GOVERNMENT OF INDIA

India. METEOROLOGICAL DEPARTMENT.

INDIA WEATHER REVIEW, 1949

INTRODUCTION

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Under the Direction of

S. Basu, M.Sc.

Director General of Observatories

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(*iv*) 2330 hrs. I.S.T. observation was introduced at all fulltime observer stations and at restricted part-time stations.

(*v*) 1230 hrs. I.S.T. observation was discontinued from the 1st June 1949.

The Indian Standard Time (I.S.T.) corresponds to the longitude of 82° 30′E and is therefore 5 hours 30 mins. in advance of the Greenwich Mean Time.

At all observatories of this department, 4 ft. above ground level has been adopted as the standard height for the bottom of the Stevenson Screen, so that the bulbs of the dry and wet bulb thermometers are at a height of 4¼ to 4½ ft. above ground. A standard height of 1 ft. above ground has been adopted for the rim of the funnel of the raingauge.

As the wind vane is generally fixed at about the same height as the anemomenter, its height is not separately given.

Alphabetical List of Stations

Station	Class	φ		λ		H_b	h_a
		°	′	°	′	ft.	ft.
		N		E			
Abu	II	24	36	72	43	3,945	63
Agra	II	27	10	78	02	553	39
Ahmedabad	II	23	02	72	35	163	51
Ahmednagar	II	19	05	74	55	2,154	39
Aijal	II	23	44	92	43	3,599	26
Ajmer	II	26	27	74	37	1,593	45
Akola	II	20	42	77	02	925	43
Alibag	III	18	38	72	52	23	74
Aligarh	II	27	53	78	04	615	46
Allahabad (Bamrauli)	I	25	27	81	44	322	19
Alleppey	II	09	33	76	25	12	37
Ambala	II	30	23	76	46	892	41
Amini Divi	III	11	07	72	44	13	27
Amraoti	II	20	56	77	47	1,213	26
Amritsar	II	31	38	74	52	763	8
Anantapur	II	14	41	77	37	1,147	49
Angul	II	20	50	85	06	455	25
Arogyavaram	II	13	32	78	30	2,299	35
Arrah	V	25	34	84	40	..	..
Asansol	II	23	41	86	59	414	33
Aurangabad	II	19	53	75	20	1,905	35
Bahraich	II	27	34	81	36	407	37
Balasore	II	21	30	86	56	65	26
Balehonnur	IV	13	22	75	27	..	..
Banaras	II	25	18	83	01	250	81
Bangalore	I	12	58	77	35	3,021	55
Bankura	V	23	14	87	04	..	..
Bareilly	II	28	22	79	24	568	41
Barmer	II	25	45	71	23	638	22
Baroda	I	22	18	73	15	115	42
Belgaum	II	15	51	74	31	2,562	42
Bellary	II	15	09	76	51	1,473	30
Berhampore	II	24	08	88	16	62	25
Betul	II	20	52	77	56	2,144	32
Bhavnagar	II	21	45	72	12	55	27
Bhopal	II	23	16	77	25	1,643	32
Bhuj	II	23	15	69	48	343	30
Bidar	II	17	55	77	32	2,178	36
Bijapur	II	16	49	75	43	1,950	35
Bikaner	II	28	00	73	18	734	34
Bombay	I	18	54	72	49	35	58
Buldhana	II	20	32	76	14	2,133	30
Burdwan	II	23	14	87	51	106	53
Calcutta (Alipore)	I	22	32	88	20	21	56
Calicut	II	11	15	75	47	27	43
Calingapatam	II	18	20	84	08	19	33
Cawnpore	II	26	26	80	22	414	43
Chaibasa	II	22	33	85	49	742	28
Champa	II	22	02	82	42	805	52
Chanda	II	19	58	79	18	634	17
Chandbali	II	20	47	86	44	20	32
Chapra	V	25	47	84	44	..	..
Cherrapunji	II	25	15	91	44	4,309	38
Chitaldrug	II	14	14	76	26	2,405	26
Cocanada	II	16	57	82	14	26	30
Cochin	II	09	58	76	14	10	32
Coimbatore	II	11	00	76	58	1,341	44
Colombo	I	06	54	79	52	24	..
Contai	II	21	47	87	45	35	26
Cooch Behar*	V	26	20	89	27	145	..
Coonoor	III	11	21	76	48	5,730	26
Cuddalore	II	11	46	79	46	39	56
Cuddapah	II	14	29	78	50	428	30
Cuttack	II	20	29	85	52	87	37
Dahanu	II	19	58	72	43	15	35
Dalhousie	V	33	22	75	58	..	..
Daltonganj	II	24	03	84	04	725	28
Darbhanga	II	26	10	85	54	161	28
Darjiling	II	27	03	88	16	7,432	18
Deesa	II	24	14	72	12	466	62
Dehra Dun	II	30	19	78	02	2,239	36
Dehri	II	24	55	84	11	352	26
Devgad	II	16	23	73	21	117	25
Dhanbad	III	23	47	86	26	839	50
Dharampore	V	30	54	77	01	..	..
Dhubri	II	26	01	89	59	115	32
Dibrugarh	II	27	28	94	55	348	25

* Converted to Class II from May 1949.

Station	Class	φ		λ		H_b	h_a
		° N	′	° E	′	ft.	ft.
Dohad	II	22	50	74	16	1,093	41
Dras	II	34	26	75	46	..	..
Dum Dum	II	22	39	88	27	33	50
Dwarka	II	22	22	69	05	37	19
Fatehpur	II	25	56	80	50	375	39
Gadag	II	15	25	75	38	2,131	32
Gauhati	II	26	11	91	45	182	28
Gaya	II	24	45	84	57	365	19
Gilgit	II	35	55	74	23	4,890	25
Gonda	II	27	08	81	58	360	32
Gondia	II	21	28	80	12	1,026	31
Gopalpur	II	19	16	84	53	56	27
Gorakhpur	II	26	45	83	22	254	31
Gulbarga	II	17	21	76	51	1,503	36
Gulmarg	III	34	03	74	24	8,709	20
Guna	II	24	39	77	19	1,571	23
Gurez	V	34	40	74	50	..	..
Gwalior	II	26	14	78	15	681	6
Hambantota	II	06	07	81	08	61	..
Hanamkonda	II	18	01	79	34	881	38
Harnai	II	17	49	73	06	66	5
Hassan	II	13	00	76	09	3,149	41
Hazaribagh	II	23	59	85	22	2,006	63
Hissar	II	29	10	75	44	725	42
Honavar	II	14	17	74	27	85	31
Hoshangabad	II	22	46	77	46	992	35
Hyderabad (Begumpet)	I	17	26	78	27	1,778	49
Indore	II	22	43	75	54	1,839	8
Jagdalpur	II	19	05	82	02	1,815	35
Jaipur	I	26	55	75	50	1,431	61
Jaisalmer	II	26	54	70	55	793	34
Jalgaon	II	21	03	75	34	660	10
Jalpaiguri	II	26	32	88	43	271	32
Jammu	IV	32	44	74	55	..	..
Jamnagar	III	22	29	70	04	60	38
Jamshedpur	II	22	49	86	11	423	50
Jhalawar	II	24	32	76	10	1,053	28
Jhansi	II	25	27	78	35	823	37
Jodhpur	I	26	18	73	01	736	20
Jubbulpore	II	23	10	79	57	1,289	36
Kalimpong	II	27	04	88	28	3,965	22
Kanker	II	20	16	81	29	1,318	40
Kargil	IV	34	34	76	08	..	..
Katmandu	II	27	42	85	12	4,388	24
Khammameth	II	17	15	80	09	367	29
Khandala	V	18	46	73	22	..	..
Khandwa	II	21	50	76	22	1,044	21
Kodaikanal	I	10	14	77	28	7,688	42
Kolhapur	II	16	42	74	14	1,885	35
Kotah	II	25	11	75	51	843	31
Krishnagar	II	23	24	88	31	48	45
Kurnool	II	15	50	78	04	923	49
Kyelang	V	32	35	77	04	..	..
Lachung	V	27	42	88	45	..	..
Leh	II	34	09	77	34	11,529	25
Lhasa	III	29	40	91	07	12,090	37
Lucknow	II	26	52	80	56	371	31
Ludhiana	II	30	56	75	52	810	30
Lumding	IV	25	45	93	11	..	..
Madhosagar	II	26	13	78	00	757	23
Madras	I	13	04	80	15	51	77
Madura	II	09	55	78	07	437	38
Mahabaleshwar	II	17	56	73	40	4,534	28
Mainpuri	II	27	14	79	03	516	28
Malda	II	25	02	88	08	103	51
Malegaon	II	20	33	74	32	1,432	25
Mangalore	II	12	52	74	51	72	54
Mannar	..	08	59	79	55	12	16
Marmagao	II	15	25	73	47	202	25
Masulipatam	II	16	11	81	08	10	35
Mawsynram	V	25	18	91	35	..	..
Meerut	III	29	01	77	43	728	47
Mercara	II	12	25	75	44	3,781	18
Midnapore	II	22	25	87	19	149	28
Minicoy	II	08	18	73	00	6	48
Miraj	II	16	49	74	41	1,817	32
Misgar	II	36	47	74	46	10,190	21
Motihari	II	26	40	84	55	218	30
Muktesar	II	29	28	79	39	7,592	14
Mussooree	II	30	27	78	05	6,699	25
Muzaffarpur	V	26	07	85	24	..	..
Mysore	II	12	18	76	42	2,518	73
Nagercoil	II	08	10	77	27	195	32
Nagpur	II	21	09	79	07	1,010	9
Naya Dumka	II	24	16	87	15	489	26
Neemuch	II	24	28	74	54	1,626	42
Negapatam	II	10	46	79	51	31	39
Nellore	II	14	27	79	59	66	45
New Delhi	I	28	35	77	12	714	53
Nizamabad	II	18	40	78	06	1,250	46
Nowgong	II	25	04	79	27	750	28
Ongole	II	15	34	80	03	38	31

Station	Class	φ		λ		H_b	h_a
		° N	′	° E	′	ft.	ft.
Ootacamund	II	11	24	76	44	7,364	27
Pachmarhi	II	22	28	78	26	3,528	37
Palamcottah	V	08	44	77	45	..	..
Palghat	II	10	46	76	39	319	23
Pamban	II	09	16	79	18	37	26
Parbhani	II	19	08	76	50	1,350	..
Patiala	II	30	21	76	28	822	60
Patna	II	25	37	85	10	173	51
Pendra	II	22	46	81	54	2,040	20
Phalodi	II	27	08	72	22	794	41
Poona	I	18	32	73	51	1,834	24
Port Blair	II	11	40	92	43	259	27
Puri	II	19	48	85	49	20	29
Purnea	II	25	46	87	28	124	25
Raichur	II	16	12	77	21	1,311	41
Raipur	II	21	14	81	39	979	28
Rajkot	II	22	18	70	50	432	30
Rajsamand*	III	25	03	73	53	1,882	22
Ramagundam	II	18	46	79	26	527	17
Ranchi	II	23	23	85	20	2,150	44
Ratlam	II	23	19	75	03	1,596	46
Rentachintala	II	16	33	79	33	348	27
Roorkee	II	29	51	77	53	899	37
Sabour	II	25	14	87	04	122	24
Saharsa	II	25	52	86	37	156	19
Salem	II	11	39	78	10	913	54
Sambalpur	II	21	28	83	58	486	29
Sandheads	II	20	51	88	15	32	..
Saugor	II	23	51	78	45	1,808	6
Saugor Island	II	21	39	88	03	10	52
Seoni	II	22	05	79	33	2,027	31
Seychelles	II	04	37	55	27	15	37
Shillong	II	25	34	91	53	4,921	28
Sholapur	II	17	40	75	54	1,570	29
Sibsagar	II	26	59	94	38	317	20
Sikar	II	27	37	75	08	1,406	27
Silchar	II	24	49	92	48	96	24
Simla	II	31	06	77	10	7,224	86
Skardu	II	35	18	75	37	7,505	17
Sonamarg	V	34	19	75	19	..	..
Shri Ganganagar	II	29	55	73	53	580	26
Srinagar	I	34	05	74	50	5,205	60
Surat	II	21	12	72	50	39	64
Sutna	II	24	34	80	50	1,041	34
Tezpur	II	26	37	92	47	258	30
Titilagarh	II	20	03	83	03	691	29
Trichinopoly	II	10	49	78	42	295	34
Trincomalee	II	08	35	81	15	24	15
Trivandrum	I	08	29	76	57	211	41
Udaipur	II	24	35	73	42	1,910	19
Umaria	II	23	32	80	53	1,506	34
Vellore	II	12	55	79	09	703	21
Vengurla	II	15	52	73	38	29	..
Veraval	II	20	54	70	22	26	34
Vizagapatam	II	17	42	83	18	126	43
Yatung (Chumbi)	IV	27	29	88	55	..	..

*Closed on 21st September 1949.

Territorial Divisions.—The system of territorial divisions according to which the observatories are grouped is given below. The number of observatories in each of the sub-divisions, is given in brackets against the sub-division.

Chief Political Divisions	Sub-divisions
	Bay Islands (1).
Assam	Assam (11).
West Bengal	West Bengal (16).
Orissa	Orissa (7).
Bihar	Chota-Nagpur (6). Bihar (12).
United Provinces	United Provinces, East (8). United Provinces, West (10).
East Punjab	East Punjab (10).
	Kashmir (11).
Rajputana	Rajputana, West (6). Rajputana, East (7).
Bombay	Gujarat (5). Saurashtra and Cutch (7). Konkan (8). Bombay, Deccan (12).
Central India	Madhya Bharat and Bhopal (7). Vindhya Pradesh (3).
Central Provinces and Berar	Berar (3). Central Provinces, West (8). Central Provinces, East (8).
Hyderabad	Hyderabad, North (5). Hyderabad, South (5).
Mysore	Mysore (6).
Madras	Malabar (7). Madras, South-East (14). Madras, Deccan (5). Madras Coast, North (6).

Barometric pressure.—Till 1932 mercurial barometers of the Fortin type with tubes of 0.4″ uniform bore were in use at most of the observing stations in India; but since that year Kew pattern Barometers, made according to departmental specifications, have gradually been introduced at all the plain stations. The Kew pattern Barometers were also introduced at two hill stations—Kodaikanal and Mahabaleshwar—during 1946 and 1947 respectively. Fortin Barometers continue to be used at other hill stations.

An aneroid barometer was in use at Lhasa.

The standard for the measurement of atmospheric pressure in India is the "Calcutta Standard". On the results of all comparisons made till 1935, the correction at present accepted of the "Calcutta Standard" with respect to Kew is —0·009".

Standard Barometers are now maintained at Poona, Bombay, Delhi, Nagpur, Calcutta and Madras for the purpose of standardizing barometers before they are issued to land stations. Marine barometers for issue to ships are standardized at Bombay, Calcutta and Madras. These working standards are all corrected with respect to the "Calcutta Standard". The correction of all the barometers issued by this department is therefore ultimately based on the "Calcutta Standard".

The main work of the determination of the corrections of the barometers issued to outstations is done at Poona.

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

The heights above mean sea level of the barometers are given in all the tables of pressure as well as in the alphabetical list of stations. Heights of most stations have been obtained accurately by actual measurement from datum levels determined by the Great Trigonometrical Survey of India; the heights of only a few stations, mostly in Kashmir, have been determined barometrically.

Temperature.—Till 1923, thermometers were exposed in large open sided sheds to protect them from extraneous radiation (*vide* Annual Report on the Meteorology of India, 1887, p. 37). As a result of experiments carried out at Agra on various types of exposures and described in the Ind. Met., Mem., Vol. XXIV, Part III (1922), all of these have now been replaced by Stevenson Screens, which are less costly and cheaper to maintain.

The screen adopted for use in India has free inside measurements of 22" length, 12" depth and 16" height and is somewhat larger than the pattern approved in 1884 by the Thermometer Screen Committee of the English Meteorological Society and larger too than the "small model" in common use in Germany. It is made of teak wood painted white and has four double louvred sides with a double roof the lower one having perforations. The upper roof slopes from front to back and protects the top from sun and rain. The door on the north side has 14 louvres and the remaining sides have 16 louvres each.

Thermometers in use which were issued up to the end of 1931 were verified by comparison with Kew standard thermometers at Calcutta. Instruments issued from 1932 were compared at Poona with standards provided with certificates of correction from the National Physical Laboratory, Teddington, England. All the thermometers at the observing stations are re-standardized from time to time; the temperatures given in the tables are corrected values.

Up to 1947 both the maximum and minimum thermometers were set and read only once in a day at the time of the morning observations. But from 1948, the minimum thermometer is set in the morning as well as in the evening and the readings of both the maximum and minimum temperatures are taken twice a day at the time of morning and evening observations. The maximum and minimum temperatures published in the reports refer to a period of 24 hours ending at 0800/0830 hours I.S.T. The monthly means of these temperatures refer to the month ending at 0800/0830 hours on the last day of the month.

Terrestrial radiation.—New terrestrial radiation thermometers were brought into use at most of the departmental first class observatories in 1932 and the method of exposure was also altered. Formerly these thermometers were laid on a thick pad of woollen blanket; but since 1932 they are placed on two wooden forks on a close cropped grass plot so that the bulb of the thermometer is about 1½" above ground. The radiation minimum temperatures recorded by these thermometers at 14 stations appear in Table VI-A, in which the depression of these temperatures below the minimum temperature in shade at 4 feet above ground is also given.

Hours of bright sunshine.—Sunshine recorders of the standard Campbell-Stokes pattern were in use at 14 stations.

Surface Winds.—Previous to 1950, Robinson four-cup anemometers of the dial pattern were in use at Indian Observatories. Since 1930, however, the department gradually introduced counter type anemometers manufactured at the departmental workshop at Poona and these are in use at almost all the observatories.

All anemometers issued up to the end of 1931 were compared before issue with the standard Beckley anemograph at the Alipore Observatory. Up to 1911 the factor representing the ratio of air movement to travel of Beckley cups had been taken in India, as in other countries, as 3·0 but from that year the generally accepted factor of 2·2 has been used (*see* note on page 8, Monthly Weather Review, January 1912). Since January 1932 anemometers are issued from Poona after comparison with standard cup anemometer there. This standard is provided with a certificate of corrections from Wind Channel tests made at the National Physical Laboratory, Teddington, England, and has also been compared with the Beckley anemograph at Alipore. However, as only instruments with small corrections are issued and as it is impracticable entirely to prevent slight alterations in exposure resulting from growth of trees or erection of buildings, it has been considered unnecessary to apply any correction to the observed value.

The wind data published consist of the mean hourly air movement as registered by counter type anemometers during the 24 hours ending at the time of morning observations and the frequency of the wind direction from 8 compass points at both the hours of observation.

Humidity and Cloud.—The hygrometric data are calculated by means of the departmental Hygrometric tables. 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. From 1949 the cloud amount is expressed in oktas of the total sky, an overcast sky being recorded as 8 and cloudless sky as 0.

Rainfall.—Symons' raingauges with funnels of 5" diameter are now used at all raingauge stations, with the exception of those in Mysore and Travancore where raingauges of local make having funnels of 4.7" diameter are in general use. At all the departmental raingauge stations new rain-measuring glasses made according to specifications drawn up by this department and tested at Poona have been introduced. The time of measuring rainfall at all the departmental observatories is 0800 hours I.S.T. and at the provincial raingauge stations 0800 hours L.M.T. From March 1949 the time of observations of rainfall at the departmental observatories only has been changed to 0830 hours I.S.T. The amounts measured at these hours give the rainfall of the previous 24 hours.

The rainfall data of provincial raingauge stations for each province are generelly tabulated in the office of the provincial officers controlling registration of rainfall in the province, and published in the provincial Gazettes. The data of Rajputana and Central India are, however, published by the Meteorological Office, Poona. These provincial tables are collected together and are issued annually in a separate volume entitled "Rainfall of India". These data are utilised in preparing Tables XIV to XIX in part A. In these provincial tables and in the rainfall observations at the meteorological observatories published in this volume a "rainy day" is taken to be one on which 0·10" or more of rain is recorded.

Autographic instruments.—In addition to the eye reading instruments, autographic instruments are maintained at all Class I stations and a few other observatories.

The following is a complete list of such stations with the instruments available noted against them. The symbols adopted to denote different instruments are shown below :—

W—Anemograph T—Thermograph

B—Barograph R—Self-recording Raingauge

U—Hygrograph S—Sunshine Recorder

Station	Autographic Instruments					
1. Alibag . . .		B		T	R	
2. Aligarh . . .		B	U	T	R	
3. Allahabad (Bamrauli).	W	B	U	T	R	S
4. Bangalore* . .	W	B	U	T	R	S
5. Barmer . . .		B		T		
6. Baroda† . . .	W	B	U	T	R	S
7. Bhopal† . . .		B	U‡	T		
8. Bombay (Colaba) .	W	B	U	T	R	S
9. Bombay (Juhu) . .	W	B		T	R	
10. Calcutta (Alipore) .	W	B	U	T	R	S
11. Calcutta (Dum Dum) .	W	B	U	T	R	
12. Cherrapunji . .					R	
13. Cocanada . . .		B				
14. Cochin§ . . .	W	B				
15. Gaya . . .	W	B		T	R	
16. Gopalpur . . .	W	B				
17. Hyderabad (Begumpet)†	W	B			R	
18. Jaipur¶ . . .	W	B	U	T	R	S
19. Jamshedpur . .	W	B		T	R	
20. Jodhpur . . .	W	B	U	T	R	S
21. Kodaikanal . .	W	B	U	T	R	S
22. Lucknow . . .		B				
23. Madras (Meenambakkam).		B	U	T	R	S
24. Madras (Nungambakkam).	W	B	U	T		
25. Madras (Port Trust) .	W					
26. Mahabaleshwar . .					R	
27. Mangalore . .		B				
28. Masulipatam . .		B				
29. Nagpur . . .		B	U	T	R	S
30. Negapatam . .		B				
31. New Delhi . .	W	B	U	T	R	S
32. Pamban . . .		B				
33. Poona . . .	W	B	U	T	R	S
34. Puri		B				
35. Sandheads . .		B				
36. Saugor Island . .	W	B		T	R	
37 Seychelles . . .		B			R	
38. Srinagar . . .		B		T		S
39. Tezpur . . .	W			T		
40. Trivandrum* . .	W	B		T	R	S
41. Veraval . . .		B				
42. Vizagapatam. . .	W	B	U	T	R	

*Instruments except the anemograph belong to State.
†Instruments belong to State.
‡Thermohygrograph.
§Anemograph belongs to State.
¶Anemograph and sunshine recorder belong to State.

*Instruments belong to State.

Tables.—Tables I, II, IV and V in the Annual Summary Part A, contain the annual means of Indian stations whose monthly data have appeared in the Monthly Weather Reports.

Table III is similar to Table II and contains the monthly and annual means of those Indian stations which could not be included in the Monthly Weather Report.

Table VI gives the monthly and annual means of observations recorded at 12–30 hours I.S.T. at 13 first class stations. This also contains the daily means of pressure, temperature, humidity and vapour tension which have appeared in Table D-1 up to 1932. The daily means of pressure, humidity and vapour tension data given in this table have been obtained from the means of 8 hours, 12–30 hrs. and 17 hours I.S.T. and those of temperatures from the means of maximum and minimum temperature by the application of appropriate corrections, derived from the available hourly observations, to reduce them to true mean of the day. The daily means of Kodaikanal are those obtained from the hourly records of self-recording instruments corrected by eye readings. The daily means and 12–30 hrs. I.S.T. data of Bombay, with the exception of cloud, are taken from autographic charts. This table is discontinued from 1949 and the present table VI gives the mean duration of bright sunshine and VI-A the abstracts of hours of bright sunshine and nocturnal radiation temperature at 14 stations.

Table VII gives the mean hourly and extreme pressure at 12 stations.

Tables VIII to VIII(I) give the total hourly rainfall, maximum in one hour and frequency of rainfall amounts in one hour to six hour periods and in one day to three consecutive days at 17 stations.

Tables VIII-J and VIII-K give the frequency of rainfall in one hour and in five minutes respectively (intensity greater than ½″ per hour) at 17 stations.

Table IX gives the mean hourly and extreme wind velocities at 17 stations. Owing to a change in the method of tabulation of the anemographs from 1st January 1939, the velocity given against any hour is the average for the ten minutes immediately preceding that hour.

Table IX-A gives the frequencies of the number of hours when wind speed was within specified limits at the above 17 stations.

Table IX-B gives a statement of squalls occurred at 12 stations.

Table X gives the mean hourly and extreme dry bulb temperatures at 12 stations.

Tables X-A to X-C give the frequency of number of hours when dry bulb temperature, maximum temperature and minimum temperature were within specified limits at 12 stations.

Tables XI and XI-A give the mean hourly and extreme wet bulb temperatures and the frequency of the number of days when maximum wet bulb temperature was within specified limits at 7 stations.

Table XII gives the mean hourly and extreme relative humidity at 9 stations.

Table XIII gives the number of days on which the Nilgiris were visible from Kodaikanal.

Tables XIV to XVIII give the divisional and sub-divisional means of rainfall and the number of rainy days derived from the records of about 3,000 rainfall recording stations and Table XIX gives heavy falls of 10″ and above in 24 hours at these stations.

Normals.—The normals used for comparison in Tables I to V and XIV to XVIII are generally based on data up to 1940.

In Table VI normal values derived from all available data up to 1899 as published in the Indian Meteorological Memoirs, Vol. XVII, have been used. The normals of Bombay are those published in Climatology of Bombay and are based on hourly data up to 1920. Those of Kodaikanal are based on 11 years hourly data from 1901 to 1911. Table VI has been discontinued from 1949.

In Table VI-A the normals of radiation minimum temperature and of its depression below the shade minimum temperature are based on all available data up to the year 1930.

The data of stations under the administrative control of the Regional Meteorological Centres at Calcutta, New Delhi, Nagpur, Bombay and Madras are scrutinised and supplied by the respective centres.

Errata to Monthly Weather Reports, 1949

Reference	Column	Replace the existing figures if any, by
Page 10 Parbhani .	January 3, 5	968·1, 965·2
Page 40 Parbhani .	February 3, 5	966·3, 962·5
Page 72 Parbhani .	March 3, 5	964·6, 960·4
Page 104 Parbhani .	April 3, 5	962·1, 957·0
Page 134 Parbhani .	May 3, 5	959·1, 954·3
Page 164 Parbhani .	June 3, 5	957·5, 953·5
Page 256 Parbhani .	September 3, 5	958·3, 955·0
Page 286 Parbhani .	October 3, 5	963·0, 959·4
Page 318 Parbhani .	November 3, 5	967·9, 964·4
Page 348 Parbhani .	December 3, 5	967·4, 963·8

GIPN—S1—450 D. D. G. Obs. Poona—1-5-56—200·

Registered No. B-3097

INDIA WEATHER REVIEW, 1949

Monthly Weather Report

January

Published by authority of the Government of India

Chief features.—(1) A well marked cold wave in Western Pakistan and North India during the first week; (2) Scanty rainfall over most parts of the country.

Though seven western disturbances affected the country during the month, the rainfall in northwest India was scanty owing to many of the disturbances being feeble. An active disturbance which was affecting Baluchistan on the 30th December moved eastnorth eastwards and passed away across the East Punjab hills by the 4th January. It induced a secondary 'low' over Madhya Bharat on the 2nd morning which moved upto the east United Provinces and became unimportant by the 4th. In association with these, local showers occurred in the North West Frontier Province and the northwest Punjab between the 1st and 4th and in northeast Baluchistan on the 2nd, while scattered showers occurred in the southern districts of the United Provinces on the 4th. In the wake of these disturbances, a cold wave set in over Baluchistan and Sind on the 3rd, extended to west Rajputana on the 4th, to east Rajputana, the East Punjab, Madhya Bharat and the west United Provinces on the 5th and to the east United Provinces, Vindhya Pradesh and Bihar on the 6th. Night temperatures fell to as much as 15° to 20° F. below normal over the western regions, while frost was experienced in many places in Baluchistan and Sind. Temperatures recovered to normal in the United Provinces and northwest India after the 7th, but they continued to be well below normal in Baluchistan till the 12th.

There were widespread thundershowers in Assam on the 18th and 19th, and also in Bihar, Chota Nagpur and West Bengal on the 28th.

There were three spells of fairly widespread thundershowers in the southern districts of southeast Madras on the 2nd, 11th and 25th caused by the passage of low pressure waves westwards across the Comorin area. Elsewhere over the country weather was mainly dry during the month.

A brief account of the activity of each of the western disturbances of the month is set out in the following table :—

S. No.	Period	Region	Nature of precipitation with period	Remarks
1.	30th Dec. to 4th Jan.	Baluchistan	A few showers on the 2nd.	Secondary developed over Madhya Bharat on 2nd and moved to east United Provinces by the 4th.
		N.W.F.P.	Local showers 1st to 4th.	A well marked cold wave set in behind these disturbances.
		Northwest Punjab	Scattered showers 1st to 3rd and fairly widespread showers on the 4th.	
		United Provinces	Scattered showers southern districts on the 4th.	
2.	8th-10th.	Baluchistan	Scattered showers on the 9th and 10th.	Induced a secondary over Rajputana and Madhya Bharat on the 9th which became unimportant by the next day.
		Kashmir	Fairly widespread showers on 9th.	
		West Punjab	Scattered showers on the 10th.	
		East Punjab	Scattered showers on the 9th and 10th.	
		North Rajputana	Scattered showers on the 9th.	

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S. No.	Period	Region	Nature of precipitation with period	Remarks
3.	14th-17th.	Baluchistan, Southwest Punjab	A few light showers on the 15th.	
		West Rajputana	Widespread showers in northern districts on 16th and local light showers on the 15th and 17th.	
		East Punjab	Fairly widespread showers on the 16th.	
4.	20th-26th.	South Baluchistan	No precipitation.	
		North Rajputana	No precipitation.	
		East Punjab, West United Province	Local showers in and near hills on the 26th.	
5.	22nd-26th.	Baluchistan	Scattered showers on the 25th.	Induced a well marked secondary over Madhya Bharat on the 24th, which moved upto Bengal, causing fairly widespread thunderstorms in and near Bihar, Chota Nagpur and West Bengal on the 28th.
		North West Frontier Province	No precipitation.	
		Kashmir	Scattered showers on the 25th.	
		Northwest Punjab	A few light showers on the 26th.	
6.	28th-31st.	Punjab, North West Frontier Province	No precipitation.	
		Northeast Baluchistan, Upper Sind	Scattered showers on the 28th and 30th.	
7.	31st.	Baluchistan	A few showers on the 31st.	
		Sind	Local showers on the 31st.	

The rainfall of the month was in slight to moderate excess in Assam, Chota Nagpur, Bihar and west Rajputana and in moderate defect in West Bengal and southeast Madras. Elsewhere it was in large defect except in the Bay Islands, Gujarat, Saurashtra and Cutch, the west Central Provinces, the Konkan, the Bombay Deccan, north Hyderabad, Mysore and the Madras Deccan where no rain fell. Averaged over the plains of India, the month's rainfall was 57% in defect.

The mean maximum temperature was above normal in the Bay Islands, Bihar, the United Provinces, the East Punjab, Rajputana, Gujarat, Madhya Bharat and Bhopal, Vindhya Pradesh and the west Central Provinces and normal elsewhere. The mean minimum temperature was above normal in the Bay Islands, Assam, West Bengal, the United Provinces, the East Punjab, Rajputana, Gujarat, Saurashtra and Cutch, Madhya Bharat and Bhopal, the west Central Provinces and the Konkan and normal elsewhere.

Relative humidity was in excess in Chota Nagpur, the west United Provinces, the East Punjab, Rajputana, Saurashtra and Cutch, Madhya Bharat and Bhopal, Vindhya Pradesh, Berar, the west Central Provinces and Hyderabad and normal elsewhere.

Cloud amount was in excess in the Bay Islands, Gujarat, Saurashtra and Cutch and Madhya Bharat and Bhopal and normal in Assam, the United Provinces, the East Punjab, east Rajputana, Berar, the west Central Provinces, the Konkan, the Bombay Deccan, Malabar and southeast Madras. Elsewhere it was in defect.

Data from Kashmir are not available.

Table I contains the divisional and sub-divisional means of rainfall, temperatures and humidity and cloud amount for the 13 chief political divisions and the 28 sub-divisions. The stations whose observations are used for preparing these means are given in the subsequent tables.

The highest ma[illegible]imum temperature given for any station in the accompanying tables is that recorded within the [illegible] ending at 8 hours I.S.T. of the date noted in the succeeding column; similarly the heavi[illegible] hours for any station denotes the amount recorded during the 24 hours ending at 8 [illegible] date given in the succeeding column.

POONA

S. BASU,

Dated the 12th May, 1945

for *Director General of Observatories.*

	Rainfall.				Departure from normal of				
							0800 hrs. I.S.T.		
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Maximum temperature.	Minimum temperature.	Vapour pressure.	Relative humidity.	Cloud.
1	2	3	4	5	6	7	8	9	10
	"	"	"		°	°	mb.	%	
Division—									
1. Assam	0·97	0·66	+0·31	+47	+1·0	+2·3	+0·8	−5	0
2. West Bengal	0·32	0·46	−0·14	−30	+1·3	+2·2	+1·0	+4	−0·9
3. Orissa	0·10	0·36	−0·26	−72	+1·4	+0·1	−0·2	+3	−1·1
4. Bihar	0·79	0·63	+0·16	+25	+1·7	+1·3	+1·1	+5	−1·0
5. United Provinces	0·10	0·85	−0·75	−88	+2·7	+2·7	+1·3	+6	−0·3
6. East Punjab	0·35	1·08	−0·73	−68	+4·9	+2·6	+1·0	+6	−0·3
7. Rajputana	0·20	0·27	−0·07	−26	+4·3	+3·6	+1·8	+10	−0·6
Sub-Division—									
1. Bay Islands	0	1·79	−1·79	−100	+3·0	+2·5	−0·8	−5	+0·8
2. Assam	0·97	0·66	+0·31	+47	+1·0	+2·3	+0·8	−5	0
3. West Bengal	0·32	0·46	−0·14	−30	+1·3	+2·2	+1·0	+4	−0·9
4. Orissa	0·10	0·36	−0·26	−72	+1·4	+0·1	−0·2	+3	−1·1
5. Chota Nagpur	0·98	0·75	+0·23	+31	+0·9	+0·6	+0·7	+6	−1·3
6. Bihar	0·70	0·57	+0·13	+23	+2·3	+1·8	+1·3	+5	−0·8
7. United Provinces, East.	0·12	0·67	−0·55	−82	+2·1	+2·9	+1·2	+4	−0·2
8. United Provinces, West.	0·08	1·04	−0·96	−92	+3·3	+2·6	+1·3	+7	−0·3
9. East Punjab	0·35	1·08	−0·73	−68	+4·9	+2·6	+1·0	+6	−0·3
10. Kashmir	Data incomplete								
11. Rajputana, West	0·28	0·24	+0·04	+17	+3·8	+3·4	+2·1	+8	−0·9
12. Rajputana, East	0·12	0·31	−0·19	−61	+4·6	+3·7	+1·5	+11	−0·3
13. Gujarat	0	0·06	−0·06	−100	+3·2	+5·1	+1·2	+5	+0·5
14. Saurashtra and Cutch.	0	0·07	−0·07	−100	+1·5	+3·3	+1·1	+6	+0·3

	Rainfall.				Departure from normal of				
							0800 hrs. I. S. T.		
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Maximum temperature.	Minimum temperature.	Vapour pressure.	Relative humidity.	Cloud.
1	2	3	4	5	6	7	8	9	10
	"	"	"		°	°	mb.	%	
Division—*contd.*									
8. Bombay (including Saurashtra & Cutch.)	0	0·10	−0·10	−100	+1·5	+2·3	+0·7	+4	+0·1
9. Central India (including Madhya Bharat & Bhopal & Vindhya Pradesh)	0·04	0·48	−0·44	−92	+3·4	+2·6	+1·4	+10	0
10. Central Provinces & Berar	0·02	0·45	−0·43	−96	+1·3	+1·4	+0·4	+5	−0·3
11. Hyderabad	0·01	0·27	−0·26	−96	−0·6	+0·1	+0·6	+9	−1·0
12. Mysore	0	0·17	−0·17	−100	−0·8	−0·7	−0·3	+4	−0·9
13. Madras	0·42	0·84	−0·42	−50	−0·4	−0·3	−1·1	−2	−0·6
Mean of India	0·21	0·49	−0·28	−57	+1·7	+1·6	+0·6	+5	−0·5
Sub-Division—*contd.*									
15. Madhya Bharat & Bhopal	0·01	0·23	−0·22	−96	+3·3	+3·5	+1·5	+9	+0·5
16. Vindhya Pradesh	0·08	0·81	−0·73	−90	+3·4	+1·4	+1·4	+12	−0·7
17. Berar	0·01	0·36	−0·35	−97	+0·3	+1·1	+1·0	+8	+0·2
18. Central Provinces, West.	0	0·50	−0·50	−100	+2·6	+2·4	+1·3	+7	−0·1
19. Central Provinces, East.	0·06	0·42	−0·36	−86	+0·4	+0·6	−0·8	+1	−0·8
20. Konkan	0	0·06	−0·06	−100	+1·9	+2·1	+0·6	+1	+0·1
21. Bombay Deccan	0	0·15	−0·15	−100	+0·7	+0·7	+0·2	+4	−0·2
22. Hyderabad, North.	0	0·27	−0·27	−100	−0·6	+1·0	+0·6	+9	−0·6
23. Hyderabad, South.	0·02	0·26	−0·24	−92	−0·6	−0·4	+0·6	+8	−1·3
24. Mysore	0	0·17	−0·17	−100	−0·8	−0·7	−0·3	+4	−0·9
25. Malabar	0·07	0·53	−0·46	−87	+0·7	−1·0	−1·3	−4	−0·2
26. Madras, South-East.	0·96	1·55	−0·59	−38	−0·7	−0·3	−1·7	−3	0
27. Madras, Deccan	0	0·18	−0·18	−100	−0·7	+0·3	−0·4	+1	−1·5
28. Madras Coast, North.	0·15	0·49	−0·34	−69	−0·3	−0·5	−0·7	0	−1·2

TABLE II—ABSTRACT OF OBSERVATIONS RECORDED AT 0800 HRS. I. S. T. (0230 HRS. G. M

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relati humidi %	
		Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0800 hrs. I.S.T.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.	Departure from normal.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Bay Islands																					
Port Blair	261	1005·3	+0·6	1002·6	87·3	+3·1	90	29	74·1	+2·5	68	3,12	81·3	78·9	73·7	72·4	25·0	—0·8	24·2	69	—!
Assam																					
Dibrugarh	348	1006·0	—0·2	1002·4	72·5	+1·1	78	17,27	51·1	+1·0	45	1	57·9	64·8	56·2	60·4	14·7	+0·4	15·9	89	—!
Sibsagar	317	1007·5	+0·3	1004·0	72·1	+1·6	79	17	51·8	+2·1	47	3	59·2	65·0	57·7	61·0	15·6	+1·0	16·5	92	—1
Tezpur	258	1009·7	+0·3	1005·3	74·7	+0·9	81	16	54·5	+2·0	48	20	58·8	68·6	56·9	62·5	14·9	+0·4	16·6	88	—3
Gauhati	182	1011·7	+0·2	1007·7	74·5	—0·1	81	18	53·5	+2·5	47	2	59·0	70·5	57·4	63·0	15·4	+0·7	16·3	91	(
Dhubri	115	1012·3	—1·3	1009·2	74·7	+1·3	79	4 days	56·4	+3·2	51	1	60·1	70·2	58·1	62·2	15·6	+1·1	15·5	88	+1
Silchar	96	1014·7	+0·3	1010·6	79·1	+1·1	84	26	54·3	+2·0	49	2	60·3	72·1	57·9	63·3	15·2	0	15·7	86	(
West Bengal																					
Dum Dum	33	1016·1	...	1012·7	80·4	...	84	2	56·2	...	51	8	62·5	76·3	58·5	63·3	15·0	...	13·9	77	...
Calcutta	21	1016·6	0	1013·0	81·1	+1·5	85	5	57·7	+3·1	51	8	61·8	74·9	59·7	64·4	16·8	+2·2	16·0	88	+3
Saugor Island	10	1016·4	—0·3	1013·3	78 1	+1·1	81	1	61·8	+3·2	56	8	68·2	74 4	64·1	66·2	18·6	+1·1	18·4	80	—3
Sandheads	28	1016·2	+0·1	1013·6	...	...	...	...	...	...	...	...	73·7	76·3	67·8	67·9	20·5	+1·1	19·5	85	+19
Midnapore	149	1011·8	—0·3	1008·4	80·5	—0·3	85	27	56·6	+1·0	50	8	60·7	77·2	57·0	63·5	14·3	+1·2	13·9	79	+12
Contai	35	1015·8	...	1012·4	81·2	...	86	5	59·3	...	53	9	64·9	76·4	60·6	65·5	16·0	...	16·5	77	...
Burdwan	106	1013·4	—0·3	1009·8	79·8	+0·9	83	3,27	55·4	+0·7	51	8	59·9	76·5	56·4	63·6	13·9	+0·8	14·2	79	+6
Krishnagar	48	1014·8	—0·8	1012·2	81·1	+3·0	87	27	52·5	+0·9	43	23	58·7	76·0	55·4	65·2	13·4	—0·2	16·2	82	+6
Asansol	414	1003·0	+0·4	999·4	78·7	+0·9	82	3,27	54·4	+1·7	48	7	59·9	74·2	56·1	63·1	13·6	+1·5	14·7	78	+9
Berhampore	62	1015·3	—0·1	1011·6	79·1	+2·4	83	27	55·1	+1·9	50	7,19	61·0	73·9	57·7	63·4	14·7	+0·9	15·2	80	0
Malda	103	1014·1	+0·3	1010·5	75·9	+1·4	80	26,27	53·7	+3·7	48	7	61·5	72·4	57·4	62·3	14·3	+1·0	14·7	77	+2
Jalpaiguri	271	1007·7	—0·1	1004·3	75 6	+1·2	81	16	54·5	+3·5	51	1,21	56·2	72·4	54·9	62·4	14·0	+0·3	14·7	91	+2
Orissa																					
Balasore	65	1015·3	+0·2	1011·7	82·7	+1·8	87	4	59·1	+2·8	55	10	66·0	75·4	60·9	65·9	16·1	+1·4	17·5	74	—1
Chandbali	20	1016·6	—0·1	1013·3	83·1	+1·8	88	5,19	59·2	+1·2	54	9	65·8	76·3	61·1	65·9	16·3	+0·2	17·0	85	+7
Puri	20	1016·7	+0·5	1013·4	81·4	+1·4	84	1,5,15	64·5	+0·8	60	9	67·7	76·8	63·6	68·8	18·3	—0·4	20·4	79	—1
Gopalpur	56	1015·4	+0·5	1012·0	81·6	+1·0	85	5	62·1	—0 2	59	5 days	66·9	76·7	62·2	68·9	17·1	—0·8	20·5	75	—2
Cuttack	87	1013·8	—0·5	1010·5	84·0	+0·9	88	5	61·2	+1·4	57	10,11,19	63 5	80·9	60·6	65·7	16·7	+0·9	14·8	83	+2
Angul	455	1001·6	+0·5	997·9	82·6	+0·8	86	5	55·6	—0·5	51	8,9	60·3	79·3	56·3	62·4	13·7	—0·9	11·6	77	+1
Sambalpur	486	1000·5	+0·3	996·8	83·8	+2·0	87	6,25	52·4	—2·6	46	8	58·6	80·7	55·8	63·1	13·9	—0·2	11·8	82	+8
Chota Nagpur																					
Jamshedpur	423	1002·8	+0·1	999·0	79·9	—0·5	84	2,4	53·4	+2·1	47	8	57·6	76·0	55·3	62·3	13·8	+1·3	13·1	85	+8
Chaibasa	742	991·3	+0·3	987·6	80·7	+1·5	84	5,27	53·4	+1·0	47	8,9	57·4	76·8	54·1	62·5	12·7	—0·4	12·8	80	+1
Ranchi	2,150	942·5	+0·2	940·2	75·7	+2·2	81	27	50·4	—0·7	45	7,8,9	55·5	71·0	51·1	57·9	10·8	+0·7	10·8	77	+15
Hazaribagh	2,006	947·5	+0·1	945·0	72·8	0	79	26,27	49·8	—0·5	40	7	56·7	67·3	51·9	56·1	11·0	+1·1	10·6	72	+9
Daltonganj	725	992·3	0	988·7	77·0	+1·1	83	26,27	48·5	+1·0	41	8,9	56·6	72·8	53·3	60·8	12·3	+0·9	12·8	79	—4
Dhanbad	839	987·9	...	...	77·1	...	81	5	53·4	...	46	7,8	60·5	...	54·5	...	11·8	...	...	66	...
Bihar																					
Purnea	124	1013·8	—0·1	1009·6	77·4	+2·7	82	26	49·2	+1·5	42	1	55·6	70·8	54·0	64·7	13·6	+1·2	18·1	90	+2
Saharsa	156	1011·8	...	1008·5	75·6	...	80	16,24	51·7	...	46	1,7	58·8	71·3	55·8	62·4	13·9	...	15·2	82	...
Darbhanga	161	1012·0	+0·1	1008·5	75·7	+1·4	78	12,18,24	51 3	+1·5	46	1	54·7	71·7	53·8	63·7	13·7	+0·8	16·5	94	+9
Motihari	218	1009·5	+0·1	1006·6	74·3	+1·2	79	24,25	49·2	+2·3	43	1	56·9	67·4	54·7	61·3	13·7	+1·3	15·8	87	+6
Patna	173	1011·2	—0·5	1008·1	75·8	+2·8	81	26	53·5	+2·4	48	7	58·6	70·7	54·8	61·1	12·9	+0·8	14·0	77	+3
Dehri	352	1004·9	...	1001·4	76·5	...	81	4 5 26	52·6	...	...	...	59·5	72·5	55·7	60·6	13·3	...	12·6	78	...
Gaya	365	1004·0	—1·7	1001·1	76·7	+2·4	82	27	50·5	+1·3	43	7	56·2	72·4	52·7	60·3	12·0	+1·6	12·5	78	+12

Cloud amount, (Oktas).			Rainfall, inches.				Number of rainy days, (0.10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																			STATION.
											0800 hrs. I. S. T.									1700 hrs. I. S. T.										
0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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
																														Bay Islands
4·2	+0·8	4·1	0	—1·79	0	...	0	—2·3	10·3	+1·8	4	20	5	0	0	0	0	0	2	3	22	6	0	0	0	0	0	0		Port Blair
																														Assam
3·5	—0·6	3·8	1·39	—0·10	1·08	18	2	—1·7	1·0	+0·4	2	2	18	3	0	0	0	1	5	0	0	1	1	0	1	0	0	28		Dibrugarh
5·7	—0·7	4·3	1·16	—0·05	0·56	18	3	—0·5	1·5	+0·4	4	10	3	0	2	0	0	0	12	4	3	3	0	1	0	0	2	18		Sibsagar
3.2	+0·5	2·0	1·26	+0·68	1·35	31	4	+2·5	1·2	—0·5	0	8	15	1	1	0	0	0	6	0	4	9	2	0	0	0	0	16		Tezpur
2·3	+0·3	2·8	0·59	+0·21	0·30	30	2	+0·9	1·7	+0·5	4	4	2	4	5	1	0	0	11	0	6	2	0	1	1	1	0	20		Gauhati
1·6	—0·1	1·2	0·17	—0·14	0·17	18	1	+0·2	3·0	—0·1	1	13	8	3	2	1	1	1	1	2	7	2	0	0	4	2	2	12		Dhubri
0·8	—1·0	0·2	0·67	—0·10	0·67	19	1	—0·5	0·9	—0·2	0	3	7	4	0	0	0	0	17	0	0	1	0	0	0	0	0	30		Silchar
																														West Bengal
0·7	...	0·9	0·01	...	0·01	28	0	...	2·2	...	10	3	1	0	1	0	1	8	7	7	1	1	1	1	0	2	18	0		Dum Dum
0·8	—1·0	1·0	0·05	—0·32	0·05	28	0	—0·8	1·1	—0·9	1	1	2	0	0	0	2	5	20	3	0	1	0	0	0	4	9	14		Calcutta
0·8	—1·4	0·8	0·42	+0·01	0·38	31	1	+0·1	6·7	+1·2	10	7	3	1	0	1	2	5	2	6	1	0	0	9	11	1	3	0		Saugor Island
1·0	—0·8	0·7	0	—0·19	0	...	0	—0·5	...	...	0	4	0	1	1	2	4	2	17	0	1	1	0	4	0	0	3	22		Sandheads
0·7	—1·1	1·0	1·02	+0·55	1·02	28	1	+0·1	2·1	+0·5	18	1	0	0	0	0	0	0	12	13	8	2	0	0	0	0	2	6		Midnapore
0 6	...	0·8	0·09	...	0 09	28	0	...	2·5	...	22	2	0	0	0	0	0	4	3	4	0	0	2	16	0	0	2	7		Contai
0·1	—1·7	0·7	0·20	—0·25	0·20	28	1	+0·1	2·0	+0·8	7	3	0	0	0	0	1	12	8	5	2	1	0	0	1	5	10	7		Burdwan
0·5	—0·8	0·7	0·13	—0·32	0·13	28	1	+0·1	0·6	—0·5	0	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	0	31		Krishnagar
0·5	—1·4	0·9	0·41	—0·26	0·41	28	1	—0·4	2·5	—0·8	1	0	1	0	0	0	4	14	11	0	0	0	0	1	0	2	9	19		Asansol
0·5	—1·3	0 9	0	—0·38	0	...	0	—1·0	1·0	—0·1	0	0	0	0	0	0	0	0	31	3	0	1	1	0	1	0	2	23		Berhampore
0·9	—0·1	1·0	0·16	—0·38	0·15	27	1	+0·1	2·2	—0·5	6	2	1	0	1	2	4	7	8	4	2	3	0	0	2	3	9	8		Malda
2·1	+0·7	2·8	0·30	—0·01	0·27	30	1	+0·3	2·1	+1·2	14	1	1	0	1	0	1	1	12	1	1	2	1	3	6	1	0	16		Jalpaiguri
																														Orissa
0·9	—0·9	2·0	0·06	—0·47	0·06	28	0	—1·0	1·8	0	14	5	0	0	0	0	0	4	8	0	0	2	8	3	1	0	0	17		Balasore
(a) 1·0	—0·8	(a) 0·5	0	—0·20	0	...	0	—0·7	(d) 3·1	—0·5	9	0	0	0	0	0	6	11	4	0	5	14	6	0	1	3	1	0		Chandbali
1·2	—0·6	0·8	0·22	—0·19	0·22	31	1	+0·4	6·2	0	20	6	0	0	0	1	0	3	1	0	0	0	8	14	9	0	0	0		Puri
0·6	—0·8	1·3	0	—0·28	0	...	0	—0·5	5·8	—0·3	20	0	0	0	0	0	0	10	1	0	0	0	18	11	2	0	0	0		Gopalpur
0·5	—1·5	1·0	0	—0·32	0	...	0	—0·7	1·6	+0·5	0	0	0	0	0	0	1	0	30	0	0	0	0	0	0	0	0	31		Cuttack
1·3	+1·0	1·1	0·11	—0·33	0·11	28	1	+0·1	3·6	+0·6	1	1	0	0	0	3	19	6	1	15	5	2	2	0	0	3	4	0		Angul
0·3	—1·5	0·8	0·17	—0·26	0·17	28	1	+0·1	2·0	—0·1	4	8	2	0	0	0	0	1	16	3	3	0	1	0	6	6	5	7		Sambalpur
																														Chota Nagpur
0·5	—1·4	1·0	0·69	+0·33	0·69	28	1	+0·1	1·8	+0·3	0	0	0	0	0	1	19	4	7	1	0	2	2	0	2	6	3	15		Jamshedpur
0·5	—1·5	1·3	0·27	—0·37	0·27	28	1	—0·4	1·1	—0·2	0	0	0	1	2	20	0	0	8	1	5	0	0	0	10	0	1	14		Chaibasa
0·3	—1·8	0·3	0·48	—0·44	0·43	28	1	—0·8	1·3	—2·2	0	0	0	0	1	1	4	1	24	0	0	0	0	0	0	1	0	30		Ranchi
0·7	—1·2	1·5	2·01	+1·12	1·04	27	2	+0·1	4·5	—0·7	0	0	1	1	3	7	5	7	7	5	1	0	0	1	1	1	19	3		Hazaribagh
0·8	—0·8	1·5	1·44	+0·52	1·20	27	2	+0·1	2·3	+0·5	0	0	12	7	2	1	0	2	7	0	6	0	1	0	0	8	11	5		Daltonganj
...	...	...	0·53	...	0·53	28	1	...	4·1	...	1	4	0	1	0	5	8	1	11	...	...	...	...	...	...	...	...	...		Dhanbad
																														Bihar
0·7	—0·7	1·1	0·04	—0·37	0·04	18	0	—0·8	1·5	+0·7	0	3	6	0	1	9	3	0	9	0	1	0	0	0	4	4	0	22		Purnea
1·0	...	1·8	0 65	...	0·64	28	1	...	1·5	...	0	5	2	1	0	6	3	2	12	0	0	2	0	2	9	1	0	17		Saharsa
0·5	—1·1	1·3	0·21	—0·23	0·21	28	1	0	0·8	—0·6	1	4	5	0	0	0	9	1	11	0	0	0	1	0	3	6	0	21		Darbhanga
1·8	—0·2	1·0	0·99	+0·52	0·99	28	1	—0·1	(n) 1·3	—0·2	0	1	4	1	0	1	2	2	20	0	0	0	0	0	0	2	0	29		Motihari
1·1	—0·6	1·7	1·41	+0·82	0·76	28	2	+0·7	2·8	+0·6	0	2	2	1	5	8	5	0	8	1	0	1	0	0	1	8	4	16		Patna
1·1	...	2·1	1·34	+0·66	1·18	27	2	+0·5	2·7	...	1	1	1	2	5	16	3	1	1	8	2	1	0	0	0	0	12	8		Dehri
0·7	—1·0	1·5	0·99	+0·27	0·67	28	2	+0·7	3·7	+0·5	0	0	3	11	13	2	0	0	2	4	0	1	0	0	1	8	16	1		Gaya

(a) Mean of 30 days. (d) Mean of 27 days. (n) Mean of 17 days.

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relative humidity, %		
		Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0800 hrs. I.S.T.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
BIHAR—(*Contd.*)																						
Naya Dumka	489	999·8	−0·5	997·5	79·5	+3·5	83	27	49·9	−1·0	43	12,13	63·5	73·8	57·5	61·4	13.5	+1·5	13·0	67	−2	47
Sabour	122	1012·9	−0·6	1009·4	76·3	+2·3	82	25,26	49·6	+4·6	43	8	56·5	70·4	54·5	62·5	13·6	+1·9	15·7	87	+2	62
U. P., East																						
Gonda	360	1004·6	...	1001·8	74·3	+0·5	78	4 days	48·4	+2·6	44	1,13	51·4	69·8	50·3	60·5	11·9	+1·5	14·5	93	+10	57
Gorakhpur	254	1007·9	−0·3	1002·2	74·5	+1·5	79	26	51·5	+3·0	48	1	55·3	70·9	52·9	61·3	12·4	+0·8	14·4	85	+3	56
Banaras	250	1008·2	−0·5	1005·5	75·4	+1·2	81	3	50.4	+2·3	43	7,8,9	54·0	72·8	52·7	61·7	13·0	+1·3	13·9	90	+9	50
Allahabad (Bamrauli).	322	1005·4	−0·9	1002·7	77·0	+2·2	83	4	50·6	+3·5	42	6,7,8	53·5	74·3	51·4	61·6	12·0	+1·3	12·7	86	+3	45
Fatehpur	375	1004·7	...	1001·3	76·1	+0·9	84	3	49·7	+3·3	39	7	58·6	74·2	53·9	61·9	12·3	+1.8	12·7	71	−1	48
Kanpur	414	1002·7	0	1000·2	77·0	+5·1	81	3	49·6	+3·9	39	7,20	52·2	74·2	49·9	60·2	11·1	+0·8	11·4	84	+3	42
Lucknow	371	1004·4	+0·2	1001·8	76·8	+2·8	82	4,5	49·9	+2·8	47	1,21,29	52·5	71·9	50·4	61·5	11·2	+0·7	14·5	86	+5	53
Bahraich	407	1003·3	+0·8	1000·5	75·3	+2·7	80	4	48·6	+1·5	40	6	54·9	71·2	52·7	62·3	12·6	+1·7	14·9	85	+1	58
U. P., West																						
Jhansi	823	988·2	−0·6	985·7	80·3	+4·2	85	2,25	51·2	+3·8	40	6	53·7	77·4	50·6	60·8	11·2	+1·6	10·6	79	+14	35
Agra	553	997·8	−0·2	995·4	75·7	+3·1	83	25	48·3	+4·0	37	7	50·6	74·2	47·7	58·4	9·8	+1·7	9·5	79	+12	35
Mainpuri	516	998·7	−0·5	996·6	75·9	+2·7	82	2	47·7	+2·1	39	8	52·1	72·1	49·8	61·8	10·7	+1·3	14·5	85	+9	54
Aligarh	615	995·7	...	993·4	74·5	+3·6	80	4	48·0	+2·8	37	6	50·2	71·9	47·8	58·6	10·1	+2·2	11·4	78	+11	40
Bareilly	568	997·0	+0·1	994·2	75·0	+4·2	81	4	50·2	+3·9	43	7,8	54·2	71·1	51·2	59·3	11·4	+1·1	11·9	81	−3	46
Meerut	708	991·4	...	...	73·4	...	77	25,31	46·1	...	39	8	49·5	...	47·4	...	10·3	...	...	85	...	...
Roorkee	899	985·0	−0·2	982·8	70·9	+2·5	77	4	45·0	+1·3	37	8	47·0	68·1	45·5	56·5	9·7	+0·4	10·4	89	+3	45
Dehra Dun	2,239	939·0	+0·8	937·4	69·1	+3·1	74	3,4	44·2	+0·2	39	5 days	47·4	65·7	44·7	55·4	9·2	+0·8	10·4	80	+4	51
East Punjab																						
New Delhi	714	992·2	0	989·6	74·4	+3·9	80	24	48·0	+4·7	37	5,6	49·2	73·1	45·9	58·7	9·0	+1·4	9·7	77	+9	41
Hissar	725	992·0	−0·1	989·9	74·1	+3·3	84	26	43·2	+1·8	26	5	45·5	71·3	43·1	57·6	8·1	+0·5	10·3	79	+7	40
Patiala	822	989·1	...	985·9	72·0	...	78	2	44·7	...	36	8	48·6	67·7	46·5	57·2	9·9	...	11·2	84	...	49
Ambala	892	985·4	0	983·1	73·6	+4·5	81	3	46·0	+2·6	37	8	49·4	69·9	46·3	57·6	9·4	+0·5	10·9	79	+1	44
Ludhiana	810	988·4	−0·1	986·9	74·6	+7·7	79	25	45·1	+1·4	36	5	46·8	70·4	45·3	59·2	10·3	+1·6	12·4	89	+7	50
Amritsar	756	990·6	...	989·1	69·2	...	74	25	41·5	...	34	5,6	43·9	66·6	42·6	55·0	8·8	...	9·6	90	...	43
Kashmir																						
Srinagar	5,205	846·4	+1·0	845·1	44·8	+3·8	50	21,30	32·0	+4·7	27	19	34·5	42·2	33·3	39·8	5·9	+1·0	7·3	89	0	79
Gulmarg	8,709	...	...	...	...	...	...	Closed during winter months					..	...	...	...	...	...	...	...	...	...
Dras (R)	10,059																					
Leh	11,529	666·9	+2·4	664·1	34·4	+5·0	43	24	13·6	+5·6	7	1,2	13·5	31·0	9·9	23·8	1·3	−0·3	2·3	48	−14	38
Skardu (R)	7,505																					
Gilgit (R)	4,890																					
Misgar (R)	10,190																					
Rajputana, West																						
Sri Ganganagar	580	996·9	...	994·7	70·7	+2·9	77	25	42·1	+4·0	30	5	45·8	69·0	44·2	56·9	9·8	+2·8	10·5	89	+11	41
Bikaner	734	991·4	−0·3	989·5	75·0	+3·6	87	23	42·5	+1·6	29	4,5,6	47·3	73·3	45·1	64·3	9·1	+1·9	16.8	82	+17	60
Phalodi	794	989·9	...	987·7	76·3	...	86	20	45·0	...	29	7	50·1	74·8	46.0	64·4	8·8	...	16·0	74	...	51
Jaisalmer	793	988·7	...	986·7	75·6	...	85	20	48·0	...	24	4	50·5	75·2	46.7	62·5	9·2	...	13·4	74	...	57
Jodhpur	736	991·2	+1·4	985·6	80·0	+3·7	88	23	51·8	+3·2	32	4	54·0	78·6	47·7	60·6	8·5	+2·0	9·9	60	+10	30
Barmer	638	994·4	+0·1	991·9	81·3	+4·9	92	23	53·1	+3·1	30	4	54·9	79·6	48·4	61·8	8·7	+1·4	10·7	58	+4	32

(R) Register not received.

Cloud amount (Oktas).			Rainfall, inches.				Number of rainy days, (0·10″ or more)		Wind velocity miles per hour.		Wind direction—Number of winds from:—																		STATION.
											0800 hrs. I. S. T.									1700 hrs. I. S. T.									
	Departure from normal.	Mean 1700 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
	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
																													Bihar—(*Contd.*)
4	−1·0	0·7	0·02	−0·65	0·02	27	0	−1·3	1·9	+0·6	4	3	2	2	0	7	4	8	1	1	1	1	2	2	3	6	10	5	Naya Dumka
0	−0·8	1·5	0·53	−0·01	0·42	28	2	+0·9	2·7	−0·4	1	1	1	6	4	7	3	0	8	4	0	1	0	0	0	10	10	6	Sabour
																													U. P., East
9	−0·4	1·7	0·37	−0·14	0·28	27	1	−0·2	2·4	−0·3	0	1	4	0	0	1	8	2	15	0	0	1	0	0	0	3	5	22	Gonda
9	−0·5	1·5	0·13	−0·46	0·13	28	1	−0·3	1·5	+0·4	1	3	3	1	0	1	9	0	13	3	0	0	0	0	3	10	1	14	Gorakhpur
1	−0·5	1·5	0	−0·74	0	...	0	−1·5	...	...	1	2	0	2	1	14	3	1	7	6	2	1	0	0	3	9	9	1	Banaras
9	−0·4	2·1	0	−0·85	0	...	0	−1·1	2·4	−0·2	1	0	2	0	1	4	7	0	16	1	2	1	0	0	0	12	1	14	Allahabad (Bamrauli).
0	+0·1	2·4	0·04	−0·50	0·04	4	0	−1·4	2·0	0	0	0	4	3	0	0	3	5	16	1	0	1	0	0	0	2	5	22	Fatehpur
8	+0·5	1·9	0·06	−0·50	0·06	4	0	−1·4	5·0	+2·7	1	1	1	1	0	3	8	1	15	3	4	3	1	0	2	9	8	1	Kanpur
0	−0·8	1·7	0·02	−0·74	0·02	4	0	−1·5	1·1	−0·2	0	0	2	0	0	0	4	0	23	0	0	2	0	0	9	0	0	20	Lucknow
7	+0·2	1·6	0·36	−0·46	0·34	27	1	−0·6	2·7	+1·1	0	2	3	1	1	2	2	2	18	0	0	0	1	0	3	1	1	25	Bahraich
																													U. P., West
7	0	1·7	0	−0·54	0	...	0	−1·2	3·1	+0·9	0	1	1	0	0	1	2	1	25	0	1	1	0	0	2	7	4	16	Jhansi
5	−0·7	1·5	0	−0·51	0	...	0	−1·2	2·1	−0·6	0	0	0	0	1	0	1	2	27	1	0	2	0	1	1	3	8	15	Agra
0	−0·2	2·0	0	−0·57	0	...	0	−1·3	2·3	+0·9	0	0	1	1	1	5	9	4	10	0	0	0	3	0	1	5	11	11	Mainpuri
9	+1·4	2·9	0·03	−0·43	0·03	16	0	−1·2	3·6	+0·3	0	0	0	0	0	0	8	1	22	1	0	4	0	0	0	4	9	13	Aligarh
9	+0·6	3·1	0·03	−0·96	0·03	26	0	−1·9	2·6	+1·1	2	0	5	2	0	2	8	4	8	1	0	1	1	0	2	10	6	10	Bareilly
4	...	...	0·12	−1·13	0·12	4	1	−1·5	4·0	...	1	2	2	1	0	0	2	14	9	...	...	...	...	...	...	...	...	...	Meerut
0	−0·6	2·1	0·26	−1·41	0·23	26	1	−1·8	3·3	+1·5	0	1	0	3	0	0	0	16	11	0	0	0	4	0	0	0	16	11	Roorkee
4	−1·0	2·8	0·18	−2·14	0·12	26	1	−2·9	2·0	+0·5	5	8	0	0	0	1	2	8	7	1	0	0	1	2	8	8	6	5	Dehra Dun
																													East Punjab
2	+0·6	2·6	0·10	−0·89	0·06	16	0	−2·0	8·3	...	0	0	4	4	0	2	10	6	5	5	4	5	1	0	0	0	13	3	New Delhi
8	−0·4	1·4	0·20	−0·30	0·20	16	1	−0·4	4·7	+1·4	0	4	3	2	4	5	7	5	1	3	3	3	2	1	1	5	9	4	Hissar
0	...	3·5	0·74	...	0·50	26	2	...	5·5	...	9	2	6	2	0	0	3	6	3	13	1	4	3	1	0	3	4	2	Patiala
4	−1·4	1·3	0·56	−0·76	0·28	26	3	+0·5	...	...	0	0	0	1	0	0	0	19	11	0	0	0	1	0	0	0	26	4	Ambala
8	+0·1	2·0	0·52	−0·99	0·30	25	2	−0·7	2·4	+1·1	0	2	4	2	0	1	3	5	14	1	1	0	0	0	0	0	13	16	Ludhiana
6	...	3·4	0·67	...	0·65	9	1	...	..	...	2	3	0	2	0	0	1	4	19	0	1	5	1	1	0	1	18	4	Amritsar
																													Kashmir
2	+0·6	5·7	2·29	−0·61	0·40	25	10	+3·9	2·7	+0·5	5	0	1	6	2	2	0	5	10	5	2	2	5	4	1	2	6	4	Srinagar
																													Gulmarg
																													Dras (R)
0	−1·4	3·8	0·09	−0·29	0·08	9	0	−1·0	3·3	+2·2	1	17	0	0	1	0	0	0	12	0	1	0	1	5	12	6	0	6	Leh
																													Skardu (R)
																													Gilgit (R)
																													Misgar (R)
																													Rajputana, West
4	−1·8	1·4	0·65	+0·20	0·45	8	2	+0·7	2·7	−0·8	3	4	1	2	1	1	1	2	16	8	4	3	0	1	2	3	9	1	Sri Ganganagar
5	−0·7	1·5	0·54	+0·27	0·50	16	1	+0·2	2·5	−0·5	0	7	0	3	0	4	0	2	15	0	14	0	2	0	5	1	8	1	Bikaner
0	...	2·1	0	−0·14	0	...	0	−0·5	5·4	...	5	2	3	8	9	2	0	1	1	9	5	1	0	0	6	6	4	0	Phalodi
0	...	1·0	0	...	0	...	0	0	5·5	...	4	14	2	0	5	0	2	4	0	4	13	0	0	4	2	3	5	0	Jaisalmer
1	−0·3	2·1	0·23	+0·08	0·15	16	1	+0·7	(m) 1·7	...	0	19	1	0	0	0	0	0	11	3	9	1	0	1	4	3	1	9	Jodhpur
3	−0·8	1·5	0	−0·18	0	...	0	−0·4	4·4	−0·3	3	0	0	0	0	0	2	18	8	4	8	1	0	4	6	3	3	2	Barmer

(m) Mean of 18 days.

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars. Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Maximum temperature. °F. Mean.	Departure from normal.	Highest.	Date.	Minimum temperature. °F. Mean.	Departure from normal.	Lowest.	Date.	Dry bulb temperature, °F. Mean 0800 hrs. I.S.T.	Mean 1700 hrs. I.S.T.	Wet bulb temperature, °F. Mean 0800 hrs. I.S.T.	Mean 1700 hrs. I.S.T.	Vapour pressure. millibars. Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Relative humidity % Mean 0800 hrs. I.S.T.	Departure from normal	Mean 1700 hrs. I.S.T.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Rajputana, East																						
Sikar	1,406	967·7	..	965·6	77·4	..	57	22	45·8	..	29	5	49·2	74·4	44·9	57·0	8·2	..	7·8	70	..	31
Jaipur	1,431	967·3	—0·2	965·2	77·5	+4·3	84	22,24	50·6	+3·8	34	6	53·9	74·9	48·3	57·6	9·0	+1·2	8·5	64	+5	29
Ajmer	1,593	966·8	0	959·4	77·2	+4·5	84	9,20,23	48·3	+2·6	32	6,7	50·8	74·8	47·0	58·3	9·6	+1·6	10·0	74	+15	34
Kotah	843	987·9	0	984·6	81·5	+4·4	89	10	55·0	+3·9	44	6	56·2	78·7	51·0	61·1	10·3	+1·4	10·5	68	+8	31
Jhalawar	1,053	979·1	—1·0	976·1	83·3	+5·1	89	22	52·2	+4·3	40	6	53·5	79·9	49·7	61·4	10·5	+2·0	10·3	54	+14	30
Rajsamand	1,850	952·5	..	..	78·4	..	87	23	55·1	..	44	4,5	57·7	..	52·7	..	11·3	..	..	70	..	..
Udaipur	1,910	951·1	..	948·5	79·7	..	87	2,4	48·5	..	36	6	52·9	77·0	48·5	60·3	5·8	..	11·1	72	..	35
Gujarat																						
Deesa*	466																					
Surat	39	1014·1	0	1011·1	92·2	+5·7	98	13,16,18	61·6	+3·3	55	24,31	64·1	84·1	57·0	67·1	12·7	+0·5	15·0	62	0	42
Ahmedabad	163	1010·7	—0·1	1007·6	88·2	+3·4	94	17	62·7	+5·1	47	4	63·7	85·7	53·8	63·9	9·7	+1·2	10·5	48	+1	25
Dohad	1,093	978·2	..	975·2	86·3	+2·2	93	23	56·6	+4·6	53	4 days	58·4	84·1	51·6	63·8	10·0	+0·7	11·1	59	+5	27
Baroda	115	1011·9	..	1008·6	90·3	+4·0	96	16,23	55·1	+5·5	49	4	56·9	87·6	52·0	66·2	11·1	+1·7	12·3	70	+9	28
Saurashtra and Cutch																						
Bhuj	343	1005·0	+0·5	1002·5	81·7	+2·3	90	19	55·5	+3·2	37	5	57·6	80·7	51·1	59·4	9·9	+0·2	7·7	60	+11	21
Dwarka	37	1015·2	0	1012·9	77·2	—0·7	85	27,28	63·1	+3·6	49	4	64·6	74·8	59·6	63·5	15·2	+1·5	14·9	73	+3	52
Jamnagar	60	1015·0	+0·4	..	79·9	+0·8	85	9,15,19	55·4	+3·0	42	5	59·4	..	55·4	..	13·2	+2·4	..	76	+12	..
Rajkot	432	1001·1	—0·2	997·9	86·2	+2·9	93	14	55·0	+4·0	38	4	55·4	84·6	51·8	62·9	11·5	+3·3	9·8	66	+13	27
Veraval	26	1014·7	—0·2	1012·1	85·1	..	93	17,18	59·4	..	51	4	61·8	78·7	53·7	70·0	10·5	..	21·0	57	+4	63
Bhawnagar	55	1014·2	0	1010·9	87·5	+3·5	92	4 days	57·3	+3·3	45	4	59·4	85·8	50·8	63·4	8·8	+0·2	9·9	51	+2	24
Madhya Bharat and Bhopal																						
Neemuch	1,626	960·8	+0·4	958·6	81·3	+4·2	87	20,22,24	52·0	+3·4	39	6	54·1	79·3	48·3	58·8	9·2	+0·9	8·7	64	+6	26
Ratlam	..	..	..	..	(a) 81·0	..	87	23	53·8	..	43	11	55·8	80·4	50·1	64·9	10·1	..	14·8	63	..	39
Indore	1,823	953·5	+0·3	950·9	81·9	+2·4	88	22,23	52·1	+2·3	45	28	54·1	80·1	49·8	60·1	10·5	+0·9	9·7	73	+11	28
Bhopal	1,643	959·8	—0·1	957·3	82·0	+2·7	87	22,24,25	54·0	+4·2	47	28	58·4	78·3	52·8	61·4	11·4	+2·5	11·8	68	+11	33
Guna	1,571	962·0	—0·4	959·6	81·0	+3·9	87	22,23	49·5	+3·9	32	6	52·7	78·8	48·4	60·9	9·9	+1·6	10·9	71	+6	33
Gwalior	681	993·7	..	990·7	77·8	..	83	4 days	49·0	..	35	7	54·9	74·5	49·5	58·7	9·6	..	9·8	65	..	34
Madhosagar	757	990 6	..	987·9	79·1	..	85	21,24	54·1	..	43	7	56·7	75·9	51·8	58·5	10·9	..	8·9	67	..	29
Vindhya Pradesh																						
Nowgong	750	991·1	+0·1	988·3	78·9	+4·0	84	2,25,26	48·3	+1·7	37	6,7	50·2	76·7	48·5	59·8	10·8	+0·7	10·0	88	+9	32
Sutna	1,041	980·0	+0·2	977·7	79·2	+4·2	84	3	48·9	+0·8	39	7	53·8	77·5	52·8	66·2	13·2	+2·9	16·9	91	+20	54
Umaria	1,506	964·2	..	962·1	79·1	+2·1	85	26,27	48·2	+1·7	38	7	52·9	76·1	49·4	63·3	10·7	+0·6	14·7	78	+7	50
Berar																						
Buldana	..	943·0	..	941·4	82·1	..	88	23	60·6	..	56	1	63·7	80·0	55·1	62·4	11·3	..	10·6	57	..	36
Akola	925	984·0	+0·2	980·7	86·5	+0·4	92	24,25,26	55·7	+0·8	51	10	58·3	84·5	53·0	63·6	11·3	+1·2	10·7	68	+11	27
Amraoti	1,213	974·1	+0·2	970·8	85·0	+0·2	90	25	60·6	+1·5	56	1	63·4	83·7	55·3	63·5	11·2	+0·8	10·9	57	+5	27
C. P. West																						
Khandwa	1,044	980·0	+0·2	976·6	86·6	+1·8	92	4 days	54·6	+2·0	49	28	58·3	84·6	52·3	67·0	10·7	+1·2	14·9	63	+4	3
Hoshangabad	992	982·1	—0·3	979·1	82·3	+1·9	88	24	56·0	+1·8	50	18	57·4	80·7	54·1	63·9	12·8	+2·7	12·7	80	+21	3
Saugor	1,808	954·2	+0·3	951·8	79·0	+2·3	84	24,26	56·4	+3·9	49	5,7	60·5	75·9	52·4	59·2	10·2	+1·8	10·4	57	+2	3
Jabalpur	1,289	972·3	+0·7	969·2	82·4	+5·0	88	26	50·3	+2·4	43	7	55·1	79·2	51·6	63·4	11·5	+0·6	12·8	78	+4	3
Seoni	2,027	947·6	+1·2	943·9	80·7	+1·9	87	23	53·6	+1·7	48	9	58·4	79·9	52·4	60·2	11·0	+0·4	9·8	67	+3	3
Betul	2,144	943·2	..	940·6	80·5	..	87	24	51·7	..	46	29	55·1	76·9	51·4	62·1	11·5	..	13·0	78	..	4
Nagpur	1,010	982·0	+0·7	978·3	84·9	+1·2	90	23,24	54·8	—1·2	51	2,9,10	59·1	82·3	54·2	63·6	11·9	+1·0	11·7	69	+12	3

*Data not reliable.

(a) Mean of 30 days.

Cloud amount (Oktas).		Rainfall, inches.				Number of rainy days (0.10″ or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from:—																			STATION.
										0800 hrs. I. S. T.									1700 hrs. I. S. T.										
Departure from normal.	Mean 1700 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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
																													Rajputana, East
...	3·3	0·28	...	0·28	16	1	...	1·8	...	0	0	3	2	0	0	1	0	25	2	0	2	0	1	0	11	7	8		Sikar
−0·1	3·1	0·40	−0·04	0·35	16	1	0	3·2	−0·3	6	4	5	3	0	0	1	1	11	6	2	1	1	2	1	3	9	6		Jaipur
+0·4	2·2	0·22	−0·15	0·22	16	1	0	1·4	−0·2	0	2	0	1	0	0	1	0	27	1	1	1	2	1	1	8	2	14		Ajmer
−0·6	2·0	0	−0·24	0	...	0	−0·6	1·0	−0·3	0	0	0	0	0	1	2	1	27	1	3	0	1	0	1	1	2	22		Kotah
−0·3	2·2	0	−0·28	0	...	0	−0·7	1·9	−0·1	1	0	0	0	0	0	0	3	27	2	11	0	1	0	4	2	2	9		Jhalawar
...	...	0	...	0	...	0	0	4·5	...	7	14	1	0	0	0	0	4	5	...	...	...	...	...	...	...	...	...		Rajsamand
...	2·5	0	−0·20	0	...	0	−0·4	1·5	...	0	1	0	0	0	1	1	1	27	2	5	8	5	0	4	3	2	2		Udaipur
																													Gujarat
																													Deesa*
+0·3	1·7	0	−0·11	0	...	0	−0·2	3·9	+1·1	4	8	3	1	0	0	0	3	12	3	3	0	0	0	5	6	14	0		Surat
+0·4	1·5	0	−0·02	0	...	0	−0·1	4·2	+0·5	5	12	9	1	1	0	0	2	1	3	4	2	1	2	2	5	8	4		Ahmedabad
+0·5	1·5	0	−0·09	0	...	0	−0·2	5·0	+2·5	3	3	6	5	5	4	1	0	4	4	3	1	4	2	5	9	0	3		Dohad
+0·5	1·2	0	−0·06	0	...	0	−0·1	1·5	−1·2	2	5	3	1	0	0	0	0	20	4	4	0	1	0	0	2	3	17		Baroda
																													Saurashtra and Gutch
+0·4	1·3	0	−0·08	0	...	0	−0·2	3·8	−0·3	2	3	0	1	7	1	0	1	16	9	4	2	0	1	1	3	9	2		Bhuj
+0·7	1·8	0	−0·10	0	...	0	−0·3	9·3	+1·1	18	10	0	0	0	2	0	1	0	6	5	1	0	0	0	2	17	0		Dwarka
+0·1	...	0	−0·05	0	...	0	−0·1	2·2	−3·8	0	2	1	0	0	0	0	0	28	...	...	...	...	...	...	...	...	...		Jamnagar
+0·5	1·6	0	−0·04	0	...	0	−0·1	5·5	+1·4	4	7	1	3	1	0	2	4	9	9	6	2	0	1	1	3	8	1		Rajkot
+0·2	1·4	0	−0·04	0	...	0	−0·1	9·4	...	11	13	0	1	0	0	0	6	0	0	2	1	1	4	8	11	4	0		Veraval
+0·3	1·8	0	−0·09	0	...	0	−0·1	3·7	+0·1	3	0	0	0	0	4	7	3	14	4	6	17	1	0	1	1	1	0		Bhavnagar
																													Madhya Bharat and Bhopal
+1·2	3·0	0	−0·20	0	...	0	−0·4	2·8	−1·2	4	13	5	4	2	0	0	0	3	1	9	1	2	1	3	6	4	4		Neemuch
...	3·1	0	...	0	...	0	...	4·5	...	6	9	8	0	2	0	3	3	0	4	6	8	1	0	3	5	3	0		Ratlam
+0·1	1·8	0	−0·24	0	...	0	−0·5	2·0	0	0	4	0	0	0	3	2	1	21	4	7	3	2	0	8	2	3	2		Indore
0	1·9	0	−0·24	0	...	0	−0·8	2·4	+0·2	0	4	0	0	0	3	2	1	21	3	4	1	1	2	3	4	4	9		Bhopal
+0·6	2·3	0·02	−0·24	0·02	4	0	−1·2	2·6	+0·5	1	0	6	0	1	0	0	0	23	8	1	1	0	3	0	5	6	7		Guna
...	2·8	0	...	0	...	0	...	0·5	...	1	0	0	1	1	1	0	3	24	6	3	3	0	0	0	2	6	11		Gwalior
...	2·8	0	...	0	...	0	...	2·9	...	1	2	0	1	2	10	0	1	14	7	6	3	3	0	0	3	8	1		Madhosagar
																													Vindhya Pradesh
+0·2	2·4	0	−0·59	0	...	0	−1·5	1·7	+0·6	1	5	1	0	6	3	1	0	14	8	3	3	0	1	1	8	7	0		Nowgong
−0·8	1·5	0	−0·83	0	...	0	−1·8	1·9	−0·2	0	0	1	1	1	2	5	1	20	1	0	1	0	0	4	3	17	5		Sutna
−1·4	1·3	0·23	−0·78	0·23	27	1	−1·1	1·7	−0·4	1	0	1	6	4	1	0	2	16	6	4	0	0	1	0	6	13	1		Umaria
																													Berar
...	2·0	0	...	0	...	0	...	4·5	...	0	3	1	4	9	7	0	3	4	6	12	0	0	4	2	4	3	0		Buldana
+0·2	2·3	0·01	−0·34	0·01	31	0	−0·7	2·4	−0·3	0	3	5	4	2	0	1	0	16	0	16	2	4	0	1	0	5	3		Akola
+0·2	1·6	0	−0·37	0	...	0	−0·8	5·0	+1·4	0	29	0	3	0	0	0	2	0	0	13	0	5	0	5	0	8	0		Amraoti
																													C. P., West
+0·5	1·7	0	−0·31	0	...	0	−0·6	2·9	+0·2	2	2	0	0	0	1	0	1	25	3	5	6	0	4	0	0	12	1		Khandwa
−0·3	0·8	0	−0·40	0	...	0	−0·9	0·9	−1·2	0	7	7	0	0	0	0	0	17	1	2	3	0	0	2	2	0	21		Hoshangabad
0	2·5	0	−0·57	0	...	0	−1·3	6·7	−1·6	1	3	5	8	4	5	2	1	2	10	7	0	0	0	2	4	6	2		Saugor
−0·3	1·5	0	−0·82	0	...	0	−1·7	2·3	+0·9	0	1	0	21	1	0	0	0	8	7	8	0	3	1	2	1	7	2		Jabalpur
−0·3	1·7	0	−0·55	0	...	0	−1·2	2·5	+0·2	4	3	0	0	2	1	0	0	21	6	5	2	2	6	3	0	3	4		Seoni
...	2·6	0	...	0	...	0	...	2·4	...	0	1	14	7	0	0	0	0	9	4	6	6	1	2	1	3	5	3		Betul
−0·3	1·3	0	−0·37	0	...	0	−0·8	2·9	...	4	3	1	0	0	0	1	5	17	1	3	13	2	2	2	0	4	4		Nagpur

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature °F.		Vapour pressure, millibars.			R e h u
		Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0800 hrs. I.S.T.	Mean 1700 hrs. I.S.T.	Mean I.S.T. 0800 hrs.	Mean I.S.T. 1700 hrs.	Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
C. P., East																				
Gondia	1,026	981·3	.	978·2	82·8	..	87	24,25	55·1	..	50	9,19	60·3	80·7	56·2	63·9	13·6	..	12·7	76
Pendra	2,040	946·6	+0·2	944·0	77·2	+2·6	81	21	51·9	+1·3	43	7	58·0	72·9	51·8	58·1	10·6	—0·3	10·5	65
Champa	805	989·3	..	985·7	82·9	..	86	4 days	55·8	..	50	8	59·1	81·1	54·9	62·2	12·9	..	10·6	74
Raipur	979	983·0	+0·6	979·8	82·3	+0·7	87	26,27	56·8	+1·0	52	9	62·5	79·8	54·5	60·0	11·5	—0·8	9·8	56
Titilagarh	691	993·1	..	989·0	83·9	..	80	28	55·5	..	50	8,9	60·5	81·5	56·2	63·5	13·5	..	11·9	75
Kanker	1,318	971·4	+0·5	968·3	82·1	—0·5	87	27	52·2	—0·1	48	9,10,11	58·0	80·4	54·3	62·8	12·7	—0·2	11·6	77
Chanda	634	994·0	—0·2	991·0	84·5	—0·7	89	23,25	56·3	+0·9	48	9	58·0	82·5	55·1	67·1	13·5	—0·5	15·2	82
Jagdalpur	1,815	953·9	0	950·8	81·5	—0·3	86	27	50·5	+0·1	45	9	54·5	79·3	52·2	61·5	12·4	—2·0	11·5	86
Konkan																				
Dahanu	15	1014·3	...	1011·8	83·7	...	91	19	63·3	...	58	21	65·5	79·0	60·1	73·2	15·3	...	21·7	72
Bombay	37	1013·4	—0·1	1010·8	86·3	+3·1	91	4 days	68·8	+2·1	65	4 days	71·1	81·7	65·8	72·1	19·3	+1·1	22·6	74
Alibag	23	1014·2	+0·4	...	84·0	+1·4	91	9	65·5	+2·0	61	30	67·7	...	62·3	...	16·7	+0·8	...	73
Harnai	66	1012·1	...	1009·3	82·3	...	85	23	73·3	...	69	6,31	75·7	84·1	70·7	75·4	23·4	...	26·7	84
Devgad	110	1010·2	...	1006·9	88·2	...	92	7	70·7	...	65	24	73·7	83·9	66·4	73·4	17·2	...	23·3	68
Vengurla	29	1012·8	...	1009·8	91·5	...	95	6,7,26	65·1	...	61	31	66·9	85·8	63·8	72·6	18·9	...	21·3	84
Marmagao	202	1006·9	0	1003·6	87·1	+1·2	91	6,7,9	...	...	...	...	74·0	84·4	66·8	71·8	19·2	—0·1	21·0	67
Honavar	85	1011·5	...	1007·9	90·8	...	94	7,8	64·2	...	64	20	71·6	83·7	64·1	72·9	17·0	...	22·7	66
Bombay, Deccan																				
Jalgaon	660	991·9	..	988·5	89·3	...	94	23,24	54·1	...	46	20	58·2	87·2	52·4	66·7	10·8	...	13·1	65
Malegaon	1,432	967·3	+1·1	962·6	87·3	+1·1	93	22	54·6	+2·2	49	21	63·0	84·8	54·9	63·0	11·1	+2·0	9·9	56
Ahmednagar	2,154	941·9	+0·1	938·8	85·9	+1·4	95	24	55·2	+2·0	50	18	59·3	83·9	52·7	63·3	10·9	+1·1	11·5	64
Poona	1,834	952·7	+0·4	949·2	88·0	+1·5	92	24,25,26	55·7	+2·7	50	17	57·3	84·9	54·7	64·0	13·5	+2·8	11·9	84
Sholapur	1,570	961·9	+0·6	958·3	87·6	+0·2	92	30	60·3	+1·0	53	6	63·7	86·1	55·3	63·7	11·5	+0·6	11·1	57
Miraj	1,817	952·8	—0·3	949·0	87·5	+1·3	92	24	(e) 57·7	+0·1	49	31	60·9	85·3	54·0	63·3	11·2	—1·3	10·9	64
Kolhapur	1,885	950·9	...	947·4	86·7	...	91	24	58·2	...	49	31	60·7	85·2	54·5	63·1	11·9	...	10·8	67
Bijapur	1,950	948·5	+0·1	945·2	85·5	—0·7	90	30,31	59·5	—0·7	54	7,17	64·2	84·3	56·3	63·7	12·3	—1·0	11·8	60
Belgaum	2,562	928·8	+0·9	925·1	83·4	—0·5	87	24,25,29	57·4	—0·3	52	27	64·0	82·2	56·9	62·1	13·0	+0·4	11·7	66
Gadag	2,131	942·6	+0·3	939·1	86·9	+1·6	92	29	61·4	—0·1	58	6,13	66·5	84·9	58·0	62·7	13·0	—0·9	10·4	59
Hyderabad, North																				
Aurangabad	1,905	950·8	+0·3	947·9	85·6	+0·9	90	21,24	57·1	+0·4	53	6 days	59·3	84·0	53·2	64·5	11·2	+1·5	12·8	67
Parbhani	1,350	968·0	...	965·1	85·8	...	90	24,25	54·9	...	51	9	61·0	83·5	55·3	64·5	12·4	...	12·1	69
Bidar	2,178	941·3	...	937·4	82·1	—1·6	88	29	62·5	+1·6	59	1,2	65·9	79·8	58·3	61·5	13·5	—0·8	11·3	62
Nizamabad	1,250	972·9	+0·6	968·3	85·2	—1·0	89	4 days	...	...	...	...	62·6	83·1	58·5	64·3	15·1	+1·1	13·0	78
Ramagundam	755	998·6	...	994·8	86·7	...	92	24	60·1	...	56	4 days	64·8	83·8	61·0	66·3	16·7	...	14·2	79
Hyderabad, South																				
Gulbarga	1,503	963·7	0	960·2	85·8	—1·5	90	30,31	60·0	0	55	9,18	63·3	84·5	58·2	66·6	14·5	+2·0	15·0	72
Raichur	1,311	970·5	+0·4	966·7	84·9	—1·9	91	30	65·1	+0·4	61	17,18	68·2	84·6	61·7	65·0	15·8	—0·1	12·3	69
Hyderabad (Begumpet)	1,778	955·0	+0·5	951·9	84·9	+0·2	89	24,29	56·6	—2·1	53	9,18,19	60·3	81·1	58·5	65·5	16·1	+0·5	15·2	89
Hanamkonda	881	985·8	+0·1	982·2	85·7	+0·7	89	23,24	62·0	+0·1	58	3,17	65·2	83·1	62·1	66·2	17·6	+0·1	14·4	83
Khammameth(R)	367																			
Mysore																				
Chitaldrug	2,405	933·3	+0·4	929·9	83·2	—1·6	89	30	61·1	—1·5	57	6,19	66·8	81·9	60·9	64·9	15·9	+0·7	13·5	71
Hassan	3,149	909·1	...	905·9	81·6	—1·2	85	5 days	55·6	—1·4	53	6 days	59·7	79·5	56·7	61·5	14·5	—1·2	11·3	83
Bangalore	3,021	930·4	+0·4	910·4	80·0	—0·3	85	29	57·6	+0·3	54	9	61·1	77·6	57·6	59·9	14·8	—1·2	10·5	81
Mysore	2,518	929·5	+0·2	925·8	83·2	—1·0	86	4 days	60·3	—0·5	57	18,20	63·5	82·9	58·9	61·2	15·1	—1·4	9·6	76

(R) Register not received.

(e) Mean of 26 days.

Cloud amount (Oktas)			Rainfall, inches				Number of rainy days, (0.10" or more)		Wind velocity, miles per hour		Wind direction—Number of winds from:—																			STATION.
											0800 hrs. I. S. T.									1700 hrs. I. S. T.										
Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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
																														C. P., East
0·6	...	0·4	0	...	0	...	0	...	1·7	...	13	5	1	1	1	1	0	1	8	7	3	0	1	1	5	0	1	13		Gondia
0·7	−1·1	1·3	0	−0·85	0	...	0	−1·7	3·0	+0·2	3	3	1	1	4	0	1	4	14	12	1	0	0	5	2	0	10	1		Pendra
0·8	...	0·9	0	...	0	...	0	...	3·1	...	15	2	0	1	0	0	0	6	7	9	2	1	0	1	1	6	8	3		Champa
0·9	−0·6	1·1	0	−0·37	0	...	0	−0·8	2·5	+0·7	8	1	0	3	4	3	0	0	12	9	5	2	1	0	0	1	6	7		Raipur
0·6	..	0·5	0	...	0	...	0	...	1·1	...	0	1	0	4	4	0	0	0	22	4	9	3	1	0	0	0	1	13		Titilagarh
0·8	−1·0	1·0	0	−0·20	0	...	0	−0·5	1·5	−0·3	0	0	0	0	0	0	0	0	31	1	5	1	0	0	0	0	0	24		Kanker
1·3	−0·3	1·5	0·30	−0·01	0·30	31	1	+0·5	1·1	−0·5	0	0	0	0	0	0	0	3	28	2	2	3	4	0	0	0	0	20		Chanda
0·9	−1·0	1·7	0	−0·39	0	...	0	−0·7	1·5	+0·2	0	1	1	2	0	1	1	4	21	0	16	0	1	1	4	0	7	2		Jagdalpur
																														Konkan
2·0	...	1·7	0	...	0	...	0	...	7·0	...	5	3	15	8	0	0	0	0	0	16	0	0	0	0	0	3	12	0		Dahanu
1·7	+0·4	1·4	0	−0·14	0	...	0	−0·2	6·5	−0·1	3	13	13	2	0	0	0	0	0	6	0	0	0	0	0	5	20	0		Bombay
1·6	+0·1	...	0	−0·05	0	...	0	−0·2	2·3	−2·3	3	4	5	2	0	0	0	0	17	...	...	...	...	...	...	...	...	...		Alibag
0·5	...	0·3	0	...	0	...	0	...	7·3	...	6	15	4	4	0	0	0	2	0	0	0	0	0	1	2	13	15	0		Harnai
1·3	...	1·3	0	...	0	...	0	...	6·7	...	0	9	20	1	0	0	0	0	1	1	1	0	0	0	0	15	14	0		Devgad
1·2	...	0·9	0	...	0	...	0	...	...	...	13	2	0	0	0	0	0	0	16	0	1	0	0	0	5	21	2	2		Vengurla
1·2	−0·3	1·3	0	0	0	...	0	0	5·9	+0·3	0	2	24	5	0	0	0	0	0	0	0	1	0	0	6	20	4	0		Marmagao
1·9	...	1·7	0	−0·05	0	...	0	−0·1	3·0	...	0	4	20	3	1	0	0	0	3	0	0	1	0	0	2	21	4	3		Honavar
																														Bombay, Deccan
2·1	...	2·0	0	−0·34	0	...	0	−0·6	4·0	...	2	1	17	4	2	0	0	0	5	2	7	12	2	1	0	6	1	0		Jalgaon
1·5	+0·1	2·3	0	−0·17	0	...	0	−0·3	2·6	−0·6	0	1	0	0	0	0	0	0	30	2	8	7	0	3	0	1	1	9		Malegaon
1·3	0	1·5	0	−0·21	0	...	0	−0·4	3·4	−0·3	0	2	0	2	1	0	0	5	21	3	3	8	5	2	3	0	1	6		Ahmednagar
1·3	−0·1	1·6	0	−0·06	0	...	0	−0·2	1·3	−2·4	0	0	0	0	0	1	2	0	28	4	1	8	2	0	1	1	1	13		Poona
1·0	−0·3	1·5	0	−0·15	0	...	0	−0·3	5·7	0	0	4	10	8	0	0	0	0	9	0	7	13	3	1	1	1	0	5		Sholapur
0·9	−0·8	1·3	0	−0·01	0	...	0	−0·1	6·0	+1·6	4	3	13	1	1	2	4	2	1	2	7	13	3	1	0	2	2	1		Miraj
0·5	...	0·9	0	...	0	...	0	...	5·6		1	12	3	0	0	1	0	0	14	1	9	11	2	0	1	3	0	4		Kolhapur
1·2	−0·3	2·0	0	−0·18	0	...	0	−0·2	3·5	+0·7	0	3	1	6	4	2	1	2	12	0	11	12	4	1	2	1	0	0		Bijapur
0·5	−1·0	0·8	0	−0·12	0	...	0	−0·2	(d) 3·7	+0·9	0	2	26	2	0	0	0	0	1	0	1	28	0	0	0	2	0	0		Belgaum
1·7	+0·3	2·1	0	−0·17	0	...	0	−0·2	5·2	+0·6	0	9	13	4	0	0	0	0	5	1	12	12	2	0	0	1	1	2		Gadag
																														Hyderabad, North
2·0	+0·4	2·0	0	−0·29	0	...	0	−0·5	4·2	−0·4	0	15	14	2	0	0	0	0	0	2	2	10	3	4	4	3	1	2		Aurangabad
1·0	...	1·5	0	−0·36	0	...	0	−0·7	...	...	0	25	3	2	0	0	0	1	0	0	29	0	1	0	0	1	0	0		Parbhani
1·0	−1·1	0·9	0	−0·22	0	...	0	−0·5	5·8	−0·6	0	2	9	9	8	2	1	0	0	0	15	10	3	1	1	0	1	0		Bidar
0·3	−1·1	1·1	0	−0·21	0	...	0	−0·4	2·2	−0·1	1	0	1	9	1	1	0	0	18	0	20	5	1	0	0	0	1	4		Nizamabad
0·6	...	0·9	0.18	...	0·18	31	1	...	1·9	...	0	1	0	3	0	0	0	0	27	4	14	6	4	0	0	0	0	3		Ramagundam
																														Hyderabad, South
0·7	−0·6	0·6	0	−0·21	0	...	0	−0·3	5·4	+0·7	5	15	6	2	1	1	0	0	1	4	12	10	2	1	2	0	0	0		Gulbarga
1·0	−0·5	1·5	0	−0·13	0	...	0	−0·2	5·8	+0·4	2	4	7	12	1	0	0	5	0	0	10	12	8	1	0	0	0	0		Raichur
0·7	−1·5	1·2	0	−0·31	0	...	0	−0·5	4·1	+0·9	0	0	2	3	0	0	0	0	26	1	6	13	7	0	0	0	0	4		Hyderabad (Begumpet)
0·1	−2·5	1·3	0·09	−0·31	0·09	31	0	−0·7	3·3	−0·3	0	1	2	9	9	3	0	1	6	5	11	4	5	3	0	0	0	3		Hanamkonda
																														Khammameth (R)
																														Mysore
0·6	−1·6	1·1	0	−0·25	0	...	0	−0·3	6·0	+1·4	0	0	15	11	0	0	0	1	4	0	2	23	4	0	1	0	0	1		Chitaldrug
1·5	−1·0	2·0	0	−0·17	0	...	0	−0·3	4·6	+1·5	0	0	25	3	0	0	0	0	3	0	1	28	1	0	1	0	0	0		Hassan
3·4	+0·4	2·2	0	−0·24	0	...	0	−0·5	7·4	+2·3	0	6	21	4	0	0	0	0	0	0	9	12	9	1	0	0	0	0		Bangalore
1·4	−1·3	1·6	0	−0·14	0	...	0	−0·3	8·5	+2·6	7	12	10	1	1	0	0	0	0	1	11	17	1	0	0	0	0	1		Mysore

(R) Register not received. (d) Mean of 27 days.

TABLE II—ABSTRACT OF OBSERVATIONS RECORDED AT 0800 HRS. I. S. T. (0230 HRS. G. M.

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relati humid %	
		Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0800 hrs. I.S.T.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.	Departure from normal.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Malabar—																					
Mangalore	72	1011·2	0	1007·7	89·3	+0·2	93	26	69·9	—0·7	67	19	72·8	84·5	66·7	73·1	19·6	—0·8	22·7	71	
Calicut	27	1012·5	+0·1	1008·8	89·3	+1·4	92	5,8	70·1	—0·8	67	4 days	73·1	86·4	68·0	75·5	21·1	—1·7	25·2	76	—
Palghat	319	1002·9	...	998·8	91·1	...	96	30	71 5	...	68	26	74 1	89·3	66·8	69 8	19·1	...	16·1	66	...
Cochin	10	1013·2	+0·4	1009·3	87·5	+0·6	91	14	72·1	—1·4	68	14,20	76·7	84·7	68·6	73·4	20·3	—1·6	22·8	64	—
Alleppey	12	1012·7	...	1009·4	89·4	...	93	6,13	71·0	...	67	17	74·1	84·9	70 2	76·1	24·1	...	24·9	81	..
Trivandrum	211	1005·6	+0·2	1007·7	87·6	...	93	7	71·6	...	67	20	74·0	84·0	69·3	73·7	22·4	—1·1	23·7	78	—
Nagercoil	195	1006·1	...	1003·1	90·3	...	93	11,30,31	73·9	...	69	23	76·4	85·9	69·6	71·3	18·9	...	19·8	61	..
Madras, South-East																					
Pamban	37	1013·3	+0·7	1010·2	81·5	—1·1	83	29,30,31	74·1	—0·4	71	2	77·3	77·9	73·5	74·0	26·5	—0·4	25·9	82	—
Madura	437	999·9	+0·5	995·4	84·2	—1·6	87	28,30,31	68·4	0	64	19,20	72·3	83·1	68·1	70·9	21·3	—1·0	20·2	79	—
Negapatam	31	1014·1	+0·8	1011·0	81·0	—1·3	83	14	71·0	—0·8	67	19	74·2	79·1	69·8	72·1	22·9	—1·6	23·7	81	—
Trichinopoly	295	1005·1	+0·3	1001·2	83·3	—3·6	90	29	67·5	—0·7	63	27	71·7	87·4	67·6	72·6	21·2	—1·7	21·3	80	
Coimbatore	1,341	969·1	+0·4	965·1	85·5	—0·5	89	4 days	65·6	+0·7	62	20	67·8	84·3	63·8	66·1	18·5	—2·0	13·6	78	.
Salem	913	983·8	+0·3	979·3	89·3	+1·2	93	29	65·2	+0·2	61	19,21	67·3	86·0	62·5	69·0	17·1	—3·0	16·4	75	-
Cuddalore	39	1014·3	+0·7	1011·1	81·9	—0·8	83	5 days	68·5	—0·4	65	19,20,29	72·0	79·4	68·4	71·2	22·1	—1·9	22·4	82	-
Vellore	703	991·7	+0·8	987·7	84·6	+0·7	89	28	62·7	—1·5	58	20,29	66·0	82·9	63·4	68·1	18·8	—1·9	16·7	86	
Madras	51	1014·1	+0·6	1011·1	83·4	—1·9	86	31	67·2	+0·1	64	19	70·9	79·7	67·8	69·6	21·8	—1·9	20·1	84	.
Arogyavaram	2,299	937·8	...	934·4	80·3	...	84	30,31	57·9	...	55	4 days	63·3	78·2	59·5	62·3	15·8	...	12·7	80	
Madras, Deccan																					
Cuddapah	428	1001·5	+0·8	997·1	87·7	—0·4	92	30	66·5	+0·8	62	6,13	73·2	84·5	65·7	70·0	18·2	—1·9	18·5	66	-
Bellary	1,473	964·9	+0·5	961·9	85·9	—1·9	90	29,30	62·9	+0·6	60	4 days	67·0	84·8	60·7	65·3	15·3	+0·1	12·5	68	
Kurnool	923	984·1	+0·6	979·9	87·9	—0·5	92	29,30	60·8	—0·8	54	6	66·6	86·4	61·6	66·7	16·3	+0·1	13·5	77	
Rentachintala	348	1004·3	...	1000·3	87·1	—0·1	91	30	62·4	+0·7	58	6	66·3	86·8	62·3	67·8	17·4	+0·2	14·6	79	
Anantapur	1,147	976·1	...	971·9	86·3	...	92	30,31	61·5	...	54	19	67·9	84·5	62·3	68·4	16·6	...	16·5	71	
Madras Coast, North																					
Nellore	66	1013·8	+0·2	1010·8	85·2	0	87	6 days	65·4	—1·3	64	4 days	69·3	80·5	67·3	70·5	22·0	—1·1	21·0	90	
Ongole	38	1014·8	...	1011·4	84·1	...	86	4 days	66·8	...	64	6	70·1	80·3	66 6	69·9	20·7	...	20·2	82	
Masulipatam	10	1016·2	+0·3	1013·0	81·8	—1·2	84	7	66·9	+0·9	65	5 days	71·4	79·3	67·7	70·2	21·5	—0·6	21·1	82	
Cocanada	26	1016·4	+1·0	1012·7	80·2	—0·9	84	7	66·2	—0·2	63	5	73·6	78·3	67·5	70·8	20·3	+0·1	23·3	72	
Vizagapatam	126	1012·3	+0·3	1009·2	80·8	+0·2	82	6 days	65·6	—1·8	61	5	69·0	78·0	64·9	69·5	19·2	—0·5	20·8	79	
Calingapatam	19	1016·1	+0·1	1013·1	82·1	+0·3	89	6	63·3	—0·2	60	6 days	65·5	78·2	62·6	70·1	18·0	—1·2	21·5	84	
Hill Stations excluding Kashmir																					
Shillong	4,921	852·8	+0·3	850·6	58·9	—1·2	65	16,24	39·2	+0·4	31	1	49·7	52·6	46·3	50·0	9·3	+0·7	11·3	76	
Cherrapunji	4,309	872·1	+0·7	869·8	60·9	+0·6	65	16,24	45·4	—0·7	39	1	54·0	53·4	48·8	50·2	9·8	+0·1	11·2	76	
Aijal	3,599	893·9	...	892·2	68·4	...	73	24	53·5	...	47	1	57·8	59·0	53·4	54·4	12·1	...	12·7	75	
Darjiling	7,432	777·1	+0·3	775·1	48·5	+1·5	56	15	36·1	+0·7	31	1	40·7	41·1	38·8	40·0	7·3	+0·3	8·0	86	
Kalimpong	3,965	882·5	—0·4	879·6	60·1	+0·7	69	16	47·9	+1·7	44	2	50·8	53·7	48·8	51·4	11·0	+1·0	12·0	86	
Katmandu	4,388	870·9	...	867·8	65·8	+1·2	70	16,24	37·4	+1·2	30	1	41·1	57·4	40·4	50·7	8·3	+1·5	10·1	94	
Gyantse	13,110	624·2	...	...	48·8	+6·5	65	4	10·5	+2·6	1	19	25·1	...	21·1	...	2·6	—0·5	...	58	
Muktesar	7,592	772·9	0	771·7	55·7	+5·8	64	9,14	39·4	+3·9	34	30	42·5	49·4	33·7	39·7	3·4	—0·8	4·6	42	
Mussooree	6,699	798·3	...	797·5	56·8	+7·3	70	14	40·7	+3·8	34	4,27	44·1	48·3	37·3	43·6	5·1	+0·2	8·1	56	
Simla	7,224	783·7	+2·1	783·7	52·0	+4·5	66	14	39·1	+3·7	32	27,31	43·4	47·1	33·9	38·9	3·3	—0·7	5·3	38	

Cloud amount, (Oktas)			Rainfall, inches				Number of rainy days, (0·10" or more).		Wind velocity, miles per hour		Wind direction—Number of winds from :—																		STATION.
											0800 hrs. I.S.T.									1700 hrs. I.S.T.										
0800 hrs. I.S.T.	Departure from normal	Mean 1700 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
4	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	
																														Malabar
·2	−0·8	1·3	0	−0·11	0	...	0	−0·2	5·0	+0·2	0	1	29	1	0	0	0	0	0	1	0	0	0	0	2	11	17	0		Mangalore
·6	+0·4	2·4	0	−0·35	0	...	0	−0·6	6·2	+1·0	0	14	16	1	0	0	0	0	0	0	0	0	0	0	6	16	9	0		Calicut
·0	...	1·4	0	...	0	...	0	...	8·2	...	0	0	25	6	0	0	0	0	0	0	2	26	3	0	0	0	0	0		Palghat
·9	0	2·4	0	−0·89	0	...	0	−1·1	4·9	+0·8	0	8	22	1	0	0	0	0	0	0	0	1	0	0	4	24	2	0		Cochin
·6	...	1·8	0·02	...	0·01	2,3	0	...	(i) 3·6	...	0	2	15	8	0	0	0	0	6	0	0	0	0	0	1	19	11	0		Alleppey
·3	−0·3	2·5	0·29	−0·50	0·20	11	1	−0·7	3·1	+0·3	3	15	6	1	1	0	0	3	2	0	1	0	1	7	17	5	0	0		Trivandrum
·2	...	3·5	0·09	...	0·04	27	0	...	9·9	...	4	23	2	0	0	0	1	0	1	1	19	4	0	0	5	2	0	0		Nagercoil
																														Madras, South-East
5·0	+1·7	3·5	6·20	+3·63	3·67	1	5	+1·0	12·5	+2·7	16	9	0	0	0	0	0	6	0	13	18	0	0	0	0	0	0	0		Pamban
3·2	−0·4	4·6	0·95	+0·17	0·49	2	2	+0·5	4·2	−0·3	15	6	1	0	0	1	1	3	4	4	18	6	0	0	0	0	0	3		Madura
5·0	+0·7	3·7	0·50	−2·23	0·32	2	2	−1·0	10·8	+2·9	0	9	0	0	0	0	2	19	1	1	29	1	0	0	0	0	0	0		Negapatam
3·1	+0·2	2·8	0·12	−0·87	0·10	2	1	−0·7	6·2	+0·8	16	9	0	0	0	0	0	1	5	0	10	21	0	0	0	0	0	0		Trichinopoly
2·0	−1·4	2·1	0	−0·63	0	...	0	−1·1	4·6	+2·0	12	15	2	1	0	0	0	0	1	8	12	7	4	0	0	0	0	0		Coimbatore
1·7	−1·4	1·4	0	−0·29	0	...	0	−0·7	7·1	+3·2	1	13	11	0	0	0	0	0	6	0	1	27	3	0	0	0	0	0		Salem
4·5	+1·0	4·1	0	−2·35	0	...	0	−2·4	6·7	+2·2	10	3	1	0	0	0	0	17	0	1	27	2	1	0	0	0	0	0		Cuddalore
2·6	−0·2	2·3	0	−1·45	0	...	0	−2·1	4·1	+1·7	0	2	0	0	0	0	0	0	29	0	7	21	2	0	0	0	0	1		Vellore
2·9	−0·2	2·8	0	−1·41	0	...	0	−1·7	11·3	+0·3	1	9	0	1	0	0	0	20	0	1	27	1	2	0	0	0	0	0		Madras
2·3	...	1·7	0	...	0	...	0	...	3·6	...	0	0	0	2	4	0	0	0	25	0	12	15	3	0	0	0	0	1		Arogyavaram
																														Madras, Deccan
0	−2·2	1·7	0	−0·39	0	...	0	−0·6	6·5	+0·1	0	0	0	1	0	0	0	0	30	0	2	19	9	0	0	0	0	1		Cuddapah
1·9	−0·2	1·4	0	−0·10	0	...	0	−0·3	2·5	−0·2	0	0	0	2	0	0	0	0	29	0	1	19	5	0	0	0	0	6		Bellary
0·8	−0·9	1·3	0	−0·15	0	...	0	−0·3	3·0	+0·1	0	0	2	6	1	0	0	0	22	0	4	9	9	2	0	0	0	7		Kurnool
0·7	−2·9	1·3	0	−0·01	0	...	0	...	2·6	−0·7	0	0	1	1	1	0	0	0	28	3	6	10	6	1	1	0	0	4		Rentichintala
0·4	...	0·7	0	−0·24	0	...	0	−0·3	6·6	...	0	0	7	2	2	1	0	0	19	0	8	23	0	0	0	0	0	0		Anantapur
																														Madras Coast, North
1·0	−2·4	1·1	0	−1·31	0	...	0	−1·4	2·1	−0·7	2	0	0	0	0	0	0	1	28	0	1	29	1	0	0	0	0	0		Nellore
1·9	...	0·8	0	...	0	...	0	...	3·5	...	1	2	3	2	0	0	2	1	20	0	1	14	15	0	0	0	0	1		Ongole
2·2	+0·3	1·0	0	−0·20	0	...	0	−0·3	4·7	+0·8	4	6	4	3	0	0	0	9	5	0	0	4	18	4	0	0	0	5		Masulipatam
0·8	−1·9	0·9	0	−0·28	0	...	0	−0·5	6·1	+0·6	7	10	0	0	0	0	0	13	1	0	0	1	30	0	0	0	0	0		Cocanada
0·8	−1·8	1·1	0·39	−0·04	0·39	31	1	+0·5	3·1	+0·2	1	0	0	0	0	0	15	13	2	0	0	13	7	10	1	0	0	0		Vizagapatam
1·6	−0·3	1·7	0·35	+0·13	0·20	31	2	+1·4	5·3	+0·5	0	0	0	0	0	0	15	16	0	0	0	11	15	5	0	0	0	0		Calingapatam
																														Hill Stations excluding Kashmir
1·9	+0·4	6·7	0·97	+0·45	0·39	19	4	+2·9	2·0	+0·5	0	1	1	5	0	2	0	1	21	3	2	1	2	1	3	0	4	15		Shillong
2·1	+0·1	3·8	0·54	−0·21	0·48	19	1	−0·5	...	...	1	6	7	3	2	3	2	0	7	0	0	0	1	0	7	2	0	21		Cherrapunji
0·7	...	0·7	0·07	...	0·07	19	0	...	4·2	...	0	0	21	1	0	6	2	0	1	0	2	0	0	1	10	13	5	0		Aijal
4·2	+0·8	5·3	0·35	−0·18	0·32	30	1	−0·2	3·5	+0·9	0	2	13	1	0	1	6	2	6	0	1	6	2	1	0	13	0	8		Darjiling
4·2	+1·8	5·0	0·08	−0·33	0·05	30	0	−0·9	4·7	−2·0	2	0	0	0	0	0	3	20	6	0	0	0	25	6	0	0	0	0		Kalimpong
4·9	−0·1	2·9	0·02	−0·36	0·02	18	0	−0·8	1·1	−0·1	3	0	3	3	0	0	0	0	22	6	1	1	1	2	0	0	5	15		Katmandu
1·0	−0·3	...	0	−0·01	0	...	0	0	0·9	−3·2	0	0	2	4	0	0	0	0	25	...	...	...	...	...	...	...	...	...		Gyantse
1·8	−1·3	2·3	0·12	−2·04	0·10	26	1	−2·6	8·7	+3·1	1	4	1	1	1	0	11	9	3	0	0	1	0	0	6	18	5	1		Muktesar
2·6	−1·0	3·7	1·23	−1·48	0·77	10	2	−3·0	3·3	−1·1	5	7	7	0	2	1	1	0	8	2	3	2	3	11	2	1	1	6		Mussooree
2·6	−1·2	4·3	1·16	−1·45	0·48	28	2	−2·8	2·3	−1·4	6	2	1	4	6	0	0	2	10	3	4	3	5	6	3	0	1	6		Simla

(i)—Mean of 22 days.

TABLE II—ABSTRACT OF OBSERVATIONS RECORDED AT 0800 HRS. I. S. T. (0230 HRS. G. M.

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level, in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relati humidi %	
		Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0800 hrs. I.S.T.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.	Departure from normal.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Hill Stations-(*Contd.*)																					
Abu . .	3,945	884·2	+1·2	882·9	70·2	+4·3	77	20	52·3	+1·6	35	4	56·0	66·0	51·1	56·6	10·8	+5·0	11·9	44	—
Pachmarhi .	3,528	898·3	+0·7	896·6	73·8	+1·8	78	23,25	47·9	+0·2	41	28	52·1	70·9	48·7	57·3	10·2	+0·4	10·7	79	+1
Mahabaleshwar .	4,534	865·7	+0·4	864·5	77·5	+3·1	82	24	57·4	+0·3	54	8	59·2	72·2	51·7	58·9	10·1	+0·8	11·6	56	+
Mercara . .	3,781	887·4	—0·3	884·9	76·6	—0·5	82	30	56·4	—0·8	53	16	58·8	75·1	55·6	61·0	13·8	—1·3	12·7	81	
Ootacamund .	7,364	781·3	+0·3	779·8	70·2	+4·3	75	15	40·5	—2·5	36	14,15,31	47·4	63·3	40·9	53·2	6·4	—1·1	10·2	57	—
Coonoor .	5,730	828·9	...	...	...	...	...	...	45·3	—1·7	40	16,26	61·7	...	53·5	...	11·3	+0·9	...	61	+
Kodaikanal .	7,688	772·5	+0·6	771·1	62·4	+0·2	68	15,17	45·9	—0·7	41	26	51·0	55·4	41·9	50·3	5·8	—1·9	10·6	49	—
Ceylon																					
Colombo .	24	1011·9	+0·1	1008·4	87·0	+0·1	90	5,6,8	71·8	—0·1	66	24	73·6	82·5	71·1	75·2	24·8	—0·2	26·5	88	
Trincomalee .	24	1012·8	+0·3	1010·2	80·3	—1·8	83	26	75·0	+0·4	70	23	74·3	79·2	70·3	74·2	23·5	—2·9	26·6	81	—
Hambantota .	61	1010·1	+0·1	1007·1	85·5	+0·8	88	6 days	73·0 (a)	+0·7	69	25	75·3	81·5	72·0	76·2	25·4	+0·6	28·5	84	—
Mannar . .	12	1013·7	...	1010·5	81·8	...	84	5,8,31	74·4	...	71	25	76·3	79·9	72·6	73·7	25·7	...	25·6	82	...

(*a*) Mean of 30 days.

Cloud amount (Oktas).			Rainfall, inches.				Number of rainy days (0·10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																		STATION.
											0800 hrs. I. S. T.									1700 hrs. I. S. T.									
Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																													Hill Stations–(*Contd.*)
1·4	—0·3	1·7	0	—0·26	0	...	0	—0·6	1·5	—2·0	3	0	0	0	0	1	2	0	25	4	0	0	0	1	3	9	1	13	Abu
1·8	—0·1	1·8	0	—0·64	0	...	0	—1·3	1·6	—0·4	1	2	1	1	2	6	2	0	16	5	5	1	0	0	2	3	7	8	Pachmarhi
0·8	—0·2	1·1	0	—0·14	0	...	0	—0·2	5·9	0	0	13	7	8	1	0	2	0	0	3	3	3	1	2	9	9	1	0	Mahabaleshwar
1·8	—1·6	1·4	0·06	—0·10	0·06	11	0	—0·3	6·4	+2·4	3	12	14	1	0	0	0	1	0	3	15	10	0	1	0	0	2	0	Mercara
1·2	—1·0	1·8	0	—1·29	0	11	0	—1·8	2·9	—0·2	1	5	0	1	2	0	0	0	22	6	12	7	2	2	0	1	0	1	Ootacamund
2·6	—0·7	...	0	—2·46	0	...	0	—2·7	3·2	—0·1	1	0	3	13	11	1	0	1	1	...	...	...	...	...	...	...	...	...	Coonoor
1·7	—1·1	3·9	0·94	—2·25	0·71	11	2	—2·0	10·5	+1·9	1	14	5	9	2	0	0	0	0	0	14	3	5	5	0	0	1	3	Kodaikanal
																													Ceylon
4·6	+0·5	4·6	1·85	—1·94	0·84	10	3	—2·3	...	...	10	13	5	1	0	0	0	0	2	12	7	0	0	0	0	0	12	0	Colombo
5·0	+0·7	5·8	11·77	+4·95	4·45	1	10	+1·9	...	...	9	15	1	1	0	1	1	1	2	20	11	0	0	0	0	0	0	0	Trincomalee
5·0	+1·6	5·5	6·57	+2·62	1·93	10	7	+1·0	...	...	24	4	0	0	0	0	0	3	0	9	18	4	0	0	0	0	0	0	Hambantota
3·4	...	4·2	6·32	...	4·53	1	5	...	...	...	10	18	3	0	0	0	0	0	0	15	16	0	0	0	0	0	0	0	Mannar

TABLE III—ABSTRACT OF OBSERVATIONS RECORDED AT 0800 HRS. I. S. T. (0230 HRS. G. M. T.) AT 4TH CLASS STATIONS—JANUARY 1949.

STATION.	Maximum temperature, °F.				Minimum temperatures. °F.				Mean dry bulb temperature 0800 hrs. I. S. T. °F.	Mean wet bulb temperature 0800 hrs. I.S.T. °F.	Vapour pressure, millibars,		Relative humidity, %		Mean cloud amount 0800 hrs. I. S. T.	Rainfall, inches.				Number of rainy days (0·10" or more).		Resultant
	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest	Date.			Mean 0800 hrs. I.S.T.	Departure from normal.	Mean. 0800 hrs. I.S.T.	Departure from normal.		Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	2
Assam																						
Lumding	75·5	+2·0	81	17	50·1	+2·9	45	2	64·3	59·1	14·8	+1·5	73	—20	..	1·42	+0·86	1·11	19	2	+0·6	.
Kashmir																						
Jammu . .	70·0	+4·9	77	7,24	50·1	+2·3	45	8	53·0	48·2	9·4	+0·8	72	+13	3·9	0·66	—1·63	0·28	10	2	—1·4	N
Kargil (R) .																						
Mysore																						
Balehonnur .	80·8	—0·1	84	3,30	57·8	—0·6	53	31	63·9	60·5	16·6	+1·5	82	+6	..	0	—0·05	0	..	0	—0·2	
Tibet																						
Yatung (Chumbi)	46·7	+1·5	52	24	19·1	—0·5	13	3	24·4	23·7	4·2	+0·3	92	+8	1·5	0·57	+0·01	0·29	18	2	+0·3	

(R) Register not received.

TABLE IV—ABSTRACT OF OBSERVATIONS RECORDED AT 0800 HRS. I. S. T. (0230 HRS. G. M. T.) AT 5TH CLASS STATIONS—JANUARY 1949.

Division.	Station.	Rainfall, inches.				Number of rainy days, (0·10" or more).		Division.	Station.	Rainfall, inches.				Nu rai (0·10
		Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.			Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the
1	2	3	4	5	6	7	8	1	2	3	4	5	6	7
Assam . . .	Mawsynram .	0	...	0	...	0	...	Kashmir .	Sonamarg . .	6·18	—4·12	0·96	17	1
West Bengal . .	Bankura . .	0·50	—0·08	0·50	28	1	—0·2		Gurez . .	11·25	+5·82	1·50	8,30	1
	Cooch Behar .	0	—0·26	0	..	0	—0·5	Bombay Deccan .	Khandala .	0	—0·10	0	—	0
Bihar . . .	Muzaffarpur .	0·60	+0·08	0·60	28	1	—0·1	Madras, Southeast .	Palamcottah .	0·98	—0 73	0·56	1	
	Chapra . .	0·54	—0·03	0 54	28	1	—0·3	Sikkim	Lachung . .	2·52	+1·72	1·12	31	
	Arrah . .	1·05	+0·38	0·56	27	2	+0·7							
Punjab, East .	Dharampore .	0·61	—2·16	0·20	26	3	—1·0							
	Kyelang . .	1·08	—1·43	0·35	3	5	—0·7							
	Dalhousie .	4·82	—2·30	2·02	4	7	—0·4							

Monthly Means of Upper Winds

During the month observations of velocity and direction of upper winds were made at 47 stations in India and neighbourhood, by means of pilot balloons. Particulars of the stations, their coordinates, and the approximate times of the regular pilot balloon ascents at each station are given in the table below. Data from ascents made at the scheduled time or within two hours on either side of the scheduled times of regular observations have been used for averaging. Night and morning ascents were restricted to 10 kms. while the afternoon ascents were unrestricted. Data upto 9 kms. are given under table A and data above 9 kms. under table B.

For ascents during the afternoon only, heights were determined by the tail method as described in pages 146-151 of Vol. XXIV, Part 5 of the Memoirs of the India Meteorological Dapartment. For other ascents heights were calculated from the formula.

$$A = K \frac{L^{\frac{1}{2}}}{(L+W)^{\frac{1}{2}}} \qquad \text{where}$$

A = Rate of ascent of balloon in metres per minute,

L = Effective free lift of the balloon, in grams,

W = Weight of balloon and attachments in grams,

K = A constant which has been taken to be 84,

for ascents during night. For ascents in the morning the value of K used was different for different regions in India and different seasons.

In tables A & B

n represents the number of observations,

V represents the mean speed in m/sec. irrespective of direction,

v represents the resultant mean velocity of wind in m/sec.

and D represents the direction of resultant mean wind in degrees East of North.

Monthly means of previous years have appeared in the following publications:—

(1) Up to the end of 1919, in Vol. XXIII (Part III) of the MEMOIRS of this Department.
(2) 1920 in the MONTHLY WEATHER REVIEWS of that year.
(3) 1921-27 in the INDIA WEATHER REVIEWS of those years.
(4) 1928-35 in the UPPER AIR DATA (Part 13) of the respective years.
(5) 1936-43 in the UPPER AIR DATA (Part A) of those years.
(6) 1944-46 under publications in UPPER AIR DATA (Part A) of those years.
(7) 1947 onwards in the respective MONTHLY WEATHER REPORT of every month.

Particulars of Pilot Balloon Stations in India

Station	Lat. N.	Long. E.	Height of Anemometer head a. s. l. in meters.	Date of opening	Approximate times of flight (I. S. T.)			Remarks
Ahmedabad.	23°02′	72°35′	55	19th May, 1928.	0100	0700	1600	
Allahabad. (Bamrauli).	25°26′	81°44′	103	28th February, 1930.	0100	0700	1600	
Ambala.	30°23′	76°46′	283	1st April, 1941.	0100	0700	1600	
Anantapur.	14°41′	77°37′	364	12th February, 1946.		0700	1600	
Asansol.	23°41′	86°59′	135	29th May. 1942	0100	0700	1600	
Bangalore.	12°58′	77°35′	936	19th May, 1925.	0100	0700	1600	
Bareilly.	28°22′	79°24′	184	12th January, 1943.		0700	1600	
Bhopal.	23°16′	77°75′	530	26th February 1943.	0100	0700	1600	
Bhuj.	23°15′	69°48′	111	14th September, 1937.	0100	0700	1600	
Bikaner.	28°00′	73°18′	229	18th October, 1946.		0700	1600	Shifted from Suratgarh.
Bombay.	19°07′	72°50′	5	14th May, 1933.	0100	0700	1600	Also worked between 27th June, 1919 and 31st March, 1920 and also between 25th April, 1923 and 2nd Jany., 1925.
Calcutta.	22°32′	88°20′	21	14th May, 1921.	0100	0700	1600	Also worked between 30th March, 1919 and 31st August, 1920.
Cochin.	9°58′	76°14′	3	16th March, 1942.	0100	0700	1600	
Cooch Behar.	26°20′	89°27′	53	6th July 1942.		0700	1600	
Cuttack.	20°25′	85°52′	31	5th December, 1942.	0100	0700	1600	

Particulars of Pilot Balloon Stations in India

Station	Lat. N.	Long. E.	Height of Anemometer head a. s. l. in meters.	Date of opening	Approximate times of flight (I. S. T.)			Remarks
Deolali.	19° 53′	73° 49′	576	January, 1946.		0700		Means are published from March, 1947.
Dibrugarh.	27° 28′	94° 55′	110	1st June, 1948.		0700	1600	
Gadag.	15° 25′	75° 38′	650	3rd May, 1943.		0700	1600	
Gaya.	24° 49′	85° 01′	117	19th March, 1937.	0100	0700	1600	
Gopalpur.	19° 16′	84° 53′	79	15th February, 1946.		0700	1600	
Gorakhpur.	26° 45′	83° 24′	79	5th January, 1943.		0700	1600	
Hyderabad (Dn.)	17° 26′	78° 27′	555	1st September, 1929.	0100	0700	1600	
Jagdalpur.	19° 05′	73° 01′	553	25th March, 1948.		0700	1600	
Jamshedpur.	22° 49′	86° 11′	144	23rd July, 1942.		0700	1600	
Jharsuguda.	21° 15′	89° 05′	232	1st May, 1944.	0100	0700	1600	
Jodhpur.	26° 18′	73° 01′	233	15th October, 1934.	0100	0700	1600	
Jubbulpore.	23° 10′	79° 57′	402	30th July, 1928.	0100	0700	1600	
Madhosagar.	26° 13′	78° 00′	232	7th May, 1938.		0700	1600	
Madras.	13° 04′	80° 15′	13	8th April, 1926.	0100	0700	1600	
Malegaon.	20° 33′	74° 32′	443	8th May, 1943.	0100	0700	1600	
Mangalore.	12° 52′	74° 51′	40	4th June, 1928.	0100	0700	1600	
Masulipatam.	16° 11′	81° 08′	10	8th April, 1942.	0100	0700	1600	
Minicoy.	8° 18′	73° 00′	16	14th April, 1941.	0100	0700	1600	
Nagercoil.	8° 10′	77° 27′	69	18th October, 1945.	0100	0700	1600	
Nagpur.	21° 09′	79° 07′	309	23rd April, 1943.	0100	0700	1600	Also worked between 20th August, 1915 and 15th November 1915.
New Delhi.	28° 35′	77° 07′	227	20th October, 1946.	0100	0700	1600	Also worked between 16th November, 1929 and 2nd January, 1932.
Poona.	18° 32′	73° 51′	560	5th January, 1925.	0100	0700	1600	
Port Blair.	11° 40′	92° 43′	87	29th October, 1945.	0100	0700	1600	
Raipur.	21° 50	81° 41′	305	15th July, 1944.	0100	0700	1600	
Saharsa.	25° 52′	86° 37′	52	1st April, 1943.		0700	1600	
Tezpur.	26° 37′	92° 47′	80	12th August, 1932.	0100	0700	1600	
Trichinopoly.	10° 49′	78° 42′	88	22nd June, 1936.	0100	0700	1600	
Trivandrum.	8° 29′	76° 57′	73	8th December, 1928.		0700		
Udaipur.	24° 35′	73° 42′	587	1st July, 1947.	0100	0700	1600	Shifted from Rajsamand.
Vengurla.	15° 52′	73° 38′	91	22nd November, 1941	0100	0700	1600	
Veraval.	20° 55′	70° 22′	17	13th October, 1941.	0100	0700	1600	
Vizagapatam.	17° 42′	83° 18′	57	24th September, 1928.	0100	0700	1600	

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

JANUARY 1949

Station	AHMEDABAD												ALLAHABAD											
Time in I. S. T.	0100				0700				1600				0100				0700				1600			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	1·2	0·9	356	31	1·6	1·2	48	31	1·6	0·8	339	31	0·8	0·2	274	31	1·0	0·6	265	31	2·2	1·7	293
0·15 a.g. .	31	6·6	4·9	8	31	8·6	5·6	38	31	3·0	1·3	325	31	6·0	2·3	324	30	5·9	1·2	267	28	3·6	2·6	302
0·6 a.s.l. .	31	4·8	2·3	8	31	6·7	2·8	58	31	3·2	1·3	319	31	6·0	3·8	314	30	5·3	2·3	304	28	4·0	3·3	301
1·0 „ . .	31	4·0	0·5	288	31	5·2	0·6	10	31	3·3	1·2	309	31	6·6	5·7	307	30	6·4	5·0	304	29	6·7	6·1	304
1·5 „ . .	31	4·5	2·0	241	31	4·7	2·2	265	31	3·9	1·9	269	28	8·9	8·0	302	30	9·3	8·4	307	30	9·2	8·7	302
2·0 „ . .	31	5·7	3·0	225	31	5·7	3·6	248	31	4·6	3·1	260	22	9·5	8·5	302	29	10·8	9·8	306	30	9·9	9·3	303
2·5 „ . .	30	6·5	4·3	238	31	6·9	4·3	254	31	6·3	4·9	259	17	10·5	9·9	301	28	11·6	10·6	304	29	10·8	10·1	300
3·0 „ . .	29	8·4	6·0	252	31	8·0	5·8	259	31	7·9	6·4	253	10	10·8	9·8	297	26	12·6	11·9	302	29	12·3	11·6	295
4·0 „ . .	8	9·6	8·7	252	29	10·9	8·1	266	30	11·6	10·0	262	1	11·5	11·5	265	15	13·6	13·0	293	23	16·3	15·4	289
5·0 „ . .	2	15·7	15·5	254	25	14·1	11·6	274	29	16·0	13·8	265					8	18·2	17·6	293	21	21·0	19·8	284
6·0 „ . .					22	17·4	14·4	275	29	20·8	17·9	266					5	22·1	21·4	295	14	22·0	21·3	281
7·5 „ . .					7	19·3	16·6	268	23	25·3	21·8	268									7	28·3	27·7	274
9·0 „ . .					2	18·5	15·1	250	11	32·0	28·8	255									1	34·0	34·0	275

Station	AMBALA												ANANTAPUR								ASANSOL			
Time in I.S.T.	0100				0700				1600				0700				1600				0100			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	2·2	1·2	331	31	1·7	1·0	339	31	2·3	1·1	316	31	1·7	1·1	121	31	3·6	3·5	74	31	1·6	0·9	351
0·15 a.g. .	31	7·3	4·3	335	31	7·0	3·8	344	31	5·0	3·7	299	31	4·4	3·7	115	31	5·2	5·0	77	31	4·6	2·1	12
0·6 a.s.l. .	31	6·8	3·8	329	31	7·3	4·0	328	31	5·4	2·6	322	31	5·5	5·0	119	31	4·8	4·6	83	31	4·6	2·4	328
1·0 „ . .	31	5·3	2·4	316	31	6·2	3·0	325	31	5·4	3·0	338	31	7·6	7·1	101	31	5·0	4·8	87	31	6·0	5·0	290
1·5 „ . .	31	5·2	2·5	305	30	5·7	2·9	323	31	6·7	2·8	319	31	7·5	6·9	78	31	5·5	5·0	86	30	8·3	7·7	294
2·0 „ . .	30	4·2	2·0	263	29	5·6	3·1	302	30	7·0	4·3	305	31	7·0	5·4	67	31	6·0	4·7	75	26	9·8	8·9	295
2·5 „ . .	29	6·0	4·0	204	28	6·1	4·0	292	30	7·2	5·2	296	31	6·2	4·4	63	31	6·1	4·4	71	14	10·0	9·3	296
3·0 „ . .	22	6·3	4·2	237	27	6·9	4·6	278	30	7·8	4·7	281	31	5·7	3·7	72	31	5·9	3·8	72	12	10·1	9·4	291
4·0 „ . .	3	7·5	7·3	253	24	9·3	6·3	268	25	10·9	9·0	290	31	5·9	2·6	66	31	5·5	2·6	63				
5·0 „ . .	1	15·5	15·5	265	16	19·0	13·2	272	22	14·4	13·0	283	31	6·1	1·5	29	30	5·9	1·8	47				
6·0 „ . .					11	19·8	16·9	268	20	21·0	19·9	270	31	7·3	0·4	237	29	6·8	0·5	311				
7·5 „ . .					4	27·0	25·3	268	11	28·2	24·7	267	30	10·8	4·9	247	26	11·4	5·8	268				
9·0 „ . .									2	26·0	26·0	292	25	14·7	10·9	249	14	14·0	10·3	258				

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

JANUARY 1949

Station	ASANSOL								BANGALORE												BAREILLY		
Time in I. S. T.	0700				1600				0100				0700				1600				0700		
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface	31	1·4	1·0	319	31	1·6	1·3	314	26	2·9	2·8	93	31	2·5	2·3	80	31	3·7	3·3	90	31	1·5	0·4
0·15 a.g.	31	3·5	1·6	342	31	3·4	2·5	306	25	9·2	9·1	98	31	7·5	7·0	92	31	6·1	5·6	89	31	6·4	3·4
0·6 a.s.l.	31	4·4	2·5	332	31	3·6	3·1	306													31	7·0	4·0
1·0 „	31	5·3	3·6	312	31	4·1	3·4	300	26	7·1	6·9	99	31	5·6	5·3	91	31	5·9	5·4	89	31	7·1	4·8
1·5 „	31	7·3	6·3	301	31	6·3	5·8	304	25	7·5	6·2	87	28	8·5	7·6	73	31	6·3	6·0	81	31	6·8	5·9
2·0 „	31	9·5	8·5	304	31	9·7	9·1	304	24	6·1	4·1	70	28	7·5	6·4	75	31	6·0	5·6	81	31	8·0	7·5
2·5 „	31	11·2	10·3	304	29	11·8	11·4	302	15	7·0	6·7	69	27	7·0	6·1	84	31	6·3	5·3	77	30	8·7	7·9
3·0 „	27	12·8	12·0	303	27	14·5	13·6	299	13	7·0	6·4	68	20	6·7	5·8	83	31	5·9	4·6	75	30	10·0	9·4
4·0 „	12	13·7	12·5	300	24	16·7	15·7	290					12	6·4	3·5	80	24	6·1	4·5	76	28	12·0	11·1
5·0 „	5	15·4	14·6	295	13	18·7	17·4	292					8	5·6	1·3	340	20	6·5	2·2	71	14	14·0	13·5
6·0 „	2	17·5	15·5	287	4	21·4	17·7	301					7	7·3	0·8	93	18	6·6	1·4	139	2	14·0	13·9
7·5 „					1	35·0	35·0	350					5	8·5	3·2	190	14	9·9	4·9	207			
9·0 „													4	8·9	1·8	226	6	12·4	8·7	207			

Station	BAREILLY				BHOPAL												BHUJ						
Time in I. S. T.	1600				0100				0700				1600				0100				0700		
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface	31	2·0	1·1	289	31	2·3	0·7	61	31	1·4	0·5	77	31	2·9	0·6	305	31	0·9	0·4	343	31	0·6	0·3
0·15 a.g.	29	4·4	3·1	291	31	7·2	2·4	98	31	5·3	2·6	100	31	3·6	1·2	300	31	5·9	4·3	352	31	4·9	3·7
0·6 a.s.l.	30	5·0	3·6	291	31	6·7	2·2	94	31	4·6	2·2	100	31	3·5	0·9	287	31	6·3	4·4	4	30	6·3	4·0
1·0 „	30	5·7	4·4	302	31	6·4	1·5	108	31	5·1	0·9	108	31	3·5	1·1	290	31	4·9	2·1	318	30	5·1	1·5
1·5 „	31	7·2	6·5	306	31	5·7	1·4	243	31	5·2	1·7	300	31	4·1	1·6	279	31	5·3	3·3	255	30	5·8	2·5
2·0 „	31	8·5	7·9	302	31	5·9	3·7	262	30	6·6	4·9	272	31	4·8	3·0	286	30	6·6	4·0	242	30	7·7	3·9
2·5 „	31	8·8	8·3	301	29	7·2	5·4	263	29	6·8	5·3	281	31	6·1	4·8	284	27	7·2	4.6	247	29	8·0	4·7
3·0 „	31	9·5	8·6	297	25	8·5	6·8	263	28	7·5	6·3	280	30	7·4	6·5	284	24	8·5	6·2	267	27	8·4	6·6
4·0 „	29	13·4	12·1	289	8	10·3	9·1	273	23	10·8	9·3	286	29	12·1	10·6	280	11	10·6	9·4	277	26	11·0	8·9
5·0 „	24	17·5	15·0	287	30	13·7	13·5	278	21	14·4	12·4	281	27	15·1	13·1	279	1	12·0	12·0	250	21	14·2	11·9
6·0 „	20	24·5	22·7	276					19	17·3	14·7	276	27	18·4	15·9	276					18	18·5	16·5
7·5 „	4	26·5	24·1	275					9	21·1	19·9	263	19	22·5	20·4	272					8	20·4	18·6
9·0 „	2	27·0	25·8	269					6	26·6	24·3	262	13	29·6	26·6	263					2	23·5	22·9

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

JANUARY 1949

Station	BHUJ				BIKANER								BOMBAY											
Time in I. S. T.	1600				0700				1600				0100				0700				1600			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	3·1	1·7	343	31	1·1	0·3	80	31	2·2	1·1	335	31	0·5	0·3	36	31	1·1	0·9	61	31	5·1	4·5	195
0·15 a.g. .	31	4·4	3·0	342	31	5·4	1·6	91	31	3·8	1·8	324	31	4·3	4·0	14	31	4·2	2·8	40	31	3·5	2·9	312
0·6 a.s.l. .	31	4·6	3·1	342	31	5·8	1·3	348	31	4·0	1·8	312	31	5·3	4·4	13	31	4·8	3·5	66	31	3·0	1·4	21
1·0 „ . .	31	4·1	2·2	318	31	5·0	2·4	247	31	4·3	2·1	280	31	4·6	2·5	27	31	4·3	3·0	73	31	3·1	1·5	60
1·5 „ . .	31	5·5	3·4	264	31	5·2	3·4	266	31	5·0	3·7	257	31	3·9	1·7	79	31	3·7	1·8	139	31	3·6	1·2	78
2·0 „ . .	31	6·7	4·9	253	30	7·8	6·1	253	31	7·6	6·4	253	31	4·7	2·2	135	31	3·9	1·2	173	31	4·3	0·8	83
2·5 „ . .	31	8·5	5·9	258	30	9·5	7·6	252	31	9·8	8·6	252	29	4·6	1·8	167	31	4·4	1·6	240	31	4·5	0·7	327
3·0 „ . .	30	10·2	7·8	261	29	10·4	8·8	257	30	11·0	9·2	258	25	4·9	0·9	248	31	4·9	2·0	290	30	5·1	2·7	309
4·0 „ . .	28	12·9	10·9	267	22	13·5	11·7	277	27	15·0	13·0	263	10	6·3	4·5	280	29	6·9	3·7	285	26	6·7	4·2	276
5·0 „ . .	25	17·2	14·8	266	12	15·9	14·5	269	20	18·9	17·7	270					27	8·5	4·8	286	25	8·9	5·4	264
6·0 „ . .	21	19·1	17·5	271	2	24·5	24·3	269	12	23·6	22·6	273					25	11·2	7·8	274	25	11·4	7·6	264
7·5 „ . .	12	22·7	20·8	269													14	16·0	13·3	282	19	14·3	11·7	264
9·0 „ . .	3	33·7	29·8	282													4	21·8	20·3	269	10	22·5	18·0	273

Station	CALCUTTA												COCHIN											
Time in I. S. T.	0100				0700				1600				0100				0700				1600			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	1·0	0·4	347	31	1·1	0·7	342	31	1·6	1·5	325	31	0·6	0·4	80	31	1·8	1·6	63	31	3·9	3·4	265
0·15 a.g. .	31	4·6	1·2	18	31	4·4	1·7	17	31	3·3	2·9	318	31	2·7	0·9	77	31	4·1	3·7	75	31	3·9	3·5	261
0·6 a.s.l. .	31	4·3	2·4	329	31	4·1	2·3	332	31	3·3	2·9	314	31	3·3	2·0	94	31	3·5	2·4	75	31	2·6	1·3	28
1·0 „ . .	31	5·1	3·9	324	31	4·7	3·2	317	31	3·9	3·4	313	31	3·5	2·6	87	31	3·1	1·7	64	31	4·2	4·0	60
1·5 „ . .	31	7·3	6·8	310	31	6·9	5·9	313	31	6·2	5·6	312	30	3·9	3·3	57	31	4·5	3·5	70	31	5·3	4·9	[illegible]
2·0 „ . .	31	8·9	8·0	307	31	8·2	7·3	309	31	9·0	8·4	308	30	5·3	4·6	64	31	5·9	5·0	88	31	5·4	4·9	81
2·5 „ . .	27	10·1	9·5	305	29	10·3	9·6	311	31	11·0	10·4	303	29	5·8	5·1	84	31	6·0	5·2	92	31	5·7	4·9	80
3·0 „ . .	26	12·0	11·0	301	29	12·1	11·4	301	31	12·7	12·2	296	28	5·6	4·7	85	30	5·7	4·9	89	31	6·0	4·9	78
4·0 „ . .	1	10·5	10·5	380	23	14·0	13·4	289	27	14·3	13·8	294	14	4·6	4·1	85	28	5·7	4·4	81	31	6·0	4·2	80
5·0 „ . .					10	15·9	15·0	296	16	18·9	18·1	287					25	6·4	4·3	88	31	7·1	4·1	79
6·0 „ . .					3	17·7	17·3	309	12	17·8	17·2	290					23	7·5	2·5	104	26	8·0	4·1	98
7·5 „									1	24·5	24·5	275					11	9·6	2·5	224	16	9·1	1·4	95
9·0 „ . .																	6	13·3	9·2	225	9	11·0	3·9	228

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

JANUARY 1949

Station	COOCH BEHAR								CUTTACK												DEOLALI			
Time in I. S. T.	0700				1600				0100				0700				1600				0830			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	1·6	1·4	67	31	1·3	0·4	142	31	0·1	0·1	45	31	0·2	0·1	311	31	0·3	0·1	325	22	1·0	0·9	3
0·15 a.g.	29	5·4	4·9	78	29	2·5	0·3	258	31	3·6	1·9	208	31	3·2	1·3	333	31	1·9	0·8	341	22	3·3	2·9	7
0·6 a.s.l.	29	5·1	4·2	84	29	2·7	0·6	150	31	3·5	1·4	214	31	3·3	0·2	16	31	1·8	0·9	299	22	2·5	2·2	6
1·0 ,,	29	4·7	2·8	86	29	2·5	0·6	144	31	3·6	1·8	317	31	3·7	1·7	350	31	2·8	2·1	304	22	5·4	4·5	11
1·5 ,,	29	4·7	2·5	93	29	2·2	0·8	127	30	5·1	4·1	336	31	5·0	3·8	345	31	4·6	3·9	317	21	4·2	3·4	12
2·0 ,,	29	4·3	2·0	100	29	3·7	0·8	101	24	6·6	5·7	328	29	6·3	5·4	343	31	6·6	5·9	322	21	4·3	1·5	18
2·5 ,,	29	4·9	0·9	71	28	5·7	2·1	333	20	7·9	7·1	316	28	7·3	6·5	330	31	8·1	7·0	317	20	4·5	2·5	28
3·0 ,,	28	8·7	3·3	300	26	8·5	4·9	296	18	8·0	6·5	307	28	8·0	6·5	315	30	8·7	7·9	310	20	4·8	3·2	30
4·0 ,,	22	14·7	13·9	282	23	14·6	13·6	280	2	13·0	11·7	328	26	8·4	7·3	296	29	10·4	9·4	294	18	7·2	3·7	28
5·0 ,,	13	13·3	12·1	283	14	13·5	12·1	278					22	10·8	9·8	281	26	12·1	11·0	286	17	9·6	4·9	29
6·0 ,,	8	17·3	16·4	283	10	15·2	13·4	292					16	9·9	9·2	258	22	13·6	12·5	281	15	12·3	8·2	27
7·5 ,,	4	18·7	17·9	294	6	21·0	18·6	297					3	12·0	11·4	248	9	14·9	14·6	249	9	16·1	12·9	24
9·0 ,,	4	22·3	21·7	294	3	26·0	21·1	311					1	12·5	12·5	260	4	13·3	13·3	257	2	19·3	19·3	24

Station	DIBRUGARH								GADAG												GAYA			
Time in I. S. T.	0700				1600				0700				1600				0100				0700			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	1·5	1·3	73	31	1·3	0·6	19	31	3·9	3·6	126	31	3·5	2·8	66	31	2·0	1·3	181	31	2·1	1·7	16
0·15a.g.	28	3·0	2·8	60	29	2·1	1·3	31	31	7·9	7·1	119	31	4·6	3·5	76	31	4·2	1·3	265	31	4·2	3·0	22
0·6 a.s.l.	25	2·5	2·2	55	29	2·1	1·6	79									31	5·3	3·8	296	31	4·9	31	27
1·0 ,,	28	2·6	2·2	63	29	2·3	1·3	85	31	8·5	8·1	106	31	4·9	4·0	81	31	6·8	6·3	292	31	5·7	4·4	25
1·5 ,,	28	2·2	0·9	81	29	2·3	0·7	179	31	7·2	6·6	79	31	4·8	4·2	83	31	8·5	8·2	297	31	8·2	7·5	30
2·0 ,,	27	2·5	0·9	158	28	2·9	1·7	193	31	6·1	4·8	69	31	4·8	4·0	81	28	10·6	10·4	297	30	10·4	9·6	30
2·5 ,,	26	2·4	0·7	108	28	3·7	2·0	185	31	5·8	2·9	76	31	5·2	3·1	70	12	10·0	9·7	299	30	11·8	11·3	30
3·0 ,,	26	2·8	0·7	96	28	3·7	2·0	176	31	5·4	2·3	75	30	5·2	3·0	66	8	12·5	11·9	295	28	13·3	12·9	3
4·0 ,,	21	7·5	3·6	288	23	7·8	5·5	253	31	5·5	1·7	61	29	5·4	2·4	47					11	13·9	13·2	2
5·0 ,,	16	16·5	12·5	282	17	12·5	11·9	271	31	6·1	0·9	15	29	5·4	1·1	10					3	19·3	19·3	2
6·0 ,,	10	16·9	13·7	276	15	17·7	17·0	275	31	6·1	1·7	237	29	8·0	2·4	273					1	21·5	21·5	2
7·5 ,,	3	15·2	12·9	279	4	35·0	34·7	280	29	10·8	6·4	269	20	11·4	7·3	259								
9·0 ,,	2	14·3	14·1	302					29	15·4	13·8	259	14	15·1	10·7	248								

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

JANUARY 1949

Station	GAYA				GOPALPUR								GORAKHPUR								HYDERABAD (Dn.)			
Time in I. S. T.	1600				0700				1600				0700				1600				0100			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	3·3	3·0	302	31	3·9	3·9	337	31	3·9	3·5	137	31	1·3	0·3	316	31	1·5	0·8	260	31	1·3	1·1	93
0·15 a.g. .	31	4·7	4·3	300	31	3·7	2·7	336	31	5·1	4·6	131	30	4·5	0·7	307	31	2·8	1·2	267				
0·6 a.s.l. .	31	4·8	4·5	294	31	2·6	0·3	161	31	2·6	1·1	81	30	4·6	1·3	304	31	3·7	2·1	287	31	4·1	3·7	101
1·0 „ . .	31	5·8	5·2	291	31	3·4	1·8	25	31	3·6	2·6	342	30	5·9	2·1	313	31	5·7	3·2	292	31	6·6	6·1	102
1·5 „ . .	31	8·6	8·2	293	31	4·8	3·7	19	31	5·3	4·3	340	30	7·0	4·2	307	31	8·0	6·0	297	31	5·2	3·8	75
2·0 „ . .	31	10·7	10·2	295	31	5·6	4·1	5	31	6·6	4·8	345	30	9·3	7·3	293	31	10·0	9·3	298	31	5·9	3·5	32
2·5 „ . .	30	12·6	12·1	295	31	6·1	4·5	341	31	6·6	5·1	330	28	9·9	9·0	297	30	11·0	10·7	298	30	6·4	2·6	16
3·0 „ . .	28	14·4	13·8	296	31	6·1	4·7	328	31	6·0	4·8	319	22	10·5	10·1	297	26	12·0	11·3	297	30	5·9	2·1	356
4·0 „ . .	22	17·7	16·8	290	31	6·9	5·4	294	31	8·1	6·4	297	14	12·5	12·0	287	19	15·6	15·3	295	2	1·7	1·5	177
5·0 „ . .	16	20·4	19·5	289	30	8·2	6·5	278	30	9·5	8·0	285	6	13·4	12·9	277	16	16·3	15·7	294				
6·0 „ . .	10	25·3	24·3	278	30	10·7	8·9	269	30	10·9	9·0	284	1	20·0	20·0	315	12	19·1	18·4	283				
7·5 „ . .	4	30·6	29·6	270	21	12·1	10·7	245	20	12·0	9·8	255					4	19·4	18·8	282				
9·0 „ . .	1	24·0	24·0	290	15	14·4	13·9	233	11	17·3	16·4	243												

Station	HYDERABAD (Dn.)								JAGDALPUR								JAMNAGAR							
Time in I. S. T.	0700				1600				0700				1600				0700				1600			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	0·5	0·4	132	31	2·5	2·2	88	31	0·1	0·1	63	31	1·8	1·1	29	16	2·2	0·9	58	16	6·3	4·5	348
0·15 a.g. .									31	2·6	1·2	46	31	3·3	1·9	25	15	6·3	5·2	23	16	4·7	2·8	343
0·6 a.s.l. .	31	2·6	2·3	119	31	3·3	2·9	98	31	1·3	0·5	50	31	2·8	1·6	26	15	6·2	4·9	39	16	5·1	2·2	328
1·0 „ . .	31	6·3	5·3	107	31	3·6	3·1	95	31	4·4	3·2	45	31	2·7	1·9	16	15	4·9	1·3	11	16	4·8	2·2	291
1·5 „ . .	30	6·0	4·7	72	31	4·2	3·5	83	30	4·5	3·6	22	31	3·1	2·3	3	15	5·5	2·7	245	16	4·8	3·1	248
2·0 „ . .	30	6·4	4·3	46	31	4·5	2·8	64	30	5·2	3·8	21	31	4·1	2·4	3	15	7·5	3·8	40	16	6·5	4·8	249
2·5 „ . .	30	6·9	3·5	344	31	5·4	19	54	26	5·1	3·2	8	28	5·0	2·5	351	14	8·3	5·5	250	16	7·2	5·1	266
3·0 „ . .	30	6·5	2·9	355	31	5·5	1·2	6	25	5·8	2·9	340	28	5·1	2·4	316	13	9·1	6·6	257	15	8·1	6·8	272
4·0 „ . .	28	5·9	2·1	338	26	5·5	2·2	351	19	6·1	3·3	310	24	7·6	5·1	307	12	13·5	10·7	260	14	11·8	10·2	274
5·0 „ . .	27	7·8	2·4	229	26	7·2	2·9	304	12	8·2	5·7	288	17	9·8	7·6	305	9	16·3	13·7	276	11	16·7	14·5	288
6·0 „ . .	27	8·5	4·2	284	26	9·2	5·0	293	5	10·9	9·2	290	13	12·0	9·1	290	6	16·7	15·6	278	9	18·0	13·5	285
7·5 „ . .	16	10·3	8·4	249	25	12·9	7·3	282	1	20·0	20·0	275	11	17·2	14·0	274	1	13·5	13·5	320	8	22·9	19·5	274
9·0 „ . .	7	16·6	15·4	254	16	16·7	12·1	236					5	24·4	19·2	280	1	20·5	20·5	305	3	23·2	22·5	295

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

JANUARY 1949

Station	JAMSHEDPUR								JHARSUGUDA												JODHPUR			
Time in I. S. T.	0700				1600				0100				0700				1600				0100			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	1·1	1·1	292	31	1·5	0·9	299	31	0·5	0·5	34	31	1·0	0·8	16	31	0·9	0·5	281	31	2·0	1·5	32
0·15 a.g.	31	2·6	2·3	284	31	2·6	1·6	299	31	4·1	2·3	20	31	4·6	3·9	38	31	2·8	2·0	286	31	6·6	3·0	41
0·6 a.s.l.	31	3·4	1·3	319	31	2·6	1·7	301	31	4·7	2·1	329	31	4·4	1·7	21	31	2·8	2·1	281	31	5·4	0·7	73
1·0 ,,	30	4·7	2·4	312	31	3·5	2·5	307	31	4·5	3·2	314	31	4·5	3·0	334	31	3·4	2·5	291	31	4·3	1·8	200
1·5 ,,	30	6·1	4·9	309	31	6·5	6·0	308	31	4·7	3·9	319	31	5·5	4·1	323	31	5·3	4·4	317	31	5·7	3·8	238
2·0 ,,	30	8·8	8·1	311	31	9·2	8·6	305	29	6·7	5·9	322	31	7·7	6·7	317	31	8·0	7·0	320	28	6·9	5·4	247
2·5 ,,	29	10·1	9·5	313	30	10·8	10·1	299	23	8·5	7·7	317	31	8·6	7·5	320	31	8·8	7·7	311	23	8·9	6·9	256
3·0 ,,	28	11·8	10·9	303	30	11·8	11·1	295	19	9·6	8·7	305	31	9·4	8·4	312	31	10·5	9·5	303	9	9·4	7·2	280
4·0 ,,	21	12·8	12·3	292	29	14·5	13·8	292	9	12·4	11·9	295	29	11·8	10·8	296	30	12·1	10·8	291				
5·0 ,,	11	15·0	13·8	283	27	18·3	17·2	286					25	13·9	12·4	278	29	15·5	13·9	284				
6·0 ,,	9	17·8	16·9	276	24	20·8	19·5	284					20	15·4	13·9	268	27	16·7	15·2	282				
7·5 ,,					10	21·1	19·7	275					10	19·1	17·1	260	16	21·3	20·0	280				
9·0 ,,					2	22·3	22·3	265					3	23·2	18·6	280	9	21·6	19·1	270				

Station	JODHPUR								JUBBULPORE												MADHOSAGAR			
Time in I. S. T.	0700				1600				0100				0700				1600				0700			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	1·6	1·5	39	31	1·8	0·3	351	31	1·3	1·0	131	31	1·6	1·4	134	31	1·1	0·7	345	31	1·4	0·9	256
0·15 a.g.	31	4·7	3·3	70	31	3·4	0·8	283	31	4·4	1·4	94	31	4·8	2·6	136	31	2·8	1·6	338	31	5·5	0·3	292
0·6 a.s.l.	31	4·1	0·4	54	31	3·4	1·1	252	31	4·5	1·2	88	31	4·8	2·1	141	31	2·7	1·6	339	31	5·5	0·5	353
1·0 ,,	31	3·9	2·0	253	31	3·3	1·7	251	31	4·6	1·5	326	31	4·8	0·7	342	31	3·4	2·1	328	31	4·5	2·5	299
1·5 ,,	31	5·6	3·7	249	31	4·8	3·5	253	31	5·2	3·2	307	31	5·7	3·6	324	31	4·8	3·5	326	31	6·3	5·1	296
2·0 ,,	31	7·3	5·7	255	31	7·3	6·2	253	31	5·4	4·6	296	31	6·9	5·4	316	31	6·5	5·0	308	31	8·4	7·1	297
2·5 ,,	31	8·4	6·9	253	30	8·1	7·0	254	31	6·7	5·8	297	31	6·8	6·1	298	31	7·6	6·4	294	31	9·3	8·0	292
3·0 ,,	30	9·4	7·8	264	29	9·7	8·6	259	30	8·1	7·3	294	31	8·3	7·3	293	31	8·8	7·9	285	31	10·5	8·9	286
4·0 ,,	24	14·1	12·5	273	27	14·8	13·5	269	17	11·1	9·9	279	28	12·3	11·0	289	29	12·5	11·3	286	26	14·2	12·9	283
5·0 ,,	14	18·1	16·7	272	23	19·5	17·8	273	8	13·3	12·7	271	22	15·2	13·6	282	27	15·9	14·1	282	25	17·7	17·0	286
6·0 ,,	5	25·2	23·4	278	19	24·3	22·5	274	4	15·0	14·6	270	14	16·4	15·7	267	26	19·2	17·4	279	23	22·2	20·4	279
7·5 ,,					5	26·5	25·4	287					6	19·6	19·3	263	19	24·8	22·6	271	19	30·8	29·0	265
9·0 ,,																	6	27·7	27·5	248	10	34·9	31·6	275

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

JANUARY 1949

Station	MADHOSAGAR				MADRAS												MALEGAON							
Time in I. S. T.	1600				0100				0700				1600				0100				0700			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	2·2	1·2	347	31	2·2	1·9	3	31	2·2	1·9	330	31	5·1	4·8	57	31	2·0	1·3	289	31	2·0	1·6	283
0·15 a.g. .	31	3·7	1·7	339	31	6·1	5·7	48	31	4·9	4·1	32	31	6·1	5·8	54	31	5·2	1·8	71	31	3·1	0·7	113
0·6 a.s.l. .	31	3·7	1·4	326	31	6·9	6·6	57	31	6·4	5·9	59	31	6·5	6·1	49	31	5·2	1·8	71	31	3·1	0·7	113
1·0 „ . .	31	4·2	2·4	310	31	6·8	6·5	59	31	7·1	6·7	60	31	6·8	6·4	44	31	5·5	3·5	76	31	5·2	3·9	120
1·5 „ . .	31	5·8	4·4	292	31	6·7	6·0	64	31	8·1	7·2	62	31	7·3	6·1	54	31	4·3	2·9	91	31	4·8	3·6	131
2·0 „ . .	31	7·7	6·4	294	29	7·2	6·0	62	30	7·5	6·6	69	30	6·8	5·7	63	29	3·5	1·4	147	31	4·7	1·6	179
2·5 „ . .	31	8·9	7·6	287	26	7·2	6·2	68	29	7·2	6·2	68	27	6·8	5·7	59	28	4·8	2·4	202	31	5·7	2·3	236
3·0 „ . .	29	11·2	9·8	286	25	6·7	5·6	71	29	6·9	5·5	73	25	6·8	5·0	59	27	5·9	3·9	234	29	5·9	3·2	274
4·0 „ . .	29	14·8	13·6	283	15	6·4	4·0	90	24	5·4	3·0	97	23	6·0	3·6	57	13	7·5	5·5	283	25	7·4	4·4	283
5·0 „ . .	23	18·9	17·6	283	2	5·3	4·5	250	19	6·8	1·5	52	19	6·5	2·0	37					25	9·4	6·3	277
6·0 „ . .	21	23·0	21·4	279	1	18·0	18·0	260	15	9·0	2·3	247	19	7·5	1·2	358					23	12·6	9·8	260
7·5 „ . .	17	29·7	27·3	275					7	12·6	6·4	213	6	13·2	8·7	310					18	17·4	14·4	265
9·0 „ . .	14	35·3	34·0	264					4	13·7	5·7	234	2	13·0	11·4	272					7	18·8	16·1	273

Station	MALEGAON				MANGALORE												MASULIPATAM							
Time in I. S. T.	1600				0100				0700				1600				0100				0700			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	1·7	0·6	39	31	2·2	1·9	79	31	3·3	3·2	91	31	3·7	3·0	277	31	1·1	0·8	98	31	1·2	1·0	29
0·15 a.g. .	31	2·5	0·3	96	31	3·0	2·1	26	31	7·0	6·8	91	31	5·4	4·6	282	31	4·5	4·1	119	31	3·7	3·1	62
0·6 a.s.l. .	31	2·5	0·5	96	31	2·9	2·1	5	31	6·3	5·1	91	31	3·1	1·0	355	31	4·8	4·5	98	31	4·4	3·9	99
1·0 „ . .	31	2·5	0·6	126	31	4·8	3·9	68	31	5·0	3·9	92	31	3·9	3·6	80	31	5·1	4·3	64	31	5·3	4·6	84
1·5 „ .	31	3·0	0·4	153	31	7·3	6·9	89	31	5·5	4·8	89	31	6·6	6·3	79	31	6·6	5·7	42	31	6·1	5·2	50
2·0 „ . .	31	3·9	0·6	188	26	7·3	7·0	100	31	6·5	5·3	85	31	8·3	7·8	79	30	7·4	4·4	44	30	7·8	5·8	49
2·5 „ . .	29	4·6	1·1	234	18	5·8	4·8	95	31	6·3	5·3	87	30	7·3	6·7	84	25	6·8	2·7	36	28	7·5	4·5	51
3·0 „ . .	28	4·6	2·5	266	17	5·8	3·6	89	30	6·4	4·9	80	30	6·1	4·9	75	22	5·7	1·3	48	28	6·1	2·6	33
4·0 „ . .	25	6·8	4·7	270	1	1·0	1·0	15	24	5·7	3·7	79	30	6·5	4·3	82	16	5·6	0·9	52	28	5·0	1·4	46
5·0 „ . .	23	9·8	6·5	275					23	5·3	1·5	89	29	6·0	3·3	79					26	5·7	0·7	283
6·0 „ . .	23	13·1	9·4	273					22	7·1	1·7	189	29	6·9	2·1	88					23	6·1	1·9	251
7·5 „ . .	20	17·1	13·5	274					8	8·5	2·9	212	14	7·8	1·7	286					17	10·2	6·1	253
9·0 „ . .	16	21·1	17·4	273					2	13·3	13·1	255	7	12·0	7·7	240					12	13·3	10·2	237

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

JANUARY 1949

Station	MASULIPATAM				NAGERCOIL												NAGPUR							
Time in I. S. T.	1600				0100				0700				1600				0100				0700			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	2·2	2·0	117	31	5·2	5·1	48	31	3·6	3·3	48	31	5·7	5·2	47	31	1·5	0·5	33	31	1·0	0·6	15
0·15 a.g. .	31	3·9	3·8	113	31	9·9	9·9	49	31	8·7	7·8	46	31	10·9	9·9	56	31	5·6	3·4	82	31	4·7	4·1	50
0·6 a.s.l. .	31	3·9	3·1	66	31	10·7	10·6	41	30	9·0	8·8	42	31	9·0	8·7	50	31	5·6	3·3	95	31	5·5	3·4	87
1·0 ,, . .	31	4·9	4·2	44	31	10·3	10·2	39	30	8·6	8·3	40	31	7·9	7·5	40	31	4·4	2·1	89	31	5·7	2·9	94
1·5 ,, . .	31	5·7	4·8	39	31	10·7	10·3	51	31	9·1	8·5	55	30	8·4	7·9	38	31	4·4	1·3	33	31	5·1	1·8	56
2·0 ,, . .	31	7·3	5·2	37	31	8·4	7·8	77	30	8·1	7·4	74	30	8·3	7·9	47	31	4·7	2·2	333	31	5·1	2·2	336
2·5 ,, . .	31	7·5	4·3	34	29	6·9	6·1	92	30	6·8	5·4	83	29	7·3	6·6	73	31	5·4	3·4	309	31	5·5	3·5	315
3·0 ,, . .	31	6·3	2·9	30	29	5·9	5·0	87	29	6·4	5·3	80	29	7·3	6·3	81	27	7·2	4·6	300	29	6·9	4·6	310
4·0 ,, . .	31	5·7	1·5	353	14	5·4	3·8	83	26	5·9	4·5	91	30	6·5	4·4	85	13	7·7	6·0	292	26	8·7	6·5	290
5·0 ,, . .	31	6·1	2·6	302	8	5·4	4·7	109	26	7·1	4·4	94	31	7·6	5·5	84	5	9·0	8·5	270	23	10·7	8·2	282
6·0 ,, . .	30	7·6	4·2	284	6	6·1	3·9	120	24	7·5	3·7	75	28	9·3	5·8	82	2	12·0	8·6	270	17	11·6	9·1	271
7·5 ,, . .	16	12·2	8·8	243					23	8·8	1·8	327	22	9·1	3·3	87					8	14·0	12·8	254
9·0 ,, . .	8	19·7	18·0	259					18	9·3	4·1	184	17	7·8	1·4	49					5	17·8	16·4	252

Station	NAGPUR				NEW DELHI												POONA							
Time in I. S. T.	1600				0100				0700				1600				0100				0700			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	1·6	0·9	75	31	2·0	1·3	308	31	2·5	1·2	308	31	3·1	1·7	312	31	1·2	0·8	235	31	0·8	0·4	230
0·15 a.g. .	31	2·6	1·3	87	31	7·7	3·2	341	31	6·2	2·2	302	31	4·1	2·2	311	31	3·4	1·3	107	31	0·2	0·1	86
0·6 a.s.l. .	31	2·7	1·2	78	31	7·5	3·3	304	31	6·9	3·6	304	31	4·5	2·9	316	31	2·0	0·5	182	31	1·3	0·3	125
1·0 ,, . .	31	2·8	1·2	44	31	6·4	4·7	294	31	6·5	4·7	299	31	5·8	4·5	306	31	5·8	3·5	71	31	5·5	4·8	105
1·5 ,, . .	30	3·6	1·7	10	30	6·5	5·5	290	31	7·5	6·1	299	31	7·3	5·8	292	31	5·6	4·1	97	31	5·1	4·4	106
2·0 ,, . .	30	4·2	2·3	324	27	7·5	6·4	280	30	7·6	6·1	299	30	8·2	6·7	288	31	4·5	3·5	112.	31	4·3	2·5	112
2·5 ,, . .	30	5·5	3·9	308	19	8·3	7·2	280	30	8·6	6·8	290	30	8·4	6·5	286	31	4·2	1·9	142	31	4·6	0·5	245
3·0 ,, . .	30	6·9	5·1	294	13	8·5	7·4	260	29	9·9	8·3	286	29	9·3	7·6	283	31	5·1	1·2	249	29	4·7	1·6	292
4·0 ,, . .	31	9·3	7·2	284					26	12·3	11·0	281	28	13·9	12·6	286	24	5·8	3·3	275	28	7·0	3·2	295
5·0 ,, . .	27	12·8	10·2	276					22	16·7	15·4	279	27	18·5	17·2	277					28	8·8	5·0	281
6·0 ,, . .	23	14·4	11·2	281					19	23·1	21·1	286	25	23·8	22·6	271					28	11·2	7·8	272
7·5 ,, . .	14	16·6	14·9	260					8	30·6	30·3	270	22	30·8	29·2	274					19	12·4	9·8	275
9·0 ,, . .	7	23·4	22·5	248					2	41·7	41·5	259	15	37·0	36·7	277					10	16·7	16·0	271

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

JANUARY 1949

Station	POONA				PORT BLAIR												RAIPUR							
Time in I. S. T.	1600				0100				0700				1600				0100				0700			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	2·0	1·1	255	31	4·8	4·6	46	31	3·7	3·6	48	31	4·7	4·4	46	31	1·4	0·2	114	31	0·9	0·3	35
0·15 a.g. .	31	2·5	1·2	295	31	8·1	7·9	51	31	7·6	7·3	48	31	8·0	7·7	50	31	4·1	1·6	52	31	3·8	1·5	77
0·6 a.s.l. .	31	2·2	1·2	295	31	8·6	8·4	56	27	8·5	8·3	65	31	8·0	7·6	59	31	4·1	1·7	43	31	3·8	2·0	63
1·0 „ . .	31	2·9	1·3	87	26	8·0	7·7	78	24	8·3	8·1	81	31	7·4	7·1	75	31	3·9	2·0	351	31	4·3	2·1	20
1·5 „ . .	31	2·9	1·3	113	19	7·1	6·4	92	21	7·6	7·1	91	28	5·9	5·4	89	31	3·9	2·5	348	31	4·9	3·0	345
2·0 „ . .	31	3·5	1·4	110	16	5·3	4·2	87	18	5·9	5·1	93	28	4·8	4·3	90	31	5·1	3·5	323	31	6·2	4·3	334
2·5 „ . .	30	3·9	0·7	122	13	5·1	4·3	68	18	4·8	3·8	81	26	4·8	3·6	82	30	6·2	5·2	305	31	6·9	5·8	326
3·0 „ . .	30	3·5	0·5	328	13	5·7	4·2	67	18	4·1	3·0	94	26	4·5	2·4	81	24	8·2	6·9	298	30	8·3	6·6	316
4·0 „ . .	29	5·7	2·5	292	2	3·0	2·7	141	17	5·9	3·4	68	25	4·6	1·5	91	6	10·1	9·1	273	30	9·5	8·1	291
5·0 „ . .	27	7·5	3·8	274					15	6·0	2·6	63	22	5·9	2·7	64	1	4·0	4·0	220	29	13·1	11·3	280
6·0 „ . .	26	10·4	6·7	277					14	6·5	2·9	119	18	7·5	3·5	99	1	5·0	5·0	270	27	15·8	13·5	281
7·5 „ . .	17	13·0	10·3	258					9	9·5	3·0	105	12	10·8	2·2	70					12	17·2	15·0	264
9·0 „ . .	11	17·7	15·9	259					5	9·7	1·8	111	5	15·4	3·9	251					5	22·6	20·2	247

Station	RAIPUR				SAHARSA								TEZPUR											
Time in I. S. T.	1600				0700				1600				0100				0700				1600			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	1·0	0·5	345	31	0·5	0·1	183	31	1·3	0·7	226	31	1·1	1·0	49	31	0·8	0·7	56	31	0·8	0·7	73
0·15 a.g. .	31	2·8	1·3	348	31	4·6	0·9	234	31	2·9	2·1	245	31	4·8	4·6	65	31	3·9	3·7	73	31	3·0	2·6	74
0·6 a.s.l. .	31	3·1	1·7	354	31	3·3	0·5	253	31	3·1	1·9	253	29	4·4	3 5	93	30	4·3	3·7	88	31	3·1	2·3	72
1·0 „ . .	31	3·1	1·8	355	31	3·3	0·2	269	31	3 6	1·7	257	29	3·8	2·4	94	29	4·2	3·0	87	31	3·2	1·3	104
1·5 „ . .	31	4·0	2·4	332	31	5·3	2·2	286	31	5·5	3·3	288	29	2·9	0·8	66	27	3·6	2·4	79	31	3·7	1·4	181
2·0 „ . .	31	5·3	3·9	321	30	6·5	4·1	296	31	7·8	6·2	297	27	2·9	0·6	234	27	3·7	1·5	85	31	4·5	1·8	193
2·5 „ . .	31	6·7	5·0	320	25	7·5	5·3	302	31	11·3	10·5	299	25	3·6	1·5	231	26	3.1	0 8	95	31	5·0	1·5	220
3·0 „ . .	31	7·4	5·4	304	21	10·5	9·3	291	31	14·0	13·5	297	25	4·6	2·5	247	24	4·5	1·3	60	30	6·5	3·6	263
4·0 „ . .	31	10·2	8·3	288	11	13·8	13·6	297	30	15·5	15·3	290	12	11·4	9·7	263	18	10·3	7·4	285	26	14·3	13·0	272
5·0 „ . .	28	13·2	11·3	282	4	18·6	18·6	298	28	18·5	18·1	289					16	18·3	17·2	277	24	19·5	18·5	274
6·0 „ . .	27	14·4	12·9	273	2	16·7	16·7	297	22	21·0	20·3	290					12	19·7	18·1	280	22	21·2	20·4	282
7·5 „ . .	19	18·8	16·6	267					9	24·9	23·3	289					6	23·7	22·3	288	11	27·7	25·8	286
9·0 „ . .	9	21·2	18·3	257					4	29·3	26·5	310					3	25·0	22·6	286	6	30·3	29·2	289

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

JANUARY 1949

Station	TRICHINOPOLY												TRIVANDRUM				UDAIPUR							
Time in I. S. T.	0100				0700				1600				0700				0100				0700			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	2·1	2·0	31	31	1·9	1·7	14	31	3·5	3·3	65	31	1·6	1·1	35	31	0·5	0·4	327	31	0·3	0·3	30
0·15 a.g. .	31	8·3	8·1	40	31	7·0	6·8	23	31	6·3	6·0	61	31	2·9	1·7	58	30	3·3	1·4	354	31	2·5	1·6	32
0·6 a.s.l. .	31	10·4	10·2	53	31	8·8	8·7	47	31	6·9	6·8	54	31	2·9	1·6	84								
1·0 „ . .	31	9·9	9·9	54	31	8·1	7·9	57	31	6·9	6·8	52	31	3·2	2·4	71	30	4·1	0·3	42	31	3·8	1·0	16
1·5 „ . .	31	8·2	7·8	50	28	7·2	6·8	64	31	6·6	6·2	50	31	3·6	1·7	64	31	4·9	2·3	211	31	4·9	2·4	27
2·0 „ . .	31	7·1	6·4	67	27	7·1	6·4	75	31	6·7	6·2	61	31	3·8	2·2	76	31	5·8	4·0	224	31	5·9	4·4	25
2·5 „ . .	30	7·0	6·0	72	27	7·2	6·1	81	31	6·5	5·8	66	30	4·3	3·1	90	31	7·1	5·5	241	31	7·3	5·3	25
3·0 „ . .	30	7·1	5·4	76	27	7·2	6·2	82	30	7·3	6·0	69	28	5·0	4·2	84	29	9·0	7·6	256	29	7·9	6·0	26
4·0 „ . .	7	8·6	7·6	75	27	6·9	5·4	88	29	6·0	4·6	67	27	5·5	4·2	87	4	11·2	10·2	271	27	11·0	8·8	27
5·0 „ . .	1	10·0	10·0	110	27	6·5	4·1	85	29	6·5	3·4	75	20	6·1	4·3	88	2	16·0	15·7	291	17	13·0	11·6	27
6·0 „ . .					25	9·1	3·5	115	27	8·8	2·3	101	19	6·5	1·3	108	1	23·0	23·0	280	7	17·6	16·3	27
7·5 „ . .					19	10·2	2·3	233	24	10·5	2·9	236	16	8·1	2·8	259								
9·0 „ . .					14	12·9	6·7	238	17	11·8	5·3	231	10	8·1	5·1	245								

Station	UDAIPUR				VENGURLA												VERAVAL							
Time in I. S. T.	1600				0100				0700				1600				0100				0700			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	2·0	0·4	205	31	1·4	1·3	7	31	0·8	0·7	15	31	3·5	2·8	258	31	4·0	3·2	360	31	3·6	3·0	
0·15 a.g. .	31	3·5	0·5	202	31	5·1	4·5	24	31	3·4	2·8	66	31	3·4	2·6	261	31	8·0	7·0	3	31	7·3	7·5	
0·6 a.s.l. .					31	6·5	4·1	47	31	6·3	4·7	100	31	2·7	1·3	47	31	4·5	3·0	16	31	5·1	3·5	
1·0 „ . .	29	3·2	0·5	222	31	6·5	4·7	79	31	6·9	5·2	100	31	4·3	3·8	64	31	3·8	1·6	76	31	3·9	1·7	
1·5 „ . .	31	3·7	1·7	258	31	6·4	5·7	85	31	5·5	4·1	87	31	6·3	5·3	70	31	4·5	1·3	95	31	4·1	0·5	2
2·0 „ . .	31	4·8	3·6	262	31	5·8	4·7	92	31	4·6	2·7	80	31	6·4	4·7	73	31	5·4	0·6	241	31	5·6	1·5	2
2·5 „ . .	31	6·1	5·1	260	25	5·0	2·9	86	31	5·0	2·0	81	31	5·6	2·7	63	31	6·9	2·7	264	31	7·2	2·3	2
3·0 „ . .	30	7·6	6·7	263	23	4·5	1·5	97	30	4·7	1·3	57	31	4·9	2·3	60	23	8·1	5·7	252	30	7·7	0·4	2
4·0 „ . .	28	12·0	10·6	268					29	5·1	1·9	64	31	4·9	0·9	61	1	8·5	8·5	240	25	9·7	7·1	2
5·0 „ . .	26	16·0	14·2	273					27	5·8	1·0	27	31	6·0	1·4	320					13	11·7	9·0	2
6·0 „ . .	23	19·9	17·7	272					26	7·2	0·7	241	29	7·6	3·0	268					10	14·1	11·2	2
7·5 „ . .	14	26·5	24·0	265					23	10·1	5·5	252	16	12·9	8·2	260					5	17·5	13·4	2
9·0 „ . .	4	30·7	29·0	268					13	17·8	13·7	271	6	17·8	16·0	248					1	21·5	21·5	2

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

JANUARY 1949

Station	VERAVAL				VIZAGAPATAM												MINICOY							
Time in I. S. T.	1600				0100				0700				1600				0100				0730			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	4·8	3·2	271	31	0·4	0·3	46	31	0·1	0·1	303	31	3·2	2·9	121	31	1·7	1·5	47	31	1·5	1·1	45
0·15 a.g. .	31	5·5	3·5	250	31	1·9	0·3	5	31	1·6	1·1	348	31	4·8	4·3	116	31	3·5	3·0	54	31	3·5	2·8	47
0·6 a.s.l. .	31	4·3	1·5	339	31	2·8	1·5	119	31	2·5	1·3	102	31	3·2	2·3	81	31	3·9	3·4	63	31	3·8	3·3	62
1·0 „ . .	31	4·0	2·4	3	31	3·2	2·1	48	31	3·6	2·6	56	31	3·4	2·2	30	30	5·1	4·3	78	31	5·3	4·8	82
1·5 „ . .	31	4·0	2·0	357	28	4·8	3·7	17	30	5·4	4·2	41	31	5·5	4·4	1	29	6·4	5·5	84	31	6·5	6·1	83
2·0 „ . .	31	4·9	2·1	317	27	5·9	3·8	29	30	6·6	4·3	48	31	7·0	4·4	3	27	6·2	5·1	86	29	6·0	5·1	88
2·5 „ . .	31	6·6	3·3	284	23	7·3	3·1	16	30	7·0	4·2	19	31	7·2	4·4	355	25	5·5	4·7	85	26	5·1	4·4	91
3·0 „ . .	31	7·9	5·3	271	21	6·6	3·4	3	30	6·2	3·4	358	31	6·2	3·5	342	19	4·8	4·2	81	24	5·6	4·7	88
4·0 „ . .	29	11·3	8·9	267	12	5·7	1·1	322	29	6·0	2·8	313	29	6·5	3·6	315	5	4·6	4·0	69	19	5·3	4·2	83
5·0 „ . .	28	12·7	10·6	275					27	6·9	3·7	346	27	7·6	4·5	285	2	5·7	5·7	79	14	6·4	4·6	83
6·0 „ . .	25	16·2	12·9	272					20	8·3	6·0	253	25	8·9	6·5	287					12	7·4	3·9	53
7·5 „ . .	13	19·1	16·0	279					15	11·6	9·4	237	12	9·4	4·7	234					7	7·3	3·6	262
9·0 „ . .	6	26·3	22·0	275					7	13·4	13·1	227	5	10·3	7·6	247					5	13·7	10·0	236

Station	MINICOY																							
Time in I. S. T.	1430																							
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	2·3	2·0	49																				
0·15 a.g. .	31	4·0	3·6	40																				
0·6 a.s.l.	31	4·1	3·8	43																				
1·0 „ . .	31	4·6	4·2	60																				
1·5 „ . .	30	5·6	4·8	70																				
2·0 „ . .	30	5·1	4·0	77																				
2·5 „ . .	26	4·7	3·2	68																				
3·0 „ . .	24	4·9	3·7	59																				
4·0 „ . .	19	6·0	4·2	75																				
5·0 „ . .	16	7·1	4·2	71																				
6·0 „ . .	13	6·3	0·5	151																				
7·5 „ . .	7	7·6	5·5	262																				
9·0 „ . .	4	7·4	6·6	261																				

Table B.—Monthly Mean Directions and Velocities of Upper Winds

Winds at and above 10·0 Km. above sea-level

JANUARY 1949

Height (Km.)	n	V	v	D
ANANTAPUR				
10·0	32	15·1	11·7	206
11·0	14	18·9	17·1	206
12·0	6	16·1	8·9	232
13·0	2	14·0	10·0	184
BANGALORE				
10·0	5	7·3	6·1	137
11·0	1	5·0	5·0	150
BOMBAY				
10·0	3	26·3	26·3	267
COCHIN				
10·0	10	11·4	7·0	256
11·0	5	12·6	6·6	164
12·0	2	16·7	16·3	134
13·0	2	18·7	15·8	140
COOCH BEHAR				
10·0	2	30·7	27·9	318
11·0	1	28·0	23·0	295
CUTTACK				
10·0	1	12·5	12·5	260
DIBRUGARH				
10·0	3	24·7	24·0	181
11·0	1	30·0	30·0	275
12·0	1	24·5	24·5	275
GADAG				
10·0	32	17·3	5·1	266
11·0	3	28·3	24·4	261
12·0	1	30·0	30·0	220
GOPALPUR				
10·0	20	15·8	14·9	235
11·0	4	15·7	15·3	219
12·0	1	12·0	12·0	205
13·0	1	11·0	11·0	235
HYDERABAD (Dn.)				
10·0	9	15·7	9·0	225
11·0	5	12·2	11·2	223
12·0	1	16·5	16·5	225
JAGDALPUR				
10·0	1	38·0	38·0	265
JAMNAGAR				
10·0	1	25·5	25·5	292
JAMSHEDPUR				
10·0	2	28·8	28·8	266
JHARSUGUDA				
10·0	7	23·2	23·0	266
11·0	2	21·5	21·5	247
12·0	2	24·0	24·0	257
JUBBULPORE				
10·0	4	30·5	30·2	249
11·0	2	28·0	28·0	255
MADHOSAGAR				
10·0	19	42·	40·0	266
11·0	15	47·3	19·3	256
12·0	10	53·6	50·1	251
13·0	4	52·7	52·7	250
14·0	2	53·7	53·5	248
15·0	1	49·5	49·5	255
16·0	1	44·5	44·5	250
17·0	1	45·0	45·0	255
18·0	1	48·0	48·0	255
MADRAS				
10·0	4	10·5	1·9	30
11·0	2	16·6	5·4	337
12·0	1	21·5	21·5	320
MALEGAON				
10·0	20	24·3	21·0	277
11·0	9	28·5	24·8	266
12·0	7	31·9	27·3	265
13·0	3	27·0	25·3	300
14·0	1	32·5	32·5	255
15·0	1	32·0	32·0	250
MANGALORE				
10·0	7	11·9	9·4	132
MASULIPATAM				
10·0	15	16·4	14·9	106
11·0	3	18·7	17·1	262
12·0	2	29·7	23·2	272
13·0	1	22·0	22·0	210
NAGERCOIL				
10·0	30	11·3	3·6	150
11·0	10	11·3	1·6	181
12·0	5	16·9	5·0	170
13·0	3	17·5	7·6	183
14·0	3	15·8	13·9	162
15·0	1	5·0	5·0	180
16·0	1	10·5	10·5	150
17·0	1	6·5	6·5	180
NAGPUR				
10·0	5	32·4	31·8	247
11·0	1	24·0	24·0	230
12·0	1	33·5	33·5	240
13·0	1	31·5	31·5	245
NEW DELHI				
10·0	11	44·7	43·8	259
11·0	8	51·7	47·8	262
12·0	4	50·7	46·5	275
13·0	2	52·3	51·4	260
POONA				
10·0	12	21·1	18·4	260
11·0	5	19·2	16·8	276
12·0	4	18·6	17·7	248
13·0	4	24·5	22·9	234
14·0	2	17·0	14·0	260
PORT BLAIR				
10·0	1	13·5	13·5	255
RAIPUR				
10·0	11	27·0	23·5	248
11·0	3	28·5	28·0	239
12·0	3	31·0	30·7	238
13·0	1	27·0	27·0	254
SOHARSA				
10·0	1	30·5	30·5	325
TEZPUR				
10·0	8	31·8	31·1	282
11·0	4	37·2	36·4	286
12·0	2	34·0	31·3	301
13·0	2	39·5	37·9	292
14·0	1	46·5	46·5	310
TRICHINOPOLY				
10·0	29	12·3	8·2	206
11·0	13	14·1	10·7	182
12·0	10	12·9	9·9	168
13·0	7	7·8	6·3	1[illegible]
14·0	7	5·8	1·3	2[illegible]
15·0	5	5·7	2·5	[illegible]
16·0	2	5·5	5·5	[illegible]
17·0	1	10·0	10·0	[illegible]
18·0	1	10·0	10·0	[illegible]
19·0	1	3·5	3·5	3[illegible]
20·0	1	2·5	2·5	36
TRIVANDRUM				
10·0	4	10·5	6·2	21
11·0	1	4·0	4·0	25
12·0	1	6·5	6·5	18
13·0	1	3·0	3·0	22
UDAIPUR				
10·0	2	18·5	17·6	28
VENGURLA				
10·0	17	21·0	17·5	25
11·0	5	20·0	17·8	25
12·0	3	24·3	19·4	25
VIZAGAPATAM				
11·0	6	13·4	12·4	23
MINICOY				
10·0	8	12·0	10·0	27
11·0	2	5·3	5·1	27
12·0	2	3·5	3·5	29
13·0	2	5·0	4·9	3
14·0	1	4·0	4·0	29
15·0	1	8·0	8·0	29
16·0	1	11·0	11·0	2
17·0	1	14·0	14·0	2
18·0	1	9·0	9·0	2

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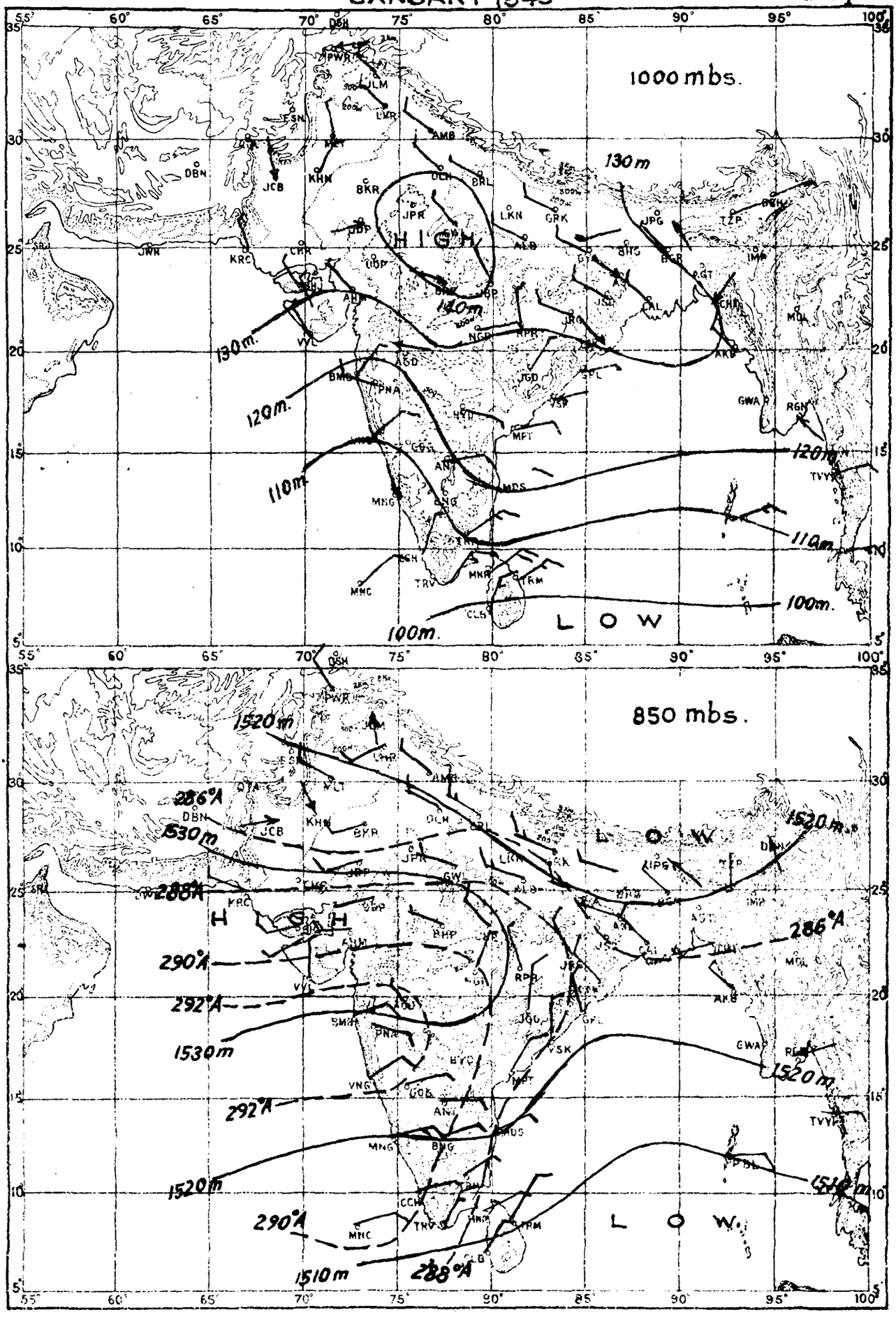
MONTHLY MEAN CONSTANT PRESSURE CHARTS.

