·7	26·7	94·8	6th	57·0	21st	37
	Meerut	738	29·113*	−·038*	29·838*	29·231	29th	28·993	5th	·233	68·9	90·0	−0·5	61·9	−0·5	76·0	−0·5	28·1	93·1	4 days	55·3	19th	37
	Roorkee	899	28·973?	−·019?	29·866?	29·088	29th	28·849	5th	·239	68·9	88·7	−0·6	60·2	−1·1	74·5	−0·9	28·5	92·0	5th	53·9	4 days	38
	Dehra Dun	2,233	27·636	−·042	29·858	27·743	29th	27·515	5th	·228	68·3	84·9	+2·6	60·9	+0·3	72·9	+1·5	24·0	87·5	6th	55·5	26th	32
	V.—Punjab.																						
12	Delhi	718	29·146*	−·030*	29·846*	29·258	29th	28·991	5th	·267	72·5	91·3	−0·8	67·5	−0·4	79·4	−0·6	23·8	91·7	5th	59·7	19th	35
	Sirsa	662	29·207	−·021	29·848	29·326	29th	29·087	5th	·239	75·1	94·7	−1·4	66·8‡	+2·1‡	80·8‡	+0·4	27·9	98·8	16th	58·6	18th	40
	Patiala	*818*	29·044		29·847	29·169	29th	28·914	5th	·255	72·8	91·5		62·2		76·9		29·3	95·2	5th	54·4	20th	40
	Ambala	892	28·953§	−·038§	29·83[illegible]§	29·060	29th	28·818	5th	·242	73·0	93·3	+0·1	61·7	+0·9	77·5	+0·5	3[illegible]·6	97·5	6th	52·0	21st & 22nd.	45
	Ludhiana	812	29·049*	−·025*	29·853*	29·167	29th	28·915	5th	·252	70·7	91·8	−0·1	64·6	+1·6	78·3	+0·8	27·2	95·5	4 days	57·0	18th & 19th.	38
	Lahore	702	29·151	−·031	29·844	29·273	17th	29·015	5th	·258	70·3	93·6	−1·5	62·0	+2·9	77·9	+0·7	31·6	98·4	4th & 6th	52·2	19th	46
	Sialkot	830	29·026	−·025	29·853	29·154	17th	28·882	5th	·272	69·0	90·7	−1·6	61·0	−0·9	75·9	−1·3	29·7	97·0	7th	51·5	18th & 19th.	45
	Rawalpindi	1,674	28·202	−·031	29·893	28·329	29th	28·063	5th	·266	67·9	89·0	+0·8	58·3	+2·5	73·7	+1·7	30·7	96·4	7th	50·4	20th	46
13	Khushab	612	29·256	−·017?	29·850	29·408	29th	29·110	5th	·298	75·8	95·0	+1·2	65·2	+3·3	80·1	+2·3	29·8	102·4	6th	58·4	19th	44
	Montgomery	558									76·3	95·2	−1·4	63·5	+1·3	79·4	−0·1	31·7	101·9	4th	58·1	18th	43
	Multan	420	29·444	−·026	29·840	29·600	17th	29·309	5th	·291	74·7	94·8	−0·7	67·0	+2·6	80·9	+1·0	27·8	101·3	3rd, 4th & 5th.	61·0	19th & 26th.	40
	VI.—North-West Frontier Province.																						
15	Peshawar	1,110	28·782	−·038	29·905	28·925	17th & 28th.	28·628	5th	·297	69·2	88·6	+0·2	60·3	+3·1	74·5	+1·7	28·3	95·2	5th & 7th	53·4	17th	41
	D. I. Khan	590	29·274	−·044	29·832	29·437	17th	29·115	5th	·322	70·1	93·5	−0·5	62·7	+2·1	78·2	+0·8	30·8	103·9	6th	56·1	21st	47
	VII.—Sind.																						
17	Jacobabad	186	29·697	−·014	29·850	29·833	29th	29·589	5th	·244	74·9	100·2	+1·6	66·5	+4·0	83·4	+2·8	33·7	104·6	5th	58·3	18th	46
	Hyderabad	96	29·809	0	29·860	29·938	29th	29·715	5th	·223	78·4	96·2	−1·8	70·9	+0·9	83·6	−0·5	25·3	100·0	16th	64·5	19th	35
	Karachi	13	29·932	+·012	29·895	30·039	29th	29·840	1st	·199	77·7	86·5	−0·4	73·3	+2·0	79·9	+0·8	13·2	95·0	18th	68·0	19th	27
	VIII.—Rajputana.																						
18	Bikaner	*771*	29·116	+·006	29·866	29·223	29th	29·022	5th	·201	77·4	95·2	−0·7	70·5	−0·9	82·9	−0·8	24·7	98·5	4th	61·0	19th	37
	Jodhpur	780	29·148	+·011	29·925	29·246	29th	29·059	5th	·187	75·8	94·5	−3·0	66·1‖	−2·9?	80·2‖	−3·0?	28·4	96·5	4 days	56·3	21st	40
	Pachpadra	*380*	29·530	−·006	29·875	29·613	29th	29·429	1st	·184	75·5	97·3	−1·4	63·3	−1·6	80·3	−1·5	34·0	99·5	4th & 23rd.	55·8	20th & 21st.	43
19	Jaipur	1,431	28·490	−·008	29·893	28·575	29th	28·402	5th	·173	77·7	95·2	+0·9	65·3	+1·3	80·3	+1·1	29·9	97·2	4 days	57·6	22nd	39
	Sambhar	1,254	28·670	+·012	23·908	28·761	29th	28·580	5th	·181	75·5	93·3	0	63·8	+0·2	78·6	+0·1	29·5	97·4	16th	52·9	19th	44
	Ajmer	1,611	28·320	−·005	29·929	28·407	29th	28·243	1st	·164	70·5	88·3	−3·7	65·2	+2·0?	76·8	−0·9?	23·1	89·9	4 days	56·7	21st	33
	Kotah	819?	29·081*	−·010*	29·907*	29·171	29th	28·995	5th	·176	80·8	94·9	−0·4	70·2	−0·4	82·6	−0·4	24·7	98·0	16th	64·1	19th & 22nd.	33
	Udaipur	1,925	28·026	0	29·925	28·104	29th	27·937	1st	·167	75·0	89·7	−2·3	62·5	−1·4	76·1	−1·9	27·2	92·0	11th	54·3	22nd	37

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

* Mean of 30 days.
‡ " " 23 "
§ " " 27 "

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

3—*continued.*

tations in India, etc., in October, 1909—continued.

Wind direction. Number of winds from N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs, in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st May to 31st October, 1909. (53)	Normal rainfall for period, 1st May to 31st October. (54)	Departure from normal of period, 1st May to 31st October, 1909. (55)	Heaviest rainfall during month. (56)	Station. (57)
																															IV.—United Provinces of Agra and Oudh—*concld.*
	1	3			2	17	3	N 86° W	S 76° W	2·2	2·1	+0·1	56	+27	55	−11	·487	−·115	0	−1·1	0	1·50	−1·50	0	1·42	−1·42	33·90	33·88	+ 0·02	0	Cawnpore.
	1	1				4		N 73° W	N 58° W	1·1	1·8	−0·7	7	− 2	62	−10	·515	−·083	0·5	−0·9	0	1·60	−1·60	0	1·16	−1·16	38·23	36·63	+ 1·60	0	Lucknow.
3	4	3	2	1	2	4	4	N 12° W	N 77° E	2·0	1·6	+0·4	17	+ 7	72	− 4	·646	−·045	0·6	−0·7	1	1·40	−0·40	0·21	1·55	−1·34	42·59	45·27	− 2·68	0·21	Bahraich.
	1				3	4		S 75° W	S 70° W	2·9	2·4	+0·5	17	−26	46	− 6	·516	+·019	0·6	−0·3	0	0·90	−0·90	0	0·64	−0·64	28·03	36·73	− 8·70	0	Jhansi.
1	1		2	5	6	8	2	S 57° W	N 68° W	4·5	3·1	+1·4	46	+ 6	49	− 8	·455	−·042	0·3	−0·5	0	0·60	−0·60	0	0·38	−0·38	24·88	26·81	− 1·93	0	Agra.
2	2		1		5	[illegible]	7	N 74° W	N 83° W	1·9	0·9	+1·0	49	+33	56	− 9	·479	−·052	0·5	−0·6	0	0·80	−0·80	0	1·12	−1·12	26·92	28·90	− 1·98	0	Mainpuri.
1						5		N 79° W	N 15° W	0·7	1·3	−0·6	17	+11	66	− 9	·539	−·063	0·8	0	1	0·91	+0·09	0·37	1·00	−0·63	39·27	44·63	− 5·36	0·37	Bareilly.
1	1					4	2	N 56° W	S 88° W	1·0	1·2	−0·2	20	+ 7	69	+ 3	·502	+·018	0·5	−0·1	1	0·50	+0·50	0·23	0·35	−0·12	42·52	28·39	+14·13	0·23	Meerut.
		1	1			1		S 45° E	S 58° E	1·7	1·3	+0·4	3	− 3	74	0	·528	+·003	0·1	−0·6	1	0·80	+0·20	0·18	0·38	−0·22	35·03	38·25	− 3·22	0·16	Roorkee.
								(a)	S 27° E	1·0	1·3	−0·3			67	− 1	·472	+·029	0	−1·2	0	1·10	−1·10	0·02	0·92	−0·90	102·12	81·87	+20·25	0·02	Dehra Dun.
																															V.—Punjab.
1	2			1	1	20	6	N 79° W	N 83° W	4·3	2·3	+2·0	79	+47	61	+11	·486	+·064	0·3	−0·5	0	0·60	−0·60	0·06	0·06	0	31·21	24·80	+ 6·41	0·06	Delhi.
2		1	2		3	16	1	S 87° W	S 31° W	3·5	3·4	+0·1	53	+31	54	+ 4	·473	+·073	0·1	−0·6	0	0·40	−0·40	0·09	0·11	−0·02	21·44	12·36	+ 9·08	0·09	Sirsa.
2	1	4	4	1	1	4	5	N 27° W		4·6			6		59		·483		0·6		0			0			29·19			0	Patiala.
1	1	2	6		2	5	10	N 64° W	N 10° W	4·6	1·1	+3·5	23	+19	57	−13	·461	−·046	0·3	−0·2	0	0·40	−0·40	0·09	0·03	+0·06	26·06	26·97	− 0·91	0·09	Ambala.
					1			S 45° W	S 55° E	0·6	1·1	−0·5	3	− 8	60	− 1	·460	+·002	0·5	−0·5	1	0·50	+0·50	0·36	0·33	+0·03	34·65	23·19	+11·46	0·36	Ludhiana.
1	1	2	3	2		7		S 43° W	S 83° E	1·8	1·6	+0·2	10	− 2	65	+ 8	·495	+·062	0	−0·5	0	0·40	−0·40	0	0·20	−0·20	23·98	16·36	+ 7·62	0	Lahore.
6	10	6					1	N 42° E	N 54° E	1·5	1·4	+0·1	59	+27	70	+11	·501	+·067	0·5	−0·2	0	1·00	−1·00	0	0·25	−0·25	21·67	24·89	− 3·22	0	Sialkot.
	2	2					1	N 52° E	N 5° W	1·7	1·4	+0·3	10	− 4	57	− 5	·392	+·001	0·8	−0·2	1	1·30	−0·30	0·38	0·44	−0·06	28·07	24·38	+ 3·69	0·28	Rawalpindi.
	8	6	1	1	1		1	N 70° E	N 48° E	2·9	3·9	−1·0	40	− 3	43	− 2	·390	+·039	0·2	−0·1	0	0·20	−0·20	0	0·01	−0·01	6·87	10·30	− 3·43	0	Khushab.
1	4	2		4	12	1	1	S 31° W	S 41° E	5·5	4·1	+1·4	33	− 3	44	− 2	·394	−·011	0	−0·6	0	0·10	−0·10	0	0·03	−0·03	11·14	7·78	+ 3·36	0	Montgomery.
3				2	1			N 67° W	S 40° E	1·0	1·5	−0·5	3	−18	57	+ 1	·491	+·032	0	−0·4	0	0	0	0	0	0	4·80	5·67	− 0·87	0	Multan.
																															VI.—North-West Frontier Province.
			1				1	(a)	S 40° W	0·9	2·3	−1·4			54	− 5	·394	+·011	1·2	+0·3	0	0·40	−0·40	0·05	0·09	−0·04	4·14	5·68	−1·54	0·05	Peshawar.
3	6				1			N 29° E	N 31° E	1·0	1·1	−0·1	30	+ 5	64	+ 7	·469	+·062	0·2	−0·3	0	0·20	−0·20	0	0·04	−0·04	9·01	5·32	+3·69	0	D. I. Khan.
																															VII.—Sind.
5	5		1	2	1	1	1	N 18° E	N 41° E	2·1	2·1	0	20	+ 9	61	+ 9	·538	+·100	0	−0·3	0	0	0	0	0	0	0·53	2·67	−2·14	0	Jacobabad.
2	1		1	8	12	2		S 34° W	S 56° W	6·9	8·6	−1·7	56	+27	70	+17	·687	+·192	0	−0·6	0	0	0	0	0	0	6·85	6·07	+ 0·78	0	Hyderabad.
3	1		1		3	15	4	N 80° W	N 50° W	9·7	9·4	+0·3	59	+30	79	+13	·747	+·088	2·2	+1·0	0	0	0	0	0	0	5·68	6·65	− 0·97	0	Karachi.
																															VIII.—Rajputana.
1				1	11	12	2	S 77° W	S 48° W	7·8	4·9	+2·9	66	+19	48	+ 1	·458	+·009	0·3	−0·6	0	0·30	−0·30	0	0·09	−0·09	20·94	10·12	+10·82	0	Bikaner.
4				1	6	6	1	N 86° W		2·6			27		54	+13	·490		0·8		0	0·30	−0·30	0	0·17	−0·17	17·73	12·43	+ 5·30	0	Jodhpur.
6			4		9		12	N 66° W					28		59	+ 5	·516	+·038	0·3	−0·8	0	0·20	−0·20	0	0·07	−0·07	13·28	12·49	+ 0·79	0	Pachpadra.
1	2					13		N 19° W	N 42° W	3·8*	3·1	+0·7	66	+19	46	− 4	·415	0	0·4	−0·7	0	0·50	−0·50	0	0·22	−0·22	22·04	24·48	− 2·44	0	Jaipur.
	1				6	5		N 57° W	N 53° W	4·8	4·1	+0·7	37	+15	54	+ 3	·483	+·063	0·2	−0·7	0	0·40	−0·40	0	0·13	−0·13	23·84	19·27	+ 4·57	0	Sambhar.
1				1	3	4	5	N 83° W	S 82° W	3·8	2·8	+1·0	30	+ 1	69	+10	·524	+·060	0·6	−0·4	0	0·60	−0·60	0	0·29	−0·29	25·76	20·38	+ 5·38	0	Ajmer.
				1	6	4		N 61° W		2·0			33		46	− 1	·482		1·0		0	0·60	−0·60	0	0·14	−0·14	33·51	25·65	+ 7·86	0	Kotah.
					1			W		1·8			3		65	+10	·566		0·9		1	0·80	+0·20	0·54	0·11	+0·43	39·43	20·74	+18·74	0·51	Udaipur.

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

‖ Mean of 26 days.
¶ „ „ 28 „

* Uncorrected for scale error.

(a) Indeterminate.

Ta

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

Number of subdivision.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	IX.—Bombay.																					
20	Deesa	466	29·473	+·014	29·900	29·552	25th	29·388	1st	·164	78·3	96·7	−0·2	66·4	−0·4	81·6	−0·3	30·3	99·3	31st	57·9	21st
	Bhuj	395	29·555	+·027	29·908	29·641	25th	29·466	1st	·175	78·0	94·5	−1·6	69·4	−1·5	82·0	−1·6	25·1	97·5	16th, 22nd & 31st.	66·0	24th & 25th.
	Jamnagar	61	29·892		29·898	29·988	25th	29·790	10th	·198	81·4	91·7		69·7		80·7		22·0	96·7	20th & 31st.	65·2	30th
	Dwarka	37?	29·925		29·908	30·020	25th	29·830	1st	·190	80·0	85·0		71·7		79·9		10·3	95·8	19th	69·2	31st
	Rajkot	429	29·524?	+·021?	29·909?	29·514?	25th	29·451	1st	·163	78·9	94·3	−1·0	67·6	−0·5	81·0	−0·8	26·7	97·9	16th & 17th.	61·5	29th
	Veraval	*18*	29·934	+·021	29·894	30·029	25th	29·865	1st	·164	77·8	86·3	−3·0	70·8	−1·5	78·6	−2·3	15·5	97·1	29th	64·3	22nd
	Bhavnagar Para	55	29·893	−·013?	29·892	29·969	25th	29·830	10th	·139	79·5	95·4	−0·7	69·9	−2·4?	82·6	−1·6?	25·5	98·1	4 days	65·0	29th
	Surat	39	29·907*	+·010*	29·891*	29·984	24th	29·841	18th	·143	78·9	93·5	+0·5	71·1	+0·3	82·3	+0·4	22·4	97·6	15th	64·6	22nd
	Ahmedabad	163	29·771	−·002	29·885	29·852	25th	29·699	10th	·153	79·0	96·4	−0·3	71·3	−0·8	83·9	−0·6	25·1	99·1	13th, 29th & 31st.	66·2	23rd & 31st.
26	Bombay	37	29·901	+·003	29·878	29·972	25th	29·835	18th	·137	78·5	88·0	+0·5	75·7	−0·8	81·8	−0·2	12·3	91·5	14th, 15th & 16th.	72·0	24th & 26th.
	Ratnagiri	110	29·807	+·003	29·856	29·875	25th	29·752	18th	·123	79·0	87·3	−0·9	71·9	−2·1	79·4	−1·5	15·4	95·8	22nd	64·2	24th, 25th & 26th.
	Goa	199	?	?	?	?	?	?	?	?	78·0	83·6	−1·7	74·7	−0·8	79·2	−1·3	8·9	86·6	18th	70·1	26th & 28th.
	Mormugao	*60*	29·859	−·013	29·854	29·919	22nd	29·800	17th	·119	77·9	84·1	−1·9	74·4	−1·2	79·3	−1·6	9·7	88·0	18th	71·2	25th
	Karwar	44	29·886*	0*	29·864*	29·944	22nd	29·824	17th	·120	75·5	85·1	−0·3	72·8	−0·6	79·0	−0·5	12·3	88·3	17th	67·0	26th
27	Malegaon	1,430	28·499	−·009	29·899	28·571	25th	28·443	9th	·128	76·1	91·4	+0·8	64·7	−1·1	78·1	−0·2	26·7	95·4	31st	56·6	22nd & 23rd.
	Ahmednagar	2,154	27·807	+·010	29·922	27·874	25th	27·750	9th	·124	74·8	87·6	−0·5	64·6	0	76·1	−0·3	23·0	91·4	28th	55·5	22nd
	Poona	1,846	28·117	+·020	29·933	28·194	24th	28·056	1st & 10th.	·138	74·0	88·7	+0·2	65·2	−1·3	77·0	−0·6	23·5	91·5	28th & 31st.	54·3	23rd
	Sholapur	1,590	28·329	−·010	29·881	28·405	25th	28·264	10th	·141	76·7	91·7	+1·8	63·1	0	79·9	+0·9	23·6	93·8	8th, 15th & 17th.	59·4	23rd
	Bijapur	*1,948*	27·961†	−·019†	29·853†	28·027	22nd & 23rd.	27·917	1st	·110	77·1	90·2	+2·0	67·4‡	−0·4‡	78·8‡	+0·8	22·8	93·2	17th	57·2	24th
	Belgaum	2,539	27·336	−·005	29·866	27·452	25th	27·340	10th	·112	73·6	84·7	+1·6	64·0	−1·0	74·4	+0·3	20·7	87·3	4 days	58·5	24th, 25th & 28th.
	X.—Central India.																					
21	Neemuch	1,624	28·305	−·006	29·912	28·387	29th	28·233	1st	·154	74·3	91·8	+1·4	63·4	−1·1	77·6	+0·2	28·4	94·0	17th	56·8	21st
	Indore	1,823	28·125	+·017	29·932	28·178	26th & 29th.	28·058	1st	·120	72·3	89·2	+1·3	61·4	−2·2	75·4	−0·5	27·8	92·1	28th	53·6	21st
22	Nowgong	754	29·135	−·024	29·868	29·209	28th & 29th.	29·043	1st	·166	71·2	90·9	+0·6	63·0	−2·1	77·0	−0·7	27·9	94·5	7th	54·0	23rd
	Sutna	1,040	28·831	−·037	29·852	28·912	29th	28·727	1st	·185	74·3	90·7	+2·8	64·2	−1·5	77·5	+0·7	26·5	93·0	13th	56·2	19th, 21st & 22nd.
	XI.—Central Provinces.																					
23	Buldana	2,132	27·820		29·900	27·888	4th	27·755	1st	·133	77·7	86·2		68·4		77·3		17·8	88·5	16th	62·5	21st
	Akola	930	29·003	+·005	29·902	29·071	22nd	28·929	1st	·142	76·0	93·2	+1·9	63·9	−2·3	78·6	−0·2	29·3	95·2	10th, 17th & 31st.	52·6	22nd
	Amraoti	1,215	28·702	−·004	29·881	28·767	25th	28·632	1st	·135	77·8	92·2	+1·6	67·2	−1·0?	79·7	+0·3?	25·0	94·8	6th	59·8	20th & 21st.
24	Khandwa	1,044	28·879	0	29·903	28·951	22nd & 25th.	28·810	1st	·141	72·6	92·6	+1·5	63·7	−2·6	78·2	−0·6	28·9	94·7	12th & 16th.	53·1	22nd
	Hoshangabad	1,006	28·925	−·005	29·916	28·986	23rd	28·856	1st	·130	71·9	90·6	+1·0	62·0	−4·9	76·3	−2·0	28·6	94·1	16th	53·9	20th
	Saugor	1,807	28·104	−·013	29·881	28·188	29th	28·030	1st	·158	76·0	89·3	+1·7	65·6	−0·1	77·5	+0·8	23·7	91·1	15th	59·5	19th & 22nd.
	Jubbulpore	1,327	28·584	−·005	29·902	28·648	29th	28·495	1st	·153	69·5	88·8	+1·4	61·4	−2·6	75·1	−0·6	27·4	90·5	3rd & 6th.	53·3	20th, 21st & 22nd.
	Seoni	2,033	27·896	+·001	29·900	27·968	29th	27·828	1st	·145	73·4	87·8	+1·2	59·1*	−5·1*	73·5*	−2·0	28·7	89·5	7th	52·5	20th & 22nd.
	Nagpur	1,017	28·897	+·003	29·885	28·975	29th	28·818	1st	·157	75·7	92·4	+2·3	66·4	−2·0	79·4	+0·2	26·0	94·6	9th	58·8	24th
25	Pendra	2,123?	27·867		29·867	27·958	29th	27·774	1st	·184	73·9	85·7		63·7		74·7		22·0	87·3	4 days	56·2	21st & 27th.
	Raipur	970	28·927	−·015	29·865	29·003	29th	28·844	1st	·159	74·3	89·6	+1·3	67·4	−2·3	78·5	−0·5	22·2	92·2	2nd & 6th	60·6	23rd
	Chanda	*634*	29·279	−·003	29·871	29·355	23rd	29·213	1st	·142	74·8	90·0	−0·1	63·9	−4·6	77·0	−2·4	26·1	92·0	5th	54·0	23rd
	Jagdalpur‖	...	28·109			28·152	23rd	28·032	27th	·120	70·4	83·6		64·5		74·1		19·1	85·7	31st	59·1	25th

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

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

* Mean of 30 days. † Mean of 29 days. ‡ Mean of 26 days.

—continued.

ations in India, etc., in October, 1909—continued.

Wind direction. Number of winds from N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs, in inches of mercury. (43)	Departure from normal, in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st May to 31st October, 1909. (53)	Normal rainfall for period, 1st May to 31st October. (54)	Departure from normal of period, 1st May to 31st October, 1909. (55)	Heaviest rainfall during month. (56)	Station. (57)
																															IX.—Bombay.
2	2	2			2	12		N 79° W	S 77° E	3·6	6·6	−3·0	33	− 3	58	+ 8	·570	+·083	0·4	−0·9	0	0·45	−0·45	0·04	0·28	−0·24	27·88	23·61	+ 4·27	0·04	Deesa.
4			1			9	13	N 55° W	N 62° W	6·6	6·8	−0·2	66	+17	67	+ 7	·630	+·025	2·1	+1·0	0	0·50	−0·50	0	0·28	−0·28	18·69	13·99	+ 4·70	0	Bhuj.
1	3			1	2	3	8	N 51° W		5·5			33		69		·739		0·5		0			0			31·15			0	Jamnagar.
4	1		1	1	3	8	11	N 63° W		7·0			59		78		·803		1·1		0			0			26·47			0	Dwarka.
6	2	2	1		2	5	10	N 37° W	N 5° W	5·5	5·7	−0·2	49	+10	67		·649	−·009	1·5	+0·3	0	0·90	−0·90	0·10	0·49	−0·39	27·21	27·62	− 0·41	0·08	Rajkot.
10		1				5	6	N 30° W	N 2° E	6·5	6·1	+0·4	53	−12	77	+11	·728	+·066	1·0	−1·3	0	0·10	−0·10	0	0·77	−0·77	21·58	17·55	+ 4·03	0	Veraval.
6	3		1		2	1	17	N 33° W	N 73° W	4·7	6·8	−2·1	69	+24	63	− 1	·629	−·021	2·1	+0·6	0	0·90	−0·90	0	0·29	−0·29	24·63	18·99	+ 5·64	0	Bhavnagar Para.
5	4	5	1	3	1	2	1	N 51° E	N 53° E	2·3	4·4	−2·1	23	+ 5	67	− 6	·674	−·044	1·1	−0·9	0	2·20	−2·20	0·06	2·00	−1·94	52·78	43·73	+ 9·05	0·03	Surat.
9	3	2	2	1			7	N 2° E	N 8° E	3·0	3·3	−0·3	46	+13	62	+ 6	·611	+·050	0·1	−1·6	0	0·80	−0·80	0	0·77	−0·77	29·62	32·56	− 2·94	0	Ahmedabad.
3	9	13	2				2	N 64° E	N 81° E	¶ 7·5	9·1	−1·6	69	+ 1	83	+ 1	·816	−·029	2·6	−0·8	0	2·70	−2·70	0	2·24	−2·24	71·22	74·45	− 3·23	0	Bombay.
10	1	4	1	1			3	N 16° E	S 68° E	7·8	6·2	+1·6	37	− 3	76	− 2	·750	−·055	1·9	−1·8	0	5·00	−5·00	0·10	4·47	−4·37	99·30	106·61	− 7·31	0·07	Ratnagiri.
4	6	11	3	2		1	3	N 66° E	N 80° E	5·5	4·1	+1·4	49	− 7	85	0	·811	−·012	5·2	+1·2	0			0	5·42	−5·42	92·05	96·65	− 4·61	0	Goa.
1	1	9	1	3			3	N 89° E	S 67° E	¶ 5·7	6·1	−0·4	27	− 2	92	+ 2	·878	−·012	4·7	+0·7	0			0·03	6·17	−6·14	77·53	91·18	−13·65	0·02	Mormugao.
5	4			1	2		1	N 7° E	N 48° E	3·9	2·5	+1·4	20	−27	92	+ 3	·821	+·008	4·8	+0·8	1	8·50	−7·50	0·22	7·26	−7·04	108·67	120·97	−12·30	0·22	Karwar.
								§	N 61° W	4·6	5·8	−1·2			61	− 2	·565	−·015	1·0	−2·1	3	3·00	0	1·44	2·42	−0·98	20·80	23·04	− 2·24	1·17	Malegaon.
3	1		1		1	3	19	N 45° W	N 36° E	6·6	8·0	−1·4	72	+40	59	− 9	·514	−·086	1·7	−1·0	2	5·20	−3·20	0·81	2·14	−1·33	22·43	20·27	+ 2·16	0·37	Ahmednagar.
9	1	1				1	19	N 29° W	S 69° E	¶ 4·7	6·3	−1·6	86	+79	73	+ 2	·609	+·008	5·9	+2·0	3	5·60	−2·60	2·71	4·40	−1·69	24·95	25·82	− 0·87	1·60	Poona.
4	1	4	2				16	N 19° W	N 68° E	7·5	8·2	−0·7	53	+30	57	− 6	·529	−·052	3·3	−1·1	0	4·70	−4·70	0	4·16	−4·16	36·42	28·57	+ 7·85	0	Sholapur.
3	3	3	2	2	1	9	6	N 55° W	N 77° W	4·5	4·0	+0·5	27	+19	56	−18	·522	−·138	1·4	−2·6	1	6·60	−5·60	0·54	4·50	−3·96	17·12	21·94	− 4·82	0·40	Bijapur.
5	4	2		1	1	3	2	N 2° W	N 53° E	¶ 6·7	9·6	−2·9	24	+ 6	69	−11	·572	−·053	2·4	−2·1	6	8·70	−2·70	2·63	5·96	−3·33	43·92	45·85	− 1·93	1·44	Belgaum.
																															X.—Central India.
11	4				1	4	2	N 13° W	N 2° E	4·4	6·0	−1·6	49	+31	50	+ 1	·431	−·024	0·9	−0·2	0	0·90	−0·90	0	0·41	−0·41	22·49	29·10	−6·61	0	Neemuch.
		2		1	2	4	14	N 86° W	N 18° E	1·5	2·2	−0·7	20	− 5	61	− 1	·494	−·048	1·1	−0·3	0	2·40	−2·40	0·05	1·43	−1·38	23·05	32·61	− 9·56	0·03	Indore.
	1	1		3	6	8		S 58° W	S 67° W	1·5	1·5	0	43	+18	65	− 4	·516	−·051	0·7	−1·1	0	1·70	−1·70	0	1·25	−1·25	35·69	42·68	− 6·99	0	Nowgong.
						11	13	N 69° W	N 27° W	2·2	3·9	−1·7	79	+30	59	− 7	·507	−·063	2·2	+0·6	0	2·10	−2·10	0	2·45	−2·45	32·10	43·00	−10·90	0	Sutna.
																															XI.—Central Provinces.
9	4	3	2	3	1	2	7	N 2° W		3·9	5·2	−1·3	38		48		·450		1·8		0			0·08	2·52	−2·44	35·16	33·98	+1·18	0·08	Buldana.
5	2	2	1	3	2	4	6	N 45° W	N 53° E	2·9	3·5	−0·6	27	+ 9	57	− 7	·528	−·042	1·9	−0·6	0	2·70	−2·70	0·09	2·74	−2·65	24·56	31·74	− 7·18	0·05	Akola.
2	9	8			1	6	4	N 25° E	N 63° E	4·6	3·8	+0·8	37	+ 5	54*	− 7	·512*	−·050	1·4	−1·1	0	2·40	−2·40	0·06	2·33	−2·27	29·73	32·36	− 2·63	0·06	Amraoti.
1	2		5	1	5	4	9	N 86° W	N 2° E	3·8	3·1	+0·7	30	+19	61	− 1	·503	−·038	1·5	−0·4	0	2·00	−2·00	0	1·45	−1·45	18·39	30·13	−11·74	0	Khandwa.
		2			1	4		S 75° W	N 79° E	0·8	1·7	−0·9	10	− 8	69	− 2	·553	−·036	1·8	−0·3	0	2·10	−2·10	0	1·75	−1·75	37·04	50·24	−13·20	0	Hoshangabad.
1	1	1		1	16	7	1	S 61° W	S 27° W	3·8	3·1	+0·7	66	+52	47	−13	·431	−·079	1·8	+0·3	0	2·10	−2·10	0	1·27	−1·27	36·46	46·11	− 9·65	0	Saugor.
		1	13	9	2	2		S 19° E	S 27° E	1·2	1·9	−0·7	69	+33	72	− 3	·529	−·077	2·0	0	0	2·20	−2·20	0	1·86	−1·86	37·77	56·44	−18·67	0	Jubbulpore.
7	2	1		1	8	7	5	N 68° W	N 9° E	3·7	2·7	+1·0	49	+26	53	−13	·438	−·127	1·7	−0·6	0	2·80	−2·80	0	2·03	−2·03	41·14	51·75	−10·61	0	Seoni.
8	3					8	9	N 37° W	N 7° E	2·4	3·9	−1·5	66	+37	56	− 9	·509	−·086	1·7	−1·1	1	3·10	−2·10	0·20	2·43	−2·23	48·48	46·43	+ 2·05	0·20	Nagpur.
6	1			1			3	N 10° W		3·0			27		53		·448		1·9		0			0			33·76			0	Pendra.
2	1	1		1	6	1	2	S 77° W	N 27° E	3·0	3·8	−0·8	17	− 1	64	− 8	·513	−·111	1·7	−1·7	1	3·1	−2·10	1·02	2·09	−1·07	39·20	48·21	− 9·01	1·02	Raipur.
4	1				1	3	2	N 39° W **	N 14° E	1·0	2·3	−1·3	23 **	+ 5	68	− 4	·607	−·056	2·0	−0·6	0	2·70	−2·70	0·06	2·00	−1·94	41·01	51·88	−10·87	0·06	Chanda.
2	1	1				1	4	N 21° W					46		78		·577		2·5		1			0·56						0·55	Jagdalpur. ‖

¶ Uncorrected for scale error. § Indeterminate. ‖ Observations of 19 days. ** Mean of 13 days.

Tal

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

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
	XII.—Hyderabad.																						
28	Aurangabad	1,905	28·047	−·016	29·910	28·111	22nd	27·990	9th	·121	77·2	88·1	−2·4	63·9	−2·3	76·0	−2·4	24·2	91·2	31st	54·2	22nd	3
	Nizamabad	1,248	28·649	−·005†	29·861†	28·715	23rd	28·589	1st	·126	76·2	90·8	+1·9	64·4	−3·9	77·7	−1·0	26·4	93·9	10th	54·7	24th	3
	Bidar	*2,165*	27·766		29·869	27·839	22nd	27·700	4th	·139	79·3	88·4		65·5		77·0		22·9	90·5	17th	59·0	25th	3
29	Gulbarga	1,503	28·411	−·016	29·876	28·481	25th	28·356	10th	·125	76·4	92·1	+2·1	68·2	−0·8	80·2	+0·7	23·9	94·0	7th, 17th & 19th.	58·3	25th &27th	3
	Raichur	*1,311*	‡ 28·579?	‡ −·025?	‡ 29·849?	28·624	23rd	28·534	16th	·090	79·9	92·2	+3·2	71·8	−0·4	82·0	+1·4	20·4	95·1	7th	64·1	27th	3
	Hyderabad (Deccan)	1,690	28·219	−·010	29·870	28·281	29th	28·172	1st	·109	75·8	91·1	+3·5	67·2	−0·9	79·2	+1·3	23·9	94·3	7th	60·2	24th, 25th & 27th.	3
	Hanumkonda	871	29·028	−·017	29·851	29·105	29th	28·973	1st	·132	79·4	92·1	+2·0	69·2	−2·4	80·7	−0·2	22·9	94·5	6th & 9th	62·2	21st, 22nd & 23rd.	3
	XIII.—Mysore.																						
30	Chitaldroog	2,405	27·534	−·004	29·880	27·591	25th	27·482	10th	·112	74·6	85·9	+1·3	67·1	−0·7	76·5	+0·3	18·8	89·6	31st	60·9	24th & 28th.	2
	Hassan	3,149	26·830	+·002	29·903	26·883	22nd & 25th.	26·783	17th & 20th.	·100	70·3	82·3	+1·0	61·2	−0·1	73·3	+0·5	18·1	83·9	6th & 31st.	55·1	26th	2
	Bangalore	3,021	26·940	−·016	29·881	26·992	22nd	26·893	17th	·099	72·0	83·7	+2·3	61·8	−0·4	74·3	+1·0	18·9	85·8	6th, 21st & 31st	57·8	26th	2
	Mysore	2,518	27·435	−·009	29·906	27·496	22nd	27·365	17th	·131	71·2	84·5	+0·4	66·5	−0·5	75·5	−0·1	18·0	87·0	6th	61·0	28th	2
	XIV.—Madras.																						
31	Mangalore	65	29·856	−·022	29·854	29·917	22nd	29·801	18th	·113	79·8	86·1	−0·7	73·0	−0·9	79·6	−0·8	13·1	88·8	22nd	71·3	5th	1
	Calicut	27	29·896	−·019	29·853	29·958	22nd	29·838	16th	·130	78·4	86·0	−0·2	75·2	+0·7	80·6	+0·3	10·8	88·3	th & 2 4th	73·1	1st	1
	Cochin	9	29·922	−·013	29·859	29·981	22nd	29·863	20th	·118	79·7	87·7	+1·5	75·3	+0·7	81·5	+1·1	12·4	89·7	16th, 26th & 27th.	73·2	17th& 20th	1
	Trivandrum	198	29·724	−·016	29·854	29·799	22nd	29·659	15th	·140	78·8	83·8	+1·1	74·8	+2·0	79·3	+1·6	9·0	86·5	11th & 2th.	72·0	29th	1
32	Tinnevelly	168	29·750	−·004	29·847	29·816	22nd	29·693	16th	·123	82·9	94·5	+0·8	75·9	−0·7	85·2	+0·1	18·6	101·2	2nd & 6th	72·9	14th, 20th & 25th.	2
	Pamban	37	29·872	−·009	29·836	29·944	22nd	29·827	15th	·117	81·4	88·8	+1·7	76·3	−1·0	82·6	+0·4	12·5	91·7	30th	72·0	20th	1
	Madura	447	29·470‖	+·006‖	29·855‖	29·531	22nd	29·417	17th	·114	80·3	90·7	−0·6	73·1	−0·9	81·9	−0·8	17·6	93·4	7th	70·6	20th	2
	Periyakulam	944						Observatory closed.															
	Pudukkottai	318	29·596		29·818	29·794	13th	29·537	1st	·257	79·6	92·6		74·7		83·7		17·9	97·1	7th & 8th	69·7	11th	2
	Negapatam	31	29·871	−·012	29·831	29·942	22nd	29·821	16th & 17th.	·121	82·5	91·1	+2·7	77·8	+1·9	84·5	+2·3	13·3	96·0	8th	76·0	6th, 15th & 17th.	2
	Trichinopoly	255	29·655	−·009	29·844	29·724	22nd	29·609	1st & 17th.	·115	81·1	92·0	+1·0	74·3	0	83·2	+0·5	17·7	95·1	8th	71·8	16th	2
	Coimbatore	1,348	28·571	−·007	29·878	28·627	22nd	28·522	18th	·105	75·3	89·2	+0·9	70·5	−0·1	79·9	+0·4	18·7	93·4	5th & 8th	64·8	28th	2
	Salem	940	28·997	−·010	29·885	29·059	22nd	28·943	18th	·116	78·3	90·7	+1·1	72·1	+1·0	81·4	+1·1	18·6	94·0	8th	63·4	28th	3
	Cuddalore	37	29·869	−·011	29·829	29·935	22nd	29·809	16th	·126	82·1	91·1	+3·0	76·1	+1·4	83·6	+2·2	15·0	94·1	10th	72·2	26th	2
	Vellore	707	29·207		29·861	29·269	30th	29·150	17th	·119	78·2	91·7		72·1		81·9		19·6	94·7	6th & 9th	63·5	28th	3
	Madras	22	29·876	−·018	29·829	29·946	20th	29·816	17th	·130	83·3	93·5	+4·5	75·0	−0·1	84·3	+2·2	18·5	98·0	7th	68·5	27th	2
33	Cuddapah	433	29·468	−·014	29·841	29·526	23rd, 25th & 30th.	29·416	10th	·110	81·8	95·9	+4·0	74·3	+0·1	85·1	+2·1	21·6	98·2	6th & 8th	66·1	28th	3
	Bellary	1,475	28·435	−·008	29·865	28·512	25th	28·380	18th	·132	77·9	93·1	+3·4	71·3	+0·2	82·2	+1·8	21·8	95·0	4 days	63·3	26th	3
	Kurnool	923	28·973	−·017	29·851	29·041	25th	28·920	10th	·121	76·7	93·4	+2·5	68·0	−2·0	81·2	+0·3	24·4	95·7	7th & 9th.	59·6	28th	3
34	Nellore	66	29·827	−·008	29·827	29·902	23th	29·759	1st	·143	82·9	94·2	+3·0	76·9	+1·1	85·6	+2·1	17·3	98·6	8th	72·6	26th	2
	Masulipatam	15	29·889?	+·001?	29·839?	29·972	29th	29·822	1st	·150	82·7	92·2	+3·3	75·7	−0·3	84·0	+1·5	16·5	95·3	7th	67·7	25th	2
	Cocanada	26	29·860	−·013	29·828	29·958	29th	29·793	27th	·165	81·9	91·5	+3·6	76·7	+0·9	84·1	+2·3	14·8	96·2	9th	70·5	25th	2
	Waltair (Vizagapatam).	*226*	29·680	−·018	29·828	29·767	29th	29·569	27th	·198	82·8	89·6		76·8		83·2		12·8	96·1	18th	70·9	25th	2
	Calingapatam	19	29·866		29·825	29·976	29th	29·758	27th	·218													
	Gopalpur	72	29·805	−·027	29·819	29·914	29th	29·720	27th	·194	78·8†	90·7†	+2·7†	73·4¶	−1·2	82·1	+0·8	17·3	93·2	10th & 19th.	65·5	24th	2

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

† Mean of 26 days.
‡ „ „ 9 „
¶ „ „ 27 „

B—*continued.*

stations in India, etc., in October, 1909—continued.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs., in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st October, 1909.	Normal rainfall for period, 1st May to 31st October.	Departure from normal of period, 1st May to 31st October, 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																XII.—Hyderabad.
11	5	4	3	3	2		2	1	N 50° E		6·6			23		55	−1	·507		2·1		4	3·40	+0·60	2·37	1·80	+0·57	41·26	26·03	+15·23	1·21	Aurangabad.
13			3	3	8		4		S 6° E		2·9§			33		62	−11	·564		1·6		1	2·90	−1·90	0·34	1·87	−1·53	21·90	38·19	−16·29	0·34	Nizamabad.
22			2		1	2	3	1	S 56° W		2·6			10		49		·483		2·8		1	4·40	−3·40	0·41	3·07	−2·66	31·05	36·21	−5·16	0·35	Bidar.
14	3	7	5	2					N 60° E	N 72° E	6·7	8·3	−1·6	43	+20	59	−11	·545	−·098	3·0	−0·6	1	5·00	−4·00	1·15	3·09	−1·94	30·03	29·35	+0·71	1·11	Gulbarga.
	2	12	3	4	1		3	6	N 33° E	S 79° E	7·0	7·2	−0·2	43	+37	53	−18	·537	−·126	3·0	−0·4	1	4·20	−3·20	0·25	4·31	−4·06	24·93	23·64	−3·71	0·25	Raichur.
31									(a)	S 63° E	2·7	3·3	−1·2			59	−16	·527	−·111	3·0	−0·6	0			0·05	2·71	−2·63	27·27	28·45	−1·18	0·05	Hyderabad (Deccan.)
16	7			2	1			5	N 15° W		4·7‖			27		53	−17	·536		2·3		0	4·10	−4·10	0	1·82	−1·82	28·15	29·37	−1·72	0	Hanumkonda
																																XIII.—Mysore.
15			1	2		2	7	4	W	S 45° W	2·6	5·6	−3·0	28	+14	72	−4	·614	−·031	4·8	−1·3	6	7·70	−1·70	2·93	3·28	−0·35	22·53	21·00	+1·53	1·70	Chitaldroog.
13	3	1	1				6	7	N 45° W	N 53° E	3·6	2·5	+1·1	42	+19	84	+2	·628	+·002	3·9	−3·2	7	9·50	−2·50	4·22	6·64	−2·42	36·15	28·72	+7·43	0·98	Hassan.
2	1	2	4	1	4	10	6	1	S 42° W	N 1° E	4·5	4·7	−0·2	40	+37	78	−5	·618	−·009	4·3	−1·8	8	9·30	−1·30	6·29	6·36	−0·07	33·51	29·28	+4·23	2·00	Bangalore.
9	2	3	2		2	6	7		S 73° W	S 72° W	5·0	7·3	−2·3	23	+5	85	+3	·657	−·002	7·3	+0·3	10	9·40	+0·60	4·15	6·98	−2·83	29·79	25·01	+4·78	0·90	Mysore.
																																XIV.—Madras.
1	3	10	13	1				3	N 53° E	S 89° E	4·0*	2·2	+1·8	69	+29	82	−5	·818	+·004	4·3	−1·6	3	10·30	−7·30	1·84	7·55	−5·71	143·46	119·04	+24·42	0·92	Mangalore.
18		4	5	1	1	1	1		N 87° E	N 76° E	3·9	7·4	−3·5	22	−25	89	+3	·861	+·025	8·3	+2·6	7	11·80	−4·80	3·98	9·75	−5·77	119·36	104·12	+15·24	1·98	Calicut.
6		14	8	3					N 69° E	N 34° E	‖ 5·6*	4·4	+1·2	69	+15	81	−4	·820	−·031	5·0	−0·7	10	14·80	−4·80	6·10	13·92	−7·82	80·79	98·96	−18·17	2·30	Cochin.
12	4	1				1	1	12	N 37° W	N 14° W	4·1*	5·0	−0·9	49	+1	83	−1	·816	+·006	6·5	−0·3	5	11·90	−6·90	9·13	10·49	−1·36	57·72	46·63	+11·09	4·85	Trivandrum.
14	3	3	2				4	5	N 22° W	N 51° W	3·2	4·4	−1·2	30	−23	72	0	·804	+·028	4·3	−1·5	7	8·40	−1·40	7·47	6·30	+1·17	11·54	10·28	+1·26	1·71	Tinnevelly.
4		3	3	8	5	4	2	2	S 25° E	S 68° W	6·1	8·6	−2·5	37	+15	83	+3	·879		4·2		6	9·50	−3·50	8·39	8·63	−0·24	13·34	11·59	+1·75	4·09	Pamban.
5	3	1					10	12	N 56° W	N 14° W	3·2	2·5	+0·7	69	+8	82	+8	·837	+·081	6·5	+0·7	14	11·40	+2·60	14·15	8·61	+5·54	36·12	23·25	+12·87	5·07	Madura.
													Observatory closed.																			Periyakulam
1	7	2			2	3	16		N 38° W		6·3			71		79		·797		6·2		4			4·50			24·64			1·95	Pudukkottai.
	1	1		1	7	15	6		W	N 85° W	5·4	4·7	+0·7	75	+35	74	−7	·830	−·032	5·0	−1·4	3	11·00	−8·00	1·64	11·65	−10·01	15·10	23·75	−8·65	1·28	Negapatam.
7				1	4	17	2		S 84° W	N 77° W	2·3*	3·8	−1·5	67	+31	76	−4	·810	+·007	4·1	−2·2	7	9·70	−2·70	5·24	7·15	−1·91	27·69	21·16	+6·53	1·49	Trichinopoly
29			1		1				S	S 4° E	1·3	2·8	−1·5	5	−20	89	+2	·788	+·014	4·8	−0·9	8	9·40	−1·40	6·18	5·98	+0·20	15·44	13·58	+1·86	1·34	Coimbatore.
13		1	1		1	14	1		S 87° W	S 40° W	3·3	2·5	+0·8	46	+35	85	+4	·824	+·043	6·1	+0·2	11	9·50	+1·50	12·73	6·72	+6·01	45·42	32·20	+13·22	3·02	Salem.
4	4			3	5	7	8		N 79° W	N 69° W	4·1	2·2	+1·9	53	+6	79	−9	·870	−·039?	4·7	−1·3	3	10·00	−7·00	2·85	11·66	−8·81	29·34	29·01	+0·33	1·50	Cuddalore.
22		2	7						S 54° E		2·0			26		81		·782		3·0		4	9·30	−5·30	4·66	7·51	−2·85	57·36	28·18	+29·18	2·50	Vellore.
2	4	1	4	10	3	4	3		S 37° W	N 83° W	3·8*	4·8	−1·0	33	+1	81	−2	·925	+·052	3·0	−2·7	3	12·50	−9·50	0·61	11·45	−10·81	30·04	28·93	+1·11	0·23	Madras.
	10	3	10		3		5		N 83° E	N 72° E				37	+15	65	−10	·708	−·070	4·2	−0·7	1	6·70	−5·70	0·40	5·78	−5·38	40·55	26·73	+13·82	0·32	Cuddapah.
16	1	1	3	2	1	3	4		S 64° W	N 62° W	2·4	4·3	−1·9	10	+3	57	−11	·553	−·082	3·5	−2·2	4	6·70	−2·70	0·58	4·27	−3·69	16·78	16·65	+0·13	0·19	Bellary.
14	1	2		3	7	1	3		S 51° W	N 66° W	2·8*			27	+20	64	−9	·599	−·108	3·1	−1·0	2	5·90	−3·90	0·80	4·01	−3·21	17·29	25·81	−8·52	0·48	Kurnool.
8	1		1	6	4	4	9		S 80° W	N 68° W	3·1*	4·4	−1·3	40	+22	72	−9	·819	−·061	4·6	−0·9	2	8·70	−6·70	1·12	7·33	−6·21	26·83	20·14	+6·69	0·93	Nellore.
2	3	5	5	6	2	1	4	3	N 64° E	N 1° E	4·8	4·6	+0·2	17	−23	74	−10	·827	−·055	2·0	−3·2	2	8·60	−6·60	0·20	8·42	−8·22	32·64	32·95	−0·31	0·10	Masulipatan
13	2	1	1	1		1	7	5	N 61° W	N 11° W	4·5	7·6	−3·1	33	−28	72	−5	·789	−·011	5·1	+0·3	1	9·40	−8·40	0·27	8·72	−8·45	25·05	31·64	−6·59	0·21	Cocanada.
1	1	6	3			7	12	1	N 81° W	N 74° W	6·2			33	−12	63	−12	·714	−·096	3·1	−1·7	0	8·20	−8·20	0	10·23	−10·23	22·43	34·39	−11·96	0	Waltair (Vizag.).
1	3					9	18		N 51° W		4·6			87						2·9		0			0·03			21·76			0·02	Calingapatam
	16				1		14		N 23° W	N 23° W	6·7†	7·9	−1·2	92	+17	73†	−9	·715†	−·101	2·0	−2·5	3	7·90	−4·90	5·64	9·41	−3·77	32·60	40·50	−7·90	5·29	Gopalpur.

* Uncorrected for scale error.
(a) Indeterminate.

‖ Mean of 30 days.

§ Mean of 5 days.

Tal

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

Number of sub-division.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	Bay Islands.																					
1	P. V. Fraser	8	29·867		29·793	29·980	28th & 29th.	29·600	17th	·380	83·2											
	Car Nicobar	25	29·830		29·782	29·884	28th	29·783	8th	·101	79·7	84·5		75·0		79·3		9·5	87·6	1st & 2nd	73·3	28th
	Port Blair	58	29·830	−·030	29·818	29·903	3rd	29·755	20th	·148	79·5	85·3	−1·6	76·3	−1·0	80·8	−1·3	9·0	88·2	7th	72·5	16th
	Slipper Island	90	29·779		29·803	29·859	3rd	29·646	24th	·213	81·0	85·6		77·6		81·7		8·0	87·1	5th, 9th & 27th.	73·1	15th
	Kashmir.																					
14	Srinagar	5,204	24·972†	−·013†	24·943†	25·080	27th	24·860	5th	·220	49·3	67·2	−2·5	43·0	+3·2	55·1	+0·4	24·2	76·6	7th	38·1	19th
	Gulmarg‡	*8,569*	21·997		21·875	21·983	2nd	21·832	15th	·151	42·9	56·7		34·1		45·4		22·6	61·2	1st	30·3	15th
	Sonemarg	*8,764*	21·917		21·885	22·027	28th	21·825	15th	·202	34·1	57·4		29·2		43·3		28·2	67·4	8th & 11th.	11·1	17th
	Dras	*10,059*	20·857	−·027	20·825	20·991	28th	20·724	15th	·267	33·0	54·7	−3·0	25·2	−2·1	40·0	−2·6	29·5	65·9	4 days	14·0	16th
	Leh	11,503	19·782	+·002	19·750	19·950	28th	19·664	15th	·236	40·4	59·4	+0·8	30·0	+0·1	44·7	+0·5	29·4	67·1	6th	23·0	18th
	Skardu	*7,505*	22·953	−·009	22·923	23·111	28th	22·801	15th	·310	46·5	65·1	−1·3	41·4§	−0·2§	53·4§	−0·8	23·7	76·4	7th	31·1	20th
	Minimarg	*9,359*							Observations		not available.											
	Astor	*7,955*							Ditto		ditto											
	Gilgit	4,890	25·209		25·182	25·339	28th	25·077	15th	·262	58·7	75·0	+1·1	51·6	−1·5	63·4	−0·2	23·4	87·2	7th	42·2	17th
	Baluchistan.																					
16	Quetta	5,502	24·728	0	24·688	24·838	29th	24·635	5th	·203	57·8	77·8	+3·2	38·1	−0·2	58·0	+1·5	39·7	84·1	7th	30·0	17th
	Chaman	4,311	25·757	−·042	25·719	25·872	29th	25·663	5th	·209	63·7	81·3	+2·5	54·4	+1·5	67·9	+2·0	26·9	87·8	7th & 8th	44·2	17th
	Robat	...	26·979		26·937	27·087	22nd	26·852	5th	·235	73·2	92·1		62·1		77·1		30·0	101·0	10th	51·3	26th & 27th.
	Hill Stations, excluding Kashmir and Baluchistan.																					
	Chitral	*5,486*									52·0	76·9		44·5		60·8		32·4	87·1	1st	36·0	16th & 17th.
	Para Chinar	6,000	24·498		24·465	24·617	28th	24·434	16th	·183	62·3	75·2		49·6		62·4		25·6	82·9	6th	41·6	17th
	Cherat	*4,256*	25·757	+·004	25·725	25·885	29th	25·661	1st & 5th	·224	65·6	77·9	−0·7	59·5	+2·3	68·7	+0·8	18·4	87·2	3rd	47·5	17th
	Murree	6,333	23·899	−·020	23·867	24·008	29th	23·826	19th	·182	57·7	68·8	−0·5	54·2	+0·9	61·5	+0·2	14·6	75·0	3rd & 7th.	40·5	14th
	Kailang	*10,087*	21·041		20·996	21·146	29th	20·928	16th	·218	40·0	60·7	+0·2	31·5	0	46·1	+0·2	29·2	71·3	7th	23·0	18th
	Simla	7,232	23·157	−·013	23·119	23·240	29th	23·076	10th	·164	55·8	64·0	+1·6	51·8	+0·8	57·9	+1·2	12·2	66·6	1st	49·1	16th, 17th & 25th.
	Sanain		23·188		23·150	23·280	28th	23·096	10th	·184	44·1	66·1		42·1		34·1		24·0	71·2	7th	37·0	17th
	Kalabagh		20·161		20·123	20·238	29th	20·094	10th	·144	42·6	50·0		39·1		44·6		10·9	56·8	5th	30·7	25th
	Chakrata	7,022	23·329	−·011	23·289	23·413	28th & 29th.	23·253	10th	·160	57·2	70·7	+4·5	51·8	+0·9	61·3	+2·7	18·9	73·3	5th, 6th & 7th.	45·7	16th
	Muktesar	7,592	22·884	−·036	22·843	22·972	29th	22·812	5th	·160	56·8	71·1	+4·9	50·4	+0·4	60·8 ‡‡	+2·7	20·7	76·5	11th	41·0	17th
	Darjeeling	7,376	23·058	−·033	23·013	23·142	28th	22·959	20th	·183	58·5	65·1†	+4·6†	51·4†	+1·6†	58·3	+3·1	13·7	71·8	6th	47·2	25th & 31st.
	Shillong	4,920	25·147		25·099	25·252	28th	25·051	18th	·201	63·4	72·5		57·1		64·8		15·4	78·9	23rd	51·7	13th, 30th & 31st.
	Cherra Poonjee	4,309	25·673†		25·624†	25·764	28th	25·598	19th	·166	66·8	72·7		63·4§		68·0§		9·3	77·7	26th	59·3	19th
	Maymyo	3,545	26·499	−·038	26·374	26·504	29th	26·349	10th	·155	69·1	77·9	+1·0	62·9	+3·4	70·5	+2·2	15·0	81·9	17th	57·6	31st
	Pachmarhi	3,528	26·468	−·004	26·435	26·549	29th	26·417	1st	·132	71·4	80·0	+1·9	56·6	−3·1	68·3	−0·6	23·4	82·0	4th	49·1	20th, 21st & 22nd.
	Mount Abu	3,945	26·111	−·001	26·061	26·186	29th	26·038	1st	·148	71·4	77·4	−1·4	63·3	−1·0	70·4	−1·2	14·1	80·2	13th	60·9	8th
	Mercara	3,781	26·234	−·002	26·167	26·292	22nd	26·189	17th	·103	67·4	76·7	+0·9	61·9	−0·3	69·3	+0·3	14·8	79·0	4 days	58·0	29th
	Ootacamund	*7,327*	23·059		22·995	23·105	22nd	23·019	20th	·086	57·7	65·0		49·6		57·3		15·4	69·0	18th	42·2	29th
	Kodaikanal	7,688	22·823	−·020	22·758	22·866	22nd	22·789	16th	·077	55·7	61·9	−0·8	51·3	0	56·6	−0·4	10·6	66·5	3rd	46·0	28th

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

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

‡ Observations of 15 days.

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

B—*continued.*

stations in India, etc., in October, 1909—continued.

Wind direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st October, 1909.	Normal rainfall for period, 1st May to 31st October.	Departure from normal of period, 1st May to 31st October, 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																Bay Islands.
	7	5	1	2	1	7	3	5	N 41° W					29		66‖		·782‖		4·1		3			2·08			45·69			0·82	P. V. Fraser.
				8	11	2			S 13° E¶		2·0			90		92		·933		9·6		16			15·22			67·35			3·36	Car Nicobar.
12				1	3	2	9	4	S 79° W	S 68° W	6·0*	6·3	−0·3	43	+25	89	0	·897	−·038	7·1	+0·7	16			17·00	11·76	+5·24	114·04	96·66	+17·38	5·04	Port Blair.
3	2	2	1	6	6	8	2	1	S 9° W		9·1†			40		89		·939		6·5		13			12·05			65·28			3·56	Slipper Island.
																																Kashmir.
18				6	3		1	3	S 12° E	S 51° E	2·3	3·0	−0·7	17	−5	87	−1	·295	+·013	2·4	0	5	2·70	+2·30	1·65	0·84	+0·81	19·03 ††	11·25	+7·78	0·41	Srinagar.
10			1	1	1	1	1		S		3·8			16		81		·232		2·0		3			1·51			27·33			0·60	Gulmarg.‡
30							1		W		1·7			3		83		·168		1·9		7			3·19			24·82			0·64	Sonemarg.
26					1		2	2	N 83° W		4·2			11		80	+11	·150		2·1		3	3·10	−0·10	0·70	0·45	+0·25	4·02	7·43	−3·41	0·22	Dras.
27			1		1	1	1		S 24° W	S 83° W	3·3*	2·0	+1·3	7	−36	40†	−13	·101†	−·021	2·0	−0·4	0	0·10	−0·10	0	0·22	−0·22	1·57	1·75	−0·18	0	Leh.
21			3	5	2				S 49° E		5·3			30		58	−11	·182		2·8		0	0·10	−0·10	0	0·07	−0·07	3·36	3·86	−0·50	0	Skardu.
																	Observations		not available.													Minimarg.
																		Ditto		ditto.												Astor.
26			1			1	3		S 75° W		1·5			10		57	+10	·235	+·057	3·6	+0·2	1	0·30	+0·70	0·25	0·20	+0·05	3·21	2·55	+0·66	0·22	Gilgit.
																																Baluchistan.
28		2		1					N 72° E	N 59° W	1·6	1·9	−0·3	7	+4	39	−5	·187	−·004	0	−0·4	0	0·20	−0·20	0	0·09	−0·09	0·39	2·41	−2·02	0	Quetta.
15					6	9		1	S 31° W	S 45° E	6·6	8·0	−1·4	46	−8	23	+5	·194	+·013	0·4	−0·2	0	0·10	−0·10	0	0·04	−0·04	0·04	0·32	−0·28	0	Chaman.
11		3	2			15			S 37° W		7·0			33		42		·344		0		0			0			0			0	Robat.
																																Hill Stations, excluding Kashmir and Baluchistan.
29		2							N 45° E		3·2			3		69		·269		0		1			0·18			2·96			0·15	Chitral.
28	1		1				1		N		3·9			3		44		·244		1·0		2	1·00	+1·00	2·13	0·37	+1·76	12·57	12·83	−0·26	1·05	Para Chinar.
2	7	1		2	5	4	1	9	N 59° W	N 11° W	9·3	10·2	−0·9	30	−21	34	−2	·213	−·011	1·0	+0·1	1			0·16	0·09	+0·07	11·20	11·92	−0·72	0·12	Cherat.
4	12	1		5	2			7	N 3° W	N 27° W	5·6	6·2	−0·6	40	+21	52§	+10	·215§	+·041	1·7	+0·4	3	3·30	−0·30	2·28	1·32	+0·96	60·44	38·90	+21·54	1·57	Murree.
	1			16	7	3	2	2	S 18° E		1·6*	1·6	0	61		52		·126		1·4		2			1·27	0·45	+0·82	8·41	8·77	−0·36	1·02	Kailang.
																46	−3	·204	−·004	0·3	−0·5	1	1·30	−0·30	0·74	0·98	−0·24	50·34	52·27	−1·93	0·74	Simla.
4					11	16			S 27° W		4·5			81		69		·205		0·3		2			0·24			37·82 §§			0·12	Sarain.
7	4			2	9			8	S 76° W†		7·3			13		42		·112		0·6		1			0·20			58·23			0·16	Kalabagh.
8	22			1					N 2° E	N 39° E	5·0	6·2	−1·2	69	+37	57	−3	·231	−·003	0·3	−0·7	2	1·20	+0·80	0·39	0·78	−0·39	65·43	57·33	+8·10	0·21	Chakrata.
16	1	2	2	1		1	7	1	N 68° W		3·2			13		53	−3	·218		1·1		1			0·31	0·70	−0·39	51·31	39·36	+12·45	0·11	Muktesar.
19	1	4	5	2					N 75° E	N 73° E	2·0	3·3	−1·3	30	−2	80	−9	·393	+·013	6·5	+0·8	5	4·87	+0·13	3·92	4·35	−0·43	130·43	116·18	+14·25	2·94	Darjeeling.
28		1		2					S 72° E		1·5			7		83		·493		3·4		13	9·10	+3·90	9·97	5·65	+4·32	66·31	71·23	−4·92	5·00	Shillong.
12		6	6	3	1	1	1	1	N 83° E		3·1			33		84		·552		4·2		9	8·20	+0·80	17·48	13·59	+3·89	310·28	388·06	−77·78	11·90	Cherra Poonjee.
15	1	8	1		1	4	1		N 45° E		1·9			13		92	+3	·674		4·1		17	11·20	+5·80	8·96	7·71	+1·25	55·30	52·03	+3·27	1·48	Maymyo.
9	6	3	2				6	5	N 25° W	N 34° E	2·7	3·2	−0·5	43	+32	52	−3	·393	−·031	0·8	−1·8	0	3·30	−3·30	0	2·18	−2·18	56·69	73·48	−16·79	0	Pachmarhi.
1		4	1	4	1	11	5	4	S 56° W	N 27° W	4·5	4·9	−0·4	37	+19	51	+7	·393	+·056	1·0	−0·1	2	0·50	+1·50	1·61	0·69	+0·92	108·61	60·45	+48·16	1·38	Mount Abu.
10	7	6	2	1				5	N 14° E	N 27° E	3·1	4·2	−1·1	46	+21	84	−4	·599	+·016	5·1	−1·5	12	13·00	−1·00	9·02	8·61	+0·41	133·12	118·93	+14·19	1·72	Mercara.
7		5	9	7	2	1			S 76° E		2·9			56		78		·378		5·6		14	13·70	+0·30	7·16	8·57	−1·41	47·91	35·76	+12·15	1·34	Ootacamund.
	3	2	4	3	3		3	13	N 29° W		8·9*			33		85	+1	·332		5·4		16	16·20	−0·20	11·23	10·07	+1·16	44·76	37·13	+7·63	1·78	Kodaikanal.