JANUARY 1949

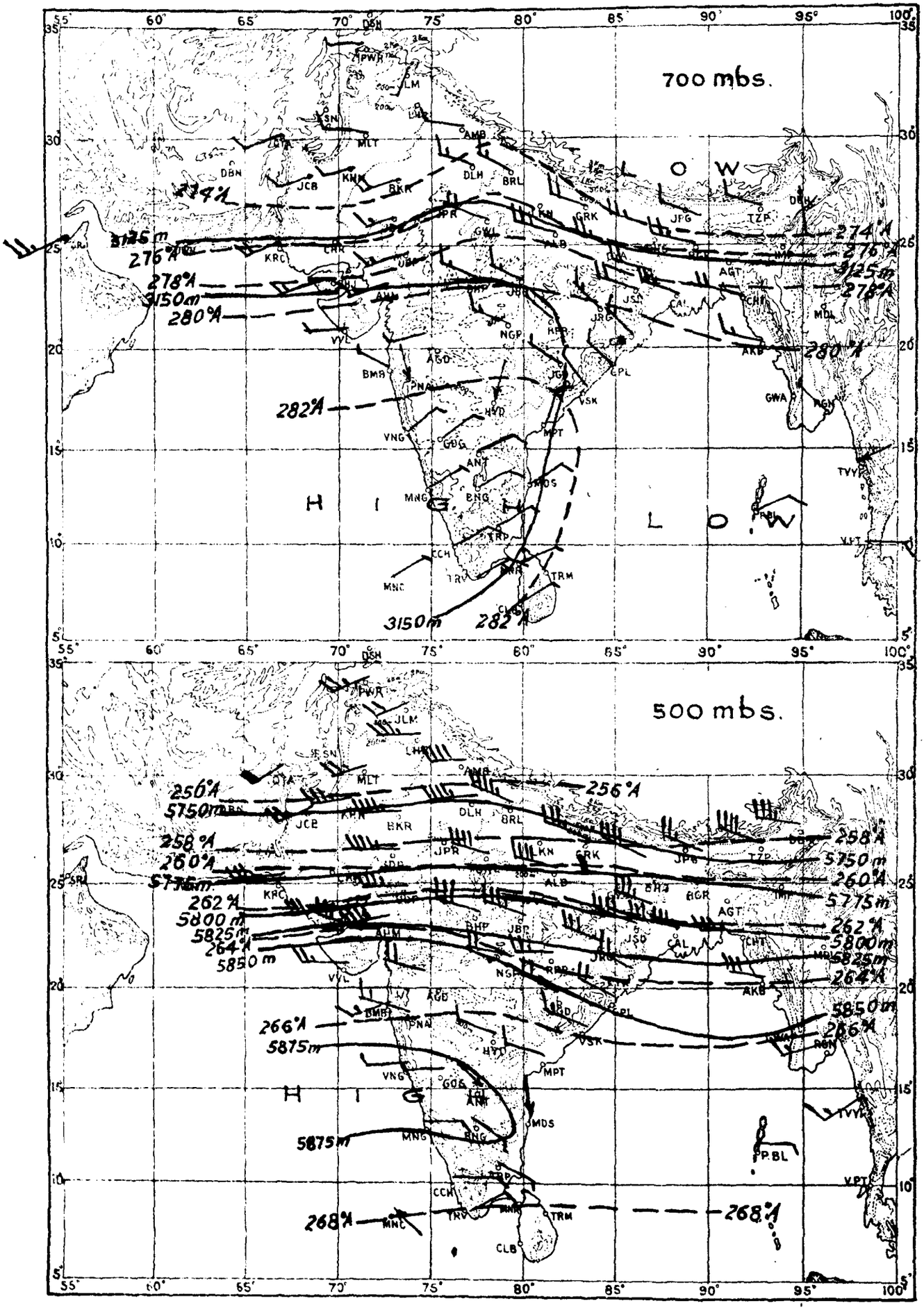
Plate I



MONTHLY MEAN CONSTANT PRESSURE CHARTS.

JANUARY 1949

Plate II



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INDIA WEATHER REVIEW, 1949

Monthly Weather Report

February

Published by authority of the Government of India

Chief feature : A well-marked cold wave during the second week of the month.

Although six western disturbances affected the country during the month, only the first of these was active and caused good rainfall over most parts of northern India during the first week. During the rest of the month, practically dry weather prevailed over most parts of the country. The first western disturbance appeared over Baluchistan on the 2nd and moving eastnortheastwards intensified over the East Punjab on the 4th and passed away across the west United Provinces hills by the next day. It induced a secondary over Madhya Bharat on the 5th which moved eastwards and became unimportant over Assam on the 9th. In association with these disturbances, widespread rain fell in the East Punjab, the United Provinces and Vindhya Pradesh from 3rd to 6th with snowfall in western Himalayas. Many stations in and near the hills of the East Punjab and of the west United Provinces recorded heavy precipitation. The heavy snowfall in the Simla hills is reported to have caused complete stoppage of vehicular traffic and also interruption in telegraphic and telephonic communication with that town. There were also fairly widespread thundershowers in and around Bihar on 5th and 6th and in Chota Nagpur, sub-Himalayan West Bengal and Assam on 6th and 7th.

In the wake of these disturbances, a cold wave set in over Saurashtra, Gujarat and the northern half of the Peninsula between the 6th and 9th and in northeast India on the 8th and 9th. Night temperatures were as low as 10° to 15°F. below normal in many stations over the region extending from Saurashtra and Madhya Bharat to the north Deccan and the east Central Provinces on the 7th and 8th.

Another moderately active western disturbance moving from Baluchistan to the west United Provinces between the 10th and 13th was responsible for fairly widespread thundershowers in the North West Frontier Province and the northwest and northeast Punjab on the 12th and in the East Punjab hills and the west United Provinces on the 13th. Temperatures which were returning to normal after the effect of the cold wave, had again a setback in Rajputana and the central parts of the country where they fell to 4–10°F. below normal on the 14th and 15th. The details of the western disturbances are given in the following table :—

TABLE

S. No.	Period	Course	Region	Nature of precipitation	Period	Remarks
1.	2nd to 5th	Baluchistan to west United Provinces hills.	East Punjab	Widespread rain or snow	3rd to 6th	Induced a secondary over Madhya Bharat. *See* 1 (a).
			United Provinces, Vindhya Pradesh.	Widespread rain	3rd to 6th	Precipitation was heavy in and near west United Provinces, East Punjab hills. A cold wave set in behind the disturbance.
			West Rajputana	Local showers	4th	
			North Central Provinces	Local showers	4th, 5th	

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S. No.	Period	Course	Region	Nature of precipitation	Period	Remarks
1 (a).	5th to 9th	Madhya Bharat to upper Assam.	Bihar	Fairly widespread thunder-showers.	5th, 6th	Secondary of 1st disturbance.
			Chota Nagpur, sub-Himalayan West Bengal.	Fairly widespread thunder-showers.	6th, 7th	
			Assam	Fairly widespread thunder-showers.	6th to 8th	
2.	8th to 10th	North Baluchistan to Kashmir.	Extreme north	A few light falls of rain or snow.	10th	
3.	10th to 15th	Baluchistan to west United Provinces.	North West Frontier Province, northwest Punjab, northeast Punjab.	Fairly widespread thunder-showers.	12th	Feeble cold wave came in the wake of the disturbance.
			East Punjab hills and west United Provinces.	Fairly widespread light showers.	13th	
4.	18th to 20th	North Baluchistan to Kashmir.	North West Frontier Province.	A few showers	19th	
5.	20th to 3rd	Baluchistan to Kashmir.	North West Frontier Province.	Local showers	21st, 22nd	Induced a secondary over Madhya Bharat *vide* 5 (a).
			Northwest Punjab, Baluchistan.	A few showers	21st	
5 (a).	24th to 28th	Madhya Bharat to Eastern Pakistan.	Bihar, Gangetic West Bengal, Assam, Eastern Pakistan.	Local showers	27th	Secondary of fifth western disturbance.
			Upper Assam	Fairly widespread showers	28th	
6.	27th	Baluchistan	..	—	—	Continued into next month.

In association with the secondary of the fifth western disturbance there were local thundershowers in Assam, Eastern Pakistan, Gangetic West Bengal and Bihar on the 27th and fairly widespread thundershowers in upper Assam on the 28th. Local showers also occurred in Saurashtra and Gujarat on the 13th.

Day temperatures were as high as 8° to 16°F. above normal in northern India and western Pakistan on the 20th and 21st.

The month's rainfall was in large excess in the Bay Islands, Bihar, the United Provinces and the East Punjab and normal in Vindhya Pradesh. It was in slight defect in Saurashtra and Cutch, in moderate defect in Assam, west Rajputana and north Hyderabad and in large defect elsewhere being nil in the Konkan, the Bombay Deccan, south Hyderabad, Malabar and the Madras Deccan. Averaged over the plains of India, the rainfall for the month was 7 per cent in defect. The mean maximum temperature was normal over the country. The mean minimum temperature was above normal in the east United Provinces, Saurashtra and Cutch and Gujarat and below normal in Orissa and south Hyderabad. Relative humidity was in excess in Vindhya Pradesh and in defect in Assam, Orissa and the Madras Deccan. Cloud amount was in excess in the Bay Islands and Malabar and normal in Assam, the United Provinces, the Konkan, Myscre and southeast Madras. Elsewhere it was in defect. Data from Kashmir are not available.

Table I contains the divisional and sub-divisional means of rainfall, temperatures, humidity and cloud amount for the 13 chief political divisions and the 27 sub-divisions. The stations whose observations are used for preparing these means are given in the subsequent tables.

The highest maximum temperature given for any station in the accompanying tables is that recorded within the 24 hours ending at 8 hrs. I. S. T. of the date noted in the succeeding column ; similarly the heaviest fall in 24 hrs. for any station denotes the amount recorded during the 24 hours ending at 8 hrs. I. S. T. of the date given in the succeeding column.

POONA 5 :
The 25th October 1949

S. BASU,
for *Director General of Observatories.*

—	Rainfall.				Departure from normal of				
							0800 hrs. I.S.T.		
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Maximum temperature.	Minimum temperature.	Vapour pressure.	Relative humidity.	Cloud.
1	2	3	4	5	6	7	8	9	10
Division	"	"	"		°	°	mb.	%	
Assam . .	0·80	1·44	−0·64	−44	+1·5	+1·5	0	7	−0·5
West Bengal .	0·19	1·09	−0·90	−83	+0·5	+0·2	−0·6	−2	−1·1
Orissa . .	0·37	1·00	−0·63	−63	+1·5	−2·1	−2·8	−6	−1·1
Bihar . . .	1·50	1·01	+0·49	+49	0	+0·1	0	+1	−0·8
United Provinces	2·14	0·88	+1·26	+143	+0·4	+2·0	+1·1	+3	−0·4
East Punjab .	2·63	1·15	+1·48	+129	+1·5	+0·2	+0·2	+5	−0·9
Rajputana . .	0·15	0·31	−0·16	−52	+1·6	+0·5	−0·7	+1	−1·0
Sub-Division									
1. Bay Islands .	2·22	1·11	+1·11	+100	+0·6	+0·2	−0·6	0	+1·7
2. Assam . .	0·80	1·44	−0·64	−44	+1·5	+1·5	0	−7	−0·5
3. West Bengal .	0·19	1·09	−0·90	−83	+0·5	+0·2	−0·6	−2	−1·1
4. Orissa . .	0·37	1·00	−0·63	−63	+1·5	−2·1	−2·8	−6	−1·1
5. Chota Nagpur .	0·72	1·55	−0·83	−54	+0·4	−0·6	−0·6	−2	−1·2
6. Bihar . .	1·89	0·74	+1·15	+155	−0·3	+0·7	+0·5	+3	−0·5
7. United Provinces, East.	1·74	0·73	+1·01	+138	−0·2	+2·4	+1·1	+3	−0·3
8. United Provinces, West.	2·55	1·03	+1·52	+148	+1·0	+1·5	+1·0	+2	−0·4
9. East Punjab .	2·63	1·15	+1·48	+129	+1·5	+0·2	+0·2	+5	−0·9
10. Kashmir .	Data incomplete								
11. Rajputana, West	0·26	0·42	−0·16	−38	+1·4	+0·3	−1·1	+2	−0·8
12. Rajputana, East	0·03	0·20	−0·17	−85	+1·7	+0·5	−0·5	−1	−1·2
13. Gujarat . .	0·05	0·11	−0·06	−55	+0·6	+2·1	−0·3	+1	−0·6
14. Saurashtra Cutch.	0·09	0·12	−0·03	−25	+1·8	+2·1	−0·2	+4	−0·4

—	Rainfall.				Departure from normal of				
							0800 hrs. I.S.T.		
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Maximum temperature.	Minimum temperature.	Vapour pressure.	Relative humidity.	Cloud.
1	2	3	4	5	6	7	8	9	10
Division—*contd.*	"	"	"		°	°	mb.	%	
8. Bombay (including Saurashtra & Cutch.)	0·03	0·09	−0·06	−67	+1·0	+0·7	−0·3	+1	−0·3
9. Central India (including Madhya Bharat & Bhopal & Vindhya Pradesh.)	0·38	0·43	−0·05	−12	+1·3	+0·9	+0·2	+5	−0·7
10. Central Provinces and Berar. .	0·17	0·70	−0·53	−76	+0·5	−0·6	−1·4	+1	−0·7
11. Hyderabad .	0·10	0·37	−0·27	−73	−0·1	−1·5	−2·2	0	−0·6
12. Mysore . .	0·06	0·18	−0·12	−67	−0·6	−0·5	−0·9	+1	−0·3
13. Madras . .	0·01	0·50	−0·49	−98	0	−0·9	−2·1	−4	+0·1
Mean of India	0·56	0·60	−0·04	−7	+0·7	+0·1	−0·8	0	−0·6
Sub-Division—*contd.*									
15. Madhya Bharat & Bhopal	0·04	0·16	−0·12	−75	+0·9	+1·3	−0·4	+1	−0·6
16. Vindhya Pradesh	0·83	0·78	+0·05	+6	+1·9	+0·4	+0·9	+10	−0·8
17. Berar . .	0·08	0·37	−0·29	−78	−1·5	−0·6	−0·7	+1	−0·3
18. Central Provinces, West.	0·26	0·54	−0·28	−52	+1·0	−0·3	−0·6	0	−0·6
19. Central Provinces, East.	0·10	1·02	−0·92	−90	+0·7	−1·0	−2·4	0	−0·9
20. Konkan . .	0	0·04	−0·04	−100	+1·3	+0·3	+0·2	+2	0
21. Bombay Deccan	0	0·09	−0·09	−100	+0·5	−0·6	−0·5	−1	−0·3
22. Hyderabad, North	0·19	0·37	−0·18	−49	−0·6	−0·1	−1·8	0	−0·8
23. Hyderabad, South	0	0·37	−0·37	−100	+0·3	−2·1	−2·6	0	−0·5
24. Mysore . .	0·06	0·18	−0·12	−67	−0·6	−0·5	−0·9	+1	−0·3
25. Malabar . .	0	0·45	−0·45	−100	+0·4	−0·6	−0·6	−3	+0·8
26. Madras, South East.	0·01	0·63	−0·62	−98	0	−0·4	−2·2	−4	+0·5
27. Madras Deccan .	0	0·28	−0·28	−100	−0·4	−1·7	−3·7	−10	−0·4
28. Madras Coast, North.	0·04	0·53	−0·49	−92	+0·1	−1·2	−1·7	0	−0·8

TABLE II.—ABSTRACT OF OBSERVATIONS RECORDED AT 0800 HRS. I. S. T. (0230 HRS. G. M. T

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature °F.				Minimum temperature, °F.				Dry bulb temperature. °F.		Wet bulb temperature. °F.		Vapour pressure, millibars.			Relative humidity, %	
		Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0800 hrs. I.S.T.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.	Mean 1700 hrs. I.S.T.	0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.	Departure from normal.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Bay islands																					
Port Blair	261	1003·8	−0·6	1000·9	86·1	+0·6	89	5	70·7	+0·2	63	11	79·1	79·0	73·2	73·0	25·2	−0·6	25·0	74	0
Assam																					
Dibrugarh	348	1002·7	−1·3	998·9	75·3	+2·3	82	18,19,27	54·6	−0·1	47	11	62·7	69·0	59·1	62·6	15·5	−0·1	16·4	80	−8
Sibsagar	317	1004·2	−0·9	1000·3	74·4	+1·3	81	18,23	54·0	+0·4	47	11	64·0	67·9	61·0	61·9	17·0	+0·9	16·2	83	−5
Tezpur	258	1006·6	−0·7	1001·8	76·6	+0·2	85	27	57·2	+1·2	51	12,13	62·2	71·4	59·0	63·3	15·7	+0·3	16·2	82	−2
Gauhati	182	1008·4	−0·6	1004·2	78·0	0	88	27	55·7	+1·9	47	8	62·3	74·0	59·0	63·4	15·5	+0·3	15·2	81	−1
Dhubri	115	1009·9	−1·5	1005·6	78·1	+1·1	89	26,27	57·9	+1·7	49	9	63·0	73·9	59·3	62·6	15·7	+0·7	14·1	79	−0
Silchar	96	1012·2	−0·3	1007·5	81·4	+0·8	91	27	56·5	+0·8	43	10	64·1	76·2	60·1	64·1	15·9	−0·5	15·0	79	−1
West Bengal																					
Dum Dum	33	1012·7	..	1009·2	84·3	..	95	27	59·0	..	49	8, 10	66·1	81·2	60·1	63·3	15·0	..	11·7	69	..
Calcutta	21	1013·2	−1·1	1009·6	85·4	+1·7	96	27	60·6	+1·2	51	10	66·1	80·7	61·0	64·0	16·0	−1·0	13·0	74	−8
Saugor Island	10	1013·2	−1·3	1010·0	80·1	−0·5	86	28	64·5	−0·1	53	8	70·7	77·4	64·6	67·1	18·1	−2·7	17·9	70	−11
Sandheads (R)	28																				
Midnapore	149	1008·5	−1·3	1004·8	85·5	+0·1	96	24	58·9	−2·3	49	8,10	65·3	83·1	58·6	62·6	13·9	−1·4	10·2	67	0
Contai	35	1012·6	..	1008·9	85·6	..	94	24,25	61·2	..	50	8	66·6	79·4	62·9	66·9	18·0	..	16·9	65	..
Burdwan	106	1010·0	−1·4	1006·5	83·3	0	94	26	58·2	−0·3	50	8	64·3	81·1	58·2	62·5	13·9	−0·9	10·9	67	−3
Krishnagar	48	1010·6	−1·9	1008·8	86·2	+3·5	95	25,26	55·5	−0·2	46	10	62·5	81·0	57·6	64·5	13·9	−1·3	13·2	73	−3
Asansol	414	999·4	−0·9	996·0	82·2	−0·1	94	26	57·7	+0·3	48	10	64·1	79·4	58·6	65·3	14·3	+0·9	15·0	71	+5
Berhampore	52	1011·8	−1·2	1008·3	82·1	+0·6	95	26	56·3	−0·2	48	8,9	64·1	78·1	59·4	63·2	15·3	+0·6	13·0	70	−3
Malda	103	1010·3	−1·4	1007·2	78·6	−0·7	91	26	55·8	+1·7	48	9	62·5	75·4	58·1	62·7	14·5	+0·4	13·8	76	+2
Jalpaiguri	271	1004·5	−1·0	1000·9	76·9	0	87	26	55·5	+1·7	47	9	58·5	75·1	56·3	62·0	14·6	+0·1	13·1	86	+3
Orissa																					
Balasore	65	1012·1	−0·7	1008·5	86·4	+1·6	99	27	60·1	−1·5	50	8	71·2	78·2	60·5	66·0	13·4	−3·8	16·6	54	−18
Chandbali	20	1013·4	−0·7	1009·9	87·6	+2·5	99	25,26,27	61·5	−2·2	52	8,9,10	67·4	81·5	62·3	66·2	16·9	−3·2	15·3	74	−6
Puri	20	1013·4	−0·6	1010·0	84·2	+1·3	94	21	67·9	−1·2	60	8,9,10	72·1	79·3	66·7	70·6	19·9	−2·4	21·7	75	−4
Gopalpur	56	1012·1	−0·6	1008·7	84·4	+0·9	93	21	64·8	−2·4	57	9	70·5	79·7	64·3	71·3	17·9	−2·8	22·3	71	−5
Cuttack	87	1011·0	−1·0	1006·5	89·2	+1·0	100	27	63·5	−1·3	54	10	67·9	86·5	62·7	66·3	17·2	−2·3	13·0	76	−3
Angul	455	998·5	−0·2	994·3	87·9	+1·1	98	25	59·6	−1·7	50	8	66·0	85·5	57·5	62·5	12·4	−3·9	8·9	58	−12
Sambalpur	486	997·4	−0·5	993·6	88·3	+2·0	98	26,27	55·8	−3·6	46	8	64·2	85·7	57·4	63·6	13·0	−2·2	10·2	64	−4
Chota Nagpur																					
Jamshedpur	423	999·4	−0·7	995·4	84·4	+1·1	96	26	56·3	−1·4	47	8	62·1	82·4	56·8	62·3	13·3	−1·5	10·2	71	−4
Chaibasa	742	988·2	−0·7	984·3	85·5	+1·7	97	26	56·8	−0·6	47	9,10	61·0	82·9	55·1	62·7	12·1	−2·6	10·4	68	−6
Ranchi	2,150	939·8	−0·8	937·3	77·6	+0·7	91	26	53·3	−1·7	44	8,10	60·9	74·4	53·4	58·4	10·7	+0·1	9·9	62	+5
Hazaribagh	2,006	944·7	−0·6	942·4	75·5	−1·6	89	26	53·9	−0·3	46	8,9	60·7	71·3	53·4	56·7	10·6	+0·2	9·2	62	−1
Daltonganj	725	989·1	−0·8	985·7	79·8	−0·1	91	25	53·0	+1·1	43	8	61·1	76·4	56·3	60·8	13·2	+0·6	11·2	72	−4
Dhanbad	839	984·4	..	..	81·0	..	94	26	57·6	..	47	8	64·4	..	56·6	..	12·1	..	..	70	..
Bihar																					
Purnea	124	1009·5	−1·2	1006·3	78·5	−0·4	90	26	52·6	+1·0	45	9,10	60·0	74·1	56·5	62·4	14·0	+0·4	14·1	80	+1
Saharsa	156	1008·2	..	1005·4	76·6	..	88	26	54·8	..	47	9	61·7	72·9	57·8	62·4	14·5	..	14·5	77	..
Darbhanga	161	1008·4	−0·9	1005·4	75·6	−2·3	87	25,26	54·5	+1·6	47	9	59·2	73·6	56·6	64·1	14·5	+0·6	16·1	86	+10
Motihari	218	1006·4	−0·8	1003·0	75·0	−1·8	87	26	52·5	+2·5	45	9,10	61·0	71·1	57·7	63·3	14·6	+1·1	16·2	81	+2
Patna	173	1007·9	−1·2	1005·0	77·0	−0·8	90	26	56·1	+1·3	47	10	62·7	73·1	57·2	62·4	13·5	+0·7	14·5	71	+5
Dehri	352	1001·6	..	998·3	79·5	..	92	26	57·2	..	46	9	63·4	75·7	57·9	62·1	13·9	..	13·3	72	..

(R) Register not received.

Cloud amount (Oktas)			Rainfall, inches.				Number of rainy days, (0.10" or more).		Wind velocity miles per hour.		Wind direction—Number of winds from :—																			STATION.
											0800 hrs. I.S.T.									1700 hrs. I. S. T.										
0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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
																														Bay Islands
4·6	+1·7	5·3	2·22	+1·11	1·07	10	4	+2·0	5·9	−1·2	8	13	2	0	0	0	1	1	3	3	17	7	0	0	0	0	1	0		Port Blair
																														Assam
4·2	−0·2	3·5	0·89	−1·55	0·36	28	2	−4·2	1·2	+0·2	5	10	7	0	2	0	0	1	3	0	5	2	0	1	1	0	0	19		Dibrugarh
4·7	−1·1	3·1	1·23	−0·79	0·43	24	4	−1·2	2·2	+0·4	3	5	3	2	4	2	0	1	8	5	4	2	1	3	0	0	4	9		Sibsagar
3·0	0	2·5	0·29	−0·79	0·10	7	1	−1·7	2·0	−0·3	0	7	16	2	1	0	2	0	0	2	4	5	4	0	2	0	1	10		Tezpur
1·9	−0·8	3·2	0·15	−1·02	0·06	7,8	0	−2·6	2·1	+0·6	1	7	1	6	4	1	0	1	7	1	6	2	0	1	2	0	0	16		Gauhati
1·1	−0·9	1·4	0·61	−0·13	0·30	7	3	+1·5	3·3	−0·2	2	9	6	1	2	4	1	0	3	2	3	0	0	0	8	5	0	10		Dhubri
1·5	−0·8	1·8	0·63	−1·26	0·37	27	3	−0·6	1·1	−0·4	1	2	6	3	0	2	3	4	7	0	1	0	0	1	1	1	1	23		Silchar
																														West Bengal
1·0	..	0·6	0·24	..	0·17	14	1	..	3·7	..	6	5	1	1	3	1	2	3	6	8	0	1	1	0	1	2	14	1		Dum Dum
0·7	−1·8	0·9	0·03	−1·14	0·03	7	0	−1·8	1·8	−0·8	1	3	0	2	0	2	2	6	12	7	1	0	0	0	2	2	12	4		Calcutta
0·7	−1·9	0·6	0·02	−1·13	0·02	7	0	−1·8	8·4	+1·7	11	7	2	0	0	6	0	1	1	6	2	0	0	9	6	1	4	0		Saugor Island
																														Sandheads (R)
0·4	−1·6	1·1	0	−1·35	0	..	0	−2·0	3·0	+1·1	8	3	1	0	1	0	2	0	13	12	4	1	0	0	0	0	7	4		Midnapore
0·2	..	0·7	0·07	..	0·07	13	0	..	3·0	..	11	0	0	0	3	0	2	2	10	7	0	1	0	19	0	0	0	1		Contai
1·2	−1·1	1·0	0	−1·32	0	..	0	−2·0	2·7	+1·2	4	4	2	1	1	1	2	4	9	6	3	1	0	0	0	6	10	2		Burdwan
1·2	−1·0	1·0	0·12	−1·03	0·12	7	1	−0·8	0·8	−0·9	0	0	0	0	0	0	1	0	27	0	0	0	0	0	0	1	1	26		Krishnagar
0·8	−1·3	1·3	0·36	−0·89	0·19	7	2	−0·5	4·1	+0·5	1	1	0	1	0	0	8	5	12	2	0	0	1	0	0	2	16	7		Asansol
1·7	−0·5	1·4	0·17	−0·66	0·10	7	1	−0·7	1·4	−0·1	2	2	1	1	3	1	4	1	13	4	2	2	1	1	2	3	3	10		Berhampore
1·1	−0·3	1·5	0·48	−0·35	0·24	27	3	+1·3	2·9	0	3	4	2	0	6	3	4	3	3	8	0	1	0	0	0	5	10	4		Malda
1·6	−0·1	2·6	0·66	−0·01	0·35	7	2	+0·6	2·8	+1·5	10	7	2	0	2	1	0	1	5	0	0	3	2	4	3	8	1	7		Jalpaiguri
																														Orissa
0·6	−1·4	(d) 1·9	0·07	−1·30	0·07	7	0	−2·4	2·6	0	12	2	0	1	2	1	1	4	5	0	0	0	7	8	0	0	0	12		Balasore
1·0	−1·2	0·5	0	−1·31	0	..	0	−1·8	4·5	−0·2	12	0	0	0	2	3	5	3	3	0	2	8	9	2	2	4	1	0		Chandbali
0·8	−1·2	0·9	1·92	+1·00	1·92	7	1	−0·2	8·4	−0·1	9	6	0	0	0	3	5	4	1	0	2	1	10	8	7	0	0	0		Puri
0·9	−0·3	0·8	0	−0·90	0	..	0	−1·2	7·5	−0·1	14	0	0	0	0	1	0	12	1	0	0	3	10	10	5	0	0	0		Gopalpur
0·9	−1·4	0·6	0·30	−0·48	0·30	7	1	−0·5	2·3	+0·8	0	0	0	0	0	0	0	0	28	0	1	0	0	1	0	0	0	26		Cuttack
0·9	−1·5	1·0	0·02	−1·11	0·02	7	0	−2·1	4·4	+0·9	0	0	0	0	1	3	13	9	2	7	4	2	2	1	0	4	7	1		Angul
0·7	−1·0	0·6	0	−0·94	0	..	0	−2·0	2·7	+0·3	5	3	3	0	0	0	0	1	16	5	3	0	1	2	4	3	10	0		Sambalpur
																														Chota Nagpur
0·6	−1·7	1·0	0·09	−1·86	0·09	7	0	−3·7	3·0	+0·7	0	0	1	0	0	2	9	5	11	3	2	2	0	0	1	6	9	5		Jamshedpur
1·2	−0·9	1·4	0·21	−1·28	0·21	7	1	−1·5	1·7	+0·1	0	1	0	0	1	13	0	0	13	2	3	1	0	0	4	4	7	7		Chaibasa
0·7	−1·4	0·6	1·65	−0·15	1·35	6	2	−1·4	2·1	−1·9	0	0	0	0	0	0	3	1	24	2	0	0	0	0	0	4	5	17		Ranchi
1·1	−1·1	1·3	0·62	−0·64	0·51	6	2	−0·5	5·8	+0·3	1	0	1	3	2	3	6	10	2	3	2	0	0	1	0	0	21	1		Hazaribagh
0·7	−0·7	1·3	1·05	−0·22	0·87	6	2	−0·4	2·9	+0·5	0	1	7	3	2	0	4	2	9	3	1	2	1	0	0	8	13	0		Daltonganj
..	..	..	0·34	..	0·16	27	1	..	5·0	..	1	1	2	2	0	9	5	3	5	..	..	..	..	..	..	..	..	..		Dhanbad
																														Bihar
1·3	−0·4	1·4	1·28	+0·66	0·98	6	3	+1·7	2·3	+0·2	2	3	4	0	1	6	4	1	7	0	0	1	0	0	5	8	1	13		Purnea
1·9	..	0·5	1·93	..	1·48	6	3	..	2·0	..	0	4	5	0	2	11	3	0	3	0	0	1	1	0	2	9	[illegible]	14		Saharsa
1·6	−0·1	1·7	2·32	+1·79	1·73	6	2	+0·6	1·6	−0·5	1	3	2	1	2	2	13	1	3	0	0	1	2	0	3	9	[illegible]	3	10	Darbhanga
1·6	−0·1	1·5	2·24	+1·64	1·17	6	3	+1·6	2·2	−0·1	0	0	4	2	0	0	12	1	9	0	0	1	0	0	1	10	[illegible]	0	16	Motihari
2·1	+0·2	1·7	2·46	+1·72	1·60	6	2	+0·4	3·6	+0·8	0	1	4	0	3	11	4	1	4	0	4	1	0	0	0	[illegible]	2	2	9	Patna
1·2	..	1·3	1·33	+0·49	0·97	6	2	+0·2	3·9	..	0	2	1	1	3	13	3	3	2	8	1	3	1	0	0	[illegible]	0	12	3	Dehri

(d) Mean of 27 days.

TABLE II.—ABSTRACT OF OBSERVATIONS RECORDED AT 0800 HRS. I. S. T. (0230 HRS. G. M. T.

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relative humidity, %		
		Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0800 hrs. I.S.T.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.	Departure from normal.	Mean
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Bihar (*contd.*)																						
Gaya	365	1000·8	−1·4	997·9	79·4	0	92	26	55·2	+2·3	46	8	61·1	76·3	56·1	62·0	13·1	+1·7	12·5	72	+9	
Naya Dumka	489	997·6	−0·3	993·4	82·4	+1·9	94	26	53·3	−2·4	46	8,10	67·3	77·8	57·7	61·0	12·0	−1·2	10·8	53	−9	
Sabour	122	1009·2	−1·2	1006·0	78·0	−0·2	92	26	51·9	+0·4	44	9,10	60·2	73·6	57·7	63·9	15·2	+0·9	16·0	85	+3	
U.P., East																						
Gonda	360	1001·1	..	998·5	76·2	−1·8	86	25,26	52·6	+1·2	44	9	56·0	73·5	53·6	60·9	12·9	+0·7	12·7	84	+6	
Gorakhpur	254	1004·3	−0·9	1001·7	76·6	−1·1	89	25,26	55·0	+2·9	48	8,9	59·2	73·6	55·1	61·7	13·0	+0·7	13·6	78	+4	
Banaras	250	1004·5	−1·8	1002·2	78·6	−0·8	91	25	54·6	+2·5	47	8	58·9	77·1	55·4	61·7	13·5	+1·0	11·6	80	+8	
Allahabad (Mamrauli).	322	1002·4	−1·4	999·7	80·0	+0·8	91	25	55·0	+4·1	47	7	58·9	78·1	54·7	61·8	13·1	+2·4	11·6	75	−8	
Fatehpur	375	1001·0	...	997·9	78·7	−1·1	92	22	53·8	+1·5	45	7	59·3	77·9	54·3	61·5	12·0	−0·3	11·9	70	−4	
Kanpur	414	999·2	−1·1	996·6	80·1	+3·1	91	22	54·0	+3·0	46	8,9	57·8	72·6	53·2	61·3	12·2	+1·3	14·6	73	+2	
Lucknow	371	1000·9	−1·9	998·2	78·4	−0·2	87	24,26	53·8	+2·4	48	8	57·0	75·5	53·1	61·4	11·9	+0·6	12·3	76	+5	
Bahraich	407	999·5	−0·4	996·9	76·8	−0·2	86	24,25	52·5	+1·6	44	9	58·1	73·8	56·0	65·7	14·4	+2·6	17·8	87	+10	
U.P., West																						
Jhansi	823	985·1	−1·5	982·2	84·0	+3·1	97	22	53·9	+1·3	45	7,15,16	57·4	82·2	51·8	62·7	10·6	+0·6	10·6	67	+10	
Agra	553	994·8	−0·9	988·6	79·0	+1·6	91	22	52·2	+4·0	43	7	55·3	78·1	49·6	59·2	9·4	+0·4	8·5	65	−1	
Mainpuri	516	994·6	−2·1	993·3	78·8	+1·1	91	22	51·5	+1·7	44	9	57·2	75·3	52·4	62·4	11·3	+0·8	13·1	73	+4	
Aligarh	615	992·2	..	989·9	76·8	+1·1	88	22	49·7	−0·9	43	6,7	53·6	74·9	50·0	58·8	10·7	+0·3	9·9	75	+4	
Bareilly	568	993·2	−1·4	990·8	75·5	+0·4	85	24	53·1	+3·0	46	9	57·8	72·6	53·5	60·5	12·3	+1·0	12·6	75	−3	
Meerut	728	988·2	..	..	73·5	..	84	21	49·0	..	42	9	52·3	..	47·9	..	9·2	..	..	80	..	
Roorkee	899	981·2	−1·8	979·4	71·6	−0·9	83	21	49·0	+2·0	42	7,8	51·2	69·1	49·1	57·4	13·9	+3·6	10·8	86	+4	
Dehra Dun	2,239	935·5	−1·3	934·2	69·9	+0·7	81	21	45·8	−0·8	36	7	49·9	65·8	46·1	54·4	9·0	+0·1	9·2	75	−1	
East Punjab																						
New Delhi	714	988·3	−1·6	986·1	76·3	+1·6	86	21,22	49·7	+0·5	43	7,8,9	52·5	74·2	48·4	56·3	9·7	−0·2	7·4	73	+2	
Hissar	725	989·0	−0·4	986·2	76·5	+0·3	85	22	46·9	−0·3	39	7,8	49·2	74·0	45·7	57·6	8·8	0	8·8	76	+8	
Patiala	822	984·5	..	982·7	72·0	..	83	21	48·1	..	41	6	51·7	68·6	49·1	56·1	10·9	..	9·7	82	..	
Ambala	892	981·1	−2·0	979·6	74·3	+1·2	83	21,22	49·6	+1·8	41	6	52·8	69·5	49·7	56·8	10·4	+0·5	10·2	75	−1	
Ludhiana	810	984·8	−1·5	983·5	73·9	+2·7	84	21	46·4	−1·1	40	9	48·7	70·2	47·2	57·7	10·3	+0·6	10·6	90	+11	
Amritsar	756	986·6	..	985·9	68·4	..	80	21	43·9	..	38	8	46·4	66·1	45·0	56·2	9·3	..	10·8	89	..	
Kashmir																						
Srinagar	5,205	843·8	−0·1	842·6	39·0	−5·1	52	27	27·5	−2·0	20	15	30·0	36·8	28·9	34·1	5·1	−0·5	5·8	89	−2	
Gulmarg	8,709							Closed during winter months.														
Dras (R)	10,059																					
Leh (R)	11,529																					
Skardu (R)	7,[illegible]95																					
Gilgit (R)	4,[illegible]0																					
Misgar (R)	10,[illegible]00																					
Rajputana, West																						
Sri Ganganagar	580	993·5	..	991·3	72·4	−1·2	87	21	44·4	−1·3	31	23	46·7	69·0	44·5	57·4	9·3	−0·8	11·0	84	+1	
Bikaner	734	988·7	0·5	986·6	77·1	−2·0	93	21	47·1	0	40	7	51·8	76·4	49·0	64·5	10·7	+2·9	15·2	81	+22	
Phalodi	794	986·4	..	984·6	80·6	..	99	22	49·9	..	40	7	54·1	78·5	48·7	65·6	9·2	..	15·5	66	..	
Jaisalmer	793	[illegible]85·7	..	982·7	80·6	..	93	21	50·7	[illegible]	38	6	56·1	79·0	48·2	61·4	7·9	..	10·8	59	..	
Jodhpur	736	98[illegible]	+0·4	985·4	82·4	+1·8	94	21	53·6	+1·0	43	7	56·8	81·3	47·7	58·0	7·4	0	5·5	46	−4	
Barmer	638	991·[illegible]3	−0·3	988·9	85·0	+3·7	96	21	56·9	+1·3	43	6	58·6	83·3	50·4	62·8	8·5	−2·4	10·1	52	+9	

(R) Register not received.

Cloud amount, (Oktas)			Rainfall, inches.				Number of rainy days, (0.10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																		STATION.
											0800 hrs. I.S.T.									1700 hrs. I. S. T.									
Mean 0800 hrs.I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																													Bihar (*contd.*)
1·2	−0·6	1·2	1·60	+0·75	1·22	6	2	+0·2	5·1	+1·1	2	0	2	5	12	4	2	1	0	5	0	1	0	0	0	11	10	1	Gaya
0·9	−0·7	0·9	0·49	−0·45	0 25	27	2	0	2·5	+1·0	1	3	3	1	0	7	10	3	0	4	3	1	0	1	5	7	5	2	Naya Dumka
1·1	−1·3	2·3	1·10	+0·31	0·72	6	3	+1·3	3·4	−0·1	0	0	1	3	3	6	8	0	7	5	1	1	1	0	0	9	10	1	Sabour
																													U. P., East
1·4	−0·8	1·5	1·56	+0·65	0·63	5	3	+0·7	4·0	+0·9	0	1	6	1	0	0	11	1	8	0	0	6	0	0	0	10	5	7	Gonda
1·6	+0·1	1·6	2·48	+1·85	1·30	6	3	+1·2	2·4	+0·7	1	1	6	0	0	0	14	0	6	1	0	4	0	0	0	19	0	4	Gorakhpur
1·6	−0·3	0·9	3·45	+2·74	2·64	5	3	+1·1	..	..	0	1	4	1	2	16	2	0	2	1	4	1	0	0	1	16	5	0	Banaras
1·7	−0·6	1·2	1·31	+0·68	0·59	5	4	+2·3	3·6	+1·0	1	0	2	0	0	4	7	1	13	3	0	3	0	0	0	12	4	6	Allahabad (Bamrauli)
1·0	−0·8	1·9	0·65	−0·06	0·28	3	3	+1·6	3·7	+1·1	4	0	5	2	0	3	2	6	6	1	0	3	0	0	0	1	15	8	Fatehpur
0·9	−0·4	1·3	1·24	+0·58	0·60	3	3	+1·4	7·1	+3·0	3	0	3	1	0	6	10	0	5	3	0	3	1	2	1	10	8	0	Kanpur
1·7	−0·1	2·3	1·65	+0·93	0·77	13	4	+2·4	2·3	+1·0	1	0	3	1	1	6	7	1	8	1	2	4	0	0	3	8	5	5	Lucknow
1·7	+0·1	0·2	1·56	+0·65	0·68	6	5	+3·0	4·1	+2 0	0	1	5	3	0	3	3	3	10	1	0	2	1	0	1	6	4	13	Bahraich
																													U. P., West
0·6	−0·8	0·6	0·08	−0·37	0·08	5	0	−1·1	4·0	+1·3	0	0	1	0	0	1	2	2	22	2	0	0	0	0	0	7	3	16	Jhansi
1·4	−0·7	2·2	0·75	+0·26	0·50	5	2	+0·9	2·5	−0·7	1	1	1	1	1	0	9	2	12	1	2	0	0	0	1	5	8	11	Agra
1·9	−0·3	2·2	0·61	+0·07	0·46	5	2	+0·8	3·0	+1·3	0	0	1	2	0	2	7	4	12	0	0	1	2	0	0	8	7	10	Mainpuri
2·1	+0·1	1·9	1·22	+0·46	0·86	5	3	+0·9	5·2	+1·7	2	0	3	2	0	0	11	4	6	2	0	4	1	0	2	1	16	2	Aligarh
2·6	+0·3	3·4	3·26	+2·29	1·36	5	4	+2·1	4·6	+2·6	1	1	4	3	1	2	11	2	3	2	1	4	0	0	1	12	5	3	Bareilly
1·8	..	..	3·25	+2·23	2·22	4	5	+2·3	5·1	..	4	0	4	2	0	0	5	8	5	..	..	..	..	..	..	..	..	..	Meerut
2·2	−0·4	2·5	4·32	+2·80	2·87	5	5	+2·2	3·8	+1·6	0	1	0	4	0	1	0	11	11	0	1	0	6	0	1	0	15	5	Roorkee
2·4	−0·9	3·2	6·87	+4·40	4·18	5	5	+1·2	1·8	+0·1	2	4	0	1	0	0	1	0	20	0	2	0	1	2	3	8	1	11	Dehra Dun
																													East Punjab
2·2	−0·3	2·3	0·78	−0·05	0·49	4	2	+0·3	8·1	..	3	2	5	1	0	1	8	8	0	7	1	1	2	1	3	1	12	0	New Delhi
1·6	−0·6	1·2	1·16	+0·62	0·80	4	3	+1·8	4·5	+0·6	1	1	1	3	3	6	6	2	5	6	2	0	1	1	3	3	11	1	Hissar
3·7	..	3·8	3·45	..	2·33	4	4	..	6·5	..	7	0	3	4	0	0	4	9	1	15	0	3	4	0	1	0	5	0	Patiala
1·5	−2·4	2·1	6·66	+4·79	5·75	4	3	−0·1	..	..	0	0	0	0	0	0	0	23	5	0	0	0	0	0	0	0	26	2	Ambala
2·2	−0·4	2·4	1·90	+0·55	1·44	4	3	+0·3	3·2	+0·5	0	0	3	3	0	0	7	5	10	0	1	1	4	0	1	4	12	5	Ludhiana
3·1	..	3·5	1·83	..	0·74	4	5	..	..	..	4	2	2	2	0	0	0	3	15	3	2	2	2	1	0	1	16	1	Amritsar
																													Kashmir
7·8	+1·6	6·1	5·29	+2·45	2·45	4	11	+4·8	2·1	−0·3	0	0	0	7	5	2	1	3	10	4	1	0	6	1	4	4	5	3	Srinagar
																													Gulmarg
																													Dras (R)
																													Leh (R)
																													Skardu (R)
																													Gilgit (R)
																													Misgar (R)
																													Rajputana, West
1·7	−1·6	0·8	0·41	−0·72	0·30	12	1	−1·0	2·8	−1·4	2	3	2	1	2	2	3	0	13	9	1	1	1	0	3	1	12	0	Sri Ganganagar
1·2	−1·0	0·8	0·51	+0·24	0·40	4	2	+1·3	2·6	−1·0	0	1	2	2	0	9	0	0	14	0	12	0	0	0	10	0	3	3	Bikaner
0·8	..	0·6	0·33	+0·14	0·33	4	1	+0·5	8·2	..	2	5	2	6	6	5	2	0	0	6	1	5	0	0	4	7	5	0	Phalodi
1·2	..	0·8	0	..	0	..	0	..	7·3	..	0	9	0	2	1	6	2	1	7	0	11	0	2	0	7	7	1	0	Jaisalmer
1·2	+1·0	0·9	0·03	−0·21	0·03	5	0	−0·6	5·2	−1.6	0	18	0	0	0	4	2	1	3	0	5	2	0	0	7	7	5	2	Jodhpur
0·5	−1·6	0·4	0	−0·28	0	..	0	−0·6	5·2	+0·3	2	0	0	0	0	4	4	7	11	3	4	2	0	1	5	7	6	0	Barmer

TABLE II.—ABSTRACT OF OBSERVATIONS RECORDED AT 0800 HRS. I S. T. (0230 HRS. G. M. T.

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relative humidity %	
		Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0800 hrs. I.S.T.	Mean 1700 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.	Departure from normal.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Rajputana, East																					
Sikar	1,406	964·8	..	962·1	78·7	..	90	21	48·0	..	35	15	52·7	76·2	46·5	56·6	8·3	..	6·8	60	..
Jaipur	1,431	964·3	−1·2	961·9	79·4	+2·4	91	21	51·5	+0·9	39	15	56·3	77·6	47·5	55·7	7·3	−0·6	5·4	49	−2
Ajmer	1,593	958·9	−1·0	956·4	78·1	+1·1	88	21	50·4	+0·5	38	7	54·1	76·7	46·7	56·9	7.8	−0·6	7·4	56	+1
Kotah	843	985·3	−0·6	982·0	84·2	+2·2	96	22	56·1	+0·7	47	7,15	59·6	82·3	50·9	59·0	8·9	+0·1	6·7	52	+1
Jhalawar	1,053	977·2	−0·6	973·9	83·6	+1·3	95	22	52·9	+0·1	41	6	56·5	82·3	48·7	62·3	8·5	−0·8	10·6	53	−2
Rajsamand	1,850	950·3	..	..	80·3	..	89	21	56·8	..	45	5,6	59·4	..	52·2	..	9·9	..	..	61	..
Udaipur	1,910	943·6	..	945·8	81·6	..	93	21	51·5	..	38	7	56·2	79·0	49·0	59·7	9·0	..	10·0	59	..
Gujarat																					
Deesa*	466																				
Surat	39	1012·5	−0·4	1009·5	91·2	+1·8	101	20,28	62·2	+2·2	48	7	65·2	83·2	68·4	67·5	13·6	+0·1	16·0	65	+2
Ahmedabad	163	1008·7	−0·4	1005·3	88·5	+0·6	97	18,19	62·9	+2·9	52	6	63·9	87·1	54·0	63·1	9·9	0	9·0	49	0
Dohad	1,093	976·1	..	973·3	86·6	−0·1	96	19,22	58·6	+2·1	46	7,8	60·7	84·6	52·1	62·7	9·4	−1·0	9·6	52	−7
Baroda	115	1010·3	..	1006·5	90·7	+1·3	100	18,24	56·2	+1·4	39	7	58·3	89·0	53·2	67·2	11·5	0	12·9	70	+9
Saurashtra and Cutch																					
Bhuj	343	1002·4	−0·4	999·6	85·2	+1·5	94	18	58·6	+2·1	46	7	60·1	84·1	53·3	60·4	10·9	−1·4	7·4	60	0
Dwarka	37	1012·8	−1·1	1010·7	80·4	+1·9	90	23	66·0	+2·8	51	7	67·1	78·1	61·6	65·0	16·3	−0·4	15·2	71	−3
Jamnagar	60	1012·9	−0·2	..	83·5	+0·9	91	28	57·0	+1·2	47	8	61·6	..	56·3	..	13·1	−0·7	..	72	+1
Rajkot	432	998·8	−0·6	995·5	88·7	+2·2	97	18,19	58·4	+4·1	44	7	60·6	86·6	54·4	64·3	11·7	+0·9	10·5	66	+6
Veraval	26	1013·1	−0·6	1010·8	83·5	..	97	20	59·5	..	47	7	62·3	78·5	56·9	65·1	13·4	..	15·0	69	+10
Bhavnagar	55	1012·2	−0·6	1008·9	89·7	+2·4	100	21	58·1	+0·5	43	7	61·3	88·1	53·6	63·6	10·5	+0·6	9·1	57	+8
Madhya Bharat and Bhopal																					
Neemuch	1,626	958·3	−0·5	955·7	82·3	+1·5	95	21	54 7	+2·8	43	6	56·6	80·4	47 7	57·5	7·7	−0·8	6·9	49	−1
Ratlam		..	..	..	80·0	..	92	21	53·1	..	64	4	57·5	81·9	52·5	73·6	11·2	..	24·9	71	..
Indore	1,823	951·2	−0·6	948·6	83·3	+0·2	92	21,22	52·9	+0·6	39	7	57·1	82·7	49·8	59·1	9·3	+0·1	7·6	58	+7
Bhopal	1,643	957·4	−0·4	954·6	83·6	+0·8	93	22	56·2	+1·6	43	7,8	60·9	81·9	51·3	60·1	9·1	−0·3	9·2	51	−1
Guna	1,571	959·5	−0·7	957·0	82·1	+0·9	94	22	50·0	+0·1	35	7	55·2	81·0	48·2	55·5	8·7	−0·6	7·9	61	+1
Gwalior	681	990·1	..	987·2	81·8	..	98	22	51·8	..	40	15	58·8	79·1	51·3	58 6	9·6	..	7·7	57	..
Madhosagar	757	987·4	..	984·5	81·7	..	95	22	56·1	..	47	7	60·4	79·3	52·8	59·2	10·2	..	8 2	58	..
Vindhya Pradesh																					
Nowgong	750	988·1	−0·7	984·8	82·4	+2·4	95	22	51·4	+0·7	41	16	55·4	81·2	51·2	59·9	11·0	+0·3	8·1	73	+4
Sutna	1,041	976·3	−2·2	974·5	81·5	+2·2	92	22	52·4	+0·2	43	15	57·0	79·9	54·5	67·1	13·4	+2·8	16·8	84	+22
Umaria	1,506	961·6	..	959·2	82·3	+1·2	90	21,22	51·9	+0·2	42	4 days	57·6	78·7	52·0	61·1	11·0	−0·4	11·3	69	+4
Berar																					
Buldana	2,133	941·0	..	938·5	84·6	..	96	17	62·1	..	49	7	65·7	81·0	54·7	62·5	10 1	..	11·5	47	..
Akola	925	981·7	−0·3	978·2	89·0	−1·6	97	21,22,24	56·7	−1·1	41	7	60·3	88·1	51·8	63·4	9·3	−0·3	8·8	52	+5
Amraoti	1,213	971·7	−0·5	968·3	87·9	−1·4	97	22	62·0	−0·1	51	7	65 0	87·3	53·7	63·1	9·1	−1·1	8·8	44	−2
C. P., West																					
Khandwa	1,044	977·9	−0·3	976·1	88·1	−0·6	96	19,21	54·4	−1·5	40	7	59·7	87·0	51·3	65·1	9·1	+0·3	11·3	53	+5
Hoshangabad	992	979·9	−0·5	976·8	85·1	+0·2	95	21	54·4	−3·1	45	6	58·3	84·1	50·0	61·6	8·6	−2·0	8·6	53	−1
Saugor	1,808	951·6	−0·6	949·0	80·7	+0·1	91	22	57·7	+2·0	47	7,8	61·8	77·2	51·3	67·8	8·8	+0·4	7·5	46	−1
Jubbulpur	1,289	969·6	−0·1	966·3	84·5	+3·1	95	22	52·1	+1·1	43	8	58·0	82·0	52·2	62·1	10·7	−0·4	11·0	65	+2
Seoni	2,027	944·9	−0·5	942·7	85·3	+2·3	93	4 days	55·1	+0·2	44	8	60·8	81·1	51·3	59·6	9·2	−1·5	8 7	52	−4
Betul	2,144	941·4	..	938·2	82·5	..	90	22	51·8	..	39	8	55·8	80·4	50·1	59·0	10·1	..	8·4	66	..
Nagpur	1,010	979·1	−0·3	975·3	89·3	+1·1	98	22	57·2	−2·7	45	8	63·7	87·3	55·3	57·2	11·3	−0·4	13·6	56	+2

*Data not reliable.

Cloud amount, (Oktas).			Rainfall, inches.				Number of rainy days, (0.10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																			STATION.
											0800 hrs. I. S. T.									1700 hrs. I. S. T.										
Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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
																														Rajputana, East
0·8	..	1·3	0·16	..	0·16	4	1	..	2·9	..	0	0	4	0	0	3	2	0	19	3	0	1	0	0	3	11	8	2		Sikar
0·7	—1·4	1·3	0·17	—0·15	0·14	3	1	+0·2	4·4	+0·5	4	5	6	1	2	0	1	1	8	5	1	1	0	2	1	8	8	2		Jaipur
0·7	—1·0	1·1	0	—0·26	0	..	0	—0·7	3·9	+1·8	0	1	0	0	0	2	2	1	22	2	3	1	0	0	7	10	1	4		Ajmer
0	—1·8	0·5	0	—0·21	0	..	0	—0·5	2·1	+0·4	0	0	0	0	0	2	2	2	22	3	1	0	0	0	5	4	5	10		Kotah
0·4	—2·5	0·7	0	—0·08	0	..	0	—0·4	2·9	+0·3	0	1	0	0	0	1	0	5	21	2	5	0	0	1	0	12	4	4		Jhalawar
0·6	..	..	0	..	0	..	0	..	6·3	..	5	2	0	0	1	5	3	11	1	..	..	..	..	..	..	..	..	..		Rajsamand
0·8	..	0·9	0	—0·14	0	..	0	—0·5	3·0	..	1	0	0	0	1	2	3	2	19	2	4	3	2	1	9	3	1	3		Udaipur
																														Gujarat
																														Deesa*
0·9	—0·4	0·5	0·08	0	0·08	13	0	—0·2	4·2	+1·0	3	6	6	2	0	1	0	1	9	0	4	0	0	0	9	3	11	1		Surat
0·9	—0·3	0·9	0	—0·08	0	..	0	—0·2	4·5	+0·9	4	7	4	1	0	1	4	6	1	2	3	2	1	0	5	8	6	1		Ahmedabad
0·5	—1·0	0·8	0	—0·04	0	..	0	—0·2	7·8	+4·6	1	2	3	3	6	8	4	1	0	4	3	0	1	2	11	5	1	1		Dohad
0·7	—0·4	1·7	0·15	—0·06	0·15	12	1	—0·3	2·2	—0·1	1	3	1	0	0	2	0	0	21	2	1	1	1	1	4	6	4	8		Baroda
																														Saurashtra and Cutch
0·6	—0·6	0·6	0	—0·17	0	..	0	—0·4	4·7	+0·1	0	1	1	0	2	3	3	0	18	1	6	2	0	1	2	10	6	0		Bhuj
1·9	+0·1	1·8	0	—0·24	0	..	0	—0·5	10·0	+1·3	11	6	1	0	0	0	6	4	0	1	4	2	0	0	1	10	10	0		Dwarka
1·1	—0·1	..	0	—0·08	0	..	0	—0·2	1·5	—5·4	0	0	1	0	0	0	0	0	27	..	..	—	—	—	..	..	..	..		Jamnagar
0·6	—1·0	0·4	0	—0·09	0	..	0	—0·3	7·7	+2·9	0	1	3	1	5	8	1	1	8	1	4	0	2	1	1	9	9	1		Rajkot
0·9	—0·2	0·5	0·39	+0·32	0·39	13	1	—0·2	10·1	..	13	6	0	0	0	0	1	6	2	0	0	0	1	5	7	9	6	0		Veraval
0·7	—0·6	1·2	0·12	+0·06	0·12	13	1	+0·8	4·9	+0·7	0	1	1	2	2	8	8	0	6	1	4	6	3	6	1	4	2	1		Bhavnagar
																														Madhya Bharat and Bhopal
0·6	—0·8	1·2	0	—0·15	0	..	0	—0·4	4·8	+0·2	0	9	1	0	0	3	5	3	7	0	10	0	1	0	6	6	3	2		Neemuch
1·0	..	1·5	0	..	0	..	0	..	5·7	..	5	5	3	0	3	4	4	0	4	2	3	2	3	0	6	8	4	0		Ratlam
1·1	—0·2	0·9	0	—0·14	0	..	0	—0·5	3·2	+0·8	1	2	3	2	3	5	2	1	9	2	7	2	1	0	7	4	5	0		Indore
0·6	—0·9	0·7	0·06	—0·09	0·06	13	0	—0·5	4·8	+2·0	2	2	0	1	2	4	6	2	9	4	1	1	0	1	6	8	5	2		Bhopal
0·6	—0·6	0·8	0·11	—0·08	0·11	5	1	+0·4	4·2	+1·4	1	0	2	1	1	1	5	0	17	2	2	0	0	1	4	10	6	3		Guna
0·8	..	1·4	0·23	..	0·23	3	1	..	0·7	..	1	0	0	0	1	1	5	3	17	8	1	1	0	0	1	5	10	2		Gwalior
1·3	..	1·5	0·49	..	0·30	3	2	..	4·6	..	2	1	0	1	4	11	1	2	6	7	2	1	1	1	0	7	8	1		Madhosagar
																														Vindhya Pradesh
1·1	—1·0	1·0	0·60	+0·03	0·40	5	3	+1·7	2·7	+1·1	0	0	2	0	6	4	2	0	14	3	2	0	0	2	5	8	8	0		Nowgong
1·4	—0·5	0·7	0·73	—0·05	0·61	5	1	—0·8	2·7	+0·1	0	0	1	0	2	5	5	1	14	3	0	1	1	0	2	6	13	2		Sutna
1·1	—1·0	0·9	1·15	+0·15	0·46	5	3	+1·2	2·5	0	0	1	0	4	2	1	4	1	15	3	1	1	0	1	0	11	11	0		Umaria
																														Berar
0·9	..	0·7	0	..	0	..	0	..	5·9	..	4	0	1	6	3	1	3	6	4	6	4	2	0	0	0	7	7	2		Buldana
1·1	—0·3	1·0	0·05	—0·25	0·05	1	0	—0·6	3·3	+0·2	1	0	2	3	4	0	6	0	12	1	8	0	2	0	0	3	11	3		Akola
1·1	—0·3	1·5	0·11	—0·33	0·07	4	0	—0·8	5·4	+1·4	0	25	0	0	0	2	0	1	0	0	8	0	1	0	9	1	9	0		Amraoti
																														C. P., West
0·7	—0·4	1·0	0·05	—0·11	0·05	2	0	—0·4	4·4	+1·0	1	1	0	0	0	3	6	3	14	5	5	0	1	1	1	6	9	0		Khandwa
1·6	+0·2	1·2	0	—0·38	0	..	0	—0·9	1·9	—0·3	0	5	4	7	0	2	0	0	10	2	3	2	1	3	6	6	1	4		Hoshangabad
0·8	—0·8	0·6	0	—0·47	0	..	0	—1·2	9·0	+0·1	1	6	2	3	2	4	7	2	1	5	3	0	0	0	2	8	9	1		Saugor
0·6	—1·0	0·6	0·37	—0·39	0·26	5	2	+0·3	3·2	+1·5	1	0	0	18	2	1	0	0	6	4	4	0	0	2	4	7	5	2		Jubbulpur
0·6	—1·0	1·5	1·04	+0·23	0·58	6	2	0	3·7	+0·9	4	4	0	0	5	1	1	3	10	6	4	1	1	3	4	3	5	1		Seoni
1·0	..	1·5	0·02	..	0.02	5	0	..	3·2	..	0	2	12	8	0	1	3	2	0	3	3	4	1	0	1	9	7	0		Betul
1·0	—0·8	0·9	0·09	—0·56	0·06	5	0	—1·4	4·0	..	7	0	0	0	0	2	1	7	11	1	4	3	1	0	6	5	7	1		Nagpur

TABLE II.—ABSTRACT OF OBSERVATIONS RECORDED AT 0800 HRS. I. S. T. (0230 HRS. G. M. T

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F				Dry bulb temperature °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relative humidity. %	
		Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0800 hrs. I.S.T.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Mean 0800hrs. I.S.T.	Departure from normal.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
C. P., East																					
Gondia	1,026	978·7	..	975·4	86·5	..	95	22	56·9	..	47	8	61·8	85·1	56·1	63·9	12·8	..	10·7	68	..
Pendra	2,040	944·0	−0·6	941·4	80·7	+2·6	90	24	55·7	+1·2	44	8	61·9	77·6	53·2	59·3	10·3	−1·3	9·9	56	−6
Champa	805	986·3	..	982·6	87·0	..	95	5 days	58·8	..	50	8	61·3	85·7	55·9	63·0	12·9	..	9·5	70	..
Raipur	979	980·2	−0·3	976·7	86·7	+0·7	96	23,24	60·2	+0·1	50	8	66·1	85·3	54·7	60·2	9·5	−3·5	6·5	44	−1
Titilagarh	691	989·9	..	985·9	89·6	..	99	25	59·1	..	49	8	65·0	87·8	57·4	64·7	12·7	..	10·4	61	..
Kanker	1,318	968·6	0	965·5	86·4	+0·7	95	25	55·4	−3·0	44	8	59·8	84·8	54·6	63·5	12·2	−2·9	10·4	70	−1
Chanda	634	992·3	+0·1	988·2	88·8	−1·6	97	25	59·5	0	48	8	60·4	88·4	56·1	76·1	13·4	−0·9	25·2	73	+13
Jagdalpur	1,815	951·8	−0·3	948·1	87·9	+1·3	94	5 days	52·5	−3·5	43	8	60·1	84·8	54·8	61·5	12·5	−3·2	9·2	71	−3
Konkan																					
Dahanu	15	1012·9	..	1010·6	83·9	..	100	28	63·3	..	53	7	66·4	79·7	61·9	73·2	16·9	..	25·0	78	..
Bombay	35	1012·3	−0·3	1009·7	85·4	+2·3	101	28	68·3	+0·9	59	7	71·5	81·6	66·2	71·2	19·5	+0·6	21·3	75	+1
Alibag	23	1013·1	+0·4	..	83·6	+1·0	97	28	64·7	−0·2	55	7	67·6	..	62·9	..	17·6	+0·2	..	76	+6
Harnai	66	1010·1	..	1008·1	81·5	..	90	28	71·2	..	62	6	73·7	79·6	66·5	72·8	19·0	..	24·4	67	..
Devgad	110	1009·1	..	1005·9	84·9	..	93	18	70·4	..	65	7	73·3	82·3	67·0	73·7	19·7	..	21·5	72	..
Vengurla	29	1011·6	..	1008·7	90·0	..	96	17,18	65·2	..	60	7	67·4	85·5	64·7	83·6	19·7	..	22·9	86	..
Marmagao	202	1005·6	−0·6	1002·7	84·6	+0·7	90	19	..	..	..	..	73·7	82·6	68·5	73·0	21·5	−0·3	23·4	76	0
Honavar	85	1010·5	..	1006·9	88·4	..	93	8	67·8	..	63	8	70·6	84·7	66·2	74·5	20·0	..	24·5	78	..
Bombay, Deccan																					
Jalgaon	660	990·6	..	986·6	91·1	..	100	21	56·7	..	40	7,8	62·1	90·5	52·3	65·8	9·1	..	10·4	47	..
Malegaon	1,432	965·8	+0·8	961·5	90·8	+0·9	99	26	54·7	0	38	7	69·0	86·2	57·4	65·5	10·9	+1·5	12·3	44	−4
Ahmednagar	2,154	940·2	−0·4	937·1	89·8	+1·3	90	21	55·9	0	43	7	61·4	88·3	51·9	62·5	9·4	−0·1	8·9	50	+7
Poona	1,834	951·2	0	947·6	91·1	+0·6	99	21	55·1	0	40	7	58·3	88·3	53·5	63·1	12·0	+1·1	9·5	74	+10
Sholapur	1,570	960·0	+0·1	956·0	92·5	0	98	21	61·7	−1·0	51	8	65·3	91·1	53·5	63·5	9·2	−0·8	8·9	43	0
Miraj	1,817	951·3	−0·4	947·5	91·9	+1·4	96	5 days	58·3	−0·7	51	7,9,11	62·6	90·0	52·9	63·9	9·6	−3·4	9·7	51	−10
Kolhapur	1,885	949·3	..	945·7	90·3	..	96	22	58·8	..	51	1	61·8	89·0	54·3	63·2	11·4	..	9·6	63	..
Bijapur	1,950	946·8	−0·4	943·4	90·7	−0·3	95	4 days	62·4	−1·5	52	8	67·7	89·5	56·4	64·5	11·0	−1·9	10·5	49	−6
Belgaum	2,562	927·1	+0·2	923·8	87·2	−1·1	92	4 days	57·9	−1·4	52	10	65·7	85·8	56·5	62·7	11·9	−0·4	10·1	59	0
Gadag	2,131	940·9	−0·1	937·2	92·0	+1·3	97	26	64·5	−0·4	60	7	69·5	89·9	60·4	67·2	14·2	+0·1	13·6	58	−2
Hyderabad, North																					
Aurangabad	1,905	949·0	−0·4	945·9	88·4	−0·2	95	21,22	59·1	−0·5	42	8,9	62·2	87·6	52·3	62·6	9·4	+0·4	9·3	50	+7
Parbhani	1,350	966·2	..	962·4	90·2	..	97	21,22	58·6	..	43	7	63·8	88·7	54·7	65·6	10·5	..	11·2	51	..
Bidar	2,178	939·3	..	936·3	86·9	−0·9	92	5 days	64·9	+0·	56	7	68·4	85·2	55·9	61·6	10·2	−4·5	8·5	45	−11
Nizamabad	1,250	970·9	+0·1	967·1	90·0	−0·8	96	21,22	..	..	..	..	65·0	88·2	57·6	66·8	12·9	−1·2	12·8	61	+4
Ramagundam	527	995·9	..	991·8	91·3	..	100	24	62·6	..	49	8	68·6	89·8	59·8	65·4	13·6	..	10·4	57	..
Hyderabad, South																					
Gulbarga	1,503	961·8	−0·5	959·9	91·5	−0·8	97	4 days	62·2	−2·1	51	8	67·0	90·6	56·1	65·4	11·0	−1·6	11·2	50	−1
Raichur	1,311	960·7	+0·1	964·5	91·4	−0·7	96	24,25,26	66·9	−1·5	60	9	70·2	90·3	60·7	65·9	13·8	−1·8	10·7	55	−2
Hyderabad (Begumpet)	1,778	952·6	−0·3	949·6	90·2	+0·9	97	23	59·5	−3·0	49	8	65·5	87·4	57·7	64·9	13·2	−2·9	11·9	62	−6
Hanamkonda	881	983·3	−0·6	979·5	91·2	+1·7	98	23,24	63·9	−2·0	52	8	67·8	89·2	60·7	64·6	15·0	−4·0	9·7	65	+8
Khammameth(R)	367		..																		
Mysore																					
Chitaldrug	2,405	932·7	+0·8	928·2	88·6	−1·0	92	7 days	64·9	−1·3	61	2,5,6	70·5	87·5	61·3	64·7	14·8	−0·2	11·5	59	+2
Hassan	3,149	907·9	..	904·6	86·3	−0·7	90	22,23	58·7	−0·8	54	5	63·6	84·5	58·5	62·2	14·7	−1·6	10·7	75	+

(R)—Register not received.

Cloud amount, (Oktas).			Rainfall, inches.				Number of rainy days (0·10" or more).		Wind velocity miles per hour.		Wind direction—Number of winds from:—																		STATION.
											0800 hrs. I. S. T.									1700 hrs. I. S. T.									
Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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	
																													C. P., East
0·7	..	0·1	0·52	..	0·37	6	2	..	2·4	..	9	4	0	1	2	1	0	3	8	6	1	0	0	0	6	1	5	9	Gondia
0·4	—1·5	0·8	0·42	—1·05	0·37	6	1	—1·9	4·1	+0·7	4	1	0	0	2	4	4	4	9	10	1	0	0	3	4	2	8	0	Pendra
1·0	..	0·6	0·25	..	0·25	6	1	..	4·1	..	9	6	2	0	0	1	1	6	3	2	1	0	1	1	1	8	8	6	Cnampa
1·0	—0·6	0·3	0·06	—0·81	0·04	5	0	—1·8	4·2	+1·6	6	3	0	1	4	5	3	0	6	8	2	1	0	1	1	6	8	1	Raipur
0·4	..	0·3	0	..	0	..	0	..	1·4	..	0	0	0	3	4	1	1	1	18	7	4	1	0	1	1	3	6	5	Titilagarh
1·1	—0·7	0·9	0	—0·86	0	..	0	—2·1	2·5	—0·2	0	0	0	0	0	0	0	1	27	4	0	0	0	0	1	4	2	17	Kanker
0·8	—0·6	0·9	0·02	—0·79	0·02	4	0	—1·3	2·2	+0·1	0	1	0	0	0	1	1	1	24	0	5	0	2	0	2	0	12	7	Chanda
0·7	—0·9	0·9	0	—1·08	0	..	0	—1·6	2·8	+0·9	0	2	0	0	0	2	0	3	21	0	5	0	1	1	11	0	10	0	Jagdalpur
																													Konkan
1·1	..	0·3	0	..	0	..	0	..	7·2	..	0	2	15	10	0	0	0	1	0	8	0	0	0	0	0	8	12	0	Dahanu
1·0	0	0·4	0	—0·08	0	..	0	—0·1	7·2	—0·2	2	10	10	3	1	0	0	1	1	5	0	0	0	0	1	3	18	1	Bombay
1·0	0	..	0	—0·03	0	..	0	—0·2	3·0	—2·4	3	7	6	2	0	0	0	0	10	..	..	..	..	..	..	..	..	..	Alibag
0·1	..	0	0	..	0	..	0	..	9·7	..	6	7	4	2	0	0	2	7	0	0	0	0	0	0	0	14	4	0	Harnai
1·2	..	1·2	0	..	0	..	0	..	9·5	..	2	14	11	0	0	1	0	0	0	0	0	0	0	0	1	6	2	0	Devgad
0·5	..	0·6	0	..	0	..	0	..	..	..	6	1	0	0	0	0	0	0	21	0	0	0	0	0	7	20	1	0	Vengurla
1·5	+0·1	1·4	0	0	0	..	0	0	7·1	+0·9	2	6	15	3	2	0	0	0	0	0	0	0	0	0	2	15	11	0	Marmagao
1·5	..	1·6	0	—0·06	0	..	0	—0·1	3·1	..	0	3	20	1	0	0	0	0	4	0	0	0	0	0	0	19	9	0	Honavar
																													Bombay, Deccan
0·7	..	0·6	0	—0·11	0	..	0	—0·4	5·0	..	0	0	5	6	0	6	4	1	6	1	3	0	2	0	5	7	8	2	Jalgaon
0·3	—0·8	0·1	0	—0·09	0	..	0	—0·2	3·8	—0·4	1	1	0	0	0	0	0	1	25	0	4	0	0	0	2	3	2	17	Malegaon
0·4	—0·4	0·2	0	—0·13	0	..	0	—0·3	3·7	—1·1	1	2	1	0	1	1	0	7	15	4	7	0	1	0	1	1	4	10	Ahmednagar
0·9	+0·1	1·0	0	—0·06	0	..	0	—0·2	2·2	—2·0	0	0	0	0	0	4	2	0	22	2	2	4	1	0	1	4	6	8	Poona
0·6	—0·3	0·9	0	—0·13	0	..	0	—0·3	5·9	+0·4	1	8	2	6	0	1	0	1	9	0	9	3	3	0	6	0	2	5	Sholapur
0·5	—0·4	1·3	0	0	0	..	0	0	5·6	+0·7	3	4	7	0	0	0	2	2	10	5	3	7	1	2	1	6	2	1	Miraj
0·1	..	0·5	0	..	0	..	0	..	5·5	..	0	2	5	1	2	4	2	0	12	3	7	4	0	0	0	9	5	0	Kolhapur
0·5	—0·5	1·1	0	—0·09	0	..	0	—0·2	3·0	—0·4	6	4	0	3	3	1	0	6	5	4	5	6	4	0	1	3	4	1	Bijapur
0·2	—0·9	0·3	0	—0·05	0	..	0	—0·1	3·7	+0·8	2	2	23	0	0	0	1	0	0	0	1	10	0	1	6	10	0	0	Belgaum
1·6	+0·7	2·4	0	—0·16	0	..	0	—0·4	4·3	0	0	1	5	5	0	1	2	1	13	0	7	7	1	0	0	1	1	11	Gadag
																													Hyderabad, North
0·7	—0·4	0·6	0	—0·17	0	..	0	—0·4	6·1	+0·7	3	5	11	3	0	1	2	2	1	2	3	3	1	1	4	11	2	1	Aurangabad
0·9	..	0·9	0	—0·29	0	..	0	—0·7	..	..	1	12	6	1	0	0	7	0	1	3	12	0	3	1	1	7	1	0	Parbhani
0·6	—0·8	1·4	0·78	+0·42	0·78	1	1	+0·3	6·3	+0·7	4	4	6	2	3	4	2	3	0	5	8	4	1	2	3	1	4	0	Bidar
0·1	—1·1	0·8	0	—0·67	0	..	0	—1·2	2·5	0	0	2	2	1	0	0	1	0	22	1	12	2	1	0	0	2	2	8	Nizamabad
0·6	..	0·7	0	..	0	..	0	..	2·6	..	3	0	1	1	0	0	0	0	23	9	6	1	3	4	1	0	0	4	Ramagundam
																													Hyderabad, South
0·5	—0·2	0·7	0	—0·27	0	..	0	—0·5	5·7	+0·3	5	7	2	1	1	1	2	0	9	9	5	6	1	1	1	0	3	2	Gulbarga
1·3	+0·3	1·6	0	—0·28	0	..	0	—0·6	6·3	+1·0	2	2	3	4	1	0	2	10	4	1	5	7	5	1	0	0	9	0	Raichur
1·4	—0·4	0·7	0	—0·36	0	..	0	—0·9	4·1	+0·3	0	1	2	2	1	0	0	4	18	1	5	5	6	2	0	0	3	6	Hyderabad (Begumpet)
1·0	—1·5	0·9	0	—0·58	0	..	0	—1·1	4·3	—0·6	3	1	8	9	2	1	1	0	3	11	5	1	4	4	1	1	1	0	Hanamkonda
																													Khammameth (R)
																													Mysore
1·0	—0·6	1·5	0	—0·11	0	..	0	—0·2	4·6	+0·8	0	0	7	4	1	2	2	0	12	0	1	17	3	1	0	1	3	2	Chitaldrug
1·7	—0·5	1·8	0	—0·24	0	..	0	—0·4	4·4	+1·5	2	1	11	1	0	1	2	2	8	1	3	17	2	0	1	3	0	1	Hassan

TABLE II.—ABSTRACT OF OBSERVATIONS RECORDED AT 0800 HRS. I. S. T. (0230 HRS. G. M. T.)

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature °F.		Vapour pressure, millibars.			Relative humidity. %		
		Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0800 hrs. I.S.T.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Mysore (*contd.*)																						
Bangalore	3,021	911·9	−0·4	909·7	85·7	−0·5	90	23	60·7	+0·7	56	2,4,18	64·1	83·1	58·0	59·2	14·0	−2·3	7·6	69	−4	20
Mysore	2,518	928·2	−0·3	924·4	87·7	−1·2	93	23	63·1	−1·1	58	5	66·5	87·2	61·2	61·7	16·2	−1·0	7·2	74	+5	20
Malabar																						
Mangalore	72	1010·4	−0·2	1006·7	87·8	−0·4	95	19	72·0	−0·5	69	20	74·6	84·5	70·2	74·9	23·2	−0·4	25·1	79	+3	6
Calicut	27	1011·5	−0·4	1007·5	89·8	+1·3	92	10,20	72·5	−0·5	70	1	76·0	87·3	71·2	77·6	24·3	−0·7	27·9	81	−10	6
Palghat	319	1002·0	..	996·9	95·7	..	100	23,26	73·1	..	69	14	76·2	93·9	69·9	71·1	22·1	..	15·8	72	..	3
Cochin	10	1012·2	−0·3	1008·1	87·3	+0·3	90	19,20	74·7	−0·8	71	2,16	78·5	85·4	71·7	75·8	23·5	−0·9	26·1	70	−6	6
Alleppey	12	1011·9	..	1003·0	89·8	..	93	17	74·1	..	69	3,16	77·3	86·3	73·8	77·3	26·9	..	27·9	84	..	6
Trivandrum	211	1005·0	−0·3	1001·7	89·3	..	94	4	72·5	..	68	15	75·0	84·8	70·7	74·5	23·9	−0·5	24·5	80	−1	5
Nagercoil	195	1005·6	..	1002·1	92·4	..	95	20,24	73·3	..	69	14,23	76·4	86·5	69·6	72·9	21·6	..	21·5	70	..	5
Madras, South-East																						
Pamban	37	1012·3	+0·3	1009·2	84·3	−0·5	86	16	75·1 (d)	+0·1	71	13	78·7	80·8	73·6	74·7	26·0	−0·9	26·6	78	−4	7
Madura	437	998·3	−0·4	994·0	90·9	+0·6	96	22	70·2	+0·7	65	14	74·5	89·4	69·0	70·5	21·7	−1·5	16·9	74	−5	3
Negapatam	31	1012·4	−0·2	1009·1	83·6	−1·2	86	22,23	71·9	−1·3	68	25	74·3	81·1	70·4	73·0	23·6	−1·5	24·1	81	+1	6
Trichinopoly	295	1003·5	−0·5	999·0	91·4	−0·1	96	22	69·3	0	65	4 days	73·6	89·7	69·1	70·5	22·2	−2·3	17·1	78	−3	3
Coimbatore	1,341	967·4	−0·6	962·5	90·9	0	95	22,23	67·8	+1·3	64	20,21	70·6	89·6	64·2	66·4	17·5	−3·8	11·7	69	−12	2
Salem	913	982·0	−0·6	977·1	93·9	+0·8	99	22,23	67·0	0	62	25,27	68·4	91·3	64·4	72·2	18·9	−2·6	18·4	79	+2	
Cuddalore	39	1012·4	−0·3	1008·9	84·8	−0·3	90	22	68·1	−1·9	63	25	71·8	81·4	69·1	73·0	23·1	−2·1	23·9	85	−2	
Vellore	703	989·6	0	985·2	90·7	+0·8	96	22,23	63·9 (d)	−2·3	57	25	68·0	89·0	63·7	68·6	18·2	−3·3	14·6	78	−7	
Madras	51	1012·0	−0·3	1008·6	88·3	0	96	22	68·3	−0·1	64	25,27	72·8	82·6	68·9	71·4	22·3	−2·1	21·2	81	−2	
Arogyavaram	2,299	936·0	..	932·3	86·4	..	91	23	61·8	..	56	18,19	69·0	84·4	58·9	61·7	12·9	..	9·6	56	..	
Madras, Deccan																						
Cuddapah	428	999·2	+0·2	994·3	94·3	0	100	22,23	69·0	−0·6	65	19	78·7	91·0	66·3	70·1	10·6	−4·1	16·7	49	−18	
Bellary	1,473	962·8	−0·2	958·8	91·3	−2·5	96	22,23,24	66·4	+0·3	62	27	70·8	90·4	59·2	64·9	12·0	−2·9	9·6	48	−9	
Kurnool	923	981·6	−0·2	972·3	93·6	+0·1	99	23,24,27	62·9	−3·1	56	11	69·2	92·3	60·2	66·6	13·7	−2·4	10·7	57	−5	
Rentichintala	348	1001·7	..	997·4	93·1	+0·7	99	23,24	65·8	−3·3	55	8	70·3	92·8	62·9	68·6	16·2	−5·2	12·9	64	−9	
Anantapur	1,147	973·9	..	969·5	92·1	..	97	4 days	62·9	..	58	26	70·6	90·6	62·5	69·2	15·7	..	14·7	62	..	
Madras Coast, North																						
Nellore	66	1011·2	−0·6	1007·9	90·6	+1·2	97	22,23	67·8	−2·0	63	26	71·8	85·4	68·2	72·3	22·2	−2·3	21·3	84	0	
Ongole	38	1012·3	..	1008·4	89·0	..	94	4 days	68·5	..	64	9,26	73·5	84·5	68·9	73·8	22·1	..	23·6	78	..	
Masulipatam	10	1013·6	−0·6	1010·0	86·1	0	93	21,26,27	68·6	0	64	9,19	73·7	83·4	70·3	73·1	23·4	−1·5	23·2	84	0	
Cocanada	26	1013·3	−0·4	1009·5	85·9	+0·3	95	23	68·8	−0·9	64	9,11	73·4	83·3	68·7	72·7	22·2	−0·7	23·2	78	0	
Vizagapatam	126	1009·4	−0·8	1006·1	83·4	−0·1	89	25,26	69·6	−1·0	64	10,19	73·7	80·5	67·9	72·3	20·7	−1·6	23·4	74	−2	
Calingapatam	19	1013·1	−0·9	1009·8	85·3	−1·1	93	23,28	65·8	−2·0	59	10	68·7	81·2	65·2	73·5	19·7	−2·5	24·6	82	0	
Hill Stations excluding Kashmir																						
Shillong	4,921	850·4	−0·7	848·4	61·0	−1·5	73	26	41·5	−0·9	28	8	52·4	54·5	46·4	49·5	8·4	−0·5	10·2	62	−2	
Cherrapunji	4,309	870·1	−0·2	867·8	61·8	−0·4	72	27	46·5	−2·0	35	8	55·2	56·0	49·4	50·9	9·7	−0·3	10·8	64	+1	
Aijal	3,599	892·2	..	889·7	68·8	..	81	27	56·3	..	45	9,10	60·4	63·0	54·8	56·9	12·5	..	13·5	72	..	
Darjiling	7,432	774·8	−0·9	772·9	49·0	+1·2	60	27	35·9	+0·3	26	7	42·1	42·9	39·7	41·0	7·3	0	8·0	84	+5	
Kalimpong	3,965	881·3	+0·2	878·2	60·6	−0·7	70	28	48·3	0	40	7,9	52·0	55·3	49·7	52·6	11·2	+0·6	12·5	85	+9	
Katmandu	4,383	868·2	..	865·1	67·0	−1·2	78	26	40·4	+0·5	34	10	44·1	60·2	43·4	52·6	9·4	+0·7	10·6	94	+6	

(d) Mean of 27 days.

Cloud amount, (Oktas).			Rainfall, inches.				Number of rainy days, (0.10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																			STATION.
											0800 hrs. I.S.T.									1700 hrs. I.S.T.										
0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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	
																														Mysore (*contd.*)
2·3	+0·5	2·3	0·31	−0·05	0·31	9	1	+0·6	6·3	+1·6	0	5	10	2	1	0	2	1	7	0	8	11	5	1	0	0	0	3		Bangalore
1·8	−0·4	2·1	0	−0·24	0	..	0	−0·5	6·5	+1·8	0	10	2	0	2	2	7	0	5	3	6	18	1	0	0	0	0	0		Mysore
																														Malabar
1·4	−0·4	1·6	0	−0·07	0	..	0	−0·1	5·5	+0·4	1	1	25	1	0	0	0	0	0	0	0	0	0	0	2	10	16	0		Mangalore
3·2	+1·1	3·8	0	−0·19	0	..	0	−0·3	7·7	+1·6	0	14	13	1	0	0	0	0	0	0	0	0	0	0	0	15	13	0		Calicut
1·5	..	1·4	0	..	0	..	0	..	5·3	..	0	0	18	3	0	0	2	0	5	0	1	14	4	0	0	3	1	5		Palghat
3·7	+1·9	2·8	0·01	−0·79	0·01	17	0	−1·2	6·3	+1·5	0	7	20	1	0	0	0	0	0	0	0	0	0	0	5	17	6	0		Cochin
4·6	..	1·9	0·35	..	0·30	10	3	..	5·6	..	0	4	14	10	0	0	0	0	0	0	0	0	0	0	3	17	8	0		Alleppey
2·7	+0·6	3·9	0	−0·76	0	..	0	−1·3	3·7	+0·3	6	10	5	2	0	1	0	1	3	0	0	0	0	4	19	4	1	0		Trivandrum
2·9	..	4·3	0·36	..	0·30	10	1	..	6·5	..	1	20	1	0	0	1	0	0	5	0	11	2	2	1	11	1	0	0		Nagercoil
																														Madras, South-East
4·2	+1·6	2·4	0	−0·86	0	..	0	−1·4	8·6	+1·9	4	10	9	4	0	0	0	1	0	7	15	5	1	0	0	0	0	0		Pamban
3·5	+0·2	3·5	0	−0·53	0	..	0	−0·7	3·4	−0·4	8	3	2	0	0	0	0	1	14	3	8	10	2	0	0	0	0	5		Madura
4·6	+0·9	3·2	0	−0·83	0	..	0	−1·0	8·1	+1·4	1	4	1	1	0	0	5	12	4	0	17	6	4	1	0	0	0	0		Negapatam
2·6	−0·3	2·7	0	−0·49	0	..	0	−0·6	5·4	+1·6	6	6	1	0	0	0	0	2	13	1	8	17	1	0	0	0	0	1		Trichinopoly
1·9	−1·1	1·4	0	−0·36	0	..	0	−0·5	4·0	+1·6	12	12	1	1	0	0	1	0	1	6	10	6	3	1	1	1	0	0		Coimbatore
2·0	+0·3	2·3	0·07	−0·26	0·05	8	0	−0·6	6·4	+0·9	0	7	19	0	0	0	0	0	2	0	2	19	2	0	0	0	0	5		Salem
4·4	+1·4	4·4	0	−0·90	0	..	0	−1·2	5·7	+2·0	5	0	0	0	0	1	7	11	4	0	9	8	11	0	0	0	0	0		Cuddalore
2·6	+0·2	2·5	0	−0·25	0	..	0	−0·6	3·5	+0·8	0	0	0	0	0	0	0	0	28	0	4	18	5	0	1	0	0	0		Vellore
3·3	+1·1	2·3	0	−0·41	0	..	0	−0·7	9·7	+0·2	1	4	0	0	0	4	10	9	0	0	10	4	14	0	0	0	0	0		Madras
2·5	..	2·4	0	..	0	..	0	..	4·3	..	0	0	1	3	14	0	0	0	10	1	15	10	2	0	0	0	0	0		Arogyavaram
																														Madras, Deccan
0·3	−1·1	1·8	0	−0·12	0	..	0	−0·2	6·1	−1·9	0	0	2	0	0	0	0	0	26	0	1	15	5	0	0	0	0	7		Cuddapah
2·0	+0·6	1·6	0	−0·18	0	..	0	−0·3	2·5	−0·4	1	0	1	0	2	0	0	4	20	0	1	6	8	0	1	0	2	10		Bellary
1·3	+0·2	1·6	0	−0·28	0	..	0	−0·5	2·6	−0·9	0	0	1	2	3	1	1	2	18	2	3	5	8	1	0	2	2	5		Kurnool
1·5	−1·4	2·0	0	−0·53	0	..	0	−1·3	3·6	−1·3	3	0	4	3	1	0	0	0	17	6	6	7	4	0	0	1	0	4		Rentichintala
0·7	..	1·7	0	−0·30	0	..	0	−0·4	6·0	..	0	0	3	6	6	4	1	1	7	1	8	13	3	0	0	0	0	3		Anantapur
																														Madras Coast, North
2·2	−0·2	1·9	0	−0·24	0	..	0	−0·5	2·3	−1·0	0	0	0	0	2	0	0	0	26	0	2	17	8	0	0	0	0	1		Nellore
2·2	..	1·4	0	..	0	..	0	..	4·0	..	3	1	1	0	1	2	3	2	15	0	1	7	20	0	0	0	0	0		Ongole
2·0	−0·1	1·5	0·04	−0·49	0·04	2	0	−0·6	5·0	+1·2	7	1	1	0	2	0	1	5	11	1	0	0	17	10	0	0	0	0		Masulipatam
1·6	−1·0	1·1	0·14	−0·18	0·14	1	1	+0·4	6·5	+1·8	9	6	0	0	0	3	5	3	2	0	0	3	21	3	1	0	0	0		Cocanada
0·8	−1·7	0·3	0	−0·94	0	..	0	−1·1	4·1	−0·9	4	4	0	0	0	1	12	4	3	0	0	7	5	11	5	0	0	0		Vizagapatam
1·0	−0·8	1·4	0	−0·61	0	..	0	−1·3	6·9	+1·3	1	0	0	0	0	0	13	14	0	1	0	5	7	9	6	0	0	0		Calingapatam
																														Hill Stations excluding Kashmir
1·5	−0·6	5·5	1·94	+0·88	0·42	12	7	+4·2	3·0	+0·7	0	1	2	1	2	8	1	0	13	3	1	0	0	0	7	1	5	11		Shillong
2·2	−0·3	3·5	1·37	−0·74	0·43	7	6	+2·5	..	.	0	5	10	0	1	4	4	1	3	1	0	2	0	0	17	4	1	3		Cherrapunji
0·7	..	1·0	0·16	..	0·09	8	0	..	5·4	..	1	0	12	0	2	7	4	1	1	1	1	1	0	0	6	16	3	0		Aijal
4·4	+0·6	5·6	1·77	+0·58	0·64	6	4	+1·4	4·4	+0·3	0	0	14	1	0	2	5	1	5	0	0	2	1	0	4	17	1	3		Darjiling
3·2	+0·4	5·0	0·50	−0·63	0·42	7	1	−2·0	6·7	−0·2	1	0	0	0	0	0	4	19	4	0	0	0	23	5	0	0	0	0		Kalimpong
5·8	+1·5	3·7	1·48	−0·19	0·57	6	3	−2·5	1·7	+0·4	2	1	1	0	0	0	1	0	23	4	1	2	1	2	0	3	5	10		Katmandu

TABLE II.—ABSTRACT OF OBSERVATIONS RECORDED AT 0800 HRS. I. S. T. (0230 HRS. G.

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			R h
		Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0800 hrs. I.S.T.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 1700 hrs. I.S.T.	Mean 0800 hrs. I.S.T.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Hill Stations excluding Kashmir —*contd.*																				
Gyantse .	13,110	621·1	..	..	45·0	+3·0	56	13,23	11·8	+0·8	1	8,10	28·6	..	23·6	..	2·8	—0·2	..	52
Muktesar .	7,592	770·0	—1·8	769·1	50·6	+0·1	62	22	36·4	+0·6	24	6	39·6	47·3	32·9	38·9	4·1	—0·5	4·9	54
Mussooree .	6,699	795·4	..	795·2	52·9	+2·4	68	21	37·3	—0·4	25	7	42·9	46·2	36·2	41·4	5·0	—0·9	7·0	57
Simla .	7,224	779·6	—0·8	779·9	47·8	—1·0	60	18,22	35·5	—0·6	24	6	40·3	44·1	32·7	37·5	3·6	—0·6	5·8	45
Abu . .	3,945	881·8	—0·2	880·5	69·7	+1·7	79	18,28	52·9	—0·2	38	7	57·1	66·9	46·2	52·2	6·3	+0·1	7·5	41
Pachmarhi .	3,528	895·7	—0·5	894·1	75·4	+0·1	84	22	51·1	+0·4	36	7	58·4	73·5	49·6	56·5	8·3	—1·2	8·5	55
Mahabaleshwar	4,534	864·6	+0·2	863·2	79·0	+1·7	84	21,24,27	59·6	+1·4	50	7	61·1	74·9	49·4	58·5	7·4	—0·9	10·1	42
Mercara . .	3,781	885·7	—1·7	883·8	81·4	+0·8	85	4 days	58·6	—0·4	57	5 days	60·8	76·1	56·9	62·1	14·1	—1·5	12·6	74
Ootacamund .	7,364	780·8	—0·4	779·7	70·9	+0·4	77	23,25,27	41·3	—2·6	35	15	48·3	65·3	41·9	54·0	6·8	—1·2	10·2	61
Coonoor .	5,730	828·5	..	..	..	..	..	..	46·0	—3·1	41	27	62·5	..	53·8	..	11·1	+0·3	..	58
Kodaikanal .	7,688	771·9	—0·1	770·9	64·4	+0·3	69	26,27	46·2	—1·2	41	16	50·3	58·5	42·6	50·4	6·5	—1·2	9·6	56
Ceylon																				
Colombo .	24	1011·3	—0·4	1007·9	88·2	—0·2	93	3	69·8	—2·4	61	15	72·5	83·5	70·2	73·6	24·2	—1·3	23·8	89
Trincomalee .	24	1011·9	—0·2	1009·0	82·4	—2·6	85	8	74·0	—1·0	69	13,21	73·1	80·3	69·1	74·0	22·5	—4·2	25·9	81
Hambantota .	61	1009·5	—0·5	1006·2	85·5	+0·4	89	2,4	71·5	—0·8	67	13	74·3	82·1	71·3	75·1	24·5	—0·1	26·6	85
Mannar . .	12	1012·5	..	1008·9	85·2	..	88	17	72·3	..	68	24	75·0	83·0	71·7	73·5	25·1	..	23·9	84

Cloud amount, (Oktas).		Rainfall, inches.				Number of rainy days, (0·10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from:—																		STATION.
										0800 hrs. I. S. T.									1700 hrs. I. S. T.									
Departure from normal.	Mean 1700 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																												Hill Stations excluding Kashmir—*contd.*
6	—1·4	..	0	—0·08	0	..	0	—0·2	2·7	—2·2	0	0	4	2	0	0	0	0	22	..	..	..	..	..	..	..	..	..	Gyantse
1	—1·2	3·2	3·97	+1·44	1 43	5	6	+1·3	10·5	+4·7	2	3	4	1	1	2	9	5	1	0	0	1	3	0	6	15	3	0	Muktesar
8	—1·0	3·9	8·68	+5·27	3·23	4	6	+0·8	(k) 4·6	+0·1	6	4	0	1	2	2	0	0	12	2	1	1	3	7	4	1	0	9	Mussooree
0	—0·6	4·1	3·24	+0·32	0 76	4	8	+2·3	2·7	—1·0	3	8	0	4	5	1	0	0	7	4	2	0	3	8	7	0	1	3	Simla
1	—1·0	0·6	0	—0·28	0	..	0	—0·6	3·6	—0·8	2	2	0	0	0	3	4	1	16	1	0	0	0	2	10	8	1	6	Abu
2	—0·5	1·2	0·45	—0·22	0·27	5	2	+0·5	2·8	—0·3	1	4	1	0	1	4	8	6	3	2	2	0	0	0	2	9	9	4	Pachmarhi
3	—0·3	0·1	0	—0·10	0	..	0	—0·1	5·5	—0·3	2	6	2	4	2	2	4	4	2	2	4	0	1	1	5	5	9	1	Mahabaleshwar
3	—1·6	1·9	0	—0·24	0	..	0	—0·5	5·4	+2·1	6	6	8	0	0	0	0	3	5	5	5	9	1	0	0	2	6	0	Mercara
6	—0·2	2·2	0	—0·51	0	..	0	—1·1	2·9	+0·1	1	5	4	0	0	0	0	1	17	6	8	9	1	1	0	0	0	3	Ootacamund
7	—0·5	..	0	—2·86	0	..	0	—2·7	3·9	+0·6	2	0	3	13	9	0	0	0	1	..	..	..	..	..	..	..	..	..	Coonoor
3	+0·5	4·	0·03	—1·50	0·03	10	0	—2·4	9·5	+1·7	6	12	4	2	0	0	0	2	2	8	5	1	6	3	0	0	2	3	Kodaikanal
																												Ceylon
7	+0·1	4·	0·08	—2·10	0·08	8	0	—3·5	..	..	2	6	9	3	1	0	0	0	7	4	1	1	0	0	4	6	12	0	Colombo
2	+0·8	4·1	1·59	—0·75	0·75	2	4	+1·1	..	..	8	6	4	1	4	3	1	0	1	11	10	5	1	0	0	0	0	1	Trincomalee
0	+1·2	4·9	2·73	+1·14	2·72	8	1	—1·8	..	..	19	2	0	0	0	0	0	7	0	2	15	11	0	0	0	0	0	0	Hambantota
4	..	4·2	0·18	..	0·18	18	1	..	..	..	4	9	5	7	2	0	1	0	0	19	7	1	0	0	0	1	0	0	Mannar

(k) Mean of 20 days.

TABLE III.—ABSTRACT OF OBSERVATIONS RECORDED AT 0800 HRS. I. S. T. (0230 HRS. G. M. T.) AT 4TH CLASS STATIONS—FEBRUARY 1949.

STATION.	Maximum temperature, °F.				Minimum temperature, °F.				Mean dry bulb temperature, 0800 hrs. I.S.T. °F	Mean wet bulb temperature, 0800 hrs. I.S.T. °F	Vapour pressure, millibars.		Relative humidity %		Mean cloud amount, 0800 hrs. I.S.T.	Rainfall, inches.				Number of rainy days (0·10" or more)		Resultant direction 0800 hrs
	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date			Mean 0800 hrs. I.S.T.	Departure from normal.	Mean 0800 hrs. I.S.T.	Departure from normal.		Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Assam																						
Lumding	81·7	+4·6	89	2·6	53·9	+3·6	47	4 days	68.4	60·5	14·4	—0·5	60	—30	..	2·24	+0·94	2·20	27	1	—2·0	.
Kashmir																						
Jammu . .	68·6	· 0	77	20,25	50·2	—1·0	44	7,9	52·7	48·0	9·3	—0·2	70	+4	3·4	6·45	+4·02	3·50	4	5	+1·3	NI
Kargil (R) .																						
Mysore																						
Balehonnur .	84·7	+0·4	89	26,27	59·9	—0·2	56	5	63·6	61·4	17·7	+0·8	89	+6	..	0	—0·06	0	..	0	—0·2	.
Tibet																						
Yatung (Chumbi)	48·2	+3·0	56	27	19·0	—2·7	14	9,11	25·7	25·0	4·4	+0·7	93	+8	1·0	1·44	—0·71	0·87	6	3	—0·9	.

(R)—Register not received.

TABLE IV—ABSTRACT OF OBSERVATIONS RECORDED AT 0800 HRS. I. S. T. (0230 HRS. G. M. T.) AT 5TH CLASS STATIONS—FEBRUARY 1949.

Division.	Station	Rainfall, inches.				Number of rainy days, (0.10" or more).		Division.	Station.	Rainfall, inches.				Nu rai (0.10
		Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.			Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.
1	2	3	4	5	6	7	8	1	2	3	4	5	6	7
Assam . .	Mawsynram .	0·92	..	0·50	25	3	..	Kashmir . .	Sonamarg .	6·86	—3·44	1·72	4	8
									Gurez . .	12·30	+4·73	2·50	3	10
West Bengal .	Bankura .	0·03	—1·11	0·03	7	0	—2·1	Bombay, Deccan .	Khandala .	0	—0·12	0	..	0
	Cooch Behar .	0·87	+0·06	0·57	8	2	+0·2	Madras, Southeast .	Palamcottah .	0	—1·17	0	..	0
Bihar . .	Muzaffarpur .	2·55	+1·98	1·50	6	2	+0·3	Sikkim . .	Lachung .	2·73	+0·06	1·01	18	5
	Chapra .	2.32	+1·64	1·28	6	3	+1·4							
	Arrah . .	3·41	+2·58	1·46	5	6	+4·4							
East Punjab . .	Dharampore .	6·65	+3·36	2·80	4	8	+2·5							
	Kyelang .	6·21	+3·67	1·54	12	9	+3·2							
	Dalhousie .	18·70	+12·05	5·30	4	9	+0·5							

MONTHLY MEANS OF UPPER WINDS.

NOTE.—Data upto 9·0 Km. a. s. l. are given under Table A and data above 9·0 Km. under Table B.

In Tables A and B.

n represents the number of observations.

V represents the mean wind speed in m/second irrespective of direction.

v represents the resultant mean velocity in m/second.

D represents the direction of the resultant mean wind in degrees East of North.

For the coordinates of the stations for which data have been published in these Tables and other particulars please refer to the Monthly Weather Report January 1949.

Table A.—Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 Km. above sea-level.

February 1949.

Station	AHMEDABAD												ALLAHABAD											
Time in I. S. T.	0100				0700				1600				0100				0700				1600			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	28	1·8	1·0	315	28	1·4	0·5	50	28	3·2	1·1	261	28	1·2	0·2	71	28	1·5	0·2	285	28	3·4	2·0	281
0·15 a. g. .	28	9·6	4·2	333	28	9·3	4·2	13	27	5·3	2·9	269	28	7·6	2·9	338	27	5·9	2·3	297	28	5·3	3·0	291
0·6 a. s. l. .	28	9·2	3·8	321	28	9·4	3·3	347	27	5·8	3·2	272	27	8·5	4·6	317	26	7·9	4·5	319	28	5·9	3·5	292
1·0 „ .	28	7·3	3·2	278	28	7·5	3·5	296	28	6·1	3·1	273	27	8·7	6·9	297	26	8·2	6·2	298	28	7·4	5·4	290
1·5 „ .	28	7·3	4·8	250	28	7·6	4·8	273	28	6·6	4·5	271	22	8·7	8·1	289	25	9·9	9·2	296	26	9·2	8·3	299
2·0 „ .	28	8·9	6·5	257	27	8·7	6·6	268	25	8·3	6·6	273	19	9·6	8·9	279	23	13·1	12·5	296	27	11·4	11·0	296
2·5 „ .	23	9·8	6·4	261	23	9·3	7·0	269	24	10·4	8·4	277	13	10·0	9·4	272	19	13·6	12·7	295	26	14·4	13·5	293
3·0 „ .	22	11·0	7·2	269	22	10·3	8·5	270	24	13·3	11·2	281	9	14·4	13·7	269	17	16·1	15·0	291	25	15·5	14·7	291
4·0 „ .	1	7·0	7·0	270	17	13·6	12·7	287	23	17·3	15·7	279	2	15·0	14·9	287	8	17·9	17·3	284	17	18·2	17·3	284
5·0 „ .					13	16·9	15·6	281	21	19·6	18·4	283					3	15·0	15·0	281	12	22·9	22·0	284
6·0 „ .					11	20·6	19·6	281	18	24·2	22·3	281					2	16·5	16·4	305	10	25·7	25·1	280
7·5 „ .					3	22·0	21·4	288	10	30·3	28·2	281					2	28·3	28·2	305	2	38·3	38·3	277
9·0 „ .					1	14·5	24·5	285	4	28·8	27·5	294												

Station	AMBALA												ANANTAPUR								ASANSOL			
Time in I. S. T.	0100				0700				1600				0700				1600				0100			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface .	28	2·8	1·2	354	28	2·3	0·9	336	28	3·7	1·5	315	28	1·7	0·5	146	28	2·9	2·6	73	28	1·1	0·7	324
0·15 a. g. .	28	1·0	6·4	337	27	9·7	5·5	336	27	8·1	4·4	300	28	4·5	1·8	136	28	4·3	3·9	72	27	4·9	2·9	343
0·6 a. s. l. .	28	9·7	6·0	333	27	11·2	6·6	327	27	9·1	5·1	305	28	5·2	2·7	128	28	4·2	3·7	73	27	5·7	3·9	309
1·0 „ .	28	7·9	4·7	321	27	10·4	7·0	322	27	10·2	5·6	309	28	7·2	4·9	106	28	4·4	3·6	73	27	6·8	6·1	293
1·5 „ .	28	7·3	4·5	296	27	9·2	5·6	316	27	9·1	5·3	298	28	5·9	4·8	79	28	5·1	3·7	75	25	9·5	8·9	294
2.0 „ .	25	6·9	5·2	293	27	8·8	6·	305	24	7·3	3·7	291	28	6·3	4·1	56	28	5·2	4·1	81	16	10·4	9·7	293
2.5 „ .	24	7·8	5·8	292	26	8·4	6·1	298	22	7·4	4·3	282	28	6·3	4·3	49	28	5·4	4·5	70	4	11·7	11·1	280
3·0 „ .	17	9·1	6·2	283	23	8·5	6·5	286	21	7·3	5·5	285	28	6·5	5·0	51	28	5·8	4·1	62	3	14·8	14·7	281
4·0 „ .	5	6·1	5·9	227	14	11·3	9·3	282	17	9·5	8·1	281	28	7·1	4·7	42	28	6·7	3·8	43				
5·0 „ .	3	9·7	9·5	241	8	11·6	11·1	263	14	14·0	12·7	276	27	6·6	2·7	15	27	6·7	2·7	7				
6·0 „ .	1	13·5	13·5	350	6	16·3	15·9	263	12	20·2	19·0	275	27	8·1	5·1	360	26	9·1	5·5	360				
7·5 „ .					2	25·0	25·0	254	6	23·6	22·6	277	22	9·0	6·3	330	18	9·7	7·2	337				
9 0 „ .									3	22·0	21·7	266	18	8·7	5·7	332	6	7·4	5·6	302				

Table A.—Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 Km. above sea-level.

February 1949.

Station	ASANSOL								BANGALORE												BAREILLY		
Time in I.S.T.	0700				1600				0100				0700				1600				0700		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	28	1·2	0·7	290	28	2·3	1·9	315	28	3·1	2·8	100	28	2·2	1·3	115	28	3·8	3·1	96	28	2·0	0·4
0·15 a. g. .	28	4·5	1·7	337	28	4·4	3·4	317	27	9·0	8·6	105	28	6·8	4·2	117	28	5·1	4·9	83	28	8·7	3·7
0·6 a. s. l. .	28	6·4	3·7	331	28	4·9	3·9	310	..	..	..	..	..	..	..	..	..	..	..	..	28	9·9	5·4
1·0 ,, .	28	7·0	5·5	312	28	5·7	4·7	302	27	7·3	7·0	104	28	5·6	3·8	115	28	4·8	4·2	85	27	10·2	6·6
1·5 ,, .	28	9·4	8·4	300	28	7·9	7·1	300	27	7·9	6·4	83	28	6·8	5·0	78	28	5·7	5·0	78	26	9·8	8·2
2·0 ,, .	27	11·0	10·8	295	28	11·6	10·9	296	27	5·0	3·3	56	28	7·4	6·3	58	28	5·9	5·0	74	25	10·2	9·3
2·5 ,, .	22	13·3	12·1	299	28	14·9	14·1	295	21	5·5	3·3	58	27	7·3	6·4	57	28	6·3	5·4	70	25	11·0	10·5
3·0 ,, .	16	12·7	11·5	287	26	16·8	15·9	294	14	6·5	5·1	56	26	7·3	6·2	66	27	6·5	5·6	66	23	11·3	11·1
4·0 ,, .	7	13·7	13·1	274	18	17·8	16·8	286					17	8·1	6·3	74	23	7·8	6·8	65	12	21·2	13·3
5·0 ,, .					10	21·3	20·6	282					12	6·3	4·0	51	21	7·8	6·0	69	7	16·9	15·9
6·0 ,, .					5	25·2	24·0	276					6	6·1	3·2	25	19	9·5	6·8	51	2	22·5	22·4
7·5 ,, .					1	21·5	21·5	265					3	6·7	3·6	290	12	7·7	4·7	35			
9·0 ,, .													2	4·7	2·9	254	4	8·5	3·7	22			

Station	BAREILLY				BHOPAL												BHUJ						
Time in I.S.T.	1600				0100				0700				1600				0100				0700		
Heihgt In Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	28	3·4	1·8	313	28	3·4	1·7	277	28	2·3	0·3	264	28	4·5	2·4	264	28	1·7	1·0	250	28	0·8	0·5
0·15 a. g. .	28	7·0	3·6	291	28	9·4	3·5	313	28	7·8	1·7	313	28	5·7	3·9	264	28	7·8	4·6	307	28	5·5	2·7
0·6 a. s. l. .	28	7·6	3·8	286	28	8·8	3·4	312	28	6·8	1·2	298	28	5·1	3·4	260	28	9·5	5·6	303	28	9·7	4·4
1·0 ,, .	26	8·2	6·4	294	28	9·9	3·8	303	28	7·7	3·6	310	28	5·6	4·0	267	28	7·8	3·5	279	28	8·8	3·5
1·5 ,, .	25	8·8	6·7	299	28	8·6	5·9	269	28	8·7	6·3	296	28	5·9	4·5	269	28	8·7	5·3	258	27	8·4	4·4
2·0 ,, .	24	9·6	7·8	293	28	9·5	7·4	262	27	9·2	7·4	271	28	7·8	6·2	273	25	8·9	6·2	261	27	9·9	6·5
2·5 ,, .	23	9·5	8·1	285	19	8·6	6·5	275	26	10·9	9·2	278	28	10·4	8·6	277	18	7·7	5·6	260	24	10·5	7·1
3·0 ,, .	21	11·2	10·1	286	15	11·2	8·9	278	25	12·4	10·6	282	27	13·6	11·8	277	17	9·4	7·6	267	21	10·5	8·8
4·0 ,, .	16	15·1	13·9	286	4	14·4	11·7	287	18	15·6	14·1	285	26	18·4	17·1	278	3	11·0	10·6	284	16	14·9	13·7
5·0 ,, .	13	18·8	17·7	283	1	12·0	12.0	275	12	19·1	18·0	289	22	22·0	20·0	284	1	11·0	11·0	285	12	17·7	16·8
6·0 ,, .	8	22·7	21·9	269	1	14·0	14·0	290	8	21·4	20·5	288	18	25·6	24·4	285					9	21·4	20·5
7·5 ,, .	5	30·3	30·0	264					3	24.0	23·6	271	12	27·3	26·6	284					4	16·4	16·1
9·0 ,, .	1	41·0	41·0	295					1	21·5	21·5	291	5	30·5	30·0	295					1	18·5	18·5

Table A.—Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 Km. above sea level.

February 1949.

Station	BHUJ				BIKANER								BOMBAY											
Time in I.S.T.	1600				0700				1600				0100				0700				1600			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	28	3·6	1·8	279	28	2·1	1·3	161	28	2·3	1·5	298	28	1·4	1·1	351	28	1·9	1·3	72	28	6·0	5·5	299
0·15 a. g. .	28	5·5	2·8	298	28	8·3	3·8	138	28	4·3	2·7	308	28	5·3	4·9	350	28	4·8	3·6	23	28	4·7	4·3	310
0·6 a. s. l. .	28	6·2	3·2	289	28	8·1	0·3	295	28	4·2	2·3	293	28	5·5	4·7	354	28	6·0	4·0	23	28	3·3	1·9	333
1·0 „ .	28	6·4	3·4	284	28	7·0	2·4	279	27	4·4	1·9	276	28	4·5	2·2	354	28	5·7	1·9	32	28	3·9	1·3	285
1·5 „ .	28	7·2	4·1	271	28	7·6	2·4	270	27	6·0	3·9	250	28	4·7	1·2	249	28	5·8	2·3	229	28	5·3	2·0	227
2·0 „ .	26	9·3	6·8	266	25	7·4	5·3	282	27	8·3	6·7	259	28	6·2	2·3	202	28	6·2	3·1	216	28	6·8	3·1	216
2·5 „ .	25	10·9	8·3	273	24	8·2	6·6	273	27	11·5	9·7	262	28	6·6	2·6	188	28	6·6	3·8	224	28	6·3	3·6	252
3·0 „ .	25	12·3	10·4	278	22	10·1	8·7	273	24	13·7	12·1	271	21	5·3	1·5	247	28	6·9	4·3	266	28	6·6	4·0	277
4·0 „ .	23	16·2	14·9	275	17	14·3	13·1	265	19	17·3	16·5	275	4	5·1	4·2	302	24	8·2	6·6	295	27	8·6	6·3	292
5·0 „ .	23	19·4	18·3	278	11	17·4	16·4	260	12	21·5	20·4	271	1	8·0	8·0	275	23	10·2	7·8	298	26	11·7	9·8	285
6·0 „ .	13	23·0	22·3	271	5	22·3	21·6	268	6	25·3	25·0	263					18	11·4	9·8	285	25	14·0	12·3	286
7·5 „ .	3	26·2	26·0	263					1	24·0	24·0	280					10	12·0	11·3	78	18	17·4	15·9	283
9·0 „ .	1	24·5	24·5	255													9	12·4	11·8	275	11	17·0	16·0	288

Station	CALCUTTA												COCHIN											
Time in I.S.T.	0100				0700				1600				0100				0700				1600			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	28	2·0	1·0	3	28	1·9	1·1	355	28	2·9	2·3	323	28	0·7	0·3	50	28	1·7	1·6	68	28	4·7	4·1	273
0·15 a. g. .	28	7·0	2·0	330	28	5·2	2·7	12	28	4·4	3·3	315	28	2·5	1·5	338	28	3·5	3·0	61	28	4·9	4·4	269
0·6 a. s. l. .	27	6·6	2·3	340	28	6·4	3·8	337	28	5·0	3·9	316	28	3·5	1·5	333	28	2·8	1·8	338	28	3·6	2·1	302
1·0 „ .	27	6·4	4·2	318	28	6·1	4·3	317	28	5·4	4·4	308	28	3·0	0·9	69	28	2·1	0·9	358	28	3·6	2·1	40
1·5 „ .	27	8·7	7·6	304	27	7·6	6·8	302	28	8·4	6·6	303	23	3·8	3·0	82	28	3·9	3·1	66	28	5·6	5·2	60
2·0 „ .	26	10·9	10·4	298	26	10·1	9·0	300	28	10·0	9·4	301	18	6·4	5·9	64	25	5·9	5·0	71	28	8·1	7·7	66
2·5 „ .	22	13·0	12·2	294	25	12·5	11·4	301	28	13·4	12·6	298	15	7·3	6·7	63	25	7·7	6·7	77	28	9·0	8·0	69
3·0 „ .	21	14·1	13·0	292	21	13·0	11·7	301	27	16·0	15·2	300	13	7·9	6·5	82	24	8·3	6·8	81	28	8·4	6·6	76
4·0 „ .					9	13·1	12·6	285	26	17·9	17·0	295	3	4·8	1·5	122	22	8·6	7·1	82	28	8·8	6·1	79
5·0 „ .					3	12·0	11·8	258	19	20·7	20·2	287					19	10·1	8·1	79	27	11·3	8·9	76
6·0 „ .					1	18·0	18·0	255	14	22·4	21·8	284					12	10·1	5·7	83	25	11·6	10·2	78
7·5 „ .									1	19·5	19·5	285					6	10·3	7·5	29	13	13·1	12·2	52
9·0 „ .																	1	12·0	12·0	20	7	8·7	7·7	34

Table A.—Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 Km. above sea-level.

February 1949.

Station	COOCH BEHAR								CUTTACK												DEOLALI		
Time I.S.T.	0700				1600				0100				0700				1600				0830		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	28	1·1	1·0	76	28	1·6	0·8	241	28	0·1	0·1	360	28	0·3	0·2	3	28	1·2	0·6	315	23	1·5	0·7
0·15 a. g . .	27	4·6	4·2	77	18	3·2	1·5	230	27	4·4	2·5	236	28	4·1	1·9	324	28	3·9	1·9	321	23	4·0	0·9
0·6 a. s. l. .	27	5·0	3·1	111	28	3·8	1·5	239	26	5·8	2·3	239	28	4·9	1·1	310	28	3·6	1·8	305	23	2·9	0·9
1·0 „ .	28	4·6	1·2	112	28	4·1	1·4	241	26	6·3	2·9	299	28	5·6	2·0	320	28	3·9	2·2	306	23	6·1	1·0
1·5 „ .	28	5·3	0·4	90	26	3·3	0·6	205	26	7·1	5·6	310	26	7·1	4·6	313	28	5·4	4·1	309	23	6·9	2·3
2·0 „ .	27	5·8	0·7	44	26	4·7	0·8	330	21	8·4	6·3	312	26	7·9	6·1	318	27	8·4	7·2	312	23	7·7	5·0
2·5 „ .	22	5·5	1·5	26	23	4·7	1·1	324	8	8·3	6·7	212	25	8·7	7·3	317	27	10·3	8·9	308	23	7·5	5·2
3·0 „ .	22	8·3	2·9	294	21	7·0	4·3	291	6	11·9	9·7	290	23	8·9	7·3	306	27	11·5	10·6	309	23	7·1	5·3
4·0 „ .	13	16·2	14·9	281	17	14·3	12·5	282					17	11·4	9·6	305	25	14·2	13·4	305	19	9·6	7·3
5·0 „ .	7	13·9	13·6	296	6	8·9	7·0	286					9	13·3	12·7	277	20	16·0	15·6	289	16	10·5	9·0
6·0 „ .	6	13·7	10·5	278	6	14·2	13·2	287					3	14·2	14·2	282	13	18·4	17·2	284	11	11·7	10·3
7·5 „ .	3	15·8	15·7	292	3	18·7	17·2	284									5	24·0	24·0	289	5	13·4	10·7
9·0 „ .	1	17·0	17·0	260	1	38·5	38·5	310													3	16·0	15·7

Station	DIBRUGARH								GADAG								GAYA						
Time in I.S.T.	0700				1600				0700				1600				0100				0700		
Height in Km. .	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	28	1·8	1·3	61	28	2·0	1·0	20	28	2·9	1·2	124	28	2·2	1·0	56	28	2·2	1·4	192	28	2·8	1·4
0·15 a. g. .	27	3·6	3·2	60	27	2·6	1·4	9	28	5·9	2·4	94	28	3·8	2·3	63	26	5·0	2·9	284	27	5·6	3·0
0·6 a. s. l. .	27	3·8	2·9	58	27	2·3	0·7	75	..	..	..	..	..	..	..	..	26	6·7	5·7	304	27	5·8	3·5
1·0 „ .	27	3·1	1·6	63	27	2·5	0·4	113	28	7·1	4·5	89	28	3·8	2·5	74	26	9·0	8·6	294	27	7·4	5·7
1·5 „ .	26	3·3	0·9	179	26	2·0	1·7	199	28	6·1	4·5	98	28	4·4	3·1	70	25	10·3	9·9	291	27	10·6	10·0
2·0 „ .	24	3·8	1·3	199	25	4·2	3·2	209	28	5·3	3·7	89	28	4·2	3·0	78	20	11·0	10·4	292	23	12·5	11·9
2·5 „ .	22	4·3	1·5	223	24	5·0	3·5	209	28	5·0	3·2	77	28	4·0	2·8	78	5	11·6	11·0	293	20	13·8	12·9
3·0 „ .	22	5·3	2·6	234	23	4·4	3·0	218	28	5·3	3·3	48	28	4·4	2·7	63	4	12·3	10·2	298	18	14·5	13·9
4·0 „ .	14	4·5	1·8	254	16	4·3	2·1	220	28	6·9	3·8	29	27	6·4	2·6	14					3	13·8	13·4
5·0 „ .	13	12·3	9·9	278	15	10·5	8·0	263	27	6·3	2·4	360	27	6·5	3·5	352					2	13·7	13·6
6·0 „ .	10	14·1	13·3	280	12	13·9	12·7	276	26	7·8	4·4	349	27	8·1	4·6	344					1	17·0	17·0
7·5 „ .	5	18·9	18·2	282	8	22·6	21·6	276	26	9·4	7·1	326	21	9·1	7·5	323							
9·0 „ .	2	11·4	11·3	262	6	31·5	31·1	268	24	8·9	6·6	312	15	10·6	8·0	302							

Table A.—Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 Km. above sea-level.

February 1949.

Station	GAYA				GOPALPUR								GORAKHPUR								HYDERABAD (Dn.)			
Time in I.S.T.	1600				0700				1600				0700				1600				0100			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	28	4·8	3·9	308	28	3·4	3·0	330	28	5·8	4·6	152	28	1·8	1·0	258	28	2·5	1·5	279	28	1·8	1·1	80
0·15 a. g. .	27	6·5	5·1	302	28	4·1	2·4	306	28	7·8	5·8	157	27	5·9	2·8	288	27	4·2	3·0	281				
0·6 a. s. l. .	27	7·4	5·5	294	28	4·7	0·9	289	28	4·0	0·8	139	25	7·1	4·9	300	27	4·8	3·1	280	28	4·1	2·7	91
1·0 „ .	25	6·6	6·3	290	28	5·3	1·9	357	28	4·1	1·5	333	25	8·5	7·3	296	27	6·3	4·9	283	28	6·5	4·1	100
1·5 „ .	25	9·5	9·1	289	28	5·9	3·0	337	28	5·8	4·4	318	25	11·1	11·1	294	27	9·9	8·9	291	28	5·2	1.7	87
2·0 „ .	25	13·0	12·6	292	28	7·2	4·7	330	28	8·1	6·7	312	24	13·3	13·1	293	25	12·1	11·3	292	28	5·4	1·2	318
2·5 „ .	24	15·3	14·8	292	28	8·3	6·1	328	28	9·2	7·8	313	15	12·7	12·4	295	21	13·3	12·9	293	28	6·0	2·3	312
3·0 „ .	23	18·0	17·4	288	28	9·6	7·1	315	28	9·1	8·3	314	11	14·8	14·2	286	16	15·8	15·5	296	28	6·4	3·8	329
4·0 „ .	18	21·1	20·3	290	21	9·2	8·1	303	27	10·7	9·9	307	1	12·5	12·5	285	6	18·3	17·7	293	3	5·0	3·8	269
5·0 „ .	8	20·4	20·2	287	15	9·9	8·8	285	25	14·3	13·2	299					1	18·0	18·0	310				
6·0 „ .	3	18·8	18·5	285	13	10·9	10·4	289	23	16·1	14·2	292												
7·5 „ .	2	24·0	22·1	285	5	17·3	16·6	287	15	17·3	16·4	292												
9·0 „ .	1	7·0	18·0	295	3	23·2	21·6	270	6	20·5	19·8	288												

Station	HYDERABAD (Dn.)								JAGDALPUR								JAMNAGAR							
Time in I.S.T.	0700				1600				0700				1600				0700				1600			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	28	1·2	0·3	83	28	2·7	1·8	70	28	0·3	0·2	176	28	2·0	0·8	294	14	2·4	0·6	309	14	9·1	7·2	310
0·15 a. g. .									28	3·9	0·2	111	28	3·6	1·4	306	14	6·0	2·7	335	14	7·3	5·2	322
0·6 a. s. l. .	28	3·2	1·3	111	28	3·6	1·8	79	28	2·2	0·2	179	28	2·9	1·2	300	14	8·2	3·9	308	14	6·5	3·3	305
1·0 „ .	28	6·9	3·9	94	28	3·7	1·5	59	28	5·3	1·3	356	28	3·1	1·5	313	14	7·9	3·8	286	14	7·0	3·2	282
1·5 „ .	28	5·8	2·4	50	28	3·9	1·6	48	28	5·9	3·5	327	28	3·3	2·0	311	13	9·2	5·2	276	14	8·5	4·6	262
2·0 „ .	28	6·4	2·8	346	28	3·8	1·4	18	28	6·8	4·7	322	27	4·3	2·7	316	11	8 9	5·7	254	13	8·2	4·2	258
2·5 „ .	28	6·8	3·5	336	28	5·0	1·3	350	25	8·1	5·9	327	27	5·2	4·1	315	11	9·8	7·1	259	13	10·5	6·3	274
3·0 „ .	28	7·1	4·0	341	28	5·9	2·5	334	25	8·7	6·6	316	25	7·6	6·2	318	9	8·6	6·9	279	12	11·1	8·5	273
4·0 „ .	27	8·4	5·5	334	27	8·2	5·5	321	18	8·5	6·9	310	24	11·1	9·8	310	8	13·7	12·6	271	12	14·5	13·6	272
5·0 „ .	27	9·8	7·0	320	27	10·3	7·8	307	11	10·9	9·7	289	21	14·3	13·1	300	6	15·8	14·9	288	11	20·3	19·3	278
6·0 „ .	26	11·5	10·2	313	27	12·5	10·1	306	8	12·5	11·8	283	18	17·6	15·7	291	5	20·1	19·8	271	6	18·7	18·3	266
7·5 „ .	16	12·6	11·3	298	25	15·1	12·5	307	5	15·9	15·3	282	10	20·5	19·7	289	2	16·2	16·1	279	3	20·2	19·0	270
9·0 „ .	4	9·0	7·8	272	22	15·4	13·6	299	4	17·0	16·3	261	3	22·5	22·2	279	1	28·5	28·5	295	1	26·0	26·0	280

Table A.—Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 Km. above sea-level.

February 1949.

Station	JAMSHEDPUR								JHARSUGUDA												JODHPUR			
Time in I.S.T.	0700				1600				0100				0700				1600				0100			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	
Surface	28	1·1	0·9	302	28	3·1	2·4	305	28	0·9	0·8	2	28	1·0	0·9	15	28	2·0	1·6	292	28	3·2	2·1	3
0·15 a. g.	28	2·6	2·0	285	28	3·8	2·8	310	28	5·1	2·6	21	28	4·2	2·3	31	28	4·1	3·2	295	28	7·8	2·1	3
0·6 a. s. l.	28	4·0	1·7	309	28	4·2	3·3	308	28	6·1	2·1	326	28	4·8	1·1	337	28	4·6	3·6	293	28	8·1	0·7	32
1·0 ,,	28	6·4	4·2	307	28	5·0	4·2	299	28	5·9	3·3	289	28	5·8	3·4	298	28	4·7	3·8	290	28	7·6	1·8	25
1·5 ,,	28	8·7	7·5	296	28	6·6	5·8	291	28	6·6	4·9	282	28	7·7	6·1	293	28	5·2	4·2	293	26	7·8	4·2	24
2·0 ,,	28	11·7	9·8	294	28	9·5	8·6	293	28	9·1	7·2	289	27	10·1	8·5	295	28	7·6	6·1	304	24	8·2	6·1	25
2·5 ,,	19	12·4	10·5	287	28	11·9	11·1	294	23	11·2	9·2	291	27	11·6	9·9	299	28	10·8	9·3	300	15	9·6	7·7	26
3·0 ,,	18	13·2	11·6	292	28	15·1	14·2	296	22	12·6	10·8	294	26	12·3	10·7	298	26	12·7	11·7	302	10	10·9	9·4	28
4·0 ,,	12	13·0	11·6	281	26	18·8	17·9	290	11	12·7	11·5	296	24	15·5	14·2	298	25	16·5	15·5	297				
5·0 ,,	6	17·7	16·9	286	19	22·5	21·3	287					12	18·9	18·5	293	23	20·6	19·8	299				
6·0 ,,	2	20·3	19·4	275	12	22·2	21·4	278					9	21·5	21·2	291	21	23·0	22·0	288				
7·5 ,,					1	30·0	30·0	295					2	19·7	19·7	275	11	26·2	25·9	283				
9·0 ,,													1	24·0	24·0	245	4	36·6	36·5	289				

Station	JODHPUR								JUBBULPORE												MADHOSAGAR			
Time in I.S.T.	0700				1600				0100				0700				1600				0700			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	28	2·7	1·5	46	28	4·2	2·4	269	28	1·2	0·9	137	28	1·7	1·2	165	28	2·5	1·4	283	28	1·7	1·1	232
0·15 a. g.	28	6·5	2·8	88	28	5·7	3·3	257	28	5·1	0·6	277	28	5·1	2·3	205	28	4·5	2·9	287	28	5·8	2·5	305
0·6 a. s. l.	28	7·1	0·4	189	28	5·9	3·6	249	28	5·3	0·9	299	28	5·6	1·9	216	28	4·5	2·8	282	28	7·9	3·8	32
1·0 ,,	28	7·1	2·7	260	27	6·0	3·9	256	28	6·0	2·7	287	28	7·5	2·5	295	28	4·9	3·0	276	28	8·0	4·7	301
1·5 ,,	26	7·1	4·2	275	25	6·6	4·4	257	28	7·4	5·6	281	28	8·2	5·8	298	28	6·1	4·6	280	28	9·0	7·1	292
2·0 ,,	22	7·9	5·6	274	24	8·2	6·3	264	28	9·2	7·8	276	28	10·5	7·9	282	28	7·9	6·5	283	28	10·3	8·2	287
2·5 ,,	21	8·9	7·0	274	24	10·7	9·3	269	26	10·4	8·7	283	28	12·5	10·3	286	27	11·0	9·3	283	27	11·1	9·9	285
3·0 ,,	16	10·3	9·3	277	23	13·2	11·5	273	21	12·5	10·7	284	27	14·8	11·8	285	27	14·4	12·6	284	24	12·5	11·0	28
4·0 ,,	11	15·0	13·8	283	18	16·6	15·8	283	7	13·0	12·7	298	18	16·8	15·5	293	25	18·7	17·6	289	20	16·5	14·9	28
5·0 ,,	2	22·7	22·7	260	12	21·0	18·8	281	4	16·4	16·0	276	11	18·8	17·6	293	24	23·3	22·4	289	12	19·7	18·8	27
6·0 ,,					7	24·8	22·9	271					5	18·4	18·0	284	17	27·6	26·5	289	10	22·4	21·7	27
7·5 ,,					3	30·8	30·7	263					3	26·5	26·2	280	7	22·1	21·2	291	3	33·7	33·1	28
9·0 ,,					1	42·5	42·5	255									4	28·7	28·6	291				

Table A.—Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 Km. above sea-level.

February 1949.

tation	MADHOSAGAR				MADRAS												MALEGAON							
Time in I.S.T.	1600				0100				0700				1600				0100				0700			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
urface . .	28	3·5	2·6	289	28	1·6	0·1	49	28	2·0	1·6	284	28	5·1	4·1	94	28	2·4	1·4	295	28	2·6	2·1	285
·15 a. g. .	28	5·2	3·7	292	28	4·5	3·1	107	28	4·5	0·8	259	28	5·7	4·5	91	28	5·3	1·6	355	28	3·9	1·3	329
·6 a. s. l. .	28	5·6	3·7	295	28	5·2	4·2	81	28	4·9	3·2	103	28	5·0	3·5	64	28	5·3	1·6	355	28	3·9	1·3	329
·0 ,, .	28	5·9	4·2	292	28	5·9	4·9	54	28	5·8	4·7	77	28	5·6	4·2	49	28	7·1	1·9	360	28	6·4	1·3	47
·5 ,, .	28	6·4	4·7	284	27	6·9	5·7	42	28	7·0	5·9	58	28	6·8	5·3	43	28	6·2	1·4	270	28	6·2	1·3	222
·0 ,, .	28	8·4	6·7	283	27	7·6	5·9	47	27	8·1	6·5	44	26	7·3	6·0	48	26	6·1	4·1	235	28	7·0	4·8	235
·5 ,, .	27	12·0	10·3	282	22	8·8	7·4	53	26	8·1	6·4	53	26	8·2	6·7	50	22	6·7	3·7	242	28	8·5	6·1	246
·0 ,, .	25	13·8	12·5	283	20	7·6	6·5	57	25	8·1	6·1	59	25	7·9	6·5	59	19	7·5	4·3	259	27	8·1	6·1	287
·0 ,, .	22	18·9	17·9	284	10	8·1	6·7	60	23	8·1	5·6	59	22	7·9	5·1	54	12	9·4	7·0	292	25	9·6	8·0	285
·0 ,, .	21	22·9	21·9	286					20	8·5	5·1	55	20	8·7	5·4	46					18	10·4	9·1	304
·0 ,, .	16	29·7	28·7	285					16	10·8	7·2	27	19	9·6	7·2	39					14	11·3	10·7	286
·5 ,, .	6	32·5	31·4	283					6	8·5	1·6	349	12	9·0	6·5	352					7	11·9	11·5	277
·0 ,, .	4	42.5	41·6	284					3	10·0	7·9	301	5	7·1	3·3	288					2	14·5	14·0	287

tation	MALEGAON				MANGALORE												MASULIPATAM							
Time in I.S.T.	1600				0100				0700				1600				0100				0700			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	28	3·2	1·6	284	28	2·4	1·9	29	28	2·7	2·5	84	28	4·7	4·1	299	28	1·3	0·7	119	28	0·9	0·5	5
·15 a. g. .	28	4·3	1·7	291	28	4·8	4·2	358	28	4·7	3·8	65	28	7·1	6·5	288	28	5·6	3·7	158	28	4·1	0·7	85
·6 a. s. l. .	28	4·3	1·7	291	28	4·7	4·1	345	28	5·5	2·3	47	28	4·9	4·0	299	28	5·0	2·8	119	28	4·4	2·2	129
·0 ,, .	28	4·2	2·1	275	28	4·8	2·7	11	28	5·7	2·9	57	28	3·2	1·7	50	27	5·1	3·1	51	28	4·8	2·6	87
·5 ,, .	28	4·2	2·4	271	26	5·5	2·7	40	28	4·9	3·4	65	28	5·7	5·3	83	27	6·4	4·3	18	27	6·7	4·1	40
·0 ,, .	28	5·0	3·1	260	24	8·1	7·6	78	28	6·2	5·0	84	28	8·8	8·3	81	27	7·1	4·1	8	28	7·2	4·0	23
·5 ,, .	28	6·1	3·9	258	20	8·9	8·7	86	28	6·9	6·3	79	28	9·2	8·7	80	26	7·0	4·5	5	28	7·5	4·7	15
·0 ,, .	27	7·1	5·3	267	16	7·5	6·6	82	28	7·2	5·7	71	28	8·3	7·7	75	24	6·9	5·1	6	28	7·3	5·2	13
·0 ,, .	27	10·3	8·3	281	6	7·4	5·1	31	26	7·4	6·0	60	28	8·7	7·0	71	20	5·8	3·7	346	25	7·9	5·5	360
·0 ,, .	26	13·3	11·8	280					22	6·8	4·3	62	25	7·9	5·3	51					24	7·7	4·7	337
·0 ,, .	26	16·5	15.3	280					19	8·4	5·8	19	24	9·6	7·3	34					21	8·2	5·5	329
·5 ,, .	23	20·1	18·5	280					17	1·9	5·8	2	18	9·1	6·3	7								
·0 ,, .	16	21·8	20·4	288					11	5·1	2·3	325	8	4·9	2·9	10					12	8·4	6·6	302
																					6	14·1	12·2	291

Table A.—Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 Km. above sea-level.

February 1949.

Station	MASULIPATAM				NAGERCOIL												NAGPUR							
Time in I.S.T.	1600				0100				0700				1600				0100				0700			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	28	3·0	2·4	141	28	2·7	2·1	46	28	1·9	1·8	42	28	5·0	2·3	76	28	1·4	0·8	324	28	1·6	0·9	3[illegible]
0·15 a. g.	28	4·2	3·1	143	28	5·5	4·1	37	28	5·2	4·4	50	28	8·4	4·0	83	28	6·3	2·9	20	28	6·0	3·4	
0·6 a. s. l.	28	3·7	1·2	114	28	6·3	5·2	36	28	5·0	4·6	43	28	6·9	4·6	62	28	6·7	2·1	21	28	7·4	2·9	[illegible]
1·0 ,,	28	4·2	1·4	43	28	8·2	7·6	46	28	5·9	5·5	46	28	6·1	4·8	49	28	5·8	0·6	296	28	7·0	2·2	3[illegible]
1·5 ,,	28	5·7	3·2	15	28	8·7	8·5	51	28	7·8	7·3	54	26	7·7	6·9	39	28	6·3	3·0	276	28	6·1	3·3	2[illegible]
2·0 ,,	28	7·4	5·0	10	28	9·1	8·2	60	28	8·7	7·9	64	26	9·6	9·0	40	27	7·1	4·7	289	28	8·9	5·7	2[illegible]
2·5 ,,	28	7·7	5·5	8	25	9·3	7·8	72	28	8·4	6·5	71	25	10·2	8·5	50	25	7·1	6·1	300	28	9·6	6·9	2[illegible]
3·0 ,,	28	7·3	4·9	6	25	8·0	5·6	75	28	7·7	5·2	82	25	10·9	7·4	62	22	8·6	7·3	303	24	9·3	7·2	2[illegible]
4·0 ,,	28	7·2	4·2	342	13	8·7	5·9	93	28	9·7	6·5	88	23	9·4	4·8	89	1	6·5	6·5	274	19	11·3	9·9	3[illegible]
5·0 ,,	27	8·6	6·2	324	10	11·6	7·8	98	27	11·5	8·9	84	23	13·0	10·2	88	1	16·5	16·5	275	9	11·9	11·9	2[illegible]
6·0 ,,	22	10·7	8·1	314	8	10·4	5·1	80	24	10·3	8·0	66	22	13·0	11·2	82	1	19·5	19·5	70	6	12·7	11·9	2[illegible]
7·5 ,,	17	12·3	11·5	305	2	11·0	10·9	57	21	11·7	9.4	67	19	14 0	13 1	69					2	14·3	13·0	2[illegible]
9·0 ,,	13	13·2	10·8	294					17	12·2	9·9	60	16	13·1	11·9	70					1	18·0	18·0	2[illegible]

Station	NAGPUR				NEW DELHI												POONA							
Time in I.S.T.	1600				0100				0700				1600				0100				0700			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	28	2·5	0·8	264	28	2·7	1·7	342	28	3·0	1·0	305	28	4·9	3·0	303	28	1·8	1·3	252	28	2·0	1·6	2
0·15 a. g.	28	4·9	2·1	288	28	7·9	5·0	351	28	7·5	3·5	325	28	6·2	3·8	297	28	3·3	2·3	275	28	2·6	0·7	2
0·6 a. s. l.	28	5·1	2·5	285	27	8·0	4·7	336	26	8·4	5·2	321	28	6·5	3·7	298	28	2·3	1·7	262	28	2·3	1·8	2
1·0 ,,	28	4·8	2·4	285	27	8·5	4·8	302	26	8·9	6·1	306	28	7·1	4·7	282	28	5·7	2·0	317	28	6·1	0·8	
1·5 ,,	28	4·6	2·5	288	25	9·4	7·1	278	26	9·0	7·1	297	28	8·9	6·7	282	28	6·3	1·1	253	28	7·2	1·1	1
2·0 ,,	28	5·6	4·1	290	14	9·3	8·6	285	26	9·7	8·7	290	28	10·5	8·2	277	28	5·9	2·4	180	28	6·4	3·6	1
2·5 ,,	27	8·0	6·5	287	10	8·5	7·3	281	25	10·5	9·5	287	27	11·8	9·8	277	26	5·9	2·3	180	28	6·5	2·8	1
3·0 ,,	26	10·3	8·6	290	6	7·5	6·7	278	21	11·1	9·6	280	26	12·6	10·4	273	24	5·1	1·2	214	28	6·2	2·4	2
4·0 ,,	26	14·9	13·2	293					15	13·7	12·9	274	24	16·8	15·1	274	20	7·5	5·7	301	28	8·5	6·2	2
5·0 ,,	23	16·6	14·8	292					8	16·7	15·4	272	19	21·2	19·0	278					27	9·6	8·1	2
6·0 ,,	17	18·5	17·9	292					4	21·9	21·1	266	14	24·6	21·6	277					26	11·8	10·2	2
7·5 ,,	9	21·4	20·7	292					1	31·5	31·5	260	10	32·1	31·2	267					22	14·3	12·7	2
9·0 ,,	6	24·0	23.5	286									6	42·1	41·6	264					11	14·6	12·0	2

Table A.—Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 Km. above sea-level.

February 1949.

Station	POONA				PORT BLAIR												RAIPUR							
Time in I.S.T.	1600				0100				0700				1600				0100				0700			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	28	3·3	1·7	294	28	2·0	1·4	21	28	1·5	1·1	25	28	2·8	2·5	46	28	2·8	1·1	256	28	1·5	0 3	322
0·15 a. g. .	28	3·5	1·5	286	27	4·9	4·4	33	28	4·6	4·3	31	28	5·2	4·6	46	27	7·0	0·7	301	28	5·3	1·2	9
0·6 a. s. l. .	28	3·4	1·3	291	26	5·6	4·9	42	25	5·9	5·0	41	28	5·5	4·6	42	27	6·4	0·9	311	28	6·2	1·6	353
1·0 ,, .	28	3·5	1·8	266	25	5·6	4·0	65	24	6·3	4·6	54	27	5·4	3·6	48	28	5·0	2·6	293	28	5·5	2·3	314
1·5 ,, .	28	3·6	1·6	235	22	6·9	4·2	75	23	6·8	4·9	70	26	6·3	4·5	71	28	5·9	4·4	285	28	6·6	4·6	295
2·0 ,, .	28	5·2	2·5	230	20	7·1	3·7	83	21	7·1	5·0	73	23	6·7	5·2	81	28	7·1	5·5	289	27	9 0	6·7	297
2·5 ,, .	28	4·9	1·7	236	14	6·3	4·4	82	20	7·1	5·1	78	22	6·5	5·0	81	28	9·3	7·4	297	27	9·9	7·7	298
3·0 ,, .	28	5·7	3·0	277	13	6·3	4·5	64	18	7·1	5·1	74	21	6·5	4·3	73	20	11·0	9·2	287	27	11·2	9·2	301
4·0 ,, .	27	7·6	5·0	299	3	4·0	1·7	338	13	9·6	6·1	62	19	6·5	3·3	45	4	8·6	8·2	304	24	13·9	13·0	308
5·0 ,, .	24	9·1	7·2	299					10	10·7	7·5	31	15	9·3	3·6	48	1	12·0	12·0	295	18	15·5	14·3	294
6·0 ,, .	23	10·5	9·2	287					10	8·3	5·8	29	10	7·8	1·5	351					16	18·9	17·3	292
7·5 ,, .	20	12·8	11·1	282					6	9·3	5·0	25	6	7·5	1·9	102					5	20 4	20·1	289
9·0 ,, .	13	16·2	15·3	273					2	9·0	7·1	138	6	7·7	3·4	131					1	20·0	20·0	245

Station	RAIPUR				SAHARSA								TEZPUR											
Time in I.S.T.	1600				0700				1600				0100				0700				1600			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	28	2·5	1·5	292	28	0·9	0·3	220	28	1·7	1·3	256	28	1·4	1·1	57	28	1·3	1·0	55	28	1·3	0·7	78
0·15 a. g. .	28	4·8	2·9	296	27	5·1	1·6	255	26	4·5	3·8	263	28	5·3	4·1	69	28	4·9	3·9	74	28	3·6	1·7	70
0·6 a. s. l. .	28	4·7	2·8	291	26	5·0	2·5	298	26	4·9	4·1	268	28	5·1	2·3	108	27	5·4	4·2	85	28	2·9	1·2	74
1·0 ,, .	28	4·6	3·1	288	26	5·0	3·0	294	26	5·1	4·4	273	27	4·2	0·9	210	27	4·8	2·2	94	28	3·1	0·7	172
1·5 ,, .	28	4·7	3·4	293	26	6·0	4·9	297	25	6·9	6·1	285	25	4·9	2·7	258	25	4·7	0·2	151	28	5·0	3·1	231
2·0 ,, .	28	6·7	5·4	290	23	8·4	7·2	299	25	9·3	8·6	289	23	6·5	3·5	259	24	5·5	1·4	248	28	7·0	4·8	238
2·5 ,, .	28	9·8	8·2	289	20	10·6	9·9	296	24	11·6	11·0	294	20	6·4	3·3	260	22	5·3	1·1	238	27	7·5	4·8	238
3·0 ,, .	28	11·5	9·8	289	14	12·6	12·2	298	22	12·9	12·8	291	15	4·4	1·6	131	22	6·2	2·4	241	25	7·6	4·2	250
4·0 ,, .	28	15·4	13·8	291	5	10·2	9·9	296	22	17·2	16·7	292	9	4·6	1·0	308	14	7·8	5·2	279	21	9·0	7·0	271
5·0 ,, .	26	19·2	17·6	291	1	13·0	13·0	290	15	22·2	21·6	290					10	13·7	12·0	278	17	13·8	12·1	273
6·0 ,, .	20	20·8	18·9	287	1	13·0	13·0	280	10	25·4	25·3	297					10	18·6	18·1	283	17	18·6	17·6	280
7·5 ,, .	11	25·4	24·3	288					1	29·0	29·0	295					3	18·7	18·1	300	13	25·3	24·2	282
9·0 ,, .	3	31·8	31·2	281													1	35·0	35·0	290	8	34·2	32·7	276

Table A.—Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 Km. above sea-level.

February 1949.

Station	TRICHINOPOLY												TRIVANDRUM				UDAIPUR							
Time in I.S.T.	0100				0700				1600				0700				0100				0700			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	28	1·7	1·5	48	28	1·0	0·7	13	28	3·0	2·7	69	28	1·4	1·3	42	28	1·3	1·1	275	28	0·6	0·5	2
0·15 a. g. .	28	5·7	4·7	68	28	4·8	3·3	27	28	5·3	4·8	71	28	4·0	2·7	14	28	4·9	2·1	290	27	3·3	2·1	3
0·6 a. s. l. .	28	7·6	6·7	73	28	5·5	2·9	66	28	5·2	4·8	74	28	3·3	1·5	13	28	1·3	1·1	275	28	0·6	0·5	2
1·0 ,, .	28	7·6	7·0	61	28	6·0	4·9	64	28	5·3	4·9	63	28	2·9	1·6	41	28	6·9	2·6	286	28	5·8	1·3	3
1·5 ,, .	28	7·1	6·4	53	28	7·0	5·9	53	28	5·8	5·4	48	28	4·4	3·7	63	28	8·0	4·7	260	28	8·0	4·0	2
2·0 ,, .	27	7·3	6·0	50	28	7·3	6·4	57	28	7·5	6·4	53	27	7·0	6·0	69	28	8·5	6·4	254	27	8·4	7·1	2
2·5 ,, .	26	8·5	6·7	55	28	8·5	6·9	62	28	8·6	7·0	57	24	8·0	6·6	75	24	9·6	7·8	260	27	10·2	8·5	2
3·0 ,, .	25	8·5	6·5	62	27	8·7	3·3	49	28	8·2	5·8	60	21	8·2	5·7	82	19	9·4	8·2	268	24	11·8	10·2	2
4·0 ,, .					27	9·1	6·6	77	27	8·7	6·5	74	14	7·6	4·7	95	5	14·5	13·4	290	18	15·9	14·7	2
5·0 ,, .					23	9·4	6·3	74	26	8·9	6·9	65	10	8·3	4·4	90					7	17·7	17·2	2
6·0 ,, .					20	10·0	6·8	59	26	10·6	7·8	60	9	10·4	6·1	51					4	22·4	21·5	2
7·5 ,, .					16	7·5	4·9	50	20	8·9	6·8	34	7	9·0	5·7	59								
9·0 ,, .					11	6·5	4·4	65	14	6·7	4·7	51	5	11·8	10·9	30								

Station	UDAIPUR				VENGURLA												VERAVAL						
Time in I.S.T.	1600				0100				0700				1600				0100				0700		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	28	3·2	0·2	244	28	1·3	1·3	5	28	0·8	0·8	4	28	5·2	4·9	262	28	3·5	2·9	338	28	3·0	3·0
0·15 a. g. .	27	5·5	2·7	242	28	5·4	5·3	3	28	4·4	3·4	25	28	4·8	4·2	275	28	6·6	5·6	326	28	8·2	6·1
0·6 a. s. l. .	28	3·2	0·2	244	28	6·4	6·0	347	28	6·6	3·7	23	28	4·0	2·1	300	28	6·7	4·1	37	28	7·5	4·4
1·0 ,, .	27	5·6	2·8	248	28	5·9	3·3	342	28	6·7	3·1	26	28	3·5	1·5	6	28	6·1	2·1	317	28	6·0	3·2
1·5 ,, .	27	5·3	3·4	246	28	5·6	2·2	90	28	5·7	2·5	103	28	4·3	2·5	67	28	6·6	2·2	274	28	6·5	3·0
2·0 ,, .	26	6·3	4·8	268	28	6·6	5·7	104	28	6·1	4·4	119	28	6·3	4·3	86	25	6·8	3·2	237	27	7·7	3·7
2·5 ,, .	26	9·6	8·6	276	21	6·3	4·9	102	27	5·7	3·9	120	28	6·2	4·3	83	18	6·1	2·6	262	25	8·3	4·5
3·0 ,, .	27	12·1	11·0	279	20	5·1	2·1	83	27	4·9	1·8	70	28	5·4	2·9	54	15	6·9	4·1	290	25	9·1	6·7
4·0 ,, .	25	19·4	17·2	280					27	7·0	3·5	1	27	6·6	2·9	27					19	10·0	9·1
5·0 ,, .	24	22·5	21·8	279					27	6·3	2·3	334	27	6·5	3·0	344					12	11·7	10·6
6·0 ,, .	21	26·9	25·2	282					27	8·5	4·7	334	27	8·6	4·4	322					10	15·1	14·1
7·5 ,, .	10	30·9	28·2	278					11	9·6	8·5	312	11	9·6	7·3	311							
9·0 ,, .	3	32·5	32·4	287					6	10·1	4·8	287	4	10·6	9·0	311							

Table A.—Monthly Mean Directions and Velocities of Upper Winds.

Winds above 9·0 Km. above sea-level.

February 1949.

Station	VERAVAL				VIZAGAPATAM												MINICOY							
Time in I.S.T.	1600				0100				0700				1600				0100				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	28	5·8	4·4	263	28	0·3	0·1	328	28	0·3	0·1	286	28	4·2	3·3	144	28	1·7	1·2	2	28	1·7	1·1	32
0·15 a. g.	28	6·9	4·8	258	28	3·4	1·6	243	27	2·9	1·0	307	28	6·2	4·4	148	28	3·5	2·0	356	28	3·8	2·4	33
0·6 a. s. l.	28	5·6	2·1	295	28	4·8	1·6	234	27	5·0	0·6	235	28	4·1	2·4	116	28	3·3	2·1	20	28	3·7	2·7	32
1·0 "	28	5·7	2·5	336	28	4·5	0·9	277	27	4·3	0·9	43	28	3·0	0·3	60	27	4·2	3·0	63	28	4·1	3·1	60
1·5 "	28	6·9	3·1	309	26	4·8	2·9	343	27	5·5	2·9	13	28	4·5	2·9	327	23	6·4	5·9	81	28	6·0	5·6	81
2·0 "	28	7·7	3·9	280	26	6·2	4·6	359	27	6·5	4·0	359	27	7·2	4·7	337	22	7·7	1·6	26	27	6·8	6·1	80
2·5 "	27	8·6	5·1	277	22	8·3	6·5	350	27	8·1	5·3	349	28	9·3	7·5	335	16	8·3	7·1	79	25	6·6	5·2	84
3·0 "	27	9·2	6·8	275	22	9·5	7·7	339	26	8·4	5·6	345	28	8·8	7·5	332	14	8·5	7·5	87	21	5·1	4·4	80
4·0 "	24	11·4	10·4	281	14	7·6	5·5	307	26	8·1	5·6	327	27	9·7	7·0	319	2	8·3	8·0	101	19	7·7	5·0	93
5·0 "	22	14·9	13·3	287					23	10·0	6·8	293	24	10·7	8·4	305					17	9·9	7·0	89
6·0 "	17	16·2	14·9	279					19	9·5	7·8	299	22	11·3	9·3	303					13	9·0	7·0	77
7·5 "	9	18·3	17·2	263					13	11·3	10·6	287	16	15·8	14·5	292					7	8·9	7·8	68
9·0 "	2	16·0	14·8	263					8	16·4	14·5	288	9	16·1	14·9	288					5	7·7	7·2	92

Station	MINICOY																							
Time in I.S.T.	1430																							
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	28	2·2	1·8	5																				
0·15 a. g.	28	4·0	3·3	10																				
0·6 a. s. l.	27	4·0	3·4	18																				
1·0 "	27	4·1	3·7	42																				
1·5 "	25	5·7	5·4	64																				
2·0 "	21	6·7	5·9	67																				
2·5 "	17	6·0	4·6	73																				
3·0 "	17	6·2	4·5	73																				
4·0 "	15	9·0	6·1	82																				
5·0 "	14	11·9	8·9	81																				
6·0 "	13	11·6	9·9	72																				
7·5 "	10	11·7	10·7	65																				
9·0 "	6	7·5	6·8	57																				

Table B.—Monthly Mean Directions and Velocities of Upper Winds.

Winds at and above 10 Km. above sea-level.

February 1949.

Height (Km.)	n	V	v	D
AHMEDABAD				
10·0	3	27·7	26·2	280
11·0	1	33·0	33·0	285
AMBALA				
10·0	1	24·0	24·0	280
11·0	1	35·0	35·0	295
12·0	1	63·5	63·5	295
ANANTAPUR				
10·0	18	7·5	4·9	276
11·0	8	8·7	5·7	249
12·0	3	6·8	5·3	272
13·0	3	6·1	5·5	253
BANGALORE				
10·0	3	3·5	2·5	232
11·0	1	3·0	3·0	185
BHOPAL				
10·0	2	24·2	23·5	317
11·0	1	27·0	27·0	295
BHUJ				
10·0	1	30·5	30·5	290
BOMBAY				
10·0	13	17·3	16·0	282
11·0	7	14·9	14·1	277
12·0	6	15·7	14·3	279
13·0	4	19·5	18·3	289
14·0	2	30·0	27·8	289
15·0	1	21·0	21·0	270
16·0	1	23·0	23·0	255
COCHIN				
10·0	6	7·6	7·0	46
11·0	4	7·4	6·9	75
12·0	3	7·3	7·3	110
13·0	1	5·5	5·5	70
14·0	1	6·0	6·0	95
15·0	1	3·5	3·5	110
16·0	1	7·5	7·5	30
17·0	1	3·0	3·0	330
DEOLALI				
10·0	1	14·5	14·5	275
DIBRUGARH				
10·0	7	32·1	31·4	270
11·0	5	36·1	35·5	254
12·0	2	36·3	35·9	261
GADAG				
10·0	32	9·5	6·3	274
11·0	1	14·0	14·0	215
12·0	1	11·5	11·5	235
GAYA				
10·0	1	25·0	25·0	295
GOPALPUR				
11·0	2	15·0	14·8	236
HYDERABAD (Dn.)				
10·0	14	14·2	12·5	283
11·0	9	16·3	14·0	274
12·0	2	19·3	18·5	298
13·0	1	16·0	16·0	270
14·0	1	19·0	19·0	270
JAGDALPUR				
10·0	2	29·2	28·1	256
11·0	2	37·0	35·0	256
JHARSUGUDA				
10·0	1	24·5	24·5	245
JUBBULPORE				
10·0	2	31·0	31·0	287
MADHOSAGAR				
10·0	3	37·8	37·8	284
11·0	2	42·7	42·7	302
MADRAS				
10·0	2	3·5	3·5	262
11·0	1	5·0	5·0	242
12·0	1	12·0	12·0	190
MALEGAON				
10·0	12	21·1	19·1	287
11·0	7	22·1	19·7	292
12·0	6	24·9	23·7	301
13·0	4	22·9	22·5	298
14·0	1	16·5	16.5	295
15·0	1	15·0	15·0	290
16·0	1	18·0	18·0	280
MANGALORE				
10·0	14	5·3	4·3	94
11·0	3	3·2	2·5	65
12·0	3	4·2	3·8	124
13·0	2	6·5	6·5	142
14·0	1	13·5	13·5	175
15·0	1	9·5	9·5	125
MASULIPATAM				
10·0	17	16·1	13·5	291
11·0	7	19·3	15·7	279
12·0	4	20·5	19·1	281
13·0	3	16·7	16·6	288
14·0	2	25·0	25·0	285
15·0	1	20·0	20·0	215
16·0	1	31·0	31·0	280
NAGERCOIL				
10·0	33	13·4	9·5	66
11·0	14	12·0	11·1	78
12·0	11	11·8	10·4	89
13·0	10	12·5	11·8	96
14·0	6	11·3	10·5	110
15·0	4	14·5	11·0	120
16·0	4	18·5	17·3	137
17·0	3	21·5	20·2	127
18·0	3	24·2	23·3	135
19·0	1	36·5	36·5	140
20·0	1	48·5	48·5	155
NAGPUR				
10·0	4	28·2	27·5	295
11·0	1	30·0	30·0	280
12·0	1	33·0	33·0	275
13·0	1	30·5	30·5	280
NEW DELHI				
10·0	5	45·6	43·9	268
11·0	1	48·5	48·5	255
POONA				
10·0	21	17·0	8·5	277
11·0	7	19·1	17·4	282
12·0	4	20·0	18·2	285
PORTBLAIR				
10·0	5	7·3	2·5	101
11·0	4	8·1	3·5	147
12·0	2	12·5	10·1	134
13·0	2	14·7	14·1	135
RAIPUR				
10·0	2	27·0	25·0	263
11·0	1	39·5	39·5	275
12·0	1	50·0	50·0	270
TEZPUR				
10·0	8	38·0	35·0	273
11·0	5	40·7	39·2	264
12·0	3	50·2	48·7	262
13·0	1	54·0	54·0	260
TRICHINOPOLY				
10·0	21	6·6	4·3	94
11·0	5	6·6	4·4	70
12·0	4	8·1	6·4	137
13·0	3	12·0	9·1	155
14·0	3	15·5	14·5	166
15·0	2	13·5	13·5	158
TRIVANDRUM				
10·0	4	8·7	8·0	39
11·0	2	10·0	8·7	64
12·0	1	7·0	7·0	35
UDAIPUR				
10·0	2	28·2	27·8	292

Table B.—Monthly Mean Directions and Velocities of Upper Winds.

Winds at and above 10 Km. above sea-level.

February 1949.

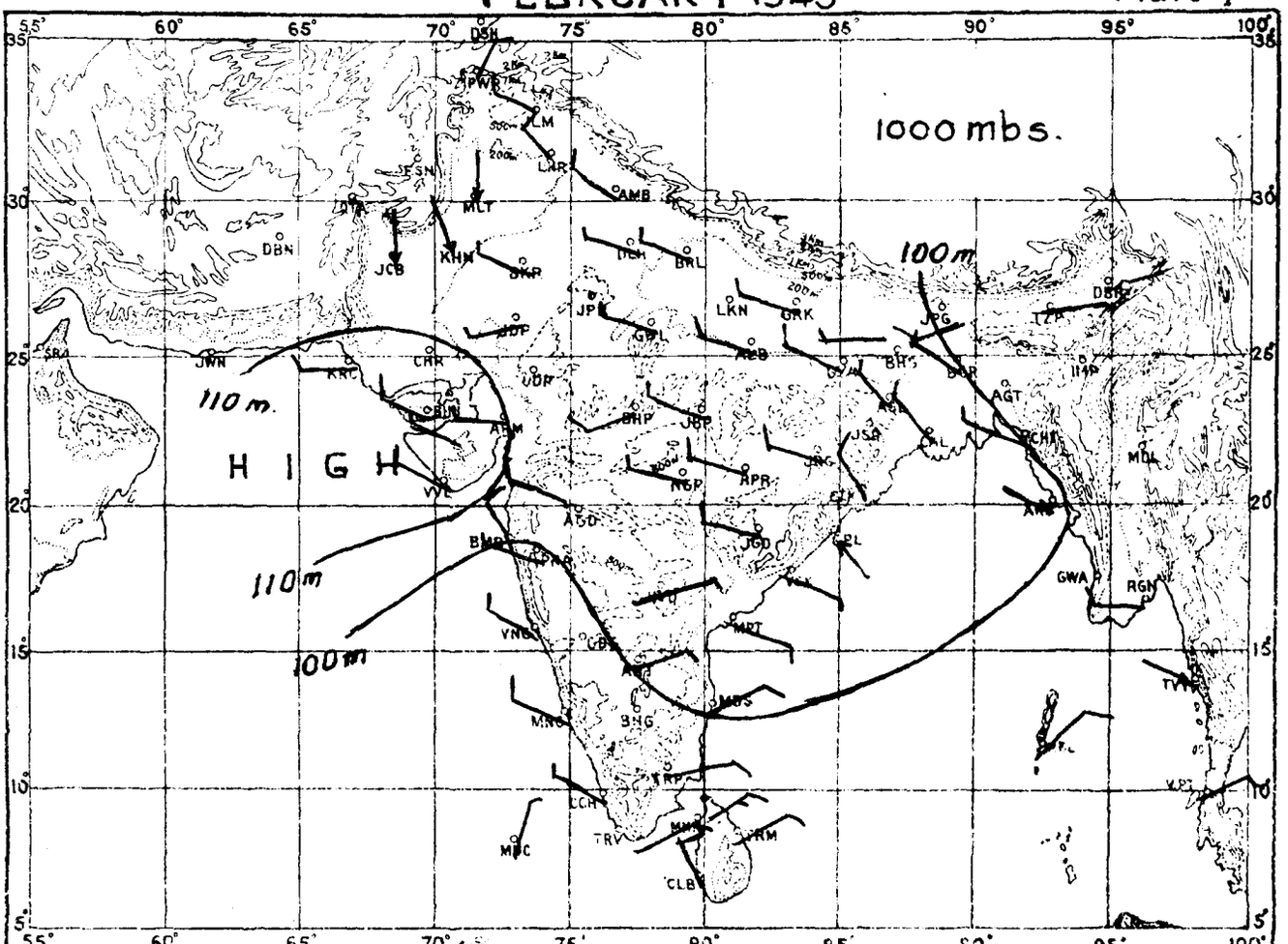
Height (Km.)	n	V	v	D	Height (Km.)	n	V	v	D	Height (Km.)	n	V	v	D	Height (Km.)	n	V	v	D
			VENGURLA																
10·0	5	6·5	6·0	250															
11·0	1	9·0	9·0	295															
12·0	1	10·0	10·0	230															
13·0	1	15·5	15·5	245															
14·5	1	16·5	16·5	260															
15·0	1	12·5	12·5	255															
16·0	1	12·5	12·5	260															
17·0	1	11·0	11·0	275															
			VERAVAL																
10·0	1	19·0	19·0	239															
			VIZAGAPATAM																
10·0	15	16·7	15·0	272															
11·0	2	23·3	22·3	268															
			MINICOY																
10·0	11	8·0	7·3	100															
11·0	5	16·7	7·8	89															
12·0	1	15·5	15·5	130															
13·0	1	10·0	10·0	150															
14·0	1	4·0	4·0	165															
15·0	1	2·5	2·5	65															

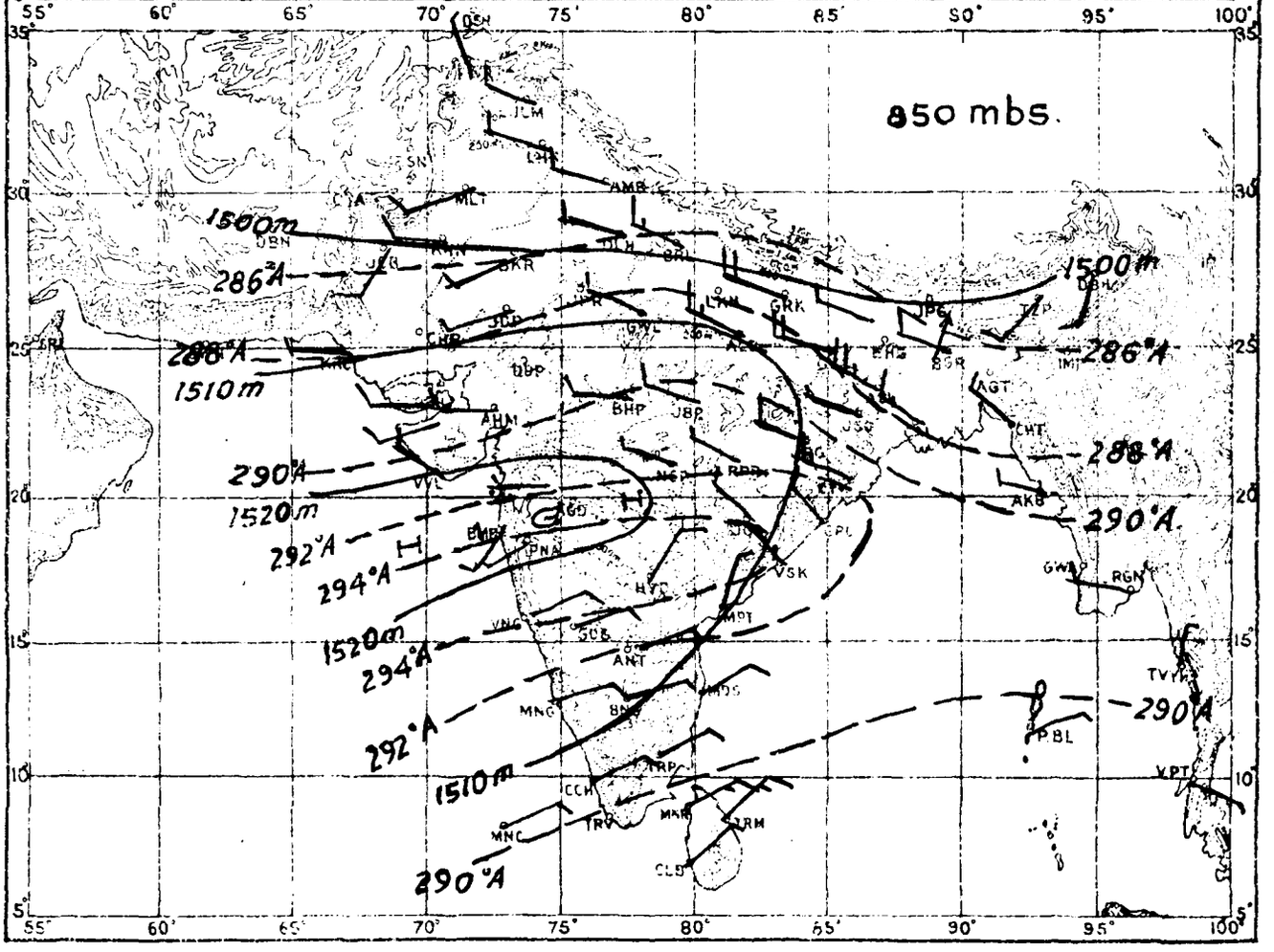
GIPN—S2—3 D.D.G.O. Poona—1-5-54—260.

MONTHLY MEAN CONSTANT PRESSURE CHARTS.

FEBRUARY 1949

Plate I





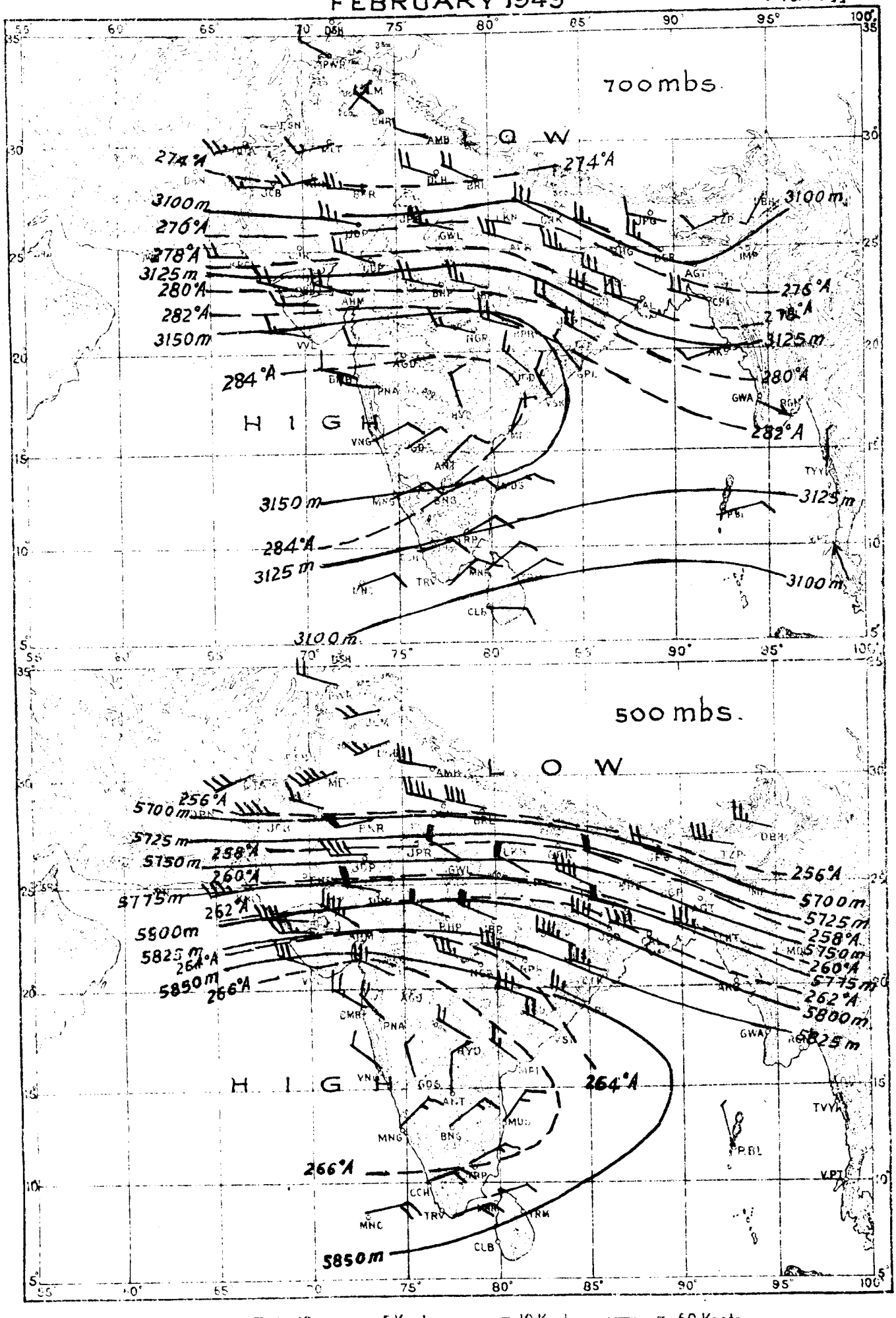
RESULTANT WIND = 5 Knots, = 10 Knots, = 50 Knots.

Isotherms in degrees absolute — Contours in geopotential metres.

MONTHLY MEAN CONSTANT PRESSURE CHARTS.

FEBRUARY 1949

Plate II



RESULTANT WIND ——= 5 Knots; ——= 10 Knots; ——= 50 Knots.

- - - - - - Isotherms in degrees absolute. ——— Contours in geopotential metres.

Registered No. B-3097

INDIA WEATHER REVIEW, 1949

Monthly Weather Report

March

Published by authority of the Government of India

Chief feature : Scanty or no rainfall over the country outside western Pakistan, eastern Pakistan and Gangetic west Bengal.

Six western disturbances passed across the country during the month. The first was feeble; but it induced a secondary over Madhya Bharat and Vindhya Pradesh on the 4th which moved eastwards and became unimportant over eastern Pakistan by the 7th; it caused fairly widespread thundershowers in Assam and eastern Pakistan on the 5th and 6th. The second western disturbance moved into the west Punjab on the 9th and passed away across the east Punjab hills by the next day. In association with the third disturbance, which appeared over south Baluchistan and the adjoining areas of the north Arabian Sea on the 9th and persisted there for four days, local or widespread showers occurred in Baluchistan from the 10th to 14th and in Sind, the North-West Frontier Province, the west Punjab and in and near the hills of the east Punjab between 10th and 12th. The fourth moved from Baluchistan to the east Punjab hills between the 16th and 19th causing local precipitation in the North-West Frontier Province, the west Punjab and the east Punjab on the 18th. It induced a secondary over Vindhya Pradesh on the 18th, which moved eastwards and caused fairly widespread thunderstorm-rain in Chota Nagpur, west Bengal, eastern Pakistan and Assam on the 19th with scattered showers over these regions on the 20th and 21st. The last two disturbances were feeble. The details of the western disturbances are given in the table.

TABLE

S. No.	Period	Regions affected	Nature of precipitation with period	Remarks
1.	1st to 4th . .	Baluchistan, N.W.F.P, West Punjab and East Punjab.	No appreciable precipitation.	Induced a secondary over Madhya Bharat and Vindhya Pradesh on 4th which moved eastwards and became unimportant over eastern Pakistan by the 7th. In association with this secondary, local to widespread thundershowers occurred in Assam and eastern Pakistan on the 5th and 6th.
2.	6th to 10th . .	Baluchistan, N. W. F. P., Kashmir.	Scattered showers on 7th and 8th and local showers on 9th.	
		West Punjab, East Punjab	Local showers 9th to 12th.	
3.	9th to 13th . .	Baluchistan . . .	Local rain from 10th to 14th.	
		Sind	Local rain from 10th to 12th.	
4.	16th to 19th . .	Baluchistan . . .	No precipitation.	Induced a secondary over Vindhya Pradesh on 18th, which moved eastwards to Chota Nagpur and was responsible for widespread thunderstorm-rain in Chota Nagpur, west Bengal, eastern Pakistan and Assam on 19th and scattered showers over these regions on 20th and 21st.
		Kashmir . . .	Scattered showers on 17th.	
		N. W. F. P., West Punjab, East Punjab.	Local showers on 18th.	
5.	21st to 23rd . .	Baluchistan, N. W. F. P.	Local showers from 21st to 23rd.	
		North Rajputana, East Punjab.	No precipitation.	
6.	27th to 30th . .	Baluchistan, West Punjab, East Punjab.	Little or no precipitation.	

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Weather was generally dry over the rest of the country except for local thundershowers in the Central Provinces, Vindhya Pradesh and the east United Provinces on the 7th and 8th and scattered showers in Malabar and Mysore during the 3rd week and in the Bombay Deccan and south Hyderabad in the middle of the 4th week.

Day temperatures were appreciably above normal over the Peninsula, the east Central Provinces and Orissa between the 12th and 16th and in the north Bombay Deccan, the north Konkan, Gujarat, Saurashtra and the west Central Provinces during the last week. They were markedly above normal in the north Konkan and south Gujarat on the last three days of the month.

The month's rainfall was in slight excess in west Bengal, normal in the Bombay Deccan and slight to moderate defect in Assam, Chota Nagpur, Bihar and Mysore. It was in large defect elsewhere, no rain occurring in the Bay Islands, east Rajputana, Gujarat, Saurashtra and Kutch, Madhya Bharat and Bhopal, Berar, the Konkan, north Hyderabad and the Madras Presidency outside Malabar. Averaged over the plains of India, the month's rainfall was 61% in defect.

The mean maximum temperature was above normal in west Rajputana, Gujarat, Saurashtra and Kutch, Madhya Bharat and Bhopal, the Central Provinces and the Bombay Deccan and normal elsewhere. The mean minimum temperature was normal except in the east United Provinces, west Rajputana, Gujarat, and Saurashtra and Kutch where it was above normal.

Relative humidity was above normal in Saurashtra and Kutch and Mysore and below normal in the Bay Islands, Vindhya Pradesh, the Central Provinces, north Hyderabad and the Madras Deccan. It was normal elsewhere.

Cloud amount was in excess in the United Provinces, the east Punjab, east Rajputana and Madhya Bharat and Bhopal and normal in Assam, Chota Nagpur, Bihar, west Rajputana, Gujarat, Saurashtra and Kutch, the Central Provinces, the Konkan, Malabar, and southeast Madras. It was in defect elsewhere.

Data from Kashmir are absent.

Table I contains the divisional and sub-divisional means of rainfall, temperature and humidity and cloud amount for the 13 chief political divisions and the 28 sub-divisions. The stations whose observations are used for preparing these means are given in the subsequent tables.

The highest maximum temperature given for any station in the accompanying tables is that recorded within the 24 hours ending at 0830 hrs. I. S. T. of the date noted in the succeeding column; similarly the heaviest fall in 24 hours for any station denotes the amount recorded during the 24 hours ending at 0830 hrs. I. S. T. of the date given in the succeeding column.

POONA 5 :
The 22nd July, 1949

S. BASU,
for *Director General of Observatories.*

	Rainfall.				Departure from normal of				
							0830 hrs. I.S.T.		
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Maximum temperature.	Minimum temperature.	Vapour pressure.	Relative humidity.	Cloud.
1	2	3	4	5	6	7	8	9	10
Division	"	"	"		°	°	mb.	%	
1. Assam	1·94	3·03	−1·09	−36	+0·9	+1·0	+0·4	−1	0
2. West Bengal	1·37	1·21	+0·16	+13	+0·7	+1·5	+0·3	−1	−0·5
3. Orissa	0·20	0·86	−0·66	−77	+1·4	+0·6	0	−1	−0·5
4. Bihar	0·44	0·63	−0·19	−30	+1·1	+0·4	+0·8	+2	−0·1
5. United Provinces	0·13	0·48	−0·35	−73	0	+1·9	+1·0	+1	+0·6
6. East Punjab	0·13	0·76	−0·63	−83	+1·5	+1·1	+1·5	+4	+0·4
7. Rajputana	0	0·22	−0·22	−100	+2·0	+1·8	−0·1	−1	+0·5
Sub-Division									
1. Bay Islands	0	1·12	−1·12	100	+1·6	+1·3	−0·8	−7	−0·8
2. Assam	1·94	3·03	−1·09	−36	+0·9	+1·0	+0·4	−1	0
3. West Bengal	1·37	1·21	+0·16	+13	+0·7	+1·5	+0·3	−1	−0·5
4. Orissa	0·20	0·86	−0·66	−77	+1·4	+0·6	0	−1	−0·5
5. Chota Nagpur	0·51	0·88	−0·37	−42	+1·2	+0·3	+0·6	+1	−0·1
6. Bihar	0·40	0·49	−0·09	−18	+0·9	+0·4	+1·1	+2	−0·1
7. United Provinces, East.	0·10	0·35	−0·25	−71	+0·2	+2·1	+1·3	+1	+0·5
8. United Provinces, West.	0·17	0·60	−0·43	−72	−0·2	+1·7	+0·7	+2	+0·7
9. East Punjab	0·13	0·76	−0·63	−83	+1·5	+1·1	+1·5	+4	+0·4
10. Kashmir	Data incomplete								
11. Rajputana, West	0·01	0·25	−0·24	−96	+2·5	+2·4	+0·5	+1	+0·1
12. Rajputana, East	0	0·20	−0·20	−100	+1·6	+1·3	−0·6	−1	+0·9
13. Gujarat	0	0·03	−0·03	−100	+3·3	+3·9	0	−1	+0·1
14. Saurashtra & Cutch.	0	0·09	−0·09	−100	+2·1	+2·2	+0·9	+6	+0·2

	Rainfall.				Departure from normal of				
							0830 hrs. I.S.T.		
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Maximum temperature.	Minimum temperature.	Vapour pressure.	Relative humidity.	Cloud.
1	2	3	4	5	6	7	8	9	10
Division—*contd.*	"	"	"		°	°	mb.	%	
8. Bombay (including Saurashtra & Cutch.)	0·08	0·11	−0·03	−27	+2·3	+2·2	+0·6	+1	0
9. Central India (including Madhya Bharat & Bhopal & Vindhya Pradesh).	0·04	0·36	−0·32	−89	+2·0	+0·3	0	−5	0
10. Central Provinces and Berar.	0·13	0·57	−0·44	−77	+2·4	+1·5	−1·0	−8	−0·5
11. Hyderabad	0·01	0·34	−0·33	−97	+1·4	+1·0	−1·6	−4	−0·5
12. Mysore	0·35	0·54	−0·19	−35	+0·5	+0·8	+1·5	+8	−0·4
13. Madras	0·02	0·55	−0·53	−96	+0·3	+0·2	−1·0	−3	−0·6
Mean of India	0·22	0·57	−0·35	−61	+1·4	+1·2	0	1	−0·1
Sub-Division—*contd.*									
15. Madhya Bharat & Bhopal.	0	0·26	−0·26	−100	+2·4	+1·1	−0·1	−4	+0·3
16. Vindhya Pradesh	0·10	0·48	−0·38	−79	+1·5	−0·8	+0·1	7	0·4
17. Berar	0	0·35	−0·35	−100	+1·9	+1·7	−0·5	−5	−0·5
18. Central Provinces, West.	0·17	0·45	−0·28	−62	+2·7	+1·3	−0·5	−6	−0·2
19. Central Provinces, East.	0·13	0·79	−0·66	−84	+2·2	+1·5	−1·8	−11	−0·7
20. Konkan	0	0·03	−0·03	−100	+1·8	+1·5	+2·0	+3	+0·1
21. Bombay Deccan.	0·19	0·19	0	0	+2·1	+1·6	+0·2	−1	−0·2
22. Hyderabad, North	0	0·32	−0·32	−100	+1·5	+1·8	−2·4	−7	−0·5
23. Hyderabad, South	0·03	0·36	−0·33	−92	+1·4	+0·4	−0·9	−3	−0·5
24. Mysore	0·35	0·54	−0·19	−35	+0·5	+0·8	+1·5	+8	−0·4
25. Malabar	0·10	1·11	−1·01	−91	+1·3	+0·9	0	−1	−0·1
26. Madras, South East.	0	0·61	−0·61	−100	+0·1	+0·5	−1·1	−3	−0·4
27. Madras Deccan	0	0·17	−0·17	−100	+0·3	−0·5	−2·9	−9	−1·0
28. Madras Coast, North.	0	0·40	−0·40	−100	−0·1	+0·1	+0·1	+1	−0·8

TABLE II.—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M.

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relati humid %	
		Mean 0830 hrs. I.S.T	Departure from normal.	1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Bay islands																					
Port Blair	261	1003·9	+0·7	1000·9	89·1	+1·6	92	12	72·8	+1·3	64	12	85·0	81·3	76·0	75·2	26·5	−0·8	27·1	65	−
Assam																					
Dibrugarh	348	1001·2	−0·2	997·1	77·8	−1·1	87	29,30	60·4	−0·4	54	1	67·5	71·3	63·1	65·5	17·7	−0·6	18·7	78	+
Sibsagar	317	1002·4	+0·2	998·5	79·0	−0·2	87	27	60·6	+0·6	54	1,2	68·6	71·9	64·3	66·4	18·4	−0·7	19·6	79	−
Tezpur	258	1003·8	−0·5	999·1	83·7	+0·3	93	30	63·3	+1·0	57	1	64·9	77·7	64·5	67·1	18·3	+0·4	17·9	74	−
Gauhati	182	1006·1	−0·1	1001·5	86·5	+0·6	95	27,30	61·7	+1·5	55	1,2,18	71·6	80·6	65·1	67·5	18·2	+0·6	17·1	69	−
Dhubri	115	1007·7	−0·6	1003·3	88·4	+2·4	98	30	64·7	+1·5	57	17	72·5	83·3	65·1	67·2	17·7	+0·1	15·5	66	
Silchar	96	1009·6	−0·4	1004·9	88·7	+2·2	95	29,31	64·6	+1·6	55	1,2	75·0	81·8	67·4	69·9	19·5	−0·4	19·5	66	
West Bengal																					
Dum Dum	33	1010·7	..	1006·4	93·3	..	99	25,26	70·3	..	58	1	79·9	88·8	70·5	70·4	21·2	..	17·0	62	
Calcutta	21	1011·1	−0·1	1006·7	94·2	+1·7	99	25,26,28	71·6	+2·8	60	1	80·9	88·2	72·0	71·1	22·8	−0·2	18·1	64	−
Saugor Island	10	1011·5	−0·1	1007·7	86·6	0	76	27	75·8	+1·6	65	19	81·4	81·1	74·8	75·6	26·5	+0·2	27·7	73	
Sandheads	28	1011·5	+0·2	1008·2	..	..	..	..	..	..	..	..	81·8	82·7	76·6	77·2	29·0	+1·2	29·4	79	+
Midnapore	149	1006·2	−0·5	1001·9	96·1	+1·0	104	31	70·4	+1·0	59	1	79·7	91·0	68·5	68·5	18·8	−0·7	13·6	55	−
Contai	35	1010·2	..	1006·6	91·9	..	99	27,28	72·3	..	64	1	81·4	83·8	73·7	75·1	25·0	..	25·9	69	
Burdwan	106	1007·6	−0·5	1003·4	93·3	0	100	31	68·9	+1·4	57	1	76·5	90·0	67·9	69·4	19·5	+0·5	15·2	64	
Krishnagar	48	1009·5	−0·6	1005·9	94·4	+1·7	99	25,29,31	66·0	+0·3	52	2	78·1	88·9	69·1	71·5	20·8	−0·1	18·4	65	
Asansol	414	997·2	0	992·9	93·5	−0·3	104	31	67·2	+1·3	57	1	78·1	89·0	67·7	70·7	18·4	+3·8	17·2	56	
Berhampore	62	1009·4	−0·4	1004·7	93·4	+1·3	101	31	65·7	+1·4	56	1	78·5	88·7	67·3	70·4	17·9	−0·1	17·0	53	
Malda	103	1008·2	+0·3	1003·5	90·7	+0·6	102	31	63·9	+2·3	55	1,17	76·1	86·3	64·8	67·4	15·7	−0·5	14·3	53	
Cooch Behar	145	1007·4	..	1002·5	..	..	..	..	..	..	..	..	73·4	81·6	65·2	69·1	17·8	..	18·6	63	
Jalpaiguri	271	1002·3	−0·2	997·6	85·5	+0·3	93	30	62·9	+2·6	58	1,18	69·8	82·6	63·1	67·9	16·8	−0·3	16·8	67	
Orissa																					
Balasore	65	1009·6	−0·2	1005·8	93·9	+1·2	100	14,26	70·6	+1·2	60	1,3	80·6	83·9	70·9	74·4	21·7	−0·7	24·8	61	
Chandbali	20	1011·6	+0·3	1007·2	94·6	+1·0	105	26	71·3	+0·6	62	1,2	79·9	85·8	73·5	73·5	25·2	−0·1	22·5	73	
Puri	20	1011·7	+0·2	1007·9	86·7	+0·4	99	14	77·0	+1·4	69	1,28	81·5	82·0	75·8	77·4	27·9	+0·1	28·0	76	
Gopalpur	56	1010·2	+0·1	1006·7	87·5	+0·5	101	14	72·7	−0·1	65	3	79·4	81·3	73·8	76·9	26·0	+0·7	29·5	76	
Cuttack	87	1008·9	−0·4	1004·5	97·8	+1·2	105	26	72·7	+0·9	62	2	78·7	91·2	72·3	71·5	24·1	−0·1	17·4	72	
Angul	455	996·5	+0·1	991·6	98·2	+2·4	104	26	70·0	+1·9	60	1	79·0	93·8	67·5	67·3	17·8	−1·1	10·8	54	
Sambalpur	486	995·2	−0·2	990·4	98·4	+2·7	104	25	65·9	−0·9	54	2	79·1	94·0	67·1	68·9	17·2	+0·7	13·0	51	
Chota Nagpur																					
Jamshedpur	423	997·3	+0·1	992·3	94·9	+0·9	104	31	66·8	+2·0	56	1	77·2	91·2	64·8	67·1	15·3	−0·2	11·8	49	
Chaibasa	742	986·2	0	981·4	96·5	+2·3	104	31	67·3	+1·5	56	1	76·1	91·3	65·6	69·5	16·8	−0·2	14·7	55	
Ranchi	2,150	938·7	−0·2	935·8	90·3	+3·4	100	31	61·7	−1·7	53	1	74·8	85·3	61·3	63·9	12·7	+1·8	11·0	46	
Hazaribagh	2,006	943·4	0	940·1	87·2	−0·5	99	31	61·9	−1·2	52	1	73·9	82·5	59·4	61·3	11·0	+0·4	10·1	42	
Daltonganj	725	987·0	−0·2	982·5	91·1	−0·1	103	31	60·6	+0·7	49	1	74·5	87·6	63·1	66·1	14·5	+1·0	12·1	50	
Dhanbad	839	982·8	..	..	92·6	..	104	31	65·6	..	56	1	77·5	..	62·3	..	12·4	..	..	40	
Bihar																					
Purnea	124	1007·1	−0·2	1002·5	90·0	+0·6	101	31	58·6	0·8	48	17	73·6	84·0	63·2	66·7	15·0	−0·7	14·4	54	
Saharsa	156	1005·3	..	1001·4	88·5	..	99	31	61·3	..	52	17	73·8	84·4	63·2	67·7	15·1	..	15·7	54	
Darbhanga	161	1005·7	−0·2	1001·4	89·1	+0·2	101	31	62·1	+1·6	55	1	74·2	85·6	63·8	69·5	15·5	+0·6	17·4	54	
Motihari	218	1003·5	−0·1	999·4	88·0	−0·5	99	31	59·3	+1·2	52	17	74·9	82·8	64·4	68·3	15·9	+0·7	17·0	54	
Patna	173	1004·9	−0·7	1001·0	90·1	+0·3	103	31	65·5	+1·2	55	17	75·2	86·3	63·1	67·6	14·3	+0·7	14·7	49	
Dehri	352	998·7	..	994·7	93·1	..	106	31	66·2	..	57	1	75·5	89·1	62·4	66·8	13·4	..	12·2	47	

Cloud amount (Oktas)			Rainfall, inches.				Number of rainy days (0.10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																	STATION.
											0830 hrs. I.S.T.									1730 hrs. I.S.T.								
0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																													Bay Islands
2·1	−0·8	2·6	0	−1·12	0	..	0	−2·1	5·5	−0·4	4	16	4	1	1	0	1	2	2	0	11	9	1	1	0	0	1	8	Port Blair
																													Assam
5·3	+1·1	5·7	6·73	+2·67	2·00	25	15	+6·5	1·5	+0·1	3	10	8	0	3	0	0	3	4	2	9	4	0	1	0	0	0	15	Dibrugarh
5·0	0	5·7	3·16	−1·24	0·54	12	11	+2·5	3·5	+1·1	4	15	3	4	1	1	0	0	3	12	12	1	0	0	0	0	3	3	Sibsagar
2·7	+0·2	3·3	2·55	+0·63	0·56	6	7	+2·5	4·5	+1·2	0	11	20	0	0	0	0	0	0	0	6	11	2	0	2	1	1	8	Tezpur
2·2	−0·1	3·1	0·52	−1·47	0·29	31	2	−1·8	3·2	+1·3	8	12	4	2	1	1	1	2	0	1	6	2	0	1	2	1	1	17	Gauhati
1·1	−0·7	1·7	0·11	−1·55	0·11	19	1	−1·5	4·9	+0·4	0	5	19	0	1	3	0	0	3	2	1	1	0	0	14	4	3	6	Dhubri
2·2	−0·5	2·3	1·37	−5·39	0·38	20	5	−3·1	1·7	−0·2	0	4	11	10	1	0	0	1	4	0	0	0	0	1	3	2	3	22	Silchar
																													West Bengal
1·3	..	1·2	2·33	..	1·22	19	2	..	6·1	..	2	0	1	3	7	7	4	6	1	1	0	0	2	8	6	3	9	2	Dum Dum
1·5	−0·7	1·3	1·28	−0·08	1·28	19	1	−1·3	3·0	−0·5	1	0	0	0	5	10	5	5	5	1	0	0	0	5	8	2	6	9	Calcutta
1·8	−1·2	1·4	0·52	−0·77	0·52	19	1	−0·8	12·7	+3·1	1	1	0	0	4	17	3	3	2	0	0	0	4	2	5	0	0	0	Saugor Island
1·7	−1·0	1·2	1·19	+0·37	0·85	20	2	+1·0	..	..	1	0	0	0	5	17	4	2	2	1	1	0	2	10	17	0	0	0	Sandheads
1·0	−0·8	1·5	1·78	+0·37	1·78	19	1	−1·4	4·5	+1·9	7	3	0	0	8	6	1	0	6	3	4	1	0	10	3	3	3	4	Midnapore
1·3	..	1·5	0·08	..	0·08	19	0	..	8·1	..	6	1	0	0	14	4	1	3	2	0	0	0	1	29	1	0	0	0	Contai
1·3	−1·0	1·5	1·25	−0·31	1·25	19	1	−1·3	4·0	+2·0	1	0	1	0	3	12	4	4	6	4	1	0	0	5	2	9	6	4	Burdwan
1·2	−1·2	1·5	2·79	+1·27	2·47	19	2	−0·1	3·6	+0·7	1	0	0	0	5	4	0	0	21	0	0	0	1	2	1	1	0	26	Krishnagar
1·6	−0·2	1·6	1·85	+1·03	1·74	19	1	−0·8	4·6	+0·4	0	1	1	2	1	3	9	8	6	1	0	0	3	1	1	3	6	16	Asansol
1·7	−0·5	2·0	1·32	+0·28	1·30	19	1	−0·9	2·3	+0·1	0	0	2	3	12	4	4	1	5	0	0	0	1	8	5	2	1	14	Berhampore
1·5	+1·4	1·7	0·38	−0·39	0·35	19	1	−0·3	3·6	−0·1	2	2	2	3	4	7	7	1	3	3	2	2	0	1	1	8	8	6	Malda
1·9	..	2·0	0·08	−1·56	0·08	25	0	−2·5	3·5	..	0	3	16	4	0	0	0	0	8	3	3	1	0	0	0	1	1	22	Cooch Behar
1·9	+0.4	2·3	0·13	−1·14	0·08	19	0	−2·3	4·2	+2·4	5	6	18	0	0	0	0	1	1	0	4	2	2	2	0	7	3	11	Jalpaiguri
																													Orissa
2·5	+0·6	2·4	0·30	−1·54	0·29	23	1	−1·9	5·5	+1·6	4	1	0	1	5	12	0	3	5	0	0	0	14	13	2	0	0	2	Balasore
1·9	−0·7	1·3	0·50	−0·79	0·50	20	1	−1·1	6·7	+0·7	0	2	0	2	9	9	3	5	1	0	0	0	18	12	0	1	0	0	Chandbali
2·1	−0·2	3·1	0	−0·50	0	..	0	−0·9	14·0	+3·4	1	2	0	1	2	20	3	2	0	0	0	0	2	15	14	0	0	0	Puri
0·8	−0·2	2·1	0	−0·63	0	..	0	−1·1	12·4	+2·6	6	0	0	0	7	11	0	0	7	0	0	0	1	14	16	0	0	0	Gopalpur
2·0	−0·5	1·8	0	−1·04	0	..	0	−1·4	3·6	+1·2	0	1	0	0	3	1	1	1	24	1	0	1	2	16	3	0	1	7	Cuttack
1·1	−1·2	1·8	..	..	..	..	..	..	5·0	+0·9	3	2	2	1	2	3	8	7	3	3	1	5	6	3	1	6	5	1	Angul
1·0	−0·4	2·3	0·52	−0·34	0·47	8	1	−0·7	3·3	+0·8	3	11	5	1	2	3	0	1	5	1	0	1	0	2	5	5	9	8	Sambalpur
																													Chota Nagpur
0·9	−0·9	1·9	0·69	−0·03	0·60	19	1	−1·0	3·7	+1·0	1	0	3	0	0	2	12	11	2	3	2	5	1	1	5	4	7	3	Jamshedpur
2·3	+0·6	2·8	0·79	−0·08	0·35	8	3	+1·3	2·7	+0·7	0	2	2	0	1	14	2	1	9	1	2	0	1	1	7	1	6	12	Chaibasa
1·2	−0·4	1·2	0	−1·19	0	..	0	−2·5	3·8	−0·8	3	0	1	0	5	1	2	3	16	0	0	0	0	0	1	1	2	27	Ranchi
2·0	+0·3	1·5	0·45	−0·49	0·33	8	2	+0·1	6·0	−0·4	1	0	1	2	2	5	8	10	2	4	0	0	0	0	1	3	21	2	Hazaribagh
1·2	0	1·4	0·62	−0·05	0·62	8	1	−0·6	3·0	+0·2	0	0	3	5	1	0	5	5	12	0	2	1	1	1	1	9	15	1	Daltonganj
..	..	..	0·59	..	0·50	19	1	..	5·2	..	0	2	1	3	0	7	10	3	5	..	..	..	..	..	..	..	..	..	Dhanbad
																													Bihar
1·4	0	1·1	0·15	−0·35	0·15	19	1	−0·1	3·3	+0·5	0	2	8	4	3	4	5	2	3	0	0	0	1	0	2	8	1	19	Purnea
1·8	..	1·3	0·05	..	0·05	19	0	..	2·9	..	0	4	7	2	1	3	11	2	1	0	0	2	0	0	2	6	2	19	Saharsa
1·7	+0·4	1·0	0	−0·51	0	..	0	−1·1	2·2	−0·5	1	2	7	1	1	1	14	1	3	1	1	3	0	0	0	11	2	13	Darbhanga
1·3	+0·3	1·5	0	−0·49	0	..	0	−0·9	3·2	+0·2	1	1	8	1	0	0	9	1	10	0	0	2	0	0	0	6	1	22	Motihari
1·4	0	1·7	0	−0·42	0	..	0	−1·1	4·9	+1·4	0	1	5	2	2	13	5	1	2	0	1	2	0	0	0	11	10	7	Patna
1·6	..	1·6	0	−0·44	0	..	0	−1·0	4·7	..	0	1	0	1	4	16	1	7	1	3	2	0	0	0	2	1	17	6	Dehri

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Re hur
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Bihar—*contd.*																				
Gaya	365	998·3	−0·7	994·3	93·1	+1·4	106	31	63·9	+0·8	54	17	75·8	88·9	62·9	66·5	13·7	+3·6	12·0	46
Naya Dumka	489	994·5	−0·3	990·1	93·9	+2·2	103	31	63·9	−0·7	55	1	77·8	88·6	64·7	66·9	15·1	+1·1	13·0	46
Sabour	122	1004·7	−0·2	1002·2	91·5	+0·9	103	31	59·7	+0·5	49	17	75·6	85·6	63·9	68·1	15·1	+1·0	15·5	52
U.P., East																				
Gonda	360	998·7	..	994·8	89·0	−1·0	103	31	61·2	+2·1	53	1	71·3	85·0	60·1	65·7	12·1	+0·3	13·3	49
Gorakhpur	254	1001·7	−0·7	996·8	90·6	+0·6	102	31	64·8	+3·4	59	1	73·7	87·4	61·4	66·1	13·6	+0·2	12·4	48
Banaras	250	1002·5	−0·5	998·6	91·5	−0·1	104	31	62·7	+1·2	51	17	73·8	89·5	61·4	65·5	12·8	−0·5	10·6	47
Allahabad (Bamrauli).	322	1000·1	−0·5	996·3	92·1	+0·4	106	31	64·1	+3·1	55	17	73·9	90·2	60·6	65·2	12·5	+1·1	9·8	43
Fatehpur	375	998·8	..	995·5	91·0	−0·2	105	31	61·5	+1·3	52	18	69·0	87·4	60·2	66·1	13·9	+0·6	11·8	47
Kanpur	414	997·0	−0·2	993·1	91·1	+1·7	105	31	62·7	+2·6	53	17	73·1	88·4	60·0	65·0	11·8	+1·0	10·7	44
Lucknow	371	998·5	−0·1	995·0	90·6	−0·2	102	30	61·6	+1·0	51	6	68·0	87·0	60·5	65·7	14·6	+2·2	11·8	50
Bahraich	407	996·8	0	994·0	89·4	+0·7	102	31	60·9	+2·1	52	16	71·6	84·8	65·3	72·2	18·7	+5·2	21·6	71
U.P., West																				
Jhansi	823	983·6	−0·4	980·0	93·8	+1·4	107	31	64·5	+2·3	52	1	73·7	91·6	59·1	71·0	10·9	+0·5	16·6	50
Agra	553	993·0	+0·2	989·4	90·3	+1·5	104	30	61·7	+3·4	53	17	70·3	89·8	58·0	63·3	10·6	+1·0	8·7	45
Mainpuri	516	993·2	−0·5	989·5	87·5	−2·5	105	30,31	60·1	+1·7	48	1	69·8	87·6	59·7	67·4	13·2	+1·2	14·1	53
Aligarh	615	990·3	..	987·3	85·2	−0·9	104	30	59·6	+1·2	50	1,16	68·2	88·9	57·4	62·8	11·4	+1·3	9·1	49
Bareilly	568	991·0	−0·5	988·2	86·9	0·1	101	31	61·1	+1·5	52	16	70·0	83·0	59·6	63·8	12·7	−0·6	11·8	52
Meerut	728	985·7	..	..	85·4	..	99	30,31	58·8	..	51	4 days.	65·4	..	58·4	..	13·3	..	..	62
Roorkee	899	979·7	−0·6	977·2	82·7	−1·1	95	31	57·3	+2 3	49	1	63·7	80·6	56·9	62·4	12·9	+1·2	11·1	65
Dehra Dun	2,239	935·0	+0·2	932·1	79·5	+0·2	92	31	55·5	+1·4	48	15	65·2	75·4	55·3	60·0	10·7	+0·3	11·1	54
East Punjab																				
New Delhi	714	986·6	−0·5	983·7	86·2	+1·2	101	30	59·5	+2·4	50	7	67·1	84·1	56·4	61·7	10·8	0	9·1	48
Hissar	725	987·4	+0·6	984·1	88·9	+1·1	105	29,30	56·1	−0·7	47	15,16	62·2	85·5	55·0	63·3	11·6	+1·1	10·0	61
Patiala	822	982·7	..	980·5	84·2	..	96	29,30	58·0	..	49	5	65·4	81·2	57·8	64·4	12·7	..	12·7	51
Ambala	892	980·0	−0·4	978·0	85·4	+1·1	99	31	59·6	+3·1	50	5	65·0	80·8	57·6	62·1	12·8	+1·5	11·0	61
Ludhiana	810	983·3	−0·1	981·3	85·9	+2·7	99	30,31	55·8	−0·5	46	16	63·8	81·9	59·0	64·2	14·8	+3·4	12 8	66
Amritsar	756	985·3	..	983·3	80·6	..	94	29	52·8	..	42	16	59·6	77·5	55·6	62·7	13·0	..	12·5	76
Kashmir																				
Srinagar	5,205	843·3	+0·1	841·2	54·7	−2·3	68	28	38·8	+1·8	31	4	43·0	52·5	40·8	45·9	8·0	+0·4	8·3	84
Gulmarg	8,709							Closed during winter months.												
Dras (R)	10,059																			
Leh	11,529	665·4	+0·1	661·2	44·5	+0·3	56	28	22·9	+1·9	13	16	29·3	40·3	23·4	30·0	2·4	−0·4	2·6	46
Skardu (R)	7,505																			
Gilgit (R)	4,890																			
Misgar (R)	10,190																			
Rajputana, West																				
Sri Ganganagar	580	991·3	..	988·6	83·5	+0·6	96	29	53·2	+1·0	45	16	61·3	80·3	56·1	63·9	13·1	+2·3	12·6	70
Bikaner	734	986·2	−0·2	983·3	89·3	−0·2	104	29	58·9	+0·7	46	16	67·0	88·0	59·1	74·1	14·0	+5·1	22·3	61
Phalodi	794	984·9	..	982·7	90·5	..	103	29	60·9	..	50	1	66·5	89·3	58·7	74·0	13·6	..	21·5	60
Jaisalmer	793	984·2	..	981·5	90·5	..	104	29	63·6		52	16	69 0	88·9	61·4	73·5	15·3	..	21·2	60
Jodhpur	736	986·5	+1·2	983·4	92·9	+2·4	105	30	63·8	+2·3	53	16	70·7	91·0	55·8	64·6	8·3	0	8·8	34
Barmer	638	989·7	+0·1	986·7	94·8	+4·6	107	30	68·0	+3 8	59	5	73·2	92·8	61·1	71·2	12·9	−0·7	16·6	47

(R) Register not received.

Cloud amount, (Oktas)			Rainfall, inches.				Number of rainy days, (0.10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																			STATION.
											0830 hrs. I.S.T.									1730hrs. I. S. T										
Mean 0830 hrs.I.S.T.	Departure from normal.	Mean 1730 hrs.I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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
																														Bihar (*contd.*)
0·9	−0·5	1·0	0·05	−0·44	0·05	8	0	−1·2	6·2	+1·5	0	0	1	5	11	6	4	2	2	2	1	1	1	1	1	12	11	1		Gaya
0·7	−0·5	1·5	2·60	+1·69	2·34	19	3	+1·4	3·5	+1·6	2	1	1	3	1	13	5	4	1	4	1	1	2	0	8	9	4	2		Naya Dumka
1·7	−0·1	1·7	0·80	+0·38	0·78	19	1	+1·1	4·8	−0·4	2	1	3	3	3	6	10	2	1	2	1	0	2	0	0	8	13	5		Sabour
																														U. P., East
1·9	+0·5	2·9	0·06	−0·12	0·06	8	0	−0·8	4·3	−0·3	0	3	8	0	0	0	4	9	7	0	0	1	0	0	0	6	11	13		Gonda
1·8	+0·7	2·1	0	−0·39	0	..	0	−0·8	4·1	+1·8	2	2	7	1	2	0	16	0	1	0	1	3	1	1	0	20	2	3		Gorakhpur
1·5	+0·1	1·6	0·05	−0·32	0·05	8	0	−0·9	..	..	1	2	1	2	0	13	9	2	1	1	1	2	0	0	1	17	9	0		Banaras
2·0	+0·4	2·2	0·18	−0·38	0·18	8	1	−0·3	3·7	−0·1	1	1	2	2	2	3	9	2	9	5	0	0	1	0	0	11	8	6		Allahabad (Bamrauli)
1·9	+0·6	2·1	0·18	−0·10	0·18	8	1	+0·1	4·4	+1·0	0	1	3	2	1	2	4	8	10	0	1	0	0	0	0	4	16	10		Fatehpur
1·6	+0·8	3·4	0·12	−0·17	0·12	8	1	+0·2	8·0	+2·0	3	1	4	1	1	4	9	2	6	5	1	1	0	0	2	7	12	3		Kanpur
1·6	+0·2	2·4	0·20	−0·14	0·20	8	1	+0·1	2·9	+0·6	3	2	3	1	1	3	8	5	5	1	1	1	0	0	1	12	7	8		Lucknow
2·2	+1·0	3·1	0·03	−0·36	0·03	8	0	−0·8	4·4	+1·6	2	3	3	4	0	0	5	8	6	0	0	0	1	0	0	9	9	12		Bahraich
																														U. P., West
1·0	−0·1	2·2	0	−0·33	0	..	0	−0·8	4·1	+0·9	0	1	3	2	1	3	6	3	12	0	2	0	0	0	0	9	1	19		Jhansi
1·9	+0·2	2·3	0·15	−0·17	0·10	8	1	+0·2	2·4	−1·3	4	1	0	0	7	2	4	4	9	5	2	0	0	3	0	5	9	6		Agra
2·4	+0·8	2·2	0·08	−0·26	0·08	8	0	−0·8	3·0	+0·6	0	0	1	2	1	1	6	5	15	0	0	0	4	0	0	6	11	10		Mainpuri
3·5	+1·7	4·1	0·15	−0·42	0·15	24	1	−0·3	5·9	+1·6	2	1	2	3	1	1	9	7	5	6	1	2	1	1	0	2	16	2		Aligarh
3·2	+1·4	4·1	0·10	−0·51	0·10	24	1	−0·3	5·3	+2·8	1	0	8	3	1	2	9	5	2	1	0	3	0	0	0	19	2	6		Bareilly
1·6	..	—	0·12	−0·48	0·12	24	1	−0·4	5·6	..	1	1	3	1	2	0	6	10	7	..	..	..	..	..	..	..	..	..		Meerut
2·2	+0·3	2·5	0·27	−0·51	0·27	24	1	−0·6	4·1	+1·6	0	0	0	5	0	1	0	13	12	0	0	0	5	0	3	0	19	4		Roorkee
3·6	+0·8	3·9	0·47	−0·79	0·16	19	2	−0·7	2·3	+0·2	3	1	2	2	0	0	5	2	16	1	1	0	0	3	6	10	1	9		Dehra Dun
																														East Punjab
3·0	+1·2	4·0	0·19	−0·32	0·11	24	1	−0·3	9·0	..	2	2	1	2	0	2	6	12	4	8	3	3	1	1	0	0	14	1		New Delhi
2·0	+0·3	1·9	0	−0·64	0	..	0	−1·5	4·8	+0·5	3	1	2	4	3	5	4	6	3	3	1	0	0	1	3	6	11	6		Hissar
6·0	..	6·0	0·10	..	0·07	24	0	..	6·0	..	9	0	4	3	0	0	1	9	5	13	3	2	3	1	0	0	7	2		Patiala
1·8	−0·5	1·9	0·19	−0·75	0·19	24	1	−0·8	3·8	+0·1	0	0	0	0	0	0	0	25	6	0	0	0	0	0	0	0	28	3		Ambala
2·9	+0·7	2·6	0·15	−0·79	0·10	10	1	−0·8	3·4	+1·4	0	6	3	2	0	1	9	8	2	1	4	3	3	0	2	3	12	3		Ludhiana
4·1	..	4·6	0·43	..	0·30	23	1	..	..	..	5	3	4	1	0	1	2	8	7	2	4	5	3	0	0	0	17	0		Amritsar
																														Kashmir
6·0	+1·1	5·7	2·46	−1·15	0·56	4	7	−0·4	3·8	+0·6	1	1	1	9	2	0	5	7	5	2	4	0	5	1	0	8	9	2		Srinagar
																														Gulmarg
																														Dras (R)
6·0	+0·1	8·1	0·23	−0·05	0·11	3	1	+0·1	4·0	+2·0	0	1	2	1	4	4	1	0	18	3	3	1	1	2	14	3	3	1		Leh
																														Skardu (R)
																														Gilgit (R)
																														Misgar (R)
																														Rajputana, West
1·6	−0·8	2·1	0·04	−0·47	0·04	10	0	−1·4	3·4	−2·0	5	4	4	1	2	3	0	5	7	4	2	4	0	0	1	5	13	2		Sri Ganganagar
2·2	+0·4	2·7	0	−0·23	0	..	0	−0·6	3·3	−0·9	0	7	2	10	1	5	0	2	4	0	8	0	2	0	8	0	13	0		Bikaner
2·2	..	2·4	0	−0·14	0	..	0	−0·4	7·0	..	2	4	1	11	3	3	4	0	3	4	4	0	0	1	4	13	5	0		Phalodi
2·2	..	2·6	0	..	0	..	0	..	7·0	..	4	9	1	3	3	7	1	1	2	1	5	0	0	0	9	5	11	0		Jaisalmer
2·5	+0·5	3·4	0	−0·11	0	..	0	−0·2	4·3	−2.6	0	18	3	0	1	2	0	2	5	7	1	1	0	0	8	6	8	0		Jodhpur
1·8	+0·2	2·3	0	0·25	0	..	0	−0·6	5·2	−0·6	0	1	0	0	0	2	5	17	6	3	2	0	0	1	4	7	13	1		Barmer

TABLE II.—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level, in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Rel hum	
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	2
Rajputana, East																					
Sikar	1,406	963·3	..	960·5	89·5	..	103	30	57·8	..	45	15	69·4	86·6	55·3	61·6	8·5	..	7·4	36	
Jaipur	1,431	963·1	—0·4	960·0	89·5	+1·2	103	30	61·0	+2·2	49	16	72·5	87·1	56·4	60·9	8·3	0	6·5	31	
Ajmer	1,593	957·8	—0·2	954·7	88·5	+0·8	100	30,31	61·3	+1·1	52	1	68·9	86·6	55·5	63·4	9.6	—0·2	12·9	41	
Kotah	843	983·4	+0·1	979·2	94·3	+1·6	106	30	66·3	+1·1	56	1	74·2	92·1	57·8	63·3	8·3	—0·9	6·9	32	
Jhalawar	1,053	975·3	—0·8	971·3	94·1	+2·7	104	30	61·6	+0·9	49	1	70·3	92·7	54·8	67·8	7·9	—1·2	11·7	31	
Rajsamand	1,850	948·9	..	..	88·8	..	100	29,30	65·7	..	58	5	70·3	..	60·9	..	14·2	..	..	58	
Udaipur	1,910	947·5	..	944·2	91·4	..	101	30	59·7	..	48	5	70·3	88·9	57·0	64·3	10·6	..	10·8	42	
Gujarat																					
Deesa*	466																				
Surat	39	1010·2	—0·8	1007·5	99·5	+3·4	110	27,28,29	70·1	+3·1	61	5,6	73·6	91·0	64·9	69·9	17·1	—0·7	15·4	61	
Ahmedabad	163	1006·4	—0·5	1002·7	98·6	+1·6	107	29	70·6	+3·1	61	5	74·5	96·4	60·6	66·3	11·8	—0·3	8·5	42	
Dohad	1,093	974·5	..	970·9	97·7	+3·4	105	30	67·9	+4·0	59	5	73·9	94·9	58·3	65·9	9·6	—1 6	8·6	34	
Baroda	115	1008·2	..	1003·8	101·1	+5·0	110	29	65·1	+5·2	53	5	74·8	98·7	62·9	71·3	14·3	+2·6	13·7	49	
Saurashtra and Cutch																					
Bhuj	343	1001·1	+0·5	997·5	95·8	+3·0	105	29,30	67·0	+2·7	59	5	72·0	93·6	63·4	65·1	16·1	+0·4	8·3	61	
Dwarka	37	1011·3	—0·5	1009·0	83·3	+1·0	97	26	71·9	+1·3	65	2,5,6	74·6	79·9	70·0	73·3	23·0	+1·8	25·1	79	
Jamnagar	60	1012·7	+2·0	..	90·9	+0·4	100	31	65·3	+2·1	57	4 days	72·4	..	67·1	..	20·2	+1·0	..	77	
Rajkot	432	997·2	—0·2	993·5	98·3	+3·2	107	30	65·1	+3·0	55	4,6	69·2	91·7	64·8	72·9	18·9	+3·8	19·1	79	
Veraval	26	1011·5	—0·4	1008·6	89·8	..	103	26	65·5	..	58	5	72·3	81·1	65·2	74·4	18·0	..	26·0	67	
Bhavnagar	55	1010·4	—0·4	1006·4	98·8	+3·1	105	29	67·4	+1·8	56	1	73·5	96·7	60·2	71·3	11·8	—1·8	14·6	43	
Madhya Bharat and Bhopal																					
Neemuch	1,626	952·0	+0·1	953·7	92·6	+2·0	102	30	62·1	+1·0	51	4	71·6	90·6	55·7	62·7	8·7	—1·1	8·1	33	
Ratlam	1,596	..	..	..	94·7	..	105	28	65·4	..	56	17	75·4	92·4	61·7	70·9	13·0	..	16·7	43	
Indore	1,823	950·0	—0·4	946·4	94·1	+2·0	102	30	59·9	—0·4	52	1	71·6	92·6	55·7	61·5	8·8	—1·4	6·1	33	
Bhopal	1,643	955·8	—0·5	952·0	94·3	+3·1	102	31	64·2	+2·3	53	1	76·4	91·6	57·7	62·3	8·7	0	7·3	28	
Guna	1,571	958·5	—0·6	955·3	92·8	+2·5	104	31	59·4	+1·7	46	1	70·0	90·6	57·6	65·1	11·2	+1·9	10·8	45	
Gwalior	681	988·0	..	984·5	92·5	..	105	30,31	61·6	..	49	1	74·0	89·5	58·0	62·5	9·3	..	7·1	34	
Madhosagar	757	985·7	..	982·0	91·9	..	105	30,31	65·8	..	54	1	73·5	89·5	59·4	64·5	11·0	..	9·5	30	
Vindhya Pradesh																					
Nowgong	750	986·2	0	982·3	93·1	+1·4	106	31	59·3	—0·3	48	1,17	74·3	91·0	59·9	66·3	11·2	—0·3	10·9	38	
Sutna	1,041	975·6	—0·4	972·0	92·0	+1·5	103	1	60·0	—1·4	40	1,2	69·9	90·1	..	..	..	..	..	..	
Umaria	1,506	960·3	..	956·8	92·1	+1·7	103	31	58·5	—0·8	48	1	72·8	89·4	59·0	63·7	11·5	+0·2	9·8	43	
Berar																					
Buldana	2,133	939·6	..	936·5	95·2	..	101	30	72·4	..	66	1	76·7	93·3	59·5	65·9	10·4	..	10·6	34	
Akola	925	980·0	—0·2	975·1	100·9	+2·1	106	30,31	67·5	+1·5	56	1	75·8	98·8	58·7	67·4	9·2	—0·3	8·7	29	
Amraoti	1,213	970·3	0	965·4	99·3	+1·8	105	31	71·4	+2·0	61	3	98·2	97·7	60·3	68·8	9·8	—0·7	11·0	30	
C. P., West																					
Khandwa	1,044	975·8	—0·4	971·4	99·4	+2·0	106	30	(a) 65·9	+1·4	57	2,8	75·3	97·3	57·4	65·7	8·1	—1·1	7·4	27	
Hoshangabad	992	978·2	—0·2	973·3	96·6	+3·1	105	31	65·1	+0·3	54	1	73·1	94·9	57·6	64·4	9·3	—0·5	6·9	34	
Saugor	1,808	950·2	—0·2	946·8	91·8	+1·2	102	31	67·1	+2·3	60	1,8	75·1	89·0	56·1	60·4	7·8	—0·6	6·4	27	
Jubbulpur	1,289	967·8	+0·1	963·4	95·1	+3·5	105	31	59·7	+0·9	50	1	73·2	91·2	59·4	65·8	11·1	—0·3	10·2	40	
Seoni	2,027	943·5	+0·2	940·0	95·8	+3·9	101	30,31	64·5	+1·8	52	1	75·6	90·9	59·2	64·1	10·4	—0·3	9·6	36	
Betul	2,144	939·6	..	936·1	93·5	..	100	30,31	60·9	..	51	1,2	75·2	88·7	59·1	64·4	10·6	..	10·9	36	
Nagpur	1,010	977·1	—0·1	972·5	99·3	+2·6	105	31	56·4	—10·3	57	1	79·7	96·5	61·4	67·5	10·4	—0·5	9·9	30	

*Data not reliable.

(a) Mean of 30 days.

Cloud amount, (Oktas).			Rainfall, inches.				Number of rainy days, (0.10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																			STATION.
											0830 hrs. I. S. T.									1730 hrs. I. S. T.										
0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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
																														Rajputana, East
1·1	..	3·7	0·01	..	0·01	9	0	..	3·3	..	0	0	7	1	1	0	1	2	19	2	0	2	1	0	1	11	10	4		Sikar
1·4	+0·7	3·8	0	—0·34	0	..	0	—0·9	5·0	+0·7	2	5	4	2	1	0	0	0	17	5	1	1	2	1	2	4	13	2		Jaipur
1·9	+1·5	3·0	0	—0·23	0	..	0	—0·7	3·1	—0·1	0	2	1	1	0	0	1	0	26	3	0	0	0	1	3	8	8	8		Ajmer
1·0	+0·3	2·5	0	—0·17	0	..	0	—0·5	1·7	—0·4	2	0	0	0	0	0	3	2	24	2	2	0	0	0	2	5	10	10		Kotah
1·1	+0·9	2·9	0	—0·14	0	..	0	—0·6	2·8	—0·2	4	1	0	2	1	0	1	3	19	2	3	1	0	0	2	8	11	4		Jhalawar
1·0	..	..	0	..	0	..	0	..	6·5	..	1	0	0	2	0	3	6	14	5	..	..	..	..	..	..	..	..	..		Rajsamand
1·5	..	3·0	0	—0·10	0	..	0	—0·3	2·2	..	0	1	0	0	0	0	1	6	23	3	0	0	2	1	8	5	9	3		Udaipur
																														Gujarat
																														Deesa*
1·6	+0·6	1·6	0	—0·01	0	..	0	—0·1	4·6	+1·3	6	4	1	2	3	3	0	2	10	1	0	0	0	0	12	2	16	0		Surat
1·5	+0·4	1·7	0	—0·05	0	..	0	—0·2	2·6	—1·1	4	6	4	1	0	1	3	6	6	3	1	0	0	0	3	10	10	4		Ahmedabad
1·3	+0·1	1·6	0	—0·06	0	..	0	—0·2	6·7	+3·4	1	2	2	3	7	5	6	1	4	3	4	0	0	1	13	7	3	0		Dohad
1·2	—0·7	1·4	0	—0·02	0	..	0	0	2·2	—0·4	4	2	3	0	3	4	0	2	13	5	1	0	0	0	1	10	5	9		Baroda
																														Saurashtra and Cutch
1·4	+0·2	0·9	0	—0·11	0	..	0	—0·2	4·1	—1·1	0	0	0	0	1	0	3	1	26	3	2	0	1	1	5	9	10	0		Bhuj
1·4	+0·6	1·3	0	—0·11	0	..	0	0	9·6	+0·2	7	4	1	0	0	0	5	13	1	1	0	0	0	0	2	11	17	0		Dwarka
1·2	+1·1	..	0	—0·08	0	..	0	—0·1	1·3	—7·5	0	1	0	0	0	0	0	0	30	..	..	..	..	..	..	..	..	..		Jamnagar
1·4	—0·4	1·3	0	—0·06	0	..	0	—0·1	9·5	+3·5	7	1	1	1	1	4	4	6	6	6	4	1	0	1	2	7	10	0		Rajkot
1·3	+0·2	0·8	0	—0·05	0	..	0	—0·1	11·5	..	15	1	0	0	0	0	1	11	3	0	0	0	0	1	2	20	8	0		Veraval
1·5	—0·7	1·9	0	—0·11	0	..	0	—0·2	4·7	—0·1	3	0	0	1	1	6	11	6	3	1	5	9	6	3	1	0	4	2		Bhavnagar
																														Madhya Bharat and Bhopal
1·4	+1·1	3·5	0	—0·12	0	..	0	—0·3	3·9	—1·2	3	9	2	2	1	1	2	1	10	1	9	1	0	0	5	4	9	2		Neemuch
1·0	..	3·2	0	..	0	..	0	..	5·4	..	6	9	4	2	1	4	3	1	1	4	0	1	0	1	4	8	13	0		Ratlam
1·1	0	2·5	0	—0·08	0	..	0	—0·3	2·5	—0·4	0	8	1	3	0	6	1	1	11	3	2	0	0	0	11	4	9	2		Indore
1·1	0	2·2	0	—0·34	0	..	0	—0·8	3·8	+0·7	4	7	1	1	1	4	4	1	8	2	3	0	0	0	3	11	10	2		Bhopal
1·4	+0·4	2·7	0	—0·50	0	..	0	—0·9	4·2	+1·2	3	0	4	0	4	2	2	0	16	4	0	0	0	1	1	16	8	1		Guna
1·9	..	3·0	0·14	..	0·14	8	1	..	0·7	..	2	1	0	3	5	1	2	8	9	6	4	0	0	1	1	1	14	4		Gwalior
1·0	..	3·6	0·43	..	0·43	8	1	..	4·9	..	2	1	0	0	2	13	3	5	5	5	3	1	1	0	3	5	11	2		Madhosagar
																														Vindhya Pradesh
1·1	—0·7	3·0	0	—0·30	0	..	0	—0·8	2·8	+0·9	2	3	5	0	3	9	6	1	2	3	4	0	0	2	2	6	13	1		Nowgong
1·3	—0·2	1·8	0·12	—0·33	0·12	7	1	—0·1	3·2	+0·1	0	0	2	1	2	8	4	1	13	2	1	2	0	0	3	11	10	2		Sutna
1·5	—0·3	2·0	0·19	—0·51	0·17	7	1	—0·7	2·8	—0·1	2	2	5	3	0	0	2	2	15	5	0	2	1	0	0	11	9	3		Umaria
																														Berar
1·4	..	1·7	0	..	0	..	0	..	5·3	..	6	1	0	1	2	3	6	10	2	4	6	0	0	2	2	10	7	0		Buldana
1·7	—0·6	1·6	0	—0·36	0	..	0	—0·7	3·1	—0·5	1	2	1	1	1	0	8	2	15	3	4	0	0	2	2	5	10	5		Akola
1·7	—0·5	1·9	0	—0·35	0	..	0	—0·8	5·6	+1·4	0	29	0	0	0	2	0	0	0	0	4	0	5	0	9	0	13	0		Amraoti
																														C. P., West
1·6	—0·3	1·9	0	—0·17	0	..	0	—0·5	4·9	+0·8	3	2	1	0	2	3	5	4	11	4	0	0	0	2	1	5	18	1		Khandwa
1·1	+0·9	3·0	0	—0·24	0	..	0	—0·6	2·5	+0·3	1	3	5	3	3	2	1	1	12	1	5	1	5	1	5	1	9	3		Hoshangabad
1·1	—0·2	2·5	0	—0·33	0	..	0	—0·9	8·2	—1·8	3	7	3	4	3	3	6	0	2	3	3	1	0	0	1	12	11	0		Saugor
1·7	—0·5	2·4	0·68	+0·12	0·65	7	1	—0·4	3·0	+1·0	2	0	2	13	2	1	1	1	9	6	1	0	4	1	2	5	10	2		Jubbulpur
1·7	—0·6	2·5	0·33	—0·46	0·27	8	1	—1·0	4·1	+1·2	5	4	0	3	3	1	3	2	10	7	0	0	3	8	3	2	8	0		Seoni
1·6	..	2·3	0	..	0	..	0	..	3·3	..	0	2	8	6	2	2	2	0	9	8	1	1	0	1	1	5	12	2		Betul
1·7	—0·7	1·9	0·02	—0·58	0·02	24	0	—1·5	4·3	..	4	11	5	0	1	0	2	6	2	4	2	2	2	4	6	4	5	2		Nagpur

TABLE II.—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M. T.

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level, in millibars.			Maximum temperature, °F.				Minimum temperature, °F				Dry bulb temperature, °F		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relative humidity. %	
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T	Mean 0830hrs. I.S.T	Departure from normal.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
C. P., East																					
Gondia	1,026	976·7	..	972·5	96·9	..	102	30,31	65·4	..	54	1	75·3	95·0	62·6	68·9	13·7	..	12·4	36	..
Pendra	2,040	942·9	−0·2	939·3	91·1	+3.8	99	31	64·6	+2·2	56	1	76·0	86·6	59·3	63·3	10·5	−0·9	10·4	35	−6
Champa	805	984·3	..	979·6	97·4	..	103	4 days	68·1	..	57	1	75·0	96·0	62·7	69·8	13·9	..	13·0	48	..
Raipur	979	978·3	0	973·9	97·2	+2·0	105	26	70·0	+2·0	59	1	79·8	95·1	61·1	65·4	10·0	−2·8	8·0	29	−11
Titilagarh	691	988·1	..	983·3	99·3	..	104	26,27	70·6	..	57	2	78·9	96·0	65·2	68·7	15·1	..	11·6	47	..
Kanker	1,318	967·0	+0·2	962·9	96·0	+2·5	101	30,31	66·3	+0·8	53	1	77·7	93·4	65·0	68·8	15·5	−0·1	12·9	47	−6
Chanda	634	990·2	+0·1	985·1	99·8	+1·0	105	27,30	69·5	+2·5	57	1	79·6	98·3	62·4	66·8	11·6	−2·9	8·2	34	−8
Jagdalpur	1,815	950·7	0	946·3	96·7	+1·7	101	16,27	63·6	0	53	1,2	75·3	92·5	63·2	65·4	14·9	−2·9	10·4	50	−7
Konkan																					
Dahanu	15	1011·1	..	1008·3	87·4	..	99	42	69·2	..	61	5,6	75·6	84·1	69·3	78·0	21·6	..	30·0	73	..
Bombay	35	1010·6	−0·5	1007·5	88·8	+2·6	99	2	73·3	+1·4	67	5,8	79·2	84·1	71·8	75·3	23·3	+0·2	26·0	68	−5
Alibag	23	1011·5	+0·2	..	86·3	+0·9	94	21	71·1	+1·7	63	5	75·9	..	71·0	..	23·7	+3·4	..	78	+13
Harnai	66	1008·6	..	1006·4	85·0	..	90	2	77·0	..	70	8	79·0	82·7	73·3	76·5	25·4	..	28·4	77	..
Devgad	117	1007·7	..	1004·6	88·4	.	94	2	75·9	..	71	6,8,9	79·3	85·1	73·7	76·8	25·9	..	27·7	75	..
Vengurla	29	1010·7	..	1007·5	91·0	..	97	2,12	71·0	..	63	4	76·7	86·5	72·4	76·5	25·2	..	25·9	81	..
Marmagao	02	1004·6	−0·3	1001·5	87·3	+1·9	90	4 days	..	..	..	..	80·0	84·6	74·4	76·3	26·6	+2·3	27·2	76	+2
Honavar	85	1009·9	..	1006·0	89·9	..	94	2	73·5	..	67	1	78·1	86·4	73·2	78·1	25·7	..	29·0	79	..
Bombay, Deccan																					
Jalgaon	660	987·8	..	983·6	102·3	..	107	4 days	65·7	..	54	2	74·0	101·6	58·1	72·9	9·4	..	14·6	33	..
Malegaon	1,432	963·7	+0·3	959·3	100·3	+2·8	106	23	65·0	+2·3	54	5	80·8	95·9	61·5	67·7	10·0	−1·3	10·4	27	−13
Ahmednagar	2,154	938·9	−0·5	934·9	98·4	+3·0	104	28	65·5	+2·4	56	8	74·8	96·2	58·1	64·2	9·8	−1·3	7·5	34	+4
Poona	1,834	950·1	+0·2	945·8	99·1	+2·2	105	28	63·8	+2·1	56	1,5	71·4	94·6	60·5	66·1	13·1	−0·2	9·0	52	−2
Sholapur	1,570	953·5	+0·2	953·9	100·8	+1·7	105	29	71·3	+2·0	62	1	78·6	98·3	61·3	68·8	12·2	+1·1	12·0	33	−2
Miraj	1,817	950·0	−0·4	945·5	99·7	+4·1	105	28	65·7	+1·2	59	6,8,19	73·3	96·4	61·9	65·9	14·3	−0·4	9·4	51	−1
Kolhapur	1,885	948·3	..	944·1	97·7	..	103	28	66·0	..	59	8	72·1	93·8	62·6	67·5	15·6	..	12·3	58	..
Bijapur	1,950	945·7	−0·1	941·8	98·1	+1·1	102	17,28	71·0	+0·8	62	2	79·5	96·2	65·7	72·0	15·9	+1·2	17·0	46	−1
Belgaum	2,562	926·3	+0·4	922·6	93·0	−0·6	97	5 days	63·9	+0·3	57	7	71·7	90·3	61·7	66·4	14·7	+1·1	12·4	57	+4
Gadag	2,131	940·1	+0·2	935·8	98·2	+2·7	103	17	70·7	+1·9	66	8	78·0	95·3	67·1	69·5	18·2	+1·6	14·1	57	0
Hyderabad, North																					
Aurangabad	1,905	947·8	−0·2	943·7	98·1	+2·2	103	29,30	69·5	+2·6	58	1	75·9	96·4	58·2	65·9	9·4	0	9·4	31	−1
Parbhani	1,350	964·5	..	960·3	99·9	..	105	29	68·2	..	57	1	77·4	97·3	63·5	72·9	13·8	..	16·5	43	..
Bidar	2,178	938·0	..	934·5	95·8	+0·7	100	4 days	73·1	+2·2	67	4,7,8	78·1	93·6	60·1	64·0	10·5	−4·6	8·4	32	−13
Nizamabad	1,250	968·7	−0·6	964·5	99·8	+1·5	103	6 days	69·6	+0·7	58	1	78·2	97·0	62·8	67·4	12·5	−2·5	9·6	38	−6
Ramagundam	527	994·2	..	989·4	100·9	..	106	29	72·3	..	60	1,2	80·9	98·2	67·5	70·1	16·9	..	12·5	49	..
Hyderabad, South																					
Gulbarga	1,503	960·0	−0·5	955·7	99·3	+0·2	103	5 days	70·9	+0·4	65	3,19	79·0	97·4	62·8	69·5	13·0	−0·9	13·2	39	−2
Raichur	1,311	966·9	+0·1	962·6	99·0	+0·5	103	5 days	75·1	+1·3	68	7	80·6	97·2	67·8	70·8	17·4	+0·4	13·8	50	+3
Hyderabad (Begumpet)	1,778	951·5	+0·1	947·9	93·4	+1·7	103	27	67·7	−0·7	59	2	78·6	94·3	65·0	68·1	15·6	−2·1	12·8	48	−8
Hanamkonda	881	981·6	−0·4	977·3	99·1	+3·1	104	28,29	71·9	+0·7	64	1	78·8	96·2	68·7	68·5	19·4	−1·2	11·3	59	−3
Khammameth(R)	367																				
Mysore																					
Chitaldrug	2,405	931·0	−0·1	926·9	95·0	+0·1	99	28	(d) 69·7	−0·7	65	4,11	76·2	93·2	66·8	66·6	18·6	+2·3	11·5	61	+11
Hassan	3,149	907·7	..	903·9	91·3	−0·3	96	15	63·9	+0·7	60	11,12	69·7	87·7	65·1	64·8	19·1	+1·2	10·6	79	+1

(d) Mean of 27 days.

(R)—Register not received.

Cloud amount, (Oktas).		Rainfall, inches.				Number of rainy days (0·10" or more)		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																		STATION.
										0830 hrs. I. S. T.									1730 hrs. I. S. T.									
Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																												C. P., East
..	1·3	0	..	0	..	0	..	2·7	..	7	6	3	3	5	3	0	2	2	7	1	0	1	1	8	3	5	5	Gondia
−0·8	2·2	0·39	−0·70	0·39	7	1	−1·3	4·3	+0·5	7	1	1	0	6	3	2	6	5	10	5	0	2	4	2	1	6	1	Pendra
..	1·9	0·05	..	0 05	8	0	..	4·5	..	9	2	5	1	0	1	1	10	2	3	1	0	0	0	7	12	6	2	Champa
−0·4	1·6	0·03	−0·68	0·03	8	0	−1·7	4·1	+0·9	5	2	3	4	4	3	3	4	3	4	0	0	1	1	6	7	5	7	Raipur
..	0·9	0·15	..	0·13	6	1	..	2·1	..	1	2	1	2	7	3	1	2	12	6	5	2	0	2	1	2	4	9	Titilagarh
−1·1	2·2	0·21	−0·64	0·21	8	1	−1·1	3·5	+0·3	0	0	1	0	0	5	1	0	24	6	1	0	0	0	2	8	4	10	Kanker
−0·4	2·2	0	−0·77	0	..	0	−1·2	2·4	0	0	1	0	5	1	5	0	6	13	3	0	0	7	0	4	0	5	12	Chanda
−0·8	1·9	0·02	−0·51	0·02	7	0	−1·2	3·6	+1·1	0	5	0	1	0	10	0	2	13	0	2	0	9	0	8	3	8	1	Jagdalpur
																												Konkan
..	0·9	0	..	0	..	0	..	8·1	..	4	7	11	8	0	0	0	1	0	8	0	0	0	0	2	11	10	0	Dahanu
−0·1	0·6	0	−0·05	0	..	0	−0·1	6·6	−0·5	6	7	3	3	1	0	0	1	10	3	0	0	0	0	3	6	19	0	Bombay
−0·4	..	0	−0·02	0	..	0	−0·1	3·8	−2·2	4	4	3	2	0	0	0	0	18	..	..	..	..	..	.	..	..	..	Alibag
..	0·1	0	..	0	..	0	..	8·3	..	4	7	2	7	0	0	0	11	0	0	0	1	2	5	10	13	0	0	Harnal
..	1·.	0	..	0	..	0	..	6·9	..	3	9	12	6	0	0	0	0	1	0	0	0	0	2	3	14	12	0	Devgad
..	1·2	..	..	..	..	..	..	..	..	3	1	4	4	1	0	0	0	18	0	0	0	0	0	20	10	0	1	Vengurla
+0·7	2·1	0	−0·01	0	..	0	−0·1	6·7	+0·3	0	3	9	5	11	0	0	3	0	1	0	0	0	1	4	20	5	0	Marmagao
..	2·5	0	−0·05	0	..	0	−0·1	2·8	..	0	2	28	1	0	0	0	0	0	0	0	0	0	0	2	26	3	0	Honavar
																												Bombay, Deccan
..	1·3	0	−0·15	0	..	0	−0·5	4·9	..	0	0	5	5	0	9	6	1	5	2	0	1	1	0	7	14	6	0	Jalgaon
−0·6	0·7	0	−0·08	0	..	0	−0·3	4·3	−0·8	0	0	0	1	0	1	0	0	29	1	1	0	0	0	2	0	11	16	Malegaon
+0·1	1·8	0	−0·21	0	..	0	−0·3	3·2	−2·1	4	0	1	0	0	0	1	8	17	5	5	0	0	5	3	6	7	0	Ahmednagar
+0·3	1·5	0·15	+0·09	0·12	29	1	+0·8	2·2	−2·7	0	0	0	0	1	3	3	0	24	1	0	3	0	0	1	8	11	7	Poona
−0·4	2·0	0·01	−0·22	0·01	31	0	−0·5	4·7	−0·5	0	9	0	10	0	0	0	6	6	0	11	0	5	1	3	·0	3	8	Sholapur
−0·5	2·1	0·06	−0·09	0·06	30	0	−0·7	6·1	+0·8	1	1	7	1	1	2	3	5	10	3	1	7	3	4	2	5	3	3	Miraj
..	0·9	0·05	..	0·05	30	0	..	6·0	..	0	1	0	0	1	1	6	0	22	0	3	3	1	1	1	18	2	2	Kolhapur
−0·5	2·0	0	−0·21	0	..	0	−0·6	4·2	+0·2	8	2	1	3	2	1	3	8	3	3	7	3	4	2	3	2	3	4	Bijapur
−0·7	0·9	1·75	+1·34	1·42	29	2	+1·1	3·6	+0·3	4	0	16	0	1	4	6	0	0	6	3	4	0	0	4	13	1	0	Belgaum
+0·5	2·4	0	−0·22	0	..	0	−0·7	4·8	−0·1	1	0	3	4	2	6	7	4	4	2	6	6	1	0	2	2	1	11	Gadag
																												Hyderabad, North
−0·4	2·5	0	−0·20	0	..	0	−0·5	6·0	−0·2	4	5	8	2	0	3	3	1	5	4	2	2	0	1	6	10	5	1	Aurangabad
..	1·6	0	−0·27	0	..	0	−0·5	..	..	1	6	4	0	0	0	13	2	0	3	7	1	0	7	0	13	0	0	Parbhani
−0·6	2·5	0	−0·42	0	..	0	−1·2	6·3	+0·1	5	1	2	0	6	9	4	4	0	2	7	5	2	2	5	3	4	1	Bidar
−0·6	1·8	0	−0·40	0	..	0	−0·8	2·1	−0·4	0	2	0	1	0	1	0	0	27	0	4	3	5	0	2	1	3	13	Nizamabad
..	1·0	0	..	0	..	0	..	4 1	..	3	0	1	15	4	2	1	0	5	3	1	2	10	7	1	2	1	4	Ramagundam
																												Hyderabad, South
+0·1	1·2	0·11	−0·26	0·11	30	1	+0·2	4·8	−0·9	2	8	2	1	1	0	0	1	16	3	4	6	6	2	2	1	2	5	Gulbarga
−0·4	1·5	0	−0·14	0	..	0	−0·4	6·3	+0·8	2	4	4	13	1	2	0	4	1	1	6	6	14	1	0	0	3	0	Raichur
−0·5	1·4	0	−0·46	0	..	0	−0·9	4·5	+0·8	0	1	2	6	0	4	1	4	13	1	4	5	11	3	0	0	3	4	Hyderabad (Begumpet)
−1·1	1·0	0	−0·46	0	..	0	−0·8	5·6	+0·4	0	1	2	11	13	2	1	0	1	3	1	4	9	5	1	1	1	6	Hanamkonda
																												Khammameth (R)
																												Mysore
−0·8	1·4	0	−0·17	0	..	0	−0·4	4·6	+0·7	0	1	3	4	1	2	7	3	10	0	3	17	6	0	1	0	2	2	Chitaldrug
−0 3	2·1	1·29	+0·92	1·11	19	2	+1·4	4·9	+1·7	0	0	4	4	0	5	8	0	10	1	1	19	2	0	2	5	0	1	Hassan

STATION	Height of bar. cistern above mean sea level in feet.	Pressure at station level, in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Rel. humidity %	
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Mysore—contd.																					
Bangalore	3,021	911·7	+0·2	907·9	91·0	+0·7	96	15,16,17	66·8	+2·3	61	1,6	72·4	88·6	62·8	61·7	15·7	−2·0	7·9	58	–
Mysore	2,518	927·9	+0·2	923·7	93·2	−0·5	97	17	68·4	+0·6	64	7,12	78·4	91·9	66·5	63·7	19·4	−0·3	8·7	69	+
Malabar																					
Mangalore	72	1009·6	+0·1	1005·9	90·3	+0·7	96	12	77·0	+1·3	73	1,2,8	81·1	86·1	75·5	76·0	27·6	+1·0	29·0	76	–
Calicut	27	1011·0	+0·1	1006·9	91·7	+1·6	93	7 days	76·8	+0·7	72	12	81·8	88·2	76·0	79·9	28·0	+0·3	31·1	75	–
Palghat	319	1001·3	..	995·8	100·4	..	104	26,28	76·7	..	69	12	81·5	96·1	74·2	75·5	25·6	..	20·8	69	
Cochin	10	1011·7	0	1007·4	89·6	+1·7	93	11	78·8	+0·8	74	12	84·1	86·6	76·3	78·5	27·4	−0·6	29·6	69	
Alleppey	12	1011·5	..	1007·3	92·4	..	98	11	77·5	..	72	11,12	85·7	87·3	78·4	79·9	29·9	..	31·5	71	
Trivandrum	211	1004·6	+0·1	1001·2	90·9	..	94	19	75·4	..	71	5,12,27	79·7	86·5	74·2	76·8	26·4	−0·7	27·1	76	
Nagercoil	195	1005·2	..	1001·4	95·7	..	101	27	76·6	..	70	4	83·8	88·3	73·5	74·9	23·0	..	23·4	60	
Madras, South-east																					
Pamban	37	1011·1	+0·4	1007·7	88·3	−0·3	91	30,31	77·5	+0·8	74	25	82·8	84·7	76·5	77·8	28·3	+0·4	29·4	74	
Madura	437	997·7	+0·4	992·7	94·2	−1·1	101	15	73·3	+0·8	67	11	80·6	94·2	73·2	71·9	24·4	−0·6	16·6	68	
Negaptam	31	1011·8	+0·6	1008·1	86·7	−1·5	98	16	77·9	+1·6	71	12	87·9	83·7	75·7	72·0	27·5	−0·2	28·7	75	
Trichinopoly	295	1002·9	+0·3	997·7	96·8	+0·4	102	16,17	72·8	+0·6	65	12	79·5	94·6	73·9	73·9	26·1	−0·5	19·2	75	
Coimbatore	1,341	966·7	0	962·1	95·9	+0·5	101	15,17	71·6	+1·4	67	12,13	77·1	93·9	69·1	67·9	20·7	−2·9	11·6	65	
Salem	913	981·3	+0·1	975·8	98·8	+0·8	104	4 days	71·3	−0·1	64	12	78·3	95·9	70·8	76·5	21·8	−2·2	22·3	67	
Cuddalore	39	1011·4	+0·2	1007·7	87·7	−0·7	97	16	72·1	−0·6	66	12	79·0	84·3	74·0	78·5	26·4	−1·6	26·1	79	
Vellore	703	988·6	+0·7	983·9	96·0	+1·8	103	16	68·9	−0·9	62	4	75·7	94·1	68·7	71·6	21·7	−1·7	16·3	69	
Madras	51	1011·1	+0·4	1007·3	92·6	+1·2	101	15	73·0	+0·6	69	6,11,12	79·9	85·6	74·2	75·0	26·3	−0·3	24·9	75	
Arogyavaram	2,299	935·2	..	931·4	93·0	..	98	17,18	67·0	..	61	11	75·2	89·9	63·3	63·7	14·9	..	21·4	51	
Madras Deccan																					
Cuddapah	428	997·1	+0·1	992·1	101·9	+1·0	107	15,17	75·5	+0·7	69	1	85·2	97·5	68·4	72·1	16·1	−6·1	15·4	39	
Bellary	1,473	961·5	+0·2	956·6	98·7	−0·8	103	15,16,17	72·5	+0·2	64	7	80·1	96·9	65·1	68·5	14·4	−1·7	10·9	42	
Kurnool	923	980·1	+0·3	975·3	100·6	+0·6	105	15,17,29	71·2	−0·8	62	1	81·3	98·5	66·1	68·3	15·5	−1·6	10·2	42	
Rentichintala	348	999·6	..	995·2	100·0	+0·6	108	15	73·6	−2·0	65	1	80·5	99·3	70·6	72·5	21·1	−2·4	15·1	60	
Anantapur	1,147	972·4	..	967·6	99·8	..	104	15,29	70·0	..	62	1,3	79·6	97·9	67·1	69·9	16·9	..	12·4	49	
Madras Coast, North																					
Nellore	66	1009·7	−0·1	1006·1	96·2	+1·9	105	14,15	72·5	−0·4	68	1,7	80·3	86·8	73·5	76·0	24·6	−2·2	25·2	71	
Ongole	38	1010·7	..	1006·9	92·5	..	104	14	73·1	..	68	1	79·7	86·5	74·4	76·5	26·1	..	26·6	77	
Masulipatam	10	1012·2	0	1008·5	90·9	+0·4	102	14	73·1	+0·8	68	1	81·3	84·8	76·6	77·4	29·1	+0·7	28·8	80	
Cocanada	26	1012·0	+0·1	1007·8	91·3	−0·5	99	14,15	73·6	+0·1	66	7	80·6	87·1	75·6	77·1	28·0	+1·4	27·2	79	
Vizagapatam	126	1008·1	−0·1	1004·5	86·2	−0·9	96	13	74·9	+0·3	70	7,8	80·5	83·0	74·4	76·1	26·3	+1·0	27·6	74	
Calingapatam	19	1011·4	−0·4	1007·8	89·3	−1·3	99	14	73·2	+0·4	65	2	77·9	84·1	73·4	77·9	26·1	−0·2	29·8	80	
Hill Stations excluding Kashmir																					
Shillong	4,921	850·6	−0·1	848·4	70·9	+0·5	77	25,27	51·1	+0·3	42	2,17	64·5	62·7	52·2	53·6	8·5	−0·8	10·5	40	
Cherrapunji	4,309	870·0	0	867·5	67·1	−1·6	74	29,30,31	54·7	−0·2	50	2,19	63·4	64·0	55·5	56·6	11·9	−0·3	12·7	59	
Aijal	3,599	891·5	..	888·5	77·1	..	82	7	63·5	..	54	21	68·5	69·5	61·2	61·6	15·5	..	15·6	67	
Darjiling	7,432	775·9	−0·1	773·5	58·0	+2·6	68	26	44·2	+1·2	38	19	51·0	49·5	46·4	46·7	9·1	+0·4	9·7	73	
Kalimpong	3,965	881·2	+1·0	878·0	68·7	−0·7	76	28,29	55·3	+0·7	50	9	59·3	63·8	55·9	59·9	13·9	+2·0	16·1	80	
Katmandu	4,388	868·1	..	864·8	78·3	+0·9	85	30	46·0	+0·6	40	20	58·0	69·3	52·9	57·3	11·7	+2·3	11·4	71	

Cloud amount, (Oktas).			Rainfall, inches.				Number of rainy days, (0·10" or more).		Wind velocity miles per hour.		Wind direction—Number of winds from :—																		STATION.
											0830 hrs. I.S.T.									1730 hrs. I.S.T.									
Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																													Mysore—*contd.*
0·5	—0·9	1·3	0	—0·40	0	..	0	—0·8	6·6	+2·1	0	2	2	11	3	6	5	0	2	1	7	12	9	1	0	0	1	0	Bangalore
0·6	—1·4	1·7	0	—0·51	0	..	0	—0·8	6·7	+2·1	0	1	6	3	4	1	10	0	6	3	3	22	0	0	0	2	0	1	Mysore
																													Malabar
1·8	0	2·3	0	—0·21	0	..	0	—0·3	4·8	—0·1	0	4	24	1	1	1	0	0	0	1	0	0	0	0	2	11	17	0	Mangalore
2·8	+0·7	3·2	0·08	—0·60	0·06	17	0	—0·8	8·4	+1·8	3	13	12	0	0	0	1	2	0	0	0	0	0	0	1	15	15	0	Calicut
0·7	..	1·5	0	..	0	..	0	..	5·5	..	0	0	18	2	0	1	8	0	2	0	3	14	1	0	0	11	2	0	Palghat
2·4	+0·4	3·1	0·32	—1·69	0·31	21	1	—1·8	7·3	+1·8	2	14	13	1	0	0	0	0	1	0	0	0	0	0	2	22	7	0	Cochin
3·0	..	2·0	0·47	..	0·40	20	1	..	6·9	..	1	9	15	3	0	0	1	2	0	0	0	0	0	0	3	21	7	0	Alleppey
0·9	—1·3	2·7	0	—1·54	0	..	0	—2·5	4·1	+0·3	7	8	4	2	1	0	0	2	7	0	0	0	0	6	18	5	2	0	Trivandrum
1·7	..	2·8	0·07	..	0·07	23	0	..	7·3	..	2	14	7	0	0	0	0	5	3	0	5	7	6	5	7	1	0	0	Nagercoil
																													Madras, South-east
3·6	+1·0	1·4	0	—0·72	0	..	0	—1·4	8·2	+2·7	0	12	6	7	4	2	0	0	0	7	10	1	3	6	2	1	1	0	Pamban
2·6	—0·8	1·8	0	—0·70	0	..	0	—1·0	3·2	—0·2	4	9	8	0	1	0	0	0	9	0	5	13	5	1	0	0	0	7	Madura
3·5	0	1·2	0	—0·79	0	..	0	—1·0	9·2	+2·9	0	4	8	7	3	3	2	1	3	0	8	10	9	4	0	0	0	0	Negapatam
1·9	—0·4	1·4	0	—0·36	0	..	0	—0·7	5·7	+1·0	7	7	4	2	1	2	2	1	5	0	7	19	5	0	0	0	0	0	Trichinopoly
0·5	—2·1	1·0	0	—0·50	0	..	0	—0·9	4·5	+2·0	10	12	2	1	2	3	0	0	1	9	12	4	2	1	2	1	0	0	Coimbatore
0·3	—1·2	0·9	0	—0·49	0	..	0	—0·9	6·9	+2·4	0	2	23	0	1	0	1	0	4	0	2	27	1	0	0	0	0	1	Salem
3·2	+0·7	1·8	0	—0·69	0	..	0	—0·6	6·5	+2·4	1	0	0	0	3	11	4	9	3	0	1	11	18	1	0	0	0	0	Cuddalore
1·4	—0·4	0·7	0	—0·27	0	..	0	—0·5	4·5	+1·4	0	0	0	4	3	0	0	0	24	0	1	10	13	6	1	0	0	0	Vellore
1·7	—0·4	0·3	0	—0·29	0	..	0	—0·4	10·9	+1·3	0	0	1	1	6	10	8	5	0	0	1	2	28	0	0	0	0	0	Madras
0·1	..	0·8	0	..	0	..	0	..	5·4	..	0	0	0	10	18	0	0	0	3	1	9	15	6	0	0	0	0	0	Arogyavaram
																													Madras, Deccan
0	—1·2	0·9	0	—0·18	0	..	0	—0·3	6·5	—1·1	0	0	1	0	0	0	0	0	30	0	0	17	10	0	0	0	0	4	Cuddapah
1·1	—0·1	1·6	0	—0·21	0	..	0	—0·6	2·9	—0·4	1	1	1	4	4	0	1	1	18	0	3	11	11	0	0	0	0	6	Bellary
0·6	—0·4	1·1	0	—0·21	0	..	0	—0·4	3·8	—0·1	1	0	0	7	5	4	3	1	10	2	3	6	10	3	0	0	2	5	Kurnool
0·7	—2·4	1·2	0	—0·09	0	..	0	—0·3	5·2	—0·6	0	1	3	8	7	1	0	1	10	3	2	7	14	4	0	0	1	0	Rentichintala
0·3	..	0·3	0	—0·15	0	..	0	—0·3	6·7	..	1	0	1	5	2	9	4	2	7	0	7	14	5	0	0	0	0	5	Anantapur
																													Madras Coast, North
0·7	—1·4	0·4	0	—0·17	0	..	0	—0·3	4·6	+0·3	0	0	0	3	16	0	0	0	12	0	0	15	15	1	0	0	0	0	Nellore
2·0	..	1·1	0	..	0	..	0	..	6·1	..	0	0	2	7	13	3	2	0	4	0	0	3	25	2	0	0	0	1	Ongole
2·4	+0·1	0·9	0	—0·42	0	..	0	—0·5	6·0	+1·7	1	0	2	8	7	1	0	1	11	0	0	0	15	14	0	0	0	2	Masulipatam
1·5	—1·2	0·1	0	—0·48	0	..	0	—0·7	6·0	+1·5	0	1	0	3	0	20	1	4	2	0	0	0	20	1	10	0	0	0	Cocanada
1·0	—1·3	0·9	0	—0·47	0	..	0	—0·8	5·1	+1·0	0	1	0	0	0	5	15	2	8	0	0	0	1	15	14	1	0	0	Vizagapatam
1·4	—0·3	1·9	0	—0·44	0	..	0	—0·6	7·9	+1·6	0	0	0	0	0	9	15	7	0	0	0	0	2	17	12	0	0	0	Calingapatam
																													Hill Stations excluding Kashmir
1·3	—0·6	4·1	0·52	—1.45	0·18	6,21	3	—0·9	5·2	+1·0	1	1	0	1	8	17	1	0	2	1	0	0	0	3	13	1	2	11	Shillong
2·5	—0·5	2·5	3·02	—4·25	0·86	5	7	—0·1	..	..	0	3	3	1	3	12	5	0	4	0	0	0	0	1	24	5	0	1	Cherrapunji
0·9	..	1·4	4·61	..	2·38	21	2	..	6·9	..	0	0	8	0	8	10	2	0	3	0	0	2	0	0	7	19	3	0	Aijal
3·8	+0·8	5·3	0·38	—1·50	0·19	9	2	—1·6	6·4	+1·4	0	1	11	3	0	1	8	2	5	0	0	0	0	1	5	22	2	1	Darjiling
4·0	+2·2	5·5	0·07	—1·04	0·07	8	0	—3·0	6·2	—1·5	1	0	0	0	0	0	3	20	7	0	0	0	24	7	0	0	0	0	Kalimpong
1·6	1·4	4·3	0·30	—0·29	0·17	9	2	+0·3	1·3	—0·1	1	3	2	1	0	0	2	3	19	1	0	1	1	6	1	6	2	13	Katmandu

TABLE II.—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level, in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relat humi %	
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.
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 —*contd.*																					
Gyantse . .	13,110	623·3	..	..	52·1	+2·4	62	26	21·7	+3·3	8	1	38·0	..	31·3	..	4·0	−0·1	..	50	+7
Muktesar .	7,592	771·9	−0·6	770·5	62·1	+2·8	74	28	44·2	+1·6	34	18	49·6	55·5	39·9	45·2	5·0	−0·4	6·8	43	−1
Mussooree (R) .	6,940																				
Simla . .	7,224	781·7	+0·4	781·4	57·8	+0·8	70	28	46·9	+3·3	31	18	50·3	52·6	39·4	43·6	3·5	−1·2	6·6	38	+2
Abu . .	3,945	882·1	+0·6	880·6	79·4	+2·8	88	29,30,31	62·9	+1·9	54	5	69·2	76·9	52·3	53·6	6·6	−1·0	4·9	27	−8
Pachmarhi	3,528	896·2	+0·5	893·1	86·9	+2·8	94	30,31	59·9	+0·5	48	1	74·2	84·0	56·2	59·2	8·2	−1·4	7·2	30	−7
Mahabaleshwar	4,534	864·7	+0·6	862·7	85·5	+3·1	91	28	66·1	+3·5	58	31	70·4	78·2	54·0	63·1	7·6	−0·9	13·6	30	−7
Mercara . .	3,781	886·2	−0·9	884·5	84·7	+0·5	90	15	62·2	+0·6	59	5 days	68·1	80·5	62·9	64·4	17·5	+0·9	14·1	75	+6
Ootacamund .	7,364	782·0	+0·7	780·4	74·1	+4·1	78	17	46·4	−1·5	39	7	56·3	66·8	47·2	55·1	7·8	−0·7	10·6	52	+2
Coonoor* .	5,730	828·2	..	..	..	..	..	..	50·4	−1·9	41	7	66·1	..	59·4	..	14·9	+3·6	..	67	+9
Kodaikanal .	7,688	773·0	+0·8	771·7	68·9	+2·7	73	26	50·4	+0·2	45	10	58·6	60·7	44·6	51·5	5·0	−2·9	9·6	33	−1
Ceylon																					
Colombo. .	24	1011·1	+0·2	1007·5	88·6	−0·3	92	11	74·0	−0·2	70	3	78·9	84·5	74·9	77·2	27·7	−0·2	28·6	83	−4
Trincomalee .	24	1011·7	+1·3	1008·3	85·3	−2·7	90	15,16	76·9	+0·8	72	29	80·6	83·1	75·9	76·6	28·4	−0·1	28·3	79	−4
Hambantota .	61	1009·1	−0·4	1006·0	87·2	+0·3	90	4 days	74·0	0	70	5	80·3	83·0	75·6	78·0	28·1	+1·3	30·5	79	−5
Mannar . .	12	1012·1	..	1007·9	89·8	..	93	12,20 30	75·5	..	72	5	79·3	86·6	75·3	77·1	28·1	..	27·5	73	..

*Data refer to 0800 hrs. I.S.T.

(R) Register not received.

Cloud amount, (Oktas).			Rainfall, inches.				Number of rainy days, (0·10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from:—																			STATION.
											0830 hrs. I. S. T.									1730 hrs. I. S. T.										
Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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	
																														Hill Stations excluding Kashmir—*contd.*
1·5	+0·1	..	0	−0·13	0	.	0	−0·5	3·3	−1·9	0	0	2	4	0	3	1	0	21	..	..	..	..	..	..	..	..	..		Gyantse
3·2	+0·6	4·3	0·96	−0·94	0·31	5	4	−0·1	11·4	+5·1	1	4	4	1	0	2	12	7	0	1	0	1	0	0	8	16	5	0		Muktesar
																														Mussooree (R)
4·1	+0·9	4·9	1·69	−0·67	0·40	11	8	+3·3	2·5	−1·5	5	4	1	10	6	0	0	0	5	3	2	2	2	6	5	3	2	6		Simla
1·8	+0·3	1·9	0	−0·17	0	..	0	−0·5	2·6	−2·5	2	3	0	0	0	0	5	0	21	13	1	0	0	1	5	8	0	3		Abu
1·4	−0·2	2·1	0·04	−0·52	0·03	7	0	−1·3	2·7	−0·8	1	4	4	1	3	2	6	4	6	5	0	0	0	0	2	11	12	1		Pachmarhi
0·3	−0·4	1·1	0·59	+0·42	0·59	3	1	+0·6	5·8	−0·8	4	12	6	1	0	0	5	3	0	2	0	1	0	0	2	12	14	0		Mahabaleshwar
0·4	−2·2	0·8	0·17	−0·59	0·17	19	1	−0·6	5·0	+1·9	15	4	2	0	0	1	0	5	4	11	4	5	0	1	1	2	7	0		Mercara
0·1	+1·6	2·5	0	−1·28	0	..	0	−2·6	2·6	−0·7	0	9	12	0	0	0	0	0	10	0	6	15	3	1	0	0	0	6		Ootacamund
1·2	−1·0	..	0	−3·24	0	..	0	−2·8	4·1	+0·6	15	0	7	6	3	0	0	0	0	..	..	..	..	..	..	..	..	..		Coonoor*
0·6	−1·1	2·4	0·01	−1·80	0·01	1	0	−3·1	10·5	+2·3	4	15	4	8	0	0	0	0	0	3	6	1	14	6	0	0	0	1		Kodaikanal
																														Ceylon
2·7	−1·0	4·3	4·34	+0·06	1·75	8	6	−0·1	..	..	0	9	7	7	2	1	1	0	4	0	1	0	0	0	8	16	6	0		Colombo
2·4	−0·6	2·3	0	−1·96	0	..	0	−2·7	..	..	1	9	3	1	3	7	5	0	2	3	11	11	6	0	0	0	0	0		Trincomalee
2·4	−0·6	3·0	0·88	−2·58	0·81	28	1	−4·0	..	..	25	1	0	0	0	2	2	1	0	4	13	8	2	2	2	0	0	0		Hambantota
1·1	..	2·0	0·05	..	0·05	23	0	..	..	..	3	9	4	7	5	1	1	1	0	11	7	3	0	0	4	4	2	0		Mannar

TABLE III.—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M. T.) AT 4TH CLASS STATIONS—MARCH 1949.

STATION.	Maximum temperature, °F.				Minimum temperature, °F.				Mean dry bulb temperature, 0830 hrs. I.S.T. °F	Mean wet bulb temperature, 0830 hrs. I.S.T. °F	Vapour pressure, millibars.		Relative humidity, %		Mean cloud amount, 0830 hrs. I.S.T.	Rainfall,—inches.				Number of rainy days (0·10" or more)		Wind	
	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date			Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 0830 hrs. I.S.T.	Departure from normal.		Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Resultant direction 0830 hrs. I.S.T.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	
Assam																							
Lumding	87·5	+1·3	95	26,30	59·0	+0·8	49	2,3	72.3	67·1	20·4	+4·4	76	—3	..	0·36	—1·44	0·22	9	2	—2·3	..	
Kashmir																							
Jammu	79·1	+0·2	93	30	59·2	—0·1	53	4	63·1	56·7	12·7	+2·2	66	+14	2·9	2·83	+0·80	0·91	23	5	+1·3	N15E	
Kargil (R)																							
Mysore																							
Balehonnur*	90·0	+2·5	95	23	64·0	+1·2	59	8	67·7	65·6	20·7	+2·4	90	+8	..	0·44	—0·80	0·44	22	1	—0·8	..	
Tibet																							
Yatung (Chumbi)	58·6	+7·0	64	31	29·1	+1·6	24	1	38·7	37·3	7·0	+1·0	89	+5	1·1	1·90	—0·16	0·45	14	8	+2·6	..	

*Data refer to 0800 hrs. I.S.T. (R) Register not received.

TABLE IV—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M. T.) AT 5TH CLASS STATIONS—MARCH 1949.

Division	Station	Rainfall, inches.				Number of rainy days, (0·10" or more).		Division	Station	Rainfall, inches.				Number rainy da (0·10" or m
		Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.			Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.
1	2	3	4	5	6	7	8	1	2	3	4	5	6	7
Assam	Mawsynram	2·60	..	1·15	31	6	..	Kashmir	Sonamarg	9·59	—3·82	1·78	23	14
West Bengal	Bankura	2·37	+1·28	2·34	19	1	—0·9		Gurez	14·30	+5·18	2·50	22	15
								Bombay, Deccan	Khandala	0	0	0	..	0
Bihar	Muzaffarpur	0	—0 30	0	..	0	—0·9	Madras, Southeast	Palamcottah	0	—1·04	0	..	0
	Chapra	0	—0·36	0	..	0	—0·9	Sikkim	Lachung	5·91	+0·89	1·21	27	14
	Arrah	0	—0·38	0	..	0	—0·9							
East Punjab	Dharampore	0·87	—1·02	0·22	24	6	+3·1							
	Kyelang	4·58	+0·74	0·85	23	11	+3·5							
	Dalhousie	4·13	+0·26	0·95	23	9	+3·1							

MONTHLY MEANS OF UPPER WINDS

NOTE.—Data up to 9·0 Km. a. s. l. are given under Table A and data above 10·0 Km. under Table B.

In Tables A and B.

n represents the number of observations.

V represents the mean wind speed in m/second irrespective of direction.

v represents the resultant mean velocity in m/second.

D represents the direction of the resultant mean wind in degrees East of North.

The times of routine pilot balloon observations have been changed from this month to 0230, 0730 and 1430 hours I. S. T. and stations are letting off balloons at one or all these times according to the number of flights they are taking. For the co-ordinates of the stations for which data have been published in these Tables and other particulars please refer to the Monthly Weather Report, January 1949. A few stations were taking additional 1100 hour ascent and the means for this hour have also been included in this issue.

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

March 1949

Station	AHMEDABAD												ALLAHABAD											
Time in I. S. T.	0230				0730				1430				0230				0730				1430			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	1·8	1·4	314	31	1·3	0·8	330	31	2·6	1·9	301	31	1·3	0·5	278	31	1·7	0·9	235	31	3·8	3·1	282
0·15 a. g.	31	9·5	7·3	326	31	8·9	5·1	355	30	4·5	3·5	295	31	8·1	3·9	356	31	6·3	1·6	268	28	5·7	4·8	300
0·6 a. s. l.	31	7·9	6·5	325	31	8·1	5·7	353	30	4·2	3·0	296	31	8·4	4·7	334	31	8·0	3·7	313	28	5·7	5·0	296
1·0 ,,	31	6·4	5·2	313	31	5·9	4·2	339	30	4·6	3·2	302	31	7·9	5·2	302	30	8·4	5·9	298	28	6·4	5·8	298
1·5 ,,	29	4·8	3·9	285	31	6·0	4·3	297	31	4·5	3·4	293	25	8·5	7·1	285	28	9·2	7·5	287	30	8·0	7·2	294
2·0 ,,	27	5·6	4·1	260	31	7·1	5·4	271	31	6·1	5·2	284	20	9·3	8·2	277	26	10·3	9·1	290	30	9·9	9·1	289
2·5 ,,	25	7·1	5·5	254	31	8·7	7·3	263	31	8·1	7·3	279	10	11·0	9·5	278	22	11·9	11·0	285	29	11·6	10·6	284
3·0 ,,	23	7·7	6·5	252	31	10·2	9·0	262	31	10·1	9·1	271	8	13·0	12·5	288	21	14·5	12·9	285	28	13·5	12·6	291
4·0 ,,					27	10·6	9·2	261	31	11·0	9·8	269	1	13·0	13·0	300	10	13·7	12·7	290	25	17·1	16·0	281
5·0 ,,					22	12·7	10·4	273	29	12·6	11·3	268					3	11·8	11·8	296	19	18·5	17·6	277
6·0 ,,					12	11·7	9·4	277	23	15·0	14·1	275					2	11·0	10·9	283	16	19·2	18·0	279
7·5 ,,					7	10·3	6·5	275	16	16·5	15·4	273					2	16·0	15·3	283	7	18·7	15·3	283
9·0 ,,					2	4·5	3·3	344	5	16·1	15·9	269									4	21·5	20·1	297

Station	AMBALA												ANANTAPUR								ASANSOL			
Time in I. S. T.	0230				0730				1430				0730				1430				0230			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	3·2	1·6	338	31	3·2	0·8	338	31	3·5	1·3	325	31	1·8	1·4	215	31	2·6	2·1	85	31	1·7	0·9	291
0·15 a. g.	31	11·1	6·9	341	31	8·0	4·5	330	31	7·1	3·7	312	31	5·4	3·8	197	31	4·1	3·4	79	30	5·9	2·6	279
0·6 a. s. l.	31	11·9	7·0	341	31	10·0	5·8	324	31	7·8	4·0	310	31	5·8	4·2	193	31	4·1	3·4	79	30	6·7	4·1	299
1·0 ,,	31	10·1	6·2	329	31	10·2	6·4	321	31	7·4	4·2	313	31	6·5	4·8	154	31	4·2	3·5	86	30	7·3	6·0	249
1·5 ,,	31	9·7	6·4	302	31	9·7	6·3	312	31	7·3	3·7	309	31	6·8	5·0	124	31	4·7	3·8	89	26	7·6	6·9	254
2·0 ,,	29	9·4	6·3	286	30	12·6	6·5	307	31	8·4	4·6	294	31	6·6	5·4	82	31	5·1	4·1	83	20	9·6	9·0	288
2·5 ,,	22	7·6	5·5	274	27	8·4	5·7	299	28	9·3	6·2	290	31	6·9	5·8	60	31	5·8	4·7	74	12	11·0	10·0	289
3·0 ,,	16	6·8	5·6	278	25	9·2	7·2	300	26	10·3	7·1	283	31	7·3	6·3	43	31	5·8	4·7	67	12	11·3	11·0	291
4·0 ,,	7	7·1	5·7	281	16	10·3	8·7	275	20	11·4	9·3	283	31	6·6	5·9	43	30	5·9	4·4	56	1	7·5	7·5	290
5·0 ,,	4	10·5	9·4	272	8	12·9	11·5	266	16	12·0	10·9	277	31	5·8	2·6	51	30	5·0	2·0	61				
6·0 ,,	3	8·7	7·9	276	4	16·1	15·7	266	14	15·6	14·5	278	31	7·0	2·2	357	30	6·1	2·4	344				
7·5 ,,					1	12·0	12·0	265	6	17·3	15·0	269	27	9·8	6·3	300	28	9·1	5·3	303				
9·0 ,,									3	22·8	21·7	288	25	16·3	12·0	274	22	13·7	11·5	272				

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

March 1949

Station	ASANSOL												BANGALORE											
Time in I.S.T.	0730				1100				1430				0230				0730				1430			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	1·9	1·3	272	31	2·6	1·8	266	31	2·5	1·9	289	31	3·0	2·8	110	31	2·4	1·3	150	31	4·5	4·1	9
0·15 a. g. .	31	4·2	2·6	280	31	4·3	3·0	271	31	4·8	3·3	279	31	8·9	8·7	122	31	6·6	4·3	155	30	5·7	5·3	9
0·6 a. s. l. .	31	5·7	3·9	294	31	5·0	3·4	270	31	5·5	4·3	279	..	..	..	..	..	..	..	..	..	..	..	.
1·0 „ .	28	6·6	5·2	301	29	5·3	3·9	266	31	6·3	5·1	280	31	7·3	7·1	120	31	5·0	3·3	152	30	5·3	5·0	9
1·5 „ .	26	8·8	7·8	290	25	7·6	6·5	277	30	7·5	6·3	287	31	8·4	7·3	112	31	7·2	4·8	125	29	5·4	4·8	8
2·0 „ .	24	10·8	9·5	286	21	10·6	9·4	282	29	9·3	8·6	291	26	7·0	5·5	85	31	7·6	6·4	86	30	6·1	5·8	8
2·5 „ .	21	11·6	10·6	284	10	10·5	9·8	287	28	12·5	11·8	293	14	6·6	4·9	52	29	8·7	7·9	60	28	6·1	5·8	7
3·0 „ .	15	11·6	10·6	297	8	10·9	10·0	290	27	14·8	13·9	294	8	5·2	4·2	43	28	9·2	8·4	54	27	5·6	5·4	7
4·0 „ .	6	11·3	10·7	296					23	15·1	14·5	295					21	8·2	7·6	63	23	6·3	5·5	6
5·0 „ .	2	8 5	7·7	291					13	16·8	16·5	290					16	6·3	3·7	63	18	6·4	3·6	1
6·0 „ .									10	16·9	16·7	279					14	7·8	2·5	15	17	6·3	2·7	1
7·5 „ .									3	20·8	20·1	285					11	7·5	1·3	295	11	8·1	5·7	3
9·0 „ .									1	14·0	14·0	345					2	19·3	17·9	263	6	11·2	8·5	2

Station	BAREILLY								BHOPAL												BHUJ			
Time in I.S.T.	0730				1430				0230				0730				1430				0230			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	I
Surface . .	31	1·9	0·3	336	31	3·7	2·3	320	31	2·2	0·8	360	31	1·7	0·4	24	31	4·0	2·9	280	31	1·2	0·9	2
0·15 a. g. .	31	8·8	3·4	327	31	6·9	4·5	304	31	8·1	4·3	51	31	7·1	2·5	41	31	5·2	3·9	287	31	7·2	5·8	3
6·0 a. s. l. .	31	10·4	5·6	315	30	6·5	4·2	303	31	7·9	3·7	11	31	5·9	1·9	50	31	4·8	3·4	280	31	8·0	6·1	3
1·0 „ .	31	10·7	7·0	312	30	7·1	5·0	299	31	7·7	4·1	341	31	7·1	3·2	349	31	5·9	4·8	287	31	5·1	2·7	3
1·5 „ .	31	10·2	7·8	307	28	7·2	6·5	297	31	7·0	4·8	297	31	6·6	4·3	316	31	5·9	4·8	283	31	5·4	2·8	1
2·0 „ .	29	10·3	9·1	298	26	8·7	7·1	290	30	7·6	6·3	280	31	7·8	6·6	283	31	5·8	5·1	278	31	6·6	5·3	1
2·5 „ .	26	10·9	9·4	295	25	9·5	8·1	289	27	9·3	7·6	275	30	10·1	8 6	283	31	7·5	7·0	273	27	8·1	6·7	1
3·0 „ .	23	11·4	10·2	292	25	10·8	9·9	284	23	10·2	8·5	260	29	11·9	10·5	276	31	9·8	8·9	275	24	9·0	8·1	1
4·0 „ .	13	10·7	9·8	281	23	12·3	11·0	283	4	5·4	4·6	292	23	11·8	10·9	277	31	12·8	11·9	275	8	7·6	6 2	
5·0 „ .	9	11·1	9·9	271	15	13·7	13·0	281	2	8·3	7·2	301	18	11·0	10·2	280	31	12·5	11·8	280				
6·0 „ .	4	11·7	10·0	279	11	15·5	15·0	276	1	10·5	10·5	309	14	9·8	9·2	272	24	17·0	15·7	281				
7·5 „ .	1	12·0	12·0	335	8	16·1	15·5	284					9	11·2	9·9	273	20	20·1	19·2	277				
9·0 „ .					3	18·3	17·8	282					4	10·7	8·0	296	12	19·7	18·9	288				

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea level

March 1949

Station	BHUJ								BIKANER								BOMBAY							
Time in I.S.T.	0730				1430				0980				1430				0230				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	0·1	0·1	225	31	2·8	1·5	296	31	1·6	0·4	127	31	2·3	1·6	269	31	1·0	0·7	333	31	0·4	0·2	142
0·15 a. g.	31	4·9	3·6	313	31	4·5	2·6	305	31	6·5	2·5	105	31	4·0	2·5	277	31	5·5	4·6	347	30	4·5	3·4	10
0·6 a. s. l.	31	7·8	5·7	325	31	4·5	2·9	299	31	6·2	1·3	29	31	3·0	2·2	279	31	7·4	5·9	356	31	6·8	5·5	13
1·0 ,,	31	6·1	3·6	307	31	4·4	3·1	297	31	6·4	2·4	310	31	4·1	2·6	272	30	7·1	6·0	2	30	7·2	5·9	11
1·5 ,,	31	5·9	4·2	279	31	5·3	4·3	285	31	7·9	5·3	291	30	4·8	3·1	265	30	5·9	4·1	348	30	6·5	3·4	351
2·0 ,,	31	7·6	6·0	276	31	6·8	5·7	276	30	8·7	6·3	282	30	6·8	4·9	258	30	5·5	2·4	304	29	6·0	1·8	340
2·5 ,,	30	8·4	6·9	268	30	8·0	6·9	267	30	9·8	7·6	272	30	8·9	7·3	261	26	4·6	0·7	233	29	5·9	0·6	282
3·0 ,,	30	9·2	7 7	267	30	9·5	8·3	265	26	10·7	8·7	266	29	10·8	9·2	265	24	4·5	1·4	208	28	4·9	1·9	198
4·0 ,,	27	11·0	9·6	268	28	11·5	10·2	261	18	12·6	11·3	275	25	14·5	13·3	269	6	6·0	5·7	297	27	5·1	1·8	254
5·0 ,,	17	10·1	9·2	268	24	11·7	10·8	267	10	11·7	11·0	276	17	15·5	15·2	279	1	4·0	4·0	280	24	6·5	5·3	274
6·0 ,,	13	9·6	8·1	271	22	14·4	13·7	266	4	8·0	7·6	300	13	16·8	16·1	271					22	10·0	8·7	277
7·5 ,,	9	10·6	8·9	273	12	14·7	14·1	264					3	11·2	8·6	307					15	13·8	11·5	285
9·0	7	13·6	10·8	285	8	17·6	16·0	264					2	8·7	5·3	341					11	20 0	18·6	284

Station	BOMBAY				CALCUTTA																COCHIN			
Time in I.S.T.	1430				0230				0730				1100				1430				0230			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	6·2	5 5	290	31	2·8	2·0	216	31	2·1	1·4	224	31	4·0	2·5	235	31	3·5	2·4	241	31	1·5	1·0	39
0·15 a. g.	31	4·9	4·0	303	31	7·1	6·0	226	31	5·7	3·2	241	31	5·1	3·2	238	31	4·8	3·4	241	31	3·0	2·2	341
0·6 a. s. l.	31	3 9	2·9	346	31	8·8	7·3	239	31	8·4	4·5	257	31	5·3	3·6	251	31	5·2	4·1	249	31	2·6	2·1	312
1·0 ,,	31	4·4	2·9	355	31	8·1	6·2	257	31	7·1	3·9	266	31	6·9	5·2	263	31	5·7	4·6	258	30	2·0	0·5	4
1·5 ,,	31	4·6	2·2	338	31	7·8	6·6	280	30	6·3	4·8	273	31	7·9	6·4	272	31	6·2	5·2	266	28	3·6	3·0	80
2·0 ,,	31	4·8	1·1	288	29	9·0	7·9	287	29	7·7	6·2	285	26	8·3	6·7	279	31	8·7	7·7	275	23	6·6	6·1	70
2·5 ,,	31	4·9	1·8	226	25	9·9	9·3	293	25	9·5	8·6	285	21	9·9	8·6	286	31	11·4	10·5	285	20	8·7	8·3	6
3·0 ,,	31	4·9	1·9	231	22	11 . 1	10.5	295	20	11·2	10·6	292	11	12·9	10·5	290	31	12·9	11·8	291	15	9·5	9·1	73
4·0 ,,	31	4·8	2·5	289					5	11·4	9·8	287					27	13·9	13·3	298	1	7·5	7·5	95
5·0 ,,	31	6·8	5·3	287					1	11·0	11·0	300					19	14·3	13·4	290	1	8·0	8 0	85
6·0 ,,	28	10·6	9·0	275													14	15·4	14·2	286				
7·5 ,,	19	14·6	13·0	273													7	16·9	14·8	283				
9·0 ,,	12	2·6	19·6	282													2	17·0	13·5	295				

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

March 1949

Station	COCHIN								COOCH BEHAR								CUTTACK						
Time in I S.T.	0730				1430				0730				1430				0230				0730		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	31	1·3	1·2	60	31	5·7	5·5	266	31	1·6	1·5	88	31	1·5	0·5	242	31	0·8	0·8	210	31	0·3	0·2
0·15 a. g . .	31	3·3	2·8	44	31	5·7	5·4	266	31	4·6	3·9	95	31	3·3	1·8	242	30	6·5	5·7	216	29	4·7	2·5
0·6 a. s. l. .	31	3·2	2·2	351	31	3·8	2·7	281	30	6·4	4·3	111	31	3·7	2·6	235	26	8·0	6·8	235	28	7·2	3·6
1·0 „ .	29	2·5	1·0	13	31	3·3	2·0	44	26	4·9	2·5	130	31	4·4	3·6	228	25	6·7	5·1	255	25	6·7	3·2
1·5 „ .	27	3·5	2·8	69	31	5·8	5·6	65	25	4·4	1·7	203	30	5·6	4·7	238	24	6·8	4·5	283	25	5·3	3·2
2·0 „ .	27	6·4	6·1	67	31	9·5	9·2	67	23	5·9	2·7	241	27	8·2	7·0	247	18	6·9	5·2	306	23	6·3	4·6
2·5 „ .	27	9·1	8·7	71	29	11·6	11·4	70	19	6·1	3·5	252	17	7·2	5·6	263	6	7·3	4·3	301	22	7·4	5·9
3·0 „ .	26	9·4	8·5	67	29	11·3	10·9	73	18	8·3	6·3	274	15	9·0	8·0	268	5	9·1	8·6	300	17	8·7	7·3
4·0 „ .	22	7·7	7·2	83	28	8·0	7·6	80	10	12·4	10·6	284	10	13·6	12·6	278					11	7·5	5·9
5·0 „ .	17	6·6	4·3	81	27	8·0	6·3	79	6	18·5	18·1	287	3	10·7	9·8	286					5	7·9	6·0
6·0 „ .	11	7·2	3·3	52	26	8·8	6·1	76	1	15·5	15·5	295	3	12·5	12·5	289					3	9·7	6·2
7·5 „ .	6	10·8	5·9	269	17	10·1	1·1	33															
9·0 „ .	3	10·0	8·7	226	10	12·8	6·4	265															

Station	CUTTACK								DEOLALI				DIBRUGARH								GADAG		
Time in I.S.T.	1100				1430				0830				0730				1430				0730		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	31	1·7	0·6	218	31	2·3	1·3	205	26	0·9	0·3	239	31	1·9	1·6	59	31	2·2	1·7	47	31	3·1	2·2
0·15 a. g. .	31	3·5	1·6	219	31	5·3	3·1	196	26	3·5	0·5	266	24	5·0	4·7	60	30	3·6	3·0	46	31	6·6	2·3
0·6 a. s. l. .	31	4·7	1·4	238	31	4·9	2·6	215	26	2·1	0·4	203	24	5·1	4·5	61	28	4·2	2·8	69	..	..	..
1·0 „ .	30	5·0	2·2	274	31	4·7	2·9	244	26	6·2	3·0	23	23	4·5	3·3	69	27	3·6	1·3	87	31	7·4	1·0
1·5 „ .	27	5·1	3·3	289	31	4·9	3·7	272	26	6·3	3·1	20	21	3·3	1·3	162	24	4·2	3·3	236	31	7·1	3·4
2·0 „ .	13	6·0	5·7	310	30	6·1	5·2	291	26	6·6	1·1	338	19	3·5	2·2	225	21	6·5	6·0	222	31	5·7	4·1
2·5 „	5	8·3	8·3	317	27	7·6	7·0	306	26	6·5	2·0	250	16	4·6	3·1	227	18	7·5	7·3	224	31	5·0	4·1
3·0 „ .	4	10·5	10·5	316	26	9·8	9·0	310	26	6·3	2·9	237	14	4·9	4·2	244	17	7·4	7·1	228	31	5·2	4·3
4·0 „ .					24	12·2	11·5	311	25	6·2	4·0	250	7	7·6	6·8	266	12	9·3	8·7	242	31	6·1	4·0
5·0 „					22	13·6	12·6	300	22	8·0	6·9	280	6	12·1	11·0	272	8	14·6	14·0	251	31	5·8	1·9
6·0 „ .					18	14·3	12·7	290	14	11·0	9·3	285	3	13·7	13·3	272	6	18·7	17·7	258	30	6·3	2·8
7·5 „ .					5	14·1	13·7	263	9	12·9	11·7	282	2	11·7	10·6	307	3	15·7	14·3	283	27	9·1	7·1
9·0 „ .					1	13·0	13·0	250	2	19·5	19·5	288	2	16·7	15·3	306	2	13·7	13·0	307	21	15·3	12·3

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

March 1949

Station	GADAG				GAYA																GOPALPUR			
Time in I.S.T.	1430				0230				0730				1100				1430				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
urface . .	31	2·6	1·1	94	31	2·9	1·2	215	31	2·8	1·7	214	31	3·8	2·4	268	31	5·0	4·8	284	31	3·0	1·8	219
·15 a. g. .	31	4·4	2·4	88	31	6·7	3·1	275	31	5·3	3·6	244	31	5·9	4·4	269	31	6·8	6·5	286	31	6·2	4·9	218
·6 a. s. l. .	..	..	..	..	31	7·3	5·1	303	31	6·8	5·2	286	31	6·8	5·3	271	31	7·1	6·7	284	31	5·3	3·5	237
·0 „ .	31	4·1	2·1	78	30	8·6	7·9	294	31	8·1	6·7	289	31	8·1	6·9	278	31	7·0	6·7	284	31	4·9	2·3	253
·5 „ .	31	3·6	1·8	83	26	9·0	8·5	290	30	10·1	9·1	290	27	9·1	8·1	285	31	8·5	8·2	286	30	4·7	1·7	306
·0 „ .	31	4·5	1·9	73	21	9·5	8·8	287	24	10·5	9·5	286	23	11·0	10·0	284	28	10·5	9·9	287	30	5·2	2·6	325
·5 „ .	31	4·6	3·0	82	3	9·3	9·3	287	21	12·3	11·3	287	13	10·9	10·3	285	26	13·0	12·5	291	30	5·6	3·3	321
·0 „ .	30	5·8	3·2	91	3	11·3	11·3	291	15	12·9	11·8	289	8	11·9	11·1	280	26	14·5	13·9	291	30	6·5	4·8	325
·0 „ .	27	4·1	2·2	58					6	9·8	9·5	297					17	17·2	16·3	286	22	7·8	6·3	320
·0 „ .	26	5·1	1·7	41													9	17·2	16·8	280	17	8·1	5·0	286
·0 „ .	22	7·1	2·9	359													5	18·0	17·6	287	14	9·4	6·5	287
·5 „ .	17	7·7	4·5	322													2	14·5	14·5	278	7	10·4	9·0	290
·0 „ .	16	15·3	12·1	284																	1	4·5	4·5	5

Station	GOPALPUR				GORAKHPUR								HYDERABAD (Dn.)											
Time in I.S.T.	1430				0730				1430				0230				0730				1430			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	8·2	7·6	176	31	2·3	0·6	285	31	3·2	2·5	282	31	1·5	0·8	120	31	1·2	0·5	246	31	2·3	1·1	117
0·15 a. g. .	31	10·7	9·6	177	31	6·7	1·8	300	31	6·1	4·6	281	31	6·1	4·4	144	31	5·2	2·3	179	31	3·8	1·8	108
0·6 a. s. l. .	31	5·3	3·0	165	31	9·8	4·9	305	31	6·3	4·8	281	31	4·0	2·6	135	31	3·1	0·7	198	31	3·3	1·7	110
1·0 „ .	31	3·7	0·7	254	31	10·2	6·7	299	29	5·9	5·3	283	31	6·7	4·7	137	31	6·7	3·6	151	31	3·5	1·4	11
1·5 „ .	30	4·5	2·3	302	27	8·1	6·1	294	28	8·0	7·2	284	31	5·4	2·1	102	31	5·7	3·1	131	31	3·7	1·3	97
2·0 „ .	29	5·1	3·9	309	26	10·7	8·9	288	26	9·1	8·9	289	31	5·3	2·0	2	31	5·1	2·0	50	31	3·9	1·3	84
2·5 „ .	29	6·6	5·4	311	20	10·5	8·7	290	22	11·2	10·7	293	31	5·8	3·2	348	31	5·7	2·7	20	31	4·7	1·1	78
3·0 „ .	29	7·5	6·2	311	18	12·2	2·5	288	20	12·9	12·3	294	31	6·3	3·7	340	31	5·6	3·4	8	30	5·1	2·1	40
4·0 „ .	28	8·7	7·1	315	10	13·1	11·9	286	16	14·5	13·7	295	3	4·7	4·6	23	31	5·8	4·1	358	30	6·0	2·3	360
5·0 „ .	27	9·7	8·3	296	4	13·0	12·7	289	11	17·8	16·9	287					31	6·5	4·4	321	30	6·7	3·3	326
6·0 „ .	22	12·0	10·1	282	2	13·0	12·9	303	7	18·0	17·9	281					31	8·0	5·4	300	29	8·8	5·9	304
7·5 „ .	18	15·8	13·7	278					2	16·5	16·5	290					21	10·6	8·6	304	27	12·6	10·3	297
9·0 „ .	10	21·9	20·1	273					1	13·0	13·0	285					6	14·2	12·5	296	26	16·6	14·1	289

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

March 1949

Station	JAGDALPUR								JAMNAGAR								JAMSHEDPUR							
Time in I.S.T.	0730				1430				0730				1430				0730				1100			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	0·6	0·4	181	31	1·8	0·6	276	15	2·4	1·5	244	16	7·0	5·9	310	31	1·6	1·2	289	31	2·5	1·8	298
0·15 a. g.	31	4·3	3·1	197	31	3·6	1·6	269	15	5·2	4·2	315	16	4·7	4·0	306	31	3·3	2·6	278	31	3·1	2·2	286
0·6 a. s. l.	31	2·6	1·9	197	31	2·9	1·1	271	15	7·0	6·1	339	16	5·6	4·3	308	31	4·8	3·1	278	31	3·7	2·4	268
1·0 ,,	31	5·5	2·6	235	31	3·5	1·7	285	15	6·2	4·2	310	15	6·1	3·6	285	31	6·8	4·6	283	31	5·2	3·9	269
1·5 ,,	31	4.5	1·8	286	31	3·7	2·1	301	15	6·4	4·9	275	15	6·2	3·9	257	31	8·2	6·3	285	30	7·2	5·5	273
2·0 ,,	30	5·6	2·7	319	31	2·9	2·5	301	14	7·3	5·6	264	15	7·3	5·3	259	30	9·1	7·9	286	28	9·2	7·7	283
2·5 ,,	29	6·6	4·5	329	31	4·3	3·4	304	14	8·3	6·7	266	15	8·4	6·6	261	25	9·8	9·0	290	21	11·2	10·3	287
3·0 ,,	29	7·2	5·5	326	31	5·4	4·5	310	13	8·4	7·1	268	15	9·2	8·1	255	25	12·3	11·8	290	13	10·8	10·1	284
4·0 ,,	28	7·6	5·7	324	26	6·5	4·8	320	10	10·0	8·3	264	15	9·3	8·1	265	15	13·5	12·5	293				
5·0 ,,	24	8·8	6·4	303	24	8·9	6·9	301	8	11·6	11·5	271	13	11·1	10·6	270	9	12·1	10·4	285				
6·0 ,,	19	10·3	7·5	282	21	11·4	9·2	289	6	12·7	12·1	269	10	14·3	13.1	266	8	14·3	11·7	284				
7·5 ,,	13	12·0	10·1	272	13	14·5	13·3	282	4	16·4	15·9	277	7	16·1	13·7	259								
9·0 ,,	7	20·0	18·0	271	9	21.3	20·1	285					3	15·0	12·5	301								

Station	JAMSHEDPUR				JHARSUGUDA												JODHPUR							
Time in I.S.T.	1430				0230				0730				1430				0230				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	3·2	1·5	280	31	1·2	0·7	35	31	1·2	0·8	42	31	1·9	1·3	267	31	2·7	1·8	18	31	1·9	1·5	2
0·15 a. g.	31	4·0	2·1	277	30	6·3	2·0	37	31	5·1	2·3	70	31	4·0	3·0	263	31	7·9	4·2	354	31	6·4	3·1	5
0·6 a. s. l.	31	4·2	2·8	278	30	6·9	2·2	321	31	5 5	0·8	40	31	4·4	3·4	266	31	7·5	3·3	338	31	6·9	1·4	
1·0 ,,	31	4·6	3·3	278	30	7·2	3·8	290	31	6·0	2·3	301	31	4·7	3·8	268	31	5·8	3·1	297	31	5·9	2·9	28
1·5 ,,	31	5·3	4·4	285	30	7·2	5·1	290	31	6·6	4·4	302	31	4·7	4·1	277	31	6·1	5·1	268	31	6·5	4·8	27
2·0 ,,	31	7·4	6·5	287	29	8·1	6·7	286	31	8·3	7·1	287	31	6·2	5·4	285	30	8·3	6·8	263	31	8·3	6·6	27
2·5 ,,	31	9·5	8·4	293	26	9·2	8·0	288	31	10·1	8·9	289	31	8·2	7·1	291	24	8·9	6·5	267	30	8·8	7·0	27
3·0 ,,	29	11·9	10·7	295	22	10·3	9·5	290	29	11·7	10·5	295	31	11·0	9·8	295	17	10·9	9·3	271	29	9·3	8·1	2
4·0 ,,	28	14·3	13·6	295	14	10·6	9·5	291	22	11·9	10·9	303	31	12·3	10·9	296	1	9·5	9·5	200	21	12·9	11·7	2
5 0 ,,	24	16·3	14·9	295					16	11·6	10·9	295	27	13·7	12·4	286					8	8·5	7·5	2
6·0 ,,	19	18·3	17.4	285					11	11·5	10·2	274	26	14·3	13·2	285					5	6·2	5·6	2
7·5 ,,	8	18·2	17·1	276					7	15·4	12·3	261	17	17·9	16·1	279								
9·0 ,,	3	19·7	18·6	281					4	12·1	11·0	275	10	17·8	16·5	288								

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

March 1949

Station	JODHPUR				JUBBULPORE												MADHOSAGAR							
Time in I.S.T.	1430				0230				0730				1430				0730				1430			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
rface . .	31	3·3	1·9	269	31	0·9	0·6	152	31	1·0	0·7	152	31	2·2	1·6	283	31	1·4	0·7	246	31	3·8	2·6	297
15 a. g. .	31	4·5	3·1	266	31	4·7	1·5	87	31	4·7	1·2	166	31	4·6	3·2	283	31	5·1	0·5	320	31	6·0	3·5	294
6 a. s. l. .	31	5·0	3·6	269	31	5·0	1·2	77	31	5·4	0·9	157	31	4·7	3·3	278	31	7·3	2·4	18	31	5 5	3·3	301
0 „ .	31	4·7	3·4	265	30	6·0	2·2	303	31	7·3	1·4	308	31	5·3	4·0	280	31	7·0	3·3	325	31	6·0	4·2	302
5 „ .	31	4·9	3·4	271	31	6·9	4·7	281	31	7·4	4·6	298	31	5·8	4·6	284	31	7·9	6·1	303	30	5·6	3·4	294
0 „ .	31	6·9	5·4	269	31	8·3	6·8	273	31	8·9	7·6	287	31	6·3	5·3	286	31	9·0	8·0	295	30	6 6	4·7	290
5 „ .	30	9·0	8·4	269	30	9·9	8·4	273	31	10·6	9·4	285	31	8·3	7·5	285	30	10·0	8·9	290	30	9·1	7·2	279
0 „ .	29	10·4	9·6	266	29	11·2	10·1	274	31	11·2	10·0	283	31	10·3	9·3	286	28	11·1	9·5	283	30	10·9	9·6	279
0 „ .	23	15·4	14·2	272	12	10·9	10·1	279	26	12·6	11·6	284	30	14·5	13·2	281	25	12·4	10·7	277	26	15·2	14·4	280
0 „ .	14	16·0	15·3	277	2	7·5	7·0	294	17	11·6	10·3	287	29	15·3	14·1	282	20	14·2	13·4	273	23	17·8	17·2	279
0 „ .	6	18·3	17·9	277					10	9·9	8·5	290	26	16·7	15·6	284	17	15·2	14·5	275	20	20·1	19·5	279
5 „ .	1	29·0	29·0	265					7	11·9	10·7	282	18	21·1	19·7	286	9	15·4	14·3	272	13	18·6	17·7	283
0 „ .									5	12·7	11·2	262	11	21·9	20·6	282	3	18·7	13·1	288	6	18·3	17·7	285

Station	MADRAS												MALEGAON											
Time in I.S.T.	0230				0730				1430				0230				0730				1430			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
rface . .	31	1·9	1·2	228	31	2·3	1·8	247	31	5·1	4·5	141	31	3·6	3·3	292	31	3·3	3·0	280	31	3·4	1·9	321
15 a. g. .	31	5·0	3·9	165	31	4·7	3·5	203	31	5·8	5·2	141	31	6·6	5·3	318	31	4·8	3·2	323	31	3·7	1·6	300
6 a. s. l. .	31	5·2	4·1	162	31	6·3	4·9	173	31	4·3	3·1	158	31	6·6	5·3	318	31	4·8	3·2	323	31	3·7	1·6	300
0 „ .	31	4·9	4·0	132	31	5·6	4·7	153	31	4·1	2·7	142	31	8·0	6·1	339	31	6·3	3·4	10	31	3·0	1·8	302
5 „ .	31	6·2	5·3	98	31	6·7	5·6	100	31	5·9	4·5	93	31	6·8	4·9	343	31	5·5	3·0	12	31	3·3	2·3	304
0 „ .	31	6·4	5·7	78	31	7·8	7·1	77	31	7·6	6·8	73	27	6·3	3·0	325	31	6·0	2·1	314	31	3·7	2·5	295
- „ .	28	7·6	7 0	59	31	8·7	8·0	59	31	8·9	8·1	60	22	5·9	2·4	272	31	6·4	3·1	271	31	4·9	3·4	277
0 , .	28	8·2	7·4	56	31	8·4	7·5	54	31	8·4	7·8	54	17	6·8	3·0	258	31	6·6	4·3	252	31	6·5	4·4	270
0 „ .	17	5·4	4·2	63	30	6·3	5·4	56	31	7·0	5·9	60	9	9·7	3·2	203	29	6·8	5·1	265	30	7·6	7·0	270
0 „ .	1	1·5	1·5	5	27	6·4	4·6	71	31	6·7	3·6	66					26	8·4	7·7	287	29	8·9	7·8	273
0 , .	1	8·5	8·5	240	26	7·6	2·9	57	30	6·6	2·4	28					24	10·7	8·8	287	25	11·2	9·6	281
5 „ .					16	10·5	7·3	277	27	8·9	4·7	301					16	13·4	12·4	279	23	15 5	14·0	278
0 „ .					6	13·7	12·7	267	20	14·4	12·4	270					6	20·0	18·3	295	20	19·4	18·0	278

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

March 1949

Station	MANGALORE												MASULIPATAM										
Time in I.S.T.	0230				0730				1430				0230				0730				1430		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface	31	1·6	1·2	50	31	2·1	1·8	91	31	4·2	3·8	263	31	1·5	1·4	176	31	0·7	0·5	190	31	3·3	3·0
0·15 a. g.	31	3·1	2·5	3	31	2·7	2·0	85	31	6·0	5·7	269	31	5·9	5·5	187	31	3·8	3·1	190	31	5·2	4·9
0·6 a. s. l.	31	2·6	1·9	337	31	3·0	0·8	149	31	3·8	2·5	259	31	6·2	5·8	188	31	5·6	5·2	190	31	4·5	3·6
1·0 ,,	27	2·5	0·9	16	30	3·8	1·6	113	31	2·7	1·0	87	29	4·7	3·3	178	29	4·7	4·0	179	31	3·8	2·1
1·5 ,,	23	4·7	2·5	62	28	5·1	3·8	86	29	5·0	4·5	87	29	4·2	1·3	111	28	4·5	2·4	118	31	4·3	1·4
2·0 ,,	17	6·4	5·4	91	27	6·8	5·5	82	29	8·0	7·7	79	28	4·4	2·3	67	28	5·0	2·8	68	31	5·3	3·4
2·5 ,,	15	7·0	6·9	81	26	8·2	7·7	70	30	9·8	9·6	78	27	6·0	4·4	48	28	6·3	4·7	43	31	6·5	4·9
3·0 ,,	12	7·8	7·5	79	26	9·0	8·6	68	30	9·9	9·5	77	22	6·4	4·9	31	29	6·6	5·2	31	31	6·5	5·1
4·0 ,,	4	5·3	3·1	51	19	6·6	6·2	68	28	7·5	6·4	72	13	4·6	3·1	354	27	5·5	4·1	20	31	5·2	3·9
5·0 ,,					18	6·3	3·8	97	28	6·9	4·8	83					28	5·4	2·7	341	31	6·2	4·1
6·0 ,,					18	6·6	3·5	64	26	7·3	4·4	44					25	6·8	3·6	315	29	7·	5·0
7·5 ,,					9	8·2	3·6	297	17	8·7	3·7	17					21	10·0	7·6	291	21	11·	9·5
9·0 ,,					3	12·0	9·9	273	9	8·4	4·4	316					11	16·0	13·6	280	13	16·5	15·2

Station	NAGERCOIL												NAGPUR										
Time in I.S.T.	0230				0730				1430				0230				0730				1430		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface	31	2·7	1·5	9	31	2·2	1·5	33	31	5·8	2·1	95	31	1·5	0·9	312	31	1·4	0·8	4	31	1·9	0·
0·15 a. g.	31	2·7	1·3	23	31	4·7	3·4	37	31	9·5	3·3	103	31	6·3	2·4	19	31	5·5	2·9	41	31	3·2	1·
0·6 a. s. l.	31	6·8	4·4	29	31	5·8	4·1	36	31	7·9	4·0	77	31	6·8	1·8	13	31	6·5	2·4	78	31	3·6	1·
1·0 ,,	31	6·1	5·6	50	31	6·1	4·9	48	31	7·0	5·4	62	31	6·4	1·8	319	31	6·9	0·3	40	31	4·2	2·
1·5 ,,	31	7·6	7·3	63	31	7·2	6·7	58	31	7·8	7·5	47	31	5·7	3·0	286	31	6·8	2·8	265	31	4·3	2·
2·0 ,,	31	9·2	8·8	60	31	9·5	9·2	65	31	10·2	9·7	43	31	5·5	3·7	284	31	7·1	4·5	275	30	4·6	3·
2·5 ,,	30	10·1	9·7	62	29	10·7	10·2	66	30	11·6	10·8	48	30	5·3	4·4	277	30	7·5	5·6	276	30	6·0	5·
3·0 ,,	30	10·7	9·6	69	28	10·2	9·5	71	29	11·9	11·1	60	24	7·1	5·9	273	28	8·4	7·3	284	29	7·9	7·
4·0 ,,	19	7·5	6·9	78	28	8·9	8·5	86	28	11·5	10·8	76	6	10·3	9·3	278	24	10·0	8·1	284	28	10·0	8·
5·0 ,,	8	5·5	1·9	105	27	7·3	5·2	83	29	10·1	9·1	78	1	7·0	7·0	261	18	9·1	8·0	283	27	11·8	10·
6·0 ,,	6	7·4	5·1	89	27	7·3	2·8	70	29	9·7	7·7	76					12	10·1	7·7	294	24	13·4	11·
7·5 ,,					24	8·0	1·7	307	25	10·7	5·9	69					5	11·2	6·6	287	17	16·5	15·
6·0 ,,					22	8·5	4·9	237	22	10·0	1·8	21					3	7·2	6·4	270	12	19·8	18·

Table A — Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

March 1949

Station	NEW DELHI												POONA											
Time in I.S.T.	0230				0730				1430				0230				0730				1430			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	2·9	1·7	352	31	2·0	1·4	287	31	5·3	3·1	330	31	2·5	2·0	255	31	1·8	1·6	241	31	2·9	1·1	323
0·15 a. g.	31	8·5	4·5	355	31	6·3	3·1	321	31	7·0	4·7	312	31	3·8	3·4	280	31	2·1	1·1	243	31	3·2	1·4	317
0·6 a. s. l.	31	8·8	4·8	336	31	7·4	5·1	320	31	6·6	4·3	308	31	3·0	2·6	261	31	1·7	1·0	233	31	2·9	1·2	317
1·0 ,,	31	8·6	5·2	307	31	8·0	5·7	301	31	6·0	4·2	303	31	5·5	4·4	317	31	5·2	3·0	20	31	3·1	1·6	306
1·5 ,,	31	9·5	7·5	293	29	8·6	6·7	293	31	6·9	5·2	293	31	7·5	4·1	14	31	7·0	3·4	20	31	3·0	1·7	293
2·0 ,,	21	9·4	8·2	284	26	9·2	8·2	290	31	8·3	6·6	290	31	6·7	2·4	6	31	5·6	1·3	19	31	3·6	1·4	287
2·5 ,,	12	9·2	7·5	266	25	9·1	8·2	287	31	10·6	8·8	279	31	6·0	2·1	101	31	5·0	1·2	154	31	3·9	1·6	264
3·0 ,,	6	7·8	7·6	265	18	8·4	7·7	284	28	11·9	10·6	281	30	5·5	1·9	130	31	4·9	2·0	162	30	4·2	1·3	276
4·0 ,,	1	19·5	19·5	256	11	11·0	10·4	277	27	14·6	13·7	280	19	4·7	1·4	159	31	5·1	1·7	95	29	4·9	2·9	303
5·0 ,,					5	12·2	12·2	277	22	17·5	16·6	277					30	6·9	4·9	284	27	7·0	5·2	286
6·0 ,,					3	11·7	11·6	289	19	21·2	20·2	277					29	9·4	8·2	281	23	9·3	7·6	273
7·5 ,,					2	12·3	11·7	318	8	25·3	23·6	279					19	12·2	11·1	291	18	13·4	11·5	276
9·0 ,,					1	5·5	5·5	325	3	22·5	22·3	280					7	23·3	20·9	281	14	17·5	15·2	285

Station	PORT BLAIR												RAIPUR											
Time in I.S.T.	0230				0730				1430				0230				0730				1430			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	1·4	0·7	332	31	1·3	0·9	33	31	2·3	1·9	76	31	2·3	0·6	278	31	1·6	0·1	158	31	2·0	1·5	277
0·15 a. g.	31	3·6	2·6	34	31	3·5	2·8	24	31	4·5	3·7	78	30	6·5	1·3	4	31	5·3	1·0	26	31	3·7	2·4	275
0·6 a. s. l.	31	3·7	2·8	57	30	4·3	3·4	60	31	4·2	3·1	61	30	6·8	1·8	344	31	6·5	0·4	20	31	3·7	2·6	275
1·0 ,,	30	4·3	2·9	66	29	4·7	3·7	70	31	3·6	2·6	45	30	6·3	2·8	290	31	6·4	1·9	288	31	4·2	3·1	269
1·5 ,,	30	5·6	4·0	79	29	6·1	5·9	79	31	3·9	3·2	55	30	5·8	4·1	286	31	6·5	3·8	284	31	4·5	3·6	274
2·0 ,,	26	5·9	5·0	90	28	6·0	5·1	82	29	5·2	4·4	74	30	6·7	5·1	279	31	7·0	5·7	282	30	5·9	5·0	276
2·5 ,,	16	6·1	5·4	89	26	6·2	5·1	87	29	6·1	5·3	80	29	7·4	5·8	289	31	8·3	7·0	287	30	7·7	6·6	283
3·0 ,,	13	6·3	5·5	93	26	6·1	4·8	88	29	6·3	5·0	84	28	8·3	6·5	290	31	9·4	7·8	285	31	9·5	8·3	289
4·0 ,,	4	5·1	4·9	109	24	5·5	4·5	77	29	4·5	3·3	63	12	7·9	6·6	282	29	9·8	8·8	298	31	10·5	9·2	293
5·0 ,,					23	6·3	4·8	78	28	5·4	3·1	79	5	7·0	6·6	287	23	9·9	8·7	296	31	11·6	10·1	284
6·0 ,,					20	6·6	3·2	67	28	6·6	2·1	76	3	10·7	7·2	271	20	12·3	10·8	283	29	14·2	12·7	287
7·5 ,,					15	7·6	3·5	260	24	7·4	3·8	250	2	7·3	6·1	243	10	13·4	12·3	271	21	17·4	15·8	282
9·0 ,,					9	9·8	6·2	261	23	9·7	7·5	248					7	17·9	16·7	271	16	23·2	22·4	274

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

March 1949

Station	SAHARSA												TEZPUR										
Time in I.S.T.	0730				1100				1430				0230				0730				1100		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface	31	1·8	0·2	253	31	1·9	0·3	290	31	2·9	2·5	274	31	2·3	2·1	57	31	2·2	1·9	67	31	2·1	1·6
0·15 a. g.	31	4·1	0·6	277	30	4·5	1·0	238	31	5·4	4·2	278	31	6·9	6·6	68	30	6·9	6·5	74	31	5·8	4·9
0·6 a. s. l.	31	6·3	2·0	296	30	4·6	1·3	267	31	6·8	5·3	276	31	6·6	5·6	92	30	7·7	5·9	96	30	5·8	3·8
1·0 ,,	30	6·4	3·6	291	29	6·0	3·0	280	31	7·3	5·8	275	31	5·7	3·1	148	30	6·1	2·0	118	29	5·1	1·4
1·5 ,,	29	7·6	5·8	282	24	7·9	5·2	276	30	7·9	6·5	274	29	5·9	4·5	235	29	6·2	3·6	234	28	6·3	4·6
2·0 ,,	27	8·8	7·5	282	18	11·8	9·9	281	30	10·3	8·8	278	28	8·7	7·7	254	27	7·1	5·0	240	20	6·8	5·8
2·5 ,,	21	8·0	7·0	283	13	12·1	10·2	276	29	12·4	11·1	283	27	10·6	9·3	254	23	8·2	6·7	246	15	8·6	7·1
3·0 ,,	20	9·7	9·2	283	8	11·7	9·7	276	29	14·6	13·6	285	22	10·9	8·7	250	21	10·7	9·4	254	13	9·8	8·4
4·0 ,,	13	12·6	11·9	284					24	17·6	17·4	288	17	15·0	9·3	259	13	11·5	11·2	263			
5·0 ,,	6	13·0	12·8	277					16	19·1	18·4	286					10	14·1	12·5	272			
6·0 ,,	4	13·4	12·9	273					10	18·5	18·1	292					8	15·0	11·7	277			
7·5 ,,	1	8·5	8·5	280					6	18·0	17·2	302					4	14·5	8·5	301			
9·0 ,,									2	16·7	16·2	304					1	17·5	17·5	310			

Station	TEZPUR				TRICHINOPOLY												TRIVANDRUM				UDAIPUR		
Time in I.S.T.	1430				0230				0730				1430				0730				0100		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface	31	1·9	0·9	68	31	1·4	0·9	62	31	1·0	0·8	17	31	2·8	2·6	76	31	1·0	0·8	32	31	0·4	0·3
0·15 a. g.	30	5·9	2·2	80	31	4·7	3·2	95	31	3·9	1·9	62	31	4·8	4·5	78	31	3·8	2·9	20	31	3·6	2·4
0·6 a. s. l.	30	5·0	0·6	62	31	6·8	4·9	113	31	5·1	2·7	116	31	4·9	4·6	91	31	3·7	1·7	355			
1·0 ,,	30	4·9	2·6	250	31	5·6	4·7	101	30	5·1	3·2	121	31	5·1	4·7	97	31	2·7	1·2	37	31	5·6	3·2
1·5 ,,	30	7·4	6·8	250	31	6·0	5·4	85	30	5·7	5·0	91	31	5·7	4·8	91	31	3·8	3·0	65	31	5·8	4·3
2·0 ,,	30	10·7	10·0	245	28	8·1	7·1	70	30	7·9	7·3	70	31	7·5	6·9	70	30	8·0	7·4	67	31	6·5	5·5
2·5 ,,	26	12·3	11·2	243	28	8·7	7·7	60	28	9·1	8·6	62	31	9·1	8·5	59	29	9·8	9·3	69	30	8·1	7·2
3·0 ,,	26	14·0	13·1	246	28	9·4	8·4	57	28	9·5	9·1	55	31	9·0	8·4	61	27	9·4	8·7	73	28	9·9	8·6
4·0 ,,	16	15·1	14·2	262	6	7·6	6·7	75	26	9·3	8·7	73	30	7·7	6·9	71	19	7·3	6·6	88	1	11·5	11·5
5·0 ,,	12	17·9	17·5	264					26	8·7	7·0	70	30	7·5	5·9	74	16	7·6	5·4	81			
6·0 ,,	8	17·8	16·8	269					25	7·5	4·4	63	29	8·0	5·4	63	12	9·1	2·3	50			
7·5 ,,	3	15·3	13·8	298					21	8·2	2·5	292	27	8·2	2·6	300	8	11·1	6·9	260			
9·0 ,,	1	12·0	12·0	325					16	12·2	9·5	260	21	11·9	7·9	273	6	13·7	9·6	249			

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

March 1949

Station	UDAIPUR								VENGURLA												VERAVAL			
Time in I.S.T.	0730				1430				0230				0730				1430				0230			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	0·2	0·2	293	31	2·5	1·2	272	31	0·4	0·4	360	31	0·7	0·3	77	31	4·6	4·2	241	31	4·7	4·5	325
0·15 a. g. .	31	3·1	2·4	326	31	4·5	2·8	265	31	3·8	2·3	6	31	3·5	1·6	78	31	4·1	3·7	250	31	9·1	8·3	330
0·6 a. s. l. .									31	5·5	4·2	350	31	5·0	1·5	24	31	3·2	0·9	214	31	7·7	6·5	329
1·0 „ .	31	4·6	2·5	335	31	5·0	3·2	267	31	7·7	6·4	342	29	6·9	4·1	2	30	5·5	0·9	44	31	5·8	3·5	325
1·5 „ .	31	5·5	3·8	302	31	4·8	3·8	265	29	5·7	3·6	2	29	6·7	3·0	31	29	4·2	2·0	68	30	5·1	2·9	301
2·0 „ .	31	7·3	5·9	282	31	4·9	4·1	265	29	4·9	3·2	84	29	5·0	2·4	57	28	5·3	3·7	86	29	5·2	3·3	273
2·5 „ .	31	9·7	7·9	277	31	6·2	5·7	268	26	6·6	5·3	106	24	5·3	3·7	87	28	5·0	3·7	87	24	5·6	4·1	258
3·0 „ .	29	10·3	8·9	267	30	8·8	8·0	271	21	7·2	6·1	100	27	5·2	4·1	101	28	5·3	3·5	71	22	6·3	5·2	251
4·0 „ .	22	11·1	9·9	266	30	13·7	12·8	275	1	6·0	6·0	50	23	4·6	1·9	51	28	4·8	2·4	30	7	5·8	5·2	209
5·0 „ .	10	9·7	7·3	267	26	16·0	15·5	280					23	5·1	2·3	334	27	5·7	1·4	326				
6·0 „ .	5	5·5	5·1	287	24	18·1	16·8	280					23	7·0	3·2	299	25	6·7	3·8	309				
7·5 „ .	1	5·0	5·0	341	12	18·3	16·2	272					12	12·2	9·7	286	20	10·6	7·8	301				
9·0 „ .					4	17·1	16·4	274					4	19·9	17·8	266	12	15·7	13·6	269				

Station	VERAVAL								VIZAGAPATAM												MINICOY			
Time in I.S.T.	0730				1430				0230				0730				1430				0230			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	3·3	2·9	340	31	6·6	6·0	267	31	0·9	0·9	234	31	0·8	0·7	222	31	4·6	4·3	179	31	1·3	0·9	325
0·15 a. g. .	31	8·4	7·7	344	31	7·9	7·1	264	31	4·5	4·3	238	31	3·4	2·8	239	31	5·6	5·2	190	31	2·8	1·6	20
0·6 a. s. l. .	31	7·4	6·2	340	31	5·0	3·7	314	29	6·1	5·6	248	31	4·8	4·2	241	31	4·3	2·3	200	31	2·6	0·9	342
1·0 „ .	31	6·0	4·7	329	31	4·3	3·5	342	38	5·8	4·7	249	31	4·5	3·1	242	31	3·9	2·1	207	29	3·8	2·5	101
1·5 „ .	31	5·7	3·9	291	31	5·2	3·4	322	28	5·0	2·7	259	30	4·2	1·8	241	31	3·2	0·6	249	25	7·4	7·0	95
2·0 „ .	31	6·8	4·9	271	31	6·1	4·6	296	27	4·2	1·2	315	30	4·1	1·8	348	31	4·6	1·9	342	20	9·6	9·3	83
2·5 „ .	31	7·2	5·2	260	31	7·2	5·9	280	22	4·2	2·1	352	29	5·0	3·0	352	31	5·9	4·1	340	14	8·6	8·3	84
3·0 „ .	31	7·0	5·2	253	31	7·5	5·9	268	18	4·7	3·6	346	28	5·9	4·6	7	31	7·0	6·0	342	9	5·7	5·5	90
4·0 „ .	27	7·4	4·9	259	31	8·5	6·9	270	11	5·6	3·5	320	27	7·0	4·6	347	30	7·0	5·9	336	2	3·3	2·1	210
5·0 „ .	20	7·5	6·0	272	31	10·0	8·9	270					24	6·3	4·5	323	30	7·7	5·6	306	2	4·0	2·3	262
6·0 „ .	15	10·3	9·0	269	30	11·7	10·7	274					20	9·1	6·5	295	29	10·2	8·1	292				
7·5 „ .	4	14·6	13·7	273	21	15·6	9·9	269					8	12·6	10·8	265	21	14·6	12·5	284				
9·0 „ .	1	13·0	13·0	245	11	19·1	17 9	277					3	17·2	16·3	275	10	19·9	18·5	271				

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

March 1949

Station	MINICOY																						
Time in I.S.T.	0730				1430																		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	31	1·4	1·0	347	31	2·3	2·1	332															
0·15 a. g. .	31	3·5	2·6	348	31	4·3	3·4	337															
0·6 a. s. l. .	31	3·3	2·4	358	31	3·9	2·7	349															
1·0 ,, .	30	4·2	2·7	62	31	3·5	2·5	54															
1·5 ,, .	29	7·1	6·9	86	27	6·8	5·7	75															
2·0 ,, .	26	9·3	9·1	83	20	8·7	8·3	78															
2·5 ,, .	24	10·0	9·7	80	16	9·6	9·0	80															
3·0 ,, .	22	8·9	8·5	82	12	8·2	7·0	86															
4·0 ,, .	19	6·9	5·9	82	10	7·0	5·2	70															
5·0 ,, .	15	7·5	5·8	84	8	8·6	6·2	74															
6·0 ,, .	11	10·1	6·6	68	5	8·5	3·3	3															
7·5 ,, .	3	7·0	5·6	350	4	12·1	5·6	326															
9·0 ,, .	2	4·0	3·8	336	3	11·7	3·2	195															

Station																							
Time in I.S.T.																							
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .																							
0·15 a. g. .																							
1·6 a. s. l. .																							
1·0 ,, .																							
1·5 ,, .																							
2 0 ,, .																							
2·5 ,, .																							
3·0 ,, .																							
4 0 ,, .																							
5 0 ,, .																							
6.0 ,, .																							
7·5 ,, .																							
9·0 ,, .																							

Table B.—Monthly Mean Directions and Velocities of Upper Winds

Winds at and above 10 Km. above sea-level

March 1949

Height (Km.)	n	V	v	D
AHMEDABAD				
10·0	3	12·8	12·7	252
11·0	1	9·0	9·0	290
AMBALA				
10·0	2	22·0	19·7	295
11·0	1	21·0	21·0	245
12·0	1	28·0	28·0	335
13·0	1	24·0	24·0	325
ANANTAPUR				
10·0	44	20·0	15·1	279
11·0	24	20·1	13·4	274
12·0	15	22·8	21·4	274
13·0	8	19·0	12·1	290
14·0	4	19·5	18·9	279
15·0	2	13·7	12·9	299
16·0	1	12·0	12·0	300
BANGALORE				
10·0	8	14·5	12·5	261
11·0	2	15·7	11·6	256
12·0	1	15·0	15·0	220
13·0	1	13·5	13·5	250
BAREILLY				
10·0	2	21·7	20·7	295
11·0	1	23·0	23·0	305
BHOPAL				
10·0	11	20·6	18·6	292
11·0	6	24·2	23·0	293
12·0	4	24·5	24·3	286
13·0	3	27·2	26·3	282
14·0	2	38·0	37·0	275
15·0	1	26·0	26·0	270
BHUJ				
10·0	10	19·7	17·5	262
11·0	1	16·0	16·0	280
12·0	1	16·0	16·0	275
13·0	1	27·0	27·0	274
BIKANER				
10·0	2	14·0	11·3	352
11·0	2	19·3	18·6	330
12·0	1	16·5	16·5	310
BOMBAY				
10·0	9	21·4	20·6	284
11·0	3	26·2	26·1	301
12·0	3	28·5	28·1	302
13·0	2	24·5	24·5	303
14·0	2	26·7	26·7	316
15·0	2	24·0	24·0	304
16·0	2	32·5	32·5	300
17·0	1	46·5	46·5	281
18·0	1	52·0	52·0	275
19·0	1	53·5	53·5	270
CALCUTTA				
10·0	1	15·0	15·0	320
11·0	1	16·0	16·0	340
COCHIN				
10·0	10	16·5	12·8	248
11·0	3	13·2	13·1	238
12·0	2	16·7	16·7	241
CUTTACK				
10·0	1	30·0	30·0	270
DEOLALI				
10·0	1	19·0	19·0	310
DIBRUGARH				
10·0	3	17·0	17·0	309
11·0	1	14·0	14·0	335
12·0	1	19·0	19·0	355
GADAG				
10·0	31	19·4	17·2	275
11·0	6	21·7	19·1	280
12·0	3	21·8	18·8	301
13·0	2	21·3	21·1	321
14·0	2	16·5	16·2	331
15·0	2	15·0	13·7	303
16·0	1	10·0	10·0	300
GOPALPUR				
10·0	7	23·1	21·9	272
11·0	4	33·7	33·3	260
12·0	2	34·5	33·8	264
HYDERABAD (Dn.)				
10·0	23	18·8	16·5	285
11·0	11	20·3	17·3	285
12·0	4	21·5	16·7	296
13·0	2	21·0	19·3	305
JAGDALPUR				
10·0	5	20·2	19·6	269
11·0	2	23·5	23·3	261
12·0	1	35·5	35·5	250
JAMNAGAR				
10·0	2	18·3	17·3	287
JAMSHEDPUR				
10·0	1	12·0	12·0	335
JHARSUGUDA				
10·0	6	20·1	18·0	287
11·0	1	41·0	41·0	265
12·0	1	42·5	42·5	265
JUBBULPUR				
10·0	7	18·2	16·8	276
11·0	6	20·2	18·4	282
12·0	4	21·2	19·9	280
13·0	3	25·8	25·0	286
14·0	3	33·8	32·4	281
15·0	3	40·3	40·0	277
16·0	2	46·5	46·3	280
MADHOSAGAR				
10·0	6	15·1	13·7	304
11·0	3	13·5	13·0	303
12·0	2	16·5	15·6	317
13·0	1	17·5	17·5	300
14·0	1	20·0	20·0	305
15·0	1	17·5	17·5	300
16·0	1	14·5	14·5	290
17·0	1	11·0	11·0	290
18·0	1	12·0	12·0	290
19·0	1	13·5	13·5	290
MADRAS				
10·0	20	16·4	14·8	262
11·0	14	17·1	15·2	262
12·0	10	20·3	19·1	264
13·0	8	17·3	16·3	275
14·0	7	16·3	15·3	282
15·0	5	16·4	13·7	279
16·0	2	13·5	13·3	288
17·0	1	13·5	13·5	295
MALEGAON				
10·0	20	23·4	21·4	282
11·0	9	24·8	23·6	271
12·0	2	29·5	29·0	288
13·0	2	35·0	34·5	279
14·0	2	33·7	33·7	272
15·0	1	50·0	50·0	275
16·0	1	63·5	63·5	265
MANGALORE				
10·0	9	14·6	10·4	275
11·0	1	7·0	7·0	320
12·0	1	7·0	7·0	320
13·0	1	4·4	4·5	270
MASULIPATAM				
10·0	15	13·2	11·8	272
11·0	3	31·0	30·6	263
12·0	2	32·3	32·1	262
NAGERCOIL				
10·0	42	10·3	3·3	248
11·0	21	9·3	1·7	272
12·0	19	11·0	3·0	284
13·0	16	12·6	3·4	285

Table B.—Monthly Mean Directions and Velocities of Upper Winds

Winds at and above 10 Km. above sea-level

March 1949

Height (Km.)	n	V	v	D
	NAGARCOIL—*contd.*			
14·0	15	12·3	4·2	250
15·0	13	11·1	3·6	244
16·0	9	8·9	3·5	200
17·0	7	10·6	5·8	195
18·0	7	8·7	4·7	191
19·0	5	6·5	3·1	272
20·0	5	12·9	7·0	54
21·0	5	13·2	3·6	76
22·0	4	18·3	1·7	252
23·0	4	13·0	1·6	66
24·0	4	9·1	4·5	52
25·0	4	11·5	8·2	55
26·0	1	15·0	15·0	110
27·0	1	8·0	8·0	90
	NAGPUR			
10·0	8	26·2	25·0	271
11·0	5	26·8	26·2	271
12·0	2	35·3	34·9	274
13·0	1	39·0	39·0	285
	NEW DELHI			
10·0	2	18·3	17·3	282
11·0	1	10·0	10·0	331
12·0	1	14·0	14·0	351
13·0	1	10·5	10·5	336
14·0	1	15·5	15·5	284
	POONA			
10·0	13	24·2	22·8	276
11·0	7	23·5	21·4	279
12·0	5	31·8	30·2	278
13.0	4	25·5	25·0	278
14·0	2	22·7	22·7	272
15·0	1	11·0	11·0	265
16·0	1	11·0	11·0	255
17·0	1	6·0	6·0	235
	PORT BLAIR			
10·0	22	12·6	10·5	36
11·0	14	11·5	10·5	234
12·0	10	13·3	12·3	250
13·0	6	12·3	10·8	257
14·0	6	12·2	9·3	265
15·0	5	7·1	6·2	255
16·0	4	5·7	2·7	253
17·0	4	4·1	2·9	207
18·0	4	5·0	2·7	247
19·0	1	5·5	5·5	160
20·0	1	3·0	3·0	305
21·0	1	12·5	12·5	155
22·0	1	11·0	11·0	125
23·0	1	8·0	8·0	190
24·0	1	17·5	17·5	155
25·0	1	11·0	11·0	180
26·0	1	15·0	15·0	230
27·0	1	29·0	29·0	225
28·0	1	37·0	37·0	185
29·0	1	31·0	31·0	200
30·0	1	27·5	27·5	175
31·0	1	35·0	35·0	170
	RAIPUR			
10·0	15	26·6	25·6	274
11·0	8	34·4	33·8	273
12·0	5	33·0	32·5	275
13·0	3	31·8	31·6	280
14·0	3	37·0	36·2	275
15·0	1	37·0	37·0	280
16·0	1	43·0	43·0	280
17·0	1	38·0	38·0	280
18·0	1	33·0	33·0	285
19·0	1	40·0	40·0	295
20·0	1	44·0	44·0	295
21·0	1	70·0	70·0	295
22·0	1	50·0	50·0	296
	TRICHINOPOLY			
10·0	31	13·2	8·7	256
11·0	6	16·2	11·4	277
12·0	2	21·3	21·3	263
13·0	1	28·0	28·0	275
14·0	1	23·5	23·5	275
	TRIVANDRUM			
10·0	5	14·5	14·2	241
	UDAIPUR			
10·0	1	16·5	16·5	290
11·0	1	22·0	22·0	275
	VENGURLA			
10·0	6	19·3	18·5	263
11·0	2	13·0	13·0	282
12·0	1	18·0	18·0	280
	VERAVAL			
10·0	5	16·7	15·9	301
	VIZAGAPATAM			
10·0	8	20·5	19·6	279
11·0	4	28·1	27·7	267
12·0	3	28·2	28·0	257
	MINICOY			
10·0	3	7·3	3·4	250
11·0	1	9·0	9·0	215

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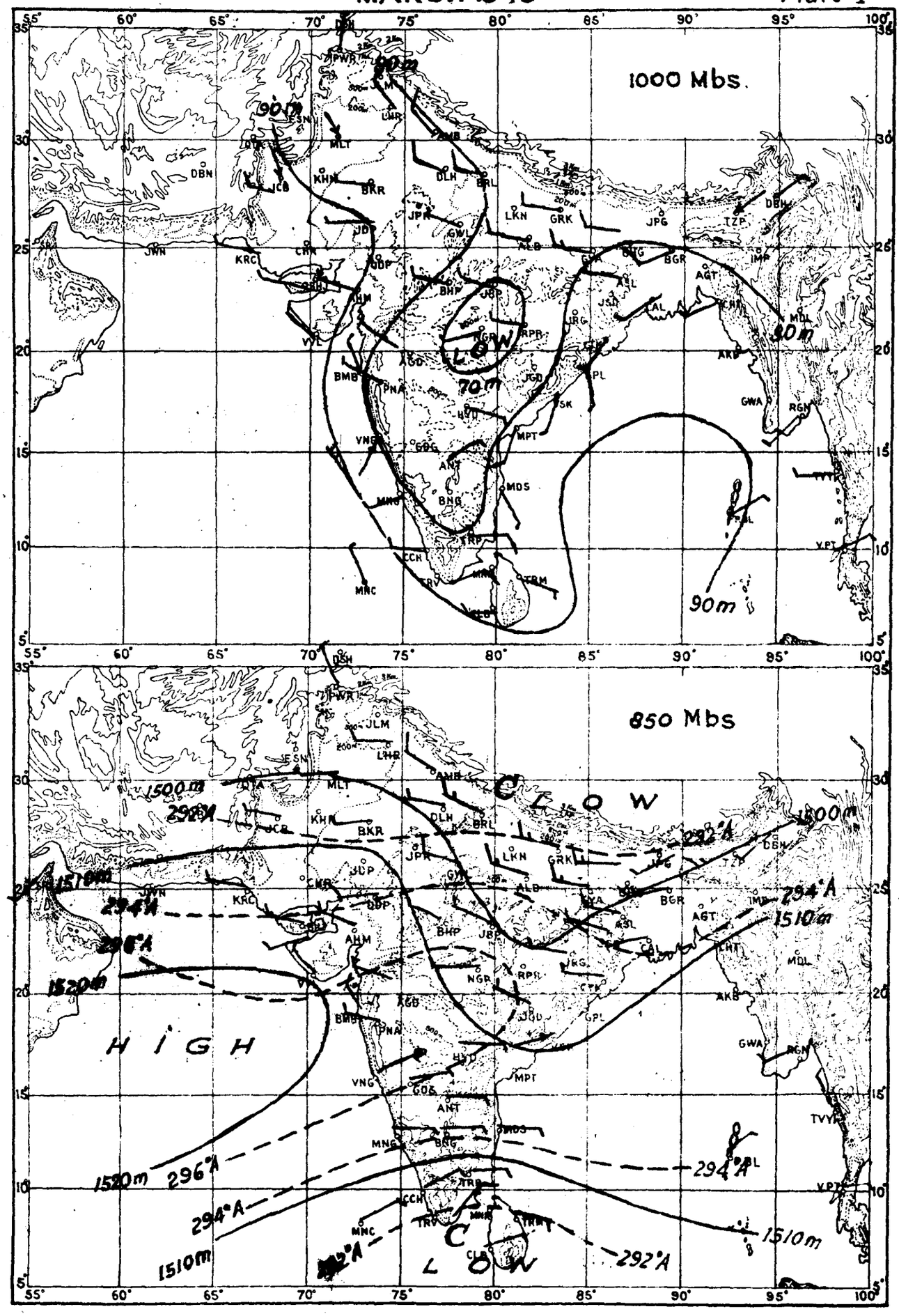
MONTHLY MEAN CONSTANT PRESSURE CHARTS.

MARCH 1949

Plate I



RESULTANT WIND —\= 5 Knots; —\= 10 Knots; —\= 50 Knots.

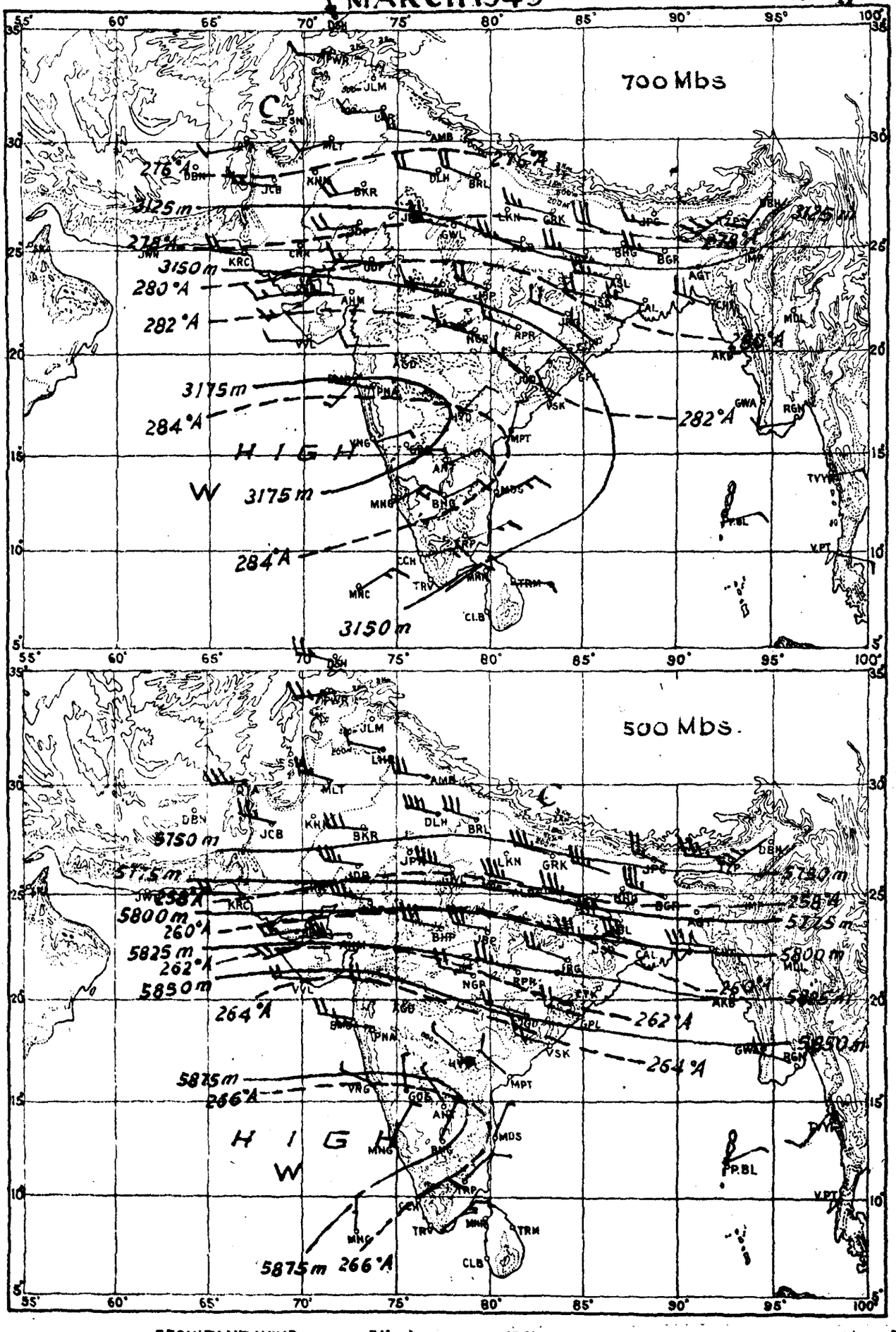
------ Isotherms in degrees absolute. ——— Contours in geopotential metres.

G.PZ.P.POONA,53.

MONTHLY MEAN CONSTANT PRESSURE CHARTS.

MARCH 1949

Plate II



RESULTANT WIND —\= 5 Knots, —\= 10 Knots, —\= 50 Knots.

------ Isotherms in degrees absolute. ——— Contours in geopotential metres.

S.PZ.P.POONA,33.

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INDIA WEATHER REVIEW, 1949
MONTHLY WEATHER REPORT
APRIL

Published by authority of the Government of India.

Chief features.—(i) A very large excess of thunderstorm-rain in northeast India and Eastern Pakistan, (ii) good thunderstorm activity in the Madras Presidency during the first fortnight and (iii) inactive western disturbances.

Four comparatively feeble western disturbances affected the country during the month. The third and the most active western disturbance caused widespread thundershowers in the North-West Frontier Province on the 9th and 10th and in and near the hills of the East Punjab and the west United Provinces on the 11th ; it was also responsible for local dust-storms in north Baluchistan, Sind and west Rajputana on the 9th and 10th. It induced a secondary over Madhya Bharat which, during the course of its eastward movement, stimulated thunderstorm activity in northeast India. Fuller details about the movement and activity of each of the western disturbances are given in the following table :—

Serial No.	Period.	Course.	Region.	Nature of precipitation.	Period.	Remarks.
1.	1st to 4th	From northeast Baluchistan northeastwards to Kashmir.	North-West Frontier Province.	Local showers	2nd to 4th	
			Baluchistan	Local showers	3rd, 4th	
			West Punjab	A few showers	3rd, 4th	
			Hills of East Punjab	A few showers	4th	
2.	4th to 6th	North Baluchistan to northeast Punjab hills across West Punjab.	Baluchistan	Local showers	4th to 6th	Induced a secondary trough of low pressure.
			North-West Frontier Province.	Local showers	5th, 6th	
			Sind, West Punjab	A few duststorms or thunderstorms.	5th	
2(*a*).	7th to 9th	Persisted as a trough of low pressure from west United Provinces to Chota Nagpur and north Orissa.	West Bengal	Widespread thundershowers	8th	Secondary induced by western disturbance No. 2.
			East Central Provinces	Local thundershowers	7th, 8th	
			West Bengal	Local thundershowers	9th	
3	9th to 12th	Baluchistan to East Punjab eastnortheastwards across north Rajputana and West Punjab.	Sind, Baluchistan	Local duststorms	9th, 10th	Induced a secondary over Madhya Bharat on the 11th.
			North-West Frontier Province.	Fairly widespread thundershowers.	9th, 10th	
			West Rajputana	Local duststorms	10th	
			Hills of East Punjab and of west United Provinces.	Fairly widespread showers	11th	
3(*a*).	11th to 13th	Madhya Bharat to Assam	Chota Nagpur, West Bengal	Widespread thundershowers	12 th	Secondary induced by western disturbance in No. 3 above.
			Assam	Widespread thundershowers	12th, 13th	
			Chota Nagpur	Local thundershowers	12th, 13th	
4.	18th to 20th	North-West Frontier Province and Kashmir.	Extreme north	A few very light showers	18th to 20th	Feeble.

Thunderstorm activity was very marked in northeast India and Eastern Pakistan throughout the month. During the first fortnight, the activity was stimulated by two secondaries of western disturbances. Thunderstorm-rain was local to widespread in Assam throughout the first week, widespread in West Bengal on the 8th and 12th, in Chota Nagpur on the 12th, and in Assam on the 12th and 13th. Thunderstorm activity continued to be very marked in Assam in the third week also. Thereafter, however, it slightly decreased in this province, the seat of maximum activity shifting to Eastern Pakistan and West Bengal. Widespread and locally heavy rain occurred in these two divisions on the 21st and 22nd and in Eastern Pakistan on the last three days of the month. Some exceptionally heavy falls of rain were also recorded in Eastern Pakistan during this period.

(95)
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WEATHER BUREAU

According to press reports, a very severe thunderstorm burst over the city of Patna on the 11th, uprooting trees and telegraph poles, blowing away the roofs of several houses, and plunging the city in darkness for several hours due to failure of the electric supply. A very severe thunderstorm is also reported to have passed over Shillong on the 20th bringing life in the city temporarily to a standstill. Buildings were damaged, telegraph, telephone and electric lines cut, and traffic dislocated by the thunderstorm, and many trees uprooted.

There were good thundershowers in the Madras Presidency on many days during the first fortnight and in Mysore and Hyderabad during the first two days of the month. The thunderstorm activity appreciably decreased thereafter and led to a deficient rainfall in these divisions during the rest of the month.

Weather was unsettled in the south Bay of Bengal from the 19th to 21st and a depression formed over this region with centre near Lat. 12°N. and Long. 90°E. on the morning of the 22nd. Moving northeastwards at first and northnortheastwards later, it intensified into a deep depression and crossed the Arakan coast near Sandoway by the morning of 24th.

In the absence of cooling due to thunderstorms and duststorms, day temperatures were appreciably higher than usual in Western Pakistan and northwest India on most of the days during the month. Days were also unusually hot in the central parts of the country and the north Deccan between the 13th and 20th and on the last four days of the month. On the other hand, in Assam, Eastern Pakistan, West Bengal and the adjoining areas the large number of thunderstorms led to unusually cool weather throughout the month.

The total rainfall during the month was in large excess in the Bay Islands, southeast Madras and northeast India outside Orissa, in moderate excess in Malabar and normal in Orissa, the west United Provinces and the north Madras coast. It was in moderate defect in the west Central Provinces, south Hyderabad, Mysore and the Madras Deccan and in large defect elsewhere. Averaged over the plains of India, the rainfall for the month was 26 per cent. in excess.

Both maximum and minimum temperatures were above normal in the west United Provinces, Madhya Bharat and Bhopal, Vindhya Pradesh and in northwest India outside Gujarat. The maximum temperatures alone were above normal in the west Central Provinces while the minimum temperatures alone were above normal in the east United Provinces, Gujarat and the east Central Provinces. Maximum temperatures were below normal in Assam, West Bengal and Bihar.

Relative humidity was in excess in northeast India outside Orissa, in the east United Provinces, Gujarat, Saurashtra and Cutch, Vindhya Pradesh, the Bombay Deccan, Mysore and the Madras Deccan and in defect in east Rajputana.

Cloud amount was in excess in the Bay Islands, northeast India outside Orissa, in Malabar and southeast, Madras and normal in Orissa, the Konkan, Mysore, the Madras Deccan and the north Madras coast. Elsewhere it was in defect.

Data from Kashmir are not available.

Table I contains the divisional and sub-divisional means of rainfall, temperatures, humidity and cloud amount for the 13 chief political divisions and the 26 sub-divisions. The stations whose observations are used for preparing these means are given in the subsequent tables.

The highest maximum temperature given for any station in the accompanying tables is that recorded within the 24 hours ending at 0830 hours I.S.T. of the date noted in the succeeding column ; similarly the heaviest fall in 24 hours for any station denotes the amount recorded during the 24 hours ending at 0830 hours I.S.T. of the date given in the succeeding column.

POONA 5 ;
The 24th October 1949.

S. BASU,
for *Director-General of Observatories.*

Table I.—Divisional and sub-divisional means—April 1949.

—	Rainfall.				Departure from normal of				
							0830 hrs. I. S. T.		
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Maximum temperature.	Minimum temperature.	Vapour pressure.	Relative humidity.	Cloud.
1	2	3	4	5	6	7	8	9	10
DIVISION.	"	"	"		°	°	mb	%	
ssam . .	12·23	7·57	+4·66	+62	—4·9	—1·0	—0·3	+7	+1·8
est Bengal .	6·26	1·73	+4·53	+262	—6·1	—1·2	+0·9	+11	+1·4
rissa . .	0·79	0·88	—0·09	—10	—1·3	+1·3	+0·6	0	+0·1
ihar . .	1·80	0·65	+1·15	+177	—3·5	0	+5·3	+20	+0·9
nited Provinces	0·25	0·31	—0·06	—19	+1·1	+3·4	+3·8	+10	—0·8
ast Punjab .	0·10	0·47	—0·37	—79	+4·9	+2·7	+0·5	—1	—1·1
ajputana .	0·02	0·18	—0·16	—89	+4·9	+3·7	+0·1	—3	—1·1
ombay (including aurashtra and utch)	0·10	0·44	—0·34	—77	+1·5	+1·5	+1·7	+6	—0·7
B-DIVISION									
ay Islands .	6·65	2·36	+4·29	+182	—1·4	+1·3	+1·1	+3	+2·0
ssam . .	12·23	7·57	+4·66	+62	—4·9	—1·0	—0·3	+7	+1·8
est Bengal .	6·26	1·73	+4·53	+262	—6·1	—1·2	+0·9	+11	+1·4
rissa . .	0·79	0·88	—0·09	—10	—1·3	+1·3	+0·6	0	+0·1
hota Nagpur .	2·58	0·76	+1·82	+239	—1·6	—0·8	+5·5	+19	+1·0
ihar . .	1·41	0·59	+0·82	+139	—4·9	+0·5	+5·2	+21	+0·8
nited Provinces, East.	0·12	0·28	—0·16	—57	0	+3·6	+5·1	+14	—0·7
nited Provinces, West.	0·38	0·35	+0·03	+9	+2·4	+3·1	+2·4	+5	—1·0
ast Punjab .	0·10	0·47	—0·37	—79	+4·9	+2·7	+0·5	—1	—1·1
ashmir . .	Data incomplete.								
ajputana, West	0	0·19	—0·19	—100	+5·7	+3·9	+2·0	+1	—1·3
ajputana, East	0·03	0·18	—0·15	—83	+4·1	+3·6	—1·9	—7	—1·1
ujarat . .	0	0·03	—0·03	—100	+1·4	+2·8	+2·3	+7	—0·6
aurashtra and Cutch.	0	0·04	—0·04	—100	+2·6	+2·2	+2·5	+8	—0·9

—	Rainfall.				Departure from normal of				
							0830 hrs. I. S. T.		
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Maximum temperature.	Minimum temperature.	Vapour pressure.	Relative humidity.	Cloud.
1	2	3	4	5	6	7	8	9	10
DIVISION.—*contd.*	"	"	"		°	°	mb	%	
9. Central India (including Madhya Bharat, Bhopal and Vindhya Pradesh).	0	0·24	—0·24	—100	+3·1	+3·0	+2·0	+3	—1·1
10. Central Provinces and Berar.	0·28	0·60	—0·32	—53	+1·7	+1·9	—0·1	—1	—0·9
11. Hyderabad .	0·29	0·77	—0·48	—62	+0·8	+0·8	+0·5	+3	—0·9
12. Mysore . .	1·42	2·13	—0·71	—33	—0·6	+0·6	+1·1	+8	+0·1
13. Madras . .	2·09	1·59	+0·50	+31	—0·3	+1·1	0	0	+0·4
Mean of India . .	1·23	0·98	+0·25	+26	+0·9	+1·7	+1·2	+4	—0·4
SUB-DIVISION —*contd.*									
15. Madhya Bharat and Bhopal.	0·01	0·19	—0·18	—95	+3·1	+3·5	—1·1	—3	—0·9
16. Vindhya Pradesh	0	0·30	—0·30	—100	+2·9	+2·3	+6·1	+13	—1·3
17. Berar . .	0	0·27	—0·27	—100	+1·5	+1·7	+1·9	+5	—1·0
18. Central Provinces, West.	0·21	0·33	—0·12	—36	+2·3	+1·8	—0·3	—2	—0·7
19. Central Provinces, East.	0·46	1·07	—0·61	—57	+1·1	+2·1	—0·5	—1	—1·0
20. Konkan . .	0	0·53	—0·53	—100	+0·8	+0·8	+1·5	—1	—0·4
21. Bombay Deccan	0·23	0·80	—0·57	—71	+1·0	+0·7	+1·0	+7	—0·7
22. Hyderabad, North	0·09	0·65	—0·56	—86	+1·0	+1·3	+0·3	+1	—1·2
23. Hyderabad, South	0·50	0·89	—0·39	—44	+0·7	+0·5	+0·7	+3	—0·7
24. Mysore . .	1·42	2·13	—0·71	—33	—0·6	+0·6	+1·1	+8	+0·1
25. Malabar . .	4·91	3·65	+1·26	+34	+0·2	+0·9	+0·1	—1	+0·9
26. Madras South-east	2·38	1·52	+0·86	+57	—0·1	+1·4	—0·8	—1	+0·8
27. Madras Deccan .	0·44	0·83	—0·39	—47	0	+0·9	+2·5	+7	—0·[illegible]
28. Madras Coast, North	0·62	0·66	—0·04	—6	—1·1	+0·8	—0·2	0	—0·3

Table II.—Abstract of observations recorded at 0830 hrs. I. S. T. (0300

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature. °F				Minimum temperature. °F				Dry bulb temperature. °F		Wet bulb temperature. °F		Vapour pressure, millibars.			Relative humidity %
		Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I. S. T.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
BAY ISLANDS.																				
Port Blair	261	1002·3	+0·3	999·5	87·7	—1·4	91	4 days	76·0	+1·3	73	7, 23	84·5	81·3	78·4	76·5	30·5	+1·1	28·7	76
ASSAM.																				
Dibrugarh	348	1000·4	+1·4	996·3	78·3	—2·7	90	11	64·8	—1·0	62	1, 6, 16	71·4	74·3	67·5	69·5	21·1	—0·6	22·2	82
Sibsagar	317	1001·5	+1·8	997·6	78·4	—3·2	89	11	65·7	—0·3	63	4 days	72·3	74·7	68·8	70·2	22·5	0	23·1	84
Tezpur	258	1003·3	+1·5	999·1	80·4	—4·7	91	11	66·9	—1·0	64	1, 4, 5	71·1	76·8	68·1	70·6	22·	+0·2	23·0	86
Gauhati	182	1005·4	+1·8	1000·9	81·0	—6·6	91	11	67·4	—0·5	64	2,15	72·7	77·3	68·8	70·5	22·2	—0·2	22·3	82
Dhubri	115	1006·7	+1·2	1002·2	81·2	—7·0	91	11	68·6	—1·5	60	21	73·4	78·4	70·0	72·5	23·4	+0·7	24·5	83
Silchar	96	1008·4	+0·8	1004·4	84·0	—4·0	94	3, 4	68·1	—0·7	64	17	74·8	77·5	70·0	71·3	22·6	—1·7	23·7	78
WEST BENGAL.																				
Dum Dum	33	1007·8	..	1003·6	91·3	..	95	4, 17	74·8	..	66	8, 22	82·6	85·5	76·6	77·7	28·6	..	28·6	75
Calcutta	21	1008·1	+0·3	1004·0	91·7	—5·1	96	4, 17	75·8	+0·3	68	8	83·5	85·6	77·3	77·5	25·7	—3·1	28·9	74
Saugor Island	10	1008·6	+0·2	1004·8	86·5	—3·2	88	5 days	77·7	—1·7	67	8, 22	83·3	83·8	78·1	78·1	30·8	0	30·6	76
Sandheads (R)	28	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Midnapore	149	1003·1	—0·1	998·4	95·8	—5·1	103	8, 19	74·0	—2·2	64	22	82·5	89·1	75·8	77·7	27·7	+1·8	27·5	73
Contai	35	1007·4	..	1003·6	88·3	..	92	17	74·2	..	67	22	84·1	83·8	79·0	79·1	31·7	..	32·1	79
Burdwan	106	1004·6	+0·1	1000·2	93·0	—6·7	100	8, 19	73·8	—1·2	67	22	79·9	87·9	74·8	76·0	27·4	+1·2	25·2	78
Krishnagar	48	1006·8	+0·2	1002·6	93·5	—5·4	101	19	72·3	—1·9	66	6	81·1	86·9	75·6	77·4	27·8	+1·0	27·8	77
Asansol	414	993·8	+0·1	989·5	95·0	—6·8	102	4 days	73·1	—1·1	66	22	80·9	88·2	74·6	74·8	26·1	+5·4	23·2	73
Berhampore	62	1006·8	+0·6	1002·3	92·7	—6·3	102	1	72·0	—2·0	66	21, 22	79·6	86·6	73·7	75·6	25·5	+0·5	25·2	74
Malda	103	1005·7	+1·2	1001·2	88·5	—9·0	94	4 days	70·0	—1·3	61	22	77·0	84·3	71·7	74·2	23·9	+1·3	24·3	77
Cooch Behar	145	1006·1	..	1001·6	..	..	..	..	..	..	..	..	74·3	80·2	69·3	71·9	22·2	..	22·7	77
Jalpaiguri	271	1001·1	+1·3	996·7	82·6	—6·9	90	11	68·6	+0·5	62	21	73·0	80·4	68·4	71·9	21·8	—0·3	22·9	79
ORISSA.																				
Balasore	65	1006·3	+0·1	1002·1	95·2	—1·8	103	17,19,21	76·3	+0·3	68	22	84·5	86·5	77·3	78·0	29·0	+1·2	28·8	71
Chandbali	20	1008·5	+0·1	1004·2	95·3	—3·3	105	17	77·5	+0·8	68	23	84·9	86·7	77·3	77·3	28·7	—0·7	27·6	70
Puri	20	1008·7	+0·3	1004·8	87·5	—0·2	92	21, 22	80·5	+1·4	70	23	84·3	83·6	78·7	79·6	31·1	—0·4	32·7	77
Gopalpur	56	1007·2	+0·2	1003·2	88·3	+0·1	92	25	79·6	+2·5	76	1, 4	84·1	83·1	78·8	79·7	30·9	+0·8	32·9	78
Cuttack	87	1005·8	—0·3	1001·2	98·2	—3·0	106	17	78·5	+1·0	70	23	84·4	89·8	76·6	76·3	27·9	—0·7	24·8	68
Angul	455	993·1	0	988·1	100·0	—2·0	110	19, 29, 30	76·4	+1·0	69	9, 23	83·1	93·9	74·5	73·6	25·4	+1·3	18·8	65
Sambalpur	486	991·5	—0·4	985·7	103·8	+0·8	113	30	76·2	+1·3	67	4	87·1	100·5	74·1	72·1	22·9	+3·1	13·9	52
CHOTA NAGPUR.																				
Jamshedpur	423	993·7	—0·2	988·4	98·3	—3·7	107	29	74·3	+0·5	66	23	82·3	90·7	73·1	72·6	24·0	+5·2	19·3	63
Chaibasa	742	982·6	—0·2	977·6	100·2	—1·9	109	20	74·3	—0·4	65	23	81·5	92·9	73·8	76·1	25·3	+4·2	22·8	69
Ranchi	2,150	935·5	—0·6	932·1	95·0	—0·7	104	30	68·3	—3·0	59	23	78·9	86·2	68·4	67·8	19·4	+5·7	15·7	59
Hazaribagh	2,006	940·1	—1·0	936·4	95·3	—1·9	102	28, 30	69·3	—2·5	60	23	80·3	87·4	68·8	66·2	19·3	+6·5	13·6	56
Daltonganj	725	982·3	—1·0	977·2	101·8	+0·1	109	20, 28, 29	71·6	+1·6	63	6	85·4	95·5	71·9	73·0	20·6	+5·9	17·6	50
Dhanbad	839	979·4	..	..	95·8	..	103	3, 29	71·9	..	63	2	80·7	..	72·2	..	23·1	..	..	65
BIHAR.																				
Purnea	124	1005·3	+1·4	1000·4	89·5	—6·8	98	11, 12	69·2	0	62	21	76·4	84·8	70·4	73·6	22·7	+1·9	23·5	74
Saharsa	156	1002·9	..	998·7	89·4	..	97	9	69·9	..	63	21	78·3	86·1	71·5	73·9	23·0	..	23·2	70
Darbhanga	161	1003·8	+1·5	998·5	90·9	—6·1	98	2	70·9	+1·1	66	15	80·1	87·0	71·9	75·1	23·3	+2·4	24·2	66
Motihari	218	1001·0	+1·1	996·2	93·2	—3·8	98	3, 21, 22	70·9	+3·2	65	5	81·1	85·9	72·3	74·5	22·8	+3·0	23·8	64
Patna	178	1001·8	+0·2	997·3	94·6	—4·3	102	2	73·4	—0·1	68	15	80·5	90·0	72·9	75·3	24·4	+6·9	23·6	69
Dehri	352	994·3	..	989·6	100·9	..	108	28	75·6	..	71	15	81·9	96·0	72·0	77·3	22·2	..	23·8	61
Gaya	365	994·1	—1·9	989·8	100·7	—1·2	107	28	74·8	+2·1	68	15	85·0	94·8	73·2	74·4	22·8	+11·7	19·7	55
Naya Dumka	480	991·6	+0·2	987·2	94·3	—5·6	101	1	70·0	—3·8	65	8, 9, 22	79·1	87·8	71·2	73·4	22·4	+2·8	21·4	66
Sabour	122	1004·3	+0·7	999·3	92·7	—6·5	99	2,3	70·4	+0·8	64	21	79·4	87·8	72·7	75·3	24·8	+7·8	24·3	72

R = Register not received.