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

†† Rainfall since 24th May 1909.
* Uncorrected for scale error.
§§ Rainfall since 21st May, 1909.

¶ Mean of 21 days.
‖ „ „ 4 „

Ta

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

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level in feet.	Pressure 8 hrs. in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	Extra India.																					
	Singapore (a)	10	29·931		29·862	29·991	22nd	29·862	19th	·129	83·6	88·0		75·0		81·5		13·0	90·0	7th	73·0	3rd
	Penang (a)	20	29·893		29·838	29·992	22nd	29·816	14th	·176	81·6	88·9		71·4		80·2		17·5	92·0	18th	70·0	18th & 19th.
	Trincomalee	12	29·914?	+·023?	29·852?	29·984	22nd	29·857	10th	·127	77·3	89·3	+0·9	75·6	+0·1	82·5	+0·5	13·7	93·0	2nd & 6th.	71·5	29th
	Colombo	40	29·890	—·026	29·856	29·967	22nd	29·816	16th	·151	76·8	85·9	+0·2	75·4	0	80·6	+0·1	10·5	88·5	8th & 9th.	71·0	28th, 29th & 31st.
	Minicoy	7	29·939			29·997	29th	29·865	18th	·132												
	Amini Divi	*13*						Register not received.														
	Gyantse	13,120	16·987		16·948	17·005	2nd	16·973	4th & 5th.	·032	41·7	65·8		30·0		47·9		35·8	73·3	5th & 6th.	18·2	25th
	Pharijong	14,400	15·760		15·719	15·812	25th	15·735	1st	·107	35·0	56·0		21·1		38·6		34·9	68·3	16th	14·5	26th
	Gangtok	5,660?	24·472		24·427	24·574	27th	24·371	5th	·203	64·0	72·2		56·2†		64·4†		16·0	75·9	3rd	52·5	25th
	Gartok	14,140									31·0	46·1		18·6		32·4		27·5	54·8	6th	8·1	30th
	Kashgar (c)	4,255	25·652			25·950	29th	25·510	25th	·440	52·5	71·6	+2·9	45·1	+3·0	58·4	+3·0	26·5	83·3	3rd	34·7	27th
	Kabul		24·330		24·299	24·447	28th	24·227	5th	·220	57·7	81·8	+6·6	41·7	+0·4	61·8	+3·5	40·1	94·1	9th	31·4	17th
	Meshed	3,104	26·274		26·852	27·045	31st	26·725	1st	·320	53·0	72·8		35·4	—9·2	54·1		37·4	86·6	6th	21·8	26th
	Jask	13	29·911	—·025	29·831	30·044	30th	29·756	1st	·288	79·3	90·0	−0·7	76·9	+1·4	83·5	+0·4	13·1	98·8	1st	70·8	30th
	Muscat	20	29·930	—·020	29·898	30·055	30th	29·772	1st	·283	83·4	92·5	+6·7	79·8	—1·3	86·2	+2·7	12·7	98·3	1st, 15th & 16th.	76·1	30th
	Bahrein	18	29·960		29·931	30·087	26th	29·807	1st	·280	83·4	88·5		77·5		83·0		11·0	91·7	2nd & 21st.	71·9	16th
	Bushire	14	29·916	—·029	29·889	30·066	26th	29·755	1st	·311	78·2	87·9	+0·1	72·1	+0·9	80·1	+0·5	15·8	92·3	11th & 21st.	66·0	27th
	Busrah	25	29·911		29·926	30·144	30th	29·762	5th	·382	76·4	87·7		70·9		79·3		16·8	95·6	1st	63·1	25th
	Kerman										51·1	85·8		43·3		64·6		42·6	94·0	5th	39·3	2nd
	Ispahan (b)	*5,817*	24·346			24·450	31st	24·210	24th	·240	54·5	77·1	—0·3	49·2	+4·8	63·2	+2·3	27·9	88·4	4th	43·7	27th
	Tehran (b)	*4,002*	25·871			26·025	22nd & 31st.	25·725	4th & 24th.	·300	58·6	78·2	+0·7	55·4	+1·3	66·8	+1·0	22·8	89·5	4th	45·7	31st
	Baghdad	127	29·849	+·024	29·349	30·081	30th	29·673	18th	·408	70·9	91·7	+1·0	65·4	+3·1	78·6	+2·1	26·3	101·3	1st	58·0	31st
	Beirut (d)				29·960						73·5	80·7		66·3		73·5		14·4	87·1	4th	61·2	27th
	Aden	94	29·874	+·001	29·900	29·993	27th	29·728	1st	·265	82·6	89·8	−0·4	78·4	+0·7	84·1	+0·2	11·4	91·3	10th	72·9	28th & 29th.
	Perim	201	29·700	—·034	29·835	29·786	25th	29·580	1st	·206	85·7	91·5	+0·4	81·6	+1·1	86·6	+0·8	9·9	96·9	17th	78·4	31st
	Zanzibar	72	30·035	+·020	30·034	30·093	23rd	29·927	30th.	·166	78·0	82·8	—0·4	74·4	—0·9	78·6	—0·7	8·4	86·1	31st	72·2	5th

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

(a) 9 hrs. observations. (b) Aneroid uncorrected. † Mean of 30 days.

(c) Aneroid corrected. (d) 8½ hrs. observations.

B—*concluded.*

stations in India, etc., in October, 1909—concluded.

Wind direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from Normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st October 1909.	Normal rainfall for period, 1st May to 31st October.	Departure from normal of period, 1st May to 31st October, 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																Extra India.
11	1	2	3	3		5	2	4	S 77° W					6						5·6		8			5·14			34·49			2·07	Singapore.
	2	10	6	1	2	1	2	6	N 35° E		11·6			40						2·7		20			32·11			98·08			6·91	Penang.
4		1		1		20	5		S 52° W	S 45° W	2·5‡	8·5	−6·0	72	− 3	90	+ 6	·852	−·034	4·9	+1·5	13			7·35	7·14	+ 0·21	23·38	22·28	+ 1·10	2·08	Trincomalee.
1				3		7	20		S 73° W	S 41° W	5·9‡	7·4	−1·5	79	+37	93	+13	·865	+·010	7·3	+1·1	14			16·40	14·80	+ 1·60	45·16	47·70	− 2·54	3·48	Colombo.
	4	2	1			2	10	12	N 54° W	N 73° W	5·6	7·4	−1·8	71	+14					4·8	−0·6	13			13·40	7·46	+ 5·94	46·80	41·58	+ 5·22	4·60	Minicoy.
																Regis	ter	not	received.													Amini Divi.
22			2	7					S 54° E		2·5‡			26		51		·134				0			0·05			9·80			0·05	Gyantse.
	2		1	7	14	4	2	1	S 1° E		7·8			62		78		·159		1·8		0			0			14·72			0	Pharijong.
28									(a) ‖		1·2					78		·466		1·6		9			7·11			121·87			2·80	Gangtok.
10				19	2				S 41° E		8·3			65						0·8		0			0			3·19			0	Gartok.
31									(a)	N 38° W						60		·242		1·8		0			0	0·05	−0·05	2·25	3·06	−0·81	0	Kashgar.
	3	10			1		11	6	N 32° W	S 10° E				48	+36	48		·228		0·3	−0·2	2			0·29	0·32	− 0·04	3·74	1·48	+ 2·26	0·13	Kabul.
18		9		2		2			N 56° E		1·0			26		53		·211		3·5		2			0·45	0·42	− 0·03	0·60	1·43	− 0·83	0·25	Meshed.
3	5	5	10	1	1		1	5	N 43° E	N 56° E	9·2¶	10·6	−1·4	46	+13	81	+16	·812	+·073	0·7	+0·2	0			0	0·04	− 0·04	0	0·17	− 0·17	0	Jask.
9	1		3	1		1	7	9	N 60° W	N 76° W	4·7	3·7	+1·0	40	+12	63	− 3	·714	−·041	0·4	+0·1	0			0	0·02	− 0·02	0	0·42	− 0·42	0	Muscat.
	6	3	1	1	1	2	4	10	N 37° W‖		5·6			54		77		·991		0·9		0			0			0			0	Bahrein.
13	2	5	6	1				4	N 44° E	N 67° E	6·8	6·1	+0·7	33	−25	76	+14	·733	+·110	1·7	+0·7	0			0·06	0·08	−0·02	0·06	0·08	−0·02	0·06	Bushire.
7	2	1	1	2	2	1	12	3	N 85° W		3·7			39		62		·565		2·5		1			0·52			0·59			0·25	Buerah.
	6	1	4	6	5	2	5	2	S 18° E		2·6			10		51		·200														Kerman.
13	2				2	2	8	3	N 85° W	N 74° W	1·4	2·9	−1·5	40	+16	72	+17	·312	+·046	1·1	−0·4	0			0	0·21	− 0·21	0·23	0·38	− 0·15	0	Ispahan §
7	9	15							N 29° E	N 18° E	3·2	2·9	+0·3	74	+51	58	+16	·272	+·032	2·5	+0·6	3			1·04	0·10	+ 0·94	1·45	1·07	+ 0·38	0·36	Tehran.
14	2	2	2	1	1	2		7	N 22° W	N 6° W	6·2	2·8	+3·4	19	−14	53	− 2	·390	−·013	2·1	+1·5	1			0·25	0·04	+ 0·21	0·39	0·37	+ 0·02	0·22	Baghdad.
9	1	8	1	2		9			S 56° E					10		68		·547		2·6		12			9·32			9·59			3·00	Beirut.
		28		1		2			N 47° E	N 78° E	13·3	12·8	+0·5	88	+20	78	+10	·872	+·131	1·5	−0·6	0			0	0·01	−0·01	0·60	0·51	+ 0·09	0	Aden.
	1		3	12	15				S 28° E	S 68° E	8·6	18·5	−9·9	84	+ 5	68	− 1	·839	+·015			0			0	0·07	− 0·07	0·83	0·91	− 0·03	0	Perim.
7	1	1	3	13	3	2	1		S 43° E	S 20° E	3·9	5·0	−1·1	52	−20	80	− 2	·771	−·113	7·0	+1·0	9			6·85	3·70	+ 3·15	19·89	21·35	− 1·46	2·63	Zanzibar.

‡ Uncorrected for scale error. ‖ Mean of 28 days. (a) Indeterminate. ¶ Mean of 29 days. § Wind observations less 1.

Table C.—Abstract of observations taken at 8 hrs. at 31 fourth class stations in India, etc., in October, 1909.

Ta

Abstract of observations taken at 8 hrs. at 31 fou

Number of subdivision.	Station.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.	Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	II.—Eastern Bengal and Assam.																							
4	Bishnath	76·2	88·7	...	70·8	...	79·8	...	17·9	93·1	13th & 15th.	59·7	27th	33·4	...	...	...	...	...	...	...	...	...	...
	Borjuli	76·9	89·4	...	68·3	...	78·9	...	21·1	93·0	15th	59·1	27th	33·9	...	...	...	...	...	...	...	...	...	...
	Chandkhira	76·9	89·4	...	72·6	...	81·0	...	16·8	93·6	15th	67·5	30th & 31st.	26·1	...	...	...	...	...	...	...	...	...	...
	Doom Dooma	75·1	87·8	...	69·6	...	78·7	...	18·2	93·3	14th	59·7	30th	33·6	...	...	...	...	...	...	...	...	...	...
	Dikom	74·9	88·3	...	69·3	...	78·8	...	19·0	93·8	3rd	58·8	29th	35·0	...	...	...	...	...	...	...	...	...	...
	Golaghat	77·4	86·9	...	62·9§	...	74·9§	...	24·0	97·9	8th	59·9	3rd	38·0	...	...	...	...	...	...	...	...	...	...
	Hailakandi	75·6	90·0	...	73·4	...	81·7	...	16·6	93·0	30th	68·0	31st	25·0	...	...	...	...	...	...	...	...	...	...
	Jorehat	76·7	87·8	...	71·7	...	80·3	...	16·1	90·9	4 days	63·3	28th	27·6	...	...	...	...	...	...	...	...	...	...
	Messa	79·5	91·4	...	69·5	...	80·5	...	21·9	96·0	9th	60·1	31st	35·9	...	...	...	...	...	...	...	...	...	...
	Panerihat	68·2	88·9	...	67·4	...	78·2	...	21·5	93·1	3rd	62·5	27th	30·6	...	...	...	...	...	...	...	...	...	...
	Srimangal	79·1	90·0	...	72·4	...	81·2	...	17·6	93·5	14th	68·2	23rd	25·3	...	...	...	...	...	...	...	...	...	...
5	Brahmanbaria	80·9	88·6	...	74·4	...	81·5	...	14·2	93·3	12th	69·9	19th & 23rd.	23·4	...	...	...	...	...	...	...	...	...	...
	Dam Dim	72·3	91·6	...	64·8	...	78·2	...	26·8	95·7	18th	54·1	27th	41·6	...	...	...	...	...	...	...	...	...	...
	Goalundo	80·3	87·8	...	72·7	...	80·3	...	15·1	93·4	10th	66·8	21st	26·6	...	...	...	...	...	...	...	...	...	...
	Kalchini	81·0	88·9	...	66·9	...	77·9	...	22·0	91·6	6 days.	59·9	28th	31·7	...	...	...	...	...	...	...	...	...	...
	Nagrakata	74·2	89·6	...	67·4	...	78·5	...	22·2	93·1	1st, 17th & 18th.	60·0	27th	33·1	...	...	...	...	...	...	...	...	...	...
	Pabna	80·7	90·6¶	...	71·4	...	81·0¶	...	19·2	96·5	9th	64·9	21st & 22nd.	31·6	...	...	...	...	...	...	...	...	...	...
	III.—Bengal.																							
6	Fraserganj									Observatory		closed.												
	XI.—Central Provinces.																							
34	Chhindwara	72·1	88·0	...	59·2	...	73·6	...	28·8	89·7	2nd	52·5	22nd	37·2	...	1	2	1	...	...	2	16	9	N 72° W
	Hill Stations.																							
	Panighatta	77·7	86·8	...	67·5	...	77·2	...	19·3	91·5	17th	63·5	27th	28·0	...	...	...	...	...	...	...	...	...	...
	Kurseong	66·2	71·5	...	60·3	...	65·9	...	11·2	76·3	18th	56·1	31st	20·2	...	...	...	...	...	...	...	...	...	...
	Poo	...	65·1	...	36·9	...	51·0	...	28·2	70·5	6th	29·0	17th	41·5	22	...	...	3	2	2	2	...	...	S 31° E
	Kargil	44·7	66·8	...	35·1	...	51·0	...	31·7	73·9	1st	28·4	19th	45·5	...	6	4	2	5	3	...	...	11	N 6° E
	Killa Drosh	56·5	77·5	...	54·0	...	65·8	...	23·5	88·2	6th	43·1	16th	45·1	24	...	...	...	4	...	2	...	1	S 14° E
	Pishin	...	79·3	...	42·3	...	60·8	...	37·0	86·4	1st, 7th & 8th.	33·0	17th	53·4	...	...	...	...	...	...	...	...	...	...
	Kalat	55·5‖	74·9	+1·2	37·8	+8·3	56·4	+4·8	37·1	83·0	6th	24·9	17th	58·1	...	3	...	...	...	27	...	1	...	S 2° W
	Extra India.																							
	Ahwaz**	...	96·3	...	170·5	...	83·4	...	25·8	104·4	6th	65·4	24th	39·0	...	...	...	...	...	...	...	...	...	...
	Birjand	60·3*	74·8*	...	49·0†	...	62·0*	...	25·8	82·9	6th & 7th	40·6	16th	42·3	...	...	...	...	...	...	...	...	...	...
	Chumbi	42·8‖	61·3‖	...	36·9	...	49·1	...	24·4	67·0	7th	28·9	16th	38·1	...	...	...	...	...	...	...	...	...	...
	Kirmanshah	58·7	75·4	...	45·7	...	60·6	...	29·7	86·2	3rd	38·2	31st	48·0	...	...	...	...	...	...	...	...	...	...
	Koweit	...	91·5	...	73·7	...	82·6	...	17·8	102·4	7th	64·8	24th&25th	37·6	1	2	...	1	3	...	...	6	18	N 51° W
	Maidan	...	95·3	...	61·8	...	78·6	...	33·5	102·2	1st, 2nd & 7th.	58·9	5 days	43·3	...	...	...	...	...	...	...	...	...	...

* Mean of 24 days.
Observati ons of 27 days.

‖ Uncorrected for scale error.
¶ Mean of 27 days.

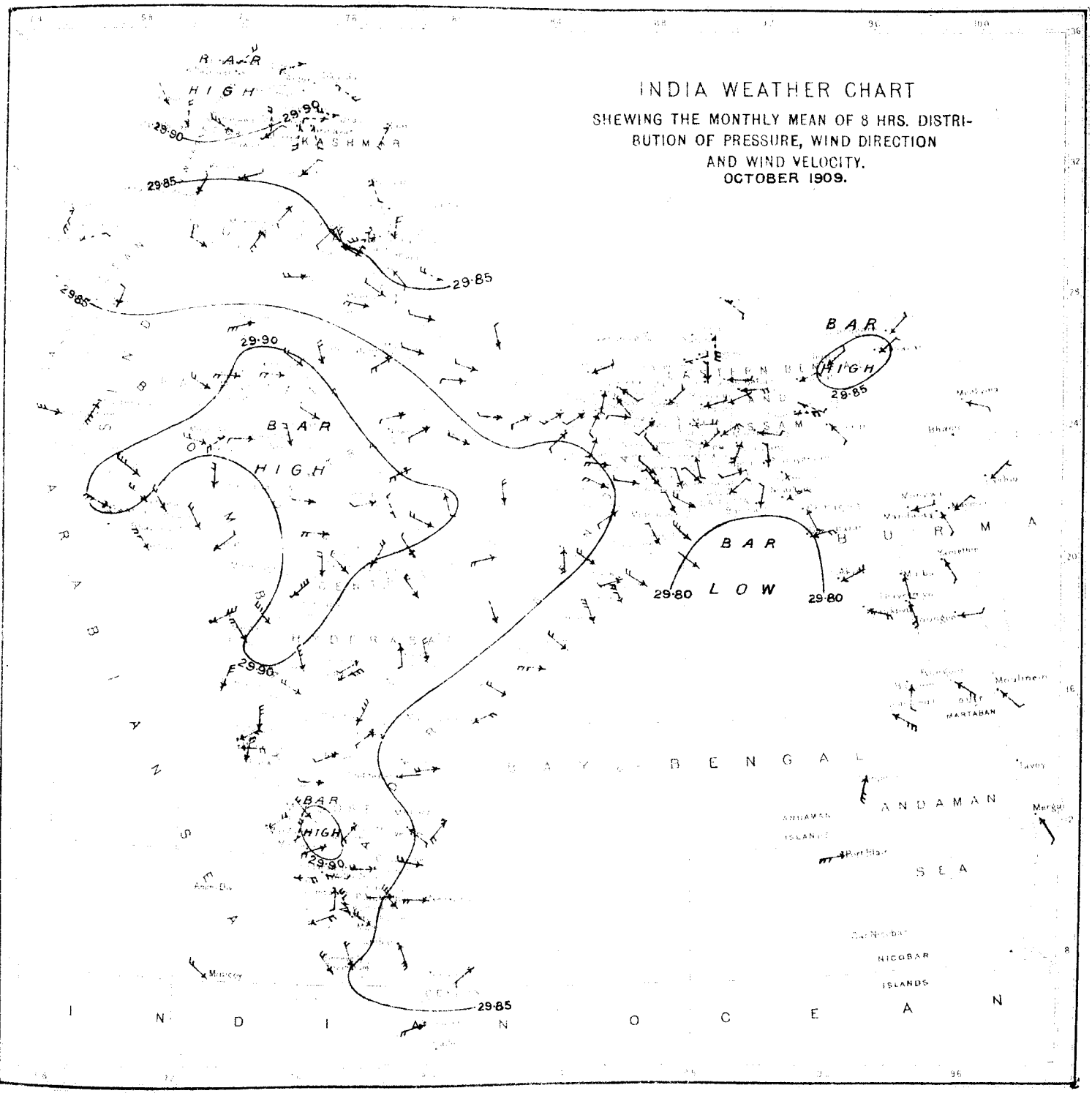
† Mean of 25 days.
§ Mean of 11 days.

C.

class stations in India, etc., in October, 1909.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.										Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 31st October 1909.	Normal rainfall for period, 1st May to 31st October.	Departure from normal of period, 1st May to 31st October 1909.	Heaviest rainfall during month.	
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					II.—Eastern Bengal and Assam.
...	...	...	...	...	90	...	·824	...	...	...	5	...	...	2·78	...	...	54·00	...	...	1·62	Bishnath.
...	...	...	...	...	83	...	·782	...	...	...	7	...	...	2·89	...	...	65·64	...	...	0·81	Borjuli.
...	...	...	...	...	90	...	·870	...	...	...	6	...	...	4·03	...	...	83·60	...	...	2·00	Chandkhira.
...	...	...	...	...	91	...	·805	...	...	...	6	...	...	4·76	...	...	76·99	...	...	2·09	Doom Dooma.
...	...	...	...	...	89	...	·777	...	...	...	5	...	...	4·91	...	...	86·70	...	...	2·31	Dikom.
...	...	...	...	...	88	...	·827	...	...	...	9	...	...	4·71	...	...	49·65	...	...	1·50	Golaghat.
...	...	...	...	...	94	...	·836	...	...	...	7	...	...	2·08	...	...	73·08	...	...	0·60	Hailakandi.
...	...	...	...	...	91	...	·838	...	...	...	10	...	...	4·43	...	...	62·15	...	...	1·25	Jorehat.
...	...	...	...	...	79	...	·812	...	...	...	6	...	...	3·64	...	...	52·14	...	...	1·60	Messa.
...	...	...	...	...	95	...	·663	...	...	...	3	...	...	3·17	...	...	53·04	...	...	1·49	Panerihat.
...	...	...	...	...	87	...	·871	...	...	...	9	...	...	6·17	...	...	63·83	...	...	1·79	Srimangal.
...	...	...	...	...	87	...	·923	...	...	...	10	...	...	4·98	...	...	70·49	...	...	0·91	Brahmanbaria.
...	...	...	...	...	96	...	·764	...	...	...	6	...	...	5·52	...	...	134·22	...	...	3·64	Dam Dim.
...	...	...	...	...	80	...	·831	...	...	...	8	...	...	8·57	...	...	58·27	...	...	3·50	Goalundo.
...	...	...	...	...	79	...	·846	...	...	...	8	...	...	5·44	...	...	129·25	...	...	1·22	Kalchini.
...	...	...	...	...	84	...	·711	...	...	...	5	...	...	3·75	...	...	143·78	...	...	1·75	Nagrakata.
...	...	...	...	...	81	...	·851	...	...	...	6	...	...	9·15	...	...	49·53	...	...	7·05	Pabna.
																					III.—Bengal.
					Observatory closed.																Fraserganj.
																					XI.—Central Provinces.
2·3	...	...	71	...	65	...	·521	...	...	...	0	...	...	0	...	...	25·06	...	...	0	Chhindwara.
																					Hill Stations.
...	...	...	...	...	65	...	·618	...	...	...	5	...	...	5·61	...	...	143·52	...	...	3·37	Panighatta.
...	...	...	...	...	71	...	·451	...	...	...	6	...	...	5·13	...	...	158·27	...	...	2·51	Kurseong.
...	...	...	19	...	...	...	...	...	1·5	...	0	...	...	0·06	0·75	—0·69	2·42	3·77	—1·35	0·06	Poo.
...	...	...	32	...	38	...	·114	...	1·8	...	0	...	...	0	...	...	0·62	...	...	0	Kargil.
...	...	...	13	...	69	...	·313	...	1·2	...	4	...	...	1·26	...	...	4·57	...	...	0·36	Killa Drosh.
...	...	...	...	...	...	...	...	...	...	...	0	0·20	—0·20	0	0·09	—0·09	0·11	0·55	—0·44	0	Pishin.
...	...	...	78	...	47	...	·211	...	...	...	0	0·30	—0·30	0	0·08	—0·08	1·31	1·73	—0·42	0	Kalat.
																					Extra India.
...	...	...	...	...	...	...	...	...	2·1	...	1	...	...	0·16	...	...	0·16	...	...	0·10	Ahwaz.
...	...	...	...	...	44‡	...	·224‡	...	2·2‡	...	0	...	...	0	...	...	0	...	...	0	Birjand.
...	...	...	...	...	77	...	·218	...	...	...	4	...	...	3·91	...	...	33·77	...	...	2·04	Chumbi.
...	...	...	...	...	49	...	·237	...	...	...	2	...	...	0·51	...	...	1·45	...	...	0·37	Kirmanshah.
...	...	...	61	...	...	...	...	...	2·8	...	0	...	...	0·15	...	...	0·15	...	...	0·07	Koweit.
...	...	...	...	...	...	...	...	...	...	...	1	...	...	0·45	...	...	0·45	...	...	0·45	Maidan.

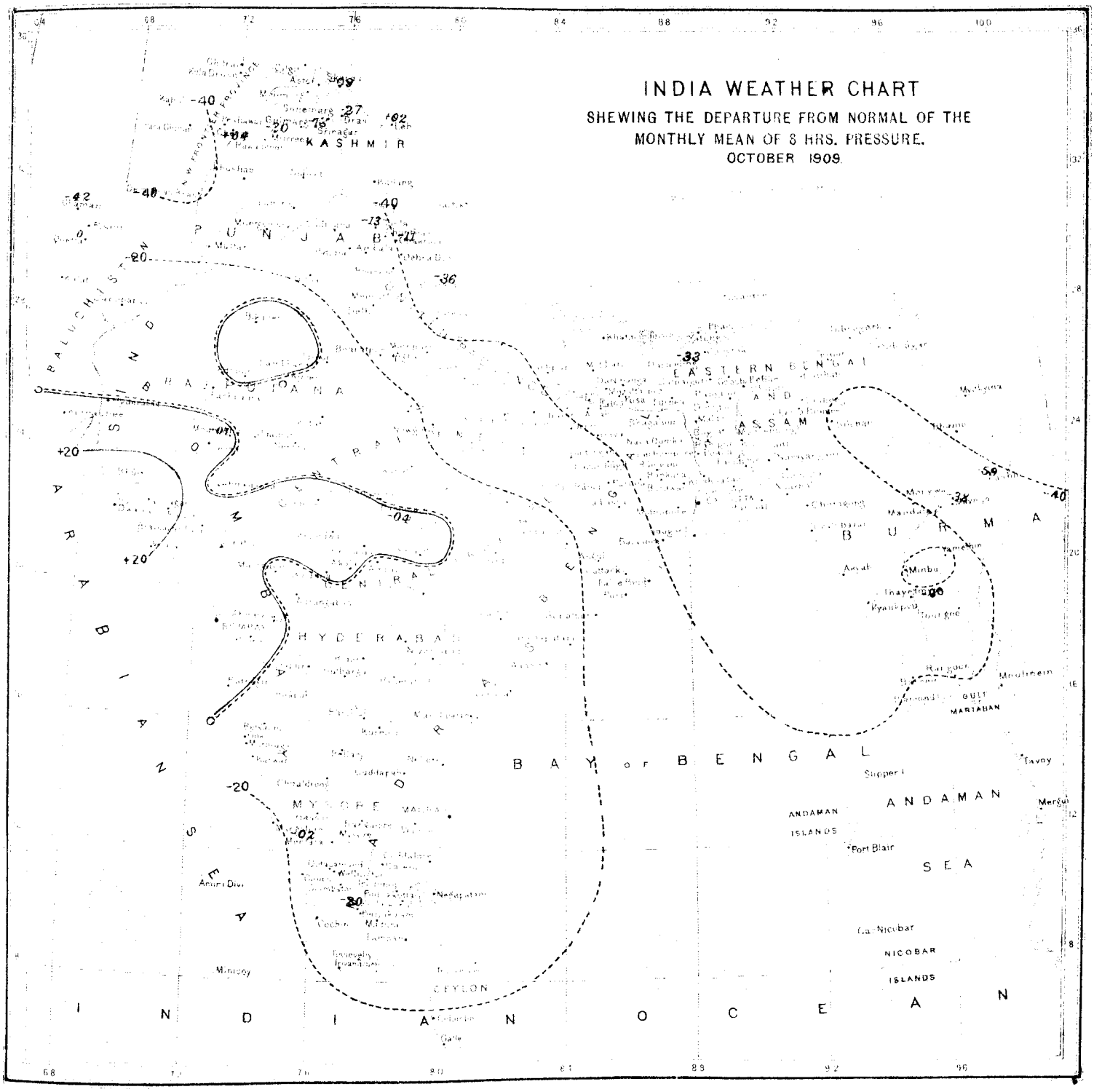
‡ Mean of 23 days.



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

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

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



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

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

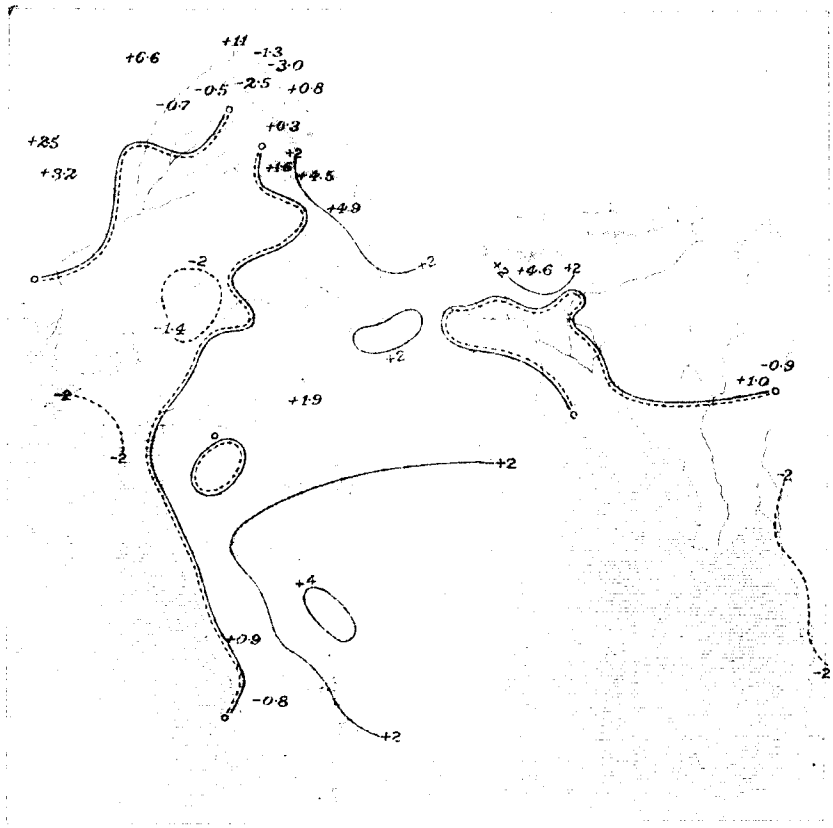


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.

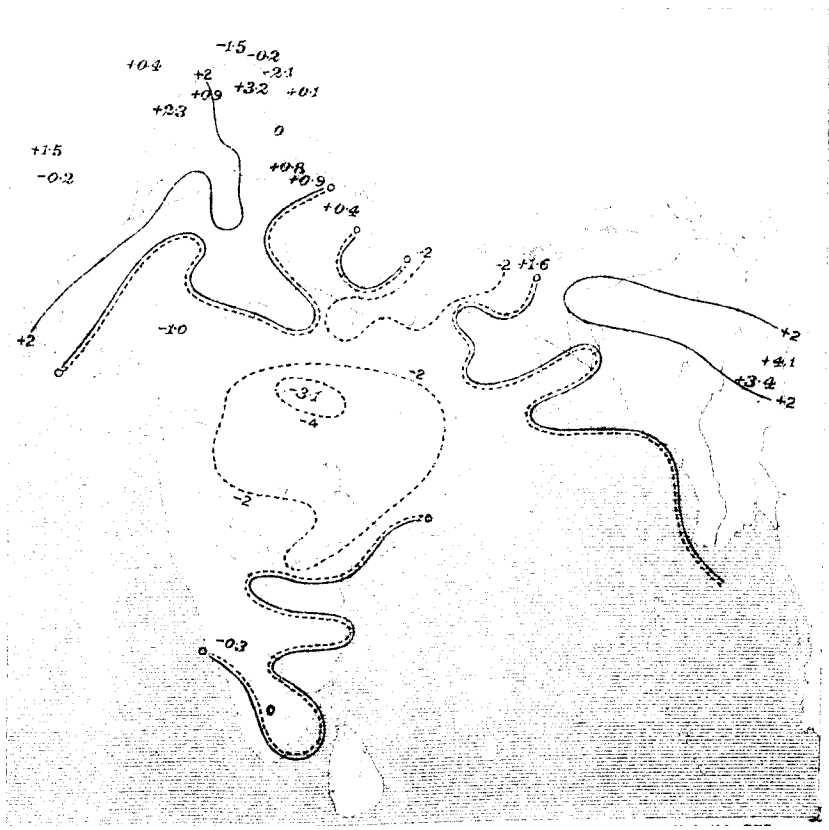


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MEAN TEMPERATURE.

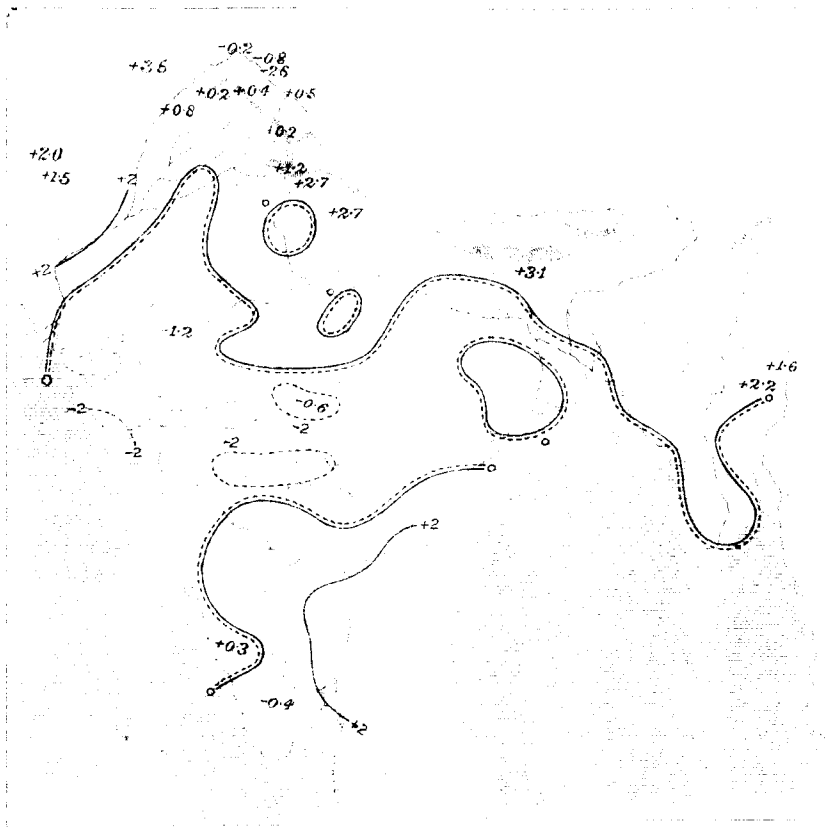


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.

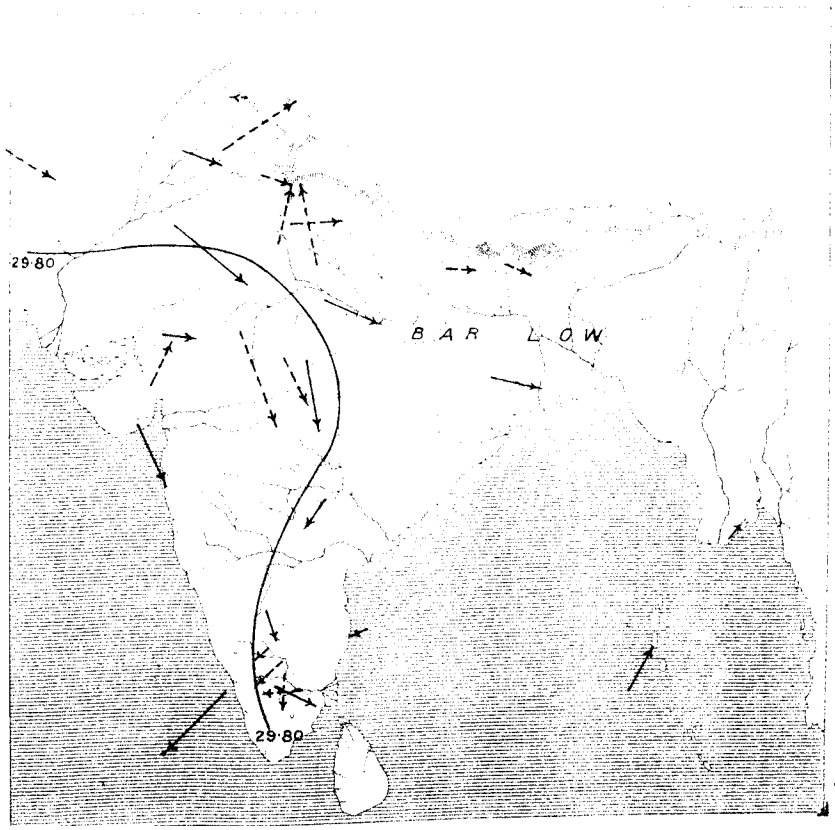


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF ABSOLUTE HUMIDITY AT 8 HRS.

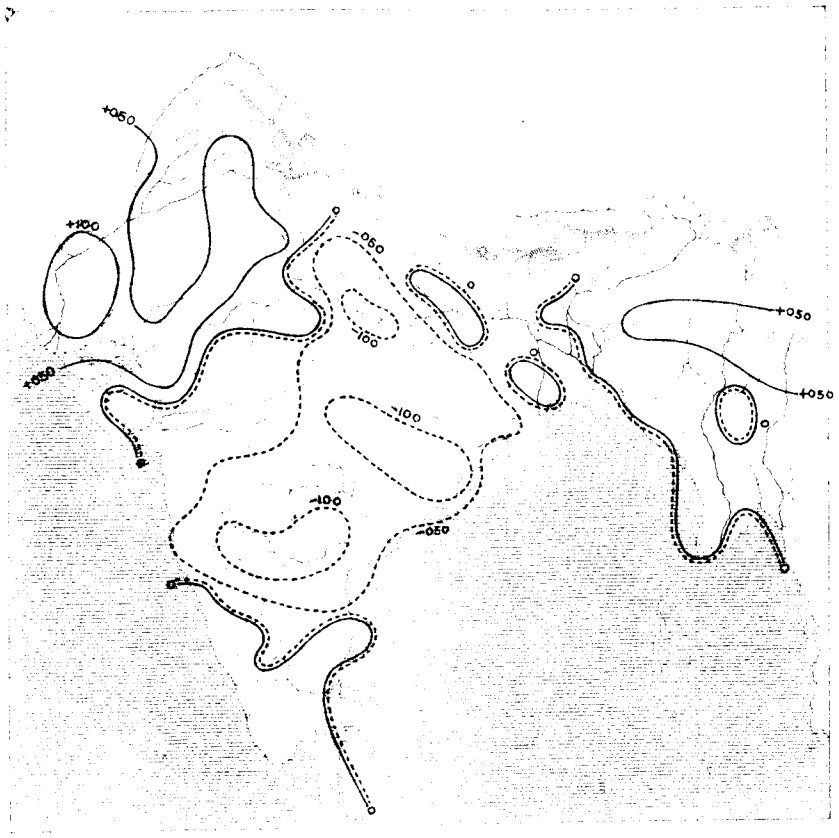


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 HRS.

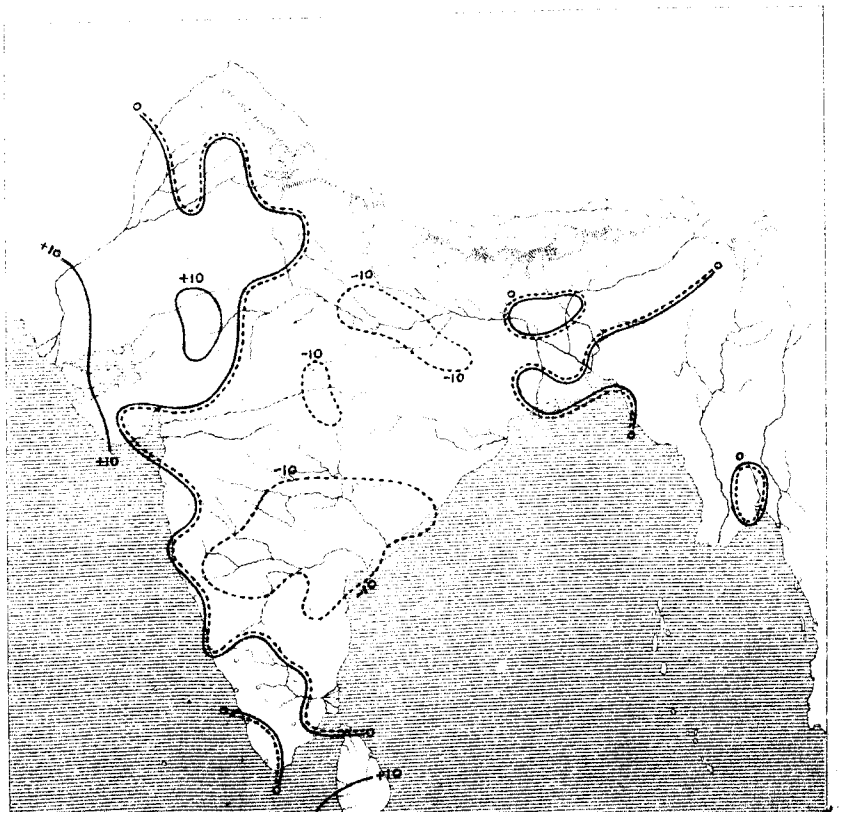


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF CLOUD AMOUNT AT 8 HRS.

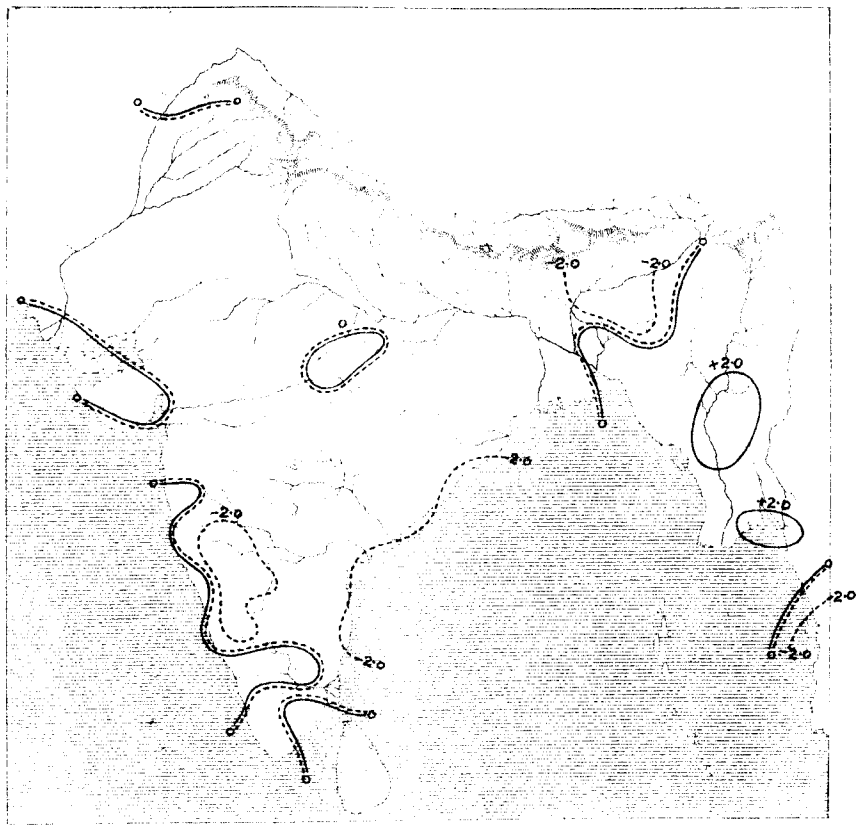
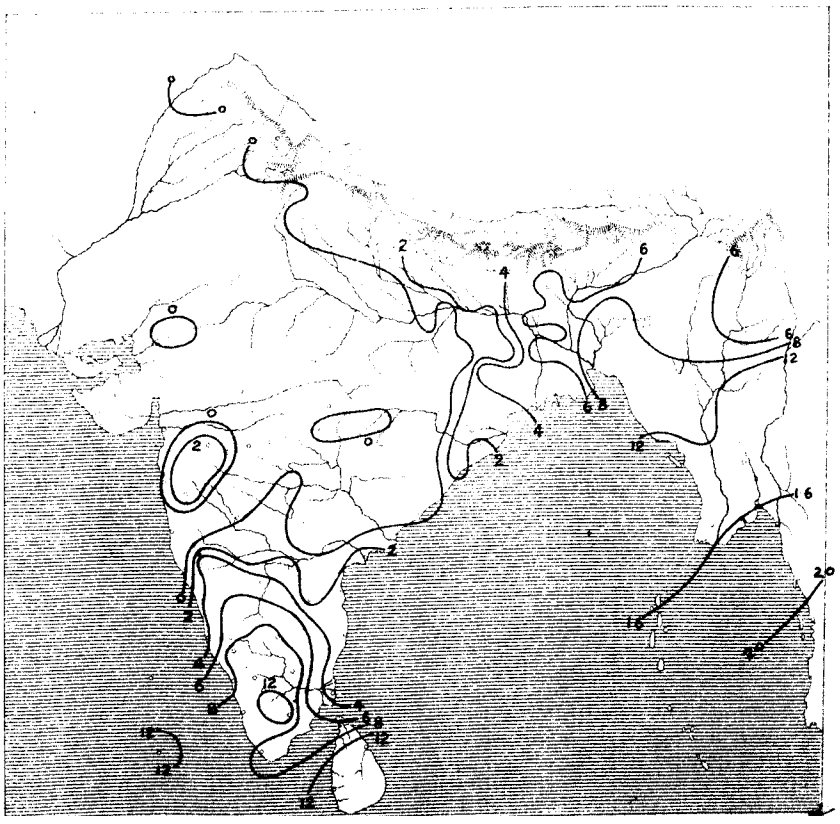
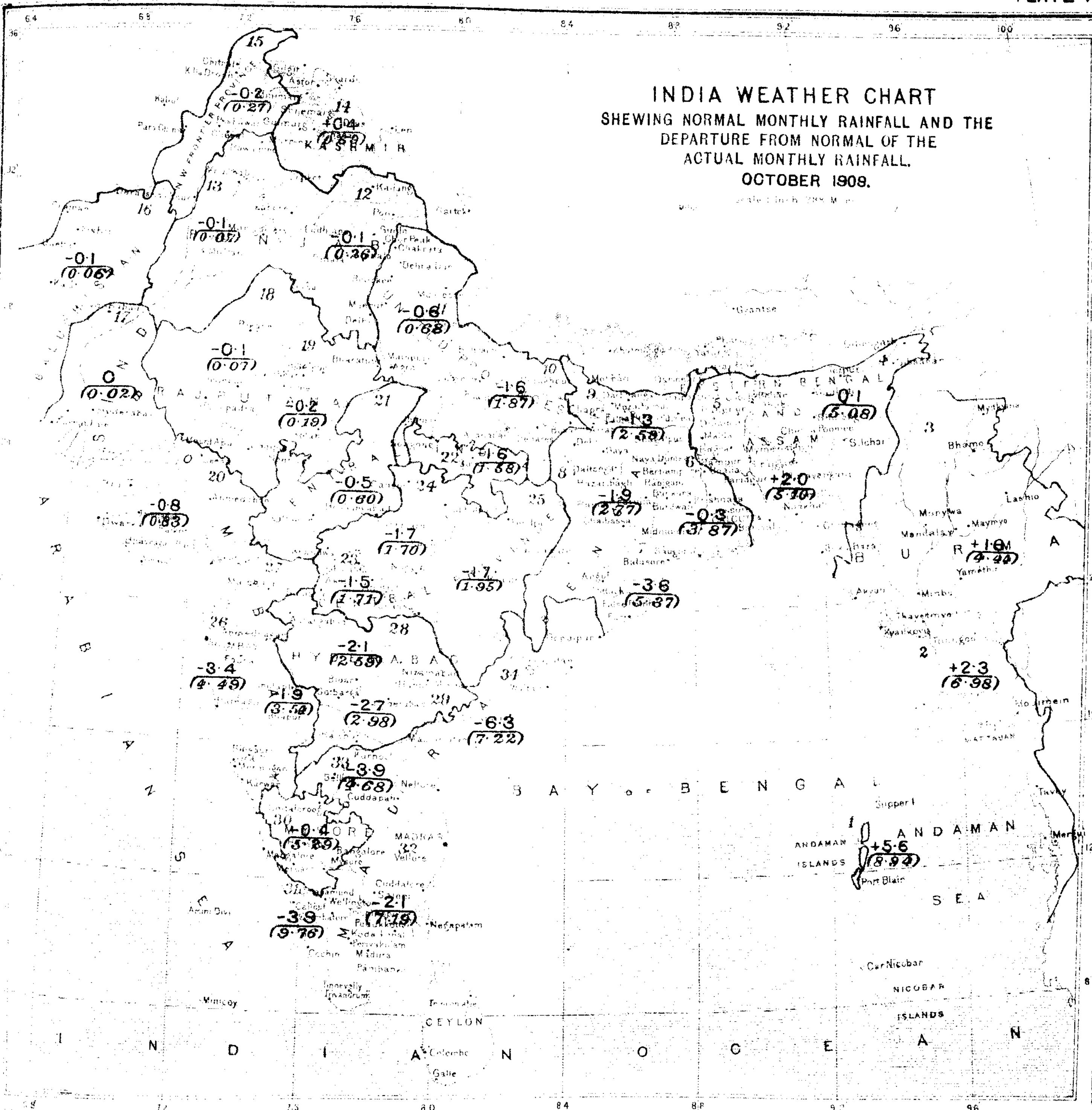


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EQUALLED OR EXCEEDED 0·10 INCH.

(BASED ON THE RETURNS OF TABLE B.)





LITHO. BY S.S. MUNDLE.

The country is divided into 34 areas as shown in the list below. The numbers in that list correspond with the red numbers on the chart, and serve to identify the areas. The numbers in brackets on the chart give the average over the divisions of the normal monthly rainfall; the numbers above these give the departures from normal of the average actual rainfall over the divisions.

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

LIBRARY
MAR 23 1910
Weather Bureau

GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW.

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, NOVEMBER, 1909.

INTRODUCTION.

THIS review of the weather in India during the month of November, 1909, is based on observations taken daily at 8 hrs. at 236 stations, and on additional observations taken at 10 hrs. and 16 hrs. at 35 stations. In the rainfall summary the data furnished by the meteorological observatories, and such rainfall statements of the month as had been published by the Provincial Governments up to the date of the preparation of the review, have been utilized. The brief notes on solar, seismic and magnetic disturbances have been supplied by the chief observatories.

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

Summary of the chief features of the weather in India during the month of November, 1909.

2. The barometer stood lower than usual in almost all parts of the country; the defect was insignificant in the peninsula and moderate to large in Burma and northern India. The scheme of pressure distribution was thus similar to that of October and, as in that month, the associated rainfall was unusually heavy over the greater part of the region constituting the eastern margin of the usual field of the Bay current, and was scanty and in marked defect over practically the whole of the peninsula. Scarcely any rain fell over Hyderabad, the Madras Coast North and Madras Deccan which under ordinary conditions receive moderate to heavy falls. The month was rainless also over the whole of northern India excepting East Bengal; the deficiency was however not important as the normal there averages only a third of an inch.

There was more aqueous vapour present in the air than usual except in the Deccan, central India and west Bengal, but the percentage of saturation was low also in Eastern Bengal and Assam. Skies were much clouded in Burma, Ceylon, the west coast districts from Goa to Trivandrum, and at a few places on the east coast of the peninsula, but elsewhere the quantity of cloud was less than usual. Temperature was high, both by day and night over northern India, particularly in the Punjab, the North-West Frontier Province and Sind where it was from 2° to 5° above normal. In the peninsula generally the days were slightly warmer than usual, and nights in Madras and Mysore only; while over the Central Provinces and the northern districts of the Deccan nights were cooler than is normally the case. In the mountain region bordering upper India temperature was in decided excess by day and about normal by night.

Only one disturbance passed into India from the Bay. Although feeble it was the cause of moderately heavy rain in Burma, which in some places proved injurious to crops.

Solar, seismic and magnetic disturbances.

KODAIKANAL OBSERVATORY.

3. *Solar observations.*—There were two days on which there were no solar observations, one other on which prominences were not observed, and six others on which the prominence record was imperfect.

Sunspots.—The increased spot activity which has been

noticed for the previous two months has continued and there was a still further increase in November. Thirty-one new groups were recorded during the month (the largest number since April, 1908) with a daily average of 4·9. Fourteen of them however were seen for only one day and the average life of a spot was only 4·8 days. Groups 1762, 1770 and 1776 were returns of 1738, 1744 and 1748, respectively. The latitude distribution was as follows:—

TABLE 1.

—	1°—10°.	11°—20°.	Extreme latitudes.	Mean latitude.
North	5	8	3°, 17°	10°·3
South	9	9	1°, 19°	9°·6

Five of the new groups Nos. 1762, 1766, 1769, 1770 and 1772 contained large spots. Number 1766 formed near the central meridian and soon developed large spots and showed disturbance in the C line. Number 1772 also formed on the visible disc and, after it crossed the central meridian, became a fine and active train of large spots.

Prominences.—Forty-five large, two metallic, and four eruptive prominences were recorded during the month. The tallest prominence recorded was a highly eruptive one observed at +13° East on the 30th. C was displaced and the amount and direction of the displacement, as well as the form of the prominence, underwent rapid changes. The maximum displacement corresponded to a velocity, towards the observer, of 200 miles a second and the maximum height observed was 360″. A lower but equally active and brighter prominence had been observed at the same position on the previous day. A curious feature about it was that, during one of the transformations it was undergoing, the main part of it consisted of a number of bright concentric arches.

On November 5, 68° of the eastern limb was covered by a continuous series of prominences.

Magnetic disturbances.—"Moderate" magnetic disturbances were recorded on the 27th, 28th and 30th. The large spot groups Nos. 1769, 1770 and 1772 were near the central meridian on the 27th, and on the 30th the highly eruptive prominence mentioned above was observed.

C. MICHIE SMITH,

Director,

Kodaikanal and Madras Observatories.

BOMBAY OBSERVATORY.

Alibag magnetic record.

4. The report of this observatory will be published in the December Monthly Weather Review.

CALCUTTA OBSERVATORY.

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

TABLE 2.

Date, 1909.	P. T. Commencement. G.M.T.	L. W. Commencement. G.M.T.	Maximum. G.M.T.	End. G.M.T.	Duration.	Maximum displacement on trace from mean position.	REMARKS.
	H. M.	H. M.	H. M.	H. M.	H. M.	mm.	
Nov. 10th	4 17·2	6 20·7	6 31·4	8 5·9	3 48·7	10·00*	* Measured from the base line.
„ 20th	13 5·8	—	—	13 23·1	0 17·3	—	Thickening of the line.
„ 21st	7 47·6	7 53·2	7 56·3	8 48·1	1 0·5	5·50†	† Measured from the base line.

Sensibility 1 mm.=0″·38 of tilt.

E. P. HARRISON,

Offg. Meteorologist, Calcutta

SIMLA OBSERVATORY.

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

TABLE 3.

Date.		Beginning of 1st P. T.	Beginning of 2nd P. T.	Beginning of L. W.	Time of maximum amplitude.	End approximately.	Duration.	Maximum displacement of style.	REMARKS.
		H. M.	H. M.	H. M.	H. M.	H. M.	H. M.	mm.	
10th	A	6 21·5	6 24·4	6 27·8	6 33·3	7 20	0 58	18	Origin 1,500 miles distant approximately.
„	B	6 21·4	6 26·3	6 29	6 32·8	7 20	0 58	9·5	
„	A	...	...	...	12 52·9	...	...	Small.	Local.
„	B	...	...	...	12 53	...	...	„	„
19th	A	22 5·2	...	22 9·5	...	22 15	0 10	„	Tremour.
„	B	...	...	22 9·7	...	...	...	„	„
21st	A	7 45·3	7 49·4	7 56·2?	8 1	8 20	0 37	2·5	Origin 3,000 miles distant approximately.
„	B	7 49·2?	...	7 57·3	7 58	8 15	0 26	1	

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

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

TABLE 4.

Place at which felt.	Date.	G. M. T. of earthquake.		Duration.	Intensity.	No. of shocks.	REMARKS.
		h.	m.				
Murree . . .	2nd	19	28	3 secs.	1	1	
Drosh . . .	"	19	30	3 "	4	3	
Chitral . . .	"	19	40	20 "	4	...	
Bangalore . .	4th	Early		...	...	...	Some damage to buildings.
Drosh . . .	5th	14	0	1 sec.	4	3	
" . . .	19th	21	55	3 secs.	2	3	
Chittagong . .	20th	9	44	5 "	3	1	
Drosh . . .	23rd	3	30	1 sec.	3	1	

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

Maximum	1·50
Minimum	1·42
Mean	1·45
Number of days of observation . . .	25

J. PATTERSON,
Imperial Meteorologist, Simla.

ROYAL ALFRED OBSERVATORY, MAURITIUS.

(*No information yet received for September, October and November. The following report relates to August, 1909, and is compiled from information communicated by the Director of the Observatory.*)

7. *Solar observations, August.*—Observations were taken on the 2nd, 3rd, 5th to 11th, 14th, 18th, 21st to 23rd and 25th to 31st except 27th. Groups of sunspots were seen throughout. They were numerous from 2nd to 6th and on the 14th and 18th and faculæ were seen on each day of observation.

Magnetic disturbances.

TABLE 5.

Day.	Time.	Disturbance.
3rd	1h. to 1½h.	Increase in H. F. (17): 4h. to 6h. wave in H.F. (+20): 8h. to 12h. wave in H. F. (−21).
5th	½h. to 1h.	Increase in H. F. (10): 11h. to 14h. wave in H. F. (−18).
7th	14h. to 18h.	Wave in H. F. (−18).
9th	7½h. to 9½h.	Decrease in H. F. (66): 21½h. to 22½h. wave in H. F. (+12).
10th	11h. to 18h.	Double wave in H. F. (+29 to −21).
11th	15h. to 17h.	Wave in H. F. (−12).
19th	3h. to 16h.	Two successive waves in H.F. (+50 and + 45).
20th	12h to 18h.	Double wave in H. F. (−18 to +12).
25th	2h. to 4h.	Wave in H. F. (+15).
26th		Accentuated diurnal variation in H. F. with small superposed fluctuations.
27th	7h. to 16h.	Three successive waves in H. F. (+16, +12 and + 20).
28th to 29th	21h. to 16h.	Small rapid fluctuations in H. F.
29th	6h. to 9½h.	Wave in declination (−50).
29th	14½h. to 18½h.	Wave in H. F. (−30); 22½h. to 30th ½h. wave in H. F. (+40); in declination (−38).
30th to 31st	13h. to 8h.	Wave in H. F. (−70), with superposed double wave from 20h. to 22h. (−20 to +18) and wave 30th 23½h. to 31st 1h. (+35): wave in declination 30th 13h. to 18h. (−37) and 20½h. to 28½h. (+28).
31st	13h. to 17h.	Wave in H. F. (+30) and 20h. to 22h. (+20).

	Mauritius.
Departure from normal of mean pressure . . .	−·024
Actual mean wind direction	S 69° E
Normal mean wind direction	S 68° E
Actual mean wind velocity (miles per diem) . . .	258
Normal mean wind velocity (miles per diem) . . .	296
Rainfall departure from normal	+0·18

Weather in the Indian monsoon region.

8. In the region about Zanzibar and the Seychelles, pressure was in slight excess and at Zanzibar rainfall was above normal by 42 per cent.

TABLE 6.

	Mauritius.	Zanzibar.	Seychelles.
Departure from normal of mean pressure.		+·020	+·037
Actual mean wind direction .		S 70° E	S 44° E
Normal mean wind direction .		S 36° E	S 56° E
Actual mean wind velocity (miles per diem).		97	125
Normal mean wind velocity (miles per diem).		110	127
Rainfall departure from normal		+3·19	−0·02

Depressions and cyclonic storms.

9. Two disturbances occurred over the Bay, one from the 11th to the 16th and the other towards the end of the month. The former, according to the limited information received up to the present from ships, was generated on the 11th and 12th over the Andamans and the adjacent sea area, and thence travelled in a direction between west and north-east to Barisal and its neighbourhood, where it disappeared on the 16th. Its barometric depth wa small and the greatest strength of the winds due to it influence was equal to force 6 or 7.

The second disturbance was a well-formed storm. A its influence on the Indian weather did not becom appreciable before December, its history will be given i the review for that month.

Pressure.

10. The low pressure conditions which had characterised October continued with but slightly diminished intensity through November for which month the geographical mean of 8 hrs. pressure was ·018″ below the normal value. The local features of the pressure distribution in the plains were also the same in the two months, except that the slight defect shown in the extreme south in the chart for October had become replaced by an appreciable excess. In November, as in October, the defect was largest in northern India and parts of Burma and least in the peninsula — a type of distribution usually associated with a diversion of the monsoon current from west to the east of the Bay. It is noteworthy that in November the deficient pressures in the greater part of the plains of India accompanied high temperatures, and that both were most marked in the west of upper India. At the hill stations of Baluchistan, upper India and of the Central Provinces pressure was in excess of the normal and the vertical gradients were well below their normal value. The reverse was the case in southern India.

TABLE 7.

DIVISION.	Departure from normal of mean 8 hrs. pressure.
	″
Burma	—·019
Eastern Bengal and Assam	—·029
Bengal	—·026
United Provinces	—·031
Punjab	—·034
North-West Frontier Province	—·047
Sind	—·041
Rajputana	—·023
Bombay	—·008
Central India	—·019
Central Provinces	—·009
Hyderabad	—·023
Mysore	—·004
Madras	—·003

TABLE 8.

HILL STATION.	Departure from normal pressure. A	PLAIN STATION.	Departure from normal pressure. B	Departure of pressure difference. B—A.
	″		″	″
Quetta	+·003	Jacobabad	—·054	—·057
Leh	+·051	Lahore	—·040	—·091
Murree	—·008	Peshawar	—·042	—·034
Simla	+·004	Ludhiana	—·030	—·034
Chakrata	+·006	Bareilly	—·029	—·035
Darjeeling	0	Jalpaiguri	—·034	—·034
Mount Abu	—·003	Deesa	—·013	—·010
Pachmarhi	+·006	Khandwa	—·011	—·017
Kodaikanal	—·014	Madura	+·024	+·038

Temperature.

11. Except in Burma and the coast districts from Trivandrum to Ratnagiri where, owing to excess of cloud it was somewhat lower than usual, day temperature ruled above the normal throughout the Indian region. The excess ranged between 2° and 5° in most of the plains districts and between 2° and 7° at the great majority of the hill stations in northern and central India. The distribution of minimum temperature resembled that of humidity rather than that of day temperature. Nights were appreciably warmer than usual in Burma, the greater part of north-east India, the southern half of the peninsula, Sind, the North-West Frontier Province, the Punjab, the northeastern districts of Rajputana and the west of the United Provinces; elsewhere temperature during the night was low, more especially in Berar and the neighbouring districts where also the air was unusually dry.

Mean daily temperature was high over the greater part of the country. The monthly averages of day and night temperatures were however within 2° of the usual values except in northwest India excluding Gujarat, and at some stations in Madras and Bengal where excesses of 2° to 5° were recorded.

No large changes occurred from day to day.

TABLE 9.