M. T.) and 1730 hrs. I. S. T. (1200 hrs. G. M. T.) April 1949.

...ud amount. (oktas).			Rainfall. inches.				Number of rainy days. (0·10″ or more.)		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																		STATION.
											0830 hrs. I. S. T.									1730 hrs. I. S. T.									
... from Departure normal.	1730 hrs. I. S. T. Mean		Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																													BAY ISLANDS.
7	+2·0	5·8	6·55	+4·19	1·26	7	13	+7·9	6·6	+0·7	0	8	6	5	3	3	4	0	1	0	8	6	3	3	1	6	6	3	Port Blair.
																													ASSAM.
·3	+2·2	6·7	10·61	+1·12	1·70	20	16	+2·4	1·6	0	8	9	10	0	0	0	1	2	0	0	9	3	0	0	0	0	1	17	Dibrugarh.
·0	+1·0	6·3	9·51	—0·61	2·41	28	16	+1·9	3·5	+1·8	5	14	2	3	1	2	0	2	1	10	11	1	1	1	0	0	2	4	Sibsagar.
·2	+2·1	4·9	13·03	+7·02	1·72	1	17	+6·3	4·3	+0·1	0	5	19	5	0	0	0	0	1	0	1	16	1	0	0	2	0	10	Tezpur.
·0	+2·2	5·0	11·59	+5·88	1·69	20	15	+5·0	3·7	+1·7	3	9	9	3	1	2	0	2	1	0	10	8	0	3	2	2	0	5	Gauhati.
·3	+0·5	2·7	10·74	+5·32	2·94	21	13	+4·9	7·9	+1·6	3	8	18	0	0	0	0	0	1	1	11	8	1	3	2	1	0	3	Dhubri.
·4	+2·2	5·3	21·02	+5·85	5·22	20	17	+2·7	1·8	—0·4	1	10	5	7	0	1	0	0	6	0	2	1	1	0	0	1	0	25	Silchar.
																													WEST BENGAL.
·4	..	4·2	7·22	..	1·86	22	8	..	11·8	..	1	2	2	0	15	9	0	0	1	1	0	3	5	13	7	0	1	0	Dum Dum.
·6	+1·6	4·4	6·00	+4·25	1·76	22	8	+5·0	5·3	+0·4	1	1	1	2	14	9	0	0	2	0	0	1	2	15	10	0	0	2	Calcutta.
·8	+0·4	4·4	5·84	+4·67	2·87	8	4	+1·9	20·6	+6·9	1	0	0	2	12	15	0	0	6	0	0	0	7	16	7	0	0	0	Saugor Island.
.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Sandheads (R).
·2	+1·1	3·5	9·03	+7·33	3·08	22	6	+2·0	6·8	+3·1	0	1	1	1	14	12	0	0	1	0	0	0	2	24	2	1	0	1	Midnapore.
·7	..	3·9	4·64	..	2·23	22	8	..	14·9	..	1	0	0	0	27	2	0	0	0	0	0	0	0	28	1	1	0	0	Contai.
·8	—0·1	3·0	6·47	+4·53	1·92	8	11	+7·8	7·1	+4·1	2	1	3	2	10	11	0	0	1	0	1	6	6	8	4	1	1	0	Burdwan.
·8	+2·0	4·0	6·13	+3·85	1·88	22	10	+6·3	7·4	+2·3	0	2	1	7	13	4	0	0	3	1	2	4	10	6	2	0	0	5	Krishnagar.
·9	+0·7	4·0	2·83	+2·00	1·33	14	7	+5·2	5·3	+0·4	1	1	4	10	7	2	1	0	4	2	1	2	10	3	2	1	0	9	Asansol.
·0	+1·8	4·2	3·05	+1·57	1·25	26	6	+3·3	4·2	+0·7	1	0	12	1	14	0	0	1	1	5	0	8	4	0	0	1	0	3	Berhampore.
·6	+2·7	3·8	3·60	+2·42	1·89	6	8	+6·0	5·5	+0·5	1	6	14	5	3	1	0	0	0	1	7	11	3	4	1	0	0	3	Malda.
·8	..	3·2	17·18	+11·53	3·28	12	16	+8·7	4·8	..	0	9	17	0	0	0	0	0	4	1	4	10	5	1	1	0	0	8	Cooch Behar.
·2	+2·6	3·9	13·43	+9·74	3·88	12	11	+5·5	6·6	+4·2	3	5	20	1	0	0	0	0	1	2	8	17	1	1	1	0	0	0	Jalpaiguri.
																													ORISSA.
·8	+2·2	3·9	4·06	+2·31	1·56	22	5	+1·5	9·1	+3·7	0	1	0	2	14	12	0	0	1	0	0	0	10	17	2	0	0	1	Balasore.
·0	—0·2	2·3	1·72	+0·28	0·90	22	3	+0·1	11·0	+2·3	1	0	1	1	10	6	0	1	1	0	0	1	7	22	0	0	0	0	Chandbali.
·6	+0·4	4·9	0·61	+0·03	0·35	23	2	+1·0	18·1	+5·6	1	0	0	3	5	20	1	0	0	0	0	0	2	10	18	0	0	0	Puri.
·5	+0·9	4·5	0·46	—0·24	0·33	11	1	—0·4	19·5	+7·1	2	0	0	1	11	13	0	0	3	0	0	0	1	17	12	0	0	0	Gopalpur.
·4	+0·3	4·2	0·83	—0·24	0·50	23	2	+0·3	6·8	+3·2	0	1	0	1	9	9	1	0	9	0	0	0	1	14	12	0	1	2	Cuttack.
·0	—0·8	3·1	(f) 1·34	..	..	..	(f) 3	..	7·0	+2·3	5	5	5	6	3	0	3	1	2	0	0	3	10	5	5	5	2	0	Angul.
·7	—0·2	3·0	0·33	—0·26	0·23	12	2	+0·4	4·9	+2·0	0	1	1	5	9	8	2	2	2	0	2	2	1	5	5	6	9	0	Sambalpur.
																													CHOTA NAGPUR.
·0	+0·2	4·2	4·71	+3·81	1·51	22	8	+5·9	5·3	+2·0	0	0	3	2	0	5	11	6	3	1	6	4	8	2	3	1	3	2	Jamshedpur.
·8	+4·0	6·4	4·48	+3·42	1·63	23	7	+4·8	2·9	+0·4	0	2	0	2	0	20	1	0	5	1	6	2	4	2	6	3	1	5	Chaibasa.
·3	—0·5	2·3	2·10	+1·21	0·85	14	4	+1·6	4·9	0	0	0	0	0	11	4	2	0	13	1	0	0	0	2	4	1	0	22	Ranchi.
·6	+1·8	5·0	1·43	+0·88	0·37	22	5	+3·5	6·9	+0·4	0	1	1	2	11	11	2	0	2	3	2	2	4	2	3	1	12	1	Hazaribagh.
·6	—0·7	2·3	0·20	—0·21	0·14	14	1	+0·2	4·3	+0·8	1	3	9	5	0	1	1	2	8	8	2	2	0	1	1	2	11	3	Daltonganj.
..	..	..	2·28	..	1·12	12	4	..	6·0	..	0	2	8	5	2	8	3	0	2	..	..	..	..	..	..	..	..	..	Dhanbad.
																													BIHAR.
·8	+1·9	2·2	4·61	+3·33	1·35	21	10	+8·2	5·5	+2·1	1	5	17	5	1	0	0	0	1	0	5	13	1	0	0	0	0	11	Purnea.
·9	..	1·7	2·46	..	1·27	21	4	..	6·9	..	0	8	21	1	0	0	0	0	0	0	4	17	1	0	0	0	0	8	Saharsa.
·1	+0·7	1·9	3·62	+2·94	1·88	12	6	+4·7	5·9	+2·1	1	6	23	0	0	0	0	0	0	0	3	21	2	0	0	0	0	4	Darbhanga.
·8	+0·7	1·5	1·18	+0·36	0·78	27	3	+1·6	4·7	+0·8	0	0	22	2	0	0	0	0	6	0	0	9	1	0	0	1	0	19	Motihari.
·4	+0·7	1·0	0·77	+0·50	0·61	12	2	+1·4	6·5	+2·2	0	8	18	2	0	0	1	0	1	0	13	11	0	0	0	1	3	2	Patna.
·3	..	1·3	0·23	0	0·23	12	1	+0·4	4·5	..	1	11	1	6	2	8	0	0	1	0	14	1	0	2	1	0	10	2	Dehri.
·8	—0·5	1·7	0·08	—0·16	0·07	15	0	—0·6	7·5	+1·7	0	6	8	3	6	4	3	0	0	8	7	1	2	2	1	3	6	0	Gaya.
·7	+1·1	3·4	1·18	+0·34	0·53	20	4	+2·1	5·0	+2·4	1	5	9	9	1	4	0	1	0	2	4	9	9	1	2	1	1	1	Naya Dumka.
·8	+1·9	3·0	1·53	+0·81	0·50	12	5	+3·7	7·0	+1·0	0	3	21	3	3	0	0	0	0	2	3	14	4	4	1	0	2	0	Sabour.

(f) Total of 25 days.

Table II.—Abstract of observations recorded at 0830 hrs. I. S. T. (0300

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature. °F				Minimum temperature. °F				Dry bulb temperature. °F		Wet bulb temperature. °F		Vapour pressure, millibars.			Relat hum %	
		Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I. S. T.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Departure
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
U. P., East.																					
Gonda	360	995·2	..	990·4	98·0	—1·8	103	21	73·1	+4·6	63	1,2	81·1	96·6	69·8	72·3	19·9	+7·6	16·1	56	-2
Gorakhpur	254	998·7	—0·1	994·1	97·1	—2·2	102	21	73·7	+2·4	65	15	81·9	94·1	71·1	73·1	18·2	+0·9	21·2	55	+
Banaras	250	996·3	—2·6	993·2	101·5	—0·3	108	29	74·0	+2·4	66	2	84·0	98·7	71·4	71·9	20·7	+5·0	14·6	52	+1
Allahabad (Bamrauli)	322	995·1	—1·5	991·2	102·9	+0·3	110	28,29	75·3	+3·9	68	15	85·1	100·9	70·0	70·4	18·3	+5·1	11·7	45	+1
Fatehpur	375	993·6	..	989·3	102·2	+1·2	109	4 days	75·3	+5·4	67	2,15	85·1	101·3	69·0	70·3	17·0	+1·5	11·3	41	+
Kanpur	414	992·3	—0·9	987·9	103·1	+3·7	110	28,29,30	74·6	+4·0	66	2,15	84·2	100·8	69·8	72·8	18·1	+5·7	15·0	42	+
Lucknow	371	993·5	—1·1	989·6	101·3	—0·1	107	28,29	73·4	+2·6	65	1,2	82·0	98·0	69·6	72·7	19·0	+4·5	16·1	50	+1
Bahraich	407	993·7	+0·5	988·9	97·8	—1·1	102	1	72·3	+3·5	60	1	82·0	94·9	75·2	80·3	26·8	+10·5	28·9	72	+2
U. P., West.																					
Jhansi	823	978·6	—1·7	974·6	106·2	+3·6	112	29	77·4	+5·2	68	14	88·4	103·7	71·6	79·1	18·2	+5·9	23·2	42	+:
Agra	553	987·4	—1·4	984·5	103·3	+3·3	112	30	73·2	+3·6	66	2	88·5	101·9	65·0	68·5	10·5	—0·2	7·9	31	+
Mainpuri	516	988·7	—1·1	983·8	104·2	+0·3	112	29	71·0	+1·8	60	18	84·9	100·5	67·5	70·5	15·1	+1·9	11·9	39	+
Aligarh	615	985·3	..	981·5	102·2	+5·6	111	29, 30	71·4	+3·3	64	1	83·3	100·3	65·3	67·3	13·2	+2·2	7·9	34	+
Bareilly	568	987·1	—0·6	982·7	98·7	+0·9	105	30	71·5	+2·7	64	1	82·5	95·4	68·2	70·7	17·0	+1·6	13·7	45	+
Meerut	728	981·3	..	..	100·4	..	108	29	67·6	..	63	2	78·7	..	67·2	..	17·6	..	..	53	.
Rurkee	899	975·5	—1·2	971·6	96·9	+1·2	107	29	67·4	+2·4	58	1	78·3	94·5	66·4	70·2	16·6	+3·9	14·4	51	+
Dehra Dun	2,239	931·7	—0·5	929·1	91·7	+2·0	102	29	64·8	+2·3	55	12	79·6	88·2	63·7	66·6	13·6	+1·6	13·6	44	
East Punjab.																					
New Delhi	714	981·5	—1·8	977·7	100·5	+3·9	110	30	71·4	+3·7	66	1, 22	82·2	98·7	63·4	67·1	11·1	—0·9	8·5	31	-
Hissar	725	981·4	—1·6	977·8	104·0	+6·2	114	30	68·5	+1·8	59	1	77·1	101·5	62·5	71·1	12·8	—0·2	11·7	41	
Patiala	822	977·8	..	974·4	99·3	..	109	29, 30	68·2	..	61	19, 22	80·0	96·0	68·7	73·5	19·0	..	18·0	56	.
Ambala	892	975·4	—1·3	972·7	100·8	+4·8	111	29, 30	70·3	+3·9	65	1	78·7	97·2	64·7	68·0	14·6	+2·0	10·4	43	-
Ludhiana	810	978·1	—1·5	975·3	100·5	+4·8	113	29	67·8	+1·3	60	5, 15	80·5	97·6	65·0	69·6	14·1	+0·9	12·0	42	-
Amritsar	756	979·8	..	977·1	98·4	..	110	29, 30	64·0	..	55	1	78·0	95·7	65·6	70·6	15·8	..	13·9	50	.
Kashmir.																					
Srinagar	5,205	843·0	+0·6	839·7	69·5	+1·7	84	30	47·4	+2·8	41	14	55·5	68·7	50·6	56·1	10·5	—0·2	10·4	73	—
Gulmarg	8,709	Closed during winter months.																			
Dras (R)	10,059	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.
Leh	11,529	668·9	+2·1	665·9	55·8	+0·4	65	29, 30	31·2	+0·9	25	12	40·3	50·5	31·1	35·3	3·2	—1·1	2·5	38	—
Skardu (R)	7,505	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Gilgit (R)	4,890	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Misgar (R)	10,190	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Rajputana West.																					
Sri Ganganagar	580	984·4	..	982·4	100·6	+5·2	111	29, 30	65·8	+3·8	53	12	76·5	98·4	62·1	68·3	12·4	+0·8	10·2	41	.
Bikaner	734	981·3	—1·1	977·8	104·5	+4·3	111	28, 29	72·2	+1·8	54	13	81·6	103·3	65·4	76·8	14·0	+5·2	19·4	39	+
Phalodi	794	980·3	..	977·7	104·8	..	111	5 days	73·7	..	64	13	82·1	103·5	68·7	81·5	17·9	..	26·7	49	
Jaisalmer	793	979·7	..	976·2	104·8	..	111	29, 30	72·6	..	63	1	80·8	102·1	69·2	79·5	19·4	..	24·1	54	
Jodhpur	736	982·4	—0·4	978·3	105·2	+5·8	111	18, 27	75·2	+4·4	65	13, 15, 22	83·2	103·6	63·8	70·4	11·4	+0·7	10·1	30	
Barmer	638	985·4	—1·1	981·7	107·7	+7·4	114	24	79·7	+5·4	65	11	86·3	105·5	71·8	78·1	20·1	+1·4	20·3	48	
Rajputana, East.																					
Sikar	1,406	959·1	..	955·7	102·7	..	111	30	69·6	..	56	13	83·6	100·1	61·9	66·9	9·0	..	7·5	23	
Jaipur	1,431	958·9	—1·3	955·4	102·5	+4·3	110	30	71·4	+2·6	61	13	85·6	99·8	61·5	64·9	7·8	—2·6	5·2	19	-
Ajmer	1,593	953·8	—1·2	950·5	101·5	+3·8	107	28, 30	75·2	+3·7	62	13, 14	84·5	99·2	64·8	68·5	12·7	+0·1	11·2	32	
Kotah	843	978·6	+0·9	974·5	105·9	+4·2	113	30	79·5	+3·7	71	13, 14, 15	89·3	103·6	63·7	67·2	8·7	—1·9	6·1	19	
Jhalawar	1,053	971·2	—1·9	966·8	104·6	+4·1	111	29	74·4	+4·3	64	15	85·4	103·1	61·6	65·5	8·1	—3·0	4·5	20	
Rajsamand	1,850	945·5	..	..	99·1	..	106	30	76·6	..	68	14	84·2	..	66·8	..	15·2	..	..	39	
Udaipur	1,910	944·4	..	940·9	100·1	..	105	29	72·1	..	63	14	86·1	97·7	64·8	68·5	12·0	..	12·0	29	

R = Register not received.

M. T.) and 1730 hrs. I. S. T. (1200 hrs. G.M.T) April 1949—*contd.*

ud amount. (oktas).			Rainfall. inches.				Number of rainy days. (0·10" or more.)		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																			STATION.
											0830 hrs. I. S. T.									1730 hrs. I. S. T.										
from Departure normal.	Mean 1730 hrs. I. S. T.		the Total of month.	from Departure normal.	Heaviest fall in 24 hours.	Date.	the Total in month.	from Departure normal.	Mean.	from Departure normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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
																														U. P., East.
—0·9	0·5		0·25	—0·10	0·25	21	1	+0·9	4·7	—0·1	0	0	23	0	0	0	0	2	0	0	3	14	0	0	0	7	4	2		Gonda.
+0·3	1·0		0·12	—0·25	0·12	21	1	+0·3	3·9	+1·1	0	11	18	1	0	0	0	0	0	0	1	18	1	0	0	8	0	2		Gorakhpur.
—0·8	0·5		0·01	—0·19	0·01	12	0	—0·4	6·8	+3·5	3	5	12	4	2	2	2	0	0	8	7	0	0	0	1	6	8	0		Banaras.
—1·0	0·5		0	—0·17	0	..	0	—0·4	4·2	+0·1	1	3	10	2	2	2	5	1	4	7	4	1	0	0	0	5	10	3		Allahabad (Bamrauli).
—0·8	0·4		0	—0·33	0	..	0	—0·6	4·7	+1·2	0	2	8	3	1	1	4	3	8	0	1	0	0	0	0	4	14	11		Fatehpur.
—0·1	0·3		0	—0·22	0	..	0	—0·6	6·6	—0·7	2	2	9	5	1	3	5	1	2	6	2	0	1	0	1	3	16	1		Kanpur.
—1·0	0·7		0	—0·25	0	..	0	—0·6	3·4	+1·0	2	2	17	1	3	1	1	1	2	1	1	6	0	0	0	8	5	9		Lucknow.
—0·9	0·4		0·55	+0·23	0·47	21	1	+0·4	5·8	+2·4	0	1	14	13	0	0	0	0	2	0	1	3	4	0	2	2	4	14		Bahraich.
																														U. P., West.
—1·1	0·4		0	—0·14	0	..	0	—0·5	4·2	+0·6	0	1	0	1	1	4	9	3	11	1	0	0	0	0	0	16	3	10		Jhansi.
—1·3	0·8		0	—0·21	0	..	0	—0·6	2·8	—1·1	0	2	0	2	2	3	3	1	17	7	1	0	0	0	0	4	6	12		Agra.
—1·1	0·4		0	—0·23	0	..	0	—0·7	3·0	+0·7	0	0	5	6	2	2	4	4	8	0	0	0	1	0	1	5	13	10		Mainpuri.
—0·5	1·7		0	—0·49	0	..	0	—1·0	5·7	+0·7	3	0	4	8	2	2	6	4	1	3	1	2	1	0	0	3	20	0		Aligarh.
—0·9	1·7		0·10	—0·17	0·10	20	1	+0·1	4·1	+1·5	2	0	14	8	1	2	2	1	0	5	0	4	0	0	1	11	2	7		Bareilly.
..	..		0·37	0	0·37	11	1	+0·2	5·1	..	2	1	4	8	2	0	1	7	5	..	..	..	..	..	..	..	..	..		Meerut.
—0·6	1·8		1·72	+1·27	1·51	12	2	+0·9	3·9	+1·1	0	1	0	14	0	5	0	0	10	0	0	0	9	0	0	0	13	8		Roorkee.
—1·8	2·1		0·82	+0·17	0·60	11	2	+0·3	3·4	+1·0	1	3	1	2	3	9	3	4	4	0	2	0	2	4	17	4	1	0		Dehra Dun.
																														East Punjab.
—0·8	1·5		0·01	—0·32	0·01	11	0	—0·9	6·5	..	1	1	2	5	2	5	7	3	4	8	5	1	2	0	1	2	10	1		New Delhi.
—1·2	0·4		0	—0·26	0	..	0	—0·9	5·0	+0·7	2	0	0	3	4	10	2	6	3	5	1	1	0	1	6	7	9	0		Hissar.
..	6·6		0	..	0	..	0	..	6·4	..	6	0	8	8	0	0	0	4	4	9	1	2	6	1	0	2	7	2		Patiala.
—1·5	1·3		0·02	—0·62	0·02	11	0	—1·6	..	..	0	0	0	0	0	0	0	28	2	0	0	0	0	0	0	0	30	0		Ambala.
—0·9	1·5		0·38	—0·27	0·24	11	2	+0·7	3·5	+1·5	0	2	5	7	2	0	3	6	5	0	3	2	3	1	0	2	13	6		Ludhiana.
..	2·2		0·06	..	0·05	11	0	..	4·4	..	7	4	7	5	3	0	1	2	1	3	1	2	6	0	1	3	14	0		Amritsar.
																														Kashmir.
—1·4	4·1		1·80	—1·85	0·70	10	5	—2·8	3·5	+0·3	2	3	1	14	3	3	0	2	2	3	3	1	1	1	2	10	5	4		Srinagar.
..	..		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		Gulmarg.
..	..		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		Dras (R).
—1·0	(c) 4·4		0·29	+0·06	0·29	11	1	+0·2	4·6	+1·9	1	1	2	2	5	5	0	0	14	5	6	0	1	0	7	4	5	2		Leh.
..	..		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		Skardu (R).
..	..		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		Gilgit (R).
..	..		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		Misgar (R).
																														Rajputana, West.
—1·3	0·5		0	—0·30	0	..	0	—0·9	3·9	—1·6	4	1	2	4	4	4	1	3	7	5	1	1	0	1	3	4	11	4		Sri Ganganagar.
—1·2	0·5		0	—0·19	0	..	0	—0·5	4·2	—0·5	0	5	0	4	0	11	1	2	7	1	3	0	1	0	11	0	14	0		Bikaner.
..	0·9		0	—0·12	0	..	0	—0·3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		Phalodi.
..	0·2		0	..	0	..	0	..	8·0	..	0	3	0	0	2	17	1	2	5	1	1	0	0	1	15	4	8	0		Jaisalmer.
—1·5	0·4		0	—0·13	0	..	0	—0·5	4·8	—2·0	1	5	2	0	1	8	7	1	5	3	2	1	0	1	4	14	3	2		Jodhpur.
—1·0	0·2		0	—0·19	0	..	0	—0·4	7·0	+1·2	1	3	1	2	3	5	4	8	3	2	1	0	2	4	14	5	2	0		Barmer.
																														Rajputana, East.
..	0·8		0	..	0	..	0	..	4·3	..	1	1	5	1	2	10	3	2	5	0	0	0	0	0	2	11	17	0		Sikar.
—1·2	0·8		0	—0·17	0	..	0	—0·5	4·8	+0·2	4	3	1	2	2	0	1	8	9	6	1	0	1	1	1	4	16	1		Jaipur.
—0·8	0·3		0	—0·15	0	..	0	—0·4	4·3	—0·2	1	1	0	0	0	9	4	0	15	2	1	0	0	0	7	11	6	3		Ajmer.
—1·3	0·3		0·16	—0·05	0·16	5	1	+0·5	3·3	+0·6	0	0	0	0	0	0	14	2	14	1	0	0	0	0	0	8	9	12		Kotah.
—0·9	0·7		0	—0·27	0	..	0	—0·5	4·5	+1·0	1	0	1	1	1	4	7	6	9	1	3	1	0	0	4	12	9	0		Jhalawar.
..	..		0·05	..	0·05	6	0	..	7·9	..	0	0	1	0	0	8	9	10	2	..	..	..	..	..	..	..	..	..		Rajsamand.
..	0·9		0	—0·11	0	..	0	—0·2	3·4	..	3	2	2	0	2	1	2	7	11	1	0	0	1	0	12	6	8	2		Udaipur.

C = Mean of 28 days.

Table II.—Abstract of Observations recorded at 0830 hrs. I. S. T. (0300

STATION.	Height of bar, cistern above meansea level in feet.	Pressure at station level in millibars.			Maximum temperature. °F				Minimum temperature. °F				Dry bulb temperature. °F		Wet bulb temperature. °F		Vapour pressure, millibars.			Relat humid %	
		Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I. S. T.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Departure
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
GUJARAT.																					
Deesa*	466	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Surat	39	1008·5	—0·1	1004·8	98·2	—0·9	108	29	75·4	+1·7	71	2, 5	81·5	92·3	73·0	75·8	23·9	+0·2	23·0	65	+
Ahmedabad	163	1003·6	—0·6	998·9	105·0	+1·2	110	18	76·2	+1·7	71	12, 20	79·9	103·5	69·3	70·1	19·7	+2·1	10·0	57	+
Dohad	1,093	971·6	..	967·7	103·3	+1·9	107	18, 27, 29	76·5	+2·4	70	6	83·1	97·3	66·8	67·0	15·1	+0·8	8·9	40	+
Baroda	115	1005·5	..	1000·7	106·2	+3·3	112	28	74·1	+5·3	66	15	81·9	104·3	72·3	72·9	22·8	+6·3	13·4	63	+1
SAURASHTRA AND CUTCH.																					
Bhuj	343	997·3	—0·3	993·9	102·7	+2·9	108	17	74·4	+3·1	67	12	79·7	99·1	..	..	..	..	..	..	..
Dwarka	37	1008·1	—0·9	1005·7	86·6	+1·5	89	19, 29	78·3	+1·9	76	4 days	79·9	84·1	75·9	78·0	28·7	+1·4	30·0	83	
Jamnagar	60	1007·4	—0·7	..	97·3	+1·7	102	8	72·7	+2·4	67	12	79·7	..	74·2	..	26·4	+2·7	..	76	+
Rajkot	432	994·3	—0·6	990·1	105·4	+3·6	112	18	71·5	+3·0	66	12	77·1	102·7	73·1	79·9	26·0	+5·4	24·3	82	+1
Veraval	26	1009·1	—0·2	1006·1	87·1	..	104	8	72·1	..	65	2	78·6	83·9	74·4	78·3	27·1	..	30·6	81	+
Bhavnagar	55	1007·6	—0·4	1003·0	105·3	+3·3	111	28, 30	74·2	+0·7	70	13, 20	80·5	101·5	68·7	91·0	18·6	+0·2	..	53	+
MADHYA BHARAT AND BHOPAL.																					
Neemuch	1,626	953·6	—0·6	950·1	102·3	+3·2	107	28, 30	74·4		65	13, 14	84·8	100·2	63·2	65·3	11·0	—2·0	7·2	28	—
Ratlam	1,596	..	..	..	101·8	..	105	5 days	76·4	..	63	14	82·6	99·6	66·3	70·9	15·4	..	14·1	41	.
Indore	1,823	947·2	—0·7	943·2	101·4	+1·8	107	29	71·8	+2·0	61	15	82·7	99·5	62·3	64·2	10·9	—2·5	6·2	28	—
Bhopal	1,643	952·4	—1·1	948·4	103·1	+3·9	109	29	75·4	+4·1	68	14, 15, 23	86·9	100·5	62·0	65·3	8·8	—0·4	7·1	21	—
Guna	1,571	954·5	—1·3	950·9	103·3	+3·7	109	29, 30	71·2	+4·3	62	14	83·1	101·0	61·8	66·2	10·2	+0·3	7·8	27	-
Gwalior	681	983·0	..	979·0	105·4	..	113	29	74·0	..	65	1	89·0	102·2	63·8	67·8	10·0	..	9·3	20	.
Madhosagar	757	980·7	..	976·6	104·6	..	111	26, 29	78·4	..	72	1	89·0	101·4	65·7	68·9	11·1	..	9·4	25	.
VINDHYA PRADESH.																					
Nowgong	750	981·3	—1·2	976·8	104·5	+2·7	112	30	71·7	+1·6	64	15	88·0	102·6	72·4	78·8	20·1	+6·9	22·8	45	+
Sutna	1,041	970·9	—1·5	966·8	102·9	+2·4	109	4 days	73·2	+1·7	68	3, 15, 16	84·6	100·7	73·7	80·4	23·4	+11·5	26·2	59	+
Umaria	1,506	956·1	..	952·0	102·6	+3·7	109	30	72·3	+3·6	62	8	88·3	99·4	64·5	65·9	11·1	—0·1	8·2	25	.
BERAR.																					
Buldana	2,133	937·4	..	933·9	100·3	..	106	29	79·2	..	72	14	82·5	97·9	62·7	63·4	11·5	..	5·9	30	
Akola	925	976·3	—1·1	971·5	107·2	+1·7	113	29, 30	77·5	+2·6	73	1, 2, 3	86·1	104·3	66·4	69·7	13·3	+1·4	9·0	30	
Amraoti	1,213	966·9	—0·6	961·9	105·5	+1·2	112	30	77·4	+0·9	72	2	85·7	103·7	67·6	76·1	14·9	+2·4	18·2	35	
C. P. WEST.																					
Khandwa	1,044	972·7	—0·7	967·6	106·1	+1·7	111	28, 29, 30	77·7	+3·0	68	16	86·5	104·0	67·2	71·5	14·0	+2·5	11·6	33	
Hoshangabad	992	974·3	—0·9	969·2	104·8	+3·0	111	28, 29, 30	73·8	+0·3	66	16	83·5	103·1	62·5	67·5	9·9	—0·8	6·8	26	
Saugor	1,808	946·6	—1·0	942·8	101·3	+1·6	107	27, 30	76·9	+3·4	72	1	86·3	98·7	61·4	63·5	8·5	—1·0	5·7	20	
Jubbulpore	1,289	963·9	—0·7	959·2	104·2	+3·6	110	26, 30	70·5	+2·1	62	15, 24	86·7	101·0	63·9	68·2	10·0	—2·1	8·7	23	
Seoni	2,027	940·3	—0·4	936·2	101·7	+2·2	108	30	72·1	+1·5	64	1	85·2	97·3	64·4	66·4	12·2	+ 0·1	9·6	29	
Betul	2,144	936·7	..	932·8	99·9	..	105	29, 30	67·8	..	61	16	83·2	96·9	61·6	64·2	9·9	..	7·1	26	
Nagpur	1,010	973·8	—0·6	968·5	108·2	+2·0	113	30	75·2	+0·7	66	3	89·3	103·3	67·9	72·5	14·7	—0·7	14·7	31	
C. P. EAST.																					
Gondia	1,026	973·2	..	968·4	104·0	..	110	28, 30	75·7	..	66	1	85·9	101·9	69·9	73·8	17·7	..	15·8	43	
Pendra	2,040	939·2	—0·9	935·1	99·8	+4·4	107	28, 29, 30	74·1	+3·0	68	3, 10	86·3	95·0	64·7	65·6	12·1	—0·2	9·6	30	
Champa	805	980·5	..	974·9	104·5	..	113	30	77·1	..	70	6, 16	86·1	102·2	71·9	78·8	20·3	..	23·0	47	
Raipur	979	974·6	—0·7	969·4	104·3	+1·5	111	29, 30	78·9	+2·6	70	8	87·2	102·0	66·6	67·3	13·0	—1·8	7·2	30	
Titilagarh	691	984·5	..	980·0	103·6	..	111	20, 30	79·1	..	71	8	86·9	100·4	73·4	70·9	22·0	..	12·5	50	
Kanker	1,318	963·6	—0·7	958·9	101·1	+1·4	107	30	77·8	+4·6	67	23	87·8	97·9	72·1	71·4	19·7	+2·0	14·2	43	
Chanda	634	987·0	—0·2	981·4	104·8	—0·6	111	28, 30	75·3	—0·6	67	3	87·2	103·6	68·7	68·9	15·6	—1·5	8·4	36	
Jagdalpur	1,815	947·9	—0·7	943·3	98·2	—1·0	104	30	71·7	+0·9	64	23	80·3	92·3	70·1	69·9	21·0	—1·1	15·9	59	

* Data not reliable.

M. T.) and 1730 hrs. I. S. T. (1200 hrs. G. M. T.) April 1949.

...ud amount. (oktas).			Rainfall. inches.				Number of rainy days. (0·10" or more.)		Wind velocity, miles per hour.		Wind direction—Number of winds from :— 0830 hrs. I. S. T.									1730 hrs. I. S. T.									STATION.
...from	Departure normal	Mean 1730 hrs. I. S. T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
	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
																													GUJARAT.
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Deesa.*
0	—0·5	0·5	0	—0·03	0	..	0	—0·1	5·2	+1·0	1	0	0	1	8	7	0	4	9	0	0	0	0	2	20	3	5	0	Surat.
0	—1·1	0	0	—0·05	0	..	0	—0·1	3·4	—0·5	3	1	0	0	1	5	9	9	2	1	0	0	0	0	6	13	8	2	Ahmedabad.
1	—1·2	0·2	0	—0·02	0	..	0	0	14·1	+8·4	1	0	1	0	0	13	12	1	2	3	0	0	0	1	19	6	1	0	Dohad.
1	+0·4	0·4	0	0	0	..	0	0	3·3	+0·3	1	1	0	0	2	14	5	0	7	0	0	0	0	0	8	12	5	5	Baroda.
																													SAURASHTRA AND CUTCH.
0	—1·0	0·1	0	—0·07	0	..	0	—0·1	7·3	—0·1	0	0	0	0	0	10	12	3	5	1	0	0	0	0	11	15	2	1	Bhuj.
2	—0·7	0·4	0	—0·03	0	..	0	0	11·7	+2·0	2	0	0	0	0	8	12	8	0	0	0	0	0	0	5	19	6	0	Dwarka.
4	—0·7	..	0	—0·02	0	..	0	0	1·8	—8·1	0	0	0	0	0	3	4	0	23	..	..	..	..	..	..	..	..	..	Jamnagar.
4	—1·4	0·4	0	—0·03	0	..	0	—0·1	11·2	+3·1	1	0	0	0	1	10	11	7	0	3	1	0	0	0	2	12	12	0	Rajkot.
5	—0·2	0·7	0	0	0	..	0	0	12·9	..	9	0	0	0	0	1	5	14	1	0	0	0	0	0	6	17	7	0	Veraval.
0	—1·3	0·3	0	—0·10		..	0	—0·3	5·8	+0·1	0	0	0	1	6	10	9	3	1	0	0	2	5	15	6	2	0	0	Bhavnagar.
																													MADHYA BHARAT AND BHOPAL.
3	—0·8	0·9	0	—0·12	0	..	0	—0·3	6·3	+0·4	4	5	1	0	0	8	7	1	4	2	7	0	0	0	6	8	7	0	Neemuch.
2	..	0·9	0	..	0	..	0	..	5·8	..	1	1	2	0	2	9	12	2	1	1	1	0	0	0	7	13	8	0	Ratlam.
3	—1·1	0·9	0·02	—0·11	0·02	1	0	—0·3	4·1	+0·3	0	1	1	1	1	5	12	7	2	1	0	0	0	0	6	13	9	1	Indore.
3	—1·1	0·8	0	—0·22	0	..	0	—0·7	5·6	+1·8	2	1	0	0	0	6	11	5	5	2	0	0	0	0	3	12	11	2	Bhopal.
1	—0·7	0·9	0	0·29	0	..	0	—0·5	5·8	+2·2	1	0	1	4	4	1	10	2	7	3	0	1	1	1	5	10	7	2	Guna.
1	..	0·5	0	..	0	..	0	..	1·5	..	1	0	0	1	3	1	7	7	10	7	1	0	1	0	1	2	15	3	Gwalior.
3	..	0·8	0	..	0	..	0	..	5·5	..	2	0	1	3	2	6	7	3	6	5	2	0	1	0	1	6	15	0	Madhosagar.
																													VINDHYA PRADESH.
2	—1·5	0·8	0	—0·17	0	..	0	—0·3	3·5	+1·2	1	2	0	0	1	13	8	1	4	3	3	0	0	0	3	10	11	0	Nowgong.
4	—1·1	0·8	0	—0·28	0	..	0	—0·7	4·0	+0·3	1	0	3	4	2	8	6	2	4	4	1	0	0	1	3	7	13	1	Sutna.
6	—1·3	1·6	0·01	—0·45	0·01	7	0	—0·9	4·1	+0·6	0	0	1	5	3	7	9	1	4	8	2	0	0	1	0	6	13	0	Umaria.
																													BERAR.
5	..	7·1	0·07	..	0·07	4	0	..	7·6	..	4	0	0	0	2	2	12	10	0	12	3	0	0	1	1	6	7	0	Buldana.
5	—1·0	0·8	0	—0·20	0	..	0	—0·5	5·4	+0·9	0	1	0	4	0	1	3	19	2	0	5	1	1	0	1	4	18	0	Akola.
5	—1·0	1·1	0	—0·34	0	..	0	—0·8	4·9	+0·3	0	20	0	2	0	4	0	4	0	0	5	0	1	0	8	1	15	0	Amraoti.
																													C. P., WEST.
4	—0·8	1·2	0	—0·11	0	..	0	—0·3	7·4	+2·2	0	0	0	0	0	1	22	5	2	2	1	0	0	0	2	11	14	0	Khandwa.
8	+0·5	2·4	0·82	+0·69	0·82	1	1	+0·7	3·6	+1·1	0	1	2	7	3	9	2	1	5	0	3	3	1	2	5	6	5	5	Hoshangabad.
1	—1·3	0·9	0	—0·21	0	..	0	—0·5	10·1	—0·4	1	4	2	2	1	4	10	3	3	4	0	0	0	0	1	12	12	1	Saugor.
5	—0·8	0·9	0	—0·32	0	..	0	—0·3	4·3	+1·9	0	1	1	9	5	5	6	0	3	4	0	1	0	0	2	8	13	2	Jubbulpore.
0	—0·5	1·3	0·37	—0·23	0·30	8	1	—0·7	4·0	+0·6	3	3	0	1	5	6	5	3	4	7	1	0	1	1	2	6	12	0	Seoni.
5	..	0·8	0·07	..	0·07	2	0	..	3·6	..	1	1	2	3	2	6	10	2	3	7	1	0	0	0	2	9	10	1	Betul.
5	—1·3	1·5	0·10	—0·50	0·05	7	0	—1·3	4·8	..	4	4	2	1	6	6	0	3	4	8	2	1	0	2	1	6	8	2	Nagpur.
																													C. P., EAST.
3	..	1·1	0·08	..	0·04	1,6	0	..	3·5	..	0	3	1	3	9	9	1	1	3	1	4	0	0	1	2	0	9	13	Gondia.
3	—1·7	2·1	0·01	—0·96	0·01	6	0	—2·1	5·8	+1·5	2	0	0	1	11	4	4	5	3	8	1	0	0	2	6	3	10	0	Pendra.
1	..	2·2	0·51	..	0·41	6	1	..	5·3	..	0	0	8	5	2	2	5	1	7	3	2	0	0	5	2	13	0	5	Champa.
0	—0·7	2·4	0·12	—0·52	0·12	8	1	—0·7	6·5	+2·4	0	2	0	2	3	13	8	0	2	3	0	0	0	2	5	8	11	1	Raipur.
2	..	2·7	0·38	..	0·21	8	2	..	4·2	..	0	0	0	7	13	7	1	1	1	2	1	0	2	5	6	4	5	5	Titilagarh.
9	—1·5	2·9	0·20	—0·97	0·07	3	0	—2·3	5·6	+2·1	0	0	0	0	1	4	1	1	23	0	1	0	0	1	0	4	1	23	Kanker.
9	0·8	2·0	0·89	+0·11	0·65	3	2	+0·2	2·3	—0·6	0	1	0	4	1	6	0	5	13	0	0	0	2	0	4	0	12	12	Chanda.
3	—0·5	3·8	1·08	—0·70	0·34	16	5	+1·5	5·7	+2·7	0	2	0	3	0	22	0	0	3	0	2	0	8	1	14	3	2	0	Jagdalpur.

Table II.—Abstract of Observations recorded at 0830 hrs. I. S. T. (0300 hrs. G. M

TATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars. Mean 0830 hrs. I. S. T.	Pressure: Departure from normal.	Pressure: Mean 1730 hrs. I. S. T.	Maximum temperature. °F Mean.	Maximum: Departure from normal.	Maximum: Highest.	Maximum: Date.	Minimum temperature °F Mean.	Minimum: Departure from normal.	Minimum: Lowest.	Minimum: Date.	Dry bulb temperature. °F Mean 0830 hrs. I. S. T.	Dry bulb: Mean 1730 hrs. I. S. T.	Wet bulb temperature. °F Mean 0830 hrs. I. S. T.	Wet bulb: Mean 1730 hrs. I. S. T.	Vapour pressure, millibars. Mean 0830 hrs. I. S. T.	Vapour: Departure from normal.	Vapour: Mean 1730 hrs. I. S. T.	Relat humid % Mean 0830 hrs. I. S. T.	Relat: Departure from
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
KONKAN.																					
Dahanu	15	1009·0	..	1006·3	88·9	..	93	8, 30	74·0	..	70	2, 25	81·4	86·8	75·4	79·4	27·3	..	31·0	75	.
Bombay	35	1009·4	+0·2	1005·8	90·6	+1·5	94	10	77·6	+1·5	73	13	83·6	86·8	76·5	77·7	27·9	+0·6	28·4	71	–
Alibag	23	1010·2	+0·3	..	87·3	—0·3	93	10	75·4	+0·1	72	12, 13	81·9	..	76·1	..	28·1	+2·3	..	76	-
Harnai	66	1008·2	..	1005·7	88·2	..	97	22	80·2	..	76	12	82·4	84·7	74·8	77·4	26·1	..	28·8	69	.
Devgad	117	1006·3	..	1003·1	90·5	..	94	7	80·6	..	76	14	83·6	87·1	73·9	78·5	24·2	..	29·4	71	.
Vengurla	29	1009·4	..	1006·1	91·3	..	95		76·8	..	72	14	82·5	87·7	75·9	77·5	27·6	..	27·6	72	.
Marmagao	202	1003·6	+0·3	1000·3	88·7	+1·1	91	8, 30	..	..	..	..	83·4	85·8	76·0	77·4	27·3	..	28·3	70	.
Honavar	85	1008·7	..	1005·1	91·4	..	94	8	78·6	..	73	23	83·3	87·6	77·2	78·4	29·1	..	29·1	74	-
BOMBAY, DECCAN																					
Jalgaon	660	985·8	..	981·3	108·5	..	115	28, 29, 30	77·5	..	70	1, 11, 12	83·8	106·5	67·4	71·3	15·5	..	10·2	39	
Malegaon	1,432	961·2	0	956·0	105·1	+1·9	110	18, 19, 30	72·1	+1·2	64	12	89·9	100·5	66·2	68·9	11·3	—3·6	9·9	23	+
Ahmednagar	2,154	936·9	—0·8	932·7	102·6	+2·3	109	28	71·3	+1·5	62	13	82·4	99·9	65·6	70·5	14·7	+0·7	13·6	39	+
Poona	1,834	948·3	0	943·8	101·7	+0·8	108	28	68·7	+0·4	61	13	78·5	96·2	65·4	69·1	16·0	+0·1	13·3	48	
Sholapur	1,570	956·2	—0·3	951·2	104·8	+1·3	110	28, 29, 30	76·4	+1·1	72	22	83·6	102·2	67·1	71·0	16·0	+0·9	13·2	41	
Miraj	1,817	948·5	—0·4	943·5	102·0	+2·8	107	28	73·1	+3·1	66	4	76·7	97·3	68·9	69·8	20·9	+0·8	13·7	68	
Kolhapur	1,885	946·8	..	942·4	99·1	..	106	28	70·0	..	65	22	75·5	91·9	68·6	72·1	21·1	..	18·8	70	
Bijapur	1,950	943·9	—0·2	939·0	101·3	+0·6	105	19, 29	73·5	—1·0	69	7, 22	81·6	99·3	71·4	76·4	22·1	+3·9	21·6	59	
Belgaum	2,562	924·5	—0·1	921·2	93·5	—2·3	98	28	66·5	—0·7	62	14, 15	71·6	87·1	67·0	71·8	20·8	+2·3	20·4	80	
Gadag	2,131	938·6	—0·1	934·0	99·6	+0·8	103	11, 17	72·4	0	68	13, 22	77·7	95·4	72·4	78·8	25·0	+3·2	26·8	76	
HYDERABAD, NORTH.																					
Aurangabad	1,905	945·4	—0·6	941·5	102·9	+1·6	108	29, 30	75·7	+2·0	66	12	84·6	100·1	63·2	68·6	11·1	—0·6	10·8	29	
Parbhani	1,350	962·0	..	956·9	105·1	..	111	28, 29	73·8	..	68	8, 13	86·0	102·9	70·3	77·6	18·2	..	20·8	44	
Bidar	2,178	935·7	..	931·3	100·3	+1·5	105	4 days	77·0	+1·6	67	1	82·9	97·1	72·6	77·9	23·2	+4·8	24·8	59	
Nizamabad	1,250	965·9	—0·9	961·2	104·3	+0·7	110	27, 30	76·5	+0·2	70	3	85·1	102·0	67·2	69·5	14·7	—3·3	9·9	36	
Ramagundam	527	991·4	..	985·8	104·2	..	111	19, 21, 30	79·9	..	69	3	86·2	101·1	73·5	72·0	22·4	..	13·7	54	
HYDERABAD, SOUTH.																					
Gulbarga	1,503	957·9	—0·4	952·9	103·5	+0·1	108	29	76·4	+0·1	69	1, 5	83·6	99·9	68·0	69·6	17·1	—0·7	11·0	44	
Raichur	1,311	965·0	+0·2	959·8	102·4	—0·1	106	19	79·6	+0·8	72	2	84·0	100·6	72·6	73·2	22·2	+0·8	14·4	56	
Hyderabad (Begumpet)	1,778	949·2	0	944·9	101·6	+1·1	107	20	75·5	+0·4	67	1, 7	83·5	97·2	71·7	72·7	21·8	+0·3	16·7	57	
Hanamkonda	88	979·0	—0·5	973·7	102·4	+1·7	100	19, 20	77·6	+0·5	69	3	83·6	100·5	74·6	72·1	25·2	+2·4	14·0	65	
Khammameth (R)	367	..	..	..	..	..	..	..	..	..	..	..	..	..	.	..	..	..	..	..	
MYSORE.																					
Chitaldrug	2,405	929·8	+0·2	925·0	96·9	—0·4	101	28	72·5	—0·4	68	23	76·4	94·6	71·2	72·2	24·0	+3·0	17·8	77	
Hassan	3,149	906·6	..	902·7	91·3	—1·1	96	28	68·0	+0·7	63	23	72·9	84·1	68·4	71·0	21·9	+0·7	20·6	79	
Bangalore	3,021	910·4	+0·3	905·8	92·3	—0·2	96	19, 27	70·6	+1·5	64	2	74·6	88·3	69·2	66·9	22·2	+0·4	13·8	75	
Mysore	2,518	926·7	+0·2	922·0	93·6	—1·0	97	11	71·1	+0·7	65	5	75·8	91·4	70·5	69·6	23·2	+0·4	15·8	77	
MALABAR.																					
Mangalore	72	1008·6	+0·6	1005·1	90·9	—0·3	94	3	80·7	+2·2	75	3	84·5	87·0	77·1	78·3	28·4	+0·1	29·1	70	
Calicut	27	1009·8	+0·4	1006·3	91·6	+0·6	93	6 days	78·3	—0·1	71	17	83·3	87·9	77·4	80·4	29·4	—0·4	32·0	76	
Palghat	319	1000·1	..	995·1	95·5	..	100	1	77·7	..	72	2, 6	82·1	91·1	76·5	77·7	28·6	..	26·3	76	
Cochin	10	1010·7	+0·5	1006·9	88·9	+0·3	91	4 days	79·4	+0·7	72	18	84·4	86·8	78·0	79·6	29·8	—0·3	31·3	74	
Alleppey	12	1010·4	..	1006·9	92·0	..	93	6 days	79·3	..	76	3, 10	86·4	87·8	79·6	80·1	31·4	..	31·6	73	
Trivandrum	211	1003·7	+0·7	1000·4	90·2	..	93	4 days	77·7	..	75	4 days	82·5	84·5	77·4	77·7	29·8	+0·8	29·3	79	
Nagercoil	195	1003·8	..	1000·5	92·4	..	96	6 days	78·1	..	72	17	83·9	84·6	77·0	72·6	28·6	..	29·1	72	

R = Register not received.

1730 hrs. I. S. T. (1200 hrs. G. M. T.) April 1949.

ıd amount. ıktas).		Rainfall. inches.				Number of rainy days. (0·10″ or more.)		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																		STATION.
										0830 hrs. I. S. T.									1730 hrs. I. S. T.									
Departure from normal.	Mean 1730 hrs. I. S. T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																												KONKAN.
..	0·2	0	..	0	..	0	..	8·4	..	1	0	16	13	0	0	0	0	0	0	0	0	0	0	4	24	2	0	Dahanu.
—0·5	0·3	0	—0·03	0	..	0	0	5·7	—0·7	2	2	5	8	2	4	1	0	6	0	0	0	0	0	3	16	11	0	Bombay.
—1·3	..	0	—0·01	0	..	0	0	4·5	—1·6	3	2	2	8	0	1	0	0	14	..	..	..	..	..	..	..	..	.	Alibag.
..	0	0	..	0	..	0	..	9·2	..	1	14	3	5	0	1	0	6	0	0	0	0	0	0	8	11	11	0	Harnai.
..	2·4	0	..	0	..	0	..	9·9	..	2	10	3	1	0	1	1	12	0	0	0	0	0	0	1	9	29	0	Devgad.
..	1·9	0	..	..	..	..	..	..	..	3	2	2	0	0	0	0	1	22	0	1	0	0	0	8	20	1	0	Vengurla.
+0·6	3·4	0	—1·32	0	..	0	—0·8	7·8	+1·3	8	6	5	1	1	1	5	3	0	0	0	0	0	0	0	21	9	0	Marmagao.
..	4·3	0	—0·74	0	..	0	—1·1	3·4	..	0	1	22	1	0	0	1	1	4	0	0	2	0	0	1	20	7	0	Honavar.
																												BOMBAY DECCAN.
..	0·8	0	—0·07	0	..	0	—0·2	7·6	..	0	0	0	1	0	5	21	3	0	4	3	0	0	0	1	8	14	0	Jalgaon.
—1·0	1·3	0	—0·12	0	..	0	—0·3	5·7	—0·6	1	0	0	0	0	0	2	4	23	2	3	0	0	0	0	8	14	3	Malegaon.
—0·7	1·2	0	—0·40	0	..	0	—1·1	3·2	—2·9	2	0	0	0	1	0	0	17	10	5	7	0	0	0	0	3	8	7	Ahmednagar.
—1·0	1·2	0	—0·59	0	..	0	—1·3	3·2	—3·2	0	0	1	1	0	2	10	1	15	2	0	0	0	0	1	10	15	2	Poona.
—0·9	2·2	0	—0·53	0	..	0	—1·2	6·3	—0·1	1	3	1	1	0	3	1	13	7	2	13	1	2	2	3	0	7	0	Sholapur.
—0·8	3·2	0·05	—1·94	0.05	6	0	—3·1	8·2	+2·2	1	0	1	2	3	1	14	6	2	2	4	5	1	0	2	12	4	0	Miraj.
..	1·6	0·53	..	0·28	6	2	..	9·2	.	0	0	2	1	0	2	17	3	5	0	1	1	0	0	0	23	5	0	Kolhapur.
—0·7	2·9	0·81	—0·04	0·35	2	3	+1·2	5·2	+9·6	5	2	1	1	0	4	4	12	1	6	6	2	5	1	4	2	3	1	Bijapur.
—0·8	2·4	1·06	—0·69	0.42	8	3	—0·3	4·5	+0·9	0	0	1	0	0	26	1	2	0	0	0	0	0	0	23	6	1	0	Belgaum.
+0·7	4·0	0·38	—0·08	0·18	3	1	—1·8	6·7	+0·6	0	1	1	1	6	12	6	2	1	4	3	2	3	3	3	3	2	7	Gadag.
																												HYDERABAD NORTH.
—0·8	1·5	0·06	—0·18	0·06	5	0	—0·6	8·6	+1·1	9	..	2	1	3	3	7	4	1	5	1	4	0	1	4	9	6	0	Aurangabad.
..	0·9	0·21	—0·21	0·21	4	1	—0·2	..	..	1	4	4	0	0	0	19	0	2	10	4	0	0	0	0	16	0	0	Parbhani.
—1·2	3·0	0	—1·07	0	..	0	—2·5	6·6	+0·2	2	0	2	2	3	7	7	7	0	5	8	3	1	1	4	3	5	0	Bidar.
—1·6	1·3	0·08	—0·77	0·08	1	0	—2·0	2·8	—0·4	0	0	0	3	1	6	8	0	12	3	8	1	1	0	2	0	7	8	Nizamabad.
..	2·2	0·17	..	0·13	13	1	..	6·2	..	1	0	1	12	11	1	3	0	1	3	3	2	11	5	1	4	1	0	Ramagundam.
																												HYDERABAD SOUTH.
—0·7	2·2	1·20	+0·37	0·57	30	4	+1·9	6 3	—0·1	4	4	5	1	3	3	8	2	0	7	4	7	1	1	2	4	2	2	Gulbarga.
—0·2	2·8	0·19	—0·45	0·10	2	1	—0·4	6·9	+0·9	0	2	..	7	1	4	6	10	0	1	9	4	6	1	1	1	7	0	Raichur.
—1·2	3·0	0·44	—0·73	0·17	1	2	+0·1	5·2	+0·6	1	1	1	7	5	4	2	3	6	4	1	1	8	3	1	1	5	6	Hyderabad (Begumpet).
—0·8	1·8	0·17	—0·74	0·10	1	1	—0·6	7·4	+1·5	0	0	1	13	15	1	0	0	0	3	2	2	7	7	2	3	3	1	Hanamkonda.
..	..	..	..	..	..	..	..	.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Khammameth. (R)
																												MYSORE.
—0·4	3·6	0·30	—0·67	0·11	2	2	0	5·6	+1·3	0	0	0	1	0	7	18	1	3	0	0	9	2	0	0	7	9	3	Chitaldrug.
+0·4	5·1	0·90	—1·30	0·58	6	2	—2·2	6·9	+3·0	0	0	3	1	0	3	23	0	0	0	2	1	0	0	5	20	1	1	Hassan.
+0·9	5·6	1·57	—0·04	0·63	2	4	+1·4	6·3	+2·0	0	0	0	3	1	10	11	1	4	2	11	7	2	2	0	1	2	3	Bangalore.
—0·7	5·7	2·15	—0·15	0·83	5	5	+0·4	5·7	+0·9	1	0	0	2	1	4	19	2	1	6	4	5	3	1	4	7	0	0	Mysore.
																												MALABAR
+1·0	4·3	0	—1·53	0	..	0	—2·3	5·3	+0·3	4	6	11	2	0	1	1	2	3	1	0	0	0	0	1	12	16	0	Mangalore
+0·9	5·8	9·54	+5·96	4·79	8	8	+3·8	8·8	+2·1	7	10	8	1	0	0	1	3	0	1	1	1	0	0	2	14	11	0	Calicut.
..	4·1	3·99	..	1·56	6	6	..	6·3	..	0	0	5	0	0	0	22	1	2	0	0	0	0	0	3	22	4	1	Palghat.
+1·8	6·2	6·15	+1·21	2·75	18	6	—0·7	8·3	+3·0	4	12	6	3	0	0	1	1	3	0	0	0	0	0	1	18	11	0	Cochin.
..	5·5	2·75	..	1·20	10	5	..	8·4	..	4	6	7	3	0	1	1	6	2	0	0	0	1	0	3	13	13	0	Alleppey.
+0·1	6·1	3·96	—0·50	1·24	29	8	+1·1	5·7	+1·4	12	5	2	0	1	1	0	6	3	1	4	0	1	2	5	9	8	0	Trivandrum.
.	6·0	5·88	..	1·10	9	12	..	7·8	..	1	2	1	0	0	2	12	9	3	1	1	0	0	3	5	11	9	0	Nagercoil.

Table II.—Abstract of Observations recorded at 0830 hrs. I. S. T. (0300 hrs. G. M.

STATION.	Height of bar. cistern above mean sea-level in feet.	Pressure at station level in millibars. Mean 0830 hrs. I.S.T.	Pressure: Departure from normal.	Pressure: Mean 1730 hrs. I.S.T.	Maximum temperature. °F Mean.	Maximum: Departure from normal.	Maximum: Highest.	Maximum: Date.	Minimum temperature. °F Mean.	Minimum: Departure from normal.	Minimum: Lowest.	Minimum: Date.	Dry bulb temperature. °F Mean 0830 hrs. I.S.T.	Dry bulb: Mean 1730 hrs. I.S.T.	Wet bulb temperature. °F Mean 0830 hrs. I.S.T.	Wet bulb: Mean 1730 hrs. I.S.T.	Vapour pressure, millibars. Mean 0830 hrs. I.S.T.	Vapour: Departure from normal.	Vapour: Mean 1730 hrs. I.S.T.	Relat humid % Mean 0830 hrs. I.S.T.	Relat humid: Departure from
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
MADRAS SOUTH EAST.																					
Pamban	37	1008·8	+0·2	1005·1	91·2	+0·1	93	7 days	81·7	+2·0	69	1	85·2	86·7	79·9	80·3	32·4	+1·0	32·5	78	+
Madura	437	995·2	0	990·3	98·3	+0·5	103	24, 25	77·0	+0·3	68	10	84·4	93·9	75·9	77·0	26·7	—1·3	24·0	66	—
Negapatam	31	1008·9	—0·2	1004·8	92·0	0	105	23	80·8	+1·1	78	30	86·4	87·9	78·5	79·7	29·7	—1·1	30·9	69	—
Trichinopoly	295	1000·1	—0·2	994·8	99·1	—1·0	104	24, 25	79·1	+1·1	70	2	83·6	96·3	76·6	77·3	28·1	—1·0	23·3	72	—
Coimbatore	1,341	964·9	+0·2	960·3	95·1	—1·4	98	26, 27	74·1	+0·5	69	2	79·3	89·5	73·4	74·5	25·4	—1·7	22·4	74	+
Salem	913	979·1	0	973·5	97·7	—2·5	101	4 days	72·4	+0·9	69	8	81·7	93·3	75·4	75·9	27·2	—0·6	22·6	74	+
Cuddalore	39	1008·7	—0·2	1004·1	92·3	+0·1	105	23	79·7	+2·0	75	7	85·9	87·7	78·4	79·7	29·8	—1·5	30·9	71	—
Vellore	703	985·9	+0·1	980·5	100·4	+0·6	106	23, 24	79·3	+3·1	72	4	84·7	98·3	76·0	75·3	26·7	—0·4	19·5	66	—
Madras	51	1008·2	0	1003·7	96·1	+0·6	108	22	80·2	+2·1	77	3, 4	86·0	88·7	78·1	78·5	28·9	—0·8	28·7	69	—
Arogyavanam	2,299	933·4	..	928·7	95·8	..	100	30	73·7	..	68	4	80·1	93·0	71·1	67·7	22·4	..	12·4	64	.
MADRAS, DECCAN.																					
Cuddapah	428	994·8	0	988·9	105·1	+0·3	110	30	83·4	+2·5	74	2	88·6	101·3	76·4	79·7	25·5	—0·2	24·7	56	+
Bellary	1,473	959·7	+0·2	954·3	101·4	—1·3	105	27, 28	78·6	+1·2	73	23	83·3	98·2	73·4	75·0	23·6	+3·7	19·1	61	+
Kurnool	923	977·9	+0·1	972·3	103·1	—0·5	107	4 days	79·4	+0·4	64	2	86·5	100·0	73·9	73·3	22·9	+1·2	15·9	53	+
Rentichintala	348	997·1	..	991·5	103·2	+1·7	108	5 days	80·3	+1·1	70	7	85·8	102·4	76·6	74·9	27·1	+2·7	17·1	65	-
Anantapur	1,147	970·6	..	964·7	102·6	..	106	20, 21, 28	79·3	.	72	4, 6	84·7	100·5	73·7	73·1	23·4	..	15·4	57	.
MADRAS COAST, NORTH.																					
Nellore	66	1007·0	—0·3	1002·6	100·6	+1·2	109	20, 22	79·0	+1·6	74	3, 4	87·4	89·4	78·0	79·0	28·5	—1·3	28·8	64	-
Ongole	38	1007·9	..	1003·2	96·8	..	108	20, 22	80·0	..	73	3, 4	86·1	89·1	78·1	79·1	29·2	..	30·4	69	.
Masulipatam	10	1009·5	—0·5	1005·2	92·8	—1·4	99	1, 9	80·2	+2·5	70	7	85·9	87·2	79·4	79·7	31·4	—0·6	31·2	74	-
Cocanada	26	1009·3	0	1005·0	94·1	—2·0	98	19, 20, 21	79·1	+0·6	71	9	85·8	89·2	79·3	80·3	31·3	+0·8	31·3	74	-
Vizagapatam	126	1005·4	—0·1	1001·7	88·1	—1·5	93	30	79·4	+1·2	71	3	84·7	84·7	77·3	78·6	28·4	+0·1	30·6	70	-
Calingapatam	19	1008·8	—0·1	1004·9	90·7	—1·8	96	9	79·5	+1·3	72	9	83·7	85·3	78·2	79·5	30·5	0	31·7	77	-
HILL STATIONS EXCLUDING KASHMIR.																					
Shillong	4,921	850·1	+0·5	847·3	69·6	—4·5	76	1	54·2	—2·8	49	23	63·3	63·7	57·3	58·7	13·6	+0·9	14·8	70	+
Cherrapunji	4,309	869·3	+0·5	866·6	65·5	—5·8	71	11	56·0	—2·9	50	5	62·6	62·9	58·9	60·1	15·7	—0·7	16·4	81	
Aijal	3,599	890·6	..	888·0	75·3	..	84	5, 6	61·6	..	55	22	66·9	66·9	62·8	61·8	17·9	..	16·8	80	
Darjiling	7,432	776·4	+0·4	773·4	59·6	—1·6	65	2,29	47·6	—1·2	44	5 days	52·6	52·6	50·7	51·0	11·8	+0·6	12·3	89	+
Kalimpong	3,965	880·0	+1·2	876·8	69·7	—4·4	74	2	57·4	—2·1	53	15	60·8	64·6	58·7	61·8	16·2	+1·6	17·5	88	+
Katmandu	4,388	867·2	..	863·9	81·2	—2·7	83	1	55·7	+3·2	49	4 days	65·3	71·2	59·9	62·4	15·4	+4·5	15·6	73	+
Gyantse	131,10	625·0	..	..	53·9	—1·8	66	11,26	28·3	+2·5	16	24	44·7	..	36·8	..	4·9	—0·7	..	49	
Mukteswar	7,592	771·9	—0·7	770·0	69·2	+1·3	78	28,29	52·9	+2·6	41	11,12	57·7	63·9	47·2	53·1	7·0	+0·9	9·8	47	+
Mussoorie	6,699	796·5	..	795·2	71·2	+2·0	76	4 days	56·0	+2·2	44	13	60·9	66·1	51·6	55·0	9·6	+2·3	10·8	47	
Simla	7,224	781·	+0·3	781·3	70·5	+4·6	81	30	54·7	+4·1	41	11	64·1	65·7	47·5	50·7	5·3	—0·7	7·1	28	-
Abu	3,945	880·8	+0·6	878·8	88·1	+3·8	93	18	72·0	+3·7	63	12	78·1	86·2	55·8	61·0	6·3	—2·2	8·1	19	-
Pachmarhi	3,528	894·5	+0·6	890·5	94·4	+2·5	100	28, 29, 30	68·8	0	61	13, 16, 23	82·8	91·7	60·4	63·0	8·9	—1·4	8·0	24	-
Mahabaleshwar	4,534	863·5	—0·3	861·3	85·9	+0·5	93	28	66·3	+0·2	57	22	74·0	78·2	56·2	66·9	8·3	—1·9	18·1	30	-
Mercara	3,781	885·7	—0·4	883·0	82·2	—1·5	85·0	28,29	64·9	+1·0	60	6,7	68·9	77·3	66·2	69·9	20·9	+1·3	21·9	87	+
Ootacamund	7,364	781·4	+0·8	779·3	72·6	+1·1	76·0	20	51·4	—0·1	46	1	60·3 (c)	64·3	54·8 (c)	58·1	12·7 (c)	+2·0	14·3	73 (c)	+
Coonoor	5,730	827·3	..	..	76·1 (e)	+1·5	80	10	57·2	+0·7	51	3	70·9	—	61·4	..	15·0	+0·5	..	61	
Kodaikanal	7,688	772·7	+0·9	770·8	69·5	+1·3	72	20,21,27	54·0	+0·9	49	9	60·3	62·1	52·7	55·8	10·5	—0·2	12·9	63	
CEYLON.																					
Colombo	24	1010·2	+0·4	1007·2	87·2	—1·6	90	11	74·8	—1·1	71	29	80·1	83·4	76·4	77·4	29·4	—0·6	29·4	84	
Trinconalee	24	1009·5	+0·8	1006·3	89·4	—2·3	97	25	77·0	—0·6	71	13	82·1	85·0	76·8	79·0	29·1	—0·9	31·1	78	-
Hambantota	61	1008·0	—0·1	1005·1	86·9	—0·9	93	22	76·0	—0·1	73	5 days	80·9	83·0	76·7	77·5	29·5	+0·4	29·7	82	-
Mannar	12	1010·0	..	1006·6	96·0	—	93	6	77·6	..	75	1, 25, 26	80·7	85·2	76·5	78·9	29·3	—	30·8	82	

d 1730 hrs. I. S. T. (1200 hrs. G. M. T.) April 1949.

Cloud amount. (oktas).			Rainfall. inches.				Number of rainy days. (0·10″ or more.)		Wind velocity, miles per hour.		Wind direction—Number of winds from :— 0830 hrs. I. S. T.									1730 hrs. I. S. T.									STATION.
I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
4	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
																													MADRAS SOUTH EAST.
1·0	+1·2	3·5	0·64	—1·20	0·30	4	3	—0·2	7·2	+1·1	3	4	1	9	8	3	2	0	0	1	3	1	13	11	1	0	0	0	Pamban.
4·6	+0·5	4·9	5·89	+3·73	1·80	7	6	+2·9	3·4	+0·5	6	1	1	1	1	0	3	7	10	0	1	5	7	2	1	2	2	10	Madura.
5·2	+1·4	3·6	0·06	—1·05	0·03	7	0	—1·3	8·4	+2·1	0	0	2	6	2	9	6	2	3	0	3	6	9	9	3	0	0	0	Negapatam.
4·1	+1·1	3·2	1·08	—0·72	0·46	7	2	0	8·3	+2·8	3	0	1	1	2	4	6	9	4	5	0	6	5	5	1	2	5	1	Trichinopoly.
2·6	—0·5	4·0	1·45	—0·13	0·44	2	6	+2·8	5·2	+2·6	4	6	2	2	8	8	0	0	0	3	4	3	2	9	9	0	0	0	Coimbatore.
3·5	+0·8	4·2	5·86	+3·93	2·07	4	7	+3·4	4·5	+0·6	0	2	3	1	2	7	0	0	5	0	1	8	2	3	10	2	0	4	Salem.
4·9	+1·5	2·0	0·15	—0·83	0·08	7	0	—1·1	8·2	+3·1	0	0	0	6	8	10	2	4	0	0	0	4	26	0	0	0	0	0	Cuddalore.
2·1	—0·1	2·8	1·51	+0·51	1·51	4	1	—0·5	5·2	+1·5	0	0	0	2	7	4	0	0	17	0	0	4	17	6	2	1	0	0	Vellore.
4·6	+1·2	1·4	0·91	+0·30	0·89	4	1	+0·1	12·5	+1·4	1	0	0	11	7	7	3	1	0	0	0	1	29	0	0	0	0	0	Madras.
2·7	..	3·8	0·37	..	0·37	4	1	..	6·1	..	0	0	0	9	13	0	1	5	2	6	15	6	2	0	0	0	1	0	Arogyavanam.
																													MADRAS DECCAN.
0·5	—1·7	2·1	0	—0·57	0	.	0	—1·1	7·4	+0·4	0	0	0	0	0	0	1	1	28	0	1	13	1	0	0	2	3	10	Cuddapah.
4·3	+2·2	4·2	0	—0·84	0	4 days	0	—1·9	4·1	+0·2	0	1	4	1	1	0	1	13	9	2	6	4	1	0	2	2	5	8	Bellary.
1·7	—0·2	2·7	1·47	+0·80	0.74	4	3	+1·5	(b) 4·8	+0·1	0	0	0	6	5	7	8	3	1	3	6	6	6	1	1	1	3	3	Kurnool.
2·1	—2·3	2·8	0·23	—0·96	0.23	7	1	—1·7	6·4	—0·2	1	0	1	5	12	8	2	0	1	4	5	4	8	3	0	0	3	3	Rentichintala
0·8	..	2·7	0·07	—0·57	0·07	4	0	—1·3	7·8	..	0	2	0	2	1	5	15	3	2	2	7	6	4	0	0	1	2	8	Anantapur.
																													MADRAS COAST, NORTH.
1·4	—1·6	1·0	0·42	—0·06	0·34	4	1	+0·4	5·8	+0·2	0	0	0	1	22	0	0	2	5	0	0	11	18	1	0	0	0	0	Nellore.
3·0	..	2·5	0·23	.	0·11	10	1	..	7·5	..	0	1	1	12	10	3	1	0	2	0	0	6	23	1	0	0	0	0	Ongole
4·2	+0·8	1·2	0·36	—0·33	0·36	7	1	+0·1	8·3	+2·5	1	0	2	13	11	2	0	2	1	0	0	0	15	15	0	0	0	0	Masulipatam.
3·0	—1·1	1·9	2·05	+1·41	0·75	6	3	+2·0	7·6	+2·5	0	0	0	8	0	19	0	0	3	0	0	0	16	4	10	0	0	0	Cocanada.
3·4	—0·1	3·8	0·24	—0·47	0·24	3	1	—0·3	6·3	+0·8	0	0	0	0	8	11	7	0	4	0	0	0	1	11	18	0	0	0	Vizagapatam
3·2	+0·6	3·0	0·03	—0·73	0·03	9	0	—1·5	10·8	+2·5	0	0	1	0	5	15	9	0	0	0	0	0	0	12	18	0	0	0	Calingapatam.
																													HILL STATIONS EXCLUDING KASHMIR.
5·9	+2·7	6·3	12·06	+6·96	1·67	28	19	+9·8	5·1	—0·1	0	0	2	4	2	8	2	2	10	1	0	1	1	4	9	1	2	11	Shillong.
5·9	+1·1	5·6	43·97	+17·74	9·14	20	24	+8·0	..	..	1	8	1	0	2	10	4	0	4	1	4	3	2	0	9	5	0	6	Cherrapunji.
4·1	..	5·1	15·56	..	2·58	29	15	..	6·9	..	0	0	13	2	2	9	2	1	1	0	0	4		1	12	9	4	0	Aijal.
6·6	+2·7	6·5	10·25	+6·11	1·23	12	18	+1·05	5·7	0	1	2	5	2	1	2	10	1	6	0	0	1	1	0	6	18	1	3	Darjiling.
6·2	+3·7	6·0	4·87	+2·14	0·74	17	13	+7·2	8·1	+0·2	2	0	0	0	0	0	1	20	7	0	0	1	24	3	0	0	2	0	Kalimpong.
4·1	+2·8	5·9	4·75	+3·74	1·71	31	10	+6·8	1·6	+0·3	3	6	3	2	0	0	1	1	14	5	2	0	2	0	4	2	3	12	Katmandu.
2·4	0	..	0·09	0·11	0·09	16	0	—0·7	2·4	—2·4	0	0	3	4	0	0	2	0	21	..	..	..	..	..	..	..	..	..	Gyantse.
1·1	—1·1	2·3	2·32	+0·91	1·32	11	2	—1·3	10·5	+3·8	4	1	2	0	2	5	14	0	2	1	0	0	0	0	5	22	2	0	Muktesar.
1·3	—1·0	2·9	0·03	—1·30	0·03	21	0	—3·8	(n) 2·8	—2·4	3	3	0	3	4	1	0	0	16	3	2	1	2	10	7	1	3	0	Mussoorie.
1·0	—1·7	2·6	1·89	+0·08	1·49	11	2	—2·1	1·9	—2·0	3	5	1	4	3	1	0	1	12	2	3	2	3	6	6	3	1	4	Simla.
0	—1·2	0·3	0	—0·11	0	..	0	—0·3	3·3	—2·6	2	1	0	0	0	0	9	3	15	2	1	0	0	3	6	12	2	4	Abu.
0·7	—1·1	0·8	0	—0·37	0	..	0	—0·9	2·9	—1·3	1	3	1	0	3	4	7	6	5	5	1	0	0	0	0	11	10	3	Pachmarhi.
0·3	—1·4	1·1	0	—1·18	0	..	0	—1·5	8·2	+1·2	11	10	1	0	0	0	1	7	0	3	0	0	0	1	4	7	15	0	Mahabaleshwar.
3·6	—0·1	4·5	3·01	+0·45	1·60	6	4	—1·1	5·8	+2·6	11	2	0	1	0	1	1	9	5	9	0	0	1	3	4	3	9	1	Mercara.
2·4	—0·6	4·7	3·54	+0·50	1·28	21	8	+1·5	1·1	—2·2	2	6	3	0	0	0	0	0	19	8	6	4	0	0	0	0	0	12	Cotacamund.
4·7	+0·9	..	5·25	—0·62	1·85	13	11	+4·1	3·7	+0·5	3	0	2	11	10	0	1	2	1	..	..	..	..	..	..	..	..	..	Coonoor.
3·8	+1·2	5·0	2·47	—2·35	0·55	18	7	—0·7	9·8	+2·3	6	14	1	2	2	0	0	5	0	12	10	2	4	2	0	0	0	0	Kodaikanal.
																													CEYLON.
4·8	—0·1	5·3	24·78	+15·35	8·27	18	12	+1·1	..	..	0	3	4	11	4	2	3	3	0	0	0	1	2	0	11	11	3	2	Colombo
4·4	+1·3	5·0	4·79	+2·77	2·76	7	5	+1·7	..	..	0	0	0	1	6	17	4	0	2	0	6	11	5	0	5	2	0	1	Trincomalee.
4·0	+0·5	5·2	4·99	+1·22	2·68	2	7	+0·8	..	..	8	0	0	0	0	17	4	0	1	8	0	0	0	4	13	5	0	0	Hambantota.
4·8	..	4·8	1·77	..	0·78	16	5	..	..	..	1	0	0	8	17	4	0	0	0	1	0	2	2	10	11	2	2	0	Mannar.

(b) Mean of 29 days. (c) Mean of 28 days. (e) Mean of 26 days. (n) Mean of 17 days.

Table III.—Abstract of observations recorded at 0830 hrs. I. S. T. (0300 hrs. G. M. T.) at 4th Class Stations, April 1949.

STATION.	Maximum temperature °F.				Minimum temperature °F.				Mean dry bulb temperature 0830 hrs. I. S. T. °F.	Mean wet bulb temperature 0830 hrs. I. S. T. °F.	Vapour, pressure, millibars.		Relative humidity. %		Mean cloud amount 0830 hrs. I. S. T.	Rainfall, inches.				Number of rainy days (0·10" or more).		Wind
	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.			Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 0830 hrs. I. S. T.	Departure from normal.		Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Resultant direction 0830 hrs. I. S. T.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Assam—																						
Lumding	85·3	—4·5	95	12	65·1	—1·2	60	24	72·7	68·4	21·6	—0·4	79	+5	..	6·38	+2·77	1·50	21	16	+8·8	..
Kashmir—																						
Jammu	96·0	+6·0	108	30	72·8	+3·9	66	11, 13, 14	79·4	64·4	13·9	+2·1	42	+2	2·1	0·55	—0·74	0·50	10	1	—1·6	NI5E
Kargil (R)																						
Mysore—																						
Balehonnur	86·9	—0·4	91	17	66·5	+0·4	63	5 days	70·5	68·8	23·3	+0·9	91	-5	..	2·16	—1·39	0·95	8	4	—2·5	..
Tibet—																						
Yatung (Chumbi)	67·0	+9·9	73	26,27	34·3	—0·6	29	2	48·7	47·2	10·6	+2·8	91	+9	3·1	3·44	—0·47	0·46	4, 15	12	+1·6	..

R—Register not received.

Table—IV. Abstract of observations recorded at 0830 hrs. I. S. T.(0300 hrs. G. M. T.) at 5th Class Stations, April 1949.

Division.	Station.	Rainfall,— inches.				Number of rainy days (0·10" or more).		Division.	Station.	Rainfall,—inches.				Number of rainy days (0·10" or more).	
		Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.			Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.
1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8
Assam	Mawsynram	21·18	..	4·85	26	16	..	Kashmir	Sonamarg	0·93	—9·00	0·36	3	2	—
West Bengal	Bankura	6·23	+4·98	1·35	23	9	+6·3		Gurez	7·84	+1·09	1·00	5 days	10	
Bihar	Muzaffarpur	0·53	+0·05	0·40	12	1	+0·1								
	Chapra	0·32	0	0·19	12	1	+0·3	Bombay, Deccan	Khandala	0	—0·31	0	..	0	
	Arrah	1·61	+1·36	0·60	7	3	+2·5								
East Punjab	Dharampore	1·31	—0·07	1·20	11	1	—1·7	Madras, Southeast	Palamcottah	4·91	+2·43	1·55	8	7	
	Kyelang	2·15	—1·18	0·95	10	4	—2·4								
	Dalhousie	[illegible]	-0·51	2·30	11	2	—3·7	Sikkim	Lachung	7·80	+1·77	1·33	18	14	

Monthly Weather Report April 1949.

Monthly Means of Upper Winds.

NOTE.—Data upto 9·0 Km. a.s.l. are given under Table A and data above 9·0 Km. under Table B.
In Tables A & B,

n represents the number of observations.

V represents the mean wind speed in m/Second irrespective of direction.

v represents the resultant mean velocity in M/Second.

D represents the direction of the resultant mean wind in degrees East of North.

For the coordinates of the stations for which data have been published in these Tables and other particulars please refer to the Monthly Weather Report January 1948, and subsequent issues.

Monthly Mean Directions and Velocities of upper Winds.

Winds upto 9 k. m. above sea-level.

April 1949.

Station.	Ahmedabad.												Allahabad.											
Time in I. S. T.	0230				0830				1430				0200				0700				1430			
Ht. in k. m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	V	D	n	V	v	D	n	V	v	D
Surface . . .	30	2·2	1·9	261	30	1·4	0·9	282	30	2·6	2·0	263	30	1·6	1·2	83	30	1·9	1·1	87	30	3·6	2·8	299
0·15 a. g. . . .	30	10·2	9·1	278	30	7·8	6·0	295	30	4·7	4·0	269	30	7·6	5·7	106	30	7·1	2·2	119	30	4·9	3·9	315
0·6 a. s. l. . .	30	9·5	8·6	293	30	9·2	8·2	315	30	5·0	4·4	259	30	6·4	3·8	110	30	7·8	2·0	148	30	5·3	4·4	310
1·0 ,, ...	29	7·4	6·1	291	30	7·9	6·8	306	30	5·6	4·7	263	30	5·4	1·0	336	30	6·6	1·0	227	30	5·4	4·6	308
1·5 ,, . .	29	6·1	4·9	284	29	6·6	5·0	283	30	6·1	5·0	270	29	6·7	5·3	308	30	7·0	4·2	294	30	6·2	5·6	298
2·0 ,, . .	29	5·4	3·6	280	27	6·0	4·6	262	30	6·3	5·1	272	20	7·5	7·0	298	29	8·3	6·6	302	29	7·8	7·1	298
2·5 ,, . . .	28	6·2	3·5	264	27	6·3	4·5	254	30	6·9	5·2	271	7	7·4	6·7	301	29	9·6	7·9	304	29	9·3	8·5	299
3·0 ,, . . .	27	5·6	2·8	263	25	7·5	4·3	244	30	7·1	4·8	276	7	8·1	7·0	295	23	11·2	9·1	306	28	10·6	9·5	301
4·0 ,, . . .					25	6·9	2·5	263	30	6·1	3·3	304	1	13·0	13·0	280	11	12·9	11·5	304	27	11·9	10·5	301
5·0 ,, . . .					24	8·3	5·8	308	30	7·5	5·6	312					8	13·0	11·4	307	22	12·9	11·4	295
6·0 ,, . . .					19	8·8	7·0	330	30	10·4	8·2	314					5	16·7	13·8	318	18	14·1	12·2	303
7·5 ,, . . .					7	10·1	9·3	327	24	13·1	11·1	317					1	7·5	7·5	320	10	15·8	14.1	310
9·0 ,, . . .					4	7·6	5·2	312	16	12·9	11·7	304					1	2·5	2·5	365	7	20·5	18·5	321

Station.	Ambala.												Anantapur.								Asansol.			
Time in I. S. T.	0200				0730				1430				0730				1430				0230			
Ht. in k m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	2·7	0·8	29	30	2·9	0·9	359	30	3·3	0·9	303	30	4·1	2·6	264	30	2·7	1·4	34	30	2·3	1·6	155
0·15 a. g. . . .	30	9·0	3·3	8	30	8·7	2·1	25	30	6·6	2·3	288	30	6·3	4·4	251	29	3·4	1·9	45	30	6·2	4·3	159
0·6 a. s. l. .	30	9·5	4·1	349	30	9·7	1·9	341	30	7·2	2·7	285	30	7·1	5·0	253	29	3·0	1·2	36	30	7·1	5·1	184
1·0 . . .	30	9·2	6·3	329	30	9·1	3·4	336	30	7·7	2·8	284	30	6·3	3·8	264	29	3·1	1·2	360	24	6·1	4·5	212
1·5 ,, ...	30	8·5	7·5	318	25	8·9	5·1	321	28	6·1	3·8	290	30	5·7	2·1	237	29	3·4	1·6	355	23	5·7	3·9	252
2·0 ,, . . .	27	8·0	7·1	303	25	10·2	8·6	314	27	8·0	6·4	302	30	4·7	0·7	68	29	3·8	2·0	3	18	6·7	5·6	292
2·5 ,, . .	19	7·9	7·4	305	20	7·9	6·8	316	26	8·2	7·4	304	30	5·8	3·8	46	29	4·4	2·9	27	15	9·3	8·5	302
3·0 ,, . .	11	8·8	8·6	303	20	8·7	7·7	312	26	9·4	7·8	310	30	6·7	5·8	35	29	5·6	4·6	33	11	8·0	7·1	298
4·0 ,, ...	2	8·7	8·1	289	11	8·0	6·0	307	20	11·2	8·8	308	28	9·6	9·2	34	30	6·9	5·9	41	1	9·0	9·0	285
5·0 ,, . . .	1	11·5	11·5	305	10	10·9	9·8	313	18	11·4	9·4	295	28	8·9	6·8	40	29	8·3	5·0	37				
6·0 ,, . . .					7	11·6	10·6	289	11	14·0	12·8	298	28	10·6	5·3	25	29	10·2	7·0	16				
7·5 ,, .					2	10·7	9·9	300	7	16·0	13·7	300	25	10·4	4·7	348	24	12·2	7·3	5				
9·0 ,, ...					2	19·3	17·4	303	4	19·0	18·1	291	19	11·6	6·3	325	19	10·6	5·9	358				

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 k.m. above sea-level.

April 1949.

Station.	Asansol.												Bangalore.											
Time in I. S. T.	0730				1100				1430				0230				0730				1430			
Ht. in k. m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	1·9	1·2	156	30	2·1	1·2	157	30	2·1	1·0	168	28	4·0	2·1	201	30	2·9	2·0	237	30	2·7	0·6	51
0·15 a. g. . . .	30	4·8	3·1	169	30	4·2	1·9	160	30	3·7	1·9	166	25	7·5	4·5	185	30	4·9	3·9	243	30	4·4	1·6	32
0·6 a. s. l. . .	28	6·5	4·6	207	29	4·4	2·4	169	30	3·9	1·9	168												
1·0 „ . .	22	6·8	4·9	233	26	5·5	3·9	224	30	4·3	1·8	218	25	6·8	3·8	188	30	3·9	2·9	241	30	4·1	1·6	38
1·5 „ . .	21	6·4	5·1	255	23	6·3	4·9	249	28	5·7	4·1	264	25	7·6	4·0	159	26	5·0	2·0	246	30	3·9	2·0	37
2·0 „ . .	20	6·5	5·3	270	18	7·5	6·5	270	26	7·3	6·7	271	20	6·1	2·9	111	26	5·0	2·3	34	29	3·9	2·4	22
2·5 „ . .	17	7·5	6·5	283	10	9·1	8·5	273	23	9·1	8·4	282	12	7·0	4·3	44	25	6·2	5·0	43	28	5·1	3·8	37
3·0 „ . .	15	8·5	7·5	286	7	8·3	7·8	287	22	11·1	10·3	282	5	6·9	6·1	17	21	7·2	6·7	44	26	5·7	4·8	39
4·0 „ . .	8	8·5	7·4	312					20	13·1	12·6	292					15	7·3	5·9	39	19	7·2	6·4	36
5·0 „ . .	5	11·3	10·6	307					14	13·2	11·8	291					6	6·8	1·1	338	8	7·8	3·9	11
6·0 „ . .	2	4·5	4·5	339					9	12·5	10·4	291					5	10·2	4·5	282	4	14·4	9·0	21
7·5 „ . .	1	3·0	3·0	290					6	9·8	7·2	301					2	22·7	22·5	251	1	23·0	23·0	245
9·0 „ . .	1	14·0	14·0	250					3	9·7	8·2	304									1	20·0	20·0	265

Station.	Bareilly.								Bairagarh.												Bhuj.			
Time in I. S. T.	0730				1430				0230				0730				1430				0230			
Ht. in k. m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	3·1	2·5	90	30	2·7	0·8	334	30	3·1	2·2	279	30	2·8	1·8	274	30	4·0	3·0	280	30	2·7	2·5	238
0·15 a. g. . . .	30	7·3	4·2	101	30	4·6	2·0	318	29	10·2	5·8	307	30	9·4	6·0	290	29	6·2	4·8	289	30	9·7	8·8	271
0·6 a. s. l. . .	30	8·1	2·6	126	30	4·7	1·5	303	29	9·1	5·3	302	30	7·6	5·0	285	29	5·9	4·5	280	30	11·4	10·2	282
1·0 „ . .	30	7·0	3·0	61	30	5·0	1·6	302	28	11·1	6·2	315	30	9·8	6·8	310	29	6·2	4·9	300	30	6·2	5·0	285
1·5 „ . .	30	6·9	2·6	318	30	5·5	2·8	284	27	9·4	5·7	306	30	8·6	6·5	313	30	5·4	4·5	295	30	5·2	3·6	285
2·0 „ . .	29	7·4	7·1	310	30	7·6	5·5	286	25	7·7	5·2	300	30	6·6	5·5	316	30	5·2	4·2	287	28	5·6	2·6	287
2·5 „ . .	27	9·4	8·1	309	30	10·3	9·3	300	16	6·6	4·4	305	23	6·3	5·5	317	30	5·4	4·4	281	20	6·0	2·1	97
3·0 „ . .	24	10·5	9·4	307	30	11·9	11·0	298	12	7·7	6·3	294	23	6·8	5·1	308	30	5·6	4·6	291	18	7·0	3·2	311
4·0 „ . .	20	10·8	10·1	301	28	16.4	11·7	303					22	7·3	4·9	321	29	6·7	6·0	297	4	4·7	0·8	321
5·0 „ . .	12	9·0	7·9	301	21	12·5	11·2	302					18	8·2	7·4	325	27	9·2	8·2	313				
3·0 „ . .	8	12·7	10·8	296	17	14·7	12·3	300					15	9·5	8·9	326	24	13·0	11·5	314				
7·5 „ . .	4	14·6	12·9	319	12	18·0	15·8	303					11	10·8	9·2	330	22	15·7	13·9	312				
9·0 „ . .					9	18·4	15·7	297					5	11·2	10·8	310	16	18·5	16·5	306				

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 k.m. above sea-level.

April 1949

Station.	Bhuj.								Bikaner.								Bombay.						
Time in I. S. T.	0730				1430				0730				1430				0230				0730		
Ht. in k.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . . .	30	1·9	1·6	240	30	4·0	3·6	342	30	2·4	1·3	234	30	3·5	2·5	277	30	0·7	0·2	291	30	0·6	0·5
0·15 a. g. . . .	30	1·8	6·6	265	30	5·8	5·1	251	30	9·4	4·3	247	30	5·8	4·7	271	30	2·6	1·4	316	30	2·7	1·1
0·6 a. s. l. . .	30	9·9	9·1	297	30	6·3	5·4	259	30	9·9	5·4	285	30	6·0	5·0	276	30	4·9	4·1	322	30	4·1	2·2
1·0 „ . . .	30	7·2	6·1	296	30	6·0	5·2	263	30	9·5	6·9	288	30	5·6	4·2	277	30	5·9	5·4	330	30	6·5	5·6
1·5 „ . . .	28	5·9	3·9	292	28	5·5	4·6	266	30	9·0	7·5	288	29	5·5	4·0	275	25	6·7	5·8	333	30	6·7	5·3
2·0 „ . . .	28	5·7	2·9	282	28	5·4	3·8	272	27	8·7	7·8	292	28	7·9	5·6	273	22	5·4	4·4	310	29	4·9	3·5
2·5 „ . . .	27	5·9	2·3	281	28	5·3	2·9	276	25	8·9	7·8	293	24	6·6	5·5	260	19	4·2	1·9	264	27	4·0	1·2
3·0 „ . . .	27	6·2	1·7	344	28	5·1	2·8	295	18	9·9	8·5	303	24	7·3	5·5	281	15	4·6	1·4	174	25	4·4	2·4
4·0 „ . . .	24	6·5	4·3	320	28	6·5	4·5	316	13	6·8	5·2	302	24	9·9	7·4	288	2	5·3	4·6	125	25	5·0	0·9
5·0 „ . . .	21	7·5	5·9	318	28	7·8	5·8	307	10	9·0	7·3	303	22	11·5	9·9	294					23	8·1	6·0
6·0 „ . . .	17	7·1	5·9	310	26	9·1	7·4	307	8	10·5	8·0	291	15	13·9	12·5	290					18	9·9	8·2
7·5 „ . . .	14	8·6	7·7	311	16	12·8	11·6	304	4	12·6	11·3	289	10	17·7	16·9	288					10	10·3	8·3
9·0 „ . . .	10	7·9	6·7	287	8	13·1	11·3	300	1	17·0	17·0	245	6	28·5	19·6	283					6	14·1	13·9

Station.	Bombay.				Calcutta.																Cochin.		
Time in I. S. T.	1430				0230				0730				1100				1430				0230		
Ht. in k.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . . .	30	6·2	5·6	273	30	5·1	4·2	180	30	4·3	3·3	192	30	5·9	4·9	193	30	5·7	4·8	188	30	2·2	0·6
0·15 a. g. . . .	30	4·9	3·9	280	30	10·7	8·7	182	30	6·5	5·3	192	30	7·6	6·2	193	30	6·9	5·8	187	28	3·5	1·2
0·6 a. s. l. . .	30	4·4	3·3	327	30	11·5	10·1	207	29	9·8	9·1	210	30	8·8	7·2	201	30	7·9	6·3	197	28	4·0	3·1
1·0 „ . . .	30	5·6	4·1	340	30	10·4	9·3	216	25	8·7	7·9	225	29	8·5	6·8	250	28	6·3	4·9	220	26	3·7	2·5
1·5 „ . . .	30	5·2	3·4	332	27	9·3	7·9	243	23	7·0	5·8	247	24	6·7	4·2	239	26	5·9	5·0	250	19	3·3	0·7
2·0 „ . . .	30	4·8	2·3	305	26	8·2	6·2	259	21	6·0	4·5	265	16	5·1	3·0	255	25	6·6	5·9	269	13	3·9	1·7
2·5 „ . . .	29	4·0	1·1	245	24	9·1	7·1	284	20	5·9	4·4	274	11	5·0	2·3	267	24	7·7	7·2	290	10	6·0	4·7
3·0 „ . . .	29	4·1	1·6	175	22	11·0	9·3	300	19	6·9	5·6	287	8	5·6	1·9	276	22	8·7	8·2	291	9	7·5	6·1
4·0 „ . . .	29	6·1	1·5	48	3	11·5	11·3	299	13	8·7	7·5	312	1	8·0	8·0	235	22	11·7	10·7	302	1	11·5	11·5
5·0 „ . . .	28	7·7	5·1	24					9	9·1	7·0	306					7	12·1	11·1	291			
6·0 „ . . .	27	8·7	5·5	10					6	12·8	10·1	299					6	12·7	11·7	280			
7·5 „ . .	19	10·3	6·1	355					2	20·3	6·5	278					1	4·0	4·0	235			
9·0 „ . . .	15	12·5	7·7	331					1	15·0	15·0	10											

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 k.m. above sea-level.

April 1949.

Station.	Cochin.								Cooch Behar.								Cuttack.							
Time in I. S. T.	0730				1430				0730				1430				0230				0730			
Ht. in k.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	0·9	0·5	66	30	5·1	4·7	290	30	2·3	2·7	77	30	1·8	1·5	93	30	2·7	2·1	192	30	2·0	1·5	197
0·15 a. g. . . .	30	2·7	1·1	47	30	5·7	5·4	282	15	9·2	8·8	88	16	5·3	4·4	94	30	7·8	6·5	194	30	6·9	5·3	195
0·6 a. s. l. . .	30	4·0	3·3	312	29	5·3	5·0	288	13	11·9	11·5	92	16	6·0	5·3	96	27	10·4	8·8	214	29	9·0	7·0	214
1·0 „ . . .	27	3·4	2·8	307	27	3·8	3·1	297	11	9·7	9·3	91	14	5·3	4·2	114	21	8·5	7·1	224	26	7·9	6·6	235
1·5 „ . . .	25	3·7	1·7	320	22	3·9	2·4	43	9	9·8	9·0	91	13	4·7	2·1	139	17	6·3	4·8	241	25	6·1	3·9	253
2·0 „ . . .	21	4·5	2·5	44	20	5·6	4·7	52		8·3	5·1	103	10	6·3	2·8	208	6	4·3	2·8	233	24	5·7	3·3	270
2·5 „ . . .	17	7·5	6·8	58	18	8·0	7·0	59	6	7·9	2·3	110	7	6·5	3·5	273					21	5·6	3·0	295
3·0 „ . . .	16	8·7	7·5	54	18	9·0	8·1	55	3	5·8	3·2	113	7	7·1	5·3	274					17	6·1	4·1	323
4·0 „ . . .	12	7·2	7·0	58	17	8·6	7·5	50	2	6·5	4·8	277	6	10·7	9·1	272					10	6·7	4·1	330
5·0 „ . . .	8	7·2	5·1	65	13	6·7	2·9	32	2	6·3	5·3	288	4	11·7	11·1	269					6	7·6	5·3	334
6·0 „ . . .	4	7·7	2·8	357	11	9·3	2·2	307	2	6·0	5·9	342	4	10·9	9·6	285					4	13·2	9·7	348
7·5 „ . . .	2	13·5	4·5	69	7	12·1	4·2	358	2	7·5	6·7	326	2	15·7	15·7	289								
9·0 „ . . .	1	16·0	16·0	225	4	12·4	7·5	6																

Station.	Cuttack.								Deolali.				Dibrugarh.								Gadag.			
Time in I. S. T.	1100				1400				0730				0730				1430				0230			
Ht. in k.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	2·6	2·1	193	30	3·3	3·2	182	23	1·9	1·7	249	30	1·3	1·1	59	30	2·5	1·4	31	30	5·7	4·7	242
0·15 a. g. . . .	30	6·7	5·8	196	30	7·6	7·2	186	23	4·5	4·1	247	20	4·0	3·7	59	26	3·1	2·1	36	30	8·9	6·5	260
0·6 a. s. l. . .	30	7·2	6·2	211	30	6·8	6·1	202	23	3·6	3·2	246	20	4·4	3·7	66	26	3·3	2·3	90				
1·0 „ . . .	28	6·9	5·4	232	30	5·7	4·3	235	23	6·6	5·8	324	18	3·4	2·5	72	24	3·0	1·0	111	30	9·3	7·1	286
1·5 „ . . .	19	5·5	4·4	277	28	5·4	4·6	288	22	8·5	6·8	334	14	2·9	2·4	82	22	3·3	2·0	198	30	7·9	3·8	319
2·0 „ . . .	9	4·5	3·6	307	28	5·6	5·0	304	21	5·9	3·2	330	12	2·4	1·0	146	18	4·4	3·8	221	30	5·3	1·6	20
2·5 „ . . .	3	1·7	0·9	358	28	6·1	5·3	317	21	5·0	0·6	295	10	2·7	1·3	100	16	5·7	4·6	224	29	4·6	2·8	71
3·0 „ . . .	3	2·5	0·4	311	25	7·1	6·1	316	21	5·0	1·9	174	9	3·9	1·0	258	14	6·4	5·3	233	24	5·3	4·2	68
4·0 „ . . .					20	7·9	6·4	317	21	5·1	0·9	90	7	6·3	3·5	268	10	8·7	8·1	247	16	7·7	7·2	3·3
5·0 „ . . .					16	9·9	8·0	312	18	8·1	4·5	4	6	6·3	4·0	237	4	8·0	7·6	256				
6·0 „ . . .					13	12·9	10·3	308	12	10·5	7·6	7	4	4·3	3·3	360	4	9·6	9·1	272				
7·5 „ . . .					5	15·5	14·8	335	7	10·6	6·8	3	2	8·3	5·3	26	2	14·7	14·7	270				
9·0 „ . . .					4	16·1	16·1	324	2	8·2	7·5	325	2	11·5	8·2	13	2	22·0	22·0	267				

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 k.m. above sea-level.

April 1949.

Station.	Gadag.								Gaya.															
Time in I. S. T.	0730				1430				0230				0730				1100				1430			
Ht. in k.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	4·9	3·7	234	30	3·0	1·4	315	30	3·7	2·7	109	30	3·5	2·1	108	30	3·2	0·8	67	30	4·3	3·0	345
0·15 a. g. . . .	30	7·9	5·1	238	29	3·7	1·5	315	30	6·3	4·9	133	30	6·1	3·0	131	30	4·4	0·4	48	30	5·7	3·6	1
0·6 a. s. l. . .									30	6·6	5·1	166	30	2·6	4·3	204	30	4·8	0·5	141	30	5·4	3·4	353
1·0 ,, ...	30	7·6	3·9	303	29	3·5	1·7	311	30	5·3	2·1	215	30	5·6	3·6	224	30	4·6	2·6	244	30	5·4	3·3	322
1·5 ,, ...	29	6·9	3·9	350	29	3·5	2·1	331	30	6·2	4·3	294	29	5·9	3·5	265	29	6·8	5·3	269	30	6·0	4·8	285
2·0 ,, ...	28	5·2	2·0	357	29	3·3	1·7	344	29	8·5	7·5	307	28	8·0	6·2	285	24	7·7	6·7	274	30	7·6	6·8	280
2·5 ,, ...	28	4·4	2·6	49	27	3·6	1·9	13	9	11·0	10·7	305	25	8·6	7·4	297	14	7·2	5·2	277	29	9·9	8·8	280
3·0 ,, ...	28	5·1	3·8	52	25	3·7	2·1	19	7	12·5	12·0	297	18	11·7	10·4	299	8	7·9	5·4	283	27	11·7	10·7	280
4·0 ,, ...	27	7·0	5·6	46	20	5·9	4·5	34					7	10·8	9·8	322					24	15·5	14·3	288
5·0 ,, ...	24	9·3	7·1	25	18	8·0	7·0	27					3	9·8	9·7	349					15	16·1	14·6	290
6·0 ,, ...	18	9·7	6·0	346	14	9·3	7·8	13					3	11·7	11·5	344					9	18·1	15·1	287
7·5 ,, ...	10	10·7	6·8	337	13	11·8	7·9	3					1	12·0	12·0	310					4	18·0	12·0	317
9·0 ,, ...	5	8·7	7·2	326	5	9·2	7·0	18													1	13·0	13·0	345

Station.	Gopalpur.								Gorakhpur.								Hyderabad (Dn).							
Time in I. S. T.	0730				1430				0730				1430				0230				0730			
Ht. in km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	7·1	6·4	203	30	9·8	9·4	185	30	3·1	3·0	80	30	1·8	1·5	112	30	3·1	1·2	132	30	1·6	0·4	151
0·15 a. g. . . .	30	8·2	8·1	203	30	12·1	11·6	185	30	7·2	7·1	84	30	3·3	1·8	110	30	6·9	3·6	136	30	5·5	1·5	205
0·6 a. s. l. . .	30	7·9	6·9	215	29	8·2	7·7	198	28	8·1	7·5	125	30	3·7	1·9	112	30	5·1	2·1	133	30	3·3	1·1	172
1·0 ,, ...	30	6·9	6·0	225	29	5·2	4·2	224	28	6·4	4·7	137	30	3·7	1·2	135	30	7·4	3·8	141	30	8·5	3·8	137
1·5 ,, ...	28	5·8	4·4	257	29	4·9	3·9	263	28	4·5	0·6	245	29	4·2	9·5	241	29	5·1	1·1	104	30	6·4	2·1	220
2·0 ,, ...	28	6·1	4·3	283	29	5·1	3·8	288	28	6·6	4·7	300	26	6·2	5·3	281	29	4·9	3·1	358	30	5·0	2·0	12
2·5 ,, ...	19	4·9	4·1	307	27	5·5	4·2	323	27	9·3	7·5	300	25	9·3	8·5	285	26	6·0	4·9	351	30	5·4	3·6	19
3·0 ,, ...	18	6·2	3·7	321	27	6·9	5·4	332	24	12·8	11·6	299	24	11·3	10·5	288	25	7·2	6·2	355	30	6·4	5·4	21
4·0 ,, ...	10	5·6	3·9	16	24	6·9	5·6	323	15	14·5	13·9	306	22	14·1	13·1	291	1	12·5	12·5	35	30	8·1	7·2	23
5·0 ,, .	8	6·9	3·1	293	21	8·7	6·1	310	5	21·6	10·0	320	18	13·5	12·6	293					28	11·4	8·9	18
6·0 ,, ...	6	9·1	6·5	257	16	11·1	8·5	314	3	10·0	10·0	320	12	14·0	12·6	305					28	12·7	7·8	358
7·5 ,, ...	4	15·0	14·0	261	9	14·0	10·1	282					3	12·2	12·2	295					13	10·2	8·0	15
9·0 ,, ...					6	21·3	18·8	261													4	8·1	7·2	345

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 k.m. above sea-level.

April 1949.

Station.	Hyderabad Dn.				Jagdalpur.												Jamnagar.							
Time in I. S. T.	1430				0230				0730				1430				0730				1430			
Ht. in k.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	y	D	n	V	v	D	n	V	v	D
Surface	30	2·8	1·0	340	30	1·6	1·1	184	30	1·2	0·9	207	30	2·1	1·5	243	15	3·2	2·9	238	14	10·1	9·8	290
0·15 a. g.	30	3·6	1·1	337	30	7·6	6·0	207	30	4·9	3·8	209	30	4·0	3·1	246	15	6·5	5·9	270	14	8·0	7·8	281
0·6 a. s. l. . . .	30	3·3	1·0	343	30	5·8	4·7	205	30	2·9	2·3	210	30	3·1	2·5	244	11	8·5	7·3	301	14	6·3	5·8	273
1·0 ,, ...	30	3·3	1·1	359	30	8·0	7·0	220	30	7·2	6·6	231	30	4·3	3·6	258	11	6·8	5·7	306	13	6·0	5·0	265
1·5 ,, ...	30	3·5	1·8	352	30	5·6	4·6	274	30	5·8	4·9	274	30	3·9	3·3	273	9	4·9	3·5	286	12	5·8	4·2	247
2·0 ,, ...	30	4·0	2·0	359	30	5·1	3·5	305	30	5·7	4·5	317	29	4·1	3·4	295	9	4·8	3·2	302	12	6·5	4·3	247
2·5 ,, ...	28	4·8	3·0	5	28	6·7	4·6	327	30	6·6	5·2	336	29	4·2	3·2	313	8	5·7	2·4	298	12	6·9	3·9	259
3·0 ,, ...	28	5·7	4·8	10	23	7·7	5·8	329	30	7·4	5·9	347	29	5·2	3·5	332	7	5·7	2·5	299	11	7·0	3·1	285
4·0	23	7·6	5·5	359	7	8·6	6·2	356	28	7·7	5·8	354	28	7·1	4·9	342	7	5·5	3·5	306	11	6·4	4·2	313
5·0 ,, ...	18	8·6	7·2	360	1	4·5	4·5	335	23	7·9	6·5	6	27	7·9	6·7	336	6	8·3	5·5	307	11	8·5	7·3	310
6·0 ,, ...	16	12·4	10·7	357					20	9·9	7·6	339	23	11·0	9·0	321	5	5·2	9·2	22	11	9·2	7·5	308
7·5 ,, ...	14	11·9	9·7	338					15	10·5	8·0	315	19	13·8	11·4	318	3	10·7	9·9	299	10	10·9	9·7	317
9·0 ,, ...	10	14·5	11·8	316					12	12·3	8·3	292	14	14·4	11·5	303	1	7·0	7·0	284	7	13·4	12·1	286

Station.	Jamshedpur.												Jharsuguda.											
Time in I. S. T.	0730				1100				1430				0230				0730				1430			
Ht. in k.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	30	1·5	1·0	280	30	2·7	1·3	257	30	4·5	1·2	144	30	2·3	1·4	131	30	1·2	0·8	157	30	2·2	1·9	265
0·15 a. g.	30	2·6	1·8	264	30	3·3	1·9	231	30	5·6	2·0	148	30	7·2	3·7	128	30	4·4	2·6	157	30	4·3	3·5	262
0·6 a. s. l. . . .	30	6·3	5·5	226	30	3·8	2·5	219	30	5·0	1·5	172	30	8·1	4·1	182	30	6·8	5·3	208	30	5·2	4·2	261
1·0 ,, ...	30	8·7	7·6	233	30	5·7	4·5	240	29	4·9	2·1	227	30	8·7	3·7	214	30	7·7	5·9	227	30	5·6	4·7	265
1·5 ,, ...	30	7·3	5·9	251	28	7·3	5·9	259	29	5·7	4·1	261	30	8·3	3·5	240	30	6·7	4·8	249	30	5·5	4·5	267
2·0 ,, ...	29	8·2	6·5	281	25	7·5	5·9	273	29	6·8	5·8	275	28	10·4	4·8	273	30	7·3	5·8	294	30	5·0	4·5	274
2·5 ,, ...	25	8·9	7·4	294	18	7·3	6·2	279	29	7·8	7·1	283	23	7·5	5·5	299	29	8·4	7·2	306	30	5·5	4·8	288
3·0 ,, ...	19	8·0	6·8	301	16	8·0	6·7	291	28	9·2	8·5	291	13	6·4	4·8	316	27	9·4	8·2	311	29	6·3	5·4	296
4·0 ,, ...	12	7·4	6·1	302					26	12·6	11·5	297	9	6·7	5·3	308	21	9·3	7·6	312	24	8·9	7·3	301
5·0 ,, ...	8	9·3	6·8	310					23	13·8	12·3	301					15	8·5	7·2	332	21	11·3	9·3	308
6·0 ,, ...	7	11·7	9·1	305					20	16·4	15·0	300					12	9·7	7·2	338	19	14·5	12·3	309
7·5 ,, ...	2	21·0	20·0	342					10	17·6	12·8	292					7	10·0	6·7	315	15	17·9	14·8	311
9·0 ,, ...									4	14·4	12·9	286					5	10·5	5·0	248	12	22·0	18·0	310

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 k.m. above sea-level.

April 1949.

Station.	Jodhpur.												Jubbulpore.											
Time in I. S. T.	0230				0730				1430				0230				0730				1430			
Ht. in k.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	30	3·2	1·8	279	30	2·3	1·4	245	30	4·2	3·4	248	30	1·5	0·9	80	30	1·7	0·9	187	30	2·7	2·2	303
0·15 a. g.	30	10·8	5·7	271	29	6·8	3·5	244	30	6·1	4·9	254	30	6·4	1·1	266	30	5·5	3·2	229	30	6·1	5·4	299
0·6 a. s. l. . . .	30	11·1	6·1	276	29	8·2	4·2	276	30	5·9	4·7	258	30	6·8	1·1	288	30	5·9	3·2	241	30	6·2	5·5	299
1·0 „	30	10·1	6·2	273	29	7·3	4·7	276	30	5·5	4·3	259	30	7·5	3·3	324	30	8·5	4·2	302	30	6·5	5·6	299
1·5 „	25	7·3	5·6	272	29	7·3	5·3	276	29	5·5	4·5	257	30	6·8	4·5	319	30	7·6	5·6	312	30	6·5	5·5	303
2·0 „	23	6·4	5·6	276	27	6·7	5·8	279	26	6·0	5·0	258	30	7·5	6·1	307	30	7·0	5·6	312	30	6·6	5·7	304
2·5 „	14	6·4	5·9	279	24	7·0	6·0	287	26	6·7	5·2	260	26	7·5	6·4	303	30	7·3	6·2	310	29	6·8	5·7	302
3·0 „	5	6·3	5·2	260	20	7·9	6·3	285	25	8·0	5·5	263	20	8·1	7·3	296	30	8·6	7·2	306	29	7·4	6·3	305
4·0 „					10	7·9	5·9	318	23	8·5	5·7	273	2	10·5	10·3	325	24	9·5	6·8	306	24	7·9	6·7	302
5·0 „					4	8·6	6·1	309	19	11·5	8·9	280	1	11·5	11·5	350	17	9·4	8·4	327	27	11·1	9·0	310
6·0 „					1	5·0	5·0	305	9	12·1	10·9	287					12	9·1	7·8	316	25	14·6	12·6	315
7·5 „									4	11·7	8·2	285					4	9·3	5·3	346	22	16·4	14·8	315
9·0 „																	2	4·5	2·1	45	12	16·4	13·0	329

Station.	Madhosagar.								Madras.												Malegaon.			
Time in I. S. T.	0730				1430				0230				0730				1430				0230			
Ht. in k.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V		D	n	V	v	D	n	V	v	D
Surface	30	1·4	0·9	233	30	3·7	3·2	296	30	2·4	2·1	187	30	2·1	1·7	210	30	5·6	4·7	145	30	4·3	4·1	276
0·15 a. g.	30	6·0	2·6	280	30	5·9	5·3	302	30	6·1	5·9	181	30	5·2	4·2	204	30	6·1	5·2	145	30	7·7	7·4	299
0·6 a. s. l. . . .	30	7·5	3·3	315	30	6·5	5·7	296	30	7·3	7·0	178	30	7·4	6·2	196	30	4·5	2·2	193	30	7·7	7·4	299
1·0 „	30	7·0	4·4	316	30	6·7	5·8	297	29	5·4	4·5	179	29	5·9	4·5	199	30	3·5	1·4	260	30	9·5	9·1	322
1·5 „	30	7·6	6·3	315	30	6·9	5·9	296	29	3·3	0·8	95	29	4·2	1·7	60	30	4·1	1·9	19	30	8·9	8·4	330
2·9 „	27	8·4	7·8	312	30	8·3	7·2	293	28	5·1	3·5	33	29	6·7	5·2	43	30	5·7	4·4	33	27	7·3	5·5	326
2·5 „	24	8·8	8·3	313	28	7·3	6·6	298	24	6·7	6·1	44	28	7·7	6·9	34	30	8·0	6·8	32	27	6·1	3·0	314
3·0 „	23	9·3	8·8	311	27	7·7	6·7	299	22	7·5	6·7	34	27	8·9	8·1	26	30	9·5	8·5	29	23	6·1	1·0	285
4·0 „	17	10·5	10·0	317	25	10·4	9·0	294	9	8·7	6·8	8	26	8·5	7·5	23	30	8·7	7·1	32	12	4·5	1·3	41
5·0 „	11	8·4	7·5	301	20	12·3	11·0	295					24	8·6	5·2	46	28	8·7	4·1	27				
6·0 „	10	10·1	9·1	321	17	14·2	12·5	301					17	8·7	2·6	39	26	10·1	4·2	35				
7·0 „	5	10·5	9·8	318	12	16·5	15·2	306					13	11·2	4·0	305	26	11·2	4·5	7				
9·0 „	3	14·5	14·2	305	7	19·1	17·8	302					6	12·0	11·2	275	22	10·9	3·8	351				

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 k.m. above sea-level.

April 1949.

Station.	Malegaon.								Mangalore.												Masulipatam.			
Time in I. S. T.	0730				1430				0230				0730				1430				0230			
Ht. in k.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	3·9	3·3	278	30	2·8	2·0	317	30	2·4	1·6	332	30	1·7	0·8	42	30	4·4	3·8	275	30	3·1	2·4	161
0·15 a. g. . . .	30	5·7	5·3	297	30	3·9	2·7	317	30	3·3	2·6	326	30	2·3	1·2	16	30	5·4	5·2	276	30	7·7	6·2	169
0·6 a. s. l. . . .	30	5·7	5·3	297	30	3·9	2·7	317	30	3·7	3·4	308	30	2·9	2·1	323	30	4·6	3·9	289	30	8·4	7·1	173
1·0 „ . . .	30	7·7	6·7	323	30	3·9	2·6	314	23	3·6	2·9	306	30	3·0	1·9	312	30	3·4	1·4	350	30	5·5	4·7	174
1·5 „ . . .	30	7·0	5·8	337	30	4·1	3·1	302	14	4·5	2·9	325	25	4·8	3·1	348	30	4·2	2·9	10	30	3·7	0·7	168
2·0 „ . . .	30	5·7	3·7	333	30	4·1	3·1	292	9	5·6	3·9	323	21	5·8	3·1	360	30	5·5	3·4	21	29	3·5	1·7	19
2·5 „ . . .	27	4·4	1·6	306	28	4·2	3·1	284	8	4·4	2·4	58	15	5·6	4·1	49	30	6·1	4·1	50	27	4·7	3·7	12
3·0 „ . . .	26	4·7	1·1	223	27	5·3	3·4	279	7	5·2	3·1	83	13	5·7	4·9	59	30	7·2	5·9	65	26	5·6	4·6	15
4·0 „ . . .	26	5·7	0·8	288	25	7·1	3·8	309					12	7·2	6·8	54	29	7·7	6·4	63	14	8·5	7·3	358
5·0 „ . . .	26	7·8	5·6	358	23	8·0	4·4	333					7	5·8	3·1	23	29	9·1	6·4	51				
6·0 „ . . .	24	9·6	8·3	351	20	10·5	7·3	337					6	8·7	5·3	335	25	9·6	6·2	30				
7·5 „ . . .	16	10·2	7·7	342	19	12·7	10·5	327					2	16·0	15·7	29	16	10·7	8·7	27				
9·0 „ . . .	8	8·7	7·6	327	12	13·1	10·7	335									11	9·0	5·0	16				

Station.	Masulipatam.								Nagercoil.												Nagpur.			
Time in I. S. T.	0730				1430				0230				0730				1430				0230			
Ht. in k.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	2·5	2·0	184	30	3·8	3·4	154	30	3·9	3·4	295	30	3·2	2·7	297	30	5·2	4·5	263	30	2·7	1·3	304
0·15 a. g. . . .	30	5·7	4·5	184	30	6·2	5·8	165	30	8·3	7·6	296	30	7·4	6·5	295	30	10·1	8·7	260	30	7·0	2.5	288
0·6 a. s. l. . .	30	7·3	6·8	184	30	5·7	4·2	201	30	10·3	9·7	300	30	9·1	8·1	306	30	9·3	7·7	273	30	7·8	3·3	311
1·0 „ . . .	29	6·5	6·0	183	30	4·3	2·7	234	30	6·9	5·5	300	30	8·0	7·2	309	30	7·1	5·5	295	30	8·2	3·9	321
1·5 „ . . .	28	4·0	2·1	162	30	3·6	1·2	296	29	4·4	2·1	336	29	6·0	3·7	336	29	5·6	3·7	332	30	5·6	3·9	325
2·0 „ . . .	28	4·0	0·9	42	30	4·5	2·8	15	28	5·2	4·3	34	29	5·1	2·7	6	28	5·6	4·3	1	30	5·7	4·4	323
2·5 „ . . .	23	5·7	4·2	15	30	6·2	5·1	23	25	7·5	6·8	47	28	6·4	5·1	46	27	6·6	5·5	26	25	5·2	3·8	321
3·0 „ . . .	23	7·2	6·2	12	30	7·4	6·5	21	25	8·8	7·6	47	28	8·4	6·9	44	27	7·8	6·8	32	18	5·3	9·0	306
4·0 „ . . .	19	8·2	7·3	5	28	7·4	5·7	92	11	6·1	4·9	32	27	8·4	7·3	40	25	9·6	8·3	30	7	8·7	8·1	295
5·0 „ . . .	13	8·2	5·4	7	27	7·5	4·1	13	7	6·8	3·8	65	27	9·0	5·8	33	24	8·0	5·7	24				
6·0 „ . . .	9	6·7	2·4	2	26	8·5	5·5	347	5	9·4	4·1	38	25	9·3	8·0	32	21	9·5	6·5	35				
7·5 „ . . .	8	9·3	4·7	289	24	13·1	6·9	329					21	11·6	6·2	49	16	10·7	8·3	40				
9·0 „ . . .	3	10·7	6·5	274	13	12·9	10·5	217					20	13·1	7·7	48	10	10·8	7·7	44				

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 k.m. above sea-level.

April 1949.

Station.	Nagpur.								New Delhi.												Poona.			
Time in I. S. T.	0730				1430				0230				0730				1430				0230			
Ht. in k.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	1·6	0·5	308	30	2·2	1·1	298	30	2·1	0·9	331	30	2·2	0·9	268	30	4·5	3·5	326	30	3·0	2·9	2[illegible]
0·15 a. g. . . .	30	4·5	1·5	318	30	4·0	1·9	308	30	8·3	3·3	355	30	6·8	2·4	279	30	6·2	4·2	319	30	5·1	5·0	2[illegible]
0·6 a. s. l. . .	30	5·8	2·2	325	30	4·1	2·2	305	30	8·4	4·0	334	30	7·3	3·4	308	30	6·7	4·8	312	30	3·8	3·6	2[illegible]
1·0 „ . . .	30	8·0	3·1	320	30	4·0	2·6	294	30	7·9	5·1	321	30	7·5	4·5	316	30	6·3	4·7	304	30	7·0	6·5	3[illegible]
1·5 „ . . .	30	7·0	4·0	322	30	3·7	2·5	298	29	9·2	7·1	299	30	8·3	6·5	302	30	6·4	5·3	295	30	8·6	7·1	3[illegible]
2·0 „ . . .	30	5·7	3·9	319	30	4·0	2·9	297	14	10·5	8·9	303	29	9·9	8·9	295	30	7·4	6·6	294	29	6·0	3·3	3[illegible]
2·5 „ . . .	29	5·5	4·2	318	30	4·7	3·5	303	9	9·3	9·0	295	27	11·5	10·3	291	30	9·3	8·5	295	27	5·1	2·4	[illegible]
3·0 „ . . .	27	5·5	3·3	313	30	5·1	3·9	305	7	8·8	8·6	285	20	8·7	7·9	304	30	10·9	9·7	295	23	4·8	3·8	[illegible]
4·0 „ . . .	23	7·0	4·5	328	30	7·0	5·1	324	2	8·5	8·4	273	14	9·0	7·5	305	29	12·4	11·1	295	10	6·1	4·9	[illegible]
5·0 „ . . .	18	8·6	7·4	341	28	9·9	8·6	332					10	10·3	9·1	305	20	13·2	12·2	297				
6·0 „ . . .	11	8·5	7·6	340	26	11·8	10·3	323					4	11·7	10·4	299	17	14·5	13·3	294				
7·5 „ . . .	8	9·0	7·0	317	21	12·5	11·0	321					1	11·5	11·5	275	12	17·4	16·2	297				
9·0 „ . . .	4	11·1	7·8	290	16	16·3	14·0	317					1	10·0	10·0	275	8	21·7	19·5	293				

Station.	Poona.								Port Blair.												Raipur.			
Time in I. S. T.	0730				1430				0230				0730				1430				0230			
Ht. in k.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	2·1	2·0	256	30	3·6	2·7	303	30	1·9	0·5	151	30	1·7	0·8	130	30	3·5	1·1	119	30	5·4	2·0	2[illegible]
0·15 a. g. . . .	30	3·7	3·6	259	30	3·9	2·8	292	29	3·8	1·3	115	28	3·7	1·3	115	30	5·1	2·0	112	30	8·5	4·7	2[illegible]
0·6 a. s. l. . .	30	2·5	2·4	256	30	3·7	2·7	296	29	4·6	1·9	132	27	5·1	2·4	141	29	5·3	1·2	135	30	8·6	4·7	24
1·0 „ . . .	30	6·1	5·4	323	30	4·2	3·3	301	26	4·3	2·4	132	27	4·6	3·8	144	26	4·9	1·6	178	30	8·1	4·8	2[illegible]
1·5 „ . . .	30	7·8	6·1	351	30	3·6	2·5	295	23	4·6	3·2	140	26	5·1	3·7	129	23	4·9	2·1	181	30	7·2	4·8	2[illegible]
2·0 „ . . .	30	5·9	3·3	12	29	3·8	2·0	283	20	4·6	3·3	140	22	5·5	4·1	126	21	4·7	3·1	121	29	6·8	4·9	3[illegible]
2·5 „ . . .	30	3·1	1·6	73	29	3·7	1·4	293	12	4·9	3·6	141	20	5·7	3·7	126	21	5·2	3·2	113	24	6·8	4·8	3[illegible]
3·0 „ . . .	29	4·4	1·9	110	28	3·9	0·4	289	10	4·7	3·3	129	20	4·9	2·8	115	20	5·4	3·7	114	15	7·8	5·8	3[illegible]
4·0 „ . . .	28	5·8	1·8	76	23	6·1	2·7	7	3	3·8	3·2	90	15	4·3	3·0	133	18	4·6	2·4	144	4	9·9	7·3	3[illegible]
5·0 „ . . .	27	9·4	6·6	12	18	8·1	6·3	342					12	4·7	3·1	147	13	3·9	2·0	155	1	8·5	8·5	[illegible]
6·0 „ . . .	23	9·7	7·2	5	16	11·8	8·3	356					8	5·3	2·3	124	11	4·9	2·0	177	1	6·0	6·0	[illegible]
7·5 „ . . .	15	10·6	9·1	339	9	12·1	10·9	342					5	6·1	5·2	28	8	7·9	2·6	190				
9·0 „ . . .	9	12·5	10·3	325	7	14·8	13·1	339					4	2·6	1·5	5	5	9·4	4·5	227				

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 k.m. above sea-level.

April 1949.

Station.	Raipur.								Saharsa.												Tezpur.			
Time in I. S. T.	0730				1430				0830				1100				1430				0230			
Height in k.m.	n	V	v	D	n	V	v	D	n	V	V	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	2·7	2·1	243	30	2·2	1·6	272	30	3·6	3·4	82	30	2·6	2·1	78	30	2·9	2·7	93	30	1·5	1·1	82
0·15 a. g. . .	30	8·3	6·5	244	30	4·5	3·6	277	30	6·7	6·6	89	30	6·6	6·4	86	30	4·6	4·4	97	22	6·3	5·6	80
0·6 a. s. l. . .	30	9·5	7·5	246	30	4·5	3·7	277	30	7·6	7·3	99	30	6·5	6·4	95	30	5·2	4·7	101	21	6·1	5·0	92
1·0 „ . . .	30	8·6	6·7	262	30	4·8	4·0	274	26	6·4	5·0	111	24	6·3	4·9	109	30	4·8	3·5	112	20	4·9	3·6	102
1·5 „ . . .	30	6·9	4·7	290	30	4·6	3·8	286	22	5·9	2·5	196	20	5·8	2·6	136	28	5·1	1·4	227	19	4·1	1·4	193
2·0 „ . . .	30	6·2	4·5	315	29	5·3	4·2	292	22	5·5	3·2	224	11	6·5	2·6	193	26	7·5	5·2	269	17	5·6	4·7	251
2·5 „ . . .	30	6·7	5·1	317	29	5·4	4·1	301	20	6·6	5·1	260	3	6·3	0·6	243	25	8·9	7·6	273	17	7·2	6·9	253
3·0 „ . . .	29	7·1	5·6	313	28	6·3	4·8	313	20	8·9	6·6	280	2	5·7	3·3	323	25	10·0	8·4	274	15	9·2	8·5	252
4·0 „ . . .	25	8·4	5·6	320	27	7·9	5·7	321	18	10·6	9·5	284					19	13·4	12·0	280	7	7·9	7·2	259
5·0 „ . . .	22	10·0	7·4	335	25	10·2	8·1	333	13	11·7	9·5	294					15	17·2	16·6	283				
6·0 „ . . .	18	9·9	8·6	325	24	14·6	11·6	323	8	8·7	7·2	308					10	18·7	18·1	279				
7·5 „ . . .	10	9·3	7·2	305	21	16·0	14·2	317	3	3·8	3·6	338					6	16·4	15·3	291				
9·0 „ . . .	7	14·7	12·5	293	16	19·8	16·3	316	1	4·5	4·5	265					4	20·0	18·2	307				

Station.	Tezpur.												Trichinopoly.											
Time in I. S. T.	0730				1100				1430				0230				0730				1430			
Height in k.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	1·3	1·1	77	30	1·5	1·3	72	30	1·2	0·9	79	30	2·2	0·4	225	30	1·9	0·6	253	30	1·6	0·2	334
0·15 a. g. . .	27	5·9	5·3	81	29	5·5	4·9	75	30	4·7	3·7	82	30	5·3	3·0	232	30	4·6	2·7	269	30	3·5	0·9	270
0·6 a. s. l. . .	26	6·6	5·8	92	27	5·8	5·4	85	30	4·5	3·2	86	30	6·2	4·1	227	30	5·9	4·0	266	30	2·9	1·2	258
1·0 „ . . .	23	4·3	2·8	97	23	5·1	3·9	96	30	3·8	1·1	134	30	5·5	3·4	223	30	4·8	2·9	270	30	3·2	0·7	259
1·5 „ . . .	21	4·5	0·4	186	22	4·7	1·2	115	26	6·7	3·5	237	28	3·9	1·3	227	30	3·7	1·1	7	30	3·9	1·5	28
2·0 „ . . .	18	6·2	4·1	259	20	4·7	2·6	245	25	9·3	6·7	245	27	5·3	3·2	44	29	2·8	5·1	44	30	5·8	4·5	42
2·5 „ . . .	17	8·3	6·7	258	15	7·2	5·5	259	25	10·9	9·1	247	22	7·9	7·4	53	29	8·7	8·2	44	30	8·0	7·3	41
3·0 „ . . .	14	8·2	7·1	257	12	8·2	7·4	259	22	11·5	10·4	250	19	9·4	8·7	42	29	9·8	9·2	40	30	9·3	8·7	38
4·0 „ . . .	10	8·3	8·0	250					13	10·7	9·4	260	2	7·7	6·5	39	28	9·1	8·2	44	29	8·4	7·4	40
5·0 „ . . .	5	5·2	4·4	261					9	10·6	7·0	268					24	7·8	4·7	55	29	8·2	4·7	42
6·0 „ . . .	5	6·2	2·4	282					8	12·1	9·7	269					22	8·9	3·3	42	28	10·9	5·3	32
7·5 „ . . .	4	9·7	5·7	302					4	12·7	9·0	223					14	11·4	4·6	32	22	11·6	2·6	36
9·0 „ . . .	3	9·3	5·9	351					4	20·7	16·3	223					8	7·9	4·8	324	15	10·9	2·4	18

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 k.m. above sea-level.

April 1949.

Station.	Trivandrum.				Udaipur.												Vengurla.							
Time in I. S. T.	0730				0230				0730				1430				0230				0730			
Height in k.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	30	1·3	1·2	6	30	1·0	0·8	278	30	0·4	0·3	305	30	2·6	1·8	255	30	0·9	0·8	353	30	0·4	0·4	
0·15 a. g.	30	5·6	4·6	353	30	5·8	4·5	277	30	4·1	3·5	302	29	4·6	3·3	264	30	3·7	3·1	338	30	2·8	2·2	
0·6 a. s. l.	30	6·8	6·1	318													30	4·6	4·0	327	30	4·5	3·7	
1·0 „	30	6·6	5·8	316	30	7·7	6·1	285	30	7·4	5·9	295	30	5·1	3·5	271	29	5·9	5·0	325	26	6·1	5·3	
1·5 „	27	5·2	3·1	332	30	8·3	6·8	289	30	6·4	4·9	293	30	4·5	3·0	273	22	7·5	6·3	329	23	8·6	6·9	
2·0 „	24	5·0	3·1	52	29	6·8	5·2	293	30	5·6	3·2	293	30	4·5	3·4	265	21	5·5	2·9	342	21	7·7	4·9	
2·5 „	23	6·6	5·4	56	26	5·4	2·7	328	30	5·7	2·8	281	30	4·7	3·8	263	12	4·7	2·7	80	21	5·7	3·2	
3·0 „	21	8·3	7·1	45	20	5·5	1·9	305	29	6·5	2·4	288	30	5·0	3·8	267	11	5·6	5·0	70	20	5·3	2·9	
4·0 „	15	6·3	5·3	38	1	6·0	6·0	220	26	7·3	4·4	301	29	5·7	4·2	293					18	5·6	3·9	
5·0 „	11	5·3	0·7	11					21	9·3	7·8	313	29	8·4	7·0	302					15	8·6	6·3	
6·0 „	9	6·4	3·1	270					12	9·6	8·7	322	28	12·7	10·6	305					11	11·4	9·0	
7·5 „	9	10·4	2·4	268					2	10·3	10·1	317	24	16·4	14·3	307					3	13·2	11·6	
9·0 „	7	9·9	4·3	264					1	11·0	11·0	315	19	19·6	18·2	296					1	16·0	16·0	

Station.	Vengurla.				Veraval.												Vizagapatam.							
Time in I. S. T.	1430				0230				0730				1430				0230				0730			
Height in k.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	30	5·5	5·2	265	30	4·9	3·9	298	30	3·1	2·5	310	30	7·4	6·9	267	30	2·4	1·7	228	30	1·7	1·5	
0·15 a. g.	30	4·8	4·5	270	30	7·9	6·9	295	30	7·8	7·2	304	30	7·8	7·1	270	29	4·9	4·4	227	30	4·8	4·1	
0·6 a. s. l.	30	4·3	3·0	302	30	9·3	8·5	301	27	10·8	9·9	309	30	6·8	5·9	293	27	7·7	7·1	229	29	7·0	6·4	
1·0 „	29	4·7	3·0	7	29	7·3	6·7	296	27	8·9	8·0	312	30	6·3	4·9	302	25	6·3	5·3	242	23	6·5	5·7	
1·5 „	28	5·6	3·0	22	26	5·6	3·4	291	26	7·5	4·3	292	30	5·7	3·6	297	22	4·8	3·8	261	22	4·5	3·0	
2·0 „	27	4·6	1·7	34	26	5·8	2·4	278	26	6·7	3·0	270	30	6·6	3·7	278	17	4·6	2·9	293	21	4·0	1·9	
2·5 „	27	4·3	2·0	73	18	6·4	2·6	242	17	6·1	1·2	302	30	7·2	3·4	269	14	5·0	3·5	325	19	4·4	2·6	
3·0 „	26	4·7	2·7	75	16	5·3	2·0	242	15	5·5	1·3	282	30	7·5	3·0	258	8	5·9	4·5	333	18	5·7	3·4	
4·0 „	24	6·2	4·5	54	1	2·5	2·5	145	13	7·9	4·5	313	30	7·2	3·6	306	2	6·0	4·7	30	14	7·2	5·9	
5·0 „	23	9·2	7·2	34					8	5·4	4·6	331	30	8·2	4·6	327					9	6·5	2·6	
6·0 „	21	9·1	7·0	26					4	7·4	6·5	347	29	8·7	5·5	330					8	9·7	6·7	
7·5 „	14	10·5	4·5	358						6·0	6·0	305	21	9·9	7·7	322					6	13·9	10·5	
9·0 „	6	14·1	10·0	304									15	14·0	11·3	310					1	29·0	29·0	

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 k.m. above sea-level.

April 1949.

Station.	Vizagapatam.				Minicoy.											
Time in I. S. T.	1430				0230				0730				1430			
Height in k.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	5·4	5·1	182	30	2·7	2·5	300	30	2·1	1·9	304	30	3·4	3·1	310
0·15 a. g. . . .	29	6·3	5·9	196	30	4·9	4·5	294	30	5·1	4·6	299	30	5·9	5·5	305
0·6 a. s. l. . .	29	6·1	5·6	220	30	5·1	4·6	294	30	4·8	4·3	301	29	5·5	5·0	308
1·0 „	29	5·1	4·6	231	30	3·9	2·5	290	29	4·2	3·2	302	29	4·5	3·3	307
1·5 „	27	3·9	2·7	273	25	3·8	1·7	10	27	4·7	2·1	353	28	4·6	2·5	2
2·0 „	27	4·3	3·3	338	16	6·3	3·6	34	22	7·0	4·5	35	24	6·0	3·8	41
2·5 „	27	5·1	3·9	354	8	7·7	7·0	73	22	8·3	5·7	49	22	7·5	5·4	59
3·0 „	27	6·3	5·3	1	7	7·1	6·8	79	18	7·1	5·0	58	17	7·2	5·3	56
4·0 „	25	7·1	6·0	1	1	1·5	1·5	285	16	5·8	3·1	70	11	4·2	1·3	4
5·0 „	24	7·7	4·7	350					8	5·3	2·8	57	8	3·4	1·5	41
6·0 „	23	9·9	5·5	316					7	7·6	5·0	34	8	9·5	6·4	68
7·5 „	18	13·7	8·7	298					1	8·0	8·0	5	4	10·6	9·8	67
9·0 „	9	12·5	8·7	300									2	10·5	10·4	89

Monthly Mean Directions and Velocities of Upper Winds.

Winds at and above 10 k.m. above sea-level.

April 1949.

Height in k.m.	n	V	v	D
AHMEDABAD.				
10·0	14	12·4	5·3	310
11·0	4	9·5	9·4	287
12·0	2	12·3	11·9	282
13·0	2	14·7	14·6	276
14·0	2	15·0	14·9	282
15·0	1	11·0	11·0	260
ALLAHABAD.				
10·0	3	6·5	1·8	331
11·0	3	15·3	4·8	342
12·0	2	9·5	9·4	347
13·0	2	12·2	11·4	320
AMBALA.				
10·0	4	23·5	21·2	301
11·0	1	18·5	18·5	295
ANANTAPUR.				
10·0	31	7·6	3·9	350
11·0	23	6·6	2·5	5
12·0	18	4·8	1·6	17
13·0	13	3·5	1·1	338
14·0	8	5·3	2·3	82
15·0	4	6·3	3·4	120
16·0	3	10·7	7·4	65
17·0	1	2·0	2·0	355
18·0	1	6·5	6·5	105
ASANSOL.				
10·0	2	7·5	4·8	294
11·0	2	13·5	9·1	306
12·0	1	11·5	11·5	320
BANGALORE.				
10·0	1	21·0	21·0	285
BAREILLY.				
10·0	8	25·6	21·1	306
11·0	4	23·5	21·5	306
12·0	3	14·3	13·7	291
13·0	2	18·7	18·3	302
14·0	2	23·0	22·5	307
15·0	2	23·7	23·6	280
16·0	1	24·0	24·0	295
BAIRAGARH.				
10·0	13	49·0	18·0	310
11·0	8	17·2	16·0	302
12·0	3	18·7	18·7	322
13·0	2	16·3	16·3	308
14·0	2	20·7	19·5	300
15·0	2	25·7	24·8	300
16·0	1	14·0	14·0	295
17·0	1	15·0	15·0	294
BHUJ.				
10·0	14	14·3	13·3	298
11·0	3	28·8	28·3	291
12·0	1	47·0	47·0	300
BIKANER.				
10·0	3	20·3	18·8	273
11·0	2	18·0	17·1	262
12·0	1	11·0	11·0	280
BOMBAY.				
10·0	15	14·3	9·1	330
11·0	4	21·5	21·0	329
12·0	1	7·5	7·5	335
13·0	1	9·0	9·0	325
14·0	1	11·5	11·5	330
COCHIN.				
10·0	3	11·8	6·2	13
11·0	2	9·0	7·1	52
12·0	1	6·0	6·0	345
CUTTACK.				
10·0	2	18·0	18·0	335
11·0	2	19·3	19·3	335
DEOLALI.				
10·0	3	7·9	7·4	307
DIBRUGARH.				
10·0	2	7·3	6·3	306
11·0	1	18·0	18·0	310
GADAG.				
10·0	7	8·5	6·3	328
11·0	2	3·0	2·9	63
12·0	1	3·0	3·0	335
13·0	1	2·5	2·5	45
14·0	1	6·0	6·0	45
15·0	1	9·0	9·0	35
GOPALPUR.				
10·0	3	24·3	23·7	242
11·0	1	28·0	28·0	260
HYDERABAD (DN.)				
10·0	8	13·6	10·9	304
11·0	1	22·5	22·5	270
JAGDALPUR.				
10·0	21	11·8	9·3	286
11·0	16	11·2	9·1	284
12·0	8	10·8	9·1	300
13·0	5	11·8	10·4	284
14·0	4	6·5	5·6	356
JAMSHEDPUR.				
10·0	2	14·0	11·9	285
11·0	1	9·0	9·0	340
12·0	1	6·0	6·0	270
JAMNAGAR.				
10·0	7	13·4	12·4	282
11·0	5	9·0	8·6	281
12·0	5	11·2	10·9	272
13·0	4	11·4	11·2	270
14·0	3	12·2	12·0	260
15·0	2	9·2	9·1	282
16·0	2	5·2	5·2	196
17·0	1	9·5	9·5	265
JHARSUGUDA.				
10·0	11	21·0	13·8	288
11·0	4	24·5	24·0	304
12·0	2	19·7	18·1	301
13·0	1	6·5	6·5	270
14·0	1	11·0	11·0	265
15·0	1	9·0	9·0	325
16·0	1	4·0	4·0	310
JUBBULPORE.				
10·0	9	16·4	14·0	323
11·0	5	15·5	13·2	319
12·0	3	16·3	15·8	288
13·0	3	20·4	20·0	292
14·0	2	29·7	29·7	303
15·0	1	35·5	35·5	310
16·0	1	40·5	40·5	285
MADHOSAGAR.				
10·0	6	15·8	13·8	296
11·0	3	21·8	21·7	292
12·0	2	26·7	26·6	296
13·0	2	25·7	25·1	300
14·0	1	31·0	31·0	285
MADRAS.				
10·0	23	11·4	5·0	277
11·0	12	12·0	6·8	254
12·0	8	12·1	7·7	238
13·0	4	8·1	3·4	226
14·0	3	8·0	7·2	111
15·0	1	6·0	6·0	95
16·0	1	8·0	8·0	135
17·0	1	7·0	7·0	115
MALEGAON.				
10·0	15	11·8	9·1	318
11·0	6	15·7	14·6	316
12·0	3	17·3	15·7	298
13·0	1	12·0	12·0	290
MANGALORE.				
10·0	7	8·1	4·9	338
11·0	3	5·7	4·6	51
12·0	1	9·5	9·5	96
MASULIPATAM.				
10·0	11	11·8	10·0	260
11·0	5	16·8	14·8	254
12·0	3	17·3	16·0	235
13·0	1	5·0	5·0	300
14·0	1	7·0	7·0	10

Monthly Mean Directions and Velocities of Upper Winds.

Winds at and above 10 k.m. above sea-level.

April 1949.

Height in k.m.	n	V	v	D
NAGERCOIL.				
10·0	28	13·7	9·4	51
11·0	9	14·4	9·2	63
12·0	7	15·2	8·6	62
13·0	5	16·7	15·1	62
14·0	3	18·8	17·2	67
15·0	2	14·7	11·7	66
16·0	2	9·5	8·9	115
17·0	2	8·3	7·3	164
18·0	1	4·5	4·5	170
NAGPUR.				
10·0	7	17·7	17·0	313
11·0	5	18·6	18·0	301
12·0	2	20·7	18·9	272
NEW DELHI.				
10·0	1	16·5	16·5	320
11·0	1	15·0	15·0	305
12·0	1	16·5	16·5	305
13·0	1	14·0	14·0	300
14·0	1	19·0	19·0	310
15·0	1	23·0	23·0	285
16·0	1	25·0	25·0	290
17·0	1	19·0	19·0	325
18·0	1	12·5	12·5	325
19·0	1	6·0	6·0	320
POONA.				
10·0	10	14·0	12·6	326
11·0	3	16·7	16·6	307
12·0	3	14·3	13·7	305
13·0	3	10·7	10·1	285
14·0	1	7·0	7·0	260
PORT BLAIR.				
10·0	8	7·0	3·6	230
11·0	5	8·6	6·0	229
12·0	4	14·7	12·1	225
13·0	4	12·6	10·3	211
14·0	4	12·0	6·5	209
15·0	4	9·0	3·4	209
16·0	2	9·0	4·9	202
17·0	2	8·5	4·9	107
18·0	2	12·5	11·8	93

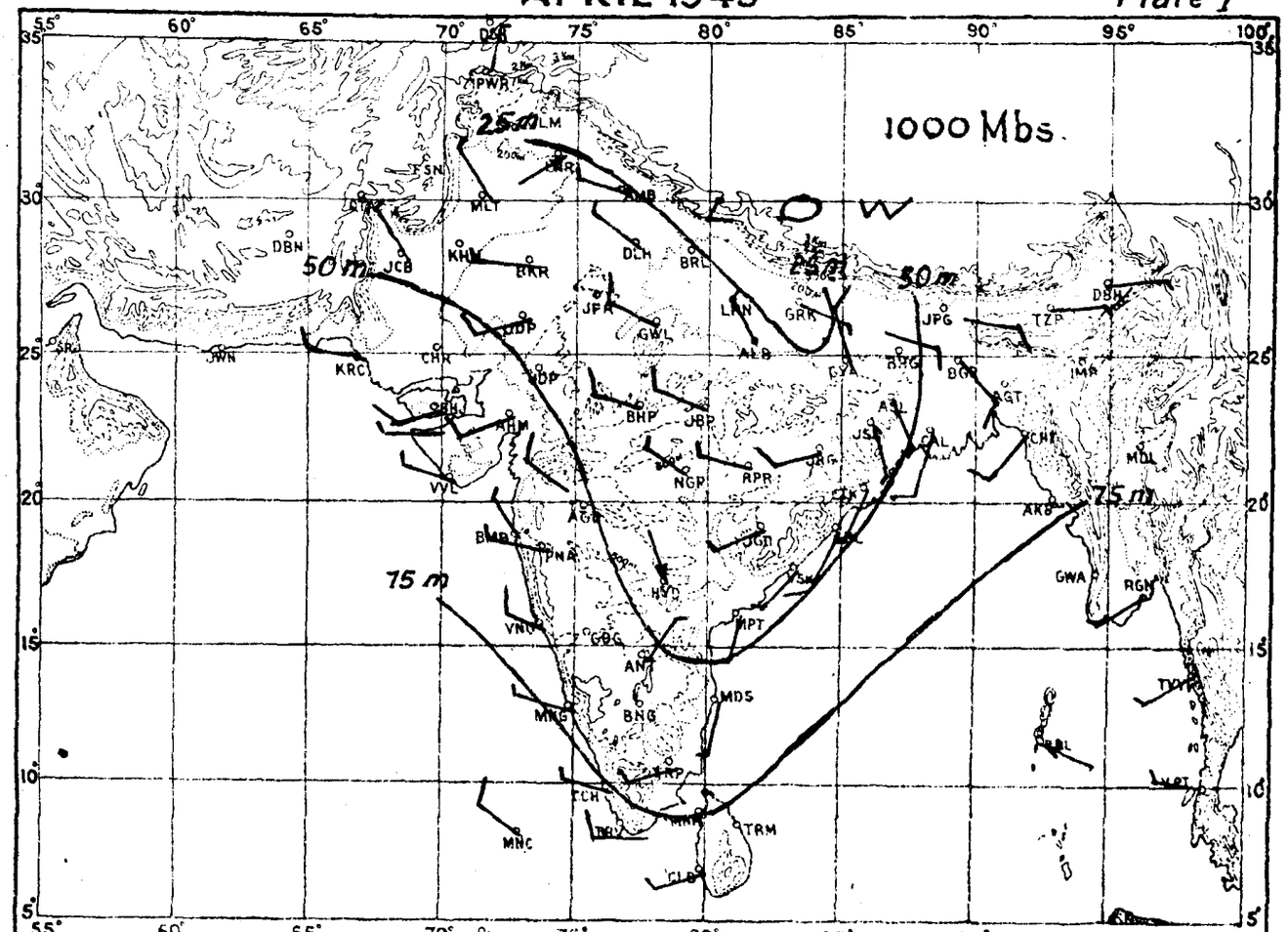
Height in k.m.	n	V	v	D
RAIPUR.				
10·0	16	21·5	15·0	314
11·0	7	27·3	22·7	314
12·0	4	23·0	17·6	295
13·0	2	26·7	20·1	276
14·0	2	30·7	22·9	286
SAHARSA.				
10·0	2	17·7	17·7	335
11·0	2	22·7	22·7	337
12·0	1	30·0	30·0	340
TEZPUR.				
10·0	5	15·7	9·8	294
11·0	1	17·0	17·0	330
12·0	1	25·0	25·0	295
13·0	1	34·0	34·0	290
TRICHINOPOLY.				
10·0	19	8·9	0·6	308
11·0	6	9·3	2·8	276
12·0	4	9·7	2·2	217
13·0	4	8·9	1·3	266
14·0	4	7·6	2·9	346
15·0	1	3·0	3·0	139
16·0	1	6·0	6·0	159
TRIVANDRUM.				
10·0	4	8·3	3·1	281
11·0	1	3·0	3·0	230
12·0	1	2·0	2·0	220
13·0	1	4·5	4·5	125
UDAIPUR.				
10·0	8	19·1	16·9	291
11·0	2	24·0	23·9	301
12·0	1	20·5	20·5	280
VIZAGAPATAM.				
10·0	6	15·8	13·2	277
11·0	3	11·5	9·3	287
12·0	1	17·0	17·0	255
13·0	1	16·5	16·5	260
MINICOY.				
10·0	1	8·5	8·5	125
11·0	1	12·0	12·0	100
12·0	1	16·0	16·0	85
13·0	1	15·0	15·0	80

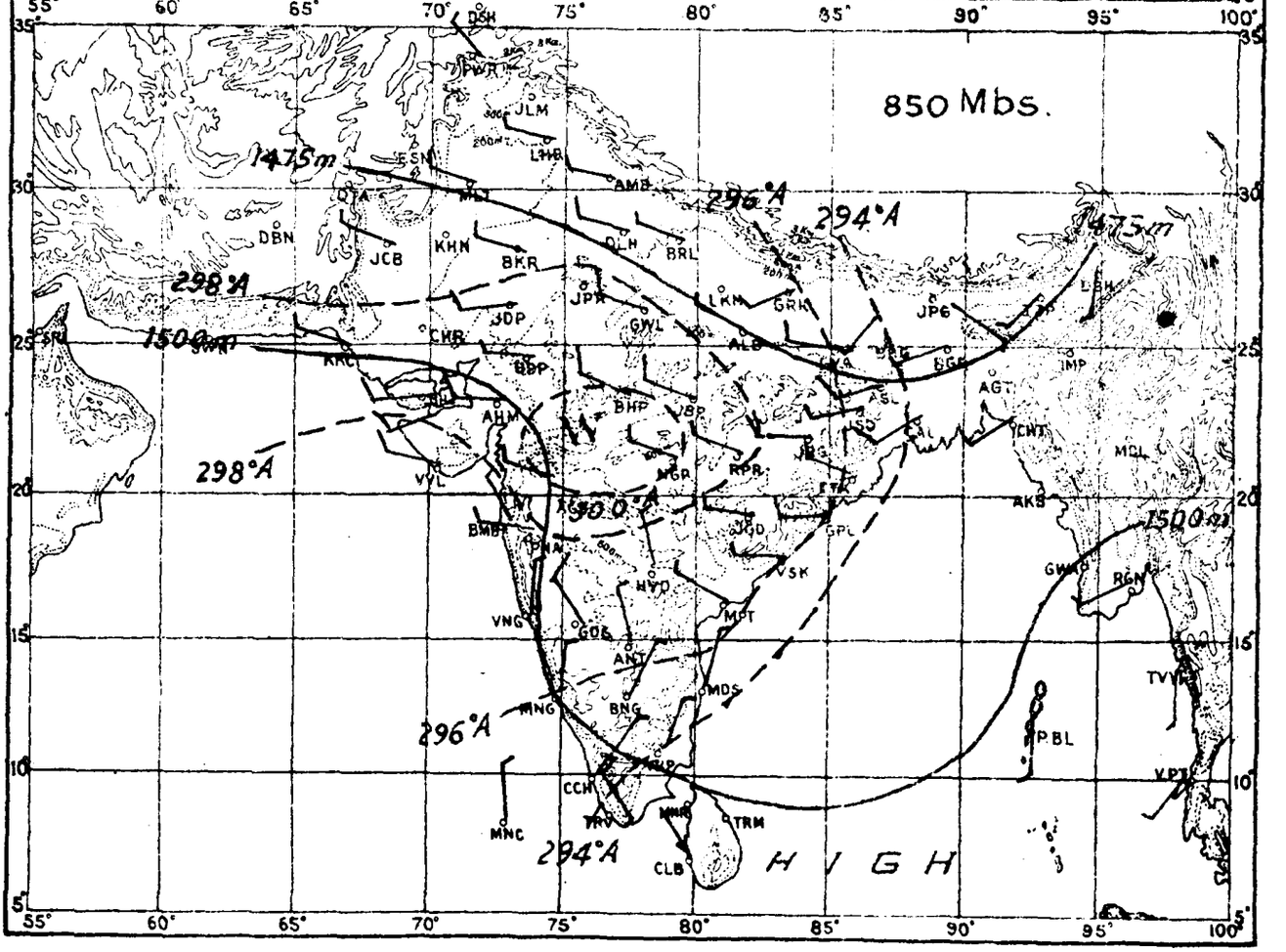
MGIPC—S3—4 DGO/53—16-9-54—260.

MONTHLY MEAN CONSTANT PRESSURE CHARTS.

APRIL 1949

Plate I





RESULTANT WIND —\= 5 Knots, —\= 10 Knots, —\= 50 Knots.

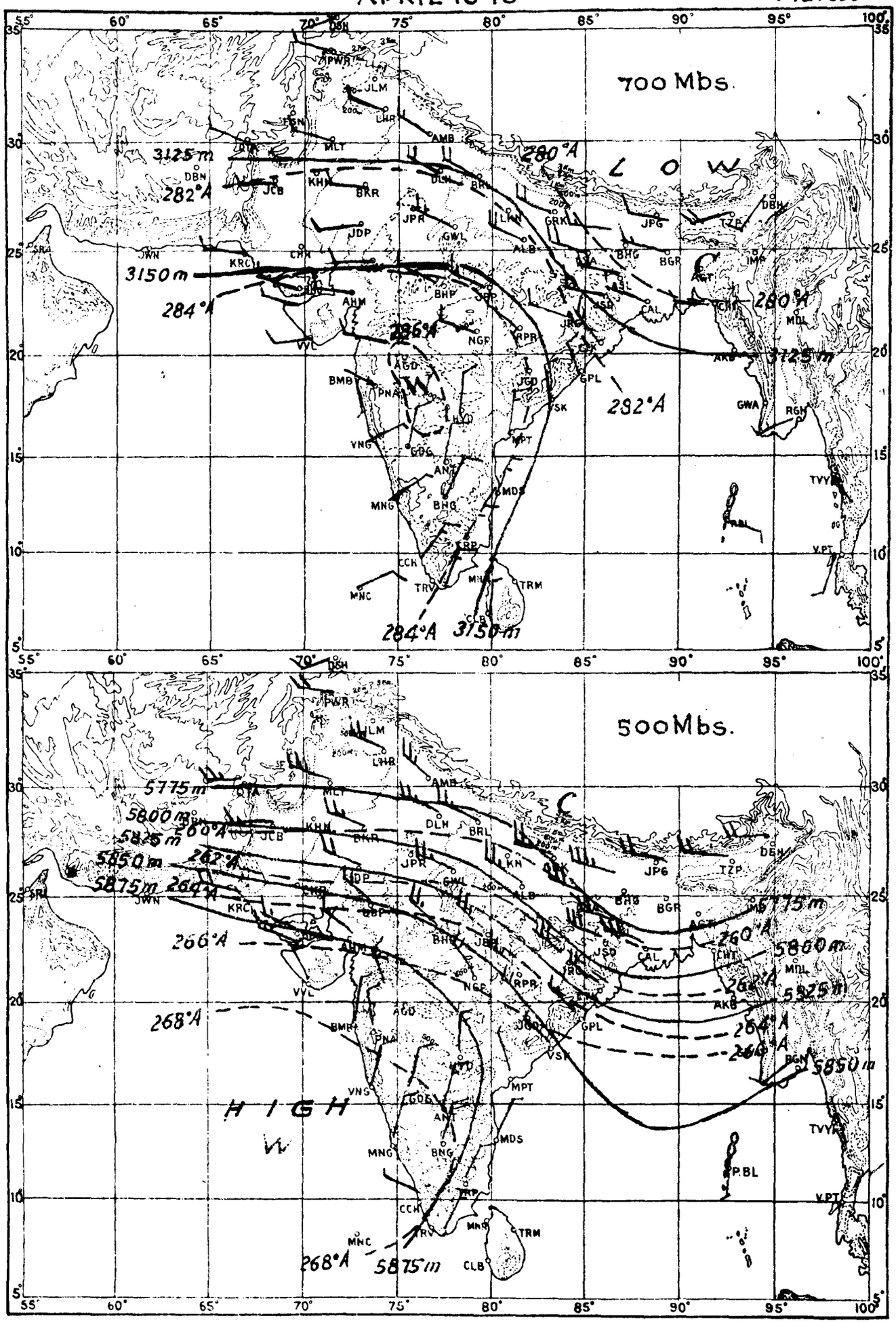
------ Isotherms in degrees absolute. ——— Contours in geopotential metres.

G.PZ.P.POONA,53.

MONTHLY MEAN CONSTANT PRESSURE CHARTS.

APRIL 1949

Plate II



RESULTANT WIND ——= 5 Knots; ——= 10 Knots, ——= 50 Knots.

------ Isotherms in degrees absolute. ——— Contours in geopotential metres.

G.PZ.P.POONA.53

The total rainfall for May was in moderate to large excess in West Bengal, Chota Nagpur, Bihar, the east Unit Provinces, Vindhya Pradesh, Berar, the west Central Provinces, the Konkan, the Bombay Deccan, Hyderabad a the Madras Presidency and in slight excess in Madhya Bharat and Bhopal and the east Central Provinces. It w normal in the Bay Islands, Assam, the East Punjab and Mysore in slight to moderate defect in Orissa, the west Unit Provinces, east Rajputana and Gujarat and in large defect elsewhere. Averaged over the plains of India the montl rainfall was 44 per cent in excess.

Mean maximum temperature was above normal in the East Punjab and Rajputana, and below normal in W Bengal, Chota Nagpur, Bihar, the east United Provinces, the Deccan, Mysore, southeast Madras and the no Madras coast. Elsewhere it was normal.

Mean minimum temperature was above normal in the west United Provinces, northwest India, Madhya Bha and Bhopal, Vindhya Pradesh and the west Central Provinces and normal elsewhere.

Relative humidity was in excess in West Bengal, Chota Nagpur, Bihar, the United Provinces, Saurashtra a Cutch, Vindhya Pradesh, Berar, the Central Provinces, the Deccan and Mysore and normal elsewhere.

The cloud amount was normal in the Bay Islands, the United Provinces, Rajputana, Vindhya Pradesh, Mys and the north Madras coast and in defect in the East Punjab. Elsewhere it was in excess.

Table I contains the divisional and sub-divisional means of rainfall, temperatures, humidity and cloud amo for the 13 chief political divisions and the 27 sub-divisions. The stations whose observations are used for prepar these means are given in the subsequent tables.

The highest maximum temperature given for any station in the accompanying tables is that recorded wit the 24 hours ending at 08 30 hours I. S. T. of the date noted in the succeeding column ; similarly the heaviest in 24 hours for any station denotes the amount recorded during the 24 hours ending at 0830 hours I. S. T. of date given in the succeeding column.

POONA-5,

The 20th October 1949.

S. BASU,

for *Director-General of Observatories.*

Table I.—Divisional and Sub-divisional means—May 1949.

DIVISION.	Rainfall.				Departure from normal of				
							0830 hrs. I. S. T.		
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Maximum temperature.	Minimum temperature.	Vapour pressure.	Relative humidity.	Cloud.
1	2	3	4	5	6	7	8	9	10
	"	"	"		°	°	Mb.	%	
Assam	11·51	11·79	—0·28	—2	—0·5	+0·7	+0·3	+1	+1·0
West Bengal	9·86	6·63	+3·23	+49	—5·5	—1·3	0	+6	+1·1
Orissa	1·90	3·17	—1·27	—40	—1·7	+0·1	+0·4	+2	+0·9
Bihar	3·93	2·07	+1·86	+90	—4·7	—1·1	+3·0	+12	+0·9
United Provinces	0·81	0·70	+0·11	+16	—1·1	+2·4	+5·3	+12	0
East Punjab	0·50	0·53	0·03	—16	+3·3	+3·1	+1·7	+2	—0·9
Rajputana	0·21	0·47	—0·26	—55	+3·2	+4·5	+1·5	0	—0·1
Bombay (*including* Saurashtra and Cutch).	2·34	0·98	+1·36	+139	—0·3	+1·8	+1·5	+5	+0·9
Central India (*including* Madhya Bharat and Bhopal and Vindhya Pradesh).	0·80	0·50	+0·30	+60	+1·4	+2·9	+3·8	+7	+0·5
Central Provinces and Berar.	1·34	0·81	+0·53	+65	—0·5	+1·4	+3·7	+11	+1·5
Hyderabad	1·77	0·95	+0·82	+86	—2·7	—0·6	+1·8	+9	+1·1
Mysore	4·12	4·29	—0·17	—4	—2·3	+0·4	+0·6	+6	+0·7
Madras	6·47	3·12	+3·35	+107	—3·0	—0·2	+0·3	+4	+1·0
Mean of India	2·80	1·95	+0·85	+44	—0·8	+1·4	+2·0	+6	+0·7

SUB-DIVISION.	Rainfall.				Departure from normal of				
							0830 hrs I. S. T.		
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Maximum temperature.	Minimum temperature.	Vapour pressure.	Relative humidity.	Cloud.
1	2	3	4	5	6	7	8	9	10
	"	"	"		°	°	Mb.	%	
1. Bay Islands	15·97	15·13	+0·64	+6	+1·8	+1·1	—0·2	—1	+0·4
2. Assam	11·51	11·79	—0·28	—2	—0·5	+0·7	+0·3	+1	+1·0
3. West Bengal	9·86	6·63	+3·23	+49	—5·5	—1·3	0	+6	+1·1
4. Orissa	1·90	3·17	—1·27	—40	—1·7	+0·1	+0·4	+2	+0·9
5. Chota Nagpur	4·23	2·10	+2·13	+101	—4·0	—1·3	+3·5	+12	+1·3
6. Bihar	3·79	2·05	+1·74	+85	—5·2	—0·9	+2·6	+11	+0·7
7. United Provinces, East.	1·15	0·75	+0·40	+53	—2·7	+1·6	+5·8	+14	0
8. United Provinces, West.	0·48	0·64	—0·16	—25	+0·7	+3·4	+4·8	+9	—0·1
9. East Punjab	0·50	0·53	—0·03	—6	+3·3	+3·1	+1·7	+2	—0·9
10. Kashmir				Data incomplete.					
11. Rajputana, West	0·13	0·39	—0·26	—67	+3·3	+4·1	+2·7	+3	—0·1
12. Rajputana, East	0·29	0·55	—0·26	—47	+3·1	+4·9	+0·3	—3	—0·1
13. Gujarat	0·23	0·37	—0·14	—38	+0·9	+2·9	+0·6	+1	+0·6
14. Saurashtra and Cutch.	0·03	0·29	—0·26	—90	+1·0	+2·2	+2·6	+6	+0·7
15. Madhya Bharat and Bhopal.	0·67	0·55	+0·12	+22	+1·7	+3·6	+1·4	+1	+0·9
16. Vindhya Pradesh	0·97	0·42	+0·55	+131	+1·0	+2·0	+7·0	+11	—0·1
17. Berar	1·59	0·47	+1·12	+238	—1·0	+1·5	+2·2	+14	+1·4
18. Central Provinces, West.	1·09	0·56	+0·53	+95	+0·4	+2·4	+3·5	+11	+1·8
19. Central Provinces, East.	1·54	1·24	+0·30	+24	—1·3	+0·2	+2·1	+10	+1·3
20. Konkan	5·58	2·09	+3·49	+167	0	+0·9	+1·5	+3	+1·1
21. Bombay Deccan	3·48	1·25	+2·23	+178	—2·1	+1·0	+1·4	+6	+1·9
22. Hyderabad, North	1·56	0·77	+0·79	+103	—2·1	—0·2	+2·1	+10	+1·8
23. Hyderabad, South	1·99	1·13	+0·86	+76	—3·2	—0·9	+1·6	+7	+0·7
24. Mysore	4·12	4·29	—0·17	—4	—2·8	+0·4	+0·6	+6	+0·7
25. Malabar	19·41	8·98	+10·43	+116	—1·1	—1·1	0	+5	+1·0
26. Madras, South-east.	3·96	2·03	+1·93	+95	—2·9	+0·2	—0·5	+2	+1·2
27. Madras, Deccan	3·06	1·81	+1·25	+69	—4·5	—0·7	+2·6	+9	+0·9
28. Madras Coast, North.	4·05	1·70	+2·35	+138	—3·2	0	+0·1	+5	+0·6

Table II.—Abstract of observations recorded at 0830 hrs. I. S. T. (0300 h

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relativ humidit %	
		Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Mean.	Departure from normal	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I. S. T.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Departure from normal.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
BAY ISLANDS.																					
Port Blair	261	1,000·3	+0·4	997·7	88·5	+1·8	91	8, 9, 11	76·1	+1·1	71	31	84·4	81·3	78·6	76·8	30·4	—0·2	29·4	77	—1
ASSAM.																					
Dibrugarh	348	995·9	—0·2	991·9	84·8	+0·3	93	8, 9	71·0	+0·3	67	6	77·6	80·1	73·3	75·2	25·8	—0·8	27·5	81	—2
Sibsagar	317	997·2	+0·3	992·9	85·9	+0·7	93	9	72·8	+1·1	64	4	78·7	81·5	74·8	75·9	27·5	0	28·2	83	—1
Tezpur	258	999·3	+0·2	995·1	87·4	+0·6	93	9, 11, 19	73·6	+1·3	66	5	78·9	83·3	74·9	76·7	26·7	—0·1	28·5	83	+2
Gauhati	182	1,001·3	+0·5	997·1	87·1	—0·6	93	4 days	73·8	+1·4	69	4	80·0	83·0	75·4	75·9	28·1	+1·1	27·5	81	+2
Dhubri	115	1,003·5	+0·6	999·7	85·0	—0·8	93	9, 10, 11	73·5	+0·5	69	17, 22	78·6	82·4	75·3	77·0	28·2	+0·8	29·1	85	+3
Silchar	96	1,004·9	+0·5	1,000·9	86·8	—1·9	94	28	73·5	+0·9	66	6	79·8	80·9	75·4	76·1	27·9	—0·3	28·3	82	+2
WEST BENGAL.																					
Dum Dum	33	1,004·6	—	1,001·1	91·3	—	100	31	76·9	..	68	7	84·0	86·4	78·1	78·1	30·0	—	28·7	76	—
Calcutta	21	1,005·0	+0·6	1,001·4	92·2	—3·4	102	31	77·5	0	69	7	84·9	86·7	79·3	79·1	31·7	+0·2	30·8	77	+3
Saugor Island	10	1,005·1	+0·3	1,002·1	87·8	—3·2	91	29, 30, 31	79·5	—1·1	71	8	85·3	85·1	80·2	80·3	33·1	—0·3	32·8	79	+4
Sandheads	28	1,005·2	+0·8	1,001·8	—	—	—	—	..	..	..	..	86·2	87·0	83·0	83·5	37·5	+3·4	37·6	87	+8
Midnapore	149	1,000·0	+0·3	996·1	93·6	—6·3	103	5	76·2	—2·5	67	7	83·9	88·3	77·8	80·4	29·9	—0·3	32·0	75	+6
Contai	35	1,003·8	—	1,000·5	89·4	—	94	30, 31	77·9	..	66	1	84·5	85·7	80·0	81·0	32·9	—	34·3	81	—
Burdwan	106	1,001·4	+0·2	997·9	91·5	—6·6	100	1	76·2	—1·3	67	7	82·1	87·4	77·6	78·7	30·3	—0·2	29·8	81	+7
Krishnagar	48	1,003·9	+0·5	1,000·7	92·2	—4·5	100	30, 31	75·0	—1·6	67	7	83·3	85·8	78·7	78·2	31·6	+0·9	29·7	81	+6
Asansol	414	990·8	+0·7	987·0	93·0	—9·2	102	19	75·2	—3·0	67	7	83·1	87·0	76·6	77·2	28·3	+0·4	27·1	74	+11
Berhampore	62	1,004·0	+0·8	999·8	91·4	—5·7	100	31	75·3	—1·4	67	1	82·2	86·2	77·1	78·4	29·6	—0·3	29·3	78	+5
Malda	103	1,002·3	+0·5	998·5	88·1	—7·3	95	23, 30	73·8	—1·5	68	1	80·0	84·9	75·8	77·8	28·8	+0·2	29·5	82	+11
Cooch Behar	145	1,002·4	—	998·2	87·2	—	94	29, 30	73·4	..	67	17	79·3	83·9	74·8	76·9	27·4	—	28·4	80	—
Jalpaiguri	271	997·6	+0·3	993·5	86·1	—3·4	93	30	73·5	+0·9	69	21	78·0	83·7	73·6	76·3	26·2	—1·0	27·5	81	+2
ORISSA.																					
Balasore	65	1,003·3	+0·8	1,000·1	94·1	—3·0	105	31	79·0	+0·2	70	7	86·3	86·6	79·5	79·8	31·0	0	31·4	73	+3
Chandbali	20	1,004·7	+0·7	1,001·0	95·7	—1·7	—	—	78·4	—0·8	—	..	87·7	87·5	79·6	78·7	31·0	—0·9	29·2	69	—4
Puri	20	1,005·1	+0·6	1,001·7	89·1	—0·5	99	31	82·1	+1·0	73	8	85·9	85·7	80·9	81·4	33·8	—0·3	34·3	80	—1
Gopalpur	56	1,003·9	+0·7	1,000·3	90·9	+0·6	104	31	81·3	+1·2	77	26	85·7	85·0	80·6	80·6	33·5	—0·1	33·5	79	0
Cuttack	87	1,002·2	—0·1	998·2	98·5	—2·9	103	5 days.	80·1	+0·2	70	8	86·3	90·0	79·2	78·4	31·8	+0·6	28·1	71	+1
Angul	455	989·7	+0·6	985·2	101·3	—2·2	110	6	79·0	0	74	4 days	85·8	93·0	77·6	78·0	28·9	+0·3	25·9	68	+2
Sambalpur	486	988·2	+0·2	982·9	104·6	—1·9	112	1	80·4	—0·8	71	30	89·3	101·0	78·0	77·5	27·3	+3·2	21·5	60	+12
CHOTA NAGPUR.																					
Jamshedpur	423	990·3	+0·9	985·9	97·1	—5·8	106	18	78·2	—1·0	71	7	84·9	91·9	76·8	77·8	28·0	+1·6	26·2	67	+9
Chaibasa	742	979·8	+0·8	975·3	98·6	—5·4	107	18	77·7	—1·5	70	7	84·1	91·2	76·3	76·0	27·1	+1·0	24·0	68	+9
Ranchi	2,150	932·9	+0·1	929·9	95·7	—2·9	104	18, 19	72·8	—2·5	63	7	82·4	86·4	73·1	72·3	23·8	+4·5	21·5	65	+18
Hazaribagh	2,006	937·3	+0·3	933·9	95·0	—4·4	105	18, 19	73·3	—2·2	64	7	82·4	86·1	72·5	72·4	23·1	+4·6	21·2	62	+17
Daltonganj	725	978·6	—0·6	974·2	104·6	—1·6	110	18	79·5	+0·8	72	7, 9, 30	91·8	96·8	76·6	76·1	24·7	+5·7	21·6	49	+9
Dhanbad	839	976·5	—	—	93·7	—	106	18	73·6	..	65	7	82·3	—	75·8	—	27·5	—	—	74	—
BIHAR.																					
Purnea	124	1,001·7	+0·5	997·6	88·9	—5·9	96	11	73·7	—0·7	69	4 days	80·5	84·6	75·8	77·6	28·6	+1·4	29·2	80	+8
Saharsa	156	999·3	—	995·9	89·9	—	98	30, 31	74·1	..	68	20	82·4	88·1	77·2	77·6	29·8	—	27·5	78	—
Darbhanga	161	1,000·3	+1·0	995·5	90·2	—6·0	99	30	75·0	—0·5	71	1, 12, 20	83·8	89·3	76·8	78·7	28·3	+2·8	28·8	72	+8
Motihari	218	998·2	+1·1	994·1	93·5	—3·6	101	12, 23	74·5	—0·2	68	20	83·9	89·6	75·8	78·1	26·9	+0·6	27·7	68	+5
Patna	173	998·5	+0·3	994·2	95·6	—4·7	104	23	77·3	—0·8	68	3	84·7	92·4	76·8	78·7	27·8	+2·6	27·6	69	+11
Dehri	352	990·7	—	986·6	102·4	—	110	17, 27	79·8	..	69	7	83·4	98·7	75·0	76·0	25·7	—	20·6	66	—
Gaya	365	990·8	—0·2	986·4	100·7	—3·9	109	17, 27	80·0	+0·2	69	7	89·0	97·1	77·0	77·0	26·2	+6·5	22·7	58	+22

. M. T.) and 1730 hrs. I. S. T. (1200 hrs. G. M. T.)—May 1949.