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

TABLE 10.

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
1. Bay Islands	85·4	76·3	80·9	9·1	14·3	−1·3	−1·7	+0·4
2. Lower Burma	85·3	73·0	79·1	12·3	22·9	−1·4	+1·5	−2·9
3. Upper do.	83·3	66·3	74·8	17·0	30·5	−1·0	+2·8	−3·8
4. Assam	82·6	63·2	72·9	19·4	31·6	+0·7	+1·7	−1·0
5. Eastern Bengal	83·8	65·7	74·7	18·1	29·5	+1·2	+2·5	−1·3
6. Bengal	85·3	64·8	75·1	20·5	32·8	+2·4	+1·8	+0·6
7. Orissa	86·1	63·5	75·0	22·6	33·2	+2·3	−1·2	+3·5
8. Chota Nagpur	83·0	57·7	70·4	25·3	36·9	+1·9	−0·3	+2·2
9. Bihar	84·8	60·2	72·5	24·6	37·0	+2·3	+0·2	+2·1
10. United Provinces, East	85·9	55·1	70·5	30·8	44·7	+3·1	−0·5	+3·6
11. Do., West	84·7	55·5	70·1	29·3	43·3	+3·0	+2·1	+0·9
12. Punjab, East and North	84·0	52·8	68·6	31·1	46·7	+2·7	+3·0	−0·3
13. Do., Southwest	86·6	55·5	71·1	31·0	49·0	+2·8	+4·5	−1·7
14. Kashmir	57·2	28·0	42·6	29·2	45·2	+3·0	−0·1	+3·1
15. North-West Frontier Province	81·8	50·5	66·2	31·3	49·3	+2·2	+4·5	−2·3

Sub-division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
16. Baluchistan	76·5	43·9	60·2	32·5	51·5	+5·5	—0·7	+6·2
17. Sind	89·7	63·3	76·5	26·4	43·1	+3·5	+4·4	—0·9
18. Rajputana, West	89·5	58·5	73·9	31·0	44·9	+2·1	—0·9	+3·0
19. Rajputana, East	87·6	56·3	72·0	31·4	45·2	+2·1	+0·5	+1·6
20. Gujarat	91·1	63·9	77·5	27·2	38·1	+2·1	+0·1	+2·0
21. Central India, West	86·5	54·1	70·3	32·5	44·1	+2·7	—0·4	+3·1
22. Do., East	85·3	54·1	69·7	31·3	46·4	+3·7	+0·5	+3·2
23. Berar	87·9	59·7	73·8	28·1	39·6	+2·9	—1·2	+4·1
24. Central Provinces, West	86·4	54·8	70·6	31·6	44·6	+2·8	—1·8	+4·6
25. Do., East	83·6	56·9	70·2	26·7	38·7	+1·9	—2·7	+4·6
26. Konkan	87·5	71·3	79·3	16·2	25·3	—0·4	—0·3	—0·1
27. Bombay Deccan	88·3	58·2	73·2	30·0	39·9	+2·7	—0·9	+3·6
28. Hyderabad, North	87·5	57·6	72·5	29·9	40·2	+2·3	—3·2	+5·5
29. Do., South	88·9	64·3	76·6	24·7	37·1	+3·2	+0·1	+3·1
30. Mysore	83·7	63·6	73·7	20·1	28·6	+2·8	+1·2	+1·6
31. Malabar	85·9	73·9	79·9	11·9	16·4	—0·9	+1·0	—1·9
32. Madras, Southeast	88·9	72·8	80·9	16·1	23·5	+3·0	+1·0	+2·0
33. Do., Deccan	92·3	67·4	79·9	24·9	35·3	+4·6	+1·1	+3·5
34. Do. Coast, North	87·3	72·8	80·1	14·5	22·5	+2·6	+1·1	+1·5

Winds.

12. (*a*) The air movement was very abnormal in character in the Andamans where at Port Blair calms were recorded on eleven days, and winds, from between south and north-west on ten occasions. As in ordinary years the dominant winds are there from between north and east, and calms are but little known, the indication is that the monsoon was not only less vigorous but was directed to an unusual extent to the Burmese Peninsula. Down the Coromandel coast and also at Colombo the westerly element was more predominant than usual, but further north on the Circars coast this component was in defect. Elsewhere the anomalies were such as did not indicate any important diversion of the air currents.

(*b*) The rate of air motion was lower than usual over the greater part of the country, particularly in the North-West Frontier Province and Central India where it was barely half of the small normal value.

(*c*) Winds blew with more than their usual steadiness in Bengal, north-west India and Hyderabad, but were exceedingly unsteady in Mysore.

TABLE II.

Division.	Departure from normal of	
	Hourly wind velocity.	Wind steadiness.
Burma	—0·5	— 9
Eastern Bengal and Assam	—0·4	— 5
Bengal	—0·3	+ 8
United Provinces	—0·6	— 5
Punjab	0	+10
North-West Frontier Province	—1·0	+16
Sind	—0·5	+ 3
Rajputana	+0·5	+18
Bombay	—1·2	— 2
Central India	—1·1	+ 2
Central Provinces	—0·6	— 2
Hyderabad	—0·5	+14
Mysore	—1·5	—37
Madras	—0·2	— 1

Humidity and cloud.

13. Humidities, both absolute and relative, were well above the normal over Burma, the plains of north-west India and the west coast of the peninsula, and the former also in northeast India. The maximum defect occurred over the Deccan and the largest excess over lower Sind. The increased dampness in north-west India appeared mainly in the lower stratum, for in Kashmir and Baluchistan the air was drier than usual in both respects.

There was more than the customary amount of cloud in Malabar, Ceylon and the greater part of Burma, but in all other places the skies were unusually clear. The defect was most conspicuous in the hill districts of Baluchistan and Kashmir, where it was equal to one-fourth of the whole sky expanse.

TABLE 12.

Division.	Hygrometry; 8 hrs.				Cloud.	
	Mean humidity.	Departure from normal.	Mean vapour tension in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.
	%					
Burma . .	89	+ 6	·741	+ ·052	5·6	+ 1·9
Eastern Bengal and Assam	85	— 2	·648	+ ·035	2·0	—0·5
Bengal . .	74	— 5	·529	—·014	0·7	—0·9
United Provinces.	68	— 3	·417	+ ·012	0	—1·0
Punjab . .	66	+ 4	·346	+ ·047	0·2	—1·4
North-West Frontier Province.	70	+ 5	·315	+ ·045	0·6	—1·5
Sind . .	68	+ 15	·516	+ ·154	0·7	—0·9
Rajputana .	54	+ 3	·345	+ ·017	0·1	—1·3
Bombay . .	60	— 3	·504	—·015	0·8	—0·7
Central India .	54	— 5	·332	—·037	0·1	—1·1
Central Provinces.	52	—11	·342	—·086	0·5	—1·1
Hyderabad .	48	—16	·400	—·111	1·2	—1·0
Mysore . .	74	— 1	·564	+ ·007	4·2	—0·6
Madras . .	75	— 5	·720	—·020	4·4	0

Rainfall.

14. As in October, the humid current over the Bay was, owing to peculiar distribution of pressure, diverted from the west to the east of the Bay. Accordingly the month's total rainfall measurements, while they surpassed the normal values in the Andamans, Burma and Eastern Bengal, were far short of the normal over nearly the whole of the peninsula and more especially in the Madras Coast North and the Madras Deccan which obtained only 8 per cent. of their usual supply.

Over northern India also, excepting the districts in the extreme east, the month was unusually dry. The quantity of precipitation received there under ordinary conditions is however less than half an inch.

TABLE 13.

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			Inches	Inches.	Inches.	
1. Bay Islands	11·5	10·4	8·52	7·35	+ 1·17	+ 16
2. Lower Burma	7·7	2·4	5·14	1·61	+ 3·53	+ 219
3. Upper do.	5·3	2·2	2·84	1·24	+ 1·60	+ 129
4. Assam	1·5	1·3	1·11	0·68	+ 0·43	+ 63
5. Eastern Bengal	1·4	0·8	1·37	0·66	+ 0·71	+ 108
6. Bengal	0·2	0·7	0·07	0·56	—0·49	— 88
7. Orissa	0·1	1·5	0·02	1·34	—1·32	— 99

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			Inches.	Inches.	Inches.	
8. Chota Nagpur	0	0·7	0	0·33	−0·33	−100
9. Bihar	0	0·3	0	0·16	−0·16	−100
10. United Provinces, East	0	0·3	0	0·15	−0·15	−100
11. Do. do., West	0	0·3	0	0·12	−0·12	−100
12. Punjab, East and North	0	0·2	0	0·13	−0·13	−100
13. Do., Southwest	0	0·2	0	0·11	−0·11	−100
14. Kashmir	0·2	1·1	0·05	0·44	−0·39	−89
15. North-West Frontier Province	0·1	0·7	0·01	0·48	−0·47	−98
16. Baluchistan	0	1·1	0	0·50	−0·50	−100
17. Sind	0	0·2	0	0·09	−0·09	−100
18. Rajputana, West	0	0·3	0	0·19	−0·19	−100
19. Do., East	0	0·4	0	0·19	−0·19	−100
20. Gujarat	0	0·4	0	0·28	−0·28	−100
21. Central India, West	0	0·4	0	0·22	−0·22	−100
22. Do., East	0	0·5	0	0·29	−0·29	−100
23. Berar	0	0·9	0	0·58	−0·58	−100
24. Central Provinces, West	0	0·6	0	0·36	−0·36	−100
25. Do. do., East	0	0·8	0	0·54	−0·54	−100
26. Konkan	0·7	1·4	0·49	0·87	−0·38	−44
27. Bombay Deccan	0·6	1·5	0·30	0·89	−0·59	−66
28. Hyderabad, North	0	1·5	0·01	0·90	−0·89	−99
29. Do., South	0	2·1	0	1·14	−1·14	−100
30. Mysore	2·4	3·2	1·46	2·11	−0·65	−31
31. Malabar	7·0	5·3	4·67	4·03	+0·64	+16
32. Madras, Southeast	4·4	7·7	2·81	6·66	−3·85	−58
33. Do. Deccan	0·6	3·3	0·25	2·24	−1·99	−89
34. Do. Coast, North	0·4	3·7	0·26	3·82	−3·56	−93

TABLE 14.

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
Burma	3·88	1·41	+2·47	+175
Eastern Bengal and Assam	1·24	0·67	+0·57	+85
Bengal	0·03	0·52	−0·49	−94
United Provinces	0	0·13	−0·13	−100
Punjab	0	0·12	−0·12	−100
North-West Frontier Province	0·01	0·48	−0·47	−98
Sind	0	0·09	−0·09	−100

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentag departure from norma
Rajputana	0	0·19	−0·19	−100
Bombay	0·24	0·69	−0·45	−65
Central India	0	0·24	−0·24	−100
Central Provinces	0	0·49	−0·49	−100
Hyderabad	0	1·03	−1·03	−100
Mysore	1·46	2·11	−0·65	−31
Madras	1·88	5·00	−3·12	−62
Mean of India when the size of the above areas is taken into account.	0·76	1·01	−0·25	−25

Snowfall.

AND II.—AFGHANISTAN AND THE NORTH-WEST FRONTIER PROVINCE.

15. Snow to a depth of about six inches fell on the hills near Kabul and in the Khugiani country during the first week.

III.—KASHMIR.

No information has been received.

IV.—PUNJAB.

Kilba.—Weather was dry throughout.

TABLE 15.

NAME OF PASS.	DEPTH OF ACCUMULATION AT THE END OF THE MONTH.	
	Reported.	Normal.
Brua Pass	1½ feet	5 feet
Harang "	½ foot	¾ foot
Shatul "	2½ feet	4¾ feet

V.—UNITED PROVINCES.

(1) *Garhwal.*—There was a snowstorm on the higher ranges on the 11th; it was not however severe.

(2) *Almora.*—There were a few falls. The total quantity received during the month was estimated at 7½ feet on the Nuwe Pass, 3 feet on the Untadhura, and 2½ feet on the Ralamdhura and in Byans. The snowline came down to the level of the inhabited area. No information is available for Chandas.

TABLE 16.

NAME OF PASS.	DEPTH OF ACCUMULATION AT THE END OF THE MONTH.	
	Reported.	Normal.
Nuwe Pass	30 feet	19¾ feet
Lipu Lekh	4 "	4 "
Lampia	4 "	7½ "

Temperature was lower than usual.

SUMMARY.

16. The available information, although unusually scanty, suffices to indicate that the snowfall of the month in the mountain zone bordering upper India was if anything below the average.

Crop report.

17. *Burma.*—Heavy rain occurred in some parts causing injury to the standing crops. Keeping of autumn rice and cultivation of miscellaneous crops were proceeding normally.

Eastern Bengal and Assam.—Winter rice was being harvested and a good outturn was expected. The prospects of all crops were satisfactory.

Bengal.—The prospects of all crops were good.

United Provinces.—The condition of standing crops was good and prospects were favourable everywhere.

Punjab.—Rain was wanted in Ambala. The outturn of autumn crops was generally good to average except in parts of Mianwali. Sowings of spring crops were progressing satisfactorily. Water supply remained short in parts of the Lyallpur district.

North-West Frontier Province.—Rain was urgently wanted all over the province. Standing crops were generally average on irrigated lands and below the average on unirrigated areas.

Jammu and Kashmir.—Standing crops were fair in Jammu and below the average in Kashmir.

Rajputana.—Standing crops and prospects were good.

Central India.—Autumn crops were being harvested and spring crops sown.

Central Provinces.—The condition of the standing crops was generally good, though showers were still needed in Jubbulpur, Betul, Seoni, Nagpur, Wardha, Chhindwara and the Vindhyan districts. In the Feudatory States prospects were in general favourable.

Bombay.—Standing crops were suffering from insufficient moisture in Kaira, Ahmednagar, Poona and Kolhapur, and had been damaged slightly by insects in Belgaum; elsewhere their condition was good. Rain was still wanted in parts of the Deccan and Bijapur.

Hyderabad.—The autumn crops were generally fair to good. Rain was badly wanted in almost all places for the early rice crops.

Mysore.—Prospects of the season were generally good. More rain was however needed for late sown dry crops in Bangalore, Kolar and Tumkur.

Coorg.—Rice was in good condition. Picking of cardamom continued.

Madras.—Standing crops were fair to good, but some were withering for want of rain.

HEM RAJ.

Table A.—Abstract of observations taken at 10 hrs. and 16 hrs. at 35 stations in India, etc., in November, 1909.

Ta

Abstract of observations taken at 10 hrs. and 16

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Pressure. Mean of 16 hrs.	Pressure. Mean daily range.	Pressure. Mean of daily mean pressures.	Pressure. Departure from normal.	Pressure. Mean reduced to sea-level and gravity, 45° Lat.	Temperature of air. Mean maximum.	Temperature of air. Mean minimum.	Temperature of air. Mean daily range.	Temperature of air. Highest maximum.	Temperature of air. Lowest minimum.	Temperature of air. Absolute range.	Temperature of air. Mean 10 hrs.	Temperature of air. Mean 16 hrs.	Temperature of air. Mean of daily means.	Temperature of air. Departure from normal.	Temperature wet-bulb. Mean minimum.	Temperature wet-bulb. Mean 10 hrs.	Temperature wet-bulb. Mean 16 hrs.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	I.—Burma.																				
2	Rangoon	18	29·952	29·836	·116	29·896	—·010	29·852	86·3	73·8	12·5	90·9	68·2	22·7	81·6	83·9	78·4	+0·1	72·3	75·6	75·1
	III.—Bengal.																				
6	Calcutta	21	·983	·863	·120	·919	—·045	·887	84·3	65·8	18·5	89·9	58·8	31·1	79·3	82·0	74·5	+2·1	64·0	70·2	70·0
	IV.—United Provinces of Agra and Oudh.																				
10	Allahabad	309	·720	·607	·113	·654	—·027	·920	85·8	55·2	30·6	93·7	48·7	45·0	77·1	84·2	68·9	+1·4	53·5	62·7	64·0
11	Dehra Dun	2,233	27·756	27·679	·077	27·707	—·031	·929	78·5	53·5	25·0	84·5	47·9	36·6	70·0	74·5	65·3	+2·7	50·3†	59·2	61·5
	V.—Punjab.																				
12	Lahore	702	29·293	29·207	·086	29·242	—·044	·924	85·5	53·1	32·4	93·4	45·1	48·3	73·7	83·4	67·3	+4·1	50·7	62·2	66·3
	VIII.—Rajputana.																				
19	Jaipur	1,431	28·595	28·497	·098	28·537	—·025	·929	88·7	56·2	32·5	97·2	49·0	48·2	81·1	86·2	70·8	+1·9	49·8	62·0	63·1
	Udaipur	1,925	·110	·016	·094	·061		·939	85·6	53·7	31·9	91·5	48·2	43·3	79·0	84·5	69·4		50·4	62·8	64·1
	IX.—Bombay.																				
26	Bombay	37	29·953	29·848	·105	29·897	—·016	·874	87·6	72·8	14·8	91·2	68·5	22·7	79·4	83·1	79·4	+0·1	68·2	71·7	74·4
	XI.—Central Provinces.																				
24	Nagpur	1,017	·000	28·875	·125	28·933	—·012	·914	87·8	58·2	29·6	93·7	52·0	41·7	78·9	85·9	72·5	+0·3	52·8	63·2	64·5
	XII.—Hyderabad.																				
29	Hyderabad	1,690	28·300	·184	·116	·240	—·011	·873	87·6	62·1	25·5	93·5	54·2	39·3	81·3	83·6	74·1	+1·8	56·6	64·3	62·8
	XIII.—Mysore.																				
30	Bangalore	3,021	26·991	26·884	·107	26·937	—·010	·844	82·9	63·1	19·8	85·7	57·4	28·3	76·4	79·4	72·0	+2·4	60·6	66·2	65·6
	Mysore	2,518	27·483	27·363	·120	27·422	—·018	·851	83·6	64·5	19·1	85·1	57·8	27·3	77·3	82·1	73·0	+0·7	63·7	69·2	69·0
	XIV—Madras.																				
32	Periyakulam	944								Observatory closed.											
	Pudukkottai	318	29·650	29·525	·125	29·588		·837	89·1	73·2	15·9	93·2	69·9	23·3	83·0	86·2	81·2		71·3	73·9	73·2
	Madras	22	·956	·853	·103	·907	—·019	·860	88·9	72·9	16·0	93·9	67·2	26·7	84·1	84·3	80·1	+2·2	71·7	76·0	75·6
	Bay Islands.																				
1	Port Blair	58	·878	·786	·092	·834	—·018	·823	85·3	75·3	10·0	88·0	72·4	15·6	82·5	82·0	79·5	—1·7	73·3	77·5	76·6
	Kashmir.																				
14	Srinagar	5,204	25·028	24·921	·107	24·970	—·026	24·941	63·0	33·8	29·2	67·7	26·1	41·6	43·8	61·2	46·4	+2·4	32·0	45·7	56·7
	Leh	11,503	19·838	19·731	·107	19·783	+·045	19·751	51·1	20·7	30·4	56·0	13·0	43·0	38·7	48·0	33·9	+1·8	17·5	30·7	35·1‡
	Baluchistan.																				
18	Quetta	5,502	24·781	24·709	·072	24·735	+·006	24·695	70·8	30·7	40·1	77·4	21·5	55·9	60·1	65·7	50·3	+2·3	30·6	44·3	46·4

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

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

† Mean of 29 days. ‡ Mean of 29½ days.

A.

t 35 stations in India, etc., in November, 1909.

Vapour tension in inches of mercury.					Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity.		Rainfall.		Station.	Number of subdivision.
From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean 10 hrs.	Mean 16 hrs.	Mean of two previous columns.	Departure from normal.	Total number of 10 hrs. and 16 hrs. winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.		
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
																									%	%						
																															I.—Burma.	
·61	·811	·759	·799	+·010	93	75	65	84	+ 1	6·9	6·3	6·6	+2·6	10	4	20	7	4	9	1	3	2	N 70° E	N 66° E	33	57	30	94	4·89	2·18	Rangoon	2
																															III.—Bengal.	
580	·622	·579	·608	+·030	90	61	53	71	− 3	1·2	2·3	1·8	−0·7	1	14	9				1	3	32	N 25° W	N 12° W	78	58	78*	60	0·20	0·20	Calcutta	6
																															IV.—United Provinces of Agra and Oudh.	
393	·382	·329	·374	−·028	89	41	28	59	− 5	0	0·1	0·1	−1·2	35	2			1	2	3	12	5	N 88° W	N 51° W	28	24	25 *†	55	0	0	Allahabad	10
329†	·373	·389	·359	+·023	80†	51	46	62	− 1	0·1	0·4	0·3	−1·2	23	2				13	8	8	4	S 51° W	S 84° W	38	19	15	31	0	0	Dehra Dun §	11
																															V.—Punjab.	
344	·411	·423	·389	+·073	85	50	37	61	+ 4	0·5	0·6	0·6	−0·9	24		4	2	6	1		13	10	N 67° W	N 42° W	20	18	31	31	0	0	Lahore	12
																															VIII.—Rajputana.	
282	·321	·295	·300	+·003	62	30	23	43	− 4	0·1	0·5	0·3	−1·2	4	7	2	2		3	3	11	28	N 52° W	N 24° W	62	35	54*	65	0	0	Jaipur	19
330	·380	·353	·359		79	38	29	52		0	0·2	0·1		42	2	2	3	4		1	3	3	N 34° E		3		32		0	0	Udaipur.	
																															IX.—Bombay.	
628	·681	·741	·708	−·008	78	67	65	74	+ 1	0·7	1·0	0·9	−0·8		2	10	17	2	1		7	21	N 12° E	N 18° E	37	51	181*	230	0	0	Bombay	26
																															XI.—Central Provinces.	
338	·386	·345	·365	−·064	69	39	28	48	− 9	0·7	0·6	0·7	−1·6	6	32	18	2					2	N 18° E	N 54° E	30	59	55	89	0	0	Nagpur	24
																															XII.—Hyderabad.	
400	·397	·315	·382	−·130	71	37	27	48	−18	2·5	2·8	2·7	−0·9	25		29	2	3				1	N 51° E	S 75° E	52	63	66	84	0	0	Hyderabad	29
																															XIII.—Mysore.	
·505	·530	·473	·516	−·023	87	59	48	68	− 7	3·4	5·0	4·2		1	8	21	17	3	2	2	4	2	N 55° E	N 60° E	55	68	129	120	0·48	0·36	Bangalore	30
·587	·617	·548	·597	+·024	96	66	50	74	+ 3	5·1	5·4	5·3	−1·1		7	17	13	7	1	4	7	4	N 53° E	N 39° E	37	22	126	206	1·62	0·76	Mysore.	
																															XIV.—Madras.	
																							Observatory closed.								Periyakulam	32
·742	·715	·643	·700		91	64	52	69		6·0	6·4	6·2		2	14	28	4	2		4	3	5	N 25° E		59		155		7·21	2·23	Pudukkottai.	
·764	·786	·773	·795	−·001	94	63	66	79	− 5	4·8	4·6	4·7	−1·2		22	32	2					4	N 25° E	N 27° E	87	62	151*	156	3·73	1·80	Madras.	
																															Bay Islands.	
·789	·877	·849	·863	−·073	90	79	78	85	0	6·8	7·3	7·1	+1·3	8	3	6	2	15	4	7	11	4	S 11° W	N 81° E	17	42	150	161	11·37	2·10	Port Blair	1
																															Kashmir.	
·185	·277	·414	·269	+·036	83	79	75	79‖	0	0·5	0·9	0·7	−2·3	36	1		2	11	3	2	1	4	S 27° E	N 1° E	17	21	33	62	0	0	Srinagar	14
·075	·107	·096†	·093	−·005	66	47	29†	49	− 7	1·5	2·1	1·8	−2·4						24	20	16		S 38° W	S 27° W	82	37	88*	50	0	0	Leh.	
																															Baluchistan.	
·171	·128	·113	·137	−·020	99	25	21	52	+ 1	0	0·1	0·1	−1·6	26	8				1		4	21	N 41° W	N 51° W	48	40	28	48	0	0	Quetta	16

* Uncorrected for scale error.

§ Wind observations less 2.

‖ Mean of three previous columns.

Ta

Abstract of observations taken at 10 hrs. and 16 hrs., at 35 stat

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Pressure. Mean of 16 hrs.	Pressure. Mean daily range.	Pressure. Mean of daily mean pressures.	Pressure. Departure from normal.	Pressure. Mean reduced to sea-level and gravity, 45° Lat.	Temperature of air. Mean maximum.	Temperature of air. Mean minimum.	Temperature of air. Mean daily range.	Temperature of air. Highest maximum.	Temperature of air. Lowest minimum.	Temperature of air. Absolute range.	Temperature of air. Mean 10 hrs.	Temperature of air. Mean 16 hrs.	Temperature of air. Mean of daily means.	Temperature of air. Departure from normal.	Temperature wet-bulb. Mean minimum.	Temperature wet-bulb. Mean 10 hrs.	Temperature wet-bulb. Mean 16 hrs.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	Hill Stations excluding Kashmir and Baluchistan.																				
	Simla . . .	7,232	23·202	23·160	·042	23·171	+·006	23·133	58·4	46·5	11·9	64·7	40·5	24·2	53·9	54·4	52·0	+1·9	38·4	43·1	45·4
	Sarain . . .		·244	·184	·060	·204		·166	60·2	35·8	24·4	65·9	30·0	35·9	46·5	54·3	47·5			39·5	43·8
	Kalabagh** . .		20·177	20·140	·037	20·149		20·111	44·7	34·3	10·4	52·4	28·8	23·6	39·6	42·0	39·0			31·7	34·8
	Chakrata . .	7,022	23·378	23·324	·054	23·341	0	23·301	64·9	45·7	19·2	72·3	38·7	33·6	53·2	56·0	54·9	+3·4	39·7	47·7	47·0
	Muktesar . .	7,592	22·930	22·867	·063	22·889		22·847	66·8	44·6	22·2	70·9	36·2	34·7	54·7	57·1	55·2		36·7	45·0	47·9
	Katmandu . .	4,388	25·764	25·645	·119	25·702	+·004 †	25·656	73·7	47·2	26·5	78·3	37·9	40·4	60·2	70·5	60·0	+2·2 †	45·4	55·0	58·4
	Darjeeling . .	7,376	23·112	23·024	·078	23·070	—·013	23·025	58·1	44·7	13·4	67·9	38·7	29·2	54·9	53·2	52·0	+4·2	42·3	49·6	49·0
	Pachmarhi . .	3,528	26·562	26·483	·079	26·516	—·009	26·463	75·6	48·0	27·6	82·0	42·1	38·9	68·2	72·8	61·3	—0·5	43·5	55·7	57·3
	Mount Abu‖. .	3,945	·173§	·106	·067	·132	—·006	·081§	73·6	58·4	15·2	77·6	52·4	25·2	70·8§	70·7	65·5	+0·3	46·9	55·0§	55·2
	Chikalda . .	3,642	·442	·342	·100	·385	—·031	·329	77·5	58·4	19·1	82·7	52·7	30·0	72·5	74·7	67·5	+1·0	50·6	56·4	58·2
	Ootacamund .	*7,327*	23·093	23·016	·077	23·052		22·989	63·6	47·6	16·0	67·7	40·5	27·2	60·8	57·2	55·1		46·6	54·2	53·9
	Kodaikanal . .	7,688	22·855	22·784	·071	22·820		·755	59·9	49·5	10·4	64·7	46·0	18·7	56·6	55·2	54·7		47·7	53·3	53·6
	Dodabetta . .	8,539?	·094	·024	·070	·056		21·993	56·5	45·9	10·6	61·9	42·7	19·2	53·1	51·1	50·7		43·3	49·9	49·7
	Extra India.																				
	Minicoy . .	7	29·982	29·927	·055	29·960															
	Zanzibar . .	72	·989	·878	·111	·939	+·020	29·938	83·6	76·1	7·5	86·9	73·1	13·8	80·7	82·4	78·9	—0·5	71·9	75·3	75·5
	Diego Garcia .								Observations not received.												
	Seychelles . .	15	30·010	·921	·089	·979	+·037 †	·918	82·8	75·7	7·1	85·1	73·7	11·4	80·6	81·4	77·9	+0·3 †	70·6	75·7	75·6
	Mauritius . .	181				29·891	+·002	30·018				87·8	60·6	27·2			74·9	—0·3			

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

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

** Observations of 9 days.
‖ " " 25 "
† Mean of 29 days.
§ " " 24 "

—concluded.

India, etc., in November, 1909—concluded.

Vapour tension in inches of mercury.					Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity.		Rainfall.		Station.	Number of subdivision.
														Total number of 10 hrs. and 16 hrs. winds from																		
From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean 10 hrs.	Mean 16 hrs.	Mean of two previous columns.	Departure from normal.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles, per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.		
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
																															Hill Stations excluding Kashmir and Baluchistan.	
152	·169	·212	·178	+·007	48	40	50	50	−1	0·3	0·8	0·6	−1·7																0	0	Simla.	
	·176	·182				56	44			0·3	1·7	1·0		12			1	1	28	16	2		S 16° W		70		96†		0	0	Sarain.	
	·115	·140				49	54			0	0·8	0·4		No record of wind and rainfall.																	Kalabagh.	
184	·223	·231	·213	+·017	61	46	51	57	0	0·3	0·7	0·5	−1·3	7	6	1	1	16	28			1	S 21° E	S 51° W	57	30	104	130	0	0	Chakrata.	
139	·201	·240	·193		47	47	52	53		1·0	2·3	1·7		26			2	1	5	2	24		S 73° W		40		99		0	0	Muktesar.	
286	·380	·354	·340	+·004	87	72	47	73	−2	1·1	1·4	1·3	−1·3		1		18	2		4	35		S 81° W	N 81° W	32	42	19*	14	0	0	Katmandu.	
249	·303	·309	·287	+·023	82	69	74	79	−4	6·7	8·4	7·6	+3·3	53	2	2			1		2		N 15° W	N 54° W	3	10	8	65	0·05	0·05	Darjeeling.	
234	·299	·295	·276	−·032	70	44	37	57	−4	0	0	0	−2·1	12	20	16	1				2	9	N 6° E	N 44° E	63	39	46	67	0	0	Pachmarhi.	
192	·254§	·261	·236	−·007	40	34§	35	43	−2	0·2	0·6	0·4	−1·0		5	5	2	8	3	15	5	7	S 58° W	N 44° E	22	15	108¶	106	0	0	Mount Abu.	
288	·274	·297	·286	−·067	58	34	35	49	−11	0·2	0·3	0·3	−1·9	6	2	6		9	1	9		27	N 52° W	N 6° W	32	21	167	120	0	0	Chikalda.	
311	·355	·383	·350		93	66	81	80		5·4	7·9	6·7		1	7	10	15	13	8	2	1	3	S 85° E		45		91		4·05	1·32	Ootacamund.	
317	·376	·394	·363		89	82	89	87		6·6	8·6	7·6		2	11	2	3	2	1	1	3	35	N 34° W		68		241*		3·77	1·01	Kodaikanal.	
257	·328	·346	·310		82	80	92	85		6·9	9·3	8·1		1	23	20	5	5	2		1	3	N 30° E		65		306		4·14	0·79	Dodabetta.	
																															Extra India.	
										3·4	4·2	3·8			8	6	4	2		6	15	19	N 49° W		52		110		1·77	0·88	Minicoy.	
729	·801	·792	·792	−·052	81	77	72	79	−3	6·9	4·9	5·9	+0·5	4	11	10	3	17	11	3	1		S 70° E	S 36° E	35	17	97	110	10·75	4·02	Zanzibar.	
												Observations not received.																			Diego Garcia.	
887	·829	·814	·802	−·034	77	79	75	80	−3	5·9	6·4	6·2	−0·7†	15	1	2	7	24	3	4	3	1	S 44° E	S 56° E	45	14	123*	127	10·46	2·45	Seychelles.	
			·591	−·012				68	0			6·2	+0·7										S 89° E	S 82° E			206	257	0·70	0·19	Mauritius.	

† Departure from old normal.

¶ Mean of 23 days.

* Uncorrected for scale error.

Table B.—Abstract of observations taken at 8 hrs., at 236 stations in India, etc., in November, 1909.

(1) Provincial means.

(2) Data of stations.

(1) Provincial means based on the material in Table B (2) except that the statement of rainfall depends on the complete data of about 2,700 stations.

	Pressure departure from normal.	Temperature of air.								Wind.		Hygrometry.				Cloud.		Rainfall.		
		Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Absolute range during month.	Departure of velocity from normal.	Departure of steadiness from normal.	Mean humidity.	Departure from normal.	Mean vapour tension.	Departure from normal.	Mean cloud amount.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.
urma	—·019	84·3	—1·2	69·8	+2·0	77·1	+0·4	14·5	26·4	—0·5	— 9	89	+ 6	·741	+·052	5·6	+1·9	3·88	1·41	+2·47
astern Bengal and Assam	—·029	83·5	+1·1	65·0	+2·3	74·2	+1·7	18·4	30·0	—0·4	— 5	85	— 2	·648	+·035	2·0	—0·5	1·24	0·67	+0·57
engal	—·026	84·9	+2·2	61·8	+0·3	73·4	+1·3	23·1	35·1	—0·3	+ 8	74	— 5	·529	—·014	0·7	—0·9	0·03	0·52	—0·49
nited Provinces of Agra and Oudh	—·031	85·3	+3·1	55·3	+0·9	70·3	+2·0	30·0	43·9	—0·6	— 5	68	— 3	·417	+·012	0	—1·0	0	0·13	—0·13
unjab	—·034	84·7	+2·7	53·6	+3·5	69·3	+3·1	31·1	47·4	0	+10	66	+ 4	·346	+·047	0·2	—1·4	0	0·12	—0·12
orth-West Frontier Province	—·047	81·8	+2·2	50·5	+4·5	66·2	+3·4	31·3	49·3	—1·0	+16	70	+ 5	·315	+·045	0·6	—1·5	0·01	0·48	—0·47
ad	—·041	89·7	+3·5	63·3	+4·4	76·5	+4·0	26·4	43·1	—0·5	+ 3	68	+15	·516	+·154	0·7	—0·9	0	0·09	—0·09
ajputana	—·023	88·1	+2·1	56·9	+0·1	72·5	+1·1	31·3	45·1	+0·5	+16	54	+ 3	·345	+·017	0·1	—1·3	0	0·19	—0·19
ombay	—·008	89·3	+1·6	64·0	—0·3	76·7	+0·6	25·3	35·5	—1·2	— 2	60	— 3	·504	—·015	0·8	—0·7	0·24	0·69	—0·45
entral India	—·019	85·9	+3·2	54·1	+0·1	70·0	+1·7	31·9	45·3	—1·1	+ 2	54	— 5	·332	—·037	0·1	—1·1	0	0·24	—0·24
entral Provinces	—·009	85·9	+2·7	56·6	—1·9	71·2	+0·4	29·3	41·6	—0·6	— 2	52	—11	·342	—·086	0·5	—1·1	0	0·49	—0·49
yderabad	—·023	88·3	+2·9	61·4	—1·0	74·9	+1·0	26·9	38·5	—0·5	+14	48	—16	·400	—·111	1·2	—1·0	0	1·03	—1·0
ysore	—·004	83·7	+2·8	63·6	+1·2	73·7	+2·0	20·1	28·6	—1·5	—37	74	— 1	·564	+·007	4·2	—0·6	1·46	2·11	—0·65
adras	—·003	88·5	+2·3	72·3	+1·1	80·4	+1·7	16·3	23·7	—0·2	— 1	75	— 5	·720	—·020	4·4	0	1·88	5·00	—3·12

Tab

(2) *Abstract of observations taken at 8 hrs., at 236 statio*

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	2
	I.—Burma.																						
2	Mergui	56	29·894	−·008	29·881	29·960	13th	29·825	2nd	·135	76·9	86·4	−1·0	72·5	+2·8	79·4	+0·9	13·9	88·4	12th	64·4	22nd	2
	Tavoy	19	29·940	−·031?	29·891	30·004	25th	29·855	2nd	·149	75·8	86·1	−1·8	71·9	+3·4	79·1	+0·8	14·2	88·5	17th & 19th.	60·8	21st	27
	Moulmein	94	29·877	−·009	29·910	29·954	25th	29·769	5th	·185	76·4	87·8	−0·6	73·1†	+2·0†	80·4†	+0·7	14·7	90·5	16th	67·3	21st & 27th.	23
	Rangoon	18	29·944	−·024	29·900	30·017	25th	29·853	2nd & 5th.	·164	76·6	86·4	−1·2	73·8	+1·5	80·1	+0·1	12·6	91·1	3rd	68·4	29th	22
	Bassein	27?	29·935	−·015	29·900	30·008	25th	29·841	5th	·167	75·3	84·6	−1·6	73·1*	+1·6*	78·8*	0	11·5	89·7	1st	63·9	23th	25
	Diamond Island	41	29·910	−·022	29·886	29·982	25th	29·827	5th	·155	79·8	84·3	−1·2	75·8	+0·6	80·1	−0·3	8·5	86·4	5th	72·2	29th	14
	Toungoo	164	29·807†	−·016†	29·916†	29·889	27th	29·692	5th	·197	74·2	85·3	−2·0	70·4	+0·4	77·9	−0·8	14·9	90·5	3rd	62·8	22nd, 27th & 28th.	27
	Kyaukpyu	18	29·937		29·895	30·014	27th	29·845	5th	·169	77·8	83·4		74·6		79·0		8·8	87·0	11th	69·4	29th	17
	Akyab	20	29·939	−·031	29·902	30·019	29th	29·858	5th	·161	73·2	83·4	−1·7	71·4	0	77·5	−0·9	12·0	87·9	3rd	65·0	29th	2
3	Thayetmyo	121	29·851	−·022	29·916	29·950	30th	29·736	5th	·214	74·7	85·8	−2·2	70·3	+3·0	78·1	+0·4	15·5	90·5	4 days	61·9	29th	2
	Minbu	*165*	29·819	−·048?	29·931	29·924	30th	29·701	5th	·223	73·4	86·2	−2·4	70·3	+2·2	78·3	−0·1	15·9	89·8	2nd, 4th & 5th.	63·0	29th	2
	Yamethin	657	29·258*	−·071?*	29·913*	29·378	30th	29·172	5th	·206	72·1	84·3*	−4·5?	69·1	+2·1	76·8*	−1·2?	15·2	89·3	1st	61·0	22nd	2
	Mandalay	250	29·715	−·011	29·950	29·847	29th	29·627	5th	·220	72·7	87·7	+1·0	68·9	+1·7	78·4	+1·3	18·8	93·0	3rd & 4th.	61·9	28th	3
	Monywa	*280*	29·730		29·949	29·828	29th	29·608	5th	·218	72·1	84·6		68·7		76·7		15·9	90·8	5th	61·6	29th	2
	Lashio	*2,751*	27·205	−·032	27·151	27·314	30th	27·093	5th	·221	62·6	77·5	+0·4	58·7	+4·4	68·1	+2·4	18·8	83·3	4 days	47·0	29th	3
	Bhamo	*381*	29·636	−·015	29·987	29·750	29th	29·523	5th	·227	65·6	79·9	−1·9	62·0*	+2·8*	71·1*	+0·5	17·9	86·4	2nd	54·1	29th	3
	Myitkyina	458	29·554		29·988	29·664	29th	29·427	5th	·237	67·3	80·0		62·2		71·1		17·8	87·2	2nd	56·0	28th & 29th.	3
	II.—Eastern Bengal and Assam.																						
4	Dibrugarh	353	29·656*		29·981*	29·775	29th	29·542	5th	·233	66·7	82·1		62·2		72·2		19·9	86·9	3rd	54·6	29th	3
	Sibsagar	333	29·702†	−·028†	30·001†	29·804	30th	29·636	6th	·168	67·0	79·2	+0·9	61·9	+2·3	70·5	+1·6	17·3	82·1	5th & 7th.	55·0	29th & 30th.	2
	Tezpur	252	29·766		29·987	29·872	30th	29·645	5th	·227	66·4	83·2		64·0		73·6		19·2	87·1	1st	56·9	29th	3
	Gauhati	195	29·828*		29·986*	29·936	29th & 30th.	29·712	5th	·224	67·6	83·1		63·1		73·1		20·0	87·3	1st	53·6	30th	3
	Dhubri	115									69·9	80·5	+0·7	P	P	P	P	P	84·5	1st	P	P	
	Silchar	104	29·909	−·010	29·970	30·004	30th	29·818	5th	·186	70·1	85·3	+0·5	64·6	+1·0	75·0	+0·7	20·7	91·8	12th	57·3	29th	3
5	Cox's Bazar	36	29·914		29·894	30·002	29th	29·810	15th	·192													
	Chittagong	87	29·880*	−·036*	29·918*	29·977	29th	29·789	15th	·188	71·4	83·1	+0·1	66·4	+0·6	74·8	+0·3	16·7	87·5	2nd & 12th.	60·0	28th	3
	Noakhali	43	29·932		29·923	30·026	29th	29·851	15th	·175	71·9	82·6		67·6		75·1		15·0	87·3	2nd	61·4	30th	3
	Barisal	12	29·957	−·032	29·915	30·045	29th	29·871	15th	·174	74·8	83·5	+0·7	67·6	+2·6	75·6	+1·7	15·9	88·3	2nd	61·1	24th	3
	Comilla	36	29·937		29·921	30·019	29th & 30th.	29·851	5th	·168	73·5	84·0		66·0‡		74·1‡		18·0	88·3	12th & 13th.	66·3	30th	3
	Narayanganj	26	29·952	−·030	29·927	30·038	29th	29·862	5th	·176	73·1	83·5	0	68·0	+2·0	75·8	+1·0	15·5	88·0	14th	62·3	24th & 30th.	3
	Faridpur	46	29·944		29·940	30·035	30th	29·855	5th	·180	72·9	83·3		66·4		74·9		16·9	87·8	2nd	58·9	24th & 29th.	3
	Sirajganj	49	29·953		29·953	30·047	29th	29·866	5th	·181	71·6	83·2		66·6		74·9		16·6	87·4	14th	60·3	24th	3
	Mymensingh	63	29·934	−·023	29·950	30·020	29th	29·851	5th	·169	74·4	84·3	+2·8	67·8	+4·1	76·1	+3·5	16·5	88·1	4 days	61·0	29th	3
	Bogra	75	29·933	−·013?	29·962	30·019	29th	29·835	5th	·184	73·8	83·8	+1·8	65·9	+3·5	74·9	+2·7	17·9	88·2	1st	58·2	24th	3
	Rampur Boalia	70	29·940		29·961	30·044	29th	29·843	5th	·201	72·3	84·2		65·7		75·0		18·5	89·1	1st	58·1	24th	3
	Malda	72	29·920?		29·946?	30·027	29th	29·817	5th	·210	70·9	83·6		62·8		73·2		20·8	89·3	1st	54·0	24th	3
	Dinajpur	123	29·862§	−·040§	29·945§	29·965	29th	29·767	5th	·198	69·1	84·3	+1·9	63·2	+2·2	73·8	+2·1	21·1	88·3	1st	55·0	24th	3
	Rangpur	123	29·885?		29·967?	29·994	29th	29·783	5th	·211	72·1	84·6		63·5		74·0		21·1	88·6	1st	56·0	24th & 30th.	3

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

* Mean of 29 days. ‡ Mean of 17 days.

† " " 28 " § " " 23 "

NOTE.—The barometric readings are not reduced to sea-level in the cases of hill or pl

3.

n India, etc., in November, 1909.

Wind direction. Number of winds from Calm. (25)	N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st May to 30th November, 1909. (53)	Normal rainfall for period, 1st May to 30th November. (54)	Departure from normal of period, 1st May to 30th November, 1909. (55)	Heaviest rainfall during month. (56)	Station. (57)
																																I.—Burma.
23			1	3		3			S 13° E	N 29° E	1·6	1·6	0	13	−39	92	+14	·842	+·092	1·1	−3·2	10	5·60	+4·40	5·89	3·70	+ 2·19	176·63	155·53	+21·13	2·15	Mergui.
30									(a)	N 29° E	1·0¶	1·2	−0·2			88	+ 7	·787	+·049	3·4	−0·6	8	3·90	+4·10	4·45	1·95	+ 2·49	210·37	203·34	+ 7·03	1·68	Tavoy.
9	1	8	9	1	1			1	N 69° E	N 4° E	3·0	2·4	+0·6	53	+31	87	+ 4	·800	+·050	6·3	+2·6	6	2·50	+3·50	2·74	1·93	+ 0·81	207·01	179·79	+27·22	1·30	Moulmein.
5	2	20	2		1				N 47° E	N 68° E	2·8	3·9	−1·3	72	+12	88	+ 1	·811	+·043	6·8	+3·6	9	2·80	+6·20	4·89	2·43	+ 2·46	101·20	94·23	+ 6·97	2·18	Rangoon.
15	3	4	5	3					N 69° E	N 53° E	3·9	3·6	+0·3	37	−22	92	+ 6	·816	+·052	4·0	+0·6	6	3·80	+2·20	4·30	3·51	+ 0·79	107·02	109·88	− 2·86	1·05	Bassein.
6	1	12	7	1	1	1		1	N 62° E	N 53° E	7·6	9·2	−1·6	56	−17	83	+ 5	·856	+·066	6·1	+2·0	10	7·10	+2·90	7·81	5·41	+ 2·40	124·73	113·59	+11·14	3·08	Diamond Island.
15	4	4		1			1	5	N 6° W	N 12° W	1·5*	1·7	−0·2	33	−19	92*	+ 4	·798*	+·065	7·8	+3·3	9	2·00	+7·00	3·92	1·20	+ 2·72	104·47	76·32	+28·15	0·80	Toungoo.
1	1	15	9	2	2				N 69° E		4·0¶			72		84		·805		3·1		8			2·63			176·23			0·60	Kyaukpyu.
1	12	13	1	3	1				N 32° E	N 26° E	2·6	2·3	+0·3	76	− 8	92	+ 3	·760	+·015	6·0	+2·3	5	2·80	+2·20	3·62	2·77	+ 5·85	230·54	186·52	+44·02	3·62	Akyab.
2	9	9	2	1	2	1		4	N 20° E	N 4° E	3·1¶*	3·6	−0·5	53	− 2	88	+10	·765	+·100	6·9	+4·3	8	2·40	+5·60	3·18	1·74	+ 1·44	37·68	35·58	+ 2·10	1·09	Thayetmyo.
2	1	3				1	2	21	N 42° W	N 48° W	3·5	7·1	−3·6	72	− 4	87	+11	·715	+·062	7·8	+5·2	9	1·30	+7·70	7·52	0·45	+ 7·07	49·59	30·31	+19·28	2·56	Minbu.
11	3	2			1			13	N 32° W	N 18° W	2·1*	3·0	−0·9	49	+ 1	90	+ 6	·708	+·033	7·0	+4·9	3	2·60	+0·40	2·82	0·97	+ 1·85	47·72	34·88	+12·84	1·28	Yamethin.
23	1		1	2			1	2	N	N 11° E	2·2	2·0	+0·2	3	−17	87	+ 2	·691	+·004	6·0	+2·2	4	2·90	+1·10	1·75	1·71	+ 0·04	33·89	30·69	+ 3·20	1·08	Mandalay.
1	19	4	1					5	N 1° E		3·1			84		89		·710		6·9		3	2·10	+0·90	3·09	1·01	+ 2·08	40·18	27·30	+12·88	1·37	Monywa.
30									(a)		1·5¶					94	+ 3	·539	+·056	7·1	+0·2	6			2·82	2·18	+ 0·64	65·71	57·16	+ 8·55	1·30	Lashio.
27		3							N 45° E	N 23° E	1·4	1·7	−0·3	10	−23	95	+ 5	·637	+·039	3·9	−0·3	7	2·00	+5·00	3·28	1·01	+ 2·27	63·39	69·53	− 6·14	1·15	Bhamo.
18		3	8	1					N 83° E		1·4			37		87		·583		4·7		7			2·40			46·65			0·85	Myitkyina.
																																II.—Eastern Bengal and Assam.
17		8	9	1					N 63° E		0·9			37		88		·577		3·4		1	1·50	−0·50	0·29	0·81	− 0·52	91·84	95·00	− 3·16	0·29	Dibrugarh.
13	1	11	1	2		1		1	N 50° E	N 60° E	1·3	1·5	−0·2	37	+10	93	− 5	·621	+·045	5·9	+0·7	0	2·00	−2·00	0	0·93	− 0·93	78·91	77·74	+ 1·17	0	Sibsagar.
29		1							N 45° E		2·0			3		90		·582		2·5		1	1·20	−0·20	0·27	0·41	− 0·14	48·81	61·11	−12·30	0·27	Tezpur.
17		4	4	4	1				S 84° E		1·3			33		93		·638		5·7		0	0·80	−0·80	0·07	0·31	− 0·24	54·71	53·09	+ 1·62	0·07	Gauhati.
7	1	14	8						N 58° E	N 65° E	5·7	5·1	+0·6	66	−11	87	− 1	·645	+·053	0·2	−1·7	0	0·30	−0·30	0	0·22	− 0·22	87·35	85·69	+ 1·66	0	Dhubri.
17			8	5					S 73° E	N 79° E	1·5	1·7	−0·2	43	+35	87	0	·650	+·021	2·3	−2·4	4	2·60	+2·00	3·16	1·25	+ 1·91	97·18	99·15	− 1·97	2·16	Silchar.
4	4	10	9	2	1				N 63° E		2·0			67						3·4		4			9·06			136·72			6·36	Cox's Bazar
8	8	6	3	2			1	2	N 27° E	N 43° E	2·1	2·7	−0·6	46	−27	90	+ 1	·696	+·015	2·2	−1·3	4	1·80	+2·20	7·14	1·48	+ 5·66	120·17	87·80	+32·37	4·62	Chittagong.
12	4	11		1			2		N 33° E		1·4			43		89		·695		1·7		3	1·39	+1·61	2·30	1·61	+ 0·69	149·57	104·45	+45·12	1·44	Noakhali.
14	8	4	1					3	N 7° E	N 18° E	1·5	1·7	−0·2	43	+18	82	− 1	·701	+·023	2·3	+0·4	2	1·32	+0·68	0·81	1·26	− 0·45	93·42	70·21	+23·21	0·64	Barisal.
26		1	1	1	1				S 63° E		0·9			7		86		·713		1·0		2	1·55	+0·45	2·14	1·19	+ 0·95	93·02	79·50	+13·52	1·67	Comilla.
7	6	7	5					5	N 24° E	N 13° E	1·4	2·1	−0·7	49	+ 6	86	+ 1	·700	+·041	3·5	+1·1	3	1·33	+1·67	0·95	1·07	− 0·12	70·27	60·52	+ 9·75	0·64	Narayanganj.
11	11		2	1			1	4	N 4° W		1·6			43		84		·690		1·5		0	1·23	−1·23	0·15	1·03	− 0·88	63·73	60·21	+ 3·52	0·07	Faridpur.
6	5	3	2	1			4	9	N 25° W		1·2			47		87		·671		2·7		0	0·84	−0·84	0·13	0·55	− 0·42	59·89	55·68	+ 4·21	0·07	Sirajganj.
20	1	2	4	1		1		1	N 69° E	N 58° E	0·5	1·1	−0·6	17	−16	83	− 8	·709	+·070	2·3	−0·3	3	0·90	+2·10	0·43	0·65	− 0·22	71·01	78·57	− 7·56	0·18	Mymensingh.
21	4	1						4	N 16° W	N 27° E	0·8	1·4	−0·6	27	−11	75	−10	·633	+·025	0·4	−0·7	0	0·58	−0·58	0·05	0·78	− 0·73	77·60	62·30	+15·30	0·03	Bogra.
30									(a)		1·1					78		·625		0·7		0	0·68	−0·68	0·02	0·31	− 0·29	43·28	51·41	− 7·13	0·02	Rampur Boalia.
5	9	3	1	1			11		N 13° W		3·0¶			63		82		·626		0		0	0·39	−0·39	0	0·22	− 0·22	45·70	51·34	− 4·64	0	Maida.
22	2	2	2	1			1		N 45° E	N 21° E	1·0	2·2	−1·2	13	−42	87	+ 3	·622	+·046	0·4	−0·8	0	0·19	−0·19	0	0·04	− 0·04	63·40	67·07	− 3·67	0	Dinajpur.
14	2	8	4	1			1		N 51° E		1·0			43		82		·656		0·4		0	0·13	−0·13	0	0·24	− 0·24	92·38	78·69	+13·69	0	Rangpur.

(a) Indeterminate.

¶ Uncorrected for scale error.

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

Table

(2) *Abstract of observations taken at 8 hrs., at 236 stations*

Number of subdivisions.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	II.—Eastern Bengal and Assam—*concld.*																						
5	Jalpaiguri	283	29·717	−·034	29·968	29·825	29th	29·614	5th	·211	67·9	85·4	+4·1‖	63·5	+2·8	74·4	+3·5‖	21·9	87·9	5 days	55·9	30th	32·0
	Cooch Behar	156	29·860		29·978	29·971	29th	29·744	5th	·227	68·8	83·5		64·1		73·8		19·4	85·8	5 days	55·6	30th	30·2
	III.—Bengal.																						
6	Saugor Island	25	29·958	−·037	29·928	30·057	30th	29·869	5th	·188	73·1	84·8	+3·1	68·5	+1·4	76·7	+2·3	16·3	88·5	1st	61·0	25th	27·5
	Midnapore	148	29·838		29·939	29·942	30th	29·746	5th	·196	70·0	86·8		63·3		75·0		23·5	91·3	1st & 2nd	57·2	25th	34·1
	Calcutta	21	29·973	−·031	29·940	30·077	29th	29·881	5th	·196	71·5	84·6	+3·2	65·8	+1·2	75·2	+2·2	18·8	89·7	3rd	59·0	24th & 27th.	30·7
	Jessore	33	29·951	−·034	29·931	30·054	30th	29·867	5th	·187	73·5	84·7	+1·6	66·7	+2·7	75·7	+2·1	18·0	89·5	2nd	52·7	24th	36·8
	Krishnagar	47	29·940		29·937	30·042	29th	29·865	5th	·177	68·6	84·8		65·8		75·3		19·0	90·1	2nd	57·5	24th	32·6
	Burdwan	99	29·897	−·035	29·948	30·007	30th	29·799	5th	·208	70·9	85·8	+2·6	65·7	+1·4	75·8	+2·0	20·1	90·9	1st	58·8	24th	32·1
	Bankura	313	29·679		29·953	29·783	30th	29·581	5th	·202	71·4	86·6		62·6		74·7		24·0	92·1	1st	57·2	25th, 26th & 27th.	34·9
	Raniganj	334	29·671†		29·974†	29·777	29th & 30th.	29·577	5th	·200	65·5§	88·4		61·4		73·9		25·0	91·5	2nd	56·0	30th	35·4
	Berhampore	67	29·938	−·025	29·956	30·037	29th	29·841	5th	·196	70·5¶	83·5	+1·5	66·3	+2·3	75·0	+1·9	17·2	88·6	1st	59·7	30th	28·9
	Naya Dumka	489	29·508		29·974	29·610	29th & 30th	29·409	5th	·201	70·2¶	85·1¶		62·0¶		73·6¶		23·1	88·9	1st & 2nd	54·0	27th & 29th.	34·9
7	Balasore	50	29·951	−·031	29·947	30·055	30th	29·854	5th	·201	68·9	86·4	+2·8	62·7	−0·3	74·6	+1·3	23·7	90·9	1st	56·6	26th	34·3
	False Point	21	29·982	−·018?	29·945	30·076	30th	29·896	5th	·180	72·3	85·7‖	+3·3‖	65·0	−0·5	76·2‖	+1·3	20·7	88·1	2nd, 3rd & 7th,	57·1	25th	31·0
	Cuttack	80	29·919	−·023	29·945	30·015	30th	29·839	5th	·176	70·3	86·5	+1·4	65·5	−0·6	76·0	+0·4	21·0	91·4	1st	59·2	25th, 26th & 30th.	32·2
	Puri	24	29·977†		29·940†	30·068	30th	29·895	5th	·173	73·5†	86·5†		69·5‡		76·2‡		17·0	90·6	4th	62·6	26th	28·0
	Angul	455	29·545		29·977	29·634	30th	29·459	20th	·175	68·5	86·1		59·5		72·9		26·6	91·1	1st	54·0	26th	37·1
	Sambalpur	486	29·538	−·010	29·991	29·629	30th	29·449	5th	·180	68·5	85·4	+1·6	58·8	−3·5	72·1	−0·9	26·6	90·1	1st & 2nd	53·6	22nd, 23rd & 24th.	36·5
8	Chaibassa	*733*	29·257	−·017	29·975	29·360	30th	29·168	5th	·192	63·9	85·3	+1·8	57·9	−2·5	71·6	−0·3	27·4	91·1	1st	51·8	30th	39·3
	Ranchi	2,128	27·862	−·004	29·996	27·955	30th	27·784	5th	·171	66·4	79·3	+1·5	58·5	+0·9	68·9	+1·2	20·8	85·2	1st & 2nd	53·9	28th & 30th.	31·3
	Purulia	*816*	29·163		29·959	29·280	29th	29·070	5th	·210	65·6	85·8		60·8‡		73·2‡		25·0	91·5	1st	55·1	30th	36·4
	Hazaribagh	2,007	27·972	−·018	29·975	28·070	30th	27·894	5th	·176	69·2	79·7	+2·4	58·7	+0·8	69·2	+1·6	21·0	85·7	2nd	53·3	25th & 27th.	32·4
	Daltonganj	*730*	29·296		30·020	29·430	30th	29·197	5th	·233	62·0	85·1		52·8		69·0		32·3	92·1	1st & 2nd	47·0	26th	45·1
9	Purnea	124	29·883†	−·017† ?	29·977†	30·005	29th	29·771	5th	·234	66·8	83·2	+1·3	59·7†	+0·5†	71·5†	+0·9	23·5	87·0	1st	51·2	27th	35·8
	Bhagalpur	160	29·859		29·976	29·992	29th	29·750	5th	·242	72·4	85·3		60·4		72·9		24·9	90·2	1st	51·3	30th	38·9
	Monghyr	155	29·856		29·969	29·989	29th	29·735	5th	·254	70·4	84·0		62·6		73·3		21·4	89·9	1st	55·9	27th	34·0
	Darbhanga	165	29·841	−·032	29·968	29·981	29th	29·722	5th	·259	68·8	85·1	+3·8	60·4	−1·6	72·7	+1·1	24·7	88·6	1st & 13th	52·3	29th	36·3
	Pusa	188	29·823		29·973	29·959	29th	29·706	5th	·243	66·0	84·7		58·2		71·8		25·9	88·8	1st	51·1	26th & 29th.	37·7
	Muzaffarpur	177	29·838		29·979	29·975	29th	29·717	5th	·258	68·1	83·7		59·3		71·5		24·4	88·7	1st	51·5	25th & 27th.	37·2
	Motihari	221	29·786		29·977	29·924	29th	29·667	5th	·257	68·5	84·0		59·4		71·7		24·6	88·6	15th	52·3	25th	36·3
	Chapra	181	29·823		29·966	29·957	30th	29·715	5th	·242	66·3	84·7		59·5		72·1		25·2	90·2	4th	52·9	25th	37·3
	Patna	183	29·827	−·038	29·971	29·966	30th	29·711	5th	·255	70·7	83·2	+1·5	62·2	+1·7	72·7	+1·6	21·0	88·5	6th	56·2	26th & 27th.	32·3
	Arrah	190	29·822		29·973	29·952	30th	29·712	5th	·241	67·0	85·0		58·5		71·8		26·5	90·2	5th	52·0	25th & 28th.	38·2
	Buxar	239	29·788		29·973	29·903	30th	29·653	5th	·250	67·4	86·9		60·5		72·7		26·4	94·0	4th	54·1	30th	39·9
	Dehri	351	29·650		29·972	29·787	30th	29·549	5th	·238	66·3	86·4		61·2		73·8		25·2	93·3	2nd	55·0	25th, 28th & 30th.	38·3
	Gaya	372	29·627	−·041?	29·970	29·769	30th	29·530	5th	·239	67·5	85·6	+2·4	59·9	+0·2	72·8	+1·3	25·7	91·9	1st	53·2	25th, 26th & 30th.	38·7
	IV.—United Provinces of Agra and Oudh.																						
10	Gorakhpur	257	29·739	−·031	29·964	29·877	30th	29·628	5th	·254	66·3	83·7	+2·1	55·7	−2·6	69·8	−0·3	28·0	88·6	1st & 4th	49·5	30th	39·1
	Benares	267	29·745	−·025	29·979	29·888	30th	29·643	5th	·255	67·5	86·1	+4·0	54·5	−1·6	70·3	+1·2	31·6	93·6	4th	48·1	25th	45·5
	Allahabad	309	29·703	−·025	29·981	29·856	30th	29·596	3rd	·260	65·8	86·2	+3·1	56·3	+0·2	70·8	+1·7	30·9	93·6	1st & 4th	48·5	30th	45·1

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

NOTE.—The barometric readings are not reduced to sea-level, in the cases of hill or plate

‖ Mean of 23 days.

B—*continued.*

in India, etc., in November, 1909—continued.

Wind direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 30th November, 1909.	Normal rainfall for period, 1st May to 30th November.	Departure from normal of period 1st May to 30th November, 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																II.—Eastern Bengal and Assam—*concld.*
11	4	5	2			1		7	N	N 20° E	1·0			39	−16	82	−2	·573	+·011	0·7	−0·5	0	0·32	−0·32	0	0·13	−0·13	114·53	117·13	−2·60	0	Jalpaiguri.
12		6	11	1					N 76° E		1·1			53		84		·591		1·4		0	0·37	−0·37	0	0·14	−0·14	132·16	120·16	+12·00	0	Cooch Behar.
																																III.—Bengal.
	16	6					1	7	N 4° W	N 10° E	6·7	7·0	−0·3	82	+9	84	−3	·689	+·001	2·0	−1·1	0	1·35	−1·35	0·08	1·71	−1·63	69·97	68·39	−3·42	0·05	Saugor Island.
4	21	1				1	2	1	N 8° W		1·9			73		67		·495		0·8		1	1·14	−0·14	0·25	0·80	−0·55	56·84	55·97	+0·87	0·25	Midnapore.
8	6	3						13	N 22° W	N	3·1*	2·5	+0·6	62	+17	80	−2	·637	+·026	0·9	−0·9	1	0·96	+0·04	0·20	0·68	−0·48	65·52	55·39	+10·13	0·20	Calcutta.
28	2								N	N 6° W	0·2	1·6	−1·4	7	−19	77	−9	·649	+·002	1·9	−0·1	0	1·10	−1·10	0	1·38	−1·38	76·99	57·11	+19·88	0	Jessore.
24	1	1					1	3	N 27° W		0·9			17		87		·613		1·1		1	0·81	+0·19	0·21	0·74	−0·53	67·23	49·95	+17·28	0·21	Krishnagar.
10	12	3						5	N 5° W	N 5° W	1·4	1·6	−0·2	59	+19	75	0	·576	+·017	0·6	−1·4	0	0·81	−0·81	0·07	0·79	−0·72	69·10	52·65	+16·45	0·07	Burdwan.
27	1							2	N 27° W		2·2			7		63		·485		0·3		0	0·79	−0·79	0	0·51	−0·51	65·33	52·10	+13·23	0	Bankura.
							3	7	N 58° W		1·5			30		78§		·498§		0·3		0	0·63	−0·63	0	0·54	−0·54	43·94	52·22	−8·28	0	Raniganj.
20																																
13	3	1			1		1	6	N 20° W	N 13° W	1·6	1·5	+0·1	43	+13	81	−4	·615	+·010	0·9	−1·0	0	0·52	−0·52	0	0·59	−0·59	67·72	51·43	+16·29	0	Berhampore.
30									(a)		1·0					73¶		·545		0·1		0	0·50	−0·50	0	0·31	−0·31	51·49	55·37	−3·88	0	Naya Dumka.
2	7							21	N 34° W	N 21° W	1·0	2·1	−1·1	86	+19	73	−11	·518	−·082	1·7	−1·1	0	1·48	−1·48	0	1·22	−1·22	46·15	59·35	−13·20	0	Balasore.
	13						1	16	N 27° W	N 19° W	4·1	6·0	−1·9	89	+9	77	−7	·619	−·049	3·8	+0·5	0	2·45	−2·45	0	2·92	−2·92	52·79	61·71	−8·92	0	False Point.
20		1				3	3	3	N 84° W	N 45° W	1·2*	1·6	−0·4	23	+6	79	+3	·595	+·014	2·5	+0·1	0	1·71	−1·71	0	1·67	−1·67	53·67	56·60	−2·93	0	Cuttack.
	27			1		1			N†		6·6†					73†		·619†		2·1†		1	2·45	−1·45	0·71	2·77	−2·06	50·49	54·79	−4·30	0·71	Puri.
	1						4	25	N 49° W		5·6			97		69		·482		0·6		0			0			32·66			0	Angul.
	7	10	4	1	4		4		N 36° E	N 21° E	3·8	2·7	+1·1	40	−35	71	−5	·502	−·049	0·5	−1·3	0	1·00	−1·00	0	0·59	−0·59	59·99	64·69	−4·70	0	Sambalpur.
10					2	8	10		S 64° W	S 77° W	1·9	0·9	+1·0	59	+26	77	−1	·461	−·060	0·8	−1·1	0	0·81	−0·81	0	0·77	−0·77	54·94	47·38	+7·56	0	Chaibasa.
8	2	1	1		2		7	9	N 59° W	N 63° W	4·7†	3·7	+1·0	43	+25	56	−10	·368	−·057	0·3	−1·2	0	0·72	−0·72	0	0·39	−0·39	54·20	51·84	+2·36	0	Ranchi.
							23	7	N 80° W		3·4			93		70		·446		0·1		0	0·74	−0·74	0	0·24	−0·24	52·33	49·07	+3·26	0	Purulia.
8	4	1			3	5	5	4	N 85° W	N 71° W	4·5	4·6	−0·1	37	+13	51	−15	·365	−·053	0	−2·1	0	0·65	−0·65	0	0·30	−0·30	46·62	50·77	−4·15	0	Hazaribagh.
29				1					S 45° E		2·2			3		80		·451		0		0	0·68	−0·68	0	0·35	−0·35	41·56	42·05	−0·49	0	Daltonganj.
29		1							N 45° E	N 50° E	0	1·5	−1·5	3	−8	88	−1	·585	+·030	0	−1·0	0	0·16	−0·16	0	0·08	−0·08	65·43	62·09	+3·34	0	Purnea.
25						3	2		S 63° W		1·2			13		68		·544		0		0	0·23	−0·23	0	0·17	−0·17	52·92	46·74	+6·18	0	Bhagalpur.
12	1		1			2	7	7	N 67° W		2·1			43		74		·561		0		0			0			53·78			0	Monghyr.
27		1	1		1				S 79° E	N 49° W	0·5	1·6	−1·1	6	−4	83	+1	·594	+·042	0·1	−0·6	0	0·19	−0·19	0	0·09	−0·09	58·75	48·71	+10·04	0	Darbhanga.
25		2		1			1	1	N 13° E					6		84		·543		0		0			0			71·90			0	Pusa.
26			1	1		1		1	S 20° E		0·9			4		80		·550		0		0	0·37	−0·37	0	0·12	−0·12	56·00	43·40	+12·60	0	Muzaffarpur.
27		1	1				1		N 45° E		0·5			3		93		·555		0·3		0	0·18	−0·18	0	0·12	−0·12	51·21	49·39	+1·82	0	Motihari.
																78		·511		0		0	0·39	−0·39	0	0·25	−0·25	37·61	38·87	−1·26	0	Chapra.
8	1				5	7	9		S 57° W	S 60° W	1·6	1·8	−0·2	53	+26	66	−5	·504	−·003	0	−1·3	0	0·32	−0·32	0	0·22	−0·22	49·06	46·12	+2·94	0	Patna.
14				1	3	9	3		S 42° W		1·1			47		68		·462		0		0	0·42	−0·42	0	0·21	−0·21	38·16	43·48	−5·32	0	Arrah.
5			1	2	4	12	5	1	S 43° W		2·8			57		66		·446		0·1		0	0·39	−0·39	0	0·40	−0·40	43·29	39·62	+3·67	0	Buxar.
1			1		7	21			S 32° W		1·3			87		68		·418		0·2		0	0·44	−0·44	0	0·28	−0·28	38·31	41·14	−2·83	0	Dehri.
14				1	10	3	1	1	S 14° W	S 7° E	2·4	2·3	+0·1	40	+7	68	−3	·458	−·017	0·2	−1·4	0	0·48	−0·48	0	0·47	−0·47	58·37	44·91	+13·46	0	Gaya.
																																IV.—United Provinces of Agra and Oudh.
29		1							N 45° E	N 67° W	?	1·0	?	3	−27	81	+5	·535	+·036	0	−0·9	0	0·10	−0·10	0	0·15	−0·15	48·43	49·84	−1·41	0	Gorakhpur.
23					1	4	2		S 51° W	S 53° W	0·6	1·9	−1·3	23	+1	66	−14	·447	−·032	0	−1·4	0	0·30	−0·30	0	0·21	−0·21	38·73	39·27	−0·54	0	Benares.
16						1	11	2	N 87° W	N 82° W	1·3	2·3	−1·0	43	+18	64	−8	·420	−·037	0·1	−1·2	0	0·30	−0·30	0	0·25	−0·25	43·83	38·87	+4·96	0	Allahabad.

stations, the elevations of which exceed 3,000 feet.

† Mean of 29 days.

‡ Mean of 28 days.

* Uncorrected for scale error.

§ Mean of 27 days.

¶ Mean of 20 days.

(a) Indeterminate.

Ta

(2) *Abstract of observations taken at 8 hrs., at 236 stati*

Number of subdivision.	Station.	Elevation of barometer above sea-level, in feet	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	IV.—United Provinces of Agra and Oudh—*concld.*																					
16	Cawnpore	416	29·575	—·037	29·971	29·734	30th	29·472	3rd	·262	64·6	86·5	+2·4	52·6	—2·4	69·6	0	33·9	95·2	1st	44·0	30th
	Lucknow	368	29·631*	—·028*	29·979*	29·792	30th	29·536	5th	·256	65·7	86·8	+3·5	54·8	+2·0	70·9	+2·7	32·0	94·0	1st & 5th	46·6	29th, & 30th.
	Bahraich	401	29·596	—·029	29·977	29·751	30th	29·476	5th	·275	64·5	86·1	+3·3	57·7	+1·1	71·9	+2·2	28·4	90·6	1st & 2nd	51·0	24th
11	Jhansi	824	29·203	—·009?	30·005	29·360	30th	29·116	3rd	·244	75·0	89·1	+3·8	62·8	+4·2	76·0	+4·0	26·3	97·5	3rd & 4th	55·0	30th
	Agra	556	29·448	—·035	29·989	29·622	30th	29·352	6th	·270	66·6	88·3	+3·9	58·9	+3·0	73·6	+3·5	29·4	97·5	1st	50·5	30th
	Mainpuri	516	29·464	—·042	29·961	29·618	30th	29·374	3rd	·244	63·0	87·2	+3·0	54·4	+0·2	70·8	+1·6	32·8	95·3	4th	48·1	29th
	Bareilly	568	29·415	—·029	29·974	29·574	30th	29·309	5th	·265	63·3	83·9	+2·8	55·0	+2·2	69·5	+2·5	28·9	90·3	1st & 3rd	48·5	24th & 26th.
	Meerut	738	29·239	—·032	29·984	29·399	30th	29·127	6th	·272	58·5	84·3	+3·0	52·6	+2·0	68·4	+2·5	31·7	91·1	2nd & 4th	46·8	28th
	Roorkee	899	29·097	—·009?	30·015	29·253	30th	28·976	6th	·277	58·6	81·5	+1·0	51·0	+1·2	66·3	+1·1	30·5	88·5	4th	44·4	30th
	Dehra Dun	2,233	27·740	—·025	30·010	27·869	30th	27·625	6th	·244	59·4	78·8	+3·8	53·5	+1·7	66·2	+2·7	25·3	84·5	3rd	48·0	30th
	V.—Punjab.																					
12	Delhi	718	29·272	—·026	29·969	29·433	30th	29·159	6th	·274	64·1	84·9	+2·0	58·9	+2·7	71·9	+2·3	26·0	93·7	2nd	52·2	28th
	Sirsa	662	29·329*	—·028*	29·988*	29·493	30th	29·202	6th	·291	63·8	86·8†	+1·9†	?	?	?	?	?	96·8	3rd	?	?
	Patiala	*818*	29·175		30·002	29·330	30th	29·036	6th	·294	61·7	84·0		52·8		68·4		31·2	90·8	4th	46·3	26th
	Ambala	892	29·081†	—·031†	29·991†	29·236	30th	28·955	6th	·281	59·1	85·2†	+2·9†	52·9‡	+0·8‡	70·3§	+1·9	32·3	92·5	4th	47·0	20th
	Ludhiana	812	29·164	—·030	29·991	29·326	30th	29·036	6th	·290	59·6	84·0	+3·4	53·9	+3·0	69·0	+3·2	30·1	95·5	4th	48·0	28th, 29th & 30th.
	Lahore	702	29·274	—·040	29·990	29·439	30th	29·136	6th	·303	57·7	85·0	+2·4	53·2	+6·4	69·6	+4·4	32·8	93·9	1st	45·2	30th
	Sialkot	830	29·150	—·026	29·999	29·305	30th	29·015	6th	·290	58·7	83·0	+2·1	50·8	+0·9	66·9	+1·5	32·2	91·0	1st	42·5	30th
	Rawalpindi	1,674	28·304	—·037	30·051	28·439	30th	28·169	6th	·270	53·5	80·6	+3·4	47·3	+4·0	64·0	+3·7	33·3	88·9	1st	37·9	30th
13	Khushab	612	29·388	—·028	30·009	29·565	29th	29·247	6th	·318	63·9	86·0	+3·2	54·6	+4·9	70·3	+4·1	31·4	94·9	1st	44·4	29th
	Montgomery	558	29·427	—·047	29·981	29·607	30th	29·283	1st	·324	64·2	87·4	+3·2	54·4	+3·5	70·9	+3·3	33·0	97·4	2nd	47·1	30th
	Multan	420	29·576	—·049	29·983	29·762	30th	29·428	6th	·334	64·3	86·3	+1·9	57·6	+5·2	72·0	+3·5	28·7	95·3	2nd	49·0	30th
	VI.—North-West Frontier Province.																					
15	Peshawar	1,110	28·900	—·042	30·061	29·044	30th	28·760	6th	·284	54·5	79·0	+1·9	48·9	+3·8	64·0	+2·9	30·1	87·2	2nd	39·4	29th
	D. I. Khan	590	29·412	—·053	29·989	29·576	30th	29·248	6th	·328	57·4	84·6	+2·5	52·2	+5·2	68·4	+3·9	32·4	93·4	1st	42·6	22nd
	VII.—Sind.																					
17	Jacobabad	186	29·807	—·054	29·965	30·006	30th	29·660	6th	·346	64·1	91·6	+4·8	56·5	+5·7	74·1	+5·3	35·1	103·1	1st	46·8	29th
	Hyderabad	96	29·909	—·039	29·962	30·090	30th	29·780	7th	·310	71·3	92·2	+4·2	63·2	+3·2	77·7	+3·7	29·0	102·0	1st	57·0	22nd
	Karachi	13	30·012	—·029	29·976	30·160	30th	29·883	7th	·277	74·8	85·3	+1·6	70·2	+4·4	77·8	+3·0	15·1	93·0	4th	65·0	29th
	VIII.—Rajputana.																					
18	Bikaner	*771*	29·207	—·039	29·975	29·373	30th	29·097	1st	·276	67·9	88·9	+4·2	60·7	+1·3	74·8	+2·7	28·2	98·0	1st & 2nd	53·0	26th
	Jodhpur	780	29·237	—·015	30·031	29·386	30th	29·151	6th	·235	66·6	90·0	0	56·2	—3·2	73·1	—1·6	33·8	96·0	1st & 2nd	51·3	30th
19	Jaipur	1,431	28·577	—·024	30·017	28·719	30th	28·503	6th	·216	68·2	89·2	+3·4	56·3	+1·1	72·8	+2·3	32·9	97·2	2nd	49·1	23rd & 30th.
	Sambhar	1,254	28·759	—·009?	30·031	28·916	30th	28·681	1st	·235	63·7	87·7	+3·2	53·7	+0·8	70·7	+2·0	34·0	94·4	2nd & 3rd.	46·9	30th
	Ajmer	1,611	28·404	—·025	30·053	28·550	30th	28·321	6th	·229	59·6	85·1	+1·2	56·0	+5·0?	70·6	+3·1?	29·1	91·4	2nd	48·7	30th
	Kotah	819 ?	29·177	—·034?	30·021	29·329	30th	29·101	6th	·228	71·1	90·0	+1·6	61·5	+1·1	75·8	+1·3	28·5	98·0	2nd	53·6	30th
	Udaipur	1,925	28·105*	—·013*	30·047*	28·230	30th	28·034	6th & 7th.	·196	65·2	86·1	+0·1	53·8	—0·8	70·0	—0·3	32·3	91·5	1st, 2nd & 4th.	48·3	30th

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

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

* Mean of 29 days. † Mean of 28 days. ‡ Mean of 20 days. § Mean of 19 days.

-continued.

India, etc., in November, 1909—continued.

Wind direction. Number of winds from N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 30th November	Normal rainfall for period, 1st May to 30th November	Departure from normal of period, 1st May to 30th November, 1909.	Heaviest rainfall during month.	Station.
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																														IV.—United Provinces of Agra and Oudh—*concld.*
					10	1	N 86° W	N 68° W	1·3	1·9	−0·6	37	+18	64	− 2	·395	−·016	0	−0·9	0	0·10	−0·10	0	0·44	−0·44	33·90	34·32	−0·42	0	Cawnpore.
						1	N 45° W	N 72° W	0·8	1·4	−0·6	3	−10	68	− 8	·432	−·012	0	−1·0	0	0·20	−0·20	0	0·11	−0·11	38·23	36·74	+1·49	0	Lucknow.
		3				3	N	N 2° W	1·3	1·8	−0·5	3	−10	77	0	·477	−·005	0·2	−0·4	0	0·30	−0·30	0	0·40	−0·40	42·59	45·67	−3·08	0	Bahraich.
						1	N 45° W	S 81° W	1·8	1·8	0	3	−20	49	− 1	·431	+·085	0	−0·9	0	0·10	−0·10	0	0·13	−0·13	28·03	36·86	−8·83	0	Jhansi.
			3		3	2	S 80° W	N 56° W	2·1	2·7	−0·6	17	−20	53	− 6	·344	0	0	−1·0	0	0·10	−0·10	0	0·11	−0·11	24·88	26·92	−2·04	0	Agra.
2	1	1	2	1	3	5	N 58° W	N 60° W	1·2	0·8	+0·4	17	− 2	65	− 4	·374	0	0	−1·4	0	0·10	−0·10	0	0·31	−0·31	26·92	29·21	−2·29	0	Mainpuri.
							(a)	N 7° E	0·1	1·2	−1·1			73	− 4	·436	+·027	0	−0·8	0	0·27	−0·27	0	0·18	−0·18	39·27	44·81	−5·54	0	Bareilly.
				1			W	S 88° W	0·4	1·1	−0·7	3	−14	76	+ 6	·379	+·053	0	−0·9	0	0·20	−0·20	0	0·13	−0·13	42·52	28·52	+14·00	0	Meerut.
		1					S 45° E	S 81° E	0·8	1·1	−0·3	3	+ 1	78	+ 1	·385	+·027	0·1	−1·0	0	0·50	−0·50	0	0·28	−0·28	35·03	38·53	−3·50	0	Roorkee.
			1				S	S 53° W	0·5	1·3	−0·8	3	+ 1	71	0	·370	+·032	0·1	−1·8	0	0·60	−0·60	0	0·40	−0·40	102·12	82·27	+19·85	0	Dehra Dun.
																														V.—Punjab.
1	2	2		2	17		S 82° W	N 89° W	2·1	2·1	0	46	+ 8	65	+13	·386	+·099	0	−1·4	0	0·30	−0·30	0	0·11	−0·11	31·21	24·91	+6·30	0	Delhi.
2		2	8	11	2	2	S 32° W	S 18° W	2·7*	2·7	0	49	+38	60‖	+ 1	·323‖	+·035	0	−1·8	0	0·10	−0·10	0	0·01	−0·01	21·44	12·37	+9·07	0	Sirsa.
	3	4			1	1	S 88° E		2·0			14		70		·286		0		0			0			29·19			0	Patiala.
	3	5				3	S 84° E	N 34° W	2·6	1·4	+1·2	15	+ 7	73	− 2	·364	+·009	0	−1·1	0	0·30	−0·30	0	0·46	−0·46	26·06	27·43	−1·37	0	Ambala.
							(a)	S 27° W	0·2	1·0	−0·8			71	+ 7	·364	+·054	0·1	−2·0	0	0·20	−0·20	0	0·06	−0·06	34·65	23·25	+11·40	0	Ludhiana.
1		6	3		4		S 8° E	N 5° W	1·3	1·3	0	23	+22	79	+12	·380	+·067	0·4	−1·1	0	0·20	−0·20	0	0·07	−0·07	23·98	16·43	+7·55	0	Lahore.
3	5						N 66° E	N 42° E	0·6	0·8	−0·2	23	+ 8	79	+14	·392	+·088	0·5	−1·0	0	0·30	−0·30	0	0·09	−0·09	21·67	24·98	−3·31	0	Sialkot.
	3						N 72° E	N 50° W	1·4	1·2	+0·2	10	− 1	67	+ 2	·277	+·019	0·7	−1·4	0	0·80	−0·80	0	0·29	−0·29	28·07	24·67	+3·40	0	Rawalpindi.
6	3			1	1		N 57° E	N 38° E	2·3	2·7	−0·4	27	+ 5	49	+ 1	·292	+·066	0·3	−1·0	0	0·30	−0·30	0	0·02	−0·02	6·87	10·32	−3·45	0	Khushab.
1	3	8	5	1		1	S 39° E	S 72° E	2·9	2·9	0	43	+21	49	− 4	·293	+·007	0·1	−1·7	0	0·20	−0·20	0	0·06	−0·06	11·14	7·84	+3·30	0	Montgomery
		4		1		2	N 38° E	N 72° E	1·0	1·2	−0·2	3	−20	59	− 3	·353	+·029	0·1	−1·1	0	0·10	−0·10	0	0·07	−0·07	4·80	5·74	−0·94	0	Multan.
																														VI.—North-West Frontier Province.
							(a)	S 31° W	0·3	2·0	−1·7			68	+ 3	·293	+·032	0·8	−1·9	0	0·90	−0·90	0	0·47	−0·47	4·14	6·15	−2·01	0	Peshawar.
2	2					3	N 7° W	N 9° E	0·5	0·8	−0·3	20	+16	72	+ 7	·337	+·058	0·4	−1·1	0	0	0	0	0·18	−0·18	9·01	5·50	+3·51	0	D. I. Khan.
																														VII.—Sind.
						6	N 18° W	N 18° E	1·7	1·6	+0·1	46	+34	61	+ 7	·365	+·068	0·2	−1·5	0	0·20	−0·20	0	0·11	−0·11	0·53	2·78	−2·25	0	Jacobabad.
1	1		8	8		4	S 51° W	N 10° W	4·3	6·3	−2·0	33	− 8	71	+21	·546	+·206	0·9	−0·8	0	0·20	−0·20	0	0·12	−0·12	6·85	6·19	+0·66	0	Hyderabad.
3	9	1		1	5	5	N 8° W	N 49° E	7·8	7·5	+0·3	49	−18	73	+17	·636	+·188	1·0	−0·3	0	0·30	−0·30	0	0·07	−0·07	5·68	6·72	−1·04	0	Karachi.
																														VIII.—Rajputana.
		1	8	13		6	S 84° W	N 76° W	4·7	3·3	+1·4	76	+57	42	− 6	·294	−·003	0·4	−1·1	0	0·10	−0·10	0	0·05	−0·05	20·94	10·17	+10·77	0	Bikaner.
4	1	1	1	2	1		N 12° E		1·6			17		49	+12	·324		0·2		0	0·20	−0·20	0	0·16	−0·16	17·73	12·59	+5·14	0	Jodhpur.
2	2			1	4		N 11° W	N 1° W	2·2¶	2·7	−0·5	30	+ 5	50	− 4	·337	+·007	0·1	−1·5	0	0·20	−0·20	0	0·20	−0·20	22·04	24·68	−2·64	0	Jaipur.
							(a)	N 7° E	3·2	2·9	+0·3			54	+ 1	·319	+·034	0	−1·3	0	0·20	−0·20	0	0·18	−0·18	23·84	19·45	+4·39	0	Sambhar.
1	1		1	2	3		N 53° W	N 2° W	2·7	1·7	+1·0	17	−13	70	+ 5	·361	+·032	0	−1·3	0	0·40	−0·40	0	0·20	−0·20	25·76	20·58	+5·18	0	Ajmer.
1		1		1			N 45° W		1·4			1		51	+ 4	·389		0		0	0·30	−0·30	0	0·02	−0·02	33·51	25·67	+7·84	0	Kotah.
					1		N 45° W		1·3			3		62	+11	·388		0		0	0·50	−0·50	0	0·02	−0·02	39·48	20·76	+18·72	0	Udaipur.

(a) Indeterminate. ¶ Uncorrected for scale error. ‖ Mean of 18 days.

Ta

(2) *Abstract of observations taken at 8 hrs., at 236 stat*

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	IX.—Bombay.																					
20	Deesa	466	29·549	−·013	29·987	29·673	30th	29·467	7th	·206	68·8	93·7	+2·2	57·6	−0·1	75·7	+1·1	36·1	98·3	1st & 2nd	52·9	28th
	Bhuj	395	29·629	+·001	29·987	29·740	30th	29·549	7th	·191	73·3	92·0	+2·8	64·5	+1·8	78·3	+2·3	27·5	98·5	1st	59·0	29th
	Jamnagar	61	29·968		29·974	30·089	30th	29·907	1st	·182	77·8	90·9		64·0		77·4		26·9	95·7	1st	57·9	29th
	Dwarka	37?	29·996		29·979	30·091	10th	29·922	7th	·169	76·3	82·9		70·0		76·5		12·9	88·8	23rd	63·2	29th
	Rajkot	429	29·593	+·008	29·983	29·692	10th	29·519	7th	·173	74·7	91·5	+1·1	61·0†	+1·7†	76·3†	+1·4	30·5	96·9	1st & 6th.	55·0	28th
	Veraval	*18*	29·989	−·004	29·949	30·086	10th	29·926	20th	·160	74·7	88·8	+0·5	66·2	−1·5	77·5	−0·5	22·6	95·1	15th	62·3	11th
	Bhavnagar Para	55	29·968	−·027	29·967	30·056	30th	29·893	20th	·163	72·3	92·7	+2·8	62·4	−2·0	77·7	+0·4	30·3	96·6	1st & 2nd	54·5	30th
	Surat†	39	29·963	−·013	29·947	30·046	10th	29·883	20th	·163	73·2	93·2	+2·6	64·1	+1·3	78·7	+1·9	29·1	97·6	6th	59·1	23rd
	Ahmedabad†	163	29·844	−·021	29·863	29·970	30th	29·778	7th	·192	72·2	94·0	+2·6	64·9	−0·8	79·4	+0·9	29·1	98·6	1st	59·2	30th
26	Bombay	37	29·950	−·012	29·927	30·022	10th	29·878	20th	·144	75·6	87·5	+0·6	72·7	−0·6	80·1	0	14·8	91·0	11th	68·5	25th
	Ratnagiri	110	29·853	−·005	29·903	29·910	10th	29·783	20th	·127	78·8	90·1	−0·4	69·4	−0·6	79·7	−0·5	20·7	95·3	11th & 23rd.	63·4	13th
	Goa	199	?	?	?	?	?	?	?	?	75·9	85·9	−1·5	72·1	−0·1	79·0	−0·8	13·8	90·1	23rd	67·1	14th
	Mormugao	*60*	29·909	−·016	29·905	29·972	10th	29·820	20th	·152	75·8	86·0	−1·0	73·1	+0·3	79·5	−0·3	12·9	88·5	23rd	68·7	14th & 25th.
	Karwar	44	29·932‡	+·008?	29·911‡	29·970	13th & 14th.	29·873	3rd	·097	72·1	87·8	+0·4	69·1	−0·3	78·4	+0·1	18·7	91·3	25th	62·0	15th
27	Malegaon	1,430	28·576	−·010	29·999	28·668	30th	28·509	20th	·159	68·9	90·5	+3·4	55·5	−1·6	73·0	+0·9	35·0	95·4	1st & 6th.	50·6	26th & 30th.
	Ahmednagar	2,154	27·870	+·004	30·010	27·948	30th	27·801	20th	·147	70·1	87·3	+2·0	56·5	+0·3	71·9	+1·1	30·8	92·4	1st	48·5	26th
	Poona	1,846	28·176	+·013	30·013	28·250	10th	28·101	20th	·149	69·3	88·5	+2·2	56·9	−2·4?	72·7	−0·1?	31·6	93·5	2nd	51·3	26th & 27th.
	Sholapur‖	1,590	28·414	−·001	29·987	23·476	10th	28·335	20th	·141	71·4	88·7§	+1·5§	60·1§	−1·3§	74·4§	+0·1	28·6	91·3	10th & 21st.	55·9	24th & 25th
	Bijapur	*1,943*	28·029†	−·025*	29·916†	28·080	30th	27·978	20th	·102	73·5	89·9	+4·3	59·9	−1·1	74·9	+1·6	30·0	94·7	1st & 2nd.	52·7	13th
	Belgaum	2,539	27·439	0	29·933	27·509	10th	27·371	20th	·138	72·0	84·6	+2·5	60·4	−0·7	72·5	+0·9	24·2	86·8	1st	55·5	15th
	X.—Central India.																					
21	Neemuch	1,624	28·389	−·015	30·031	28·536	30th	28·317	7th	·209	64·8	86·8	+2·3	54·7	−0·2	70·7	+1·1	32·1	92·0	4 days	49·8	23rd & 24th.
	Indore	1,823	28·200	+·011	30·034	28·318	30th	28·126	7th	·192	66·1	86·3	+3·1	53·5	−0·6	69·9	+1·3	32·8	92·1	4th	48·1	30th
22	Nowgong	754	29·245	−·035	29·996	29·402	30th	29·170	3rd	·232	62·1	85·0	+2·7	53·2	0	69·1	+1·3	31·8	93·0	3rd	46·0	30th
	Sutna	1,040	28·945	−·037	29·990	29·086	30th	28·864	3rd	·222	64·7	85·7	+4·6	55·0	+1·1	70·4	+2·9	30·7	94·0	4th	48·2	30th
	XI.—Central Provinces.																					
23	Buldana	2,132	27·886		29·983	27·983	30th	27·816	20th	·167	74·7	84·5		62·6		73·6		21·9	89·4	2nd	57·2	24th
	Akola	930	29·089	−·001	30·004	29·206	30th	29·015	21st	·191	68·9	90·5	+3·5	55·1	−2·3	72·8	+0·6	35·4	95·7	1st	48·1	30th
	Amraoti	1,215	28·787	−·019	29·983	28·899	30th	28·728	6th	·171	72·2	88·6	+2·2	61·5	−0·1	75·1	+1·1	27·1	94·3	2nd	55·3	30th
24	Khandwa	1,044	28·964	−·011	30·011	29·087	30th	28·898	20th	·189	63·3	90·1	+3·3	54·6	−1·6	72·4	+0·9	35·5	95·4	2nd	46·6	30th
	Hoshangabad	1,006	29·022	−·007	30·034	29·147	30th	28·956	5th	·191	63·7	86·5	+2·2	54·2	−3·1	70·4	−0·5	32·3	92·1	4th & 5th.	49·4	29th & 30th.
	Saugor	1,807	28·192†	−·017†	29·993†	28·311	30th	28·136	5th	·175	70·7	85·3	+3·3	58·9	+1·7	72·1	+2·5	26·4	93·6	3rd	52·0	30th
	Jubbulpore	1,327	28·678	−·013	30·028	28·774	30th	28·619	20th	·155	69·7	84·6	+2·7	51·2	−1·9	67·9	+0·4	33·4	92·0	2nd	44·5	29th
	Seoni	2,033	27·983	0	30·022	28·075	30th	27·916	5th	·159	66·4	83·5	+2·2	51·6	−3·8	67·6	−0·8	31·9	90·5	4th	45·5	29th & 30th.
	Nagpur	1,017	28·991	−·005	29·997	29·096	30th	28·927	5th	·169	68·4	88·2	+3·2	58·1	−2·3	73·2	+0·5	30·1	93·6	3rd & 4th.	51·8	27th
25	Pendra	2,123?	27·970		30·004	28·066	30th	27·894	5th	·172	67·8	81·5		56·0		68·8		25·5	88·8	4th	50·2	25th
	Raipur	970	29·030	−·014	29·988	29·126	30th	28·961	5th	·165	66·5	85·3	+2·1	59·7	−1·0	72·5	+0·5	25·6	90·7	3rd, 4th & 6th.	53·1	30th
	Chanda	*634*	29·377	−·005	29·985	29·484	30th	29·310	5th	·174	65·2	87·0	+1·8	54·8	−4·5	70·9	−1·3	32·2	91·5	1st & 2nd.	48·0	24th
	Jagdalpur		28·170			28·207	26th & 28th.	28·130	5th	·077	62·9	80·5		56·9		68·7		23·6	85·7	1st	50·6	30th

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

‡ Mean of 21 days.

† Mean of 29 days.

NOTE 2.—The barometric readings are not reduced to sea-level, in

§ Mean of 22 days.

‖ Mean of 22 days.

3—continued.

n India, etc., in November, 1909—continued.

Wind direction. Number of winds from N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs., in inches of mercury. (43)	Departure from normal, in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st May to 30th November, 1909. (53)	Normal rainfall for period, 1st May to 30th November. (54)	Departure from normal of period, 1st May to 30th November, 1909. (55)	Heaviest rainfall during month. (56)	Station. (57)
																															IX.—Bombay.
8	8	2			2	2	2	N 12° E	N 81° E	4·4	7·3	−2·9	46	−17	50	+ 9	·351	+·051	0·1	−1·1	0	0·18	−0·18	0	0·17	−0·17	27·88	23·78	+4·10	0	Deesa.
1	2	1			3	4	11	N 55° W	N 34° W	4·9	5·5	−0·6	46	+11	67	+ 8	·537	+·085	1·3	+0·3	0	0·30	−0·30	0	0·12	−0·12	18·69	14·11	+4·58	0	Bhuj.
	4	2				1	1	N 44° E		1·9					60		·582		0·1		0			0			31·15			0	Jamnagar.
10	2	1				3	9	N 21° W		8·3					81		·736		0·8		0			0			26·47			0	Dwarka.
9	9	3	1				3	N 25° E	N 48° E	4·5	5·1	−0·6	62	+15	52	− 3	·449	+·012	0·3	−0·7	0	0·50	−0·50	0	0·33	−0·33	27·21	27·95	−0·74	0	Rajkot.
8	10	2						N 31° E	N 22° E	5·6	5·8	−0·2	59	−11	65	+ 10	·548	+·070	0·6	−1·0	0	0·30	−0·30	0	0·59	−0·59	21·58	18·14	+3·44	0	Veraval.
3	2	1		1		2	21	N 39° W	N 60° W	4·3	6·4	−2·1	78	+25	50	−16	·399	−·087	0·9	−0·3	0	0·40	−0·40	0	0·47	−0·47	24·63	19·46	+5·17	0	Bhavnagar Para.
2	4	9					1	N 64° E	N 55° E	2·3	4·6	−2·3	42	−11	55	− 9	·459	−·043	0·6	−0·7	0	0·40	−0·40	0	0·16	−0·16	52·78	43·89	+8·89	0	Surat.
5	18	2	1					N 42° E	N 55° E	3·7	4·3	−0·6	78	+18	54	+ 4	·429	+·025	0·2	−1·6	0	0·30	−0·30	0	0·38	−0·38	29·62	32·94	−3·32	0	Ahmedabad.
1	10	15	2	1				N 76° E	N 73° E	7·5	9·6	−2·1	79	+ 1	76	+ 2	·682	+·003	0·5	−1·0	0	0·60	−0·60	0	0·49	−0·49	71·22	74·94	−3·72	0	Bombay.
	2	13	1	1				S 89° E	S 78° E	7·0	7·6	−0·6	50	−13	59	0	·574	+·001	0·9	−0·5	0	1·00	−1·00	0	0·42	−0·42	99·30	107·03	−7·73	0	Ratnagiri.
	2	26			1	1		N 88° E	N 69° E	5·5	3·6	+1·9	86	0	78	+ 8	·697	+·029	3·0	+1·4	2			0·60	1·14	−0·54	92·65	97·80	−5·15	0·45	Goa.
	3	20	2					N 88° E	S 81° E	4·7	7·3	−2·6	76	− 2	85	+ 4	·761	+·032	2·9	+1·5	1			0·40	1·16	−0·76	77·93	92·34	−14·41	0·32	Mormugao.
	8						1	N 38° E	N 65° E	2·4	2·8	−0·4	27	−43	90	+ 8	·724	+·068	1·7	+0·2	2	2·50	−0·50	1·55	2·08	−0·53	110·22	123·05	−12·83	1·28	Karwar.
								(a)	N 74° W	4·5	4·8	−0·3			39	−17	·286	−·120	0	−1·7	0	1·00	−1·00	0	0·50	−0·50	20·80	23·54	−2·74	0	Malegaon.
1		1		1		5	11	N 57° W	N 76° E	6·0	6·6	−0·6	46	+31	36	−28	·273	−·197	0·4	−1·3	0	1·50	−1·50	0	0·59	−0·59	22·43	20·86	+1·57	0	Ahmednagar.
8	4	6	1			4	8	N	S 76° E	4·8	6·3	−1·5	46	+19	57	− 4	·411	−·017	0	−1·7	0	1·70	−1·70	0	1·06	−1·06	24·95	26·88	−1·93	0	Poona.
6	6	4	1			1	6	N 27° E	S 87° E	5·6	8·4	−2·8	30	−34	42	−11	·318	−·111	0·9	−1·5	0	1·50	−1·50	0	1·19	−1·19	36·42	29·76	+6·66	0	Sholapur.
9	6	4	2	2		1	2	N 32° E	S 76° E	3·2	3·6	−0·4	43	−11	52	−18	·431	−·101	0	−2·5	1	2·10	−1·10	0·38	1·25	−0·87	17·50	23·19	−5·69	0·38	Bijapur.
4	8	6				1	2	N 40° E	S 87° E	7·1	10·8	−3·7	46	−12	54	−10	·428	−·032	1·3	−1·0	3	2·20	+0·80	1·87	1·76	+0·11	45·79	47·61	−1·82	1·04	Belgaum.
																															X.—Central India.
7	4	3		1	1		2	N 22° E	S 51° E	3·3	5·3	−2·0	37	−11	45	− 2	·283	−·035	0	−0·9	0	0·50	−0·50	0	0·19	−0·19	22·49	29·29	−6·80	0	Neemuch.
	2		1					N 72° E	N 45° E	1·1	1·9	−0·8	7	−11	50	− 7	·325	−·055	0·1	−1·0	0	0·50	−0·50	0	0·35	−0·35	23·05	32·96	−9·91	0	Indore.
				7	5	4		S 36° W	N 53° W	1·3	1·0	+0·3	46	+33	67	− 3	·379	−·021	0	−1·4	0	0·70	−0·70	0	0·27	−0·27	35·69	42·95	−7·26	0	Nowgong.
	1	2				8	8	N 60° W	N 13° W	1·5	3·2	−1·7	43	− 4	55	− 8	·342	−·035	0·1	−1·0	0	0·70	−0·70	0	0·34	−0·34	32·10	43·34	−11·24	0	Sutna.
																															XI.—Central Provinces.
2	3	9	10	3	1	2		S 66° E		3·5	5·0	−1·5	57		31		·275		0·5		0			0	0·68	−0·68	35·16	34·66	+0·50	0	Buldana.
1	7	4	3		1		2	N 63° E	N 89° E	2·5	3·5	−1·0	33	− 7	43	−16	·309	−·098	0·2	−1·3	0	0·80	−0·80	0	0·54	−0·54	24·56	32·28	−7·72	0	Akola.
1	11	12				2	1	N 61° E	N 67° E	4·8	3·9	+0·9	62	+11	39	−14	·316	−·096	0·3	−1·2	0	0·60	−0·60	0	0·59	−0·59	29·73	32·95	−3·22	0	Amraoti.
	4		4	1	4			S 37° E	N 74° E	2·8	2·8	0	17	− 8	48	− 9	·289	−·081	0·3	−0·8	0	0·60	−0·60	0	0·23	−0·23	18·29	30·36	−11·97	0	Khandwa.
	2	6	2					E	N 66° E	1·1	2·1	−1·0	29	−31	59	− 9	·356	−·050	0·1	−1·2	0	0·50	−0·50	0	0·45	−0·45	37·04	56·69	−13·65	0	Hoshangabad
		2	3	5	4	1		S 2° E	S 73° E	2·7	2·7	0	33	0	38	−16	·281	−·073	0	−1·1	0	0·50	−0·50	0	0·33	−0·33	36·46	46·44	−9·98	0	Saugor.
		1	8	12	4			S 10° E	S 37° E	1·1	1·6	−0·5	69	+23	67	− 6	·347	−·064	0	−1·2	0	0·60	−0·60	0	0·48	−0·48	37·77	56·92	−19·15	0	Jubbulpore.
5	4	2			1	1	2	N 11° E	N 36° E	3·1	2·3	+0·8	30	−13	51	−12	·329	−·083	0·5	−0·8	0	0·90	−0·90	0	0·61	−0·61	41·14	52·36	−11·22	0	Seoni.
17	1					1	1	N 3° W	N 21° E	2·2	3·7	−1·5	59	+29	50	−12	·354	−·085	0·7	−1·2	0	0·90	−0·90	0	0·81	−0·81	48·48	47·24	+1·24	0	Nagpur.
								(a)		1·6					46		·216		0·2		0			0			33·76			0	Pendra.
								(a)	N 40° E	1·7	3·2	−1·5			57	− 9	·374	−·091	0·1	−1·9	0	0·90	−0·90	0	0·46	−0·46	39·20	48·67	−9·47	0	Raipur.
				1		1	1	S 79° W	N 39° E	0·9	1·7	−0·8	6	−23	66	− 7	·417	−·105	1·4	−0·6	0	1·00	−1·00	0	0·96	−0·96	41·01	52·84	−11·83	0	Chanda.
															83		·484		1·9		0			0							Jagdalpur.

ases of hill or plateau stations, the elevations of which exceed 3,000 feet.

¶ Mean of 28 days.

* Uncorrected for scale error.

(a) Indeterminate.

** Mean of 18 days.

Ta

(2) *Abstract of observations taken at 8 hrs., at 236 stati*

Number of subdivision.	Station	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	XII.—Hyderabad.																					
28	Aurangabad	1,905	28·121	—·030?	30·002	28·203	30th	28·054	20th	·149	73·9	87·8	+0·8	56·2	—2·7	72·0	—0·9	31·6	92·2	1st	51·2	23rd, 25th & 26th.
	Nizamabad	1,248	28·740	+·021?	29·968	28·826	30th	28·663	20th	·163	72·0	88·8	+3·9	55·9*	—3·7*	72·2*	+0·1	32·9	92·9	1st	49·7	30th
	Bidar	*2,165*	27·829		29·954	27·905	10th	27·746	21st	·159	75·1	96·0		60·8		73·4		25·2	91·3	1st	54·8	30th
29	Gulbarga	1,503	28·484	—·022	29·963	28·556	30th	28·406	20th	·150	73·1	90·3	+3·3	62·3	—0·3	76·3	+1·5	28·0	95·5	1st & 2nd.	55·8	25th
	Raichur	*1,311*	28·643†	—·044?†	29·921†	28·679	29th	28·579	20th	·100	75·6	89·5	+3·4	67·8	+0·5	78·7	+1·9	21·7	94·6	1st	61·1	13th
	Hyderabad (Deccan).	1,690	28·297	—·020	29·970	28·362	10th	28·240	20th	·122	70·7	87·9	+4·1	62·1	0	75·0	+2·1	25·8	93·3	1st & 2nd.	54·2	23rd
	Hanumkonda	871	29·121	—·027	29·956	29·198	30th	29·064	5th	·134	74·2	88·1	+2·1	64·8	+0·4	76·5	+1·3	23·3	93·5	2nd	57·2	30th
	XIII.—Mysore.																					
30	Chitaldroog	2,405	27·584	—·011	29·936	27·631	10th	27·530	20th	·101	74·1	86·1	+4·0	65·2	+1·2	75·7	+2·6	20·9	90·1	1st	61·9	12th & 14th.
	Hassan	3,149	26·876	+·003	29·956	26·929	10th	26·819	20th	·110	70·2	82·0	+2·2	61·6	+1·9	71·8	+2·1	20·4	84·1	1st	54·9	12th
	Bangalore	3,021	26·987	—·004	29·945	27·038	10th	26·933	20th	·105	70·2	83·0	+3·7	63·1	+1·2	73·1	+2·5	19·9	85·8	20th	57·3	12th
	Mysore	2,518	27·481	—·005	29·959	27·536	10th	27·423	20th	·113	70·6	83·7	+1·2	64·5	+0·4	74·1	+0·8	19·2	86·5	19th	58·0	12th
	XIV—Madras.																					
31	Mangalore	65	29·897	—·005	29·895	29·962	10th	29·834	20th	·128	80·0	87·7	—1·8	72·6	+0·5	80·2	—0·7	15·1	89·3	10th & 27th.	68·3	12th
	Calicut	27	29·939	+·005	29·936	29·993	10th	29·877	20th	·116	78·1	86·5	—0·9	74·8	+1·7	80·6	+0·4	11·7	87·8	8 days	73·1	5 days
	Cochin	9	29·967	+·017	29·904	30·010	10th	29·916	20th	·094	79·1	87·0	—0·5	74·6	+0·2	80·3	—0·1	12·4	89·7	18th & 30th.	72·7	11th
	Trivandrum	198	29·777	+·022	29·908	29·822	4th	29·716	20th	·106	77·1	82·2	—0·4	73·8	+1·7	78·0	+0·7	8·4	85·5	2nd	72·5	1st, 13th & 14th.
32	Tinnevelly	168	29·814	+·005	29·913	29·862	10th	29·756	20th	·106	80·1	91·4	+2·7	74·9	+0·3	83·2	+1·5	16·5	95·7	1st	70·9	26th
	Pamban	37	29·923*	—·005*	29·889*	29·981	10th	29·850	20th	·131	79·4	87·1	+2·8	74·2	—1·9	80·7	+0·5	12·9	89·7	15th	71·5	13th & 28th.
	Madura	447	29·534	+·024?	29·922	29·591	10th	29·472	20th	·119	79·0	88·5	+1·2?	72·2	—0·3	80·4	+0·5?	16·3	90·9	1st, 3rd & 22nd.	70·1	8th, 9th & 30th.
	Periyakulam	944										Observatory		closed.								
	Pudukkottai	318	29·654		29·908	29·715	10th	29·583	20th	·132	78·2	89·1		73·0		81·1		16·1	93·2	2nd	68·7	30th
	Negapatam	31	29·930	+·002	29·890	29·995	10th	29·860	20th	·135	80·4	87·3	+3·2	75·8	+1·7	81·6	+2·5	11·5	92·5	1st	71·5	28th
	Trichinopoly	255	29·724	+·011	29·914	29·778	10th	29·666	20th	·112	79·7	90·5	+3·4	72·9	+0·9	81·8	+2·1	17·6	94·6	1st	70·3	12th, 24th & 30th.
	Coimbatore	1,348	28·627	+·010	29·937	28·676	10th	28·572	20th	·104	75·2	88·5	+2·3	70·2	+1·3	79·4	+1·8	18·3	92·4	19th	67·8	6th & 30th.
	Salem	940	29·059	+·011	29·949	29·121	10th	29·005	20th	·116	78·4	89·3	+2·0	71·5	+3·0	80·4	+2·5	17·8	92·0	3rd, 25th & 26th.	66·4	12th
	Cuddalore	37	29·931	—·008	29·898	29·992	10th	29·867	20th	·125	79·4	88·3	+3·5	73·7	+2·1	81·1	+2·8	14·6	91·6	3rd	70·2	12th
	Vellore	707	29·274		29·935	29·322	10th	29·226	20th	·096	75·4	89·0		69·4		79·2		19·6	91·7	2nd, 3rd & 15th.	61·5	11th & 12th.
	Madras	22	29·950	—·007	29·903	30·014	10th	29·896	20th	·118	79·2	89·0	+3·9	73·1	+0·8	81·1	+2·3	15·9	94·0	3rd	67·5	12th
33	Cuddapah	433	29·546	—·018	29·923	29·606	10th	29·496	20th	·110	79·5	93·5	+5·0	71·4	+2·1	82·5	+3·5	22·1	96·7	1st	64·6	12th
	Bellary	1,475	28·504	—·006	29·949	28·567	10th	28·443	20th	·124	74·3	91·5	+4·8	66·9	+1·3	79·3	+3·1	24·6	95·0	1st & 2nd,	61·3	13th
	Kurnool	923	29·048	—·024	29·939	29·111	30th	28·988	20th	·123	71·4	92·0	+3·9	64·0	0	78·0	+1·9	28·0	96·2	2nd	56·1	12th, 13th & 24th.
2	Nellore	66	29·913	—·011	29·913	29·969	10th & 30th.	29·865	6th	·104	79·3	88·7	+2·0	73·6	+2·0	81·2	+2·0	15·1	91·6	1st, 2nd & 16th.	70·1	11th, 12th & 30th.
	Masulipatam	15	29·981	+·001	29·931	30·047	29th	29·929	5th	·118	77·7	88·6	+3·5	71·4	+0·1	80·0	+1·8	17·2	92·3	15th	65·2	30th
	Cocanada	26	29·963	—·017	29·925	30·036	29th	29·909	5th	·127	76·7	85·7	+2·2	71·7	+1·2	78·7	+1·7	14·0	88·2	4th	65·0	30th
	Waltair (Vizagapatam).	*996*	29·758	—·018	29·928	29·835	29th	29·703	5th	·132	79·5	86·2		74·5		80·4		11·8	90·1	16th	71·9	9th, 10th & 26th.
	Calingapatam	19	29·976		29·935	30·056	29th	29·920	6th	·136												
	Gopalpur	72	29·924	—·026	29·938	30·010	30th	29·856	5th	·154	69·2§	84·1†	+2·0†	64·0§	—0·1§	73·8†	+0·9	20·1	86·2	23rd & 24th.	60·5	25th

* Mean of 29 days.
† „ „ 9 „
§ „ „ 10 „

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

NOTE.—The barometric readings are not reduced to sea-level, in the cases of hill or pl

B—*continued.*

in India, etc., in November, 1909—continued.

Wind direction, Number of winds from: Calm.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Resultant direction.	Normal direction.	Wind velocity: Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness: Actual percentage.	Departure from normal.	Hygrometry, 8 hrs.: Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud: Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall: Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 30th November, 1909.	Normal rainfall for period, 1st May to 30th November.	Departure from normal of period 1st May to 30th November, 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																XII.—Hyderabad.
5	1	1	13	6	2	1	1		S 72° E		6·5			53		37	−12	·310		0·4		0	1·00	−1·00	0	0·50	− 0·50	41·26	26·53	+14·73	0	Aurangabad.
16	3	1	3	2	1	1	2	1	N 52° E		3·5			7		51	−19	·404		0·5		0	1·40	−1·40	0	0·57	− 0·57	21·90	38·76	−16·86	0	Nizamabad.
6		5	2	4	1	3	8	1	S 56° W		4·2*			10		43		·372		0·9		0	2·20	−2·20	0	1·30	− 1·30	31·05	37·51	− 6·46	0	Bidar.
4		12	12		2				N 73° E	N 81° E	7·7	7·9	−0·2	69	+20	50	−14	·410	−·090	0·7	−1·7	0	1·50	−1·50	0·03	0·48	− 0·45	30·09	29·83	+ 0·26	0·03	Gulbarga.
	3	13	8	5	1				N 70° E	N 86° E	6·0	7·2	−1·2	72	+ 8	47	−21	·423	−·145	1·8	−0·7	0	1·80	−1·80	0	0·76	−0·76	24·93	29·40	− 4·47	0	Raichur.
30									(a)	S 72° E	2·8	3·5	−0·7			58	−15	·441	−·098	2·0	−0·7	0			0	1·48	− 1·48	27·27	29·93	− 2·66	0	Hyderabad (Deccan).
15	5			2	4			4	N 31° W		2·6‡			7		51	−14	·439		2·1		0	1·90	−1·90	0	0·70	− 0·70	28·15	30·57	− 2·42	0	Hanumkonda
																																XIII.—Mysore.
7		1	7	6	1		4	4	S 72° E	S 84° E	3·0	6·2	−3·2	17	−48	62	− 9	·525	−·032	3·3	−1·1	3	2·80	+0·20	1·11	2·85	− 1·74	23·64	23·85	− 0·21	0·66	Chitaldroog.
7	1	7	9	2			2	2	N 63° E	N 77° E	3·3	3·0	+0·3	43	−32	75	0	·548	+·003	3·3	−2·0	4	4·00	0	2·66	2·65	+ 0·01	38·81	31·37	+ 7·44	0·94	Hassan.
		7	13	4	1	2	2	1	N 89° E	N 71° E	5·3	5·0	+0·3	55	−19	76	− 2	·566	+·023	3·5	−0·7	2	4·20	−2·20	0·48	3·33	− 2·85	33·99	32·61	+ 1·38	0·30	Bangalore.
6	1	3	4	1	2	7	5	1	S 45° W	N 67° E	5·1	8·6	−3·5	20	−47	83	+ 7	·617	+·035	6·8	+1·5	4	4·10	−0·10	1·62	2·28	− 0·66	31·41	27·29	+ 4·12	0·76	Mysore.
																																XIV.—Madras.
1		9	17	2		1			N 80° E	S 82° E	3·9¶	2·6	+1·3	79	+ 2	78	+ 1	·810	+·075	3·2	+0·2	6	3·80	+2·20	1·49	2·65	− 1·16	144·95	121·69	+23·26	0·58	Mangalore.
16		4	4	6					S 83° E	N 27° E	3·5	6·6	−3·1	37	−37	86	+ 7	·842	+·057	9·5	+6·1	10	5·50	+4·50	4·71	4·72	− 0·01	124·07	108·81	+15·23	2·39	Calicut.
6		6	15	2	1				N 85° E	N 39° E	4·5¶	4·1	+0·4	69	+ 2	80	− 1	·801	+·002	4·0	+0·2	10	7·70	+2·30	10·01	6·25	+ 3·76	90·80	105·21	−14·41	2·15	Cochin.
14	3	4	2					7	N 1° W	N 5° W	3·5¶	3·5	0	36	+10	86	+ 1	·809	+·008	6·3	+0·9	10	9·10	+0·90	5·91	6·12	− 0·21	63·63	52·75	+10·88	2·09	Trivandrum.
11	6	1			1		2	9	N 32° W	N 24° W	2·9	3·9	−1·0	49	−22	74	− 4	·768	+·007	6·3	+1·1	11	9·90	+1·10	4·98	7·79	− 2·81	16·52	18·07	− 1·55	1·74	Tinnevelly.
5	5	2	2	2	1		3	10	N 25° W	N 21° E	3·6	10·2	−1·6	46	−12	85	+ 1	·854		4·8		9	12·00	−3·00	6·34	11·89	− 5·55	19·68	23·48	− 3·80	2·31	Pamban.
2	10	5	1				4	8	N 15° W	N 3° E	3·2	6·6	−3·4	66	− 4	80	+ 4	·794	+·063	6·6	+2·1	10	7·00	+3·00	4·38	4·71	− 0·33	40·50	27·96	+12·54	0·94	Madura.
																						Observatory closed.										Periyakulam.
3	9	12	1					5	N 16° E		6·2			73		78		·758		6·0		6			7·20			31·84			2·23	Pudukkottai.
	3	3				2	6	16	N 48° W	N 30° W	8·7¶	5·7	+3·0	76	+28	77	− 7	·801	−·017	5·6	−1·2	5	13·30	−8·30	4·68	15·99	−11·31	19·78	39·74	−19·96	1·87	Negapatam.
6	7	5		1			7	4	N 21° W	N 13° E	2·8¶	3·8	−1·0	46	+ 9	74	− 5	·743	−·007	4·0	−0·6	6	8·00	−2·00	2·46	5·09	− 2·63	30·15	26·25	+ 3·90	0·88	Trichinopoly.
23		7							N 45° E	N 81° E	1·4	2·4	−1·0	27	−21	86	+ 1	·756	+·033	4·2	−1·4	4	6·60	−2·60	2·49	3·38	− 0·89	17·93	16·96	+ 0·97	1·04	Coimbatore.
10	1	4	9		1		5		N 66° E	N 50° E	4·0	3·1	+0·9	23	− 4	83	+ 5	·809	+·107?	4·7	0	0	5·70	−5·70	0	3·93	− 3·93	45·42	36·13	+ 9·29	0	Salem.
2	8	3				1	3	13	N 30° W	N 25° W	7·3	2·2	+5·1	72	+ 2	79	−11	·796	−·040	4·7	−1·3	4	11·80	−7·80	1·77	12·74	−10·97	31·11	41·75	−10·64	0·75	Cuddalore.
29								1	N 45° W		2·4¶			3		81		·717		3·3		0	7·50	−7·50	0·03	5·89	− 5·86	57·39	34·07	+23·32	0·93	Vellore.
	16	2			1	2		9	N 16° W	N 1° E	6·2	6·5	−0·3	72	+ 9	81	− 2	·817	+·021	4·4	−1·1	4	13·00	−9·00	3·73	14·08	−10·35	33·77	43·01	− 9·24	1·80	Madras
	2	5	2	12	2	3		4	S 65° E	N 89° E				33	− 8	66	−10	·668	−·027	3·0	−0·9	0	4·80	−4·80	0	4·01	− 4·01	40·55	30·74	+ 9·81	0	Cuddapah.
10	2	2	3	5	2		2	4	N 77° E	S 85° E	2·2¶	3·2	−1·0	10	−23	50	−17	·430	−·115	1·6	−2·4	2	2·60	−0·50	0·36	1·98	− 1·62	17·14	18·63	− 1·49	0·22	Bellary.
22			4	1		2	1		S 47° E	N 34° W	2·6¶			10	+ 9	61	−10	·439	−·093	1·3	−1·3	0	2·30	−2·30	0	1·03	− 1·03	17·29	26·84	− 9·55	0	Kurnool.
2	10	2	1				1	14	N 22° W	N 44° W	3·7	4·6	−0·9	72	+17	76	− 7	·764	−·022	5·1	+0·3	0	8·60	−8·60	0·03	7·82	− 7·79	26·86	27·96	− 1·10	0·03	Nellore.
2	4	20	3	1					N 48° E	N 14° E	5·3‡	5·3	0	79	+ 1	75	− 7	·713	−·030	3·1	−0·5	0	3·80	−3·80	0	6·30	− 6·30	32·64	39·25	− 6·61	0	Masulipatam.
2	10	10						8	N 8° E	N 12° E	7·2	10·0	−2·8	76	− 7	69	− 4	·836	−·014	4·5	+1·1	0	3·90	−3·90	0	6·10	− 6·10	25·05	37·74	−12·69	0	Cocanada.
	6	16					2	6	N 13° E	N 15° W	9·0			72	+29	51	−17	·523	−·127	4·5	+1·1	0	3·70	−3·70	0	6·11	− 6·11	22·12	40·50	−18·07	0	Waltair. (Vizagapatam)
	5	1	1				4	19	N 40° W		5·9‖			80						3·7		0			0			21·76			0	Calingapatam.
	18	1						11	N 15° W	N 25° W	10·4	8·3	+2·1	89	+ 2	68	−14	·468	−·157	1·2	−1·9	2	2·80	−0·80	0·45	4·34	− 3·89	33·05	44·84	−11·79	0·33	Gopalpur.

stations, the elevations of which exceed 3,500 feet. ‖ Mean of 15 days. ‡ Mean of 28 days. ¶ Uncorrected for scale error. (a) Indeterminate.

Tabl

(2) *Abstract of observations taken at 8 hrs., at 236 station*

Number of subdivisions.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean maximum and minimum.	Departure from normal.	Mean daily range of temperature	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	2
	Bay Islands.																						
1	P. V. Fraser	8	29·980		29·906	30·060	27th, 29th & 30th.	29·900	5th	·160	80·5												
	Car Nicobar	25								Observations not received.													
	Port Blair	58	29·871	—·016	29·859	29·931	23rd & 25th.	29·810	11th	·121	79·1	85·5	—1·3	75·5	—1·7	80·5	—1·5	10·0	88·2	28th & 29th.	72·5	22nd	15
	Slipper Island	90	29·839		29·863	29·909	25th	29·764	5th	·145	80·9	85·1		77·2		81·2		7·9	87·1	5th, 13th & 15th.	74·1	7th, 13th & 15th.	13
	Kashmir.																						
14	Srinagar	5,204	25·016	—·018	24·987	25·128	30th	24·930	7th	·198	37·4	63·3	+3·0	33·8	+2·2	48·6	+2·6	29·5	67·6	14th	26·1	30th	41
	Gulmarg	*8,569*								Observations not received.													
	Sonemarg	*8,764*	21·9501		21·918:	22·068	14th	21·881	20th	·187	31·9	58·9		26·2		42·6		32·7	69·4	16th	19·1	27th & 28th.	50
	Dras	*10,059*	20·916	+·008	20·884	21·062	14th	20·785	7th	·277	20·5	45·6	+1·3	14·9	—1·6	30·3	—0·1	30·7	54·9	1st	5·0	29th & 30th.	49
	Leh	11,503	19·829	+·051	19·797	19·979	15th	19·696	7th	·283	26·5	51·6	+4·0	20·6	+0·1	36·1	+2·1	31·0	59·1	1st	13·0	29th & 30th.	46
	Skardu	*7,505*	23·076	+·043	23·046	23·246	15th	22·873	1st	·373	32·0	55·9	+0·9	29·7	—1·0	42·8	—0·1	26·2	63·4	1st	21·6	30th	41
	Minimarg	*9,359*						Observations not available.															
	Astor	*7,955*						Observations not available.															
	Gilgit	4,890	25·302		25·275	25·460	15th	25·109	1st	·351	48·9	67·7	+5·7	42·6	—0·2	55·2	+2·7	25·1	76·2	1st	34·7	28th	41
	Baluchistan.																						
16	Quetta	5,502	24·772	+·005	24·732	24·893	10th	24·651	20th	·242	45·5	71·3	+6·5	31·0	—1·1	51·2	+2·7	40·3	77·6	13th	21·5	30th	5
	Chaman	4,311	25·872	—·016	25·784	25·918	30th	25·684	20th	·234	58·3	74·0	+4·6	46·2	—0·2	60·1	+2·2	27·8	85·8	17th	38·2	30th	4
	Robat		27·023		26·981	27·160	30th	26·735	20th	·425	64·1	84·1		54·6		69·3		29·5	97·0	12th	46·3	29th	5
	Hill Stations excluding Kashmir and Baluchistan.																						
	Chitral	*5,486*									43·8	72·2		37·9		55·1		34·3	78·4	15th	26·0	30th	5
	Para Chinar	6,000	24·546		24·513	24·631	14th	24·476	15th	·155	56·9	70·5		42·4		56·5		28·1	81·5	16th	24·2	29th & 30th.	47
	Cherat	*4,956*	25·820	+·005	25·788	25·911	30th	25·722	6th	·189	57·7	70·5	+2·3	51·0	+1·9	60·8	+2·6	19·5	78·7	1st	41·5	29th	37
	Murree	8,333	23·930	—·008	23·898	24·010	14th	23·844	6th	·166	53·1	63·4	+2·5	52·3‖	+5·5	58·9‖	+4·0	11·1	72·5	16th	46·5	20th & 21st.	26
	Kailang	*10,087*	21·068		21·023	21·224	14th	20·969	27th	·255	31·7	57·8	+6·2	26·3	+0·8	42·1	+3·5	31·5	63·7	17th	19·2	29th	44
	Simla	7,232	23·183	+·004	23·145	23·262	13th	23·107	6th	·155	50·6	58·7	+2·6	46·5	+1·5	52·6	+2·1	12·2	64·7	2nd & 3rd.	40·5	29th	24
	Sarain		23·217		23·179	23·296	13th	23·109	6th	·187	37·1	60·6		35·6		48·1		25·0	66·9	1st	30·0	23rd & 30th.	36
	Kalabagh									Observations not received.													
	Chakrata	7,022	23·360	+·006	23·320	23·419	13th	23·276	6th	·174	50·6	65·1	+5·1	45·7	+1·8	55·4	+3·5	19·4	72·2	3rd	36·7	29th & 29th.	33
	Muktesar	7,592	22·909	—·020	22·868	22·992	13th	22·836	6th	·156	50·7	66·8	+6·6	44·6	+1·2	55·7	+3·9	22·2	71·0	17th	36·0	28th	38
	Darjeeling	7,376	23·097¶	—·001¶	23·052¶	23·160	13th	23·030	5th	·130	51·0	58·2	+1·0	44·4‡	+2·0‡	51·3‡	+3·0	13·8	67·8	16th	38·7	28th & 29th.	28
	Shillong	4,920	25·207		25·159	25·273	13th	25·131	5th	·142	56·3	67·3		48·6		57·9		18·7	72·9	13th	46·7	28th	33
	Cherra Poonjee	4,309	25·713		25·664	25·776	30th	25·627	5th	·149	52·0	68·2		57·5§		62·7§		10·7	75·7	12th	45·3	7th	30
	Maymyo	3,545	28·504	—·022	28·419	28·589	30th	28·408	5th	·181	62·1	73·7	—0·1	55·1	+3·7	64·3	+1·8	18·6	80·9	3rd	43·1	22nd	37
	Pachmarhi	3,528	26·559	+·005	26·506	26·636	10th	26·505	20th	·131	66·4	75·9	+2·6	48·3	—3·0	62·1	—0·2	27·6	82·0	2nd, 3rd & 4th.	42·1	4 days	39
	Mount Abu §	3,945	26·163	—·003	26·113	26·249	10th & 30th.	26·097	20th	·152	67·8	74·0	+0·9	58·6	+1·1	66·3	+1·0	15·4	79·7	2nd	52·4	30th	27
	Mercara	3,781	26·271	+·014	26·204	26·319	10th	26·225	30th	·094	66·7	77·0	+1·1	60·8	+0·7	68·9	+0·9	16·2	80·0	20th	57·0	11th & 12th.	23
	Ootacamund	*7,397*	23·084		23·020	23·133	10th	23·035	20th	·098	56·5	63·9		47·6		55·8		16·3	67·5	26th	40·2	13th	28
	Kodaikanal	7,683	22·848	—·014	22·783	22·897	10th	22·805	20th	·092	53·9	60·2	—1·2	46·5	+0·4	54·9	—0·4	19·7	65·5	1st	46·0	12th	19

‖ Mean of 21 days.
§ " 26 "
¶ " 27 "

† Mean of 25 days.
‡ " 29 "

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

NOTE.—The barometric readings are not reduced to sea-level, in the cases of h

B—*continued.*

in India, etc., in November, 1909—continued.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 30th November, 1909.	Normal rainfall for period, 1st May to 30th November.	Departure from normal of period, 1st May to 30th November, 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																Bay Islands.
							1	6	N 1° W		P			74		68†		·701†		2·8		0			0			45·69			0	P.V.Fras
																	Obser	vations	not rece	ived												Car Nicob
11	1	3	1	3	3	1	4	3	S 67° W	N 72° E	5·3*	6·7	−1·4	7	−13	86	+ 1	·856	− ·027	6·0	+0·3	15			11·37	9·20	+ 2·17	125·41	105·86	+19·55	2·10	Port Blai
7	1	5	4	3	4	1	4	1	S 69° E		7·1			13		83		·874		5·8		8			5·67			70·95			1·25	Slipper Island.
																																Kashmir.
20		1		6	2	1			S 34° E	S 53° E	1·0	2·6	−1·6	23	0	86	− 2	·197	+ ·006	0·6	−2·3	0	1·20	−1·20	0	0·46	− 0·46	19·03	11·71	+ 7·32	0	Srinagar.
																	Obser	vations	not rece	ived												Gulmarg.
											2·6			27		71		·124		1·8		1			0·11			24·93			0·11	Sonemarg
20		2	4	4					S 80° E		1·8			3		89	+ 5	·103		1·4		1	2·70	−1·70	0·17	0·36	− 0·19	4·19	7·79	−3·60	0·12	Dras.
28	1						1		N 45° W		3·8*	2·1	+1·7	33	+19	54	−13	·080	− ·023	1·0	−3·1	0	0·20	−0·20	0	0·02	− 0·02	1·57	1·77	− 0·20	0	Leh.
18					6	4	2		S 28° W	S 46° W	2·7			7		75	− 6	·137		1·7		1	0·30	+0·70	0·26	0·03	+ 0·23	3·62	3·89	− 0·27	0·18	Skardu.
28						1	1		S 66° W								Obser	vations	not avail	able												Minimarg
																	Obser	vations	not avail	able												Astor.
26			1				3		W		1·1			7		38	−14	·136	−·029	1·1	−2·9	0	0·10	−0·10	0	0·05	−0·05	3·21	2·60	+ 0·61	0	Gilgit.
																																Baluchistan.
28	1			1					N 67° E	S 19° W	1·2	2·0	−0·8	2	− 3	50	− 2	·152	−·001	0·1	−1·9	0	1·60	−1·60	0	0·31	− 0·31	0·39	2·72	− 2·33	0	Quetta.
9			2	11	2	4	1	1	S 24° E	S 61° E	5·5	6·5	−1·0	43	−20	36	+ 1	·174	−·027	0·4	−2·3	0	1·90	−1·90	0	0·26	− 0·26	0·04	0·58	− 0·54	0	Chaman.
6		1	1			21	1		S 45° W		2·7			66		48		·294		0·2		0			0			0			0	Robat.
																																Hill stations, excl ing Kashmir a Baluchistan.
																58		·159		0		0			0			2·96			0	Chitral.
25		4						1	N 27° E		P			17		44		·207		0·7		0	2·00	−2·00	0	1·05	− 1·05	12·57	13·88	− 1·31	0	Para Chi
30									(a)		3·2					39	0	·179	+ ·008	0·8	−1·6	0			0	0·12	− 0·12	11·20	12·04	− 0·84	0	Cherat.
11	9	1						9	N 19° W	N 13° W	4·6	11·6	−7·0	56	−11	39	+ 3	·153	+ ·024	1·4	−1·4	0	2·10	−2·10	0	0·90	−0·90	60·44	39·80	+ 20·64	0	Murree.
6	11	1	1	3	4			4	N 6° E	N 75° E	5·0	5·7	−0·7	27	+20	55		·098		0·7		0			0	0·51	− 0·51	8·41	9·28	− 0·87	0	Kailang.
			3	22	4	1			S 42° E		1·2*	1·3	0	90		41	− 1	·154	+ ·013	0·2	−1·6	0	0·70	−0·70	0	0·61	− 0·61	50·34	52·88	−2·54	0	Simla.
																62		·138		0·3		0			0			37·92			0	Sarain.
8					9	13			S 27° W		4·4			67																		Kalabagh
																	Obser	vations	not rece	ived												Chakrata
8	20	2							N 4° E	N 34° E	5·6	5·4	+0·2	69	+32	55	+ 2	·206	+ ·021	0·2	−1·2	0	0·70	−0·70	0	0·55	− 0·55	65·48	57·88	+7·55	0	Muktesa
15	1		4	1	3	1	5		S 16° W		4·2			10		49	+ 2	·181		0·2		0			0	0·26	− 0·26	51·81	39·62	+12·19	0	Darjeelin
30									(a)	N 87° E	0·3	2·7	−2·4	†† 78	− 1			†† ·297	+ ·035	5·9	+2·5	0	0·68	−0·68	0·05	0·38	−0·31	130·39	116·54	+13·85	0·05	Shillong.
24			1	5					S 52° E		2·1			23		80		·369		2·2		7	1·90	+5·10	1·10	0·78	+0·32	67·41	72·01	− 4·60	0·20	Cherra
5		12	10	3					N 73° E		3·3			72		73		·401		1·5		2	1·20	+0·80	1·09	0·92	+0·17	311·27	388·38	−77·61	0·55	Pooljee
21		8					1	1	N 40° E		1·3			27		90	+ 3	·517		3·5		7	4·90	+2·10	3·47	3·01	+ 0·46	58·77	59·12	+ 3·65	1·62	Mawphlo
12	7	4	3				2	2	N 12° E	N 82° E	1·9	2·8	−0·9	37	+19	45	− 9	·290	−·053	0	−1·6	0	0·80	−0·80	0	0·56	− 0·56	56·69	74·04	−17·35	0	Pachmar
9	3	2	1	1		5	2	3	N 62° W	N 27° E	5·4	4·4	+1·0	17	−10	41	− 1	·283	+ ·017	0·1	−1·7	0	0·40	−0·40	0	0·28	− 0·28	108·61	60·73	+47·88	0	Mount A
7	6	10	5	1				1	N 43° E	N 71° E	3·7	5·2	−1·5	56	−14	85	+ 4	·551	+ ·048	4·6	−0·6	3	4·90	−1·90	1·14	2·86	−1·72	134·28	121·79	+12·47	0·51	Meteara.
2	2	5	5	8	6	1		1	S 64° E		3·9			46		77		·357		4·7		7	6·30	+0·70	4·05	4·00	+ 0·05	51·96	39·76	+12·20	1·32	Cotacam
	5		1	2	1		5	16	N 45° W		10·5*			66		87	+ 7	·369		5·3		9	11·30	−2·30	3·77	6·78	− 3·01	48·53	43·91	+4·62	1·01	Kodaika

plateau stations, the elevations of which exceed 5,200 feet.
* Uncorrected for scale error.