Cloud amount, (oktas.)			Rainfall, inches.				Number of rainy days, (0·10" or more.)		Wind velocity, miles per hour.		Wind direction—Number of winds from :— 0830 hrs. I. S. T.									1730 hrs. I. S. T.									STATION.
Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hrs.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																													BAY ISLANDS
6·0	+0·4	6·0	15·97	+0·84	5·22	28	11	−5·3	7·1	−1·5	2	4	3	4	2	10	4	1	1	0	2	4	2	2	9	7	1	4	Port Blair.
																													ASSAM.
6·6	+1·2	6·3	16·26	+4·17	3·80	3	15	−0·6	1·3	+0·1	6	8	10	0	1	0	1	4	1	1	4	5	0	0	1	1	0	19	Dibrugarh.
6·3	0	6·2	13·95	+1·89	3·63	17	16	+0·4	2·8	+0·4	4	10	1	2	2	3	1	0	8	3	11	0	2	2	2	0	4	7	Sibsagar.
5·3	+0·1	4·7	10·19	−0·46	2·75	5	12	−3·3	1·4	−1·4	1	5	20	2	1	0	0	0	2	0	3	9	1	0	1	3	0	14	Tezpur.
5·7	+0·7	5·1	10·22	+0·93	2·09	26	11	−2·5	2·6	+0·7	4	8	3	1	1	2	7	3	2	4	4	4	5	1	1	3	1	8	Gauhati.
5·9	+0·9	4·6	15·00	−0·79	3·70	16	13	−2·5	4·4	−1·3	1	5	11	6	1	1	0	0	6	1	2	6	1	6	6	1	0	8	Dhubri.
6·9	+1·9	5·8	9·69	−6·73	1·85	25	18	+1·6	1·3	−0·7	2	3	3	2	3	1	0	0	17	0	0	0	0	1	0	1	0	29	Silchar.
																													WEST BENGAL.
5·7	—	4·6	15·85	—	8·66	8	13	—	9·7	—	0	0	1	5	14	7	0	3	1	1	0	2	6	15	4	0	1	2	Dum Dum.
5·1	+0·9	3·8	10·32	+4·83	5·70	8	10	+3·1	4·3	−0·7	1	1	3	3	12	9	0	0	2	0	0	3	4	13	5	0	1	5	Calcutta.
4·5	−0·5	4·5	6·91	+2·39	1·44	25	9	+3·5	16·9	+3·4	1	4	0	3	15	8	0	0	0	1	0	0	9	17	4	0	0	0	Saugor Island.
3·6	−0·2	3·1	2·60	+0·63	2·10	9	2	−1·2	—	—	0	0	2	3	12	14	0	0	0	0	1	1	2	16	11	0	0	0	Sandheads.
3·9	+1·0	4·2	18·43	+13·69	4·05	9	10	+3·1	6·1	+1·8	1	2	2	4	10	9	0	0	3	1	1	0	2	21	1	0	0	5	Midnapore.
4·2	—	3·8	10·09	—	6·65	9	8	—	12·2	—	1	0	3	2	20	3	0	0	2	0	0	0	1	30	0	0	0	0	Contai.
4·4	+0·2	3·6	9·88	+3·92	2·05	15	11	+3·8	6·3	+3·1	2	1	3	5	8	10	1	0	1	1	1	7	7	10	2	0	1	2	Burdwan.
5·5	+1·5	5·5	5·95	−0·76	1·70	25	10	+2·1	5·4	−0·2	0	0	3	6	12	2	0	0	8	0	1	4	10	6	1	0	2	7	Krishnagar.
4·3	+1·2	4·7	5·58	+2·65	1·53	7	9	+4·6	5·3	−0·4	1	1	7	8	9	2	1	0	2	0	3	6	11	4	1	0	2	4	Asansol.
5·3	+0·9	5·7	9·06	+3·73	2·70	13	9	+1·7	4·0	+0·2	1	0	10	2	14	1	0	0	3	0	0	8	7	14	0	0	0	2	Berhampore.
5·5	+2·1	4·8	7·99	+3·39	1·66	23	9	+3·4	4·9	−0·7	2	5	8	8	6	1	0	0	1	1	2	11	10	4	1	0	1	1	Malda.
6·4	—	5·2	17·52	+0·75	5·88	17	14	−1·5	3·5	—	1	4	18	1	1	1	0	2	3	0	3	7	5	8	1	0	0	7	Cooch Behar.
5·1	+2·3	4·9	10·92	−0·90	2·60	12	12	−1·1	4·7	+2·2	2	8	16	1	0	1	0	0	3	2	6	11	4	6	1	0	0	1	Jalpaiguri.
																													ORISSA.
6·3	+2·8	5·2	2·37	−2·26	0·67	7	7	+1·1	7·8	+2·1	5	2	0	2	11	11	0	0	0	1	1	0	10	15	4	0	0	0	Balasore.
(f) 4·3	−0·4	3·3	2·09	−3·49	—	—	3	—	(g) 9·4	−0·7	1	0	1	3	11	5	3	1	0	0	0	0	9	12	3	1	0	0	Chandbali.
4·5	+0·7	4·8	0·65	−2·21	0·26	8	2	−1·2	16·8	+3·5	1	0	0	3	4	22	0	1	0	0	0	0	1	11	19	0	0	0	Puri.
3·6	+1·2	4·7	0·30	−1·83	0·23	26	1	−2·1	17·9	+5·1	0	0	1	1	15	11	1	0	2	0	0	1	0	13	15	0	1	1	Gopalpur.
4·5	+0·6	4·7	2·77	−0·80	0·70	13	7	+1·8	5·1	+1·3	0	0	1	0	6	6	4	0	14	0	0	0	2	12	10	0	0	7	Cuttack.
3·7	+0·2	4·5	2·05	−0·30	0·59	27	4	−0·7	(c) 7·1	+1·5	3	5	5	9	2	0	2	2	3	2	1	2	12	5	1	3	3	2	Angul.
3·3	+0·9	4·8	3·06	+1·98	1·21	30	5	+2·7	5·4	+2·1	0	1	3	0	10	11	2	1	3	0	1	1	1	7	11	4	4	2	Sambalpur.
																													CHOTA NAGPUR.
3·3	+0·5	4·5	7·77	+4·64	2·83	21	8	+2·9	5·9	+1·7	0	1	5	2	2	8	9	1	3	1	3	7	11	0	3	4	1	1	Jamshedpur.
5·7	+3·2	6·5	4·65	+1·91	1·37	26	9	+3·8	2·8	+0·2	1	4	1	2	3	15	1	1	3	2	5	2	6	4	8	0	2	2	Chaibasa.
2·3	+0·1	4·0	3·84	+1·72	1·54	30	6	+1·9	5·3	+0·4	0	0	1	4	19	3	0	0	4	0	0	0	1	4	4	0	0	22	Ranchi.
4·9	+2·5	5·8	3·40	+1·44	1·44	21	5	+1·6	7·2	+0·1	1	0	0	5	10	12	1	2	0	3	0	6	8	4	2	0	4	4	Hazaribagh.
1·5	+0·1	3·5	1·49	+0·92	0·93	13	3	+1·7	4·6	+0·2	0	1	2	11	1	2	6	3	5	9	4	6	3	1	0	3	4	1	Daltonganj.
—	—	—	5·21	—	1·30	30	7	—	4·5	—	0	0	10	3	4	4	3	0	7	—	—	—	—	—	—	—	—	—	Dhanbad.
																													BIHAR.
5·3	+1·9	4·0	10·96	+6·78	4·20	23	10	+4·5	4·5	+1·1	1	5	17	7	1	0	0	0	0	0	3	17	2	0	0	0	0	9	Purnea.
4·7	—	3·4	2·10	—	0·65	13, 25	4	—	6·2	—	0	7	21	2	0	0	0	0	1	0	4	21	2	0	0	0	0	4	Saharsa.
3·6	+1·2	2·9	2·74	+0·23	0·71	24	8	+4·5	6·6	+2·2	0	9	15	5	0	0	0	1	1	0	2	22	4	1	0	1	0	1	Darbhanga.
2·6	+0·8	3·2	1·49	−1·15	0·74	28	5	+1·2	3·7	−1·3	0	1	24	0	0	0	0	0	6	0	0	12	1	1	0	1	0	16	Motihar.
2·5	+0·7	2·3	3·77	+2·37	1·91	7	4	+1·7	6·7	+1·6	0	17	12	1	0	0	0	0	1	0	18	10	2	0	0	0	0	1	Patna.
2·1	—	3·1	0·50	−0·13	0·26	29	2	+0·8	4·6	—	0	11	7	4	1	5	0	1	2	2	15	4	2	0	2	0	4	2	Dehri.
1·5	−0·1	2·6	1·51	+0·58	0·81	7	3	+1·3	7·6	+1·6	1	6	11	3	3	3	2	1	1	9	9	5	1	1	0	0	5	1	Gaya.

* Accumulated Total.

(c) Mean of 28 days.
(f) Mean of 25 days.
(g) Mean of 24 days.

Table II.—Abstract of observations recorded at 0830 hrs. I. S. T. (0300 h

STATION.	Height of bar, cistern above mean sea level in feet.	Pressure at Station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relative humidity, %	
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I. S. T.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Departure from normal.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
BIHAR—*contd.*																					
Naya Dumka	489	988·4	+0·4	984·7	91·2	—7·8	100	31	73·2	—4·1	65	8	80·7	85·8	75·6	76·3	28·1	+1·7	26·7	77	+15
Sabour	122	1,000·7	+0·6	996·7	93·5	—4·8	101	17	75·3	—0·4	69	3	83·4	88·4	76·9	78·6	28·6	+2·8	30·2	74	+10
U. P., EAST																					
Gonda	360	992·0	—	987·8	98·6	—4·1	107	27	78·6	+0·8	66	6	85·6	95·6	75·9	77·3	26·9	+6·3	23·2	62	+15
Gorakhpur	254	995·4	—0·2	990·9	96·8	—4·8	102	12	77·8	+0·9	69	6	85·0	93·5	76·0	77·5	26·6	+2·2	24·9	65	+7
Banaras	250	994·6	—0·4	989·9	102·7	—2·7	110	27	79·7	+0·5	71	7	87·9	100·7	77·0	76·8	26·7	+5·0	20·8	60	+15
Allahabad (Bamrauli)	322	991·6	—1·2	987·2	105·2	—1·9	112	17, 18	82·2	+2·3	73	7	89·9	102·7	76·0	75·5	24·3	+5·9	18·4	52	+16
Fatehpur	375	989·8	—	986·2	105·2	—2·0	111	17	82·8	+2·3	71	13	89·9	102·9	76·6	78·0	25·8	+4·9	21·4	53	+9
Kanpur	413	988·7	—0·5	984·2	105·2	—1·0	112	17	81·5	+1·1	76	7	89·4	102·4	75·8	76·2	24·0	+6·1	18·1	52	+15
Lucknow	371	991·2	+0·3	986·5	102·7	—2·7	110	18, 27	80·7	+2·4	74	13	87·6	99·8	76·7	78·1	26·4	+6·2	22·4	59	+16
Bahraich	407	990·4	+0·6	985·8	99·7	—2·6	107	27	79·4	+2·2	71	3	86·7	98·2	79·7	83·6	31·5	+9·4	32·7	72	+21
U. P., WEST.																					
Jhansi	823	974·6	—1·6	970·4	110·8	+2·3	115	13, 27	86·6	+4·0	79	21	95·2	107·4	77·6	80·3	24·3	+8·5	22·7	43	+13
Agra	553	983·6	—1·0	979·7	108·3	+2·1	113	18	83·9	+5·7	77	13, 21	93·3	104·1	72·4	73·0	17·3	+3·3	18·7	34	+7
Mainpuri	516	984·9	—0·7	980·4	108·3	+0·9	114	17, 27	81·2	+3·0	65	14	91·1	104·1	74·6	76·0	21·7	+4·0	17·9	44	+7
Aligarh	615	982·4	—	977·6	107·3	+2·0	112	18	81·2	+1·8	74	21	90·2	104·0	74·1	75·0	21·4	+6·6	16·5	45	+14
Bareilly	568	984·0	—0·1	979·3	101·4	—1·7	109	19	79·6	+2·5	70	20, 21	88·0	99·4	75·0	76·4	23·7	+3·0	20·2	53	+7
Meerut	728	978·2	—	—	104·0	—	109	5 days	79·6	—	70	21	87·1	—	72·3	—	20·0	—	—	47	—
Roorkee	899	972·6	—0·5	967·9	101·6	—0·6	108	18, 19	77·6	+3·6	72	3	86·7	99·0	72·4	73·3	20·5	+4·4	16·6	48	+9
Dehra Dun	2,239	929·3	0	925·5	96·0	0	103	18	73·4	+3·3	64	29	83·7	92·0	69·4	71·6	19·0	+3·9	18·0	47	+3
EAST PUNJAB.																					
New Delhi	714	977·8	—1·4	973·7	105·4	+0·6	111	12	81·2	+2·4	71	21	89·6	103·0	71·4	74·8	18·0	+1·4	16·6	39	+3
Hissar	725	977·4	—1·2	973·7	110·8	+5·5	117	12	78·5	+2·5	62	1	89·0	105·3	71·7	75·1	18·4	+1·5	16·0	41	+5
Patiala	822	974·3	—	969·8	105·0	—	111	19	78·8	—	71	21	88·4	101·5	74·0	77·0	22·0	—	20·5	49	—
Ambala	892	972·1	—0·8	968·2	105·9	+2·0	113	19	80·6	+4·8	72	21	88·4	103·7	72·0	75·7	19·3	+3·9	17·4	43	+12
Ludhiana	812	974·6	—0·9	970·8	107·8	+·7	113	19	80·0	+4·3	73	4, 13	90·9	105·1	71·2	73·7	17·5	+2·1	18·9	35	—3
Amritsar	756	975·9	—	972·2	106·5	—	111	6, 17, 18	76·1	—	68	4	89·2	103·8	72·7	76·0	19·8	—	17·9	43	—
KASHMIR.																					
Srinagar	5,205	840·9	+0·4	837·8	77·4	+0·4	90	9, 10	54·6	+3·7	47	3	62·5	73·7	57·0	61·3	13·9	0	12·2	73	—5
Gulmarg	8,709																			Closed du	
Dras (R)	10,059	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Leh	11,529	668·9	+1·3	665·1	64·1	+0·4	74	10	37·8	+0·7	32	3, 4	48·6	57·9	37·9	40·9	4·1	—0·4	2·7	40	+2
Skardu (R)	7,505	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gilgit (R)	4,890	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Misgar (R)	10,190	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
RAJPUTANA, WEST.																					
Sri Ganganagar	580	981·0	—	977·5	109·3	+1·6	115	12	78·0	+3·0	71	2, 21, 30	89·9	105·8	69·1	70·8	14·9	+0·7	16·1	31	0
Bikaner	734	976·6	—1·8	972·8	111·0	+3·3	117	12	86·9	+5·2	81	29	92·8	109·7	74·0	79·1	20·2	+5·8	19·8	39	+7
Phalodi	794	976·2	—	972·8	110·2	—	116	12	81·4	—	77	4	88·9	108·5	77·1	79·4	26·2	—	21·4	56	—
Jaisalmer	793	974·9	—	971·1	110·1	—	116	11, 26	81·7	—	74	13	86·1	108·8	80·6	87·4	33·1	—	34·7	79	—
Jodhpur	736	978·3	0	973·9	109·5	+4·1	116	12	85·2	+5·8	79	18	89·6	107·5	73·3	73·3	20·6	+3·2	12·4	45	+3
Barmer	638	981·4	—0·9	977·1	110	+4·2	118	11	82·5	+2·5	76	3, 14	86·8	108·8	76·8	80·8	27·1	+1·2	23·3	63	+2

(R) Register not received.

M. T.) and 1730 hrs. I. S. T. (1200 hrs. G. M. T.)—May 1949.

Cloud amount, (oktas.)			Rainfall, inches.				Number of rainy days, (0·10" or more.)		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																			STATION.
											0830 hrs. I. S. T.									1730 hrs. I. S. T.										
I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hrs.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																													BIHAR—*contd.*
2·7	0	4·3	8·64	+5·03	2·01	3	9	+3·9	4·7	+1·7	1	4	9	12	2	1	0	0	2	0	4	8	11	4	3	1	0	0	Naya Dumka.
4·0	+0·2	4·2	3·28	+1·13	1·60	28	5	+1·4	7·1	+0·2	0	1	16	8	4	1	1	0	0	0	4	14	7	4	1	0	0	1	Sabour.
																													U. P., EAST
1·3	—0·2	1·9	2·04	+1·01	0·50	3	5	+3·1	5·6	+0·5	0	0	29	1	0	0	0	0	1	0	1	17	0	0	0	1	0	12	Gonda.
1·5	+0·1	1·8	2·95	+1·57	1·57	3	6	+3·5	4·3	+1·4	0	10	20	1	0	0	0	0	0	0	3	14	7	0	0	3	0	4	Gorakhpur.
1·1	—0·3	1·0	1·61	+1·08	0·82	29	3	+1·9	7·1	+3·2	2	7	15	2	1	3	1	0	0	8	8	3	0	0	0	2	10	0	Banaras.
1·5	+0·1	1·1	0·19	—0·44	0·10	13	1	—0·2	5·4	+0·2	0	7	13	4	3	2	0	2	0	9	8	5	0	0	1	2	5	1	Allahabad (Bamrauli).
1·1	—0·2	0·5	0·63	+0·49	0·63	13	1	+0·4	4·7	+0·7	0	2	15	5	1	3	1	2	2	0	5	8	0	0	0	3	6	9	Fatehpur.
1·7	+1·0	1·5	0·61	+0·29	0·28	25	3	+2·0	6·8	—1·1	3	9	8	7	2	0	1	1	0	3	12	3	1	0	0	4	8	0	Kanpur.
1·1	—0·1	0·9	0·32	—0·45	0·32	13	1	—0·3	3·8	+1·3	2	3	22	0	3	0	0	0	1	3	2	12	0	0	0	3	1	10	Lucknow.
1·1	—0·3	1·3	0·85	—0·36	0·55	6	2	—0·1	6·8	+3·3	0	0	16	14	0	0	0	0	1	0	1	3	5	0	1	2	1	18	Bahraich.
																													U. P., WEST.
1·1	—0·1	2·3	0·11	—0·26	0·11	28	1	0	5·8	+1·5	0	2	3	0	0	7	12	1	6	5	1	1	1	0	0	14	3	6	Jhansi.
0·6	—0·5	1·5	0·06	—0·32	0·06	28	0	—1·1	4·1	—0·4	1	4	4	2	3	2	5	2	7	9	1	0	1	1	2	6	3	8	Agra.
1·3	—0·1	0·8	0·20	—0·31	0·20	28	1	—0·2	3·6	+0·9	1	2	9	2	2	1	3	1	3	0	0	3	2	2	0	6	7	11	Mainpuri.
0·7	0	2·3	0·65	—0·36	0·65	21	0	—1·2	6·5	+1·8	1	1	1	7	2	2	2	4	1	2	1	5	4	1	2	1	12	3	Aligarh.
1·2	—0·2	2·1	1·11	+0·45	1·08	20	2	+0·5	4·5	+1·6	1	0	18	2	2	1	0	0	0	2	1	14	0	2	1	7	0	4	Bareilly.
0·2	—	—	0·37	—0·23	0·37	21	1	—0·5	5·9	—	0	3	7	11	7	0	0	2	1	—	—	—	—	—	—	—	—	—	Meerut.
1·5	+0·2	1·5	0·63	—0·13	0·51	12	2	+0·3	4·5	+1·3	0	1	0	25	0	0	0	1	4	0	0	0	11	0	1	0	9	10	Roorkee.
2·2	+0·3	2·7	1·31	—0·14	0·47	29	3	0	2·3	0	1	1	1	8	1	9	4	4	2	0	2	0	2	0	18	4	4	1	Dehra Dun.
																													EAST PUNJAB
0·4	—1·0	1·8	0·44	—0·08	0·21	27	3	+1·4	6·2	—	0	2	7	11	2	2	3	4	0	7	3	10	2	0	1	3	5	0	New Delhi.
0	—1·0	0·5	0·36	—0·18	0·28	21	2	+0·6	5·6	+0·6	1	3	3	6	3	5	4	2	4	5	4	2	3	4	3	2	7	1	Hissar.
4·5	..	5·1	0·38	—	0·38	20	1	—	6·3	—	1	0	9	16	0	0	0	2	3	6	1	4	5	1	0	2	6	6	Patiala.
0·6	—0·7	0·8	0·80	+00·7	0·48	21	2	+0·5	6·0	+2·3	0	0	0	1	0	0	0	30	0	0	0	0	1	0	0	0	29	1	Ambala.
0·5	—0·7	0·4	0·69	+0·16	0·50	13	2	+0·5	4·8	+2·6	0	1	9	9	3	1	2	1	5	1	5	1	6	1	2	1	11	3	Ludhiana.
0·9	—	1·3	0·53	—	0·27	24	4	—	5·5	—	2	5	5	9	6	1	0	3	0	5	2	2	7	1	1	2	11	0	Amritsar.
																													KASHMIR.
2·5	—0·4	4·5	2·36	—0·02	0·44	28	7	+1·6	2·6	—0·2	0	0	2	13	4	0	3	2	7	2	4	2	4	2	2	8	4	3	Srinagar.
Winter	months.																												Gulmarg.
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Dras. (R)
3·8	+0·3	5·0	0·33	+0·11	0·25	1	1	+0·3	5·1	+2·3	1	0	0	4	3	9	1	1	12	4	5	0	2	1	9	1	8	1	Leh.
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Skardu (R)
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Gilgit (R).
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Misgar (R).
																													RAJPUTANA, WEST.
0·5	+0·1	0·4	0·54	+0·31	0·23	24	3	+2·2	5·4	—1·3	3	0	4	5	6	6	2	1	4	3	1	2	0	3	5	7	8	2	Sri Ganganagar.
0·7	—0·7	1·0	0	—0·59	0	—	0	—1·3	5·9	—0·4	0	3	0	1	0	23	1	2	1	0	6	0	0	0	14	1	10	0	Bikaner.
0·8	—	2·2	0·04	—0·31	0·04	23	0	—0·8	12·2	—	0	0	1	2	6	16	5	1	0	0	0	2	0	2	18	6	3	0	Phalodi.
0·1	—	1·1	0	—	0	—	0	—	12·1	—	0	0	0	1	2	28	0	0	0	0	3	0	2	1	21	3	1	0	Jaisalmer.
0·6	—0·4	0·8	0·06	—0·35	0·06	12	0	—1·1	6·3	—4·4	0	1	1	1	2	18	7	1	0	2	1	0	1	0	12	10	4	1	Jodhpur.
0·9	+0·2	0·9	0	—0·38	0	—	0	—0·7	8·1	—1·2	1	2	0	1	9	14	2	2	0	1	0	0	1	5	15	6	3	0	Barmer.

Table II.—Abstract of observations recorded at 0830 hrs. I. S. T. (0300

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at Station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Rela humi %	
		Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I. S. T.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Departure
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
RAJPUTANA, EAST.																					
Sikar	1,406	955·1	..	951·2	109·4	..	115	12	83·6	..	76	21, 29	92·6	101·5	71·1	73·2	16·6	..	14·3	32	..
Jaipur	1,431	955·1	—1·6	951·1	108·4	+2·8	115	12	82·5	+5·6	75	21	92·3	103·9	69·4	70·1	13·8	—1·3	9·8	28	—
Ajmer	1,593	949·9	—1·7	946·1	106·9	+4·0	112	12	86·6	+6·4	75	30	90·4	104·3	72·8	73·9	20·1	+2·0	15·7	42	+
Kotah	843	974·5	—1·5	970·2	111·2	+3·6	116	12	88·8	+4·3	76	31	95·6	108·1	72·4	72·8	16·8	+1·8	11·5	29	—
Jhalawar	1,053	967·4	—1·4	962·6	109·1	+2·1	115	12	83·7	+3·3	74	31	92·1	106·6	73·3	73·9	19·1	—1·5	14·0	40	—
Rajsamand	1,882	941·7	..	..	103·6	..	107	8, 23, 25	83·5	..	78	19, 21, 31	90·0	..	72·7	..	20·4	..	..	43	.
Udaipur	1,910	940·7	..	937·1	103·5	..	110	11	81·9	..	74	19	89·2	98·4	73·9	74·4	28·5	..	18·9	49	..
GUJARAT.																					
Deesa*	466	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Surat	39	1005·1	—1.5	1001·1	97·5	+0·2	106	23	81·4	+2·5	77	8	86·6	91·9	75·3	79·7	24·8	—3·3	29·1	68	+
Ahmedabad	163	1000·1	—1·6	994·6	106·0	—0·8	115	24	82·2	+3·0	76	2, 4	86·0	104·3	77·3	77·5	28·0	+2.7	20·0	66	+
Dohad	1,093	968·4	..	963·9	104·5	+1·5	111	23	80·0	+1·3	74	28	84·8	102·0	73·6	73·7	23·3	—0·7	15·6	58	—
Baroda	115	1002·0	..	996·6	107·2	+2·6	115	24	81·9	+4·2	78	7, 8	87·0	104·2	78·2	77·5	29·0	+3·4	20·0	66	+
SAURASHTRA AND CUTCH																					
Bhuj	343	992·9	—1·6	989·9	101·4	+0·5	108	23, 24, 25	79·1	+2·3	76	8, 9	83·9	97·1	77·4	75·9	29·2	+2·6	20·9	73	+
Dwarka	37	1004·1	—1·9	1001·8	88·5	+0·5	90	4 days	81·5	+0·9	80	1	83·4	86·2	79·3	80·6	32·4	+1·2	33·1	82	—
Jamnagar	60	1003·6	—1·2	..	98·3	+0·8	107	27	79·3	+2·6	75	4 days	85·2	..	80·9	..	34·0	+5·0	..	82	+1
Rajkot	432	990·4	—1·9	986·2	106·6	+1·7	109	5 days	78·3	+3·1	74	7	83·2	102·5	77·7	82·1	29·9	+3·4	28·2	80	+1
Veraval	26	1005·3	—2·0	1002·6	85·0	..	92	29	79·2	..	75	7, 8	83·2	85·7	79·2	80·8	32·2	..	33·7	83	+
Bhavnagar	55	1004·1	—1·6	999·1	106·9	+1·7	113	11, 12, 24	80·3	+2·2	75	2	84·2	101·9	75·7	79·6	26·3	+0·9	24·3	65	+
MADHYA BHARAT AND BHOPAL.																					
Neemuch	1,626	950·1	—1·1	945·9	105·9	+2·5	113	12	81·6	+4·2	75	31	87·6	102·3	72·1	71·1	20·5	0	13·3	48	+
Ratlam	1,596	951·5	..	947·3	103·9	..	110	10, 23	79·9	..	76	4	87·6	101·0	..	..	..	..	..	..	..
Indore	1,823	943·9	—1·4	939·6	103·7	+0·8	109	11, 24	79·3	+3·0	73	27	85·2	99·5	70·7	70·1	19·8	+0·2	13·2	38	—
Bhopal	1,043	949·0	—1·2	944·7	106·1	+1·7	113	12	81·5	+2·5	71	31	89·2	101·6	70·3	70·9	17·6	+2·9	13·3	38	+
Guna	1,571	951·1	—0·6	946·9	108·2	+1·9	113	12	82·2	+4·7	76	21, 31	91·1	104·1	70·5	72·3	17·1	+2·4	14·1	35	+
Gwalior	681	979·1	..	975·0	110·0	..	114	13, 27	84·6	..	70	12	95·7	105·2	70·9	72·3	14·6	..	11·8	27	..
Madhosagar	757	976·6	..	972·4	109·4	..	114	13, 27	85·6	..	75	21	94·8	105·2	72·1	73·1	16·5	..	13·2	30	..
VINDHYA PRADESH.																					
Nowgong	750	977·3	—1·2	972·6	109·6	+2·1	113	4 days	83·2	+3·8	77	1	95·1	106·5	78·7	80·8	26·1	+9·4	24·2	47	+14
Sutna	1,041	967·8	—0·7	963·0	106·6	+0·8	110	4 days	81·9	+2·1	75	7	91·2	103·7	77·0	77·9	25·2	+9·8	21·2	51	+21
Umaria	1,506	952·6	..	945·2	105·6	+0·1	110	13	(a) 79·2	+0·2	73	14	91·3	102·6	70·9	71·6	16·2	+1·7	12·7	35	+
BERAR.																					
Buldana	2,133	934·7	..	930·7	100·9	..	107	11	78·9	..	74	25	82·1	96·4	70·1	72·0	20·1	..	16·9	55	..
Akola	925	973·6	—1·0	968·1	107·4	—0·8	113	12	83·3	+2·0	77	4, 14	88·8	103·6	72·3	73·7	19·6	+2·2	14·8	32	—
Amraoti	1,213	963·9	—0·8	958·6	106·4	—1·2	111	1, 11	81·6	+0·9	72	29	88·7	102·2	..	..	..	..	..	..	..
C. P., WEST.																					
Khandwa	1,044	969·4	—1·4	964·3	106·9	0	112	4 days	83·2	+2·1	71	27	88·6	103·5	74·1	75·7	22·2	+3·9	17·7	50	+10
Hoshangabad	992	970·2	—1·8	965·0	107·6	+0·8	111	17, 18, 24	82·7	+1·7	75	2, 31	89·3	104·3	70·3	74·9	16·7	+1·0	16·2	36	+
Saugor	1,808	943·8	—0·5	938·9	105·8	+1·2	110	12	82·8	+3·5	78	13	89·1	101·1	68·7	69·1	15·4	+1·9	11·2	33	+5
Jubbulpur	1,289	960·3	—0·8	955·6	107·6	+2·2	111	4 days	81·5	+4·2	72	1	92·1	102·2	71·1	72·6	15·5	+1·0	14·9	34	+5

* Data not reliable.

(a) Mean of 30 days.

. M. T.) and 1730 hrs. I. S. T. (1200 hrs. G. M. T.)—May 1949.

ud amount, (oktas.)		Rainfall, inches.				Number of rainy days. (0·10″ or more.)		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																			STATION.
										0830 hrs. I. S. T.									1730 hrs. I. S. T.										
Departure from normal.	Mean 1730 hrs. I. S. T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hrs.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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
																													RAJPUTANA EAST.
..	2·4	0	..	0	..	0	..	5·1	..	0	0	4	4	2	13	5	2	1	2	2	2	0	0	5	11	8	1		Sikar.
—0·8	2·9	0·34	—0·23	0·32	13	2	+0·4	5·6	+0·2	2	1	3	3	2	1	5	13	1	3	2	2	1	2	1	8	11	1		Jaipur.
+0·1	2·7	0·16	—0·48	0·15	31	1	—0·5	7·5	+1·0	0	2	0	0	1	12	11	0	5	1	0	0	0	1	7	12	7	3		Ajmer.
—0·4	2·0	0·29	—0·18	0·26	31	1	0	3·9	—0·2	0	1	0	0	1	11	13	1	4	2	0	0	0	0	5	7	5	12		Kotah.
+0·3	3·1	0·15	—0·20	0·15	31	1	+0·1	6·1	+0·9	0	1	0	3	3	5	15	4	0	3	2	0	1	0	5	15	3	2		Jhalawar.
..	..	0·16	..	0·16	31	1	..	8·7	..	0	0	1	1	6	9	6	6	2	..	..	..	..	..	..	..	..	..		Rajsamand.
..	3·0	0·52	—0·20	0·39	30	3	+1·5	4·5	..	1	0	1	4	10	3	4	3	5	2	1	0	1	3	11	8	5	0		Udaipur.
																													GUJARAT.
..	..	..	..	..	..	.. (j)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		Deesa.*
+1·2	2·7	0	—0·24	0	..	0	—0·3	7·8	+1·2	0	0	0	1	2	20	2	4	2	0	0	0	0	3	27	1	0	0		Surat.
+0·4	1·3	0	—0·39	0	..	0	—0·7	5·4	+0·5	1	0	0	0	3	10	12	5	0	0	0	0	0	2	10	12	3	4		Ahmedabad.
+0·6	1·7	1·17	+0·51	0·98	28	2	+1·5	17·0	+8·5	0	1	0	2	0	13	15	0	0	1	1	0	0	1	12	15	0	1		Dohad.
+0·7	1·9	0	—0·20	0	..	0	—0·5	5·7	—0·1	1	0	0	0	7	13	7	3	0	1	0	0	0	2	14	10	3	1		Baroda.
																													SAURASHTRA AND CUTCH.
0	0·7	0	—0·20	0	..	0	—0·3	12·5	+1·6	1	0	0	0	2	14	11	1	2	0	0	0	0	2	11	17	1	0		Bhuj.
+0·5	2·5	0	—0·02	0	..	0	—0·1	14·6	+3·2	0	0	0	2	1	9	14	5	0	0	0	0	1	7	20	3	0	0		Dwarka.
+1·6	..	0·16	—0·18	0·16	30	1	+0·7	3·3	—11·5	0	0	0	0	0	9	9	0	13	..	..	..	..	..	..	..	..	..		Jamnagar.
+0·4	2·2	0	—0·50	..	..	0	—0·6	15·4	+4·1	0	0	0	1	3	11	12	4	0	1	0	0	2	2	3	14	9	0		Rajkot.
+1·4	2·6	0·04	—0·24	0·04	31	0	—0·3	13·2	..	2	0	0	3	0	5	11	9	1	0	0	0	2	3	3	17	6	0		Veraval.
+0·4	2·4	0	—0·41	0	..	0	—0·7	7·5	+0·3	2	0	0	0	5	11	8	3	2	0	0	0	5	15	9	1	1	0		Bhavnagar.
																													MADHYA BHARAT AND BHOPAL.
+0·4	3·0	0·15	—0·44	0·11	27	1	—0·2	8·8	+0·5	1	2	0	1	1	11	13	1	1	0	6	0	1	0	9	12	2	1		Neemuch.
..	3·7	0·45	..	0·29	24	1	..	7·5	..	1	0	1	1	1	7	20	0	0	3	1	1	0	1	5	17	3	0		Ratlam.
+1·1	3·8	0·66	+0·15	0·23	27	3	+1·7	5·2	—0·4	1	1	0	0	0	9	14	6	0	4	1	0	1	4	7	11	3	0		Indore.
+0·6	3·8	1·25	+0·68	0·97	31	2	+0·8	6·8	+1·3	0	1	0	1	1	5	15	8	0	2	2	0	1	0	4	12	7	3		Bhopal.
+1·5	3·9	0·64	+0·10	0·47	21	2	+0·8	7·0	+1·4	1	0	2	1	5	8	8	6	0	5	1	2	0	5	2	10	5	1		Guna.
..	2·1	0·29	..	0·28	28	1	..	1·5	..	0	1	2	3	2	4	6	7	6	10	4	0	1	0	2	3	5	6		Gwalior.
..	2·1	0·18	..	0·11	13	1	..	7·5	..	2	0	3	3	2	4	11	3	3	5	6	1	0	0	3	6	8	2		Madhosagar.
																													VINDHYA PRADESH.
—0·7	2·7	0·04	—0·33	0·04	29	0	—1·0	4·9	+2·1	1	3	2	3	1	10	11	0	0	4	6	1	0	0	7	4	9	9		Nowgong.
—0·2	1·8	1·34	+0·87	1·29	14	1	—0·3	4·9	+0·4	0	2	5	1	3	6	6	1	7	3	4	3	0	0	1	7	12	1		Sutna.
+0·5	4·0	1·52	+1·09	0·86	14	2	+1·3	4·1	+0·6	2	1	2	2	4	7	9	3	1	8	2	0	0	1	1	11	7	1		Umaria.
																													BERAR.
..	4·3	1·07	..	0·34	25	3	..	9·1	..	1	0	0	0	2	6	11	11	0	4	3	0	0	3	4	11	5	1		Buldana.
+1·1	4·3	1·15	+0·74	0·61	13	4	+3·0	7·6	+0·3	0	0	0	0	2	5	9	13	2	0	3	3	2	1	5	5	11	1		Akola.
+1·7	4·1	2·02	+1·50	1·31	29	4	+2·7	8·0	+2·2	0	0	0	0	0	4	0	27	0	0	0	0	6	0	8	0	17	0		Amraoti.
																													C. P., WEST
+1·6	4·1	0·86	+0·55	0·78	27	1	+0·3	8·6	+0·6	0	0	0	0	1	8	19	3	0	2	1	0	1	2	3	10	12	0		Khandwa.
+4·3	5·8	0·40	—0·09	0·30	31	1	—0·2	3·4	+0·2	1	0	0	2	1	16	6	4	1	1	2	2	3	0	11	7	4	1		Hoshangabad.
+2·2	3·9	0·13	—0·29	0·12	13	1	—0·1	12·2	+0·7	1	2	2	1	3	9	12	1	0	4	5	1	0	1	4	10	6	0		Saugor.
+0·4	4·1	0·57	—0·05	0·22	27	3	+1·6	4·9	+1·9	0	0	0	8	5	6	9	0	3	2	3	0	3	3	9	4	6	1		Jubbulpur.

(j) Mean of 24 days.

Table II.—Abstract of observations recorded at 0830 hrs. I. S. T. (0300 h

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at Station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relative humidity	
		Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I. S. T.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Departure from normal.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
C. P. West.—*contd.*																					
Seon	2,207	937·3	—0·3	933·2	102·9	—0·7	107	5 days	77·9	+1·6	69	30	87·0	93·9	73·8	74·8	23·1	+8·9	21·7	54	+25
Betul	2,144	933·9	..	929·7	101·8	..	106	12	76·2	..	68	5	86·2	96·5	69·5	70·2	17·8	..	14·5	42	..
Nagpur	1,010	970·5	..	965·3	107·6	—1·1	113	1, 12	82·3	+1·4	75	4, 14	91·5	102·7	74·6	76·6	21·6	+4·6	19·4	45	+16
C. P., East.																					
Gondia	1,026	970·1	..	964·8	105·9	..	112	1	83·3	..	77	13	89·6	102·9	73·2	74·9	20·5	..	16·8	44	..
Pendra	2,040	936·2	—0·4	931·9	101·	+1·4	107	2	78·0	+0·7	71	29	87·7	92·0	70·5	70·7	18·5	+3·0	16·9	43	+10
Champa	805	977·3	..	971·8	107·2	..	112	1, 2	83·1	..	75	31	89·3	103·4	75·0	74·8	23·2	..	15·0	48	..
Raipur	979	971·4	+0·1	966·2	105·4	—1·9	111	1, 2	82·0	—0·1	72	19	89·7	102·6	73·4	76·3	20·7	+0·4	19·0	45	+12
Titilagarh	691	981·7	..	976·4	104·6	..	112	1, 2	81·8	..	74	7, 29	89·1	98·1	75·1	74·2	23·4	..	18·0	51	..
Kanker	1,318	960·7	+0·6	956·2	101·5	—2·9	108	1, 2	80·4	+1·1	70	19	88·3	98·4	74·4	78·6	22·7	+3·1	24·4	51	+11
Chanda	634	983·9	+0·1	978·4	105·7	—3·7	113	1, 2	81·3	—0·8	74	4, 12	89·7	102·9	72·3	73·9	19·1	+0·8	15·5	42	+9
Jagdalpur	1,815	945·1	+0·3	941·2	98·7	—2·7	108	1, 9	75·0	+0·3	69	14	82·7	92·3	72·9	72·1	23·6	+0·3	18·7	63	+8
Konkan.																					
Dahanu	15	1,006·1	..	1,003·1	90·8	..	93	28, 30, 31	80·6	..	76	29	85·5	88·7	80·9	82·8	33·9	..	35·6	81	..
Bombay	37	1,005·7	—2·0	1,002·8	92·2	+1·1	94	6 days	80·5	+0·9	76	26	85·0	87·6	78·5	79·8	30·3	+0·8	31·5	74	0
Alibag	23	1,006·6	—1·2	..	88·6	—0·3	91	25	80·0	+0·9	75	31	84·4	..	79·8	..	32·6	+3·4	..	81	+9
Harnai	66	1,004·9	..	1,002·7	88·2	..	93	11	80·9	..	74	21	83·6	84·5	79·8	81·7	33·0	..	35·7	83	..
Devgad	117	1,003·1	..	1,000·4	89·2	..	95	9	80·2	..	74	21	83·5	85·1	78·5	79·2	31·0	..	31·0	79	..
Vengurla	29	1,006·1	..	1,003·8	90·7	..	97	16	78·0	..	74	24, 30	83·4	85·9	77·6	78·4	29·7	..	29·8	76	..
Marmagao	202	1,000·5	—1·6	997·8	87·6	—0·7	91	9	..	..	..	..	83·2	84·4	77·6	78·2	29·8	+0·2	30·1	76	+1
Honavar	85	1,005·6	..	1,002·9	89·2	..	93	1, 2, 8	76·9	..	72	14	81·7	84·8	77·4	78·4	30·2	..	30·3	83	..
Bombay, Deccan.																					
Jalgaon	660	983·0	..	978·0	108·8	..	114	10, 12, 24	82·5	..	75	30	87·4	105·1	74·5	75·0	23·3	..	16·0	53	..
Malegaon	1,432	957·8	—1·5	952·8	104·9	—0·1	111	11	78·4	+3·3	72	4	89·1	99·3	71·8	71·3	18·8	—1·4	13·5	41	—
Ahmednagar	2,154	934·2	—1·6	930·1	100·5	—1·4	107	11	74·2	+2·1	68	3, 4, 5	82·3	94·8	69·9	71·4	19·9	+1·9	16·7	54	+1
Poona	1,834	945·1	—1·7	941·7	97·3	—1·5	105	8	73·6	+1·2	69	3, 4, 15	79·7	89·1	71·1	72·3	22·5	+1·9	20·2	66	+
Sholapur	1,570	953·8	—0·9	949·4	101·7	—3·0	109	1, 2, 4	76·3	—0·7	70	13	82·3	94·2	72·3	74·4	23·0	+4·1	21·0	62	+1
Miraj	1,817	945·5	—1·6	941·6	97·3	—1·9	104	4 days	75·1	+2·6	71	29, 31	77·8	91·1	72·3	74·0	24·8	+0·7	21·7	77	+
Kolhapur	1,885	943·8	..	940·2	94·0	..	103	8	71·7	..	68	8	76·8	85·5	71·3	72·9	23·9	..	22·6	76	..
Bijapur	1,950	941·3	—1·3	936·7	98·0	—3·6	105	1, 2, 11	74·0	—0·5	70	30	80·5	93·3	71·4	72·2	22·6	+1·4	18·4	64	+
Belgaum	2,562	922·0	—1·5	919·6	89·8	—3·4	95	6 days	68·6	+0·2	64	2	73·5	80·8	69·8	71·6	23·5	+1·6	22·6	83	+
Gadag	2,131	935·8	—1·1	932·0	96·0	—2·3	103	5, 9	72·2	—0·4	68	1	77·7	89·1	72·5	76·1	25·1	+1·0	25·4	76	+
Hyderabad, North.																					
Aurangabad	1,905	942·9	—1·1	938·2	102·6	—0·9	109	11	76·8	+1·0	71	18	81·9	98·2	70·8	73·1	21·2	+3·9	17·6	59	+1
Parbhani	1,350	959·0	..	954·2	104·8	..	112	12	78·6	..	73	28	86·0	99·4	72·5	76·3	21·1	..	20·5	49	..
Bidar	2,178	933·2	..	928·8	98·8	—2·5	106	12	77·0	—0·5	69	14	82·5	95·7	72·8	75·4	23·6	+2·9	21·8	63	+1
Nizamabad	1,250	963·8	—0·8	958·3	103·8	—2·8	110	1, 2	80·4	—1·0	75	8, 29	86·8	100·7	71·2	73·4	19·0	—0·5	15·7	45	+
Ramagundam	527	988·2	..	982·9	103·3	..	114	2	81·4	..	70	13	87·3	99·6	75·6	76·7	24·9	..	21·0	58	..
Hyderabad, South.																					
Gulbarga	1,503	955·5	—1·3	950·6	101·2	—3·7	108	2, 3	77·3	—1·3	71	14	83·0	95·4	71·8	72·6	22·1	+1·5	18·1	58	+
Raichur	1,311	962·4	—0·7	957·5	100·5	—3·2	107	3, 7	79·6	+0·5	74	14	84·7	96·8	73·5	74·6	23·2	—0·2	19·2	57	+
Hyderabad (Begumpet)	1,778	946·7	0	942·5	100·5	—2·6	108	2, 3	79·5	—0·2	73	9	85·2	95·6	72·5	74·0	22·1	0	19·9	55	+
Hanamkonda	881	976·1	0	971·5	101·1	—3·4	111	2	79·2	—2·5	65	8	82·1	96·9	75·2	74·5	26·7	+5·1	19·0	63	+
Khammameth (R)	367	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.
Mysore.																					
Chitaldrug	2,405	927·1	—1·2	923·1	92·7	—2·4	99	5	72·5	+0·6	68	12	76·6	89·3	71·1	72·6	23·7	+0·8	20·6	76	+
Hassan	3,149	904·0	..	901·2	86·0	—3·4	94	4, 8	68·5	+0·9	66	12, 18, 25	71·8	79·8	68·5	70·7	22·5	+0·3	22·0	85	+
Bangalore	3,021	907·8	—0·9	904·3	89·7	—1·5	96	5, 6, 7	70·3	+1·4	67	14	74·5	84·4	69·3	68·7	22·4	0	17·6	77	+
Mysore	2,518	924·1	—1·1	920·8	89·0	—2·9	96	5	69·6	—0·3	64	8	74·6	84·3	71·3	71·2	24·8	+1·6	20·8	81	+

(R) Register not received.

M. T.) and 1730 hrs. I. S. T. (1200 hrs. G. M. T.)—May 1949—*contd.*

Cloud amount, (oktas.)			Rainfall, inches.				Number of rainy days, (0·10" or more.)		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																		STATION.
											0830 hrs. I. S. T.									1730 hrs. I. S. T.									
I. S. T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																													C. P., West.—*contd.*
2·7	+1·1	4·4	3·75	+2·99	1·38	30	7	+5·3	3·7	—1·0	2	0	0	3	9	7	4	5	1	4	1	0	4	6	5	3	7	1	Seoni.
3·6	..	5·2	1·19	..	0·41	13	3	..	4·1	..	1	0	0	3	2	6	14	3	2	5	3	1	0	2	4	6	10	0	Betul.
3·2	+1·1	4·5	0·82	+0·06	0·51	27	2	0	7·0	..	3	0	1	0	7	7	6	5	2	4	2	4	1	3	4	5	6	2	Nagpur.
																													C. P., East.
1·9	..	1·9	0	..	0	..	0	..	4·9	..	2	1	0	2	10	6	6	4	0	0	0	1	1	1	12	1	10	5	Gondia.
1·7	—0·2	4·5	2·47	+1·63	0·50	14	7	+4·9	6·9	+2·1	0	0	0	0	18	5	4	3	1	4	0	1	0	10	8	3	5	0	Pendra.
2·9	..	4·0	0·95	..	0·40	31	4	..	6·5	..	1	0	5	6	3	7	5	3	1	2	0	2	2	3	6	9	7	0	Champa.
4·1	+2·0	4·4	1·11	+0·27	0·27	19,26	5	+2·9	8·2	+3·1	2	0	1	1	2	12	6	5	2	2	0	2	0	4	10	4	7	2	Raipur.
2·7	..	4·1	0·95	..	0·50	29	4	..	4·8	..	1	0	0	6	14	8	1	0	1	2	1	3	4	7	7	4	2	1	Titilagarh.
4·3	+1·2	4·2	1·74	+0·25	1·40	19	2	—0·7	4·9	+0·4	0	0	0	0	0	7	4	1	19	0	0	0	1	0	5	1	1	23	Kanker.
3·5	+1·5	4·2	0·35	—0·26	0·21	8	2	+0·6	3·5	—0·5	0	1	0	6	0	8	0	9	7	0	2	0	10	0	7	0	8	4	Chanda.
4·5	+1·8	4·9	2·05	—0·31	0·64	24	7	+2·2	5·7	+2·0	0	0	1	2	1	20	0	2	5	0	0	0	14	0	12	1	4	0	Jagdalpur.
																													Konkan.
6·3	..	4·0	0·46	..	0·36	29	1	..	10·1	..	0	0	8	9	0	5	8	1	0	0	0	0	0	1	9	20	1	0	Dahanu.
4·7	+1·4	4·3	0·98	+0·33	0·38	24	4	+3·2	8·0	+1·3	4	1	3	3	3	3	1	4	9	1	0	0	1	5	4	10	10	0	Bombay.
5·4	+1·9	..	0·62	—0·42	0·36	31	1	+0·2	7·5	—0·8	5	2	1	5	3	1	1	5	8	..	..	..	..	..	..	..	..	..	Alibag.
..	..	..	2·67	..	0·58	31	9	..	11·3	..	2	4	1	9	0	2	1	12	0	0	0	0	6	2	4	6	13	0	Harnai.
5·1	..	5·4	11·59	..	4·70	25	11	..	11·5	..	1	5	3	2	2	2	1	15	0	1	0	0	4	4	1	8	13	0	Devgad.
5·2	..	5·1	..	..	..	..	..	..	..	..	1	2	0	3	1	1	4	4	15	0	1	2	0	5	1	15	5	2	Vengurla.
4·4	+0·1	4·9	7·31	+4·07	1·64	30	9	+7·0	10·2	+3·0	6	4	2	2	8	0	5	4	0	0	1	0	0	6	2	13	9	0	Marmagao.
5·7	..	5·9	13·42	+10·00	3·06	23	13	+9·1	3·6	..	0	0	13	3	1	1	1	1	11	0	0	2	3	1	1	14	8	2	Honavar.
																													Bombay, Deccan.
2·7	..	3·3	0·35	—0·06	0·15	10, 30	2	+1·1	9·7	..	3	0	0	0	1	3	14	8	2	4	1	1	0	4	4	8	9	0	Jalgaon.
2·4	+1·0	3·5	0·85	+0·12	0·83	27	1	—0·2	6·9	—1·8	0	0	0	0	1	2	0	6	22	2	3	0	1	2	2	5	14	2	Malegaon.
3·3	+1·9	4·7	0·52	—0·39	0·27	27	2	+0·4	5·7	—2·1	1	3	0	0	4	1	1	13	8	4	5	0	4	0	4	1	10	3	Ahmednagar.
3·9	+1·9	4·0	2·73	+0·67	0·89	25	7	+5·3	3·3	—5·8	0	0	1	0	0	3	14	8	5	2	0	1	1	0	4	13	9	1	Poona.
3·2	+1·0	5·3	3·48	+2·59	1·13	13	5	+3·1	7·3	—0·9	4	4	0	0	2	7	1	10	3	0	3	2	1	2	9	0	3	11	Sholapur.
3·4	+0·7	5·0	2·57	+0·68	0·70	19	6	+3·1	9·9	+1·8	1	0	1	1	4	2	14	7	1	0	3	3	0	1	5	16	3	0	Miraj.
2·6	..	4·1	6·65	..	1·06	20	12	..	8·9	..	0	1	1	0	5	2	14	1	7	0	1	2	1	0	6	20	1	0	Kolhapur.
2·9	+0·5	5·4	1·67	+0·55	0·62	15	5	+2·8	6·0	—0·7	5	3	1	1	3	10	4	4	0	3	7	2	1	2	6	2	8	0	Bijapur.
3·0	—0·2	4·8	11·52	+9·22	3·14	14	17	+12·7	5·1	+0·4	7	0	1	0	5	14	2	2	0	5	0	0	0	1	21	2	2	0	Belgaum.
4·5	+1·5	6·2	5·95	+3·86	3·19	23	6	+2·1	8·3	—0·2	2	2	1	1	1	10	10	4	0	3	4	4	2	2	5	5	3	3	Gadag.
																													Hyderabad North.
5·3	+3·6	5·5	1·03	+0·31	0·49	25	4	+2·7	8·3	—1·6	0	1	1	2	3	5	15	3	1	8	3	1	0	3	4	4	8	0	Aurangabad.
3·0	..	4·3	1·26	+0·50	0·40	28	4	+2·6	..	..	0	4	1	0	3	0	22	1	0	5	0	2	4	4	1	15	0	0	Parbhani.
3·4	+1·0	5·3	1·42	+0·50	0·85	15	3	+0·6	8·7	+0·8	0	1	1	0	3	12	3	11	0	2	8	4	1	2	5	3	5	1	Bidar.
2·9	+0·7	3·9	2·52	+1·84	1·35	29	3	+1·6	3·8	—0·5	0	4	1	1	4	6	2	4	9	0	7	2	3	2	5	2	3	7	Nizamabad.
3·5	..	3·5	5·23	..	1·95	12	5	..	6·0	..	2	0	0	10	7	4	4	2	2	2	0	3	12	4	2	6	1	1	Ramagundam.
																													Hyderabad, South.
2·7	+0·6	4·4	1·77	+0·65	0·27	13	5	+2·6	8·4	+0·1	2	5	2	1	4	7	5	5	0	3	2	5	4	3	7	3	3	1	Gulbarga.
3·6	+1·3	4·7	0·25	—0·82	0·13	22	2	—0·3	9·9	+1·7	2	3	3	2	0	7	4	10	0	2	8	2	3	1	5	4	6	0	Raichur.
3·4	+0·6	4·6	0·95	—0·06	0·31	24	3	+0·7	6·8	+0·4	0	1	4	3	0	4	8	6	5	1	2	6	5	0	6	4	2	5	Hyderabad (Begumpet).
3·2	+0·2	3·5	4·99	+3·77	2·40	12	5	+3·0	6·5	+2·2	1	1	0	10	10	3	2	3	1	3	1	4	7	6	0	3	6	1	Hanamkonda.
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Khammameth (R).
																													Mysore.
4·7	+0·5	5·0	2·90	—0·04	2·53	23	2	—2·4	5·8	—0·3	0	0	0	1	1	11	11	2	5	1	0	4	2	1	6	11	6	0	Chitaldrug.
4·6	+0·8	5·3	3·90	—0·72	0·92	10	9	+1·2	7·9	+2·6	3	1	1	1	0	8	15	1	1	1	2	0	1	1	7	17	2	0	Hassan.
4·7	+0·8	6·1	1·86	—2·30	0·69	23	4	—2·6	8·2	+2·7	1	0	0	0	1	10	13	3	3	4	11	2	0	2	6	1	3	2	Bangalore.
5·5	+0·9	6·1	5·38	—0·21	1·30	8	11	+3·1	6·3	+0·2	1	0	0	0	2	8	15	4	1	0	2	1	2	1	9	13	1	2	Mysore.

Table II.—Abstract of observations recorded at 0830 hrs. I. S. T. (0300 h

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at Station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relativ humidit %	
		Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I. S. T.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Departure from normal.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
MALABAR.																					
Mangalore	72	1,006·0	—1·1	1,003·0	88·7	—2·1	94	10	77·1	—1·7	71	22	81·8	84·7	77·3	78·8	29·6	+0·2	31·0	81	+7
Calicut	27	1,007·4	—1·0	1,004·8	89·0	—1·1	94	2, 6, 11	77·2	—1·0	73	22	80·7	84·8	77·4	79·5	30·6	+0·2	32·0	86	+6
Palghat	319	997·6	..	994·5	90·3	..	98	8	76·5	..	71	8	80·2	84·5	76·9	77·5	30·1	..	29·0	86	..
Cochin	10	1,008·6	—0·8	1,005·8	87·3	—0·2	91	9	77·5	—0·7	73	15	82·1	84·0	77·7	79·0	30·4	—0·1	31·6	81	+1
Alleppey	12	1,008·5	..	1,005·7	89·1	..	94	9	77 5		72	21	83·4	84·7	78·8	79·4	31·5	..	31·9	81	..
Trivandrum	211	1,001·8	—0·4	999·2	88·1	..	93	16	76·9	..	73	21, 30	80·9	83·5	77·3	77·9	30·2	—0·3	30·1	85	+4
Nagercoil	195	1,001·9	..	999·1	90·7	..	97	16	78·1	..	73	22	83·0	84·0	76·8	77·3	28·7	..	29·0	75	..
MADRAS, SOUTH-EAST.																					
Pamban	37	1,006·4	—0·3	1,003·3	89·8	—1·9	93	14	81·5	+0·4	75	21	85·3	85·7	79·9	80·2	32·5	—0·2	32·7	79	+1
Madura	437	992·5	—0·6	988·7	98·5	—0·3	104	4, 12	78·3	+0·3	70	14	85·4	91·6	76·0	76·3	26·4	+0·3	24·0	64	+1
Negapatam	31	1,006·4	—0·2	1,002·9	94·0	—3·3	100	5, 27	80·7	0	75	17	86·5	87·5	78·5	79·6	29·6	—0·5	30·9	69	0
Trichinopoly	295	997·4	—0·5	993·1	97·6	—2·9	105	2, 3, 4	78·3	—0·9	71	14	84·0	94·3	76·5	76·7	27·8	+0·2	23·4	69	+4
Coimbatore	1,341	962·5	—0·6	959·1	91·3	—3·1	98	2, 8	74·2	+0·6	68	15	78·6	83·8	74·5	75·4	27·3	—0·1	26·2	82	+4
Salem	913	976·3	—0·9	972·2	96·3	—3·0	104	2, 5	77·5	+0·5	72	6	81·7	89·5	74·8	76·1	26·3	—1·5	24·6	71	0
Cuddalore	39	1,005·7	—0·3	1,001·7	93·6	—4·2	101	12, 29	80·0	—0·4	74	22	85·2	87·3	77·3	79·7	28·4	—1·9	31·1	69	+1
Vellore	703	982·8	+0·1	978·8	98·9	—2·9	106	2, 4, 12	80·0	+1·0	75	21, 22	85·5	93·3	76·2	76·5	26·6	—0·3	23·5	64	+1
Madras	51	1,004·9	—0·1	1,001·3	96·5	—4·8	105	2, 3, 4	81·1	—0·6	75	22	86·5	87·5	77·7	79·3	28·4	+0·2	30·4	66	+6
Arogyavaram	2,299	930·5	..	926·8	93·1	..	100	1, 6	75·1	..	70	14, 22	79·9	89·1	70·8	70·9	21·6	..	18·4	63	..
MADRAS, DECCAN.																					
Cuddapah	428	992·1	—0·7	987·1	101·9	—3·7	111	5, 6	83·8	+0·6	75	22	89·2	97·5	80·6	82·3	31·7	+5·6	30·8	67	+13
Bellary	1,473	957·0	—1·1	953·4	98·1	—4·1	104	4, 5, 7	78·1	+0·4	68	12	82·4	94·7	72·2	74·4	22·7	+0·9	19·9	60	+5
Kurnool	923	975·3	—0·7	970·0	101·1	—3·4	109	7	79·6	—1·4	70	14	85·7	98·1	74·5	75·5	24·1	+0·3	19·9	59	+4
Rentichintala	348	994·4	..	989·4	100·0	—6·9	112	2	81·9	—2·3	69	8	87·1	98·7	78·5	78·1	29·4	+3·5	23·5	68	+15
Anantapur	1,147	967·8	..	963·0	99·3	..	106	4 days	78·6	..	72	14	83·6	95·9	74·1	74·1	24·5	..	18·9	63	..
MADRAS COAST, NORTH.																					
Nellore	66	1,003·6	—0·3	999·9	99·3	—4·9	110	4 days	80·5	—0·3	75	14	88·3	90·3	79·4	80·0	30·1	+1·6	30·8	67	+7
Ongole	38	1,004·6	..	1,000·5	96·0	..	109	2	80·9	..	61	22	87·4	90·5	79·4	80·6	30·6	..	31·2	70	..
Masulipatam	10	1,006·1	+0·3	1,002·2	97·3	—2·2	103	31	82·2	+0·5	76	13, 14	87·0	88·2	80·8	81·4	33·1	—0·6	33·5	76	+
Cocanada	26	1,005·7	+0·3	1,002·0	94·9	—4·3	102	29, 30	81·3	—0·4	75	8	87·2	90·7	80·2	80 2	32·0	—0·5	30·4	73	+
Vizagapatam	126	1,001·9	+0·4	998·5	90·2	—1·8	95	29, 3	81·3	—0·1	70	8	86·4	86·3	79·3	80·6	30·9	—0·1	33·1	72	+
Calingapatam	19	1,005·4	+0·5	1,001·8	91·7	—2·6	96	31	81·2	+0·5	73	8	84·8	86·8	80·0	81·5	32·8	+0·1	34·4	80	+
HILL STATIONS EXCLUDING KASHMIR.																					
Shillong	4,921	848·2	+0·3	845·7	72·4	—1·6	76	29, 30, 31	58·0	—1.1	44	18	67·2	66·5	62·4	63·2	17·0	+0·2	18·2	76	+
Cherrapunji	4,309	867·5	+0·6	865·0	70·0	—2·1	75	5 days	61·0	0	56	4, 6	66·1	66·6	63·5	64·1	19·1	+0·1	19·4	87	+
Aijal	3,599	888·1	..	885·9	76·6	..	81	9	65·5	..	57	5	69·3	69·5	65·8	66·5	20·2	..	21·0	83	..
Darjiling	7,432	775·0	—0·2	772·9	63·9	+1·0	70	25	53·5	+1·1	49	3, 5	58·2	57·9	56·6	56·8	15·2	+0·9	15·4	91	+
Kalimpong	3,965	878·4	+1·5	874·	74·0	—0·6	79	30	62·5	—0·2	55	18	65·6	69·6	63·8	67·1	19·3	0	21·7	90	+
Katmandu	4,388	865·2	..	862·0	82·6	—2·7	88	28, 31	61·8	+1·4	58	6, 29	72·2	74·7	65·9	67·7	18·7	+0·9	20·0	72	+
Gyantse	13,110	625·7	..	..	64.5	+2·1	73	12	35·9	+1·9	25	5, 9	53·6	..	43·5	..	6·5	—0·5	..	44	—
Muktesar	7,592	771·0	—0·7	768·6	72·0	—1·1	79	19	55·1	—0·7	46	3	60·2	65·9	54·1	57·8	12·1	+3·3	13·6	70	+
Mussooree	6,699	795·6	..	793·5	74·6	—1·9	94	24	60·4	+1·8	53	3, 29	65·6	68·9	58·0	59·4	13·8	+3·9	14·0	65	+
Simla	7,224	781·0	+0·4	779·6	76·1	+2·9	80	1, 17, 27	61·1	+3·4	51	19	69·2	72·1	53·9	56·1	8·7	+0·4	9·6	38	+
Abu	3,945	877·5	—0·9	875·8	91·1	+3·2	100	24, 25	74·8	+3·7	68	3	80·8	82·4	61·6	65·9	20·2	+8·4	25·0	32	—
Pachmarhi	3,528	891·4	0	887·3	97·1	+1.3	102	12	76·0	+0·9	64	31	82·7	93·5	66·3	68·6	15·3	+1·8	13·6	42	+
Mahabaleshwar	4,534	861·1	—0·9	859·0	82·1	—1·7	87	18	64·7	—0·1	61	30, 31	71·1	72·2	61·5	67·7	14·8	+0·9	21·4	59	+
Mercara	3,781	883·9	—1·1	882·8	78·4	—1·7	84	7	66·0	+1·5	63	8, 21	69·0	73·1	66·5	67·4	21·2	+0·5	20·7	88	+
Ootacamund	7,364	779·2	—0·7	777·4	69·1	—1·3	76	1	53·4	+0·9	46	9	59·8	61·7	56·7	58·1	14·6	+2·0	15·2	85	+2
Coonoor	5,730	825·3	..	..	75·7	—0·6	81	13	60·4	+1·4	57	1	70·3	..	66·3	..	20·8	+6·1	..	83	+2
Kodaikanal	7,688	770·9	0	769·0	67·9	—0·5	73	2	54·5	—0·2	51	22	61·1	60·0	54·7	56·9	12·2	—0·4	14·7	69	+
CEYLON.																					
Colombo	24	1,008·8	—0·3	1,006·1	86·8	—0·9	90	14	76·8	—0.8	73	28	81·5	83·5	77·5	78·0	30·4	—0·5	30·2	83	—
Trincomalee	24	1,007·7	+0·9	1,004·4	91·8	—1.4	97	12, 13	78·0	—0·3	72	21	83·0	84·8	77·3	78·3	29·4	—0·1	31·1	76	—
Hambantota	61	1,006·7	—0·8	1,003·6	86·7	—0·1	89	5 days.	78·0	+0·7	75	21, 22, 23	81·9	82·8	78·4	78·8	31·6	+1·4	31·8	85	—
Mannar	12	1,007·6	..	1,004·0	88·7	..	91	9, 14, 16	80·3	..	75	21, 22	83·8	84·7	80·1	79·4	33·3	..	32·0	84	..

M. T.) and 1730 hrs. I. S. T. (1200 hrs. G. M. T.)—May 1949—*contd.*

Cloud amount, (oktas.)			Rainfall, inches.				Number of rainy days, (0·10" or more.)		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																		STATION.
											0830 hrs. I. S. T.									1730 hrs. I. S. T.									
I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hrs.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																													MALABAR.
6·3	+1·4	6·0	23·15	+16·97	6·74	23	17	+10·3	6·0	+0·5	4	5	7	3	1	4	1	3	3	1	0	1	0	4	4	4	16	1	Mangalore.
6·3	+1·3	7·0	22·86	+13·58	3·25	17	19	+10·3	7·7	+0·7	5	10	9	1	0	0	1	3	2	1	3	2	1	0	3	12	9	0	Calicut.
4·9	..	6·3	15·59	..	2·74	8	15	..	6·2	..	0	0	1	0	0	0	27	1	2	0	0	0	0	0	1	27	3	0	Palghat.
6·5	+1·5	7·0	20·44	+8·76	3·82	17	19	+6·7	7·0	+1·7	0	6	11	4	1	2	3	1	3	2	0	2	0	1	4	11	11	0	Cochin.
5·8	..	6·3	17·86	..	3·30	21	17	..	7·9	..	2	3	4	2	0	4	6	6	4	1	2	1	0	0	3	14	10	0	Alleppey.
5·1	—0·3	5·6	11·17	+2·39	3·66	17	11	+0·9	5·4	+0·3	8	2	0	0	1	0	1	16	3	1	1	0	0	0	1	11	17	1	Trivandrum.
5·1	..	5·7	6·18	..	1·40	23	9	..	9·7	..	0	0	0	0	0	0	15	15	1	1	0	0	0	0	1	25	4	0	Nagercoil.
																													MADRAS, SOUTH-EAST.
3·8	+1·1	3·6	1·88	+0·91	1·20	21	3	+1·3	10·7	+0·6	1	0	0	5	14	9	2	0	0	0	0	0	10	15	6	0	0	0	Pamban.
4·3	0	5·9	4·63	+1·89	2·37	14	6	+1·3	3·8	—0·5	3	0	1	1	0	2	7	9	8	3	2	3	1	4	1	8	4	2	Madura.
6·0	+2·2	4·7	4·17	+2·60	1·74	16	5	+3·2	7·0	+0·6	0	0	0	0	3	16	11	0	1	0	1	3	6	11	8	0	2	0	Negapatam.
4·5	+1·1	5·8	3·41	+0·10	1·15	19	7	+2·9	9·2	—0·4	0	0	0	1	2	3	18	7	0	3	0	2	5	6	5	6	3	1	Trichinopoly.
3·8	+0·4	4·9	3·53	+1·06	1·58	15	7	+2·5	7·0	+3·2	1	2	0	0	13	13	0	1	1	2	2	0	0	11	13	2	1	0	Coimbatore.
4·2	+0·8	6·0	2·69	—1·19	0·65	21	8	+0·9	4·5	+0·9	0	1	0	0	7	11	8	0	4	1	1	4	0	9	5	4	1	6	Salem.
5·7	+2·4	3·8	4·18	+3·18	1·63	22	5	+3·7	7·7	+2·4	1	1	1	2	8	17	0	1	0	0	1	4	20	1	4	0	1	0	Cuddalore.
3·8	+1·2	6·0	2·67	+0·38	1·38	22	4	+0·2	3·2	—0·6	0	2	1	0	1	14	1	1	11	0	1	6	3	5	11	0	0	5	Vellore.
4·7	+1·3	5·0	7·95	+6·92	6·41	22	3	+1·9	13·4	+1·6	0	1	2	5	12	4	5	2	0	0	2	3	24	0	0	1	1	0	Madras.
6·2	..	6·0	1·39	..	0·48	23	4	..	6·1	..	2	0	0	1	1	7	7	8	5	5	5	2	3	1	6	2	6	1	Arogyavaram.
																													MADRAS, DECCAN
2·9	—0·3	3·9	2·52	+1·01	1·33	22	4	+1·4	4·7	—1·4	0	0	1	0	0	0	3	1	26	1	2	12	2	1	0	1	2	10	Cuddapah.
5·8	+2·4	5·3	2·39	+0·50	0·65	12	4	+0·7	6·0	0	3	1	0	1	1	4	1	9	11	1	9	0	3	0	2	4	8	4	Bellary.
4·1	+1·0	4·2	2·59	+1·51	1·51	23	4	+1·5	6·3	—0·5	3	1	2	3	2	5	11	2	2	3	2	2	5	0	3	7	3	6	Kurnool.
4·9	+0·7	5·5	3·34	+0·82	1·40	22	5	+2·2	5·9	—2·0	0	2	4	4	4	3	8	2	4	3	2	9	3	4	4	2	1	3	Rentichintala.
3·9	..	4·1	4·46	+2·42	3·00	23	6	+2·3	9·0	..	1	1	1	0	0	9	13	2	4	2	4	7	0	0	5	5	5	3	Anantapur.
																													MADRAS COAST, NORTH.
4·6	+0·8	4·2	8·96	+7·87	6·08	22	4	+2·6	4·3	—1·3	1	0	0	2	8	0	4	0	16	1	0	5	17	3	0	2	0	3	Nellore.
5·0	..	5·1	9·95	..	4·04	22	4	..	6·0	..	0	2	1	10	3	3	6	0	6	1	1	2	20	0	2	2	1	2	Ongole.
5·2	+1·5	4·6	2·80	+1·48	1·75	26	6	+4·0	8·7	+2·1	0	1	3	6	11	6	2	1	1	0	0	2	12	11	2	1	0	3	Masulipatam.
4·0	—0·4	3·4	1·27	—0·27	0·50	22	4	+1·5	(j) 7·7	+2·0	0	2	0	3	2	21	0	1	2	0	2	0	16	0	12	0	0	1	Cocanada.
4·8	+0·1	5·3	5·90	+3·90	4·31	26	2	—0·7	6·4	+0·8	0	1	1	1	5	9	9	1	4	0	0	1	2	13	13	2	0	0	Vizagapatam.
4·5	+1·0	5·0	1·31	—1·25	0·95	26	3	—0·2	11·2	+2·5	0	0	2	1	7	12	8	1	0	0	0	1	1	13	16	0	0	0	Calingapatam.
																													HILL STATIONS EXCLUDING KASHMIR.
6·4	+1·4	6·9	14·37	+3·08	1·54	13	26	+8·7	3·0	—0·7	0	1	0	0	2	4	1	0	23	2	0	0	0	0	7	0	2	20	Shillong.
6·5	+0·7	5·5	51·45	+1·01	12·85	22	20	—2·0	5·6	+0·1	2	8	4	2	6	7	1	0	1	0	2	1	1	0	19	2	8	4	Cherrapunji.
4·6	..	5·0	20·00	..	2·86	30	20	..	3·7	..	0	0	9	5	3	8	3	0	3	0	0	6	2	0	9	12	1	1	Aijal.
6·6	+1·0	6·7	6·53	—3·10	0·91	13	17	+2·6	5·1	+0·3	0	4	10	4	0	2	9	1	1	0	3	3	0	1	4	14	2	4	Darjiling.
5·5	+1·3	5·0	5·15	—1·12	1·05	4	9	—2·8	5·7	—1·1	1	0	1	2	1	0	1	17	8	0	0	0	27	0	0	0	4	0	Kalimpong.
4·7	+0·2	6·3	5·81	+0·71	1·96	18	12	+1·5	1·4	0	2	0	7	7	2	0	0	2	11	6	1	4	0	1	2	2	4	11	Katmandu.
2·4	—0·9	..	0·11	—0·47	0·10	3	1	—1·2	1·7	—2·4	0	0	0	1	0	0	0	0	30	..	..	..	..	..	..	..	..	..	Gyantse.
3·1	+1·1	3·5	2·39	+0·09	0·70	25	7	+1·9	10·9	+3·9	0	1	2	0	1	4	17	6	0	0	0	1	0	0	8	17	4	1	Muktesar.
3·0	+0·8	4·4	0·92	—0·75	0·49	29	3	—1·3	1·2	—4·8	2	2	0	7	15	4	1	0	0	3	3	2	6	11	5	1	0	0	Mussooree.
2·1	0	2·9	1·23	—1·30	0·74	19	4	—1·2	2·1	—1·7	5	4	0	4	4	3	0	0	11	3	5	2	1	3	8	4	4	1	Simla.
0·1	—0·7	1·1	0	—0·93	0	..	0	—1·3	4·8	—2·5	2	0	0	0	0	8	8	2	11	0	0	2	0	3	11	12	2	1	Abu.
3·3	+0·8	4·1	1·48	+0·86	1·14	31	2	+0·4	3·1	—2·2	4	0	0	0	1	4	15	6	1	7	1	0	0	0	4	7	10	2	Pachmarhi.
4·3	+1·6	5·1	5·93	+4·33	1·07	18	10	+7·6	7·2	—1·3	9	3	3	1	1	4	0	10	0	2	1	2	0	1	6	0	19	0	Mahabaleshwar.
5·7	+0·6	5·8	11·43	+6·22	1·35	8	16	+7·5	6·1	+2·3	13	1	0	0	4	4	0	9	0	12	1	0	0	4	5	0	9	0	Mercara.
4·5	+0·6	5·6	6·91	+0·62	1·51	20	15	+3·0	1·5	—1·2	3	4	1	1	1	5	1	0	15	3	4	1	0	0	6	1	0	16	Ootacamund.
4·6	+0·4	..	2·88	—1·29	0·92	21	8	+0·3	3·9	+0·6	2	2	2	10	5	4	3	3	0	..	..	..	..	..	..	..	..	..	Coonoor.
4·3	+0·7	7·3	5·80	—0·57	1·28	15	23	+12·4	8·7	+1·6	4	4	1	7	2	1	8	3	1	6	2	1	5	2	0	4	7	4	Kodaikanal.
																													CEYLON.
6·1	+0·2	5·7	12·62	—0·62	2·80	21	19	+4·9	..	..	0	1	2	4	1	15	7	1	0	0	0	1	0	1	16	12	1	0	Colombo.
4·2	+0·8	5·2	3·82	+1·14	1·22	20	6	+2·6	..	..	0	0	0	0	3	26	2	0	0	0	3	5	5	1	14	3	0	0	Trincomalee.
4·2	+0·3	4·9	5·29	+0·64	2·04	17	9	+2·2	..	..	0	0	0	0	3	22	5	1	0	0	0	0	0	12	17	2	0	0	Hambantota.
5·5	..	5·0	4·97	..	3·02	22	4	..	..	..	1	0	0	1	12	16	1	0	0	0	0	0	0	9	21	0	1	0	Mannar.

(j) Mean of 21 days.

Table III.—Abstract of Observations Recorded at 0830 hrs. I. S. T. (0300 hrs. G. M. T.) at 4th Class Stations—May 1949

Station.	Maximum temperature °F.				Minimum temperature °F.				Mean dry bulb temperature 08 30 hrs. I. S. T. °F.	Mean wet bulb temperature 08 30 hrs. I.S. T. °F.	Vapour, pressure, mb.		Relative Humidity%		Mean cloud amount 0830 hrs. I.S.T.	Rainfall, inches.				Number of rainy days (0·10″or more.)		Wind
	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.			Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 0830 hrs. I.S.T.	Departure from normal.		Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Resultant Direction 0830 hrs. I.S.T.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Assam—																						
Lumding	89·5	—0·3	97	28	71·5	+0·1	68	4 days	81·2	75·1	27·1	+0·8	74	—4	..	7·70	+1·23	3·25	30	11	+0·3	..
Kashmir—																						
Jammu	105·1	+5·2	110	17,18,19	82·7	+4·5	71	13	89·4	69·3	15·5	+1·4	33	—1	2·7	0·33	—0·60	0·25	13	1	—1·2	..
Kargil R																						
Mysore—																						
Balehonnur	83·1	—1·5	91	5	66·5	—0·6	63	8	70·9	69·2	23·7	+0·4	92	+6	..	6·61	+2·46	0·79	22	16	+10·0	..
Tibet—																						
Yatung(Chumbi)	63.8	+3.0	71	7	41·6	—0·7	34	4, 5	56·1	54·3	13·7	+2·9	90	+7	3·2	3·60	—0·46	0·43	28	12	+1·0	..

R Register not received.

Table IV.—Abstract of Observations Recorded at 0830 hrs. I. S. T. (0300 hrs. G. M. T.) at 5th Class Stations—May 1949

Division.	Station.	Rainfall, inches.				Number of rainy days (0-10″ or more.)	
		Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.
1	2	3	4	5	6	7	8
Assam	Mawsynram	36·91	..	7·80	21	20	..
West Bengal	Bankura	5·89	+1·82	1·33	15	8	+2·4
Bihar	Muzaffarpur	4·37	+2·39	1·60	30	5	+1·9
	Chapra	2·63	+1·33	1·81	27	5	+3·2
	Arrah	1·83	+0·60	0·40	6·24	6	+4·2
East Punjab	Dharampore	0·73	—1·21	0·50	29	3	—0·4
	Kyelang	4·18	+1·87	1·35	28	6	+0·4
	Dalhousie	1·07	—1·05	0·46	3	4	—0·2

Division.	Station.	Rainfall—inches.				Number rainy da (0-10″ or m
		Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.
1	2	3	4	5	6	7
Kashmir	Sonamarg	6·81	+1·35	1·60	28	12
	Gurez	9·98	+5·50	2·00	1,27	9
Bombay, Deccan	Khandala	5·20	+4·41	1·50	25	10
Madras, South-east	Palamcottah	3·96	+2·33	1·85	15	7
Sikkim	Lachung	5·20	—1·05	1·14	15, 17	11

MONTHLY WEATHER REPORT MAY 1949

MONTHLY MEANS OF UPPER WINDS.

NOTE.—Data upto 9·0 Km.a.s.l. are given under Table A and data above 9·0 Km. under Table B.

In Tables A and B.

n represents the number of observations.

V represents the mean wind speed in m/second irrespective of direction.

v represents the resultant mean velocity in m/second.

D represents the direction of the resultant mean wind in degrees East of North.

For the co-ordinates of the stations for which data have been published in these Tables and other particulars please refer to the Monthly Weather Report, January 1948 and subsequent issues.

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 Km. above sea level.

May 1949

Station.	Ahmedabad.												Allahabad.											
Time in I.S.T.	0230				0830				1430				0200				0700				1430			
Ht in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	3·5	2·5	252	31	2·4	1·5	230	31	3·3	2·5	234	31	3·3	2·7	95	31	2·9	2·0	86	31	2·9	1·6	359
0·15 a.g.	31	9·3	6·9	257	31	6·1	4·1	243	31	6·1	4·6	230	31	9·8	6·2	113	31	6·1	4·2	111	30	4·1	2·5	2
0·6 a. s. l.	31	11·7	9·5	272	31	8·0	5·6	273	31	6·2	5·1	234	31	9·2	6·7	133	31	7·0	3·2	157	30	4·3	2·1	351
1·0 „	30	9·3	8·2	274	31	8·4	6·2	278	31	5·4	4·3	250	31	6·5	2·8	168	31	7·0	2·0	222	31	3·9	1·9	327
1·5 „	30	6·5	5·2	274	30	7·7	5·7	277	31	5·5	4·2	261	31	5·4	2·2	295	31	6·9	3·1	283	31	4·9	2·9	295
2·0 „	29	5·9	3·9	274	30	7·2	4·5	269	31	6·6	4·2	266	30	6·6	5·2	305	30	7·5	4·9	298	31	6·4	5·2	29[illegible]
2·5 „	25	5·3	1·7	279	24	5·7	2·8	276	31	7·2	3·7	258	17	7·9	7·0	306	29	8·5	6·7	308	30	7·6	6·6	288
3·0 „	24	5·4	1·4	316	21	5·8	1·3	251	31	7·1	2·3	267	13	8·6	8·0	314	27	9·3	8·4	308	28	8·3	7·3	289
4·0 „	7	6·8	2·1	99	19	6·0	1·1	117	31	6·1	0·2	318	3	5·5	4·8	297	17	10·9	10·2	318	27	10·1	9·0	294
5·0 „	5	4·7	0·7	274	16	6·0	4·2	64	28	6·4	0·7	47	1	7·5	7·5	75	10	10·2	8·9	332	23	10·8	9·5	294
6·0 „	2	7·7	7·7	358	15	6·8	5·3	32	28	6·6	1·7	30					6	7·7	5·9	349	19	10·9	9·5	295
7·5 „	1	9·5	9·5	285	13	7·5	5·1	5	25	7·9	2·1	306					4	5·1	4·4	58	12	10·0	7·9	286
2·0 „					10	10·5	4·0	353	22	9·1	5·4	271					4	10·3	9·4	21	9	13·3	9·9	279

Station.	Ambala.												Anantapur.								Asansol.			
Time in I. S. T.	0200				0700				1430				0730				1430				0230			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	2·9	2·1	95	31	3·1	2·8	107	31	3·0	0·5	95	31	3·4	2·5	261	31	4·3	1·3	330	31	1·8	1·1	148
0·15 a. g.	31	8·8	4·0	100	31	7·9	6·3	112	31	5·4	0·5	132	31	5·5	4·2	250	31	5·1	1·6	341	30	5·4	3·7	182
0·6 a. s. l.	31	9·0	3·4	112	31	9·5	6·2	119	31	5·4	0·6	188	31	6·5	5·1	251	31	5·3	1·6	321	30	8·0	6·0	201
1·0 „	31	7·5	0·4	292	31	8·8	3·8	126	31	5·2	0·6	247	31	7·6	4·5	280	31	6·0	1·8	298	22	7·7	6·7	225
1·5 „	31	6·9	1·5	298	31	7·5	1·1	200	29	5·0	1·9	294	31	8·5	3·8	303	31	5·9	1·4	316	20	6·5	5·9	255
2·0 „	27	5·6	2·7	293	26	6·7	2·6	303	29	5·7	2·4	303	31	8·3	3·1	334	30	6·8	1·3	296	15	6·5	5·7	299
2·5 „	21	6·9	5·9	318	21	7·6	7·1	311	28	7·0	6·4	306	31	8·0	2·7	2	29	6·8	1·2	302	13	8·5	8·1	310
3·0 „	17	8·9	8·2	312	21	8·6	7·9	318	28	8·7	7·9	310	31	8·4	2·9	32	28	8·3	2·1	34	13	10·0	9·8	311
4·0 „	5	11·3	9·9	309	15	12·1	11·1	317	28	11·4	7·0	316	28	8·7	3·5	58	27	9·1	2·9	54	5	11·4	10·8	296
5·0 „	2	11·5	10·0	316	13	13·5	12·9	329	26	13·3	12·2	314	26	8·1	2·8	63	25	7·8	0·5	110				
6·0 „					6	11·7	10·1	316	26	14·5	14·1	311	25	7·1	2·4	80	24	7·5	0·6	321				
7·5 „					4	12·6	12·0	302	19	15·2	14·3	299	20	6·2	1·3	167	22	6·3	0·7	23				
9·0 „					2	8·5	7·9	294	13	14·9	13·2	299	18	8·9	1·7	179	20	6·6	1·5	159				

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 Km. above sea level.

May 1949

Station.	Asansol.												Bangalore.											
Time in I. S. T.	0730				1100				1430				0230				0730				1430			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	31	1·8	1·2	131	31	2·4	1·6	145	31	2·1	1·4	139	31	4·3	3·3	233	31	3·1	2·7	255	31	4·1	2·0	272
0·15 a. g. . . .	31	4·5	2·5	147	31	5·3	3·5	148	30	4·5	3·1	144	29	7·1	6·2	231	31	5·7	5·0	260	31	6·3	2·7	271
0·6 a. s. l. . .	30	7·2	3·4	217	30	4·7	3·2	176	30	4·4	3·2	163												
1·0 „ . . .	24	8·7	5·7	256	27	5·7	3·6	227	29	4·8	3·3	188	29	6·0	5·2	230	31	4·9	4·3	260	31	5·5	2·3	295
1·5 „ . . .	20	8·0	6·4	280	26	6·3	4·5	258	27	5·3	3·9	249	27	7·4	5·2	250	23	8·5	5·5	292	31	6·3	2·3	293
2·0 „ . . .	18	6·2	5·4	287	21	6·9	6·3	266	25	7·0	6·0	271	21	6·1	1·5	254	20	5·9	3·6	335	28	6·1	2·6	324
2·5 „ . . .	15	6·7	5·9	298	14	7·3	6·1	262	22	8·5	7·8	285	15	5·5	3·5	30	19	5·7	4·3	30	25	6·0	2·1	341
3·0 „ . . .	16	9·4	8·3	310	8	7·4	7·1	306	22	9·5	8·7	297	13	7·0	5·3	31	18	7·3	6·0	50	19	6·8	3·0	14
4·0 „ . . .	11	10·5	10·1	314					19	12·0	11·1	307					15	9·1	6·8	53	7	8·5	8·3	60
5·0 „ . . .	7	7·3	5·9	315					13	9·1	8·8	297					10	6·6	5·3	73	3	6·0	5·6	69
6·0 „ . . .	5	8·7	5·8	324					13	10·2	10·1	287					10	6·6	5·3	65	2	4·3	3·9	72
7·5 „ . . .	2	7·7	6·9	277					8	12·9	12·5	270					6	5·4	1·3	126	1	3·5	3·5	245
9·0 „ . . .	2	6·7	6·6	297					6	13·6	12·2	266					2	5·0	2·1	275				

Station.	Bareilly.								Bairagarh.												Bhuj.			
Time in I. S. T.	0730				1430				0230				0730				1430				0230			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	31	4·3	3·9	41	31	2·6	0·9	98	31	4·7	3·4	252	31	3·5	2·2	255	31	3·8	2·8	278	31	4·1	3·9	233
0·15 a. g. . . .	30	7·0	6·3	104	31	4·0	1·9	96	29	10·5	6·7	261	31	8·1	5·6	268	31	5·1	4·1	272	31	10·1	9·1	251
0·6 a. s. l. . .	31	8·7	6·4	134	30	4·1	1·0	117	30	10·0	6·3	258	31	7·0	4·7	268	31	5·1	4·0	265	31	13·3	11·7	264
1·0 „ . . .	31	7·6	4·2	148	30	3·8	0·8	159	29	12·4	8·4	269	31	9·9	7·1	290	31	5·2	4·4	281	31	8·9	7·7	273
1·5 „ . . .	30	6·0	1·3	177	30	4·8	2·7	273	26	9·8	7·1	285	31	8·4	6·3	301	31	4·8	3·9	289	29	7·3	5·5	267
2·0 „ . . .	30	5·7	3·1	299	31	7·5	6·2	287	24	6·5	4·6	309	28	6·1	4·0	319	31	4·8	3·5	281	24	5·0	2·1	245
2·5 „ . . .	27	7·0	5·5	299	31	9·6	9·0	293	23	5·9	3·8	322	25	5·8	2·8	342	29	5·1	3·4	305	19	3·9	0·9	176
3·0 „ . . .	27	8·8	8·1	305	31	11·0	10·4	302	20	6·1	2·9	349	25	5·7	3·0	2	29	4·8	3·2	308	17	5·0	0·7	113
4·0 „ . . .	19	12·2	11·5	309	30	12·4	11·8	306	5	6·5	5·5	341	23	6·5	3·1	16	20	5·8	3·6	310	11	5·3	2·8	91
5·0 „ . . .	15	11·1	9·1	323	29	11·1	10·8	306	2	9·7	9·5	351	14	6·0	3·3	337	17	6·3	5·3	325	1	7·5	7·5	20
6·0 „ . . .	11	10·0	8·3	304	25	12·1	11·6	303					11	5·1	4·1	294	15	6·7	6·2	308				
7·5 „ . . .	6	8·8	6·2	314	14	12·9	12·1	305					4	12·0	5·6	272	9	10·5	9·2	286				
9·0 „ . . .	5	7·3	4·7	336	9	11·3	9·4	297					1	16·5	16·5	225	8	15·3	12·5	283				

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 Km. above sea level.

May 1949

Station.	Bhuj.								Bikaner.								Bombay.							
Time in I. S. T.	0730				1430				0730				1430				0230				0730			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	31	3·2	3·0	231	31	5·6	4·9	241	31	3·5	2·6	217	31	3·3	2·3	244	31	1·7	0·9	204	31	1·3	0·6	128
0·15 a. g. . . .	31	8·9	7·9	243	31	9·2	7·9	245	31	9·9	7·2	225	31	5·0	3·3	250	30	3·9	2·1	226	31	3·4	0·5	172
0·6 a. s. l. . .	31	14·0	12·4	274	31	8·9	7·8	251	31	10·7	7·5	245	31	5·6	3·5	250	29	4·8	2·6	243	31	4·5	1·2	233
1·0 „ . . .	30	10·0	8·5	283	31	8·7	7·5	261	31	8·9	6·4	246	31	4·9	3·6	255	26	6·4	2·9	273	30	5·9	1·8	285
1·5 „ . . .	29	8·0	5·8	278	28	7·4	5·8	268	30	6·6	4·6	253	31	5·0	3·8	254	17	6·8	2·8	307	25	7·6	3·5	352
2·0 „ . . .	25	5·8	3·1	264	26	5·4	3·4	259	28	6·3	4·3	256	29	6·2	4·4	262	14	6·3	3·2	2	22	7·2	2·5	15
2·5 „ . . .	20	4·5	2·0	228	26	4·5	1·9	256	25	6·1	3·6	258	27	6·4	4·9	262	12	6·4	2·1	37	21	7·4	2·5	39
3·0 „ . . .	18	5·7	0·5	178	26	4·7	0·5	266	19	6·4	2·8	272	23	6·3	4·2	277	9	6·5	3·5	59	20	7·7	4·5	74
4·0 „ . . .	13	6·1	3·1	84	24	5·3	2·5	75	15	7·6	3·4	353	22	7·4	5·3	301	2	11·3	11·3	79	13	7·6	4·2	93
5·0 „ . . .	12	6·8	4·9	67	20	6·3	4·2	78	8	6·0	4·8	22	21	7·8	5·8	315					6	5·5	3·3	113
6·0 „ . . .	12	8·5	6·7	54	18	6·4	4·0	54	6	6·4	5·8	321	21	10·2	8·5	309					5	5·2	3·4	95
7·5 „ . . .	11	7·3	2·6	53	14	6·6	0·7	294	5	8·6	7·5	312	15	9·3	7·7	289					4	6·9	3·1	99
9·0 „ . . .	8	6·7	1·6	240	12	9·5	8·0	261	5	11·9	10·4	324	10	15·8	13·7	289					1	3·5	3·5	145

Station.	Bombay.				Calcutta.																Cochin.			
Time in I. S. T.	1430				0230				0730				1100				1430				0230			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	31	6·3	4·5	261	31	3·7	3·0	189	31	3·2	2·2	190	31	3·6	2·7	186	31	3·5	2·9	177	31	1·8	0·9	308
0·15 a. g. . . .	31	6·2	4·3	271	30	9·3	8·1	185	31	5·5	3·9	193	31	5·9	4·5	187	31	5·9	5·1	182	21	3·3	1·7	299
0·6 a. s. l. . .	31	5·2	2·6	280	29	12·2	11·4	204	28	9·2	8·0	205	31	7·3	5·8	200	31	6·4	5·6	191	21	4·7	4·2	285
1·0 „ . . .	31	5·6	1·9	320	28	11·5	10·2	213	26	9·7	8·1	217	28	7·1	5·4	218	31	5·8	4·6	201	19	4·8	4·1	290
1·5 „ . . .	27	6·3	2·5	358	27	7·6	5·6	227	20	7·0	4·2	241	21	6·5	3·9	249	29	5·5	3·6	230	15	4·1	3·2	273
2·0 „ . . .	27	6·4	2·2	23	25	6·2	4·1	270	18	6·2	3·9	267	15	5·7	3·1	250	29	6·4	3·8	257	10	4·5	2·5	276
2·5 „ . . .	24	6·2	1·5	52	23	6·2	4·5	308	15	5·6	3·6	284	10	6·8	3·3	274	25	7·6	5·8	283	8	5·3	2·1	35
3·0 „ . . .	24	6·6	1·8	92	19	8·0	6·6	325	12	7·4	5·8	299	10	8·9	5·3	284	25	8·8	7·0	295	6	7·1	2·6	60
4·0 „ . . .	22	7·2	3·4	94	7	8·7	8·2	323	4	8·5	7·7	314					19	10·9	8·7	315	2	11·0	11·0	75
5·0 „ . . .	16	5·9	4·0	89	1	7·5	7·5	305	3	8·5	8·3	271					14	8·5	7·5	312				
6·0 „ . . .	14	5·1	2·1	91					2	8·0	8·0	261					11	9·2	8·0	302				
7·5 „ . . .	12	7·9	0·8	235													5	8·6	8·2	293				
9·0 „ . . .	11	10·1	0·9	228													3	5·8	3·8	283				

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 Km. above sea level.

May 1949

Station.	Cochin.								Cooch Behar.								Cuttack.							
Time in I. S. T.	0730				1430				0730				1430				0230				0730			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	31	1·1	0·4	127	31	3·8	3·1	275	31	1·5	1·0	87	31	1·4	0·8	136	31	2·1	1·3	196	31	1·7	1·4	202
0·15 a. g. . . .	29	3·4	0·6	157	28	5·6	5·0	280	28	4·4	3·3	91	30	3·4	1·8	141	31	6·8	4·6	194	30	6·0	4·6	204
0·6 a.s.l. . .	29	4·8	3·8	279	28	6·9	6·2	280	25	6·1	4·5	98	30	3·8	2·3	140	23	9·5	7·3	212	26	8·4	6·5	219
1·0 „ . . .	27	5·3	4·6	290	24	6·6	5·6	287	23	5·9	4·4	95	26	4·1	1·7	188	17	8·5	5·0	232	20	7·4	5·5	239
1·5 „ . . .	22	5·7	4·0	280	18	4·9	3·0	295	19	4·3	2·0	102	25	4·1	2·9	238	12	6·3	3·9	250	19	6·2	3·9	253
2·0 „ . . .	17	5·0	2·3	302	17	5·8	2·5	307	18	4·5	1·1	81	23	5·1	3·9	258	7	6·8	4·2	288	18	4·8	2·6	281
2·5 „ . . .	12	5·7	2·6	63	14	6·1	1·8	352	18	5·9	2·2	254	20	5·9	4·6	259	3	3·0	0·6	70	14	5·3	3·5	328
3·0 „ . . .	12	7·7	4·6	63	13	8·2	3·5	23	15	5·1	1·2	250	11	6·7	4·8	264	2	3·7	1·6	127	14	5·8	4·2	348
4·0 „ . . .	9	7·1	6·4	59	10	8·4	3·5	35	11	7·0	2·1	309	11	6·4	3·0	292					6	8·3	8·0	5
5·0 „ . . .	6	3·6	2·5	67	6	6·0	1·5	6	10	6·6	3·7	302	9	7·3	2·1	298					4	5·3	4·2	346
6·0 „ . . .	4	5·1	3·8	109	6	6·9	1·0	22	6	8·3	4·1	311	7	8·8	6·1	274					3	4·2	3·9	250
7·5 „ . . .	3	5·7	4·5	127	4	6·5	1·1	102	5	10·7	3·2	304	1	13·0	13·0	240					1	8·0	8·0	250
9·0 „ . . .	2	6·0	4·8	186	2	2·7	2·5	260	1	19·0	19·0	15	1	17·5	17·5	265					1	9·0	9·0	245

Station.	Cuttack.								Deolali.				Dibrugarh.								Gadag.			
Time in I. S. T.	1100				1430				0730				0730				1430				0230			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	31	2·3	2·0	206	31	2·8	2·6	185	26	2·2	2·1	244	31	1·3	1·2	58	31	2·2	0·7	25	31	4·9	4·1	238
0·15 a. g. . . .	31	6·3	5·4	210	30	7·6	6·7	187	26	4·9	4·2	239	21	3·4	3·1	61	28	3·8	1·7	38	30	8·8	6·8	252
0·6 a. s. l. . .	31	6·3	4·7	218	29	6·8	5·6	200	26	3·9	3·2	239	19	3·8	3·1	54	27	3·1	0·9	119				
1·0 „ . . .	27	6·9	4·5	245	28	5·7	3·4	229	26	6·5	4·2	301	19	3·6	1·7	76	23	3·1	0·7	215	30	9·8	6·8	276
1·5 „ . . .	17	7·1	5·1	275	23	4·9	3·3	286	26	7·9	3·8	313	17	3·6	0·9	117	24	4·1	2·6	225	29	8·2	4·2	297
2·0 „ . . .	7	7·3	5·3	289	23	4·8	3·5	315	26	7·6	4·6	66	14	3·0	1·0	173	19	4·6	2·8	213	26	6·3	1·6	335
2·5 „ . . .	3	7·3	6·3	308	22	5·3	3·8	317	24	6·9	1·5	37	13	3·8	0·9	160	19	4·4	2·3	223	23	5·8	2·4	56
3·0 „ . . .	1	11·5	11·5	330	19	5·7	4·1	322	23	7·1	3·5	76	10	2·3	0·9	50	17	3·9	2·0	219	17	6·7	5·7	58
4·0 „ . . .					13	6·6	4·3	337	16	6·9	4·0	118	10	3·3	0·7	301	15	5·2	1·4	233	11	8·6	7·8	63
5·0 „ . . .					11	4·6	3·2	259	12	5·4	2·1	71	9	4·8	0·9	87	12	6·3	2·1	255				
6·0 „ . . .					8	4·5	4·1	256	7	4·4	2·4	22	7	4·4	2·8	28	10	8·3	2·7	274				
7·5 „ . . .					5	7·6	5·5	269	5	7·3	1·8	329	5	7·6	2·4	319	8	9·4	7·4	284				
9·0 „ . . .					5	6·9	5·4	262	1	9·0	9·0	230	3	12·8	8·7	272	3	7·0	6·8	260				

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 Km. above sea level.

May 1949

Station.	Gadag.								Gaya.															
Time in I. S. T.	0730				1430				0230				0730				1100				1430			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	31	4·3	3·7	236	31	4·2	1·2	229	31	3·3	2·5	102	31	3·7	2·4	106	31	3·2	1·4	52	31	3·6	1·9	42
0·15 a. g. . . .	31	7·5	5·7	244	31	6·1	1·6	271	31	5·9	4·0	134	31	5·8	3·6	125	31	4·5	2·1	63	31	4·7	2·7	41
0·6 a. s. l. . .									31	7·2	4·4	180	31	6·6	3·1	194	31	4·7	1·0	75	31	4·9	2·6	23
1·0 „ . . .	31	8·3	4·4	286	31	5·8	1·7	276	31	6·1	2·8	217	30	7·6	3·9	242	31	4·9	1·4	251	31	4·9	2·0	353
1·5 „ . . .	29	8·2	3·3	322	31	6·4	1·4	293	30	5·8	2·8	285	30	7·7	4·1	256	29	7·5	5·3	269	29	5·5	3·9	304
2·0 „ . . .	29	5·8	2·2	320	30	6·4	1·4	347	27	7·6	5·4	298	28	7·1	3·7	275	25	7·6	6·6	277	28	7·5	6·6	296
2·5 „ . . .	28	7·0	3·1	36	26	6·9	3·3	21	17	8·9	7·5	305	22	7·5	4·7	287	12	8·7	7·6	289	27	8·5	7·7	289
3·0 „ . . .	25	7·6	5·6	57	23	6·9	5·4	37	13	9·0	8·0	297	18	9·3	7·1	299	10	8·6	8·2	309	26	10·0	9·2	290
4·0 „ . . .	20	8·7	7·2	61	14	6·3	4·8	54					11	11·1	10·2	303					15	12·8	10·8	300
5·0 „ . . .	15	7·2	4·7	62	8	6·3	3·7	69					1	5·0	5·0	290					14	15·2	13·7	304
6·0 „ . . .	12	6·0	2·9	93	7	6·9	3·5	49					1	3·5	3·5	295					7	9·9	9·3	294
7·5 „ . . .	8	6·3	2·8	134	4	4·9	1·5	143					1	2·0	2·0	5					3	7·8	7·4	305
9·0 „ . . .	7	5·7	3·4	165	4	6·0	2·5	226					1	3·5	3·5	50					1	14·0	14·0	345

Station.	Gopalpur.								Gorakhpur.								Hyderabad (Dn).							
Time in I. S. T.	0730				1430				0730				1430				0230				0730			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	31	5·5	5·1	203	31	8·7	8·4	185	31	2·8	2·6	79	31	2·2	1·6	112	31	3·7	1·3	236	31	3·1	1·3	277
0·15 a. g. . . .	31	8·3	7·2	212	31	11·9	11·6	189	31	6·4	6·1	86	31	4·5	3·3	120	31	6·9	2·1	230	31	5·7	2·2	290
0·6 a. s. l. . .	31	6·5	6·4	225	31	7·8	7·2	204	30	8·2	7·9	109	31	4·3	3·4	110	31	5·6	2·1	222	31	4·4	1·6	270
1·0 „ . . .	31	7·1	5·1	238	31	4·8	3·5	227	28	5·9	4·7	125	31	4·0	2·8	115	31	7·7	3·5	223	31	8·7	3·0	311
1·5 „ . . .	29	7·0	3·8	253	29	4·7	3·0	277	25	6·0	0·7	199	29	4·3	1·1	272	31	6·9	2·4	235	30	9·3	3·4	315
2·0 „ . . .	26	6·0	2·8	279	29	5·5	3·3	294	24	7·0	3·6	281	28	7·0	5·1	287	31	6·3	0·5	324	30	8·3	2·1	328
2·5 „ . . .	24	5·7	1·7	287	28	5·8	2·8	311	23	8·3	7·0	293	25	9·7	8·5	290	28	5·9	2·8	53	29	7·1	2·2	360
3·0 „ . . .	22	6·2	1·8	344	27	6·3	3·7	340	22	10·1	9·7	303	23	10·8	9·6	295	25	6·0	3·5	43	28	6·7	2·3	11
4·0 „ . . .	14	5·9	3·9	17	25	6·0	3·9	355	18	10·2	9·9	313	22	11·4	10·2	295	1	20·0	20·0	14	28	7·4	3·9	52
5·0 „ . . .	12	5·0	2·6	359	22	5·4	2·2	317	9	11·3	7·6	326	17	10·5	10·0	294					26	8·0	3·7	43
6·0 „ . . .	10	4·9	0·7	37	17	5·8	1·5	288	6	5·8	4·4	305	14	10·5	9·7	292					25	7·3	2·8	19
7·5 „ . . .	7	4·9	3·9	239	12	5·3	3·2	231	3	6·0	3·0	351	9	11·1	7·7	291					11	6·5	1·2	329
9·0 „ . . .	5	7·9	7·7	229	9	6·8	4·3	236	3	8·7	5·2	308	4	11·1	8·2	317					2	4·0	0·1	2

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 Km. above sea level.

May 1949

Station.	Hyderabad (Dn.).				Jagdalpur.												Jamnagar.							
Time in I. S. T.	1430				0230				0730				1430				0730				1430			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	31	3·6	0·8	236	31	1·5	1·9	228	31	1·3	1·0	208	31	1·9	1·2	252	16	4·2	3·4	235	15	14·2	13·0	277
0·15 a. g. . . .	31	5·8	1·3	174	31	7·3	5·1	211	30	5·8	4·0	217	31	3·9	2·6	249	16	7·3	6·5	247	15	8·8	8·1	272
0·6 a. s. l. . .	31	4·5	0·8	179	31	5·2	3·8	230	30	3·1	2·4	216	31	3·0	1·8	247	11	9·8	7·5	272	15	9·2	7·4	261
1·0 „ . . .	31	5·4	0·8	200	31	6·9	4·9	231	30	7·1	5·2	243	31	3·8	2·5	253	11	8·8	5·9	277	15	7·8	6·2	255
1·5 „ . . .	31	5·2	1·8	32	30	5·8	2·7	254	30	5·9	3·3	273	30	3·7	2·9	263	8	5·2	2·2	321	15	6·9	4·9	256
2·0 „ . . .	30	5·8	1·9	31	30	5·7	2·4	303	29	5·4	2·3	311	29	3·9	1·8	303	7	4·2	1·2	54	15	6·1	3·6	252
2·5 „ . . .	29	6·1	2·0	29	27	5·3	2·3	351	29	5·8	2·2	359	26	4·9	2·1	319	5	4·5	2·8	94	15	5·4	1·3	240
3·0 „ . . .	29	7·0	2·0	7	27	5·7	2·0	357	29	5·6	2·2	20	25	5·9	3·2	358	5	4·7	3·6	101	15	5·4	0·7	237
4·0 „ . . .	19	7·9	1·7	27	20	4·7	1·9	25	26	7·6	4·0	22	23	6·0	3·5	12	5	6·4	4·5	64	15	5·4	2·4	80
5·0 „ . . .	14	9·1	2·8	315	10	4·9	2·2	40	24	6·3	3·5	30	21	6·1	3·2	346	2	9·8	8·9	62	15	6·2	2·6	75
6·0 „ . . .	13	10·0	4·9	317	6	3·9	0·8	77	20	5·9	2·5	26	21	6·2	3·5	328	2	10·7	10·7	42	15	6·5	3·0	69
7·5 „ . . .	9	9·3	7·7	341	1	7·0	7·0	200	13	6·3	1·7	330	20	6·4	3·4	286	2	11·0	10·9	44	13	6·7	1·6	19
9·0 „ . . .	6	9·9	7·7	342					12	8·0	3·8	268	17	7·3	4·0	282	2	7·3	6·5	50	12	8·6	2·7	240

Station.	Jamshedpur.												Jharsuguda.											
Time in I. S. T.	0730				1100				1430				0230				0730				1430			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	31	2·4	0·6	289	31	2·7	0·9	207	31	3·3	1·2	122	31	1·8	0·8	119	31	1·0	0·3	170	31	1·1	1·0	258
0·15 a. g. . . .	31	3·7	0·9	263	31	3·8	1·7	205	30	4·2	1·7	138	30	6·9	3·1	157	31	4·1	2·2	190	31	3·2	2·0	250
0·6 a. s. l. . .	31	5·7	3·8	227	31	4·4	2·8	211	30	4·0	1·0	166	30	8·2	4·2	194	31	6·0	4·0	222	31	4·1	3·4	249
1·0 „ . . .	29	8·4	6·9	245	31	6·0	3·9	239	30	4·1	1·6	237	30	9·1	5·5	215	31	7·8	6·3	247	31	4·4	3·9	260
1·5 „ . . .	28	8·0	6·5	259	28	7·1	5·7	266	30	5·2	4·1	209	30	8·1	5·5	237	31	8·8	7·5	263	31	4·5	4·0	273
2·0 „ . . .	28	6·4	5·3	274	25	6·9	5·7	271	30	6·1	5·3	282	28	7·1	5·5	268	31	7·2	5·8	277	31	5·0	4·3	289
2·5 „ . . .	28	5·8	4·9	286	20	5·5	4·6	290	28	7·1	6·2	291	23	5·9	5·0	286	31	6·3	4·9	294	31	5·2	4·1	307
3·0 „ . . .	26	7·0	6·1	307	18	5·5	4·7	289	28	8·1	7·3	303	21	6·2	5·0	307	30	6·3	4·4	318	30	5·7	4·3	327
4·0 „ . . .	16	9·3	8·3	323					24	10·5	9·4	313	19	8·2	7·1	338	26	7·7	6·5	344	30	6·3	4·9	324
5·0 „ . . .	13	8·4	7·5	317					22	9·2	8·2	305					23	6·0	4·7	331	29	6·3	5·1	305
6·0 „ . . .	10	8·5	6·3	297					21	8·9	7·3	290					22	5·8	3·3	290	26	7·2	5·4	294
7·5 „ . . .	4	7·7	7·5	270					16	9·9	8·8	272					14	6·8	3·6	308	25	9·4	6·7	288
9·0 „ . . .	4	8·6	8·1	283					9	10·9	9·4	269					11	8·0	4·6	270	18	8·3	7·6	257

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 Km. above sea level.

May 1949

Station.	Jodhpur.												Jubbulpore.										
Time in I. S. T.	0230				0730				1430				0230				0730				1430		
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . . .	31	4·1	2·9	241	31	4·5	3·4	232	31	5·0	4·2	248	31	2·0	1·2	177	31	2·3	1·7	208	31	1·9	1·5
0·15 a. g. . . .	30	12·5	10·6	246	30	7·9	6·9	231	31	7·4	6·2	248	31	6·1	3·4	221	31	6·0	4·5	221	31	4·0	3·2
0·6 a. s. l. . .	30	12·9	11·2	251	30	10·2	8·7	244	31	7·3	6·9	247	31	6·6	3·9	231	31	6·9	5·4	229	31	4·2	3·3
1·0 „ . . .	28	12·5	10·8	249	28	10·2	8·4	248	31	6·7	5·8	244	31	8·5	5·6	245	31	8·8	7·5	254	31	4·3	3·5
1·5 „ . . .	18	8·5	6·2	245	23	8·7	7·0	248	30	6·2	5·2	246	31	5·9	3·9	261	31	7·9	6·5	276	31	4·2	3·6
2·0 „ . . .	12	5·2	3·5	247	19	7·7	5·3	245	29	6·8	5·1	241	31	4·7	3·0	296	30	5·7	4·4	298	30	4·5	3·9
2·5 „ . . .	4	4·9	3·4	131	13	6·3	4·1	282	29	7·1	4·9	239	28	5·1	4·1	321	30	5·6	4·0	320	30	4·0	3·4
3·0 „ . . .	2	6·3	3·3	137	11	7·0	4·2	249	29	7·5	4·7	247	25	6·0	4·7	327	30	6·1	4·8	335	30	4·6	3·9
4·0 „ . . .					5	6·5	1·9	183	26	8·3	4·2	266	13	7·3	7·2	343	26	8·5	6·7	338	26	6·6	5·7
5·0 „ . . .					3	2·3	1·1	48	24	8·7	4·7	280	5	7·9	6·2	329	19	6·5	5·1	339	21	7·6	6·7
6·0 „ . . .					3	3·2	1·6	175	18	7·6	5·6	301	1	3·5	3·5	320	17	6·9	5·0	314	13	10·1	9·6
7·5 „ . . .					2	5·5	3·0	243	7	9·6	9·2	299					7	8·9	5·8	273	9	13·2	11·4
9·0 „ . . .					2	7·5	5·7	248	4	6·5	6·0	258					5	18·1	17·8	246	4	17·0	17·0

Station.	Madhosagar.								Madras.												Malegaon.		
Time in I. S. T.	0730				1430				0230				0730				1430				0230		
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . . .	31	3·1	1·3	264	31	2·6	1·8	296	31	3·8	3·0	196	31	3·2	2·2	223	31	5·4	4·1	154	31	5·1	4·5
0·15 a. g. . . .	31	7·0	3·9	261	31	5·0	3·2	303	30	6·9	5·9	206	30	6·1	4·7	227	30	7·3	3·4	148	30	8·2	6·8
0·6 a. s. l. . .	30	9·7	5·0	276	31	5·1	3·2	305	30	9·6	8·4	213	30	8·2	6·1	240	30	5·5	2·3	203	30	8·2	6·8
1·0 „ . . .	30	9·5	5·2	290	30	5·5	3·7	303	30	8·1	6·2	220	30	7·5	5·6	247	30	5·5	3·1	261	30	8·3	5·5
1·5 „ . . .	29	8·0	5·8	301	30	5·7	4·0	302	30	5·9	3·5	231	29	5·7	3·5	246	30	5·0	4·2	279	29	8·0	4·5
2·0 „ . . .	29	7·0	6·0	311	28	6·3	4·4	302	30	5·0	1·5	292	29	5·1	1·9	262	29	6·1	3·2	284	27	6·5	3·3
2·5 „ . . .	24	7·5	6·4	320	26	6·9	5·7	309	26	5·3	2·3	330	29	6·2	0·9	320	28	6·9	2·3	302	20	7·5	2·5
3·0 „ . . .	24	9·3	8·4	322	25	7·3	6·2	313	20	6·2	1·8	315	29	7·6	1·3	20	28	7·6	1·9	330	18	8·6	3·0
4·0 „ . . .	11	10·5	9·3	327	20	8·4	6·8	312	6	8·4	1·3	338	27	9·3	3·9	40	27	8·0	2·4	16	6	8·6	6·1
5·0 „ . . .	8	11·6	8·3	336	19	8·8	7·0	313					25	6·8	1·8	36	23	7·0	1·6	344			
6·0 „ . . .	5	7·0	6·6	12	16	9·6	7·4	318					21	5·5	1·0	65	20	5·9	1·1	28			
7·5 „ . . .		8·3	8·2	43	14	10·8	8·1	315					15	6·1	1·4	151	17	6·1	1·0	358			
9·0 „ . . .	3	7·0	6·9	37	10	12·9	8·6	319					10	9·3	3·6	143	13	6·4	1·0	239			

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 Km. above sea level.

May 1949.

Station.	Malegaon.								Mangalore.												Masulipatam.			
Time in I. S. T.	0730				1430				0230				0730				1430				0230			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	31	3·8	3·2	263	31	4·1	3·0	308	31	3·2	1·3	358	31	2·1	0·8	90	31	4·1	3·0	282	31	2·2	1·7	184
0·15 a. g. . . .	31	6·0	4·9	273	30	4·9	3·3	310	25	4·8	2·9	307	29	3·9	4·7	68	30	6·5	5·3	278	31	7·3	6·0	188
0·6 a. s. l. . .	31	6·0	4·9	323	30	4·9	3·3	310	22	5·9	4·8	313	29	5·7	3·5	299	28	7·4	5·9	280	31	10·6	8·5	197
1·0 „ . . .	31	6·9	5·0	304	30	4·5	2·5	314	16	5·9	4·3	303	26	6·3	4·5	305	25	6·2	4·2	295	31	8·1	5·3	200
1·5 „ . . .	31	6·6	4·0	331	30	4·9	2·6	326	13	5·0	3·4	314	20	6·2	4·6	345	20	4·7	3·0	2	30	6·6	2·2	220
2·0 „ . . .	30	6·1	2·5	356	29	5·4	2·2	339	12	5·4	3·2	344	13	5·1	4·2	5	16	5·1	3·4	18	29	5·9	0·9	304
2·5 „ . . .	29	7·1	7·8	355	29	5·8	1·6	341	8	6·2	4·0	47	12	5·2	4·4	45	15	6·2	4·4	43	27	6·4	2·1	336
3·0 „ . . .	24	7·5	0·9	313	28	6·2	1·1	331	7	7·4	4·9	60	11	7·5	7·0	59	14	7·0	6·6	63	25	6·6	2·3	12
4·0 „ . . .	18	7·5	3·2	109	22	7·0	0·1	230	3	8·7	7·5	51	9	7·9	7·3	70	12	7·3	6·9	75	18	8·2	4·1	351
5·0 „ . . .	12	5·3	3·3	81	17	6·3	0·4	81	1	9·0	9·0	50	5	4·8	4·0	83	11	6·3	5·5	67				
6·0 „ . . .	10	6·3	3·0	26	11	4·5	0·6	8					4	4·7	2·8	80	9	6·6	4·1	73				
7·5 „ . . .	9	5·8	3·1	18	7	5·6	3·7	292					3	5·8	5·0	159	4	4·9	2·9	39				
9·0 „ . . .	6	9·7	3·2	347	4	6·3	5·5	302					3	9·5	8·9	212	4	6·6	2·3	287				

Station.	Masulipatam.								Nagercoil.												Nagpur.			
Time in I. S. T.	0730				1430				0230				0730				1430				0230			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	31	2·4	1·2	179	31	3·6	2·4	164	31	4·0	3·7	288	31	3·3	3·0	290	31	7·3	6·9	267	31	3·6	2·2	236
0·15 a.g. . . .	31	7·0	4·0	192	30	6·4	4·2	177	31	9·9	9·4	293	31	8·7	8·5	292	31	11·5	11·2	269	31	8·7	4·9	234
0·6 a. s. l. . .	31	8·8	5·3	212	30	5·5	2·6	215	31	13·2	12·8	292	31	12·2	11·8	293	31	12·0	11·8	283	31	9·8	5·5	234
1·0 „ . . .	31	8·2	4·3	221	30	5·2	2·0	245	31	11·4	11·1	287	31	11·8	11·2	288	29	11·9	11·3	290	31	4·6	6·3	245
1·5 „ . . .	26	6·6	1·1	183	30	5·1	1·3	297	31	9·0	8·3	280	31	9·5	8·3	282	28	10·7	9·6	294	31	7·1	4·6	258
2·0 „ . . .	22	6·2	1·1	62	30	5·4	0·8	8	30	8·9	6·0	274	30	8·3	4·9	283	27	9·8	7·4	293	30	5·7	3·2	274
2·5 „ . . .	19	7·0	2·9	57	30	6·3	1·5	39	25	7·3	2·1	305	29	8·1	2·9	298	25	9·2	4·3	302	23	4·9	2·1	335
3·0 „ . . .	19	8·3	2·9	58	29	6·8	1·7	21	25	6·6	1·9	43	28	9·1	1·9	349	25	10·2	3·0	326	16	4·8	3·3	18
4·0 „ . . .	13	9·0	2·9	356	27	7·9	1·5	343	14	6·7	2·7	44	26	8·8	2·6	359	24	10·3	3·3	17	10	6·3	5·2	22
5·0 „ . . .	10	7·3	2·7	347	23	7·4	2·5	328	5	5·5	2·2	57	24	7·0	0·5	280	22	8·2	2·5	358	3	5·2	3·3	301
6·0 „ . . .	6	6·9	5·1	318	23	7·7	3·8	329	5	8·3	2·3	110	23	6·9	0·6	89	18	8·7	2·6	29	1	6·0	6·0	270
7·5 „ . . .	4	5·8	2·9	324	19	7·0	4·4	318					20	6·0	1·8	94	14	6·3	2·4	49				
9·0 „ . . .	4	10·7	1·2	322	11	8·3	3·3	271					16	7·2	2·5	177	14	6·5	1·6	67				

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 Km. above sea level.

May 1949.

Station.	Nagpur.								New Delhi.												Poona.			
Time in I. S. T.	0730				1430				0230				0730				1430				0230			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	31	2·8	1·2	273	31	2·2	0·8	270	31	2·5	0·6	130	31	2·9	0·8	134	31	3·8	0·8	38	31	2·6	2·3	275
0·15 a. g. . . .	31	6·2	3·2	265	31	4·2	1·6	266	31	8·3	2·6	148	31	7·8	2·6	152	31	5·0	1·1	17	31	5·1	4·4	260
0·6 a. s. l. . . .	31	7·1	4·9	276	31	4·5	2·0	262	31	8·5	1·7	178	31	7·8	2·3	200	31	5·1	0·4	343	31	3·6	3·1	261
1·0 „ . . .	31	8·0	6·1	281	31	4·2	2·3	286	31	7·4	1·6	245	31	6·3	2·2	265	30	5·1	1·7	284	31	6·3	5·0	274
1·5 „ . . .	31	6·7	5·3	285	31	4·5	2·7	290	29	6·4	3·7	305	31	6·0	3·7	293	30	5·5	3·4	287	31	7·4	4·3	315
2·0 „ . . .	30	5·2	3·3	292	31	4·6	2·9	300	20	7·5	6·5	306	30	6·7	5·1	319	30	6·6	5·1	291	31	6·9	1·6	321
2·5 „ . . .	30	5·7	3·0	350	29	4·6	2·5	297	15	7·9	7·3	307	28	7·4	6·6	314	30	8·4	7·3	294	28	6·3	2·2	72
3·0 „ . . .	27	6·9	3·8	3	29	5·4	2·8	322	10	10·9	10·5	307	27	8·9	8·1	319	28	9·9	9·0	301	27	6·7	4·0	81
4·0 „ . . .	23	7·5	5·3	30	23	7·1	3·7	313	2	19·3	18·7	325	20	11·4	10·4	322	27	12·9	11·1	105	14	7·3	5·4	93
5·0 „ . . .	20	5·3	2·9	59	17	7·0	5·2	310					11	11·1	9·8	317	23	13·1	11·1	310				
6·0 „ . . .	14	4·1	0·5	346	9	6·9	6·1	324					7	11·3	10·3	303	16	12·0	11·1	295				
7·5 „ . . .	8	5·9	5·5	267	6	9·8	8·0	300					1	8·0	8·0	45	10	13·7	12·7	292				
9·0 „ . . .	6	5·0	4·6	260	5	11·2	9·2	290					1	7·5	7·5	245	9	14·9	13·5	289				

Station.	Poona.								Port Blair.												Raipur.			
Time in I. S. T.	0730				1430				0230				0730				1430				0230			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	31	2·1	1·6	280	31	4·9	3·4	301	31	2·6	1·8	231	31	1·9	0·8	206	31	2·6	1·4	236	31	3·9	2·8	218
0·15 a. g. . . .	30	3·6	2·6	260	30	5·5	3·8	279	27	4·2	2·1	324	30	4·3	1·9	217	28	4·8	1·9	213	29	10·1	6·8	235
0·6 a. s. l. . . .	31	2·6	1·8	262	30	5·1	3·5	279	27	5·1	2·4	234	30	6·3	2·9	224	28	5·4	2·6	215	29	10·6	7·1	237
1·0 „ . . .	30	6·0	3·7	297	31	5·5	3·3	279	26	5·2	2·8	224	29	5·7	2·7	226	27	5·9	2·9	228	29	9·1	6·0	251
1·5 „ . . .	30	8·1	3·7	331	31	5·1	2·0	290	24	5·3	2·7	218	28	5·1	1·7	209	27	4·8	1·7	237	29	6·3	4·4	271
2·0 „ . . .	31	7·3	1·7	11	30	5·5	1·2	321	21	4·5	2·4	179	27	5·0	1·2	208	24	5·4	1·6	238	27	4·7	3·1	295
2·5 „ . . .	31	6·6	1·7	75	30	6·3	1·0	51	14	3·8	1·7	186	25	5·4	0·6	167	23	5·5	2·0	277	21	5·5	3·8	322
3·0 „ . . .	30	6·7	3·1	86	29	6·8	2·3	75	12	3·7	0·6	184	24	6·1	0·7	98	22	4·6	1·7	331	15	6·7	5·4	343
4·0 „ . . .	24	7·1	4·2	100	23	7·6	4·5	97	4	3·1	0·1	198	22	5·6	1·0	303	17	5·3	2·8	336	9	6·3	5·2	345
5·0 „ . . .	16	5·0	2·7	103	17	6·2	3·2	99					17	3·3	0·7	203	12	4·6	2·7	331	5	3·8	3·1	319
6·0 „ . . .	10	4·9	2·4	135	13	4·8	4·0	124					15	4·4	0·2	304	9	3·4	2·6	315	3	4·2	3·8	250
7·5 „ . . .	6	9·6	3·1	332	5	8·2	4·5	271					9	4·9	1·1	179	6	3·7	3·1	19	2	5·0	5·9	220
9·0 „ . . .	1	14·0	14·0	20	3	9·3	2·1	227					5	6·1	2·1	265	3	6·3	5·4	214	1	6·0	6·0	270

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 Km. above sea level.

May 1949.

Station.	Raipur.								Saharsa.												Tezpur.			
Time in I. S. T.	0730				1430				0830				1100				1430				0230			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
rface . . .	31	2·1	1·5	228	31	2·7	2·2	252	31	1·7	1·6	89	31	3·0	2·8	80	31	3·1	2·6	102	31	1·1	0·8	69
15 a. g. . . .	31	6·5	4·7	241	31	5·2	4·5	256	31	5·3	5·0	88	31	6·5	6·1	88	31	5·2	4·0	109	27	4·5	3·5	88
6 a. s. l. . .	30	9·1	6·8	246	31	5·2	4·5	257	30	6·9	6·3	103	30	6·6	6·4	97	31	5·6	4·9	109	27	5·1	2·2	109
0 „ . . .	29	9·7	8·0	255	31	5·0	4·2	267	25	6·0	5·5	109	23	5·9	5·2	100	28	4·9	4·2	117	23	3·9	0·8	151
5 „ . . .	30	8·0	7·0	271	31	4·7	3·6	274	17	5·3	1·9	136	20	4·7	2·1	130	21	4·6	2·4	171	23	3·9	1·2	239
0 „ . . .	29	6·1	4·8	286	31	5·6	4·5	285	17	7·0	1·3	186	11	7·4	1·6	238	17	5·6	2·7	244	20	4·3	2·3	264
5 „ . . .	29	5·7	3·4	314	30	5·8	4·1	304	7	7·6	6·9	276	4	8·9	2·4	101	14	7·6	4·1	284	19	5·2	2·7	255
0 „ . . .	28	6·1	3·8	337	26	5·4	3·3	335	7	9·1	8·5	291	4	8·1	2·1	30	9	9·5	5·4	292	18	6·0	4·4	260
0 „ . . .	22	7·2	4·9	354	24	6·5	3·3	348									6	12·7	12·5	301	12	5·0	3·2	268
0 „ . . .	18	4·7	3·6	342	20	7·0	4·7	328									6	15·3	15·2	302				
0 „ . . .	15	5·6			18	7·5	6·3	315									3	12·2	12·0	309				
5 „ . . .					14	9·2	8·1	300																
0 „ . . .					10	9·3	6·7	284																

Station.	Tezpur.												Trichinopoly.											
Time in I. S. T.	0730				1100				1430				0230				0730				1430			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
urface . . .	31	0·9	0·7	81	31	1·3	1·0	83	31	1·4	0·6	77	31	2·4	1·8	259	31	2·2	1·9	264	31	2·7	1·5	278
·15 a. g. . . .	30	3·9	2·8	89	30	3·9	2·9	86	31	3·7	1·1	81	31	7·0	6·2	263	31	5·4	5·0	265	31	4·9	2·7	279
·6 a. s. l. . .	26	4·3	2·3	125	28	4·0	2·3	100	31	3·7	0·7	182	31	8·2	7·5	264	31	7·7	6·9	271	31	4·4	2·9	261
·0 „ . . .	23	4·3	1·0	155	25	4·0	1·2	141	30	4·2	2·1	203	30	5·8	4·8	253	31	6·8	5·6	266	31	5·0	3·6	258
·5 „ . . .	20	4·7	1·3	192	20	4·3	1·3	216	30	5·3	3·2	226	30	4·8	3·5	251	31	5·2	3·4	258	30	5·4	3·8	258
·0 „ . . .	17	4·3	0·7	230	18	4·4	1·9	251	29	6·2	4·5	225	30	5·2	2·8	275	31	6·1	1·7	271	29	5·9	2·7	269
·5 „ . . .	14	3·6	1·9	252	13	4·0	2·1	267	27	5·8	4·3	242	28	7·0	2·5	291	31	7·5	1·6	323	28	7·1	2·1	304
·0 „ . . .	13	4·4	2·1	255	13	4·9	3·2	260	25	5·4	3·9	243	28	6·9	1·5	289	31	7·9	1·8	19	27	7·6	1·2	336
·0 „ . . .	12	4·5	2·5	259					20	5·3	2·6	244	1	4·0	4·0	120	28	7·9	1·6	35	26	7·7	2·5	16
·0 „ . . .	9	6·1	1·1	320					17	6·7	3·9	261					26	7·5	2·1	45	22	7·2	0·8	124
0 „ . . .	8	6·3	3·7	27					15	8·6	5·1	261					25	5·8	2·4	95	19	6·3	0·4	104
·5 „ . . .	7	6·9	4·6	359					12	9·3	6·3	293					21	5·8	1·8	121	13	5·7	3·2	31
·0 „ . . .	5	11·8	10·6	282					7	13·8	12·9	276					19	6·9	1·9	142	10	3·9	1·3	290

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 Km. above sea level.

May 1949.

Station.	Trivandrum.				Udaipur.												Vengurla.							
Time in I. S. T.	0730				0230				0730				1430				0230				0730			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	31	1·4	1·1	350	31	2·2	1·2	263	31	1·3	0·9	231	31	2·8	2·3	250	31	1·4	0·3	120	31	1·2	0·4	91
0·15 a. g. . . .	30	5·8	5·0	331	31	6·4	4·7	258	31	3·7	2·3	250	31	5·4	4·5	261	29	4·4	1·8	320	31	4·3	1·1	8
0·6 a. s. l. . .	29	7·6	7·1	304													28	6·7	3·5	314	30	6·7	3·0	317
1·0 „ . . .	26	8·3	7·8	300	31	8·0	6·4	269	31	6·0	4·9	276	31	5·7	4·4	264	26	7·8	5·1	334	28	7·7	3·4	314
1·5 „ . . .	22	6·9	6·1	298	31	8·2	6·1	276	31	7·0	5·3	274	31	5·1	3·5	265	24	8·0	6·8	347	24	8·4	4·4	349
2·0 „ . . .	19	5·1	2·5	314	31	6·5	3·9	283	29	6·4	3·5	281	31	4·8	3·2	272	23	6·0	3·9	4	21	7·3	3·7	351
2·5 „ . . .	17	5·8	2·6	42	27	5·4	1·6	282	26	6·2	1·9	276	30	5·2	3·1	275	16	5·1	4·4	64	19	5·3	2·5	9
3·0 „ . . .	15	6·5	3·0	54	22	6·0	0·7	143	22	6·1	0·4	228	29	6·3	2·5	272	11	7·0	6·2	71	18	6·2	3·8	65
4·0 „ . . .	11	6·7	4·8	56	3	5·3	2·0	85	19	6·1	0·9	11	25	6·1	2·3	270	2	4·5	2·5	100	14	9·0	8·4	86
5·0 „ . .	8	5·9	2·6	41	2	4·5	4·5	359	16	5·9	4·4	1	24	7·2	3·4	299					9	8·2	7·5	72
6·0 „ . .	5	6·3	2·4	119	1	9·5	9·5	355	8	6·2	5·7	335	23	8·0	4·1	312					6	6·1	4·9	76
7·5 „ . . .	4	5·4	4·0	126					4	7·5	7·0	350	17	8·8	6·8	286					3	4·8	2·8	161
9.0 „ . . .									1	15·0	15·0	355	10	9·7	8·5	299					2	7·7	7·1	215

Station.	Vengurla.				Veraval.												Vizagapatam.							
Time in I. S. T.	1430				0230				0730				1430				0230				0730			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	31	5·5	4·4	256	30	5·8	4·4	288	31	3·8	2·5	275	31	6·8	4·9	256	31	2·2	1·4	221	31	2·3	1·9	220
0·15 a. g. . .	31	6·5	4·5	268	29	8·6	6·5	279	30	7·3	4·8	275	31	8·5	6·6	251	29	5·5	4·8	231	31	4·5	3·7	231
0·6 a. s. l. . .	28	6·1	3·7	296	30	10·3	8·1	289	31	10·2	6·9	284	31	8·5	5·4	274	26	7·7	6·7	232	31	7·7	6·5	240
1·0 „ . . .	26	6·8	4·3	332	28	9·9	7·4	285	28	10·2	7·2	285	30	7·2	3·5	293	23	7·4	5·7	237	29	8·3	6·6	240
1·5 „ . . .	22	7·8	3·7	358	23	7·0	3·2	277	25	8·6	3·6	274	30	6·4	2·5	295	20	6·5	3·9	246	27	6·8	4·1	259
2·0 „ . . .	19	6·4	4·1	17	19	5·4	0·9	243	19	7·1	2·4	284	30	6·4	2·0	301	18	6·4	1·1	268	24	5·2	1·5	303
2·5 „ . . .	19	6·0	3·4	43	13	5·2	2·9	97	16	7·1	1·3	284	27	7·1	1·3	285	16	5·4	1·0	100	20	4·5	1·6	321
3·0 „ . . .	19	6·9	4·9	67	9	5·3	3·2	122	13	7·2	2·0	58	27	7·9	0·1	232	16	5·7	1·5	101	18	4·2	1·0	20
4·0 „ . . .	17	7·6	6·0	88	3	5·2	1·2	88	6	8·3	2·9	129	23	7·2	1·1	97	5	3·8	2·7	61	16	5·7	1·8	351
5·0 „ . . .	13	4·8	3·9	62					5	5·8	1·2	113	21	7·0	3·2	81					11	5·9	1·4	312
6·0 „ . . .	12	4·3	2·9	74					1	13·5	13·5	65	18	7·1	4·3	87					8	5·3	0·6	123
7·5 „ . . .	7	7·6	4·2	56									8	6·8	1·8	89					7	5·4	0·4	347
9·0 „ . . .	4	9·1	0·3	253									4	5·2	4·7	239					4	5·4	2·7	248

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 Km. above sea level.

May 1949.

Station.	Vizagapatam.				Minicoy.																			
Time in I. S. T.	1430				0230				0730				1430											
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	31	4·6	4·0	181	31	3·9	3·3	289	31	3·5	3·1	281	31	4·4	3·8	285								
0·15 a. g. . . .	31	6·2	5·4	192	28	7·4	6·5	285	30	7·2	6·3	283	30	8·1	7·3	286								
0·6 a. s. l. . .	30	5·4	4·1	217	28	8·4	7·6	284	29	8·4	7·3	286	30	9·8	8·7	287								
1·0 „ . . .	28	5·1	3·3	244	26	8·4	7·7	285	27	8·6	7·4	288	29	10·1	8·6	286								
1·5 „ . . .	28	5·0	2·5	259	18	6·5	4·9	288	23	7·5	6·0	290	24	9·1	7·1	291								
2·0 „ . . .	28	5·2	1·5	283	15	6·8	2·4	327	15	7·4	3·6	310	17	8·3	5·6	312								
2·5 „ . . .	27	5·8	1·8	44	10	6·1	3·1	3	14	8·7	3·2	346	14	8·2	4·5	316								
3·0 „ . . .	26	5·9	2·6	50	6	6·0	0·9	8	9	9·3	7·0	49	11	8·5	2·7	307								
4·0 „ . . .	24	7·9	3·7	29					7	8·8	7·9	64	8	9·7	1·1	24								
5·0 „ . .	21	7·3	1·9	358					5	5·4	5·0	76	4	4·3	2·2	78								
6·0 „ . . .	18	6·6	0·8	247					3	6·0	5·5	117	4	4·9	2·4	100								
7·5 „ . . .	10	4·0	2·2	248					1	6·0	6·0	150	3	7·7	5·8	147								
9·0 „ . . .	2	5·3	4·9	237					1	8·0	8·0	135	2	10·5	9·1	143								

Monthly Mean Directions and Velocities of Upper Winds.

Winds at and above 10 Km. above sea level.

May 1949.

AHMEDABAD.

Ht. in Km.	n	V	v	D
10·0	26	12·3	7·5	275
11·0	14	14·0	10·1	270
12·0	9	16·2	15·4	248
13·0	9	17·5	16·4	251
14·0	7	18·8	18·1	238
15·0	6	17·7	16·7	242
16·0	4	17·8	17·3	241
17·0	4	14·6	14·0	234
18·0	4	12·7	12·7	249
19·0	3	17·3	17·0	242
20·0	2	21·5	20·3	253
21·0	2	30·0	29·4	246
22·0	1	22·5	22·5	255
23·0	1	20·0	20·0	250
24·0	1	23·0	23·0	260

ALLAHABAD.

Ht. in Km.	n	V	v	D
10·0	7	15·5	9·6	357
11·0	4	16·2	9·0	356
12·0	2	8·5	7·2	303
13·0	1	11·5	11·5	345

AMBALA.

Ht. in Km.	n	V	v	D
10·0	11	16·8	14·2	282
11·0	9	16·2	14·0	286
12·0	6	18·6	16·5	281
13·0	5	19·6	19·0	266
14·0	4	36·1	35·8	258
15·0	2	45·0	44·5	264
16·0	1	27·0	27·0	280

ANANTAPUR.

Ht. in Km.	n	V	v	D
10·0	37	8·1	1·5	148
11·0	30	9·8	2·3	181
12·0	21	11·5	3·9	213
13·0	15	15·3	3·9	170
14·0	12	8·7	4·8	135

ANANTAPUR—contd.

Ht. in Km.	n	V	v	D
15·0	10	7·7	5·2	121
16·0	7	7·9	7·4	101
17·0	6	11·7	10·2	102
18·0	3	12·8	11·9	88
19·0	2	7·7	7·2	137
20·0	1	10·0	10·0	170

ASANSOL.

Ht. in Km.	n	V	v	D
10·0	5	11·5	10·4	273
11·0	3	8·2	7·6	258
12·0	2	10·3	10·0	251

BANGALORE.

Ht. in Km.	n	V	v	D
10·0	1	8·5	8·5	245

BAREILLY.

Ht. in Km.	n	V	v	D
10·0	11	13·5	11·5	287
11·0	7	17·8	16·4	280
12·0	4	16·5	16·1	275
13·0	2	9·5	9·5	310
14·0	2	9·5	9·4	310
15·0	1	13·0	13·0	305

BAIRAGARH.

Ht. in Km.	n	V	v	D
10·0	5	17·8	10·2	285
11·0	2	18·0	18·0	300
12·0	2	19·5	15·5	278
13·0	1	18·0	18·0	305
14·0	1	19·0	19·0	290

BHUJ.

Ht. in Km.	n	V	v	D
10·0	16	12·0	7·5	253
11·0	6	11·5	9·8	268
12·0	5	10·4	8·5	273

BHUJ—contd.

Ht. in Km.	n	V	v	D
13·0	4	11·4	8·9	274
14·0	3	10·9	9·0	287
15·0	2	13·0	11·8	306
16·0	2	9·0	8·9	297
17·0	2	12·0	10·9	279
18·0	1	13·5	13·5	335
19·0	1	15·0	15·0	345
20·0	1	15·0	15·0	345
21·0	1	19·5	19·5	355
22·0	1	20·0	20·0	360
23·0	1	20·0	20·0	25
24·0	1	16·0	16·0	25
25·0	1	18·5	18·5	25
26·0	1	21·5	21·5	35
27·0	1	17·5	17·5	45
28·0	1	19·5	19·5	45
29·0	1	23·5	23·5	40
30·0	1	22·0	22·0	40
31·0	1	23·0	23·0	40
32·0	1	24·5	24·5	30
33·0	1	28·0	28·0	35
34·0	1	34·0	34·0	40
35·0	1	38·5	38·5	30
36·0	1	37·5	37·5	30
37·0	1	33·0	33·0	30

BIKANER.

Ht. in Km.	n	V	v	D
10·0	10	15·9	13·8	300
11·0	1	11·0	11·0	295
12·0	1	20·0	20·0	290
13·0	1	26·0	26·0	285
14·0	1	29·5	29·5	285
15·0	1	19·5	19·5	300

BOMBAY.

Ht. in Km.	n	V	v	D
10·0	9	11·2	1·2	293
11·0	5	9·3	8·3	202
12·0	5	9·6	9·0	205
13·0	4	7·9	7·8	182
14·0	2	4·5	4·3	162
15·0	1	3·5	3·5	55

CALCUTTA.

Ht. in Km.	n	V	v	D
10·0	2	5·3	3·1	291
11·0	2	4·3	4·1	307
12·0	1	3·5	3·5	295
13·0	1	4·0	4·0	340
14·0	1	8·0	8·0	355
15·0	1	11·0	11·0	355

COCHIN.

Ht. in Km.	n	V	v	D
10·0	4	8·4	7·8	202
11·0	1	4·0	4·0	185
12·0	1	7·0	7·0	170
13·0	1	4·5	4·5	95
14·0	1	6·5	6·5	135

CUTTACK.

Ht. in Km.	n	V	v	D
10·0	4	6·0	5·7	257
11·0	2	5·3	5·3	253
12·0	2	7·0	3·5	271
13·0	2	8·5	2·4	226
14·0	1	8·0	8·0	100

DIBRUGARH.

Ht. in Km.	n	V	v	D
10·0	5	13·8	11·3	266
11·0	3	18·7	18·0	254
12·0	1	24·5	24·5	240
13·0	1	20·0	20·0	230

GADAG.

Ht. in Km.	n	V	v	D
10·0	8	6·4	4·4	186

GAYA.

Ht. in Km.	n	V	v	D
10·0	2	10·7	10·0	336
11·0	2	13·7	12·0	333
12·0	1	22·0	22·0	360
13·0	1	26·0	26·0	5
14·0	1	14·5	14·5	360

GOPALPUR.

Ht. in Km.	n	V	v
10·0	10	8·0	6·5
11·0	5	7·1	5·3
12·0	3	11·7	10·8
13·0	2	11·5	9·8
14·0	2	13·3	12·3

GORAKHPUR.

Ht. in Km.	n	V	v
10·0	7	12·4	5·9
11·0	3	11·0	9·1
12·0	2	13·5	11·8
13·0	2	16·5	13·6
14·0	1	8·0	8·0
15·0	1	6·0	6·0
16·0	1	9·0	9·0
17·0	1	10·0	10·0
18·0	1	7·0	7·0

HYDERABAD.

Ht. in Km.	n	V	v
10·0	3	8·0	5·5
11·0	1	4·5	4·5

JAGDALPUR.

Ht. in Km.	n	V	v
10·0	23	7·5	3·5
11·0	14	8·7	3·3
12·0	11	8·5	1·9
13·0	8	7·8	3·3
14·0	4	10·0	6·3
15·0	2	9·5	7·7
16·0	2	11·3	10·7
17·0	2	10·3	10·1
18·0	1	15·0	15·0
19·0	1	9·0	9·0
20·0	1	10·5	10·5
21·0	1	11·0	11·0
22·0	1	11·5	11·5
23·0	1	13·0	13·0
24·0	1	14·5	14·5

Monthly Mean Directions and Velocities of Upper Winds.

Winds at and above 10 Km. above sea level.

May 1949.

JAMSHEDPUR.

Ht. in Km.	n	V	v	D
10·0	10	13·1	12·3	260
11·0	4	10·6	10·6	271
12·0	2	8·5	6·8	267
13·0	2	13·5	11·7	257
14·0	2	10·7	8·3	292
15·0	1	4·0	4·0	125

JAMNAGAR.

Ht. in Km.	n	V	v	D
10·0	12	9·4	4·7	256
11·0	10	10·4	6·6	257
12·0	9	11·8	8·8	244
13·0	7	14·7	8·1	242
14·0	6	10·2	5·7	255
15·0	5	9·0	6·0	297
16·0	4	12·9	8·0	280
17·0	4	12·3	5·5	267
18·0	2	26·7	21·4	268

JHARSUGUDA.

Ht. in Km.	n	V	v	D
10·0	26	9·7	6·1	252
11·0	15	9·8	8·6	252
12·0	15	9·3	7·4	257
13·0	12	9·4	5·3	242
14·0	9	7·7	4·5	268
15·0	8	7·8	4·3	263
16·0	7	8·9	1·1	312
17·0	5	15·3	11·5	299
18·0	2	17·3	17·3	284
19·0	1	27·0	27·0	225

JODHPUR.

Ht. in Km.	n	V	v	D
10·0	6	12·6	11·3	246
11·0	6	20·8	19·4	241
12·0	6	24·0	21·2	241
13·0	3	22·0	17·0	235
14·0	2	29·5	29·1	229
15·0	1	33·0	33·0	240
16·0	1	18·0	18·0	240

JUBBULPORE.

Ht. in Km.	n	V	v	D
10·0	6	17·0	13·2	267

MADHOSAGAR.

Ht. in Km.	n	V	v	D
10·0	8	16·1	11·5	302
11·0	4	17·5	12·5	323
12·0	1	21·5	21·5	305
13·0	1	30·5	30·5	305
14·0	1	37·0	37·0	295
15·0	1	34·5	34·5	300

MADRAS.

Ht. in Km.	n	V	v	D
10·0	19	4·3	1·5	138
11·0	9	9·1	2·8	101
12·0	5	7·4	2·1	302
13·0	3	8·3	2·6	245
14·0	2	9·5	7·9	292
15·0	1	9·0	9·0	355

MALEGAON.

Ht. in Km.	n	V	v	D
10·0	10	9·3	5·4	317
11·0	4	12·5	11·2	343
12·0	3	10·7	9·2	346
13·0	3	9·8	7·9	344
14·0	1	12·5	12·5	350
15·0	1	12·5	12·5	345
16·0	1	14·0	14·0	335
17·0	1	12·0	12·0	340
18·0	1	6·5	6·5	320
19·0	1	15·5	15·5	305
20·0	1	15·5	15·5	295
21·0	1	22·0	22·0	290

MANGALORE.

Ht. in Km.	n	V	v	D
10·0	5	8·6	1·2	270
11·0	2	11·5	11·5	237
12·0	1	11·5	11·5	215

MASULIPATAM.

Ht. in Km.	n	V	v	D
10·0	13	11·1	4·1	251
11·0	7	11·8	6·3	218
12·0	4	8·9	3·7	243
13·0	2	3·5	3·1	231
14·0	2	8·3	6·0	183

NAGERCOIL.

Ht. in Km.	n	V	v	D
10·0	27	7·4	2·5	196
11·0	14	9·1	3·5	200
12·0	12	9·8	6·0	191
13·0	8	9·7	6·4	215
14·0	6	12·3	8·9	205
15·0	4	14·7	7·3	155
16·0	1	15·0	15·0	170
17·0	1	18·0	18·0	200
18·0	1	12·5	12·5	220
19·0	1	16·0	16·0	245
20·0	1	13·0	13·0	225
21·0	1	6·5	6·5	240
22·0	1	9·5	9·5	230
23·0	1	4·0	4·0	305

NAGPUR.

Ht. in Km.	n	V	v	D
10·0	8	8·2	7·3	266
11·0	6	8·3	6·8	261
12·0	3	8·8	3·3	265
13·0	3	8·8	3·1	256
14·0	2	3·0	1·8	280
15·0	2	4·5	4·1	191
16·0	2	6·2	4·1	184
17·0	2	5·2	4·8	142

NEW DELHI

Ht. in Km.	n	V	v	D
10·0	7	23·1	11·3	278
11·0	3	11·0	10·5	251
12·0	3	46·0	15·1	234
13·0	2	24·7	24·7	246
14·0	1	18·0	18·0	255
15·0	1	17·0	17·0	255
16·0	1	16·0	16·0	240

NEW DELHI—contd.

Ht. in Km.	n	V	v	D
17·0	1	15·0	15·0	285
18·0	1	7·0	7·0	270
19·0	1	1·5	1·5	15
20·0	1	2·5	2·5	270
21·0	1	2·0	2·0	275

POONA.

Ht. in Km.	n	V	v	D
10·0	3	11·0	2·3	252
11·0	2	14·0	13·3	222
12·0	2	11·7	11·6	205
13·0	2	11·0	11·5	206
14·0	2	14·0	13·7	196
15·0	1	3·0	3·0	180
16·0	1	5·5	5·5	140

PORT BLAIR.

Ht. in Km.	n	V	v	D
10·0	5	8·8	7·6	244
11·0	2	11·5	11·3	244
12·0	2	13·0	12·9	219
13·0	1	16·5	16·5	185

RAIPUR.

Ht. in Km.	n	V	v	D
10·0	17	11·0	9·1	270
11·0	11	12·6	9·8	274
12·0	8	15·0	11·6	286
13·0	4	12·0	10·0	270
14·0	2	8·6	3·1	329
15·0	2	6·8	6·7	249
16·0	1	8·5	8·5	70
17·0	1	6·5	6·5	80
18·0	1	7·0	7·0	80
19·0	1	9·5	9·5	70

TEZPUR.

Ht. in Km.	n	V	v	D
10·0	10	18·1	16·2	264
11·0	3	16·7	14·6	257

TEZPUR—contd.

Ht. in Km.	n	V	v	D
12·0	1	19·0	19·0	270
13·0	1	25·5	25·5	260
14·0	1	51·0	51·0	290

TRICHINOPOLY.

Ht. in Km.	n	V	v	D
10·1	26	7·7	1·3	167
11·0	7	6·6	3·7	213
12·0	6	9·6	5·5	195
13·0	6	11·9	5·1	180
14·0	5	12·1	4·4	151
15·0	4	13·1	3·3	125
16·0	2	16·3	16·3	200
17·0	1	12·5	12·5	175
18·0	1	10·0	10·0	160
19·0	1	11·0	11·0	150
20·0	1	12·0	12·0	125
21·0	1	12·0	12·0	115

VENGURLA.

Ht. in Km.	n	V	v	D
10·0	2	8·7	8·1	228
11·0	1	6·0	6·0	240

VERAVAL.

Ht. in Km.	n	V	v	D
10·0	3	6·2	4·9	255
11·0	2	7·7	7·7	253

VIZAGAPATAM.

Ht. in Km.	n	V	v	D
10·0	4	6·4	6·3	236
11·0	2	3·8	3·7	208

MINICOY.

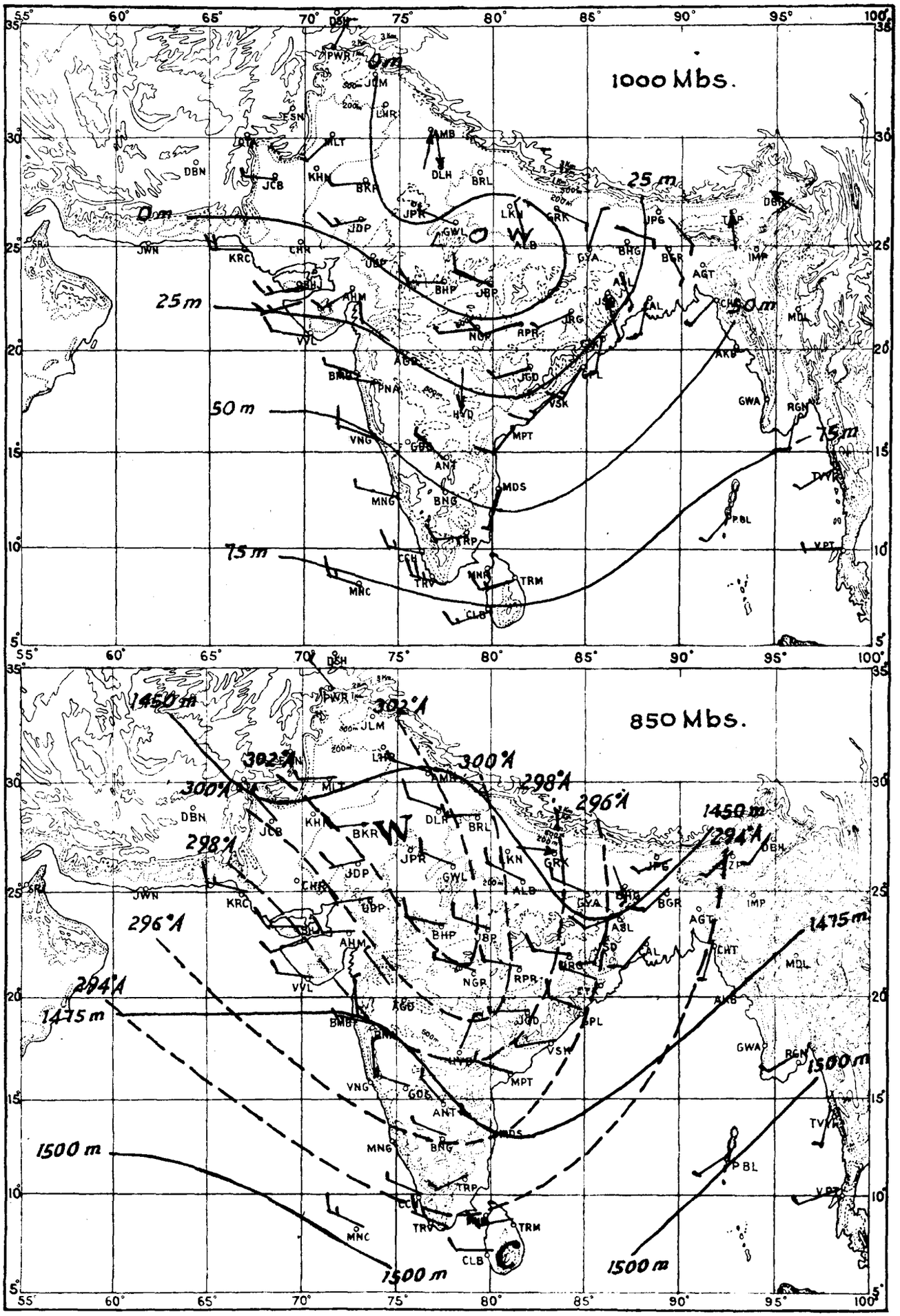
Ht. in Km.	n	V	v	D
10·0	3	7·8	6·8	18
11·0	1	9·0	9·0	200

MGIPC—S8—5 DGO—13-9-54—260.

MONTHLY MEAN CONSTANT PRESSURE CHARTS.

MAY 1949

Plate I



RESULTANT WIND —\= 5 Knots; —\= 10 Knots; —\= 50 Knots.

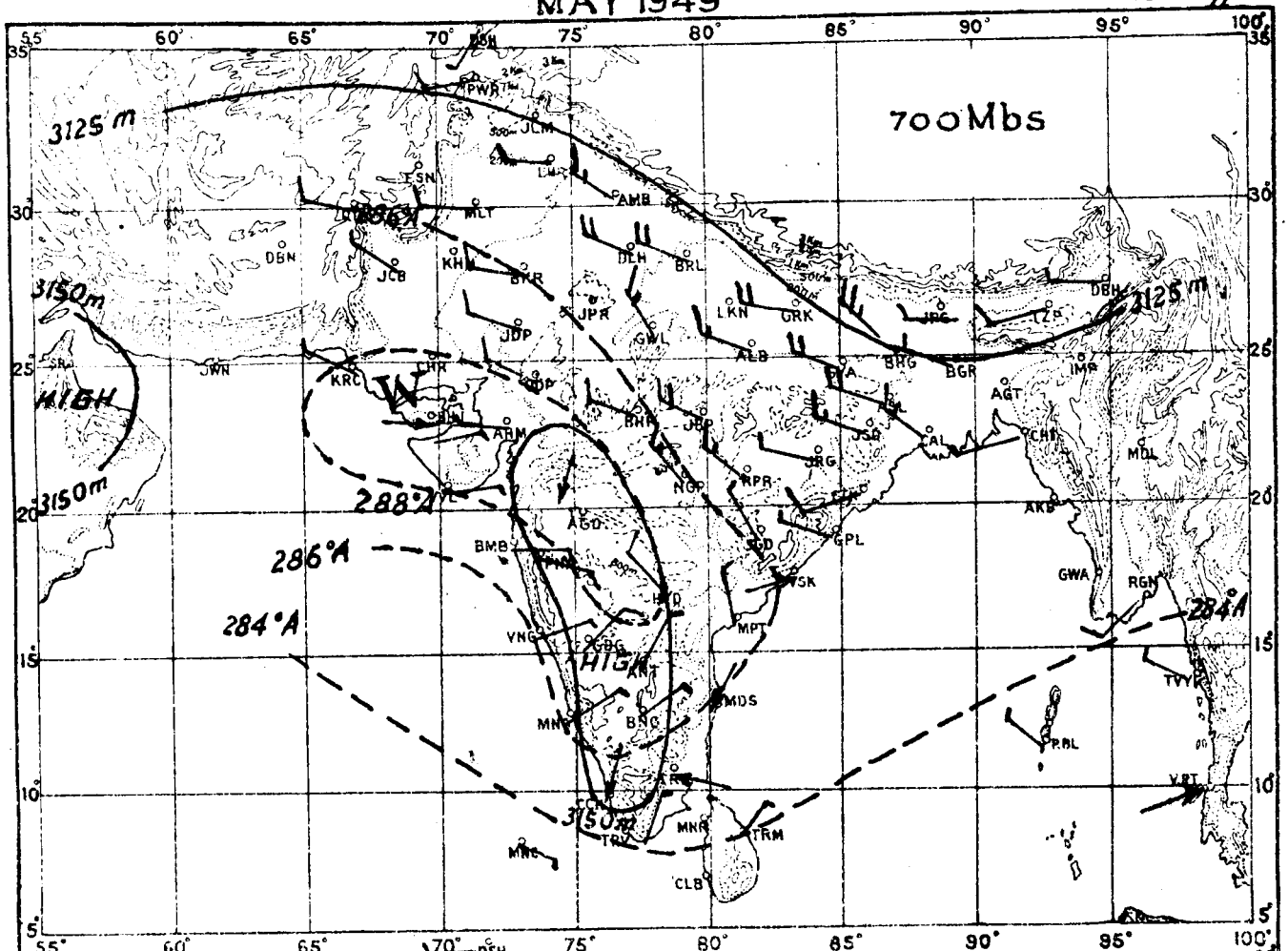
------ Isotherms in degrees absolute. ——— Contours in geopotential metres.

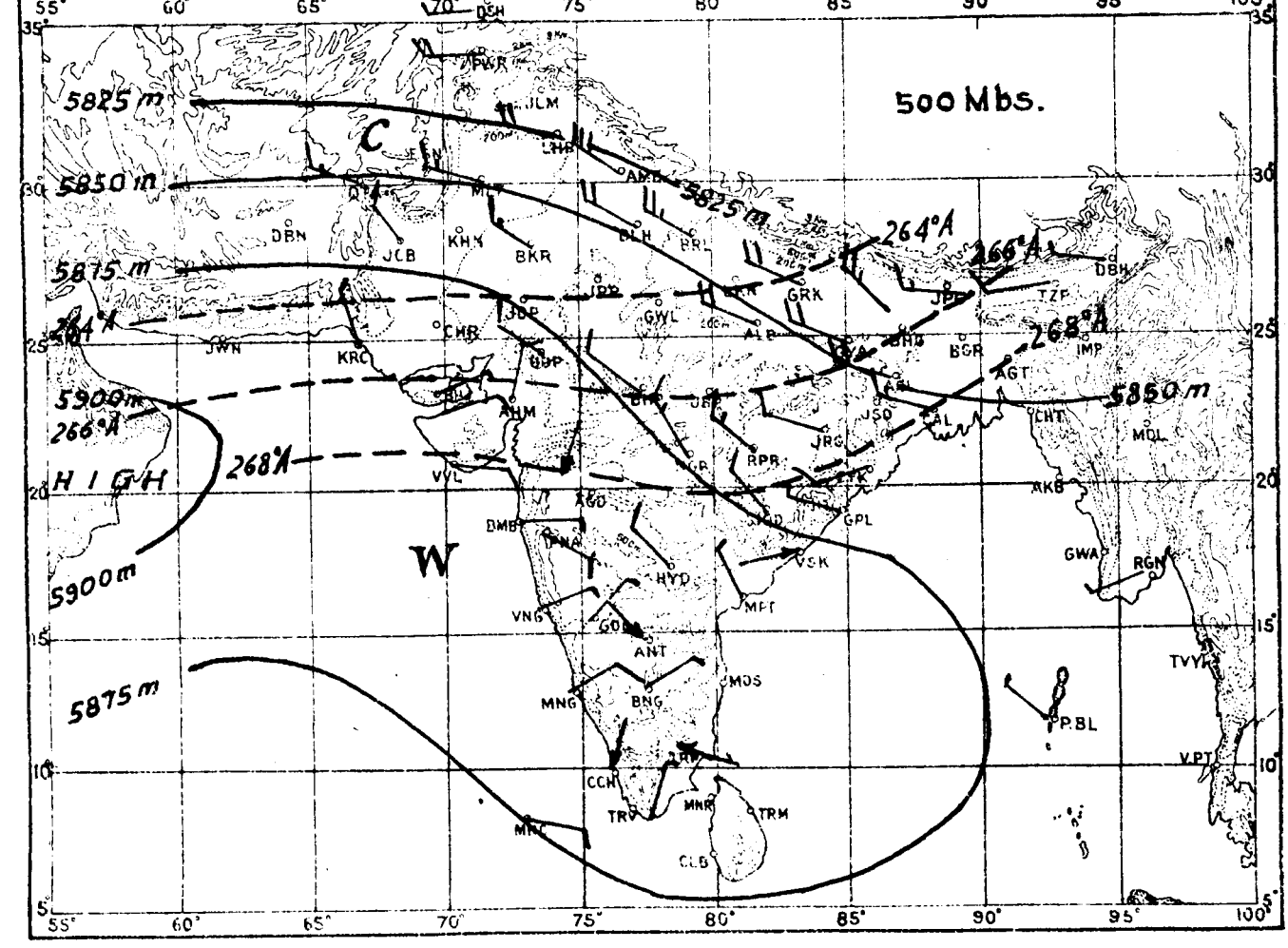
G.P.Z.P. POONA.53

MONTHLY MEAN CONSTANT PRESSURE CHARTS.

MAY 1949

Plate II





RESULTANT WIND ——= 5 Knots, ——= 10 Knots, ——= 50 Knots.

------ Isotherms in degrees absolute. ——— Contours in geopotential metres.

G. PZ. P. POONA 50

Registered No. B-3057

INDIA WEATHER REVIEW, 1949.

MONTHLY WEATHER REPORT.

JUNE.

Published by authority of the Government of India.

Chief features.—Restricted activity of the monsoon along the west coast of the Peninsula and its non-extension enerally into most of the other parts of the country excepting towards the end of the month ; (ii) fairly good thunder-orm activity in northeast India and the central parts of the country during the first week and in the interior of ne Peninsula during the first week and the last two weeks ; (iii) heat wave in the United Provinces, Vindhya Pradesh nd Chota Nagpur during the last week.

The monsoon continued fairly active in Malabar and the Konkan during the first week of June. Under the ombined influence of the Arabian Sea deep depression of the 30th May, and a western distrubance which moved cross the extreme north of the country, an incursion of monsoon air into Rajputana and the East and West Punjab ook place and there was widespread thunderstorm/rain over these regions on the 2nd and 3rd and in the central parts f the country and the interior of the Peninsula on the 4th and 5th. After the 8th of June the monsoon withdrew rom the Konkan and became weak in Malabar also, so that the rainfall decreased considerably in the country outside ortheast India. The monsoon advanced into Assam on the 9th, and under the influence of a 'low' which appeared ver Bihar on the 11th and persisted till the 14th, it extended into Bihar, Chota Nagpur and Orissa between the 1th and 13th and widespread and locally heavy rain occurred there. The heavy rains during this period caused erious floods in the Damodar and Ajoy rivers. A large number of villages were reported to have been affected by ne floods. After the 13th, the monsoon withdrew from these areas also. During the next week little or no rain fell ver the country except in Assam and the south-eastern districts of the Peninsula where local or widespread showers ccurred. The monsoon revived in Malabar on the 18th. It strengthened in Assam on the 23rd and extended into Vest Bengal on the 24th and feebly into the Central Provinces between the 25th and 26th. There was a general veakening after the 26th, but on the last day of the month, the Bay branch strengthened again and got established ver the whole of northeast India.

There were local thundershowers in the Deccan and southeast Madras on many days during the second half f the month. After the spell of thundershowers in the beginning of the month, more or less dry weather prevailed in orthwest India except for local thundershowers in and near the hills of the East Punjab and the west United Provin-es on the 26th and 27th.

Six western disturbances moved across the country during the month the details of which are set out in the ollowing table :—

Serial No.	Period.	Course.	Region.	Nature of Precipitation.	Period.	REMARKS.
1.	1st to 3rd	Baluchistan to East Punjab hills.	Rajputana, East Punjab, West Punjab.	Fairly widespread thundershowers.	2nd, 3rd	Caused incursion of monsoon air from Arabian Sea into northwest India.
2.	5th to 7th	Extreme north of the country.	North-West Frontier Province Ditto Hills of East Punjab and west United Provinces.	Local showers A few showers Fairly widespread showers	6th 5th 7th, 8th	
3.	10th to 12th	North Baluchistan to Kashmir.	North-West Frontier Province	A few showers	11th	Feeble.
4.	13th to 14th	Extreme north	North-West Frontier Province, Kashmir.	A few falls	14th, 15th	Feeble.
5.	21st to 24th	Baluchistan to Kashmir	Hills of East Punjab and west United Provinces.	Widespread showers	23rd, 24th	
6.	25th to 28th	Baluchistan to west United Provinces hills.	West United Provinces East Punjab, west United Provinces.	Widespread showers Widespread showers	25th 26th, 27th	

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The United Provinces, Vindhya Pradesh and Chota Nagpur experienced a heat wave between the 21st and 24th when the maximum temperatures were as much as 10°-15°F. above normal. Four deaths due to sunstroke were reported from Allahabad on the 24th. A number of deaths due to sunstroke were reported from Lucknow also.

The total rainfall of the month was in large excess in southeast Madras, in moderate excess in north Hyderabad and the Madras Deccan and in slight excess in the Bay Islands, Assam and Chota Nagpur. It was normal in West Bengal, Bihar, west Rajputana, Berar, the west Central Provinces, the Bombay Deccan, south Hyderabad, Malabar and the north Madras coast, in slight defect in east Rajputana, the east Central Provinces, the Konkan and Mysore and in moderate to large defect elsewhere. Averaged over the plains of India the rainfall during June was 15 per cent. below normal.

The mean maximum temperature was above normal in the United Provinces and below normal in Berar.

The mean minimum temperature was above normal in the east United Provinces and normal elsewhere.

Relative Humidity was in excess in the Bay Islands, Assam, Vindhya Pradesh, Berar, the Central Provinces, Hyderabad and the Madras Deccan and in defect in the west United Provinces and the East Punjab.

Cloud amount was in defect in the east United Provinces and west Rajputana and normal elsewhere.

Data from Kashmir are incomplete.

Table I contains the divisional and sub-divisional means of rainfall, temperatures, humidity and cloud amount for the 13 chief political divisions and the 27 sub-divisions. The stations whose observations are used for preparing these means are given in the subsequent tables.

The highest maximum temperature given for any station in the accompanying tables is that recorded within the 24 hours ending at 0830 hours I. S. T. of the date noted in the succeeding column ; similarly the heaviest fall in 24 hours for any station denotes the amount recorded during the 24 hours ending at 0830 hours I. S. T. of the date given in the succeeding column.

POONA 5 ;
The 23rd November 1949.

C. RAMASWAMY,
for *Director General of Observatories.*

Table I.—Divisional and sub-divisional means—June 1949.

—	Rainfall.				Departure from normal of				
							0830 hrs. I.S.T.		
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Maximum temperature.	Minimum temperature.	Vapour pressure.	Relative humidity.	Cloud.
1	2	3	4	5	6	7	8	9	10
DIVISION.	"	"	"		°	°	mb.	%	
Assam	18·83	16·84	+1·99	+12	—0·7	—0·1	+1·2	+6	+1·0
West Bengal	12·85	13·97	—1·12	—8	+0·2	+0·2	+0·5	+2	+0·1
Orissa	4·49	8·49	—4·00	—47	+1·5	+1·0	+0·9	—1	+0·2
Bihar	8·28	7·57	+0·71	+9	—0·2	+0·7	+0·8	+2	+0·3
United Provinces	1·67	4·88	—3·21	—66	+3·8	+1·8	—2·1	—8	—0·7
East Punjab	0·49	2·19	—1·70	—78	+1·5	+0·2	—3·1	—8	—0·2
Rajputana	2·10	2·24	—0·14	—6	—1·0	+0·2	—1·7	2	—0·4
Bombay (including Saurashtra and Cutch).	5·53	8·27	—2·74	—33	+0·2	+0·8	+0·4	+1	—0·2
SUB-DIVISION.									
Bay Islands	25·92	21·75	+4·17	+19	0	+0·4	—0·5	+6	+0·6
Assam	18·83	16·84	+1·99	+12	—0·7	—0·1	+1·2	+6	+1·0
West Bengal	12·85	13·97	—1·12	—8	+0·2	+0·2	+0·5	+2	+0·1
Orissa	4·49	8·49	—4·00	—47	+1·5	+1·0	+0·9	—1	+0·2
Chota Nagpur	8·58	7·65	+0·93	+12	—0·5	+0·7	+1·1	0	0
Bihar	8·13	7·53	+0·60	+8	0	+0·7	+0·6	+3	+0·5
United Provinces, East.	2·42	5·22	—2·80	—54	+3·4	+2·1	—1·1	—4	—0·9
United Provinces, West.	0·93	4·54	—3·61	—80	+4·1	+1·5	—3·2	—11	—0·4
East Punjab	0·49	2·19	—1·70	—78	+1·5	+0·2	—3·1	—8	—0·2
Kashmir				Date incomplete.					
Rajputana, West	1·63	1·53	+0·10	+7	—1·3	+0·2	—2·3	—4	—0·8
Rajputana, East	2·56	2·96	—0·40	—14	—0·8	+0·2	—1·1	0	0
Gujarat	1·21	4·85	—3·64	—75	+0·7	+1·7	0	—2	—0·2
Saurashtra and Cutch.	0·66	3·10	—2·44	—79	+1·0	+1·4	+0·4	+1	—0·1
Madhya Bharat and Bhopal.	4·17	5·72	—1·55	—27	+0·4	+0·9	+0·4	+1	—0·1

	Rainfall.				Departure from normal of				
							0830 hrs. I.S.T.		
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Maximum temperature.	Minimum temperature.	Vapour pressure.	Relative humidity.	Cloud.
1	2	3	4	5	6	7	8	9	10
DIVISION.	"	"	"		°	°	mb.	%	
9. Central India (including Madhya Bharat and Bhopal and Vindhya Pradesh).	3·72	5·85	—2·13	—36	+0·2	+0·6	+2·0	+4	—0·1
10. Central Provinces and Berar.	7·21	7·64	—0·43	—6	—1·7	—0·6	+1·8	+9	+0·8
11. Hyderabad	6·01	4·98	+1·03	+21	—1·4	—0·3	+0·3	+6	+0·6
12. Mysore	4·27	5·71	—1·44	—25	—0·9	+0·5	+0·5	+4	+0·3
13. Madras	7·14	6·88	+0·26	+4	—1·3	—0·3	+0·5	+4	+0·3
Mean of India	5·64	6·67	—1·03	—15	—0·1	+0·3	+0·1	+2	+0·1
SUB-DIVISION.									
16. Vindhya Pradesh	3·13	6·03	—2·90	—48	—0·1	+0·1	+4·2	+8	—0·1
17. Berar	6·51	6·04	+0·47	+8	—2·7	—1·3	+1·7	+11	+0·5
18. Central Provinces, West.	7·16	7·01	+0·15	+2	—1·2	—0·4	+1·9	+8	+0·8
19. Central Provinces, East.	7·56	9·02	—1·46	—16	—1·9	+0·7	+1·6	+8	+0·8
20. Konkan	21·70	28·85	—7·15	—25	—0·4	—0·1	+0·7	+4	—0·1
21. Bombay Deccan	4·01	4·46	—0·45	—10	—0·5	+0·1	+0·5	+2	—0·2
22. Hyderabad, North	7·15	5·34	+1·81	+34	—1·9	—0·2	0	+7	+0·7
23. Hyderabad, South	4·88	4·62	+0·26	+6	—1·1	—0·3	+0·6	+6	+0·6
24. Mysore	4·27	5·71	—1·44	—25	—0·9	+0·5	+0·5	+4	+0·3
25. Malabar	26·02	27·95	—1·93	—7	—0·3	—0·2	+0·5	+4	+0·3
26. Madras, South-east.	2·57	1·56	+1·01	+65	—1·5	—0·1	0	+2	+0·7
27. Madras Deccan	3·94	2·67	+1·27	+48	—1·9	—0·9	+1·4	+7	+0·7
28. Madras Coast, North.	3·47	3·80	—0·33	—9	—0·9	—0·2	+0·8	[illegible]	—0·6

Table II.—Abstract of observations recorded at 0830 hrs. I. S. T. (0300 hrs. G. M.

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at Station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relativ humidit %	
		Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I. S. T.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Departure from normal.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Bay Islands.																					
Port Blair	261	999·0	+0·4	997·2	84·3	0	87	3	75·4	+0·4	73	1	80·6	79·5	77·7	77·0	31·0	—0·5	30·5	88	+6
Assam.																					
Dibrugarh	348	990·6	—1·0	987·4	86·5	—0·5	94	20	74·2	+0·1	71	27	79·3	81·7	77·2	78·4	31·1	+0·9	31·4	91	+4
Sibsagar	317	991·6	—0·8	988·4	88·4	—0·2	93	20	77·3	+1·2	76	11 days	81·7	84·3	76·0	79·5	28·4	—3·1	31·9	87	+2
Tezpur	258	993·9	—0·6	990·5	87·9	—0·7	93	11	76·2	—0·3	72	1	80·0	83·7	77·8	79·2	31·9	+0·9	32·1	91	+7
Gauhati	182	995·8	—0·5	992·6	88·1	—0·8	94	9,10	76·8	+0·3	74	16,19,24	81·0	83·6	77·9	78·7	31·4	+0·7	31·2	87	+5
Dhubri	115	998·2	—0·1	995·3	84·4	—1·3	91	4,6,10	75·6	—0·5	71	18	78·9	80·5	77·3	78·5	31·4	+0·6	32·4	93	+7
Silchar	96	1000·1	—0·2	996·9	87·0	—2·2	92	11,20	76·5	+0·3	73	17,22	79·8	82·4	77·8	78·7	31·7	+0·2	32·1	91	+7
West Bengal.																					
Dum Dum	33	999·4	..	997·0	92·8	..	99	1,7	78·9	..	72	24	86·5	85·1	81·2	80·4	33·6	..	33·6	79	..
Calcutta	21	999·8	—0·2	997·3	93·8	+1·4	102	7	79·4	+0·8	74	14,24,25	87·9	86·1	81·8	80·7	34·3	+1·3	33·4	79	0
Saugor Island	10	1000·5	+0·2	998·1	89·3	—0·3	93	7	82·3	+1·4	76	30	86·6	85·7	82·0	81·4	35·4	+1·1	34·3	82	+4
Sandheads	28	1000·3	+0·2	997·5	..	..	..	..	..	..	..	..	86·0	86·1	82·4	82·9	36·3	+1·5	36·4	85	+5
Midnapore	149	994·9	—0·5	992·2	96·7	+2·5	106	19	78·7	—0·5	71	14	87·5	87·7	80·7	80·4	32·3	+0·3	31·8	75	—3
Contai	35	998·9	..	996·6	90·9	..	97	7	80·3	..	72	12	86·1	86·0	31·5	82·0	34·8	..	35·5	81	..
Burdwan	106	996·3	—0·6	993·4	94·7	+1·2	102	18,19	79·5	+0·7	75	22,30	85·3	88·4	80·3	80·6	33·1	+0·6	31·8	79	—1
Krishnagar	48	998·8	—0·6	995·9	95·1	+2·3	101	19	78·1	—0·4	73	2,20,24	85·5	87·0	81·5	81·5	34·9	+1·7	34·2	84	+5
Asansol	414	985·6	—0·5	982·9	96·5	—1·4	107	19,20	79·3	+0·2	72	2	86·8	89·3	79·9	80·8	31·6	+0·2	32·1	75	+1
Berhampore	62	998·0	—0·7	995·1	94·1	+1·4	103	19	78·7	+0·2	72	21	84·4	87·8	80·2	80·1	33·6	+0·8	32·7	83	+2
Malda	103	996·6	—1·1	993·9	90·1	—1·4	99	17	78·5	+0·3	74	28,29	83·3	86·2	79·4	80·3	32·4	—0·2	32·5	84	+3
Cooch-Behar	145	997·0	..	993·8	86·4	..	94	9	75·7	..	71	4	77·8	82·9	77·2	78·9	30·9	..	31·9	89	..
Jalpaiguri	271	992·4	—0·6	989·5	84·9	—3·7	91	4 days	74·8	—0·9	72	1,28	77·8	82·2	75·7	77·6	29·5	—1·2	30·4	91	+5
Orissa.																					
Balasore	65	998·4	+0·2	996·1	97·7	+4·5	106	18	78·5	—0·6	74	25	88·2	88·2	81·3	81·0	33·1	+1·0	33·1	74	—3
Chandbali	20	1000·7	+0·4	997·9	95·6	+1·7	106	1	80·2	+0·5	74	2	86·6	86·9	81·0	80·6	33·8	+0·4	32·5	78	—1
Puri	20	1001·1	+0·6	998·5	90·0	+1·0	103	7	82·6	+1·7	76	2,8	86·3	85·7	82·1	81·9	35·9	+2·1	35·1	83	+2
Gopalpur	56	1000·0	+0·7	997·5	90·5	+0·7	97	1	81·4	+1·1	76	3	86·0	85·8	80·9	81·3	33·9	+0·7	34·5	80	—1
Cuttack	87	998·1	—0·1	995·2	97·7	+2·2	101	6	81·0	+1·4	76	2,8	86·7	89·6	80·4	79·4	32·3	+0·7	30·0	73	—2
Angul	455	986·0	+0·8	982·9	97·3	+1·4	105	18,19,20	81·8	+2·9	73	2	86·8	90·8	77·2	78·1	28·8	—0·8	27·4	64	—8
Sambalpur	486	985·0	+0·7	981·5	96·3	—1·2	105	18	80·2	—0·3	73	2,25	84·9	92·4	78·4	79·7	30·2	+2·1	29·2	75	+9
Chota Nagpur.																					
Jamshedpur	423	985·8	—0·1	982·8	95·9	—1·1	104	18	80·6	+0·6	75	11	86·0	88·9	78·8	79·2	30·7	+0·8	30·0	73	+3
Chaibasa	742	975·1	+0·2	972·2	93·3	—3·6	105	18	80·9	+1·7	74	2	86·6	90·5	77·4	78·1	28·3	—0·4	27·0	66	—3
Ranchi	2,150	929·2	+0·5	926·0	92·8	+0·8	100	18	73·7	—1·6	70	1,2,3	82·4	84·0	75·4	74·9	27·2	+2·3	26·0	73	+5
Hazaribagh	2,006	933·3	—0·4	930·8	92·7	—0·4	101	22	76·3	+0·2	71	2	83·7	85·3	74·7	75·1	25·7	+1·6	25·9	66	+1
Daltonganj	725	974·9	—0·2	971·3	102·1	+1·8	110	22	83·4	+2·5	74	25	90·6	94·5	78·0	78·5	27·2	+1·1	26·0	56	—4
Dhanbad	839	971·6	..	..	95·5	..	105	20	78·2	..	72	2	86·1	..	78·5	..	30·0	..	..	70	..
Bihar.																					
Purnea	124	996·1	—0·8	993·4	89·4	—2·0	98	18	78·3	+0·9	75	13,24,25	82·4	85·5	79·0	80·3	32·1	+0·5	33·3	86	+4
Saharsa	156	994·1	..	991·5	90·7	..	87	18	78·8	..	75	21	84·2	87·2	80·4	80·4	33·4	..	32·0	84	..
Darbhanga	161	994·7	—0·4	991·4	92·7	—0·2	99	6,7,8	78·9	+0·4	72	3	84·9	88·9	80·1	81·6	32·6	+1·4	32·1	81	+4
Motihari	218	992·7	—0·7	989·1	93·0	—0·5	101	1,7,17	77·2	—0·6	71	2	83·7	88·0	78·9	80·9	31·3	+0·2	32·9	80	+3
Patna	173	993·9	—0·7	990·2	95·9	—0·3	105	1,18	80·5	+0·6	70	12	86·9	90·5	79·7	80·5	31·7	+0·7	31·0	72	0

1 1730 hrs. I. S. T. (1200 hrs. G. M. T.)—June 1949.

Cloud amount (Oktas).		Rainfall, inches.				Number of rainy days, (0·10" or more.)		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																			STATION
										0830 hrs. I. S. T.									1730 hrs. I. S. T.										
Departure from normal.	Mean 1730 hrs. I. S. T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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
																													BAY ISLANDS.
+0·6	7·7	25·92	+4·17	3·70	18	24	+2·5	11·9	—1·8	0	0	0	0	0	19	11	0	0	0	0	0	0	0	17	11	0	2		Port Blair.
																													ASSAM.
+1·3	6·2	16·61	—3·06	1·67	26	22	+2·4	1·2	0	7	3	6	0	2	0	2	2	8	2	4	4	2	2	2	1	1	12		Dibrugarh.
+0·7	6·4	13·68	—1·45	1·68	26	23	+5·9	..	..	2	13	3	1	0	7	1	1	2	5	6	2	2	5	4	1	4	1		Sibsagar.
+0·7	6·1	9·97	—2·17	1·22	5	16	0	1·3	—0·6	0	3	12	5	2	3	0	0	5	0	2	10	2	2	1	1	0	12		Tezpur.
+0·4	6·2	10·16	—2·14	2·27	22	16	+1·3	2·1	+0·7	2	7	1	1	1	5	4	3	6	2	4	4	3	0	5	3	0	9		Gauhati.
+1·1	6·2	42·45	+18·34	7·58	27	21	+2·9	4·3	0	1	6	11	6	3	1	1	0	1	2	5	4	4	4	6	0	0	5		Dhubri.
+1·6	7·0	28·33	+5·16	3·93	16	24	+2·7	0·9	—0·8	0	3	1	2	1	0	1	1	21	0	1	0	0	2	2	2	2	21		Silchar.
																													WEST BENGAL.
..	6·5	9·71	..	2·59	24	12	..	9·5	..	0	0	2	3	14	7	0	1	3	0	0	2	5	15	7	0	0	1		Dum Dum.
—0·9	6·3	8·93	—2·76	1·45	24	15	+1·8	2·5	—1·8	0	0	3	2	8	11	2	0	4	1	0	0	4	12	8	0	1	4		Calcutta.
—1·1	5·9	8·54	—3·09	3·56	25	9	—3·1	18·4	+5·2	0	1	1	1	12	13	2	0	0	0	1	0	4	14	11	0	0	0		Saugor Island.
—1·4	4·9	2·73	—5·14	0·74	11	7	—2·4	..	..	0	0	0	2	5	22	1	0	0	0	0	1	2	7	20	0	0	0		Sandheads.
+0·1	6·2	17·46	+7·25	5·95	30	13	+0·6	4·5	+1·1	0	0	1	3	12	10	4	0	0	0	0	0	1	17	7	0	0	5		Midnapore.
..	5·3	5·53	..	1·08	25	11	..	10·2	..	0	1	0	2	18	5	1	0	3	0	0	0	0	27	2	0	0	1		Contai.
—0·9	6·2	7·03	—3·49	2·60	30	9	—3·4	5·9	+2·8	0	1	4	2	7	12	2	0	2	0	1	8	5	7	7	1	0	1		Burdwan.
+0·8	6·9	8·03	—2·30	2·26	24	14	+1·3	5·9	+0·9	0	0	0	3	21	2	0	0	4	0	0	2	10	12	1	0	1	4		Krishnagar.
—0·5	6·1	9·97	+0·46	2·48	12	11	—0·7	5·1	—0·2	0	0	4	3	7	6	4	1	5	0	4	3	3	4	0	4	4	8		Asansol.
—0·4	6·8	9·22	—0·45	2·01	21	11	—1·3	3·7	0	0	0	4	4	20	0	0	0	2	0	0	5	7	11	2	0	0	5		Berhampore.
+1·6	6·3	10·25	+0·43	4·31	28	11	—0·5	4·7	—0·7	1	3	12	3	4	4	1	0	2	0	1	12	6	3	2	1	0	5		Malda.
..	6·9	32·66	—1·13	3·72	30	21	+0·4	3·0	..	2	3	13	4	4	0	0	0	4	1	4	6	4	6	1	0	0	8		Cooch Behar.
+2·4	6·3	22·63	—3·31	2·73	23	22	+2·9	5·0	+2·9	4	1	11	2	2	0	0	0	4	2	7	10	6	2	0	0	0	3		Jalpaiguri.
																													ORISSA.
+0·7	6·9	2·05	—7·12	0·94	25	4	—7·1	7·9	+3·1	1	1	0	1	11	15	0	1	0	0	0	0	4	13	11	0	1	1		Balasore.
—1·0	6·0	8·09	—0·65	2·52	2	8	—3·3	7·3	—0·7	1	1	0	1	13	8	6	0	0	0	0	1	2	22	1	1	3	0		Chandbali.
+0·8	6·7	2·11	—5·35	1·09	9	4	—4·1	15·3	+3·2	0	0	0	0	2	21	4	3	0	2	0	0	2	4	18	3	1	0		Puri.
+0·9	6·6	1·96	—3·50	0·85	3	5	—2·6	11·9	+1·3	0	0	0	0	4	18	1	1	6	2	0	0	0	6	20	1	1	0		Gopalpur.
—0·7	6·8	5·61	—4·34	2·75	9	5	—6·4	5·0	+2·0	1	0	0	0	0	1	1	1	26	0	1	1	0	7	7	3	2	9		Cuttack.
—0·6	5·9	2·22	—6·32	1·25	2	4	—7·6	(k) 5·6	+0·4	2	1	0	1	4	6	12	4	0	1	0	1	3	5	10	6	4	0		Angul.
+1·0	6·7	9·36	—0·73	5·26	25	8	—2·7	5·6	+1·6	0	1	1	0	7	15	6	0	0	0	1	0	0	10	13	3	2	1		Sambalpur.
																													CHOTA NAGPUR.
—0·6	6·6	19·79	+12·28	6·30	10	11	+0·3	4·4	—0·2	0	1	4	1	0	9	13	1	1	0	1	7	1	2	7	7	3	2		Jamshedpur.
+1·6	7·8	3·55	—4·24	0·98	30	8	—2·7	2·7	0	0	3	0	0	1	18	2	2	4	1	0	0	2	3	15	1	3	5		Chaibasa.
—1·1	5·2	10·08	+1·49	2·05	11	11	—0·4	4·9	—0·6	1	0	1	0	12	5	1	0	10	1	0	1	1	10	1	0	0	16		Ranchi.
—0·2	7·1	76·5	—0·68	2·62	11	9	—1·7	5·3	—1·5	2	0	0	1	1	8	15	6	2	2	3	4	2	4	4	3	4	4		Hazaribagh.
+1·4	5·9	1·82	—4·20	1·40	25	3	—5·2	5·2	+0·6	0	0	1	1	1	4	18	3	2	0	1	5	3	2	3	8	7	1		Daltonganj.
..	..	8·93	..	2·67	12	9	..	4·2	..	0	0	4	0	1	10	4	1	10	..	..	..	..	..	..	..	..	..		Dhanbad.
																													BIHAR.
+1·3	6·3	8·49	—1·74	1·83	27	9	—2·8	4·0	+1·0	0	7	17	4	0	0	0	0	2	0	4	9	1	0	0	0	0	16		Purnea.
..	5·8	6·85	..	1·34	30	10	..	4·8	..	1	11	15	0	0	0	0	1	2	1	4	12	1	1	0	0	0	11		Saharsa.
+0·9	4·6	14·51	+6·93	6·79	13	9	+0·2	4·5	+0·2	2	12	10	4	0	0	0	1	1	0	5	14	6	1	0	1	1	2		Darbhanga.
+1·4	4·4	9·03	+0·32	2·35	7	13	+3·6	3·7	—1·1	1	0	16	1	0	0	0	0	12	0	0	13	0	1	0	0	0	16		Motihari.
+0·4	4·9	9·82	+2·68	2·93	13	6	—2·0	5·3	+0·3	1	15	6	2	1	4	0	1	0	0	17	7	3	1	0	0	0	2		Patna.

(k) Mean of 20 days.

Table II.—Abstract of observations recorded at 0830 hrs. I. S. T. (0300 hrs. G. M. T.)

STATION.	Height of bar, cistern above mean sea level in feet.	Pressure at Station level in millibars. Mean 0830 hrs. I. S. T.	Pressure: Departure from normal.	Pressure: Mean 1730 hrs. I. S. T.	Maximum temperature, °F. Mean.	Maximum: Departure from normal.	Maximum: Highest.	Maximum: Date.	Minimum temperature, °F. Mean.	Minimum: Departure from normal.	Minimum: Lowest.	Minimum: Date.	Dry bulb temperature, °F. Means 0830 hrs. I. S. T.	Dry bulb: Means 1730 hrs. I. S. T.	Wet bulb temperature, °F. Mean 0830 hrs. I. S. T.	Wet bulb: Mean 1730 hrs. I. S. T.	Vapour pressure, millibars. Mean 0830 hrs. I. S. T.	Vapour: Departure from normal.	Vapour: Mean 1730 hrs. I. S. T.	Relative humidity, % Mean 0830 hrs. I. S. T.	Relative humidity: Departure from normal.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
BIHAR—*contd.*																					
Dehri	352	986·6	..	983·3	103·4	..	113	22,23	84·1	..	76	30	88·1	96·9	77·5	79·8	27·5	..	24·0	62	..
Gaya	365	986·2	—0·9	983·0	102·5	+3·0	114	23	83·3	+2·0	75	90	91·2	95·9	77·7	78·9	26·3	—0·1	26·0	54	+1
Naya Dumka	489	983·1	—0·7	980·4	95·2	+1·1	107	18	79·6	+1·1	74	2	84·6	86·7	78·6	78·7	30·7	+0·1	27·9	76	+1
Sabour	122	995·4	—1·1	992·4	93·3	—1·2	101	18,19	79·5	+0·3	74	1	85·1	88·3	80·6	82·2	33·6	+1·7	35·0	82	+5
U. P., EAST.																					
Gonda	360	986·9	..	982·7	101·6	+3·8	112	24	80·9	+0·9	73	10	87·0	98·3	77·9	78·3	28·7	—0·6	24·1	66	—3
Gorakhpur	254	990·5	—1·1	986·7	98·9	+2·0	109	4 days	80·1	+0·9	69	1	86·0	95·9	78·7	80·6	29·9	—0·6	28·8	72	—1
Banaras	250	990·1	—0·8	985·5	104·0	+4·0	113	23,24	84·9	+2·9	77	3	92·2	101·6	78·7	78·7	27·1	—0·9	22·9	54	—7
Allahabad (Bamrauli)	322	987·7	—0·6	984·0	105·8	+3·1	113	23	85·6	+2·7	79	3	93·1	102·7	76·5	76·8	23·7	—4·3	19·7	46	—10
Fatehpur	375	986·2	..	(b) 982·2	103·9	+0·9	111	23	85·2	+2·3	75	3	91·8	(b) 103·4	78·5	(b) 81·0	27·1	—0·8	24·7	55	—7
Kanpur	413	984·8	—0·3	980·9	107·0	+4·3	114	23	86·3	+3·3	76	3	93·3	102·9	76·4	78·4	23·4	—2·9	22·1	45	—13
Lucknow	371	986·5	—0·3	982·8	104·6	+4·4	113	23	84·3	+2·6	74	3	97·5	100·0	78·1	78·4	23·9	—3·7	23·5	58	—3
Bahraich	407	985·4	—0·3	981·5	103·7	+5·0	113	23,24	81·1	+1·1	73	26	88·6	99·6	..	..	..	..	..	..	..
U. P., WEST.																					
Jhansi	824	971·9	—0·2	968·3	106·8	+2·8	110	8,23	85·6	+1·1	74	6,7	92·3	103·6	77·8	79·6	25·9	+1·5	23·5	51	+1
Agra	553	980·5	+0·1	976·3	106·5	+2·5	111	23	86·2	+2·7	75	1	91·3	104·1	73·1	74·3	20·1	—2·6	15·1	40	—5
Mainpuri	516	981·2	—0·3	976·9	108·7	+4·0	114	23	85·4	+2·6	66	8	94·7	104·1	74·7	76·0	20·1	—5·8	17·9	37	—16
Aligarh	615	978·1	..	974·1	106·8	+4·6	111	23	83·9	+1·3	72	1	93·4	104·3	74·4	75·7	20·5	—3·8	17·4	39	—17
Bareilly	568	979·1	—1·2	975·1	105·7	+5·5	111	4 days	82·6	+2·2	74	12	91·3	103·5	75·5	74·9	23·1	—4·8	15·7	47	—17
Meerut	728	974·1	..	..	105·1	..	111	23	82·9	..	73	1,11	89·3	..	72·6	..	20·3	..	..	43	..
Roorkee	899	968·2	—1·1	964·2	104·6	+4·4	111	23	78·3	—0·5	66	2	87·1	102·0	72·3	74·6	20·0	—3·7	16·7	47	—10
Dehra Dun	2,239	925·1	—0·9	922·3	98·9	+5·2	106	23	75·2	+1·1	64	2	85·3	96·4	69·7	71·4	18·7	—3·0	16·1	46	—14
EAST PUNJAB.																					
New Delhi	714	974·4	—0·9	970·7	104·1	+1·7	109	23	85·5	+3·0	73	1	91·5	102·0	72·4	73·8	18·7	—5·4	16·0	37	—16
Hissar	725	974·5	+0·5	971·6	106·6	+1·0	113	23	80·8	—1·4	69	2	87·9	101·1	73·2	75·5	21·6	—2·3	18·5	47	—1
Patiala	822	970·7	..	967·2	105·2	..	111	23,25	80·4	..	70	3	90·0	96·6	74·2	75·7	21·4	..	20·6	47	..
Ambala	892	968·7	—0·2	965·5	106·8	+3·2	114	23	82·2	+1·5	73	2	92·1	103·1	71·6	70·9	15·7	—7·3	11·4	35	—12
Ludhiana	810	971·4	0	968·6	106·4	+1·7	114	23	80·0	—0·9	71	2,10	90·5	102·3	73·3	75·9	20·4	—1·7	18·4	43	—6
Amritsar	756	973·1	..	970·2	103·9	..	112	23	75·8	..	66	2	88·6	101·1	72·0	74·9	19·3	..	17·8	43	..
KASHMIR.																					
Srinagar	5,205	837·2	+0·7	835·0	78·2	—7·2	87	23	56·5	—0·8	52	16	64·7	74·5	58·8	61·5	14·6	—2·4	14·0	72	—3
Gulmarg (R)	8,709	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dras (R)	10,059	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Leh	11,520	665·3	—0·5	662·1	67·5	—3·8	75	21	43·7	—0·6	38	1,3,4	53·4	63·7	41·3	44·7	5·0	—1·2	4·1	38	—4
Skardu (R)	7,505	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gilgit (R)	4,890	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Misgar (R)	10,190	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
RAJPUTANA, WEST.																					
Sri Ganganagar	580	978·1	..	975·0	104·0	—2·0	111	1	79·5	—1·8	68	2	88·2	99·3	72·1	73·6	19·6	—1·8	17·1	44	—2
Bikaner	734	974·8	+0·7	971·3	104·5	—1·8	110	1	84·7	0	74	2	89·5	102·5	71·4	73·5	18·3	—5·2	15·1	41	—10
Phalodi	794	974·9	..	971·1	104·5	..	114	14	81·2	..	74	18	85·6	101·2	75·7	83·0	25·7	..	30·1	64	..
Jaisalmer	793	972·7	..	969·5	104·1	..	107	5 days	80·7	..	75	10	83·0	103·5	..	..	..	..	..	..	..
Jodhpur	730	976·3	+2·1	972·4	102·6	—1·0	107	1,11,30	83·6	+1·3	75	2	86·6	101·0	74·2	74·7	23·0	—1·9	17·1	56	—4
Barmer	638	979·5	+0·9	975·3	104·1	+0·7	109	11	81·3	+1·0	73	19	85·4	103·0	77·3	79·1	28·5	—0·5	22·7	69	—1

(b) Mean of 29 days.

(R) Register not received.

d 1730 hrs. I. S. T. (1200 hrs. G. M. T.)—June 1949.

loud amount (Oktas).			Rainfall, inches.				Number of rainy days, (0·10" or more.)		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																			STATION.
											0830 hrs. I. S. T.									1730 hrs. I. S. T.										
	Departure from normal.	Mean 1730 hrs. I. S. T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
	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
																														BIHAR—*contd.*
·9	..	6·7	1·68	—3·69	0·76	25	4	—2·9	5·3	..	0	2	2	5	2	9	1	7	2	0	8	6	2	1	3	0	10	0		Dehri.
·1	+0·4	5·7	1·90	—4·55	0·85	30	4	—3·5	7·3	+1·2	1	0	5	0	1	7	7	3	6	5	7	5	3	2	1	3	3	1		Gaya.
·5	—1·2	5·4	13·63	+3·63	3·50	28	13	+1·1	3·7	+0·9	3	0	3	7	2	6	3	3	3	3	1	3	5	3	4	4	1	6		Naya Dumka.
·0	+0·2	5·8	10·42	+4·24	3·53	12	10	+2·2	5·6	—0·1	2	5	10	3	1	3	3	2	1	2	4	14	2	2	1	1	2	2		Sabour.
																														U. P., EAST.
·5	—1·9	2·4	4·54	—2·77	2·85	10	5	—3·3	4·5	—0·5	0	1	22	2	0	1	3	0	1	0	0	14	0	1	0	7	1	7		Gonda.
·6	+0·2	2·9	5·59	—1·96	2·35	26	6	—2·3	3·7	+0·9	3	2	15	4	2	0	2	0	2	2	2	15	2	1	0	3	3	2		Gorakhpur.
·3	—0·7	4·4	0·30	—4·26	0·19	28	1	—5·0	7·3	+3·3	1	2	4	1	1	9	11	1	0	4	3	5	1	1	2	6	8	0		Banaras.
·4	—0·4	4·0 (b)	1·03	4·01	0·37	24	3	—1·3	5·7	+0·4	0	1	5	1	2	5	16	0	0	2	4	2	0	1	2	11	7	1		Allahabad (Bamrauli)
·4	—1·2	2·9	1·95	—1·49	1·32	3	5	—2·8	5·2	+0·7	0	0	5	1	2	5	7	5	5	0	0	0	1	0	0	5	14	9		Fatehpur.
·4	+0·2	2·8	0·83	—2·36	0·24	3	1	—3·5	8·9	+0·7	0	0	5	1	1	6	12	5	0	4	3	2	0	0	4	8	7	2		Kanpur.
·0	—2·3	1·8	4·48	+0·02	2·40	26	5	—0·5	4·3	+1·7	3	1	1	0	3	2	7	0	3	3	2	6	0	3	3	7	5	1		Lucknow.
·0	—0·9	2·3	1·11	—5·09	1·06	26	1	—5·1	5·4	+2·0	0	1	1	9	0	0	1	2	6	0	1	7	2	0	1	6	6	7		Bahraich.
																														U. P., WEST.
·7	0	3·7	1·47	—2·70	0·89	27	2	—3·5	6·5	+1·5	0	0	0	1	3	7	9	7	3	2	4	1	0	1	1	8	9	4		Jhansi.
·4	—0·2	2·9	0·12	—2·32	0·12	26	1	—2·8	3·9	—1·1	2	1	0	0	0	2	10	5	10	2	0	0	0	1	5	8	8	6		Agra.
·0	0	2·2	0·01	—2·63	0·01	9	0	—3·8	4·1	+1·3	1	0	1	1	0	4	12	8	3	0	0	0	1	0	4	6	13	6		Mainpuri.
·7	+0·4	2·2	0·27	—5·12	0·13	1	2	—2·6	6·3	+0·7	3	0	2	0	0	2	3	13	7	0	0	1	0	1	0	4	18	6		Aligarh.
·2	—1·1	1·4	1·25	—3·98	1·14	10	1	—4·4	3·9	+1·0	3	2	7	3	1	0	9	3	2	1	3	2	1	0	1	16	5	1		Bareilly.
·8	..	..	0·30	—3·1	0·21	27	1	—3·1	5·7	..	4	1	1	1	1	0	9	10	3	..	..	..	..	..	..	..	..	..		Meerut.
·2	—0·7	1·6	1·48	—3·02	1·47	2	1	—4·4	2·9	—0·3	0	3	0	11	0	0	0	5	11	0	0	0	1	0	1	0	19	9		Roorkee.
·1	—1·3	1·5	2·56	—5·99	1·49	2	2	—7·4	2·3	+0·4	2	1	1	5	1	9	0	4	7	0	2	0	0	0	17	6	3	2		Dehra Dun.
																														EAST PUNJAB.
·2	—0·6	3·3	0·18	—2·85	0·10	2	1	—3·2	10·1	..	3	2	0	2	1	1	13	7	1	5	3	1	0	0	2	7	12	0		New Delhi.
·6	+0·1	2·3	0·32	—0·94	0·16	7	2	—0·9	6·0	+0·1	1	3	1	3	2	7	7	3	3	4	3	0	0	0	4	9	9	1		Hissar.
·2	..	3·1	0·27	..	0·12	27	1	..	6·0	..	3	1	2	2	0	2	4	9	7	5	0	3	2	0	1	5	13	1		Patiala.
·6	—0·6	1·4	0·45	—2·59	0·20	27	1	—3·4	5·8	+1·9	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	30	0		Ambala.
·9	0	1·4	0·96	—1·32	0·38	27	3	—0·5	3·3	+0·9	2	3	3	2	1	1	4	6	8	0	4	0	2	0	3	6	9	6		Ludhiana.
·3	..	1·9	0·23	..	0·14	27	1	..	5·0	..	7	2	4	4	1	3	4	2	3	5	0	1	2	1	1	7	13	0		Amritsar.
																														KASHMIR.
·5	+1·3	5·6	1·71	+0·31	0·75	6	4	+0·6	2·7	+0·1	4	1	3	10	1	0	3	2	6	1	1	0	1	0	0	7	11	9		Srinagar
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		Gulmarg. (R)
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		Dras. (R)
·8	+0·7	4·8	0·18	0	0·10	28	1	+0·3	5·0	+2·5	0	2	0	1	2	15	0	0	10	0	2	0	0	0	15	10	2	1		Leh.
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		Skardu. (R)
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		Gilgit. (R)
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		Misgar. (R)
																														RAJPUTANA, WEST.
·1	—0·4	1·8	1·47	—1·52	0·73	2	3	+0·3	5·7	—2·8	2	1	4	3	2	11	4	3	0	6	1	1	2	3	4	3	9	1		Sri Ganganagar.
·0	—0·3	1·4	0·52	—0·69	0·42	2	2	—0·2	6·5	—1·0	0	2	0	3	1	21	1	2	0	0	2	0	0	0	25	1	2	0		Bikaner.
·9	..	0·6	2·74	+1·82	2·17	3	4	+2·4	14·3	..	0	0	1	1	6	18	3	1	0	1	0	0	0	6	16	6	1	0		Phalodi.
·7	..	1·2	0	..	0	..	0	..	16·5	..	0	0	0	0	1	26	1	2	0	0	1	0	1	1	22	5	0	0		Jaisalmer.
·6	—1·2	2·2	0·72	—0·70	0·62	2	1	—1·1	7·6	—5·0	1	1	0	0	2	12	13	0	1	0	0	0	0	1	13	11	4	1		Jodhpur.
·7	—1·8	1·5	2·69	+1·59	1·67	19	3	+1·5	8·7	+0·5	1	0	0	0	7	16	5	1	0	1	0	1	1	4	19	4	0	0		Barmer.

Table II.—Abstract of observations recorded at 0830 hrs. I. S. T. (0300 hrs. G. M.

STATION.	Height of bar, cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature. °F.		Wet bulb temperature. °F.		Vapour pressure, millibars.			Relati humidi %	
		Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I. S. T.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Departure from normal.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
RAJPUTANA, EAST.																					
Sikar	1,406	952·8	..	949·4	102·8	..	107	1,22,23	81·3	..	69	1	88·2	99·1	73·3	74·9	20·9	..	18·7	48	..
Jaipur	1,431	952·7	+0·1	949·4	102·0	—1·1	106	22	80·6	+0·2	72	1	89·0	98·0	72·2	73·5	19·4	—2·9	17·1	42	—7
Ajmer	1,593	947·7	0	944·5	99·3	—1·1	105	1	81·9	0	69	2	85·0	96·3	73·0	73·6	22·8	—1·5	19·5	56	0
Kotah	843	972·3	+0·4	968·5	103·9	—0·9	108	22	85·3	+0·2	75	2	90·1	98·5	75·7	76·0	23·6	+0·3	20·3	50	+3
Jhalawar	1,053	965·3	0	961·8	101·5	—0·1	105	22	81·7	+0·5	72	2	85·6	97·4	76·8	77·3	27·5	—0·3	23·0	66	+3
Kalamand	1,882	939·7	..	..	96·9	..	100	5 days	79·9	..	71	2,3	84·1	..	75·9	..	27·4	..	..	69	..
Udaipur	1,910	938·5	..	935·3	96·5	..	101	5	79·4	..	73	2	83·6	93·3	76·1	77·4	27·6	..	25·7	70	..
GUJARAT.																					
Deesa *	466	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Surat	39	1,002·7	+0·4	999·7	93·6	+0·8	97	21	81·5	+1·6	77	6	82·4	90·6	79·7	80·8	33·4	+2·5	31·4	76	+2
Ahmedabad	163	997·8	+0·4	993·0	101·2	—0·6	103	5, 6, 26	83·0	+2·0	81	4 days	86·5	99·0	78·7	78·5	29·9	+0·5	23·9	69	—1
Dohad	1,093	966·2	..	962·1	98·6	+1·4	101	1, 2, 22	78·9	+0·4	74	9	83·2	95·3	75·7	76·3	26·9	—2·0	22·3	71	—4
Baroda	115	999·6	..	994·9	101·2	+3·5	105	1, 5	82·9	+3·1	79	5	86·5	98·2	78·4	78·6	29·4	—0·5	24·4	68	—8
SAURASHTRA AND CUTCH.																					
Bhuj	343	990·7	+0·9	987·6	98·0	+0·7	107	9	81·5	+1·8	80	4 days	85·1	94·6	78·6	78·6	30·4	+0·4	26·2	74	+4
Dwarka	37	1,001·4	+0·3	999·1	90·9	+1·6	93	3, 8	83·8	+1·4	81	1, 2	85·8	88·1	79·6	80·6	31·8	—0·9	32·2	75	—7
Jamnagar	60	1,001·4	+0·5	..	96·9	+1·0	104	1	79·9	—0·2	73	5, 17	86·1	..	81·2	..	34·2	+2·7	..	82	+8
Rajkot	432	988·3	+0·5	987·1	101·5	+2·1	105	10	80·2	+2·0	73	3	84·1	96·6	78·1	77·9	30·1	+0·8	24·2	75	+1
Veraval	26	1,002·6	0	1,000·5	89·5	..	91	4 days	82·6	..	80	4	85·5	87·0	80·1	80·7	32·7	..	32·9	78	—4
Bhavnagar	55	1,001·7	+0·4	997·5	99·6	—0·2	105	18, 20	82·3	+2·1	79	16	85·7	96·2	77·4	78·8	28·3	—0·8	25·7	68	+1
MADHYA BHARAT AND BHOPAL.																					
Neemuch	1,626	947·9	+0·5	944·5	99·1	+0·7	102	5	73·8	+2·0	74	1, 2	83·4	95·1	75·0	74·2	26·2	0	20·3	67	0
Ratlam	1,596	941·3	..	946·0	96·2	..	104	5	76·9	..	71	1	81·2	93·7	77·6	81·5	80·4	..	31·7	84	..
Indore	1,823	941·9	+0·3	938·6	94·1	—1·5	101	1	75·6	—0·1	66	2	79·7	88·3	73·2	73·3	25·2	+0·1	22·7	73	+4
Bhopal	1,643	946·8	0	943·7	97·7	+0·4	103	5, 6, 22	78·4	+0·9	73	10	83·4	90·9	73·6	74·8	23·7	—0·1	23·1	62	—1
Guna	1,571	948·5	+0·1	945·1	102·2	+1·9	107	22	80·1	+0·9	73	6	86·1	95·6	74·5	75·1	24·5	+1·5	21·4	58	+2
Gwalior	681	976·2	..	972·3	107·3	..	111	22, 23	87·3	..	80	26	94·9	103·1	74·2	74·7	19·5	..	16·1	36	..
Madhosagar	757	973·7	..	970·0	106·3	..	111	23	86·2	..	78	5, 28	23·7	103·2	75·7	75·5	22·2	..	17·5	41	..
VINDHYA PRADESH.																					
Nowgong	750	974·6	+0·1	974·5	105·7	+2·9	111	23	84·6	+1·9	79	10, 24	92·3	101·0	79·0	81·2	27·8	+2·5	27·3	54	0
Satna	1,041	964·4	—0·2	961·1	99·8	—0·7	110	22, 23	83·7	+1·9	75	25, 27	88·7	98·6	..	..	..	..	..	..	..
Umaria	1,506	950·2	..	947·1	95·3	—2·6	105	17, 20, 21	79·8	+0·2	74	10, 25	85·2	92·0	74·6	75·2	25·0	+1·2	23·0	62	+4
BERAR.																					
Buldana	2,133	932·7	..	929·5	90·7	..	97	8	73·5	..	70	11, 12	75·9	86·9	72·1	73·7	25·4	..	23·1	80	..
Akola	925	971·8	+0·1	967·9	96·6	—2·4	104	1	76·9	—1·3	72	27	81·2	90·3	75·0	76·4	26·8	+1·8	24·6	74	+10
Amraoti	1,213	961·8	+0·1	958·2	95·2	—3·0	101	1	76·3	—1·4	73	3, 6	79·9	87·8	74·4	75·4	26·7	+1·7	24·6	77	+12
C. P., WEST.																					
Khandwa	1,044	967·6	+0·3	963·8	99·0	+0·2	103	4 days	(e) 77·7	—1·1	66	10	82·9	91·4	75·4	76·9	26·8	+1·5	25·0	69	+4
Hoshangabad	992	968·3	—0·2	964·6	98·7	0	104	1, 21	78·4	—1·3	72	7, 10	83·1	90·8	75·3	77·8	26·4	+1·3	26·6	69	+6
Saugor	1,808	940·6	+0·3	937·4	98·7	+0·3	104	5, 22	79·4	+1·3	74	7	83·6	92·8	72·4	73·4	23·0	+0·5	20·2	58	+1
Jubbulpore	1,289	957·9	+0·5	954·4	99·1	+1·0	106	21	80·0	+1·4	73	10	85·6	92·5	75·5	77·2	25·5	+2·4	24·9	63	+1
Seoni	2,027	934·7	+0·8	932·0	89·4	—5·7	100	21	75·0	—0·3	70	10	80·9	84·7	74·6	75·8	26·7	+3·9	26·8	75	+10
Betul	2,144	931·8	..	928·7	92·3	..	99	1	74·7	..	59	26	79·1	85·3	73·1	73·9	25·3	..	24·1	74	..
Nagpur	1,010	968·3	+0·5	965·2	96·3	—3·2	104	8	77·3	—2·3	71	9	82·5	87·0	75·2	75·8	26·3	+2·1	24·1	71	+1

* Data not reliable.

(e) Mean of 26 days.

1730 hrs. I. S. T. (1200 hrs. G. M. T.) June 1949.

d amount, Oktas).		Rainfall, inches.				Number of rainy days, (0·10″ or more.)		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																			STATION.
										08-30 hrs. I. S. T.									17-30 hrs. I. S. T.										
Departure from normal.	Mean 1730 hrs. I. S. T.	Total of the month.	Departure from normal.	Heaviest all in 24 hours.	Date.	Total in the month.	Departure from normal	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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
																													RAJPUTANA EAST
..	2·4	1·30	..	0·67	1	3	..	5·5	..	2	0	1	0	0	10	12	2	3	0	2	4	0	0	6	12	5	1		Sikar.
—0·2	3·5	1·46	—1·78	0·62	8	3	—0·9	6·1	+0·2	1	0	2	0	0	0	9	16	2	3	2	3	0	0	1	10	10	1		Jaipur.
—0·1	2·8	2·39	—0·04	1·35	2	3	+0·3	8·3	+1·0	0	2	0	0	0	16	10	0	2	1	2	0	1	0	14	10	1	1		Ajmer.
+0·1	4·0	2·97	+0·33	1·53	28	6	+1·9	4·9	—0·1	0	0	0	0	0	6	21	0	3	1	0	1	0	0	6	10	2	10		Kotah.
+0·2	5·2	4·94	+0·50	3·77	2	5	—2·1	6·9	+0·6	0	0	0	0	0	6	22	1	1	1	1	1	1	1	6	14	3	2		Jhalawar.
..	..	1·15	..	0·64	2	3	..	7·1	..	0	0	0	0	2	13	9	2	4	..	..	..	..	..	..	..	.	..		Rajsamand.
..	4·0	1·06	—1·98	0·37	29	3	—1·6	5·9	..	0	0	0	1	3	13	11	2	0	0	0	0	0	3	18	6	0	3		Udaipur.
																													GUJARAT
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		Deesa.*
+0·9	5·2	1·47	—7·15	0·70	7	4	—4·0	8·3	+0·9	0	0	0	4	5	13	6	1	1	0	0	0	0	3	22	4	1	0		Surat.
+0·1	3·8	0·12	—3·54	0·04	3	0	—4·7	6·2	+0·7	0	0	0	1	1	13	13	2	0	0	0	0	0	3	15	11	1	0		Ahmedabad.
—0·3	4·5	2·46	—1·07	0·89	30	4	—1·0	18·5	+8·5	0	0	0	0	1	15	14	0	0	1	0	0	0	1	24	4	0	0		Dohad.
—0·6	3·0	0·80	—5·61	0·44	8	2	—4·7	6·7	+0·1	0	0	0	0	4	13	12	1	0	0	0	0	0	3	18	8	1	0		Baroda.
																													SAURASHTRA AND CUTCH
—1·7	2·0	1·20	—0·18	0·60	3, 5	2	+0·1	11·8	+0·1	0	0	0	0	2	14	11	1	2	1	0	0	0	2	17	9	1	0		Bhuj.
+0·4	5·1	0	—2·01	0	..	0	—2·3	14·7	+1·4	0	0	0	1	0	12	16	1	0	0	0	0	0	0	13	17	0	0		Dwarka.
+1·6	..	1·23	—1·34	0·95	5	2	—1·0	3·4	—11·4	0	0	0	0	0	11	12	0	7	..	..	..	..	..	..	..	..	..		Jamnagar.
+1·1	5·6	1·03	—3·07	0·58	6	3	—1·8	14·7	+3·0	0	0	0	0	2	15	11	1	1	1	0	0	0	2	12	10	5	0		Rajkot.
+0·1	4·1	0·48	—4·18	0·18	5	2	—1·9	15·6	..	0	0	0	2	1	10	15	2	0	0	0	0	1	3	11	14	1	0		Veraval.
—2·3	3·7	0	—3·90	0	..	0	—4·7	8·3	+0·4	0	0	0	0	5	10	11	2	2	0	0	0	3	14	10	2	1	0		Bhavnagar.
																													MADHYA BHARAT AND BHOPAL.
—0·3	4·9	0·57	—3·66	0·40	1	2	—2·8	9·6	+0·2	0	1	0	0	0	10	18	1	0	1	4	0	0	0	12	12	1	0		Neemuch.
..	6·4	5·10	..	2·73	9	4	..	7·9	..	1	0	0	0	0	6	22	1	0	0	0	0	2	3	8	14	3	0		Ratlam.
—0·2	5·7	8·12	+2·32	4·56	2	6	—1·3	5·2	—0·9	0	0	0	1	0	3	20	6	0	2	7	0	3	1	6	6	4	1		Indore.
—0·1	6·1	3·01	—3·82	0·95	8	7	—2·4	7·2	+1·4	1	0	0	0	0	4	16	9	0	2	1	0	0	1	6	12	5	3		Bhopal.
+0·4	5·5	4·98	—1·05	1·62	10	5	—2·2	8·5	+1·3	0	0	0	0	5	9	11	5	0	2	2	2	1	1	9	9	4	0		Guna.
..	4·4	0·59	..	0·20	25	4	..	1·8	..	1	0	0	0	0	3	8	15	3	4	0	1	0	4	2	5	11	3		Gwalior.
..	4·1	0·32	..	0·13	28	1	..	8·9	..	1	0	1	0	0	5	14	9	0	3	1	0	0	2	2	8	12	2		Madhosagar.
																													VINDHYA PRADESH.
—1·1	3·8	0·51	—4·93	0·15	24	1	—5·1	5·4	+1·8	1	0	0	0	0	11	15	1	2	4	4	0	0	0	10	9	3	0		Nowgong.
—0·3	4·3	4·55	—0·99	1·18	27	5	—1·3	4·7	—1·0	1	1	1	1	2	12	10	0	2	1	0	2	0	0	9	9	7	2		Sutna.
+1·0	6·8	4·33	+2·79	1·52	3	8	—2·0	4·2	—0·2	0	1	0	0	4	7	16	0	2	0	2	1	1	6	4	11	5	0		Umaria.
																													BERAR.
..	5·4	6·91	..	1·03	8	18	..	7·4	..	0	0	0	0	0	9	7	14	0	1	1	0	0	2	6	7	13	0		Buldana.
+0·2	6·1	6·62	+1·09	1·25	1	14	+ 5·9	7·4	—0·3	0	0	0	1	0	2	13	14	0	4	2	0	0	1	7	11	5	0		Akola.
+0·8	6·2	6·40	—0·15	1·01	10	15	+6·3	7·8	+0·4	0	0	0	0	0	9	0	21	0	0	8	0	1	0	10	0	11	0		Amraoti.
																													C. P. WEST.
—0·2	6·9	4·56	—1·04	2·42	27	4	—3·0	8·1	—0·1	1	0	0	0	0	2	23	3	1	3	1	0	1	2	6	6	11	0		Khandwa.
—1·3	6·3	3·28	—2·59	0·90	10	6	—2·2	3·9	0	1	0	0	0	3	16	7	3	0	1	1	0	2	0	10	10	4	2		Hoshangabad
+0·9	6·0	4·17	—2·02	1·85	10	5	—3·1	13·1	+1·1	1	0	0	0	1	7	17	4	0	0	0	0	0	1	5	16	6	2		Saugor.
+1·3	6·3	4·59	+2·44	1·51	10	9	+0·2	5·3	+1·7	0	0	0	1	1	17	9	1	1	4	0	1	2	2	11	6	2	2		Jubbulpore.
+0·7	5·7	12·83	+4·32	2·61	9	12	+0·9	3·9	—0·5	3	0	0	0	4	7	8	5	3	5	1	1	2	5	5	3	5	3		Seoni.
..	7·0	4·76		2·33	10	9	..	4·2	..	1	0	0	0	1	3	16	9	0	2	2	3	2	2	6	9	3	1		Betul.
+0·5	6·8	13·52	+4·70	1·95	26	13	+2·8	5·8	..	0	0	0	0	1	7	10	10	2	2	1	1	3	2	8	8	4	1		Nagpur.

Table II.—Abstract of observations recorded at 0830 hrs. I. S. T. (0300

STATION.	Height of bar. cistern above mean sea-level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature. °F.		Wet bulb temperature. °F.		Vapour pressure, millibars.			Relati humidi %	
		Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 08 30 hrs. I. S. T.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S, T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S	Departure from
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
C. P., East.																					
Gondia	1,026	967·5	..	964·2	96·2	..	104	1, 21	78·8	..	73	28	82·3	90·8	76·2	77·3	27·9	..	25·9	74	..
Pendra	2,040	933·2	+0·5	930·6	94·2	+1·1	101	21	75·8	+0·1	71	4	83·3	84·6	74·3	74·2	25·3	+1·8	24·6	66	+
Champa	805	974·4	..	970·5	98·2	..	106	19	79·3	..	71	8	83·8	93·0	77·6	78·5	29·5	..	26·7	76	..
Raipur	979	968·9	+0·9	965·4	96·0	—0·9	102	1, 18, 19	77·1	—2·0	72	3, 26	82·7	88·8	74·1	74·8	25·3	+0·4	23·3	66	+
Titilagarh	691	978·7	..	975·6	96·5	..	104	1	80·0	..	73	9	84·7	89·8	76·7	77·3	27·8	..	26·3	68	.
Kanker	1,318	957·9	+0·4	955·1	92·1	—2·7	99	1, 19	77·4	—0·5	70	6	81·9	87·9	75·9	78·6	27·8	+2·9	29·2	75	+
Chanda	634	981·8	+0·8	977·7	95·0	—4·7	104	3, 19	(g) 79·7	—0·2	74	10	83·6	91·4	75·4	76·4	26·9	+1·8	23·8	69	+
Jagdalpur	1,815	942·2	+0·3	939·4	90·6	—1·1	98	1, 2	73·7	—0·7	70	8, 21, 25	78·7	83·2	74·3	75·5	27·2	+1·1	27·0	82	+
Konkan.																					
Dahanu	15	1,003·8	..	1,001·8	89·5	..	94	2	79·0	..	72	5	82·7	87·0	79·6	81·7	33·1	..	34·6	86	.
Bombay	35	1,003·9	0	1,001·9	88·2	—0·3	91	16, 18, 20	78·5	—0·1	75	2, 4	81·9	84·9	78·1	78·9	31·1	+0·1	31·0	84	.
Alibag	23	1,004·9	+0·1	..	86·3	—0·8	89	18, 20	78·3	—0·2	75	30	81·6	..	78·9	..	32·6	+1·4	..	88	.
Karnai	66	1,003·3	..	1,001·3	82·5	..	87	14 days	77·0	..	75	23	81·5	83·0	77·8	78·6	30·8	..	31·4	85	.
Devgad	117	1,002·2	..	1,000·2	86·2	..	91	17	78·2	..	71	22	80·3	83·4	77·1	78·6	30·3	..	31·2	86	.
Vengurla	29	1,005·3	..	1,003·6	86·5	..	89	4 days	76·1	..	71	20	79·4	82·4	77·2	73·0	30·9	..	30·7	89	
Marmagao	202	999·8	0	997·5	84·5	—0·1	87	12	..	..	..	..	80·8	81·7	77·2	77·2	30·2	+0·5	29·9	84	
Honavar	85	1,005·1	..	1,003·9	82·7	..	87	1, 30	74·4	..	72	23	77·9	81·6	76·2	74·6	30·7	..	26·1	93	
Bombay, Deccan																					
Jalgaon	660	981·4	..	977·4	100·5	..	105	1	77·9	..	73	9	81·5	89·5	75·7	76·8	27·7	..	25·1	72	
Malegaon	1,432	956·0	+0·5	951·9	96·0	—0·3	100	1, 2	75·5	+0·4	73	9, 12, 29	83·1	88·2	74·5	74·4	25·3	+0·3	22·8	65	
Ahmednagar	2,154	932·5	—0·3	929·1	91·0	—1·3	96	19	72·2	+0·2	69	5, 18, 29	74·5	86·3	70·7	72·5	24·2	+0·7	21·7	71	
Poona	1,834	943·4	0	941·0	88·9	—0·5	92	4 days	73·3	—0·2	69	11, 12	78·1	82·4	71·8	72·7	24·1	+0·1	23·5	73	
Sholapur	1,570	952·4	+0·2	948·8	94·4	—0·8	99	2, 14, 1	73·5	—0·3	70	21, 29	78·2	89·8	71·9	73·7	24·0	+0·5	21·8	73	
Miraj	1,817	944·5	—0·6	941·9	88·8	+0·6	93	15, 20, 21	73·2	+1·3	67	2	75·9	82·9	72·3	73·5	25·6	+0·6	24·3	84	
Kolhapur	1,885	942·7	..	940·3	85·5	..	91	20, 21	71·3	..	68	10	75·6	79·7	71·5	72·3	24·7	..	24·0	81	
Bijapur	1,950	940·1	0	936·4	91·2	—0·9	95	4 days	71·4	—0·7	68	10	76·8	87·3	71·5	72·8	24·2	+0·4	21·6	76	
Belgaum	2,562	921·1	+0·1	919·2	81·5	—0·1	89	15, 1[illegible]	68·2	—0·1	66	12, 15, 16	72·2	75·6	69·8	71·4	23·9	+0·4	24·6	89	
Gadag	2,131	934·6	—0·7	932·2	87·2	—0·7	92	15, 20	71·4	+0·2	69	10, 23	75·3	80·4	72·1	75·1	25·6	+1·3	27·6	86	
Hyderabad, North.																					
Aurangabad	1,905	941·1	+0·2	937·5	93·2	—1·0	97	4 days	73·4	+0·4	71	9, 14	76·9	87·7	72·6	74·6	25·4	+1·4	23·3	81	
Parbani	1,350	957·4	..	953·4	94·4	..	101	1, 3	74·5	..	71	5, 9, 22	79·6	88·8	72·9	75·9	24·6	..	24·8	71	
Bidar	2,178	931·5	..	928·0	90·8	—2·1	96	2	72·5	+0·3	69	9, 27	75·8	87·1	71·3	73·6	24·3	—0·1	22·8	80	
Nizamabad	1,250	961·5	—0·2	957·6	94·8	—2·2	101	1	76·1	—1·3	71	21, 27	83·1	90·0	73·1	75·4	23·3	—1·4	23·5	72	
Ramagundam	527	985·9	..	982·0	97·3	..	104	19	80·4	..	74	26	84·2	91·8	76·5	77·9	28·3	..	26·4	70	
Hyderabad, South																					
Gulbarga	1,503	954·4	0	950·1	95·0	—0·8	99	2, 14 15	74·2	0	72	5 days	78·0	89·9	72·1	74·0	24·5	+0·5	22·1	75	
Raichur	1,311	961·3	+0·1	957·0	94·8	—0·5	100	2, 3	75·8	+0·9	73	30	79·6	91·3	73·2	74·8	24·8	0	22·0	73	
Hyderabad (Begumpet)	1,778	944·9	+0·4	941·5	93·0	—1·6	99	2	74·9	—0·3	70	5	78·8	88·4	72·8	75·0	25·1	—0·2	24·1	75	
Hanamkonda	881	973·9	+0·2	970·1	95·7	—1·6	101	2, 3	77·7	—1·8	73	5, 9	80·7	92·0	75·2	79·5	26·4	+2·1	25·6	70	
Khammameth (R)	367	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Mysore.																					
Chitaldrug	2,405	926·3	+0·1	923·6	85·6	—1·5	90	15	70·6	+0·4	68	10	73·4	80·5	69·8	72·4	23·4	+0·7	23·9	83	
Hassan	3,149	903·4	..	901·4	79·5	—1·5	85	17	67·1	+0·7	64	12	69·5	74·1	67·6	68·8	22·3	+0·6	21·9	90	
Bangalore	3,021	907·2	0	904·3	83·9	—0·5	90	14, 15	67·3	+0·6	65	15	71·1	79·9	67·9	69·3	22·1	+0·4	20·1	85	
Mysore	2,518	923·8	0	921·5	83·7	—1·2	89	18	68·6	+0·5	66	10	73·0	79·4	68·9	70·6	22·5	+0·3	22·0	81	

(R)—Register not received. (g)—Mean of 24 days.

M. T.) and 1730 hrs. I. S. T. (1200 hrs. G. M. T.) June 1949.

Cloud amount, (Oktas).		Rainfall, inches.				Number of rainy days, (0·10″ or more.)		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																			STATION.
										08 30 hrs. I. S. T.									17 30 hrs. I. S. T.										
Departure from normal.	Mean 1730 hrs. I. S. T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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
																													C. P., East.
..	4·7	6·34	..	1·75	9	11	..	3·9	..	3	0	0	0	6	12	5	4	0	1	1	0	2	0	10	6	4	6		Gondia.
+0·4	6·8	4·45	+3·48	1·46	3	11	—0·7	5·7	+0·8	2	1	0	0	6	6	3	8	4	3	2	2	1	5	5	4	7	1		Pendra.
..	6·6	9·43	..	1·99	11	10	..	6·1	..	1	0	0	0	1	11	13	3	1	3	3	0	0	3	11	5	4	1		Champa.
+1·3	7·0	10·31	+1·25	1·83	3	14	+4·3	7·8	+1·5	0	0	1	0	4	12	12	1	0	1	1	0	2	5	10	7	1	3		Raipur.
..	5·6	6·37	..	2·31	9	7	..	4·0	..	1	0	0	0	12	14	2	0	1	0	1	1	2	8	9	6	1	2		Titlagarh
+0·3	6·9	8·49	—1·91	2·07	6	9	—1·3	3·4	—1·9	0	0	0	0	0	7	5	0	18	1	0	0	0	0	8	2	0	19		Kanker.
+0·8	7·0	4·56	—3·49	0·92	26	10	+0·2	4·0	—1·3	0	0	0	0	0	8	1	14	7	0	0	1	2	0	8	3	9	7		Chanda.
+1·2	7·2	10·00	+0·33	2·95	25	12	+0·7	4·9	+1·0	0	0	0	2	0	21	0	4	3	0	1	0	6	0	17	1	5	0		Jagdalpur
																													Konkan.
..	5·6	9·77	..	3·88	30	10	..	9·2	..	0	0	7	7	1	7	8	0	0	0	0	0	2	3	13	11	0	1		Dahanu.
+0·1	5·7	18·31	—0·75	5·95	2	19	+4·4	8·8	—0·6	0	0	1	3	5	9	8	2	2	0	0	0	0	8	13	8	1	0		Bombay.
—0·2	..	11·64	—11·95	1·84	4	16	—0·7	10·1	—2·4	1	1	3	7	5	6	3	1	3	..	..	..	..	..	..	..	..	..		Alibag.
..	..	14·84	..	2·70	25	19	..	8·9	..	1	6	0	13	1	6	1	2	0	0	1	1	10	2	9	4	3	0		Harnai.
..	6·5	12·32	..	1·24	24	20	..	11·3	..	0	5	3	4	2	7	3	6	0	0	0	0	0	3	8	10	9	0		Devgad.
..	7·2	23·96	..	5·78	25	16	..	..	..	0	0	0	3	4	2	3	0	18	1	0	0	0	3	6	5	2	13		Vengurla.
—0·3	6·2	24·22	—7·87	4·68	25	26	+3·0	10·2	+2·1	0	2	4	3	5	6	8	2	0	1	1	0	0	3	5	17	3	0		Marmagao.
..	6·4	32·62	—8·06	4·11	8	30	+[illegible]·1	2·9	..	0	0	12	8	0	0	3	1	6	0	0	4	2	2	6	10	1	5		Honavar.
																													Bombay, Deccan.
..	5·3	6·17	+1·07	2·59	9	7	—0·3	9·0	..	1	0	0	1	0	4	14	10	0	3	2	2	0	1	2	10	8	2		Jalgaon.
—0·8	5·8	5·34	+0·99	1·71	7	8	+1·3	7·1	—2·3	0	1	0	0	0	12	1	3	13	0	3	0	0	2	5	14	5	1		Malegaon.
—0·1	3·0	3·06	—2·17	1·94	5	6	—1·5	5·3	—3·5	1	0	0	0	0	9	10	5	5	0	1	0	0	1	6	13	6	3		Ahmednagar.
0	5·7	0·94	—3·55	0·41	29	3	—4·3	4·5	—5·3	0	0	0	0	0	5	19	5	1	0	0	0	0	0	4	19	7	0		Poona.
+0·6	6·6	6·78	+2·34	2·56	29	7	+0·5	7·7	—2·0	0	0	1	0	0	25	0	2	2	0	6	0	0	0	23	1	0	0		Sholapur.
—1·5	5·3	2·09	—0·62	0·79	20	4	—1·9	9·4	—0·4	0	0	0	0	0	8	20	2	0	0	0	0	0	0	0	5	25	0		Miraj.
..	4·6	1·73	..	0·85	26	3	..	10·1	..	0	0	0	0	0	5	22	3	0	0	0	0	0	0	2	26	2	0		Kolhapur.
—0·3	5·8	4·75	+1·73	1·80	21	8	+3·4	7·4	—1·2	1	1	0	0	0	10	13	5	0	2	1	0	0	1	8	11	7	0		Bijapur.
—0·8	5·7	4·39	—3·71	1·50	20	11	—1·9	5·9	0	0	0	0	0	1	19	10	0	0	0	0	0	0	1	24	5	0	0		Belgaum.
+1·4	6·5	2·53	—0·14	1·81	21	4	—1·6	10·9	+0·1	0	0	0	0	1	13	14	2	0	0	0	0	0	1	12	14	3	0		Gadag.
																													Hyderabad, North.
+1·0	7·2	5·32	—0·12	1·44	30	8	+0·3	9·5	+1·7	1	0	0	0	0	6	22	0	1	2	1	2	0	2	5	12	4	2		Aurangabad.
..	6·1	10·77	+5·26	2·85	21	11	+3·2	..	..	0	0	0	0	0	0	30	0	0	3	1	0	1	4	0	21	0	0		Parbhani.
—0·4	5·9	5·82	+1·21	1·73	21	8	+0·9	11·2	—1·4	1	0	0	0	0	11	12	5	1	1	2	1	0	0	9	9	7	1		Bidar.
+0·9	5·4	6·67	+0·80	2·55	26	10	+1·3	3·5	—2·3	1	0	0	0	0	18	3	3	5	1	2	1	0	0	11	5	4	6		Nizamabad.
..	6·8	4·21	..	1·94	26	8	..	4·2	..	2	0	0	0	2	3	11	9	3	6	2	0	1	2	2	9	8	0		Ramagundam.
																													Hyderabad South.
+0·7	5·7	3·89	—0·55	2·16	28	6	—0·9	11·9	+1·8	0	0	0	0	0	11	16	3	0	4	1	1	0	1	9	12	2	0		Gulbarga.
+1·3	6·3	2·58	—1·04	0·67	30	8	+2·0	13·2	+2·1	0	0	0	0	0	10	9	11	0	0	0	0	0	0	10	10	10	0		Raichur.
+0·5	6·7	6·38	+1·93	1·31	30	11	+4·5	9·9	+0·2	0	0	0	0	0	0	24	6	0	3	0	0	0	1	7	11	6	2		Hyderabad (Begumpet).
—0·2	6·1	6·67	+0·66	1·68	26	10	+1·8	5·8	—1·3	1	1	0	1	1	3	14	9	0	9	1	2	0	0	3	8	6	1		Hanamkonda.
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		Khammamett (R)
																													Mysore.
+0·1	6·2	2·13	—0·46	0·91	20	2	—3·2	9·0	+1·3	0	0	0	0	0	9	20	1	0	0	0	0	0	1	10	17	2	0		Chitaldrug.
+1·1	7·0	3·37	—0·24	2·42	21	4	—5·3	9·0	+2·0	0	0	0	0	0	5	25	0	0	0	0	0	0	0	5	25	0	0		Hassan.
+0·4	7·1	3·71	+0·85	0·96	3	7	+1·1	10·3	+2·1	0	0	0	0	0	12	16	2	0	0	0	0	0	0	5	16	9	0		Bangalore.
—0·5	6·8	1·63	—0·83	1·11	1	3	—2·8	8·0	—0·8	0	0	0	0	0	6	24	0	0	0	0	0	0	0	7	23	0	0		Mysore.

Table II.—Abstract of observations recorded at 0830 hrs. I. S. T. (0300 hrs. G. M.

STATION.	Height of bar, cistern above mean sea level in feet.	Pressure at Station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relati humidi %	
		Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I. S. T.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Mean 1730 hrs.I.S.T.	Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Departure from normal.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
MALABAR.																					
Mangalore	72	1,006·0	+0·1	1,004·0	83·8	—0·8	88	1,10,15	74·2	—0·7	72	12,29	77·3	80·9	75·7	77·3	29·6	+0·1	30·4	93	+[illegible]
Calicut	27	1,007·9	—0·1	1,005·9	84·2	—0·5	90	17	74·9	—0·2	73	4,20,21	77·3	81·3	75·5	77·0	29·3	—0·1	29·6	92	+[illegible]
Palghat	319	997·8	..	995·5	84·2	..	88	15,16,17	74·1	..	71	22	76·9	79·9	75·1	75·7	29·0	..	28·4	91	..
Cochin	10	1,009·0	—0·6	1,006·8	84·5	+0·3	88	11	75·4	+0·3	73	24,27	79·2	80·6	76·4	77·0	29·8	+0·6	30·0	88	+[illegible]
Alleppey	12	1,008·9	..	1,006·8	85·0	..	90	2	74·9	..	72	21,24	79·0	80·8	76·1	77·3	29·4	..	30·4	87	..
Trivandrum	211	1,002·8	0	1,000·1	84·4	..	87	5 days	74·7	..	72	8,21	78·2	80·2	76·2	76·7	29·9	+1·2	29·8	91	+[illegible]
Nagercoil	195	1,002·0	..	999·8	85·9	..	89	17,18,29	75·6	..	73	11,21,29	79·2	81·0	75·6	76·3	28·6	..	30·0	84	..
MADRAS, SOUTH-EAST.																					
Pamban	37	1,006·0	0	1,003·2	89·3	—0·9	91	1,21,26	81·7	+1·5	80	22,30	85·1	85·3	78·3	79·5	30·0	—1·0	31·8	73	—[illegible]
Madura	437	992·1	—0·2	989·0	97·1	0	100	4 days	(b)79·0	+1·0	74	15	85·7	90·4	74·1	75·2	23·5	+0·3	22·9	56	—[illegible]
Negapatam	31	1,005·7	0	1,002·3	97·9	+0·2	102	23	80·4	+0·6	75	4	86·3	89·1	76·0	79·3	26·0	—1·0	29·7	61	—[illegible]
Trichinopoly	295	996·7	—0·2	993·1	97·3	—1·4	101	15	79·2	+0·3	74	4	84·1	93·2	74·9	76·1	25·5	+1·4	22·9	63	+[illegible]
Coimbatore	1,341	961·9	—0·2	959·5	87·4	—1·4	90	7,16	72·4	+0·5	70	22	77·5	80·9	72·4	72·9	25·1	—0·5	24·0	77	—[illegible]
Salem	913	975·9	—0·3	972·1	94·4	—0·9	99	16	75·0	+0·1	71	12,19	79·3	89·3	73·7	74·9	25·9	—0·5	23·0	76	+[illegible]
Cuddalore	39	1,004·8	—0·1	1,001·0	96·3	—2·5	100	23	79·2	—1·1	74	3	85·1	89·3	76·8	79·6	27·7	—0·2	29·9	68	+[illegible]
Vellore	703	982·3	+0·2	978·5	95·2	—2·0	101	1	77·4	—1·3	73	3,16	82·8	90·5	74·8	77·2	25·8	+0·6	25·8	67	+[illegible]
Madras	51	1,004·0	+0·3	1,000·4	95·9	—4·3	101	1	78·9	—2·2	73	3	84·8	84·5	76·1	78·8	26·8	+2·0	28·7	66	+1[illegible]
Arogyavaram	2,299	929·8	..	926·4	88·2	..	94	1	72·2	..	69	16,29	76·5	84·9	69·9	71·8	22·3	..	21·3	71	..
MADRAS, DECCAN.																					
Cuddapah	428	991·5	+0·2	986·9	96·8	—3·1	108	2	79·4	—1·1	75	4 days	84·5	93·1	78·5	79·6	30·5	+4·7	28·4	75	+1[illegible]
Bellary	1,473	956·2	—0·1	952·2	92·4	—2·2	96	4 days	76·1	+0·1	74	12,20	79·5	89·5	72·0	73·7	23·5	+1·2	21·3	68	+[illegible]
Kurnool	923	974·4	+0·1	969·8	95·1	—2·0	100	2,3	76·3	—1·2	72	6,28	81·5	91·6	74·0	75·2	25·3	+0·5	22·4	69	+[illegible]
Rentichintala	348	992·8	..	988·0	99·4	—0·2	104	2,20	80·6	—1·4	75	20,21	84·8	96·2	75·9	76·8	26·5	—0·7	22·6	66	+[illegible]
Anantapur	1,147	967·2	..	962·9	94·8	..	99	2,3	76·7	..	74	10,17,30	80·9	90·8	73·3	74·6	24·6	..	21·9	68	..
MADRAS, COAST, NORTH.																					
Nellore	66	1,002·5	0	998·8	98·0	—3·4	103	2	80·5	—1·8	74	4	86·6	93·8	76·5	78·7	26·6	+0·7	26·6	62	+[illegible]
Ongole	38	1,003·0	..	998·9	98·8	..	104	2,15	81·6	..	76	16,17,21	86·9	94·5	77·1	79·3	27·3	..	27·2	63	..
Masuripatam	10	1,003·7	+0·3	1,000·0	97·4	—0·8	106	19	80·6	—0·1	75	6,8	85·7	91·4	80·1	82·8	32·5	+1·9	34·4	74	+[illegible]
Cocanada	26	1,002·5	+0·3	999·3	97·6	+0·8	106	2	80·9	0	74	5	86·9	92·4	79·0	79·8	30·8	+0·3	29·0	74	+[illegible]
Vizagapatam	126	998·8	+0·4	995·5	91·0	—0·6	98	2	81·4	+0·7	75	3	85·7	87·1	78·9	79·7	30·8	+0·5	31·3	73	+[illegible]
Calingapatam	19	1,001·8	+0·8	1,001·2	92·2	—0·7	99	7	80·8	+0·4	72	3	84·3	87·9	79·9	81·5	32·9	+0·5	33·9	82	+[illegible]

(b) Mean of 29 days.

nd 1730 hrs. I. S. T. (1200 hrs. G. M. T.) June 1949.

Cloud amount, (Oktas).			Rainfall, inches.				Number of rainy days, (0·10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																		STATION.
											8 30 hrs I. S. T.									17 30 hrs. I. S. T.									
Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month	Departure from normal.	Heaviest fall in 24 hrs.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																													MALABAR.
7·2	+0·4	7·4	44·99	+7·91	4·48	27	29	+4·4	4·9	—0·5	1	1	13	6	1	3	2	1	2	2	0	0	1	6	9	7	5	0	Mangalore.
7·0	+0·2	7·3	25·30	—7·78	3·04	1	24	—0·1	5·7	+0·2	2	9	9	3	1	1	1	3	1	1	1	1	1	3	2	12	8	1	Calicut.
5·8	..	7·0	13·58	..	1·77	25	18	..	6·6	..	0	0	0	0	0	2	28	0	0	0	0	0	0	0	6	23	1	0	Palghat.
7·4	+1·0	7·3	22·90	—5·58	2·56	20	28	+3·7	5·5	+0·8	1	5	10	6	1	0	4	2	1	1	1	2	2	1	2	14	5	2	Cochin.
7·1	..	7·3	22·45	..	2·84	8	25	..	6·4	..	1	3	4	1	0	2	8	7	4	3	0	1	1	0	1	11	12	1	Alleppey.
6·2	—0·4	6·4	10·88	—2·30	0·98	3	19	+1·9	5·7	+0·4	9	2	0	0	0	1	3	13	2	5	0	0	0	0	0	5	19	1	Trivandrum.
6·3	..	7·4	6·99	..	1·41	24	16	..	9·6	..	0	0	0	0	0	0	22	8	0	0	0	0	0	0	0	26	4	0	Nagercoil.
																													MADRAS, SOUTH EAST.
3·6	+0·7	4·6	0	—0·15	0	..	0	—0·3	11·2	—0·7	0	0	0	2	12	14	2	0	0	0	0	0	6	16	8	0	0	0	Pamban.
5·5	+0·3	6·8	1·22	—0·35	0·70	3	2	—0·5	5·0	+0·1	1	0	0	0	0	1	11	11	6	0	0	0	1	1	5	14	3	6	Madura.
6·2	+2·0	6·4	1·01	—0·22	0·31	1	5	+2·8	6·9	+0·4	0	0	0	0	0	16	14	0	0	0	0	0	4	13	11	1	1	0	Negapatam.
5·3	+1·0	6·5	2·42	+0·80	0·94	4	4	+1·6	16·3	+0·1	0	0	0	0	0	0	21	9	0	0	0	1	1	1	2	18	7	0	Trichinopoly.
4·0	—0·5	5·9	0·20	—1·32	0·06	9	0	—4·2	10·3	+4·1	0	0	0	0	14	15	1	0	0	0	0	0	0	12	15	3	0	0	Coimbatore.
4·0	—0·9	6·9	4·66	+1·53	1·44	19	8	+2·6	5·4	+1·0	0	0	0	0	9	10	8	0	3	2	1	0	0	9	7	9	0	2	Salem.
6·2	+1·9	5·5	4·16	+2·77	1·64	18	6	+4·4	6·6	+1·3	0	0	0	0	1	25	3	1	0	0	0	0	20	3	6	0	1	0	Cuddalore.
4·6	+0·6	6·8	7·93	+5·16	2·26	3	11	+6·1	4·6	—0·7	0	0	0	0	0	19	4	2	5	0	0	0	1	1	16	5	2	5	Vellore.
5·6	+0·8	6·2	3·99	+2·13	1·31	2	7	+3·3	11·4	—0·5	0	0	0	0	2	5	20	3	0	0	0	1	26	1	0	1	1	0	Madras.
6·3	..	7·1	6·70	..	1·73	3	11	..	7·1	..	0	0	0	0	0	8	13	9	0	3	0	0	0	0	4	8	12	3	Arogyavaram.
																													MADRAS, DECCAN
5·5	+0·4	5·0	4·49	+1·54	2·09	3	6	+1·2	4·8	—2·0	0	0	0	0	0	0	14	1	15	1	0	1	0	2	1	10	5	10	Cuddapah.
6·2	+0·9	6·5	1·71	+0·01	0·59	20	4	+0·7	7·1	—0·8	0	0	0	0	0	6	8	9	7	0	0	0	0	1	8	11	6	4	Bellary.
6·3	+1·0	6·6	4·46	+1·53	1·49	30	6	+0·5	10·9	+0·8	1	0	0	0	0	4	13	11	1	3	1	0	0	0	3	12	11	0	Kurnool.
7·3	+0·7	7·6	7·86	+4·23	1·90	20	9	+2·4	7·2	—3·3	0	0	0	0	0	2	26	1	1	1	1	0	0	1	1	24	2	0	Rentichintala.
5·4	..	5·6	1·18	—0·94	0·60	30	3	—0·3	11·6	..	0	0	0	0	0	6	23	1	0	1	0	0	1	0	6	18	3	1	Anantapur.
																													MADRAS COAST, NORTH.
5·4	—0·2	6·3	1·69	+0·42	0·65	4	3	+0·1	4·7	—1·1	0	0	0	0	0	0	16	7	7	0	0	1	6	0	2	8	1	12	Nellore.
6·0	..	6·1	4·08	..	1·45	21	5	..	6·6	..	1	0	0	0	0	6	17	2	4	0	0	0	6	1	8	12	0	3	Ongole.
5·3	+0·3	5·6	3·05	—1·17	0·75	8	8	+1·8	8·2	+0·7	0	0	0	0	0	10	15	3	2	0	0	0	0	12	2	1	7	8	Masulipatam.
3·7	—1·9	4·4	6·63	+1·95	1·81	14	10	+2·9	4·8	—1·3	0	0	0	0	0	25	0	5	0	0	0	0	0	0	26	0	4	0	Cocanada.
5·0	—1·2	5·5	3·15	—0·99	0·94	9	5	—1·5	6·0	+0·6	0	0	0	0	3	10	13	2	2	0	0	1	0	9	10	4	2	4	Vizagapatam.
5·3	—0·1	6·1	2·84	—1·85	1·25	3	5	—1·3	9·1	+1·1	0	0	0	1	1	12	13	3	0	1	0	0	1	11	13	2	2	0	Calingapatam.

Table II.—Abstract of observations recorded at 0830 hrs. I. S. T. (0300 hrs. G. M. T

STATION	Height of bar, cistern above mean sea level in feet.	Pressure at Station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relative humidity, %	
		Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I. S. T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I. S. T.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Mean 0830 hrs. I. S. T.	Departure from normal.
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.																					
Shillong	4,921	844·4	—0·6	842·1	73·4	—1·1	78	19,20,22	63·7	+0·7	59	1	69·2	70·1	65·8	66·4	20·2	+0·5	20·9	84	+6
Cherrapunji	4,309	863·7	0	861·3	70·8	—1·2	75	5 days	63·4	—0·9	58	18	66·9	68·0	66·4	67·2	21·9	+0·6	22·2	98	+10
Aijal	3,599	883·8	..	883·0	76·7	..	82	1,19	68·0	..	65	23	70·7	70·5	68·7	69·1	23·2	..	23·6	89	..
Darjeeling	7,432	772·1	—0·7	770·5	65·5	+0·6	71	9,18	57·5	+1·0	54	5,6	60·6	60·8	60·2	60·3	17·6	+0·5	17·7	97	+4
Kalimpong	3,965	874·4	+1·0	871·6	74·6	—0·6	79	7	67·3	+1·0	65	2,3,13	69·6	71·7	68·6	69·9	23·5	+0·5	24·0	95	+7
Katmandu	4,388	861·1	..	858·8	85·6	+0·8	90	20,22	66·5	—0·2	59	2	75·2	78·1	70·3	70·5	23·2	+1·7	22·5	76	+3
Gyantse	13,110	623·9	..	..	75·7	+5·9	83	17	45·3	+3·3	39	5,21	62·6	..	47·6	..	6·5	—1·6	..	35	—19
Muktesar	7,592	767·9	—1·1	766·4	76·1	+2·9	83	24	60·0	+2·0	49	2	63·9	53·6	72·0	58·7	10·7	—2·8	11·9	53	—15
Mussooree	6,699	792·5	..	791·2	77·3	+2·2	82	22,23,24	63·4	+2·4	49	3	69·7	73·0	61·4	62·9	15·6	—0·9	16·1	63	—5
Simla	7,224	778·1	—0·2	777·2	76·7	+1·6	82	24	60·5	+0·4	49	3	69·5	66·7	55·5	57·2	10·1	—2·7	12·5	44	—11
Abu	3,945	874·8	+0·6	872·6	84·1	+0·5	87	11	68·8	+0·2	66	2,17	72·2	82·9	65·8	68·3	19·1	—0·2	17·7	74	+3
Pachmarhi	3,528	888·3	+0·7	885·7	87·8	0	94	21	72·6	+0·6	65	10	76·2	83·4	69·8	72·3	22·0	+1·2	22·3	73	+5
Mahabaleshwar	4,534	858·9	—0·7	857·8	69·2	—1·3	74	4,20	61·8	—0·7	57	13	64·0	65·3	64·0	65·1	20·4	—0·2	21·1	99	+5
Mercara	3,781	883·3	—0·3	882·3	70·2	—2·0	79	4	64·9	+1·7	63	22,23	65·9	68·0	65·2	66·5	21·0	+0·5	21·6	97	+4
Ootacamund	7,364	778·2	0	776·9	63·9	—0·2	70	14	52·6	+0·2	47	14	56·7	58·7	54·5	55·8	13·7	+0·4	14·1	87	+3
Coonoor	5,730	823·0	..	..	72·6	0	75	24,26	57·9	—1·2	53	16	68·7	..	65·2	..	20·0	+5·1	..	84	+20
Kodaikanal	7,688	769·1	—0·1	768·4	65·4	+0·8	69	14	53·8	+0·6	52	29	58·2	58·0	54·3	56·3	12·8	+0·3	14·9	79	+7
CEYLON																					
Colombo	24	1,008·8	—0·3	1,006·9	85·6	—0·4	90	25	76·6	—0·7	70	11	80·3	80·9	76·3	76·2	29·1	—0·8	28·7	83	—1
Trincomalee	24	1,006·7	+0·6	1,004·3	92·3	—0·1	95	17,27	79·1	+0·6	78	5 days	82·7	88·1	76·4	77·6	28·2	+0·1	27·5	74	—3
Hambantota	61	1,006·4	—0·4	1,004·4	86·1	—0·6	90	27,29	77·1	+0·2	74	12,22	80·4	82·0	76·9	77·0	30·0	+0·7	29·4	85	—1
Mannar	12	1,007·4	..	1,005·2	87·6	..	88	19 days	80·6	..	77	30	83·4	83·8	78·6	78·1	31·2	..	30·3	80	..

d 1730 hrs. I. S. T. (1200 hrs. G. M. T.) June 1949.

Cloud amount, (Oktas).			Rainfall, inches.				Number of rainy days, (0·10″ or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :																			STATION.
											08 30 hrs. I. S. T.									17 30 hrs. I. S. T.										
Mean 0830 hrs. I. S. T.	Departure from normal.	Mean 1730 hrs. I. S. T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hrs.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																													HILL STATIONS EXCLUDING KASHMIR.
7·6	+1·0	7·4	16·50	—1·66	2·47	23	24	+4·0	3·8	+1·0	1	0	1	1	2	10	1	1	13	0	0	0	0	3	11	1	0	15	Shillong.
7·8	+0·6	7·3	140·47	+34·42	21·42	17	28	+3·0	8·6	+2·7	1	4	1	7	4	13	0	0	0	1	4	1	1	4	18	1	0	0	Cherrapunji.
5·9	..	6·4	15·05	..	2·38	2	21	..	6·4	..	0	0	2	2	0	25	0	0	1	0	1	1	1	1	20	3	0	3	Aijal.
7·6	+0·7	7·5	26·89	+2·71	4·63	12	23	+2·0	5·2	+1·3	0	1	12	2	0	0	9	3	3	0	1	5	3	0	4	14	0	3	Darjeeling.
7·1	+0·9	6·8	13·90	—0·65	3·10	11	16	—0·4	4·0	—1·8	0	0	0	3	0	0	1	5	21	0	0	0	26	0	0	0	3	1	Kalimpong.
5·9	+0·5	6·1	5·76	—3·92	1·43	21	12	+3·8	1·0	—0·3	2	3	4	2	0	0	0	2	17	4	2	0	0	2	1	0	4	17	Katmandu.
2·3	—2·1	..	0·37	—1·20	0·25	30	1	—3·5	2·2	—1·1	0	2	0	6	0	0	0	0	22	..	..	..	..	..	..	..	..	..	Gyantse.
1·6	—2·5	1·7	3·29	—4·05	1·77	2	4	—6·1	11·4	+5·2	0	1	1	1	0	2	14	11	0	0	0	1	0	0	2	17	9	1	Muktesar.
2·3	—1·7	2·3	5·11	—3·67	1·39	3	8	—2·2	1·5	—4·0	6	11	3	4	6	0	0	0	0	3	4	1	6	8	4	3	1	0	Mussooree.
2·8	—0·7	3·4	2·28	—3·76	1·13	3	6	—3·8	1·7	—1·4	3	4	5	3	1	1	0	1	12	2	1	2	2	5	9	6	3	0	Simla.
2·8	—1·7	3·4	2·52	—2·13	0·87	4,28	5	—0·8	4·3	—3·7	0	0	0	1	2	14	3	0	10	0	1	0	0	14	6	4	1	4	Abu.
5·3	+0·4	6·1	4·07	—4·97	1·99	10	3	—7·3	3·2	—3·0	0	0	0	0	0	1	23	6	0	3	0	0	0	1	3	10	10	3	Pachmarhi.
7·5	+0·4	8·0	14·86	—27·83	2·03	28	21	—1·2	8·5	—1·7	0	0	0	0	0	25	0	5	0	0	0	0	0	0	27	0	3	0	Mahabaleswar.
6·9	—0·1	6·9	17·40	—8·10	2·75	24	25	+1·8	7·4	+1·7	10	0	0	0	2	2	3	13	0	10	0	0	0	2	3	2	13	0	Mercara.
4·7	—1·5	6·0	4·23	—2·34	1·18	3	11	—3·1	2·6	—2·7	0	0	0	0	0	11	9	0	10	0	0	0	0	0	14	6	0	10	Ootacamund.
4·3	—1·4	..	2·33	—0·48	0·92	14	6	0	4·0	—0·4	2	0	1	9	1	5	6	6	0	..	..	..	..	..	..	..	..	..	Coonoor.
5·3	+0·1	7·7	4·11	—0·13	0·75	17	24	+14·1	8·9	—0·5	1	0	0	0	1	0	12	14	2	1	1	0	2	1	2	13	7	3	Kodaikanal.
																													CEYLON.
6·6	+0·2	7·0	12·43	+4·06	1·92	22	19	+5·0	..	..	0	0	0	1	3	11	14	0	1	0	0	1	0	1	15	13	0	0	Colombo.
6·3	+2·1	7·3	0	—0·94	0	..	0	—1·6	..	..	0	0	0	0	0	30	0	0	0	0	0	0	0	0	28	2	0	0	Trincomalee
7·0	+2·7	7·0	2·85	+0·76	0·82	22	8	+2·2	..	..	0	0	0	0	1	26	3	0	0	0	0	0	0	6	20	4	0	0	Hambanotta.
6·6	..	6·5	0·01	..	0·01	2	0	..	..	..	0	0	0	0	9	21	0	0	0	0	0	0	0	8	22	0	0	0	Mannar.

Table III.—Abstract of observations recorded of 0830 hrs. I. S. T. (0300 hrs. G. M. T.) a 4th Class Stations, June, 1949

STATION.	Maximum temperature °F.				Minimum temperature °F.				Mean dry bulb temperature 08 30 hrs. I. S. T.	Mean wet bulb temperature 08 30 hrs. I. S. T.	Vapour, pressure, millibars.		Relative humidity %		Mean cloud amount 08 30 hrs. I. S. T.	Rainfall, inches.				Number of rainy days. (0·10″ or more)		Wind.	
	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.			Mean 08 30 hrs. I. S. T.	Departure from normal.	Mean 08 30 hrs. I. S. T.	Departure from normal.		Total of the month.	Departure from normal.	Heaviest fall in 24 hrs.	Date.	Total in the month.	Departure from normal.	Resultant Direction 08 30 hrs. I. S. T.	Velocity in miles per hour.
1	2	3	4	5	6	7	8	9	10	11	13	13	14	15	16	17	18	19	20	21	22	23	24
Assam—																							
Lumding .	90·9	+1·1	97	20	75·1	—0·2	72	8	83·8	80·2	33·8	+3·8	86	+5	..	5·48	—4·17	1·28	6	17	+3·3	..	..
Kashmir—																							
Jammu .	103·4	+0·9	111	23	80·5	—2·0	69	3	87·2	70·6	18·0	—2·4	42	—2	3·5	1·87	—0·03	1·03	8	3	—0·8	N3W	..
Kargil (R) .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mysore—																							
Balehonnur .	76·9	0	82	15	66·1	+0·3	63	10	69·9	68·3	23·0	+0·4	92	0	..	10·50	—6·54	3·00	21	18	—3·1	..	..
Tibet—																							
Yatung (Chumbi).	66·6	+2·6	71	6, 9, 11	49·9	+1·1	44	1, 3, 8	58·9	56·8	15·2	+1·8	88	+2	5·5	4·65	—1·07	0·90	12	11	—2·9	..	..

R = Register not received.

Table IV.—Abstract of observations recorded at 08 30 hrs. I. S. T. (03 00 hrs. G. M. T.) a 5th Class Stations, June, 1949

DIVISION.	STATION.	Rainfall, inches.				Number of rainy days (0·10″ or more).	
		Total of the month.	Departure from normal.	Heaviest fall in 24 hrs.	Date.	Total in the month.	Departure from normal.
1	2	3	4	5	6	7	8
Assam . . .	Mawsynram . .	81·85	..	9·40	27	27	..
West Bengal . .	Bankura . .	6·68	—3·85	2·45	11	10	—1·1
Bihar . . .	Muzaffarpur . .	9·80	+2·10	4·90	13	8	—0·1
	Chapra . . .	1·99	—3·94	0·68	13	3	—4·2
	Arrah . . .	9·64	+3·44	2·60	28	9	+1·5
East Punjab . .	Dharampore . .	1·08	—3·92	0·70	3	3	—3·5
	Kyelang . .	0·45	—0·53	0·21	26	2	—0·4
	Dalhousie . .	4·61	—0·50	3·07	28	5	—1·9

DIVISION.	STATION.	Rainfall, inches.				Number of rainy days (0·10″ or more)	
		Total of the month	Departure from normal.	Heaviest fall in 24 hrs.	Date.	Total in the month.	Departure from normal.
1	2	3	4	5	6	7	8
Kashmir . . .	Sonamarg . .	2·22	—0·67	0·50	25	9	+1·8
	Gurez . . .	13·55	+11·14	2·50	29	11	+5·2
Bombay, Deccan .	Khandala . .	8·38	—24·75	2·15	25	17	—3·3
Madras, Southeast .	Palamcottah . .	0	—0·41	0	..	0	—1·1
Sikkim . . .	Lachung . .	6·21	—3·85	1·14	15	14	—8·6

MONTHLY WEATHER REPORT JUNE 1949.

Monthly Means of Upper Winds.

Note.—Data upto 9·0 Km. a.s.l. are given under Table A. and data above 9·0 Km. under Table B.

In Tables A & B,

n represents the number of observations.

V represents the mean wind speed in m/Second irrespective of direction.

v represents the resultant mean velocity in m/Second.

D represents the direction of the resultant mean wind in degrees East of North.

For the co-ordinates of the stations for which data have been published in these Tables and other particulars please refer to the Monthly Weather Report January 1948, and subsequent issues.

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 K. m. above sea-level.

June 1949

STATION	AHMEDABAD												ALLAHABAD											
Time in I. S. T.	0230				0730				1430				0230				0730				1430			
Ht. in K. m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	3·8	3·1	229	30	2·4	2·0	226	30	3·2	2·7	225	30	2·7	1·3	234	30	2·9	1·8	244	30	3·6	2·4	31
0·15 a. g. . . .	30	8·6	7·3	236	30	6·1	5·3	230	30	5·5	4·7	226	30	8·1	4·2	244	30	6·8	4·4	257	30	5·9	3·9	31
0·6 a. s. l. . .	30	10·4	9·2	242	30	7·5	6·8	246	30	5·8	5·3	232	30	9·2	5·8	265	30	8·7	6·4	287	30	6·1	4·4	31
1·0 ,, ...	30	8·9	8·2	247	29	8·3	7·6	253	30	6·1	5·7	226	30	7·9	6·0	283	30	8·8	7·6	299	30	6·5	5·0	30
1·5 ,, ...	27	5·8	5·2	242	23	7·0	6·0	236	29	6·8	6·2	227	29	7·5	5·9	300	28	7·8	7·1	306	29	7·0	5·9	30
2·0 ,, ...	23	3·9	1·7	224	20	6·3	4·7	216	26	6·6	5·8	233	24	6·9	6·1	304	26	7·6	7·1	311	26	7·2	6·4	30
2·5 ,, ...	20	4·8	1·9	169	16	6·6	4·3	205	19	5·2	3·9	223	17	8·0	7·1	312	25	8·4	7·8	313	24	7·8	6·8	30
3·0 ,, ...	17	5·2	3·5	136	16	6·7	3·7	206	16	5·4	2·8	204	15	9·0	7·8	317	21	9·6	8·6	315	24	9·1	7·7	30
4·0 ,, ...	12	5·3	3·1	109	9	7·7	1·9	161	8	7·5	2·2	157	2	7·3	6·7	328	13	9·6	7·1	303	18	10·1	9·3	29
5·0 ,, ...	8	4·1	6·1	10	7	7·3	2·6	91	5	8·3	2·8	208					11	7·9	5·1	284	11	10·4	9·7	28
6·0 ,, ...	5	4·0	1·2	255	6	6·7	1·5	227	3	7·0	4·2	245					11	7·9	5·5	280	9	9·1	8·7	28
7·5 ,, ...					4	6·6	3·6	200	3	7·8	4·7	319					9	6·0	1·9	235	6	10·6	9·0	26
9·0 ,, ...					4	4·4	2·8	200	2	8·7	6·1	315					9	5·4	0·6	111	5	6·3	5·7	28

STATION	AMBALA												ANANTAPUR								ASANSOL			
Time in I. S. T.	0230				0730				1430				0730				1500				0230			
Ht. in K. m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	2·2	0·9	338	30	1·6	0·5	335	30	2·8	2·1	298	30	4·3	4·1	263	30	5·7	5·2	273	30	2·0	1·3	1
0·15 a. g. . . .	30	7·6	4·3	337	30	6·0	3·2	321	30	6·5	4·8	300	30	6·1	6·0	256	30	7·6	7·1	269	28	5·4	4·1	2
0·6 a. s. l. . .	30	8·0	4·9	329	30	7·6	4·3	322	30	6·8	5·3	301	30	7·9	7·8	257	30	7·9	7·5	266	28	7·6	6·3	2
1·0 ,, ...	30	7·1	5·1	314	30	7·7	4·9	315	30	7·4	6·0	303	30	11·5	11·1	273	30	8·1	7·9	269	22	7·7	6·9	2
1·5 ,, ...	30	6·5	5·0	303	30	6·9	5·2	309	30	7·3	6·2	304	30	12·0	11·4	279	30	8·2	7·9	273	21	7·3	6·3	2
2·0 ,, ...	29	6·7	5·6	301	30	6·3	5·2	308	25	6·7	5·2	308	27	9·6	9·2	279	29	8·0	7·5	274	9	5·7	4·6	2
2·5 ,, ...	21	5·9	4·9	295	26	6·8	5·3	302	25	7·3	6·1	306	26	7·8	7·0	276	28	7·8	7·2	270	4	5·1	4·7	3
3·0 ,, ...	19	5·9	4·9	291	24	6·3	4·6	297	24	7·5	5·7	306	24	7·4	5·9	269	23	6·8	5·9	266	3	6·7	6·0	3
4·0 ,, ...	9	6·5	5·7	293	18	6·9	5·3	323	20	7·3	5·5	289	22	6·4	5·3	256	22	7·1	5·8	257	2	3·0	2·9	2
5·0 ,, ...	5	7·1	5·4	267	15	9·5	5·9	280	16	8·3	6·9	278	21	5·7	4·6	258	22	6·0	4·5	248				
6·0 , ...	3	11·2	9·3	260	11	11·7	7·7	252	14	13·1	10·8	266	20	4·7	2·8	231	22	4·9	3·6	253				
7·5 ,, ...					8	20·6	19·7	243	11	18·6	16·9	250	19	5·0	2·4	126	16	4·9	1·8	105				
9·0 ,, ...					7	24·3	23·5	238	7	26·2	23·1	259	15	8·0	6·5	93	13	5·2	4·1	88				

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Winds upto 9 K. m. above sea-level.

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STATION	ASANSOL												BANGALORE											
Time in I. S. T.	0730				1100				1430				0230				0730				1430			
Ht. in K. m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
urface	30	1·8	1·0	203	15	1·6	0·3	161	30	2·0	0·3	216	30	4·1	3·9	250	30	4·5	4·3	251	30	4·9	4·4	255
·15 a. g.	29	5·2	3·3	230	13	4·0	0·1	152	28	4·7	1·0	223	24	8·4	8·2	253	26	7·4	7·2	256	25	6·8	6·3	260
·6 a. s. l. . . .	29	7·3	5·4	258	13	4·7	0·7	196	28	4·8	1·6	227	—	—	—	—	—	—	—	—	—	—	—	—
·0 ,, ...	27	7·8	6·2	275	12	5·5	1·8	262	27	4·9	1·9	242	25	6·5	6·4	251	26	6·0	5·9	256	25	5·9	5·5	261
·5 ,, ...	25	8·2	7·0	281	12	6·7	3·3	285	26	5·6	3·6	277	19	12·3	12·1	273	16	11·6	11·2	278	25	7·1	6·7	266
·0 ,, ...	23	7·8	6·7	286	7	7·4	5·4	304	24	6·6	5·3	290	12	9·7	9·3	276	8	8·1	7·6	267	25	7·5	7·2	273
·5 ,, ...	20	6·5	5·2	294	3	6·7	6·4	319	23	8·3	7·1	297	8	4·7	3·8	265	8	6·8	6·0	264	18	7·5	7·4	277
·0 ,, ...	20	7·2	5·5	296	2	6·7	6·7	338	22	9·5	7·9	295	7	3·4	2·8	275	7	3·9	2·8	263	11	5·1	4·9	276
·0 ,, ...	12	7·5	4·5	298					15	10·4	9·2	296					4	3·5	2·3	237	6	3·5	1·4	274
·0 ,, ...	5	6·4	1·8	202					14	11·3	9·6	300					3	3·5	2·6	217	6	3·3	1·3	250
·0 ,, ...	5	5·4	4·8	167					5	8·3	7·6	309					2	3·7	2·0	191	4	3·7	3·2	67
·5 ,, ...	5	5·7	3·7	196					4	3·4	2·1	308					1	7·0	7·0	80	1	4·0	4·0	180
·0 ,, ...	5	6·2	2·8	179					3	5·7	3·5	240					1	10·5	10·5	70	1	10·0	16·0	85

STATION	BAREILLY								BHOPAL												BHUJ			
Time in I. S. T.	0730				1430				0230				0730				1430				0230			
Ht. in K. m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	30	2·5	1·1	48	30	2·7	1·6	307	30	4·1	3·6	255	30	4·7	4·3	262	30	3·1	1·9	274	30	4·5	4·4	226
·15 a. g.	30	5·8	2·1	345	29	5·6	4·7	298	28	9·8	8·8	269	30	7·5	7·2	270	28	3·9	2·8	272	30	9·6	9·2	236
·6 a. s. l	30	7·6	4·6	311	29	6·8	5·3	297	28	9·3	8·2	264	30	6·8	6·5	266	28	3·6	2·4	268	30	11·6	10·8	241
·0 ,, ...	30	7·9	6·0	309	29	6·8	5·4	294	28	11·3	10·0	262	30	9·9	9·4	294	29	4·9	4·4	277	28	9·2	7·8	237
·5 ,, ...	30	8·0	6·5	307	28	7·1	6·2	295	28	9·3	8·7	287	30	6·9	6·4	304	29	7·8	4·1	284	25	6·2	4·3	238
·0 ,, ...	27	7·5	6·2	296	28	7·2	6·3	291	26	5·9	4·9	281	28	4·1	1·9	305	26	4·6	3·3	301	19	4·7	0·9	205
·5 ,, ...	26	8·0	6·8	296	28	7·9	7·3	289	18	4·2	2·3	265	27	3·5	0·6	212	23	4·1	7·5	295	17	3·8	0·2	224
·0 ,, ...	22	8·3	7·4	302	27	8·4	7·7	289	15	4·0	0·5	193	25	4·4	1·2	164	21	4·4	3·0	293	14	4·5	1·6	4
·0 ,, ...	13	6·4	5·6	291	27	9·2	8·4	289	3	3·8	1·6	62	23	5·0	1·5	166	14	4·7	1·7	292	9	5·6	2·6	25
·0 ,, ...	10	5·9	5·4	271	23	9·5	8·9	289					18	4·8	1·8	232	11	4·9	3·3	272	2	4·5	2·5	142
·0 ,, ...	9	9·1	8·2	245	18	9·9	9·0	275					13	5·4	3·1	274	7	4·8	3·4	257	1	2·5	2·5	203
·5 ,, . . .	9	12·4	11·2	245	16	13·3	12·3	262					9	3·3	1·5	177	4	5·9	4·6	271				
·0 ,, ...	5	9·1	9·0	229	10	13·5	13·0	242					7	3·8	2·6	148	3	9·9	9·1	285				

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Winds upto 9 K. m. above sea-level.

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STATION	BHUJ								BIKANER								BOMBAY							
Time in I. S. T.	0730				1430				0730				1430				0230				0730			
Ht. in K. m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	2·9	2·8	234	30	5·1	4·9	227	30	3·8	3·3	219	30	3·3	2·9	232	30	2·8	1·5	200	30	2·8	1·6	19
0·15 a. g. . . .	30	6·9	6·3	238	30	9·0	8·3	231	30	7·8	6·2	236	30	4·9	4·3	235	28	5·5	4·5	216	27	5·2	3·3	20
0·6 a. s. l. . .	30	10·7	9·6	249	30	8·5	7·8	232	30	11·1	8·6	246	30	5·2	4·8	227	26	6·9	6·1	229	27	6·5	5·2	23
1·0 ,, . . .	29	10·3	9·5	246	29	7·4	6·4	236	30	10·9	8·8	244	30	5·5	4·8	229	20	6·2	5·7	246	22	6·8	5·5	23
1·5 ,, . . .	25	8·6	6·7	240	23	5·9	4·6	238	27	6·6	5·5	256	27	5·3	3·9	241	7	4·9	4·7	257	14	5·9	5·1	24
2·0 ,, . . .	21	6·2	3·9	237	19	4·2	2·9	244	24	4·5	2·8	250	27	5·2	3·5	243	5	4·1	3·3	253	9	6·1	5·1	23
2·5 ,, . . .	13	4·6	2·3	217	14	4·1	2·3	310	22	4·8	2·4	261	24	5·5	3·4	250	4	2·5	1·8	223	6	5·0	3·1	24
3·0 ,, . . .	10	4·3	0·7	7	12	4·6	2·6	347	20	5·8	1·8	255	22	5·6	3·5	246	4	3·0	2·4	204	6	5·7	2·1	2
4·0 ,, . . .	8	7·4	5·7	23	13	5·0	0·6	247	16	7·8	2·6	210	18	6·9	4·5	252	1	5·5	5·5	196	4	3·9	2·7	2
5·0 ,, . . .	6	9·8	2·8	360	11	6·9	4·6	226	11	7·2	3·5	211	14	6·9	4·8	256					2	3·0	1·7	2
6·0 ,, . . .	5	10·9	5·1	252	10	7·3	4·1	234	8	11·6	11·2	232	10	10·5	8·2	276					2	3·3	2·3	1
7·5 ,, . . .	5	6·3	6·0	250	6	6·9	3·5	223	4	18·4	18·3	246	6	16·4	15·5	255					1	0·5	0·5	1
9·0 ,, . . .	3	4·5	3·5	194	5	6·4	1·5	143	3	20·7	20·7	240	5	19·8	18·3	251					1	6·5	6·5	

STATION	BOMBAY				CALCUTTA																COCHIN			
Time in I. S. T.	1430				0230				0730				1100				1430				0230			
Ht. in K. m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	4·5	3·7	238	30	2·9	2·7	190	30	3·0	2·6	181	15	2·7	1·3	181	30	3·8	2·9	182	30	1·7	0·2	2
0·15 a. g. . . .	30	6·7	5·8	243	29	7·4	6·5	194	29	5·2	4·5	194	15	4·9	1·7	187	29	6·3	5·1	181	27	3·5	0·6	2
0·6 a. s. l. . .	30	6·9	5·9	245	28	9·9	9·2	219	29	8·3	7·1	227	15	4·3	1·9	235	29	6·6	5·3	197	27	5·9	5·3	2
1·0 ,, . . .	26	6·7	5·7	246	28	8·7	8·0	222	29	8·4	6·6	245	14	5·6	2·8	250	28	5·7	4·0	223	24	8·6	8·2	2
1·5 ,, . . .	19	5·9	4·9	243	27	7·9	6·5	233	24	7·6	6·1	256	10	5·1	3·1	249	26	5·7	3·5	260	20	9·3	9·1	2
2·0 ,, . . .	13	4·3	3·5	246	27	7·6	5·6	255	23	6·8	5·8	256	8	6·3	4·8	273	24	6·0	4·4	277	12	9·3	9·0	2
2·5 ,, . . .	10	3·9	2·5	262	21	6·2	3·9	275	21	6·2	4·5	269	6	6·4	4·6	305	21	7·0	4·3	280	6	8·3	8·3	2
3·0 ,, . . .	10	4·3	2·6	265	17	6·5	3·9	296	17	6·5	3·8	278	5	7·5	6·6	315	21	7·7	4·5	291	4	6·4	6·2	2
4·0 ,, . . .	9	4·9	1·3	261	4	4·7	1·8	20	10	7·7	3·1	295					14	7·7	6·5	291				
5·0 ,, . . .	7	3·6	2·0	178					6	7·8	2·0	248					8	9·9	8·4	296				
6·0 ,, . . .	5	4·1	1·4	129					2	6·3	5·2	108					6	8·7	5·4	289				
7·5 ,, . . .	4	5·1	5·0	114					2	7·5	6·6	141					2	4·7	4·7	67				
9·0 ,, . . .	3	7·3	6·9	101					2	9·3	6·6	163					1	5·0	5·0	110				

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Winds upto 9 K. m. above sea-level.

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STATION	COCHIN								COOCH BEHAR												CUTTACK			
Time in I. S. T.	0730				1430				0730				1100				1430				0230			
Ht. in K. m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	1·4	0·5	107	30	2·7	1·8	268	30	1·3	1·0	80	15	2·2	1·5	90	30	1·6	1·0	129	30	1·2	1·0	228
0·15 a. g. . . .	28	2·9	0·1	204	26	4·2	3·6	268	19	3·8	2·7	94	13	3·9	3·2	109	25	3·9	2·5	132	29	6·1	5·3	232
0·6 a. s. l. . .	27	7·1	6·3	285	26	7·5	7·1	282	14	5·8	4·4	129	11	4·2	3·7	111	23	4·9	3·5	147	28	8·9	8·2	245
1·0 „ . . .	26	9·0	8·5	288	23	9·9	9·6	290	8	4·6	2·9	137	9	3·3	2·4	140	18	5·1	3·5	159	27	8·3	7·5	253
1·5 „ . . .	18	10·0	9·6	292	18	10·4	10·0	293	5	3·9	3·1	127	6	2·8	1·1	200	15	4·9	2·1	169	26	7·2	6·2	268
2·0 „ . . .	15	9·5	9·2	289	12	10·6	10·2	294	4	3·6	2·6	166	5	3·3	1·2	262	12	4·8	1·3	167	14	5·2	4·3	271
2·5 „ . . .	10	8·5	8·1	285	7	10·1	9·9	288	3	2·7	0·6	76	4	2·1	0·7	275	7	5·4	0·7	161	4	3·5	2·3	255
3·0 „ . . .	6	8·3	8·2	274	5	8·9	8·8	294	3	3·3	0·5	282	3	2·3	2·3	273	7	5·0	0·9	157	4	3·6	1·5	304
4·0 „ . . .	3	3·2	2·9	309	4	7·5	7·8	289	3	4·3	2·5	257					4	3·1	0·5	24				
5·0 „ . . .	2	2·7	2·7	328	2	5·5	5·1	285	3	6·2	5·3	252					4	4·4	1·5	239				
6·0 „ . . .	2	3·0	2·7	259	2	5·5	5·1	264	3	9·0	7·9	238					4	5·3	3·9	208				
7·5 „ . . .	2	2·7	2·0	113	1	1·5	1·5	215	2	12·3	10·9	213					1	4·0	4·0	180				
9·0 „ . . .	2	9·5	9·4	94					2	10·0	6·7	222					1	5·0	5·0	180				

STATION	CUTTACK												DEOLALI				DIBRUGARH							
Time in I. S. T.	0730				1100				1430				0730				0730				1430			
Ht. in K. m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	0·7	0·7	222	15	1·7	1·3	258	30	1·7	1·4	224	27	3·0	2·8	343	30	1·1	0·7	55	30	1·7	1·0	48
0·15 a. g. . . .	29	4·7	4·1	238	15	5·9	4·7	270	28	6·0	4·7	217	27	6·4	6·2	244	17	4·3	3·0	66	25	3·1	2·0	48
0·6 a. s. l. . .	29	7·9	6·9	265	15	5·9	5·0	285	28	5·3	4·3	240	27	4·5	4·4	245	15	5·6	2·6	91	25	2·7	1·3	147
1·0 „ . . .	29	7·9	7·1	275	13	7·5	7·0	288	28	5·3	4·7	266	24	7·7	7·3	249	11	4·7	1·3	96	23	4·0	2·7	208
1·5 „ . . .	28	6·6	5·8	275	8	8·6	8·3	300	23	6·5	5·8	275	19	6·3	5·9	251	7	4·7	1·7	189	20	6·5	4·6	228
2·0 „ . . .	27	5·5	4·3	275	6	7·3	6·3	295	20	5·7	4·6	282	17	3·7	1·7	230	6	4·5	1·7	227	16	7·1	5·8	225
2·5 „ . . .	26	5·2	3·6	286	1	4·5	4·5	280	19	5·6	3·5	296	15	3·9	2·1	157	6	5·1	2·1	224	14	6·5	5·8	228
3·0 „ . . .	23	5·5	3·0	310	1	2·0	2·0	300	16	5·7	3·9	329	15	4·7	2·5	163	5	5·9	4·3	236	11	7·2	6·9	224
4·0 „ . . .	15	5·1	1·9	317					9	5·3	3·0	321	14	4·3	2·0	174	3	5·2	4·7	224	9	8·1	7·9	230
5·0 „ . . .	9	3·8	1·9	354					5	5·3	4·9	316	15	3·8	1·3	166	1	7·5	7·5	225	9	7·7	7·6	246
6·0 „ . . .	6	3·3	2·2	78					4	3·4	0·7	354	14	3·7	0·5	105	1	11·0	11·0	230	6	7·3	7·2	254
7·5 „ . . .	3	3·7	3·6	88					2	3·5	3·2	77	11	3·5	2·4	122					6	5·9	5·3	250
9·0 „ . . .	3	6·7	6·4	87					2	4·7	4·6	96	9	5·7	5·4	106					4	7·6	7·1	244

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 K. m. above sea-level.

June 1949

STATION	GADAG												GAYA											
Time in I. S. T.	0230				0730				1430				0230				0730				1100			
Ht. in K. m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	5·3	5·1	236	30	5·0	4·9	242	30	6·6	6·3	246	30	2·7	1·5	200	30	2·9	1·6	223	15	2·9	1·3	346
0·15 a. g. . . .	30	9·8	9·6	241	29	8·5	8·3	242	30	9·7	9·3	245	29	5·5	3·7	215	29	5·2	2·9	235	15	4·6	1·3	356
0·6 a. s. l. . . .													29	6·5	4·8	249	29	7·2	4·9	270	15	4·2	2·0	350
1·0 ,, . . .	30	11·8	11·2	255	29	10·5	9·6	258	30	9·7	9·3	252	29	7·5	5·2	268	29	7·9	6·5	293	15	5·2	2·0	323
1·5 ,, . . .	26	11·8	10·9	266	23	10·5	9·5	272	29	9·4	9·0	259	28	7·1	5·3	282	29	8·2	6·7	291	13	7·7	5·0	309
2·0 ,, . . .	23	8·5	7·6	257	20	7·3	5·9	268	28	7·8	7·3	262	22	5·9	4·5	309	25	8·0	6·4	304	7	8·8	6·4	324
2·5 ,, . . .	19	5·6	4·0	243	18	5·2	3·2	250	25	7·1	6·3	261	11	6·5	4·9	318	20	7·3	5·2	312	4	6·3	2·9	348
3·0 ,, . . .	13	4·2	2·0	245	17	5·1	3·1	246	21	5·9	4·6	251	11	7·1	5·5	310	16	7·4	4·8	308	1	6·0	6·0	245
4·0 ,, . .	10	3·5	1·3	236	14	4·6	3·6	234	6	6·6	6·0	248					8	6·3	1·7	338				
5·0 ,, . . .	7	3·8	2·2	161	12	4·4	2·5	212	4	5·4	3·8	244					6	5·8	0·9	196				
6·0 ,, . . .	5	3·5	2·6	104	11	3·6	0·8	155	4	4·3	2·7	222					5	5·9	2·0	173				
7·5 ,, . . .	1	3·0	3·0	100	8	5·9	4·3	97	3	4·0	1·0	54					3	7·2	7·0	123				
9·0 ,, . . .					7	8·1	7·6	93	1	2·0	2·0	35					3	7·0	6·6	125				

STATION	GAYA				GOPALPUR								GORAKHPUR								HYDERABAD (DN)			
Time in I. S. T.	1430				0730				1430				0730				1430				0230			
Ht. in K. m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	4·7	1·7	339	30	4·1	3·8	214	30	6·5	5·5	196	30	2·4	1·6	75	30	2·0	0·7	39	30	5·5	5·2	269
0·15 a. g. . . .	30	6·4	2·8	349	30	7·0	6·2	218	29	8·5	7·0	201	30	4·8	3·6	81	30	3·6	1·1	44	30	8·5	7·7	268
0·6 a. s. l. . .	30	5·8	2·9	337	30	5·3	4·6	255	28	5·1	3·1	239	28	5·5	1·5	106	30	3·9	0·8	23	30	6·7	6·3	267
1·0 ,, . . .	30	5·7	3·2	335	30	6·0	4·7	270	27	4·7	3·6	288	25	6·8	2·7	288	30	4·1	1·3	287	30	9·7	9·1	275
1·5 ,, . . .	29	6·8	5·2	310	30	6·0	4·9	272	27	5·8	5·1	297	24	8·0	6·2	288	29	5·4	4·1	287	29	9·1	8·7	274
2·0 ,, . . .	28	7·5	6·1	303	29	5·7	4·3	273	26	5·3	4·1	297	23	8·0	6·0	293	27	7·3	6·5	288	29	7·7	6·7	277
2·5 ,, . . .	21	7·6	6·6	299	25	4·6	2·8	295	25	5·3	2·8	285	20	9·4	8·0	298	23	8·1	7·2	297	22	5·9	4·6	287
3·0 ,, . . .	15	9·3	8·0	301	25	5·5	2·6	310	22	5·0	0·9	284	17	8·4	7·2	304	20	8·0	7·0	301	19	5·1	3·9	282
4·0 ,, . . .	6	11·2	9·3	293	20	5·1	1·7	350	21	6·2	0·3	210	11	8·6	6·5	305	15	6·9	5·8	294	1	1·5	1·5	285
5·0 ,, . . .	3	8·9	4·9	306	14	5·0	2·1	30	18	5·7	0·6	262	9	5·7	3·2	282	14	7·5	5·8	293				
6·0 ,, . . .	3	8·5	4·1	261	9	4·4	2·7	96	14	6·4	1·9	118	9	6·9	4·2	271	10	6·0	3·7	299				
7·5 ,, . . .	3	4·5	0·6	271	7	5·0	3·3	68	11	5·1	4·3	105	7	5·0	2·3	237	6	5·0	3·1	252				
9·0 ,, . .	3	5·3	3·2	197	6	9·1	8·9	88	9	8·9	8·5	93	3	5·2	4·6	167	5	6·7	5·6	197				

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 K. m. above sea-level.

June 1949

STATION	HYDERABAD (DN)								JAGDALPUR												JAMSHEDPUR			
Time in I. S. T.	0730				1430				0230				0730				1430				0730			
Ht. in K. m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	4·8	4·5	275	30	3·6	3·2	273	30	1·0	0·8	210	30	1·2	1·0	215	30	1·8	1·3	245	30	2·0	1·5	267
0·15 a. g. . . .	30	8·5	8·1	274	30	6·6	5·9	276	23	5·6	4·9	225	28	4·4	3·9	225	30	4·5	3·0	240	29	3·5	2·5	251
0·6 a. s. l. . .	30	6·8	6·4	275	30	5·7	5·1	272	23	4·2	3·5	226	28	2·8	2·5	223	30	3·3	2·5	239	29	5·9	5·2	262
1·0 ,, . . .	30	11·0	10·5	288	30	6·3	5·9	284	23	6·1	5·6	248	28	7·3	6·9	254	30	4·9	4·3	264	28	8·0	6·9	272
1·5 ,, . . .	28	9·4	9·0	286	30	6·6	6·1	279	23	6·5	5·9	269	27	7·5	3·4	265	27	5·3	4·5	280	27	8·2	7·0	279
2·0 ,, . . .	28	8·1	6·8	284	28	6·7	6·3	277	23	5·7	4·8	267	25	5·4	4·3	283	24	5·4	4·0	286	25	7·6	6·1	287
2·5 ,, . . .	25	5·5	4·2	276	23	5·9	5·0	83	17	4·2	2·4	256	24	5·0	3·0	296	19	5·4	2·9	290	22	6·8	5·8	302
3·0 ,, . . .	25	4·7	3·4	267	21	6·1	4·5	273	15	3·4	0·8	299	23	5.0	1·8	316	14	6·3	2·2	291	19	6·6	4·9	315
4·0 ,, . . .	24	5·3	2·7	271	9	4·6	1·5	255	11	5·1	2·9	59	18	5·7	2·4	64	12	6·7	3·0	263	14	7·3	5·0	295
5·0 ,, . . .	19	6·0	2·5	270	9	5·8	2·2	278	7	5·0	3·1	58	13	5·3	3·9	99	9	4·4	1·0	205	10	7·0	4·0	272
6·0 ,, . . .	16	4·8	3·4	231	9	6·4	2·7	264	6	4·8	3·1	66	12	4·6	3·6	79	7	4·3	0·8	116	10	5·7	0·7	221
7·5 ,, . . .	11	5·2	3·3	90	9	6·3	1·6	349	1	3·0	3·0	306	11	6·5	5·3	90	5	6.4	5·8	98	6	5·2	2·8	106
9·0 ,, . . .	6	7·5	6·0	10	6	10·1	4·4	93					8	8·6	7·4	85	4	10·3	10·0	87	6	5·5	2·3	112

STATION	JAMSHEDPUR								JHARSUGUDA												JODHPUR			
Time in I. S. T.	1100				1430				0230				0730				1430				0230			
Ht. in K. m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	15	2·7	2·1	269	30	2·2	0·9	253	30	1·2	1·1	233	30	0·9	0·8	229	30	1·4	1·3	255	30	4·3	3·4	248
0·15 a. g. . . .	14	3·9	2·5	271	30	3·5	1·8	252	26	5·9	5·1	235	29	4·3	3·5	233	29	4·4	4·0	247	29	9·9	7·9	230
0·6 a. s. l. . .	14	4·1	2·4	268	30	3·7	2·3	259	26	8·1	7·6	253	29	6·7	6·3	257	29	4·6	4·3	255	29	11·2	9·3	244
1·0 ,, . . .	12	5·9	3·3	306	30	4·9	3·2	269	24	10·2	9·5	260	27	9·1	8·7	272	29	5·1	4·5	265	29	11·5	10·2	244
1·5 ,, . . .	11	6·4	4·2	306	30	5·5	3·7	285	24	8·9	8·3	259	27	8·5	7·1	280	27	4·5	3·6	285	26	9·5	8·8	245
2·0 ,, . . .	9	6·7	5·1	300	30	6·2	4·3	299	22	6·4	5·3	266	25	7·1	6·1	280	26	4·7	3·5	302	17	5·4	4·5	246
2·5 ,, . . .	6	6·3	4·7	318	30	6·7	4·9	301	17	5·2	3·5	270	25	5·6	4·6	288	23	5·0	4·0	310	11	2·9	1·4	249
3·0 ,, . . .	6	6·8	4·7	323	29	6·6	4·7	303	15	4·3	2·3	270	22	4·8	3·4	300	23	4·9	3·7	314	5	3·3	1·4	191
4·0 ,, . . .					24	6·9	4·9	296	13	3·9	1·7	310	15	4·9	3·1	321	21	5·1	3·7	310				
5·0 ,, . . .					23	8·0	5·9	305					12	4·3	2·3	265	12	6·0	4·5	304				
6·0 ,, . . .					19	6·3	3·3	307					9	3·9	2·1	246	9	7·1	4·6	322				
7·5 ,, . . .					14	4·9	1·8	215					5	4·3	1·3	128	4	4·6	3·2	338				
9·0 ,, . . .					12	5·2	1·7	92					2	6·0	5·9	76	1	3·0	3·0	115				

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 K. m. above sea-level.

JUNE 1949

STATION	JODHPUR								JUBBULPORE												MADHOSAGAR			
Time in I. S. T.	0730				1430				0230				0730				1430				0730			
Ht. in K.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	5·1	4·4	241	30	6·0	5·5	235	30	2·2	1·5	215	30	2·3	1·9	234	30	2·3	1·4	260	30	3·5	3·2	263
0·15 a. g. . . .	30	7·7	6·3	230	30	5·9	5·4	230	29	6·7	5·8	242	30	5·4	5·1	242	30	4·3	3·1	271	30	6·6	6·2	277
0·6 a. s. l. . .	30	8·5	6·9	235	30	6·9	6·4	233	29	7·2	6·4	248	30	6·5	5·9	255	30	4·4	3·3	271	30	8·4	7·8	294
1·0 ,, . .	30	9·4	7·8	233	30	7·1	6·7	228	29	8·7	8·1	271	30	9·1	8·2	283	30	4·8	3·9	284	30	8·8	8·2	300
1·5 ,, . .	28	8·7	7·9	238	30	6·8	5·9	229	29	6·9	6·3	282	30	8·0	7·7	300	30	4·8	4·3	300	30	7·2	6·6	302
2·0 ,, . .	25	8·1	5·8	245	28	5·9	4·6	241	27	4·4	3·2	294	30	5·9	5·3	311	30	5·0	4·3	307	30	6·1	5·0	305
2·5 ,, . .	16	4·7	3·2	257	24	5·6	4·3	231	20	3·8	2·4	321	27	4·6	2·5	325	28	4·8	3·4	314	28	5·3	3·9	294
3·0 ,, . .	11	4·6	2·1	278	21	6·1	4·2	230	16	4·7	2·6	323	27	4·2	2·0	359	25	5·5	3·4	321	27	5·4	3·4	283
4·0 ,, . .	6	6·5	2·6	52	19	7·8	5·7	233	3	5·0	1·7	309	18	4·3	0·3	326	19	4·9	2·2	322	19	6·0	3·9	253
5·0 ,, . .	3	4·8	4·1	56	16	7·4	6·3	241	1	10·0	10·0	275	15	4·6	0·6	206	11	5·1	3·6	276	13	7·6	6·3	248
6·0 ,, . .	3	6·8	1·2	348	12	10·7	8·4	244					12	4·9	1·7	261	5	6·2	4·2	279	10	8·4	7·9	250
7·5 ,, . .	1	9·5	9·5	220	6	13·5	8·9	255					8	4·5	1·3	133	4	5·3	4·1	242	7	8·9	7·9	241
9·0 ,, . .	1	13·0	13·0	225	3	12·0	11·9	238					3	8·2	2·7	251	3	4·7	3·0	146	5	5·6	4·4	214

STATION	MADHOSAGAR				MADRAS												MALEGAON							
Time in I. S. T.	1430				0230				0730				1430				0230				0730			
Ht. in K.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	3·4	2·9	287	30	3·8	3·3	243	30	3·7	3·4	260	30	4·6	2·0	231	30	5·4	5·3	265	30	3·0	2·8	267
0·15 a. g. . . .	30	6·3	5·1	299	29	8·2	7·4	251	30	8·3	8·0	263	30	6·0	2·8	246	28	9.1	9·0	265	30	5·5	5·1	271
0·6 a. s. l. . .	30	5·9	4·6	298	29	11·2	10·4	261	30	11·3	10·9	275	30	5·5	4·7	269	28	9·1	9·0	265	30	5·5	5·1	271
1·0 ,, . .	30	6·2	5·4	296	29	10·4	9·5	264	30	10·9	10·5	279	30	6·3	5·9	268	28	9·4	9·1	268	30	6·6	6·1	273
1·5 ,, . .	30	6·1	5·4	295	29	7·8	7·4	269	30	8·8	8·3	282	30	7·7	7·3	271	28	6·1	4·8	280	30	4·5	3·2	274
2·0 ,, . .	30	6·1	5·3	296	29	6·8	6·1	275	30	7·0	6·3	279	29	8·6	8·2	269	27	4·0	0·5	295	28	3·2	1·5	223
2·5 ,, . .	28	6·4	5·3	290	26	6·4	5·1	281	30	6·1	5·4	273	29	8·4	8·0	270	24	3·9	1·5	147	27	4·0	1·6	180
3·0 ,, . .	24	5·7	4·8	283	20	5·2	3·5	277	30	5·9	4·7	266	26	7·9	7·5	272	24	3·9	1·8	164	27	4·6	2·0	171
4·0 ,, . .	17	7·1	6·0	269	7	5·0	2·4	206	27	6·3	5·2	255	22	7·4	6·5	274	15	4·3	1·4	145	21	4·8	2·3	153
5·0 ,, . .	13	8·6	7·9	254					23	6·1	4·4	242	20	6·4	4·9	264					21	3·9	2·0	185
6·0 ,, . .	8	9·8	8·9	253					20	4·9	3·1	232	17	5·4	3·4	258					19	4·2	1·9	137
7·5 ,, . .	5	7·9	8·0	237					13	5·2	2·2	126	11	5·2	1·3	297					17	4·1	1·9	89
9·0 ,, . .	4	7·5	6·8	253					8	8·6	6·7	96	8	4·6	3·4	97					14	5·8	5·2	108

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 K.m. above sea-level.

June, 1949.

STATION	MALEGAON				MANGALORE												MASULIPATAM							
Time in I. S. T.	1430				0230				0730				1430				0230				0730			
Height in K.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	3·8	1·2	260	30	2·5	0·6	112	30	2·1	0·9	121	30	2·9	1·9	239	30	2·7	2·4	222	30	2·1	1·9	250
0·15 a. g. . . .	29	4·9	4·1	261	17	4·3	2·1	201	27	4·3	1·6	183	28	4·8	3·2	246	26	10·5	9·7	229	30	8·5	7·5	255
0·6 a. s. l. . .	29	4·9	4·1	261	16	6·9	6·1	261	25	6·4	5·5	261	28	7·7	6·9	274	26	12·7	11·5	247	30	12·3	11·3	273
1·0 „	29	4·1	3·6	268	12	9·0	8·7	279	21	7·7	6·9	274	25	9·5	8·8	277	26	11·5	10·8	256	30	11·5	10·7	278
1·5 „	29	4·2	3·5	267	6	9·6	9·5	280	16	8·4	7·4	283	17	8·7	8·1	276	25	8·1	8·6	268	30	8·3	7·4	284
2·0 „	29	3·9	2·9	258	4	10·0	9·9	280	12	8·6	7·7	278	13	8·7	8·1	269	24	8·1	7·5	282	29	7·4	6·7	284
2·5 „	26	4·0	2·4	237	2	7·3	7·3	288	10	8·9	8·2	271	7	8·9	8·9	259	20	6·5	5·5	280	29	6·9	5·2	282
3·0 „	26	4·5	2·7	220	1	6·6	6·0	295	7	6·9	6·0	257	4	8·4	8·5	253	19	5·5	4·1	288	28	6·9	4·7	273
4·0 „	15	4·7	2·7	196					5	3·4	2·4	250	3	6·5	6·4	237	14	4·4	0·8	314	26	7·8	5·2	275
5·0 „	12	5·0	2·1	186					4	3·1	1·7	169	2	3·5	3·5	250					22	7·6	4·1	275
6·0 „	11	5·2	1·8	179					4	3·3	2·4	172	2	1·3	0·7	176					17	5·6	0·7	270
7·5 „	4	3·1	0·7	229					4	4·4	4·3	104	2	6·3	6·1	72					12	6·6	3·8	86
9·0 „	4	5·4	2·3	128					4	10·6	10·3	93	1	12·0	12·0	95					9	9·3	8·1	103

STATION	MASULIPATAM				NAGERCOIL												NAGPUR							
Time in I. S. T.	1430				0230				0730				1430				0230				0730			
Height in K.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	2·6	1·6	260	30	4·9	4·4	287	30	4·5	4·3	277	30	6·9	6·4	280	30	3·2	2·0	264	30	2·3	1·6	260
0·15 a. g. . . .	30	5·6	4·4	261	29	9·3	9·1	293	29	8·8	8·8	294	30	13·3	12·9	283	25	6·2	2·8	269	28	4·6	4·1	270
0·6 a. s. l. . .	30	6·4	5·7	275	29	15·6	15·1	295	28	15·4	15·1	296	30	14·8	14·6	288	25	7·1	5·3	270	28	6·3	5·6	286
1·0 „	30	7·0	6·5	279	26	15·3	15·1	295	28	16·7	16·4	294	30	16·8	16·6	290	25	6·9	4·9	270	28	5·6	6·5	300
1·5 „	30	7·7	7·2	280	26	14·9	14·8	292	27	15·2	15·1	290	30	17·4	17·2	292	25	4·7	3·5	271	28	5·7	4·9	306
2·0 „	29	7·6	7·0	280	23	14·9	14·7	286	27	14·9	14·5	287	29	17·3	16·9	291	25	3·5	2·4	275	27	4·5	3·3	308
2·5 „	28	7·8	6·8	277	18	11·5	11·0	282	26	12·9	12·4	284	27	16·1	16·0	286	21	3·8	0·7	261	26	4·2	1·9	328
3·0 „	27	7·9	6·4	279	16	7·8	7·2	278	24	10·2	9·2	283	27	14·9	14·2	280	19	4·1	0·6	17	24	4·3	0·7	10
4·0 „	25	7·7	5·3	278	9	6·4	5·5	281	17	7·4	6·3	280	25	12·9	12·6	276	8	4·7	2·6	41	19	6·4	1·0	194
5·0 „	24	7·3	3·4	274	1	1·5	1·5	130	13	5·7	5·1	277	18	10·8	10·0	274	3	3·8	3·1	45	16	5·2	1·5	140
6·0 „	21	6·3	2·5	261	1	5·5	5·5	85	11	6·5	4·5	279	15	8·9	6·9	272					10	2·9	9·7	157
7·5 „	17	6·0	0·5	56	1	4·0	4·0	170	9	5·3	3·2	233	9	5·3	3·6	253					8	5·2	2·4	100
9·0 „	12	6·7	4·8	84					7	4·0	1·1	122	7	6·1	2·5	317					7	7·0	6·7	102

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 K.m. above sea-level.

June, 1949.

STATION	NAGPUR				NEW DELHI												POONA							
Time in I. S. T	1430				0230				0730				1430				0230				0730			
Height in K.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	2·5	1·7	265	30	3·7	3·0	272	30	3·6	3·1	274	30	4·9	3·8	304	30	3·3	3·2	275	30	4·0	3·8	272
0·15 a. g. . . .	29	4·4	2·7	271	30	8·5	7·0	280	30	7·3	5·2	288	29	6·6	5·1	302	29	6·1	5·9	256	30	5·1	4·7	252
0·6 a. s. l. . .	29	4·4	3·6	275	29	9·2	7·7	292	30	10·1	8·3	294	29	5·9	4·6	298	29	4·4	4·3	258	30	4·2	4·0	253
1·0 ,, ...	28	4·8	4·2	286	29	8·1	7·0	294	30	8·9	8·2	295	30	5·4	4·2	303	29	8·1	7·7	257	30	7·7	7·1	256
1·5 ,, ...	27	4·7	3·9	296	28	6·4	5·6	287	30	7·7	7·2	299	28	5·6	4·9	298	28	9·6	9·0	261	27	8·7	8·0	260
2·0 ,, ...	22	4·6	2·9	280	20	6·1	5·4	281	29	6·8	5·7	302	26	6·1	5·3	289	26	7·3	6·0	260	22	5·6	4·2	263
2·5 ,, ...	21	4·6	2·1	284	13	6·1	5·0	285	26	6·4	5·1	299	23	6·6	5·4	290	22	4·9	2·5	229	20	4·1	1·6	221
3·0 ,, ...	17	4·2	1·5	244	8	4·6	2·8	253	21	5·8	4·1	292	23	7·9	6·4	288	18	4·0	1·9	208	20	3·9	1·7	226
4·0 ,, ...	10	4·5	1·9	228	2	7·3	3·9	2	16	6·2	3·5	263	20	10·0	8·0	281	10	2·9	1·4	199	16	3·4	0·3	198
5·0 ,, ...	7	4.4	0·9	209					13	8·0	5·3	255	18	10·4	8·1	273	1	4·5	4·5	200	13	3·7	0·7	132
6·0 ,, ...	5	4·1	1·2	254					10	12·0	8·6	264	16	11·7	10·1	260					9	3·8	1·2	71
7·5 ,, ...									6	16·5	15·4	241	11	14·5	14·3	244					10	5·1	4·1	100
9·0 ,, ...									4	16·7	15·6	246	10	17·3	16·9	240					8	7·9	7·4	92

STATION	POONA				PORT BLAIR												RAIPUR							
Time in I. S. T.	1430				0230				0730				1430				0230				0730			
Height in K.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	6·9	6·0	277	30	4·7	4·5	229	30	4·5	4·2	231	30	5·1	4·8	236	30	2·9	2·7	227	30	2·8	2·4	233
0·15 a. g. . . .	29	7·7	7·0	250	26	8·9	8·4	236	28	8·0	7·6	230	27	9·2	8·9	232	25	10·0	9·4	241	29	7·2	6·4	244
0·6 a. s. l. . .	29	7·1	6·4	252	25	11·6	11·0	241	28	12·0	11·5	237	25	11·5	11·1	239	25	10·7	10·1	250	29	9·1	8·3	257
1·0 ,, ...	29	7·6	7·2	259	23	10·8	10·1	245	21	12·2	11·6	240	20	11·9	11·5	247	25	9·1	8·6	264	28	9·0	8·2	273
1·5 ,, ...	27	7·4	6·9	263	14	9·4	8·5	244	15	11·2	10·6	241	13	11·7	10·5	256	23	6·7	6·0	266	27	7·5	6·8	287
2·0 ,, ...	22	6·3	5·6	263	10	8·3	7·1	248	12	9·3	8·3	237	8	11·5	11·0	260	23	4·7	3·6	275	25	5·2	4·5	302
2·5 ,, ...	13	4·0	2·7	242	6	5·7	3·9	220	12	8·6	7·8	239	6	9·0	8·7	260	21	4·7	2·5	321	25	4·1	2·9	322
3·0 ,, ...	10	3·7	2·4	227	6	5·2	3·7	212	10	7·5	5·7	221	5	7·4	7·1	253	19	4·6	2·0	337	22	4·2	2·1	340
4·0 ,, ...	7	4·1	3·1	196	1	11·0	11·0	160	6	8·1	5·4	196	2	8·7	6·8	235	8	4·8	3·6	51	16	4·2	1·8	22
5·0 ,, ...	5	4·3	1·2	177					3	10·2	5·8	194	2	8·7	7·9	243	5	4·3	3·3	50	12	3·5	1·6	41
6·0 ,, ...	4	3·7	1·7	147					2	10·3	6·1	187					2	1·0	1·0	288	11	4·5	1·6	20
7·5 ,, ...	3	3·2	2·7	84					1	8·0	8·0	220									10	4·5	3·3	98
9·0 ,, ...	2	4·7	4·6	56																	9	5·3	4·9	103

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 K.m. above sea-level.

June, 1949.

STATION	RAIPUR				SAHARSA												TEZPUR							
Time in I. S T.	1430				0830				1100				1430				0230				0730			
Height in K.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	2·8	2·4	240	30	1·3	1·1	65	15	2·3	2·1	76	30	2·1	1·6	77	30	1·1	0·3	93	30	0·9	0·2	117
0·15 a. g . . .	29	5·5	4·9	248	29	5·3	4·9	79	13	5·5	5·0	80	30	5·2	4·2	79	27	4·0	1·4	96	25	3·8	0·9	154
0·6 a. s. l. . . .	29	5·1	4·5	256	21	5·6	3·6	91	12	4·5	4·2	86	26	5·1	3.4	88	26	4·7	2·0	172	23	5·4	2·9	200
1·0 „ . . .	29	5·2	4·8	265	13	5·0	1·1	124	9	4·7	4·3	95	24	5·9	0·6	78	20	5·4	2·9	216	19	6·5	3·9	213
1·5 „ . . .	28	4·8	4·2	287	9	6·2	5·1	280	7	4·6	3·0	107	21	7·3	3·4	289	20	6.6	4.6	236	15	7·1	4·3	233
2·0 „ . . .	27	4·3	3·6	307	8	7·9	6·3	294	3	4·5	3·8	112	18	8·0	5·5	286	16	5·6	4·4	237	10	7·9	6·5	247
2·5 „ . . .	27	4·1	2·9	320	3	12·0	11·9	293	2	3·3	3·2	165	11	8·2	6·1	283	11	6·4	5·7	240	8	7·0	6·2	249
3·0 „ . . .	26	4·3	2·6	328	2	10·3	10·3	296	1	5·5	5·5	215	10	8·9	7·0	289	10	5·2	4·7	225	5	6·1	5·8	258
4·0 „ . . .	20	4·4	2·1	343									5	9·4	5·2	298	4	5·6	5·5	246	1	11·0	11·0	245
5·0 „ . . .	16	5·2	2·0	310									4	7·1	2·4	271								
6·0 „ . . .	13	5·6	4·2	326									4	5·0	1·0	240								
7·5 „ . . .	9	5·5	4·2	18									1	5·0	5·0	140								
9·0 „ . . .	7	5·6	5·3	272																				

STATION	TEZPUR								TRICHINOPOLY												TRIVANDRUM			
Time in I. S. T.	1100				1430				0230				0730				1430				0730			
Height in K.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	15	0·7	0·1	229	30	1·1	0·3	217	30	3·9	3·8	273	30	3·5	3·4	271	30	5·0	4·6	272	30	1·7	1·5	334
0·15 a. g. . . .	15	3·0	1·4	90	30	3·2	0·8	221	30	10·4	10·3	272	30	7·8	7·6	273	30	9·0	8·6	274	28	6·1	5·5	324
0·6 a. s. l. . .	15	3·9	1·6	130	30	4·4	2·3	211	30	15·0	14·9	272	30	13·3	13·1	273	30	8·6	8·3	268	26	10·6	10·2	303
1·0 „ . . .	12	5·0	2·6	173	27	5·8	3·6	218	30	14·1	13·9	272	30	13·1	12·9	271	30	9·4	9·2	266	23	12·3	12·0	301
1·5 „ . . .	11	5·4	3·5	206	26	6·3	4·9	235	30	11·1	10·8	269	30	11·5	11·0	271	30	10·5	10·2	265	16	12·5	12·3	295
2·0 „ . . .	8	4·1	3·0	210	22	6·7	5·7	237	29	9·0	8·6	267	30	9·2	8·7	265	30	10.3	9·9	265	14	12·6	11·7	290
2·5 „ . . .	5	5·5	5·3	224	17	7·8	6·8	231	28	7·0	6·6	268	30	7·7	7·3	266	30	9·3	9·1	269	10	8·7	8·6	287
3·0 „ . . .	5	5·5	5·4	224	15	6·7	5·9	234	26	6·2	5·7	269	29	6·9	6·6	270	30	8·5	8·2	271	8	6·4	6·0	284
4·0 „ . . .					11	7·4	6·7	237	5	3·4	1·3	233	29	5·7	5·1	268	25	7·0	6·4	272	7	3·0	2·0	292
5·0 „ . . .					7	7·5	7·2	237	5	4·5	1·7	95	24	6·4	5·7	256	22	6·1	5·1	269	6	3·6	2·5	304
6·0 „ . . .					7	8·6	8·3	238	3	5·2	11·2	127	21	5·9	3·7	238	21	5·0	2·8	253	5	3·3	1·4	169
7·5 „ . . .					5	10·0	9·8	239	1	7·0	7·0	75	17	4·4	0·8	124	17	4·5	1·1	217	5	3·4	1·5	132
9·0 „ . . .					4	11·0	10·2	238					15	6·3	4·3	83	16	5·8	2·9	83	5	9·5	8·5	102

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 K.m. above sea-level.

June, 1949.

STATION	UDAIPUR												VENGURLA											
Time in I. S. T.	0230				0730				1430				0230				0730				1430			
Height in K.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	2·9	2·5	239	30	2·2	1·7	242	30	2·8	2·1	233	30	1·1	0·1	278	30	1·5	0·7	191	30	3·2	2·3	241
0·15 a. g. . . .	30	6·5	6·0	238	30	4·6	4·2	245	30	5·2	4·0	248	18	4·5	2·4	260	28	4·3	1·3	228	26	5·3	3·9	259
0·6 a. s. l. . .	—	—	—	—	—	—	—	—	—	—	—	—	16	6·6	5·0	273	24	7·1	5·9	265	24	7·2	6·1	265
1·0 „ . . .	30	7·6	7·1	243	30	6·0	5·4	256	30	5·1	4·3	246	9	7·6	7·1	298	17	7·5	6·4	276	18	7·4	6·4	271
1·5 „ . . .	30	7·2	6·4	260	29	6·7	5·6	254	30	5·5	4·8	247	9	8·0	7·4	295	10	7·3	6·0	282	8	7·4	6·8	292
2·0 „ . . .	30	4·3	3·7	261	26	4·8	3·3	222	29	4·7	4·1	245	5	5·8	4·9	295	4	6·3	5·9	276	6	5·9	5·0	297
2·5 „ . . .	29	4·4	1·5	213	22	4·4	2·7	205	29	4·4	3·3	251	1	5·5	5·5	360	1	2·0	2·0	220	1	3·5	3·5	250
3·0 „ . . .	25	5·1	1·5	166	21	5·0	2·6	198	27	5·2	3·2	244					1	3·0	3·0	165	1	2·0	2·0	195
4·0 „ . . .	1	6·5	6·5	30	15	6·0	2·0	234	24	6·3	2·4	206					1	8·5	8·5	175	1	2·5	2·5	215
5·0 „ . . .	1	4·5	4·5	10	11	7·5	4·7	214	19	8·1	4·5	238					1	2·0	2·0	160				
6·0 „ . . .					10	9·3	6·9	239	17	9·2	6·5	244					1	4·5	4·5	130				
7·5 „ . . .					6	9·9	9·5	240	13	9·3	7·0	257					1	7·5	7·5	120				
9·0 „ . . .					5	8·3	8·0	225	8	9·9	8·0	262												

STATION	VERAVAL												VIZAGAPATAM											
Time in I. S. T.	0230				0730				1430				0230				0730				1430			
Height in K.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	7·2	6·2	245	30	5·2	4·4	246	30	6·4	5·9	249	30	2·4	2·1	220	30	2·1	2·0	224	30	4·7	3·7	198
0·15 a. g. . . .	30	7·6	6·8	240	30	7·1	5·8	242	30	7·8	7·1	240	30	5·7	5·4	281	29	5·2	5·0	232	30	6·1	5·2	206
0·6 a. s. l. . .	30	7·9	7·3	247	30	7·3	6·3	245	28	7·7	7·2	249	30	8·1	7·8	246	29	8·0	7·7	258	30	5·3	4·2	247
1·0 „ . . .	28	7·3	6·5	247	28	6·9	6·0	252	26	6·7	6·1	251	29	8·4	7·8	256	28	8·7	8·3	264	30	5·3	4·3	271
1·5 „ . . .	23	5·0	4·2	242	21	5·9	4·6	244	21	5·0	4·0	244	28	8·6	7·7	260	27	8·3	7·6	272	30	5·9	4·8	287
2·0 „ . . .	21	4·3	1·6	232	18	4·4	1·7	247	19	4·1	2·3	246	28	6·3	5·1	267	25	6·1	5·1	276	29	6·2	4·7	292
2·5 „ . . .	12	3·8	0·7	233	10	4·8	2·4	12	16	3·9	1·5	266	22	4·8	2·9	271	22	5·0	3·1	286	28	5·9	4·1	280
3·0 „ . . .	12	4·6	1·2	68	9	5·0	3·7	31	15	4·6	1·6	318	18	5·0	1·4	266	22	5·3	1·5	297	28	6·3	2·9	276
4·0 „ . . .	3	4·7	2·7	111	6	6·1	0·4	39	13	6·2	0·7	307	8	5·1	0·6	126	18	6·2	0·6	82	24	7·2	1·4	254
5·0 „ . . .	1	3·5	3·5	1	5	7·8	3·3	319	13	5·4	1·5	192					13	6·6	1·8	95	20	6·8	1·2	173
6·0 „ . . .					3	7·7	6·0	255	11	5·3	3·5	181					10	6·3	4·7	94	17	6·7	1·8	147
7·5 „ . . .					3	4·0	3·6	261	9	4·6	3·1	142					8	6·2	5·7	95	11	6·8	3·6	101
9.0 „ . . .					3	3·5	1·0	305	8	4·9	3·7	127					7	10·7	10·0	92	10	10·1	8·5	95

Monthly Mean Directions and Velocities of Upper Winds.

Winds upto 9 K.m. above sea-level.

June, 1949.

STATION	MINICOY																							
Time in I. S. T.	0230				0730				1430															
Height in K.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	4·3	4·1	274	30	4·1	3·9	273	30	4·6	4·2	277												
0·15 a. g. . . .	27	8·4	7·9	268	27	8·5	8·0	268	30	8·8	8·1	275												
0·6 a. s. l. . .	26	11·2	10·8	278	27	11·8	11·2	275	29	12·2	11·6	278												
1·0 „ . . .	25	13·2	12·8	282	25	14·0	13·4	281	29	13·7	13·2	285												
1·5 „ . . .	17	12·0	11·8	287	20	14·1	13·7	285	24	12·1	11·9	290												
2·0 „ . . .	14	11·3	10·1	286	14	13·2	13·1	280	16	10·7	10·4	288												
2·5 „ . . .	7	10·8	10·4	282	10	11·3	11·0	271	11	9·9	9·5	285												
3·0 „ . . .	3	7·7	7·1	280	5	8·2	8·2	268	9	10·1	9·9	274												
4·0 „ . . .					4	7·6	7·0	276	1	10·5	10·5	250												
5·0 „ . . .					1	10·0	10·0	255																
6·0 „ . . .																								
7·5 „ . . .																								
9·0 „ . . .																								

Monthly Mean Directions and Velocities of Upper Winds.

Winds at and above 10 K.m. above sea-level.

June, 1949.

Height in K.m.	n	V	v	D
AHMEDABAD.				
10	6	5·3	0·6	180
11	4	8·1	1·5	139
12	4	8·0	3·7	105
13	3	9·2	3·7	60
14	2	5·5	5·5	110
15	1	6·0	6·0	135
16	1	9·0	9·0	140
17	1	14·5	14·5	120
18	1	15·0	15·0	115
19	1	16·0	16·0	100
20	1	22·0	22·0	100
21	1	22·0	22·0	100
ALLAHABAD.				
10	13	5·7	2·9	147
11	9	5·4	3·5	182
12	8	5·2	3·5	180
13	7	7·1	5·9	138
14	7	8·4	7·6	129
15	5	10·7	10·2	127
16	4	10·4	9·1	125
17	4	8·9	8·3	82
18	4	17·3	16·5	103
19	2	21·0	21·0	106
20	1	12·5	12·5	90
21	1	14·5	14·5	115
AMBALA.				
10	12	26·7	25·5	249
11	11	25·9	24·2	251
12	9	24·8	23·1	251
13	8	25·9	23·8	249
14	8	27·6	25·1	246
15	5	33·5	26·0	250
16	2	39·8	33·0	267
17	1	31·5	31·5	230
18	1	38·0	38·0	230

Height in K.m.	n	V	v	D
ANANTAPUR.				
10	25	7·8	6·3	89
11	21	9·9	8·6	96
12	18	16·1	15·6	101
13	15	20·1	19·6	98
14	13	24·7	24·4	94
15	14	30·8	30·0	94
16	12	35·0	35·0	94
17	9	32·8	31·5	97
18	6	29·1	28·3	95
19	5	28·0	26·5	82
20	3	25·5	24·6	80
21	2	8·5	4·8	287
22	2	15·5	7·7	307
23	2	12·0	5·3	27
24	2	13·3	7·3	337
ASANSOL.				
10	8	8·7	3·9	201
11	3	9·0	5·2	230
12	3	11·0	3·1	206
13	2	13·7	6·1	200
14	2	13·3	2·7	187
15	1	16·0	16·0	115
16	1	14·0	14·0	105
17	1	17·5	17·5	90
18	1	18·0	18·0	90
BANGALORE.				
10	1	10·5	10·5	85
11	1	13·0	13·0	95
12	1	23·0	23·0	90
13	1	24·5	24·5	95
14	1	30·5	30·5	100
15	1	33·0	33·0	95
16	1	42·5	42·5	100
BAREILLY.				
10	11	11·2	10·7	233
11	9	11·3	10·4	234
12	7	8·9	8·5	233

Height in K.m.	n	V	v	D
BAREILLY—*contd.*				
13	6	7·3	6·8	243
14	6	9·7	9·2	234
15	6	9·9	9·8	243
16	3	8·5	7·7	236
17	2	10·3	9·5	210
18	1	16·0	16·0	240
19	1	13·5	13·5	235
20	1	14·0	14·0	214
21	1	16·5	16·5	231
22	1	19·0	19·0	235
23	1	16·0	16·0	225
BHOPAL.				
10	9	4·3	1·5	141
11	6	6·1	6·1	117
12	6	9·7	9·0	123
13	6	11·8	11·3	124
14	4	17·3	16·7	110
15	4	14·5	13·7	104
16	3	8·5	8·5	112
17	2	11·3	11·3	110
18	1	6·5	6·5	330
19	1	6·5	6·5	275
20	1	5·0	5·0	325
21	1	10·5	10·5	335
22	1	15·5	15·5	360
23	1	15·0	15·0	300
BHUJ.				
10	8	6·2	2·9	157
11	5	8·6	5·1	89
12	3	10·2	8·2	110
13	1	5·0	5·0	160
14	1	17·0	17·0	170
BIKANER.				
10	7	19·9	19·4	239
11	5	20·4	20·2	241
12	3	20·0	20·0	238

Height in K.m.	n	V	v	D
BOMBAY.				
10	4	11·4	11·3	95
11	4	13·1	12·7	95
12	2	18·3	18·3	104
13	2	19·3	19·3	105
CALCUTTA.				
10	3	6·5	4·9	124
11	1	9·5	9·5	115
12	1	15·5	15·5	90
13	1	17·0	17·0	95
14	1	17·0	17·0	110
15	1	19·0	19·0	115
COCHIN.				
10	2	13·3	12·7	104
11	1	12·5	12·5	85
COOCH BEHAR.				
10	1	6·0	6·0	90
11	1	5·0	5·0	120
12	1	6·0	6·0	125
13	1	8·5	8·5	135
CUTTACK.				
10	4	11·5	11·5	104
11	4	15·5	15·3	111
12	2	23·0	23·0	108
13	1	35·0	35·0	135
DEOLALI.				
10	8	9·7	9·4	101
11	7	11·6	11·2	97
12	6	13·7	13·6	102
13	6	18·3	18·1	111
14	7	22·4	22·2	114
15	7	27·2	26·9	116
16	5	23·0	22·3	101
17	3	23·3	23·1	105
18	3	21·3	21·0	88
19	3	22·3	22·1	103
20	2	25·0	24·9	93
21	2	24·0	22·1	115

Height in K.m.	n	V	v
DEOLALI—*contd.*			
22	2	23·0	22·9
23	2	24·7	24·7
DIBRUGARH.			
10	4	10·0	9·4
11	4	10·7	9·2
12	4	12·3	10·0
13	3	8·3	8·1
14	3	7·7	7·4
15	3	7·2	7·2
16	1	6·0	6·0
17	1	8·0	8·0
18	1	5·5	5·5
19	1	9·5	9·5
20	1	11·5	11·5
21	1	10·5	10·5
22	1	12·0	12·0
23	1	18·0	18·0
GADAG.			
10	5	10·2	9·8
11	4	16·0	15·6
12	2	16·7	16·7
13	2	26·5	26·5
14	1	29·0	29·0
GAYA.			
10	3	8·0	6·7
11	3	11·3	9·0
12	1	8·0	8·0
13	1	11·0	11·0
14	1	17·0	17·0
15	1	16·0	16·0
16	1	17·5	17·5
GOPALPUR.			
10	12	9·0	0·9
11	9	12·8	12·6
12	6	15·0	14·4
13	4	20·0	19·3
14	2	26·5	26·0

Monthly Mean Directions and Velocities of Upper Winds.

Winds at and above 10 K.m. above sea-level.

June, 1949.

GOPALPUR—*contd.*

n	V	v	D
1	29·0	29·0	100
1	31·0	31·0	100
1	33·0	33·0	95
1	31·0	31·0	110
1	34·5	34·5	115
1	58·0	58·0	110

GORAKHPUR.

n	V	v	D
6	8·4	7·2	179
4	8·9	8·4	173
4	8·5	8·1	172
3	8·7	8·6	187
2	4·7	4·6	180
2	6·0	5·2	170
2	6·0	5·9	75
2	7·7	7·7	105
1	16·0	16·0	105
1	19·5	19·5	165
1	23·5	23·5	160
1	28·5	28·5	160
1	35·0	35·0	165

HYDERABAD (DN.).

n	V	v	D
10	11·8	8·1	93
6	15·3	14·7	92
6	19·5	19·2	98
5	17·3	17·3	96
4	20·4	19·7	93
4	24·6	23·9	100
4	30·0	29·5	105
3	35·3	34·9	97
2	32·0	31·3	100
2	34·3	32·9	101
2	36·7	35·9	101
2	38·7	37·8	101
2	41·3	40·3	106
1	53·0	53·0	115
1	63·0	63·0	110
1	73·0	73·0	110
1	75·0	75·0	100

JAGDALPUR.

Height in K.m.	n	V	v	D
10	9	10·8	9·5	82
11	8	12·9	12·7	110
12	7	20·1	20·0	109
13	5	22·9	22·4	99
14	4	24·9	24·1	105
15	3	26·5	26·0	96
16	2	30·0	30·0	93
17	1	37·0	37·0	105
18	1	30·5	30·5	94
19	1	25·0	25·0	90
20	1	20·0	20·0	106

JAMSHEDPUR.

Height in K.m.	n	V	v	D
10	18	7·0	4·3	126
11	10	9·1	6·9	127
12	7	12·1	10·6	118
13	6	14·7	12·1	122
14	6	17·7	16·9	114
15	4	17·5	17·3	108
16	4	17·7	16·8	113
17	1	17·0	17·0	90

JHARSUGUDA.

Height in K.m.	n	V	v	D
10	3	6·3	6·3	86
11	1	10·0	10·0	110
12	1	19·5	19·5	120
13	1	20·0	20·0	125
14	1	23·0	23·0	125

JODHPUR.

Height in K.m.	n	V	v	D
10	3	16·0	15·4	235
11	2	22·0	17·9	226
12	2	19·5	19·5	240
13	1	21·0	21·0	235
14	1	17·5	17·5	220
15	1	19·0	19·0	230
16	1	20·0	20·0	210

JUBBULPORE.

Height in K.m.	n	V	v	D
10	5	5·7	5·5	132
11	5	5·2	4·8	111
12	5	7·1	7·0	126

JUBBULPORE—*contd.*

Height in K.m.	n	V	v	D
13	4	11·5	11·0	128
14	3	11·7	11·1	112
15	2	15·0	14·7	115
16	1	17·0	17·0	120
17	1	22·0	22·0	115
18	1	26·0	26·0	105

MADHOSAGAR.

Height in K.m.	n	V	v	D
10	7	6·4	5·6	224
11	5	5·4	4·7	213
12	5	5·6	5·5	191
13	5	5·6	5·2	195
14	5	7·2	6·0	199
15	4	9·4	6·7	195
16	2	11·0	9·0	194
17	2	14·0	10·5	145
18	2	16·7	14·6	156
19	2	17·5	10·7	131
20	2	19·7	15·3	148
21	2	23·0	16·7	151
22	2	22·0	13·4	136
23	2	23·0	21·3	142
24	2	30·0	27·3	128
25	2	26·0	25·4	123
26	2	29·3	28·5	126
27	2	30·0	29·9	130
28	2	40·5	40·1	127
29	2	43·0	43·0	115
30	2	35·3	35·3	120
31	1	37·0	37·0	114
32	1	38·0	38·0	95

MADRAS.

Height in K.m.	n	V	v	D
10	13	10·2	9·1	96
11	10	13·9	13·5	93
12	10	18·1	17·9	89
13	7	22·7	22·5	92
14	5	31·4	31·2	96
15	5	40·1	40·1	100
16	3	38·3	38·3	103
17	2	48·7	48·7	98

MADRAS—*contd.*

Height in K.m.	n	V	v	D
18	1	71·0	71·0	105
19	1	41·0	41·0	105
20	1	26·5	26·5	105

MALEGAON.

Height in K.m.	n	V	v	D
10	15	7·6	7·1	107
11	7	12·6	10·7	108
12	5	14·1	13·9	114
13	3	21·0	21·0	117
14	3	19·2	19·2	107
15	3	22·8	22·5	108
16	3	23·3	22·5	103
17	3	25·8	25·7	106
18	2	18·0	17·5	110
19	2	20·5	20·5	113
20	2	22·0	20·5	100
21	1	42·0	42·0	95
22	1	53·0	53·0	95
23	1	36·0	36·0	110

MANGALORE.

Height in K.m.	n	V	v	D
10	3	13·0	12·9	95
11	3	20·2	20·2	86
12	2	24·7	24·7	86
13	2	32·0	32·0	88
14	2	39·0	39·0	92
15	1	47·5	47·5	90
16	1	51·5	51·5	105
17	1	57·0	57·0	105
18	1	60·5	60·5	105
19	1	51·0	51·0	115
20	1	23·0	23·0	105

MASULIPATAM.

Height in K.m.	n	V	v	D
10	17	9·6	8·5	92
11	13	12·9	12·4	100
12	12	18·2	17·9	97
13	10	22·9	22·5	94
14	10	27·7	27·1	96
15	9	32·0	31·5	100
16	9	36·4	36·0	105

MASULIPATAM—*contd.*

Height in K.m.	n	V	v	D
17	6	40·0	39·8	104
18	5	54·2	53·7	98
19	4	67·6	67·5	102
20	1	33·5	33·5	110
21	1	34·0	34·0	100

NAGERCOIL.

Height in K.m.	n	V	v	D
10	14	7·7	2·9	88
11	10	9·6	8·1	91
12	10	15·1	12·4	107
13	9	18·2	17·3	95
14	9	19·8	19·2	89
15	8	23·2	22·5	86
16	8	29·4	28·9	94
17	7	36·4	36·1	91
18	6	36·4	36·0	101
19	3	40·3	40·2	105
20	2	65·5	65·4	94
21	2	58·5	58·5	93
22	2	47·0	46·4	95
23	1	53·5	53·5	90
24	1	55·5	55·5	90
25	1	76·5	76·5	100
26	1	86·0	86·0	95

NAGPUR.

Height in K.m.	n	V	v	D
10	7	8·2	7·8	110
11	5	11·4	11·1	107
12	5	17·2	17·0	110
13	4	23·9	23·7	107
14	4	27·4	27·2	104
15	2	38·2	38·0	110
16	2	37·0	36·8	104
17	2	29·5	29·0	116
18	1	17·0	17·9	95
19	1	13·0	13·0	90
20	1	28·5	28·5	50
21	1	35·0	35·0	65

Monthly Mean Directions and Velocities of Upper Winds.

Winds at and above 10 K.m. above sea-level.

June, 1949.

NEW DELHI.

Height in K.m.	n	V	v	D
10	8	14·2	13·7	239
11	5	13·2	13·2	249
12	5	14·0	13·9	244
13	4	11·9	11·2	243
14	3	13·0	12·3	238
15	1	21·0	21·0	240
16	1	13·0	13·0	205
17	1	8·5	8·5	195
18	1	4·0	4·0	145
19	1	10·5	10·5	155
20	1	11·0	11·0	170
21	1	10·5	10·5	180
22	1	19·5	19·5	180
23	1	17·0	17·0	165
24	1	16·0	16·0	175
25	1	20·0	20·0	175
26	1	23·0	23·0	205
27	1	26·5	26·5	195
28	1	36·0	36·0	215
29	1	42·5	42·5	220

POONA.

Height in K.m.	n	V	v	D
10	8	8·9	8·4	93
11	6	14·7	14·5	101
12	6	20·4	20·1	101
13	6	22·4	22·2	105
14	5	26·6	26·2	107
15	3	24·0	22·9	96
16	2	17·7	17·1	87
17	1	21·0	21·0	85
18	1	15·0	15·0	95

RAIPUR.

Height in K.m.	n	V	v	D
10	16	7·4	6·5	91
11	10	10·9	9·2	101
12	5	15·7	15·0	101
13	5	17·2	16·4	106
14	4	20·7	20·5	102
15	4	24·7	23·5	115
16	2	29·7	28·7	114
17	1	41·0	41·0	115
18	1	43·5	43·5	115
19	1	37·0	37·0	120
20	1	32·0	32·0	109

TEZPUR.

Height in K.m.	n	V	v	D
10	4	10·0	8·2	235
11	1	3·0	3·0	215
12	1	5·5	5·5	220
13	1	3·0	3·0	255
14	1	4·0	4·0	265

TRICHINOPOLY.

Height in K.m.	n	V	v	D
10	27	8·1	6·8	88
11	16	11·4	10·8	94
12	15	17·2	16·9	94
13	14	22·5	21·9	97
14	10	30·8	30·5	98
15	9	39·2	38·7	97
16	8	44·7	44·0	98
17	7	39·8	39·4	102
18	7	38·9	38·6	101
19	4	36·1	35·7	105
20	2	26·5	23·8	101
21	1	41·0	41·0	65
22	1	56·0	56·0	75
23	1	65·0	65·0	75
24	1	69·0	69·0	75

TRIVANDRUM.

Height in K.m.	n	V	v	D
10	5	12·3	11·7	91
11	5	18·9	18·7	93
12	4	22·5	22·1	88
13	3	28·3	28·1	92
14	3	38·5	38·2	95
15	1	21·0	21·0	115
16	1	19·0	19·0	75

UDAIPUR.

Height in K.m.	n	V	v	D
10	6	8·3	7·8	215
11	4	7·4	7·0	218
12	3	10·5	9·5	207
13	2	14·0	13·9	175
14	2	21·7	21·8	108
15	2	22·5	22·1	150
16	2	15·5	15·3	149
17	2	16·3	11·4	138
18	1	14·0	14·0	75
19	1	9·0	9·0	110

UDAIPUR—*contd.*

Height in K.m.	n	V	v
20	1	8·5	8·
21	1	8·0	8·

VERAVAL.

Height in K.m.	n	V	v
10	10	7·0	5·
11	6	9·8	9·
12	3	12·5	12·
13	1	12·5	12·
14	1	22·0	22·

VIZAGAPATA

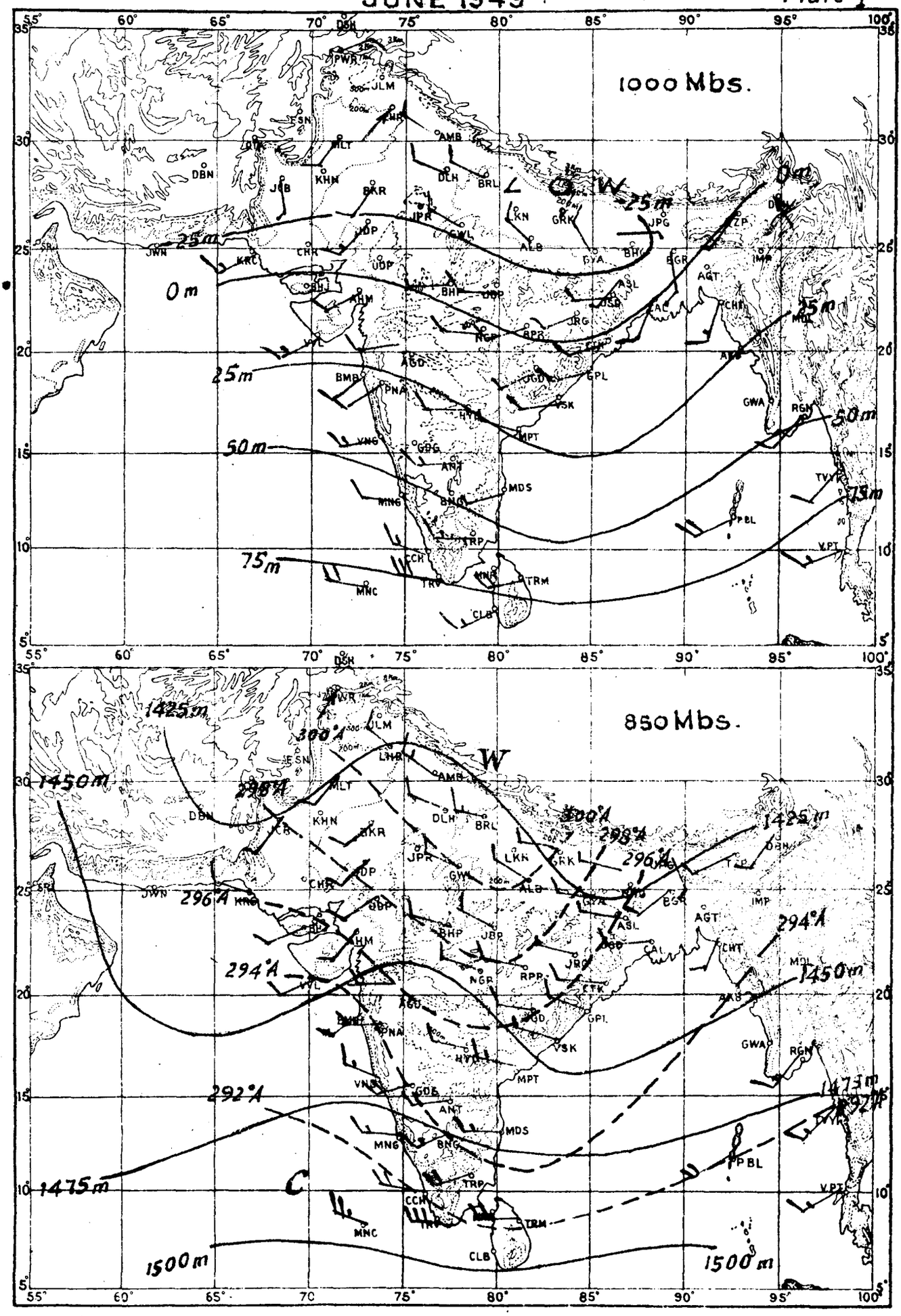
Height in K.m.	n	V	v
10	13	11·3	10·
11	9	13·5	13·
12	8	19·4	19·
13	5	26·1	26·
14	1	28·5	28·
15	1	31·0	31·
16	1	42·0	42·

MG1PC—S8—6 DGO—20-8-54—260

MONTHLY MEAN CONSTANT PRESSURE CHARTS.

JUNE 1949

Plate I

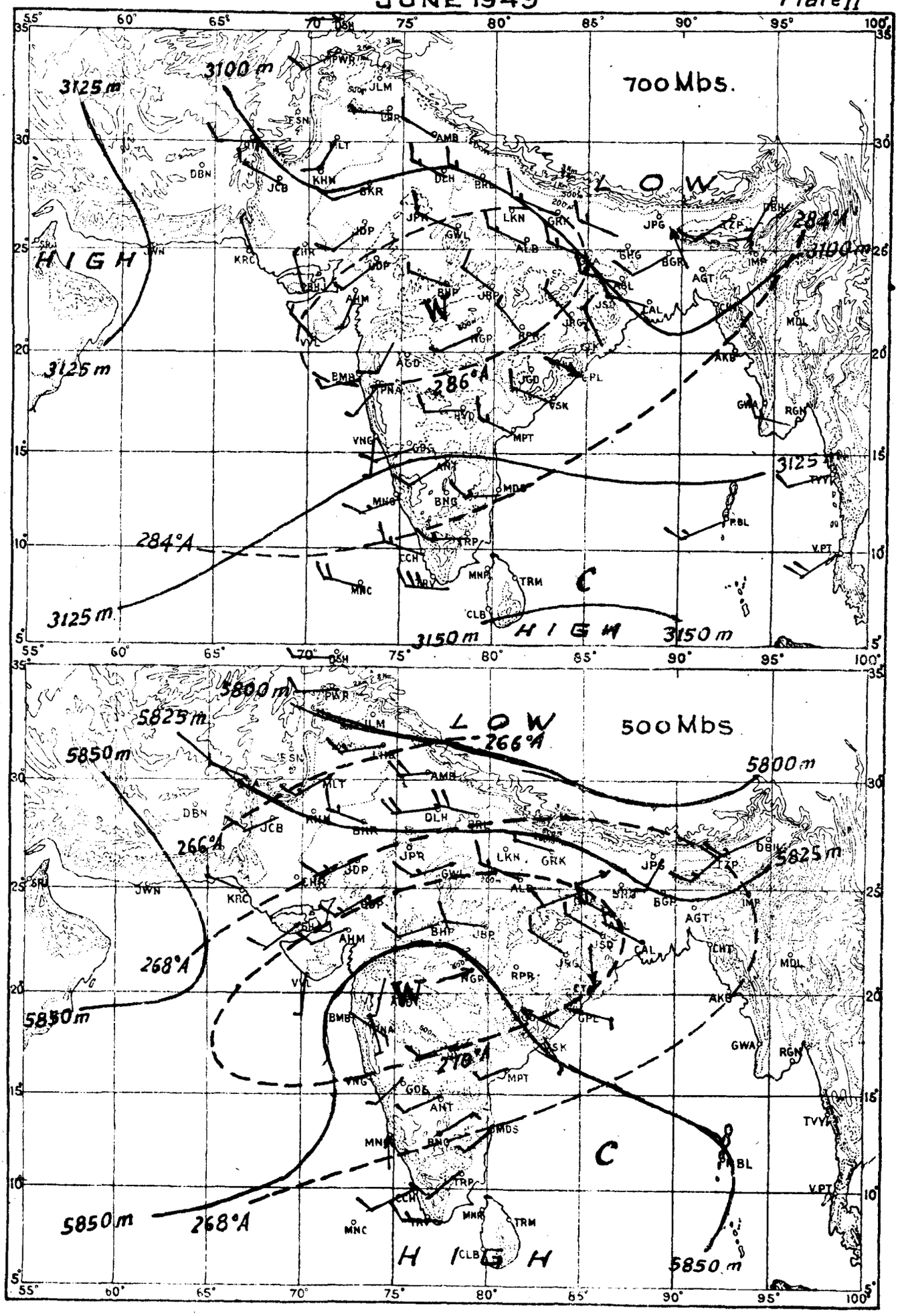


G.PZ.P.POGN°.33.

MONTHLY MEAN CONSTANT PRESSURE CHARTS.

JUNE 1949

Plate II



RESULTANT WIND —\= 5 Knots, —\= 10 Knots, —\= 50 Knots.

------ Isotherms in degrees absolute. ——— Contours in geopotential metres.

G.PZ.P.POONA,53.

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Monthly Weather Report

July

JAN 27

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Chief features:—Well-distributed rainover the country generally with heavy rains in the East Punjab in the second week.

In the beginning of July, the monsoon was active in northeast India outside Orissa and generally weak elsewhere. Under the influence of a low pressure wave from the Bay of Bengal, the monsoon strengthened along the west coast and in the Central Provinces and extended into Vindhya Pradesh and the east United Provinces on the 6th, into the west United Provinces, Madhya Bharat and Bhopal and east Rajputana on the 7th, into the East Punjab, west Rajputana and Gujarat on the 8th and into the west Punjab and Saurashtra on the 9th. For the next three days, the monsoon continued active over the whole country. After the 12th, it weakened in Rajputana and the west Punjab but was strong to vigorous in the East Punjab and strong in Saurashtra. The heavy rain during this period caused breaches in some of the canals in and around Patiala, which resulted in the city being engulfed by water and a number of villages in the neighbourhood being completely submerged by the flood waters. Thousands of people were rendered homeless and considerable loss of property and crops were reported from the area.

Weather became unsettled in the north Bay on the 11th and a shallow depression formed on the 14th morning centred near Lat. 20°N., Long. 88°E. Moving inland as a 'Low' pressure wave, it persisted over the Central Provinces till 17th and became unimportant over Madhya Bharat by the next day. This depression helped to maintain the monsoon active over the central parts of the country and northeast India upto the 19th and to strengthen it along the west coast and Saurashtra and Gujarat where locally heavy rainfall occurred between the 14th and 17th. The monsoon also extended into Sind between the 15th and 17th.

There was a short 'break' in the monsoon between 19th and 23rd of July during which period widespread and locally heavy rain was confined to the region from the East Punjab and Madhya Bharat to Assam, rainfall being particularly heavy in Bihar and the adjoining areas of the east United Provinces. However, under the influence of a 'low' which moved from Gangetic West Bengal to Sind between the 23rd and 27th, the monsoon strengthend again over the central parts of the country and the western half of the Peninsula on the 24th and over Rajputana, Saurashtra and Cutch and Gujarat by the 25th. It also extended into Sind on the 26th and into east Baluchistan on the 27th. Rainfall decreased in northeast India and the plains of the United Provinces and the Punjab after the 23rd. Towards the end of the month, the monsoon became vigorous along the south Konkan in association with unsettled conditions in the north Bay of Bengal.

The rainfall for July was in large excess in the Bay Islands, west Rajputana, southeast Madras and the north Madras coast, in moderate excess in Bihar, the west United Provinces, the East Punjab, Berar, Hyderabad and Malabar and in slight excess in east Rajputana and Saurashtra and Cutch. It was normal in Assam, west Bengal, Chota Nagpur, Vindhya Pradesh, the west Central Provinces, the Konkan, Mysore and the Madras Deccan and in slight defect in Orissa, the east United Provinces, Gujarat, Madhya Bharat and Bhopal, the east Central Provinces and the Bombay Deccan. Averaged over the plains of India, the month's rainfall was 6 per cent. in excess.

Mean maximum temperature was below normal in the East Punjab, southeast Madras and the north Madras coast and normal elsewhere. Mean minimum temperature was normal. Relative humidity was above normal in the East Punjab, west Rajputana, Berar, Hyderabad, southeast Madras and the north Madras coast and normal elsewhere. Cloud amount was in excess in the East Punjab and southeast Madras.

Data from Kashmir are not available

Price : Re. 1/-

Table I contains the divisional and sub-divisional means of rainfall, temperature, humidity and cloud amount for the 13 chief political divisions and the 27 sub-divisions. The stations whose observations are used for preparing these means are given in the subsequent tables.

The highest maximum temperature given for any station in the accompanying tables is that recorded within the 24 hours ending at 0830 hours I.S.T. of the date noted in the succeeding column; similarly the heaviest fall in 24 hours for any station denotes the amount recorded during the 24 hours ending at 0830 hrs. I. S. T. of the date given in the succeeding column.

POONA 5 :
The 28th Nov., 1949

C. RAMASWAMY
for *Director General of Observatories.*

	Rainfall				Departure from normal of				
							0830 hrs. I.S.T.		
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Maximum temperature.	Minimum temperature.	Vapour pressure.	Relative humidity.	Cloud.
1	2	3	4	5	6	7	8	9	10
Division	"	"	"		°	°	mb.	%	
Assam	14·81	15·40	−0·59	−4	−0·7	+0·1	+0·3	+3	+0·5
West Bengal	15·28	16·11	−0·83	−5	0	−0·1	+0·1	+2	0
Orissa	10·43	13·25	−2·82	−21	+0·5	+0·5	+0·6	+2	+0·7
Bihar	15·34	12·97	+2·37	+18	−0·1	−0·5	+0·5	+3	+0·4
United Provinces	13·03	12·32	+0·71	+6	+0·3	+0·5	+0·4	+3	+0·7
East Punjab	9·06	6·46	+2·60	+40	−3·6	−1·7	+0·2	+8	+1·8
Rajputana	7·89	6·00	+1·89	+31	−1·1	−0·1	+1·5	+7	+0·4
Sub-Division									
1. Bay Islands	29·27	15·43	+13·84	+90	−0·2	−0·8	−0·5	+3	+0·8
2. Assam	14·81	15·40	−0·59	−4	−0·7	+0·1	+0·3	+3	+0·5
3. West Bengal	15·28	16·11	−0·83	−5	0	−0·1	+0·1	+2	0
4. Orissa	10·43	13·25	−2·82	−21	+0·5	+0·5	+0·6	+2	+0·7
5. Chota Nagpur	13·64	13·63	+0·01	0	+0·1	−0·3	+0·7	+1	+0·1
6. Bihar	16·13	12·64	+3·49	+28	−0·1	−0·7	+0·4	+4	+0·6
7. United Provinces, East	10·41	12·56	−2·15	−17	+0·4	+0·8	+0·3	+2	+0·9
8. United Provinces, West.	15·33	12·10	+3·23	+27	+0·2	+0·1	+0·6	+3	+0·6
9. East Punjab	9·06	6·46	+2·60	+40	−3·6	−1·7	+0·2	+8	+1·8
10. Kashmir	Data incomplete								
11. Rajputana, West	5·36	3·09	+2·27	+73	−1·6	−0·1	+2·4	+8	+0·3
12. Rajputana, East	10·42	8·09	+1·52	+17	−0·6	0	+0·6	+5	+0·5
13. Gujarat	9·81	12·03	−2·22	−18	+0·8	+0·6	+1·4	+3	−0·2
14. Saurashtra & Cutch.	9·70	7·95	+1·75	+22	+1·0	+0·7	+1·2	+3	−0·1

	Rainfall				Departure from normal of				
							0830 hrs. I.S.T.		
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Maximum temperature.	Minimum temperature.	Vapour pressure.	Relative humidity.	Cloud.
1	2	3	4	5	6	7	8	9	10
Division—*contd.*	"	"	"		°	°	mb.	%	
8. Bombay (including Saurashtra & Cutch.)	13·59	14·23	−0·64	−4	+1·2	+0·7	+1·2	+3	−0·1
9. Central India (including Madhya Bharat & Bhopal & Vindhya Pradesh).	13·56	14·35	−0·79	−6	+0·3	+0·2	+0·8	+4	+0·4
10. Central Provinces and Berar.	13·74	14·48	−0·74	−5	−0·2	+0·1	+0·2	+4	+0·8
11. Hyderabad	10·44	7·45	+2·99	+40	−0·7	+0·3	+1·1	+7	+1·1
12. Mysore	9·42	9·97	−0·55	−6	+0·2	+0·8	+0·9	+5	+0·5
13. Madras	9·75	7·23	+2·52	+35	−1·6	−0·3	+1·0	+5	+0·7
Mean of India	11·81	11·17	+0·64	+6	−0·4	+0·1	+0·8	+4	+0·6
Sub-Division—*contd.*									
15. Madhya Bharat & Bhopal.	11·17	13·67	−2·50	−18	+0·3	+0·6	+0·9	+3	+0·8
16. Vindhya Pradesh	16·75	15·27	+1·48	+10	+0·4	−0·5	+0·6	+5	−0·3
17. Berar	13·37	9·60	+3·77	+39	−0·2	−0·5	+0·7	+7	+0·8
18. Central Provinces, West.	14·33	15·36	−1·03	−7	−0·3	+0·2	+0·7	+5	+0·7
19. Central Provinces, East.	13·17	15·37	−2·20	−15	0	+0·1	−0·5	+2	+0·9
20. Konkan	34·29	31·21	+3·08	+10	+1·0	+1·2	+1·0	+2	−0·6
21. Bombay Deccan.	9·53	12·32	−2·79	−23	+1·8	+0·7	+1·1	+3	+0·2
22. Hyderabad, North	11·98	8·08	+3·90	+48	−0·7	+0·6	+1·1	+7	+1·2
23. Hyderabad, South	8·38	6·61	+1·77	+27	−0·6	+0·1	+1·0	+6	+1·0
24. Mysore	9·42	9·97	−0·55	−6	+0·2	+0·8	+0·9	+5	+0·5
25. Malabar	32·64	25·61	+7·03	+27	+0·1	0	+0·4	+3	+0·3
26. Madras, South East.	3·81	2·29	+1·52	+66	−2·1	−0·2	+1·1	+6	+1·1
27. Madras, Deccan.	3·59	3·51	+0·08	+2	−1·2	−0·4	+1·3	+5	+0·9
28. Madras Coast, North.	8·28	5·13	+3·15	+61	−2·4	−0·8	+0·9	+6	+0·4

TABLE II.—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relat humi %	
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	2
Bay Islands																					
Port Blair	261	999·6	+1·0	997·7	83·6	−0·2	87	1,8	74·3	−0·8	71	14	79·7	78·9	76·8	76·2	30·0	−0·5	29·9	87	-
Assam																					
Dibrugarh	348	991·4	+0·5	987·8	87·1	−0·2	93	30	75·3	−0·1	72	8	79·3	83·6	77·6	79·4	31·8	+0·5	32·7	92	-
Sibsagar	317	992·6	+0·9	988·7	89·2	0	93	11,30	78·2	+0·5	75	25	82·6	85·5	79·0	80·1	32·4	−0·1	32·5	85	-
Tezpur	258	994·7	+0·9	990·8	89·5	+0·1	93	12	77·3	−0·3	76	9 days	81·1	85·8	78·9	80·7	32·0	−0·2	33·7	91	-
Gauhati	182	996·6	+1·1	993·0	89·7	0	94	11	78·3	+0·1	74	12	82·9	85·0	79·1	79·7	31·9	−0·7	31·9	84	-
Dhubri	115	999·1	+1·4	995·8	84·1	−1·9	89	4	78·3	+0·1	74	2	82·4	83·5	79·5	80·2	32·9	+0·6	33·4	88	-
Silchar	96	1000·7	+1·0	997·0	88·0	−2·2	92	6,12,29	77·2	0	76	6 days	80·6	83·7	78·3	79·6	31·8	−0·6	32·8	90	-
West Bengal																					
Dum Dum	33	1000·0	..	997·1	89·2	..	93	1,10,11	79·4	..	75	20	83·5	84·4	79·6	80·1	32·6	..	32·8	84	
Calcutta	21	1000·3	+0·9	997·4	89·9	+0·4	94	3	79·5	+0·9	76	22	84·1	85·1	80·4	80·5	33·8	+0·7	33·3	85	+
Saugor Island	10	1000·6	+1·0	998·1	86·1	−1·3	90	11	80·3	+0·2	71	24	83·5	84·2	80·1	80·4	33·4	0	33·4	86	+
Sandheads	28	1000·6	+1·6	998·0	..	..	..	..	..	..	..	..	84·2	85·3	81·0	81·0	35·0	+1·2	33·9	86	+
Midnapore	149	995·2	+0·3	992·6	90·8	+1·1	98	8	77·3	−1·7	74	22	83·3	84·4	79·5	79·9	32·4	+0·3	32·8	83	+
Contai	35	999·3	..	996·7	88·0	..	92	15	79·5	..	75	25,26	83·8	84·8	80·0	80·7	33·0	..	34·1	84	
Burdwan	106	996·9	+0·5	993·8	90·0	−0·1	96	28	79·1	+0·1	75	23	83·3	86·4	79·7	80·4	33·2	+0·4	32·7	85	-
Krishnagar	48	999·2	+0·5	996·7	91·0	+1·1	99	1	78·6	0	72	1	84·2	85·8	80·9	81·0	34·2	+1·0	33·7	87	-
Asansol	414	986·5	+1·5	983·4	90·2	+0·4	93	3,11	78·2	+0·4	76	22,23,24	83·7	84·5	79·8	80·4	32·8	+0·3	33·7	84	
Berhampore	62	998·9	+0·8	995·7	90·8	+1·1	95	3,4	79·2	+0·3	76	21	84·0	84·8	80·6	80·7	34·0	+0·6	34·1	86	-
Malda	103	997·5	+0·7	994·4	89·2	−0·5	93	29	79·0	0	76	21	83·5	85·2	80·1	80·5	33·4	−0·2	33·7	86	-
Cooch Behar	145	997·7	..	994·3	88·8	..	96	29	78·1	..	75	2	82·2	85·8	78·9	80·3	31·9	..	32·8	85	-
Jalpaiguri	271	993·2	+0·9	989·9	86·1	−2·5	93	29	75·8	−1·5	72	2	79·4	83·2	77·0	78·7	30·4	−2·1	31·5	89	-
Orissa																					
Balasore	65	998·7	+0·5	996·5	89·4	+0·3	96	1	79·0	+0·5	76	23	83·9	83·4	80·0	79·8	33·1	+0·9	33·3	84	-
Chandbali	20	1000·7	+1·4	998·1	89·4	+1·2	95	31	78·5	+1·4	75	18,23,25	82·7	84·4	79·2	79·7	32·4	0	32·8	86	-
Puri	20	1001·0	+1·1	998·5	87·1	−0·2	95	11	81·0	+1·2	77	4,25	83·9	84·4	80·4	80·9	33·9	+1·1	34·4	85	-
Gopalpur	56	1000·1	+1·2	997·4	88·2	+0·5	93	30	79·5	+0·4	77	4,15	84·3	83·6	80·9	81·6	34·3	+2·3	36·0	85	-
Cuttack	87	998·3	+0·5	995·6	90·1	+0·6	95	1	78·8	+0·5	75	25,26	82·6	84·6	78·2	78·9	80·9	−0·4	32·6	81	-
Angul	455	986·1	+1·0	983·2	89·2	+1·0	96	1	77·6	+0·4	74	25	81·3	84·5	77·0	77·7	29·4	−0·7	29·0	81	-
Sambalpur	486	985·1	+1·2	982·0	87·5	+0·3	92	1	76·5	−0·6	73	4,23	79·9	82·6	77·2	78·4	31·0	+0·8	31·6	88	-
Chota Nagpur																					
Jamshedpur	423	986·2	+1·2	983·2	89·5	+0·2	96	4	78·0	−0·6	76	4 days	82·6	83·7	78·3	79·1	30·9	−0·2	32·1	81	
Chaibasa	742	975·4	+1·1	972·5	89·9	+0·5	98	4	77·7	+0·2	75	22,23,24	82·1	83·4	77·6	78·6	30·3	+0·1	30·9	81	
Ranchi	2,150	928·6	+0·7	926·7	84·9	+0·5	92	13	72·1	−1·2	70	13,18,24	77·9	78·8	75·0	75·1	28·3	+1·0	28·5	87	-
Hazaribagh	2,006	933·6	+0·9	931·1	85·1	−0·1	91	3,5	73·7	−0·3	71	1	78·2	78·8	75·2	76·2	28·6	+1·5	30·0	87	-
Daltonganj	725	975·7	+1·1	972·2	90·4	−0·7	101	3	78·3	+0·2	75	4,24	82·8	84·5	78·4	78·9	31·1	+1·2	31·3	82	-
Dhanbad	839	922·3	..	..	88·5	..	95	4	76·5	..	74	23,24	82·3	..	78·3	..	31·2	..	..	83	
Bihar																					
Purnea	124	997·0	+0·8	993·7	88·9	−0·7	94	29	78·4	−0·3	75	30,31	82·7	85·1	79·8	81·0	33·3	0	34·3	88	-
Saharsa	156	995·1	..	992·2	89·3	..	97	15	79·1	..	74	31	83·3	86·2	80·1	81·1	34·0	..	34·1	87	-
Darbhanga	161	995·6	+1·1	992·1	90·9	+1·2	97	29	79·1	−0·3	75	1,2	83·6	88·9	80·4	82·6	34·3	+1·7	34·9	87	-
Motihari	218	993·1	+0·6	989·3	90·0	−0·2	93	5 days	78·3	−0·3	75	22	83·6	86·2	79·3	80·5	32·0	−0·8	33·3	82	-
Patna	173	994·4	+0·8	991·3	89·8	−0·9	95	3	79·3	−0·6	75	12	83·3	86·4	79·5	80·8	32·4	−0·8	33·5	84	+
Dehri	352	988·1	..	984·4	91·3	..	102	3	80·1	..	72	21	83·1	87·1	79·9	80·7	33·7	..	32·7	87	-

Cloud amount, (Oktas)			Rainfall, inches.				Number of rainy days (0·10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																			STATION.
											0830 hrs. I.S.T.									1730 hrs. I.S.T.										
0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
4	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
																													Bay Islands	
·4	+0·8	7·3	29·27	+13·84	3·25	14	25	+4·5	10·9	−5·0	0	0	0	0	2	19	9	0	1	0	0	0	0	1	16	14	0	0		Port Blair
																													Assam	
·7	+1·1	6·1	19·12	−2·00	2·85	16	23	+1·7	1·2	+0·2	5	0	3	0	3	1	1	7	11	1	4	3	1	0	0	2	2	18		Dibrugarh
·9	+0·7	6·5	18·01	+0·02	2·33	22	17	−2·7	(a) 2·8	+0·6	5	4	3	2	2	9	0	3	3	5	5	6	1	3	2	0	6	3		Sibsagar
·7	+0·1	4·9	16·01	+2·32	2·02	11	19	+2·1	1·3	−0·4	0	3	16	3	3	2	1	0	3	0	4	10	1	0	2	1	0	13		Tezpur
·8	+0·4	5·8	7·33	−4·95	1·81	6	14	−1·3	2·2	+0·8	4	8	4	2	0	3	2	7	1	2	4	2	3	2	6	3	0	9		Gauhati
·0	0	5·6	19·51	+2·32	5·70	18	15	−1·1	3·7	0	2	6	12	5	1	1	0	0	4	1	4	3	4	8	5	1	1	4		Dhubri
·1	+0·9	6·7	17·79	−2·73	2·82	13	29	+6·3	1·0	−0·7	2	3	1	1	1	1	0	0	22	1	1	1	1	0	4	1	2	20		Silchar
																													West Bengal	
·2	..	6·7	15·11	..	1·82	11	19	..	8·2	..	1	1	3	9	8	7	1	0	1	0	0	2	6	15	4	0	0	4		Dum Dum
·5	−0·5	6·6	14·31	+1·50	2·32	11	15	−2·5	3·5	−0·2	1	0	4	4	5	11	2	0	4	0	0	2	4	10	8	1	0	6		Calcutta
·3	−0·7	6·0	18·85	+3·41	5·00	24	15	−1·5	16·0	+3·9	1	2	2	2	6	15	1	1	1	0	0	0	5	13	11	1	0	1		Saugor Island
·2	0	5·6	13·33	+2·38	3·50	23	14	+1·3	..	..	1	1	0	3	4	19	2	1	0	0	0	0	2	6	20	3	0	0		Sandheads
·9	+0·1	6·8	14·89	+2·15	5·07	5	15	−1·3	3·5	+1·0	2	0	4	0	5	8	1	0	11	0	0	0	4	13	10	1	1	2		Midnapore
·7	..	5·5	8·26	..	1·82	25	15	..	7·6	..	0	0	0	0	14	10	2	0	5	0	0	0	1	28	2	0	0	0		Contai
·8	−0·8	6·3	12·20	−0·60	3·54	23	13	−3·0	4·9	+2·3	0	0	11	4	2	6	3	2	3	0	0	8	3	10	6	2	0	2		Burdwan
·2	+0·6	6·6	7·97	−3·28	2·54	23	16	−0·3	4·1	+0·5	0	0	3	5	19	3	0	0	1	0	0	1	5	19	2	0	1	3		Krishnagar
·3	−0·5	7·1	12·67	−1·02	1·75	22	19	+1·3	4·6	−0·3	0	0	10	3	3	5	3	2	5	0	1	5	7	3	1	4	2	8		Asansol
·8	+0·1	6·9	11·80	+0·93	1·96	19	18	+1·9	3·3	−0·1	0	0	12	0	14	1	0	0	4	0	0	12	5	11	2	1	0	0		Berhampore
·4	+0·6	6·2	11·06	−0·42	1·55	20	17	−2·2	4·5	−0·8	1	4	8	7	6	2	1	0	2	0	1	8	15	2	2	0	0	3		Malda
·3	..	6·7	22·60	−8·37	4·77	20	19	−1·5	3·5	..	0	4	15	6	0	1	1	0	4	0	0	6	9	4	1	1	1	9		Cooch Behar
·5	+1·2	6·3	28·78	−3·44	5·62	20	23	+0·7	4·9	+2·9	1	14	13	0	0	0	0	1	2	2	5	11	4	3	1	0	0	5		Jalpaiguri
																													Orissa	
·7	+1·8	7·5	11·25	−0·55	3·52	12	17	+2·9	5·9	+1·6	1	4	1	0	6	11	1	0	7	0	0	0	4	8	11	1	0	7		Balasore
·4	0	6·7	8·14	−8·60	1·62	16	16	−0·8	(b) 5·5	−1·6	1	0	1	1	8	8	10	1	0	0	0	3	1	11	5	6	1	3		Chandbali
·6	+0·8	6·9	7·91	−2·41	2·42	4	8	−4·0	15·2	+3·9	3	1	0	1	2	17	5	2	0	0	1	0	1	3	22	3	1	0		Puri
·7	+1·7	7·0	3·21	−3·95	0·93	10	9	−0·7	11·3	+2·4	1	0	0	0	3	18	3	0	6	1	0	0	0	2	25	2	1	0		Gopalpur
·6	−0·6	7·3	6·54	−6·35	1·15	12	13	−2·9	4·3	+1·7	2	0	0	1	0	2	2	1	23	0	0	0	0	2	3	2	1	23		Cuttack
·3	0	6·9	(c) 6·82	..	..	..	..	..	5·2	+0·2	3	1	2	3	4	2	11	4	1	0	1	1	4	9	5	7	3	1		Angul
·5	+0·9	7·5	25·50	+4·94	2·99	23	20	+0·4	5·5	+1·6	0	0	1	0	4	13	9	2	2	1	1	1	3	7	8	4	4	2		Sambalpur
																													Chota Nagpur	
·8	−0·3	7·5	11·03	−2·13	1·46	12	21	+3·6	4·7	+0·5	0	0	6	1	1	7	11	1	4	2	0	5	2	2	5	5	2	8		Jamshedpur
·1	+0·6	7·6	14·73	+1·62	6·40	7	17	+0·8	2·3	−0·2	0	5	0	1	2	15	2	2	4	2	4	0	1	2	10	2	3	7		Chaibasa
5·9	−0·7	6·5	16·34	+0·89	3·94	23	14	−4·5	3·0	−2·0	1	2	2	0	8	4	0	1	13	2	3	1	1	1	2	0	1	20		Ranchi
·1	0	7·1	14·59	+1·56	1·84	20,21	22	+4·2	4·9	−1·2	2	1	5	2	2	5	7	3	4	3	2	3	3	5	4	4	3	4		Hazaribagh
·7	+0·7	6·5	11·50	−1·90	1·68	7	14	−1·6	3·3	−0·3	2	1	5	3	2	2	14	1	1	1	2	8	3	4	2	5	4	2		Daltonganj
..	..	..	13·27	..	2·52	24	20	..	4·7	..	1	1	10	3	1	10	4	1	0	..	..	..	..	..	..	..	..	..		Dhanbad
																													Bihar	
·7	+0·8	6·4	25·70	+11·38	4·86	31	21	+4·4	3·7	+1·1	1	3	16	4	1	0	0	1	5	0	1	9	6	0	0	0	0	15		Purnea
·0	..	6·1	15·28	..	2·70	18	19	..	4·4	..	0	4	19	2	0	0	1	0	5	0	4	11	2	0	0	0	1	13		Saharsa
·1	+1·0	5·3	16·38	+4·26	4·40	19	15	+1·1	4·9	+1·4	1	10	14	0	2	0	0	0	4	0	6	12	6	2	1	2	0	2		Darbhanga
·7	+1·7	5·1	10·14	−4·86	1·65	26	16	+1·9	3·9	−0·6	0	0	28	1	0	0	0	0	2	0	0	13	0	0	0	1	0	17		Motihari
·9	+0·3	5·9	19·10	+7·52	3·46	29	17	+3·3	4·7	+0·4	0	5	14	3	0	2	1	0	6	1	5	12	3	1	2	2	1	4		Patna
·5	..	7·1	12·25	+0·73	4·02	20	11	−3·2	4·2	..	1	2	4	6	3	6	0	4	5	0	6	3	5	1	1	1	6	8		Dehri

(a) Mean of 30 days. (b) Mean of 29 days. (c) Total for 29 days.