(a) Indeterminate.
†† Mean of 28 days.

Tabl

(2) *Abstract of observations taken at 8 hrs., at 236 statio*

Number of sub-division.	Station.	Elevation of barometer cistern above sea-level in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	Extra India.																						
	Singapore (*a*)	10	29·932		29·863	30·024	13th	29·853	3rd	·171	82·0	87·3		73·4		80·3		13·9	90·5	10th	72·4	4 days	18
	Penang (*a*)	20	29·906		29·851	30·017	3rd	29·799	19th	·218	82·0	89·0		71·0		80·0		18·0	91·0	22nd	68·0	22rd&25th	23
	Trincomalee	12	29·959	+·029	29·897	30·023	10th	29·876	20th	·147	76·0	87·2	+1·9	74·5	−0·2	80·8	+0·9	12·7	90·0	5 days	71·0	4th	19
	Colombo	40	29·929	+·012	29·895	29·990	10th	29·853	20th	·137	75·2	87·2	+0·8	74·0	−0·1	80·6	+0·3	13·2	93·5	4th	70·5	27th	23
	Minicoy†	7	29·970			30·031	10th	29·906	8th	·125													
	Amini Divi	*13*						Observations		not received.													
	Gyantse	13,120	16·999		16·960	17·016	18th	16·979	13th	·037	27·2	51·7**		16·4		34·1**		35·3	59·3	3rd, 8th & 9th.	9·2	30th	50
	Pharijong	14,400	15·804		15·763	15·893	15th	15·728	5th	·165	24·5	43·5		9·2		26·1		34·3	52·7	14th	−2·0	29th	54
	Gangtok	5,660?	24·520		24·475	24·598	10th	24·433	6th	·165	61·7	68·0		50·0		59·0		18·0	72·9	16th	43·2	29th	29
	Gartok	14,140									16·4	38·1		1·1		19·6		37·0	45·3	1st	−14·9	29th	60
	Kashgar (*c*)	4,255	25·801			26·030	15th	25·430	7th	·600	36·9	58·8	+6·7	31·4	+2·6	45·1	+4·7	27·4	70·6	4th	25·3	30th	45
	Kabul		24·382		24·351	24·567	14th	24·275	6th	·292	45·8	71·7	+4·1	35·0	+0·2	53·4	+2·1	36·7	78·7	4th	26·9	29th&30th	51
	Meshed	3,104	26·845		26·823	27·102	30th	26·574	20th	·528	43·0	72·1		31·2	−4·9	51·7		40·9	90·0	10th	21·0	3rd	69
	Jask	13	30·004	−·069	29·974	30·159	30th	29·884	7th	·275	71·7	84·0	+0·8	70·6‡	+1·9‡	77·3‡	+1·3	13·4	87·3	5th	66·3	18th&19th	21
	Muscat	20	30·029	−·039	29·997	30·158	30th	29·932	7th	·226	78·9	88·8	+8·8	76·3	+1·0	82·6	+4·9	12·5	94·3	6th, 13th & 14th.	72·6	20th	21·7
	Bahrein	18	30·066		30·037	30·153	15th	29·938	20th	·215	74·6	79·5		71·0		75·3		8·5	85·9	3rd	63·7	22nd	22·2
	Bushire	14	30·029	−·045	30·002	30·123	15th	29·931	20th	·192	66·5	78·7	+0·6	63·6	+1·3	71·2	+0·9	15·1	87·3	11th	55·5	29th	31·8
	Busrah	25	30·093		30·078	30·208	30th	29·963	21st	·245	69·6	75·6		60·7		68·2		14·9	86·3	13th	50·9	18th	35·4
	Kerman										41·5	79·3		33·9		56·6		45·4	88·0	12th & 13th.	25·5	29th	62·5
	Ispahan (*b*) (*d*)	*5,817*	24·358			24·450	4 days	24·200	20th & 21st,	·250	41·5	68·9	+7·0	40·8	+4·9	54·9	+6·0	28·1	76·4	9th	31·2	25th	45·2
	Tehran (*b*) (*d*)	*4,002*	25·910			26·075	1st, 16th & 30th.	25·675	21st	·400	50·8	70·0	+8·5	47·9	+5·7	58·9	+7·1	22·1	77·5	13th	42·7	16th & 29th,	34·8
	Baghdad (*d*)	127	29·976	+·001	30·078	30·141	15th	29·814	8th	·327	58·4	75·9	+0·9	55·1‡	+5·5‡	65·5‡	+3·2	20·8	82·0	1st	47·9	17th&18th	34·1
	Beirut (*g*)	111			29·997						67·2	73·0		62·0		67·5		11·0	82·9	6th	55·6	12th	27·3
	Aden	94	29·966	+·015	29·993	30·033	11th	29·873	21st	·160	78·5	84·4	−0·5	74·1	−0·6	79·3	−0·5	10·3	89·8	9th	70·9	4 days	18·9
	Perim	201	29·769	−·033	29·906	29·831	11th	29·697	8th	·134	81·5	86·7	−0·1	76·2	−0·9	81·5	−0·5	10·5	89·5	11th	70·4	20th	19·1
	Zanzibar	72	29·984	+·021	29·983	30·059	11th	29·917	29th	·142	79·5	83·9	+0·1	76·1	−1·1	80·0	−0·5	7·8	86·9	23rd	73·1	30th	13·8

N.B.—Elevations in italics indicate barometrical determinations.
NOTE—The barometric readings are not reduced to sea-level in the cases of hill or plateau stations, the elevations of which exceed 3,200 feet.
(*a*) 9 hrs. observations.
(*b*) Aneroid uncorrected.
(*c*) „ corrected.
(*d*) 7 hrs. observations.
(*g*) 8½ hrs. „

** Mean of 22 days.

† Observations of 29 days.

concluded.

ndia, etc., in November, 1909—concluded.

Wind direction.														Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
r of winds from																																				
									E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Mean velocity miles per hr.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 30th November, 1909.	Normal rainfall for period, 1st May to 30th November.	Departure from normal of period, 1st May to 30th November, 1909.		
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																													Extra India.
		2		2	12	N 50° W					43						6·0		14			9·89			44·38			1·97	Singapore.
5	1	1	2	7		N 19° E		11·0*			27						2·9		17			15·68			113·76			7·03	Penang.
	1	12	8			S 62° W	S 57° W	2·1*	5·3	−3·2	56	+31	93	+7	·835	−·027	3·9	+0·4	11			6·12	13·57	−7·45	29·50	35·85	−6·35	1·35	Trincomalee.
2		2	9	6		N 41° W	N 48° E	5·5*	6·1	−0·6	46	+16	93	+15	·822	−·016	5·2	+0·4	11			10·71	13·13	−2·42	55·87	60·83	−4·96	3·02	Colombo.
1		5	5	10		N 53° W	N 7° W	4·6	6·2	−1·6	52						3·2		3			1·69	4·15	−2·46	33·97	45·73	−11·76	0·88	Minicoy.
														Observations not received.															Amini Divi.
3						S 45° E		1·1‡			10		77		·113		0		0			0			9·80			0	Gyantse.
2	5	2	3	5		N 36° W		8·6			30		79		·104		1·6		0			0			14·72			0	Pharijong.
	1					N 56° E‡		2·2			10		65		·357		0·7		3			0·76			122·63			0·37	Gangtok.
6						S 45° E		4·6‡			20						0·6		0			0			3·19			0	Gartok.
						(d)	N 5° W						66		·150		1·7		0			0	0·03	−0·03	2·25	3·09	−0·84	0	Kashgar.
		2	7	13		N 47° W	S 45° W				67	+55	50		·162		0·5	−1·4	0			0	0·72	−0·72	3·74	2·20	+1·54	0	Kabul.
1		3		3		N 14° E		0·8			13		62		·172		2·8		0			0	0·51	−0·51	0·60	1·94	−1·34	0	Meshed.
			1	11		N 9° W	N 27° E	9·0	9·7	−0·7	56	−1	82	+15	·637	+·058	0·6	−1·2	0			0	0·49	−0·49	0	0·66	−0·66	0	Jask.
			6	8		N 58° W	S 74° W	5·3	3·4	+1·9	43	+10	63	−5	·632	−·019	0·7	−0·8	0			0	0·61	−0·61	0	1·03	−1·03	0	Muscat.
3	2	1	9	10		N 72° W		8·5			43		78		·670		0·7		1			0·27			0·27			0·27	Bahrein.
				7		N 14° E	N 61° E	8·0	6·1	+1·9	40	−30	76	+9	·507	+·049	0·7	−2·4	1			0·17	1·79	−1·62	0·23	1·87	−1·64	0·17	Bushire.
3	3		12	4		N 86° W		4·9			47		59		·435		1·8		0			0·03			0·62			0·03	Busrah.
		5	5	5		N 34° W		3·3			50		49		·132		0							No rain	gauge.				Kerman.
1		1	6	8		N 74° W	N 62° W	1·6	2·5	−0·9	23	+9	65	−10	·176	−·040	0·7	−3·0	0			0	0·92	−0·92	0·23	1·30	−1·07	0	Ispahan.
		1		1		N 23° E	N 11° E	3·0	2·2	+0·8	77	+49	57	−2	·202	+·003	3·6	0	1			0·22	0·96	−0·74	1·67	2·03	−0·36	0·12	Tehran.
2	4	1	2	4		N 31° W	N 5° W	5·1	2·3	+2·8	20	−4	75	+11	·375	+·088	4·7	+3·4	1			0·25	0·92	−0·67	0·64	1·29	−0·65	0·10	Baghdad.
7	1	10				S 8° W					23		67		·451		5·7		8			6·18			15·77			1·70	Beirut.
						N 45° E	N 76° E	14·0	12·9	+1·1	92	+12	74	+2	·717	+·031	1·5	−2·3	0			0	0·23	−0·23	0·60	0·74	−0·14	0	Aden.
26	4					N 52° E	S 87° E	18·3	20·2	−1·9	73	−11	67	−4	·721	−·021			0			0	0·04	−0·04	0·88	0·95	−0·07	0	Perim.
8	4	2				S 48° E	S 45° E	4·1‡	4·6	−0·5	43	+1	80	−3	·803	−·035	6·2	+0·2	12			10·75	7·56	+3·19	30·64	30·63	+0·01	4·02	Zanzibar.§

* Uncorrected for scale error.
‡ Mean of 29 days.

§ Wind observations less 3.
(d) Indeterminate.

Table C.—Abstract of observations taken at 8 hrs. at 30 fourth-class stations in India, etc., in November, 1909.

Abstract of observations taken at

Number of subdivision.	Station.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.	Wind direction. Number of winds from Calm.	N.	NE.	E.	SE.	S.	SW.	W.	NW.	Resultant direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	II.—Eastern Bengal and Assam.																							
4	Bishnath	67·3	83·6	...	58·2	..	70·9	...	25·4	86·9	13th	47·7	30th	39·2	...	...	...	...	...	...	...	...	...	...
	Borjuli	68·2	84·7	...	57·8	...	71·3	...	26·9	89·3	8th	48·4	30th	40·9	...	...	...	...	...	...	...	...	...	...
	Chandkhira	66·2	85·3	...	62·0	...	73·7	...	23·3	91·6	4th	56·0	28th & 29th.	35·6	...	...	...	...	...	...	...	...	..	...
	Doom Dooma	66·0	83·0	...	59·2	...	71·1	...	23·8	87·5	6th	50·4	29th	37·1	...	...	...	...	...	...	...	...	...	...
	Dikom	64·8	83·5	...	57·5	...	70·5	...	26·0	88·6	2nd	48·6	29th	40·0	...	...	...	...	...	...	.	...	...	...
	Golaghat	68·9	81·4	...	...	..	...	...	...	84·1	9 days	...	...	..	...	...	.	...	...	...	...	...	...	...
	Hailakandi	65·6	85·4	...	63·1	...	74·3	...	22·3	91·0	12th	55·0	28th & 29th.	36·0	...	...	...	...	...	...	...	...	...	...
	Jorehat	68·3	82·7	...	62·5	...	72·6	..	20·2	86·9	4th	55·6	30th	31·3	...	...	...	..	...	...	...	...	...	...
	Messa	75·8	90·5	...	57·9	...	74·2	...	32·6	94·5	1st	47·8	30th	46·7	...	...	..	...	...	...	...	...	...	...
	Panerihat	59·4	83·9	...	...	...	...	...	...	88·1	13th	...	...	...	...	...	...	...	...	...	...	...	...	...
	Srimangal	69·8	86·8	...	61·7	...	74·3	...	25·1	91·0	2nd	55·0	28th	36·0	...	...	...	..	...	...	...	...	..	...
5	Brahmanbaria	76·1	86·5	...	66·6	...	76·6	...	19·9	92·3	13th	60·9	29th	31·4	...	...	...	...	...	...	...	...	...	...
	Dam Dim	64·0	88·7	...	54·4	...	71·6	...	34·3	91·7	14th	43·7	30th	48·0	...	...	...	...	...	...	...	...	...	...
	Goalundo	73·5	84·0	...	65·4	...	74·7	...	18·6	90·9	12th	56·2	24th	34·7	...	...	...	...	...	...	...	...	..	...
	Kalchini	76·8	85·5	...	58·5	...	72·0	...	27·0	89·1	16th	50·4	30th	38·7	...	..	...	...	...	...	...	...	...	...
	Nagrakata	65·6	87·5	...	60·2	...	73·9	...	27·3	92·1	13th & 14th	52·0	30th	40·1	...	...	...	...	..	...	...	...	...	...
	Pabna	72·9	85·5	...	63·5	..	74·5	...	22·0	91·2	1st	55·4	24th	35·8	...	...	...	...	...	...	...	...	...	...
	III.—Bengal.																							
6	Fraserganj										Observatory closed.													
	XI.—Central Provinces.																							
24	Chhindwara	63·0	81·1*	...	52·0	.	65·2*	...	29·1	89·2	1st	46·0	24th	43·2	...	...	4	...	1	...	1	15	9	N 67°
	Hill Stations.																							
	Panighatta	71·4	83·9	...	61·9	...	72·9	...	22·0	87·3	15th	54·5	26th	32·8	...	..	...	...	...	...	...	...	...	...
	Kurseong	58·6	67·1	...	54·7	...	60·9	...	12·4	74·3	13th	49·0	28th	25·3	...	...	...	...	...	...	...	...	...	...
	Poo	...	59·9	...	30·8	...	45·4	...	29·1	67·1	1st	23·6	29th	43·5	17	...	1	1	4	3	4	...	...	S 14°
	Kargil	30·2	55·7	...	27·4	...	41·6	...	28·3	66·3	1st	18·2	30th	48·1	...	...	5	13	12	...	...	...	...	S 79°
	Killa Drosh	51·2	71·1	...	48·2	...	59·7	...	22·9	76·3	11th	40·1	30th	36·2	28	...	1	...	1	...	...	...	...	E
	Pishin	...	73·2	...	32·4	...	52·8	...	40·8	80·8	14th	22·0	30th	58·8	...	...	...	...	...	...	...	...	...	...
	Kalat	46·2†	69·1	+2·2	30·3	+4·0	49·8	+3·1	38·8	80·0	14th	23·1	26th	56·9	...	4	...	...	...	24	...	2	...	S 6°
	Extra India.																							
	Ahwaz	...	85·5	...	67·5	...	76·5	...	18·0	97·4	15th	51·2	20th	46·2	...	...	...	...	...	...	...	...	...	...
	Birjand									Observations not received.														
	Chumbi	36·8†	55·9†	...	29·0	...	42·5	...	26·9	66·0	16th	20·6	28th	45·4	...	...	...	...	...	...	...	...	...	...
	Kirmanshah	49·5	60·8	...	40·5	...	50·7	...	20·3	67·0	3rd & 11th	33·2	26th	33·8	...	...	...	...	...	...	...	...	...	...
	Koweit	...	78·9	...	63·5	...	71·2	...	15·4	85·4	10th	56·7	15th	28·7	...	2	...	...	4	...	1	6	17	N 56°
	Maidan	...	81·0	...	55·9	..	68·5	...	25·1	86·2	11th & 14th	49·9	4 days.	36·3	...	...	...	...	...	...	...	...	...	...

* Mean of 12 days. † Uncorrected for scale error.

C.

at 30 fourth-class stations in India, etc., in November, 1909.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st May to 30th November, 1909.	Normal rainfall for period, 1st May to 30th November.	Departure from normal of period, 1st May to 30th November, 1909.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					II.—Eastern Bengal and Assam.
...	...	...	...	...	84	...	·560	...	...	...	0	...	...	0·14	...	...	54·14	...	...	0·08	Bishnath.
...	...	...	...	...	82	...	·568	...	...	...	4	...	...	1·70	...	...	67·34	...	...	0·93	Borjuli.
...	...	...	...	...	97	...	·630	...	...	...	2	...	...	3·52	...	...	87·12	...	...	2·68	Chandkhira.
...	...	...	...	...	88	...	·573	...	...	...	1	...	...	0·20	...	...	77·19	...	...	0·17	Doom Dooma.
...	...	...	...	...	93	...	·576	...	...	...	0	...	...	0·05	...	...	86·75	...	...	0·03	Dikom.
...	...	...	...	...	87	...	·622	...	...	...	0	...	...	0·02	...	...	49·67	...	...	0·02	Golaghat.
...	...	...	...	...	94	...	·620	...	...	...	3	...	...	4·52	...	...	77·60	...	...	3·30	Hailakandi.
...	...	...	...	...	92	...	·638	...	...	...	0	...	...	0	...	...	62·15	...	...	0	Jorehat.
...	...	...	...	...	73	...	·653	...	...	...	0	...	...	0	...	...	52·14	...	...	0	Messa.
...	...	...	...	...	94	...	·481	...	...	...	1	...	...	0·31	...	...	53·35	...	...	0·31	Panerihat.
...	...	...	...	...	90	...	·661	...	...	...	2	...	...	4·29	...	...	68·12	...	...	3·88	Srimangal.
...	...	...	...	...	80	...	·724	...	...	...	2	...	...	1·94	...	...	72·43	...	...	1·81	Brahmanbaria.
...	...	...	...	...	95	...	·576	...	...	...	0	...	...	0	...	...	134·22	...	...	0	Dam Dim.
...	...	...	...	...	82	...	·688	...	...	...	0	...	...	0·05	...	...	58·32	...	...	0·03	Goalundo.
...	...	...	...	...	78	...	·738	...	...	...	1	...	...	0·16	...	...	129·41	...	...	0·16	Kalchini.
...	...	...	...	...	85	...	·537	...	...	...	0	...	...	0·03	...	...	143·81	...	...	0·03	Nagrakata.
...	...	...	...	...	82	...	·671	...	...	...	1	...	...	0·63	...	...	50·16	...	...	0·60	Pabna.
																					III.—Bengal.
									Observatory closed.												Fraserganj.
																					XI.—Central Provinces.
2·8	...	...	70	...	64	...	·376	...	...	...	0	...	...	0	...	...	25·06	...	...	0	Chhindwara.
																					Hill Stations.
...	...	...	...	...	64	...	·508	...	...	...	0	...	...	0·07	...	...	143·59	...	...	0·07	Panighatta.
...	...	...	...	...	70	...	·341	...	...	...	0	...	...	0·03	...	...	158·30	...	...	0·03	Kurseong.
...	...	...	27	...	...	...	...	...	0·3	...	0	...	...	0	0·78	−0·78	2·42	4·55	−2·13	0	Poo.
...	...	...	83	...	41	...	·073	...	0·8	...	0	...	...	0·05	...	...	0·67	...	...	0·05	Kargil.
...	...	...	5	...	49	...	·184	...	1·1	...	0	...	...	0	...	...	4·57	...	...	0	Kila Drosh.
...	...	...	...	...	...	...	...	...	...	...	0	1·30	−1·30	0	0·52	−0·52	0·11	1·07	−0·96	0	Pishin.
...	...	...	67	...	47	...	·149	...	...	...	0	0·90	−0·90	0	0·31	−0·31	1·31	2·04	−0·73	0	Kalat.
																					Extra India.
...	...	...	...	...	...	...	...	...	2·0	...	0	...	...	0·04	...	...	0·20	...	...	0·04	Ahwaz.
									Observations not received.												Birjand.
...	...	...	...	...	72	...	·159	...	...	...	0	...	...	0·03	...	...	33·80	...	...	0·03	Chumbi.
...	...	...	...	...	76	...	·271	...	...	...	8	...	...	3·20	...	...	4·65	...	...	0·75	Kirmanshah.
...	...	...	60	...	...	...	...	...	2·4	...	2	...	...	0·34	...	...	0·49	...	...	0·23	Koweit.
...	...	...	...	...	...	...	...	...	...	...	0	...	...	0	...	...	0·45	...	...	0	Maidan.

Reg. No. 4060 E. 09—1.—550.

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

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

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

Reg No. 4002 E . 09.—L—5 500.
LITHO. BY S.B.N.

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

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

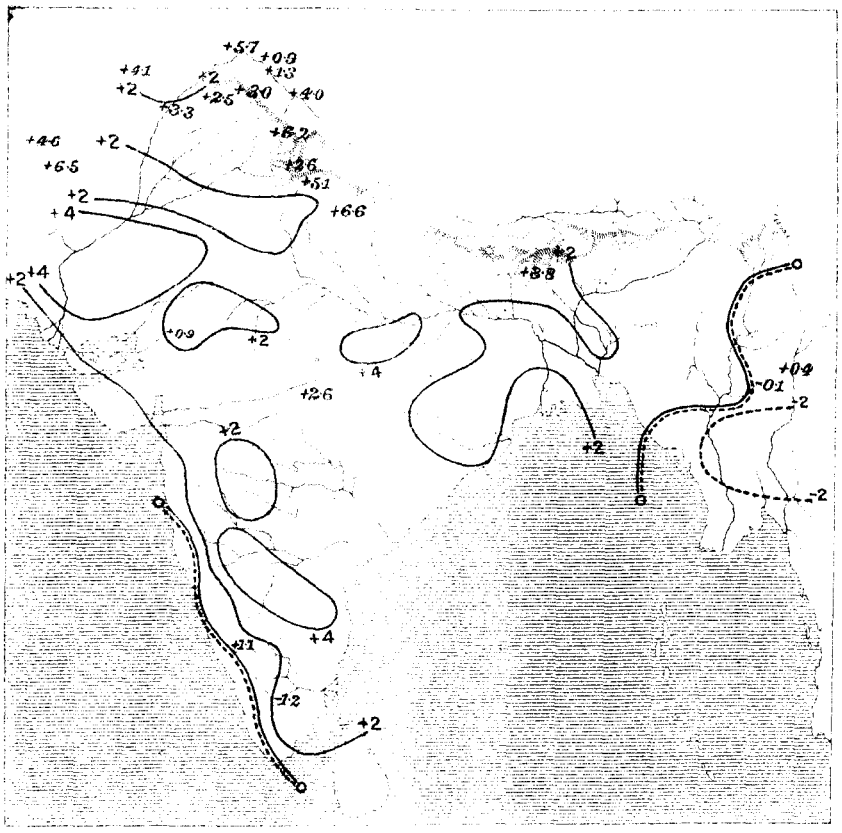


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.

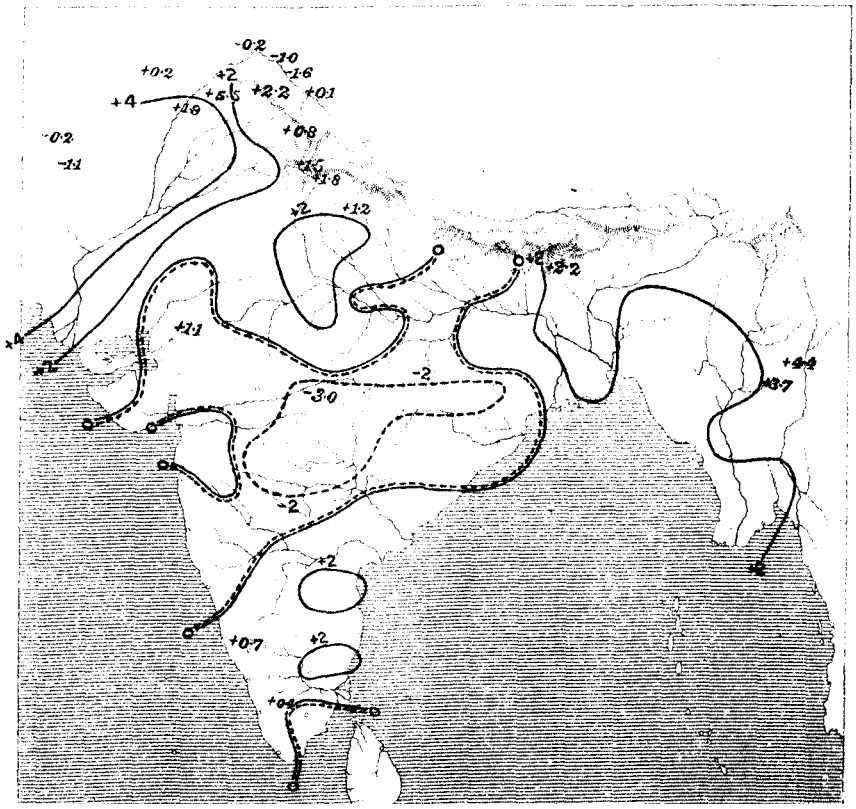


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MEAN TEMPERATURE.

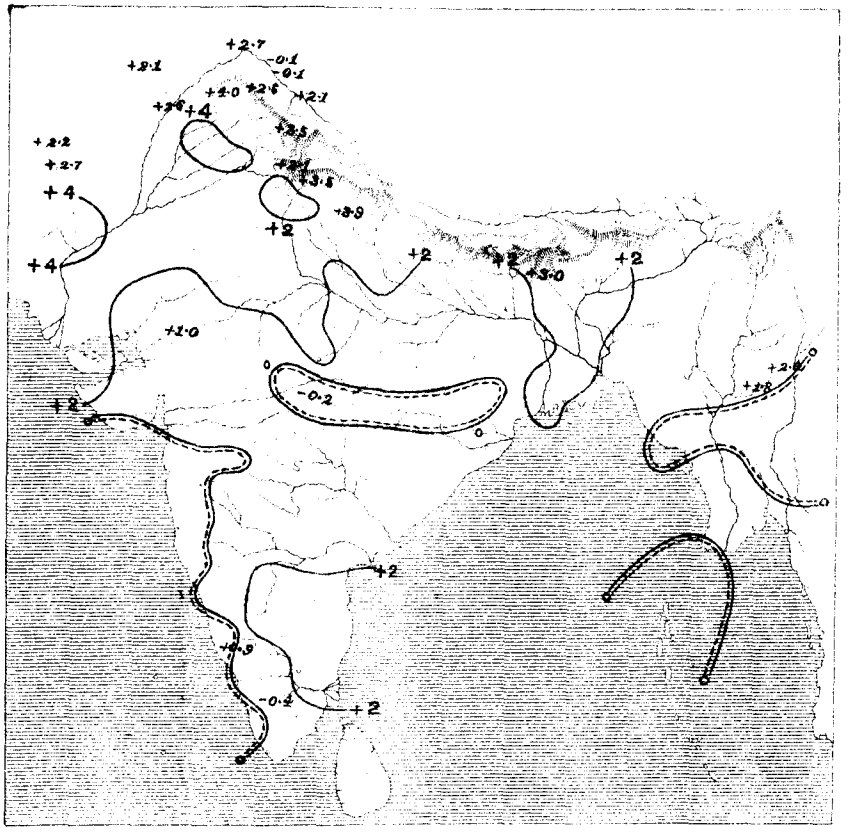


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.

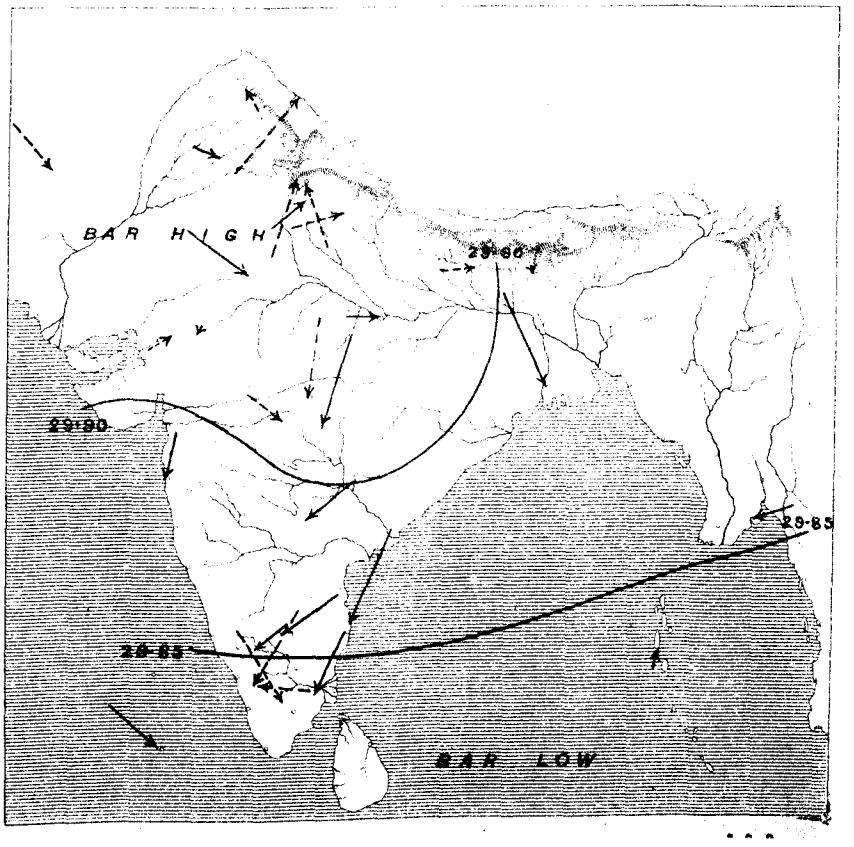


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF ABSOLUTE HUMIDITY AT 8 HRS.

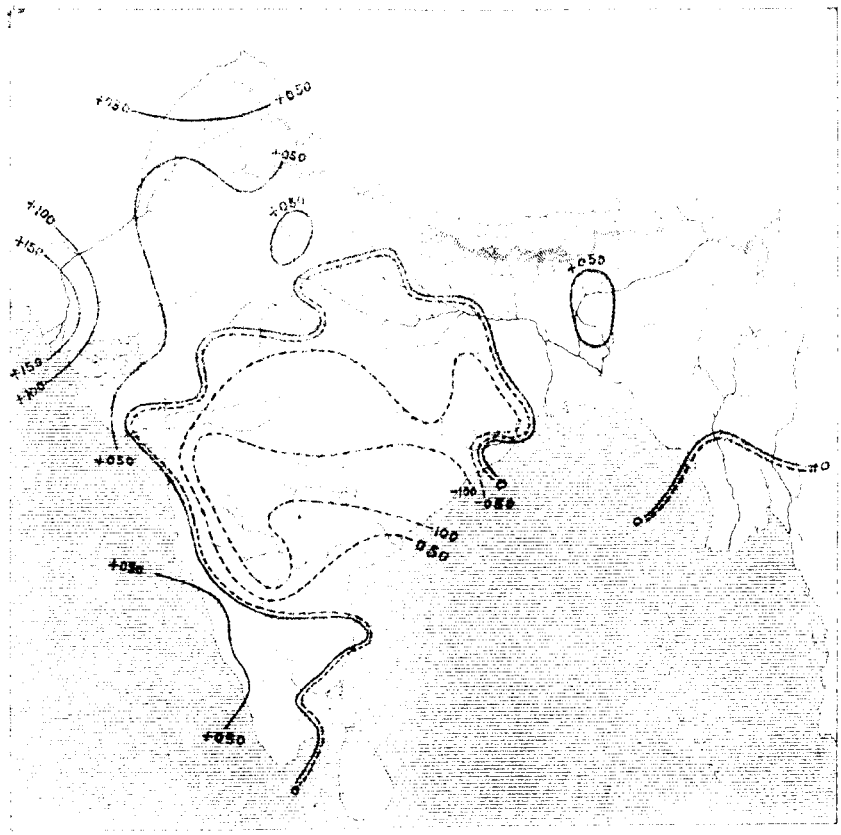


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 HRS.

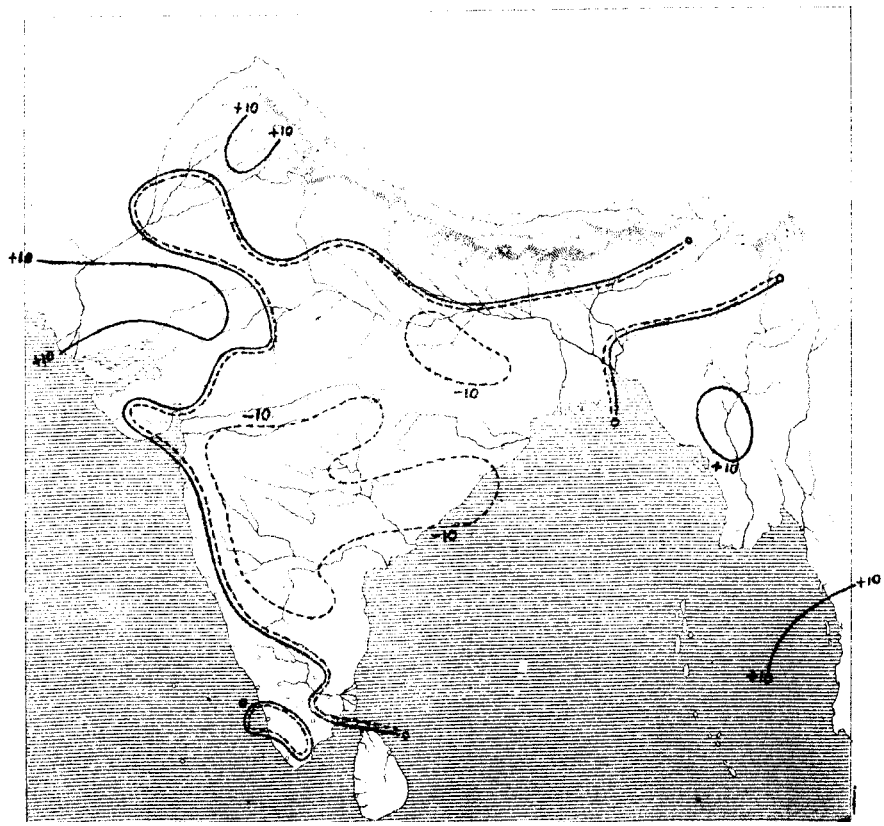


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF CLOUD AMOUNT AT 8 HRS.

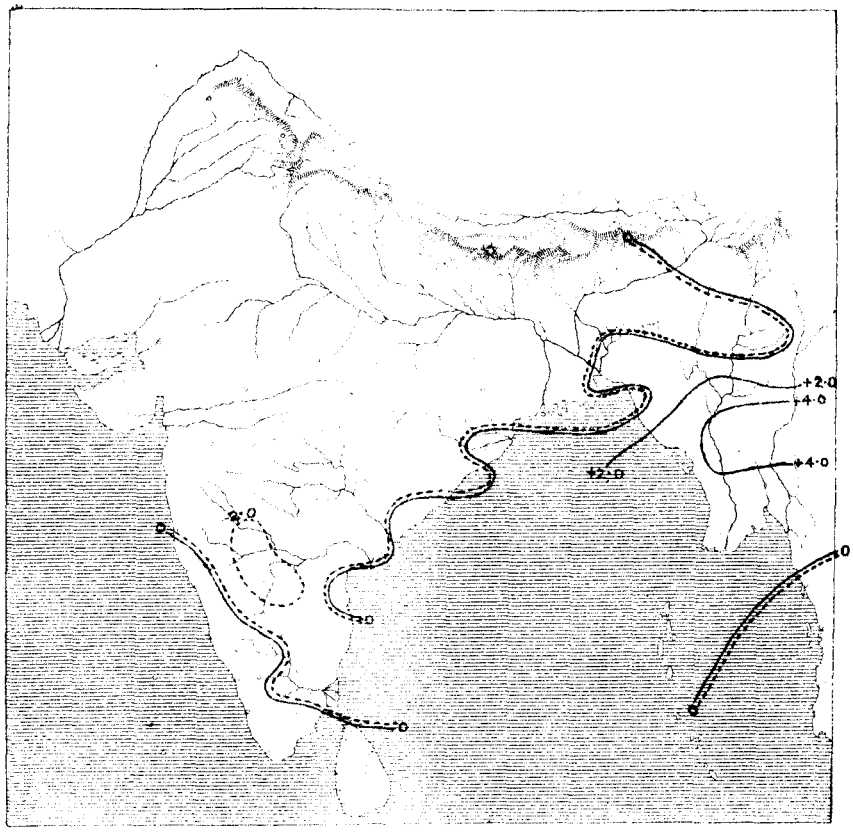
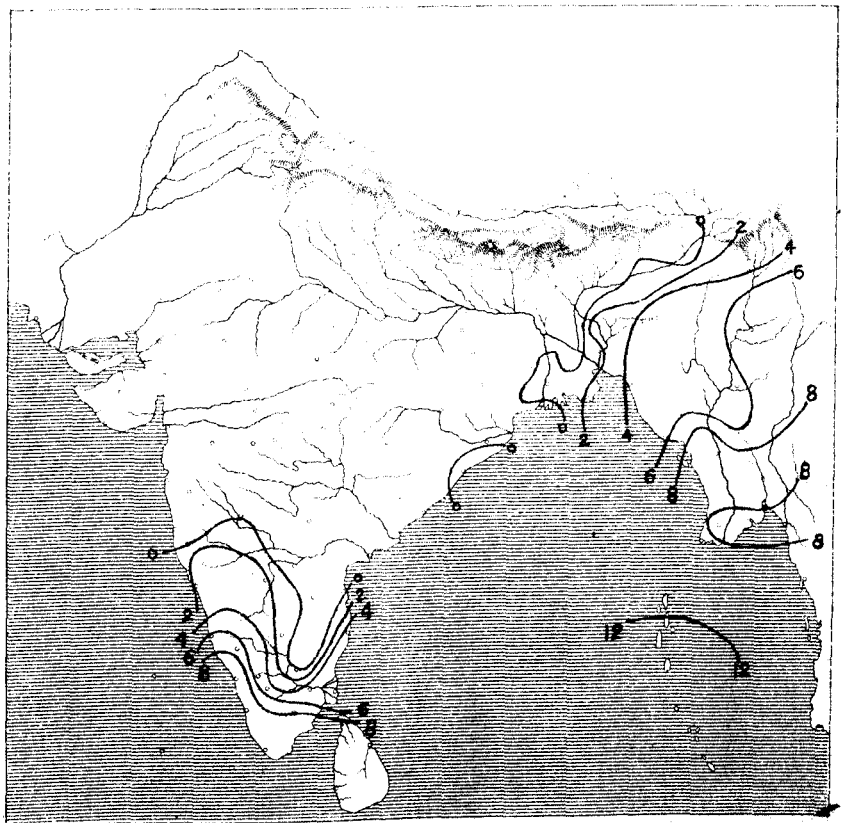
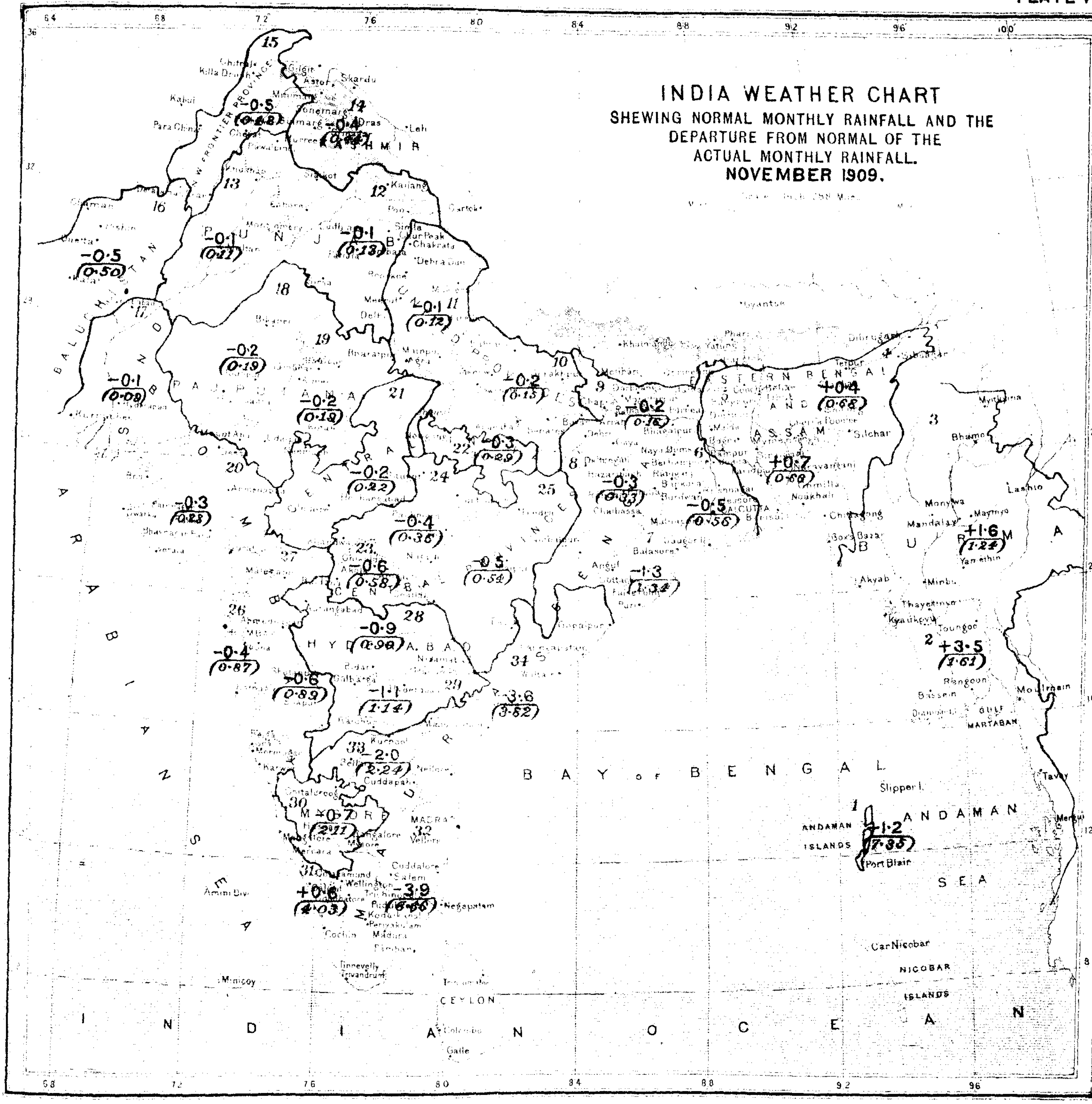


CHART SHEWING THE TOTAL NUMBER OF DAYS IN THE MONTH ON WHICH RAINFALL EQUALLED OR EXCEEDED 0·10 INCH.

(BASED ON THE RETURNS OF TABLE B.)





The country is divided into 34 areas as shewn in the list below. The numbers in that list correspond with the red numbers on the chart, and serve to identify the areas. The numbers in brackets on the chart give the average over the divisions of the normal monthly rainfall; the numbers above these give the departures from normal of the average actual rainfall over the divisions.

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

GOVERNMENT OF INDIA.

METEOROLOGICAL DEPARTMENT.

MONTHLY WEATHER REVIEW.

PUBLISHED BY ORDER OF

THE GOVERNMENT OF INDIA.

CALCUTTA, DECEMBER, 1909.

INTRODUCTION.

THIS review of the weather in India during the month of December, 1909, is based on observations taken daily at 8 hrs. at 239 stations, and on additional observations taken at 10 hrs. and 16 hrs. at 34 stations. In the rainfall summary the data furnished by the meteorological observatories, and such rainfall statements of the month as had been published by the Provincial Governments up to the date of the preparation of the review, have been utilized. The brief notes on solar, seismic and magnetic disturbances have been supplied by the chief observatories.

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

Summary of the chief features of the weather in India during the month of December, 1909.

2. Two disturbances of a somewhat peculiar character affected the weather in northwestern and central India, the first during the second week, the other towards the end of the month, and gave rise to widespread and in places heavy rainfall. The Bay was visited by a storm which caused very heavy rain in the Andamans and on the Orissa and Circars coasts, and moderate rain in lower Bengal, Upper Burma and north Arakan. The aggregate measurements of the precipitation of the month were much greater than the corresponding normal values over nearly the whole of northern and central India, and also in Madras Coast North, and the Bay Islands, and were short of the average in the south and west of the peninsula and in Assam. The defect was serious in Madras Southeast, which received only 0·86 inch in place of the normal 4·13 inches.

The air was somewhat drier than usual in southeast and central Madras and also at several stations in Assam and Eastern Bengal, but was very damp over the rest of the plains.

Skies were covered to more than the customary extent over practically the whole tract of country to the north of the parallel of 19°N., as well as in the extreme south, and were unusually clear in Tenasserim, Pegu, the Bombay Deccan, Mysore and central and southeast Madras.

Days were warm in central and southeast Madras and were distinctly cooler than usual in northwest India. Night temperature was decidedly high in the Deccan, Orissa, north Madras, the Central Provinces and the east of Central India. Elsewhere the temperature conditions were nearly normal.

Pressure as recorded at the earth's surface was only ·008″ in defect of the average. The vertical gradients were remarkably strong in northwest and southern India.

Solar, seismic and magnetic disturbances.

KODAIKANAL OBSERVATORY.

3. *Solar observations.*—There were two days on which there were no solar observations, one other on which prominences could not be observed, and 5 others on which the prominence record was imperfect.

Sunspots.—The large increase in solar activity noticed in October and November continued and on the 25th no less than 10 groups of spots were visible at once.

Twenty new spot groups were recorded during the month, with a daily average of 4·8; the average life of a

spot was 6·4 days. Groups Nos. 1786, 1787, and 1788 were returns of Nos. 1769, 1770, and 1772, respectively. The latitude distribution was as follows:—

TABLE 1.

	1° - 10°.	11° - 20°.	Extreme latitudes.	Mean latitude.
North . .	7	1	3°, 15°	8°·4
South . .	5	7	4°, 16°	10°·0

Of the new groups Nos. 1782, 1786, 1787, 1788, 1790, 1793 and 1797 contained fairly large spots. These lay between longitudes 57° and 253°. The other half of the sun was comparatively inactive. On December 12th the visible disc lay between longitudes 250° and 70° and was quite free from spots. Group No. 1779 had just gone round the west limb and No. 1782 had not yet appeared on the east. Of the large groups mentioned above No. 1782 was the only one which showed any striking features, spectroscopically or otherwise. On the 17th C was brilliantly reversed on the main spot and D_3 was slightly dark.

Prominences.—Fifty-eight large, 5 metallic, and 5 eruptive prominences were recorded during the month. The tallest of them was a detached vertical strip 360″ high which was photographed at latitude +55″ east at 8h. 13m. on December 23rd.

Magnetic disturbances.—"Moderate" magnetic disturbances were recorded on the 1st, 2nd, 13th, 14th, 15th, and 16th. Seven spot groups containing many large spots lay on both sides of the central meridian on the 1st and 2nd and these groups were probably near the central meridian on the other side of the sun between the 13th and the 16th.

C. MICHIE SMITH,

Director,

Kodaikanal and Madras Observatories.

BOMBAY OBSERVATORY.

The report for December has not yet been received. The following report relates to November.

Alibag magnetic record.

4. During the month of November 1909, the traces showed 14 calm days, 13 days of small, 2 days of moderate and 1 day of great disturbance. The days of the month selected as quiet for the purposes of the Magnetic Survey of India are the 4th, 10th, 13th, 24th and 25th.

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

Easterly declination . . .	0° 59′ 43″
Horizontal force . . .	0·36838 C. G. S. unit.
Vertical force . . .	0·16037 „ „
Dip (calculated) . . .	23° 31′·5
Dip (observed) . . .	23° 31′·5
Horizontal force range . .	0·00053 C. G. S. unit.
Horizontal force summed range .	0·00329 „ „
Declination range . . .	1′·5
Declination summed range .	6′·8

(NOTE.—Summed range means sum without regard to signs of 24 ordinates of diurn inequality.)

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

TABLE 2.

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

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

Seismic disturbances recorded at Bombay.

Two seismic disturbances were recorded during th month, on the 10th and 21st.

List of seismic disturbances.

TABLE 3.

Date.	Commencement.		Maximum.		End.		Maximum amplitude.	Duration	
	H.	M.	H.	M.	H.	M.	mm.	H.	M.
Nov. 10th .	6	22·7	6	42·3	7	48·9	1·8	1	26·2
„ 21st .	8	2·4	8	9·2	8	26·3	0·8	0	23·9

All times given above denote G. M. T.
Sensibility to tilt, 1 mm. = 0″·36.

N. A. F. MOOS,

Director,

Bombay Observatory

CALCUTTA OBSERVATORY.

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

TABLE 4.

Date 1909.	P. T. Commencement. G. M. T.	L. W. Commencement. G. M. T.	Maximum. G. M. T.	End. G. M. T.	Duration.	Maximum displacement on trace from mean position.	REMARKS.
	H. M.	H. M.	H. M.	H. M.	H. M.	mm.	
Dec. 9th	15 46·5	16 33·3	16 52·6	18 29·8	2 43·3	0·75	
„ 10th	21 41·1	23 44·7	23 59·5	? (a)	? *	5·00†	Sensibility 1 mm. = 0″·38 of tilt.
„ 11th	9 39·3	—	9 41·3	9 56·0	0 16·7	0·50	
„ 23rd	6 45·1	—	6 47·1	6 49·1	0 4·0	1·25	

(a) The time of end cannot be determined as it ended in the morning air tremor.
* Cannot be determined.
† Measured from the base line.

C. W. PEAKE,
Meteorologist, Calcutta.

SIMLA OBSERVATORY.

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

TABLE 5

Date.		Beginning of 1st P. T.	Beginning of 2nd P. T.	Beginning of L. W.	Time of maximum amplitude.	End approximately.	Duration	Maximum displacement of style.	REMARKS.
		H. M.	H. M.	H. M	H. M.	H. M.	H. M.	mm.	
1st	A	7 19·5	—	—	—	7 25	0 55	...	Tremor.
9th	A	15 46·8	—	—	—	17 15	1 28	...	„
„	A	21 56·2	—	22 4·4	?	22 45	0 48	1	
„	B	21 56·2	—	22 4·4	22 4·6	22 10	0 13	1·5	
9th & 10th.	A	23 39·2	23 43·4	23 47·7	?	0 30	0 50	1·5	
	B	23 39·4	—	23 47·9	?	0 30	0 50	1	

All times are given in G. M. T.
A=E—W component.
B=N—S component.
Magnification of each instrument was 15.

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

TABLE 6.

Place at which felt.	Date.	G. M. T. of earthquake.	Duration.	Intensity.	No. of shocks.	REMARKS.
		H. M.				
Drosh . . .	22nd	1 45	1 sec.	2	1	
Salona . . .	25th	5 53	5 „	5	2	

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

Maximum	1·49
Minimum	1·44
Mean	1·46
Number of days of observation .	11

J. PATTERSON,
Imperial Meteorologist, Simla.

ROYAL ALFRED OBSERVATORY, MAURITIUS.

(*No information yet received for September and October. The following report relates to November 1909, and is compiled from information communicated by the Director of the Observatory*).

7. *Solar observations.*—Observations were taken on the 2nd, 3rd, 6th, 9th to 12th, 16th, 18th, 25th, and 28th to 30th. Groups of sunspots and faculæ were seen on each day of observation.

Magnetic disturbances.

TABLE 7.

Day.	Time.	Disturbance.
6th	17h. to 22h. . .	Small fluctuations in H. F.
8th	21½h. to 23½h. .	Wave in H. F. (+16).
11th to 12th	23h. to 4h. . .	Small fluctuations in H. F.
15th	10h. to 13½h. . .	Wave in H. F. (+22) followed by small undulations from 21h. to 16th 4h.
16th to 17th	23h. to 1h. . .	Wave in H. F. (+25).
20th	16h. to 22h. . .	Wave in H. F. (—50).
21st	1h. to 2h. . .	Wave in H. F. (+16).
27th	7h. to 11½h. . .	Wave in H. F. (+61).
27th	20h. to 24h. . .	Wave in H. F. (+30).
30th to 1st Dec. 09	8h. to 4h. . .	Long wave in H. F. (—130).

—	Mauritius.
Departure from normal of mean pressure	+·003
Actual mean wind direction	S 89° E
Normal mean wind direction	S 83° E
Actual mean wind velocity (miles per diem)	206
Normal mean wind velocity (miles per diem) . . .	257
Rainfall departure from normal	—1·10

Weather in the Indian monsoon region.

8. In the subequatorial region as represented by Zanzibar and the Seychelles the barometric pressure was on the whole practically normal. Winds were much below their average strength in both localities, and their direction was unusually easterly at Zanzibar. Rainfall was very irregularly distributed, having been markedly in defect at the Seychelles, and 131 per cent. in excess at Zanzibar.

TABLE 8.

—	Mauritius.	Zanzibar.	Seychelles.
Departure from normal of mean pressure.	...	+·008	—·009
Actual mean wind direction .	...	N 80° E	N 34° W
Normal mean wind direction .	...	N 35° E	N 44° W
Actual mean wind velocity (miles per diem).	...	89	85
Normal mean wind velocity (miles per diem).	...	151	150
Rainfall departure from normal .	...	+7·24	—7·80

Depressions and cyclonic storms.

9. The tendency to frequent unsettled weather which had characterised October and November persisted during December, three disturbances having occurred during the month. The following is a brief account of these disturbances:

Severe cyclonic storm of November 29th to December 6th over the Bay of Bengal.—According to the meagre information received from ships up to the present this storm appears to have been generated on the 29th of November over the narrow strip of sea between the Andamans and the Nicobars. From there it apparently moved in a west-north-west direcion, and by the morning of the 3rd December the centre had reached a position about two hundred miles east of Nellore. Winds of force 6 or 7 prevailed on that day in the eastern quadrant at a considerable distance from the centre, a circumstance which, coupled with the roughness of the seas on the Madras coast, would indicate that even at this stage it was a well developed disturbance. There was no inflow of humid air into southern India from the Arabian Sea, and it was perhaps owing chiefly to this circumstance that the storm turned round abruptly to north or northeast during the day. At 8 hrs. of the 4th the centre was within 100 miles of Waltair and Calingapatam, where the barometer stood about four-tenths of an inch below the normal height and very rough seas prevailed. The storm travelled in a northeasterly direction during the next two days, and by the morning of the 6th had reached the Chittagong coast. It passed inland probably between Chittagong and Cox's Bazar, and was speedily broken up by the obstructive action of the Chittagong hills.

So far as can be ascertained from the available information it is almost certain that pressure at the centre was at least half an inch in defect throughout the 5th and on the morning of the 6th. According to a letter received from the Commander of the F. L. V. *Comet*, although the greatest intensity attained by the wind there was equivalent to force 8 of the Beaufort scale, winds of hurricane violence were experienced at the Mutla station which is only 60 miles to the southeast; this is an indication that the inner area of the storm was of small extent. Th storm was noteworthy in several respects, but mo especially for the very heavy rain it gave in Oriss and the Andamans, and for the direction of its line advance during the last three days of its existence. Th northeasterly course followed in the present instance wa unique, for storms formed over the Bay in Decembe ordinarily travel either due north or between west an north.

The second and third disturbances were of an entirel different type from that of the first, the former showed itsel on the 9th over Persia and was thence transmitted east wards. Its entry into northwest India on the 12t synchronised with the appearance of a depression ove Gujarat. Like most of the Persian depressions it wa indistinctly marked, and it is therefore not possible to trac it further with certainty. The pressure changes and depar tures would indicate, however, that it was absorbed on th 13th by the Gujarat depression which was then movin northwards across Rajputana into the Punjab. The com bined disturbance was situated on the 14th over the west c upper India between Bikaner and Montgomery and wa fairly deep, pressure within it being then more than a quarte of an inch below the normal. A rapid recovery occurre over the north-west during the day and filled up th depression. General and in places heavy precipitatio resulted on the 14th and 15th from these conditions.

The third or last disturbance resembled the previou one closely in its chief features. It originated over Persi on the 22nd, and during the next three days was transmitte to northwest India where its activity was supplemente largely by a depression formed locally over Berar on th 24th. Both depressions were very feebly marked, an filled up on the 27th while passing through northeas India. Although barometrically less important than it predecessor it produced widespread rain over the Unite Provinces, the Central Provinces, the east of Central India of Rajputana and of the Punjab, and local showers i northeast India.

Pressure.

10. The geographical mean of 8 hrs. pressure over India was ·008″ below the normal value. The general pressure conditions were thus much less abnormal than in November when the monthly value of pressure was as much as —·018 in defect of the corresponding mean.

Relatively to the general condition, pressure was markedly low over the Circars, the whole of the Deccan and the Konkan, and was rather high in Burma, Assam, most parts of Eastern Bengal, Chota Nagpur, the Punjab and the greater part of the United Provinces. The relative distribution was thus almost the opposite of that obtaining in October and November, when pressure tended to be low in Burma and north-east India relatively to the peninsula.

TABLE 9.

DIVISION.	Departure from normal of mean 8 hrs. pressure.
	"
Burma	+·003
Eastern Bengal and Assam	—·001
Bengal	—·001
United Provinces	+·005
Punjab	+·014
North-West Frontier Province	—·003
Sind	0
Rajputana	—·004
Bombay	—·025
Central India	—·017
Central Provinces	—·019
Hyderabad	—·037
Mysore	—·016
Madras	—·015

The excess of pressure in the plains of upper India did not extend upwards to any great height, for at the level of about 4,000 feet, and above it, pressure was more or less below the normal. The vertical pressure gradients were thus steeper than usual there as well as in southern India. In the Central Provinces and north-east India, on the other hand, pressure was somewhat in excess at the level of the observing hill stations relatively to the adjacent plains.

TABLE 10.