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F				Minimum temperature °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Rela humi %
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I. S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Bihar—*contd.*																				
Gaya	365	987·4	+0·7	984·1	91·2	−0·9	98	3,5	79·5	+0·9	76	21,23	83·7	86·9	79·4	80·2	32·1	+1·3	32·5	82
Naya Dumka	489	984·0	+0·7	980·9	89·8	+0·4	96	3	..	..	..	..	82·3	84·7	79·3	79·7	32·8	+1·0	32·4	84
Sabour	122	996·3	+0·8	993·2	90·4	+0·1	95	5 days	79·4	0	79	31	83·5	85·3	80·6	81·4	34·2	+0·6	34·7	88
U.P., East																				
Gonda	360	987·9	..	984·3	92·4	+1·1	104	1	79·7	+0·3	68	6	84·1	87·6	79·8	81·0	32·8	0	33·1	82
Gorakhpur	254	991·0	+0·1	987·9	90·3	−0·6	96	1	79·6	+0·5	76	5,21	83·6	87·7	80·2	81·4	33·7	+0·9	33·7	86
Banaras	250	991·1	+0·6	987·6	93·1	+0·9	106	4	80·2	+0·5	76	21	84·5	88·8	79·8	80·9	32·7	+0·5	32·6	81
Allahabad (Bamraulí).	322	988·3	+0·3	985·0	93·0	+0·9	107	4	80·8	+1·0	76	20,24	84·4	88·5	79·0	80·0	31·4	−0·9	31·1	80
Fatehpur	375	986·6	..	983·2	91·5	−1·6	107	2,4,5	80·6	+0·9	71	8	84·3	89·3	80·4	81·9	33·7	+0·7	33·9	86
Kanpur	413	985·3	+0·6	981·9	93·5	+1·1	108	2,4	81·3	+1·4	76	20,25	84·1	89·1	79·1	79·7	31·5	−0·5	30·4	80
Lucknow	371	987·0	+0·7	983·8	93·1	+0·7	106	1,2,4	80·8	+1·3	77	18,25,31	83·7	88·3	80·2	81·5	33·6	+1·4	33·7	86
Bahraich	407	986·6	+1·4	983·3	92·9	+1·0	102	1	79·1	0	75	11,19,20	83·6	87·7	79·5	81·1	33·2	+1·2	33·2	84
U.P., West																				
Jhansi	823	971·4	−0·1	968·6	92·7	0	107	1	78·3	−0·3	74	8,25	82·5	87·7	78·0	79·6	30·7	+1·1	30·8	83
Agra	553	980·0	+0·2	977·1	94·1	+0·3	109	1	80·7	+0·3	75	11,22	84·2	88·5	78·9	80·0	31·3	+0·8	31·1	80
Mainpuri	516	981·7	+0·5	978·3	94·2	−0·9	111	1,2	81·1	+0·8	76	11,19	84·6	88·9	79·6	80·3	32·3	+0·8	31·5	81
Aligarh	615	978·3	..	975·1	93·5	−0·7	109	1	79·5	−0·5	75	10,20	84·5	88·5	79·7	79·8	32·1	+0 9	31·1	83
Bareilly	568	980·1	+0·3	976·5	93·4	+1·3	109	1	79·8	+0·9	75	18	84·1	89·3	79·3	79·9	32·0	0	30·4	81
Meerut	728	974·6	..	..	92·3	..	109	1	79·4	..	73	20	83·2	..	77·7	..	29·9	..	..	80
Roorkee	899	969·1	+0·4	965·7	92·4	+0·3	109	1	77·5	−0·6	73	13	81·7	88·3	77·3	79·6	30·0	+0·2	30·6	82
Dehra Dun	2,239	926·0	+0·8	923·1	80·7	+0·8	102	1	74·1	+0·3	69	6	78·9	83·2	74·4	76·0	27·0	−0·1	27·4	82
East Punjab																				
New Delhi	714	974·5	−0·2	971·5	93·7	−1·6	108	1	80·1	−0·8	73	20	83·9	88·2	77·9	78·8	29·9	−0·7	29·2	78
Hissar	725	974·6	+1·0	971·7	94·2	−5·4	112	1	78·9	−2·3	71	10	83·7	88·8	78·8	79·8	31·1	+1·7	30·9	81
Patiala	82	970·8	..	967·9	92·1	..	108	1	78·2	..	72	23	82·2	87·9	77·1	79·1	29·3	..	30·0	81
Ambala	892	(a) 968·2	−0·3	(a) 964·5	93·5	−2·0	110	1,2,5	(u) 77·8	−1·3	72	17	82·0	(a) 88·3	76·0	79·5	27·9	−2·4	30·4	77
Ludhiana	810	971·8	+0·9	968·7	93·4	−3·9	110	1	78·3	−2·0	70	14	82·9	90·7	77·4	79·7	28·9	−0·3	29·6	79
Amritsar	756	973·3	..	970·0	93·9	..	111	2	78·6	..	72	21	83·1	91·0	77·4	80·3	29·5	..	30·5	81
Kashmir																				
Srinagar	5,205	834·3	+0·1	831·0	88·1	+0·3	95	7,8	66·5	+2 2	55	2	73·2	84·3	67·6	69·4	21·1	+0·7	19·1	75
Gulmarg (R)	8,709																			
Dras (R)	10,059																			
Leh	11,529	664·9	+0·3	661·5	76·7	+0·3	84	8,29,30	49·8	−0·5	43	2,14	62·6	72·2	49·6	53·8	8·0	−1·1	8·2	41
Skardu (R)	7,505																			
Gilgit (R)	4,890																			
Misgar (R)	10,190																			
Rajputana, West																				
Sri Ganganagar	580	..	..	..	98·6	−3·5	109	5	82·0	−0·5	77	2	86·9	93·1	79·3	79·6	30·7	+3·5	28·4	71
Bikaner	734	974·1	+0·9	970·1	99·0	−2·3	108	1	81·5	−0·9	73	9	85·3	95·5	78·7	80·6	30·3	+2·1	28·7	75
Phalodi	794	972·4	..	969·8	97·3	..	105	3	80·0	..	73	8	83·1	94·6	78·4	82·6	31·3	..	32·5	81
Jaisalmer	793	971·1	..	967·9	99·9	..	111	14	80·8	.	73	25	84·3	94·9	81·7	86·7	37·0	..	39·7	89
Jodhpur	736	974·6	+1·7	971·1	95·8	−1·1	105	1	80·2	0	75	8,30	83·0	92·6	77·5	78·9	29·7	+2·0	27·5	78
Barmer	638	977·5	+0·5	974·2	96·9	+0·4	104	1	79·9	+1·0	76	25	83·0	93·9	78·6	80·7	31·4	+2·0	29·8	81

(a) Mean of 30 days (R) Register not received.

Cloud amount, (Oktas)			Rainfall, inches.				Number of rainy days, (0.10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																			STATION.
											0830 hrs. I.S.T.									1730 hrs. I. S. T.										
Mean 0830 hrs.I.S.T.	Departure from normal.	Mean 1730 hrs.I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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
																														Bihar—*contd.*
6·9	+1·7	7·5	13·25	+0·04	4·47	21	15	−0·8	6·1	+0·4	1	0	8	1	3	11	2	2	3	2	5	9	2	3	2	4	3	1		Gaya
4·6	−1·2	6·1	14·82	+1·00	3·92	4	19	+1·0	4·0	+1·7	0	2	7	8	2	6	2	2	2	3	2	5	7	5	4	3	2	0		Naya Dumka
6·7	0	6·9	11·06	+1·10	3·09	20	18	+2·9	5·3	−0·7	0	1	14	8	1	2	3	2	0	2	0	11	11	0	3	1	2	1		Sabour
																														U. P., East
6·2	+0·1	5·7	9·86	−4·81	2·42	12	14	0	4·9	+1·2	0	0	23	2	0	0	1	0	5	0	0	17	0	1	0	0	1	12		Gonda
6·3	+1·6	4·5	8·96	+5·31	6·50	21	13	−1·3	3·5	+1·2	2	4	20	3	1	0	0	0	1	0	1	19	4	1	2	1	0	3		Gorakhpur
6·6	+0·3	6·6	15·30	+3·49	3·61	18	15	+0·7	5·8	+2·3	0	0	10	2	3	7	7	0	2	1	4	7	4	1	2	6	5	1		Banaras
6·8	+0·3	6·9	13·11	+0·55	2·06	18	16	+0·8	4·4	−0·4	0	2	7	4	3	7	4	0	4	2	1	7	2	2	3	5	2	7		Allahabad (Bamrauli)
6·6	+1·0	5·6	8·08	−4·45	1·65	27	12	−1·9	4·6	−1·0	1	1	9	3	0	5	5	2	5	1	2	5	1	1	0	5	1	15		Fatehpur
6·8	+2·3	6·7	7·31	−3·44	2·02	20	10	−2·5	7·6	+0·3	0	5	10	2	1	6	5	1	1	2	4	7	4	1	4	5	3	1		Kanpur
6·3	+0·5	5·9	9·24	−2·76	3·73	31	9	−4·4	3·1	+0·9	1	0	17	0	7	1	5	0	0	0	3	9	4	3	2	4	0	6		Lucknow
6·0	+1·5	5·8	16·73	+4·49	5·09	6	11	−0·9	5·3	+2·5	1	3	13	10	0	0	0	0	4	0	1	11	8	0	0	3	1	7		Bahraich
																														U. P., West
5·5	+0·8	6·0	12·18	+0·37	1·82	24	20	+6·2	4·8	+0·6	0	0	0	0	4	4	5	0	18	0	4	2	0	1	5	5	3	11		Jhansi
5·5	+0·2	6·3	13·41	+4·86	3·80	22	16	+5·0	3·2	−1·2	0	5	4	0	1	4	4	0	13	0	6	3	0	1	2	2	3	14		Agra
6·3	+1·0	5·6	14·13	+6·59	2·66	23	10	−0·4	3·7	+1·5	0	0	10	6	1	4	3	2	5	0	2	6	7	0	2	7	2	5		Mainpuri
6·3	+1·5	6·6	14·25	+5·48	4·85	22	11	+0·7	5·8	+1·2	0	1	13	5	0	1	3	3	5	2	0	12	3	0	0	5	5	4		Aligarh
6·5	+0·7	6·0	..	..	2·36	11	15	+2·2	3·7	+1·5	1	0	13	10	1	1	1	2	2	3	0	7	8	2	0	2	1	8		Bareilly
4·9	..	..	13·88	+5·39	2·91	31	14	+3·7	4·7	..	0	0	11	9	0	0	2	3	6	..	.	..	..	..	..	..	..	..		Meerut
4·8	−0·3	4·1	21·07	+8·77	4·61	10	17	+5·1	3·0	+0·5	0	4	0	16	0	2	0	0	9	0	3	0	11	0	0	0	2	15		Roorkee
6·3	+0·1	6·1	22·08	−4·22	2·35	27	23	+2·7	1·7	+0·1	1	1	1	5	3	6	1	0	13	1	2	2	4	2	9	3	3	5		Dehra Dun
																														East Punjab
6·5	+1·5	6·1	8·28	+11·25	5·47	21	20	+11·0	6·5	..	1	4	8	8	1	2	3	2	2	4	3	5	7	0	2	2	5	3		New Delhi
4·3	+1·5	3·4	8·24	+3·96	3·63	9	5	−1·0	5·6	+0·1	1	2	4	7	3	3	4	0	7	2	6	5	6	4	3	4	0	1		Hissar
6·8	..	6·8	33·62	..	9·37	14	14	..	5·1	..	2	0	5	18	0	1	1	2	2	4	1	4	14	1	0	3	3	1		Patiala
5·0	+0·2	4·5	12·92	+3·31	1·98	19	16	+5·4	..	..	0	0	0	12	1	3	0	11	3	0	0	0	9	0	2	0	18	1		Ambala
6·3	+2·4	3·9	10·67	+2·60	3·09	14	12	+3·6	3·5	+1·5	0	1	10	8	4	3	2	1	2	0	4	2	9	1	3	3	2	7		Ludhiana
5·6	..	3·7	17·38	..	2·85	26	14	..	5·3	..	5	2	11	5	5	1	1	0	1	1	1	4	10	5	4	4	2	0		Amritsar
																														Kashmir
4·0	+0·5	4·3	0·89	−1·44	0·40	9	3	−1·9	2·4	−0·1	1	0	2	7	1	0	4	3	13	2	1	2	3	2	2	1	5	13		Srinagar
																														Gulmarg (R)
																														Dras (R)
3·6	−0·1	4·6	0·03	−0·44	0·03	25	0	−1·4	4·0	+2·1	0	1	0	4	0	7	1	1	17	1	5	0	0	2	12	5	0	6		Leh
																														Skardu (R)
																														Gilgit (R)
																														Misgar (R)
																														Rajputana, West
2·2	+0·6	2·3	1·97	−0·23	0·61	24	5	+0·7	7·0	−0·4	0	0	9	4	2	12	2	0	2	0	5	8	4	3	6	1	0	4		Sri Ganganagar
2·7	−0·2	3·5	7·66	+4·32	3·00	28	7	+2·1	7·0	0	0	2	1	5	0	22	0	1	0	0	3	0	5	0	21	0	0	2		Bikaner
4·5	..	4·5	7·10	+4·39	2·67	30	6	+2·2	13·4	..	0	1	2	0	7	19	1	1	0	1	1	1	0	13	12	2	1	0		Phalodi
3·7	..	4·0	1·50	..	0·63	30	4	..	16·0	..	0	2	1	1	1	25	0	0	1	0	1	3	2	1	22	1	0	1		Jaisalmer
5·9	+0·2	5·9	6·08	+2·11	2·58	18	7	+1·5	7·4	−4·7	0	0	1	1	2	18	6	1	2	1	1	0	1	1	18	7	1	1		Jodhpur
6·2	+0·8	5·1	3·97	+0·72	1·32	27	7	+3·0	7·4	+0·2	1	0	0	2	10	13	3	1	1	1	0	1	2	5	16	1	0	5		Barmer

(R) Register not received

TABLE II.—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Rela hum
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Rajputana, East																				
Sikar	1,406	951·6	..	948·7	94·6	..	106	1	78·5	..	74	9	83·1	88·8	76·9	77·9	28·8	..	27·7	75
Jaipur	1,431	951·5	−0·2	948·7	92·2	−2·0	106	1	78·1	−0·1	74	27,28	81·8	86·6	76·4	77·6	28·7	+0·8	28·7	79
Ajmer	1,593	946·2	−0·2	943·4	91·0	−0·7	101	1	77·5	−0·9	73	9,25,26	79·8	87·3	75·0	76·7	27.5	+0·4	26·6	80
Kotah	843	971·2	+0·3	967·9	93·3	−0·6	103	1	80·1	+0·2	74	24	83·7	88·5	77·8	79·2	29·5	+1·4	29·5	75
Jhalawar	1,053	964·0	−0·4	961·0	90·9	+0·9	99	3	77·4	+0·7	71	24	80·9	86·6	77·0	78·6	29·9	+0·7	29·8	84
Rajsamand	1,882	938·0	..	..	88·5	..	97	4	76·3	..	72	25	79·8	..	75·8	..	28·8	..	..	83
Udaipur	1,910	936·7	..	934·1	87·3	..	98	12	75·3	..	70	3	78·8	84·0	74·7	76·4	27·7	..	28·0	83
Gujarat																				
Deesa*	466																			
Surat	39	1001·1	−0·1	998·6	88·2	+0·5	94	5	77·0	−0·8	76	17	82·5	85·0	79·4	80·3	32·8	+1·8	33·2	87
Ahmedabad	163	995·8	−0·2	992·5	93·2	+0·1	102	3	79·6	+1·1	76	18	82·5	88·8	78·6	80·1	31·6	+1·7	31·2	83
Dohad	1,093	964·5	..	961·7	88·0	+0·8	99	1	75·5	+0·1	72	18	78·3	83·9	75·5	76·9	28·9	−0·1	28·4	88
Baroda	115	997·8	..	994·8	92·5	+2·7	102	6	78·9	+1·3	76	8,9,20	82·0	87·4	79.1	80·7	32·7	+1·9	32·8	88
Saurashtra and Cutch																				
Bhuj	343	988·5	0	986·2	91·3	+0·5	100	14	79·8	+1·7	77	14,27	82·8	87·0	78·5	78·7	31·4	+1·3	29·7	82
Dwarka	37	999·1	−0·9	997·4	87·3	+0·6	91	7	81·3	+0·6	77	17	83·0	84·6	79·6	80·0	33·0	+1·2	32·9	85
Jamnagar	60	1000·9	+2·2	..	91·5	+0·9	96	3	78·1	−0·4	74	21	83·6	..	79·9	..	33·2	+2·2	..	83
Rajkot	432	985·9	−0·5	983·4	93·2	+2·0	102	4	78·2	+1·7	75	14,17	81·3	88·0	77·3	77·6	30·2	+0·9	27·6	83
Veraval	26	1000·8	−0·7	999·2	85·5	..	90	6,7	79·8	..	76	13 17,27	82·4	83·6	79·4	80·1	32·9	..	33·5	88
Bhavnagar	55	999·9	0	997·1	93·7	+0·8	104	2	78·4	0	72	16	81·8	87·7	77·4	78·4	30·2	+0·6	29·0	82
Madhya Bharat and Bhopal																				
Neemuch	1,626	946·2	+0·1	943·6	89·1	+1·1	99	1	75·7	+1·1	72	13	78·3	84·4	74·8	76·1	27·9	+0·8	27·0	85
Ratlam	1,596	948·0	..	945·4	86·7	..	96	7	74·2	..	70	18	76·7	82·7	74·4	77·4	28·4	..	30·0	88
Indore	1,823	940·4	0	937·5	85·8	+0·7	95	4	73·7	+0·9	71	7	76·5	83·2	73·2	74·6	26·6	+0·6	25·8	85
Bhopal	1,643	945·5	−0·3	943·0	86·8	+1·2	94	5	74·4	+0·3	70	1	77·6	82·6	74·3	75·5	28·1	+1·2	27·2	86
Guna	1,571	947·1	−0·2	944·8	89·4	+1·4	98	1,4,5	75·4	+0·2	70	24	78·6	83·9	75·5	77·4	28·9	+0·9	29·5	87
Gwalior	681	976·0	..	972·8	92·5	..	109	1	79·4	..	74	21	83·5	86·8	78·3	79·1	30·7	..	30·5	80
Madhosagar	757	973·3	..	970·5	92·5	..	107	4	78·9	..	72	21	83·4	86·6	78·4	79·6	30·9	..	31·4	81
Vindhya Pradesh																				
Nowgong	750	974·3	+0·3	971·1	91·1	+0·1	105	5	78·0	−0·6	74	19,20,21	82·7	86·1	78·3	79·6	31·1	+1·1	31·6	82
Sutna	1,041	964·3	+0·4	961·2	89·6	+0·8	102	5	77·2	−0·2	71	20	79·5	86·0	76·9	79·3	30·0	+0·6	31·2	89
Umaria	1,506	949·2	..	946·9	86·7	+0·2	97	3	74·6	−0·6	72	6,25	78·5	82·6	75·4	76·3	28·8	+0·1	28·4	86
Berar																				
Buldana	2,133	931·3	..	928·5	84·5	..	90	3,4	71·5	..	66	6	73.6	81·7	71·6	74·5	26·0	..	26·5	88
Akola	925	970·9	−0·1	966·8	90·1	+1·0	95	6	73·8	−1·0	71	5 days	77·7	85·3	74·5	76·5	27·1	+0·7	27·1	85
Amraoti	1,213	961·1	0	957·7	86·1	−1·4	92	26	73·9	−0·1	70	7	76·1	84·1	73·5	76·0	27·1	+0·7	27·0	88
C. P., West																				
Khandwa	1,044	966·3	−0·3	963·2	89·2	+1·3	96	5,31	75·2	−0·1	70	1	79·0	84·5	74·9	76·5	27·7	+0·8	27·5	82
Hoshangabad	992	967·4	−0·4	964·5	87·4	+1·3	95	5	75·3	+0·2	70	12	78·1	84·1	76·0	78·7	29·7	+1·4	31·1	91
Saugor	1,808	939·7	+0·3	936·9	85·6	−0·3	95	5	74·4	+0·5	71	6	76·7	80·9	74·0	75·2	27·9	+1·2	27·8	88
Jubbulpur	1,289	957·3	+0·7	954·4	86·5	+0·1	93	3	75·4	+0·7	73	6,18	78·5	82·6	75·3	77·2	28·5	+1·0	29·5	86
Seoni	2,207	933·8	+0·7	930·9	80·1	−4·0	89	11	72·7	+0·4	70	8	75·5	79·8	73·2	74·5	26·5	+0·3	27·2	90
Betul	2,144	930·6	..	927·9	81·8	..	87	28	71·7	..	69	1,12,29	74·4	77·6	71·9	73·8	25·7	..	27·0	88
Nagpur	1,010	967·7	+0·3	964·7	87·8	−0·5	94	26	75·0	−0·5	71	12	78·4	83·8	74·5	75·9	26·9	−0·3	27·0	83

*Data not reliable.

Cloud amount, (Oktas).		Rainfall, inches.				Number of rainy days, (0.10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																			STATION.
										0830 hrs. I. S. T.									1730 hrs. I. S. T.										
Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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
																													Rajputana, East
..	6·3	9·35	..	3·65	9	12	..	4·4	..	2	1	4	0	0	9	11	1	3	1	3	7	2	1	7	4	4	2		Sikar
+0·3	6·8	10·78	−3·04	2·03	25	17	+6·7	5·7	+0·7	2	0	6	2	1	0	8	7	5	3	3	2	2	2	1	8	5	5		Jaipur
+0·8	5·9	9·49	+3·08	1·45	8,27	14	+5·1	7·8	+1·8	0	0	1	0	0	14	10	0	6	1	3	1	2	2	12	7	1	2		Ajmer
+0·5	6·5	14·94	+4·80	6·60	24	12	+0·9	4·5	+0·5	0	0	1	1	0	8	12	0	9	0	2	0	0	0	5	9	3	12		Kotah
+0·3	7·0	8·97	−2·71	2·25	24	14	+0·5	7·0	+2·1	1	0	0	2	1	8	15	2	2	0	1	2	2	2	6	13	4	1		Jhalawar
..	..	9·49	..	2·40	14	15	..	6·4	..	1	0	2	2	5	11	7	2	1	..	..	..	..	..	..	..	..	..		Rajsamand
..	7·0	7·92	−0·63	1·77	8	13	+2·6	4·7	..	1	1	0	1	3	10	7	2	6	0	1	1	1	3	15	4	2	4		Udaipur
																													Gujarat
																													Deesa*
+0·2	7·4	13·83	−3.59	4·28	17	14	−2·3	7·7	+0·4	0	1	0	4	1	20	5	0	0	0	0	0	0	0	31	0	0	0		Surat
−0·1	6·4	12·10	−0·12	5·53	18	12	−0·6	5·4	+0·5	2	0	0	0	1	18	10	0	0	1	0	0	2	5	13	10	0	0		Ahmedabad
−0·4	6·2	6·84	−2.18	1·50	20	10	−3·0	17·3	+8·3	0	0	0	0	1	19	10	0	1	0	1	0	0	2	24	4	0	0		Dohad
−0·8	5·8	11·07	−1·16	3·09	20	16	+3·3	5·0	−0·6	0	0	0	0	4	14	6	0	7	1	0	0	2	4	17	3	1	3		Baroda
																													Saurashtra and Cutch
−0·3	6·4	4·92	−1·41	1·50	14	7	+1·0	11·4	−0·3	1	0	0	0	1	17	9	1	2	0	0	0	0	1	20	9	0	1		Bhuj
+0·1	6·9	13·20	+6·25	5·25	18	11	+5·0	17·5	+2·6	0	0	0	0	0	15	15	1	0	0	0	0	0	0	13	17	1	0		Dwarka
+1·7	..	4·03	−4·90	1·10	19	10	+2·1	3·5	−10·5	0	0	0	0	0	5	6	0	20	..	..	..	..	..	..	..	..	..		Jamnagar
−0·7	7·2	8·94	−1·74	2·57	27	10	−0·5	16·0	+4·0	1	0	0	0	4	15	9	1	1	1	0	0	0	1	14	12	3	0		Rajkot
−0·4	6·5	15·13	+7·35	5·33	15	16	+6·8	21·3	..	0	0	0	0	1	9	18	3	0	1	0	0	0	1	10	18	1	0		Veraval
−0·7	6·8	12·00	+4·99	2·89	16	14	+4·7	8·0	+0·6	1	0	0	0	5	12	10	0	3	0	1	1	1	8	9	11	0	0		Bhavnagar
																													Madhya Bharat and Bhopal
+1·2	7·2	6·78	−2·69	1·71	9	12	+1·4	8·8	0	0	1	0	1	0	12	15	1	1	0	2	1	2	1	12	13	0	0		Neemuch
..	7·4	16·40	..	2·69	17	17	..	8·0	..	0	0	0	0	3	9	17	2	0	2	0	0	0	1	13	14	1	0		Ratlam
−0·1	6·9	7·76	−3·36	2·54	7	12	−1·3	6·6	+0·8	1	0	0	1	0	11	16	2	0	0	0	0	2	1	12	13	2	1		Indore
+0·8	7·1	15·28	−4·45	3·64	1	16	−0·4	7·5	+1·5	0	0	0	1	2	6	13	9	0	0	1	2	1	1	7	12	5	2		Bhopal
+1·4	7·3	14·88	+0·53	2·84	28	15	−0·5	8·0	+1·1	2	1	0	1	4	8	11	0	4	0	2	1	3	4	4	10	5	2		Guna
..	7·4	14·46	..	4·73	21	16	..	0·8	..	0	1	1	0	0	2	4	4	19	2	2	2	1	4	0	3	1	16		Gwalior
..	7·5	12·60	..	2·40	23	22	..	7·7	..	2	3	2	1	3	7	7	4	2	1	6	0	4	4	4	5	2	5		Madhosagar
																													Vindhya Pradesh
−0·9	6·2	17·40	+3·59	3·08	19	16	+1·9	5·0	+1·9	0	1	4	0	1	20	5	0	0	0	2	6	0	1	13	6	0	3		Nowgong
−0·2	6·0	16·62	+2·37	3·49	7	18	+2·6	5·0	−0·1	0	0	3	2	1	15	9	0	1	0	1	4	2	0	5	15	0	4		Sutna
+0·3	7·3	16·23	−1·52	2·73	12	22	+1·9	4 4	+0·6	0	0	1	1	2	5	18	2	2	1	1	1	0	2	8	14	3	1		Umaria
																													Berar
..	6·5	13·46	..	2·83	16	13	..	8·0	..	0	0	0	0	0	23	6	2	0	2	1	0	0	0	7	8	13	0		Buldana
+0·4	6·3	14·64	+4·85	2·40	17	17	+4·6	6·5	−0·4	0	0	0	0	0	3	21	7	0	1	1	1	1	2	5	11	8	1		Akola
+1·2	6·6	12·11	+2·70	2·31	17	19	+6·2	9·2	+1·6	0	0	0	0	0	24	0	7	0	0	0	0	2	0	17	0	12	0		Amraoti
																													C. P., West
+0·7	7·5	15·97	+6·31	5·95	1	15	+2·9	8·2	+0·8	0	0	0	1	3	11	15	0	1	1	0	1	1	7	7	12	2	0		Khandwa
+0·2	6·7	13·01	−3·70	3·14	17	15	−0·7	4·0	+0·4	0	0	1	0	7	14	8	0	1	0	1	0	0	7	11	4	0	8		Hoshangabad
+1·1	7·0	11·16	−4·41	2·26	21	16	−0·5	..	..	0	1	0	0	1	10	15	1	3	0	0	1	1	2	12	13	2	0		Saugor
+0·8	7·6	14·39	−4·99	2·33	6	22	+3·9	5·1	+1·7	0	1	0	0	1	10	15	1	3	0	0	1	1	2	12	13	2	0		Jubbulpur
+0·2	5·8	14·61	−1·61	2·24	6	14	−4·3	4·4	−0·1	2	1	0	1	5	8	7	3	4	2	0	1	2	2	9	8	5	2		Seoni
..	7·6	18·79	..	4·56	29	21	..	5·0	..	1	0	0	1	1	3	18	7	0		2	1	0	2	3	11	7	4		Betul
+0·9	7·3	16·85	+2·25	3·67	17	15	−1·5	6·0	..	0	0	0	0	1	13	15	1		1	2	1	0	2	10	11	2	5		Nagpur

TABLE II.—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M.

STATION	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relati humic %	
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	2
C. P., East																					
Gondia	1,026	967·1	..	964·4	86·0	..	90	11,28,29	75·1	..	71	25	78·3	82·3	75·7	77·5	29·2	..	30·1	88	.
Pendra	2,040	932·8	+0·9	930·1	83·9	+0.4	90	3,5	72·7	+0·3	70	25	76·4	79·2	74·1	75·2	27·8	+0·8	28·2	90	+
Champa	805	974·3	..	970·6	88·6	..	94	4 days	76·5	..	73	25,26	79·1	84·1	76·4	78·4	29·8	..	30·9	88	.
Raipur	979	968·5	+0·8	965·5	87·0	+0·3	90	11,15,28	75·1	+0·1	71	26	78·3	83·4	73·0	74·9	25·3	−3·3	25·3	76	—
Titilagarh	691	978·4	..	975·5	87·6	..	95	1	75·9	..	73	2,4	79·0	83·1	75·5	77·0	28·6	..	28·9	84	.
Kanker	1,318	957·7	+1·0	955·1	85·1	+1·1	88	5 days	74·7	+0·8	71	3	78·0	81·6	74·1	76·0	27·0	0	28·1	83	+
Chanda	634	981·4	+0·6	978·2	87·3	−1·1	92	11,29	75·2	−0·6	72	30	78·5	82·7	74·5	75·8	27·8	0	27·4	83	+
Jagdalpur	1,815	941·9	+0·6	939·3	82·3	−0·6	88	27	72·0	+0·1	69	2	75·3	78·5	72·9	74·4	26·7	0	27·5	89	+
Konkan																					
Dahanu	15	1002·3	..	1000·8	86·5	..	90	5,6	78·7	..	74	13	82·4	84·4	79·4	81·3	32·9	..	35·1	92	.
Bombay	37	1002·8	−0·4	1001·3	86·6	+1·1	90	4,5	78·0	+1·3	74	14	81·6	83·3	78·4	79·1	31·8	+1·2	32·1	86	+
Alibag	23	1003·8	−0·	..	85·3	+0·9	88	4	78·7	+1·1	68	14	81·9	..	79·2	..	32·9	+1·7	..	88	+
Harnai	66	1002·8	..	1000·7	85·1	..	87	5 days	76·8	..	74	20	81·1	82·0	77·9	78·2	31·2	..	31·2	85	.
Devgad	117	1001·6	..	1000·1	85·2	..	89	8	79·0	..	76	12	81·2	82·2	78·4	78·9	31·9	..	32·2	88	.
Vengurla	29	1005·2	..	1003·6	85·3	..	88	6,10	76·3	..	73	4 days	80·2	81·8	77·6	78·1	31·1	..	31·2	88	.
Marmagao	202	999·7	−0.2	997·8	83·5	+0·9	86	4 days	..	..	..	..	80·5	80·9	77·0	77·3	30·1	+0·1	30·3	85	—
Honavar	65	1005·3	..	1003·6	83·9	..	90	20	75·1	..	71	17	78·4	80·0	76·7	77·3	30·6	..	30·8	93	.
Bombay, Deccan																					
Jalgaon	660	979·9	..	977·1	91·6	..	99	3,4	75·5	..	72	15	79·1	85·9	75·8	77·4	29·0	..	28·2	87	
Malegaon	1,432	954·7	+0·1	951·7	90·3	+2·1	96	4	74·4	+0·9	72	13,29	81·0	84·4	74·3	74·1	25·9	+0·5	24·1	71	−
Ahmednagar	2,154	931·5	−0·5	928·9	87·8	+2·5	93	29	71·4	+0·8	69	21,28	76·0	83·7	70·9	71·6	23·6	+0·1	21·5	77	(
Poona	1,834	942·4	−0·3	940·6	84·1	+1·6	88	4 days	72·5	+0·8	69	17	76·2	79·2	72·0	72·5	25·1	+1·3	24·6	81	+
Sholapur	1,570	951·7	0	948·5	89·3	+0·1	94	23,26,30	72·3	+0·2	70	13	76·3	84·5	72·1	73·1	25·2	+1·4	23·1	81	+
Miraj	1,817	944·0	−0.6	941·8	85·0	+3·2	89	11	71·5	+0·7	68	12	74·4	80·1	72·3	73·6	26·3	+1·8	25·6	91	+
Kolhapur	1,885	942·1	..	940·2	80·8	..	84	11	68·6	..	68	12,17	73·6	77·1	71·4	72·2	25·4	..	25·0	90	
Bijapur	1,950	939·7	−0·1	936·5	87·5	+0·9	91	5 days	71·3	+0·4	69	13,14,25	75·4	83·7	71·3	72·5	24·6	+1·1	22·7	79	-
Belgaum	2,562	920·4	−0·3	918·9	77·5	+1·3	82	1,2	68·3	+0·9	66	13,14,31	70·9	73·9	69·6	70·9	24·1	+0·9	24·6	93	-
Gadag	2,131	934·7	−0·1	932·5	85·9	+2·8	91	1	71·1	+1·1	68	14	74·1	80·4	72·0	75·2	25·6	+1·9	27·7	87	-
Hyderabad, North																					
Aurangabad	1,905	939·8	−0·2	936·6	87·3	+1·3	91	4 days	71·9	+1·0	70	17,21	74·3	82·1	72·3	74·1	26·3	+1·9	25·5	91	-
Parbhani	1,350	956·7	..	953·9	88·3	..	93	9,21,22	72·7	..	70	16	77·0	84·7	72·6	75·3	25·3	..	25·7	80	
Bidar	2,178	930·2	..	928·0	83·8	−1·0	87	3,23,26	70·4	+0·4	68	13	72·9	81·5	70·7	72·7	24·8	+1·5	23·9	89	-
Nizamabad	1,250	961·2	0	957·8	86·5	−1·7	91	4 days	73·8	−0·1	70	3,16	76·6	83·9	72·9	76·2	25·9	+0·6	27·4	83	-
Ramagundam	527	986·0	..	982·7	88·6	..	94	28	75·6	..	72	8	79·1	85·0	75·7	77·9	28·8	..	29·5	85	
Hyderabad, South																					
Gulbarga (R)	1,503																				
Raichur	1,311	961·1	0	957·7	89·6	−0·7	94	19	73·6	+0·7	69	7	76·7	83·8	72·7	73·7	25·6	+1·0	23·8	82	-
Hyderabad (Begumpet)	1,778	944·7	+0·4	941·7	86·3	−1·1	92	27	72·7	+0·5	70	17	76·0	82·8	72·4	74·5	25·7	+0·6	25·8	84	-
Hanamkonda	881	973·9	+0·2	970·4	88·0	−0·1	92	8	74·8	−0·9	71	6	79·0	84·9	74·8	76·7	27·5	+1·5	27·7	81	-
Khammameth (R)	367																				
Mysore																					
Chitaldrug	2,405	926·2	0	923·9	83·9	+1·3	88	9,10,11	70·3	+1·4	68	13,14,25	72·5	78·7	69·4	71·1	23·2	+0·8	22·6	85	
Hassan	3,149	903·2	..	901·6	78·2	+0·6	83	20	66·2	+0·6	64	13	69·0	73·3	67·5	68·6	22·4	+0·9	22·0	92	

(b) Mean of 29 days.

(R)—Register not received.

Cloud amount, (Oktas).			Rainfall, inches.				Number of rainy days (0·10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																		STATION.
											0830 hrs. I. S. T.									1730 hrs. I. S. T.									
0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
4	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
																													C. P., East
·5	..	4·8	14.68	..	3·80	3	19	..	4·1	..	1	0	0	2	2	16	3	5	2	0	1	0	0	0	12	1	8	9	Gondia
·1	+1·3	7·2	16·57	+1·86	2·54	5	20	+1·1	5·0	+0·5	4	1	1	2	7	4	6	3	3	0	1	2	1	8	7	5	6	1	Pendra
·0	..	7·1	13.76	..	2·53	28	23	..	5·7	..	1	0	2	0	3	11	11	2	1	2	2	0	0	4	12	8	2	1	Champa
·3	+0·9	7·7	14·33	−0·66	2·63	5	16	0	6·7	0	0	0	0	0	3	14	10	3	1	1	0	0	0	3	12	12	2	1	Raipur
·0	..	6·4	15.82	..	5·86	16	18	..	3·9	..	0	0	0	1	12	13	3	0	2	0	1	2	2	7	13	5	1	0	Titilagarh
·7	+0·3	7·7	6·97	−8·75	1·66	3	14	−3·9	3·5	−2·5	0	0	0	0	0	9	3	0	19	0	0	0	0	0	11	1	0	19	Kanker
·4	+1·2	7·1	20.94	+4·63	3·10	12	23	+6·1	3·5	−1·7	0	0	0	0	0	18	0	4	9	0	1	0	0	0	16	1	6	7	Chanda
·5	+0·9	7·6	7·04	−8·09	0·90	3	21	+1·6	5·9	+1·6	0	0	0	1	0	23	1	3	3	0	1	0	7	0	19	2	1	1	Jagdalpur
																													Konkan
·4	..	6·8	34·06	..	8·83	13	25	..	15·7 (b)	..	0	0	0	1	2	13	14	1	0	0	0	0	0	0	15	16	0	0	Dahanu
4	−0·6	6·6	23·64	−0·63	4·71	14	19	−3·1	9·8	−1·8	0	0	1	0	1	18	10	1	0	0	0	0	0	0	20	11	0	0	Bombay
·3	−0·3	..	25·74	+2·30	6·03	12	21	−2·3	17·1	−0·6	0	0	0	1	1	20	8	1	0	..	..	..	..	..	..	..	..	..	Alibag
.	..	..	36·68	..	5·92	13	28	..	13·5	..	0	1	1	2	1	23	3	0	0	0	0	1	4	1	22	3	0	0	Harnai
·0	..	6·9	21·95	..	5·28	31	21	..	17·4	..	0	0	0	0	0	9	17	5	0	0	0	0	0	0	8	11	12	0	Devgad
·2	..	7·3	39·67	..	5·82	31	26	..	..	..	0	0	0	0	0	2	15	0	14	0	0	0	0	0	6	15	1	9	Vengurla
·0	−0·9	6·6	44·03	+12·74	8·53	30	26	−0·6	13·8	+3·9	0	0	1	1	0	5	22	2	0	0	0	0	0	0	4	23	4	0	Marmagao
·8	..	7·0	43·76	−1·08	7·10	17	31	+2·7	3·5	..	0	1	6	3	0	5	9	1	6	0	0	3	2	0	5	13	5	3	Honavar
																													Bombay, Deccan
·3	..	6·1	10·72	+1·21	3·03	1	14	−0·3	6·7	..	0	0	1	1	1	15	12	0	1	0	0	1	1	0	8	10	11	0	Jalgaon
·2	+0·2	6·2	2·33	−2·09	0·36	31	9	+1·6	8·1	−1·5	0	0	0	0	0	26	0	0	5	0	0	0	0	0	10	21	0	0	Malegaon
·4	+0·6	6·5	1·21	−2·57	0·50	16	4	−2·8	7·0	−2·7	0	0	0	0	1	23	6	1	0	1	0	0	0	0	21	7	2	0	Ahmednagar
·8	+0·2	7·1	2·74	−3·82	1·06	13	6	−6·7	4·7	−5·5	0	0	0	0	0	5	22	1	3	0	0	0	0	0	6	23	2	0	Poona
·5	+1·5	7·5	4·66	+0·48	0·93	5	10	+2·3	6·9	−3·2	0	0	0	0	0	26	1	0	4	0	0	1	0	0	22	1	0	7	Sholapur
·8	−0·6	6·3	2·17	−1·96	0·64	14	7	2·1	10·4	−0·1	0	0	0	0	1	15	14	1	0	0	0	0	0	0	8	22	1	0	Miraj
·8	..	6·0	8·39	..	1·69	17	14	..	11·2	..	0	0	0	0	0	6	25	0	0	0	0	0	0	0	2	28	1	0	Kolhapur
·3	−0·8	6·2	1·78	−0·59	0·56	4	5	+0·7	8·7	−0·7	0	0	0	0	0	12	13	6	0	0	0	0	0	1	8	15	7	0	Bijapur
·5	−0·9	6·3	11·07	−6·03	2·13	14	15	−7·1	6·2	0	0	0	0	0	0	11	20	0	0	0	0	0	0	0	15	16	0	0	Belgaum
·5	+1·1	7·5	0·87	−2·02	0·47	14	2	−4·9	12·0	−0·3	0	0	0	0	0	0	15	16	0	0	0	0	0	0	15	15	1	0	Gadag
																													Hyderabad, North
·8	+0·8	7·8	6·90	+0·16	2·39	26	12	+0·7	10·3	−0·7	0	0	0	0	2	13	14	1	1	0	0	1	1	1	9	18	1	0	Aurangabad
·5	..	7·0	8·72	+1·40	1·69	16	13	+1·9	..	..	0	0	0	0	0	0	31	0	0	1	0	0	0	0	0	30	0	0	Parbhani
·3	+1·7	7·3	16·53	+8·42	3·45	29	12	+0·6	11·5	−2·3	0	0	0	0	2	17	11	1	0	1	0	0	1	0	13	12	4	0	Bidar
·4	+1·1	6·5	15·78	+5·63	2·38	29	16	+1·0	3·8	−1·7	0	0	0	0	0	25	1	0	5	1	0	0	1	2	12	1	0	14	Nizamabad
·4	..	7·5	11·75	..	1·59	13	17	..	3·3	..	0	0	0	2	1	6	14	2	6	2	0	1	0	2	5	12	2	7	Ramagundam
																													Hyderabad, South
																													Gulbarga (R)
·5	+1·7	7·3	8·34	+3·64	1·25	7	14	+5·6	11·3	+1·7	0	0	0	0	0	17	9	5	0	0	0	0	0	1	11	10	9	0	Raichur
·4	+1·0	7·3	3·70	−2·29	0·67	12	9	−2·1	9·6	−0·5	0	0	0	0	0	1	29	1	0	0	0	0	0	0	4	21	4	2	Hyderabad (Begumpet)
·4	+0·2	6·8	13·09	+3·95	2·73	16	17	+3·6	5·9	−0·8	1	0	0	1	2	3	17	7	0	3	2	0	0	0	3	14	9	0	Hanamkonda
																													Khammameth (R)
																													Mysore
·5	+0·4	7·3	1·01	−1·86	0·27	2,14	3	−5·2	9·1	+0·9	0	0	0	0	0	6	23	2	0	0	0	0	0	0	4	23	4	0	Chitaldrug
·6	+0·6	7·6	3·14	−2·66	0·81	14	11	−2·2	8·7	+1·7	0	0	0	0	0	5	26	0	0	0	0	0	0	0	1	30	0	0	Hassan

STATION	Height of barometer cistern above mean sea level in feet.	Pressure at station level, in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F		Wet bulb temperature °F.		Vapour pressure, millibars.			Relative humidity %	
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Mysore—*contd.*																					
Bangalore	3,021	907·2	0	904·6	80·7	—0·7	86	1,19	66·5	+0·8	65	10,26	69·7	75·2	67·4	69·2	22·0	+0·8	22·0	89	+
Mysore	2,518	923·7	—0·3	921·7	81·0	—1·2	88	1	67·8	+0·6	65	13	71·5	75·7	68·9	70·4	23·0	+1·2	23·0	88	+
Malabar																					
Mangalore	72	1006·0	0	1004·2	83·5	—0·1	87	19	73·8	—0·5	71	13,18,26	77·1	79·8	75·7	77·1	29·7	+0·3	30·6	94	+
Calicut	27	1007·9	—0·7	1006·0	82·7	+0·3	88	1	74·5	+0·4	71	13,16,26	76·8	80·0	75·2	76·9	29·1	+0·3	30·2	92	
Palghat	319	997·8	..	995·5	83·2	..	88	21	73·1	..	70	17	75·9	78·8	74·3	75·5	28·3	..	28·7	93	.
Cochin	10	1009·2	—0·7	1007·0	82·8	+0·2	87	14	74·7	0	72	15,24,26	77·3	79·7	75·2	76·4	28·9	+0·4	29·6	90	+
Alleppey	12	1009·1	..	1007·0	84·4	..	88	14	74·2	..	71	24	78·3	80·4	76·1	76·9	29·7	..	30·0	90	.
Trivandrum	211	1002·3	—0·4	1000·0	84·1	..	89	20	73·5	..	70	21	76·6	80·8	74·6	76·3	28·3	+0·5	29·0	91	+
Nagercoil	195	1002·2	..	999·7	86·5	..	93	19,20	75·0	..	72	21,24,29	78·2	81·5	74·6	76·0	27·7	..	28·2	84	.
Madras, South-east																					
Pamban	37	1006·2	—0·3	1003·5	89·5	+0·2	91	9 days	80·5	+1·2	79	3,26	83·5	84·7	77·9	79·4	30·1	+0·4	31·9	77	+
Madura	437	992·4	—0·2	989·0	95·7	—0·2	99	1	78·3	+1·0	73	23,30	84·1	88·6	74·1	75·0	24·2	+1·3	23·5	62	+
Negapatam	31	1006·1	0	1003·0	93·3	—2·7	98	2,8,9	78·8	—0·1	73	3	83·6	87·1	76·6	78·7	28·1	+1·8	29·7	71	+
Trichinopoly	295	997·2	—0·4	993·5	94·5	—3·2	99	1	77·8	+0·5	73	8,23	82·3	90·0	74·9	76·6	26·2	+2·3	25·2	69	+
Coimbatore	1,341	962·1	—0·4	959·7	84·8	—1·9	89	4 days	71·6	+0·6	69	14,25,26	75·4	79·8	71·9	72·4	25·9	+1·0	23·1	84	+
Salem	913	976·3	—0·3	972·8	90·7	—2·3	98	19	74·5	+0·5	72	19,25,26	77·7	85·7	73·3	74·8	26·0	+0·2	24·5	80	+
Cuddalore	39	1005·4	0	1001·9	92·0	—4 0	95	4 days	77·6	—1·0	72	23	82·3	87·6	76·5	79·0	28·5	+0·7	30·0	76	+
Vellore	703	982·5	+0·3	979·1	91·8	—2·3	96	10	75·5	—1·7	71	22	80·4	87·5	74·2	76·8	26·1	+1·1	26·6	74	+
Madras	51	1004·4	+0·2	1001·2	93·0	—3·3	96	1,18,27	77·5	—1·8	73	4	82·1	87·3	76·1	78·7	28·0	+2·4	29·6	75	+
Arogyavaram	2,299	929·6	..	926·8	85·3	..	89	5,19	71·5	..	67	19,21	74·6	81·8	69·5	71·8	22·6	..	22·5	77	.
Madras, Deccan																					
Cuddapah	428	991·6	0	987·4	93·5	—2·1	97	19	77·1	—1·0	70	21	84·3	87·9	77·8	79·3	29·6	+3·8	30·3	74	+
Bellary	1,473	955·9	—0·3	952·6	90·7	+0·1	95	11	76·1	+1·1	71	13	79·2	86·3	71·7	73·5	22·3	0	22·4	68	+
Kurnool	923	974·3	—0·1	970·3	90·5	—1·1	94	5 days	74·8	—0·3	72	5,13	79·4	86·0	73·7	74·7	25·8	+0·9	24·2	75	+
Rentichintala	348	992·8	..	989·0	91·4	—1·7	99	10	77·2	—1·5	74	13,17	81·9	90·0	75·9	77·0	27·8	+0·5	25·8	75	+
Anantapur	1,147	967·1	..	963·3	92·9	..	97	11	75·1	..	70	25	79·4	87·6	72·4	73·2	24·0	..	21·3	70	.
Madras Coast, North																					
Nellore	66	1003·1	+0·2	999·6	94·1	—2·8	100	1	77·7	—2·2	74	16	83·6	89·9	77·3	78·7	29·2	+2·9	28·4	74	+
Ongole	38	1003·5	..	1000·0	93·0	..	98	23	77·6	..	74	7,13,15	82·8	89·6	77·1	77·8	29·2	..	27·2	76	.
Masulipatam	10	1004·4	+0·5	1001·3	88·4	—4·0	94	9,24	76·8	—1·3	73	24	80·2	84·9	77·5	79·4	31·0	+1·2	31·8	89	+
Cocanada	26	1003·4	+1·0	1000·1	87·3	—3·0	94	27	77·2	—1·2	73	7	80·9	85·4	77·4	79·0	30·5	+0·7	31·0	85	+
Vizagapatam	126	998·6	+0·8	996·0	87·1	—1·9	94	30	79·2	+0·4	74	7	82·9	83·8	77·2	78·7	29·3	—0·1	31·2	76	
Calingapatam	19	1001·9	+1·0	999·1	89·5	—0·3	95	11,31	79·3	+0·4	76	3,21	82·1	84·5	78·2	79·5	31·2	—0·1	32·1	83	+
Hill Stations excluding Kashmir																					
Shillong	4,921	845·3	+0·8	842·8	75·2	—0·1	80	29	64·6	0	62	26,30	69·4	70·5	66·2	66·9	20·9	+0·1	21·2	85	+
Cherrapunji	4,309	864·4	+1·2	862·1	70·7	—1·6	76	29	64·3	—1·0	63	6 days	67·5	68·7	66·7	67·7	21·8	—0·3	22·8	98	+
Aijal	3,599	885·2	..	883·1	76·6	..	81	13	67·4	..	65	18,23	70·5	70·7	68·9	69·7	23·6	..	24·4	92	.
Darjiling	7,432	772·7	+0·1	771·0	66·1	+0·4	70	12,29	57·7	—0·3	56	26,27,30	62·3	62·0	61·8	61·5	18·7	+0·7	18·5	97	+
Kalimpong	3,965	874·4	+1·4	871·9	75·2	—0·1	80	29,30	67·3	+0·1	66	6 days	69·8	72·2	68·8	70·5	23·6	—0·4	25·1	95	+
Katmandu	4,388	861·4	..	858·9	84·6	+0·9	89	5 days	69·6	+0·9	66	1	74·9	76·7	70·3	71·7	22·6	0	24·5	79	—

Cloud amount, (Oktas).			Rainfall, inches.				Number of rainy days, (0·10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																		STATION.
											0830 hrs. I.S.T.									1730 hrs. I.S.T.									
0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																													Mysore—*contd.*
7·7	+0·6	7·4	13·79	+9·86	4·15	21	21	+13·0	8·9	+0·5	0	0	0	0	0	17	12	1	1	1	0	0	0	0	9	16	4	1	Bangalore
7·2	+0·6	7·5	4·55	+1·87	0·89	23	12	+4·7	7·3	−1·6	0	0	0	0	0	14	15	0	2	0	0	0	0	0	8	23	0	0	Mysore
																													Malabar
8·0	+1·0	7·9	50·69	+11·79	5·43	30	29	+1·5	5·0	−0·6	2	0	7	9	0	5	4	4	0	2	1	1	1	0	9	8	8	1	Mangalore
7·2	+0·1	7·6	39·69	+7·23	9·80	16	22	−4·5	6·3	+1·5	2	7	6	1	1	4	5	4	1	0	1	2	0	0	4	14	9	1	Calicut
7·3	..	7·2	18·00	..	4·24	15	20	..	6·1	..	0	0	0	0	0	7	23	1	0	0	0	0	0	0	9	21	1	0	Palghat
7·6	+1·0	7·7	29·07	+5·76	3·73	15	27	+2·8	5·6	+0·6	6	5	6	5	1	1	3	2	2	3	1	0	1	1	3	12	6	4	Cochin
7·4	..	7·3	26·50	..	5·93	15	24	..	6·3	..	3	3	7	3	1	1	4	7	2	4	1	1	0	0	2	7	16	0	Alleppey
6·0	−0·8	6·6	11·11	+3·34	1·56	29	18	+3·7	5·9	−0·5	12	3	0	0	0	0	1	13	2	2	0	0	0	0	0	5	24	0	Trivandrum
6·6	..	7·2	3·59	..	0·51	30	13	..	9·4	..	1	0	0	0	0	0	20	9	1	0	0	0	0	0	0	24	7	0	Nagercoil
																													Madras, South-east
4·2	+1·2	4·3	0	−0·46	0	..	0	−0·8	10·3	+0·8	0	0	0	4	17	10	0	0	0	0	0	0	9	16	6	0	0	0	Pamban
5·7	+0·2	7·3	4·62	+2·67	2·79	29	5	+2·3	4·0	−0·9	1	0	1	0	0	3	11	7	8	1	0	0	2	1	3	17	4	3	Madura
6·5	+1·9	6·2	3·09	+1·39	1·00	3	5	+2·1	5·9	−0·1	0	0	0	0	3	12	15	1	0	0	1	0	5	9	14	2	0	0	Negapatam
5·8	+0·8	7·0	4·46	+3·11	2·67	23	5	+2·9	13·6	−5·1	0	0	0	0	0	1	20	9	1	1	0	0	1	2	6	14	7	0	Trichinopoly
5·9	+1·0	6·7	2·97	+1·32	1·25	16	6	+1·3	9·2	+2·6	0	1	0	0	13	15	2	0	0	0	0	0	0	10	15	4	1	1	Coimbatore
5·9	+0·4	7·3	2·88	−0·91	0·62	24	7	−0·1	4·5	+0·3	0	0	0	0	9	16	6	0	0	1	0	1	0	3	5	15	1	5	Salem
6·8	+1·7	5·5	7·69	+5·09	3·97	23	9	+3·7	6·1	+1·5	0	0	0	0	1	28	0	0	2	0	0	1	18	3	8	1	0	0	Cuddalore
6·2	+1·4	6·8	8·36	+3·81	2·57	29	12	+5·7	4·1	−0·9	0	0	0	0	0	12	3	1	15	0	2	4	0	1	13	3	0	8	Vellore
6·7	+1·0	6·7	2·99	−0·61	0·49	4	10	+3·2	10·3	−0·5	0	0	0	1	4	8	17	1	0	0	1	0	23	2	1	4	0	0	Madras
7·5	..	7·1	7·52	..	3·33	21	8	..	6·4	..	1	0	0	0	0	6	21	2	1	1	1	0	0	1	7	12	9	0	Arogyavaram
																													Madras, Deccan
6·8	+0·6	6·8	6·70	+2·63	1·50	30	13	+6·3	3·3	−4·1	0	0	0	0	0	0	10	1	20	0	1	2	0	2	0	8	3	15	Cuddapah
7·2	+1·3	7·0	0·37	−1·24	0·22	23	2	−1·4	8·1	−0·4	0	0	0	0	0	2	24	2	3	0	0	0	0	0	7	15	9	0	Bellary
7·2	+0·9	7·2	4·76	+0·34	1·66	25	8	−1·3	(d) 9·3	−1·1	0	0	0	0	0	8	18	5	0	1	1	2	1	0	6	12	8	0	Kurnool
7·8	+0·8	8·0	4·89	+0·99	0·88	16	15	+6·0	5·8	−3·6	0	0	0	0	3	11	12	2	3	3	0	0	0	4	1	21	2	0	Rentichintala
6·8	..	7·1	1·24	−1·39	0·26	21	5	+1·1	10·9	..	0	0	0	0	0	8	22	1	0	0	1	1	0	1	5	20	3	0	Anantapur
																													Madras Coast, North
7·0	+0·7	6·5	5·16	+2·41	1·48	16	7	+1·5	3·6	−2·2	1	0	0	0	0	0	8	3	19	0	0	2	2	1	2	3	2	19	Nellore
6·9	..	7·0	3·72	..	0·68	15	12	..	5·5	..	0	0	0	1	1	13	11	1	4	0	1	1	3	1	10	12	2	1	Ongole
7·0	+0·8	7·0	15·74	+9·35	2·86	29	18	+7·3	6·7	+0·1	0	0	0	0	2	12	10	1	6	0	0	0	0	12	4	1	4	10	Masulipatam
6·3	−0·1	5·6	14·91	+8·36	4·10	16	19	+7·9	3·5	−2·3	0	0	0	0	0	30	1	0	0	0	0	0	0	0	28	2	1	0	Cocanada
6·3	−0·5	6·7	2·56	−1·86	0·71	5	8	−0·5	6·1	+0·6	0	0	0	0	1	9	17	4	0	0	0	0	0	8	13	7	1	2	Vizagapatam
6·4	+1·0	7·5	3·01	−2·53	0·96	31	10	+1·4	9·2	+2·7	0	0	0	0	0	13	15	3	0	1	0	0	0	2	14	13	1	0	Calingapatam
																													Hill Stations excluding Kashmir
7·7	+1·0	7·3	11·53	−2·12	2·79	18	21	+2·8	2·4	+0·2	0	0	1	0	3	3	0	1	23	1	0	0	2	3	6	1	0	18	Shillong
7·5	0	7·0	93·35	−2·99	15·80	18	29	+1·5	8·4	+3·1	0	8	5	5	9	2	1	0	1	2	7	4	0	11	6	1	0	0	Cherrapunji
6·1	..	6·7	13·53	..	2·30	30	20	..	6·1	..	0	0	1	13	3	14	0	0	0	0	1	2	3	2	18	1	2	2	Aijal
7·3	+0·2	7·3	33·28	+0·36	3·24	23	24	−1·6	5·1	+1·6	0	2	16	7	1	0	2	2	1	0	0	13	9	1	0	4	1	3	Darjiling
6·6	0	6·7	35·92	+13·16	4·75	20	22	+0·1	4·5	−0·9	1	0	0	2	0	0	0	13	15	0	0	0	30	0	0	0	1	0	Kalimpong
7·0	+0·4	7·2	12·09	−2·60	2·17	1	20	−2·7	0·9	0	2	1	2	4	0	1	1	0	20	4	1	3	2	5	2	0	4	10	Katmandu

(d) Mean for 27 days.

TABLE II.—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level, in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Rela humi %	
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from
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 —*contd.*																					
Gyantse . .	13,110	625·5	..	..	71·5	+1·8	82	14	46·4	+0·7	41	18	57·6	..	49·9	..	10·0	+0·4	..	62	−2
Muktesar .	7,592	767·7	−0·4	766·0	68·5	−0·9	79	2,4,5	58·6	+0·6	57	5 days	61·3	64·0	59·6	61·4	16·8	−0·2	17·6	92	+2
Mussooree .	6,699	792·0	..	790·7	68·8	−0·4	85	1	61·2	+0·6	59	5 days	64·3	64·1	62·6	63·3	19·1	0	19·8	92	−1
Simla . .	7,224	777·5	+0·4	776·3	68·8	−2·1	78	1	58·8	−0·4	52	2	63·1	65·5	60·5	63·1	17·1	0	18·9	88	+8
Abu . .	3,945	872·8	+0·4	870·8	76·1	+0·8	85	2	67·5	+1·4	66	6 days	69·3	74·3	68·4	70·2	23·3	+1·3	23·6	95	+4
Pachmarhi .	3,528	886·5	+0·2	884·2	76·7	+0·2	83	5	68·5	+0·7	66	8,18	70·0	73·8	69·1	71·5	23·7	+0·8	25·6	94	+6
Mahabaleshwar	4,534	857·8	−0·6	856·7	66·1	+0·7	68	30	62·6	+0·3	61	14	64·1	64·2	64·1	64·2	20·5	+0·2	20·5	100	+3
Mercara . .	3,781	882·9	−0·7	881·9	69·6	+0·9	76	21	63·9	+1·8	62	14,26,27	65·5	66·5	65·2	65·9	21·1	+1·1	21·5	98	+3
Ootacamund .	7,364	777·9	−0·1	776·7	63·4	+1·6	70	9	54 3	+2·2	52	13,16,25	56·2	57·8	54·9	55·7	14·3	+0·9	14·4	92	+3
Coonoor .	5,730	825·0	..	..	70·3	−0·5	74	18,29	57·7	−1·4	54	4	66·2	..	61·8	..	17·2	+2·5	..	79	+1
Kodaikanal .	7,688	769·7	+0·7	768·3	63·8	+1·3	68	24	52·7	+0·6	51	5 days	57·1	57·0	54·3	55·8	13·4	+0·8	14·7	84	+7
Ceylon																					
Colombo. .	24	1008·7	−0·6	1006·8	85·3	−0·1	86	16 days	75·9	−1·1	71	19	79·9	81·2	76·9	77·2	30·2	+1·1	30·1	87	+3
Trincomalee .	24	1007·1	+0·6	1004·5	91·9	−0·3	96	9	77·8	+0·2	74	21	81·9	85·8	75·6	77·8	27·4	+0·2	28·9	74	−2
Hambantota .	61	1006·5	−0·6	1004·4	85·6	−2·0	91	15	76·2	−0·1	72	24	80·2	80·8	76·7	76·6	31·3	+2·9	29·4	85	0
Mannar . .	12	1007·6	..	1005·1	87·4	..	91	19	79·6	..	75	19,24	82·5	83·4	78·0	78·4	30·7	..	30·9	81	..

Cloud amount, (Oktas).			Rainfall, inches.				Number of rainy days, (0·10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from:—																		STATION.
											0830 hrs. I. S. T.									1730 hrs. I. S. T.									
0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
4	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
																													Hill Stations excluding Kashmir—*contd.*
1·9	−2·3	..	2·84	−0·06	0·67	7	10	+1·8	2·7	0	0	2	2	4	0	3	1	3	16	..	..	..	..	..	..	..	..	..	Gyantse
5·4	−0·2	6·5	19·79	+7·42	4·77	13	17	−0·8	8·7	+3·5	0	8	9	2	1	3	4	3	1	0	2	4	3	1	8	10	2	1	Muktesar
5·8	−0·2	6·9	33·63	+6·17	4·35	7	23	−0·2	0·8	−3·4	7	5	2	6	6	3	1	1	0	3	3	1	5	10	5	2	1	0	Mussooree
7·1	+0·8	6·9	23·30	+7·00	2·35	11	26	+6·3	1·4	−1·1	3	1	0	5	7	3	0	0	12	2	2	3	3	4	4	2	1	10	Simla
5·5	−0·6	6·8	16·38	−5·61	2·68	19	22	+4·2	5·9	−2·1	0	0	0	0	0	14	5	1	11	1	0	0	1	6	12	2	1	8	Abu
7·6	+0·4	7·1	18·40	−7·83	3·42	30	25	+3·0	4·3	+2·9	0	0	0	1	0	1	22	7	0	1	1	0	0	0	0	20	5	4	Pachmarhi
8·0	0	8·0	78·33	−27·00	11·79	13	31	+0·9	11·6	−1·0	0	0	0	0	0	31	0	0	0	0	0	0	0	0	31	0	0	0	Mahabaleshwar
7·3	−0·3	7·4	38·11	−5·00	7·38	16	26	−2·5	7·9	+0·7	1	0	0	0	4	4	10	12	0	1	0	0	0	3	3	13	11	0	Mercara
6·1	−1·0	6·8	6·94	−1·42	2·39	16	15	−0·8	2·3	−3·7	0	0	0	0	0	4	9	0	18	0	0	0	0	0	7	11	0	13	Ootacamund
5·3	−1·1	..	6·20	+3·59	1·51	16	14	+7·0	3·7	−1·2	0	0	0	3	7	7	7	7	0	..	..	..	..	..	..	..	..	..	Coonoor
6·3	+0·5	7·8	8·28	+3·63	1·74	8	14	+3·8	9·5	−1·0	0	0	0	2	3	2	15	7	2	1	2	0	3	1	0	13	10	1	Kodaikanal
																													Ceylon
6·2	0	7·1	6·48	+1·49	0·82	30	19	+10·6	..	..	1	0	0	3	3	12	9	1	2	0	0	0	1	3	14	12	1	0	Colombo
6·3	+2·2	7·0	5·47	+3·68	3·06	11	6	+3·7	..	..	0	0	0	0	2	28	0	0	1	2	0	1	4	1	18	3	2	0	Trincomalee
6·2	+2·2	6·8	4·87	+2·74	1·87	24	7	+2·8	..	..	0	0	0	0	2	28	1	0	0	1	0	0	0	7	20	3	0	0	Hambantota
6·6	..	6·6	0	..	0	..	0	..	..	..	0	0	0	1	9	20	1	0	0	0	0	0	0	13	17	1	0	0	Mannar

TABLE III.—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M. T.) AT 4TH CLASS STATIONS—JULY 1949.

STATION.	Maximum temperature, °F.				Minimum temperature, °F.				Mean dry bulb temperature, 0830 hrs. I.S.T. °F	Mean wet bulb temperature, 0830 hrs. I.S.T. °F	Vapour pressure, millibars.		Relative humidity, %		Mean cloud amount, 0830 hrs. I.S.T.	Rainfall, inches.				Number of rainy days (0·10" or more)		Wind
	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.			Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 0830 hrs. I.S.T.	Departure from normal.		Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Resultant direction 0830 hrs. I.S.T.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Assam																						
Lumding .	91·4	+0·2	96	11	76·9	+0·5	74	28	86·0	80·6	33·1	+2·0	78	—4	..	9·10	+1·51	1·99	27	13	+1·5	..
Kashmir																						
Jammu . .	95·3	—0·1	109	2,4	78·5	—0·8	72	13,27	82·9	76·1	27·5	—0·6	74	+4	5·8	9·90	—2·89	3·18	19	13	+1·5	..
Kargil (R) .																						
Mysore																						
Balehonnur .	74·0	+0·9	79	21,22	66·0	+0·6	64	13,25	68·8	67·8	22·8	+0·8	95	+1	..	24·60	—9·99	3·19	14	27	—1·3	..
Tibet																						
Yatung (Chumbi)	68·1	+2·7	72	14,30, 31	54·2	+2·9	48	14	60·7	58·8	16·2	+1·7	90	+3	3·8	4·40	—2·01	0·41	5	18	+0·3	..

(R) Register not received.

TABLE IV—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M. T.) AT 5TH CLASS STATIONS—JULY 1949.

Division	Station	Rainfall, inches.				Number of rainy days, (0·10" or more).		Division	Station	Rainfall, inches.				Number of rainy da (0·10" or m
		Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.			Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.
1	2	3	4	5	6	7	8	1	2	3	4	5	6	7
Assam . .	Mawsynram .	84·34	..	16·20	17	24	..	Kashmir . .	Sonamarg .	1·11	—2·46	0·84	31	2
									Gurez . .	1·10	—1·14	0·55	10	2
West Bengal .	Bankura . .	12·98	0	5·56	11	16	+0·3	Bombay, Deccan .	Khandala. .	58·72	—9·70	6·40	12	31
								Madras, Southeast .	Palamcottah .	1·66	+1·33	1·35	19	2
Bihar . . .	Muzaffarpur .	25·17	+12·39	3·90	18,30	16	+2·0	Sikkim . .	Lachung . .	14·06	+3·65	1·18	31	19
	Chapra . .	14·01	+1·94	2·56	11	17	+3·2							
	Arrah . .	32·66	+19·64	3·86	22	23	+8·5							
East Punjab . .	Dharampore .	20·44	+4·56	2·75	15	24	+6·3							
	Kyelang . .	2·22	+0·92	0·80	13	5	+1·2							
	Dalhousie .	27·05	+5·13	3·43	21	23	+3·0							

MONTHLY WEATHER REPORT JULY 1949.

Monthly Means of Upper Winds

NOTE.—Data up to 9·0 Km. a. s. l. are given under Table A and data above 9·0 Km. under Table B.

In Tables A and B,

n represents the number of observations,

V represents the mean wind speed in m/second irrespective of direction,

v represents the resultant mean velocity in m/second,

D represents the direction of the resultant mean wind in degrees East of North.

For the coordinates of the stations for which data have been published in these Tables and other particulars please refer to the Monthly Weather Report January 1948 and subsequent issues.

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

July 1949

Station	AHMEDABAD												ALLAHABAD											
Time in I. S. T.	0230				0730				1430				0230				0730				1430			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	2·7	2·3	228	31	2·0	1·9	214	31	2·6	2·0	224	31	2·3	0·6	183	31	2·3	0·8	174	31	2·8	0·6	335
0·15 a. g. .	30	7·8	7·2	236	31	6·2	5·7	221	29	5·8	4·6	239	27	6·5	1·9	188	28	5·2	1·7	186	30	4·7	0 7	346
0·6 a. s. l. .	29	10·7	10·2	249	27	9·6	8·5	249	29	7·1	6·1	238	24	7·9	2·8	234	26	6·9	3·1	257	29	5·1	0 6	289
1·0 ,, .	27	10·1	9·8	247	21	10·1	9·3	262	28	7·3	6·0	242	23	6·9	2·9	240	22	6·0	1·5	286	27	5·0	0·2	285
1·5 ,, .	24	8·2	7·4	243	18	9·2	8·2	252	22	8·9	7·4	250	20	6·8	2·1	248	20	5·1	1·5	309	17	5·1	0·8	224
2·0 ,, .	18	6·6	4·2	230	13	8·7	7·0	232	17	8·3	5·8	251	12	4·9	1·5	247	17	4·7	1·0	7	14	5·4	0·7	232
2·5 ,, .	12	5·5	1·1	255	9	7·3	4·4	225	13	6·5	3·2	243	10	4·7	1·2	267	15	4·7	1·5	20	10	3 9	1·0	331
3·0 ,, .	10	4·3	1·4	271	5	6·5	1·6	306	10	7·0	1·7	210	7	5·6	1·9	292	12	4·6	2·4	79	7	4·1	1·0	331
4·0 ,, .	5	5·8	3·7	26	3	8·8	6·3	354	6	4·7	2·8	88	1	2·5	2·5	250	4	4·5	3·4	106	6	4·6	1·5	39
5·0 ,, .	4	3·6	2·3	52	2	6·7	6·0	28	5	5·7	4·7	80					3	4·8	4·2	81	3	4·2	1·5	26
6·0 ,, .	4	8·1	4·4	55	2	5·3	4·1	78	5	6·8	5·1	103					3	5·2	5·0	95	3	4·2	2·1	38
7·5 ,, .	1	4·0	4·0	35	2	4·3	2·7	87	2	5·5	4·5	91									1	1·5	1·5	127
9·0 ,, .					2	5 5	5·5	94	2	4·5	3·9	99									1	4·0	4·0	165

Station	AMBALA												ANANTAPUR								ASANSOL			
Time in I. S. T.	0230				0730				1430				0730				1430				0230			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	2·2	1·6	99	31	1·9	1·2	102	31	2·4	1·3	113	31	4·0	3·8	254	31	6·4	5·8	275	31	1·9	0·9	174
0·15 a. g. .	31	7 0	4·8	118	25	6·3	4·0	92	29	5·8	3·2	126	31	7·1	6·9	250	31	9·9	9·0	270	29	5·1	2·7	191
0·6 a. s. l .	29	7·8	5·7	129	25	8·6	6·2	132	29	6·0	3·8	123	31	8·7	8·6	254	31	10·5	9·7	267	29	6·3	3·4	219
1·0 ,, .	28	7·5	5·3	136	24	7·9	5·3	139	28	6·3	2·9	134	31	13·0	12·8	271	31	9·7	9·5	268	28	6·5	3·7	230
1·5 ,,	27	6·7	3·9	141	24	6·4	3·2	134	23	6·7	2·3	139	30	12·7	12·6	280	31	9·9	9·8	269	21	5·9	3·3	251
2·0 ,, .	27	6·9	3·0	144	20	5·5	1·6	124	23	7·4	1·3	112	29	10·1	9·9	285	30	9·7	9·6	272	11	3·6	0·5	258
2·5 ,, .	21	5·9	2·5	132	16	5·7	0·3	10	20	6·9	0·6	6	27	8·7	8·4	283	26	9·2	8·9	280	9	2·8	1·0	205
3·0 ,,	17	4·7	0·2	142	14	6·3	1·2	11	17	7·1	1·8	352	27	8·1	7·7	279	23	8·5	8·1	279	9	3·1	1·0	192
4·0 ,, .	13	4·7	2·0	342	6·	5·3	4·2	359	10	7·5	3·2	337	22	7·5	6·5	266	18	7·6	7·4	269	4	3·3	1·5	98
5·0 ,, .	4	2·9	0·9	293	4	4·0	3·5	76	5	6·2	1·4	62	13	6·7	5·9	248	15	8·6	7·8	264				
6·0 ,, .	2	3·3	2·5	321	4	5·8	3·4	133	3	7·7	2·5	108	13	5·3	2·2	231	12	6·2	5·1	256				
7·5 ,, .	1	4·0	4·0	325	3	4·0	1·4	135	2	7·3	3·7	178	7	4·2	3·0	194	6	2·7	0·8	208				
9 0 ,, .	1	8·0	8·0	310	2	7·3	5·9	233	2	5·5	5·4	215	6	5·9	5·7	112	5	6·2	4·8	116				

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

July 1949

Station	ASANSOL								BANGALORE												BAREILLY			
Time in I.S.T.	0730				1430				0230				0730				1430				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	1·6	0·5	167	31	2·3	1·1	145	31	3·6	3·6	248	31	4·1	3·8	251	31	4·8	4·5	263	30	2·8	2·5	97
0·15 a. g. .	30	4·2	1·3	174	29	5·4	2·5	142	24	8·8	8·6	253	31	7·7	7·3	255	30	7·1	6·9	262	30	5·5	1·0	160
0·6 a. s. l. .	30	5·6	1·2	249	29	5·9	2·5	139	..	..	..	..	..	..	..	..	..	..	..	..	27	8·2	6·3	117
1·0 ,, .	25	5·9	2·1	275	27	6·1	2·6	135	30	6·9	6·8	249	31	6·3	6·0	253	30	6·6	6·3	264	22	9·0	6·2	113
1·5 ,, .	18	4·1	1·3	308	21	5·6	1·3	153	16	12·8	12·5	270	8	9·3	8·9	281	29	8·2	8·1	265	19	8·6	4·4	109
2·0 ,, .	12	4·2	2·2	321	15	4·8	1·1	154	14	9·8	9·3	278	7	8·1	7·9	289	26	9·2	9·1	274	19	8·5	3·8	102
2·5 ,, .	11	3·8	1·7	334	10	4·7	1·4	112	11	6·8	6·1	280	7	7·0	6·8	299	19	9·3	8·9	279	15	7·5	1·0	81
3·0 ,, .	10	3·7	1·3	350	5	5·6	1·7	333	10	6·7	6·2	275	5	4·5	3·9	293	13	8·9	8·5	278	12	6·4	1·4	109
4·0 ,, .	8	4·1	2·1	7	2	7·3	6·5	92					4	5·6	4·3	254	5	7·4	6·7	277	10	4·7	0·7	38
5·0 ,, .	6	4·1	3·1	80	1	9·0	9·0	100					4	5·5	3·3	276	2	7·7	7·7	304	9	3·7	1·3	66
6·0 ,, .	6	4·4	3·9	119	1	11·0	11·0	100					2	2·3	0·3	308	1	3·0	3·0	315	5	3·2	1·7	109
7·5 ,, .	2	4·3	4·1	134																	5	3·6	1·6	166
9·0 ,, .																					3	2·8	2·1	165

Station	BAREILLY				BHOPAL												BHUJ							
Time in I.S.T.	1430				0230				0730				1430				0230				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	3·1	2·2	99	31	4·9	4·3	238	31	4·2	3·4	255	31	5·2	4·4	265	31	4·2	4·0	228	31	2·6	2·4	230
0·15 a. g. .	31	5·1	3·5	112	22	9·3	8·4	250	26	7·3	6·5	256	29	7·4	5·9	266	31	10·2	9·6	235	31	7·7	6·9	239
0·6 a. s. l. .	30	5·9	4·2	116	22	8·5	7·6	243	26	6·4	5·6	256	29	7·0	5·6	257	31	12·4	11·8	244	31	11·4	10·7	250
1·0 ,, .	30	6·1	4·3	122	19	11·9	11·1	259	20	11·6	10·7	274	28	7·6	6·1	270	29	11·4	10·6	242	30	10·8	9·9	250
1·5 ,, .	27	7·0	4·2	126	13	9·8	7·0	272	13	7·3	6·0	286	26	9·1	7·1	274	24	9·3	7·8	241	26	8·7	7·5	249
2·0 ,, .	22	7·4	3·1	127	9	6·0	2·4	262	10	5·7	2·3	305	19	9·1	7·1	275	17	7·0	4·0	220	15	9·0	6·2	249
2·5 ,, .	21	7·4	3·2	124	5	6·3	0·1	341	7	4·9	1·7	36	13	7·4	3·9	283	9	6·8	2·3	130	8	6·0	0·7	334
3·0 ,, .	18	5·1	3·2	171	1	5·5	5·5	335	7	5·1	2·4	75	8	5·6	2·0	278	9	5·8	2·4	77	7	6·6	4·3	29
4·0 ,, .	16	5·2	4·3	313					4	4·3	4·0	125	2	3·3	3·2	358	5	7·0	6·6	66	4	8·5	6·0	42
5·0 ,, .	10	5·2	1·2	86					2	6·7	6·4	104	1	0·5	0·5	291	2	3·7	3·3	19	1	14·0	14·0	90
6·0 ,, .	10	5·2	1·4	108					2	6·7	6·7	94	1	1·5	1·5	290	2	4·0	2·5	108	1	9·0	9·0	110
7·5 ,, .	7	3·9	1·8	129					2	9·0	7·7	80									1	11·0	11·0	105
9·0 ,, .	5	6·6	3·5	259					1	12·0	12·0	70									1	14·5	14·5	95

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

July 1949

Station	BHUJ				BIKANER								BOMBAY										
Time in I.S.T.	1430				0730				1430				0230				0730				1430		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	31	4·9	4·4	232	31	2·8	1·8	221	31	2·8	1·2	209	31	5·6	5·4	231	31	5·3	4·9	234	31	6·1	5·6
0·15 a. g. .	30	10·6	10·0	236	30	7·1	5·2	225	31	5·5	2·3	208	29	8·3	7·8	239	27	8·3	8·0	239	26	8·5	8·3
0·6 a. s. l. .	30	10·3	9·7	241	30	8·5	6·8	243	31	5·6	2·6	208	27	10·0	9·7	247	26	10·5	10·2	249	25	10·9	10·7
1·0 ,, .	29	9·5	8·6	244	29	7·4	5·7	246	30	6·3	3·1	214	14	11·3	11·1	252	17	10·7	10·2	254	19	11·3	11·1
1·5 ,, .	25	8·6	7·0	251	27	4·4	2·8	252	29	5·4	1·3	204	6	12·3	12·2	255	6	11·7	11·5	259	6	8·7	8·5
2·0 ,, .	11	4·5	1·3	312	25	3·7	0·6	78	23	4·3	0·9	76	2	9·3	9·1	242	2	10·5	10·1	247	3	9·2	9·2
2·5 ,, .	8	4·4	0·1	217	22	3·7	1·3	57	20	4·2	1·2	50					1	4·0	4·0	210			
3·0 ,, .	6	5·4	0·9	133	22	4·8	1·2	11	18	5·1	2·6	35					1	4 5	4·5	170			
4·0 ,, .	2	6·0	3·9	139	19	4·7	2·1	1	12	5·6	3·7	4											
5·0 ,, .					10	5·1	2·9	2	8	5·7	3·1	322											
6·0 ,, .					8	5·1	2·6	85	8	5·5	2·6	346											
7·5 ,, .					6	4·7	0·8	321	8	4·9	2·3	344											
9·0 ,, .					3	5·0	3·3	70	6	4·7	1·3	80											

Station	CALCUTTA												COCHIN											
Time in I.S.T.	0230				0730				1430				0230				0730				1430			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	2·6	2·1	187	31	2·9	1·7	165	31	3·3	2·4	169	31	1·8	0·3	357	31	2·1	1·1	323	31	3·3	2·0	
0·15 a. g. .	31	7·2	5·7	200	30	4·4	2·5	174	31	5·4	4·2	171	18	2·8	1·1	7	21	2·6	0·3	46	23	4·6	3·8	
0·6 a. s. l. .	31	9·5	7·2	223	30	6·3	3·1	217	31	6·5	4·7	188	18	7·0	6·4	299	21	7·1	6·4	291	21	7·8	7·4	
1·0 ,, .	30	8·8	6·6	226	29	6·2	2·7	225	28	6·1	4·0	186	15	8·8	8·3	303	21	8·8	8·3	292	16	8·4	8·0	
1·5 ,, .	29	7·0	5·1	220	24	5·7	3·0	227	24	5·4	2·6	193	11	8·8	8·4	291	17	8·8	8·6	293	13	9·6	9·1	
2·0 ,, .	26	6·8	4·1	218	22	5·7	3·1	235	24	5·5	2·0	190	6	7·3	6·9	293	12	9·3	9·2	293	7	7·0	6·5	
2·5 ,, .	18	5·5	1·9	213	18	5·1	1·9	208	18	5·4	1·8	157	5	7·6	7·1	298	8	7·0	6·5	288	4	3·5	2·4	
3·0 ,, .	14	5·0	1·8	202	16	4·6	1·5	188	18	5·9	1·6	152	3	7·2	6·6	279	6	7·3	6·9	293	4	4·7	2·0	
4·0 ,, .	6	4·3	0·7	99	4	4·0	1·7	197	10	4·2	2·5	130	1	13·5	13·5	225	1	6·5	6·5	300	4	3·7	2·5	
5·0 ,, .					3	4·7	1·4	132	6	6·5	2·9	117					1	6·0	6·0	265	3	4·7	0·8	
6·0 ,, .					2	6·0	5·3	112	4	6·5	3·5	88					1	6·5	6·5	265	3	4·7	2·3	
									3	7·0	4·4	84									1	13·0	13·0	
7·5 ,, .									2	4·5	4·3	75												
9·0 ,, .																								

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

July 1949

Station	COOCH BEHAR								CUTTACK												DEOLALI			
Time in I S.T.	0730				1430				0230				0730				1430				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
rface . .	31	1·5	1·1	89	31	1·9	1·4	133	31	0·7	0·5	223	31	0·4	0·3	288	31	1·8	1·1	228	25	2·8	2·7	254
15 a. g . .	22	3·9	3·1	97	31	3·9	3·0	138	27	4·8	4·0	239	30	4·9	3·4	255	30	5·7	4·1	227	17	8·8	8·7	245
6 a. s. l. .	20	5·5	4·5	117	27	4·5	3·9	140	25	8·1	7·2	255	29	7·9	6·3	269	29	7·0	5·0	239	17	4 8	4·7	245
0 „ .	16	5·4	4·6	110	23	5·0	4·2	141	25	8·0	7·1	265	27	8·3	7·0	276	27	6·8	5·0	260	15	12·3	12·3	246
5 „ .	11	5·8	5·4	99	19	4·4	3·5	136	24	8·3	7·3	268	23	7·8	6·9	284	21	7·4	6·0	277	8	13·8	13·7	250
0 „ .	7	4·8	4·2	89	14	4·2	3·3	127	11	6·0	5·2	264	19	7·2	6·4	275	17	8·0	6·3	281	3	10 5	10·4	245
5 „ .	6	3·9	3·1	90	12	3·7	3·2	117	4	5·4	2·5	244	13	6·1	5·5	277	11	5·8	4 0	292	1	4·5	4·5	270
0 „ .	4	4·5	3·5	78	10	3·3	2·2	118	3	5·0	1·1	30	12	5·6	4·4	287	7	4·9	2·0	312	1	5·0	5·0	265
0 „ .	3	4·2	0·8	149	6	3·1	1·6	233					9	4·9	2·9	303	4	4·5	3·5	84				
0 „ .	3	3·5	2·2	104	5	3·0	0·9	229					7	2·9	1·1	328	3	6·5	6·3	45				
0 „ .	2	6·0	6·0	102	5	4·0	1·5	184					4	5·3	3·9	140	1	6·0	6·0	90				
5 „ .	1	5·5	5·5	105	5	4·9	4·4	91					2	5·5	5·5	110								
0 „ .					2	6·3	6·3	69					1	8·0	8·0	155								

Station	DIBRUGARH								GADAG												GAYA			
Time in I.S.T.	0730				1430				0230				0730				1430				0230			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
rface .	31	0·6	0·5	51	31	1·9	0·8	30	31	5·6	5·5	240	31	4·4	4·3	238	31	7·0	6·8	249	31	2 5	1·2	167
15 a. g. .	13	2·3	0·8	67	28	2·9	0·9	26	30	10·8	10·7	245	31	9·3	9·2	242	30	10·7	10·6	245	25	5·3	1·8	193
6 a. s. l. .	13	2·7	0·7	116	28	2·9	1·3	204	..	..	..	..	..	..	..	..	..	..	..	..	25	5·4	2·2	220
0 „ .	11	2·6	2·1	208	28	4·6	3·2	220	30	13·6	13·4	257	31	12·2	12·0	256	30	11·3	11·2	252	24	4·9	1·4	207
5 „ .	11	3·6	1·0	245	26	5·7	4·7	218	29	14·3	14·2	265	30	13·1	13·0	263	30	12·1	12 0	262	22	4·4	0 8	187
0 „ .	9	3·7	2·4	228	22	5·1	4·1	214	27	12·1	11·9	266	27	10·8	10·6	267	26	10·3	10·2	269	20	4·5	0·7	270
5 „	9	4·5	2·5	226	19	5·0	4·0	207	22	8·6	8·2	274	25	8·5	8·3	272	22	8·2	7·9	276	10	4·9	0·8	277
0 „ .	8	5·0	2·9	222	18	4·4	3·3	214	19	6·2	5·3	274	22	6·5	6·2	270	17	7·7	7·4	272	10	5·3	1·3	307
0 „	7	4·5	3·1	197	18	5·1	4·2	232	13	5 5	5·1	269	14	5·0	4·6	258	8	7·9	7·9	262				
0 „	4	2·4	1·8	123	16	5·0	4·3	243	5	4·5	3·8	281	13	5·6	4·0	257	5	7·4	7·2	248				
0 „ .	1	3·0	3·0	105	14	4·4	3·3	253	4	4·1	0·0	270	10	3·5	0·9	277	1	3·0	3·0	235				
5 „ .					11	3·5	1·0	252	1	6·0	6·0	55	5	2·3	0·6	72	1	5·0	5·0	105				
0 „ .					9	4·3	0·7	59																

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

July 1949

Station	GAYA								GOPALPUR								GORAKHPUR						
Time in I.S.T.	0730				1430				0730				1430				0730				1430		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	31	2·6	0·7	178	31	3·2	0·5	43	31	2·7	2·4	220	31	6·3	6·2	199	31	2·2	2·0	88	31	2·0	1·3
0·15 a. g. .	30	4·8	1·5	203	31	4·6	1·0	26	31	5·4	4·5	227	30	9·0	8·6	204	31	5·8	5·4	92	31	5·2	3·8
0·6 a. s. l. .	29	6·2	1·3	237	31	4·5	0·5	60	31	6·6	5·2	254	30	5·8	5·0	235	26	7·7	6·2	116	30	5·6	4·5
1·0 „ .	25	5·6	0·5	211	30	4·8	0·2	100	30	7·6	6·4	272	29	6·3	5·1	264	17	6·5	5·3	114	30	6·2	4·7
1·5 „ .	22	5·2	1·5	113	22	5·8	1·5	134	27	9·1	8·1	285	28	7·6	6·4	285	12	6·8	6·0	110	25	6·4	3·0
2·0 „ .	18	5·3	1·3	91	19	6·5	1·9	121	26	7·8	7·0	284	27	7·6	6·5	286	12	6·3	5·6	108	22	6·4	1·6
2·5 „ .	11	5·5	1·4	23	15	6·7	1·1	97	20	6·8	6·0	281	22	8·2	6·7	281	10	3·9	3·3	110	19	6·8	1·6
3·0 „ .	10	6·1	3·3	18	11	7·0	2·2	44	14	7·0	5·6	273	20	7·7	5·3	276	9	3·7	2·6	123	15	6·2	0·2
4·0 „ .	4	2·6	0·2	163	8	6·8	3·1	44	8	4·8	2·4	299	12	5·5	2·8	296	7	3·1	2·6	122	13	5·0	1·6
5·0 „ .	4	4·3	2·1	113	4	6·7	4·2	359	6	2·1	1·0	71	8	4·6	2·0	321	4	2·9	2·3	161	8	3·7	0·3
6·0 „ .	1	7·0	7·0	115	4	3·0	1·2	20	5	2·3	2·0	65	3	3·1	1·3	278	2	4·0	3·9	144	4	3·1	2·6
7·5 „ .	1	8·5	8·5	105	4	4·7	0·9	287	5	6·3	5·8	130	1	3·0	3·0	180					3	4·2	2·3
9·0 „ .					3	5·8	5·3	128	1	11·5	11·5	100	1	5·0	5·0	130					2	7·0	4·8

Station	HYDERABAD (Dn.)												JAGDALPUR										
Time in I.S.T.	0230				0730				1430				0230				0730				1430		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	31	5·0	4·9	269	31	4·3	4·1	265	31	4·9	4·5	268	31	2·0	1·8	218	31	2·0	1·7	228	31	2·5	2·1
0·15 a. g. .	31	10·2	9·9	270	31	8·3	8·3	267	31	8·3	7·7	275	23	6·4	6·1	230	28	5·4	4·9	232	28	5·3	4·6
0·6 a. s. l. .	31	7·5	7·2	266	31	5·9	5·8	265	31	7·0	6·6	274	23	4·4	4·2	229	28	3·4	3·1	230	28	4·2	3·6
1·0 „ .	31	13·8	13·4	276	31	12·6	12·2	281	31	8·3	8·1	274	22	8·7	8·0	256	25	8·4	7·8	265	29	6·4	5·9
1·5 „ .	25	13·2	13·1	284	28	12·9	12·7	289	30	9·7	9·5	273	20	9·7	9·1	269	17	9·8	9·3	280	23	8·4	7·8
2·0 „ .	23	11·6	11·1	280	25	11·5	11·2	281	25	10·1	9·8	278	16	9·4	8·9	276	15	9·8	9·3	291	17	10·3	9·7
2·5 „ .	6	10·7	10·3	278	22	9·8	9·1	278	12	11·7	11·5	275	13	9·0	8·4	279	13	8·3	8·0	292	14	10·3	9·6
3·0 „ .	4	8·5	8·2	276	22	9·0	8·6	281	7	11·1	10·9	273	10	8·9	8·3	281	9	8·3	7·6	285	10	9·5	9·2
4·0 „ .					17	7·2	5·7	280	1	13·0	13·0	250	6	4·7	3·3	280	7	6·4	5·2	282	6	4·9	4·8
5·0 „ .					9	5·6	4·8	260					3	3·0	0·6	213	5	5·1	3·5	303	5	4·3	3·2
6·0 „ .					8	5·4	4·8	247					2	3·3	0·5	58	4	2·9	2·0	326	3	3·3	2·1
7·5 „ .					1	5·0	5·0	145													1	4·5	4·5
9·0 „ .					1	4·5	4·5	125													1	8·0	8·0

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

July 1949

Station	JAMSHEDPUR								JHARSUGUDA												JODHPUR			
me in I.S.T.	0730				1430				0230				0730				1430				0230			
ght in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
ce . .	31	2·1	0·9	260	31	3·0	0·8	225	31	1·4	0·9	216	31	0·9	0·7	213	31	1·9	1·5	245	31	4·1	3·7	233
a. g. .	31	3·4	1·6	242	30	5·3	1·6	220	24	5·2	3·5	227	29	4·9	3·8	236	28	4·7	3·6	243	31	7·8	7·1	228
. s. l. .	31	5·7	3·2	254	30	4·7	1·3	214	23	7·9	6·1	251	27	6·8	5·5	256	28	4·9	3·9	248	31	9·2	8·6	234
,, .	26	6·5	3·0	272	27	4·7	0·8	167	16	9·5	6·9	256	17	7·8	5·7	269	25	6·1	4·5	255	26	10·1	8·8	241
,, .	15	5·6	3·2	305	24	4·6	1·2	126	12	8·5	5·8	253	13	6·5	4·7	291	18	5·6	2·9	290	23	7·4	5·6	230
,, .	13	4·7	2·7	302	21	4·3	1·5	84	8	7·4	4·6	275	8	5·1	2·8	342	15	6·3	3·5	293	18	5·1	1·9	199
, .	9	3·3	1·6	348	18	4·7	2·4	78	7	6·9	4·0	272	7	5·8	3·0	19	13	5·6	3·7	297	8	4·1	1·5	107
,, .	9	3·3	2·0	346	17	5·2	2·7	83	4	7·4	3·5	244	3	3·0	1·6	264	8	5·4	1·6	10	5	5·8	3·7	36
, .	6	4·3	3·1	9	11	5·4	2·9	100	2	4·0	3·3	280	1	2·0	2·0	280	5	2·6	0·7	5	2	9·3	9·3	12
,, .	2	5·5	5·5	72	8	4·6	2·1	55					1	4·0	4·0	95	4	3·0	1·7	30	1	13·5	13·5	345
,, .	2	6·0	5·9	95	3	5·2	1·2	123					1	8·0	8·0	100	3	1·8	1·4	57				
,, .					1	9·0	9·0	85					1	7·5	7·5	115	3	4·5	4·5	53				
,, .					1	11·5	11·5	85									2	9·5	9·5	75				

Station	JODHPUR								JUBBULPORE												MADHOSAGAR			
me in I.S.T.	0730				1430				0230				0730				1430				0730			
ight in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
ace . .	31	3·8	3·6	237	31	5·1	3·6	237	31	2·2	1·5	230	31	2·3	1·9	229	31	2·7	2·2	250	31	2·5	1·3	237
a. g. .	29	6·7	6·3	229	29	7·4	6·3	226	29	6·8	5·7	237	28	6·0	5·0	243	30	6·3	5·3	251	30	5·6	2·8	249
a. s. l. .	27	7·7	6·9	240	29	6·3	4·8	224	29	7·4	6·3	241	28	6·7	5·7	248	30	6·5	5·4	255	28	7·6	3·9	273
,, .	24	8·2	7·3	241	29	6·8	4·7	231	24	9·1	7·9	268	21	8·3	7·0	273	27	7·3	5·9	271	25	8·2	4·6	292
,, .	19	5·8	4·1	223	26	6·5	3·2	218	21	8·1	6·9	278	13	7·3	5·2	297	22	7·1	4·3	282	23	6·7	2·8	305
,, .	17	5·1	1·7	174	20	6·9	2·7	198	17	6·8	4·8	277	10	6·0	2·9	326	18	6·9	3·0	289	18	5·4	1·0	13
,, .	12	3·9	1·8	78	15	6·4	1·8	159	8	5·2	1·3	285	8	5·4	1·4	318	12	4·5	1·2	20	16	5·4	1·6	48
,, .	9	4·2	1·7	79	14	6·3	1·6	57	4	4·4	3·1	81	7	4·7	3·4	87	11	4·9	0·9	358	15	5·7	2·2	64
,, .	7	4·2	2·1	101	10	6·5	3·1	19	1	8·5	8·5	75	2	5·5	5·4	159	7	5·4	0·8	90	9	5·4	1·9	92
,,	4	4·7	2·9	125	7	7·1	4·6	11						4·0	4·0	95	5	5·9	5·0	89	9	6·4	2·7	118
,, .	3	5·0	1.4	197	5	6·0	1·0	233													3	7·0	3·4	118
,,					2	2·7	1·8	290													1	5·5	5·5	95
,, .																					1	10·0	10·0	100

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

July 1949

Station	MADHOSAGAR				MADRAS												MALEGAON						
Time in I.S.T.	1430				0230				0730				1430				0230				0730		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface	31	3·2	1·3	281	31	4·1	3·4	231	31	3·0	2·7	239	31	4·4	2·2	236	31	4·4	4·3	259	31	3·2	3·0
0·15 a. g.	31	5·5	1·6	296	29	8·2	7·4	233	31	6·6	6·2	248	31	6·4	3·5	248	30	8·9	8·8	260	30	6·7	6·4
0·6 a. s. l.	31	5·4	1·8	295	29	10·3	9·1	251	31	9·7	9·3	268	31	5·3	4·3	258	30	8·9	8·8	260	30	6·7	6·4
1·0 ,,	31	6·4	2·0	303	29	10·3	9·0	265	31	10·5	10·0	277	31	6·1	5·8	267	30	10·3	10·2	259	30	9·4	9·2
1·5 ,,	30	6·9	2·2	303	29	9·3	8·7	273	31	9·4	8·9	283	31	8·4	8·1	275	30	11·8	11·6	263	30	11·2	10·9
2·0 ,,	28	6·8	2·8	310	28	8·6	8·1	276	31	8·0	7·7	278	31	9·2	9·0	275	26	11·0	9·9	272	24	10·7	10·1
2·5 ,,	23	6·1	1·7	360	23	7·2	6·7	274	31	7·6	7·1	274	28	10·1	9·8	270	17	7·2	5·8	270	20	7·5	6·9
3·0 ,,	18	5·9	1·0	339	18	6·5	6·1	275	30	6·9	6·3	271	26	9·0	8·5	265	16	6·1	5·4	272	16	6·9	6·0
4·0 ,,	14	5·9	0·8	356	9	6·7	6·1	262	23	7·0	6·0	261	21	8·3	7·8	266	11	6·1	4·6	284	11	5·5	3·0
5·0 ,,	7	4·0	1·7	227					17	6·8	4·9	245	17	7·6	6·5	259					6	4·2	0·4
6·0 ,,	5	4·0	2·0	146					12	6·2	2·5	214	15	7·1	5·4	242					2	6·0	1·5
7·5 ,,	3	7·0	3·7	196					6	6·3	4·7	84	8	6·9	1·9	209					2	3·5	3·3
9·0 ,,	1	1·5	1·5	60					2	11·0	10·5	96	3	11·8	3·8	190					2	6·5	6·5

Station	MALEGAON				MANGALORE												MASULIPATAM						
Time in I.S.T.	1430				0230				0730				1430				0230				0730		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface	31	6·0	5·7	264	31	2·7	0·4	294	31	2·4	0·4	261	31	3·6	2·7	268	31	2·6	2·3	240	31	2·0	1·7
0·15 a. g.	28	9·7	9·3	258	21	5·1	3·0	276	25	5·2	2·5	285	27	5·9	4·8	272	26	9·9	9·0	232	27	8·0	7·4
0·6 a. s. l.	28	9·7	9·3	258	17	8·4	7·9	283	23	8·6	8·0	278	26	8·7	8·2	281	26	12·5	11·4	244	27	12·5	11·7
1·0 ,,	28	9·7	9·1	259	13	10·6	10·3	290	9	8·4	7·8	279	19	9·3	8·9	291	23	11·1	10·4	258	27	13·0	12·5
1·5 ,,	28	10·5	10·0	259	8	10·0	9·8	291	7	9·3	9·1	281	14	7·5	7·1	289	21	11·5	11·1	271	27	12·3	11·8
2·0 ,,	27	10·0	9·5	261	5	8·6	8·6	288	5	8·8	8·7	275	9	6·6	6·3	281	20	12·1	11·5	282	27	11·4	11·0
2·5 ,,	22	8·0	7·1	259	4	6·1	6·1	281	3	5·0	5·0	281	4	3·3	2·4	263	18	10·9	10·1	283	27	10·5	9·9
3·0 ,,	19	6·7	5·1	261	1	2·0	2·0	280	2	4·3	4·2	293	3	3·7	2·9	269	15	9·9	9·2	284	22	10·0	8·8
4·0 ,,	11	6·4	3·7	286					2	2·5	1·9	341	3	3·8	1·4	268	9	6·1	5·6	260	16	9·5	8·8
5·0 ,,	5	4·2	1·8	140					2	5·7	2·3	71	3	4·2	2·0	312					14	7·9	6·1
6·0 ,,	2	6·0	4·5	319					1	1·5	1·5	65	2	4·5	3·3	142					9	5·5	3·9
7·5 ,,	2	5·0	3·3	56									2	8·3	8·3	108					5	6·6	4·2
9·0 ,,	2	5·5	5·2	66									1	9·0	9·0	105					4	8·7	8·6

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

July 1949

Station	MASULIPATAM				NAGERCOIL												NAGPUR							
ime in I.S.T.	1430				0230				0730				1430				0230				0730			
leight in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
rface . .	31	2·1	1·8	250	31	4·9	4·6	282	31	4·3	4·0	282	31	6·6	6·1	276	31	2·3	2·0	241	31	2·3	2·1	234
15 a. g. .	30	6·2	5·3	257	30	9·8	9·5	292	31	8·7	8·5	293	31	12·7	12·1	285	24	6·5	5·7	246	27	5·0	4·4	255
6 a. s. l. .	30	7·9	7·3	279	30	13·5	13·1	296	31	14·1	13·5	293	31	14·0	13·6	292	23	7·9	7·0	254	27	6·7	6·2	272
0 „ .	30	9·7	9·3	287	30	13·2	12·8	295	31	14·3	13·6	294	31	15·6	15·1	297	23	9·3	8·5	275	23	9·7	9·0	288
5 „ .	30	11·6	11·4	286	27	12·7	12·2	293	30	12·9	12·3	290	31	15·5	15·0	295	23	9·3	8·5	282	20	10·3	9·8	292
0 „	30	12·0	11·7	278	27	11·3	10·8	288	28	12·7	11·6	288	27	14·7	14·2	290	17	8·9	7·7	286	16	8·6	8·1	294
5 „ .	27	10·5	10·1	273	23	8·3	7·5	285	26	11·0	9·9	284	26	13·6	12·7	286	10	7·5	6·6	275	12	6·8	5·7	292
0 „ .	24	10·6	10·0	274	22	7·3	5·3	279	25	8·7	6·9	276	26	11·9	10·8	280	7	5·6	3·2	262	9	4·3	3·6	280
0 „ .	22	9·9	9·5	276	12	6·6	4·8	261	18	7·4	4·8	269	25	8·5	6·3	278	3	5·7	2·1	70	3	6·7	6·6	278
0 „ .	17	9·2	8·2	265	3	1·7	1·0	346	16	7·0	3·0	255	19	8·2	4·4	264	1	2·5	2·5	50	1	5·0	4·9	230
0 „ .	12	6·8	5·5	258	3	3·0	0·3	293	11	8·0	1·0	120	15	6·8	1·6	249					1	4·5	4·5	200
5 „ .	8	3·6	1·8	286					8	8·0	5·2	91	12	9·7	4·3	133								
0 „ .	5	5·6	3·4	73					6	11·2	7·4	101	11	11·0	8·5	93								

Station	NAGPUR				NEW DELHI												POONA							
ime in I.S.T.	1430				0230				0730				1430				0230				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
urface . .	31	3·4	2·7	261	31	2·8	0·8	123	31	3·2	1·3	119	31	2·9	1·3	40	31	3·8	3·7	275	31	4·0	3·9	275
·15 a. g. .	30	6·3	5·3	261	28	6·5	2·5	127	23	4·8	1·0	139	29	5·2	2·1	73	31	6·7	6·6	256	31	6·1	5·9	256
·6 a. s. l. .	30	6·5	5·7	264	27	7·5	2·8	149	18	6·9	1·5	248	29	6·0	2·1	78	31	4·5	4·5	256	31	4·5	4·3	256
·0 „ .	28	7·5	6·7	272	24	7·3	2·7	147	17	7·1	1·7	276	29	6·4	1·6	61	31	9·2	9·1	257	31	10·0	9·9	254
·5 „ .	27	8·3	7·1	285	23	6·6	0·7	197	13	6·4	0·7	325	26	7·0	1·4	64	21	13·5	13·3	258	23	13·5	13·4	261
·0 „ .	23	8·2	6·6	283	16	5·0	0·3	276	13	5·3	1·0	25	23	6·8	1·6	24	14	13·2	13·0	262	16	12·7	12·6	261
·5 „ .	13	7·7	4·6	277	12	4·6	0·7	328	11	4·2	0·9	18	19	5·8	3·1	344	8	10·4	10·2	271	10	10·5	10·1	265
·0 „ .	11	6·5	4·2	281	9	3·5	0·7	196	7	4·1	1·7	297	17	5·2	3·6	327	7	6·1	5·4	289	9	7·8	7·4	272
·0 „ .	6	4·5	1·9	280	6	3·3	0·7	237	5	4·1	1·8	227	15	6·0	2·7	344	5	6·3	6·1	285	5	5·2	3·6	296
·0 „ .	2	6·3	1·5	106					4	5·1	1·7	189	9	5·8	1·3	9	1	4·5	4·5	260	3	5·8	5·0	289
·0 .	1	16·5	16·5	80					1	4·5	4·5	260	6	2·3	0·6	141					2	2·7	2·7	317
·5 .													6	4·3	1·6	173					1	5·0	5·0	65
·0 .													2	5·0	3·7	79								

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

JULY 1949

Station	POONA				PORT BLAIR												RAIPUR							
Time in I.S.T.	1430				0230				0730				1430				0230				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	7·8	7·5	282	31	4·8	4·6	232	31	3·4	3·2	239	31	5·6	5·2	238	31	2·9	2·7	230	31	2·9	2·7	2
0·15 a. g. .	31	9·3	9·1	260	24	8·7	8·3	231	27	7·1	6·5	229	29	9·0	8·5	236	22	9·1	8·5	238	28	7·7	7·3	2
0·6 a. s. l. .	31	8·1	7·9	260	24	10·8	10·4	238	26	10·9	10·2	239	28	11·3	10·7	241	22	10·6	9·8	250	28	9·6	9·0	2
1·0 ,, .	31	9·9	9·8	254	23	10·9	10·4	242	26	11·1	10·4	242	22	12·0	11·3	244	20	10·3	9·1	266	23	10·0	9·2	2
1·5 ,, .	25	12·5	12·4	258	18	10·2	9·5	240	24	10·1	9·4	247	14	9·8	9·4	253	19	9·2	7·7	272	19	9·5	8·3	2
2·0 ,, .	12	11·3	11·0	260	9	5·0	4·2	246	16	8·3	7·5	249	10	9·7	9·4	258	14	7·8	6·3	282	15	9·5	8·1	2
2·5 ,, .	3	8·5	8·5	271	6	4·0	2·9	255	13	5·7	4·9	249	8	7·2	6·7	258	9	4·4	1·5	278	14	9·6	7·9	2
3·0 ,, .	2	12·0	11·3	280	5	4·4	2·6	249	11	4·5	3·7	260	6	4·6	3·9	279	6	3·6	2·1	268	10	8·3	6·4	2
4·0 ,, .					1	2·5	2·5	80	8	5·5	2·4	275	2	1·3	1·1	328	2	2·3	1·9	239	3	4·5	1·6	
5·0 ,, .									6	7·8	3·2	274	2	1·0	0·9	84	2	2·0	1·1	249	2	4·0	4·0	
6·0 ,, .									1	5·5	5·5	25	2	6·5	6·3	76	2	3·3	0·4	73	2	5·5	5·	
7·5 ,, .									1	3·0	3·0	65	2	6·7	6·7	75	2	3·7	3·4	112	1	6·5	6·5	
9·0 ,, .													1	15·0	15·0	65	2	1·5	1·2	130				

Station	RAIPUR				SAHARSA								TEZPUR										
Time in I.S.T.	1430				0730				1430				0230				0730				1430		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	31	3·4	3·1	237	31	1·1	1·1	84	31	2·3	1·8	88	31	1·1	0·4	164	31	1·0	0·5	137	31	0·7	0·1
0·15 a. g. .	31	7·1	6·5	249	26	5·7	5·5	92	31	4·2	3·1	95	23	3·8	1·5	155	31	3·3	1·4	135	31	3·0	0·7
0·6 a. s. l. .	31	7·2	6·7	255	15	6·5	6·2	112	31	6·0	5·3	103	23	4·6	2·6	225	29	3·6	2·0	173	31	3·5	1·3
1·0 ,, .	29	7·5	7·0	262	9	6·2	6·0	108	25	6·3	5·2	116	19	5·2	3·4	227	27	4·4	2·9	190	30	4·4	2·5
1·5 ,, .	19	7·1	6·1	281	5	5·2	4·5	94	16	6·8	5·4	123	15	6·5	5·1	238	26	4·9	2·9	209	29	5·0	3·6
2·0 ,, .	14	9·3	8·4	281	4	4·7	4·6	96	10	6·9	5·3	122	13	6·5	4·9	240	20	4·8	1·7	209	29	5·	4·4
2·5 ,, .	9	8·4	7·0	287	4	4·7	4·75	93	8	7·1	4·7	112	10	7·3	6·1	229	12	5·2	1·0	242	27	5·5	3·8
3·0 ,, .	6	9·3	6·7	295	4	5·3	4·5	97	7	6·6	5·8	104	7	6·6	5·7	227	10	4·5	1·0	153	26	5·2	3·0
4·0 ,, .	4	7·5	3·7	318	1	2·5	2·5	300	5	8·3	8·1	119	3	7·8	6·4	215	9	3·1	1·6	117	24	4·6	2·1
5·0 ,, .	4	3·9	2·2	341	1	3·5	3·5	155									8	3·1	1·2	116	21	4·1	0·4
4·0 ,, .	2	4·5	2·1	323	1	8·5	8·5	140									7	4·6	2·6	97	20	4·2	1·6
7·5 ,, .	1	4·5	4·5	105													2	5·5	5·3	62	18	4·3	2·2
9·0 ,, .	1	10·0	10·0	100													1	5·5	5·5	320	15	4·8	2·8

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

JULY 1949

Station	TRICHINOPOLY												TRIVANDRUM				UDAIPUR							
Time in I.S.T.	0230				0730				1430				0730				0230				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
urface . .	31	4·0	3·7	270	31	3·3	3·3	273	31	4·3	3·7	275	31	1·7	1·5	335	31	2·5	2·3	233	31	1·7	1·2	234
·15 a. g. . .	31	9·6	9·4	268	31	7·8	7·7	269	31	7·8	7·0	273	22	6·8	6·1	333	28	5·5	5·1	240	31	4·3	3·2	246
·6 a. s. l. .	31	13·3	13·2	267	31	12·4	12·3	268	31	8·8	8·1	271	22	11·4	10·7	308	..	..	..	..	..	..	..	..
·0 „ .	31	12·7	12·3	269	31	12·2	12·0	271	31	9·3	8·8	265	21	11·8	11·2	303	28	6·6	6·3	247	30	6·0	5·1	258
·5 „ .	31	10·1	9·7	271	31	9·6	9·1	267	31	9·9	9·4	263	17	10·7	10·1	299	18	5·9	4·3	249	21	6·4	3·1	260
·0 „ .	30	8·0	7·5	273	31	7·8	7·0	273	31	9·4	8·8	265	10	7·8	6·7	293	17	5·3	1·5	239	17	5·4	1·5	201
·5 „ .	28	6·9	5·9	277	31	7·3	6·7	278	30	9·2	8·6	269	8	6·2	4·7	288	15	5·2	2·0	120	12	4·8	2·2	142
·0 „ .	28	6·8	5·7	273	31	7·1	6·2	274	28	9·2	8·2	278	6	4·1	2·4	302	13	5·9	2·3	97	11	4·8	2·9	105
·0 „ .	8	8·1	6·6	257	29	6·4	5·4	264	23	7·8	6·9	266	4	5·6	2·5	185					8	6·2	3·5	87
·0 „ .					25	6·1	3·7	254	14	4·3	2·2	251	2	5·3	1·4	289					4	7·1	5·8	105
·0 „ .					22	5·1	1·8	210	14	3·7	1·6	184	2	7·5	6·5	133					3	6·7	4·8	102
·5 „ .					15	6·8	5·0	106	12	6·7	4·9	111	2	12·7	12·7	87					1	4·5	4·5	105
·0 „ .					9	10·2	9·3	91	10	8·7	8·4	92	1	14·5	14·5	95					1	2·0	2·0	75

Station	UDAIPUR				VENGURLA												VERAVAL							
Time in I.S.T.	1430				0230				0730				1430				0230				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
urface . .	31	2·5	1·9	227	31	2·3	2·2	263	31	2·2	1·9	264	31	3·1	2·9	260	31	10·9	10·3	240	31	8·8	8·2	254
·15 a. g. .	31	5·3	4·4	237	21	7·1	6·8	264	23	7·2	7·0	266	26	7·1	6·8	263	29	11·0	10·4	245	28	10·5	10·2	245
·6 a. s. l. .	..	..	..	..	15	9·4	9·2	270	16	9·3	9·1	271	19	9·5	9·2	269	25	12·5	12·0	248	28	12·7	12·3	248
·0 „ .	31	5·7	4·3	247	11	10·3	10·2	276	9	10·6	10·4	271	4	10·4	10·4	268	23	11·5	11·1	249	18	12·6	12·1	249
·5 „ .	27	6·3	3·7	261	6	10·2	10·0	268	3	9·3	9·1	256	1	9·0	9·0	258	15	9·2	8·7	247	13	11·0	10·1	250
·0 „ .	25	5·5	2·3	262	1	10·0	10·0	270					1	10·0	10·0	255	12	7·1	5·8	241	3	4·3	4·3	255
·5 „ .	18	5·4	0·8	275													6	4·8	1·9	219				
·0 „ .	14	5·4	0·7	69													5	3·9	2·2	113				
·0 „ .	11	5·1	2·0	29													1	3·0	3·0	180				
·0 „ .	9	5·7	3·1	213																				
·0 „ .	4	5·7	4·2	265																				
·5 „ .	2	5·7	5·7	239																				
·0 „ .																								

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

July 1949

Station	VERAVAL				VIZAGAPATAM												MINICOY						
Time in I.S.T.	1430				0230				0730				1430				0230				0730		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	31	8·9	8·2	256	31	3·6	3·5	222	31	2·8	2·8	224	31	4·3	3·9	216	31	4·4	4·1	273	31	·8	3·6
0·15 a. g. .	30	11·0	10·8	247	30	7·3	7·2	236	30	6·0	5·9	232	30	6·5	6·3	223	25	8·2	7·4	272	25	8·4	7·9
0·6 a. s. l. .	27	12·2	12·0	252	30	9·7	9·4	250	29	9·5	9·3	251	29	6·5	6·1	249	25	11·2	10·4	278	25	10·9	10·2
1·0 ,, .	26	12·0	11·5	252	25	10·9	10·4	266	27	9·9	9·5	262	29	7·3	6·8	271	21	13·3	12·6	290	25	12·6	12·1
1·5 ,, .	14	9·7	8·9	250	25	14·3	13·6	269	27	11·4	10·8	275	25	8·5	7·5	281	14	14·0	13·4	292	22	12·7	12·3
2·0 ,, .	7	6·4	5·5	252	21	10·9	10·3	278	26	10·5	9·9	282	22	8·4	7·3	283	12	12·9	12·5	289	17	12·8	12·2
2·5 ,, .	4	5·7	5·5	278	15	8·7	8·5	283	22	9·3	8·5	282	17	7·7	6·8	278	9	10·6	10·1	281	9	11·2	10·6
3·0 ,, .	3	7·0	6·9	318	9	8·0	7·6	280	16	8·9	7·6	285	14	7·7	6·5	275	5	6·2	6·0	269	6	9·4	8·6
4·0 ,, .	2	7·7	7·6	338	3	7·7	6·2	272	8	6·6	5·8	280	11	6·5	5·4	258	2	3·0	2·0	248	3	7·2	6·9
5·0 ,, .	2	5·5	5·5	10					3	2·7	2·0	322	7	4·6	3·6	259					2	5·0	3·9
6·0 ,, .	2	3·7	3·5	17					2	2·5	2·7	337	6	2·8	1·7	267					1	3·0	3·0
7·5 ,, .	1	1·5	1·5	45					1	4·0	4·0	94	4	3·1	1·9	345					1	3·0	3·0
9·0 ,, .	1	7·0	7·0	65									4	4·1	2·9	61							

Station	MINICOY			
Time in I.S.T.	1430			
Height in Km.	n	V	v	D
Surface . .	31	4·3	3·9	277
0·15 a. g. .	28	8·6	7·7	277
0·6 a. s. l. .	27	11·3	10·3	282
1·0 ,, .	27	13·5	12·6	288
1·5 ,, .	23	12·8	12·3	292
2·0 ,, .	16	13·0	12·6	291
2·5 ,, .	6	9·2	8·8	285
3·0 ,, .	4	7·3	7·1	279
4·0 ,, .	2	7·0	4·4	246
5·0 ,, .				
6·0 ,, .				
7·5 ,, .				
9·0 ,, .				

Table B.—Monthly Mean Directions and Velocities of Upper Winds

Winds at and above 10 Km. above sea-level

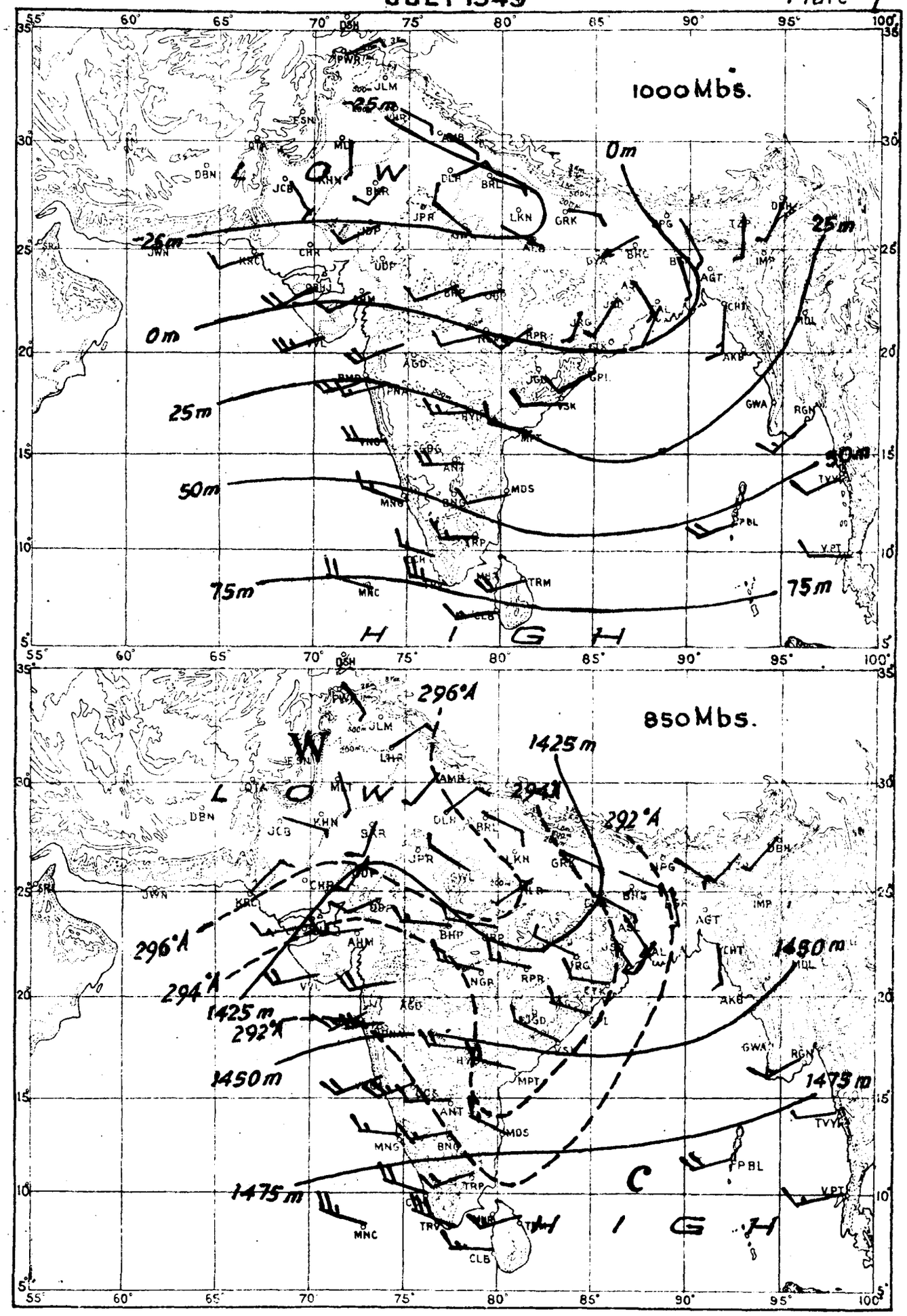
JULY 1949

Height (Km.)	n	V	v	D
	AHMEDABAD			
10·0	4	7·4	7·2	74
11·0	1	14·5	14·5	80
12·0	1	17·5	17·5	85
13·0	1	17·5	17·5	85
	AMBALA			
10·0	4	7·4	4·1	239
11·0	2	6·5	3·5	305
12·0	1	5·5	5·5	246
13·0	1	8·0	8·0	231
14·0	1	7·5	7·5	210
	ANANTAPUR			
10·0	8	8·1	7·8	103
11·0	4	13·5	13·5	92
12·0	2	17·7	16·5	76
13·0	1	24·0	24·0	110
	BAREILLY			
10·0	7	6·7	0·7	205
11·0	7	8·1	4·3	201
12·0	5	8·2	5·4	200
13·0	3	11·0	7·8	220
14·0	2	7·5	1·1	145
15·0	2	9·5	3·3	47
16·0	2	10·3	9·3	136
17·0	1	20·0	20·0	150
18·0	1	18·0	18·0	130
	BHUJ			
10·0	1	14·0	14·0	90
	BIKANER			
10·0	5	5·2	2·7	113
11·0	4	7·5	4·3	113
12·0	3	7·0	2·0	81
13·0	3	6·3	3·3	57
14·0	3	9·2	6·6	76
15·0	2	10·7	6·5	102
16·0	1	7·5	7·5	180
	CALCUTTA			
10·0	2	5·7	5·7	76
	COOCH BEHAR			
10·0	2	6·3	6·1	63
	DIBRUGARH			
10·0	8	5·9	2·4	95
11·0	6	8·3	4·6	103
12·0	6	9·4	5·1	96
13·0	6	11·1	6·6	78
14·0	5	13·2	7·7	72
15·0	4	16·4	11·1	60
16·0	4	15·3	12·3	70
17·0	4	18·1	14·9	88
18·0	3	24·3	23·2	110
19·0	1	16·0	16·0	80
	GAYA			
10·0	2	6·5	6·1	115
11·0	1	10·5	10·5	130
12·0	1	10·0	10·0	145
13·0	1	13·0	13·0	130
14·0	1	17·5	17·5	130
15·0	1	17·0	17·0	110
16·0	1	16·0	16·0	100
	GOPALPUR			
10·0	1	8·0	8·0	85
	HYDERABAD (Dn.)			
10·0	1	9·0	9·0	70
	JAGDALPUR			
10·0	1	10·0	10·0	86
	JHARSUGUDA			
10·0	1	6·0	6·0	90
	MADHOSAGAR			
10·0	1	8·0	8·0	100
	MADRAS			
10·0	2	12·7	12·3	101
11·0	2	20·3	20·0	100
12·0	2	25·0	24·8	92
	MALEGAON			
10·0	3	8·5	8·4	96
11·0	1	11·0	11·0	100
	MANGALORE			
10·0	1	15·0	15·0	110
11·0	1	20·0	20·0	90
12·0	1	27·0	27·0	95
13·0	1	36·5	36·5	95
	MASULIPATAM			
10·0	6	10·5	10·1	91
11·0	3	13·7	13·5	104
12·0	1	20·0	20·0	70
13·0	1	26·0	26·0	80
	NAGERCOIL			
10·0	16	13·0	11·8	96
11·0	10	13·8	8·9	95
12·0	10	17·5	16·4	91
13·0	8	22·4	21·4	85
14·0	6	24·8	24·8	89
15·0	3	28·0	28·0	87
16·0	2	31·3	31·1	81
17·0	2	30·7	30·7	87
	NEW DELHI			
10·0	2	3·0	2·1	86
11·0	2	4·5	4·3	119
12·0	2	3·3	2·7	100
13·0	2	5·7	5·4	73
14·0	2	7·0	6·8	81
15·0	2	9·3	9·3	95
16·0	2	11·3	11·3	90
17·0	1	18·0	18·0	85
	PORT BLAIR			
10·0	1	18·0	18·0	60
11·0	1	22·0	22·0	60
	RAIPUR			
10·0	3	5·7	5·4	96
11·0	2	11·0	11·0	98
12·0	1	20·5	20·5	95
13·0	1	23·5	23·5	70
14·0	1	17·5	17·5	75
15·0	1	19·0	19·0	85
16·0	1	23·0	23·0	85
17·0	1	28·5	28·5	85
	TEZPUR			
10·0	15	6·0	3·1	70
11·0	12	6·3	3·6	66
12·0	10	9·1	5·4	66
13·0	8	11·9	9·5	48
14·0	8	12·7	10·9	66
15·0	8	14·6	12·4	61
16·0	8	16·7	13·3	69
17·0	7	19·6	8·1	79
18·0	6	20·6	20·0	69
19·0	5	24·5	23·2	75
20·0	4	24·7	24·3	71
21·0	3	24·3	24·0	72
22·0	3	31·3	30·8	82
23·0	2	31·7	31·7	84
24·0	2	29·3	28·9	98
25·0	1	16·5	16·5	85
	TRICHINOPOLY			
10·0	16	13·9	13·5	93
11·0	4	16·0	15·9	99
12·0	3	28·7	28·6	93
	TRIVANDRUM			
10·0	1	18·0	18·0	100
11·0	1	24·5	24·5	105
	VERAVAL			
10·0	1	13·0	13·0	70
11·0	1	14·0	14·0	85
12·0	1	15·0	15·0	95
	VIZAGAPATAM			
10·0	4	5·0	2·8	80
11·0	2	6·3	6·1	115
12·0	2	17·5	17·5	83
13.0	2	16·5	16·5	84
14·0	1	18·0	18·0	80
15·0	1	23·0	23·0	80

MONTHLY MEAN CONSTANT PRESSURE CHARTS.

JULY 1949

Plate I



RESULTANT WIND —\= 5 Knots; —\= 10 Knots; —\= 50 Knots.

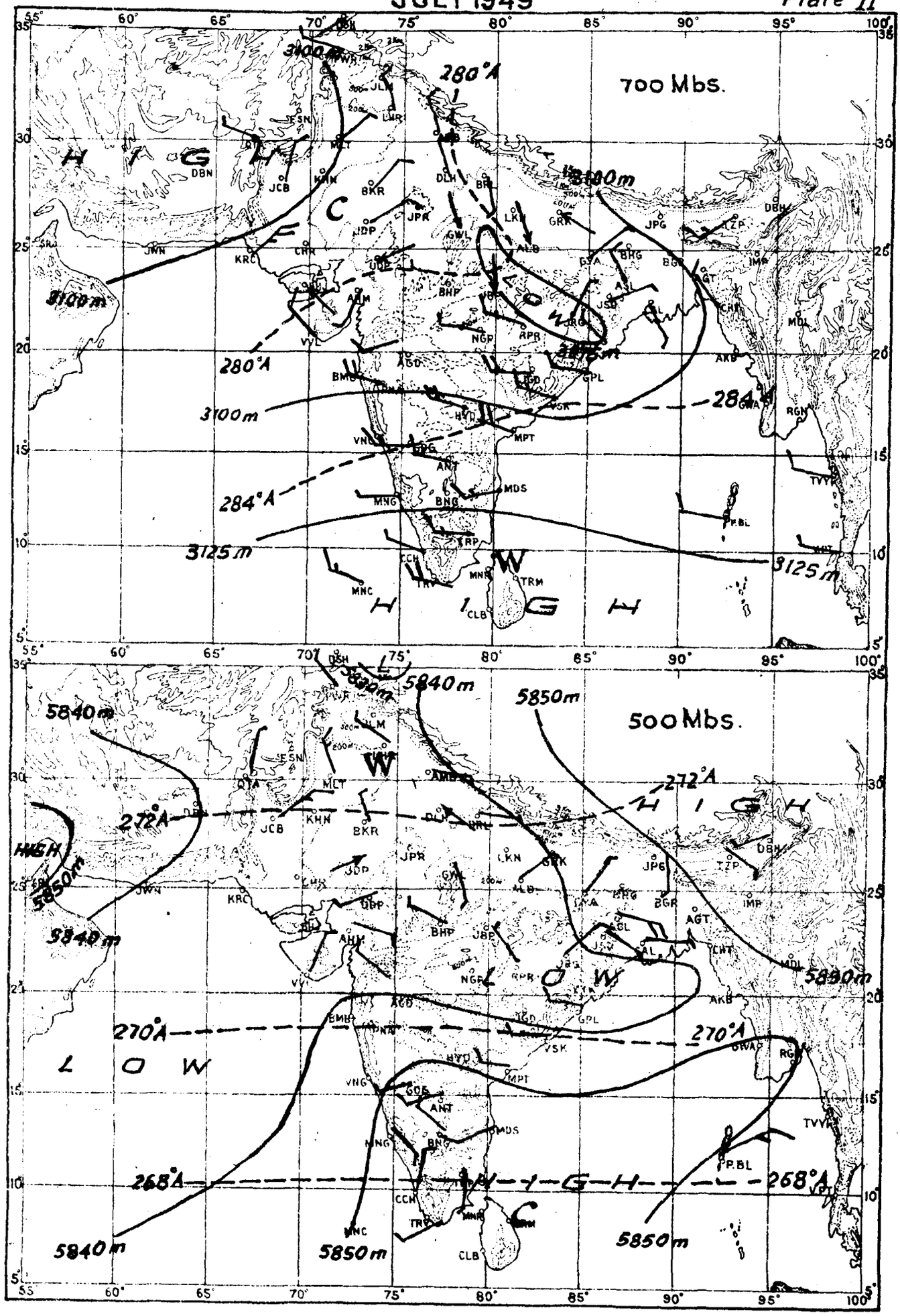
------ Isotherms in degrees absolute. ——— Contours in geopotential metres.

G.PZ.P.POONA.53.

MONTHLY MEAN CONSTANT PRESSURE CHARTS.

JULY 1949

Plate II



RESULTANT WIND —— = 5 Knots; —— = 10 Knots; —— = 50 Knots.

------ Isotherms in degrees absolute. ——— Contours in geopotential metres.

G.PZ.P.POONA,53.

Registered No. B-3097

INDIA WEATHER REVIEW, 1949

Monthly Weather Report

August

JAN 27

Published by authority of the Government of India

Chief features.—(i) Vigorous monsoon in Saurashtra and Cutch and the west Central Provinces in the beginning of the month and in the United Provinces and the northeast Central Provinces during the second and third week and (ii) weak monsoon in Western Pakistan, northwest India and the peninsula during the second and third weeks and over the whole of northern India, the central parts of the country and Pakistan during the last week.

The monsoon was generally active over the country outside the Bombay Deccan during the first ten days of August under the influence of two low pressure waves from the northwest Bay of Bengal, the first of which became unimportant over Vindhya Pradesh on the 3rd while the second, moving into Bihar on the 6th, persisted there till the 10th. A low which appeared over west Rajputana and upper Sind on the 1st and after persisting there for three days moved to the southwest Punjab, caused vigorous monsoon in Saurashtra and Cutch and the west Central Provinces and active monsoon in Sind during the first 4 days of the month. The monsoon was also fairly active in Baluchistan and the West Punjab during the first week, but after the 10th it weakened considerably in Western Pakistan; northwest India and the Peninsula. It, however, continued strong for another week in the United Provinces and the northeast Central Provinces and active in northeast India outside Orissa. Some heavy falls of rain occurred in the west United Provinces, Bihar and the northeast Central Provinces during this period, as a result of which the Ganga was in spate, and overflowing its banks flooded the Kanpur-Lucknow road for over six miles and submerged scores of hamlets on the outskirts of Kanpur under several feet of water. The rivers Saraswati and Paimar in Bihar were also in spate and flooded several villages in Patna district destroying completely the paddy crops.

There was a further weakening of the monsoon after the 17th, and till the 24th rainfall was confined to the region from the United Provinces to Assam; the monsoon weakened over these regions also after the 24th.

During the last week of the month, a vigorous revival of the monsoon took place in the Peninsula. A trough of low pressure appeared in the Bay of Bengal off the Circars coast on the 25th and moving across the Deccan as a low pressure area, it became unimportant over Saurashtra and the adjacent parts of the Arabian Sea by the 31st. In association with it, there was widespread rain in the Madras Presidency on the 26th and 27th, over most parts of the Peninsula on the 28th and in the western half of the Peninsula on the 29th and 30th. The monsoon also revived in Gujarat and Saurashtra on the last three days of the month.

There were three western disturbances during the month. The first one was very feeble and moved across the extreme north of the country between 21st and 22nd, without causing any precipitation. The second caused local thundershowers in the west Punjab on the 25th, while the third caused scattered light showers in north Baluchistan and the North-West Frontier Province on the 30th.

The total rainfall for the month was in large excess in Saurashtra and Cutch and in slight to moderate excess in Assam, the United Provinces and the Madras Presidency outside Malabar. It was normal in the Bay Islands, West Bengal, Chota Nagpur, Bihar, the Bombay Deccan, south Hyderabad, Mysore and Malabar and in slight to moderate defect elsewhere except in east Rajputana and Madhya Bharat and Bhopal where it was in large defect. Averaged over the plains of India, the month's rainfall was 8 per cent in defect.

Price: Re. 1/-

The mean maximun temperature was above normal in Madhya Bharat and Bhopal and Berar and normal elsewhere.

The mean minimum temperature was normal.

Relative humidity was above normal in west Rajputana and Mysore and normal elsewhere.

Cloud amount was in excess in southeast Madras and in defect in the East Punjab and west Rajputana. Elsewhere it was normal.

Data from Kashmir are not available.

Table I contains the divisional and sub-divisional means of rainfall, temperature, humidity and cloud amount for the 13 chief political divisions and the 27 sub-divisions. The stations whose observations are used for preparing these means are given in the subsequent tables.

The highest maximum temperature given for any station in the accompanying tables is that recorded within the 24 hours ending at 0830 hours I.S.T. of the date noted in the succeeding column; similarly the heaviest fall in 24 hours for any station denotes the amount recorded during the 24 hours ending at 0830 hours I.S.T. of the date given in the succeeding column.

POONA 5 :
Dated the 16th December, 1949.

S. BASU,
for *Director General of Observatories.*

	Rainfall.				Departure from normal of				
							0830 hrs. I.S.T.		
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Maximum temperature.	Minimum temperature.	Vapour pressure.	Relative humidity.	Cloud.
1	2	3	4	5	6	7	8	9	10
	"	"	"		°	°	mb.	%	
ision—									
Assam . .	15·52	13·78	+1·74	+13	0	−0·1	−0·1	+2	+0·9
West Bengal .	14·24	14·37	−0·13	−1	0	−0·1	−0·2	+2	−0·7
Orissa . .	10·63	12·52	−1·89	−15	−0·2	−0·2	+0·4	+3	+0·8
Bihar . .	13·90	13·01	+0·89	+7	+0·2	+0·1	+0·6	+3	+0·5
United Provinces	14·78	12·13	+2·65	+22	−0·3	−0·1	+0·5	+1	0
East Punjab	3·43	6·25	−2·82	−45	+1·2	+0·1	−0·1	0	−1·2
Rajputana .	2·94	6·19	−3·25	−53	+0·4	−0·1	+0·8	+3	−1·1
-Division—									
Bay Islands .	15·90	16·29	−0·39	−2	+0·8	+0·1	−0·3	+2	+0·8
Assam . .	15·52	13·78	+1·74	+13	0	−0·1	−0·1	+2	+0·9
West Bengal	14·24	14·37	−0·13	−1	0	−0·1	−0·2	+2	+0·7
Orissa . .	10·63	12·52	−1·89	−15	−0·2	−0·2	+0·4	+3	+0·8
Chota Nagpur	13·86	13·64	+0·22	+2	−0·1	−0·1	+0·7	+2	+0·4
Bihar	13·92	12·70	+1·22	+10	+0·3	+0·1	+0·4	+3	+0·5
United Provinces, East.	14·31	12·12	+2·19	+18	−0·8	+0·1	+0·5	+1	+0·4
United Provinces, West.	15·25	12·13	+3·12	+26	+0·3	−0·2	+0·5	+2	−0·5
East Punjab .	3·43	6·25	−2·82	−45	+1·2	+0·1	−0·1	0	−1·2
Kashmir . .	Data incomplete								
Rajputana, West	2·90	3·79	−0·89	−23	−0·7	−0·6	+1·8	+6	−1·3
Rajputana, East	2·98	8·60	−5·62	−65	+1·5	+0·3	−0·2	0	−1·0
Gujarat . .	6·85	7·88	−1·03	−13	+1·0	+0·4	+1·4	+4	−1·0
Saurashtra and Cutch.	9·09	3·90	+5·19	+133	+0·9	+0·6	+0·7	+3	−1·0

	Rainfall.				Departure from normal of				
							0830 hrs. I. S. T.		
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Maximum temperature.	Minimum temperature.	Vapour pressure.	Relative humidity.	Cloud.
1	2	3	4	5	6	7	8	9	10
	"	"	"		°	°	mb.	%	
Division—*contd.*									
8. Bombay (including Saurashtra & Cutch)	8·88	9·04	−0·16	−2	+1·1	+0·6	+1·1	+3	−0·5
9. Central India (including Madhya Bharat & Bhopal & Vindhya Pradesh)	7·07	11·87	−4·80	−40	+1·6	+0·2	+0·3	0	−0·3
10. Central Provinces & Berar	10·09	12·17	−2·08	−17	+1·0	+0·8	+0·4	0	+0·3
11. Hyderabad .	5·70	6·03	−0·33	−5	+0·1	+0·9	+1·1	+5	+1·1
12. Mysore . .	8·36	7·79	+0·57	+7	−0·2	+0·9	+1·0	+6	+0·7
13. Madras . .	7·01	5·93	+1·08	+18	−0·9	+0·4	+0·8	+3	+1·0
Mean of India .	8·79	9·52	−0·73	−8	+0·4	+0·3	+0·6	+2	+0·1
Sub-Division—*contd.*									
15. Madhya Bharat & Bhopal	4·47	10·92	−6·45	−59	+2·5	+0·5	+0·5	−1	−0·2
16. Vindhya Pradesh	10·55	13·14	−2·59	−20	+0·5	−0·1	0	+1	−0·4
17. Berar . .	5·47	6·41	−0·94	−15	+2·1	+1·5	+0·7	−1	0
18. Central Provinces, West.	10·63	12·85	−2·22	−17	+1·1	+0·7	+0·9	+1	−0·2
19. Central Provinces, East.	11·29	13·65	−2·36	−17	+0·4	+0·6	−0·3	0	+1·0
20. Konkan . .	12·91	18·15	−5·24	−29	+0·7	+0·3	+1·0	+3	−0·6
21. Bombay Deccan	8·15	9·06	−0·91	−10	+1·5	+0·9	+1·1	+3	+0·2
22. Hyderabad, North.	5·61	6·63	−1·02	−15	+0·2	+1·2	+1·1	+5	+1·1
23. Hyderabad, South.	5·79	5·43	+0·36	+7	0	+0·7	+1·0	+5	+1·0
24. Mysore . .	8·36	7·79	+0·57	+7	−0·2	+0·9	+1·0	+6	+0·7
25. Malabar . .	14·75	14·83	−0·08	−1	+0·5	+0·6	+0·8	+3	+0·7
26. Madras, South-East.	4·66	3·48	+1·18	+34	−0·8	+0·7	+0·5	+3	+1·5
27. Madras, Deccan	4·79	3·79	+1·00	+26	−1·7	+0·1	+1·6	+5	+1·0
28. Madras Coast, North.	7·27	5·36	+1·91	+36	−1·2	0	+0·7	+3	+0·4

TABLE II—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relat humi %	
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	2
Bay Islands																					
Port Blair	261	1000·1	+0·5	998·0	84·2	+0·8	87	26,30	74·8	+0·1	71	3,10,11	80·2	79·3	76·9	76·6	29·8	—0·3	30·3	86	+
Assam																					
Dibrugarh	348	992·1	—0·4	988·2	87·3	+0·1	97	2	75·4	—0·5	72	24,25	79·2	82·7	77·4	79·3	31·0	—0·4	32·5	92	+
Sibsagar	317	993·3	—0·1	989·8	89·2	+0·4	97	2	78·0	+0·3	75	13,26,31	82·4	84·9	78·9	80·2	32·1	—0·5	33·4	85	—
Tezpur	258	995·4	—0·1	991·2	89·2	—0·2	98	1	77·5	—0·2	75	24	80·5	84·8	78·7	80·4	32·4	0	33·3	92	+
Gauhati	182	997·2	0	994·0	89·0	—1·3	95	2	78·2	+0·2	76	24,25	82·5	84·1	79·1	79·5	32·2	—0·2	32·5	86	+
Dhubri	115	999·9	+0 4	996·9	87·6	+1·3	96	2	78·0	—0·5	73	25	81·2	82·2	79·1	79·1	33·1	+0·6	33·5	91	+
Silchar	96	1001·1	+0·2	997·6	88·8	—0·7	98	2	77·7	+0·8	73	24	81·7	83·0	78·9	79·2	32·2	0	32·0	87	+
West Bengal																					
Dum Dum	33	1000·9	...	998·0	89·0	...	92	12,13,31	79·4	...	75	6	83·9	85·0	79·1	80·0	33·1	...	32·7	80	.
Calcutta	21	1001·2	—0·1	998·3	89·7	+0·7	94	11	79·5	+1·2	75	6	84·3	85·3	80·3	80·6	33·5	+0·4	33·6	83	—
Saugor Island	10	1001·7	+0·3	999·1	85·6	—1·3	88	30	80·3	+0·7	76	27	83·0	84·0	79·7	80·2	32·8	—0·5	33·2	86	+
Sandheads	28	1001·5	+0·3	998·8	...	...	...	...	...	...	...	...	83·5	84·9	80·5	80·4	34·2	+0·7	33·4	87	+
Midnapore	149	996·3	—0·4	994·3	89·5	+0·3	92	7 days	77·0	—1·4	73	20	83·0	83·8	79·5	79·3	32·8	+0·5	32·2	86	+
Contai	35	1000·1	...	997·6	86·9	...	90	31	79·3	...	76	3,27	83·1	84·7	79·9	80·5	33·7	...	34·1	86	.
Burdwan	106	997·8	—0·5	994·7	89·7	+0·5	93	30,31	79·4	+0·5	77	5 days	82·8	85·0	79·5	79·9	32·6	—0·2	32·7	86	+
Krishnagar	48	1000·6	—0·2	997·8	90·8	+1·3	95	31	78·0	—0·4	70	6	83·6	85·1	80·7	81·0	34·3	+1·1	34·4	88	+
Asansol	414	987·3	0	984·4	89·0	+0·2	93	4 days	78·0	+0·5	76	4 days	82·8	83·4	79·2	79·3	32·6	+0·1	32·5	84	—
Berhampore	62	999·8	—0·2	996·5	91·1	+2·0	..	..	78·6	—0·2	..	..	83·5	85·1	80·1	80·6	33·4	0	33·6	85	
Malda	103	998·3	—0·7	995·3	88·5	—0·6	92	1,25,31	78·8	—0·3	75	6	83·3	84·6	79·9	80·5	33·2	—0·3	33·9	86	+
Cooch Behar	145	998·5	..	995·1	89·0	..	95	2	77·6	..	73	24,25	82·1	84·2	78·9	79·6	32·6	..	32·6	86	.
Jalpaiguri	271	994·0	+0·1	990·7	85·9	—2·9	91	1	75·5	—1·8	73	4 days	79·0	82·1	76·6	78·5	30·0	—2·5	31·8	90	+
Orissa																					
Balasore	65	999·8	+0·3	997·4	88·1	—0·2	92	11,22	78·8	+0·4	75	23,27	83·7	83·5	79·5	79·5	32·8	+0·5	32·6	83	
Chandbali (R)	20																				
Puri	20	1002·2	+0·6	999·7	87·6	0	92	12	79·8	+0·2	76	28	83·9	84·2	80·1	80·1	33·1	+0·4	33·4	84	+
Gopalpur	56	1001·1	+0·5	998·6	87·9	+0·1	93	11	79·2	+0 4	72	3	83·8	83·6	80·4	81·0	33·8	+1·7	35·1	86	+
Cuttack	87	999·4	0	996·5	87·7	—1·3	92	12,22,23	77·7	—0·4	74	29	82·0	83·2	78·2	78·5	30·9	—0·3	31·5	83	+
Angul	455	987·6	+1·1	984·4	87·5	—0·1	93	22	76·8	—0·1	73	8	80·5	82·4	77·8	78·0	30·1	0	30·6	84	+
Sambalpur	486	986·2	+0·6	983·3	86·9	+0·2	92	31	75·9	—1·0	72	8	79·3	81·8	77·0	78·4	30·3	+0·1	31·5	90	+
Chota Nagpur																					
Jamshedpur	423	987·1	—0·2	984·0	88·6	—0·3	92	12,13,15	78·2	+0·2	71	8	82·0	83·7	78·1	78·3	30·9	+0·1	30·5	83	+
Chaibasa	742	976·4	+0·3	973·4	88·5	+0·2	93	12,13	77·3	+0·4	73	27	81·1	83·3	77·1	77·8	30·0	—0·1	30·0	83	
Ranchi	2,150	929·5	—0 2	926·9	84·2	+0·9	88	31	72·0	—0·8	68	6,7	76·8	77·9	74·6	74·7	28·7	+1·6	28·3	90	+
Hazaribagh	2,006	934·4	—0·4	932·0	83·9	—0·1	89	30	73·6	+0·3	71	5	77·5	78·9	74·6	75·3	28·0	+1·1	28·6	87	+
Daltonganj	725	976·7	0	973·9	87·5	—1·2	94	31	76·5	—0·4	74	5,22	80·7	81·9	77·6	78·2	31·1	+1·0	31·6	86	+
Dhanbad	839	973·1	...	...	87·6	...	92	15	76·2	...	71	8,9	81·5	...	78·3	...	31·5	...	...	86	..
Bihar																					
Purnea	124	997·8	—0·3	994·6	88·9	—0·9	92	1,26,31	78·5	0	76	5,21,26	81·8	84·2	79·4	80·4	33·1	—0·3	33·4	90	+
Saharsa	156	995·8	...	993·2	88·0	...	92	2,26	79·5	...	77	6	83·3	85·4	80·1	80·5	34·0	...	33·2	86	..
Darbhanga	161	996·2	—0·2	993·1	90·4	+1·3	94	6 days	79 3	+0·2	76	15,23	84·2	86·8	80·7	82·0	34·2	+1·7	34·9	86	+
Motihari	218	994·2	—0·5	990·8	89·6	+0·2	93	11,25,26	77·6	—0·7	74	31	84·0	85 0	79·7	80·3	32·4	—0·2	32·8	82	
Patna	173	995·6	0	992·2	89·6	+0·5	95	26	80·0	+0·3	76	31	83·4	82·8	79·7	80·5	33·3	0	34·2	85	+
Dehri	352	988·7	...	985·8	88·6	...	94	24	79·2	...	76	5,6	81·9	84·3	79·3	79·4	33·2	...	31·9	88	..
Gaya	365	988·2	—0·6	985·3	89·3	—0·6	95	31	79.0	+0 8	74	25	82·5	85·0	78·9	79·7	32·2	+1·1	31·9	85	+

(R) Register not received.

Cloud amount, (Oktas).			Rainfall, inches.				Number of rainy days, (0.10" or more).		Wind velocity miles per hour.		Wind direction—Number of winds from :—																			STATION.
											0830 hrs. I. S. T.									1730 hrs. I. S. T.										
Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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
																														Bay Islands
7·4	+0·8	7·5	15·90	—0·39	2·15	8	20	—0·9	11·9	—1·5	0	0	0	1	2	25	3	0	0	0	0	0	0	0	23	7	0	1		Port Blair
																														Assam
7·7	+1·4	5·8	15·52	—2·24	1·94	15	24	+5·3	1·1	+0·1	5	3	3	1	1	1	5	5	7	2	2	2	1	1	0	0	0	23		Dibrugarh
7·8	+0·8	6·4	13·59	—2·28	2·03	30	21	+2·9	2·3	+0·3	2	6	3	3	6	6	0	2	3	8	5	3	0	3	4	1	4	3		Sibsagar
6·9	+0·4	4·9	25·22	+12·20	4·30	14	20	+4·1	1·3	—0·1	0	2	14	3	2	1	3	0	6	0	2	7	3	0	2	4	1	12		Tezpur
6·7	+0·6	6·0	14·93	+4·67	2·67	17	16	+2·9	2·5	+1·2	4	7	7	2	0	4	2	3	2	2	4	3	4	2	8	1	5	2		Gauhati
7·0	+1·2	6·4	13·28	—0·01	1·91	25	19	+4·4	4·0	+0·5	3	7	8	4	2	2	0	0	5	1	3	3	4	4	7	1	0	8		Dhubri
7·2	+0·8	7·2	12·29	—7·97	2·13	22	21	—1·2	1·0	—0·5	1	5	1	0	1	0	1	0	22	1	1	1	0	1	3	3	2	19		Silchar
																														West Bengal
7·2	...	6·9	6·65	...	1·95	6	13	...	7·3	...	0	1	2	6	7	9	1	1	4	1	0	0	4	13	8	1	1	3		Dum Dum
6·9	+0·2	6·9	7·31	—5·61	1·09	6	17	—1·0	2·0	—1·4	0	0	4	2	5	13	0	0	7	0	0	1	5	10	8	0	1	6		Calcutta
6·2	—0·6	5·9	12·64	—0·64	2·20	4,17	14	—2·3	13·6	+3·0	1	1	1	3	7	14	3	1	0	0	0	0	3	11	17	0	0	0		Saugor Island
6·2	+0·4	5·9	8·39	—0·45	1·48	1	14	+2·0	...	...	0	1	0	1	6	16	5	0	2	0	0	0	1	8	19	2	0	1		Sandheads
6·6	+0·9	7·2	19·64	+6·89	4·45	19	19	+2·2	3·0	+0·8	0	0	2	1	6	11	3	0	8	0	1	1	3	5	13	3	0	5		Midnapore
5·8	...	5·6	9·67	...	3·36	3	12	...	6·8	...	0	1	0	3	13	10	1	0	3	0	0	0	2	19	7	0	0	3		Contai
6·5	—0·1	6·5	9·86	—2·06	3·02	7	16	—0·2	4·6	+2·3	0	0	8	4	4	9	3	1	2	0	1	3	6	5	6	4	1	5		Burdwan
7·3	+1·1	7·0	8·90	—1·48	2·41	7	14	—1·3	3·7	+0·2	0	0	3	3	18	1	1	0	5	0	0	2	4	18	0	2	1	4		Krishnagar
7·2	+0·6	7·2	12·26	—1·02	1·81	15	18	+1·0	3·8	—0·9	0	0	5	6	6	7	4	0	3	0	1	2	5	4	5	2	5	7		Asansol
7·3	+0·7	7·1	10·43	—0·98	2·52	23	18	+1·7	3·2	+0·2	0	0	8	6	14	0	0	1	2	0	0	9	4	11	5	0	1	1		Berhampore
7·3	+1·7	6·5	9·93	—1·09	1·25	16	18	+3·4	4·6	—0·1	0	1	11	7	6	3	1	0	2	0	0	9	7	7	1	1	0	6		Malda
7·3	...	6·7	22·33	—1·41	4·79	25	19	+0·3	3·4	...	0	2	16	4	2	2	0	0	5	1	5	3	7	8	0	0	0	7		Cooch Behar
6·7	+1·7	6·2	33·37	+8·10	5·55	22	26	+5·6	4·5	+2·8	0	10	16	3	1	0	1	0	0	2	4	11	5	3	0	1	0	5		Jalpaiguri
																														Orissa
7·8	+2·0	7·7	9·65	—2·11	1·83	2	9	—5·8	5·2	+1·6	1	1	0	1	4	14	1	2	7	0	0	0	1	9	12	2	0	7		Balasore
																														Chandbali (R)
6·7	+1·1	7·2	8·47	—2·45	1·82	29	12	—0·9	11·5	+1·6	2	2	1	3	0	16	6	1	0	1	1	0	2	3	19	5	0	0		Puri
6·7	+1·7	7·1	4·53	—3·17	1·09	2	8	—2·8	7·9	+0·2	1	0	0	0	3	17	2	0	8	0	0	1	0	7	15	3	2	3		Gopalpur
5·9	—0·1	7·1	9·01	—4·39	1·88	3	19	+3·2	3·5	+1·3	0	0	0	0	0	1	2	0	28	0	0	0	0	3	1	4	1	22		Cuttack
6·6	+0·6	7·0	9·79	—1·77	1·80	12	16	+0·9	4·9	0	1	0	1	1	2	7	11	7	1	0	2	4	2	4	5	9	5	0		Angul
7·3	+0·7	7·5	21·34	+2·30	3·32	15	23	+4·1	4·8	+1·2	0	1	1	1	4	16	5	1	2	1	0	0	2	5	10	8	3	2		Sambalpur
																														Chota Nagpur
7·3	+0·4	7·4	10·19	—5·22	3·26	17	13	—5·0	4·6	+0·6	0	1	3	2	0	6	12	2	5	1	1	5	1	1	2	10	5	5		Jamshedpur
7·3	+0·9	7·5	9·53	—2·71	1·63	18	14	—2·6	2·3	+0·2	1	0	1	2	2	17	2	0	6	1	1	0	2	2	11	4	2	8		Chaibasa
6·5	—0·2	6·6	18·86	+5·02	2·45	18	21	+2·4	2·5	—2·1	2	0	3	0	4	3	1	0	18	0	1	2	1	1	0	0	0	26		Ranchi
6·7	—0·5	7·0	10·11	—3·10	1·70	27	15	—2·6	4·7	—1·2	2	2	2	3	1	4	9	3	5	1	1	3	4	2	3	6	10	1		Hazaribagh
6·3	+1·3	6·8	20·61	+7·10	3·79	16	19	+2·6	3·3	0	0	0	4	0	0	0	19	1	7	0	2	3	1	0	0	19	3	3		Daltonganj
...	...	...	8·93	...	2·43	5	13	...	4·3	...	0	1	10	2	7	8	3	0	0											Dhanbad
																														Bihar
7·0	+1·2	6·3	17·30	+4·15	2·74	22	19	+2·8	3·7	+1·4	0	4	16	4	4	2	0	0	1	0	1	9	1	0	0	1	0	19		Purnea
7·0	...	6·5	10·09	...	2·53	22	13	...	4·5	...	1	3	15	3	1	3	1	0	4	0	2	14	2	3	0	1	0	9		Saharsa
7·2	+1·1	6·2	12·61	—0·90	3·18	22	15	+1·2	4·7	+1·5	1	11	11	3	1	1	2	0	1	0	6	9	9	0	1	1	0	5		Darbhanga
6·5	+1·4	6·0	13·55	+0·58	3·08	31	14	+0·8	3·5	—0·3	0	0	25	0	0	0	0	1	5	0	0	13	0	0	0	0	0	18		Motihari
6·7	—0·2	6·1	14·29	+1·20	5·30	17	15	+1·1	4·8	+0·9	0	8	9	3	0	8	1	1	1	0	6	7	3	2	3	4	1	5		Patna
6·6	...	7·6	15·52	+2·30	4·73	5	19	+4·4	4·1	...	0	1	2	4	5	7	0	9	3	1	1	4	1	0	2	0	16	6		Dehri
6·7	+1·5	7·2	15·02	+1·27	4·22	8	16	+0·3	6·4	+1·1	0	2	4	4	4	11	3	1	2	2	3	7	0	1	5	6	4	3		Gaya

(R) Register not received.

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relat humi
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	2
BIHAR—*contd.*																					
Naya Dumka	489	984·6	−0·6	981·9	89·9	+1·4	94	31	...	...	...	...	81·6	83·8	78·0	79·4	31·3	−0·6	32·2	84	-
Sabour	122	997·1	−0·7	994·1	88·8	−0·2	92	31	79·5	+0·3	76	5	82·0	85·5	80·5	81·3	34·9	+1·3	34·9	88	-
U. P., East																					
Gonda	360	988·9	...	985·6	89·1	−0·7	94	27,31	78·6	+0·1	76	22,31	82·1	85·1	79·1	80·6	32·5	+0·1	33·5	87	-
Gorakhpur	254	992·1	−0·8	989·5	89·6	0	95	31	79·2	+0·5	76	31	82·9	85·9	79·8	80·6	33·6	+0·9	33·1	87	-
Banaras	250	992·2	−0·3	989·3	88·7	−0·9	95	31	78·7	+0·2	75	22	82·4	85·7	79·7	80·3	33·9	+1·5	32·5	88	-
Allahabad (Bamrauli).	322	989·9	−0·1	987·4	88·8	−0·6	96	31	78·7	+0·2	76	20,26	81·7	85·8	78·6	80·1	31·9	−0·6	33·1	87	-
Fatehpur	375	988·1	...	985·1	87·3	−2·4	95	31	78·2	−0·3	75	19	81·6	85·5	79·1	78·3	32·7	0	30·1	89	-
Kanpur	413	986·7	−0·1	984·0	89·7	0	98	23	78·4	−0·3	76	19,20,26	82·1	85·5	78·9	79·9	32·5	+0·3	32·5	86	-
Lucknow	371	988·6	+0·3	985·5	89·1	−1·4	95	30,31	78·9	+0·3	74	7	81·9	85·2	79·7	81·7	34·1	+1·8	35·1	91	-
Bahraich	407	988·2	+0·9	985·3	89·4	−0·7	95	27	78·2	−0·2	75	21,22	82·6	85·6	78·9	80·2	32·3	+0·4	32·7	83	-
U. P., West																					
Jhansi	824	973·8	+0·2	971·5	91·3	+2·0	100	31	77·5	+0·3	74	4	81·3	88·0	77·0	79·1	29·7	+0·3	29·8	81	-
Agra	553	982·2	+0·1	979·5	90·9	−0·5	98	31	78·4	−0·5	74	19	82·5	88·4	77·8	79·9	30·7	+1·1	31·1	80	-
Mainpuri	516	983·2	−0·1	979·9	90·2	−1·6	98	31	78·5	0	74	18	82·1	86·7	78·9	80·6	32·5	+1·0	32·9	77	-
Aligarh	615	980·0	...	977·0	91·5	0	98	31	77·2	−1·1	71	4	82·2	88·6	78·5	81·1	31·7	+1·1	32·7	84	-
Bareilly	568	981·4	+0·5	978·5	90·1	−0·1	96	27,28	78·0	−0·2	75	18	82·2	87·2	78·8	80·7	31·7	−0·1	32·6	86	-
Meerut	728	975·9	...	...	92·1	...	97	28	78·1	...	72	30	82·3	...	77·8	...	33·9	...	...	81	
Roorkee	899	970·1	−0·7	967·2	90·5	+0·8	96	28	76·8	−0·3	73	21	80·9	87·4	77·6	80·1	30·6	−0·4	31·5	86	-
Dehra Dun	2,239	926·4	−0·7	924·3	85·7	+1·5	99	5	73·1	+0·2	71	4 days	77·7	81·3	74·8	76·2	28·2	+1·0	29·1	87	-
East Punjab																					
New Delhi	714	976·1	−0·8	973·1	93·9	+0·6	99	31	79·1	+0·7	76	13,25	83·7	91·7	77·0	79·5	28·7	−1·2	28·9	73	-
Hissar	725	976·2	+0·2	973·1	97·4	+1·1	104	31	78·5	−0·5	75	25,26,27	83·3	93·1	77·3	80·0	29·5	+0·5	29·1	75	-
Patiala	822	972·1 (a)	...	969·3 (a)	95·6 (a)	...	101	21,23	78·3 (a)	...	74	9,25	83·8 (a)	91·8 (a)	78·1	80·3	30·8 (a)	...	30·3 (a)	76 (a)	
Ambala	892	968·4	−2·2	965·8	94·8	+1·6	100	24	78·0	0	74	5	82·7	91·6	77·2	82·6	30·1	−0·4	34·0	79	
Ludhiana	810	972·7	−0·4	969·9	96·7	+1·8	101	23,30	79·3	+0·1	72	25	84·8	93·9	78·3	80·7	30·3	+0·5	30·2	73	-
Amritsar	756	974·1	...	971·6	95·9	...	101	23,24,30	78·6	...	70	25	84·8	93·4	78·5	80·1	30·3	...	28·9	75	.
Kashmir																					
Srinagar	5,205	835·8	+0·3	832·8	85·4	−1·2	92	30	62·7	−0·7	55	27	69·3	81·3	64·3	67·8	18·9	−1·1	18·5	77	-
Gulmarg (R)	8,709																				
Dras (R)	10,059																				
Leh	11,529	665·1	−0·3	661·8	75·4	−0·5	83	15	48·1	−1·6	43	27	60·1	69·9	48·9	53·3	8·4	−1·3	8·8	48	—
Skardu (R)	7,505																				
Gilgit (R)	4,890																				
Misgar (R)	10,190																				
Rajputana, West																					
Sri Ganganagar	580	...	...	...	99·5	−0·4	104	31	79·6	−0·8	75	10,25	86·3	95·8	77·6	78·6	28·9	+0·9	26·1	67	-
Bikaner	734	975·3	−0·3	972·3	94·9	−2·7	103	31	78·6	−1·8	76	16	83·0	93·4	79·1	81·7	32·0	+3·3	31·1	83	+
Phalodi	794	974·1	...	972·0	93·4	...	107	28	77·0	...	74	6	80·3	91·7	77·0	80·2	30·2	...	30·0	85	
Jaisalmer	793	973·1	...	970·6	94·7	...	103	29,30	77·1	...	71	6	80·5	91·8	78·5	85·5	31·7	...	38·8	91	
Jodhpur	736	976·7	+1·4	973·7	92·3	+0·5	103	31	77·1 (b)	+0·1	73	4	80·3	90·7	75·9	78·2	28·6	+1·0	27·1	81	-
Barmer	638	979·5	0	976·6	92·5	0	100	29	76·9	0	74	25	79·8	90·9	76·3	79·3	29·6	+1·9	29·2	85	-

(a) Mean of 30 days. (R) Register not received. (b) Mean of 29 days.

Cloud amount (Oktas).			Rainfall, inches.				Number of rainy days, (0·10″ or more)		Wind velocity miles per hour.		Wind direction—Number of winds from:—																			STATION.
											0830 hrs. I. S. T.									1730 hrs. I. S. T.										
Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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
																														Bihar—*contd.*
4·1	−1·7	5·7	20·25	+7·31	2·51	21	19	+1·4	3·1	+1·0	0	3	5	11	3	6	2	1	0	1	1	2	13	3	6	4	1	0		Naya Dumka
7·0	+0·4	6·8	10·68	+0·17	1·74	31	14	−1·0	5·4	−0·2	0	2	12	8	3	6	0	0	0	4	2	8	6	4	2	1	3	1		Sabour
																														U. P., East
5·7	−0·5	5·5	12·43	−3·22	2·40	6	16	+2·5	3·1	−0·5	1	0	17	0	0	0	4	0	9	0	0	8	0	0	0	3	0	20		Gonda
6·2	+1·4	5·3	16·71	+2·96	3·77	31	16	+1·1	3·2	+1·2	1	3	16	2	1	0	6	0	2	0	1	12	4	2	1	4	1	6		Gorakhpur
6·6	+0·1	6·5	23·14	+11·13	4·42	5	19	+4·1	5·6	+2·4	2	1	5	0	1	6	12	2	2	5	1	2	0	0	4	16	3	0		Banaras
6·8	0	7·0	15·17	+5·14	2·32	4,16	16	+1·3	3·2	−1·1	1	0	3	0	3	9	8	1	6	1	0	3	1	1	4	10	2	9		Allahabad (Bamrauli).
5·6	−0·4	5·7	7·70	−2·33	2·77	4	13	−1·4	3·5	+0·3	0	1	3	0	1	1	10	1	14	0	1	1	0	1	2	6	5	15		Fatehpur
6·0	+1·4	6·4	13·74	+2·54	4·45	16	14	+0·7	6·4	0	1	3	3	3	2	4	7	3	5	2	3	3	1	0	5	6	1	10		Kanpur
6·0	+0·1	5·7	15·60	+4·10	3·85	5	13	−0·7	2·9	+1·0	5	0	9	0	5	0	8	1	3	1	1	7	0	2	3	6	1	10		Lucknow
5·8	+1·3	5·8	9·95	−2·84	1·38	9	15	+2·5	3·5	+1·3	0	1	10	6	0	0	2	2	10	0	2	6	3	0	4	2	0	14		Bahraich
																														U. P., West
4·9	−0·1	4·8	3·44	−8·15	0·72	3	8	−5·3	4·1	+0·6	0	2	3	1	0	6	7	0	12	1	1	0	0	0	3	7	4	15		Jhansi
3·6	−2·0	5·1	15·22	+7·11	4·80	17	9	−1·3	2·7	−1·0	1	0	4	0	3	2	8	1	12	2	2	0	0	2	1	5	1	18		Agra
5·4	−0·1	5·8	14·99	+5·94	10·09	18	8	−2·5	2·9	+1·0	1	1	3	3	1	4	8	4	6	0	0	1	5	0	6	2	4	13		Mainpuri
5·1	+0·5	5·8	10·07	+2·14	2·71	11	10	+0·6	4·4	+0·3	3	0	8	1	2	0	8	4	5	1	0	5	1	2	0	10	2	10		Aligarh
5·5	−0·4	6·1	22·11	+10·51	5·23	16	17	+4·7	2·2	+0·4	3	2	3	3	2	2	5	3	8	3	1	6	0	0	0	8	2	11		Bareilly
3·8	...	...	4·92	−3·88	1·48	31	6	−3·8	2·0	...	0	0	5	3	1	0	5	5	12	...	...	...	...	...	...	...	...	...		Meerut
4·2	−1·1	3·8	16·49	+5·27	4·86	9	14	+2·2	2·5	+0·5	0	0	0	18	0	0	0	5	8	0	0	0	8	0	1	0	8	14		Roorkee
6·5	0	6·6	34·79	+6·00	8·58	16	22	+0·7	1·6	+0·2	0	0	1	8	0	2	3	0	17	0	4	0	3	1	7	5	3	8		Dehra Dun
																														East Punjab
3·6	−1·3	5·6	4·03	−3·20	0·98	9	8	−1·0	7·2	...	0	0	4	2	1	3	12	5	4	1	3	6	4	1	2	5	4	5		New Delhi
1·7	−1·3	1·8	2·00	−2·87	1·07	1	5	−0·5	4·8	−0·1	0	1	2	3	2	12	10	1	0	2	4	1	4	3	7	2	4	4		Hissar
4·4	...	5·8	2·22	...	1·26	9	7	...	4·2	...	0	0	4	10	1	1	5	6	4	4	0	1	9	2	2	5	7	1		Patiala
2·4	−2·3	3·0	6·49	−1·40	4·36	1	5	−4·0	...	...	0	0	0	4	0	0	0	20	6	0	0	0	4	0	2	0	22	3		Ambala
2·8	−0·9	3·5	4·25	−2·40	1·45	19	4	−3·3	2·1	+0·6	0	1	1	5	3	6	5	3	7	1	6	1	2	1	3	0	5	12		Ludhiana
2·9	...	3·2	1·07	...	0·40	1	3	...	3·2	...	1	1	9	9	2	0	5	1	3	6	0	3	3	1	3	6	5	4		Amritsar
																														Kashmir
2·9	−0·9	4·1	1·47	−0·95	0·62	2	4	−1·3	2·3	0	2	1	1	11	3	1	2	2	8	2	1	2	3	1	1	2	12	7		Srinagar
																														Gulmarg (R)
																														Dras (R)
3·7	−0·1	3·9	0·35	−0·24	0·12	1	1	−0·9	3·5	+1·8	0	1	0	1	0	9	0	0	20	1	1	0	1	1	13	5	4	5		Leh
																														Skardu (R)
																														Gilgit (R)
																														Misgar (R)
																														Rajputana, West
0·7	−1·0	2·1	0·95	−1·10	0·46	10	3	−0·3	6·0	+0·1	1	1	5	1	2	17	2	0	2	0	0	6	1	2	8	2	8	4		Sri Ganganagar
1·5	−1·5	2·1	1·67	−1·93	1·10	2	3	−1·9	6·7	+0·4	0	0	0	3	0	25	0	1	2	0	4	0	4	0	22	0	0	1		Bikaner
3·7	...	3·6	3·92	+0·75	2·05	5	4	−0·4	10·3	...	0	1	2	0	4	19	5	0	0	1	0	2	1	11	15	0	1	0		Phalodi
2·8	...	3·2	0·70	...	0·84	3	4	...	13·4	...	3	0	0	8	20	0	0	0	0	0	2	0	1	4	20	1	3	0		Jaisalmer
4·5	−1·5	5·1	1·10	−3·74	0·44	2	2	−3·9	6·2	−2·9	0	0	2	0	1	18	6	1	3	0	2	0	1	2	22	3	0	1		Jodhpur
4·4	−1·0	4·1	6·88	+1·61	3·71	6	8	+2·2	6·4	0	0	1	0	4	6	16	1	1	2	0	0	1	1	9	16	2	0	2		Barmer

(R) Register not received.

TABLE II—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M.

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relative humidity %	
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Rajputana, East																					
Sikar	1,406	953·7	...	950·9	93·7	...	101	31	76·0	...	73	26	81·2	90·9	74·5	76·9	26·2	...	25·3	72	..
Jaipur	1,431	953·6	—0·3	950·8	91·3	+0·4	98	31	75·5	—0·4	70	25	81·2	88·8	74·8	76·4	26·2	—1·3	25·5	74	—4
Ajmer	1,593	948·3	—0·3	945·5	88·7	+1·0	97	31	76·3	+0·3	72	5	78·5	87·5	74·0	76·2	27·1	+0·6	26·2	81	+4
Kotah	843	973·4	+0·1	970·3	91·1	+1·5	97	31	78·6	+0·9	75	5	81·8	88·9	76·2	77·6	28·7	+0·9	27·0	77	+2
Jhalawar	1,053	966·3	—0·1	963·0	90·0	+2·9	98	31	75·6	+0·6	71	25	80·1	88·3	75·2	77·5	27·4	—1·0	27·2	81	—3
Rajsamand	1,850	939·9	...	...	87·3	...	97	31	73·5	...	71	4 days	78·2	...	72·5	...	25·0	...	...	77	..
Udaipur	1,910	938·6	...	936·4	85·6	...	93	31	72·6	...	69	26	77·4	82·6	73·2	75·5	26·6	...	27·3	82	..
Gujarat																					
Deesa*	466																				
Surat	39	1003·0	—0·5	1000·4	87·4	+0·9	92	28	77·9	+0·9	75	29	80·7	85·1	78·0	79·4	31·6	+1·7	31·7	89	+7
Ahmedabad	163	997·7	—0·6	994·5	91·1	+1·2	98	29,31	77·9	+1·1	75	4,24,25	80·3	88·1	77·2	78·5	30·5	+1·7	28·9	86	+3
Dohad	1,093	966·2	...	963·7	86·3	+1·0	92	31	73·8	—0·5	70	4	77·2	83·0	74·5	76·3	27·9	0	27·9	89	0
Baroda	115	999·7	...	996·5	91·0	+1·4	96	28,30	76·7	+0·1	73	25	80·1	87·6	78·0	79·6	31·8	+2·5	31·2	91	+9
Saurashtra and Cutch																					
Bhuj	343	990·4	—0·5	(a) 998·4	88·4	0	95	28,29	77·0	+0·6	74	29	79·7	(a) 84·9	76·2	(a) 76·4	29·3	+0·6	(a) 27·2	85	+6
Dwarka	37	1001·3	—1·1	999·5	85·7	+1·0	88	5 days	79·8	+1·2	76	29	81·2	83·3	77·6	78·2	30·7	+0·8	30·8	85	—1
Jamnagar	60	..	...	...	88·7	+0·6	99	21	76·4	—0·3	74	4 days	80·7	...	76·6	...	29·5	0	...	82	+1
Rajkot	432	987·9	—0·9	985·1	90·7	+1·9	96	28	75·9	+1·1	73	23,24	78·8	87·8	75·8	76·2	29·1	+1·0	25·6	87	+4
Veraval	26	1002·7	—1·3	1001·1	85·5	...	91	29	78·3	...	74	29	81·1	83·1	78·8	80·1	32·7	...	33·7	90	+4
Bhavnagar	55	1001·8	—0·6	998·7	91·9	+1·0	96	25,26,28	77·0	+0·4	74	24,25	80·1	88·8	76·2	77·9	29·1	+0·9	27·7	83	+6
Madhya Bharat and Bhopal																					
Neemuch	1,626	948·3	+0·1	945·8	87·0	+2·2	95	31	73·6	+0·8	71	5,22,23	77·1	83·3	73·8	75·2	27·2	+0·9	26·6	85	0
Ratlam	1,596	949·7	...	947·4	84·9	...	95	31	72·7	...	70	23,25	75·5	81·8	73·3	74·9	26·7	...	26·7	89	...
Indore	1,839	941·9	—0·1	939·0	85·8	+3·2	92	27,28	71·5	+0·2	68	25	76·0	81·8	72·6	74·0	25·9	+0·4	25·5	86	—1
Bhopal	1,643	947·4	—0·3	944·8	(a) 86·7	+2·6	93	31	74·0	+0·8	70	26	77·1	83·7	73·1	74·7	27·1	+0·8	26·0	82	—3
Guna	1,571	949·2	0	946·7	87·3	+2·0	94	31	73·7	+0·1	70	25	77·2	83·9	73·9	75·7	27·2	—0·3	27·1	86	0
Gwalior	681	978·3	...	975·3	90·0	...	97	31	77·9	...	74	11,19	83·1	86·9	77·3	79·1	29·4	...	30·3	76	...
Madhosagar	757	975·6	...	972·8	90·0	...	99	31	78·5	...	75	12,19	82·5	87·4	77·3	79·3	29·6	...	30·6	79	...
Vindhya Pradesh																					
Nowgong	750	976·3	+0·3	973·3	89·2	+1·1	97	31	77·0	+0·1	75	5 days	81·2	85·7	76·9	78·3	29·6	—0·3	29·7	81	—2
Sutna	1,041	965·9	0	963·4	86·4	+0·4	93	31	76·3	+0·1	74	5,18,27	79·0	83·5	76·1	77·4	29·8	+0·3	29·0	87	+3
Umaria	1,506	951·5	...	948·6	84·8	—0·1	91	31	74·0	—0·4	72	4 days	78·2	81·1	74·7	76·7	27·9	0	29·6	84	+1
Berar																					
Buldana	2,133	933·0	...	930·4	84·0	...	89	31	70·7	...	70	11 days	73·4	80·6	70·7	73·9	24·5	...	25·5	88	...
Akola	925	972·7	—0·3	969·1	90·0	+2·6	95	28,31	75·3	+1·6	72	10,23	78·4	83·9	73·8	75·1	26·5	+0·7	25·8	80	0
Amraoti	1,213	962·5	—0·5	959·3	87·6	+1·7	92	25,28	74·6	+1·5	71	10	77·2	84·2	73·5	75·0	26·5	+0·7	25·5	82	—1
C.P., West																					
Khandwa	1,044	968·2	—0·3	965·1	88·4	+2·6	93	25,27,28	74·5	+0·5	72	25	78·8	84·9	74·2	75·6	26·9	+0·7	26·0	80	—3
Hoshangabad	992	969·5	—0·3	966·1	87·2	+2·7	95	31	74·8	+0·3	73	25,26	77·8	85·8	74·9	77·1	28·2	+0·3	27·8	87	—1
Saugor	1,806	941·4	0	938·9	84·5	+1·1	91	31	73·5	+0·9	70	4	76·5	80·5	73·2	74·2	26·8	+0·6	26·5	86	0
Jubbalpur	1,289	959·0	+0·5	956·1	86·2	+1·7	93	31	74·9	+1·3	72	4	78·6	82·7	75·0	76·3	28·0	+0·8	28·0	84	0
Seoni	2,027	935·1	+0·3	932·6	80·2	—2·5	87	20	72·7	+1·2	70	4	75·7	80·0	72·8	74·5	26·5	+0·8	26·9	87	+3
Betul	2,144	932·2	...	929·4	82·2	...	88	31	71·2	...	69	25,27	74·6	79·6	71·5	73·3	25·1	...	25·6	86	...
Nagpur	1,010	969·2	0	966·1	88·0	+0·7	94	23	75·1	+0·1	72	3	78·8	84·6	74·7	75·6	27·5	+2·1	26·6	82	+7

*Data not reliable.

(a) Mean of 30 days.