HILL STATION.	Departure from normal pressure. A	PLAIN STATION.	Departure from normal pressure. B	Departure of pressure difference B—A.
	"		"	"
Quetta	—·026	Jacobabad	+·006	+·032
Leh	—·029	Lahore	+·007	+·036
Murree	—·011	Peshawar	—·001	+·010
Simla	—·001	Ludhiana	+·023	+·024
Chakrata	—·001	Roorkee	+·032	+·033
Darjeeling	0	Jalpaiguri	—·018	—·018
Mount Abu	—·035	Deesa	—·020	+·015
Pachmarhi	—·008	Khandwa	—·020	—·012
Kodaikanal	—·017	Madura	+·012	+·029

Temperature.

11. In the plains day temperature was from 2° to 6° in defect in north-west India, and in excess by about 3° in Mysore and 2° in Madras, but elsewhere the departures from the normal were small, not exceeding 1½° in amount at the great majority of stations. Minimum or night temperature was inclined to be high in most parts of the country The excess was however less than 2° in amount except in Orissa, the Central Provinces, the east of Central India, north Madras and the Deccan, where it ranged up to 7°.

In Baluchistan both day and night temperatures were lower than usual by about 2½°, but elsewhere in the hills the deviations from the normal were not strongly marked.

TABLE 11.

SUB-DIVISION.	ACTUAL TEMPERATURE.					DEPARTURE FROM NORMAL OF		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
1. Bay Islands	84·2	75·9	80·1	8·3	15·6	—0·9	—0·9	0
2. Lower Burma	83·7	66·6	75·2	17·1	25·8	—1·2	+0·4	—1·6
3. Upper do.	79·2	57·3	68·3	22·0	31·8	—0·9	+1·8	—2·7
4. Assam	75·3	54·0	64·6	21·4	31·0	—0·2	+1·1	—1·3

Sub-Division.	Actual temperature.					Departure from normal of		
	Mean maximum.	Mean minimum.	Monthly mean of mean between maximum and minimum.	Mean daily range of temperature.	Absolute range during month.	Maximum.	Minimum.	Daily range.
	°	°	°	°	°	°	°	°
5. Eastern Bengal	77·0	56·0	66·5	21·0	33·3	+0·4	+1·5	—1·1
6. Bengal	77·6	56·7	67·2	21·0	33·4	+0·3	+1·5	—1·2
7. Orissa	79·3	59·9	69·6	19·3	28·9	—1·0	+3·1	—4·1
8. Chota Nagpur	75·5	52·9	64·2	22·6	32·9	—1·0	+2·1	—3·1
9. Bihar	75·6	52·0	63·8	23·7	36·1	+0·5	+0·5	0
10 United Provinces, East	74·8	48·3	61·6	26·5	39·5	—0·5	+0·3	—0·8
11. Do., West	70·8	47·7	59·3	23·1	36·2	—3·0	+0·9	—3·9
12. Punjab, East and North	67·5	43·8	55·5	23·7	38·0	—4·4	+1·1	—5·5
13. Do, Southwest	68·4	44·3	56·4	24·1	39·2	—4·4	+1·2	—5·6
14. Kashmir	40·4	16·4	28·4	24·0	52·9	+0·1	—0·5	+0·6
15. North-West Frontier Province	65·6	39·9	52·7	25·7	40·1	—4·4	+0·4	—4·8
16. Baluchistan	58·2	35·7	46·9	22·4	43·0	—2·5	—2·7	+0·2
17. Sind	76·0	53·4	64·7	22·6	36·1	—2·2	+1·2	—3·4
18. Rajputana, West	73·4	49·7	61·6	23·7	40·3	—4·3	—2·5	—1·8
19. Do., East	73·5	49·0	61·2	24·6	38·2	—4·1	+0·1	—4·2
20. Gujarat	81·9	56·8	69·4	25·1	37·5	—2·4	—0·3	—2·1
21. Central India, West	76·9	51·1	64·1	25·8	39·6	—1·9	+1·7	—3·6
22. Do., East	74·7	50·2	62·5	24·5	36·9	—0·5	+3·5	—4·0
23. Berar	79·4	59·4	69·4	19·9	33·6	—2·7	+5·3	—8·0
24. Central Provinces, West	77·6	54·9	66·2	22·7	37·4	—1·6	+4·3	—5·9
25. Do., East	78·1	57·1	67·6	20·9	31·3	—0·5	+6·0	—6·5
26. Konkan	85·3	69·3	77·3	16·0	26·2	—1·8	+0·8	—2·6
27. Bombay Deccan	84·9	59·0	72·0	25·9	36·7	+1·1	+4·3	—3·2
28. Hyderabad, North	83·9	59·1	71·5	24·8	36·4	+0·9	+5·1	—4·2
29. Do., South	85·6	64·5	75·1	21·1	31·7	+1·6	+4·7	—3·1
30. Mysore	82·7	60·7	71·7	22·0	30·1	+2·7	+2·0	+0·7
31. Malabar	86·9	71·9	79·4	15·1	21·9	—0·5	+0·8	—1·3
32. Madras, Southeast	86·7	70·3	78·5	16·4	25·8	+2·3	+0·9	+1·4
33. Do. Deccan	89·2	65·4	77·3	23·8	38·1	+2·8	+3·7	—0·9
34 Do. Coast, North	82·5	68·4	75·5	14·1	22·7	+0·9	+2·5	—1·6

TABLE 12.

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

Winds.

12. (*a*) Except in the United Provinces and the North-West Frontier Province where wind velocity was decidedly low, and in Rajputana and the Central Provinces where it was appreciably high, the rate of air movement did not depart to any extent from the normal.

(*b*) Steadiness was much greater than usual in Rajputana and Sind, well below the normal in the United Provinces, the North-West Frontier Province and Mysore, and about the average elsewhere.

(*c*) The deviations from the normal of the direction of motion were local rather than general, and were consequently of no great significance.

TABLE 13.

Division.	Departure from normal of	
	Hourly wind velocity.	Wind steadiness.
Burma	—0·5	— 5
Eastern Bengal and Assam	—0·3	— 7
Bengal	—0·2	— 9
United Provinces	—0·7	— 8
Punjab	+0·1	0
North-West Frontier Province	—1·0	— 5
Sind	+0·1	+18
Rajputana	+0·7	+14
Bombay	—0·3	— 9
Central India	—0·2	+ 4
Central Provinces	+0·7	+ 7
Hyderabad	—0·2	+ 5
Mysore	—0·9	—25
Madras	+0·7	+ 1

Humidity and cloud.

13. The air was damper than usual on the mean of the month in all parts of the country with the exception of Kashmir, Eastern Bengal, Assam, and central and southeast Madras.

Cloud proportion also was in excess in most places, the only important exceptions being the coast districts around the Andaman Sea, the Bombay Deccan, Mysore, and central and southeast Madras.

The departures of humidity and cloud were thus roughly parallel to those of rainfall.

TABLE 14.

Division.	Hygrometry; 8 hrs.				Cloud.	
	Mean humidity.	Departure from normal.	Mean vapour tension in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.
	%					
Burma	88	+ 4	·580	+ ·028	2·6	—0·4
Eastern Bengal and Assam.	88	— 2	·469	+ ·014	3·0	+ 1·1
Bengal	81	+ 2	·427	+ ·032	2·5	+ 1·2
United Provinces.	82	+ 5	·338	+ ·025	2·9	+ 1·3
Punjab	82	+ 11	·279	+ ·034	3·1	+ 0·1
North-West Frontier Province.	79	+ 9	·227	+ ·016	3·9	+ 0·7
Sind	67	+ 8	·310	+ ·031	3·5	+ 1·1
Rajputana	70	+ 11	·294	+ ·021	3·0	+ 0·9
Bombay	65	+ 5	·443	+ ·036	1·4	—0·1
Central India	71	+ 7	·324	+ ·027	3·7	+ 2·5
Central Provinces	74	+ 11	·410	+ ·071	4·1	+ 2·5
Hyderabad	67	+ 4	·487	+ ·037	2·0	+ 0·2
Mysore	75	+ 3	·513	+ ·032	2·7	—0·8
Madras	77	0	·670	+ ·022	3·7	—0·1

Rainfall.

14. As described in a previous section, three disturbances affected the weather during the month. The precipitation due to the first disturbance was almost restricted to the coast districts round the Bay from the Circars to the Andamans, while that due to the other two extended over practically the whole of northern and central India. The total rainfall measurements of the month accordingly exceeded their normal values in the Bay Islands, the Madras Coast North, Hyderabad North, the Central Provinces, Central India, and the whole tract of country extending from Eastern Bengal to Baluchistan, and were equal to or short of the average in Lower Burma, Assam, Bombay excluding Gujarat, Mysore, south Hyderabad and the whole of Madras excepting the northern coast districts. The excess varied between half an inch and two inches in most parts of the region of abundant rainfall in northern and central India, whereas the normal fall there is less than half an inch: it was absolutely greatest in Berar which obtained 2·92 inches, the normal being 0·30 inch. In the region of scanty rainfall the defect was most marked in Madras Southeast where it amounted to 3·27 or 79 per cent.

On the mean of the whole Indian region there was an excess of 0·46 or 92 per cent.: in this respect the month contrasts very favourably with the corresponding period of 1908 in which a defect of 80 per cent. was recorded. In fact it was the wettest December since 1902.

TABLE 15.

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			"	"	"	
1. Bay Islands	3·0	5·2	7·33	3·33	+ 4·00	+ 120
2. Lower Burma	0·2	0·3	0·16	0·16	0	0
3. Upper do.	1·2	0·7	0·67	0·35	+ 0·32	+ 91
4. Assam	1·5	1·0	0·39	0·44	—0·05	— 11
5. Eastern Bengal	1·4	0·3	1·11	0·19	+ 0·92	+ 484
6. Bengal	1·3	0·2	0·46	0·11	+ 0·35	+ 318
7. Orissa	2·6	0·4	2·28	0·23	+ 2·05	+ 891
8. Chota Nagpur	1·6	0·3	0·61	0·20	+ 0·41	+ 205
9. Bihar	0·6	0·3	0·19	0·13	+ 0·06	+ 46

Sub-division.	Number of rainy days.		Rainfall.			
	Actual.	Normal.	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
			″	″	″	
10. United Provinces, East	1·8	0·6	0·85	0·29	+0·56	+193
11. Do., West	3·2	0·9	1·48	0·45	+1·03	+229
12. Punjab, East and North	2·7	0·9	1·76	0·52	+1·24	+238
13. Do., Southwest	2·1	0·5	1·00	0·22	+0·78	+355
14. Kashmir	3·2	2·9	2·25	1·39	+0·86	+ 62
15. North-West Frontier Province	2·6	1·0	1·86	0·49	+1·37	+280
16. Baluchistan	3·2	2·2	1·42	0·96	+0·46	+ 48
17. Sind	0·6	0·3	0·20	0·11	+0·09	+ 82
18. Rajputana, West	1·2	0·4	0·65	0·15	+0·50	+333
19. Do., East	2·2	0·9	1·05	0·40	+0·65	+163
20. Gujarat	0·7	0·1	0·26	0·05	+0·21	+420
21. Central India, West	1·6	1·0	0·69	0·37	+0·32	+ 86
22. Do., East	2·9	0·9	0·82	0·45	+0·37	+ 82
23. Berar	5·4	0·4	2·92	0·30	+2·62	+873
24. Central Provinces, West	4·6	0·6	2·37	0·36	+2·01	+558
25. Do. East	4·3	0·4	2·81	0·23	+2·58	+1122
26. Konkan	0	0·2	0·01	0·07	−0·06	− 86
27. Bombay Deccan	0·4	0·4	0·19	0·22	−0·03	− 14
28. Hyderabad, North	0·7	0·7	0·48	0·41	+0·07	+ 17
29. Do., South	0	0·3	0	0·18	−0·18	−100
30. Mysore	0·7	0·7	0·40	0·38	+0·02	+ 5
31. Malabar	1·1	1·7	0·88	1·20	−0·32	− 27
32. Madras, Southeast	1·6	4·7	0·86	4·13	−3·27	− 79
33. Do. Deccan	0·1	0·8	0·01	0·46	−0·45	− 98
34. Do. Coast, North	1·4	1·0	2·63	0·89	+1·7	+196

TABLE 16.

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	″	″	″	
Burma	0·44	0·26	+0·18	+ 69
Eastern Bengal and Assam	0·73	0·32	+0·41	+128
Bengal	0·69	0·15	+0·54	+360
United Provinces	1·14	0·37	+0·77	+208
Punjab	1·61	0·46	+1·15	+250
North-West Frontier Province	1·86	0·49	+1·37	+280
Sind	0·20	0·11	+0·09	+ 82
Rajputana	0·94	0·33	+0·61	+185

Division.	Rainfall.			
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.
	″	″	″	
Bombay	0·18	0·14	+0·04	+ 29
Central India	0·72	0·40	+0·32	+ 80
Central Provinces	2·69	0·30	+2·39	+797
Hyderabad	0·22	0·29	−0·07	− 24
Mysore	0·40	0·38	+0·02	+ 5
Madras	1·28	2·42	−1·14	− 47
Mean of India when the size of the above areas is taken into account.	0·96	0·50	+0·46	+92

Snowfall.

I.—BALUCHISTAN.

15. On the hills near Quetta slight falls occurred on the 11th, 13th, 21st and 27th, and heavy falls on the 23rd and 24th.

II.—AFGHANISTAN.

Kabul.—Snow fell in Kabul on 4 days to a total depth of about 2″. By the end of the month the plain of Kabul had become quite bare of the snow covering, and the high adjoining hills almost so.

III.—THE NORTH-WEST FRONTIER PROVINCE.

Wano.—Snowstorms occurred on the 12th, 14th and 24th down to a level of about 8,000 feet, but the total fall was small in amount, not exceeding 8″ in depth even on the highest points. Weather was unusually cold during the month.

Kurram.—There were in all seven falls on the Sufed Koh and two of these extended to Parachinar, where the total depth of snow was estimated at 9″. At the end of the month all the passes were bare of snow.

Kohat.—There were two falls on the hills bordering this district. The statement below gives the measurements made in the various localities :—

TABLE 17.

Locality.	Amount of snowfall recorded during the month.	
	Feet.	Inches.
Mullaghar	1	0
Bilandar	0	4
Paura Darra	0	4
Samana	0	10
Chappur	1	0
Sanpok	0	10
Chapar Mallakhel	0	10
Jandolai	0	10
Mian Khan Chappar	0	10
Ali Khel Chappar	0	10
Bar Khai	0	10
Madorra Bar Mohamed Khel	1	0
Dappa Bar Mohamed Khel	1	0
Muzioghar	0	1½
Landoku	1	0
Krumb Ustari Khel	0	6
Tanga Ustari Khel	0	6
Moulaghar Sepoja	0	6

Chitral.—Snow fell on the surrounding mountains on the 12th, 13th, 14th and 24th. The fall of the 13th and 14th was heavy and descended to the level of the observatory where it measured 7″ in depth. At the end of the month the accumulated snow measured 1 foot in depth on t adjoining hills and 15 feet on the Lorai pass.

IV.—KASHMIR.

Snowfall was irregular both in occurrence and dist bution. In Srinagar there were six snowstorms resulti in about half a foot of snow. At Sonemarg the aggrega fall of the month was estimated at about ten feet, wh nearly three feet were recorded at Kargil and about dout that amount on the neighbouring hills. At Dras a total about two feet fell on twelve days. The snow accumu tions at the end of the month measured about 4½ feet depth at Sonemarg, and about 3 feet on the passes ne Dras. In Leh the first snowfall of the winter season d not occur before the 24th and the pass to Nubra remain open.

V.—THE PUNJAB.

Chamba.—Snowstorms occurred on the Dalhous Chamba, Bhandal and Tisa ranges from the 14th to t 16th and again on the 24th and 25th, those of the 14th a 15th being severe. The lowest level reached by the sno line was 4,500 feet.

Pangi.—Snowstorms occurred daily at Kilar (elevati 8,450 feet) from the 12th to the 16th, and there was a slig fall also on the 23rd; the total quantity received was feet.

The statement below shows the total amount of sno received during the month at the recording stations, a the actual and normal depth of accumulation on the la day of the month :—

TABLE 18.

RECORDING STATION.	Total amount of snowfall during the month.		DEPTH OF ACCUMU TION AT THE E OF THE MONTH.			
			Reported.		Normal	
	Ft.	In.	Ft.	In.	Ft.	I
Kalatop	4	0	3	6	3	8
Kainthli	1	0	0	8	1	4
Barmaur	3	0	3	0	2	6
Ulansa	2	3	2	3	2	9
Chitrari	1	4	1	4	1	0
Darkund	1	7	1	7	1	5
Bakani	0	7	0	7	0	8
Bhandal	0	7	0	7	0	7
Deur	0	4	0	4	0	5
Langera	3	1	3	1	1	0
Tisa	0	6	0	6	0	8
Khangu	3	2	3	2	2	2
Chatri	2	1	2	1	2	3
Alwas	5	4	5	4	2	9

Almost all the passes were closed.

Dalhousie.—There was only one snowstorm during the month, *viz.*, on the 15th. The fall at Dalhousie was only 3″ deep, but was believed to be much heavier at Kalatop, Bakrota, Dainkund and Khajiar.

Kulu.—Snowfall was confined to the passes above 8,000 feet in height and occurred on four days. The Rohtang and Hamta passes were blocked. At the end of the month snow to a depth of about 1 foot was reported to be lying at an elevation of 10,000 feet on the southern slopes.

Kilba.—Snowstorms occurred on the 13th, 14th, 15th, 24th and 25th; on the last four days the snow line was at an elevation of 7,000 to 8,000 feet and here the aggregate fall was estimated at 1½ feet. At the close of the month, there was from 2 to 4 feet of snow on the Shatul, Brua and Harang passes, which were accordingly impassable. The Hindustan-Tibet road was clear of snow :—

TABLE 19.

NAME OF PASS.	DEPTH OF ACCUMULATION AT THE END OF THE MONTH.	
	Reported.	Normal.
Shatul	4 feet	5 feet.
Brua	3 "	4½ "
Harang	2 "	2½ "

VI.—THE UNITED PROVINCES.

Garhwal.—There were altogether four falls in this district The storm of the 24th to the 26th was severe, and gave snow down to about 5,000 feet.

Almora.—The total fall of the month amounted to 7 feet on the Untadhura, 6½ feet on the Lipulekh, 5 feet on the Ralamdhura and the Kaphini, and 4 feet on the Pindari.

SUMMARY.

16. So far as can be judged from the available information the snowfall was somewhat irregularly distributed, being heavier than usual in Baluchistan and the western Himalayas and deficient in Afghanistan and parts of the North-West Frontier Province. In Chamba the snowline came down as low as 4,500 feet.

Crop report.

17. *Burma.*—The condition of the standing crops was good. Sowing of miscellaneous spring crops was progressing satisfactorily.

Eastern Bengal and Assam.—Harvesting of winter rice was nearing completion, and a good outturn was expected. Prospects of tea and wheat were good, and of mustard and pulses fair.

Bengal.—Harvesting of winter rice continued. At the end of the month rain was wanted for spring crops in parts of Jessore and Patna.

United Provinces.—At the close of the month the standing crops were doing well everywhere.

Punjab.—The standing crops were generally in good condition. Sowing of spring crops continued in some districts.

North-West Frontier Province.—At the end of the month the condition of the standing crops was generally average, except on unirrigated areas in Dera Ismail Khan where it was below it. Spring crops were being sown.

Jammu and Kashmir.—The condition of the standing crops was fair in Jammu and good in Kashmir.

Rajputana.—The state of the standing crops was good. Sowing and watering of spring crops continued.

Central India.—Crops had suffered slightly in parts of Gwalior, Indore and Bundelkhand.

Central Provinces.—Prospects were generally favourable.

Bombay.—Crops were generally good, except in parts of the east Deccan where they had suffered from want of moisture.

Hyderabad.—Standing crops were fair to good, though they had in some parts been damaged by the third week's rainfall. More rain was still needed in parts of the Warangal and Medak division.

Mysore.—The condition of the standing crops was satisfactory and the seasonal prospects were good.

Coorg.—Picking of coffee and cardamom and reaping of rice continued.

Madras.—At the end of the month standing crops were generally fair but in parts of the Deccan, North Arcot, Salem, Tanjore and Madura they were in urgent need of rain; while in parts of Guntur, Cuddapah, the central Carnatic and Tanjore some crops had withered or were withering. Harvests continued generally with fair to bumper outturn.

HEM RAJ.

TABLE A.—Abstract of observations taken at 10 hrs. and 16 hrs. at 34 stations in India, etc., in December, 1909.

Tal

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

Number of subdivision.	Station.	Elevation of barometer cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Mean of 16 hrs.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to sea-level and gravity, 45° Lat.	Temperature of air. Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Temperature, wet-b Mean minimum.	Mean 10 hrs.	Mean 16 hrs.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
	I.—Burma.																				
2	Rangoon . .	18	30·034	29·905	·129	29·968	+·003	29·924	86·8	67·4	19·4	89·3	63·0	26·3	79·5	85·2	75·4	− 0·2	65·4	70·3	71·3
	III.—Bengal.																				
6	Calcutta . .	21	·091	·967	·124	30·023	−·005	·990	77·3	57·6	19·7	83·0	52·2	30·8	70·9	75·3	66·5	+ 1·2	56·2	63·0	64·4
	IV.—United Provinces of Agra and Oudh.																				
10	Allahabad . .	309	29·823	·705	·118	29·752	+·003	30·027	74·7	49·3	24·9	81·5	43·5	38·0	66·4	73·5	60·3	+ 0·5	48·7	57·2	59·4
11	Dehra Dun . .	2,233	27·822	27·740	·082	27·770	−·003	·017	67·4	46·2	21·2	75·3	43·6	31·7	59·2	63·3	55·9	− 0·4	43·9	52·2	54·7
	V.—Punjab.																				
12	Lahore . .	702	29·407	29·322	·085	29·354	−·001	·064	68·2	43·8	24·4	77·4	39·1	38·3	57·5	66·4	53·8	− 0·8	42·5	52·4	56·6
	VIII.—Rajputana.																				
19	Jaipur . .	1,431	28·669	28·564	·105	28·605	−·005	·046	72·7	49·2	23·5	81·2	43·4	37·8	65·1	70·4	59·0	− 2·5	46·0	55·4	57·6
	Udaipur . .	1,925	·147†	·040‖	·107	·088		·011‖	75·0‖	48·5†	26·5	82·5	41·6	40·9	66·7†	73·3‖	61·6‖		46·9†	57·2†	59·7‖
	IX.—Bombay.																				
26	Bombay . .	37	29·930	29·880	·110	29·930	−·023	29·907	3·7	70·3	13·4	88·1	65·8	22·3	76·0	78·9	76·2	− 0·2	66·6	70·2	72·2
	XI.—Central Provinces.																				
24	Nagpur . .	1,017	·049	28·933	·116	28·986	−·010	·986	79·4	58·8	20·6	85·5	52·8	32·7	71·2	76·7	68·4	+ 1·3	56·4	62·8	65·3
	XII.—Hyderabad.																				
29	Hyderabad .	1,690	28·339	·220	·119	·277	−·027	·924	84·5	62·8	21·7	87·2	57·8	29·4	76·5	80·7	72·9	+ 3·8	59·3	65·7	64·6
	XIII.—Mysore.																				
30	Bangalore . .	3,021	27·019	26·907	·112	26·964	−·018	·882	82·3	60·1	22·2	86·0	55·4	30·6	73·9	79·3	70·4	+ 2·9	58·4	64·0	63·8
	Mysore . .	2,518	·507	27·379	·128	27·444	−·027	·830	83·2	61·4	21·8	86·0	56·0	30·0	74·8	81·9	71·5	+ 1·7	60·0	66·1	66·5
	XIV.—Madras.																				
32	Periyakulam .	944							Observatory closed.												
	Pudukkottai .	318	29·698	29·567	·131	29·633		·884	87·8	70·4	17·4	92·4	66·7	25·7	81·1	84·7	79·1		68·9	72·0	72·8
	Madras . .	22	30·013	·909	·104	·960	−·020	·914	85·6	71·1	14·5	90·4	65·5	24·9	81·9	81·8	77·6	+ 1·9	69·8	74·4	73·9
	Bay Islands.																				
1	Port Blair . .	58	29·940	·840	·100	·890	+·004	·878	85·0	75·7	9·3	86·6	70·2	16·4	81·9	82·5	79·6	− 0·9	72·1	75·4	75·1
	Kashmir.																				
14	Srinagar . .	5,204	25·045	24·964	·081	24·997	−·024	24·968	45·9	30·1	15·8	54·8	23·6	31·2	36·9	44·5	36·1	− 0·2	28·3	34·6	41·4
	Leh . . .	11,503	19·721	19·619	·102	19·664	−·035	19·633	37·1	13·3	23·8	45·9	2·4	43·5	26·5	33·3	23·3	+ 1·2	10·6	21·1	24·8
	Baluchistan.																				
16	Quetta . . .	5,502	24·736	24·666	·070	24·689	−·025	24·649	53·5	29·6	23·9	64·3	24·1	40·2	45·2	49·0	39·3	− 3·0	28·3	37·6	39·4

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

† Mean of 30 days. ‖ Mean of 29 days. ¶ Mean of 29½ days.

NOTE.—The barometric readings are not reduced to sea-level, in the cases of

A.

tations in India, etc., in December, 1909.

Vapour tension in inches of mercury.					Humidity.					Cloud.				Wind direction.											Wind steadiness.		Wind velocity.		Rainfall.			
														Total number of 10 hrs. and 16 hrs. winds from																		
From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean 10 hrs.	Mean 16 hrs.	Mean of two previous columns.	Departure from normal.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.	Station.	Number of subdivision.
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
																									%	%						
																															I.—Burma.	
·607	·624	·585	·618	−·034	90	62	48	75	− 3	1·8	4·1	3·0	+0·1	4	3	43	3	2	4	1		2	N 49° E	N 42° E	71	61	34	108	0	0	Rangoon	2
																															III.—Bengal.	
·438	·476	·464	·471	+·033	91	63	53	72	+ 1	1·6	2·8	2·3	+0·5		16	7	8	1			2	28	N 12° W	N 13° W	66	63	62*	60	0·65	0·34	Calcutta	6
																															IV.—United Provinces of Agra and Oudh.	
·334	·351	·329	·345	+·014	92	55	41	68	+ 1	3·2	3·6	3·4	+1·9	23	3	7	8		1	2	13	5	N 29° W	N 48° W	17	27	35	72	0·94	0·81	Allahabad	10
·261	·307	·324	·296	+·025	83	62	57	63	+ 6	3·8	5·2	4·5	+1·7	31					6	10	10	4	S 63° W	S 75° W	36	17	12*	29	1·93	0·92	Dehra Dun‡	11
																															V.—Punjab.	
·260	·329	·332	·305	+·034	89	70	53	73	+10	2·8	3·8	3·3	+0·5	15	5	3	1	6		1	16	15	N 57° W	N 36° W	37	21	41	31	2·51	1·54	Lahore	12
																															VIII.—Rajputana	
·271	·323	·321	·305	+·038	78	54	44	64	+11	3·0	3·7	3·4	+0·9	4	10	13	13	4	4	2	7	5	N 42° E	N 27° W	32	27	72*	70	1·16	0·67	Jaipur	19
·306†	·352†	·351‖	·331		88†	51†	43‖	62		2·7†	3·4‖	3·1		19	1	14	13	1	1	3	6	1	N 45° E		36		40¶		0	0	Udaipur §	
																															IX.—Bombay.	
·605	·665	·707	·684	+·045	82	74	71	79	+ 7	2·1	1·6	1·9	0		2	9	14	3	2		8	24	N 7° W	N 15° E	34	55	196*	233	0	0	Bombay	26
																															XI.—Central Provinces.	
·432	·471	·485	·469	+·113	86	63	55	71	+17	3·9	4·9	4·4	+2·2	6	20	20	10	2	1		1	2	N 35° E	N 57° E	64	54	61	72	5·04	1·62	Nagpur	24
																															XII.—Hyderabad.	
·460	·498	·410	·466	+·026	81	55	39	60	− 1	2·7	3·4	3·1	+0·5	22		19	1	19				1	N 88° E	S 78° E	43	57	71	77	0	0	Hyderabad.	29
																															XIII.—Mysore.	
·472	·480	·414	·469	+·003	90	58	41	65	− 5	2·1	3·0	2·6			2	14	32	7	2	1	1	3	N 82° E	N 72° E	71	81	181	132	0	0	Bangalore	30
·505	·535	·459	·514	+·038	92	62	42	67	+ 5	4·1	4·9	4·5	−0·1	2		22	23	8	2		1	4	N 75° E	N 78° E	68	82	188	247	0·51	0·42	Mysore	
																															XIV.—Madras.	
													Obse	rvat	ory	clo	sed.														Periyakulam	32
·691	·667	·648	·669		92	63	55	70		6·6	6·4	6·5		1	6	36	6	6	2	2	1	2	N 51° E		66		215		1·46	0·95	Pudukkottai	
·712	·752	·733	·751	+·022	93	69	67	78	− 4	4·0	4·0	4·0	−1·5		13	32	13		1	1	1	1	N 44° E	N 24° E	77	81	168*	175	0·89	0·39	Madras	
																															Bay Islands.	
·737	·796	·774	·794	−·057	83	74	70	78	− 3	5·0	5·5	5·3	+0·1	10	12	20	8	10				2	N 53° E	N 57° E	55	66	172	175	13·54	8·98	Port Blair	1
																															Kashmir.	
·139	·178	·232	·176	0	82	80	77	¶¶ 80	−1	5·9	5·7	5·8	+0·7	21	6	7	2	8		3	4	11	N 7° W	S 36° E	18	3	43	62	1·20	0·61	Srinagar	14
·054	·076	·069	·067	−·007	64	52	35	54	− 7	5·6	6·6	6·1	+0·2					1	28	28	5		S 26° W	S 18° W	87	40	63*	31	0·03	0·02	Leh	
																															Baluchistan.	
·128	·148	·140	·145	−·013	88	52	45	65	+ 4	3·8	4·0	3·9	+0·7	13	11		2	6	7	5	7	11	N 72° W	N 63° W	21	21	47	55	1·42	0·73	Quetta	16

* Uncorrected for scale error. ‡ Wind observations 1 less. § Wind observations 3 less.

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

¶¶ Mean of three previous columns.

Tab

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

Number of subdivision.	Station.	Elevation of barometer cistern above sea-level, in feet.	Pressure. Mean of 10 hrs.	Mean of 16 hrs.	Mean daily range.	Mean of daily mean pressures.	Departure from normal.	Mean reduced to sea-level and gravity, 45° Lat.	Temperature of air. Mean maximum.	Mean minimum.	Mean daily range.	Highest maximum.	Lowest minimum.	Absolute range.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Temperature, wet-bu Mean minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of three
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	2
	Hill Stations, excluding Kashmir and Baluchistan.																					
	Simla	7,232	23·178	23·129	·049	23·142	—·008	23·103	48·7	38·4	10·3	55·9	31·2	24·7	44·9	45·2	42·6	−0·8	32·1*	36·7	38·9	3
	Saraln		·226	·163	·063	·184		·146	47·5	28·7	18·8	57·0	20·3	36·7	36·1	41·0	37·2			32·2	35·6	
	Kalabagh§§		20·093	20·055	·038	20·063		20·025	39·8	31·1	8·7	43·5	29·4	14·1	36·8	35·7	33·9			32·1	33·3	
	Chakrata	7,022	23·359	23·302	·057	23·322	—·017	23·282	53·7	37·2	16·5	63·3	30·9	32·4	47·4	45·4	44·6	−1·6	32·5	39·2	39·4	3
	Muktesar	7,592	22·911	22·843	·068	22·865		22·823	59·4	36·1	23·3	68·4	28·0	40·4	44·2	46·3	46·9		29·3	36·0	39·3	3
	Katmandu	4,388	25·800	25·687	·113	25·741	+·031‡‡	25·695	63·1	38·1	25·0	70·3	30·8	39·5	48·2	60·5	49·7	−2·9‡‡	36·6	45·2	50·0	4
	Darjeeling	7,376	23·093	23·027	·066	23·057	—·001	23·012	49·5	37·5	12·0	60·3	31·4	28·9	45·6*	45·1	42·6	+0·8	35·7	41·4	42·0	3
	Pachmarhi	3,528	26·577	26·515	·062	26·539	—·011	26·486	69·3	50·1	19·2	73·6	40·1	33·5	59·8	65·6	58·8	+1·7	46·0	55·2	57·9	5
	Mount Abu	3,945	·149§	·071‖	·078	·103	—·040	·052¶	65·3‖	50·7**	14·6	71·0	42·9	23·1	61·1¶	61·3‖	57·1‖	−2·8	42·1††	50·1¶	50·5‖	4
	Chikalda	3,642	·441	·338	·103	·383	—·068	·327	69·7	54·9	14·8	75·7	51·8	23·9	62·4	65·6	61·4	−1·5	51·6	56·3	58·1	5
	Ootacamund	*7,327*	23·095	23·023	·072	23·055		22·991	64·3	43·1	21·2	67·8	37·2	30·6	60·9	58·2	52·8		41·5	51·5	52·5	4
	Kodaikanal	7,688	22·856	22·787	·069	22·822		·757	61·3	46·9	14·4	66·0	43·4	22·6	57·6	56·2	54·1		42·4	50·9	53·3	4
	Dodabetta	8,539‖	·096	·027	·069	·058		21·995	57·3	44·1	13·2	63·6	40·9	22·7	54·0	52·1	49·8		38·9	47·2	49·1	4
	Extra India.																					
	Minicoy	7	29·989	29·910	·079	29·954																
	Zanzibar	72	·940	·833	·107	·891	+·008	29·889	84·3	77·0	7·3	88·3	74·2	14·1	81·0	83·6	79·9	−2·0	73·2	76·4	76·6	7
	Diego Garcia									Observations not received.												
	Seychelles	15	·958	·875	·083	·927	‡‡ —·009	·866	83·6	76·2	7·4	85·2	73·6	11·6	81·5	82·4	78·8	+0·9‡‡	71·5	76·8	76·5	7
	Mauritius	181								Observations not received.												

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

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

* Mean of 30 days. § Mean of 24 days. ‖ Mean of 25 days. ¶ Mean of 23 days.

A—*concluded.*

stations in India, etc., in December, 1909—concluded.

Vapour tension, in inches of mercury.					Humidity.					Cloud.				Wind direction.											Wind steadiness		Wind velocity.		Rainfall.		Station.	Number of subdivision.
														Total number of 10 hrs. and 16 hrs. winds from																		
From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	From minimum.	Mean 10 hrs.	Mean 16 hrs.	Mean of daily means.	Departure from normal.	Mean 10 hrs.	Mean 16 hrs.	Mean of two previous columns	Departure from normal.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Mean wind direction.	Normal mean wind direction of month.	Average percentage.	Normal percentage.	Mean velocity in miles per diem.	Normal.	Total rainfall for the month.	Heaviest rainfall during the month.		
24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
																															Hill Stations, excluding Kashmir and Baluchistan.	
·122*	·133	·172	·147	+·008	56*	47	60	57	+ 9	3·7	5·9	4·8	+0·8																1·91	1·00	Simla.	
	·146	·156				69	63			4·5	5·1	4·8		20	1	3			19	16	3		S 24° W		48		48		(a) 4·42	(a) 2·33	Sarain.	
	·143	·167				65	88			5·0	5·0	5·0											No record of wind and rainfall.								Kalabagh.	
·138	·156	·180	·163	+·009	65	51	62	62	+ 8	3·6	5·3	4·5	+1·4	28	7			7	19	1			S 13° E	S 51° W	29	16	93	120	3·58	2·19	Chakrata.	
·098	·130	·170	·128		50	49	57	55		4·9	5·7	5·3		28		2	6	8	3		14	1	S 13° W		11		134		3·17	1·14	Muktesar.	
·205	·269	·230	·340	+·072	87	80	47	74	− 1	2·5	3·2	2·9	+0·3	6	2		12	1			39	2	N 84° W	N 72° W	45	43	¶¶ 14	22	0·93	0·57	Katmandu.	
·189	·217*	·235	·219	+·012	86	72*	79	82	+ 2	6·8	7·5	7·2	+2·8	49	1	1	2	1			7	1	N 70° W	N 48° W	8	5	10	70	0·49	0·27	Darjeeling.	
·269	·387	·397	·356	+·074	73	76	65	78	+17	2·7	3·5	3·1	+0·9	7	2	3	16	4	8	6	7	9	S 37° E	N 27° E	10	20	72*	65	3·12	1·25	Pachmarhi.	
·176**	·232¶	·248‖	·224	+·003	47**	45¶	49‖	53	+ 5	2·6‖	4·3‖	3·5	+1·7		4	10	2	8	2	12	4	6	S 68° W	N	5	10	130‡	98	0·18	0·10	Mount Abu, (b)	
·350	·385	·401	·385	+·078	81	72	66	80	+23	4·9	4·3	4·6	+2·3	9	3	5		3	3	7		32	N 49° W	S 75° W	47	7	166	120	4·16	0·89	Chikalda.	
·251	·283	·339	·297		88	54	70	70		3·9	5·8	4·9		1	8	8	12	14	13	3		3	S 69° E		40		85		0·88	0·56	Ootacamund.	
·230	·311	·380	·307		71	66	84	74		4·8	7·2	6·0			10	12	13	17	3			7	N 74° E		48		¶¶ 253		1·32	0·51	Kodaikanal.	
·187	·259	·316	·254		66	64	82	71		4·8	6·7	5·8		6	9	9	13	17	3	4		1	S 86° E		45		319		0·90	0·38	Dodabetta.	
																															Extra India.	
										3·2	3·8	3·5		22	26	3	1		2		8		N 19° E		76		85		1·27	1·11	Minicoy.	
·774	·852	·824	·826	−·037	83	80	71	79	+ 1	6·6	4·5	5·6	+1·0	6	12	14	3	12	8	5	1	1	N 80° E	N 35° E	26	65	89	151	12·76	3·52	Zanzibar.	
										Observations not received.																					Diego Garcia.	
·714	·866	·840	·832	0	79	80	75	80	− 3	5·2	6·5	5·9	‡‡ −0·9	23	1	5	2	6	6	1	1	17	N 34° W	N 44° W	11	55	¶¶ 85	150	6·83	1·52	Seychelles.	
										Observations not received.																					Mauritius.	

** Mean of 26 days.
†† „ „ 27 „
‡ „ „ 21 „
§§ Observations of 2 days.

‡‡ Departure from old normal.

(a) Rain and snow water.

(b) Wind observations 14 less.

¶¶ Uncorrected for scale error

Table B.—Abstract of observations taken at 8 hrs. at 239 stations in India, etc., in December, 1909.

(1) Provincial means.

(2) Data of stations.

(1) Provincial means based on the material in Table B (2) except that the statement of rainfall depends on the complete data of about 2,700 stations.

	Pressure departure from normal.	Temperature of air.								Wind.		Hygrometry.				Cloud.		Rainfall.		
		Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Absolute range during month.	Departure of velocity from normal.	Departure of steadiness from normal.	Mean humidity.	Departure from normal.	Mean vapour tension.	Departure from normal.	Mean cloud amount.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.
Burma	+·003	81·6	—1·1	62·2	+1·0	71·9	0	19·4	28·6	—0·5	— 5	88	+ 4	·580	+·028	2·6	—0·4	0·44	0·26	+0·18
Eastern Bengal and Assam	—·001	76·6	+0·2	55·5	+1·4	66·1	+0·8	21·1	32·7	—0·3	— 7	88	— 2	·469	+·014	3·0	+1·1	0·73	0·32	+0·41
Bengal	—·001	76·8	—0·2	54·9	+1·7	65·9	+0·8	21·9	33·6	—0·2	— 9	81	+ 2	·427	+·032	2·5	+1·2	0·69	0·15	+0·54
United Provinces of Agra and Oudh.	+·005	72·6	—1·9	48·0	+0·6	60·3	—0·6	24·7	37·7	—0·7	— 8	82	+ 5	·338	+·025	2·9	+1·3	1·14	0·37	+0·77
Punjab	+·014	67·7	—4·4	44·0	+1·1	55·8	—1·7	23·8	38·3	+0·1	0	82	+11	·279	+·034	3·1	+0·1	1·61	0·46	+1·15
North-West Frontier Province	—·003	65·6	—4·4	39·9	+0·4	52·7	—2·0	25·7	40·1	—1·0	— 5	79	+ 9	·227	+·016	3·9	+0·7	1·86	0·49	+1·37
Sind	0	76·0	—2·2	53·4	+1·2	64·7	—0·5	22·6	36·1	+0·1	+18	67	+ 8	·310	+·031	3·5	+1·1	0·20	0·11	+0·09
Rajputana	—·004	73·5	—4·1	49·2	—0·6	61·3	—2·4	24·3	38·8	+0·7	+14	70	+11	·294	+·021	3·0	+0·9	0·94	0·33	+0·61
Bombay	—·025	83·7	—1·1	60·6	+1·5	72·1	+0·2	23·1	34·4	—0·3	— 9	65	+ 5	·443	+·036	1·4	—0·1	0·18	0·14	+0·04
Central India	—·017	75·8	—1·2	50·7	+2·6	63·3	+0·7	25·1	38·3	—0·2	+ 4	71	+ 7	·324	+·027	3·7	+2·5	0·72	0·40	+0·32
Central Provinces	—·019	78·1	—1·6	56·6	+4·8	67·4	+1·6	21·5	34·7	+0·7	+ 7	74	+11	·410	+·071	4·1	+2·5	2·69	0·30	+2·39
Hyderabad	—·037	84·9	+1·4	62·2	+4·8	73·6	+3·1	22·7	33·7	—0·2	+ 5	67	+ 4	·487	+·057	2·0	+0·2	0·22	29	—0·07
Mysore	—·016	82·7	+2·7	60·7	+2·0	71·7	+2·3	22·0	30·1	—0·9	—25	75	+ 3	·513	+·032	2·7	—0·8	0·40	0·38	+0·02
Madras	—·015	86·1	+1·5	69·5	+1·6	77·8	+1·6	16·6	26·1	+0·7	+ 1	77	0	·670	+·022	3·7	—0·1	1·28	2·42	—1·14

Tabl

(2) Abstract of observations taken at 8 hrs. at 23

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	I.—Burma.																						
2	Mergui	56	29·944‡	+·002‡	29·931‡	30·017	26th	29·856	6th	·161	75·8	84·4	−2·9	68·7	+2·0	76·6	−0·5	15·7	89·4	7th	62·4	22nd	27·
	Tavoy	19	30·001	−·005	29·952	30·104	28th	29·916	5th	·188	71·8	86·9	−0·8	64·7	−0·1	75·8	−0·5	22·2	91·0	31st	59·8	6th & 24th.	31·
	Moulmein	94	29·957	+·015	29·991	30·082	28th	29·850	6th	·232	71·1	87·1	−0·1	66·3	−0·6	76·7	−0·3	20·8	90·5	20th & 21st.	62·3	25th, 27th & 28th.	28·
	Rangoon	18	30·023	+·003	29·979	30·139	28th	29·907	6th	·232	70·4	86·8	−0·5	67·5	+0·2	77·2	−0·1	19·3	89·1	20th & 21st.	62·9	26th	26·
	Bassein	27?	30·016	+·009	29·981	30·129	28th	29·899	5th	·230	68·5	84·0	−0·4	66·0	+0·9	75·0	+0·3	18·0	86·2	22nd	59·9	27th	26·
	Diamond Island	41	29·994	+·008	29·970	30·087	28th	29·870	5th	·227	77·1	83·3	−0·6	72·8	+0·6	78·1	0	10·5	85·9	10th	70·2	27th	15·
	Toungoo	164	29·890†	+·011†	30·002†	30·016	28th	29·738	6th	·278	66·3	82·3	−1·7	61·3	−0·8	71·8	−1·3	21·0	85·5	3rd	55·3	27th	30·
	Kyaukpyu	18	30·022		29·980	30·149	28th	29·831	6th	·318	71·8	80·0		67·3		73·7		12·7	85·0	5th	62·4	24th & 26th.	22·
	Akyab	20	30·025	−·006	29·989	30·153	28th	29·769	6th	·384	66·7	78·9	−2·8	64·9	+0·9	71·9	−0·9	14·0	83·9	5th	59·0	23rd	24·
3	Thayetmyo	121	29·939	+·003	30·007	30·076	28th	29·786	6th	·290	66·8	83·3	−1·3	59·6	+1·3	71·5	0	23·7	86·0	10th	53·9	31st	32·
	Minbu	*165*	29·907†	−·011†	30·022†	30·044	28th	29·748	6th	·296	66·5	83·1	−0·9	62·2	+2·2	72·6	+0·7	20·9	84·8	5th & 9th.	56·5	31st	28·
	Yamethin	657	29·367		30·004	29·484	28th	29·224	6th	·260	64·2	83·5	−1·5	59·7	+2·5	71·6	+0·5	23·8	86·3	5th & 6th	53·5	31st	32·
	Mandalay	250	29·830	+·011	30·042	29·954	28th	29·651	6th	·303	64·5	84·1	+1·8	60·4	+1·1	72·3	+1·5	23·7	89·0	2nd	52·9	31st	36·
	Monywa	*280*	29·816		30·035	29·932	28th	29·642	6th	·290	64·1	79·8		60·6		70·2		19·2	84·3	2nd, 3rd & 5th.	57·1	15th, 30th & 31st.	27·
	Lashio	*2,751*	27·248	−·007	27·194	27·369	28th	27·115	6th	·254	54·1	72·9	−0·8	49·6	+1·7	61·3	+0·5	23·3	77·3	2nd	42·0	31st	35·
	Bhamo	*381*	29·714	+·004	30·075	29·832	28th	29·578	6th	·254	55·7	73·3	−3·0	52·7	+2·0	63·0	−0·5	20·6	78·9	2nd	47·1	31st	31·
	Myitkyina	458	29·625		30·071	29·737	28th	29·489	5th	·248	57·5	73·8		53·2		63·5		20·6	78·7	2nd	48·0	31st	30·
	II.—Eastern Bengal and Assam.																						
4	Dibrugarh	353	29·743†		30·079†	29·872	28th	29·578	6th	·294	56·1	73·9		52·7		63·3		21·2	79·4	1st	48·1	29th	31·
	Sibsagar	333	29·782†	−·003†	30·092†	29·917	28th	29·621	6th	·296	56·9	72·0	+0·5	52·4	+1·7	62·2	+1·1	19·6	76·6	2nd & 9th.	48·0	23rd & 29th.	28·
	Tezpur	252	29·853†		30·081†	30·003	28th	29·671	6th	·332	57·0	76·1		55·3		65·7		20·8	79·6	1st & 8th.	51·4	29th	28·
	Gauhati	195	29·915		30·078	30·057	28th	29·735	6th	·322	57·5	75·8		53·8		64·8		22·0	80·3	1st & 3rd.	49·1	23rd & 29th.	31·
	Dhubri	115									59·4	73·7‡	−0·6‡						77·0	16th			
	Silchar	104	30·002	+·021	30·065	30·123	28th	29·742	6th	·381	60·4	78·8	−0·9	55·6	+0·6	67·2	−0·1	23·2	86·8	3rd	51·3	31st	35·
5	Cox's Bazar	36	29·999		29·979	30·115	28th	29·607	6th	·508													
	Chittagong	87	29·969	−·007	30·009	30·099	28th	29·521	6th	·578	63·8	78·0	−0·1	59·2	+1·2	68·6	+0·5	18·8	85·0	3rd	52·0	23rd	33·
	Noakhali	43	30·024		30·016	30·133	28th	29·704	6th	·429	63·1	76·7		58·8		67·8		17·9	84·8	3rd	52·9	24th	31·
	Barisal	12	30·051	−·013	30·010	30·167	28th	29·778	6th	·389	65·5	77·3	−0·3	58·1	+2·0	67·7	+0·9	19·2	84·8	3rd	52·6	23rd & 24th.	32·
	Comilla	36	30·034		30·019	30·160	28th	29·762	6th	·398	64·6	78·7		58·8		68·8		19·9	86·3	2nd & 3rd.	53·3	23rd & 24th.	33·
	Narayanganj	26	30·050	+·004	30·025	30·176	28th	29·801	6th	·375	63·2	77·9	−0·1	59·0	+1·7	68·4	+0·8	18·9	87·0	4th	54·8	23rd & 24th.	32·
	Faridpur	46	30·039		30·036	30·159	28th	29·804	6th	·355	62·5	76·8		56·1		66·5		20·7	85·3	3rd & 4th	50·4	23rd	34·
	Sirajganj	49	30·052		30·053	30·181	28th	29·828	6th	·353	60·2	76·7		56·3		66·5		20·4	84·4	3rd	51·3	23rd	33·
	Mymensingh	63	30·033	+·007	30·050	30·166	28th	29·807	6th	·359	63·4	77·6	+1·4	57·6	+3·0	67·6	+2·2	20·0	85·1	3rd	52·6	23rd	32·
	Bogra	75	30·029	+·016	30·059	30·164	28th	29·820	6th	·344	62·6	76·3	−0·6	55·3	+1·3	65·8	+0·3	21·0	82·7	3rd	50·2	23rd	32·
	Rampur Boalia	70	30·035†		30·057†	30·174	28th	29·835	6th	·339	61·7	76·4		55·9		66·2		20·5	83·1	4th	51·1	13th, 24th & 25th.	32·
	Malda	72	30·018†		30·046	30·146	28th	29·826	6th	·320	59·8	75·4		53·5		64·5		21·9	82·3	3rd	47·5	24th	34·
	Dinajpur	123	29·952†	−·017†	30·039†	30·086	28th	29·738	6th	·348	57·7	76·9	0	52·3	+0·9	64·6	+0·5	24·6	82·3	3rd	46·0	23rd	36·
	Rangpur	123	29·972		30·057	30·112	28th	29·783	6th	·329	60·6	76·9		52·1		64·5		24·8	81·1	3rd	47·0	23rd	34·

‡ Mean of 29 days. † Mean of 30

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

NOTE.—The barometric readings are not reduced to sea-level, in the cases of hill or plateau stations, the elevations of which exceed 3,209 feet.

B.

Stations in India, etc., in December, 1909.

Wind direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st to 31st December, 1909.	Normal rainfall for period, 1st to 31st December.	Departure from normal of period, 1st to 31st December, 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																I.—Burma.
24		2	3	2					E	N 14° E	1·8	1·8	0	19	−46	86	+12	·753	+·087	0·1	−3·3	0	0·70	−0·70	0	0·38	−0·38	0	0·38	−0·38	0	Mergui.
31									(a)	N 30° E	1·0	1·2	−0·2			84	+ 3	·658	+·009	1·0	−1·7	0	0·20	−0·20	0	0·06	−0·06	0	0·06	−0·06	0	Tavoy.
10		14	7						N59° E	N 50° E	4·0	2·7	+1·3	64	+ 7	81	− 2	·619	−·026	2·2	−0·3	0	0·20	−0·20	0	0·05	−0·05	0	0·05	−0·05	0	Moulmein.
	5	24	2						N 40° E	N 44° E	3·1	4·5	−1·4	96	+24	81	− 2	·612	−·007	2·1	−0·2	0	0·40	−0·40	0	0·09	−0·09	0	0·09	−0·09	0	Rangoon.
15	4	6	5	1					N 53° E	N 40° E	3·6	3·5	+0·1	43	−22	88	+ 3	·619	+·014	0·9	−2·0	1	0·50	+0·50	0·13	0·13	0	0·13	0·13	0	0·13	Bassein.
2	3	20	4	2					N 51° E	N 42° E	9·9	8·9	+1·0	79	− 7	75	+ 1	·734	+·037	2·5	−0·9	1	0·90	+0·10	0·19	0·70	−0·51	0·19	0·70	−0·51	0·19	Diamond Island.
6	7	1		3		1	2	11	N 31° W	N 10° W	1·3	2·1	−0·8	49	−23	93	+ 4	·602	+·037	3·5	+1·2	0	0·40	−0·40	0	0·17	−0·17	0	0·17	−0·17	0	Toungoo.
1	1	18	4	4	1			1	N 61° E†		3·5*			69		83		·651		1·3		2			0·91			0·91			0·68	Kyaukpyu.
5	8	14	3	1					N 38° E	N 18° E	2·5	2·4	+0·1	69	−13	92	+ 3	·604	+·032	2·9	+0·6	2	0·70	+1·30	2·35	0·70	+1·65	2·35	0·70	+1·65	1·35	Akyab.
	8	16				1		6	N 16° E	N 16° E	2·4*	3·6	−1·2	79	+25	90	+13	·594	+·100	2·6	+0·9	0	0·40	−0·40	0	0·15	−0·15	0	0·15	−0·15	0	Thayetmyo.
	1	1				1	2	26	N 46° W	N 50° W	3·5	6·9	−3·4	92	+18	81	+ 4	·532	+·038	3·5	+1·4	1	0·30	+0·70	0·12	0·63	−0·51	0·12	0·63	−0·51	0·10	Minbu.
7	8							16	N 30° W	N 13° W	1·7	3·4	−1·7	72	+31	88	+ 4	·531	+·024	3·5	+2·4	0	0·70	−0·70	0	0·49	−0·49	0	0·49	−0·49	0	Yamethin.
25	2		2					2	N 10° E	N 4° W	2·3	1·9	+0·4	10	−26	89	+ 2	·532	−·002	3·0	+0·6	0	0·70	−0·70	0·02	0·29	−0·27	0·02	0·29	−0·27	0·02	Mandalay.
2	21	1						7	N 9° W		3·1			89		92		·559		4·7		2	0·30	+1·70	0·44	0·15	+0·29	0·44	0·15	+0·29	0·21	Monywa.
29					1			1	S 67° W		1·6*			2		95	+ 2	·403	+·020	4·7	−1·6	1			0·23	0·66	−0·43	0·23	0·66	−0·43	0·17	Lashio.
30	1								N	N 1° E	1·1	1·6	−0·5	3	−26	100	+ 7	·448	+·023	1·4	−2·3	3	1·00	+2·00	2·20	0·42	+1·78	2·20	0·42	+1·78	1·59	Bhamo.
20	1	7	3						N 52° E		1·1			37		92		·437		4·9		2			1·39			1·39			0·77	Myitkyina.
																																II.—Eastern Bengal and Assam.
26		2	1		1	1			S 79° E		0·9			5		97		·435		4·0		0	1·40	−1·40	0·04	0·76	−0·72	0·04	0·76	−0·72	0·02	Dibrugarh.
26		1			1	3			S 31° W	N 63° E	1·2	1·6	−0·4	7	−22	97	− 2	·452	+·034	8·2	+2·9	0	1·90	−1·90	0·03	0·57	−0·54	0·03	0·57	−0·54	0·03	Sibsagar.
31									(a)		1·8					92		·429		4·5		0	1·00	−1·00	0	0·43	−0·43	0	0·43	−0·43	0	Tezpur.
23	1	2		2	2		1		S 59° E		1·5			7		97		·468		7·8		0	0·70	−0·70	0·06	0·24	−0·18	0·06	0·24	−0·18	0·06	Gauhati.
14		5	12						N 77° E	N 54° E	5·8†	4·6	+1·2	53	−19	89	− 2	·458	+·011	0·5	−1·1	0	0·20	−0·20	0	0·07	−0·07	0	0·07	−0·07	0	Dhubri.
21			6	4					S 71° E	S 81° E	1·4	1·5	−0·1	30	+23	91	+ 1	·483	+·011	3·0	−1·0	2	0·80	+1·20	0·78	0·46	+0·32	0·78	0·46	+0·32	0·61	Silchar.
10	6	8	6		1				N 48° E		2·0			52						3·2		2			1·35			1·35			1·21	Cox's Bazar.
9	6	11	1	1				3	N 26° E	N 32° E	2·4	2·8	−0·4	56	−18	91	+ 1	·542	+·029	2·2	−0·3	3	0·81	+2·19	4·94	0·85	+4·09	4·94	0·85	+4·09	3·72	Chittagong.
8	12	10						1	N 17° E		2·3			68		89		·515		1·7		2	0·48	+1·52	2·48	0·38	+2·10	2·48	0·38	+2·10	2·31	Noakhali.
8	9	8	2					4	N 15° E	N 11° E	1·3	1·6	−0·3	59	+41	84	− 3	·530	+·023	1·9	+0·7	2	0·52	+1·48	2·01	0·60	+1·41	2·01	0·60	+1·41	1·83	Barisal.
28	1	1	1						N 45° E		0·8			10		88		·511		0·9		2	0·45	+1·55	2·49	0·22	+2·27	2·49	0·22	+2·27	2·30	Comilla.
5	12	3	3			1		7	N 2° W	N 5° W	1·3	2·1	−0·8	59	+12	84	− 3	·492	+·006	2·5	+0·2	2	0·44	+1·56	0·74	0·16	+0·58	0·74	0·16	+0·58	0·58	Narayanganj.
22	5							4	N 21° W		1·3			26		88		·500		2·7		2	0·26	+1·74	0·68	0·08	+0·60	0·68	0·08	+0·60	0·50	Faridpur.
7	5	3	1				5	10	N 33° W		1·5			55		90		·473		3·4		2	0·39	+1·61	0·31	0·11	+0·20	0·31	0·11	+0·20	0·21	Sirajganj.
23	2	1	2	2				1	N 59° E	N 36° E	0·5	1·0	−0·5	10	−22	86	− 5	·501	+·032	7·2	+5·7	2	0·26	+1·74	0·30	0·05	+0·25	0·30	0·05	+0·25	0·16	Mymensingh.
23	4						1	3	N 27° W	N 1° W	0·5	1·4	−0·9	23	−22	77	− 8	·446	+·015	1·7	+1·5	0	0·23	−0·23	0·03	0·02	+0·01	0·03	0·02	+0·01	0·03	Bogra.
31									(a)		0·4					81		·450		1·8		0	0·22	−0·22	0·05	0·06	−0·01	0·05	0·06	−0·01	0·05	Rampur Boalia.
6	8	3					1	13	N 23° W		2·9*			68		88		·455		1·1		0	0·19	−0·19	0	0·24	−0·24	0	0·24	−0·24	0	Maida.
16	1	7	2			1	3	1	N 23° E	N 12° W	1·3	1·9	−0·6	23	−31	83	+ 2	·419	+·009	1·7	+1·0	0	0·32	−0·32	0	0·04	−0·04	0	0·04	−0·04	0	Dinajpur.
23		4	4						N 67° E		1·1			23		84		·450		0·7		0	0·23	−0·23	0	0·09	−0·09	0	0·09	−0·09	0	Rangpur.

(a) Indeterminate.

* Uncorrected for scale error.

Ta

(2) *Abstract of observations taken at 8 hrs. at 239 stat*

Number of subdivision.	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	II.—Eastern Bengal and Assam—*concld.*																					
5	Jalpaiguri	283	29·797	—·018	30·056	29·934	28th	29·623	6th	·311	56·6	77·4	+2·2	53·5	+0·6	65·5	+1·4	23·9	83·4	3rd	48·9	22nd
	Cooch Behar	156	29·910		30·062	30·073	28th	29·765	6th	·308	56·8	76·3		53·9		65·1		22·4	81·3	2nd	49·1	22nd
	III.—Bengal.																					
6	Saugor Island	25	30·054	—·012	30·024	30·155	28th	29·835	5th	·320	63·9	77·7	+1·4	60·5	+1·4	69·1	+1·4	17·2	82·0	3rd	54·0	25th
	Midnapore	149	29·931		30·035	30·035	28th	29·745	6th	·290	62·2	79·4		57·6		68·5		21·8	85·3	3rd	51·2	12th
	Calcutta	21	30·072	—·001	30·040	30·177	28th	29·862	6th	·315	61·8	77·4	+0·9	57·6	+1·6	67·6	+1·3	19·8	83·2	3rd	52·0	10th
	Jessore	33	30·054	+·004	30·035	30·172	28th	29·827	6th	·345	63·0	77·1	—0·5	56·1	+1·2	66·6	+0·3	21·0	85·0	3rd	49·7	24th
	Krishnagar	47	30·035		30·034	30·156	28th	29·829	6th	·327	57·9	77·1		55·9		66·5		21·2	84·6	4th	50·0	11th
	Burdwan	99	29·996	—·004	30·050	30·110	28th	29·791	6th	·319	61·7	78·5	+0·3	57·7	+1·7	68·1	+1·0	20·8	85·4	3rd	52·8	13th
	Bankura	313	29·776		30·056	29·896	28th	29·572	6th	·324	63·2	78·7		56·5		67·6		22·2	85·6	3rd	50·7	13th
	Raniganj	334	29·761		30·071	29·894	28th	29·578	6th	·316	59·3	78·5		55·1		66·8		23·4	85·5	3rd	49·5	8th & 13th.
	Berhampore	67	30·033	+·003	30·053	30·163	28th	29·827	6th	·336	59·9	75·9	—0·6	56·7	+1·4	66·3	+0·4	19·2	82·6	3rd	51·7	24th
	Naya Dumka	489	29·596		30·075	29·727	28th	29·420	6th	·307	60·4	76·1		53·6†		64·6†		23·1	82·4	4th	46·0	10th
7	Balasore	50	30·045	—·012	30·043	30·163	28th	29·818	5th	·345	62·4	79·3	—0·7	58·3	+3·3	68·8	+1·3	21·0	84·4	3rd	53·1	10th & 12th.
	False Point	21	30·069	—·003	30·033	30·182	28th	29·716	5th	·466	66·9	78·0	+0·1	59·2	+1·9	68·6	+1·0	18·8	80·2	6 days	54·1	15th
	Cuttack	80	30·004	—·008	30·031	30·119	28th	29·696	5th	·423	65·1	79·3	—2·8	61·6	+2·9	70·5	+0·1	17·7	84·4	3rd	58·2	27th
	Puri	24	30·054		30·017	30·171	28th	29·682	5th	·489	67·7	80·7		64·2		72·5		16·5	84·1	18th	60·1	27th
	Angul	155	29·620		30·059	29·733	28th	29·373	5th	·360	63·1	79·0		58·0		68·5		21·0	83·1	4th & 18th.	52·0	12th
	Sambalpur	486	29·609	—·001	30·068	29·710	28th	29·388	5th	·322	64·6	79·3	—0·5	58·4	+4·4	68·9	+1·9	20·9	84·1	3rd & 19th.	49·6	12th
8	Chaibassa	*733*	29·336	—·002	30·065	29·416	28th	29·158	5th	·288	58·3	77·6	—2·1	54·3	+1·9	66·0	—0·1	23·3	82·1	16th & 18th.	48·3	12th
	Ranchi	2,128	27·916	+·011	30·091	28·043	28th	27·758	5th	·285	58·2	72·7	—1·0	53·1	+2·5	62·9	+0·7	19·6	77·2	17th & 18th.	46·9	11th
	Purulia	*816*	29·244		30·054	29·368	28th	29·060	6th	·308	59·2	78·2		55·3		66·8		22·9	82·5	18th	50·1	11th
	Hazaribagh	2,007	28·033	+·005	30·077	28·158	28th	27·887	5th	·271	60·3	72·3	+0·1	52·3	+1·8	62·3	+0·9	20·0	76·7	4th	47·3	23rd
	Daltonganj	*730*	29·377		30·113	29·501	28th	29·204	5th	·297	57·0	76·6		49·6		63·1		27·0	81·1	16th & 17th.	42·5	11th & 12th.
9	Purnea	134	29·982†	+·018†	30·080†	30·120	28th	29·805	6th	·315	55·5	75·6	—0·2	50·2	+0·5	62·9	+0·1	25·4	81·5	2nd	43·2	24th
	Bhagalpur	160	29·953		30·074	30·092	28th	29·774	6th	·318	62·1	77·1		51·9		64·5		25·2	82·7	3rd	44·8	24th
	Monghyr	155	29·953		30·069	30·101	28th	29·777	6th	·324	60·4	75·3		54·4		64·9		20·9	80·4	3rd	48·9	13th
	Darbhanga	165	29·934	+·002	30·065	30·076	28th	29·770	6th	·306	58·4	76·5	+2·0	51·3	—2·4	63·9	—0·2	25·2	83·6	2nd	44·3	24th
	Pusa	188	29·922		30·075	30·047	28th	29·754	6th	·293	51·0	76·0		49·8		62·9		26·2	81·8	2nd	43·4	24th
	Muzaffarpur	177	29·927		30·072	30·068	28th	29·766	6th	·302	57·7	75·1		51·0		63·1		24·1	81·7	2nd	45·5	23rd & 24th.
	Motihari	221	29·873		30·070	30·009	28th	29·720	6th	·289	54·4	75·0		51·2		63·1		23·8	83·1	2nd	45·3	24th
	Chapra	181	29·914		30·062	30·065	28th	29·758	6th	·307	56·2	75·0		51·5		63·3		23·5	82·2	3rd	44·9	6th
	Patna	183	29·926	—·006	30·073	30·059	28th	29·762	6th	·297	61·3	74·0	—0·2	54·0	+2·4	64·0	+1·1	20·0	80·5	2nd	47·2	24th
	Arrah	190	29·915		30·071	30·055	28th	29·760	5th	·295	57·3	75·1		51·1		63·1		24·0	81·6	2nd	45·0	24th
	Buxar	239	29·861		30·073	30·001	28th	29·714	5th	·287	57·1	75·8		51·9		63·9		23·9	82·5	3rd	45·1	24th
	Dehri	351	29·742		30·071	29·879	28th	29·584	5th	·295	59·0	76·0		54·3		65·2		21·7	81·3	3rd & 17th.	50·0	11th, 12th & 25th.
	Gaya	372	29·718	—·013	30·071	29·857	28th	29·582	6th	·275	58·5	76·6	+0·4	52·8	+1·3	64·7	+0·9	23·8	80·9	4th	46·7	12th
	IV.—United Provinces of Agra and Oudh.																					
10	Gorakhpur	257	29·827	—·003	30·060	29·965	28th	29·673	6th	·287	55·5	74·7	+0·5	48·4	—2·0	61·6	—0·7	26·3	81·6	4th	42·5	23rd
	Benares	267	29·843	+·009	30·085	29·989	28th	29·692	5th	·297	57·0	75·3	+0·3	48·9	+0·7	62·1	+0·5	26·4	82·6	4th	43·1	12th & 24th.
	Allahabad	309	29·798	+·004	30·084	29·934	28th	29·657	5th	·277	55·5	74·8	—0·9	49·6	+1·8	62·2	+0·5	25·2	81·6	4th	43·5	10th & 23rd.

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

† Mean of 30 days.

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

—*continued.*

n India, etc., in December, 1909—continued.

Wind direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st to 31st December, 1909.	Normal rainfall for period, 1st to 31st December.	Departure from normal of period, 1st to 31st December, 1909.	Heaviest rainfall during month.	Station.
5	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																II.—Eastern Bengal and Assam—*concld.*
6	8	3	1					3	N 5° E	N 12° E	1·2			40	−14	86	−3	·399	−·033	1·9	+0·9	1	0·23	+ 0·77	0·11	0·04	+ 0·07	0·11	0·04	+ 0·07	0·11	Jalpaiguri.
6	1	2	2						N 56° E		1·1			10		90		·415		2·6		0	0·27	− 0·27	0	0·08	− 0·08	0	0·08	− 0·08	0	Cooch Behar.
																																III.—Bengal.
	19	11						1	N 15° E	N 15° E	7·3	7·1	+0·2	92	+10	89	+ 1	·529	+·006	2·5	0	2	0·53	+ 1·42	1·98	0·33	+ 1·65	1·98	0·33	+ 1·65	1·23	Saugor Island.
3	20	2	1				1	1	N 3° E		2·2			71		73		·407		2·4		2	0·28	+ 1·72	0·63	0·20	+ 0·43	0·63	0·20	+ 0·43	0·38	Midnapore.
6	9	5						11	N 12° W	N 4° W	2·6*	2·5	+0·1	69	+19	86	+ 5	·481	+·042	2·4	+1·3	2	0·38	+ 1·62	0·65	0·22	+ 0·43	0·65	0·22	+ 0·43	0·34	Calcutta.
9		1						1	N	N 11° W	0·1	1·5	−1·4	5	−34	80	− 6	·471	+·013	3·1	+1·9	2	0·35	+ 1·65	0·69	0·18	+ 0·51	0·69	0·18	+ 0·51	0·44	Jessore.
8	1							2	N 27° W		0·9			6		89		·433		2·4		2	0·16	+ 1·84	0·48	0·10	+ 0·38	0·48	0·10	+ 0·38	0·31	Krishnagar.
0	11	3						7	N 8° W	N 22° W	1·3	1·6	−0·3	59	+20	78	+ 7	·432	+·047	2·4	+1·0	2	0·23	+ 1·77	0·68	0·11	+ 0·57	0·68	0·11	+ 0·57	0·37	Burdwan.
8	3								N		2·3			10		65		·380		2·0		1	0·34	+ 0·66	0·37	0·13	+ 0·24	0·37	0·13	+ 0·24	0·35	Bankura.
8	1						3	9	N 52° W		1·5			36		79		·404		2·3		1	0·28	+ 0·72	0·20	0·08	+ 0·12	0·20	0·08	+ 0·12	0·20	Raniganj.
2	2		1				1	5	N 32° W	N 41° W	0·6	1·4	−0·8	23	−17	84	− 2	·437	+·001	2·6	+1·2	1	0·34	+ 0·66	0·14	0·11	+ 0·03	0·14	0·11	+ 0·03	0·10	Berhampore.
1									(a)		1·0					74		·393		1·6		1	0·33	+0·67	0·28	0·16	+ 0·12	0·28	0·16	+ 0·12	0·28	Naya Dumka.
2	6	1						12	N 27° W	N 25° W	1·0	2·1	−1·1	56	−16	78	− 4	·437	−·010	2·7	+0·6	3	0·52	+ 2·48	1·54	0·18	+ 1·36	1·54	0·18	+ 1·36	1·11	Balasore.
1	21	5						4	N 1° E	N 17° W	5·3	5·8	−0·5	89	+ 3	86	+ 2	·569	+·054	2·8	+0·3	3	0·68	+ 2·32	5·51	0·69	+ 4·85	5·54	0·69	+ 4·85	4·89	False Point.
5	1	3	1				1		N 34° E	N 48° W	1·5*	1·2	+0·3	13	− 1	83	+ 8	·519	+·072	2·8	+0·9	2	0·58	+ 1·42	2·44	0·27	+ 2·17	2·44	0·27	+ 2·17	2·16	Cuttack.
	22	7	1					1	N 10° E		6·9			94		82		·557		2·0		3	0·61	+ 2·39	4·22	0·65	+ 3·57	4·22	0·65	+ 3·57	3·50	Puri.
4		2				3	7	15	N 61° W		4·5			65		86		·498		2·4		3			1·44			1·44			0·90	Angul.
	3	13	3	3	2	2	3	2	N 46° E	N 16°	1·4	2·5	+1·9	37	−44	76	+ 2	·470	+·064	3·7	+2·0	3	0·30	+ 2·70	1·00	0·24	+ 0·76	1·00	0·24	+ 0·76	0·33	Sambalpur.
3	1	1	2		2	4	8		S 69° W	S 68° W	1·5	1·0	+0·5	27	−13	87	+10	·430	+·055	3·4	+2·0	2	0·65	+ 1·35	0·73	0·10	+ 0·63	0·73	0·10	+ 0·63	0·37	Chaibassa.
1	3	1			1	1	5	9	N 54° W	N 68° W	4·6	4·3	+0·3	46	+ 7	68	+ 3	·334	+·025	3·1	+1·9	3	0·48	+ 2·52	1·62	0·09	+ 1·53	1·62	0·09	+ 1·53	0·94	Ranchi.
1	1	1					15	13	N 65° W		2·8			84		77		·395		1·3		1	0·29	+ 0·71	0·20	0·18	+ 0·02	0·20	0·18	+ 0·02	0·11	Purulia.
0	4	1	2	1	2	3	3	5	N 57° W	N 86° W	4·8	5·2	−0·4	20	−20	64	− 1	·325	+·015	2·3	+0·9	3	0·52	+ 2·48	0·91	0·20	+ 0·71	0·91	0·20	+ 0·71	0·41	Hazaribagh.
8			2				1		E		1·7			3		84		·393		2·8		1	0·55	+0·45	0·24	0·29	− 0·05	0·24	0·29	− 0·05	0·19	Daltonganj.
9					1	1			S 24° W	S 88° W	0·1	1·5	−1·4	7	−12	93	+ 2	·412	+·029	1·3	+0·4	0	0·23	− 0·23	0·03	0·10	− 0·07	0·03	0·10	− 0·07	0·03	Purnea.
2						2	6	1	S 83° W		1·4			26		72		·409		1·4		0	0·26	− 0·26	0·02	0·07	− 0·05	0·02	0·07	− 0·05	0·02	Bhagalpur.
4	1		2	2	1	5	13	3	S 79° W		3·1			48		84		·443		2·3		0			0·08			0·08			0·08	Monghyr.
8						1	1	1	W	N 86° W	0·9	2·0	−1·1	8	−22	87	+ 1	·432	+·023	2·3	+1·8	0	0·23	− 0·23	0·09	0·07	+ 0·02	0·09	0·07	+ 0·02	0·09	Darbhanga.
0					2	1	6	2	S 83° W		1·91‡			26		89		·398		2·5		1			0·12			0·12			0·12	Pusa.
5	1	1	1			1	1	1	N 27° W		1·8*			6		86		·410		0·8		0	0·19	− 0·19	0	0·07	− 0·07	0	0·07	− 0·07	0	Muzaffarpur.
3		1			1	1			S		0·7			3		93		·403		2·6		2	0·47	+ 1·53	0·51	0·14	+ 0·37	0·51	0·14	+ 0·37	0·24	Motihari.
									P							89		·408		1·9		1	0·29	+ 0·71	0·12	0·09	+ 0·03	0·12	0·09	+ 0·03	0·12	Chapra.
6			3		8	6	6	2	S 38° W	S 78° W	2·4	1·9	+0·5	46	−8	76	+ 1	·416	+·044	2·5	+1·6	0	0·35	− 0·35	0·06	0·10	− 0·04	0·06	0·10	− 0·04	0·06	Patna.
4		4			1	7	4	1	S 74° W		1·4			23		75		·364		2·7		2	0·35	+ 1·65	0·37	0·13	+ 0·24	0·37	0·13	+ 0·24	0·22	Arrah.
1	3		6	1	4	9	3	1	S 23° W		3·4			26		78		·367		3·3		2	0·45	+ 1·55	0·79	0·20	+ 0·59	0·79	0·20	+ 0·59	0·53	Buxar.
1					4	17	2	4	S 53° W		1·4			68		76		·385		4·5		1	0·44	+ 0·56	0·16	0·32	− 0·16	0·16	0·32	− 0·16	0·16	Dehri.
4		4			3	1	8	1	S 88° W	S 10° W	2·6	2·4	+0·2	21	−11	76	+ 5	·378	+·036	2·8	+1·3	0	0·35	− 0·35	0·09	0·17	− 0·08	0·09	0·17	− 0·08	0·09	Gaya.
																																IV.—United Provinces of Agra and Oudh.
1									(a)	N 69° W	0·18					86	+ 5	·387	+·013	1·5	+0·5	2	0·40	+ 1·60	0·49	0·14	+ 0·35	0·49	0·14	+ 0·35	0·30	Gorakhpur.
3	1	1		1		5			S 41° W	S 56° W	0·8	2·3	−1·5	13	−16	82	− 2	·378	+·023	2·9	+1·6	2	0·40	+ 1·60	0·38	0·21	+ 0·17	0·38	0·21	+ 0·17	0·21	Benares.
5	1		2			4	7	2	S 87° W	N 76° W	1·6	3·0	−1·4	30	+ 1	81	+ 4	·353	0	3·4	+2·1	1	0·50	+ 0·50	0·94	0·24	+ 0·70	0·94	0·24	+ 0·70	0·81	Allahabad.

§ Mean of 9 days.

(a) Indeterminate.

* Uncorrected for scale error.

‡ Mean of 28 days.

Table

(2) *Abstract of observations taken at 8 hrs. at 239 stations*

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches.								Temperature of air.												
			Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	IV.—United Provinces of Agra and Oudh—*concld.*																						
10	Cawnpore	416	29·672	—·006	30·089	29·807	28th	29·546	5th	·261	53·3	73·9	—2·4	46·0	—1·6	60·0	—2·0	27·9	79·7	4th	39·0	23rd	40·7
	Lucknow	368	29·735†	+·013†	30·090†	29·879	28th	29·594	5th	·235	54·6	75·0	—0·7	47·6	+1·4	61·3	+0·3	27·4	82·0	3rd	42·1	23rd	39·9
	Bahraich	401	29·687	+·010	30·079	29·818	28th	29·546	6th	·272	54·0	75·1	+0·1	49·2	+1·2	62·2	+0·7	25·9	84·1	3rd	44·5	12th	39·6
11	Jhansi	824	29·290	?	30·119	29·415	28th	29·164	5th	·251	60·5	75·4	—3·0	53·7	+1·8	64·6	—0·6	21·7	83·0	12th & 14th.	48·5	28th	34·5
	Agra	556	29·545	+·002	30·103	29·675	28th	29·414	5th	·261	54·0	71·8	—4·3	49·7	+0·9	60·8	—1·7	22·1	78·5	9th & 12th.	45·5	23rd	33·0
	Mainpuri	516	29·559	—·011	30·073	29·707	28th	29·423	6th	·284	52·4	72·3	—2·8	47·1	—0·2	59·7	—1·5	25·2	80·3	1st	41·1	23rd	39·2
	Bareilly	568	29·506	+·005	30·082	29·637	28th	29·365	6th	·272	52·6	70·1	—2·7	47·5	+1·5	58·8	—0·6	22·6	78·3	3rd	41·0	11th	37·3
	Meerut	738	29·328	+·001	30·094	29·449	28th	29·210	5th	·239	48·5	69·7	—3·2	45·4	+0·7	57·5	—1·3	24·3	78·1	3rd	40·8	4 days	37·3
	Roorkee	899	29·183	+·032	30·124	29·311	21st	29·063	6th	·248	48·6	68·4	—4·0	44·5	+1·0	56·5	—1·5	23·9	77·5	3rd	37·4	11th	40·1
	Dehra Dun	2,233	27·797	+·004	30·116	27·919	28th	27·672	6th	·247	49·8	67·7	—1·0	46·0	+0·4	56·9	—0·3	21·7	75·5	3rd	43·5	6th, 12th & 21st.	32·0
	V.—Punjab.																						
12	Delhi	718	29·368	+·011	30·106	29·489	21st	29·219	5th & 6th.	·240	52·2	68·6	—5·1	49·4	+0·5	59·0	—2·3	19·2	76·7	3rd & 13th.	45·2	19th	31·5
	Sirsa	662	29·431†	+·013†	30·114‡	29·567	21st	29·263	14th	·304	49·8	68·5	—6·4	43·6‡	+0·9‡	55·6‡	—2·7	24·9	78·3	1st	38·0	11th	40·3
	Patiala	*818*	29·272		30·125	29·411	21st	29·141	14th	·270	49·5	68·5		44·6		56·6		23·9	77·6	3rd	39·0	8th	38·6
	Ambala	892	29·188§	+·028§	30·126§	29·322	28th	29·073	7th	·249	47·9	69·1‡	—2·8‡	45·0‖	+1·9‖	56·4‖	—0·5	24·1	78·5	3rd	38·9	7th	39·6
	Ludhiana	812	29·268	+·023	30·117	29·403	28th	29·137	14th	·266	48·3	66·8	—4·2	45·8	+1·8	56·3	—1·2	21·0	75·5	3rd	41·5	20th	34·0
	Lahore	702	29·380	+·007	30·119	29·523	21st	29·203	14th	·320	45·1	68·6	—4·6	43·0	+2·7	55·8	—0·9	25·6	77·9	1st	39·2	4 days	38·7
	Sialkot	830	29·255	+·028	30·130	29·390	28th	29·120	6th	·270	47·0	66·2	—3·9	41·4	—1·1	53·8	—2·5	24·8	77·0	3rd	35·5	10th	41·5
	Rawalpindi	1,674	28·384	—·002	30·178	28·517	17th	28·212	14th	·305	41·9	63·6	—4·0	37·8	+0·7	50·7	—1·7	25·8	72·4	3rd	32·9	6th & 19th.	39·5
13	Khushab	612	29·499¶	+·012¶	30·138¶	29·643	21st	29·266	14th	·377	47·3	68·5	—3·2	42·6	+0·7	55·5	—1·3	25·9	78·4	1st	35·4	5th	43·0
	Montgomery	558	29·548	+·008	30·122	29·696	21st	29·313	14th	·383	49·3	68·3	—4·6	43·4	+0·4	55·9	—2·1	24·9	78·4	1st	38·1	10th	40·3
	Multan	420	29·708	+·011	30·130	29·859	29th	29·490	14th	·369	51·5	68·4	—5·5	46·9	+2·5	57·7	—1·5	21·5	77·3	1st	43·0	7th	34·3
	VI.—North-West Frontier Province.																						
15	Peshawar	1,110	28·996	—·001	30·191	29·161	17th	28·832	14th	·329	42·1	62·7	—4·8	39·1	+0·1	50·9	—2·3	23·6	71·2	1st	32·9	5th & 6th	38·3
	D. I. Khan	590	29·527	—·005	30·125	29·692	17th	29·327	14th	·365	44·4	68·5	—4·0	40·8	+0·7	54·6	—1·7	27·7	76·9	1st	35·1	19th & 20th.	41·8
	VII.—Sind.																						
17	Jacobabad	186	29·943	+·006	30·108	30·120	29th	29·775	14th	·345	50·7	74·0	—2·7	46·4	+2·4	60·2	—0·1	27·6	82·1	1st & 2nd.	40·3	26th	41·8
	Hyderabad	96	30·030	—·001	30·087	30·183	29th	29·841	12th	·342	57·4	76·3	—2·8	53·2	+0·9	64·7	—0·9	23·1	85·0	2nd	47·0	26th	38·0
	Karachi	13	30·106	—·005	30·070	30·257	29th	29·960	12th	·297	63·7	77·6	—1·1	60·5	+0·3	69·1	—0·4	17·1	85·0	1st	56·5	14th	28·5
	VIII.—Rajputana.																						
18	Bikaner	*771*	29·300	—·019	30·097	29·445	21st	29·088	14th	·357	51·8	71·6	—3·7	47·8	—3·5	59·7	—3·6	23·8	84·0	13th	41·0	7th	43·0
	Jodhpur	780	29·299	+·004	30·114	29·433	21st	29·119	13th	·314	56·3	75·2	—5·0	51·7	—1·5	63·5	—3·3	23·5	86·0	13th	48·3	15th, 16th & 27th.	37·7
19	Jaipur	1,431	28·642	—·006	30·123	28·766	21st	28·514	14th	·252	55·1	73·0	—4·7	49·3	+0·2	61·1	—2·3	23·7	81·2	10th & 12th.	43·6	21st, 22nd & 28th.	37·6
	Sambhar	1,254	28·822	+·005	30·131	28·950	21st	28·666	14th	·284	50·5	72·2	—3·8	45·8	—0·5	59·0	—2·1	26·4	81·4	13th	40·9	21st	40·5
	Ajmer	1,611	28·461	—·010	30·145	28·582	21st	28·350	13th	·232	50·1	71·4	—4·9	48·2	+2·6	59·8	—1·1	23·2	78·4	15th	44·7	21st	33·7
	Kotah	*819?*	29·239	—·002	30·119	29·379	21st	29·113	13th	·266	57·4	75·8	—3·7	52·9	—1·3	64·3	—2·5	22·9	86·0	12th	47·6	20th	38·4
	Udaipur†	1,925	28·137§	0§	30·114§	28·257	21st	27·998	13th	·259	57·1	75·2	—3·2	48·6	—0·5	61·9	—1·9	26·6	82·5	8th	41·8	19th	40·7
	IX.—Bombay.																						
20	Leesa	466	29·592	—·020	30·042	29·705	29th	29·439	13th	·266	59·3	83·4	—2·0	52·0	—0·7	67·7	—1·3	31·4	90·2	10th	45·4	15th	44·9
	Bhuj‖	395	29·682	—·003	30·052	29·801	21st	29·558	5th	·243	61·4	78·8	—3·5	54·4	—1·8	66·6	—2·7	24·4	86·0	1st	50·0	4th	36·0

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

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

† Mean of 30 days. ‡ Mean of 28 days. § Mean of 29 days. ‖ Mean of 23 days. ¶ Mean of 27 days.

B—*continued.*

in India, etc., in December, 1909—continued.

Wind direction. Number of winds from Calm. (25)	N. (26)	N.E. (27)	E. (28)	S.E. (29)	S. (30)	S.W. (31)	W. (32)	N.W. (33)	Resultant direction. (34)	Normal direction. (35)	Wind velocity. Mean velocity, miles per hour. (36)	Normal. (37)	Departure from normal. (38)	Wind steadiness. Actual percentage. (39)	Departure from normal. (40)	Hygrometry, 8 hrs. Mean humidity at 8 hrs. (41)	Departure from normal. (42)	Mean vapour tension at 8 hrs. in inches of mercury. (43)	Departure from normal in inches of mercury. (44)	Cloud. Mean cloud amount at 8 hrs. (45)	Departure from normal. (46)	Rainfall. Number of rainy days. (47)	Normal number of rainy days. (48)	Departure from normal. (49)	Rainfall of month. (50)	Normal rainfall of month. (51)	Departure from normal. (52)	Total rainfall from 1st to 31st December, 1909. (53)	Normal rainfall for period, 1st to 31st December. (54)	Departure from normal of period, 1st to 31st December, 1909. (55)	Heaviest rainfall during month. (56)	Station. (57)
																																IV.—United Provinces of Agra and Oudh—*concld.*
16	5		3				5	2	N 28° W	N 82° W	1·7	2·4	−0·7	23	− 6	80	+ 3	·329	+·005	1·2	−0·1	2	0·60	+1·40	1·20	0·17	+ 1·03	1·20	0·17	+1·03	0·90	Cawnpore.
23	1		1	1	1	2	2		S 39° W	N 76° W	0·9	1·7	−0·8	10	−19	78	− 4	·337	+·003	1·8	+0·2	2	0·80	+1·20	1·18	0·38	+ 0·80	1·18	0·38	+0·80	1·00	Lucknow.
12	2	1		2			3	11	N 41° W	N 51° W	1·8	1·5	+0·3	43	+19	85	+ 3	·360	+·009	2·3	+1·5	2	0·70	+1·30	0·99	0·34	+ 0·65	0·99	0·34	+0·65	0·85	Bahraich.
23	1		2	2				3	N 38° E	N 79° W	2·1	2·0	+0·1	7	−11	68	+11	·355	+·062	2·5	+1·4	2	0·80	+1·20	1·11	0·24	+ 0·87	1·11	0·24	+0·87	0·70	Jhansi.
21	2	1		2			2	3	N 31° W	N 61° W	2·5	2·9	−0·4	13	−23	75	+ 7	·314	+·029	3·3	+2·4	3	0·60	+2·40	1·22	0·29	+ 0·93	1·22	0·29	+0·93	0·56	Agra.
11	4	1	3	1		3	5	3	N 50° W	N 66° W	1·2	1·1	+0·1	23	− 1	83	+ 9	·325	+·034	3·2	+0·9	3	0·60	+2·40	0·66	0·34	+ 0·32	0·66	0·34	+0·32	0·36	Mainpuri.
30			1						E	N 41° W	0	1·6	−1·6	3	−11	87	+ 6	·351	+·045	3·4	+2·0	3	0·64	+2·36	1·58	0·33	+ 1·25	1·58	0·33	+1·25	1·06	Bareilly.
26			1				4		W	S 89° W	0·4	1·5	−1·1	10	−18	89	+14	·309	+·048	3·3	+1·3	4	0·90	+3·10	2·26	0·48	+ 1·78	2·26	0·48	+1·78	1·25	Meerut.
29		1						1	N	N 39° W	1·0	1·4	−0·4	5	− 2	91	+ 7	·314	+·035	4·3	+2·2	3	1·30	+1·70	1·60	0·61	+ 0·99	1·60	0·61	+0·99	0·66	Roorkee.
31									(a)	S 76° W	0·5*	1·2	−0·7			79	+ 4	·285	+·017	4·6	+0·9	5	1·40	+3·60	1·98	0·80	+ 1·18	1·98	0·80	+1·18	0·92	Dehra Dun.
																																V.—Punjab.
5	3			1	1		14	7	N 71° W	N 87° W	2·5	2·5	0	62	+18	79	+18	·303	+·053	4·0	+1·6	4	1·10	+2·90	1·53	0·53	+ 1·00	1·53	0·53	+1·00	0·50	Delhi.
7	1	2		4	3	9	2	3	S 39° W	N 84° W	2·6†	2·8	−0·2	33	+26	79	+10	·286	+·049	3·3	+0·3	4	0·80	+3·20	1·38	0·31	+ 1·07	1·38	0·31	+1·07	0·80	Sirsa.
14	3	1	1	3	1		3	5	N 37° W		2·8			16		86		·306		3·7		3			1·28			1·28			0·80	Patiala.
14	3		1	2		3	2	6	N 57° W	N 44° W	2·8	1·5	+1·3	27	+ 7	87	+ 5	·291	+·014	3·5	+1·1	3	1·20	+1·80	1·55	0·82	+ 0·73	1·55	0·82	+0·73	0·73	Ambala.
29					1		1		S 45° W	N 47° W	0·6	1·3	−0·7	3	−14	83	+ 7	·285	+·025	2·5	−1·3	3	0·90	+2·10	2·10	0·78	+ 1·32	2·10	0·78	+1·32	1·18	Ludhiana.
22				2	1		4	2	S 76° W	N 58° W	1·6	1·3	+0·3	13	+ 6	91	+13	·279	+·027	2·8	−0·1	3	0·90	+2·10	2·51	0·38	+ 2·13	2·51	0·38	+2·13	1·54	Lahore.
25			2		1		2	1	S 67° W	N 63° E	0·9	0·9	0	2	− 5	93	+19	·304	+·057	2·4	−0·2	2	1·10	+0·90	3·53	0·52	+ 3·01	3·53	0·52	+3·01	2·64	Sialkot.
28		1	1				1		N 45° E	N 41° W	1·6	1·3	+0·3	3	−11	84	+10	·227	+·017	4·0	+0·4	3	1·60	+1·40	3·99	0·74	+ 3·25	3·99	0·74	+3·25	2·35	Rawalpindi.
22		3	2			2	1	1	N 38° E	N 27° E	2·1**	2·1	0	3	−11	73	+13	·244	+·045	2·3	−0·4	2	0·40	+1·60	0·82	0·54	+ 0·28	0·82	0·54	+0·28	0·44	Khushab.
22	1	1	1	2	2			2	S 79° E	N 68° E	2·4	2·6	−0·2	5	−13	75	+10	·262	+·032	3·0	+0·3	3	0·60	+2·40	2·22	0·42	+ 1·80	2·22	0·42	+1·80	1·84	Montgomery.
25	6								N	N 53° E	0·9	1·1	−0·2	19	+ 1	77	+ 7	·282	+·021	2·1	−0·4	3	0·70	+2·30	1·18	0·19	+0·99	1·18	0·19	+0·99	0·47	Multan.
																																VI.—North-West Frontier Province.
22		1	1	1	1	2	2	1	S 45° W	S 16° W	0·6	2·3	−1·7	10	−19	78	+ 8	·214	+·009	4·3	+0·5	2	1·10	+0·90	1·70	0·33	+1·37	1·70	0·33	+1·37	1·20	Peshawar.
25	1						1	4	N 45° W	N 32° W	0·5	0·8	−0·3	20	+ 9	81	+10	·240	+·023	3·6	+1·0	1	0·80	+0·20	0·24	0·21	+0·03	0·24	0·21	+0·03	0·12	D. I. Khan.
																																VII.—Sind.
13	8	3				1		6	N 12° W	N 7° E	1·8	1·5	+0·2	46	+32	77	+14	·287	+·046	3·3	+0·5	0	0·40	−0·40	0·08	0·09	−0·01	0·08	0·09	−0·01	0·08	Jacobabad.
4	16	2			1			7	N 10° W	N 2° E	6·5	7·0	−0·5	72	+16	64	+10	·302	+·036	4·1	+1·8	0	0·20	−0·20	0·05	0·05	0	0·05	0·05	0	0·05	Hyderabad.
	4	20	7						N 49° E	N 54° E	8·9	8·4	+0·5	89	+ 7	60	− 1	·341	+·012	3·1	+0·9	2	0·40	+1·60	0·72	0·13	+0·59	0·72	0·13	+0·59	0·40	Karachi
																																VIII.—Rajputana.
7	6	9	2	1			2	4	N 16° E	N 4° W	4·2	3·3	+0·9	49	+27	61	+ 5	·241	0	3·9	+1·3	2	0·40	+1·60	0·93	0·17	+ 0·76	0·93	0·17	+0·76	0·72	Bikaner.
1	8	20				1		1	N 30° E		3·5			82		61	+18	·275		3·4		3	0·50	+2·50	0·78	0·15	+ 0·63	0·78	0·15	+0·63	0·47	Jodhpur.
11	3	8	6	2			1		N 59° E	N 2° W	3·0*	2·9	+0·1	43	+21	68	+ 6	·293	+·024	3·0	+0·8	3	0·70	+2·30	1·16	0·19	+ 0·97	1·16	0·19	+0·97	0·67	Jaipur.
19	3	5	2	1	1				N 52° E	N 45° E	3·8	3·3	+0·5	27	+ 9	76	+12	·280	+·032	2·5	+0·3	4	0·80	+3·20	2·23	0·35	+ 1·88	2·23	0·35	+1·88	0·84	Sambhar.
22	1	2		2		2		2	N	N 24° E	2·8	1·6	+1·2	3	− 1	82	+ 8	·301	+·026	3·1	+1·0	3	0·60	+2·40	1·50	0·27	+ 1·23	1·50	0·27	+1·23	0·67	Ajmer.
24	2	2	1	1	1				N 61° E		1·4			10		72	+14	·340		2·8		2	0·80	+1·20	0·48	0·36	+ 0·12	0·48	0·36	+0·12	0·29	Kotah.
24	3						1	2	N 29° W		1·7			17		69	+14	·326		2·4		1	0·50	+0·50	0·18	0·13	+ 0·05	0·18	0·13	+0·05	0·15	Udaipur.
																																IX.—Bombay.
6	11	11	1	1	1				N 29° E	N 72° E	6·0*	8·0	−2·0	62	−10	56	+ 9	·284	+·026	2·3	+0·5	0	0·09	−0·09	0·05	0·06	− 0·01	0·05	0·06	−0·01	0·03	Deesa.
	3	1	3	9	4	4	4		S 3° W	N 15° W	7·1	5·8	+1·3	19	+12	57	+ 2	·308	−·033	0	−1·6	0	0·20	−0·20	0	0·07	− 0·07	0	0·07	−0·07	0	Bhuj.

* Uncorrected for scale error. (a) Indeterminate. ** Mean of 25 days.

Table

(2) *Abstract of observations taken at 8 hrs. at 239 stations*

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	IX.—Bombay—*concld.*																						
20	Jamnagar	61	30·038		30·044	30·147	29th	29·865	12th	·282	64·2	83·3		53·7		66·9		26·6	88·5	1st	49·9	21st	38·6
	Dwarka	37?	30·013		30·027	30·115	29th	29·896	12th	·249	67·2	78·7		59·8		69·3		18·9	86·8	1st	55·7	16th	31·1
	Rajkot	429	29·624	−·014	30·027	29·731	29th	29·501	5th	·230	62·5	81·7	−3·7	53·5	+0·6	67·6	−1·5	28·2	89·4	11th & 12th.	48·0	4th	41·4
	Veraval	*18*	30·019†	−·027†	29·980†	30·093	29th	29·891	5th	·207	68·2	81·9	−2·2	62·2	+0·2	72·0	−1·0	19·7	89·1	1st	51·8	16th	34·3
	Bhavnagar Para	55	30·012	−·038	30·011	30·095	29th	29·890	5th	·205	63·1	83·5	−1·5	56·1	−2·2	69·8	−1·9	27·4	89·6	12th	49·5	3rd	40·1
	Surat	39	29·995	−·032	29·980	30·087	29th	29·875	5th	·212	65·6	85·4	−2·0	60·7	+3·0	73·1	+0·5	24·7	90·1	9th, 11th & 12th.	54·6	3rd	35·5
	Ahmedabad	163	29·892	−·027	30·012	29·996	21st	29·754	5th	·242	64·6	83·7	−2·2	59·2	−0·9	71·5	−1·5	24·5	90·1	12th	51·7	16th	35·4
26	Bombay	37	29·981	−·030	29·959	30·070	29th	29·850	5th	·220	72·4	83·8	−0·7	70·0	+0·3	76·9	−0·2	13·8	89·0	1st	66·0	16th	23·0
	Ratnagiri	110	29·882	−·024	29·933	29·979	29th	29·749	4th	·230	74·3	86·6	−2·9	68·1	+0·9	77·4	−1·0	18·5	94·3	1st	62·9	3rd	31·4
	Goa	199	?	?	?	?	?	?	?	?	74·2	85·0	−2·4	70·1	+0·8	77·6	−0·8	14·9	89·1	1st & 30th	65·6	2nd	23·5
	Mormugao	*60*	29·936	−·032	29·931	30·015	29th	29·799	4th	·216	73·7	84·6	−1·7	71·1	+0·8	77·9	−0·5	13·5	88·3	31st	65·7	2nd	22·3
	Karwar	44	29·947†	−·024†	29·926†	30·027	29th	29·838	5th	·189	69·9	86·4	−1·3	67·2	+1·0	76·8	−0·1	19·2	91·3	31st	60·5	2nd	30·8
27	Malegaon	1,430	28·593	−·037	30·030	28·683	21st	28·474	5th	·209	64·6	83·9	−0·3	56·3	+5·0	70·1	+2·3	27·6	88·4	4 days	44·1	2nd	44·3
	Ahmednagar	2,154	27·893†	−·010†	30·052†	27·990	29th	27·764	5th	·226	66·3	83·7	+0·7	56·9	+5·4	70·3	+3·1	26·8	86·9	17th	50·0	1st	36·9
	Poona	1,846	28·185	−·019	30·036	28·276	29th	28·059	5th	·217	65·8	85·1	+0·3	56·8	+3·0	71·0	+1·9	28·3	88·0	18th, 19th & 31st.	48·3	3rd	39·7
	Sholapur	1,590	28·422	−·034	30·000	28·533	29th	28·284	4th	·249	70·2	86·8	+1·3	62·5	+5·0	74·7	+3·1	24·3	88·3	4th & 31st.	54·9	1st	33·4
	Bijapur	*1,948*	28·055	−·043	29·988	28·161	29th	27·922	4th	·239	69·7	85·8	+2·8	62·3	+6·3	74·6	+4·5	24·5	89·2	17th	55·2	2nd	34·0
	Belgaum	2,539	27·458	−·017	29·965	27·553	29th	27·324	4th	·229	69·6	83·0	+1·4	59·2	+1·1	71·1	+1·3	23·8	86·3	17th	54·5	2nd	31·8
	X.—Central India.																						
21	Neemuch	1,624	28·429	−·015	30·105	28·550	21st	28·299	13th	·251	55·4	76·3	−2·1	49·9	+0·4	63·1	−0·9	26·4	84·0	9th	42·8	19th & 27th.	41·2
	Indore	1,823	28·230	?	30·089	28·338	21st	28·117	5th	·221	60·3	77·6	−1·7	52·4	+3·1	65·0	+0·7	25·2	83·6	10th	45·6	3rd	38·0
22	Nowgong	754	29·326	−·015	30·094	29·455	21st	29·205	5th	·250	54·0	74·0	−1·2	49·2	+2·8	61·6	+0·8	24·8	81·0	14th	43·0	22nd	38·0
	Sutna	1,040	29·016	−·021	30·082	29·129	28th	28·885	5th	·244	56·3	75·4	+0·3	51·2	+4·1	63·3	+2·2	24·2	82·0	14th	46·2	22nd	35·8
	XI.—Central Provinces.																						
23	Buldana	2,132	27·993		30·040	27·994	29th	27·787	4th	·207	66·0	77·2		59·4		68·3		17·8	83·1	9th & 13th	53·4	2nd	29·7
	Akola	930	29·124	−·018	30·048	29·222	29th	28·992	4th	·230	65·4	81·4	−2·2	58·6	+7·2	70·0	+2·5	22·8	88·2	5th	48·1	1st	40·1
	Amraoti	1,215	28·820‡	−·028‡	30·034‡	28·913	21st	28·689	4th	·224	65·3	79·5	−3·2	60·3	+3·5	69·9	+0·1	19·2	85·8	4th, 10th & 11th.	54·8	1st	31·0
24	Khandwa	1,044	29·001	−·020	30·054	29·108	21st	28·877	5th	·231	61·0	81·8	−1·2	56·4	+6·2	69·1	+2·5	25·4	89·2	31st	45·1	2nd	44·1
	Hoshangabad	1,006	29·064	−·015	30·082	29·175	21st	28·940	5th	·235	60·1	77·8	−1·5	55·3	+3·6	66·5	+1·1	22·5	85·1	9th	49·4	2nd	35·7
	Saugor	1,807	28·232	−·021	30·078	28·342	21st	28·128	5th	·214	59·0	74·31	−1·81	54·0	+2·1	64·5‡	+0·1	20·9	83·1	9th	46·5	27th	36·6
	Jubbulpore	1,327	28·721	−·021	30·080	28·829	21st & 28th.	28·590	5th	·239	56·9	76·5	−0·4	52·2	+6·2	64·4	+2·9	24·3	82·5	9th	44·3	1st	33·2
	Seoni	2,033	28·012	−·013	30·082	28·108	28th	27·897	4th & 5th.	·211	59·7	75·0	−2·7	52·7	+2·9	63·8	+0·1	22·3	82·0	9th	45·0	11th	37·0
	Nagpur	1,017	29·031	−·019	30·048	29·125	29th	28·879	4th	·246	63·7	79·4	−1·9	58·8	+4·5	69·1	+1·3	20·6	85·6	4th & 10th.	52·8	10th	32·8
25	Pendra†	2,123†	28·019		30·092	28·119	28th	27·866	5th	·253	53·7	74·5		53·0		63·7		21·5	78·8	4th & 10th	49·2	22nd & 28th.	29·6
	Raipur	970	29·086	−·015	30·054	29·191	28th	28·912	5th	·279	62·9	78·3	−0·9	59·2	+5·1	68·7	+2·1	19·1	82·2	4th & 25th.	53·1	1st	29·1
	Chanda	*634*	29·418‡	−·024‡	30·026‡	29·514	29th	29·240	4th	·274	65·3	82·3	−0·2	58·7	+6·9	70·5	+3·3	23·6	86·0	4th & 7th.	50·0	1st & 2nd.	36·0
	Jagdalpur		28·220			28·320	28th	28·046	5th	·274	61·9	77·2		57·6		67·4		19·6	80·7	16th & 17th.	50·1	10th	30·6
	XII.—Hyderabad.																						
28	Aurangabad	1,905	28·138	−·046	30·046	28·238	29th	28·020	5th	·216	67·2	82·7	−1·4	58·8	+4·2	70·8	+1·4	23·9	85·2	6 days	49·2	1st & 2nd.	36·0
	Nizamabad	1,248	28·775	?	30·011	28·885	29th	28·619	4th	·266	69·0	86·0	+3·1	59·9	+6·0	72·9	+4·5	26·1	87·9	18th, 24th & 26th.	47·7	1st	40·2

N.B.—Elevations in italics indicate barometrical determinations.
† Mean of 29 days. ‡ Mean of 30 days.

NOTE.—The barometric readings are not reduced to sea-level, in the cases of hill or plateau

B—*continued.*

in India, etc., in December, 1909—continued.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal, in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st to 31st December, 1909.	Normal rainfall for period, 1st to 31st December.	Departure from normal of period, 1st to 31st December, 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																IX.—Bombay—*concld.*
12		11	7			1			N 64° E		4·1			31		59		·349		0·9		2			0·59			0·59			0·45	Jamnagar.
2	13	10	3		1	1		1	N 24° E		9·3			69		68		·454		2·1		2			0·45			0·45			0·27	Dwarka.
1	3	11	9	3	2			2	N 65° E	N 69° E	6·3	4·7	+1·6	62	+12	53	0	·299	−·025	2·0	+1·0	1	0·20	+0·80	0·58	0·04	+0·54	0·58	0·04	+0·54	0·50	Rajkot.
3	4	20	2	1	1				N 46° E	N 27° E	5·9	5·7	+0·2	76	+1	63‡	+12	·431‡	+·072	2·1	+0·1	1	0·40	+0·60	0·45	0·09	+0·36	0·45	0·09	+0·36	0·45	Veraval.
1	1	5				4	4	16	S 48° W	N 77° W	4·6	6·3	−1·7	63	+5	57	−5	·332	−·039	2·1	+0·7	1	0·10	+0·90	1·02	0·07	+0·95	1·02	0·07	+0·95	1·02	Bhavnagar Para.
3	9	8	4	1	4			2	N 38° E	N 48° E	3·9	4·4	−0·5	46	−12	73	+11	·467	+·068	1·8	+0·5	1	0·10	+0·90	0·42	0·01	+0·41	0·42	0·01	+0·41	0·42	Surat.
1	5	20	3	1			1		N 42° E	N 62° E	5·9*	4·7	+1·2	79	+5	52	+3	·313	+·001	1·2	−0·3	0	0·10	−0·10	0·05	0·07	−0·02	0·05	0·07	−0·02	0·05	Ahmedabad.
2	3	13	10	2			1		N 61° E	N 70° E	8·2	9·7	−1·5	72	−14	83	+11	·646	+·053	2·0	+0·3	0	0·10	−0·10	0	0·06	−0·06	0	0·06	−0·06	0	Bombay.
3	2	7	17	1	1				N 77° E	S 74° E	8·5	8·0	+0·5	76	+11	66	+13	·556	+·088?	0·8	−0·6	0	0·10	−0·10	0	0·05	−0·05	0	0·05	−0·05	0	Ratnagiri.
	2	11	17	1					N 70° E	N 75° E	5·8*	4·5	+1·3	86	−6	76	+12	·635	+·076	2·1	+0·7	0			0	0·06	−0·06	0	0·06	−0·06	0	Goa.
4	2	9	14	2					N 73° E	S 77° E	5·8*	7·9	−2·1	76	−4	83	+7	·692	+·071?	1·8	+0·9	0			0	0	0	0	0	0	0	Mormugao.
15	2	13						1	N 30° E	N 67° E	3·1	3·0	+0·1	49	−31	84‡	+9	·615‡	+·075	1·2	+0·1	0	0·10	−0·10	0	0·07	−0·07	0	0·07	−0·07	0	Karwar.
26		1			2	1		1	S 30° W	N 69° W	4·0	4·3	−0·3	3	−58	65	+7	·397	+·066	2·1	+0·1	1	0·50	+0·50	0·32	0·26	+0·06	0·32	0·26	+0·06	0·20	Malegaon.
7	3	1	1	2	6		3	8	N 70° W	N 81° E	6·1*	5·4	+0·7	23	+18	58	−5	·382	+·004	0·9	−0·6	0	0·90	−0·90	0·02	0·50	−0·48	0·02	0·50	−0·48	0·01	Ahmednagar.
	4	4	6	2			7	8	N 12° W	N 88° E	5·3	6·0	−0·7	37	+15	65	+9	·405	+·074	1·6	−0·3	0	0·50	−0·50	0	0·19	−0·19	0	0·19	−0·19	0	Poona.
5		6	8	9	1	1		1	S 8° E	S 74° E	7·1	7·9	−0·8	56	−12	56	+7	·411	+·095	0·7	−1·3	2	0·50	+1·50	0·63	0·43	+0·20	0·63	0·43	+0·20	0·33	Sholapur.
5	3	4	6	1	8		2	2	S 77° E	S 67° E	4·3*	3·8	+0·5	23	−46	59	−13	·431	−·016?	0·4	−1·2	0	0·50	−0·50	0·03	0·03	0	0·03	0·03	0	0·03	Bijapur.
7	4	5	6	4	3	2			N 88° E	S 81° E	8·2	12·1	−3·9	35	−41	61	+4	·441	+·058	0·5	−1·1	0	0·40	−0·40	0	0·12	−0·12	0	0·12	−0·12	0	Belgaum.
																																X.—Central India.
3	13	12	2			1			N 25° E	N 58° E	5·2†	5·8	−0·6	76	+11	62	+9	·271	+·004	2·6	+1·2	0	0·60	−0·60	0·08	0·28	−0·20	0·08	0·28	−0·20	0·08	Neemuch.
8	1	7	6	4	2	3			S 85° E	N 68° E	2·6	1·8	+0·8	40	+22	69	+10	·364	+·054	3·1	+1·7	3	0·50	+2·50	2·11	0·20	+1·91	2·11	0·20	+1·91	1·77	Indore.
12	1	3	6	1	2	2	4		S 74° E	N 76° W	1·4	1·1	+0·3	10	−4	80	+6	·335	+·017	3·6	+2·4	2	0·70	+1·30	1·43	0·55	+0·88	1·43	0·55	+0·88	1·23	Nowgong.
9	3	1	11				3	4	N 43° E	N 24° W	2·1	3·4	−1·3	30	−14	71‡	+4	·325‡	+·032	5·5	+4·5	4	0·90	+3·10	0·75	0·43	+0·32	0·75	0·43	+0·32	0·30	Sutna.
																																XI.—Central Provinces.
		2	8	13	7			1	S 52° E		4·7	5·5	−0·8	71		66		·418		4·6		5			2·50	0·59	+1·91	2·50	0·59	+1·91	0·82	Buldana.
4	1	13	9	2				2	N 61° E	S 85° W	4·2‡	3·2	+1·0	66	+22	72	+16	·443	+·128	5·7	+3·9	8	0·70	+7·30	5·47	0·75	+4·72	5·47	0·75	+4·72	1·48	Akola.
8	2	10	9	2					N 67° E	N 72° E	?	4·0	?	62	−10	71	+20	·437	+·110	4·7	+3·0	6	0·60	+5·40	4·31	0·57	+3·74	4·31	0·57	+3·74	1·61	Amraoti.
9		6	6	9		1			S 80° E	N 63° E	4·4	2·7	+1·7	53	+21	73	+16	·396	+·096	4·1	+2·8	2	0·50	+1·50	0·60	0·43	+0·17	0·60	0·43	+0·17	0·34	Khandwa.
7		8	14	2					N 79° E	N 63° E	3·0	2·6	+0·4	69	+4	70	+1	·369	+·040	4·0	+2·4	3	0·60	+2·40	1·62	0·53	+1·09	1·62	0·53	+1·09	0·90	Hoshangabad.
4	1	6	8	7	5				S 75° E	S 77° E	5·7	2·8	+2·9	56	+24	62	+4	·305	+·011	3·9	+2·8	1	0·80	+0·20	0·66	0·70	−0·04	0·66	0·70	−0·04	0·62	Saugor.
17	4	3	2	2	1			2	N 39° E	S 41° E	1·8	1·6	+0·2	23	−13	79	+5	·369	+·016	2·7	+1·1	3	0·60	+2·40	0·83	0·33	+0·50	0·83	0·33	+0·50	0·35	Jubbulpore.
8	3	8	4	2	2	1	1	2	N 53° E	N 30° E	4·0§	2·2	+1·8	33	−9	78	+11	·395	+·051	4·2	+2·3	4	0·90	+3·10	4·07	0·52	+3·55	4·07	0·52	+3·55	2·69	Seoni.
9	14	4	2	1			1		N 15° E	N 7° E	2·7	3·0	−0·3	56	+27	72	+12	·429	+·076	4·1	+2·1	9	0·70	+8·30	5·04	0·48	+4·56	5·04	0·48	+4·56	1·62	Nagpur.
17	4	1			2	1		4	N 31° W		4·0			20		72		·372		3·7		2			1·18			1·18			0·92	Pendra.
16	1	7	5	1				1	N 58° E	N 14° E	2·5	2·5	0	40	+24	74	+12	·423	+·079	4·4	+2·4	4	0·50	+3·50	2·70	0·25	+2·45	2·70	0·25	+2·45	2·05	Raipur.
25	2	2		1				1	N 23° E	N 39° E	1·9	1·6	+0·3	10	−22	82‖	+10	·496‖	+·098	3·5	+2·1	4	0·80	+3·20	1·03	0·34	+0·69	1·03	0·34	+0·69	0·33	Chanda.
17	3	2	3	2	1		1	2	N 45° E					13		87		·479		4·1		0			0·10			0·10			0·09	Jagdalpur.
																																XII.—Hyderabad.
3		4	14	9	1				S 79° E		7·6			76		64	+15	·433		3·0		1	1·10	−0·10	1·00	0·33	+0·67	1·00	0·33	+0·67	0·86	Aurangabad.
8	3	1	2	5	7	3		2	S 20° E		4·0‡			27		67	−1	·480		2·0		0	0·60	−0·60	0·03	0·14	−0·11	0·03	0·14	−0·11	0·02	Nizamabad.

stations, the elevations of which exceed 3,200 feet. * Uncorrected for scale error. ‖ Mean of 27 days. § Mean of 28 days.

Table

(2) *Abstract of observations taken at 8 hrs. at 239 stations*

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches.								Temperature of air.												
			Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	XII.—Hyderabad—*concld.*																						
28	Bidar	*2,165*	27·828		29·976	27·881	9th	27·752	7th & 27th.	·129	69·6	83·0		58·7		70·9		24·3	85·3	24th	52·4	1st	32·9
29	Gulbarga	1,503	28·519	−·042	30·007	28·628	29th	28·354	5th	·274	70·2	86·9	+1·9	63·2	+5·4	75·1	+3·7	23·7	89·5	4th	56·3	1st	33·2
	Raichur	*1,311*	28·682†	−·046†	29·970†	28·789	29th	28·521	4th	·268	71·9	86·2	+1·3	66·4	+3·1	76·3	+2·2	19·8	90·1	7th	55·6	1st	34·5
	Hyderabad (Deccan)	1,690	28·332	−·035	30·017	28·441	29th	28·152	4th	·289	67·7	84·4	+2·0	62·8	+5·5	73·6	+3·7	21·6	87·3	5th	57·7	1st	29·6
	Hanumkonda	871	29·163	−·017	30·005	29·277	29th	28·963	4th	·314	71·3	85·0	+1·3	65·6	+4·7	75·3	+3·0	19·4	88·0	18th	58·7	1st	29·3
	XIII.—Mysore.																						
30	Chitaldroog	2,405	27·600	−·027	29·972	27·697	29th	27·469	4th	·228	70·2	84·8	+3·5	62·8	+2·0	73·8	+2·7	22·0	88·1	11th	57·4	1st	30·7
	Hassan	3,149	26·900	−·001	30·006	26·971	29th	26·775	5th	·196	66·5	80·5	+1·1	58·7	+3·2	69·6	+2·1	21·8	82·9	8th	53·9	1st	29·0
	Bangalore	3,021	27·013	−·017	30·000	27·099	29th	26·875	5th	·224	65·8	82·3	+4·3	59·9	+1·2	71·1	+2·7	22·4	85·8	4th	55·3	1st	30·5
	Mysore	2,518	27·501	−·019	29·993	27·582	29th	27·382	5th	·200	68·5	83·3	+1·7	61·5	+1·7	72·4	+1·7	21·8	85·0	7th	56·0	31st	30·0
	XIV.—Madras.																						
31	Mangalore	65	29·912	−·029	29·910	29·989	29th	29·798	4th	·191	74·6	89·4	−1·1	70·0	+0·9	79·7	−0·1	19·4	95·8	14th	65·3	2nd	30·5
	Calicut	27	29·953	−·016	29·910	30·023	22nd	29·848	4th	·175	75·5	86·1	−1·5	71·8	+1·3	79·0	−0·1	14·3	88·8	31st	68·1	2nd	20·7
	Cochin	9	29·976	+·001	29·913	30·033	29th	29·873	5th	·160	76·8	88·9	+0·4	72·7	−0·2	80·8	+0·1	16·2	91·7	29th	70·7	23rd, 25th & 27th.	21·0
	Trivandrum	193	29·772	−·003	29·904	29·834	22nd	29·676	5th	·158	76·2	83·2	+0·2	72·9	+1·2	78·1	+0·7	10·3	86·0	29th	70·5	4th & 5th.	15·5
32	Tinnevelly	168	29·849	−·006	29·949	29·928	29th	29·691	4th	·237	77·0	87·5	+1·3	72·2	−0·2	79·9	+0·5	15·3	94·7	6th	68·9	1st	25·8
	Pamban	37	29·953‡	−·019‡	29·917‡	30·023	29th	29·801	5th	·222	78·6	84·4	+2·8	74·6	0	79·5	+1·4	9·8	87·7	6th	71·0	23rd	16·7
	Madura	447	29·571	+·012	29·961	29·645	29th	29·414	5th	·231	76·5	87·3	+1·3	69·9	−0·6	78·6	+0·3	17·4	90·4	6th & 7th	67·1	1st, 27th, & 28th.	23·3
	Pudukkottai	318	29·691		29·947	29·770	24th	29·537	5th	·233	75·6	87·8		70·4		79·1		17·4	92·4	4th	66·7	27th	25·7
	Negapatam	31	29·968	−·009	29·928	30·053	29th	29·807	5th	·246	78·2	84·5	+3·0	74·3	+2·2	79·4	+2·6	10·2	92·5	4th & 5th	69·0	27th	23·5
	Trichinopoly	255	29·763	−·003	29·956	29·842	24th	29·607	5th	·235	77·1	89·4	+4·2	70·9	+1·5	80·1	+2·9	18·5	94·6	6th	66·3	27th	28·3
	Coimbatore	1,348	28·658	−·006	29·979	28·722	22nd & 24th, 29th.	28·512	5th	·210	71·6	86·4	+1·3	66·5	+0·4	76·4	+0·9	19·9	88·9	8th	61·3	5th	27·6
	Salem	940	29·100	−·004	29·999	29·174	21st	28·942	5th	·232	74·5	88·7	+2·3	67·3	+2·0	78·0	+2·1	21·4	92·5	4th	62·4	1st & 24th	30·1
	Cuddalore	37	29·974	?	29·942	30·065	21st	29·806	5th	·259	75·8	85·6	+2·9	70·7	+1·6	78·3	+2·1	15·2	90·6	4th	63·7	22nd	26·9
	Vellore	707	29·322		29·988	29·407	24th	29·135	5th	·272	72·3	86·1		65·9		76·0		20·2	92·7	5th & 6th	60·5	26th	32·2
	Madras	22	30·001	−·017	29·954	30·084	29th & 30th.	29·809	4th	·275	77·1	85·6	+2·3	70·9	+1·2	78·3	+1·7	14·7	90·5	5th	65·5	26th & 27th.	25·0
33	Cuddapah	433	29·595	−·031	29·976	29·695	29th	29·395	4th	·300	74·7	90·7	+3·5	67·8	+2·4	79·2	+3·1	22·9	95·7	6th	56·6	26th	39·1
	Bellary	1,475	28·538	−·022	29·995	28·641	29th	28·390	5th	·251	70·3	88·4	+2·8	64·3	+3·4	76·4	+3·1	21·1	92·0	7th	55·8	1st	36·2
	Kurnool	923	29·090	−·040	29·986	29·207	29th	28·908	4th	·299	70·7	88·5	+1·6	64·1	+5·2	76·3	+3·4	24·4	91·7	7th	52·6	1st	39·1
34	Nellore	66	29·967	−·024	29·968	30·062	29th	29·746	4th	·316	75·1	86·4	+1·6	70·0	+1·8	78·2	+1·7	16·4	94·6	5th	66·1	27th	28·5
	Masulipatam	15	30·034	−·016	29·986	30·142	29th	29·768	4th	·374	74·8	85·1	+2·1	68·8	+2·2	76·9	+2·1	16·3	89·8	6th	64·2	11th	25·6
	Cocanada	26	30·023	−·027	29·985	30·131	29th	29·694	4th	·437	72·9	80·7	0	69·0	+3·3	74·9	+1·7	11·7	83·7	3rd	64·5	10th & 11th.	19·2
	Waltair (Vizag.)	*226*	29·822	−·024	29·995	29·937	28th	29·446	4th	·491	74·0	80·3		70·4		75·4		9·9	83·6	3rd	66·9	11th	16·7
	Calingapatam	19	30·041		30·000	30·164	28th	29·617	4th	·547													
	Gopalpur	72	30·004	−·016	30·019	30·129	28th	29·737	5th	·392	168·0	80·0	−0·3	63·7	+2·9	71·99	+1·3	16·3	84·2	2nd	60·5	4 days	23·7

N.B.—Elevations in italics indicate barometrical determinations. † Mean of 27 days. ‡ Mean of 30 days.

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

B—*continued.*

in India, etc., in December, 1909—continued.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st to 31st December, 1909.	Normal rainfall for period, 1st to 31st December.	Departure from normal of period, 1st to 31st December, 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																XII.—Hyderabad—*contd.*
1		5	3	18	1	3			S 55° E		6·5			65		63		·452		0·6		0	0·70	− 0·70	0·03	0·52	− 0·49	0·03	0·52	− 0·49	0·03	Bidar.
1		6	11	5	7	1			S 69° E	N 76° E	7·3	7·2	+0·1	62	+15	68‡	+ 9	·504‡	+·111	0·2	−1·6	0	0·30	− 0·30	0·02	0	+ 0·02	0·02	0	+ 0·02	0·02	Gulbarga.
1		6	3	20	1				S 63° E	S 77° E	7·0	7·4	−0·4	76	+10	61	− 5	·486	0	2·1	+0·6	0	0·30	− 0·30	0	0	0	0	0	0	0	Raichur.
30				1					S 45° E	S 63° E	2·9	3·2	−0·3	3	−11	75	+ 2	·512	+·060	3·4	+1·7	0			0	0·17	−0·17	0	0·17	− 0·17	0	Hyderabad (Deccan).
2	3	1	2	13	7	1		2	S 40° E		5·1‡			53		71	+ 4	·545		3·0		0	0·10	− 0·10	0	0·29	− 0·29	0	0·29	− 0·29	0	Hanumkonda.
																																XIII.—Mysore.
5		1	11	10			2	2	S 73° E	S 77° E	4·7	7·8	−3·1	53	−35	63	− 2	·468	+·008	2·1	−0·9	1	0·70	+ 0·30	0·27	0·09	+ 0·18	0·27	0·09	+ 0·18	0·24	Chitaldroog.
10	1	1	10	8				1	S 79° E	N 82° E	3·5	3·4	+0·1	52	−33	79	+ 6	·520	+·043	2·3	−1·3	2	1·00	+ 1·00	1·51	0·18	+ 1·33	1·51	0·18	+ 1·33	1·33	Hassan.
1	1	4	2	1		1	1		N 84° E	N 67° E	7·5	5·5	+2·0	79	− 7	80	+ 2	·512	+·029	2·7	−1·1	0	1·00	− 1·00	0	0·48	− 0·48	0	0·48	− 0·48	0	Bangalore.
2		11	12	1	1	2	1	1	N 73° E	N 68° E	7·9	10·3	−2·4	56	−27	78	+ 4	·550	+·047	3·8	0	1	1·00	0	0·51	0·17	+ 0·34	0·51	0·17	+ 0·34	0·42	Mysore.
																																XIV.—Madras.
	11	20							N 74° E	S 86° E	4·4*	2·9	+1·5	96	+10	71	+ 3	·690	+·089	2·0	−0·3	0	0·50	− 0·50	0	0·45	− 0·45	0	0·45	− 0·45	0	Mangalore.
4	14	8	3	1		1			N 70° E	N 85° E	3·6	7·0	−3·4	66	−17	84‡	+ 7	·747‡	+·064	2·3§	+0·2	4	1·60	+ 2·40	1·91	0·97	+ 0·94	1·91	0·97	+ 0·94	0·68	Calicut.
2		16	10	3					N 69° E	N 36° E	4·5*	4·3	+0·2	79	0	74	− 1	·681	−·015	2·5	+0·1	2	2·50	− 0·50	0·45	1·66	− 1·21	0·45	1·66	− 1·21	0·20	Cochin.
15	3	7	3		1			2	N 38° E	N 49° E	3·3*	3·7	− 0·4	32	− 4	80	0	·725	+·001	4·3	0	3	3·60	− 0·60	1·52	2·24	− 0·72	1·52	2·24	− 0·72	1·25	Trivandrum.
2	16	5					2	6	N 6° W	N 11° W	3·5	5·0	−1·5	79	− 6	74	− 3	·688	−·002	5·4	+0·9	4	5·70	− 1·70	5·23	3·75	+ 1·48	5·23	3·75	+ 1·48	2·02	Tinnevelly.
	12	8	2		3	1		5	N 11° E	N 13° E	12·3	13·1	−0·8	56	−27	86	− 2	·841		4·9		8	9·20	− 1·20	6·88	10·31	− 3·43	6·88	10·31	− 3·43	2·14	Pamban.
	10	10	3				2	6	N 10° E	N 5° E	5·4	4·6	+0·8	72	−11	78	+ 4	·710	+·051	6·2	+1·7	2	3·80	− 1·80	0·81	1·87	− 1·06	0·81	1·87	− 1·06	0·52	Madura.
1	9	17					1	3	N 21° E		9·6			81		82		·725		5·4		4			1·46			1·46			0·95	Pudukkottai.
		13			2			16	N 6° W	N 6° W	13·9	9·0	+4·9	59	−27	78	− 5	·756	+·002	6·0	−0·7	6	9·40	− 3·40	2·67	12·79	−10·12	2·67	12·79	−10·12	1·22	Negapatam.
4	14	5	1			5	2	N 6° W	N 16° E	4·5*	4·5	0	62	+12	72	− 5	·669	+·002	4·0	−0·9	0	4·60	− 4·60	0·08	2·76	− 2·68	0·08	2·76	− 2·68	0·08	Trichinopoly.
9		21	1						N 47° E	N 77° E	2·9	3·0	−0·1	72	−11	83	− 1	·649	−·008	4·4	−0·5	1	2·40	− 1·40	0·34	1·13	− 0·79	0·34	1·13	− 0·79	0·32	Coimbatore.
5	4	2	17			2	1	N 68° E	N 40° E	5·3	3·9	+1·4	56	+27	82	+ 6	·704	+·078	3·7	+0·1	0	2·10	− 2·10	0	1·26	− 1·26	0	1·26	− 1·26	0	Salem.
1	14	2		1	1	1	11	N 21° W	N 10° W	9·8	2·7	+7·1	72	− 7	81	− 9	·724	−·042	4·8	−1·2	4	6·80	− 2·80	1·16	8·19	− 7·03	1·16	8·19	− 7·03	0·37	Cuddalore.
31									(a)		3·3					82		·653		3·1		1	3·60	− 2·60	0·10	2·88	− 2·78	0·10	2·88	− 2·78	0·10	Vellore.
1	14	8	2		1		2	3	N 9° E	N 8° E	7·0*	7·3	− 0·3	72	−11	81	− 2	·754	+·024	3·7	−1·4	4	7·20	− 3·20	0·89	6·02	− 5·13	0·89	6·02	− 5·13	0·39	Madras.
		4	3	14	3	4		3	S 45° E	S 75° E				49	+ 6	73	− 5	·634	+·014	3·2	−0·2	0	1·30	− 1·30	0	1·14	− 1·14	0	1·14	− 1·14	0	Cuddapah.
8	1		2	12	5		1	2	S 36° E	S 59° E	2·7	3·3	− 0·6	46	+ 3	62	− 4	·466	−·016	1·6	−1·7	0	0·30	− 0·30	0	0·11	− 0·11	0	0·11	− 0·11	0	Bellary.
13	1		8	3	1				S 67° E	S 80° E	4·5*			49	+48	70	0	·526	+·033	1·3	−0·4	0	0·30	− 0·30	0	0·12	− 0·12	0	0·12	− 0·12	0	Kurnool.
5	5	1					1	19	N 35° W	N 51° W	4·0*	4·2	− 0·2	76	+ 4	79	− 6	·686	−·030	4·4	+0·4	0	3·30	− 3·30	0·03	1·64	− 1·61	0·03	1·64	− 1·61	0·03	Nellore.
	6	13	5	4			1	2	N 47° E	N 15° E	7·5‖	5·2	+2·3	66	−20	74	− 7	·643	+·006	2·3	−0·3	0	0·60	− 0·60	0	0·78	− 0·78	0	0·78	− 0·78	0	Masulipatam.
3	8	17	1				2	N 29° E	N 5° E	9·4	9·1	+0·3	79	−11	78	+ 8	·619	+·078	4·1	+1·6	2	0·70	+ 1·30	3·89	0·80	+ 3·09	3·89	0·80	+ 3·09	3·62	Cocanada.
	10	18					1	2	N 23° E	N 31° W	10·2			86	+37	65	+ 6	·553	+·033	4·5	+2·0	3	1·10	+ 1·90	9·51	1·80	+ 7·71	9·51	1·80	+ 7·71	7·53	Waltair (Vizag.).
1	11	4					8	N 9° W			7·7			65						2·5		3			12·71			12·71			8·73	Calingapatam.
	19	1					11	N 15° W	N 23° W		10·3	8·2	+2·1	92	+17	83	+ 6	·564	+·069	1·5	−0·6	4	0·80	+3·20	6·45	0·75	+ 5·70	6·45	0·75	+ 5·70	4·16	Gopalpur.

* Uncorrected for scale error. ‖ Mean of 23 days. ¶ Mean of 24 days. Mean of 23 days (a) Indeterminate.

Tab

(2) *Abstract of observations taken at 8 hrs. at 239 statio*

Number of subdivision.	Station.	Elevation of bar-cistern above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° Lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
	Bay Islands.																						
1	P. V. Fraser	8	30·087		30·011	30·182	22nd	29·790	5th	·392	74·3												
	Car Nicobar	25	29·885		29·837	29·919	9th & 21st.	29·769	31st	·150	80·3	84·5		76·0		80·3		8·5	86·5	17th & 25th.	73·3	2nd, 12th & 13th.	13
	Port Blair	58	29·930	+·006	29·918	30·023	28th	29·839	4th	·184	79·2	84·8	−0·9	75·8	−0·9	80·3	−0·9	9·0	86·7	7th, 21st & 29th.	70·0	14th	16
	Slipper Island	90	29·915		29·940	30·006	28th	29·815	6th	·191	79·4	83·6		76·0		79·8		7·6	86·6	11th & 12th.	72·1	26th	14
	Kashmir.																						
14	Srinagar	5,204	25·020	−·024	24·991	25·179	21st	24·824	14th	·355	31·9	46·4	−1·4	29·6	+1·1	38·0	−0·1	16·8	58·1	1st	23·6	7th	34
	Gulmarg	*8,569*							Observations not available.														
	Sonemarg	*8,764*	21·868		21·836	22·011	2nd	21·669	14th	·322	21·0	41·2		16·4		28·8		24·8	59·4	1st	2·1	19th	57
	Dras	*10,059*	20·810	−·037	20·778	20·997	1st	20·598	15th	·399	7·3	27·0	−0·7	−2·1	−3·4	12·5	−2·1	29·1	39·9	6th	−27·0	21st & 22nd.	66
	Leh	11,503	19·707	−·029	19·675	19·889	1st	19·529	15th	·360	16·1	37·6	+2·9	13·1	−0·1	25·4	+1·4	24·5	46·1	3rd	2·5	20th & 21st.	43
	Skardu	*7,505*	22·998	−·014	22·968	23·201	21st	22·716	15th	·485	26·0	41·4	−0·4	23·6	+0·9	32·5	+0·3	17·8	51·4	3rd	15·1	21st	36
	Minimarg	*9,359*									19·0	37·0		14·2 ††		25·6 ††		22·8	50·3	2nd	−1·5	21st	51
	Astor	*7,955*	22·548‖		22·518‖	22·698	21st	22·346	13th	·352	24·0	42·7		21·9		36·4		20·8	65·9	1st	17·0	2nd & 4th.	48
	Gilgit	4,890	25·275		25·248	25·514	21st	25·008	15th	·506	36·6	49·5	+0·3	33·3	−1·2	41·4	−0·5	16·2	59·7	1st	25·2	20th & 21st.	34
	Baluchistan.																						
16	Quetta	5,502	24·720	−·026	24·680	24·843	29th	24·566	14th	·277	34·6	53·8	−2·8	26·6	−3·1	40·2	−2·9	27·2	64·1	8th	21·5	1st & 26th.	42
	Chaman	4,311	25·806	−·019	25·768	25·951	29th	25·667	14th	·284	43·3	56·5	−2·1	37·3	−2·3	46·9	−2·2	19·2	68·3	11th	31·7	26th	36
	Robat		27·020		26·978	27·165	18th	26·873	7th	·292	48·4	64·2		43·3		53·7		20·9	76·5	3rd	26·8	20th	49
	Hill Stations, excluding Kashmir and baluchistan.																						
	Chitral	*5,486*									32·6	52·3		29·4		40·9		22·9	67·1	1st	25·3	20th	41
	Para Chinar	6,000	24·522		24·489	24·657	29th	24·293	14th	·364	41·9	54·2		32·2		43·2		22·0	65·3	1st	28·2	16th & 26th.	37
	Cherat	*4,256*	25·833	+·009	25·801	25·953	17th	25·667	14th	·286	45·8	53·7†	−1·8†	41·2	−1·4	47·5†	−1·6	12·5	62·7	1st & 3rd	29·5	17th	33
	Murree	6,333	23·906	−·011	23·874	24·012	21st	23·744	14th	·268	41·3	48·1	−4·7	38·5‡	−0·5‡	43·0‡	−2·6	9·6	59·1	11th	29·0	25th	30
	Kailang	*10,087*							Observations not recorded.														
	Simla	7,232	23·157	−·001	23·119	23·267	2nd	23·045	14th	·222	40·5	43·9	−0·5	38·4	−0·7	43·7	−0·6	10·5	55·9	4th & 9th	31·2	26th	24
	Sarain		23·201		23·163	23·311	1st	23·103	6th	·208	30·3	47·8		28·4		38·1		19·4	57·0	8th	20·3	19th	36
	Kalabagh								Observations not recorded.														
	Chakrata	7,022	23·337	−·001	23·297	23·456	1st	23·242	6th	·214	40·9	53·9	−1·0	37·3	−2·0	45·6	−1·5	16·6	63·3	3rd	30·7	15th	32
	Muktesar	7,592	22·880	−·013	22·839	22·987	1st	22·793	6th	·194	41·1	59·4	+5·4	36·1	−2·5	47·8	+1·5	23·3	68·5	4th, 9th & 10th.	28·0	27th	40
	Darjeeling	7,376	23·075§	0§	23·030§	23·182	25th	22·910	6th	·272	42·6	49·9	+1·2	37·5	+0·9	43·7	+1·1	12·4	60·3	3rd	31·2	18th	29
	Shillong	4,920	25·223‡		25·175‡	25·319	26th	25·056	6th	·263	47·9	61·5		41·1		51·3		20·4	67·9	2nd & 3rd	35·7	22nd, 30th & 31st.	32
	Cherra Poonjee	4,309	25·744		25·695	25·839	26th	25·574	6th	·265	55·0	63·1							71·7	3rd & 4th			
	Maymyo	3,545	26·539	+·031	26·484	26·635	28th	26·406	6th	·229	52·0	70·5	+1·0	45·6	+3·3	58·1	+2·1	24·9	79·4	3rd	37·6	31st	41
	Pachmarhi	3,528	26·571	−·008	26·518	26·658	29th	26·473	5th	·185	59·1	69·3	−1·0	50·1	+4·4	59·7	+1·7	19·2	75·0	26th	40·1	1st	34
	Mount Abu§	3,945	26·133	−·035	26·083	26·225	29th	26·027	13th	·198	57·6	65·4	−3·2	51·0	−1·9	58·2	−2·5	14·4	71·2	12th	42·9	16th	28
	Mercara	3,781	26·277	−·009	26·210	26·349	29th	26·165	4th	·184	62·5	77·0	+1·8	57·9	+0·1	67·4	+0·9	19·1	80·0	13th	54·0	26th	26
	Ootacamund	*7,327*	23·084		23·020	23·141	29th	22·990	4th	·151	54·3	64·2		43·1		53·6		21·1	68·0	4th	37·2	22nd, 27th & 28th	30
	Kodaikanal	7,388	22·845	−·017	22·780	22·889	24th	22·761	4th	·128	53·3	61·1	−0·8	46·8	−0·9	54·0	−0·9	14·3	66·0	25th	43·5	28th	23

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

NOTE.—The barometric readings are not reduced to sea level, in the cases of hill or plateau stations the elevations of which exceed 5,000 feet.

† Mean of 30 days.
‡ " " 28 "
§ " " 27 "
†† " " 9 "

B—*continued.*

in India, etc., in December, 1909—continued.

Wind direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage.	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st to 31st December, 1909.	Normal rainfall for period, 1st to 31st December.	Departure from normal of period, 1st to 31st December, 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																Bay Islands.
	13	14	2					2	N 25° E		?			87		71		·603		2·3		2			9·50			9·50			5·70	P. V. Fraser.
	15	10	1					5	N 11° E		5·4			87		79		·809		9·9		7			6·05			6·05			3·05	Car Nicobar.
7	3	9	5	6				1	N 69° E	N 55° E	7·3*	7·3	0	53	− 5	78	− 3	·736	−·033	4·9	−0·4	5			13·54	6·62	+6·92	13·54	6·62	+6·92	8·98	Port Blair.
2	3	15	10	1					N 59° E		9·2			79		77		·774		4·1		1			1·12			1·12			1·01	Slipper Island.
																																Kashmir.
15		1		7	4		2	2	S 18° E	S 42° E	1·8	2·6	−0·8	23	+ 4	85	− 4	·155	−·005	5·8	−0·2	3	3·50	−0·50	1·20	0·91	+0·29	1·20	0·91	+0·29	0·61	Srinagar.
																Observations not available.																Gulmarg.
20	1	4	3	3					N 77° E		2·2			27		91		·108		5·0		9			6·64			6·64			2·25	Sonemarg.
28								2	N 45° W		0·7			3		91	+ 4	·072†		5·3		8	6·60	+1·40	2·08	1·45	+ 0·63	2·08	1·45	+0·63	0·34	Dras.
22					6	2	1		S 18° W	S 22° W	2·6*	1·3	+1·3	23	+ 6	56†	− 2	·053	+·002	5·9	0	0	0·60	−0·60	0·03	0·19	− 0·16	0·03	0·19	−0·16	0·02	Leh.
23				2	1	5			S 19° W		2·4			20		80	−14	·114		7·1		1	1·10	−0·10	0·26	0·31	− 0·05	0·26	0·31	−0·05	0·12	Skardu.
14	1	5	7			2	1	1	N 62° E		5·6‖			27		69		·072		5·4		9			4·08			4·08			0·86	Minimarg.
21			4	4	2				S 54° E		1·8‖			27		54		·071		5·4		0			0·09?			0·09?			0·07	Astor.
26					1	2	2		S 54° W		1·2			10		56	− 5	·122	−·012	5·4	−1·0	0	0·80	−0·80	0·06	0·09	− 0·03	0·06	0·09	−0·03	0·05	Gilgit.
																																Baluchistan.
23					2	1			S 15° W	S 7° E	2·0	2·3	−0·3	10	+ 1	76	+ 2	·152	−·003	4·4	+1·2	3	4·00	−1·00	1·42	0·81	+ 0·61	1·42	0·81	+0·61	0·73	Quetta.
7		1	13	6	2		2		S 71° E	S 52° E	5·2	6·7	−1·5	56	−16	65	+10	·145	−·030	5·3	+1·8	3	3·10	−0·10	1·28	0·92	+0·36	1·28	0·92	+0·36	0·55	Chaman.
6		3	1			17	4		S 52° W		5·6			56		63		·212		3·4		3			1·60			1·60			1·10	Robat.
																																Hill Stations excluding Kashmir and Baluchistan.
																									0·84			0·84			0·34	Chitral.
30				1					S 45° E					3		79		·140		4·0		4										
30					1				S		3·1			3		65		·109		4·0		2	2·50	−0·50	0·94	0·79	+ 0·15	0·94	0·79	+0·15	0·64	Para Chinar.
7	11	1			1		3	8	N 26° W	N 13° W	8·5	13·2	−4·7	59	−16	44†	− 1	·128†	−·014	4·2	+0·5	3			5·44	1·00	+ 4·44	5·44	1·00	+4·44	3·87	Cherat.
7	3	1	4	12	2		1	1	S 62° E	S 84° E	5·7	7·1	−1·4	43	+14	50	+ 4	·124	+·003	5·4	+1·3	5	1·50	+3·50	3·18	1·14	+ 2·04	3·18	1·14	+2·04	0·93	Murree.
																Observations not recorded.																Kailang.
																49	+ 9	·118	+·012	4·2	+0·3	4	1·60	+2·40	1·91	1·23	+ 0·68	1·91	1·23	+0·68	1·00	Simla.
																84		·142		4·9		5			4·42			4·42			2·33	Sarain.
17					8	6			S 18° W		1·9			42																		Kalabagh.
																Observations not recorded.																Chakrata.
7	20	1			2	1			N	N 28° E	5·2	5·0	+0·2	58	+21	55	+ 6	·138	+·003	3·6	+0·6	4	2·40	+1·60	3·58	1·16	+ 2·42	3·58	1·16	+2·42	2·19	Mukteswar.
11		3	10	2	1		4		S 88° E		5·6			31		50	+ 8	·120		4·3		5			3·17	0·72	+ 2·45	3·17	0·72	+2·45	1·14	Darjeeling.
30						1			S 45° W	S 89° E	0·3	2·9	−2·6	3	−38	78	0	·218	+·021	5·5	+2·4	1	0·65	+0·35	0·49	0·23	+ 0·26	0·49	0·23	+0·26	0·27	Shillong.
28		1		2					S 72° E		1·5			7		80		·272		2·9		2	0·70	+1·30	0·35	0·28	+ 0·07	0·35	0·28	+0·07	0·20	Cherra Poonjee.
11	2	5	7	1		1	1	3	N 50° E		3·3			30		75		·320		1·8		3	3·90	−0·90	0·42	0·21	+0·21	0·42	0·21	+0·21	0·20	Maymyo.
27		2	1			1			N 66° E		1·4			7		93	+ 5	·376		1·8		1	0·80	+0·20	0·15	0·46	− 0·31	0·15	0·46	−0·31	0·15	Pachmarhi.
9			6	1	3	7	3	2	S 20° W	S 52° E	3·0	2·7	+0·3	27	+17	75	+16	·376	+·071	3·0	+1·1	5	1·00	+4·00	3·45	0·47	+ 2·98	3·45	0·47	+2·98	1·25	Mount Abu.
3	2	6	1	6	1	4	2	2	S 82° E	N 8° E	5·7	4·1	+1·6	12	− 2	50	+ 6	·235	+·010	3·5	+1·8	1	0·50	+0·50	0·18	0·21	− 0·03	0·18	0·21	−0·03	0·10	Mercara.
5	2	15	8	1					N 59° E	N 72° E	3·9	6·4	−2·5	72	−11	88	+ 8	·491	+·044	3·7	−1·1	1	1·00	0	0·32	0·51	− 0·19	0·32	0·51	−0·19	0·28	Ootacamund.
8	1	1	5	11	3	1	1		S 50° E		3·5			53		68		·292		3·4		3	3·30	−0·30	0·88	1·65	− 0·77	0·88	1·65	−0·77	0·56	Kodaikanal.
1	4	5	9	7	1			4	N 73° E		10·9*			53		72	+ 8	·278		3·8		4	8·10	−4·10	1·32	5·12	− 3·80	1·32	5·12	−3·80	0·51	Kodaikanal.

* Uncorrected for scale error.

‖ Mean of 29 days.

Tal

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

Number of subdivision	Station.	Elevation of barometer above sea-level, in feet.	Pressure, 8 hrs., in inches. Mean 8 hrs. pressure reduced to 32°.	Departure from normal.	Mean 8 hrs. pressure reduced to sea-level and to constant gravity, at 45° lat.	Highest pressure recorded during month.	Date.	Lowest pressure recorded during month.	Date.	Total range of pressure during month.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
	Extra India.																					
	Singapore (a)	10	29·893		29·824	29·962	4 days	29·814	6th & 12th	·148	81·3	89·2		70·1		79·7		19·1	90·0	11 days	70·0	27 days
	Penang (a)	20	29·949		29·894	30·010	25th	29·882	6th	·128	81·1	85·9		73·4		79·7		12·5	91·0	2nd	72·0	25th
	Trincomalee	12	29·985	+·020	29·923	30·046	29th	29·867	4th	·179	75·6	84·4	+1·9	74·4	−0·1	79·4	+0·9	10·0	88·0	5th	72·0	11th & 14th.
	Colombo	40	29·926	−·007	29·893	29·989	29th	29·830	5th	·159	73·0	86·5	−0·4	72·1	−0·9	79·3	−0·7	14·4	89·0	20th	70·0	16th & 29th.
	Minicoy	7	29·875			30·045	24th	29·877	4th	·168												
	Amini Divi	*13*	29·971	−·025	29·912	30·040	29th	29·862	4th	·178	81·2	87·0	+2·1	74·0	+0·2	80·5	+1·2	13·0	89·2	2nd	68·2	4th
	Gyantse	13,120	17·012		16·973	17·032	5th	16·991	12th	·041	19·8	42·0		6·6		24·3		35·4	49·3	15th	−1·3	3rd
	Pharijong	14,400	15·778‖		15·737‖	15·898	3rd	15·693	31st	·205	12·5	42·4		−3·9		19·3		46·3	62·8	9th	−13·0	22nd
	Gangtok	5,660?	24·534		24·489	24·637	1st	24·386	7th	·251	49·2	60·7		42·0		51·4		18·7	68·6	3rd	37·2	27th
	Gartok	14,140									7·9	27·0		−1·6		12·7		28·6	38·3	3rd	−18·9	22nd
	Kashgar (c)	4,255	25·746			25·970	19th	25·530	7th	·440	22·4	42·8	+6·3	17·8	+1·4	30·4	+3·9	25·0	59·0	31st	11·6	25th
	Kabul		24·357		24·326	24·475	2nd	24·142	14th	·333	31·3	52·7	−2·2	26·0	−1·7	39·4	−1·9	26·7	66·2	1st & 3rd	21·9	6 days
	Meshed	3,104	26·850		26·828	27·131	2nd	26·726	6th	·405	33·7	53·9		23·1	−7·8	38·5		30·8	68·7	5th & 6th	7·8	17th
	Jask	13	30·059	−·065	30·029	30·201	18th	29·900	23rd	·301	65·7	76·3	−1·7	63·6	−0·2	70·0	−0·9	12·7	82·3	3rd	58·3	27th
	Muscat	20	30·079	−·038	30·047	30·219	29th	29·945	23rd	·274	71·3	80·3	+4·9	69·0	−1·7	74·7	+1·6	11·3	86·8	24th	64·1	9th
	Bahrein	18	30·119		30·090	30·277	29th	29·966	5th	·311	64·4	68·7		61·3		65·0		7·4	75·9	3rd	51·0	30th
	Bushire	14	30·076	−·058	30·049	30·232	29th	29·902	5th	·330	58·3	68·0	−1·2	55·6	+0·2	61·8	−0·5	12·4	81·8	3rd	49·5	14th
	Busrah	25	30·134		30·119	30·259	29th	29·970	6th	·289	57·1	64·4		49·8		57·2		14·6	75·0	5th	42·1	25th
	Kerman										33·6	56·3		27·3		43·3		32·0	72·4	6th	19·5	14th
	Ispahan (b) (h)	*5,817*	24·284			24·455	2nd	24·150	6th	·305	39·8	52·8	+0·5	29·5†	+0·3	41·2†	+0·4	23·0	63·4	3rd	22·2	13th
	Tehran (b) (h)	*4,002*	25·937			26·125	18th	25·750	6th	·375	33·0	54·8	+3·5	36·2	+2·3	45·5	+2·9	18·6	66·5	4th & 5th	28·7	14th
	Baghdad	127	29·988	−·023	30·097	30·102	21st	29·724	5th	·378	47·3	65·5	+2·1	45·4†	+2·5†	55·6†	+2·3	20·1	78·5	2nd	31·5	25th
	Beirut ‡	111			30·022						61·1	68·0		56·6		62·3		11·4	75·7	2nd	49·8	30th
	Aden	94	29·967	−·028	29·994	30·017	22nd	29·889	5th	·128	76·8	81·0	−0·8	74·1	+1·1	77·6	+0·1	6·9	84·3	4th	70·4	4th
	Perim	201	29·786	−·058	29·925	29·880	23rd	29·692	5th	·188	78·2	83·9	−0·4	74·9	+0·4	79·5	0	9·0	85·7	7th	72·0	28th
	Zanzibar	72	29·935	+·005	29·934	30·000	19th	29·890	5th	·110	80·2	84·0	−1·8	77·0	−2·5	80·5	−2·1	7·0	88·3	27th	73·1	1st

N.B.—The elevations in italics indicate barometrical determinations.

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

(a) 9 hrs. observations. (b) Aneroid uncorrected.

† 8½ ,, ,, (c) Aneroid corrected.

(h) 7 ,, ,, ‡ Mean of 30 days.

‖ ,, ,, 29 ,,

B—*concluded.*

at 239 stations in India, etc., in December, 1909—concluded.

Wind direction. Number of winds from: Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction	Normal direction	Wind velocity. Mean velocity, miles per hour.	Normal.	Departure from normal.	Wind steadiness. Actual percentage	Departure from normal.	Hygrometry, 8 hrs. Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Cloud. Mean cloud amount at 8 hrs.	Departure from normal.	Rainfall. Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st to 31st December, 1909.	Normal rainfall for period, 1st to 31st December.	Departure from normal of period, 1st to 31st December, 1909.	Heaviest rainfall during month.	Station.
25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
																																Extra India.
	15	6	1				1	8	N 3° W		10·3*			82						0		4			2·38			2·38			1·08	Singapore.
10	9	9						3	N 14° E					59						5·8		19			10·82			10·82			1·95	Penang.
15	5	4	2		2	2	1		N 29° E	N 23° E	1·6*	7·2	−5·6	17	−22	92	+ 6	·818	−·013	5·2	+0·3	15			7·52	15·90	−8·38	7·52	15·90	− 8·38	1·17	Trincomalee.
1	2	20	4				3	1	N 40° E	N 33° E	6·8*	8·3	−1·5	69	− 9	96	+19	·784	−·017	5·3	+0·9	4			2·04	6·79	−4·75	2·04	6·79	− 4·75	1·27	Colombo.
	11	12	4	1				3	N 28° E	N 42° E	3·6	6·2	−2·6	78	+18			·749		2·8	−0·5	2			1·27	4·66	−3·39	1·27	4·66	− 3·39	1·11	Minicoy.
4	14	9						4	N 7° E		6·5			74		71				2·3		2			0·74	0·32	+0·42	0·74	0·32	+0·42	0·53	Amini Divi.
26			1	3		1			S 34° E		16·5			13		75†		·035†				0			0			0			0	Gyantse.
	15	5	3	1	3	1		3	N 14° E		3·3			55		83		·069		0·9		0			0			0			0	Pharijong.
27		2	1		1				N 78° E		1·8			6		80		·282		2·7		2			0·58			0·58			0·26	Gangtok.
17	1			12	1				S 45° E		7·5			42						4·4		0			0			0			0	Gartok.
31									(a)	N 8° W						?		?		2·3		0			0	0·19	−0·19	0	0·19	− 0·19	0	Kashgar.
	5	3	3			1	5	14	N 34° W	S 56° W				61	+51	71		·127		4·3	+1·1	1			0·24	0·29	−0·05	0·24	0·29	− 0·05	0·20	Kabul.
22		5		1				3	N 22° E		0·8			19		74		·145		4·8		2			0·88	0·70	+0·18	0·88	0·70	+ 0·18	0·47	Meshed.
	22	1	6					2	N 13° E	N 23° E	10·8	10·3	+0·5	82	+ 9	79	+ 9	·503	+·015	4·0	+1·6	6			4·72	0·78	+3·94	4·72	0·78	+ 3·94	1·78	Jask.
18			1				7	6	N 69° W	S 74° W	4·9	4·0	+0·9	37	0	66	− 2	·506	−·043	3·7	+1·7	4			2·14	0·26	+1·88	2·14	0·26	+ 1·88	1·00	Muscat.
	2	5	2	1	1	2	9	9	N 81° W		7·9			45		78		·483		3·8		5			3·57			3·57			1·58	Bahrein.
5	5	6	4	2		1		8	N 15° E	N 63° E	7·8	6·5	+1·3	43	−15	81	+ 7	·398	+·018	4·5	+2·2	8			8·26	3·24	+5·02	8·26	3·24	+ 5·02	5·23	Bushire.
1		1		2	4	1	19	3	S 81° W		3·5			65		68		·324		2·7		2			0·53			0·53			0·31	Busrah.
	7	1		1	5	9	4	4	S 81° W		2·9			39		74		·142		2·0												Kerman.
23				2		1	4	1	S 76° W	S 85° W	2·5‖	2·6	−0·1	13	−28	79†	− 2	·140†	−·025	1·6	−2·2	1	1·40	−0·40	0·23	0·54	−0·31	0·23	0·54	−0·31	0·18	Ispahan.
11	10	9				1			N 21° E	N 11° E	2·0	2·7	−0·7	55	+21	65	+ 1	·153	−·004	3·5	−0·1	1	3·10	−2·10	0·25	1·37	−1·12	0·25	1·37	−1·12	0·25	Tehran.
14	1	1	2	3	2		2	6	N 27° W	N 3° W	6·3	3·0	+3·3	6	−14	80	+ 2	·263	−·005	3·2	+1·2	3			0·77	1·64	−0·87	0·77	1·64	− 0·87	0·41	Baghdad.
	1	3	3	6	2	16			S 8° W					45		70		·380		5·9		7			6·82			6·82			2·33	Beirut.
1		30							N 45° E	N 76° E	15·8	12·9	+2·9	96	+24	75	+ 1	·690	+·035	4·8	−0·4	0			0	0·37	−0·37	0	0·37	− 0·37	0	Aden.
		1	5	25					S 54° E	S 82° E	19·9	19·3	+0·6	94	+ 7	75	+ 1	·722	+·022	3·7§	?	0			0·02	0·08	−0·06	0·02	0·08	− 0·06	0·02	Perim.
4	4	7	4	7	2	2	1		N 85° E	N 85° E	3·7	6·3	−2·6	39	− 2	63	+ 2	·860	−·012	5·9	+0·5	17			12·76	5·52	+7·24	12·76	5·52	+ 7·24	3·52	Zanzibar.

* Uncorrected for scale error. § Mean of 11 days. (a) Indeterminate.

Table C.—Abstract of observations taken at 8 hrs. at 31 fourth-class stations in India, etc., in December, 1909.

Table

Abstract of observations taken at 8 hrs.

Number of subdivision.	Station.	Temperature of air. Mean of 8 hrs. temperature.	Mean maximum.	Departure from normal.	Mean minimum.	Departure from normal.	Monthly mean of mean between maximum and minimum.	Departure from normal.	Mean daily range of temperature.	Highest temperature observed during month.	Date.	Lowest temperature observed during month.	Date.	Absolute range during month.	Wind direction. Number of winds from Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Resultant direction.	Normal direction.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
	II.—Eastern Bengal and Assam.																								
4	Bishnath	56·1	76·8	...	48·3	...	62·6	...	28·5	81·9	8th	42·7	29th	39·2	...	...	..	..	...	...	...	...	...	...	...
	Borjuli	57·6	77·2	...	49·4	...	63·3	...	27·8	81·8	2nd	43·2	29th	38·6	...	...	...	...	...	...	...	...	...	...	...
	Chandkhira	57·1	79·6	...	52·9	...	66·3	...	26·7	88·6	26th	44·9	23rd	43·7	...	...	...	...	...	...	...	...	...	...	...
	Doom Dooma	56·5	74·7	...	50·4	...	62·6	...	24·3	81·1	1st	44·4	31st	36·7	...	...	...	...	...	...	...	...	...	...	...
	Dikom	53·2	75·3	...	48·2	...	62·0	...	27·6	82·4	2nd	43·4	25th & 29th.	39·0	...	...	...	...	...	...	...	...	...	...	...
	Golaghat	59·6*	74·1	...	?	...	?	...	?	80·1	1st	?	...	?	...	...	...	...	...	...	...	...	...	...	...
	Hailakandi	58·3	79·2	...	54·9	...	67·1	...	24·3	85·0	3rd	49·0	23rd & 31st.	36·0	...	...	...	...	...	...	...	...	...	...	...
	Jorehat	58·6	74·7	...	51·9	...	63·3	...	22·8	80·4	1st	47·8	25th	32·6	...	...	...	...	...	...	...	...	...	...	...
	Messa	61·0	83·4	...	47·4	...	65·4	...	36·0	89·4	3rd	43·8	29th	45·6	...	...	...	...	...	...	...	...	...	...	...
	Panerihat	52·5	76·9	...	49·9	...	63·4	...	27·0	80·6	1st & 2nd.	45·0	23rd	35·6	...	...	...	...	...	...	...		...	...	...
	Srimangal	56·8	80·6	...	52·2	...	66·4	...	28·4	89·0	3rd	44·9	23rd	44·1	...	...	...	...	...	...	...	...	...	...	...
5	Brahmanbaria	65·8	80·2	...	56·0	...	68·1	..	24·2	85·6	3rd	50·7	23rd & 24th.	34·9	...	...	...	...	...	...	...	...	...	...	...
	Dam Dim	50·4	85·1	...	44·6	...	64·9	...	40·5	89·1	17th & 24th.	37·9	23rd	51·2	...	...	...	...	...	...	...	...	...	...	...
	Goalundo	62·5	76·8	...	53·6	...	65·2	...	23·2	85·4	4th	48·3	23rd & 31st.	37·1	..	...	...	...	...	...	...	...	...	...	...
	Kalaini	63·8	78·8	...	48·6	...	63·7	...	30·2	84·6	1st	42·4	22nd	42·2	...	...		...	...	...	...	...	...	...	...
	Nagarakata	58·3	78·4	...	51·7	...	65·1	...	26·7	85·1	2nd	43·0	6th	42·1	...	...	...	...	...	...	...	...	...	...	...
	Pabna	62·0	78·3	...	55·1	...	61·7	...	23·2	86·2	3rd	48·1	31st	38·1	..	...	...	...	...	...	...	...	...	...	...
	III.—Bengal.																								
6	Fraserganj				Observatory closed.																				
	XI.—Central Provinces.																								
24	Chhindwara	58·0	75·4	...	53·3	...	64·4	...	22·1	81·9	10th	47·5	8th	34·4	...	4	9	4	1	1	...	3	9	N 8° E	...
	Hill Stations.																								
	Panighatta	64·0	77·2	...	54·6	...	65·9	.	22·6	84·6	2nd	47·1	22nd	37·5	...	...	...	...	..	...	...	...	...	...	...
	Kurseong	51·2	60·1	...	48·0	...	54·1	..	12·1	70·9	3rd	44·1	31st	26·8	...	...	...	...	...	...	...	...	...	...	...
	Poo	...	43·5	...	20·5	...	32·0	..	23·0	57·0	3rd	10·0	31st	47·0	27	...	1	3	...	...	...	...	...	N 76° E	...
	Kargil	20·2	36·2	...	16·6	...	26·4	..	19·6	49·5	10th	4·9	22nd	44·6	...	3	1	5	14	1	...	1	6	S 73° E	...
	Killa Drosh	38·1	52·6	..	35·4	...	44·0	...	17·2	73·3	2nd	22·1	20th	51·2	25	...	6	...	...	...	...	...	...	N 45° E	...
	Pishin	...	55·7	...	28·7	...	42·2	...	27·0	67·3	11th	22·0	2nd	45·3	...	...	...	...	...	...	...	...	...	...	...
	Kalat	35·6†	52·4	−5·7	27·0	+2·9	39·8	−1·4	25·4	65·8	7th	16·9	2nd	48·9	...	3	...	...	...	28	...	...	...	N	...
	Extra India.																								
	Ahwaz	...	65·6	...	49·9	...	57·8	...	15·7	75·6	5th	40·8	13th	34·8	..	...	...	...	...	...	...	...	...	...	...
	Birjand ‡	37·5	51·9	...	32·9	...	42·5	...	19·0	61·1	1st	22·9	25th	38·2	...	...	9	1	...	...	...	...	...	N 49° E	...
	Chumbi	28·0†	47·0†	...	20·3	...	33·7	...	26·7	56·8	2nd	15·3	21st	41·5	...	...	...	...	...	...	...	...	...	...	...
	Kirmanshah	39·6	49·8	...	30·6	...	40·2	...	19·2	62·6	1st	21·8	25th	40·8	...	...	...	...	...	...	...	...	...	...	...
	Koweit	...	67·4	...	53·8	...	60·6	...	13·6	79·4	6th	45·7	25th & 28th.	33·7	...	2	...	...	4	3	...	7	15	N 65° W	
	Maidan	...	65·8	...	46·2	...	56·0	...	19·6	78·2	1st & 3rd	39·9	12th & 13th	38·3	...	...	...	...	...	...	...	...	...	...	...

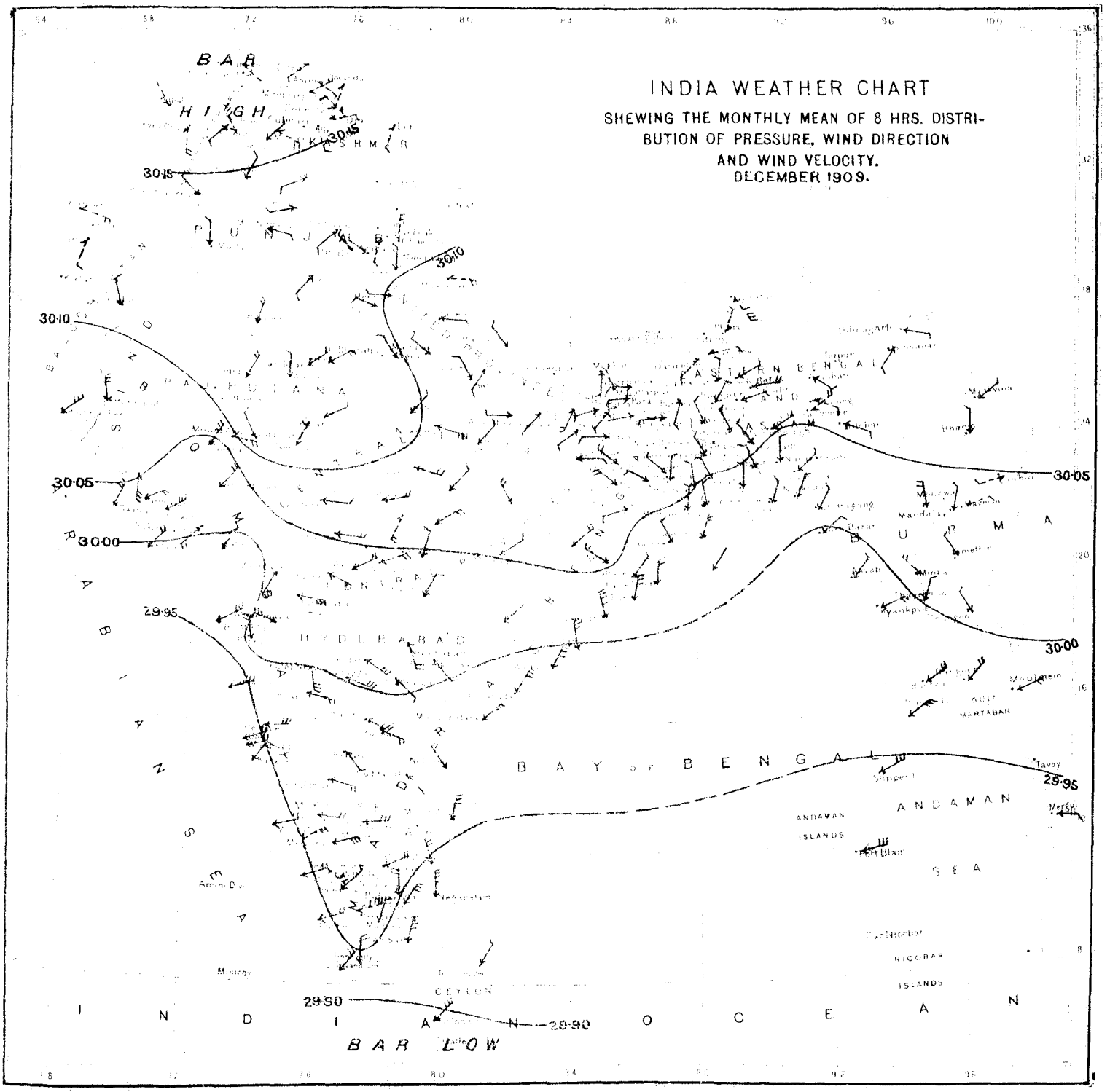
† Uncorrected for scale error. * Mean of 30 days. ‡ Observations of 20 days.

C.

at 21 fourth-class stations in India, etc., in December, 1909.

Wind velocity.			Wind steadiness.		Hygrometry, 8 hrs.				Cloud.		Rainfall.									Heaviest rainfall during month.	Station.
Mean velocity, miles per hour.	Normal.	Departure from normal.	Actual percentage.	Departure from normal.	Mean humidity at 8 hrs.	Departure from normal.	Mean vapour tension at 8 hrs. in inches of mercury.	Departure from normal in inches of mercury.	Mean cloud amount at 8 hrs.	Departure from normal.	Number of rainy days.	Normal number of rainy days.	Departure from normal.	Rainfall of month.	Normal rainfall of month.	Departure from normal.	Total rainfall from 1st to 31st December, 1909.	Normal rainfall for period, 1st to 31st, December.	Departure from normal of period, 1st to 31st December, 1909.		
27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
																					II.—Eastern Bengal and Assam.
..	...	..	.	.	91	...	·413	...	...	...	0	...	...	0·07	...	.	0·07	...	...	0·07	Bishnath.
...	...	...	...	...	88	...	·426	...	...	...	0	..	...	0·04	...	...	0·04	...	...	0·04	Borjuli.
...	...	..	...		97	...	·462	...	...	...	1	...	...	0·78	...	...	0·78	...	...	0·59	Chandkhira.
.	..	..	..	...	94	..	·427	...	...	...	1	...	...	0·15	...	...	0·15	...	...	0·11	Doom Dooma.
...	...	.	..	.	98	...	·398	...	...	.	0	...	...	0·02	...	...	0·02	...	...	0·02	Dikom.
...	.	...	...	...	89*	...	·465*	...	...	.	0	...	...	0·13	...	..	0·13	...	...	0·07	Golaghat.
...	...	...		.	94	...	·465	...	..	...	3	...	...	0·85	...	...	0·85	...	...	0·60	Hailakandi.
...	...	...	..	..	95	...	·465	...	..	...	0	...	...	0·02	...	...	0·02	...	...	0·02	Jorehat.
...	...	...	...	...	67	.	·370	...	...	...	1	...	..	0·10	...	..	0·10	...	...	0·10	Messa.
...	...	..	.	...	93	..	·377	..	...	...	0	...	...	0·17	...	...	0·17	...	...	0·09	Panerihat.
...	...	..	...	...	94	...	·445	...	...	...	3	...	...	0·84	...	...	0·84	.	...	0·47	Srimangal.
...	...	...	...	...	81	...	·512	...	...	...	2	...	...	0·62	...	..	0·62		...	0·50	Brahmanbaria.
...	...	..	...	...	99	...	·386	...	...	...	0	...	...	0·03	...	...	0·03	...	...	0·03	Dam Dim.
...	...	..	...	...	87	...	·494	...	...	...	2	...	...	0·45	...	...	0·45	...	...	0·30	Goalundo.
..	...	...	...	...	70	.	·427		...	..	0	...	...	0	...	...	0	...	...	0	Kalchini.
...	...	...	..	...	79	...	·385	...	...	...	0	..	..	0	...	...	0	...	...	0	Nagrakata.
...	...	...	..	.	81	..	·455	...	...	...	2	...	...	0·38	...	...	0·38	...	...	0·25	Pabna.
																					III.—Bengal.
											Observatory		closed.								Fraserganj.
																					XI.—Central Provinces.
3·4	...	...	59	...	82	..	·390		...	...	5	...	...	2·35	...	...	2·35	...	...	1·24	Chhindwara
																					Hill Stations.
.	...	...	...	...	61	...	·355	...	...	...	1	...	...	0·19	...	...	0·19	...	...	0·19	Panighatta.
.	...	...	...	...	69	...	·256	...	...	...	2	...	...	0·75	...	...	0·75	...	...	0·43	Kurseong.
.	...	..	13	...	...	...	...	...	5·0	...	2	...	..	0·46	1·05	−0·59	0·46	1·05	−0·59	0·19	Poo.
...	...	..	32	...	28	..	·034	...	5·9	...	1	...	...	0·32§	...	...	0·32§	...	...	0·10	Kargil.
...	...	...	19	...	67	...	·152	...	3·1	...	3	...	...	0·78	...	...	0·78	...	...	0·34	Killa Drosh.
...	...	...	...	..	..	.	...	...	4·5	.	5	2·70	+2·30	2·50	1·20	+1·30	2·50	1·20	+1·30	1·15	Pishin.
...	...	...	61	...	67	...	·144	...	...	...	6	2·70	+3·30	1·66	0·65	+1·01	1·66	0·65	+1·01	0·88	Kalat.
																					Extra India.
..	...	...	...	..	...	...	...	...	2·1	...	2	...	...	2·40	...	...	2·40	...	...	1·49	Ahwaz.
6·0‖	...	...	90	...	65	...	·144	...	3·9	...	1	...		0·25	...	...	0·25	...	...	0·25	Birjand.¶
...	...	...	...	...	78	...	·120		...	...	4	...	...	0·58§	...	...	0·58§	...	...	0·15	Chumbi.
...	...	...	...	...	74	...	·184	...	...	...	5	...	...	1·88	...	...	1·88	...	...	0·54	Kirmanshah.
...	...	...	52	...	...	...	...	...	3·9	...	2	...	...	0·65	...	...	0·65	...	...	0·38	Koweit.
..	..	...	...	..	...	...		...	...	...	5	...	...	2·24	...	...	2·24	...	...	0·70	Maidan.

¶ Wind observations for 10 days. § Snow water with rain. ‖ Mean of 8 days.

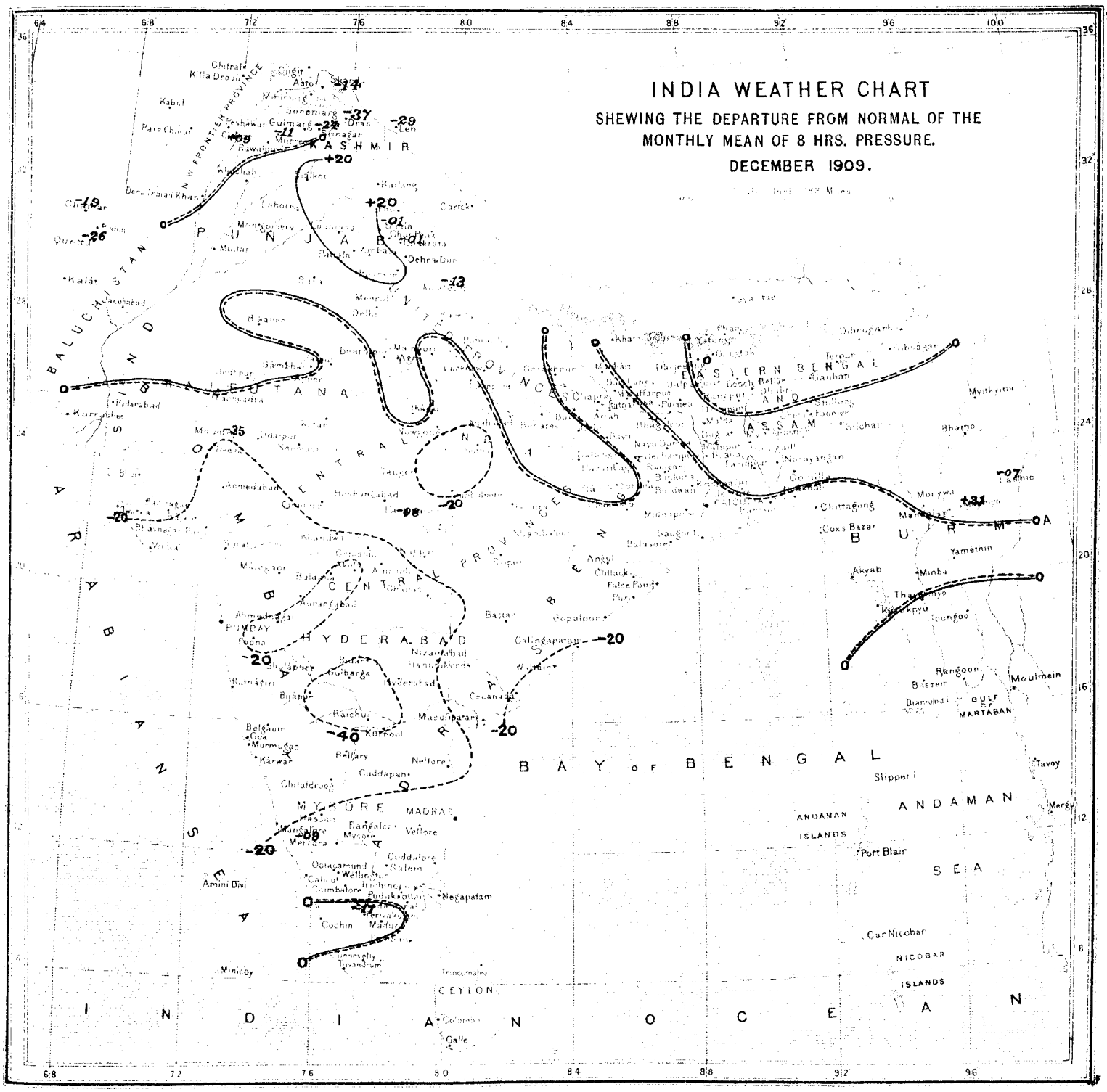


S. C. D.

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

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

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



Reg. No. 4,103 E., 09—1.—5,500.

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

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

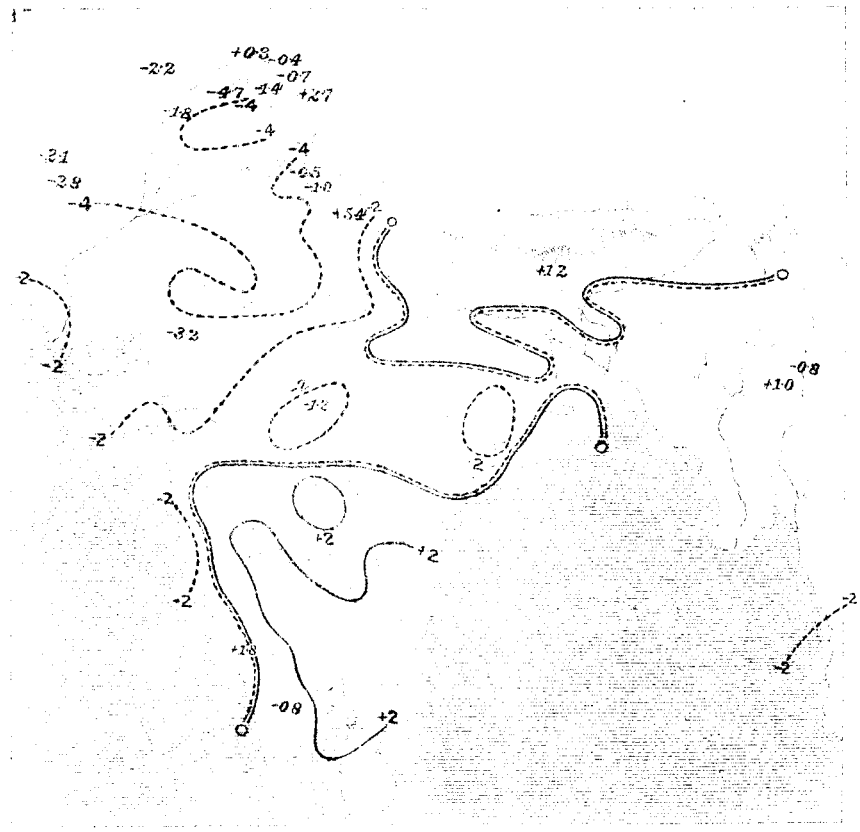


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MINIMUM TEMPERATURE.

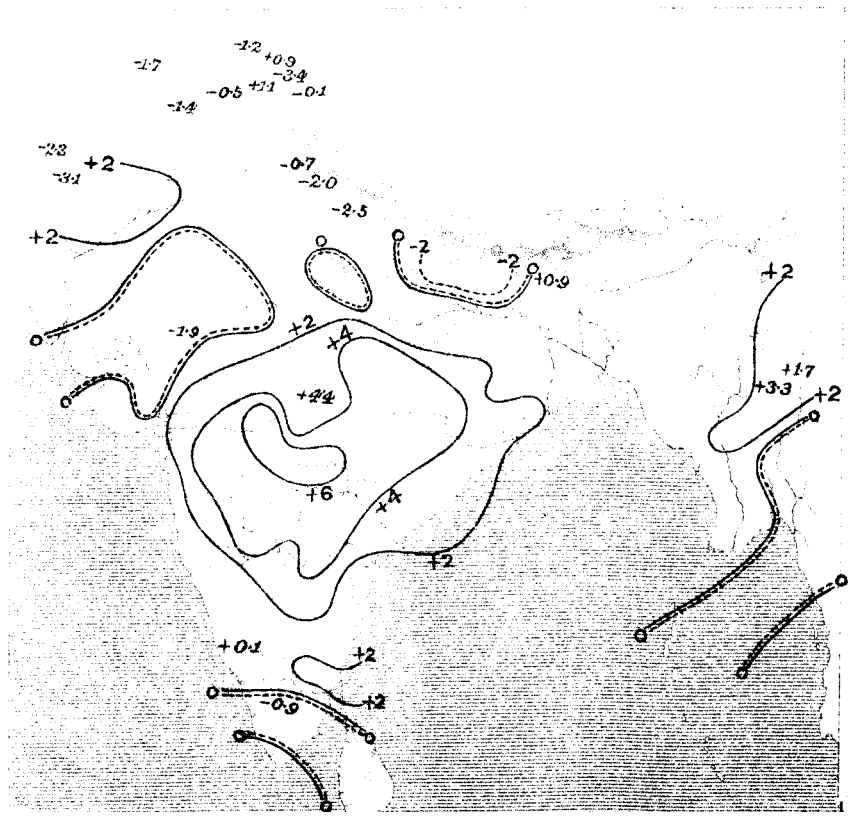


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF DAILY MEAN TEMPERATURE.

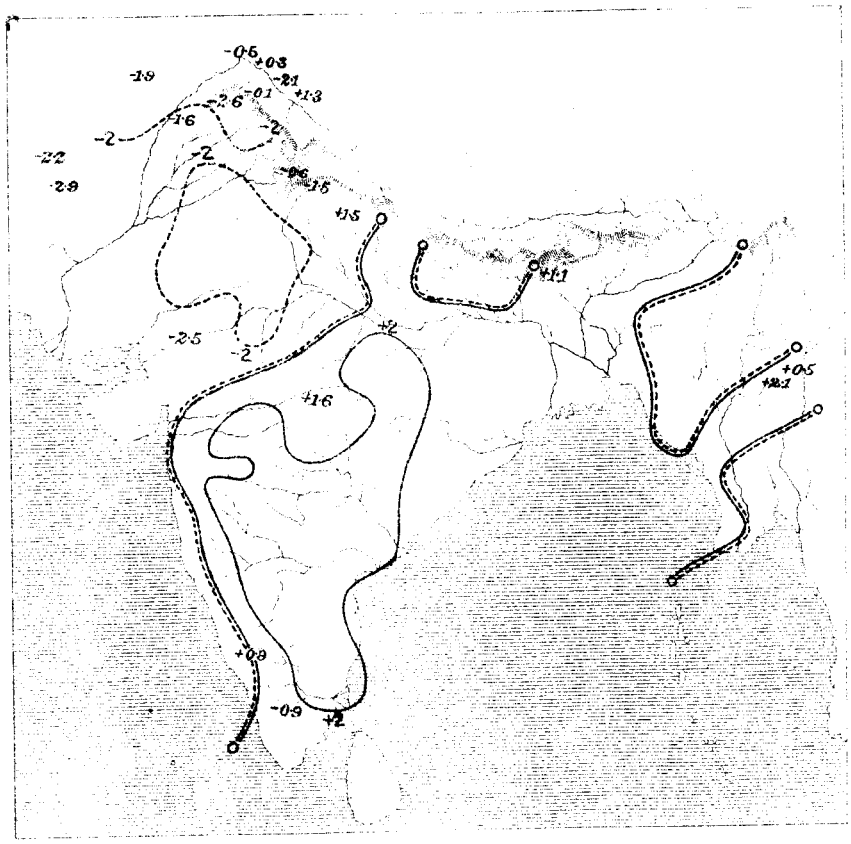


CHART SHEWING THE MONTHLY MEAN OF PRESSURE AND RESULTANT WIND DIRECTION.

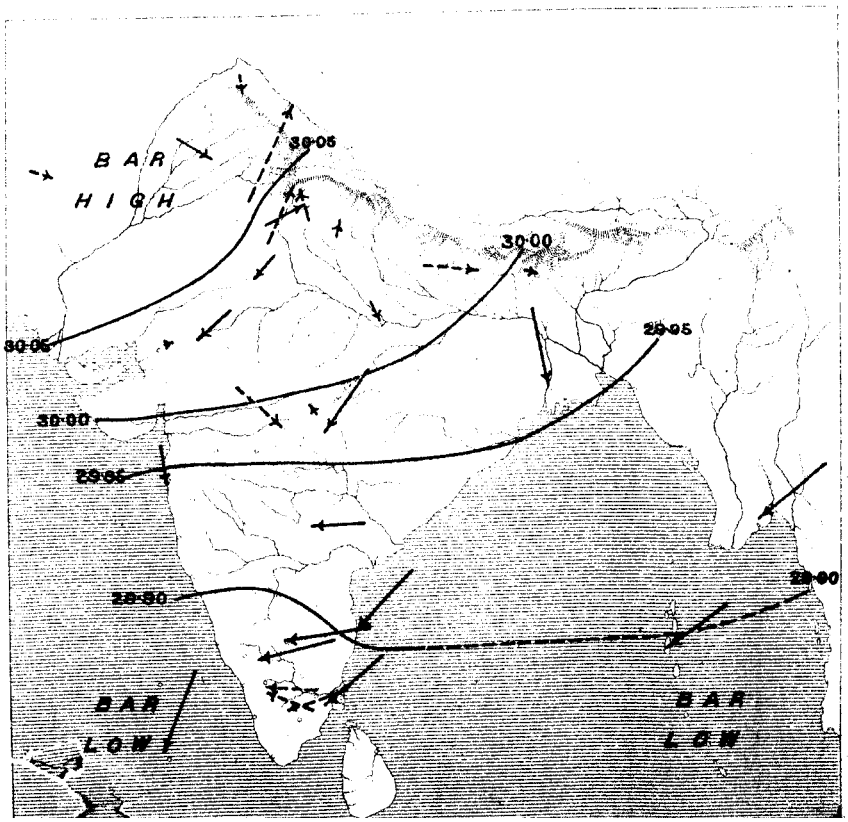


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF ABSOLUTE HUMIDITY AT 8 HRS.

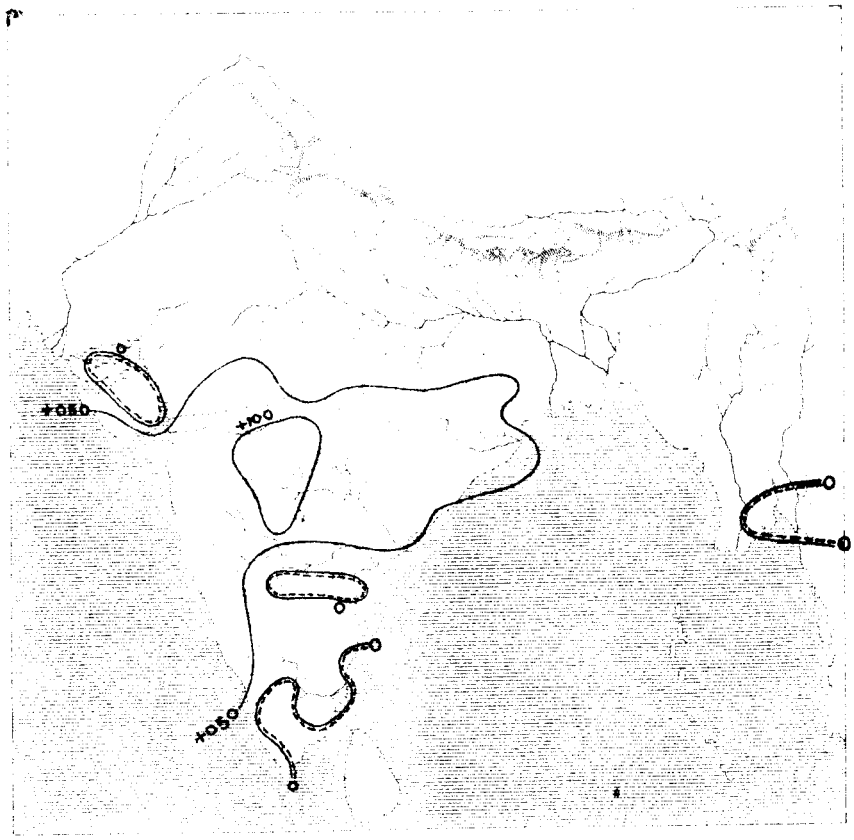


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF RELATIVE HUMIDITY AT 8 HRS.

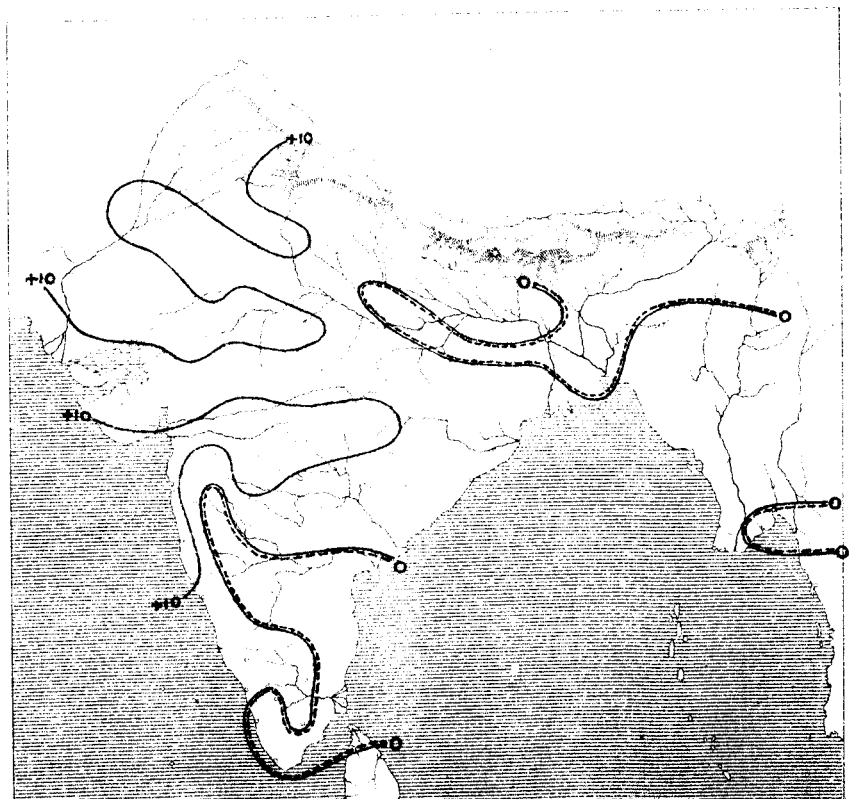
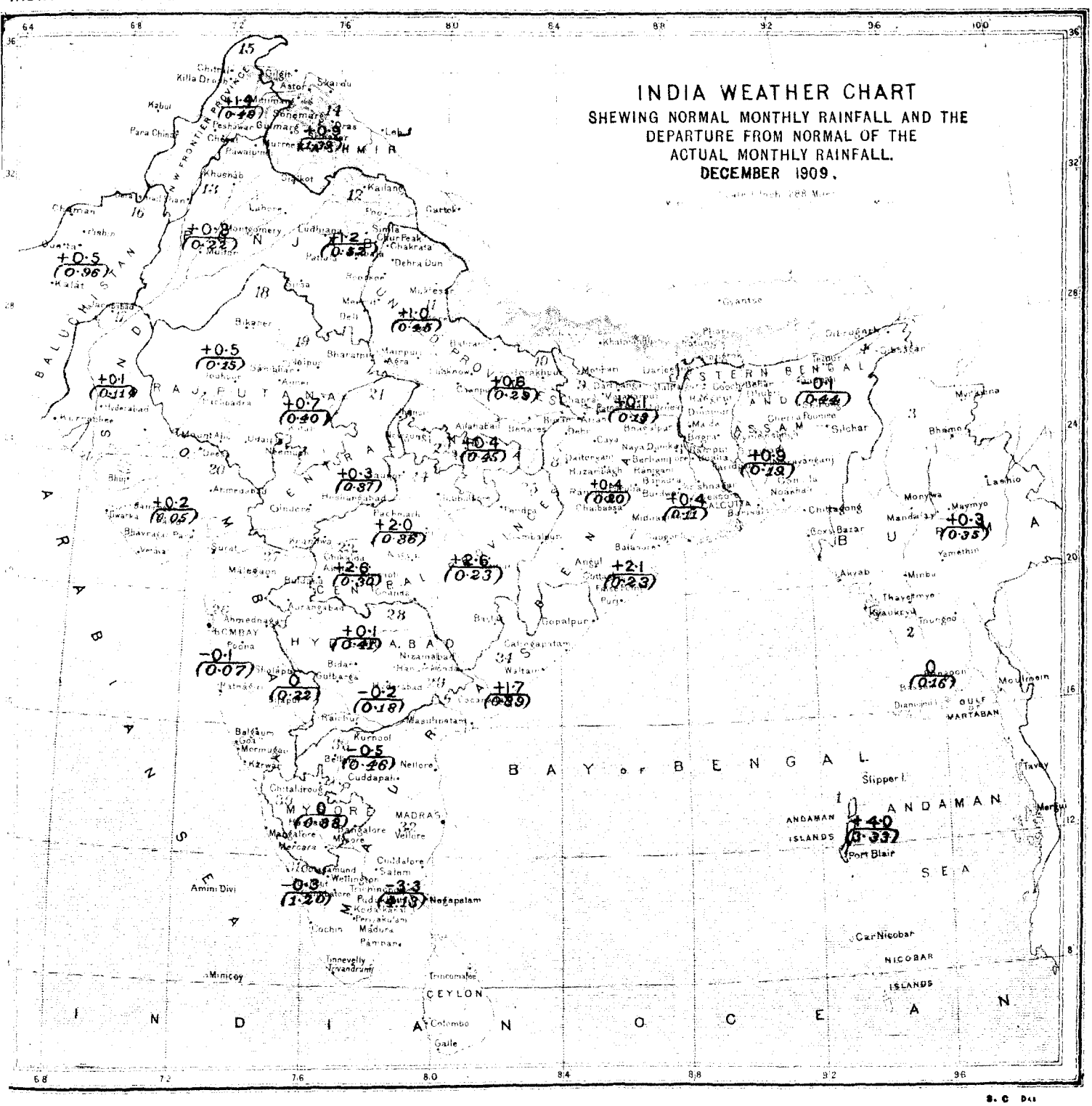


CHART SHEWING THE DEPARTURE FROM NORMAL OF THE MONTHLY MEAN OF CLOUD AMOUNT AT 8 HRS.

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

(BASED ON THE RETURNS OF TABLE B.)



Reg. No. 4003 E. (9—1.—5500.)

The country is divided into 34 areas as shown in the list below. The numbers in that list correspond with the red numbers on the chart, and serve to identify the areas. The numbers in brackets on the chart give the average over the divisions of the normal monthly rainfall; the numbers above these give the departures from normal of the average actual rainfall over the divisions.

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