Cloud amount (Oktas).			Rainfall, inches.				Number of rainy days (0.10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from:—																		STATION.
											0830 hrs. I. S. T.									1730 hrs. I. S. T.									
Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																													Rajputana, East
4·5	...	4·6	0·50	...	0·23	6	2	...	4·3	...	0	1	1	2	0	11	10	3	3	1	1	3	1	1	7	13	4	0	Sikar
3·9	−1·5	5·8	2·10	−5·96	0·66	3	7	−3·2	5·0	+0·5	2	1	2	2	2	0	9	12	1	1	0	2	1	1	5	15	3	3	Jaipur
4·1	−0·9	4·4	2·89	−3·86	0·86	4	7	−1·4	6·7	+1·6	0	0	2	0	1	14	9	0	5	1	2	3	1	0	12	10	1	1	Ajmer
4·5	−0·7	5·6	4·58	−5·08	1·22	4	6	−4·4	3·5	+0·1	0	2	0	0	0	10	10	1	8	2	1	1	0	0	2	11	0	14	Kotah
5·4	−0·8	5·9	3·33	−8·18	1·84	2	5	−7·8	5·1	+1·2	1	1	0	0	0	9	16	1	3	0	3	1	1	0	3	16	6	1	Jhalawar
4·5	...	...	1·20	...	0·63	2	3	...	5·0	...	0	1	1	2	7	13	2	1	4	...	...	...	...	...	...	...	...	...	Rajsamand
6·0	...	6·0	2·01	−5·00	1·02	4	4	−4·6	4·0	...	1	1	1	0	6	12	4	2	4	0	1	1	0	1	16	10	0	2	Udaipur
																													Gujarat
																													Deesa*
7·0	+0·1	6·6	10·06	+2·61	3·53	9	13	+0·6	6·7	+0·8	0	0	0	2	1	18	0	1	9	0	0	0	1	1	29	0	0	0	Surat
5·0	−1·2	5·2	6·18	−1·87	1·28	4	12	+1·0	4·5	+0·3	1	0	0	0	2	15	9	4	0	0	1	1	2	3	9	11	2	2	Ahmedabad
6·5	−0·8	5·9	4·70	−2·27	0·82	4	9	−1·7	12·5	+4·6	0	1	0	0	0	18	10	0	2	0	0	0	0	1	21	6	0	3	Dohad
5·1	−1·5	4·8	6·06	−2·96	1·10	3	11	+1·3	4·2	−0·7	0	0	0	0	8	14	5	1	3	0	0	0	1	4	14	6	2	4	Baroda
																													Saurashtra and Cutch
4·7	−1·3	(a) 4·9	13·28	+10·35	6·11	3	9	+5·3	9·5	−0·8	1	0	0	0	0	16	6	3	5	0	1	0	0	0	18	9	2	0	Bhuj
5·7	−1·1	4·9	5·82	+3·24	1·79	4	7	+3·2	14·8	+2·2	2	0	0	0	0	10	17	2	0	0	0	0	0	0	12	14	5	0	Dwarka
5·4	+0·5	...	9·63	+5·78	5·20	3	9	+3·8	3·5	−9·5	0	0	0	0	0	2	3	0	26	...	...	...	...	...	...	...	...	...	Jamnagar
5·2	−1·3	5·7	12·20	+7·10	3·13	2	9	+2·0	13·2	+3·0	1	1	0	0	2	15	10	2	0	1	1	0	0	0	12	14	2	1	Rajkot
5·5	−1·2	5·9	10·79	+7·18	4·69	1	7	+1·1	17·1	...	1	1	0	0	0	8	16	3	2	0	1	0	0	0	10	19	1	0	Veraval
4·5	−1·8	5·6	2·84	−2·40	0·76	9	8	+0·7	6·5	+0·2	1	0	0	0	6	14	8	1	1	0	0	1	1	11	8	9	0	1	Bhavnagar
																													Madhya Bharat and Bhopal
6·2	+0·2	6·8	4·24	−4·91	1·64	1	7	−3·0	8·0	+0·1	0	2	0	0	0	11	14	2	2	0	1	0	0	0	12	14	1	3	Neemuch
7·1	...	7·3	3·52	...	0·76	1	8	...	6·1	...	0	0	1	1	2	12	13	2	0	1	1	0	0	0	9	17	3	0	Ratlam
6·3	−0·9	6·6	4·56	−3·59	1·62	3	7	−4·3	8·8	−0·8	0	0	0	0	2	4	20	4	1	0	1	0	2	1	9	13	5	0	Indore
6·1	−0·5	6·5	2·71	−8·23	0·94	12	5	−9·8	6·3	+1·2	1	1	0	0	1	6	14	8	0	1	0	1	0	0	5	14	8	2	Bhopal
6·4	+0·4	6·5	6·35	−9·10	2·46	4	13	−0·6	6·1	+0·2	1	1	0	0	4	9	14	1	1	5	1	1	0	2	8	10	2	2	Guna
5·9	...	6·5	4·61	...	1·45	17	8	...	1·2	...	0	0	3	0	1	0	14	5	8	1	0	1	0	0	1	12	1	15	Gwalior
5·8	...	6.4	3·46	...	1·39	17	8	...	6·8	...	0	0	4	1	1	14	8	2	1	1	3	3	0	0	7	10	4	3	Madhosagar
																													Vindhya Pradesh
5·6	−0·7	5·5	11·22	−1·87	2·75	15	14	+0·1	3·5	+1·0	0	3	1	0	1	13	10	1	2	0	3	2	0	0	9	10	3	4	Nowgong
6·0	−0·4	6·1	6·57	−6·63	1·00	16	11	−4·1	5·2	+0·9	0	2	1	1	3	10	12	0	2	2	0	4	1	0	3	15	3	3	Sutna
6·8	−0·2	7·3	13·85	+0·73	2·50	16	18	+2·0	3·5	−0·4	1	1	2	0	1	7	13	3	3	2	1	0	0	1	3	15	4	5	Umaria
																													Berar
6·8	...	6·4	7·20	...	2·15	31	10	...	7·1	...	2	0	0	1	0	16	5	7	0	1	1	0	0	0	5	4	20	0	Buldana
5·7	−0·5	6·3	3·77	−2·55	1·17	9	4	−5·1	6·3	−0·1	1	0	2	1	0	2	17	8	0	1	1	1	1	1	4	11	9	2	Akola
6·7	+0·5	6·8	7·17	+0·68	2·59	10	8	−1·8	7·8	+1·2	0	1	0	1	0	20	0	9	0	0	3	0	2	0	12	0	14	0	Amraoti
																													C. P., West
6·0	+0·2	7·2	3·46	−2·79	1·68	1	7	−2·9	6·8	0	0	0	0	1	0	8	17	4	1	1	0	1	0	1	6	15	5	2	Khandwa
6·3	−0·7	6·5	12·70	−2·36	3·55	3	7	−8·7	3·0	0	1	0	0	0	5	13	9	1	2	0	0	0	0	2	10	7	1	11	Hoshangabad
5·9	−0·7	7·0	9·52	−4·55	3·82	4	10	−5·6	...	...	0	1	0	0	0	9	18	1	2	0	1	1	0	0	8	14	4	3	Saugor
6·5	−0·3	7·4	13·47	−3·50	3·38	4	15	−2·4	4·7	+1·6	0	1	0	0	2	14	9	1	4	1	0	1	1	1	10	9	1	7	Jubbulpur
5·9	−0·3	6·3	17·80	+4·49	4·88	1	16	−0·5	3·0	−0·8	1	0	1	1	2	5	13	5	3	2	0	3	4	1	5	6	5	5	Seoni
6·8	...	7·1	7·75	...	2·10	3	12	...	4·3	...	0	0	0	1	0	4	17	9	0	2	1	2	1	0	3	14	7	1	Betul
7·0	+0·7	7·2	6·86	−4·56	1·56	24	11	−2·3	5·1	...	1	0	0	1	3	9	12	3	2	1	1	3	1	3	6	11	3	2	Nagpur

STATION.	Height of barometer cistern above mean sea level in feet.	Pressure at station level in millibars. Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Maximum temperature, °F. Mean.	Departure from normal.	Highest.	Date.	Minimum temperature, °F. Mean.	Departure from normal.	Lowest.	Date.	Dry bulb temperature, °F. Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Wet bulb temperature °F. Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Vapour pressure, millibars. Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Relative humidity % Mean 0830 hrs. I.S.T.	Departure from normal.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
C. P., East																					
Gondia	1,026	968·5	...	965·6	85·8	...	91	21	75·5	...	72	29	78·4	82·5	76·1	77·6	29·7	...	30·1	90	...
Pendra	2,040	934·1	+0·5	931·7	82·8	+0·6	89	31	72·6	+0·7	71	5 days	76·3	78·1	73·9	74·7	27·6	+1·1	27·9	89	+
Champa	805	975·3	...	972·2	86·0	...	92	27,31	76·6	...	74	6,24,27	78·9	83·3	76·6	77·7	30·4	...	29·9	90	...
Raipur	979	969·7	+0·4	966·9	86·1	+0·3	90	21,31	75·1	+0·3	70	27	78·7	82·8	73·4	74·8	25·7	—3·0	26·0	77	—
Titilagarh	691	979·7	...	976·7	87·2	...	93	23	75·9	...	72	4	79·2	81·3	75·9	77·1	29·1	...	29·9	85	...
Kanker	1,318	959·0	+0·3	956·4	84·4	0	90	29	74·8	+1·1	73	7 days	78·1	81·2	74·2	75·4	27·1	0	28·2	82	
Chanda	634	982·9	+0·4	979·3	87·9	+0·6	93	23	75·6	+0·4	73	1,23	78·9	84·2	74·8	76·5	28·2	+0·5	27·7	82	+
Jagdalpur	1,815	942·9	+0·2	940·2	83·4	+0·5	88	22,23,31	72·0	+0·7	69	4	75·6	79·2	73·2	74·5	26·9	0	27·2	89	+
Konkan																					
Dahanu	15	1004·0	...	1002·4	85·7	...	88	28,30	77·8	...	74	22	80·1	83·2	78·0	79·5	31·8	...	32·7	90	...
Bombay	35	1004·4	—0·9	1002·7	85·8	+0·8	89	28	76·8	+0·7	74	10,23	80·6	82·5	77·5	78·1	30·9	+1·3	30·8	87	+
Alibag	23	1005·4	—0·5	...	84·3	+0·4	87	30,31	77·0	0	70	1	80·0	...	77·7	...	31·4	+1·2	...	90	+
Harnai	66	1004·7	...	1003·2	84·0	...	86	24,27	77·2	...	75	4,15,30	80·4	81·3	77·0	77·2	30·1	...	30·0	85	...
Devgad	110	1003·1	...	1001·1	84·5	...	88	26,27	78·3	...	74	29	79·7	81·8	77·1	77·9	30·7	...	30·8	88	...
Vengurla	29	1006·4	...	1004·4	84·8	...	86	9 days	75·8	...	74	1,19,29	79·5	81·2	77·1	77·3	30·7	...	30·2	89	...
Marmagao	202	1000·7	—0·8	998·7	83·1	+0·9	85	24	...	...	...	...	79·8	80·7	76·7	76·9	30·0	+0·6	29·9	87	0
Honavar	85	1005·9	...	1003·9	84·4	...	87	4 days	75·3	...	73	1,13,30	78·6	81·9	76·8	78·0	30·6	...	30·9	92	...
Bombay, Deccan																					
Jalgaon	660	981·7	...	978·9	91·1	...	97	31	74·9	...	74	24,25,26	78·2	87·1	74·8	76·9	27·9	...	26·9	84	..
Malegaon	1,432	956·2	—0·3	952·9	89·4	+2·1	95	28	72·9	+1·0	69	26	79·9	82·7	73·4	73·8	25·2	+0·8	24·5	73	—
Ahmednagar	2,154	932·7	—0·9	930·0	87·5	+2·2	96	28	70·4	+1·4	65	21	75·1	82·5	70·0	71·5	22·8	0	21·4	77	—
Poona	1,834	943·7	—0·7	941·6	83·2	+1·5	90	28	71·0	+0·5	68	26	74·2	77·9	71·2	72·1	24·9	+1·6	24·5	86	+
Sholapur	1,570	952·9	—0·4	949·4	90·0	+1·2	96	23	72·0	+0·9	68	21	76·3	85·5	71·4	73·1	24·3	+1·1	22·7	80	+
Miraj	1,817	945·0	—1·0	942·8	84·5	+2·4	90	23,24	70·3	+0·3	64	22	73·5	79·3	71·4	73·7	25·5	+1·1	26·2	91	+
Kolhapur	1,885	943·1	...	941·0	80·4	...	86	29	70·2	...	66	22	72·7	76·5	70·7	72·0	24·6	...	25·0	90	..
Bijapur	1,950	940·6	—0·6	937·2	87·2	+0·4	93	23	71·1	+1·1	68	21,22	75·2	83·1	70·8	72·3	23·9	+1·0	22·7	80	+
Belgaum	2,562	921·7	—0·2	919·7	77·3	+0·8	81	27,28	67·6	+0·9	65	21,22,23	70·5	74·0	69·2	70·5	23·6	+0·9	24·1	94	+
Gadag	2,131	935·5	—0·4	932·9	85·0	+1·3	93	23	70·3	+0·8	68	22	74·1	80·4	71·9	75·1	25·8	+2·5	27·6	90	+
Hyderabad, North																					
Aurangabad	1,905	941·2	—0·6	937·3	86·1	+1·3	90	23,25	70·6	+1·0	67	19	73·4	82·5	71·5	73·7	25·6	+2·0	24·8	90	-
Parbhani	1,350	958·0	...	954·4	88·4	...	93	28	72·3	...	71	6 days	76·5	85·4	72·3	74·9	25·2	...	24·8	81	.
Bidar	2,178	932·2	...	927·2	83·6	—0·5	90	23	70·0	0	68	24	72·6	77·7	70·3	72·6	24·3	+1·1	25·3	89	-
Nizamabad	1,250	962·1	—0·7	959·0	86·6	—0·2	93	23	74·4	+1·4	72	4 days	76·5	84·7	72·8	75·6	25·9	+0·9	26·2	83	-
Ramagundam	527	987·1	...	983·8	89·2	...	98	23	76·8	...	73	4	80·1	85·8	75·8	77·7	28·5	...	28·7	81	.
Hyderabad, South																					
Gulbarga	1,503	954·8	—0·8	951·1	86·3	—2·5	96	24	72·3	+0·8	69	21	74·7	85·7	71·6	73·9	25·1	+1·4	23·2	86	-
Raichur	1,311	962·1	—0·4	958·2	89·1 (a)	—0·8	94	5,24	72·9	+0·3	70	29	76·2	85·9	72·1	73·7	25·1	+0·9	22·8	81	-
Hyderabad (Begumpet)	1,778	945·7	+0·1	942·5	87·2	+1·3	95	24	72·4	+0·4	70	12,13	76·2	83·4	72·2	74·4	25·4	+0·6	25·4	82	-
Hanamkonda	881	974·9	—0·3	971·6	88·8	+2·1	95	23,24	76·2	+1·1	71	24	79·4	86·0	74·5	76·7	26·9	+1·1	27·2	78	-
Khammameth(R)	367																				
Mysore																					
Chitaldrug	2,405	926·9	—0·5	924·2	83·7	+1·1	84	8,23,24	69·9	+1·4	69	7 days	71·8	79·5	69·1	71·1	23·2	+1·0	22·6	87	-
Hassan	3,149	903·9	...	901·8	77·7	—1·0	84	23	66·3	+1·0	64	22	68·5	73·5	67·3	70·1	22·4	+1·1	23·8	94	+
Bangalore	3,021	907·6	—0·5	904·9	80·6	—0·8	85	11,23	66·5	+0·9	65	7,23,31	69·2	77·9	67·5	69·4	22·4	+1·1	21·1	91	-
Mysore	2,518	924·1	—0·9	921·7	82·0	—1·0	89	23	67·7	+0·9	66	16,21,24	71·4	78·2	68·5	70·1	22·6	+0·9	21·9	85	-

(R) Register not received

(a) Mean of 30 days.

Cloud amount (Oktas)			Rainfall, inches				Number of rainy days, (0.10" or more)		Wind velocity, miles per hour		Wind direction—Number of winds from:—																			STATION.
											0830 hrs. I. S. T.									1730 hrs. I. S. T.											
Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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
																														C. P., East
5·9	...	5·2	14·40	...	2·73	2	17	...	3·2	...	2	1	0	3	1	14	3	5	2	1	0	1	0	1	13	0	5	10		Gondia
6·6	+1·0	7·5	10·40	−3·92	2·01	1	13	−5·4	4·2	+0·4	3	0	0	1	10	2	6	6	3	9	3	0	1	4	4	5	5	0		Pendra
7·½	...	7·4	18·93	...	3·10	10	23	...	5·4	...	5	1	0	2	1	6	12	2	2	6	0	1	0	3	5	8	6	2		Champa
7·4	+1·1	7·7	13·69	−0·63	3·75	15	14	−1·5	6·5	+1·1	0	1	0	1	2	10	11	3	3	1	0	0	.	2	7	13	2	3		Raipur
6·5	..	7·0	18·45	...	5·03	9	16	...	3·1	...	0	0	0	3	11	12	4	0	1	2	3	2	0	2	13	3	3	3		Titilagarh
7·2	+0·3	7·8	7·12	−5·12	1·21	3	14	−1·2	3·4	−1·6	0	0	0	0	0	5	3	0	23	0	1	0	0	0	5	5	0	20		Kanker
7·3	+1·3	7·2	10·63	−1·97	3·12	14	10	−4·8	4·0	−0·6	0	0	0	1	0	13	1	7	9	0	1	1	1	3	8	0	7	10		Chanda
7·3	+1·2	7·6	14·63	−1·65	3·14	9	17	−1·9	6·0	+2·4	0	2	0	0	0	23	0	0	6	0	2	0	6	0	15	0	6	2		Jagdalpur
																														Konkan
6·8	...	6·8	16·51	...	3·95	1	19	...	12·5	...	0	0	6	4	2	9	9	0	1	0	0	0	0	1	11	17	1	1		Dahanu
6·4	−0·6	6·9	15·22	+1·83	2·04	3	21	+2·0	8·7	−1·2	0	0	3	2	3	16	5	0	2	0	0	0	0	1	19	8	2	1		Bombay
7·1	−0·2	...	9·56	−6·86	1·72	9	17	−4·1	14·0	−0·7	0	0	1	5	1	11	7	1	5	..	...	...	...	...	...	...	..	...		Alibag
5·9	...	5·6	15·79	...	2·87	1	19	...	10·5	...	1	0	5	4	2	10	5	2	2	0	0	0	1	0	15	14	0	1		Harnai
7·1	...	7·1	10·47	...	1·77	29	20	...	15·5	...	1	3	2	1	1	5	15	3	0	0	0	0	0	0	3	24	4	0		Devgad
7·0	...	7·0	15·20	...	2·35	17	25	...	...	...	1	0	0	0	0	3	13	1	13	0	0	0	0	0	3	16	3	9		Vengurla
5·6	−0·9	6·3	12·73	−4·38	1·45	1	24	+2·8	11·5	+3·3	0	3	2	0	1	4	19	2	0	1	1	0	0	0	2	21	6	0		Marmagao
6·6	...	6·6	14·13	−11·51	1·80	5	20	−5·3	3·4	...	0	0	2	3	0	1	11	2	12	0	0	0	0	0	3	17	6	5		Honavar
																														Bombay, Deccan
4·3	...	5·2	7·50	+1·14	2·15	2	7	−4·3	5·2	...	0	0	1	1	0	12	9	8	0	4	1	0	1	4	4	6	10	1		Jalgaon
4·5	−1·3	5·9	4·08	+1·04	1·49	2[illegible]	7	+1·7	6·7	−1·9	0	0	0	0	0	10	0	0	21	0	3	0	1	0	13	9	3	2		Malegaon
5·8	+0·4	6·8	2·68	−0·04	1·97	29	3	−1·6	6·8	−2·0	1	0	0	0	0	15	7	2	6	2	1	0	1	0	15	8	3	1		Ahmednagar
6·9	+0·5	7·0	5·82	+2·27	1·64	29	10	+1·7	3·9	−5·0	0	0	0	0	0	2	15	5	9	0	0	0	0	0	6	20	3	2		Poona
6·8	+1·4	7·4	2·28	−2·00	0·53	28	8	+1·0	7·0	+1·7	0	0	1	0	0	18	2	0	10	0	2	1	1	0	21	1	0	5		Sholapur
6·2	−0·9	6·5	5·76	+1·05	1·79	30	9	−0·2	10·0	+0·8	0	0	0	0	2	8	15	5	1	0	0	1	0	0	7	20	3	0		Miraj
6·0	...	6·2	6·79	...	0·86	29	20	...	10·5	...	0	0	0	0	0	3	21	1	6	0	0	0	0	0	2	28	1	0		Kolhapur
5·7	+0·1	6·5	1·37	−1·03	0·80	28	3	−0·7	8·1	−0·7	1	0	0	0	1	7	13	9	0	3	1	0	1	1	2	12	11	0		Bijapur
6·7	−0·4	6·5	8·48	−1·16	1·17	28	22	+4·4	6·0	+0·7	0	0	0	0	0	14	17	0	0	0	0	0	0	0	14	17	0	0		Belgaum
7·5	+1·6	7·4	2·37	−1·71	0·98	28	9	+0·7	11·0	+0·7	1	0	0	0	1	11	14	4	0	0	0	0	0	0	11	15	4	1		Gadag
																														Hyderabad, North
7·3	+0·6	7·6	5·48	+0·69	1·78	28	10	+1·1	10·9	+0·8	0	0	2	0	0	12	14	2	1	3	1	3	0	0	6	16	2	0		Aurangabad
6·0	...	6·8	2·27	−3·54	0·84	10	6	−3·0	...	...	1	0	0	1	0	0	26	1	2	0	1	4	0	4	0	19	2	1		Parbhani
7·0	+1·6	7·4	8·82	+2·64	2·50	31	11	+0·6	10·5	−0·5	1	0	1	1	1	14	10	3	0	0	1	0	1	0	10	10	6	3		Bidar
6·3	+1·2	6·2	5·85	+3·91	1·53	2	11	−2·8	3·5	−1·3	0	0	0	0	2	10	9	4	6	0	2	0	1	1	3	11	2	11		Nizamabad
7·0	...	7·2	5·23	...	1·65	8	13	...	3·4	...	0	2	1	1	2	3	14	4	4	4	0	1	2	0	6	13	1	4		Ramagundam
																														Hyderabad, South
6·8	+1·3	6·5	4·89	−0·18	1·28	11	9	+1·3	10·0	+0·9	0	0	0	1	1	15	8	6	0	0	2	1	2	0	5	6	15	0		Gulbarga
6·5	+2·2	6·8	6·95	+2·56	2·26	29	10	+2·2	(a) 10·7	+1·1	0	0	0	2	0	8	13	8	0	0	0	1	2	0	4	10	14	0		Raichur
6·7	+0·6	6·8	5·55	+0·26	1·52	28	7	−2·9	9·4	+0·8	0	0	1	2	0	0	22	3	3	1	0	1	1	1	4	17	4	2		Hyderabad (Begumpet)
5·8	0	6·0	5·79	−1·19	1·54	24	10	−0·7	5·8	−0·2	1	0	0	5	0	1	16	5	3	4	2	0	2	1	3	10	8	1		Hanamkonda
																														Khammameth (R)
																														Mysore
7·6	+0·7	7·1	2·39	−0·99	0·87	29	7	−0·4	8·6	+1·2	0	0	0	0	0	11	17	3	0	1	1	0	0	0	7	16	5	1		Chitaldrug
7·7	+1·1	7·7	4·27	+0·37	0·88	4	10	+0·8	8·3	+2·1	0	0	0	0	2	5	23	1	0	0	0	0	0	1	8	20	2	0		Hassan
7·7	+0·5	7·2	6·52	+1·54	1·95	23	8	−1·3	8·6	+1·3	1	0	0	0	0	6	18	4	2	1	0	0	0	0	6	18	4	2		Bangalore
6·9	+0·6	7·2	3·11	−0·18	1·13	23	4	−3·0	7·1	−0·6	0	0	0	0	1	3	26	0	1	1	0	1	1	0	5	21	1	1		Mysore

TABLE II—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M.

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relati Humid %	
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Malabar																					
Mangalore	72	1006·5	—0·9	1004·3	83·6	—0·3	86	5 days	74·9	+0·7	73	4 days	78·1	80·6	76·3	77·2	30·1	+0·8	30·4	92	+2
Calicut	27	1008·2	—1·1	1006·0	83·9	+1·0	89	11	74·9	+0·6	73	6 days	77·2	81·1	75·5	77·2	29·4	+0·6	30·1	92	+1
Palghat	319	998·1	...	995·4	83·9	...	87	11,23	73·7	...	71	3,14	76·8	80·1	74·8	75·8	28·5	...	28·5	91	...
Cochin	10	1009·4	—1·0	1007·0	83·1	+0·7	86	3,10,16	75·4	+0·4	73	1,3,4	78·4	80·4	75·8	77·0	29·3	+0·8	30·1	89	+3
Alleppey	12	1009·3	...	1006·8	84·7	...	89	15	74·8	...	71	3	78·5	81·2	76·3	75·0	29·9	...	29·8	90	...
Trivandrum	211	1002·3	—0·6	999·9	84·6	...	88	16	74·0	...	72	5 days	77·3	80·5	75·1	75·7	28·7	+0·9	28·2	90	+4
Nagercoil	195	1002·1	...	999·5	88·2	...	92	17,24,26	75·7	...	72	4	79·6	82·4	74·6	75·5	27·0	...	27·0	78	...
Madras, South-East																					
Pamban	37	1006·3	—0·9	1003·5	90·5	+1·4	92	9 days	80·1	+1·3	75	8,27	83·8	84·4	77·9	79·2	30·0	+0·3	31·7	76	0
Madura	437	992·6	—0·8	989·1	94·9	—0·3	99	18	76·9	+0·4	72	4 days	83·0	87·5	74·2	75·8	24·9	+0·9	25·1	65	+3
Negapatam	31	1006·5	—0·7	1003·2	94·0	—0·1	98	18	78·8	+1·1	74	8,26	82·9	87·4	76·2	79·3	27·8	+0·5	30·4	73	+3
Trichinopoly	295	997·3	—1·2	993·6	94·3	—2·1	100	20	77·3	+0·1	70	8	81·5	89·3	74·2	75·7	25·6	+0·5	24·2	70	+6
Coimbatore	1,341	962·5	—0·8	959·5	86·5	—0·9	91	15	72·0	+1·0	69	6	75·8	81·1	71·7	73·2	24·7	—0·3	24·7	81	0
Salem	913	976·5	—0·9	972·6	92·2	—0·1	96	22,24	74·7	+1·5	71	8	77·9	86·9	73·2	74·5	25·8	—0·1	23·5	74	+1
Cuddalore	39	1005·7	—0·7	1002·2	92·2	—2·0	98	3	76·9	—0·1	72	7	82·1	87·5	76·1	75·8	28·3	—0·2	25·8	76	+3
Vellore	703	983·1	0	979·3	91·4	—1·8	95	23,24	77·6	+1·2	71	9	79·8	87·5	74·1	76·5	26·2	+0·7	26·2	76	+6
Madras	51	1005·1	—0·2	1001·5	92·5	—2·3	96	4,5,18	77·3	—0·7	73	7,27	81·5	87·5	76·0	78·2	28·2	+1·9	28·7	77	+9
Arogyavaram	2,299	930·4	...	927·2	84·9	...	90	24	71·3	...	67	26	74·3	81·9	69·0	70·9	22·0	...	21·3	76	...
Madras, Deccan																					
Cuddapah	428	992·3	—0·5	988·1	92·3	—2·4	96	4 days	77·5	0	73	25,26	83·0	87·4	77·1	78·5	29·1	+3·2	29·2	76	+8
Bellary	1,473	956·9	—0·6	953·3	89·0	—1·5	93	5 days	75·0	+1·1	71	7	77·8	84·9	71·3	73·2	23·2	+1·0	22·6	72	+5
Kurnool	923	975·1	—0·5	971·0	90·1	—0·4	94	22,24	74·4	+0·1	72	14	79·2	86·8	73·3	74·9	25·3	+0·7	24·1	74	0
Rentachintala	348	993·6	...	989·8	90·5	—2·4	96	22	77·6	—0·8	73	12	81·5	89·4	75·4	76·9	27·3	+1·5	25·9	75	+8
Anantapur	1,147	967·9	...	964·0	92·4	...	98	8	75·2	...	73	6 days	79·2	87·3	72·6	74·1	24·4	...	22·8	72	...
Madras Coast, North																					
Nellore	66	1003·8	—0·3	1000·1	93·4	—2·0	99	24	78·1	—1·3	73	25,26	83·6	89·4	76·9	79·3	28·6	+2·1	29·5	73	+8
Ongole	38	1004·3	...	1000·7	93·1	...	99	22	79·3	...	74	28	83·9	89·5	76·8	78·0	28·3	...	27·5	72	...
Masulipatam	10	1005·1	0	1001·8	89·2	—2·1	95	22	(a) 78·2	+0·3	72	8,24	81·6	86·0	77·2	79·8	29·9	0	32·0	82	+3
Cocanada	26	1003·9	+0·2	1000·8	89·2	—0·5	97	22	78·6	+0·3	74	10	83·1	86·5	78·6	79·3	31·4	+1·1	30·9	80	0
Vizagapatam	126	999·5	+0·2	996·7	89·7	+0·6	97	8	79·6	+1·0	76	5 days	83·2	84·7	78·0	78·5	30·4	+0·9	30·5	78	+1
Calingapatam	19	1002·9	+0·5	1000·1	88·5	—1·5	93	1,8,22	78·5	—0·1	76	6 days	81·5	84·1	78·0	79·9	31·1	—0·5	33·0	85	+4
Hill Stations excluding Kashmir																					
Shillong	4,921	845·8	—0·1	843·3	75·2	+0·1	79	2,11	64·8	+0·8	60	28	69·9	70·2	66·7	66·6	21·3	+0·7	21·0	85	+4
Cherrapunji	4,309	865·2	+0·6	863·2	71·2	—1·3	79	2	64·9	—0·4	63	4 days	67·9	68·2	66·8	67·4	22·1	+0·2	22·4	95	+6
Aijal	3,599	885·9	...	885·3	77·7	...	82	4 days	67·6	...	66	5 days	70·5	69·9	69·1	68·9	23·6	...	23·7	93	...
Darjiling	7,432	773·0	—0·8	771·1	65·8	+0·2	72	2	58·0	+0·3	57	8 days	61·8	61·0	61·1	60·6	18·4	+0·6	17·8	97	+5
Kalimpong	3,965	874·2	—0·3	873·0	74·4	—1·1	82	2	67·1	—0·1	66	10 days	69·4	71·1	68·7	69·9	23·9	+0·1	24·8	96	+5
Katmandu	4,388	862·2	...	859·7	83·5	+0·1	87	2,3	69·5	+1·2	67	24	73·9	75·6	70·2	71·3	24·0	+0·8	25·0	83	+2
Gyantse	13,110	625·7	...	...	67·2	—1·0	78	17	45·1	+0·9	41	23,30,31	55·1	...	49·1	...	10·0	+0·4	...	69	0
Muktesar	7,592	768·6	—0·7	767·0	68·1	+0·1	75	29	58·3	+0·9	55	26,27	61·2	64·4	60·0	62·7	17·3	+0·4	19·1	94	+3
Mussooree	6,699	792·6	...	(a) 791·6	68·2	0	72	2,3,4	60·7	+0·8	55	25	64·1	(a) 64·5	63·2	(a) 64·1	19·3	+0·5	(a) 20·1	95	0
Simla	7,224	778·0	—0·4	777·0	68·8	+0·4	74	23	58·0	—1·2	53	24	63·9	65·1	60·5	62·3	16·7	—0·4	17·9	84	—2

(a) Mean of 30 days.

Cloud amount, (Oktas)			Rainfall, inches				Number of rainy days (0·10" or more).		Wind velocity, miles per hour		Wind direction—Number of winds from :—																		STATION.
											0830 hrs. I.S.									1730 hrs. I.S.T.									
Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																													Malabar
7·6	+0·9	7·4	20·82	—2·70	3 00	3	26	+0·9	4·2	—0·3	2	3	5	6	2	2	6	4	1	4	1	0	0	1	5	8	12	0	Mangalore
7·3	+0·7	7·1	14·48	—26·8	2·75	4	18	—1·3	5·6	+1·1	6	7	3	0	0	3	3	4	5	2	1	0	0	0	6	10	12	0	Calicut
6·3	...	6·3	9·79	...	2·50	14	17	...	6·3	...	0	0	0	0	0	9	21	0	1	0	0	0	0	0	7	23	1	0	Palghat
7·6	+1·6	7·2	18·08	+4·19	3·08	4	22	+3·3	6·7	+1·7	2	8	8	2	1	0	5	5	0	0	0	0	1	0	0	14	13	3	Cochin
7·0	...	7·2	14·66	...	1·56	17	21	...	7·2	...	7	5	4	1	1	1	2	10	0	2	1	1	1	0	1	9	16	0	Alleppey
5·9	—0·4	6·6	5·61	+0·88	1·19	27	14	+4·2	6·6	0	18	0	0	0	0	0	2	10	1	2	0	0	0	0	0	3	26	0	Trivandrum
5·9	...	6·8	2·04	...	0·76	1	5	...	9·5	...	0	0	0	0	0	0	13	18	0	0	0	0	0	0	0	14	17	0	Nagercoil
																													Madras, South-East
4·6	+1·7	4·5	2·32	+1·73	1·12	27	3	+2·0	7·9	—0·2	1	1	0	7	5	13	3	1	0	0	0	0	12	16	3	0	0	0	Pamban
6·0	+0·8	6·9	11·13	+7·05	3·42	29	14	+8·0	3·8	0	2	0	0	0	0	0	12	16	1	1	1	1	3	3	2	10	6	4	Madura
6·8	+2·2	6·5	3·20	+0·15	2·10	30	6	+1·1	5·0	—0·2	1	0	0	0	0	12	14	2	2	0	0	0	11	11	5	3	1	0	Negapatam
6·7	+2·1	6·8	9·89	+6·06	3·38	26	11	+6·3	14·0	—1·2	0	0	0	0	0	0	19	12	0	1	0	1	1	4	4	10	9	1	Trichinopoly
5·1	+0·8	5·7	2·41	+1·18	1·08	6	6	+2·9	9·2	+3·8	0	0	1	0	12	14	3	0	1	0	0	0	0	12	15	4	0	0	Coimbatore
6·2	+1·0	7·2	5·12	—1·45	0·98	26	9	—0·9	4·8	+1·1	0	0	0	0	8	15	7	0	1	0	2	1	0	6	7	8	0	7	Salem
7·1	+2·1	6·0	4·01	—0·79	1·25	7	8	+0·9	5·5	+1·3	1	0	0	0	0	19	5	1	5	0	0	0	19	2	6	0	1	3	Cuddalore
6·1	+1·6	6·3	8·05	+2·31	1·55	7	14	+6·6	3·9	—0·1	0	0	0	0	2	9	4	1	15	0	2	2	3	6	11	0	2	5	Vellore
6·9	+1·5	6·6	5·21	+0·63	0·94	5	9	+1·1	(e) 8·9	—1·8	0	0	0	1	2	12	10	6	0	0	0	4	20	0	2	4	1	0	Madras
7·4	...	7·3	3·41	...	1·22	27	7	...	6·2	...	1	0	0	0	0	1	17	10	2	4	0	0	0	1	4	13	5	4	Arogyavaram
																													Madras, Deccan
6·7	+0·8	6·6	7·12	+1·88	2·10	26	8	+0·3	4·1	—2·5	[illegible]	1	0	0	0	0	8	0	22	1	2	3	1	0	1	10	3	10	Cuddapah
6·9	+1·3	6·9	3·70	+1·32	1·20	26	5	+1·0	8·0	+0·1	0	0	0	0	0	2	21	4	4	0	0	1	0	0	1	22	4	3	Bellary
6·9	+1·0	6·7	3·62	—0·88	1·95	27	7	—1·6	10·5	+1·3	0	0	0	1	1	7	15	7	0	1	1	0	3	2	1	10	12	1	Kurnool
7·5	+0·8	7·9	5·01	+1·47	2·09	12	9	+1·2	5·8	—2·8	0	0	0	1	1	8	16	1	4	2	0	0	1	1	1	22	4	0	Rentichintala
6·6	...	6·4	4·49	+1·19	3·05	31	6	+1·2	11·3	...	1	0	0	0	1	4	21	2	2	1	0	0	1	0	2	18	5	4	Anantapur
																													Madras Coast, North
6·1	+0·1	6·4	9·58	+6·56	2·65	26	8	+2·5	3·6	—1·9	1	0	0	0	0	2	12	2	14	0	0	4	3	1	0	5	4	14	Nellore
6·1	...	6·7	4·84	...	2·60	11	7	...	5·7	...	0	0	0	1	0	9	13	14	4	0	0	1	7	0	7	13	0	3	Ongole
6·5	+0·7	6·1	8·88	+2·62	1·59	24	14	+3·8	6·5	+0·5	0	0	0	1	1	5	15	3	6	1	0	1	1	9	1	6	1	11	Masulipatam
5·5	—0·4	5·2	9·69	+4·13	3·73	23	8	—1·6	6·8	+1·4	0	2	0	1	0	27	0	0	1	0	0	1	3	0	26	1	0	0	Cocanada
6·3	—0·2	6·6	2·42	—2·74	0·80	27	5	—3·2	5·5	+0·9	0	1	0	1	1	7	15	3	3	0	0	2	3	8	10	5	2	1	Vizagapatam
6·8	+1·6	7·4	5·78	—1·02	1·30	15	13	+3·5	7·0	+0·9	2	2	0	0	0	7	14	6	0	0	0	0	3	3	15	8	2	0	Calingapatam
																													Hill Stations excluding Kashmir
7·4	+0·8	7·5	13·24	+0·75	2·29	23	19	+0·5	2·6	+0·9	0	1	1	1	2	6	1	0	19	0	0	0	1	4	6	1	0	19	Shillong
7·6	+0·5	7·4	75·94	+5·86	14·62	23	29	+2·8	7·9	+3·3	0	7	2	9	8	4	1	0	0	2	3	2	7	4	11	2	0	0	Cherrapunji
5·0	...	6·4	9·93	...	2·63	28	17	...	4·7	...	0	0	10	5	2	9	0	1	4	0	1	0	2	5	16	2	1	4	Aijal
7·5	+0·5	7·6	27·82	+1·26	4·33	9	29	+5·3	5·2	+1·8	0	0	19	4	0	0	5	1	2	0	0	11	8	0	2	9	0	1	Darjiling
7·1	+0·6	7·0	25·11	+5·23	3·70	9	28	+6·5	4·5	—0·8	1	0	0	4	1	0	3	7	15	0	0	0	27	2	0	0	0	2	Kalimpong
7·3	+0·6	7·5	17·61	+3·93	2·29	13	25	+4·2	1·0	+0·1	2	1	3	4	0	0	0	1	20	4	1	2	2	1	0	0	2	19	Katmandu
5·4	—1·1	...	5·29	+1·47	0·75	11	16	+6·2	2·0	—0·2	0	1	1	5	0	0	2	0	22	...	...	...	...	...	...	...	...	...	Gyantse
6 3	—0 3	6·4	10·68	—1·58	1·78	19	15	—2·9	7·8	+2·7	0	3	7	1	0	3	10	3	4	0	1	3	1	0	7	17	2	0	Muktesar
6 7	—0·3	(e) 7·7	21·76	—5·58	4·52	9	20	—3·8	0·4	—3·2	4	6	3	6	6	1	1	4	0	4	4	1	6	10	4	1	0	0	Mussooree
5·2	—1·4	6·3	9·96	—6·89	1·97	15	16	—3·7	1·0	—1·2	6	3	0	1	1	2	0	0	18	4	3	2	1	3	2	1	3	12	Simla

(e) Mean of 26 days.

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level, in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Rela humi %	
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	2
Hill Station excluding Kashmir—contd.																					
Abu . .	3,945	873·7	−0·4	(a) 872·2	73·9	+1·9	82	31	65·5	+1·1	62	24	67·7	(a) 71·9	66·1	(a) 68·5	21·3	+0·5	(a) 22·4	92	-
Pachmarhi .	3,528	888·1	+0·5	882·8	76·5	+1·7	83	31	67·8	+0·9	64	27	70·4	74·4	68·4	70·4	22·6	+0·3	23·4	91	+
Mahabaleshwar .	4,534	858·8	−0·7	857·2	66·5	+0·9	73	29	62·0	+0·5	59	22,24	63·4	64·1	63·4	64·1	20·0	+0·4	20·5	99	+
Mercara . .	3,781	883·2	−1·1	882·2	70·1	+0·9	75	25,28,31	63·6	+1·6	62	28	65·1	67·3	64·7	66·2	20·7	+1·1	21·5	98	+
Ootacamund .	7,364	778·4	−0·2	777·3	64·0	+1·2	69	7,9,31	54·4	+2·7	52	26	56·5	59·0	54·5	56·6	13·8	+0·6	14·8	88	+
Coonoor .	5,730	826·0	...	...	71·7	+0·8	76	12	58·2	+0·4	53	20	66·6	...	62·7	...	18·0	+3·2	...	82	+
Kodaikanal .	7,688	777·0	+0·3	768·4	64·1	+1·4	68	11,18	52·8	+0·9	51	5 days	57·0	57·7	53·8	56·4	13·0	+0·4	15·1	82	+
Ceylon																					
Colombo .	24	1008·9	−1·0	1006·5	85·3	−0·3	87	4 days	77·6	+0·6	73	31	80·8	81·5	77·5	77·3	30·7	+1·6	30·1	86	+
Trincomalee .	24	1007·1	−0·1	1004·6	91·5	−1·1	96	19	77·0	0	73	6	81·0	84·2	75·5	76·9	27·7	+0·5	28·3	76	+
Hambantota .	61	1006·6	−1·0	1004·0	85·1	−1·7	90	1,17	76·1	0	73	31	79·0	80·0	76·0	76·0	29·3	+1·0	28·8	87	+
Mannar . .	12	1007·8	...	1005·1	87·8	...	90	7,18,22	79·3	...	76	8,26,28	82·3	83·2	78·0	77·9	30·8	...	30·2	82	..

(a) Mean of 30 days.

Cloud amount (Oktas)			Rainfall, inches.				Number of rainy days (0·10″ or more)		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																			STATION.
											0830 hrs. I. S. T.									1730 hrs. I. S. T.										
0830 hrs.I.S.T.	Departure from normal.	Mean 1730 hrs.I.S.T.	Total of the month.	Departure from normal	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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	
																														Hill Station–excluding Kashmir—(*contd.*)
3	—2·0	(a) 6·4	14·59	—8·16	4·28	4	17	—0·4	5·0	—2·8	1	0	0	0	3	16	3	0	8	0	0	0	0	11	10	0	0	9		Abu
7	—4·6	6·1	12·27	—11·55	1·98	10	16	—5·9	4·3	—2·1	1	0	0	0	1	2	17	7	3	1	0	0	0	0	0	18	6	6		Pachmarhi
0	+0·2	8·0	53·34	—19·77	7·76	2	30	+0·2	10·3	—0·5	2	1	0	0	0	26	0	2	0	2	1	0	0	0	26	0	2	0		Mahabaleshwar
2	—0·2	7·2	24·98	—1·82	2·97	14	25	—1·5	9·4	+3·0	1	0	0	0	4	4	11	11	0	1	0	0	0	4	4	11	11	0		Marcara
6	—1·0	6·4	4·82	—0·87	0·96	30	11	—1·3	2·0	—3·3	0	0	0	0	0	2	10	0	19	0	0	0	0	0	1	9	1	20		Ootacamund
0	—1·5	...	2·25	—2·74	0·41	6	6	—3·1	3·8	—0·2	2	0	3	10	1	6	5	4	0	...	...	...	...	...	...	...	...	...		Coonoor
4	+1·3	7·9	8·70	+1·70	1·61	25	16	+3·9	8·5	—0·1	1	0	0	0	1	1	10	14	4	1	2	1	2	4	0	5	12	4		Kodaikanal
																														Ceylon
7	+0·8	6·9	4·77	+1·07	1·35	27	11	+4·1	...	...	0	1	0	0	1	12	14	2	1	0	0	0	0	1	21	8	1	0		Colombo
4	+2·4	7·2	5·69	+1·84	1·67	8	8	+3·2	...	...	0	0	0	0	3	28	0	0	0	0	2	1	2	1	19	2	0	4		Trincomalee
1	+2·3	7·0	1·09	—0·54	0·55	31	3	—0·9	...	...	1	0	0	0	5	24	1	0	0	0	0	0	0	6	23	1	1	0		Hambantota
5	...	7·1	0·79	...	0·69	27	1	...	...	...	0	0	0	1	15	15	0	0	0	0	0	0	0	10	21	0	0	0		Mannar

TABLE III—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M. T.) AT 4TH CLASS STATIONS—AUGUST 1949

STATION.	Maximum temperature, °F.				Minimum temperature. °F.				Mean dry bulb temperature 0830 hrs. I.S.T. °F.	Mean wet bulb temperature 0830 hrs. I.S.T. °F.	Vapour pressure, millibars.		Relative humidity, %		Mean cloud amount 0830 hrs. I.S.T.	Rainfall, inches.				Number of rainy days (0·10" or more).		Resultant
	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest	Date.			Mean 0830 hrs. I.S.T.	Departure from normal.	Mean. 0830 hrs. I.S.T.	Departure from normal.		Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	2
Assam																						
Lumding .	91·2	+1·0	98	2	76·4	—0·2	73	2	84·5	78·4	30·5	—0·6	75	—8	..	11·87	+3·79	3·26	26	10	—1·3	.
Kashmir																						
Jammu . .	94·8	+3·0	104	22,24	78·9	+1·2	69	26	84·0	76·8	28·3	—0·8	73	—6	4·8	5·28	—6·47	2·37	5	9	—2·1	
Kargil (R) .																						
Mysore																						
Balehonnur .	74·8	+0·8	80	23,1,3 1	65·9	+0·5	64	22	68·6	67·6	22·7	+0·7	95	+1	..	25·52	+2·12	7·08	4	25	+0·5	.
Tibet																						
Yatung (Chumbi)	68·1	+3·4	70	7 days	46·5	—3·8	45	10 days	61·4	59·8	17·1	+3·1	92	+6	0·5	4·03	—2·08	0·49	12	15	—2·4	.

(R) Register not received.

TABLE IV—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M. T.) AT 5TH CLASS STATIONS—AUGUST 1949

Division.	Station.	Rainfall, inches.				Number of rainy days, (0·10" or more).		Division.	Station.	Rainfall, inches.				Num rainy (0·10"
		Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month	Departure from normal			Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.
1	2	3	4	5	6	7	8	1	2	3	4	5	6	7
Assam . . .	Mawsynram .	52·82	...	9·05	21	28	...	Kashmir .	Sonamarg . .	1·66	—1·96	0·40	2	7
West Bengal . .	Bankura . .	9·95	—2·18	1·79	27	15	—1·0		Gurez . .	5·90	+2·25	1·70	25	5
Bihar . . .	Muzaffarpur .	7·58	—4·98	1·46	17	12	—1·6	Bombay Deccan .	Khandala .	41·21	—8·49	6·00	2	30
	Chapra . .	12·42	+1·14	2·95	31	14	+0·6	Madras, Southeast .	Palamcottah .	0·50	—0·16	0·35	27	2
	Arrah . .	19·84	+7·27	2·11	15	18	+3·4	Sikkim	Lachung . .	20·45	+11·13	1·16	30	2·8
East Punjab . .	Dharampore .	7·65	—4·91	1·05	15	15	—1·5							
	Kyelang . .	0·63	—0·76	0·26	3	3	—0·8							
	Dalhousie .	14·06	—8·09	2·70	30	11	—11·5							

MONTHLY MEANS OF UPPER WINDS

AUGUST, 1949

Note:—Data upto 9.0 Km. a.s.l. are given under Table A and data above 9.0 Km. under Table B.

In tables A & B

n represents the number of observations,

V represents the mean speed in m/sec. irrespective of direction,

v represents the resultant mean velocity in m/sec,

and D represents the direction of the resultant mean wind in degrees East of North.

For the coordinates of the stations for which data have been published in these Tables and other particulars please refer to the Monthly Weather Report January 1948, and subsequent issues.

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

AUGUST 1949

Station	AHMEDABAD												ALLAHABAD										
Time in I. S. T.	0230				0730				1430				0230				0730				1430		
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	31	1·9	1·7	221	31	1·8	1·6	222	31	2·6	2·1	226	31	1·2	0·6	269	31	1·8	0·9	259	31	3·0	1·9
0·15 a. g. .	29	7·3	6·2	235	30	5·8	4·9	233	31	4·5	3·5	230	26	6·9	3·6	266	26	6·3	4·0	259	31	5·5	3·6
0·6 a. s. l. .	27	9·4	7·4	249	27	8·2	7·3	255	30	4·9	4·0	232	26	8·1	3·7	286	21	8·2	5·2	256	26	6·6	3·4
1·0 „ . .	26	7·3	6·4	248	25	7·5	6·3	255	29	5·5	4·8	237	23	8·7	4·7	294	18	7·3	5·3	283	23	6·3	2·7
1·5 „ . .	25	5·9	4·6	234	23	7·6	5·9	230	22	6·3	4·9	233	19	6·9	4·3	304	15	6·0	3·5	304	19	5·9	0·9
2·0 „ . .	19	5·3	3·4	226	16	8·4	5·9	230	20	6·4	4·5	234	13	6·0	4·5	303	13	5·1	3·7	309	15	7·2	1·1
2·5 „ . .	13	5·0	1·6	145	13	7·6	4·5	204	15	5·8	2·1	220	8	4·2	3·4	302	12	5·1	2·7	309	12	4·3	1·2
3·0 „ . .	13	5·3	1·7	149	9	4·6	2·1	142	15	5·6	1·3	216	6	3·4	2·2	287	11	4·2	1·4	299	12	4·8	0·9
4·0 „ . .	9	3·9	1·1	135	7	5·0	2·9	51	8	5·9	0·9	176	1	2·5	2·5	250	7	3·9	0·9	208	8	4·0	1·0
5·0 „ . .	7	6·1	1·4	144	5	6·6	0·6	38	7	6·3	2·5	134					6	5·0	1·6	102	6	4·0	2·9
6·0 „ . .	5	4·9	2·4	92	5	6·4	1·0	98	4	5·0	4·7	119					3	5·5	2·5	84	6	5·9	3·1
7·5 „ . .	2	6·5	6·3	93	4	5·3	3·7	142	2	4·0	3·5	114									3	4·5	0·4
9·0 „ . .					2	8·5	8·5	82													2	3·5	3·5

Station	AMBALA												ANANTAPUR								ASANSOL		
Time in I.S.T.	0230				0730				1430				0730				1430				0230		
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	31	1·6	1·0	95	31	1·1	0·7	108	31	1·7	0·2	163	31	4·5	4·2	262	31	5·8	5·5	286	31	1·5	0·6
0·15 a. g. .	30	4·9	1·9	129	31	4·7	1·8	121	31	4·5	0·9	229	30	6·7	6·3	256	30	7·8	7·1	275	26	4·5	2·5
0·6 a. s. l. .	30	5·2	1·3	157	31	5·5	1·2	211	31	4·2	1·0	222	30	7·6	7·3	260	30	8·4	7·9	270	25	5·2	2·7
1·0 „ . .	30	5·4	1·1	247	31	6·2	1·7	270	31	4·5	1·4	264	30	11·3	10·7	274	30	8·5	8·0	272	20	5·1	1·7
1·5 „ . .	30	6·0	2·3	290	30	7·1	2·1	314	29	5·5	2·4	295	29	12·1	11·5	277	30	9·1	8·7	273	18	5·1	1·7
2·0 „ . .	25	6·9	2·6	324	25	7·8	2·8	348	27	5·9	3·9	311	26	10·3	9·7	278	26	8·7	8·2	278	22	4·0	0·5
2·5 „ . .	20	7·5	1·9	333	23	7·7	2·3	3	20	5·9	4·1	307	21	8·7	7·9	282	25	8·8	8·2	284	8	3·2	0·5
3·0 „ . .	11	5·6	4·3	327	21	6·5	2·2	50	19	5·5	3·7	303	20	8·0	7·3	286	20	7·6	7·0	280	7	2·8	0·5
4·0 „ . .	6	4·6	0·9	327	12	4·4	0·8	116	10	4·2	3·2	293	13	7·1	6·4	279	11	7·1	5·9	270	2	1·3	1·3
5·0 „ . .	6	4·0	0·7	73	10	4·5	1·3	130	7	3·7	0·4	227	10	5·8	3·1	254	9	7·3	4·5	271			
6·0 „ . .	3	4·8	3·3	99	9	4·9	2·9	167	6	4·9	1·6	158	7	3·8	1·3	61	8	7·4	3·9	276			
7·5 „ . .	3	7·0	5·4	212	7	8·9	5·6	212	4	5·1	4·9	251	2	8·0	8·0	85	4	7·4	3·7	35			
9·0 „ . .	1	6·5	6·5	195	7	9·3	7·9	244	3	9·0	8·9	236	2	12·3	12·3	90	2	3·0	2·9	99			

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

AUGUST 1949

Station	ASANSOL								BANGALORE												BAREILLY			
Time in I. S. T.	0730				1430				0230				0730				1430				0730			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface. . .	31	1·7	0·8	166	31	2·8	1·2	184	31	4·0	3·8	258	31	3·4	3·1	256	31	4·9	4·4	268	27	1·9	0·3	37
0·15 a. g. .	31	4·3	1·9	183	31	5·0	2·0	188	27	8·8	8·6	259	31	7·0	6·4	263	31	7·5	7·1	262	27	4·5	0·5	293
0·6 a. s. l. .	30	5·8	2·1	225	31	5·5	2·0	195	...	...	...	...	...	...	...	...	...	...	...	...	26	7·6	2·0	311
1·0 „ . .	25	5·6	1·8	263	27	5·1	1·9	173	29	6·7	6·4	256	31	5·5	5·0	262	31	6·5	6·1	264	24	8·2	2·3	306
1·5 „ . .	21	5·6	1·4	265	25	5·2	1·4	192	20	11·3	11·2	277	12	9·6	8·8	286	31	7·2	6·9	267	24	7·1	1·9	312
2·0 „ . .	15	4·5	1·0	271	21	4·8	1·5	196	15	10·4	9·9	281	11	7·5	5·6	298	30	7·5	6·8	277	22	6·9	1·1	324
2·5 „ . .	13	3·2	1·4	281	16	4·7	1·3	179	12	8·8	7·5	285	8	5·9	4·3	293	17	7·4	6·1	281	18	6·7	1·6	74
3·0 „ . .	13	3·4	2·0	266	14	4·3	1·4	149	8	5·8	4·2	283	8	5·7	4·3	298	13	6·8	5·3	276	14	4·4	0·9	42
4·0 „ . .	9	3·5	1·0	222	9	5·1	2·0	103					5	4·4	1·8	210	8	4·1	2·7	268	7	4·1	0·8	69
5·0 „ . .	6	4·0	2·7	118	7	5·5	4·5	83					3	5·0	4·2	133	3	5·5	3·3	273	7	5·5	2·7	184
6·0 „ . .	4	6·0	4·9	108	4	4·7	3·4	73					1	5·5	5·5	65	2	7·7	7·7	279	6	7·0	4·3	187
7·5 „ . .	2	5·3	4·5	68	2	5·7	5·7	73					1	6·5	6·5	100					3	8·2	4·0	210
9·0 „ . .					1	4·5	4·5	60													2	3·7	3·1	144

Station	BAREILLY				BHOPAL												BHUJ							
Time in I. S. T.	1430				0230				0730				1430				0230				0730			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	2·5	0·5	40	31	4·1	3·3	254	31	4·1	3·4	263	31	3·9	3·3	268	31	3·0	2·8	231	31	2·1	1·9	230
0·15 a. g. .	31	4·5	1·1	330	26	8·5	7·0	264	29	8·1	7·1	269	30	5·8	5·0	277	27	8·6	8·0	241	31	7·3	6·8	239
0·6 a. s. l. .	31	4·9	0·8	331	26	7·4	6·1	256	27	6·8	6·0	268	30	5·5	4·7	274	27	11·5	10·9	243	30	10·8	9·9	252
1·0 „ . .	30	5·3	1·1	304	25	10·3	8·7	271	22	9·5	7·8	274	30	5·8	4·7	272	26	10·3	9·7	235	30	9·8	8·7	248
1·5 „ . .	25	7·2	2·2	296	23	8·1	6·6	279	16	6·0	4·1	270	28	6·6	5·2	275	21	7·3	5·7	224	23	8·4	5·7	243
2·0 „ . .	24	7·5	1·6	291	19	5·6	3·4	266	15	4·6	1·7	241	20	5·7	3·7	275	14	5·4	2·2	224	17	7·3	3·0	225
2·5 „ . .	21	6·9	6·1	293	19	5·3	2·5	267	11	4·6	2·0	195	14	5·3	3·1	291	9	7·2	1·8	188	12	7·0	1·5	130
3·0 „ . .	18	6·8	0·9	88	14	4·7	1·1	324	9	5·5	1·8	195	12	5·5	2·9	306	9	7·3	0·9	232	9	6·1	4·0	105
4·0 „ . .	14	5·6	2·6	96	6	3·7	1·1	85	9	5·1	1·5	207	5	3·3	1·9	51	5	3·1	2·0	91	5	5·4	4·7	83
5·0 „ . .	11	5·0	0·9	159	2	3·5	3·1	356	8	5·3	2·0	159	3	3·0	1·1	74	1	10·0	10·0	275	4	6·3	2·9	251
6·0 „ . .	11	5·6	2·1	181					7	5·3	2·9	136	2	4·7	4·7	119					4	6·3	1·7	193
7·5 „ . .	9	5·9	3·6	208					5	5·0	2·5	118									3	2·7	1·9	97
9·0 „ . .	6	5·1	2·2	155					5	7·3	6·1	130									3	4·2	2·4	101

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

AUGUST 1949

Station	BHUJ				BIKANER								BOMBAY										
Time in I. S. T.	1430				0730				1430				0230				0730				1430		
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	31	4·3	4·0	235	31	2·3	1·8	214	31	2·4	1·5	213	31	4·4	3·8	226	31	3·8	2·9	231	31	5·6	5·3
0·15 a. g. .	31	8·7	8·2	236	31	7·9	6·1	224	31	5·3	4·0	210	30	7·0	6·5	240	29	6·6	5·5	237	29	7·8	7·4
0·6 a. s. l. .	30	8·9	8·6	240	30	9·9	7·5	239	31	4·9	3·6	205	23	7·6	7·3	249	24	8·0	7·3	248	27	8·8	8·4
1·0 „ . .	28	8·9	8·2	243	28	8·0	5·3	229	31	4·8	3·1	202	19	7·6	7·3	251	20	7·5	6·8	252	24	9·3	8·5
1·5 „ . .	19	6·5	5·9	247	27	4·5	1·6	174	27	4·6	2·2	175	13	6·6	6·2	248	14	7.3	6·3	253	14	6·7	5·4
2·0 „ . .	10	5·9	3·8	253	26	4·0	2·2	91	26	4·1	1·7	132	10	5·2	4·9	249	9	4·5	2·1	246	12	6·6	4·9
2·5 „ . .	6	6·1	2·3	255	26	4·9	3·3	74	21	3·6	0·5	278	6	4·3	2·4	204	8	4·4	1·8	175	6	4·6	2·5
3·0 „ . .	4	5·6	2·4	320	26	5·6	3·1	78	21	4·7	0·8	9	5	3·5	1·4	240	8	4·9	2·4	187	6	5·0	2·5
4·0 „ . .	1	2·5	2·5	155	25	6·0	1·6	62	17	7·5	2·3	269					5	4·9	2·8	123	5	4·7	2·1
5·0 „ . .	1	12·0	12·0	235	22	6·6	1·5	96	16	7·2	3·1	247					2	3·0	2·3	74	3	5·8	3·6
6·0 „ . .	1	12·0	12·0	250	7	17·1	7·0	159	15	7·2	3·8	257					1	8·0	8·0	55	3	7·7	6·9
7·5 „ . .					6	6·7	0·6	203	7	8·5	6·4	269					1	7·5	7·5	55	2	10·5	9·7
9·0 „ . .					4	6·5	2·5	260	6	6·3	4·7	282					1	12·0	12·0	70	1	11·0	11·0

Station	CALCUTTA												COCHIN										
Time in I. S. T.	0230				0730				1430				0230				0730				1430		
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	31	2·2	1·6	185	31	2·1	1·4	173	31	2·4	1·9	176	31	1·5	1·0	305	31	1·4	0·7	5	31	3·9	3·5
0·15 a. g. .	31	5·5	3·7	202	30	4·0	2·3	186	31	4·6	3·5	181	20	3·2	2·5	308	28	3·4	2·3	338	28	4·9	4·6
0·6 a. s. l. .	31	7·3	5·2	218	30	5·7	2·7	208	31	5·5	3·9	192	19	7·6	7·3	300	26	8·6	8·2	308	26	8·8	8·5
1·0 „ . .	31	7·0	4·8	220	28	5·9	2·5	209	31	5·7	3·4	202	16	9·6	9·2	300	23	10·0	9·6	308	19	10·4	10·2
1·5 „ . .	29	6·4	4·0	228	25	5·5	2·5	217	27	5·4	2·5	193	12	9·6	9·4	300	17	10·6	10·4	300	10	10·7	10·3
2·0 „ . .	26	6·4	3·4	232	23	5·2	1·8	227	26	5·4	2·2	195	6	9·3	8·8	295	16	9·8	9·6	296	6	7·6	6·9
2·5 „ . .	17	6·5	2·2	211	18	4·7	1·4	218	21	6·1	2·0	174	2	5·5	5·0	327	9	9·0	8·8	290	5	6·6	5·7
3·0 „ . .	16	6·5	1·7	202	17	4·6	0·7	195	18	6·0	2·9	168	2	7·0	5·8	330	4	6·3	6·2	288	3	4·5	1·7
4·0 „ . .	4	3·5	3·0	200	7	6·3	1·7	112	11	5·3	2·4	225					1	0·5	0·5	130	1	2·5	2·5
5·0 „ . .	1	10·0	10·0	95	3	4·3	2·2	138	7	5·6	2·2	201					1	2·5	2·5	130			
6·0 „ . .					3	3·7	3·4	96	4	5·3	2·7	229					1	5·5	5·5	155			
7·5 „					1	6·0	6·0	50	1	4·0	4·0	330					1	8·0	8·0	155			
9·0 „ . .																							

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

AUGUST 1949

Station	COOCH BEHAR								CUTTACK												DEOLALI			
Time in I. S. T.	0730				1430				0230				0730				1430				0730			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	1·6	1·1	92	31	1·9	1·0	146	31	0·6	0·5	248	31	0·6	0·5	242	31	1·2	0·9	235	25	2·7	2·6	262
0·15 a. g.	28	4·1	3·3	99	29	4·0	2·6	140	26	4·8	3·8	233	30	4·3	3·4	248	28	3·8	2·7	237	13	7·0	6·6	245
0·6 a. s. l.	22	6·9	5·7	112	29	5·0	3·4	145	25	7·1	5·8	250	30	6·8	5·3	264	28	5·4	3·5	250	13	4·9	4·6	247
1·0 „	20	7·1	5·4	104	25	5·4	3·5	148	25	7·1	5·5	260	28	7·2	5·6	281	28	6·0	3·9	267	11	8·6	8·1	246
1·5 „	15	8·2	4·3	96	19	6·4	2·3	155	22	6·8	4·9	277	22	6·2	4·0	281	22	5·4	3·7	274	7	7·0	6·4	254
2·0 „	13	8·7	3·6	98	17	7·0	2·0	160	12	5·6	4·4	288	20	5·9	3·7	277	19	5·5	3·4	276	5	5·1	2·8	205
2·5 „	11	8·6	4·1	101	13	5·3	1·7	189	9	4·2	2·9	302	17	5·4	3·0	290	15	5·3	2·9	282	5	5·0	3·9	169
3·0 „	8	6·2	2·0	131	11	4·9	1·6	199	5	4·5	3·2	303	14	5·0	2·6	283	12	4·2	1·0	272	5	4·9	4·0	169
4·0 „	2	6·5	2·1	137	5	3·4	1·2	260					9	5·1	1·5	7	5	5·2	0·4	317	1	4·0	4·0	115
5·0 „	2	5·3	1·7	148	5	4·7	1·9	359					5	6·8	3·7	85	1	5·0	5·0	100	1	3·5	3·5	115
6·0 „	1	3·0	3·0	285	5	4·4	2·0	71					4	5·5	4·0	91	1	6·5	6·5	90				
7·5 „					4	7·1	6·9	84					2	8·0	7·9	96	1	8·5	8·5	110				
9·0 „					2	12·5	11·8	106					2	10·0	10·0	90	1	11·5	11·5	105				

Station	DIBRUGARH								GADAG												GAYA			
Time in I. S. T.	0730				1430				0230				0730				1430				0230			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	0·9	0·3	16	31	1·6	0·7	9	31	4·9	4·7	250	31	4·3	4·1	252	31	5·8	5·5	260	31	2·9	1·2	193
0·15a. g.	17	2·9	0·5	44	30	2·6	0·8	25	31	10·4	10·1	258	30	8·4	7·9	257	29	10·3	9·8	261	26	5·6	2·1	223
0·6 a. s. l.	16	3·5	1·1	193	29	2·9	1·1	171		...	...	...	...	...	...	...		...	...		25	5·8	1·5	246
1·0 „	14	4·2	2·1	218	26	4·1	2·4	225	31	12·2	11·8	268	30	11·0	10·2	272	29	9·4	9·0	266	24	6·5	0·9	243
1·5 „	10	3·7	1·3	222	25	5·2	4·5	222	23	10·9	10·3	279	27	11·5	10·7	277	29	9·8	9·3	273	19	6·5	0·4	268
2·0 „	7	2·8	1·8	107	22	5·0	4·0	215	18	8·5	7·3	275	24	9·5	8·6	275	23	8·1	7·4	276	14	5·3	1·3	113
2·5 „	5	2·8	1·9	134	18	4·4	3·1	203	14	7·0	5·7	273	21	7·1	5·8	272	15	6·1	5·1	276	8	4·6	0·1	350
3·0 „	3	2·8	1·4	128	18	4·0	2·8	211	13	5·2	3·3	277	18	5·6	4·2	269	8	3·8	2·7	266	7	2·9	1·6	261
4·0 „	3	2·3	1·4	178	14	4·6	2·2	238	7	4·1	2·5	285	12	4·7	3·7	258	3	2·2	1·4	178	1	2·0	2·0	210
5·0 „	2	3·3	2·8	222	14	4·3	1·3	235	6	3·7	1·6	257	7	5·3	2·7	229	3	3·3	3·1	127				
6·0 „	1	3·5	3·5	235	13	4·7	0·8	240	4	6·3	4·1	96	7	3·6	1·1	112	1	3·0	3·0	130				
7·5 „	1	3·5	3·5	70	9	4·1	1·8	55					2	8·3	7·8	104								
9·0 „					8	5·1	2·9	73					2	13·7	13·7	102								

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea level

AUGUST 1949

Station	GAYA								GOPALPUR								GORAKHPUR						
Time in I. S. T.	0730				1430				0730				1430				0730				1430		
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	31	3·0	1·1	210	31	3·6	0·8	326	31	2·6	2·2	229	31	4·8	3·9	200	31	1·9	1·1	89	31	2·2	0·9
0·15 a. g. .	27	5·3	2·3	207	30	5·5	1·3	323	30	4·7	4·0	235	27	6·8	5·6	202	29	4·7	2·8	86	29	4·5	1·8
0·6 a. s. l .	26	6·5	1·5	235	29	5·6	0·9	327	30	5·3	4·3	260	27	4·5	3·3	239	25	7·9	3·4	112	26	6·1	2·7
1·0 „ . .	23	6·1	0·4	255	27	6·2	0·5	70	30	6·7	5·4	276	27	4·9	3·3	274	20	9·6	4·7	107	23	7·2	2·6
1·5 „ . .	20	5·5	0·5	350	23	6·5	1·5	118	30	8·3	6·5	290	25	5·5	4·0	280	17	9·8	6·1	99	18	7·8	1·4
2·0 „ . .	17	5·4	0·7	23	21	6·6	1·5	137	26	6·7	5·2	288	22	5·9	4·1	284	13	7·7	6·5	94	16	7·0	0·3
2·5 „ . .	15	5·1	1·2	25	17	4·9	1·1	172	22	6·1	4·3	281	22	5·3	3·1	266	8	6·1	4·8	99	11	7·0	1·4
3·0 „ . .	12	4·5	0·8	290	13	4·4	1·4	174	20	6·5	4·4	279	18	4·6	1·8	270	7	5·4	4·0	99	6	5·6	2·7
4·0 „ . .	8	3·6	1·4	148	6	6·7	1·8	81	10	6·1	2·6	303	16	5·1	0·9	20	4	3·2	1·9	163	6	4·4	2·7
5·0 „ . .	4	4·3	4·2	106	2	3·5	2·7	113	7	5·1	0·9	81	14	5·3	1·1	50	4	2·4	1·4	187	4	3·6	1·0
6·0 „ . .	3	4·0	3·9	76	1	3·5	3·5	140	5	5·1	2·8	100	8	4·7	2·0	113	3	2·8	1·7	104	4	4·0	2·2
7·5 „ . .	2	5·3	4·9	61					3	8·0	6·6	102	4	7·4	7·2	92					2	7·3	7·3
9·0 „ . .	1	11·0	11·0	80					3	11·7	11·1	96	4	9·6	9·4	90					1	13·0	13·0

Station	HYDERABAD (Dn.)												JAGDALPUR										
Time in I. S. T.	0230				0730				1430				0230				0730				1430		
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	31	4·5	4·3	269	31	4·1	3·5	267	31	4·3	3·7	271	31	1·5	1·3	233	31	1·6	1·1	232	31	2·9	2·2
0·15 a. g.	31	8·7	7·5	265	31	7·7	6·7	268	31	7·2	5·8	279	21	5·3	4·3	255	28	5·3	4·3	236	27	5·8	4·3
0·6 a. s. l. .	31	6·3	5·3	264	31	5·7	4·9	266	31	5·5	4·4	279	21	4·0	3·2	237	28	3·8	3·1	238	27	4·9	3·6
1·0 „ . .	31	11·7	10·2	273	31	11·6	10·4	281	31	8·1	6·9	275	21	7·1	5·6	268	24	7·6	6·1	265	27	6·0	4·8
1·5 „ . .	28	11·9	11·3	281	27	12·2	11·3	288	29	8·5	7·4	280	20	8·5	6·6	283	17	8·7	6·6	281	23	6·9	5·7
2·0 „ . .	27	11·1	10·3	286	27	10·7	9·6	294	26	8·4	7·2	280	17	8·5	7·0	291	16	8·3	6·3	292	19	7·3	5·9
2·5 „ . .	12	8·6	7·4	284	21	7·9	6·7	284	13	7·3	5·4	275	15	7·8	6·1	296	12	7·2	4·9	287	17	8·0	6·4
3·0 „ . .	7	6·0	5·4	280	20	6·9	5·7	282	9	6·2	3·0	273	15	6·8	5·1	297	13	6·7	4·6	290	13	7·5	5·5
4·0 „ . .	1	7·5	7·5	265	12	5·0	2·3	268	4	5·4	3·0	231	9	4·5	2·2	344	9	5·3	2·5	289	8	5·9	1·0
5·0 „ . .					9	4·0	0·4	99	4	5·0	1·7	178	4	4·6	2·4	289	7	4·9	1·0	212	6	7·8	1·1
6·0 „ . .					8	5·5	2·7	50	4	4·4	3·3	144					6	5·2	1·2	208	4	5·5	4·0
7·5 „ . .					4	7·0	5·6	77	3	5·2	4·9	69					5	4·8	4·5	104	4	7·0	6·4
9·0 „ .					2	7·0	6·9	135									2	10·7	10·7	94	3	9·9	9·7

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

AUGUST 1949

Station	JAMSHEDPUR								JHARSUGUDA												JODHPUR			
Time in I. S. T.	0730				1430				0230				0730				1430				0230			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
urface. . .	31	2·0	1·0	253	31	3·6	0·8	210	31	0·9	0·7	218	31	9·3	0·9	239	31	2·0	1·5	249	31	3·0	2·7	223
15 a. g.. .	31	3·5	2·0	244	30	5·5	2·3	223	22	4·7	3·5	228	26	3·8	3·1	242	26	4·3	3·5	242	31	7·7	6·9	227
·6 a. s. l. .	30	5·1	3·1	253	29	5·3	2·2	214	19	6·3	4·9	257	21	5·9	4·7	263	26	4·6	4·1	248	31	9·4	8·5	231
·0 „ . .	21	5·4	2·3	293	25	6·0	2·2	236	15	7·4	5 7	271	12	6·4	3·9	280	23	5·0.	4·2	265	29	10·0	9·1	232
·5 „ . .	16	4·8	1·7	302	21	4·9	1·5	249	12	7·9	5·7	288	12	6·1	2·5	299	20	5·5	3·9	280	23	7·7	6·0	226
·0 „ . .	12	4·7	1·4	314	20	5·1	1·3	263	9	5·4	2 0	276	11	7·3	3·1	283	15	4·6	1·9	292	18	5·3	2·1	199
·5 „ . .	9	4 6	1·4	330	17	5·0	0·2	45	8	5·4	1 6	210	10	5·6	1·3	322	11	4 1	1·2	297	11	4·9	1·6	40
·0 „ . .	8	4·9	1·6	310	16	4·7	0·7	74	8	5·4	1·7	208	7	5·2	2·1	237	11	4·3	1·9	328	8	5·7	3·8	59
·0 „ . .	3	5·0	3·9	273	12	4·4	1·9	116	5	4·2	2·6	117	6	5·0	0·9	93	6	4·2	1·1	79	2	5·7	5·1	352
·0 „ . .	1	8·0	8·0	50	8	3·4	1·7	145					5	5·6	3·3	103	5	4·6	2·5	126	1	5·0	5·0	260
·0 „ . .					5	4·1	3·6	97					2	10·7	10·3	80	4	4·3	2·4	128				
·5 „ . .					5	5·0	4·1	75					2	5·3	4·7	71	1	5·0	5·0	75				
·0 „ . .					4	11·6	11·5	84																

Station	JODHPUR								JUBBULPORE												MADHOSAGAR			
Time in I. S. T.	0730				1430				0230				0730				1430				0730			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V.	v	D
urface . .	31	3·0	2·5	226	31	4·9	4·3	222	31	1 6	1·2	233	31	1·9	1·7	254	31	2·5	1·8	258	31	3·0	2·2	239
15 a. g. .	30	6·2	5·2	231	30	5·8	4·9	209	29	5·7	4·6	251	30	5·8	5·0	254	27	5·6	4·3	264	29	6·3	4·3	263
6 a. s. l. .	28	8·0	7·1	241	30	6·1	5·4	212	29	6·0	5·0	255	30	6·6	5·7	260	27	5·5	4·3	269	29	9·2	6·2	292
0 „ . .	27	8·6	7·5	235	30	5 9	5·1	216	27	7·9	6·2	277	25	10·1	8·6	283	27	6·1	5·1	284	27	10·2	7·3	299
5 „ . .	21	8·1	7·1	229	27	5·6	4·1	218	22	6·5	5·3	289	22	8·4	7·2	286	22	7·3	6·1	291	25	7·4	5·6	304
0 „ . .	17	4·5	1·0	199	20	4·2	1·9	222	18	5·4	3·9	289	19	6·6	5·4	291	15	7·5	5·6	303	24	4·4	2·2	332
5 „ . .	13	4·1	1·0	60	17	4·3	0·9	195	12	4·5	2·2	300	17	6·0	4·7	286	8	6·6	4·9	285	21	4·1	1·4	14
0 „ . .	11	4·0	1·0	79	15	4·4	0·5	255	8	4·6	1·5	313	14	4·7	1·9	299	7	5·3	3·3	270	18	3·9	0·9	30
0 „ . .	8	5·4	2·9	108	11	6·9	0·6	234	2	5·0	1·0	284	11	4·5	0·5	329	5	2 6	1·0	53	15	4·7	1·7	28
0 „ . .	6	7·6	5·8	106	6	6·9	2·5	159					10	4·6	1·4	106	3	2·7	0·5	20	11	5·8	2·4	175
0 „ . .	6	7·5	3·2	143	4	11·1	4·9	245					6	5·9	3·5	85	1	4·0	4·0	104	8	4·6	1·9	152
5 „ . .	5	8·1	2·6	153									4	6·3	5·7	89	1	7·5	7·5	125	6	6·6	3·3	139
0 „ . .	3	7·3	5·6	113									4	7·6	7·6	94					3	8·3	8·3	112

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

AUGUST 1949

Station	MADHOSAGAR				MADRAS												MALEGAON						
Time in I. S. T.	1430				0230				0730				1430				0230				0730		
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	31	3·1	1·8	268	31	3·5	3·0	239	31	2·3	2·0	257	31	3·7	1·7	243	31	3·5	3·3	262	31	2·9	2·6
0·15 a. g. .	31	5·4	3·2	280	29	8·2	7·0	234	30	6·5	5·7	256	31	6·1	3·1	243	29	7·0	6·9	263	30	6·3	5·9
0·6 a. s. l. .	31	5·8	3·8	283	29	11·0	9·1	242	30	9·3	8·1	266	31	4·9	4·0	262	29	7·0	6·9	263	30	6·3	5·9
1·0 „ . .	31	6·3	3·5	293	29	9·8	7·9	258	30	9·7	8·5	277	31	5·8	5·2	275	29	9.1	8·4	264	30	8·5	7·9
1·5 „ . .	30	6·3	3·6	300	28	8·6	7·7	277	30	8·7	8·2	290	31	7·4	6·5	279	28	10·5	9·0	265	29	10·5	9·4
2·0 „ . .	28	5·7	2·5	305	24	8·1	7·1	282	30	7·6	7·0	289	31	8·3	7·5	282	27	9·8	8·4	268	24	9·5	8·1
2·5 „ . .	27	5·8	2·2	306	16	6·9	5·5	295	30	7·1	6·0	284	30	8·4	7·8	281	15	9·2	8·1	259	20	7·7	5·8
3·0 „ . .	26	6·0	1·8	310	14	6·0	4·5	297	29	6·7	5·5	274	27	7·8	7·0	277	13	8·9	7·8	255	18	7·1	5·6
4·0 „ . .	15	4·6	0·8	259	5	4·4	1·1	44	25	6·2	4·7	266	24	7·9	6·5	271	8	5·6	1·9	234	10	5·1	2·6
5·0 „ . .	15	4·0	0·8	250					18	5·4	2·5	240	22	7·2	5·1	271					7	5·3	1·4
6·0 „ . .	14	5·4	0·7	218					12	5·3	1·7	175	18	5·9	2·1	265					5	5·4	0·5
7·5 „ . .	11	4·3	1·1	242					5	6·5	5·7	93	11	5·5	3·8	112					4	4·0	3·3
9·0 „ . .	8	4·1	1·3	83					4	10·9	10·5	89	5	8·5	8·0	115					4	9·0	8·5

Station	MALEGAON				MANGALORE												MASULIPATAM						
Time in I. S. T.	1430				0230				0730				1430				0230				0730		
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	31	5·8	4·9	268	31	2·6	1·4	273	31	2·1	0·7	267	31	3·7	3·1	279	31	2·7	1·8	236	31	2·3	2·0
0·15 a. g. .	31	8·6	7·0	262	27	5·5	3·8	281	30	4·6	2·6	279	30	6·2	5·6	282	30	8·3	6·7	226	29	7·8	6·4
0·6 a. s. l. .	31	8·6	7·0	262	23	8·1	7·3	287	30	7·8	7·1	288	29	8·8	8·2	288	30	9·8	7·9	254	29	11·8	10·3
1·0 „ . .	31	7·5	6·4	261	22	9·9	9·3	290	21	9·6	8·9	296	22	9·0	8·8	298	30	10·2	8·5	273	30	11·6	10·4
1·5 „ .	27	8·4	7·2	259	10	10·1	9·7	299	14	9·5	9·1	297	18	9·0	8·5	297	30	10·3	8·8	280	29	10·7	9·7
2·0 „ . .	22	8·3	7·2	257	4	6·1	5·1	300	6	7·3	7·0	288	15	7·7	7·0	295	28	10·4	9·6	285	26	9·0	8·0
2·5 „ . .	16	7·8	6·9	251	3	3·0	2·0	332	5	4·7	3·6	298	10	7·3	6·3	294	27	10·0	9·2	287	25	9·2	7·9
3·0 „ . .	11	8·5	7·1	246	2	1·5	1·5	131	5	3·7	1·9	302	4	5·3	2·7	289	20	7·6	6·9	286	23	8·5	6·8
4·0 „ . .	8	8·3	5·9	243					4	2·7	0·7	171	2	1·7	0·9	51	15	4·2	2·8	288	20	6·7	4·7
5·0 „ . .	5	5·7	3·2	179					3	4·5	4·5	113	2	4·3	4·0	119					14	7·0	3·9
6·0 „ . .	4	5·4	2·1	121					3	5·0	4·9	106	1	5·5	5·5	125					7	6·2	1·2
7·5 „ . .	2	3·7	3·7	95					1	4·0	4·0	90	1	10·0	10·0	115					5	5·5	3·6
9·0 „ . .	2	7·0	6·1	104					1	13·5	13·5	75	1	13·0	13·0	90					3	9·5	8·2

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

AUGUST 1949

Station	MASULIPATAM				NAGERCOIL												NAGPUR							
ime in I. S. T.	1430				0230				0730				1430				0230				0730			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
rface . .	31	2·7	1·7	267	31	5·0	4·7	303	31	4·4	4·1	284	31	6·7	6·3	283	31	1·5	1·2	237	31	2·0	1·5	250
15 a. g. .	31	5·9	3·9	259	31	10·1	9·9	299	30	9·5	9·4	296	31	12·4	12·0	287	27	5·9	4·5	259	27	5·5	4·7	271
6 a. s. l. .	31	7·2	6·1	276	30	15·5	15·2	306	30	15·0	14·8	307	31	13·9	13·8	296	27	7·0	5·5	273	27	7·6	6·9	289
) „ . .	31	8·9	7·9	286	30	16·2	15·9	304	30	14·9	14·8	306	31	14·2	14·1	303	25	8·1	6·6	291	26	9·3	8·4	295
5 „ . .	31	10·2	9·3	289	28	11·4	11·0	297	30	13·0	12·7	301	31	13·7	13·1	302	23	7·4	6·1	297	26	8·7	7·8	297
) „ . .	31	9·9	9·0	288	28	11·9	11·4	293	29	11·7	11·2	296	30	13·1	12·5	298	20	6·9	5·5	289	26	7·5	6·2	297
5 „ . .	30	9·8	8·6	285	24	7·5	7·0	296	28	10·1	9·2	297	30	12·3	11·7	294	18	6·7	5·5	287	22	6·9	5·7	280
) „ . .	26	8·6	7·6	281	22	4·7	3·6	297	28	7·5	6·5	293	30	10·3	9·7	291	12	4·7	3·1	284	20	6·1	4·6	278
) „ . .	21	8·2	7·0	271	8	6·8	5·6	254	24	7·3	5·7	275	26	7·3	6·5	284	5	4·4	2·1	32	12	6·3	3·6	291
) „ . .	18	6·2	4·3	271	2	2·0	1·5	292	18	6·1	4·1	257	22	6·5	4·9	266	2	3·3	1·9	34	7	5·1	2·6	12
) „ . .	15	6·4	3·7	269	2	5·5	3·1	32	17	7·1	3·7	231	21	6·5	4·1	259					5	5·5	2·7	331
5 „ . .	13	5·7	1·3	285					14	9·6	3·1	148	17	7·4	1·1	145					1	6·0	6·0	85
) „ . .	10	6·1	4·1	80					11	10·3	3·7	159	12	8·8	4·0	78					1	9·0	9·0	105

Station	NAGPUR				NEW DELHI												POONA							
ime in I. S. T.	1430				0230				0730				1430				0230				0730			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
face . .	31	3·0	2·3	264	31	2·6	1·5	249	31	3·0	1·5	271	31	3·1	1·4	283	31	3·7	3·5	285	31	3·0	2·8	279
5 a. g. .	28	5·2	3·7	269	29	7·9	4·3	254	30	7·0	3·9	272	31	5·1	1·7	289	29	6·5	6·3	259	31	5·1	4·9	257
a. s. l. .	27	6·0	4·5	272	29	9·2	5·3	268	29	9·1	6·0	287	31	5·1	2·0	285	29	4·4	4·2	261	31	3·3	3·2	261
) „ . .	26	6·5	5·6	282	30	8·3	4·3	276	29	8·5	5·5	299	30	5·9	2·0	297	29	8·6	8·3	258	31	8·5	7·9	258
„ . .	25	6·9	5·7	290	29	6·7	2·9	308	28	6·2	2·6	319	28	6·0	2·6	296	23	10·7	10·0	262	28	11·2	10·0	261
„ . .	20	7·4	5·8	286	22	6·2	2·0	353	24	5·3	2·6	354	26	6·3	2·1	307	16	8·7	7·2	258	16	9·6	8·1	267
„ . .	12	6·0	4·7	275	11	6·8	1·5	77	19	4·7	2·6	27	22	5·6	1·3	327	12	7·3	4·0	225	13	8·2	5·3	256
„ . .	9	6·6	4·5	270	8	5·7	2·4	333	14	4·6	2·4	25	20	7·0	2·2	343	10	5·2	3·3	176	12	7·0	4·0	251
„ . .	7	5·9	3·2	267					10	3·1	0·9	9	13	6·1	0·3	122	6	4·5	1·9	165	9	4·1	2·0	166
„ . .	5	5·1	0·5	49					9	5·9	2·4	193	7	6·7	3·5	251					8	5·3	4·1	97
„ . .	4	2·7	1·7	83					4	5·5	3·8	191	7	7·7	5·7	243					7	7·4	6·2	88
„ . .	3	6·1	5·8	100					4	4·0	2·5	173	6	8·2	4·6	230					3	9·7	9·2	88
„ . .	2	5·3	2·9	75					1	3·5	3·5	128	5	4·7	1·9	232								

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

AUGUST 1949

Station	POONA				PORT BLAIR												RAIPUR						
Time in I. S. T.	1430				0230				0730				1430				0230				0730		
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface	31	6·6	6·3	291	31	4·7	4·4	227	31	4·1	3·9	226	31	5·9	5·7	231	31	2·2	1·9	227	31	2·5	2·3
0·15 a. g.	30	7·8	7·4	260	25	8·0	7·4	227	29	7·3	7·2	225	30	8·4	8·0	229	19	8·4	7·5	246	27	6·6	5·9
0·6 a. s. l.	30	6·1	5·8	262	24	11·4	10·7	232	26	10·7	10·4	231	30	10·5	10·2	236	18	9·3	8·0	253	26	8·4	7·1
1·0 „	30	8·7	8·3	261	17	9·9	9·5	236	20	9·9	9·6	234	20	10·7	10·3	241	17	8·1	6·5	279	24	7·5	6·1
1·5 „	23	9·9	9·2	264	15	8·3	8·0	238	17	8·3	7·8	234	15	10·0	9·7	240	16	6·9	5·3	290	22	6·7	5·4
2·0 „	15	7·7	5·6	262	12	6·6	5·5	237	14	7·0	6·1	231	9	8·8	8·2	239	13	7·2	5·1	304	21	6·3	4·8
2·5 „	10	4·9	1·1	207	8	6·2	5·3	223	11	6·4	4·9	242	8	8·1	7·3	246	11	7·0	5·3	304	20	6·0	4·1
3·0 „	8	4·4	1·3	188	7	6·4	5·7	215	10	5·5	4·5	238	8	7·0	6·3	248	8	4·6	1·9	307	18	6·1	3·9
4·0 „	7	4·4	2·0	186	5	4·8	4·1	170	9	5·6	3·9	240	5	5·8	4·7	211	2	3·7	3·7	110	13	4·8	1·3
5·0 „	5	5·6	3·8	120					6	5·1	1·6	259	2	3·5	0·9	158					6	3·0	1·9
6·0 „	5	6·1	5·1	113					2	6·0	2·5	102	1	2·5	2·5	125					5	4·4	3·5
7·5 „	4	8·9	8·6	111					1	7·0	7·0	140	1	3·5	3·5	65					4	6·6	5·7
9·0 „	2	10·0	9·5	104									1	9·0	9·0	35					2	10·0	10·0

Station	RAIPUR				SAHARSA								TEZPUR										
Time in I. S. T.	1430				0730				1430				0230				0730				1430		
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface	31	2·2	1·9	252	31	1·2	0·8	99	31	2·1	1·5	103	31	0·9	0·3	166	31	1·3	0·7	110	31	0·8	0·2
0·15 a. g.	29	5·9	4·9	265	27	5·8	4·1	99	31	5·2	3·8	109	23	3·6	1·0	161	28	3·6	1·6	119	31	3·4	0·6
0·6 a. s. l.	29	6·1	5·3	267	19	7·7	4·0	108	28	7·4	4·7	112	23	5·3	3·0	234	28	4·1	1·2	196	31	4·1	1·9
1·0 „	27	7·3	6·0	292	15	7·5	4·1	115	23	8·5	4·5	119	21	5·8	3·8	239	27	4·7	2·2	223	31	4·7	2·9
1·5 „	22	6·5	4·6	298	10	6·9	2·4	121	21	8·9	4·1	123	19	6·0	4·4	232	24	5·4	3·1	224	30	4·9	3·4
2·0 „	18	7·5	4·7	293	10	7·5	2·4	129	17	9·3	2·9	125	15	6·0	4·9	234	15	4·7	2·6	231		·9	4·2
2·5 „	14	7·4	5·3	290	10	7·5	1·9	115	14	9·5	5·4	123	11	5·2	3·8	239	14	4·9	2·6	239	29	6·2	4·6
3·0 „	12	7·4	5·4	286	7	7·5	2·4	104	9	4·2	1·9	151	10	6·9	4·6	230	12	4·7	2·2	219	29	5·8	4·3
4·0 „	5	4·7	2·6	281	1	2·0	2·0	145	5	4·1	1·6	113	8	8·9	7·0	242	11	4·6	3·2	226	27	5·5	4·5
5·0 „	4	4·0	0·8	77	1	6·0	6·0	55	5	3·5	2·4	108					7	4·6	2·7	206	27	4·9	3·8
6·0 „	1	2·0	2·0	100					4	3·9	3·4	57					5	3·7	1·6	196	25	4·4	2·9
7·5 „	1	3·5	3·5	205					4	5·5	4·6	81					3	4·7	3·4	95	18	3·6	1·5
9·0 „	1	3·5	3·5	129					1	17·0	17·0	85					2	8·5	7·9	124	16	4·5	1·7

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

AUGUST 1949

Station	TRICHINOPOLY												TRIVANDRUM				UDAIPUR							
Time in I. S. T.	0230				0730				1430				0730				0230				0730			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	3·6	3·6	271	31	3·3	3·2	272	31	3·9	3·2	279	31	1·9	1·7	345	31	1·5	1·3	229	31	1·5	1·3	223
0·15 a. g. .	31	8·9	8·8	274	31	8·1	8·1	274	31	7·1	6·0	279	25	7·1	7·0	342	29	4·6	3·9	242	31	3·7	2·9	239
0·6 a. s. l. .	31	12·4	12·3	275	31	12·1	11·9	277	31	8·1	7·7	272	25	12·0	11·6	318	...	...	...	...	...	...	...	...
1·0 „ . .	31	11·3	10·9	277	31	11·0	10·6	278	31	8·5	8·3	266	25	13·5	12·3	316	29	6·0	5·1	247	31	5·8	4·7	248
1·5 „ . .	31	8·7	7·8	276	31	8·4	7·4	276	31	8·9	8·3	260	19	13·4	13·2	306	23	6·8	4·4	241	21	5·3	3·7	244
2·0 „ . .	30	6·9	6·7	273	31	6·9	5·5	281	31	8·3	7·8	261	17	12·7	12·3	301	21	5·1	2·2	205	17	4·2	1·9	179
2·5 „ . .	25	5·9	5·0	277	31	5·9	4·7	284	31	7·1	6·3	268	10	8·7	7·8	301	18	3·8	1·2	114	15	5·1	1·9	148
3·0 „ . .	25	5·7	4·3	268	31	5·3	4·1	283	29	6·4	5·6	279	7	6·0	5·5	282	17	4·4	1·4	117	11	5·6	2·6	123
4·0 „ . .	7	6·1	3·0	254	26	5·7	4·0	267	27	6·3	4·6	280	5	4·2	0·3	296	5	2·7	1·6	74	9	6·0	3·5	99
5·0 „ . .	1	3·5	3·5	45	21	6·1	3·9	243	22	4·9	2·2	260	4	4·4	2·2	253	4	4·7	2·8	77	8	6·0	3·8	117
6·0 „ . .	1	5·5	5·5	95	19	6·5	2·5	215	20	5·6	1·8	215	3	5·0	2·8	207					6	6·1	4·5	119
7·5 „ . .	1	3·0	3·0	155	13	7·7	5·1	109	14	6·6	3·9	107	2	6·7	1·7	52					4	6·5	5·7	107
9·0 „ . .					6	12·2	12·2	91	10	8·1	7·4	86	1	10·0	10·0	50					2	3·0	2·7	65

Station	UDAIPUR				VENGURLA												VERAVAL							
Time in I. S. T.	1430				0230				0730				1430				0230				0730			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	2·7	2·1	220	31	2·1	1·8	268	31	2·0	1·8	269	31	3·0	2·8	265	31	8·3	7·5	252	31	6·6	6·2	254
0·15 a.g. .	31	5·9	5·0	230	27	6·4	5·6	276	29	6·1	5·0	266	30	6·9	6·6	269	27	8·5	7·5	248	29	8·8	7·9	251
0·6 a.s.l. .	...	...	...	...	22	9·1	8·1	280	23	8·3	7·4	283	27	9·0	8·6	273	27	10·0	9·2	251	27	10·1	9·2	257
1·0 „ . .	31	5·7	4·6	230	13	8·3	7·3	293	15	8·5	7·7	292	17	8·3	7·8	283	26	9·5	8·6	246	20	9·1	8·1	259
1·5 „ . .	29	4·7	3·2	230	8	8·1	7·6	697	10	7·5	6·8	293	13	5·9	5·4	290	20	8·7	7·1	244	15	6·4	4·7	242
2·0 „ . .	21	4·3	1·7	238	6	7·3	6·9	287	7	6·4	4·8	301	8	3·6	2·9	302	12	6·2	3·6	226	11	5·6	1·8	218
2·5 „ . .	17	4·8	0·2	47	4	6·7	5·0	274	4	5·0	2·8	347	7	4·9	3·5	290	10	5·1	1·7	84	8	4·4	2·1	111
3·0 „ . .	15	5·1	1·3	81	2	4·3	4·1	302	4	4·5	2·1	342	5	5·0	3·3	280	10	4·8	1·3	81	7	5·0	3·2	74
4·0 „ .	14	6·1	2·2	72					2	3·3	1·5	249	2	4·7	4·7	195	4	2·1	0·5	120	5	5·8	5·0	73
5·0 . .	9	6·2	2·1	238					2	2·5	2·3	87					2	3·0	2·8	58	4	6·4	5·7	70
6·0 „ . .	7	5·2	3·1	255					2	2·7	2·7	87					1	7·0	7·0	15	4	5·7	5·2	106
7·5 „ . .	4	5·0	0·9	172					1	4·0	4·0	100									3	7·5	5·5	100
9·0 „ . .									1	11·0	11·0	105												

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

AUGUST 1949

Station	VERAVAL				VIZAGAPATAM												MINICOY							
Time in I. S. T.	1430				0230				0730				1430				0230				0730			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	7·4	7·1	258	31	2·9	2·8	228	31	2·6	2·3	231	31	4·5	3·4	226	31	4·4	4·0	297	31	3·9	3·6	292
0·15 a. g.	31	9·7	9·4	251	30	5·9	5·6	240	30	5·1	4·5	237	31	6·3	5·2	228	27	7·6	7·1	292	29	7·3	6·9	290
0·6 a.s.l.	30	10·5	10·0	257	30	7·7	7·0	254	30	7·5	6·7	252	31	6·0	4·9	253	27	10·0	9·6	292	29	10·8	10·3	292
1·0 ,,	28	9·9	9·4	258	30	8·4	7·2	264	29	8·0	6·7	264	30	6·2	4·8	272	23	12·4	12·1	295	29	12·9	12·6	295
1·5 ,,	22	7.8	6·8	256	29	10·0	8·6	276	28	9·8	7·8	278	27	7·5	6·2	285	18	12·8	12·7	297	29	13·1	12·8	295
2·0 ,,	15	5·8	4·0	247	25	9·8	8·8	284	25	9·2	8·0	284	26	8·9	7·4	287	17	12·4	12·1	301	24	11·8	11·5	295
2·5 ,,	13	5·0	2·7	244	20	8·0	6·9	277	21	7·7	6·1	284	22	8·5	7·1	281	12	9·9	9·7	299	16	9·5	9·2	297
3·0 ,,	13	5·3	2·1	234	15	6·5	5·1	273	19	7·6	5·9	286	21	7·6	6·4	277	6	9·0	9·0	298	13	8·3	7·8	299
4·0 ,,	11	5·6	1·2	191	8	4·6	2·5	256	10	7·0	4·6	270	14	6·0	3·6	276	1	5·0	5·0	320	7	6·4	5·1	289
5·0 ,,	10	5·3	1·9	199					8	4·2	1·7	135	12	7·1	3·5	269	1	3·5	3·5	45	1	1·0	1·0	325
6·0 ,,	9	4·1	2·5	186					5	5·6	4·8	116	10	6·1	1·4	346	1	3·5	3·5	60	1	2·5	2·5	45
7·5 ,,	9	5·2	4·0	127					3	8·7	8·5	84	5	6·3	5·1	97								
9·0 ,,	8	8·2	7·8	90					1	11·5	11·5	90	3	8·5	8·4	81								

Station	MINICOY																							
Time in I. S. T.	1430																							
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	4·2	3·8	294																				
0·15 a. g.	27	7·7	7·3	290																				
0·6 a. s. l.	26	9·9	9·4	292																				
1·0 ,,	26	12·5	12·1	293																				
1·5 ,,	20	13·3	12·9	293																				
2·0 ,,	13	12·3	11·9	292																				
2·5 ,,	11	12·0	11·5	291																				
3·0 ,,	5	10·5	9·8	300																				
4·0 ,,																								
5·0 ,,																								
6·0 ,,																								
7·5 ,,																								
9·0 ,,																								

Table B.—Monthly Mean Directions and Velocities of Upper Winds

Winds at and above 10·0 Km. above Sea-level

AUGUST 1949

Height (Km.)	n	V	v	D
		AHMEDABAD		
10	2	10·3	10·3	73
11	1	8·0	8·0	65
12	1	8·5	8·5	75
		ALLAHABAD		
10	1	3·5	3·5	80
11	1	6·5	6·5	110
12	1	9·0	9·0	110
13	1	12·0	12·0	85
14	1	14·0	14·0	130
15	1	11·0	11·0	75
16	1	15·5	15·5	110
		AMBALA		
10	8	8·5	7·5	240
11	6	9·5	5·5	224
12	6	10·5	5·6	199
13	3	14·5	14·3	247
14	2	22·5	20·9	251
		ANANTAPUR		
10	4	11·4	10·0	81
12	2	13·3	12·9	97
		ASANSOL		
10	1	8·0	8·0	85
		BAREILLY		
10	7	5·1	3·6	150
11	7	5·2	3·5	114
12	5	8·6	5·9	117
13	4	8·6	7·2	110
14	4	11·9	10·7	94
15	1	12·0	12·0	130
16	1	6·0	6·0	60
		BHOPAL		
10	3	7·8	6·7	145
		BHUJ		
10	3	10·8	7·5	51
		BIKANER		
10	9	7·5	5·0	263
11	4	6·0	5·1	258
12	3	3·0	1·6	167
13	3	4·5	2·2	181
14	1	6·0	6·0	340
15	1	3·0	3·0	345
16	1	4·5	4·5	125
		BOMBAY		
10	2	10·7	10·7	84
11	1	10·5	10·5	105
		COOCH BEHAR		
10	2	13·3	13·2	120
11	2	14·0	14·0	102
12	2	15·5	15·4	98
13	1	17·5	17·5	95
14	1	19·5	19·5	100
		CUTTACK		
10	1	15·5	15·5	80
		DIBRUGARH		
10	8	5·6	2·5	59
11	7	6·0	2·5	49
12	5	7·7	3·9	31
13	4	8·4	5·6	43
14	4	6·7	6·0	62
15	4	8·7	7·9	66
16	3	13·7	12·5	74
17	2	13·5	13·1	58
		GADAG		
10	1	15·0	15·0	100
11	1	19·5	19·5	100
		GOPALPUR		
10	6	14·9	14·7	93
11	3	14·3	14·3	92
12	3	18·8	18·7	100
13	2	18·7	18·7	95
14	2	26·3	26·1	95
15	2	38·7	38·5	95
		HYDERABAD (Dn.)		
10	2	8·5	7·5	104
11	1	9·0	9·0	105
		JAGDALPUR		
10	5	11·7	11·5	87
11	4	13·5	13·3	97
12	3	19·7	19·6	94
13	2	19·7	19·5	97
14	1	11·5	11·5	100
15	1	17·0	17·0	100
16	1	23·0	23·0	95
17	1	17·0	17·0	85
18	1	23·0	23·0	80
		JAMSHEDPUR		
10	3	12·3	12·3	91
		JODHPUR		
10	1	9·0	9·0	120
11	1	10·5	10·5	120
		JUBBULPORE		
10	2	6·5	6·3	117
11	1	6·5	6·5	85
		MADHOSAGAR		
10	10	6·7	5·3	117
11	6	5·2	3·5	122
12	6	7·7	6·3	107
13	5	8·3	6·8	101
14	4	12·4	11·6	109
15	3	9·8	8·9	104
16	2	11·7	10·9	104
17	1	12·0	12·0	95
		MADRAS		
10	6	15·8	15·4	98
11	3	22·7	22·6	97
12	3	26·8	26·7	95
13	2	33·7	33·5	91
14	2	35·7	35·7	93
		MALEGAON		
10	5	7·7	7·6	100
11	1	9·5	9·5	110
12	1	11·5	11·5	120
13	1	19·0	19·0	120
14	1	31·0	31·0	115
		MANGALORE		
10	1	15·5	15·5	90
		MASULIPATAM		
10	11	9·6	9·4	91
11	9	13·8	12·6	95
12	6	18·6	18·3	94
13	5	21·5	21·3	97
14	4	22·8	22·5	97
15	2	32·7	32·3	99
16	2	33·2	32·4	96
		NAGERCOIL		
10	22	10·8	5·0	102
11	6	10·8	6·4	99
12	4	11·0	7·4	90
13	3	13·2	11·3	85
14	1	22·5	22·5	75
15	1	27·5	27·5	80
16	1	45·0	45·0	90
17	1	51·5	51·5	80
18	1	53·0	53·0	75
19	1	54·5	54·5	75
20	1	56·0	56·0	80
		NAGPUR		
10	2	9·3	5·3	118
		NEW DELHI		
10	4	5·3	1·5	297
11	4	5·9	1·1	251
12	3	4·3	0·9	326
13	3	5·8	3·6	89
14	2	11·0	6·5	112
		POONA		
10	1	13·5	13·5	85
11	1	14·5	14·5	95
12	1	19·5	19·5	105
13	1	22·0	22·0	110
		PORT BLAIR		
10	1	10·5	10·5	75
11	1	14·5	14·5	80
12	1	22·0	22·0	75
13	1	20·5	20·5	70
14	1	20·5	20·5	105
15	1	20·0	20·0	95
16	1	23·0	23·0	90
17	1	14·0	14·0	90

Table B.—Monthly Mean Directions and Velocities of Upper Winds

Winds at and above 10·0 Km. above Sea-level

AUGUST 1949

Height (Km.)	n	V	v	D
		RAIPUR		
10	2	13·0	13·0	99
		SAHARSA		
10	1	19·0	19·0	100
11	1	14·0	14·0	95
		TEZPUR		
10	17	5·9	3·9	92
11	15	7·3	4·4	82
12	14	8·1	6·1	81
13	13	9·9	7·7	82
14	11	11·5	8·4	85
15	9	10·6	7·6	100
16	8	16·8	12·0	87
17	6	16·7	14·9	65
18	6	17·8	15·0	69
19	4	18·9	18·5	71
20	4	24·0	23·9	78
21	4	26·6	26·5	82
22	3	26·0	25·6	88
23	2	31·5	30·9	94
24	1	34·0	34·0	85
25	1	33·0	33·0	80
		TRICHINOPOLY		
10	12	13·1	12·3	94
11	5	20·1	19·5	100
12	4	22·8	22·1	101
13	2	31·5	31·5	93
14	2	39·0	39·0	85
15	1	34·0	34·0	90
16	1	45·0	45·0	95
		UDAIPUR		
10	2	5·5	5·3	71
		VERAVAL		
10	7	10·5	10·0	94
11	4	12·6	12·6	96
12	3	15·3	15·3	95
13	1	18·5	18·5	105
14	1	13·5	13·5	105

Height (Km.)	n	V	v	D
		VIZAGAPATAM		
10	2	12·7	12·7	68
11	1	12·0	12·0	60
12	1	15·5	15·5	85

Height (Km.)	n	V	v	D

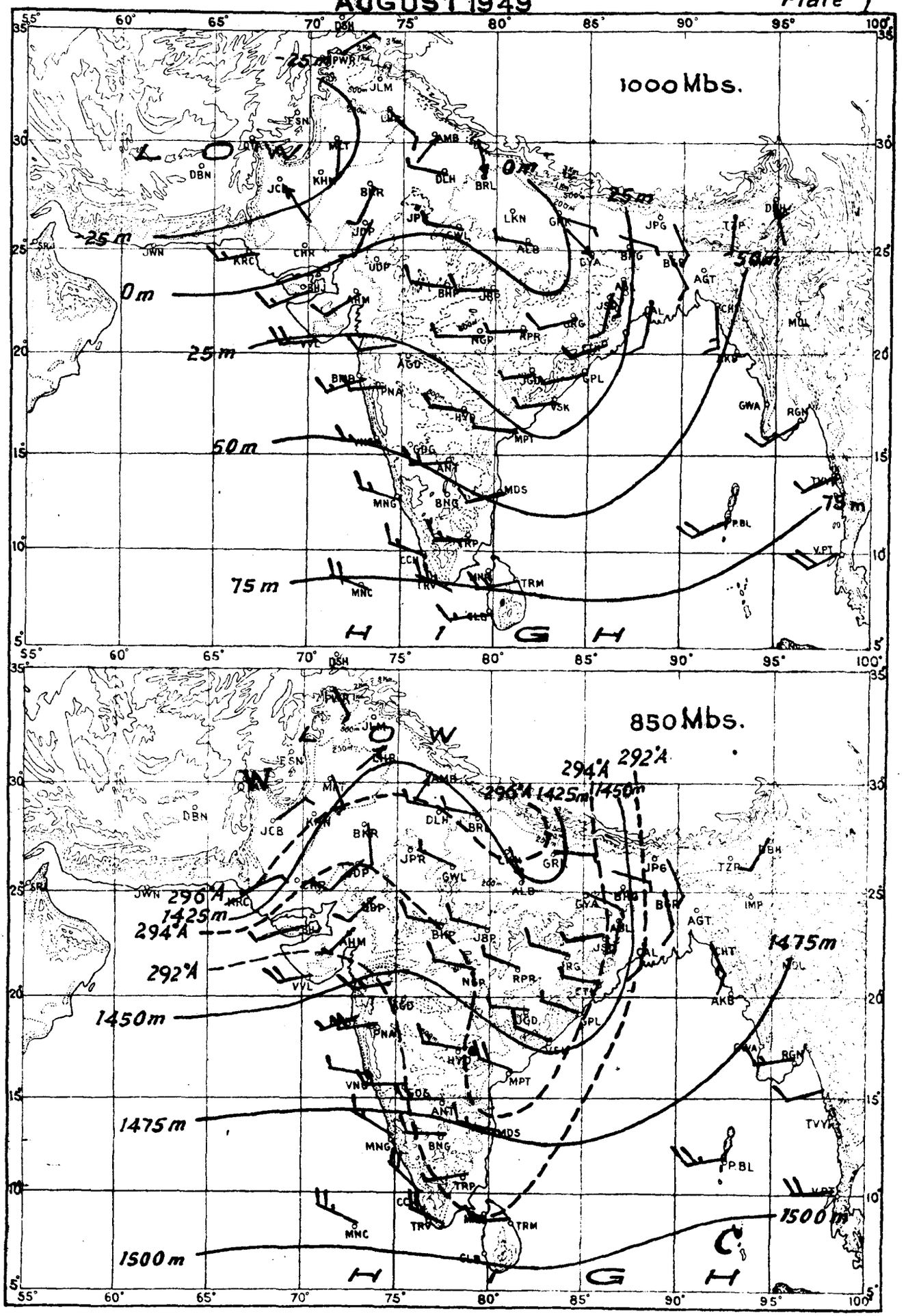
Height (Km.)	n	V	v

GIPN—S1—9 D.D.G.Obs. Poona—28-12-51—260.

MONTHLY MEAN CONSTANT PRESSURE CHARTS.

AUGUST 1949

Plate I



RESULTANT WIND —\= 5 Knots, —\= 10 Knots, —\= 50 Knots.

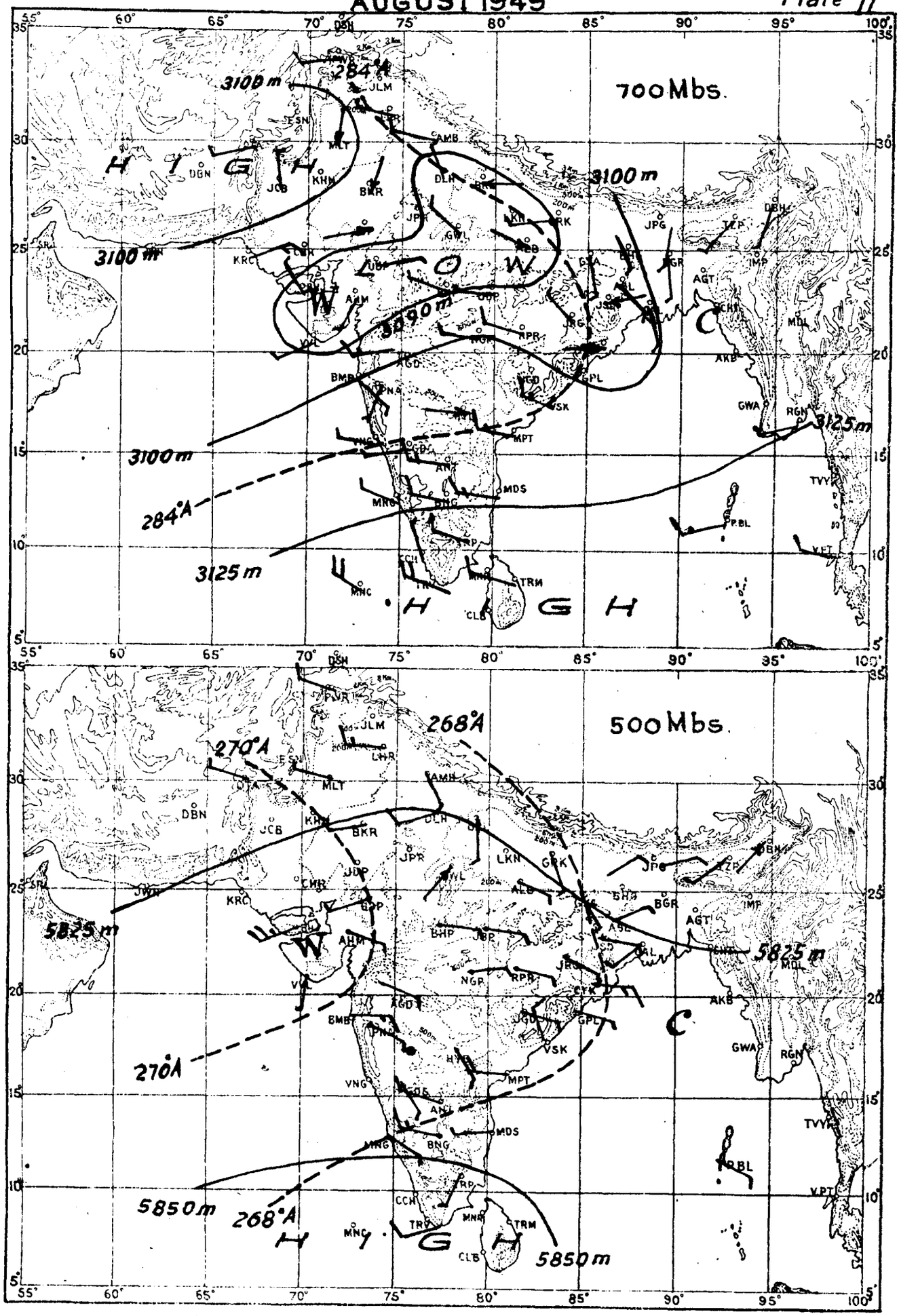
------ Isotherms in degrees absolute. ——— Contours in geopotential metres.

G.PZ.F. POONA.53.

MONTHLY MEAN CONSTANT PRESSURE CHARTS.

AUGUST 1949

Plate II



RESULTANT WIND —\= 5 Knots, —\= 10 Knots, —\= 50 Knots.

------ Isotherms in degrees absolute. ——— Contours in geopotential metres.

G.PZ.P.POONA 53

Registered No. B-3097

INDIA WEATHER REVIEW, 1949

Monthly Weather Report

September

JAN 27 1956

Published by authority of the Government of India

Chief features.—(i) Active to strong monsoon in most parts of northern India and the central parts of the country during the first fortnight and (ii) Very heavy rains in the south Circars, the Deccan and the Konkan during the third week.

The monsoon revived in the United Provinces, the central parts of the country, the Deccan, Assam and West Bengal early in September, but continued to be weak over the rest of northeast India and the whole of northwest India during the first week. A shallow depression formed in the west central Bay of Bengal on the 7th, crossed the Orissa coast on the 8th and moving westnorthwestwards became unimportant over Madhya Bharat on the 11th. It was responsible for the revival of the monsoon over the whole of northeast India and the southern divisions of northwest India. Another depression formed in the northwest Bay of Bengal on the 13th and moved into the west Central Provinces by the 14th. After persisting there till the 17th, it became unimportant over Sind on the 22nd. Under the influence of these two depressions, the monsoon was active in northeast India, the central parts of the country and the United Provinces upto 19th, being strong in the west Central Provinces and Madhya Bharat between the 14th and 19th and in the west United Provinces on the 18th and 19th. The heavy rains in and near the Vindhyas during this period resulted in floods in the Tapti River.

The monsoon withdrew from northwest India and the west United Provinces after the 19th and till the end of the month, it was generally weak in the central parts of the country and northeast India excluding Assam.

In association with a low pressure wave from the east, a shallow depression formed in the north Andaman Sea on the morning of the 18th with its centre near Lat. 15°N. Long. 95°E. It intensified into a deep depression and crossed the Circars coast just to the north of Masulipatam on the 21st morning. Weakening thereafter it moved westnorthwestwards upto west Hyderabad by the 23rd and then moved away northeastwards as a low pressure wave. Under its influence, the monsoon strengthened considerably in the Peninsula. Locally very heavy rain occurred in the south Circars, south Hyderabad and the south Bombay Deccan on the 21st and in the north Konkan on the 21st and 22nd; Bombay had a record rainfall of 32″ in 48 hours, of which 23″ fell in 12 hours on the 22nd. Locally heavy rain also occurred in the north Bombay Deccan and Berar on the 23rd. According to newspaper reports, the heavy rains in the Nellore, Kistna and Kurnool districts resulted in serious floods in the Pennar and the Kistna rivers causing many breaches on roads and railway lines and heavy losses to property. Bijapur district was one of the worst affected areas in the Deccan. The floods in the Bhima river are reported to have submerged many villages rendering thousands of people homeless. Loss of human life and livestock was also reported from this area. In the city of Bombay, all means of communications were paralysed, transport was completely immobilised and the electric power supply was put out of action by the heavy rains and the island was isolated from the mainland for about 24 hours.

After this spell of heavy rain, the monsoon weakened in the Peninsula also and during the rest of the month very little rain fell over the country excepting in Madhya Bharat and the west Central Provinces where local thundershowers continued. The end of the month saw the withdrawal of the monsoon more or less from the whole country.

The total rainfall for the month was in large excess in Gujarat, Berar, the west Central Provinces, the Konkan, the Bombay Deccan, Hyderabad and Malabar, in slight to moderate excess in the Bay Islands, Assam, the United Provinces, east Rajputana, Madhya Bharat and Bhopal, Vindya Pradesh, the east Central Provinces, the Madras Deccan and the north Madras coast. It was normal in Orissa, Bihar and Mysore and in slight to moderate defect elsewhere. Averaged over the plains of India, the month's rainfall was 39 per cent in excess.

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TABLE II—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M

STATION	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature °F.		Wet bulb temperature °F.		Vapour pressure, millibars.			Relati humid %
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Bay Islands																				
Port Blair	261	1000·4	−0·3	998·3	83·0	−0·1	85	10 days	74·4	+0·6	72	7,10,16	79·8	77·7	76·7	75·7	30·1	+0·1	29·4	87
Assam																				
Dibrugarh	348	994·6	−1·6	990·4	87·3	+0·9	95	20,21	74·8	+0·3	72	25,29,30	79·7	81·2	77·1	78·1	80·8	+0·9	31·6	89
Sibsagar	317	995·7	−1·4	991·6	88·1	+0·5	96	22	76·6	+0·4	73	4 days	80·8	83·3	78·2	79·9	32·0	+0·5	33·2	89
Tezpur	258	998·0	−1·3	993·5	89·2	+0·4	95	20,21	76·9	+0·4	73	28,29,30	81·0	83·5	78·5	79·6	32·2	+1·1	32·6	90
Gauhati	182	999·7	−1·4	995·9	88·5	−0·9	95	22	77·1	+0·9	73	30	82·7	83·6	78·9	79·2	31·7	+0·4	32·0	84
Dhubri	115	1002·7	−0·7	999·1	86·2	+0·5	91	4 days	78·0	+0·7	75	4 days	81·5	82·8	79·0	79·4	32·7	+1·2	32·6	89
Silchar	96	1003·1	−1·7	999·3	89·1	−0·6	98	20	77·2	+1·0	75	20,29,30	83·3	84·0	78·4	80·0	30·8	−0·8	31·6	88
West Bengal																				
Dum Dum	33	1003·4	...	1000·1	89·9	...	90	12,31	78·7	...	74	16,17	84·2	84·5	79·4	80·2	31·8	...	32·9	80
Calcutta	21	1003·8	−1·6	1000·4	90·2	+0·3	95	21	79·0	+1·0	74	16,17	84·5	84·5	80·3	80·3	33·7	+1·0	33·7	83
Saugor Island	10	1004·0	−1·4	1000·9	86·6	−1·1	90	19	80·1	+0·6	76	27	83·7	83·3	79·8	79·8	32·8	−0·2	33·4	84
Sandheads	32	1003·5	−1·4	1000·7	...	...	...	...	...	...	...	...	84·0	85·2	80·4	80·5	34·0	+1·0	33·7	86
Midnapore	149	998·7	−2·1	995·6	90·6	+0·9	95	12	76·8	−1·3	75	4 days	84·1	84·5	79·8	79·9	32·5	+0·7	32·9	82
Contai	35	1002·5	...	999·7	87·7	...	94	12	78·4	...	75	13,16	82·7	84·4	79·8	80·5	33·3	...	33·6	87
Burdwan	106	1000·5	−1·9	997·0	90·2	+0·2	94	4 days	79·0	+0·4	75	16	83·0	84·7	79·4	79·7	32·8	+0·4	32·6	84
Krishnagar	48	1003·3	−1·0	1000·1	91·6	+1·5	95	25	78·2	+0·2	73	16	84·8	84·7	80·8	80·5	34·1	+1·1	34·0	85
Asansol	414	989·9	−1·6	986·4	89·4	+0·5	94	11,12	77·8	+0·8	75	13	83·2	84·4	79·3	79·6	32·2	+0·2	32·4	84
Berhampore	62	1002·4	−1·8	998·8	92·3	+2·7	98	20,21	78·0	0·6	74	4,16	85·1	85·4	80·3	80·2	32·8	−0·2	33·2	80
Malda	103	1001·0	−1·6	997·6	89·3	+0·3	95	21,22	79·0	+0·7	75	17	84·2	85·0	80·0	79·8	33·4	+0·5	32·7	83
Cooch Behar	145	1001·0	...	997·2	89·8	...	96	21	76·6	...	72	26	82·2	84·2	78·1	79·7	31·1	...	32·6	83
Jalpaiguri	271	996·5	−1·3	992·7	88·1	0	95	22	75·5	−0·4	73	4	79·1	83·7	76·5	78·3	30·1	−0·9	30·5	88
Orissa																				
Balasore	65	1001·9	−1·6	999·0	88·2	−0·6	94	12	78·5	+0·5	75	2	83·6	83·5	79·6	79·4	32·7	+0·3	32·6	84
Chandbali	20	1003·3	−1·5	1000·3	89·2	+0·4	94	4 days	78·8	+0·5	75	13,19	83·9	83·6	79·7	79·6	33·1	+0·6	32·7	82
Puri	20	1003·4	−1·7	1000·3	87·9	−0·7	91	19	80·3	+0·6	76	13,20	84·2	84·2	80·1	79·9	33·4	+1·0	32·6	83
Gopalpur	56	1002·1	−1·9	999·1	88·3	−0·3	93	7	79·3	+0·9	76	20	83·2	83·3	79·4	80·2	32·2	+0·2	34·0	83
Cuttack	87	1000·6	−2·5	997·4	89·2	−0·8	94	19	...	...	...	...	82·9	83·8	79·1	79·3	31·9	+0·6	32·2	83
Angul	455	988·6	−1·6	985·3	88·7	−0·1	92	11,19	77·2	+0·7	75	4 days	81·3	82·3	77·5	78·3	30·2	−0·2	31·2	83
Sambalpur	486	987·2	−2·2	983·7	88·7	0	92	27	76·4	−0·5	74	13,16,28	81·6	83·4	78·0	78·6	31·3	+1·0	30·9	85
Chota Nagpur																				
Jamshedpur	423	989·4	−1·6	985·9	89·5	−0·4	92	4,11	78·4	+0·8	76	15,29	83·0	83·9	78·5	78·5	31·3	+0·8	30·7	81
Chaibasa	742	978·6	−1·6	975·2	90·0	+0·7	93	4 days	77·0	+1·0	75	5 days	82·0	83·1	77·3	78·1	30·2	+0·6	30·6	83
Ranchi	2,150	931·8	−1·9	929·3	85·1	+1·0	88	5 days	70·1	−1·8	61	18,19	77·5	79·5	74·2	74·5	27·3	+1·4	27·1	86
Hazaribagh	2,006	937·0	−1·4	933·9	85·5	+0·8	89	2,26,27	72·5	+0·2	69	13	78·4	79·0	74·9	75·0	28·1	+2·1	28·0	85
Daltonganj	725	978·9	−2·1	975·3	89·9	+0·2	94	19,26	76·4	+1·0	72	30	82·5	83·3	78·1	78·3	30·7	+1·9	30·8	82
Dhanbad	839	975·7	...	...	88·1	...	91	4 days	75·5	...	71	29	82·3	...	78·5	...	31·2	...	...	84
Bihar																				
Purnea	124	1000·6	−1·5	996·8	90·2	+1·2	97	22	78·6	+1·2	74	17	84·4	84·9	80·4	80·5	32·6	+0·1	33·4	84
Saharsa	156	998·9	...	995·5	89·3	...	95	22	79·4	...	75	17	83·8	85·6	80·1	80·5	33·8	...	33·4	85
Darbhanga	161	999·1	−1·4	995·3	91·3	+2·1	97	21,22	79·3	+0·8	76	4 days	84·8	87·5	80·8	81·1	34·1	+2·8	33·2	83
Motihari	218	997·6	−0·7	993·1	90·7	+1·1	96	22	77·1	+0·1	73	12	83·8	85·4	79·3	80·5	32·2	+0·4	33·2	82
Patna	173	998·0	−1·8	994·4	90·5	+0·8	96	22,26	79·7	+0·8	75	12,17	84·7	86·2	80·3	80·1	33·2	+1·1	32·5	82
Dehri	352	990·9	...	987·5	90·4	...	96	26	78·4	...	75	13,23,28	82·9	85·0	79·1	79·8	31·9	...	32·7	84

Cloud amount, (Oktas).			Rainfall, inches.				Number of rainy days (0·10″ or more)		Wind velocity, miles per hour.		Wind direction—Number of winds from:—																		STATION
											0830 hrs. I. S. T.									1730 hrs. I. S. T.									
0830 hrs. I.S.T.	Departure from normal	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																													Bay Islands
7·1	+0·9	7·2	24·71	+7·31	4·89	19	24	+2·1	11·7	+1·3	0	0	0	0	2	19	8	0	1	0	0	0	0	0	17	10	0	3	Port Blair
																													Assam
5·8	+1·0	4·8	18·17	+4·32	4·11	16	18	+2·6	1·1	+0·2	7	3	4	1	3	0	0	6	6	1	1	1	0	0	1	2	0	24	Dibrugarh
7·5	+0·8	6·1	11·48	−0·35	2·54	28	17	+2·2	1·8	0	8	7	4	2	1	3	1	0	4	9	5	2	0	2	3	1	2	6	Sibsagar
5·7	−0·1	5·3	13·28	+5·00	2·96	11	13	+0·3	1·2	−0·2	0	1	18	4	0	1	0	0	6	0	4	8	3	0	0	1	0	14	Tezpur
5·2	−0·2	5·5	17·63	+11·04	5·27	17	13	+3·7	2·4	+1·1	6	6	2	1	2	3	3	5	2	0	2	4	6	3	5	2	2	6	Gauhati
5·1	−0·1	5·5	9·99	−4·03	3·81	3	13	+0·5	3·5	+0·2	2	7	6	5	2	1	0	1	6	0	5	5	7	4	1	1	0	7	Dhubri
6·6	+0·8	6·2	13·67	−1·65	1·77	15	19	+2·8	1·0	−0·3	1	6	1	1	0	1	0	0	20	0	0	0	0	1	3	2	1	23	Silchar
																													West Bengal
6·4	...	6·3	11·84	...	1·99	6	12	...	6·3	...	0	0	1	9	8	5	0	0	7	0	1	1	7	16	2	1	0	2	Dum Dum
6·0	+0·3	6·6	13·19	+3·24	2·75	16	16	+0·8	1·6	−1·2	0	0	4	3	6	7	1	0	9	0	1	1	5	8	4	1	0	10	Calcutta
5·9	−0·2	5·7	9·90	−0·45	2·44	27	13	+0·1	11·9	+3·5	0	0	5	6	7	8	3	0	1	1	1	1	6	12	9	0	0	0	Saugor Island
(e) 6·1	+1·1	(f) 5·1	6·75	+1·96	1·36	29	12	+3·6	...	...	0	1	1	2	9	10	2	0	1	0	0	0	4	8	12	0	0	1	Sandheads
5·3	+0·8	6·1	11·14	+2·63	2·23	16	15	+3·1	3·9	+2·0	0	0	3	6	7	4	2	0	8	0	1	1	7	13	4	0	0	4	Midnapore
5·3	...	(b) 5·4	9·19	...	1·58	16	16	...	7·1	...	0	0	3	5	9	2	4	1	6	0	0	2	3	23	1	0	0	0	Contai
5·8	+0·4	5·5	9·98	+1·18	1·99	15	13	+1·7	4·0	+2·2	1	1	8	3	5	7	1	1	3	0	4	7	4	9	5	0	1	0	Burdwan
6·6	+1·2	6·9	6·63	−1·33	1·48	29	10	−1·2	1·7	−1·1	0	1	2	4	13	1	0	0	9	0	0	2	5	9	1	0	0	13	Krishnagar
5·7	+0·5	6·0	5·83	−2·42	1·52	13	9	−1·7	3·7	−0·3	0	0	5	10	2	0	2	0	11	1	0	4	16	2	0	0	0	7	Asansol
6·1	+0·7	6·4	8·06	−1·08	1·90	4	12	+0·5	2·2	−0·3	2	0	7	4	11	1	1	0	4	0	0	9	6	6	1	1	0	7	Berhampore
5·6	+1·4	5·3	5·46	−6·06	1.30	4	10	−1·6	3·7	−0·2	1	1	10	6	7	3	0	1	1	0	1	7	7	4	1	1	0	9	Malda
6·2	...	6·2	7·74	−15·78	2·10	26	14	−3·1	3·0	...	0	3	13	5	2	1	0	0	6	2	1	5	4	3	0	0	1	14	Cooch Behar
5·8	+1·4	5·3	22·80	+1·58	3·65	2	16	−0·4	3·8	+2·3	4	12	10	1	0	0	0	1	2	1	4	11	4	2	1	0	1	6	Jalpaiguri
																													Orissa
7·4	+2·2	7·0	10·35	−0·71	1·92	8	13	+0·1	4·1	+1·6	0	0	6	4	5	8	3	0	4	0	0	0	8	8	4	0	0	10	Balasore
6·7	+1·3	6·9	4·75	−4·17	0·87	13	14	−0·1	(c) 5·9	+0·8	1	1	2	7	9	5	2	1	0	1	2	1	12	11	1	1	0	0	Chandbali
6·5	+1·8	6·7	8·45	−0·60	1·85	20	15	+2·9	14·3	+6·2	0	3	1	2	5	13	3	3	0	1	4	0	4	8	13	0	0	0	Puri
6·3	+2·1	6·9	6·23	−1·25	3·40	20	7	−2·5	10·2	+3·7	1	1	0	1	2	12	4	1	8	0	1	0	2	4	21	0	0	2	Gopalpur
6·0	+1·0	6·3	7·95	−1·81	2·50	15	16	+3·4	3·4	+1·6	1	2	2	0	1	2	0	0	22	0	1	2	0	3	2	0	0	22	Cuttack
6·3	+0·9	6·7	14·53	+7·18	3·24	14	18	+6·9	4·1	+0·3	2	3	4	2	3	4	5	3	4	3	5	7	4	4	4	1	0	2	Angul
6·1	+1·1	6·8	7·05	−2·00	1·51	9	15	+3·6	4·4	+1·6	1	1	5	2	6	10	4	0	1	0	1	4	5	5	7	2	0	6	Sambalpur
																													Chota Nagpur
5·9	+0·2	6·9	4·80	−2·31	1·56	14	10	−1·2	3·8	+0·7	0	3	9	3	1	2	7	2	3	0	0	15	6	0	0	3	0	6	Jamshedpur
6·3	+1·2	7·2	4·73	−3·18	1·00	15	11	−0·6	1·4	−0·2	1	4	1	1	1	10	1	0	11	0	2	1	2	1	6	1	2	15	Chaibasa
3·9	−1·2	4·9	7·32	−1·98	1·90	15	9	−3·3	2·9	−1·1	1	1	3	1	6	2	0	2	14	0	0	4	6	5	3	0	2	10	Ranchi
5·1	−0·5	5·8	9·01	+0·07	1·34	28	16	+4·5	4·6	−0·7	0	0	5	7	3	3	5	1	6	1	1	6	6	9	1	1	3	2	Hazaribagh
4·5	+1·0	6·0	5·55	−1·59	1·23	1	11	+1·7	2·6	−0·2	0	4	5	8	2	0	3	1	7	0	5	12	5	0	0	4	1	3	Daltonganj
...	...	...	11·56	...	2·80	16	9	...	4·0	...	0	0	14	10	0	3	3	0	0										Dhanbad
																													Bihar
5·3	+0·6	5·2	4·71	−6·89	1·45	17	13	+1·5	2·9	+1·0	0	4	14	5	0	3	0	0	4	0	0	7	1	0	0	0	0	22	Purnea
5·6	...	5·2	7·48	...	1·84	13	11	...	3·4	...	1	7	16	0	2	0	0	0	4	0	2	7	3	1	0	0	0	17	Saharsa
6·1	+1·4	5·3	11·48	+2·24	5·46	5	11	+1·6	3·6	+1·0	0	13	11	3	2	0	0	0	1	0	5	6	9	1	0	0	0	9	Darbhanga
5·9	+2·0	4·8	10·78	+1·73	5·28	17	10	+0·9	2·9	+0·1	1	0	20	0	0	0	0	0	9	0	0	7	1	0	0	0	0	22	Motihari
4·9	0	5·5	13·73	+5·13	4·30	12	15	+5·8	3·9	+0·6	1	9	6	3	2	7	0	0	2	2	11	4	3	1	0	0	2	7	Patna
4·4	...	5·8	5·62	−1·77	1·39	4	13	+4·1	3·9	...	1	0	6	10	3	4	1	2	3	5	5	4	4	1	2	0	1	8	Dehri

(b) Mean of 29 days. (e) Mean of 26 days. (c) Mean of 28 days. (f) Mean of 25 days.

STATION	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature °F.		Vapour pressure, millibars.			Relati humid %	
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Bihar—*contd.*																					
Gaya	365	991·0	−1·9	987·3	91·0	+0·5	94	6 days	78·6	+1·5	75	1	84·2	85·8	79·2	79·1	31·8	+1·4	32·1	80	+[illegible]
Naya Dumka	489	987·7	−1·4	984·3	90·7	+1·6	96	21	...	...	...	...	83·2	84·8	78·3	79·1	30·7	−0·3	31·7	79	−[illegible]
Sabour	122	1000·1	−1·0	996·3	90·7	+1·4	98	23	78·9	+0·6	76	27,29	84·3	85·6	80·5	81·0	33·5	+0·9	34 2	84	+[illegible]
U. P., East																					
Gonda	360	991·6	...	988·3	89·5	−1·6	97	22	77·9	+0·8	71	29	82·5	85·4	78·5	80·0	31·5	+0·5	32·5	85	+[illegible]
Gorakhpur	254	995.0	−2·0	991·2	89·9	−0·5	97	23	78·8	+1·6	72	28	83·5	86·1	79·6	79·7	32·6	+1·4	31·5	84	+[illegible]
Banaras	250	994·8	−2·0	990·9	91·4	+0·4	96	26	78·7	+1·4	73	29	84·1	86·5	79·8	80·5	32·4	+1·5	32·9	83	+[illegible]
Allahabad (Bamrauli).	322	991·9	−2·5	988·9	91·0	−0·5	96	26	78·5	+1·9	73	29	83·4	86·9	79·2	79·9	32·6	+2·1	31·8	83	+[illegible]
Fatehpur	375	989·9	...	987 1	87·1	−4·0	90	23	79·1	+2·4	75	30	82·3	85·6	79·8	81·2	33·9	+2·9	34·1	90	+[illegible]
Kanpur	414	989·3	−1·8	986·1	89·9	−1·0	96	24	77·9	+1·7	71	30	82·0	85·8	79·3	81·2	33·8	+4·1	34·7	88	+[illegible]
Lucknow	371	991·3	−1·3	988·1	89·9	−2·0	95	22,23	77·8	+1·3	71	29	80·1	84·9	78·4	80·6	32·3	+2·2	33·5	91	+[illegible]
Bahraich	407	990·4	−1·0	987·0	89·6	−1·6	96	12	76·7	+0·2	71	29,30	82·8	85·7	78·5	79·5	31·3	+1·4	32·3	82	+[illegible]
U. P., West.																					
Jhansi	823	975·3	−2·5	972·1	92·3	+0·6	99	1	76·5	+1·1	72	11	80·9	85·3	77·7	78·9	31·4	+4·3	30.9	86	+[illegible]
Agra	553	984·6	−1·8	(b) 981·1	91·9	−1·0	98	12,13,26	77·8	+1·6	69	30	81·3	(b) 88·4	77·9	(b) 79·7	30·6	+3·2	30·5	86	+[illegible]
Mainpuri	516	985·6	−2·0	982·4	91·5	−1·4	98	13	78·0	+2·4	68	30	82·3	87·3	79·8	82·3	34·1	+6·0	35·7	89	+[illegible]
Aligarh	615	982·2	...	979·0	92·2	−0·1	98	13	77·1	+1·2	73	18	82·7	88·9	78·5	81·2	31·9	+5·1	33·3	84	+[illegible]
Bareilly	568	984·1	−2·0	980·7	90·4	−0.5	96	1	77·3	+1·6	71	26,29	82·6	86·1	78·2	79·8	30·7	+1·8	31·5	82	+[illegible]
Meerut	728	978·4	...	...	93·2	...	99	26	76·9	...	72	29,30	81·6	...	77·9	...	31·1	...	...	84	...
Roorkee	899	972·6	−2·3	969·2	91·7	+1·2	96	13	75·5	+2·4	70	28,29,30	81·5	88·6	76·9	79·3	29·7	+3·1	29·5	82	+[illegible]
Dehra Dun	2239	929·1	−1·6	926·5	86·2	+1·3	90	13	71·8	+2·3	67	29	77 9	82·8	73·7	76·1	27·1	+3·5	28·5	82	+
East Punjab																					
New Delhi	714	978·5	−2·6	975·3	94·7	+1·2	101	13	78·2	+2·7	71	30	84·2	89·3	77·9	78·7	29·3	+3·2	29·1	74	+
Hissar	725	978·3	−2·1	975·3	99·1	+2·4	107	13	77·3	+2·8	67	30	83·5	92·5	77·3	78·9	29·5	+5·3	27·1	75	+[illegible]
Patiala	822	974·9	...	971·5	96·8	...	101	26	76·0	...	66	30	81·7	90·9	77·0	78·9	29·7	...	28·4	81	...
Ambala	892	973·6	−1·3	970·1	97·9	+3·9	103	13,30	77·0	+3·1	62	23	81·7	92·6	76·4	76·4	28·9	+3·0	23·7	77	+3
Ludhiana	810	975·5	−1·9	972·6	98·6	+3·7	104	13,14,26	77.9	+3·1	66	30	83·3	94·6	76·2	78·6	28·0	+2·9	26·6	72	0
Amritsar	756	976·8	...	973·8	98·2	...	105	13	76·2	...	63	30	83·4	94·0	77·3	78·6	29·5	...	26·2	75	...
Kashmir																					
Srinagar	5205	838·8	+1·4	835·2	85·1	+1·6	93	12	54·6	+1·1	50	8,15	63·9	77·9	58·4	62·9	14·8	−0·3	14·3	73	−[illegible]
Gulmarg (R)	8709																				
Dras (R)	10059																				
Leh	11529	666·7	−0·8	662·5	71·9	+2·2	78	1	42·1	+0·3	33	30	54·1	67·1	41·9	48·2	5·4	−1·1	5·5	36	—
Skardu (R)	7505																				
Gilgit (R)	4890																				
Misgar (R)	10190																				
Rajaputana, West																					
Sri Ganganagar	580	(d) 981·3	...	...	100·8	+0·8	108	1	77·2	+3·1	66	30	85·8	(b) 96·9	76·1	(b) 76·8	26·9	+4·0	22·6	64	+[illegible]
Bikaner	734	977·7	−2·6	974·0	103·5	+6·1	107	12	79·4	+2·3	69	30	84·2	90·2	77·4	78·1	28·5	+4·1	23·6	73	+[illegible]
Phalodi	800	976·7	...	974·1	100·5	...	105	26	78·7	...	73	6	82·1	97·0	76·4	80·8	28·7	...	28·8	72	.
Jaisalmer	793	975·5	...	972·2	100·5	...	110	0	77·1	...	74	24	80·8	98·0	78·2	78·3	32·2	...	24·4	87	.
Jodhpur	736	978·8	−1·0	974 8	99·5	+5·3	105	18	79·2	+4·4	76	17	82·7	96·8	76·2	76·6	27·7	+2·8	22·6	73	
Barmer	638	981·6	−2·1	978·2	99·4	+4·2	105	10	78·2	+2·5	75	6,29	81·5	97·3	76·3	80·0	28·9	+3·7	26·9	78	.

(b) Mean of 29 days. (R) Register not received. (d) Mean o f 27 days,

Cloud amount, (Oktas)			Rainfall, inches.				Number of rainy days (0·10" or more.)		Wind velocity miles per hour.		Wind direction—Number of winds from:—																			STATION
											0830 hrs. I. S. T.									1730 hrs. I.S.T.										
Mean 0830 hrs. I.S.T.	Departure from normal	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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
																														Bihar—*contd.*
4·8	+1·1	6·3	4·25	−3·25	0·69	1	11	+1·7	4·8	+0·3	0	4	9	8	2	4	1	0	2	1	8	8	6	1	1	2	1	2		Gaya
3·2	−1·5	4·5	5·44	−4·15	1·15	12	9	−3·5	3·0	+1·1	0	1	6	14	1	4	3	1	0	3	2	8	9	5	2	0	1	0		Naya Dumka
5·4	−0·3	6·1	12·12	+3·76	3·33	6	13	+3·2	4·6	+0·1	1	2	15	5	2	1	2	1	1	0	1	14	5	1	0	0	1	8		Sabour
																														U. P., East
4·7	+0·5	4·5	13·90	+4·76	2·87	17	11	+0·8	2·8	−0·3	0	0	18	1	0	0	2	1	8	0	0	9	0	0	1	0	0	20		Gonda
4·5	+0·9	4·1	12·27	+3·75	4·07	28	12	+2·7	2·8	+1·1	0	6	15	3	0	0	0	0	6	2	2	11	0	2	0	2	0	11		Gorakhpur
4·7	+0·5	5·4	9·70	+2·48	4·50	5	10	+1·3	4·7	+1·9	1	4	15	2	1	2	4	0	1	10	4	7	2	0	1	4	2	0		Banaras
5·3	+0·8	6·1	4·51	−3·85	1·40	10	11	+1·5	3·2	−0·5	0	5	11	1	1	1	3	0	8	4	6	6	1	1	0	5	0	7		Allahabad (Bamrauli)
4·7	+1·0	4·8	8·19	+2·68	1·16	3	13	+4·4	2·1	−0·6	0	4	6	4	1	1	2	0	12	2	2	6	1	0	0	1	1	17		Fatehpur
5·2	+2·6	5·5	11·66	+4·87	3·73	18	10	+2·7	4·1	−1·0	0	6	7	3	3	1	2	0	8	2	7	3	3	2	1	0	0	12		Kanpur
5·0	+1·4	5·0	11·04	+3·64	3·16	2	12	+4·1	2·0	+0·3	2	0	10	1	3	0	2	0	3	1	2	8	0	5	0	2	1	11		Lucknow
4·9	+2·1	4·9	10·40	+1.82	2·58	18	12	+4·7	3·7	+1·7	0	1	11	3	0	1	0	0	9	0	1	7	2	0	1	1	1	17		Bahraich
																														U. P., West
4·6	+1·7	4·6	5·16	−0·74	1·62	15	12	+5·0	4·3	+1·3	1	4	3	1	1	1	1	4	14	6	3	4	0	0	1	1	2	13		Jhansi
3·7	+0·6	3·2	9.32	+4·74	2·30	18,19	11	+5·4	2·7	−0·7	0	2	6	1	2	0	3	1	15	2	7	1	1	0	0	1	1	16		Agra
4·7	+1·3	4·3	12.83	+7·74	2·70	19	10	+3·6	2·4	+0·7	0	2	8	5	1	2	4	1	7	0	0	3	7	1	0	1	0	18		Mainpuri
3·5	+0·9	4·4	7·89	+2·59	4·54	19	6	−0·1	4.4	+0·5	0	0	1	0	0	0	6	0	13	0	0	12	0	0	0	1	0	17		Aligarh
5·0	+1·7	5·1	9·90	+2·40	2·85	18	9	+2·2	2·3	+0·7	1	0	7	11	3	1	0	1	6	1	1	5	1	0	1	2	0	19		Bareilly
2·5	...	...	2·57	−3·29	1·18	10	5	−0·1	3·8	...	1	1	7	8	2	0	3	0	8	...	...	...	...	...	...	...	...	...		Meerut
2·6	−0·3	2·9	5·58	−0·79	1·53	15	8	+2·0	2·6	+0·9	0	1	0	22	0	0	0	1	6	0	0	0	6	0	0	0	2	22		Roorkee
4·4	+0·6	4·9	12·49	+1·87	2·34	25	14	+3·1	1·7	+0·1	2	4	1	1	1	5	1	1	14	1	2	0	2	1	6	3	4	11		Dehra Dun
																														East Punjab
3·3	+0·7	3·9	5·30	+0·46	2·83	19	6	+1·4	5·3	...	1	0	10	4	1	4	5	1	4	1	3	3	6	0	1	0	6	10		New Delhi
1·1	−0·5	1·1	2·45	−0·36	1·61	19	4	+0·9	4·2	+0·2	1	2	1	6	3	5	5	2	5	5	7	3	1	0	2	2	4	6		Hissar
2·3	...	2·6	2·50	...	0·77	5	5	...	3·9	...	1	1	3	16	1	0	0	1	7	4	1	3	3	0	1	2	6	10		Patiala
1·3	−1 2	0·9	1·03	−4·08	0·75	30	2	−2·7	...	...	0	0	1	12	0	0	0	1	16	0	0	0	6	0	2	1	2	19		Ambala
2·1	+0·3	2·0	2·45	−1·50	1·10	7	4	+0·2	2·1	+0·9	0	0	4	8	2	1	0	0	15	0	3	0	5	1	1	1	5	14		Ludhiana
1·9	...	1·5	1·48	...	0·58	30	3	...	3·3	...	1	0	4	14	4	1	1	0	5	9	3	3	1	0	2	3	8	1		Amritsar
																														Kashmir
2·1	−0·2	2·4	0·70	−0·83	0·26	2	2	−1·5	2·1	−0·1	1	0	1	12	4	0	1	2	9	1	0	0	3	2	2	2	4	16		Srinagar
																														Gulmarg (R)
																														Dras (R)
2·1	−0·8	2·3	0·02	−0·25	0·02	21	0	−0·9	4·0	+2·2	0	0	0	1	2	1	0	0	26	1	1	0	0	1	12	8	2	5		Leh
																														Skardu (R)
																														Gilgit (R)
																														Misgar (R)
																														Rajputana, West
0·6	−0·1	(b) 1·2	1·52	+1·40	1·43	20	1	+0·5	4·3	−1·3	0	1	1	7	6	12	2	0	1	3	1	2	0	1	7	5	2	8		Sri Ganganagar
0·7	−0·8	1·2	1·52	+0·21	0·58	20	4	+1·9	5·3	−0·1	0	1	0	4	1	17	0	5	2	0	5	0	1	0	14	1	9	0		Bikaner
1·5	...	2·6	0·24	−0 71	0·24	23	1	−0·7	9·9	...	1	0	1	0	2	17	8	1	0	7	2	0	2	2	11	4	2	0		Phalodi
1·4	...	2·3	1·06	...	1 06	20	1	...	12·7	...	1	0	1	0	2	25	0	1	0	0	3	1	0	1	18	2	5	0		Jaisalmer
3·3	+0·1	4·0	0·56	−1·84	0·40	23	2	−0·8	5·8	−1·5	0	0	2	1	0	18	14	1	0	0	3	1	2	1	13	4	2	4		Jodhpur
3·3	+0·7	3·2	0	−0·73	0	...	0	−1·4	6·1	+0·4	0	0	0	1	5	12	7	3	2	1	3	0	1	5	12	2	4	2		Barmer

(*b*) Mean of 29 days.

STATION	Height of bar. cistern above mean sea level in feet	Pressure at station level in millibars			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars			Relati humid %	
		Mean 0830 hrs. I.S.T	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal	Highest	Date.	Mean	Departure from normal.	Lowest.	Date	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Rajputana, East																					
Sikar	1,406	955·6	...	952·4	98·1	..	102	1	76·6	...	70	30	82·8	92·9	75·2	76·4	26·7	...	23·7	70	...
Jaipur	1,431	955·5	−2·7	952·1	94·3	+1·2	101	28	75·7	+2·9	73	1,19,29	81·8	88·8	74·9	75·7	26·5	+2·6	24·7	72	+
Ajmer	1,593	950·2	−2·6	946·8	94·6	+1·6	100	26	77·7	+3·2	74	19,20,21	81·3	92·2	73·3	74·3	24·9	+0·9	21·3	68	+
Kotah	843	974·8	−3·2	971·7	93·0	+0·7	100	27	78·1	+1·7	71	29	82·0	88·2	76·9	78·2	29·4	+3·8	28·2	79	+1
Jhalawar	1,053	967·4	−2·6	963·8	91·1	+1·7	100	1	75·4	+2·1	73	19	78·9	86·3	76·0	77·1	29·3	+2·1	28·1	33	+
Rajsamand	1,882	(k) 940·8	...	...	(k) 90·5	...	(k) 97	1	(k) 75·4	...	(k) 72	6	(k) 79·5	...	(k) 74·0	...	26·2	...	...	(k) 73	...
Udaipur	1,910	940·3	...	937·9	89·8	...	95	26	74·0	...	71	6	79 3	83·3	73·9	76·1	26·5	...	28 3	77	...
Gujarat																					
Deesa*	466	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Surat	39	1005·0	−1·8	1001·8	86·1	−2·6	91	21	76·8	+0·9	73	16,17,27	79·5	83·5	77·8	79·5	31·7	+2·7	32·6	93	+1
Ahmedabad	163	999·7	−2·5	996·5	92·1	−0·5	98	1	77·6	+1·6	75	4 days	36·2	89 3	76·9	78·8	30·1	+2·8	28·8	86	+
Dohad	1,093	969·7	...	965·0	85·9	−0·2	92	23	73·7	+0·8	69	16	76·6	81·8	74·9	77·1	28·8	+1·8	29·7	92	+
Baroda	115	1001·5	...	998·2	90·1	−0·5	95	1,~~23~~23,24	76·3	+1·7	71	17	79·1	86·1	77·4	80·0	31·3	+3·0	32·2	93	+1
Saurashtra and Cutch																					
Bhuj	343	993·3	−2·0	990·7	90·7	−1·1	103	23,28	76·2	+1·5	72	11	79·7	87·8	75·6	76·8	28·4	+1·4	26 5	82	+
Dwarka	37	1004·1	−2·5	1002·0	86·3	+1·1	88	6 days	79·2	+1·5	75	11	81·0	84·0	77·3	78·3	30·3	+1·3	30·5	84	−
Jamnagar	60	1003·1	−2·3	...	89·2	−0·2	91	22,26	75·2	+0·7	73	21,24	81·1	...	78·5	...	32·1	+3·8	...	88	+
Rajkot	432	990·4	−2·3	987·5	90·7	1·1	95	26	75·6	+3·0	73	11	78·7	87·7	75·7	76·1	29·0	+2·2	25·5	87	+
Veraval	26	1005·3	−2·1	1003·0	86·0	...	88	5 days	78·1	...	75	9	81·2	83·5	79·0	80·1	32·8	...	33·6	90	+
Bhavnagar	55	1003·9	−2·0	1000·5	92·8	+0·4	98	8	76·5	+1·6	74	29	79·6	89·2	76·1	78·0	29·2	+2 3	27·6	85	+1
Madhya Bharat and Bhopal																					
Neemuch	1,626	949·9	−2·2	946·9	89·4	+1·5	95	26,27,28	73·9	+2·7	71	18	78·0	84·7	74·4	75·7	27·6	+2·7	26·7	85	+
Ratlam	1,596	950·9	...	948·1	85·4	...	91	24	73·2	...	70	15	75·6	81·2	73·4	75·3	27·7	...	27·0	89	...
Indore	1,839	942·7	−2·6	939·6	84·1	−1·3	92	1	71·5	+2·0	68	17	74·7	79·0	72·9	73·8	26·9	+1·6	26·4	91	+
Bhopal	1,643	948·3	−2·5	945·6	85·9	0	94	1	73·3	+1·2	69	21	76·5	80·4	74·3	74·8	28·6	+3·4	26·7	89	+8
Guna	1,571	950·5	−2·2	947·8	88·0	+0·9	94	1	73·8	+2·3	71	30	77·5	82·5	75 0	76·6	28 6	+2·1	28·9	89	+
Gwalior	681	980·0	...	976·6	90·9	...	97	1	76·8	...	70	30	82·6	85·5	78·4	79·5	31·3	...	31·7	82	...
Madhosagar	757	977·3	...	974·1	91·0	...	99	1	77·6	...	75	18,19	81·8	85·9	78·1	79·1	31·2	...	30·8	85	...
Vindhya Pradesh																					
Nowgong	750	977·7	−2·5	974·3	89·3	−1·0	95	1,26	76·3	+1·5	71	29	81·1	84·0	77·5	78·5	30·6	+2·3	30·8	85	+
Sutna	1,041	967·7	−2·9	963·9	88·8	+0·6	92	7 days	76·1	+1·3	73	2,29	80·3	84·7	77·0	77·6	30·0	+1·8	29·5	85	+
Umaria	1,506	952·5	...	949·1	87·1	+0·7	91	2,6,7	74·0	+0·9	71	6,9,30	79·0	82·5	75·6	76·9	28·6	+1·7	27·8	85	+
Berar																					
Buldana	2,133	933·4	...	931·0	78·7	...	83	4 days	70 0	...	68	5 days	71·8	76·4	69·8	73 0	24·0	...	26·3	92	...
Akola	925	973·0	−2·8	969·8	85·0	−4·4	93	1	73·7	+0·6	70	30	75·6	81·4	73·4	76·1	27·1	+1·7	28·4	88	+1
Amravoti	1,213	962·8	−2·7	959·7	83·9	−4·3	89	1	73·1	+0·6	70	16,17	75·1	79·8	73·1	75·2	26·9	+1·2	27·8	91	+1
C.P., West																					
Khandwa	1,044	968·8	−2·9	965·7	85·4	−3·0	95	1	73·4	+0·4	70	27	76·7	81·6	74·5	76·0	28·1	+2·4	28·1	89	+
Hoshangabad	992	970·0	−3·2	966·7	86·4	−0·3	96	1	74·5	+1·2	72	14,27	76·9	81·7	75·0	77·2	28·8	+1·6	29·9	92	+
Saugor	1,808	942·3	−2·8	939·0	84·9	−1·4	91	1	73·1	+1·7	68	14	76·2	79·6	74·2	74·8	27·9	+2·9	28·1	91	+1
Jubbulpore	1,289	959·7	−2·4	956·4	87·7	+0·6	94	1	74·6	+2·3	72	6	79·0	82·7	75·6	76·9	28·7	+2·3	28·9	85	+
Seoni	2,027	935·6	−2·5	932·8	78·4	−6·6	87	1	72·2	+1·8	70	17,18,30	75·3	77·5	73·5	73·8	26·7	+1·9	26·6	91	+
Betul	2,144	932·4	...	929·6	80·3	...	89	1	70·9	...	69	4 days	73·7	76·5	71·7	73·6	25·7	...	27·1	90	..
Nagpur	1,010	969·3	−2·8	966·2	87·6	−2·2	93	1,27	74·4	+0·2	70	17	78·5	81·5	74·5	75·5	27·8	+2·8	26·9	82	+
C.P., East																					
Gondia	1,026	968·8	...	965·8	85·8	...	91	1,30	75·2	...	72	16,17,28	78·0	81·3	75·5	76·9	29·0	...	29·6	89	..
Pendra	2,040	935·2	−2·2	932·3	83·8	+0·2	89	1	72·0	+1·5	70	12,28,29	76·6	77·8	74·2	74·7	27·9	+2·2	28·1	89	+
Champa	805	976·2	...	972·7	88·9	...	93	1	77·0	...	73	28	80·1	83·7	76·9	78·7	30·1	...	31·3	88	..

(R) Register not received. (k) Mean of 20 days. * Data not reliable.

Cloud amount, (Oktas).			Rainfall, inches.				Number of rainy days. (0·10" or more).		Wind velocity miles per hour.		Wind direction—Number of winds from :—																			STATION
											0830 hrs. I. S. T.									1730 hrs. I. S. T.										
0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
4	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
																														Rajputana, East
·1	...	3·3	0·62	...	0·44	19	2	...	3·2	...	2	0	2	3	1	7	10	1	4	6	5	1	3	1	3	5	6	0		Sikar
·9	+0·1	4·6	2·46	−0 76	0·67	7	5	+0·3	4·2	+0·2	4	1	3	3	0	0	4	8	7	2	4	8	2	2	2	4	3	3		Jaipur
·1	+1·3	3·2	0·26	−2·44	0·17	1	1	−3·0	6·3	+2·2	0	0	3	0	0	11	11	2	3	3	6	1	0	3	6	5	3	3		Ajmer
·4	+0·4	5·5	9·81	+5·10	1·35	12	11	+5·3	2·2	−0·4	0	0	0	0	0	9	5	1	15	0	0	0	0	0	2	2	3	23		Kotah
·9	+1·1	5·5	9·63	+3·45	2·07	12	14	+7·1	3·5	+0·4	5	1	1	0	0	3	9	5	6	6	5	2	1	1	1	8	2	4		Jhalawar
·5	...	...	1·81	...	1·18	15	4	...	6·4	...	0	2	0	1	0	9	5	2	1	...	...	...	...	...	...	...	...	...		Rajsamand
·5	...	3·0	3·78	−0 07	1·22	12	7	+1·6	3·0	...	2	1	0	0	0	1	13	7	6	1	2	0	1	0	11	8	3	4		Udaipur
																														Gujarat
.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		Deesa*
·2	+2·0	6·6	17 07	+11·27	2·33	23	17	+9·6	4·4	+0·6	0	0	0	4	0	10	8	0	8	0	0	0	0	0	27	2	0	1		Surat
·7	+1·6	5·5	5·89	+1·73	2·17	11	5	−0·2	3·6	+0·1	1	0	0	0	0	8	13	7	1	1	0	0	0	0	7	13	7	2		Ahmedabad
·7	+1·0	5·7	13·26	+7·63	3·15	10	8	+0·8	11·3	+4·8	1	0	0	0	0	9	18	1	1	0	0	1	0	0	20	8	1	0		Dohad
·4	+1·0	5·3	8·41	+2·45	2·47	17	10	+3·3	3·0	−0·4	1	0	0	0	1	6	7	4	11	0	1	0	0	3	10	7	4	5		Baroda
																														Saurashtra and Cutch
·7	−1·1	3·1	15·8	−0·23	1·07	12	2	−0·2	7·0	−0·6	0	0	0	0	0	10	16	1	3	0	0	0	0	0	10	18	2	0		Bhuj
·7	−0·5	3·8	1·27	−0·20	0·56	12	2	0	9·9	+1·4	0	0	0	1	0	1	24	4	0	0	0	0	0	0	4	23	3	0		Dwarka
·0	+1 4	...	0·20	−2·03	0·20	3	1	−1·7	2·2	−6·8	0	0	0	0	0	1	1	0	28	...	...	...	...	...	...	...	...	...		Jamnagar
·6	+0·3	5·7	1·83	−1·51	0·84	28	4	−0·9	9·0	+2·0	1	0	0	0	1	9	15	4	0	0	0	0	0	0	3	17	10	0		Rajkot
·3	+0·8	4·8	1·25	−1·24	0·28	12	5	+1·1	11·1	...	0	0	0	0	0	0	21	4	5	0	0	0	0	0	1	26	3	0		Veraval
·3	+0·9	6·3	2·78	−1·08	1·12	11	6	+0·3	5·9	+0·8	1	0	0	0	0	5	18	3	2	1	0	0	1	7	5	12	1	3		Bhavnagar
																														Madhya Bharat and Bhopal
·5	+2·1	6·2	3·77	−1·20	1·40	21	7	+0·7	6·7	+0·7	0	6	0	0	0	9	12	3	0	0	7	2	0	0	8	10	1	2		Neemuch
·3	...	7·3	10·00	...	3·33	10	8	...	6·3	...	2	0	1	1	0	4	13	9	0	1	1	1	0	0	5	20	2	0		Ratlam
·2	+1 8	6·8	13·27	+6·81	2·88	10	12	+3·6	8·0	+0·7	2	1	0	0	0	1	13	12	1	3	2	0	0	1	3	15	6	0		Indore
·4	+1·8	6·7	13·17	+2·75	2·26	17	16	+5·8	5·8	+1 3	2	4	1	0	1	3	10	7	2	1	5	1	1	1	6	7	5	3		Bhopal
·2	+2·5	6·3	10·39	+0·98	1·70	18	14	+5·4	5·0	+1·1	4	3	2	0	1	4	13	1	2	9	5	0	1	2	1	5	6	1		Guna
·0	...	5·6	3·67	...	1·60	18	6	...	0·4	...	0	2	4	3	1	0	3	3	14	4	3	4	1	0	2	1	4	11		Gwalior
·8	...	5·6	7·23	...	2 05	2	10	...	4·8	...	2	5	2	1	1	7	6	4	2	3	6	1	2	3	4	1	4	6		Madhosagar
																														Vindhya Pradesh
·6	+0·6	4 9	11·60	+5·79	3·46	6	17	+9·8	2·9	+1·1	0	9	2	1	1	10	3	1	3	0	14	1	0	0	4	0	2	9		Nowgong
·6	+0·5	5·2	6·23	−0 66	1·40	2	10	+1·1	3·0	−0·3	1	3	6	2	2	6	6	1	3	1	6	8	1	0	1	3	5	4		Sutna
·3	+1 1	6·6	10·36	+1·23	1·94	2	16	+5·6	2 7	−0·5	0	1	7	3	3	5	8	1	2	2	4	1	4	1	2	9	2	5		Umaria
																														Berar
·4	..	7·0	14·58	...	2·64	25	16	...	7·5	...	2	0	0	0	0	6	1	21	0	5	0	0	0	0	1	5	19	0		Buldana
·3	+1·5	6·2	11·43	+5·63	1·95	16	17	+9·4	7·3	+2·4	0	1	0	0	1	2	13	13	0	0	3	0	0	2	0	7	18	0		Akola
2	+2·3	6·6	18·72	+12·68	1·94	15	18	+9·7	7·8	+3·5	0	4	0	0	0	15	0	11	0	1	3	0	1	0	15	0	10	0		Amravoti
																														C.P., West
·2	+2·8	7·0	15·18	+9·49	4·14	16	13	+5·9	6·6	+1·6	3	1	0	0	1	3	13	8	1	8	0	0	0	0	4	10	8	0		Khandwa
·2	+2·2	6·8	16·93	+8·57	2·91	15	19	+9·5	2·9	+0·8	2	1	0	0	1	9	9	1	7	1	1	0	0	1	7	7	1	12		Hoshangabad
·3	+2·1	6·8	20·47	+12·87	3·12	17	16	+6·4	...	...	1	5	3	0	1	2	14	2	2	2	6	2	1	0	1	8	3	7		Saugor
·8	+1·3	6·1	8·07	−0·34	1·38	13	14	+4·3	3·8	+1·6	0	4	1	1	3	8	4	3	6	7	8	0	1	2	5	2	2	3		Jubbulpore
·4	+1·1	6·0	11·48	+2·89	3·05	9	17	+6·1	3·7	+0·7	5	4	2	1	3	4	3	4	4	5	2	3	3	4	3	3	6	1		Seoni
·5	...	7·6	19·47	...	4·74	15	22	...	4·4	...	0	2	1	1	0	2	15	9	0	4	3	1	1	1	1	10	7	2		Betul
·7	+2·0	7·0	10·23	+2·22	2·10	9	12	+1·4	5·6	..	3	4	1	0	2	6	7	6	1	3	5	1	2	4	3	3	8	1		Nagpur
																														C.P., East
·6	..	5·7	12·05	..	2·66	9	13	..	3·5	..	6	3	1	1	4	3	3	8	1	1	3	0	2	2	5	0	4	13		Gondia
·7	+1·4	6·6	12·53	+4 63	1·58	13	19	+7 7	3·6	+0·4	4	1	6	2	5	2	3	3	4	1	1	2	3	14	4	2	1	2		Pendra
·4	..	6·1	10·05	..	2·06	28	15	..	4·3	..	1	2	4	3	2	6	6	1	5	1	1	5	4	1	7	7	2	2		Champa

STATION	Height of bar, cistern above mean sea level in feet	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relat humi
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
C.P., East—*contd.*																				
Raipur	979	970·3	−2·4	967·0	87·0	−1·1	91	1	75·7	+0·7	73	28	78·9	83·0	73·5	74·6	25·5	−3·2	25·1	77
Titilagarh	691	980·2	..	976·7	88·0	..	93	1	76·3	..	74	28	79·9	82·9	76·0	77·3	28·9	..	29·5	83
Kanker	1,318	959·2	−2·2	956·2	85·5	−0·4	91	6	74·2	+1·3	71	30	78·0	80·9	74·4	76·4	27·5	+0·3	29·0	84
Chanda	634	982·7	−2·5	979·0	86·5	−2·4	91	2	74·9	+0·4	71	16	78·0	81·0	74·5	75·8	27·6	−0·4	28·2	84
Jagdalpur	1,815	943·0	−2·5	939·9	83·7	−1·0	88	2	71.9	+1·4	70	9,23,30	75·9	78·5	73·3	74·4	27·0	−0·5	27·4	88
Konkan																				
Dahanu	15	1005·5	...	1003·5	83·8	...	87	1	76·7	...	74	9	78·8	81·5	77·0	78·2	30·9	...	31·4	92
Bombay	35	1005·7	−2·0	1003·5	85·1	−0·4	89	15	75·7	0	73	4 days	79·7	81·3	77·2	77·4	30·7	+1·2	30·3	89
Alibag	23	1006·7	−1·6	...	82·6	−2·0	86	1,3,19	76·1	+0·1	73	22	78·4	...	76·7	...	30·6	+1·3	...	93
Harnai	66	1005·1	...	1003·6	83·6	...	87	27	75·4	...	72	16,17	78·8	80·6	76·1	76·5	29·5	...	29·4	87
Devgad	117	1003·9	...	1001·6	83·6	...	88	1	75·6	...	73	5 days	77·5	80·5	75·8	77·0	29·7	...	30·1	90
Vengurla	29	1007·2	...	1004·8	84·6	...	87	9 days	74·3	...	72	23	77·4	80·6	75·6	76·8	29·4	...	29·8	92
Marmagao	202	1001·4	−1·5	999·1	82·3	−0·4	85	10,11	...	...	...	...	78·4	79·6	75·9	76·1	29·4	+0·3	29·2	89
Honavar	85	1006·7	...	1004·5	83·4	...	87	6	74·0	...	72	21,30	77·4	80·0	75·8	76·9	29·7	...	30·2	93
Bombay Deccan																				
Jalgaon	660	982·4	...	979·6	86·5	...	94	1,23,24	73·4	...	69	18,19	75·8	83·0	74·2	77·0	28·2	...	29·0	91
		(i)		(i)	(i)				(i)				(i)	(i)	(i)	(i)	(i)		(i)	(i)
Malegaon	1,432	957·5	−2·0	953·8	84·9	−3·8	90	15	71·6	+1·4	68	20	77·5	79·4	73·7	73·2	26·7	+2·8	25·1	82
Ahmednagar	2,154	934·0	−2·0	930·7	83·2	−2·9	90	19,20	69·4	+1·5	64	8	73·1	78·1	69·9	71·5	23·7	+1·2	23·7	84
Poona	1,834	944·9	−1·9	942·3	83·2	−1·4	89	19	70·3	+1·4	68	8,18	74·2	76·9	70·8	71·9	24·4	+1·3	24·7	84
Sholapur	1,570	953·3	−2·0	951·7	87·2	−1·5	94	18	69·9	−1·1	67	8	74·9	82·5	71·6	73·4	25·1	+1·9	24·5	85
Miraj	1.817	945·7	−2·1	943·2	83·4	−0·9	89	18,20	69·1	+1·2	67	4 days	72·4	78·3	70·3	71·8	24·6	+0·9	24·3	90
Kolhapur	1,885	944·0	...	941·4	80·7	...	87	1	69·2	...	67	4 days	72·2	76·3	70·1	71·1	24·3	...	23·9	90
Bijapur	1,950	940·8	−2·3	937·5	85·7	−1·7	91	18	69·3	−0·5	67	22,30	73·4	82·1	70·0	71·9	23·7	+0·9	22·6	84
Belgaum	2,562	922·3	−1·3	919·8	77·2	−2·2	82	20	66·7	+1·0	64	9	69·8	73·6	68·6	69·6	23·4	+1·0	23·1	95
Gadag	2,131	936·0	−1·5	933·1	83·6	−1·7	90	20	69·3	+0·5	67	23	72·8	78·9	70·0	74·7	24·9	+2·5	27·6	89
Hyderabad, North																				
Aurangabad	1,905	942·0	−2·3	939·2	83·0	−3·2	89	1	70·1	+0·9	66	17	72·3	78·4	70·8	73·1	25·1	+2·1	25·5	94
Parbhani	1,356	958·2	...	954·9	85·3	...	91	1	71·3	...	69	9,16	75·1	80·0	72·2	74·4	25·7	...	26·6	86
Bidar	2,178	932·3	...	929·3	83·1	−1·0	87	18,19	70·0	−0·1	68	5 days	72·0	79·3	70·4	72·6	24·8	+1·5	24·7	90
Nizamabad	1,250	961·9	−3·0	958·8	85·5	−2·1	91	1	73·4	+0·5	71	2,6,9	75·6	82·0	73·0	75·9	26·6	+0·9	27·8	87
Ramagundam	527	986·7	...	983·3	88·6	...	95	2	75·8	...	73	17,20	79·4	84·5	75·5	77·5	28·4	...	29·0	83
Hyderabad, South																				
Gulbarga	1,503	955·0	−2·4	951·1	86·6	−2·0	92	17,18	71·3	−0·2	69	11,22,23	74·6	83·6	71·9	73·8	25·7	+2·0	24·4	88
Raichur	1,311	962·1	−2·0	958·0	87·7	−1·6	94	17	72·5	−0·1	68	22	75·9	82·3	71·1	73·2	23·9	−0·4	23·9	80
Hyderabad (Begumpet)	1,778	945·6	−2·0	942·3	85·4	−0·8	90	1,2	72·1	+0·7	70	9,23,29	75·2	80·1	72·3	74·1	26·0	+0·9	25·3	87
Hanamkonda	881	974·5	−2·8	971·4	87·7	−0·5	93	11	74·8	+0·3	70	28	78·6	82·6	74·7	76·1	27·6	+0·5	27·8	83
Khammameth(R)	367																			
Mysore																				
Chitaldrug	2,405	927·3	−1·4	924·3	81·4	2·9	86	18	68·5	+0·5	66	21	70·9	77·4	68·0	69·8	22·2	+0·3	22·0	86
Hassan	3,149	904·2	...	901·7	77·9	−3·1	81	4 days	65·2	+0·4	63	21,27,30	68·2	73·2	67·3	70·5	22·5	+1·5	24·5	96
Bangalore	3,021	908·0	−1·0	904·9	79·3	−2·8	83	28,30	65·9	+0·6	63	21	69·1	75·4	66·9	68·8	21·7	+0·5	21·5	89
Mysore	2,518	924·6	−1·2	921·9	82·1	−2·1	86	30	67·1	+0·5	64	27	71·3	77·2	67·8	69·6	21·8	+0·1	21·7	83
Malabar																				
Mangalore	72	1007·2	−1·1	1004·7	83·6	−0·7	86	4 days	74·4	+0·1	72	2,21	77·1	80·5	75·3	76·9	29·1	+0·3	29·9	92
Calicut	27	1009·0	−0·9	1006·3	84·9	+0·5	87	4 days	74·4	−0·2	72	2	76·9	82·2	75·0	77·4	28·8	+0·1	29·9	91
Palghat	319	998·9	...	995·7	84·3	...	87	29,30	73·3	...	71	23	76·5	80·0	74·4	75·4	28·2	...	28·0	91
Cochin	10	1010·3	0·7	1007·3	83·2	+0·2	85	6 days	75·3	−0·1	73	25	78·7	80·5	75·9	76·8	29·3	+0·7	29·8	87

(R) Register not received.

Cloud amount, (Oktas).			Rainfall, inches.				Number of rainy days. (0·10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																			STATION
											0830 hrs. I. S. T.									1730 hrs. I. S. T.										
0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
4	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
																														C. P., East—*contd.*
·8	+2·2	6·8	11·28	+3·59	4·80	28	12	+1·7	5·8	+2·1	0	4	3	2	2	10	5	2	2	1	2	2	3	3	7	3	4	5		Raipur
·4	...	5·4	13·42	...	2·63	13	16	...	3·0	...	1	2	1	4	11	9	2	0	0	2	3	2	3	6	7	5	2	0		Titilagarh
·7	+1·1	6·6	6·29	−3·95	1·35	9	13	+0·7	4·7	+1·1	1	0	0	0	0	11	5	0	13	1	0	1	0	1	4	2	0	21		Kanker
·2	+2·6	7·5	17·02	+8·11	3·40	7	20	+9·3	4·9	+1·8	0	3	1	0	1	13	1	9	2	1	3	1	4	2	9	1	7	2		Chanda
·7	+1·7	7·3	9·26	−1·12	2·84	8	14	+0·4	5·2	+2·8	0	4	0	1	0	18	2	0	5	0	4	0	11	2	6	2	5	0		Jagdalpur
																														Konkan
·1	...	7·4	23·52	...	4·75	23	21	...	11·0	...	2	0	5	5	2	4	10	1	1	2	0	0	1	0	5	19	2	0		Dahanu
·6	+0·9	6·5	49·01	+38·62	17·04	23	19	+6·3	(b) 8·6	+1·6	2	1	2	2	3	5	9	2	4	1	0	0	0	0	5	18	4	2		Bombay
·9	+1·1	...	48·62	+38·15	15·60	23	24	+9·5	9·0	+0·2	2	0	1	8	1	1	6	3	8	...	...	...	...	...	...	...	...	...		Alibag
.	...	...	37·49	...	12·15	23	23	...	9·1	...	2	0	13	0	1	1	13	0	0	0	0	2	0	2	2	24	0	0		Harnai
·8	...	6·8	24·31	...	4·84	21	22	...	10·3	...	0	2	6	2	3	1	8	8	0	0	[illegible]	0	0	0	6	12	12	0		Devgad
·8	...	6·4	24·20	...	4·04	21	23	...	...	...	1	0	0	1	1	1	4	1	21	0	0	0	0	2	6	12	2	8		Vengurla
·5	−0·2	5·9	20·40	−12·74	4·79	21	21	+6·8	8·5	+3·1	0	4	2	3	7	3	7	4	0	0	0	0	0	5	2	16	7	0		Marmagao
·5	...	6·3	16·42	+2·85	1·60	25	22	+5·4	2·3	...	0	0	9	4	0	1	6	3	7	0	0	0	1	3	1	9	6	10		Honavar
																														Bombay Deccan
·4	...	5·4	17·70	+11·69	3·80	16	17	+9·3	5·8	...	0	0	0	0	0	9	14	7	0	0	2	0	1	2	2	17	6	0		Jalgaon
·0	+1·7	6·2	12·67	+6·88	2·72	24	16	+8·3	5·2	+0·7	1	0	0	0	0	7	1	3	18	0	1	0	0	0	8	11	6	4		Malegaon
·4	+2·0	6·9	12·08	+5·54	3·87	24	12	+3·4	4·7	−1·5	0	0	0	0	0	4	4	10	12	3	0	0	0	0	0	9	13	5		Ahmednagar
·1	+0·7	6·7	6·93	+0·64	2·13	22	9	+1·4	3·4	−3·3	1	0	0	0	0	4	13	5	7	0	0	0	0	0	2	16	12	0		Poona
·5	+1·5	6·9	17·41	+9·82	3·67	23	14	+4·9	6·2	−0·2	2	0	0	0	0	25	2	0	1	2	2	2	0	0	11	4	3	6		Sholapur
·3	0	6·4	7·29	+3·41	2·73	23	7	+1·3	9·3	+1·8	1	0	0	0	0	10	18	1	0	1	0	0	0	1	6	20	2	0		Miraj
·9	...	5·7	5·74	...	1·91	23	7	...	9·1	...	0	0	0	0	0	4	22	2	2	0	0	0	0	0	1	27	2	0		Kolhapur
·5	+0·7	5·1	11·70	+6·16	5·66	22	9	+1·0	8·1	+2·1	0	0	0	0	0	10	13	1	0	1	0	0	0	0	5	12	12	0		Bijapur
·8	−0·1	6·2	3·47	−1·33	0·91	22	12	+2·9	5·5	+1·7	0	0	0	0	0	14	16	0	0	0	0	0	0	0	14	16	0	0		Belgaum
·2	+1·6	6·9	5·42	+0·74	1·90	20	7	+0·6	10·7	+2·5	0	0	0	0	0	9	15	6	0	0	0	0	0	0	9	15	6	0		Gadag
																														Hyderabad, North
·8	+2·5	7·8	12·49	+5·80	2·82	5	13	+4·0	8·6	+1·7	1	1	0	0	0	5	21	2	0	5	1	1	0	0	2	15	6	0		Aurangabad
·4	...	6·6	13·84	+5·79	2·79	24	14	+4·4	...	...	0	0	0	0	0	0	29	0	1	8	0	0	0	2	3	13	0	4		Parbhani
·8	+2·0	6·7	26·67	+18·13	80·0	21	15	+4·0	9·9	+2·2	2	0	0	0	0	12	9	7	0	2	1	0	0	0	3	10	13	1		Bidar
·2	+1·6	5·8	11·00	+2·09	2·38	23	18	+8·0	2·8	−0·3	0	1	0	0	0	6	7	6	10	2	3	0	0	0	5	6	5	9		Nizamabad
·6	...	6·5	6·94	...	1·47	23	12	...	3·8	...	3	1	0	2	1	1	9	8	5	1	1	3	1	1	2	12	2	7		Ramagundam
																														Hyderabad, South
·5	+1·6	6·4	14·74	+7·28	3·03	21	14	+3·9	9·4	+2·8	1	0	0	0	0	14	6	9	0	2	0	0	0	0	4	7	17	0		Gulbarga
8	+1·7	6·4	14·04	+7·81	1·15	22	7	−2·4	11·7	+4·3	0	0	0	0	0	9	15	6	0	0	0	0	0	0	2	16	12	0		Raichur
·3	+1·0	7·0	6·15	−0·30	0·77	3	16	+6·5	8·7	+2·6	2	1	0	0	0	1	19	6	1	4	2	0	0	0	1	15	6	2		Hyderabad (Begumpet).
·8	+0·8	65	9·54	+2·20	4·11	3	13	+3·9	5·8	+1·5	4	0	1	0	2	3	11	7	2	4	2	1	0	2	3	8	8	2		Hanamkonda
																														Khammameth (R)
																														Mysore
·8	+0·6	6·6	3·59	−0·78	1·43	1	6	−1·1	9·1	+3·2	0	0	0	0	0	9	19	2	0	0	0	0	0	0	6	20	4	0		Chitaldrug
·6	+1·8	7·6	1·14	−3·19	0·25	8	5	−3·1	9·3	+4·2	0	0	0	0	0	4	26	0	0	0	0	0	0	0	3	27	0	0		Hassan
·1	+0·5	6·8	4·03	−2·63	0·91	11	9	+0·1	9·6	+3·8	0	0	0	0	0	9	19	2	0	1	0	0	0	0	6	18	5	0		Bangalore
·1	+0·3	6·8	1·54	−3·41	0·77	20	3	−5·2	8·3	+2·3	0	0	0	0	0	6	23	0	1	0	0	0	0	0	5	24	1	0		Mysore
																														Malabar
·2	+1·4	7·1	16·93	+6·45	2·53	18	24	+8·5	4·6	+0·7	5	2	9	7	1	1	3	2	0	5	0	0	0	1	9	7	8	0		Mangalore
·6	+1·2	6·7	16·65	+8·71	2·04	7	21	+9·3	5·6	+1·2	6	9	7	1	1	2	0	2	2	1	0	0	0	1	5	13	10	0		Calicut
·3	...	6·7	7·90	...	1·46	23	18	...	7·2	...	0	0	0	0	0	9	21	0	0	0	0	0	0	0	8	20	2	0		Palghat
·2	+2·1	7·2	17·39	+9·72	2·80	14	20	+6·3	6·0	+1·6	2	5	5	6	0	1	5	4	2	1	0	0	0	0	4	15	10	0		Cochin

(b) Mean of 29 days.

(i) Mean of 22 days.

TABLE II—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M

STATION	Height of bar. cistern above mean sea level in feet	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature. °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Rela humi %	
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date	Mean	Departure from normal	Lowest	Date	Mean 0830 hrs. I.S.T	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T	Departure from normal	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T	Departure
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	2
Malabar—*contd.*																					
Alleppey	12	1010·0	...	1007·2	84·2	...	87	4,5	74·3	...	72	15,20,25	79·2	80·4	76·6	76·7	30·2	...	29·8	89	
Trivandrum	211	1003·2	−0·5	1000·3	83·9	...	87	29	74·2	...	72	14	77·3	80·2	75·2	75·9	28·9	+1·3	28·6	90	+
Nagercoil	195	1003·1	...	1000·0	88·3	...	93	29	75·6	...	73	14	79·5	81·9	74·8	75·3	27·3	...	27·0	80	
Madras, South-East—																					
Pamban	37	1007·1	−1·0	1003·7	88·0	+0·2	90	5 days	80·1	+1·4	78	25	83·4	83·9	77·5	77·5	29·5	−0·6	29.3	76	
Madura	437	993·2	−0·5	989·3	93·6	−0·2	98	14	(b) 76·8	+0·9	72	19	83·2	88·1	74·3	75·8	24·9	−0·3	24·9	64	
Nagapatam	31	1007·2	−0·9	1003·4	92·0	−0·7	95	8,16,27	78·3	+0·9	73	18	82·7	86·6	75·7	78·5	27·2	−0·6	29·6	72	
Trichinopoly	295	998·0	−1·4	993·8	92·4	−1·7	96	26	76·5	+0·3	72	24,29	81·4	88·9	73.9	76·2	25·2	−1·3	25·1	68	
Coimbatore	1,341	962·9	−1·3	959·8	87·7	−1·0	90	6 days	71·9	+1·0	70	14,20,26	75·9	80·9	71·2	72·4	24·0	−1·2	23·3	79	
Salem	913	977·0	−1·5	972·9	90·4	−1·4	94	28	74·3	+1·3	72	12,23	77·6	87·3	72·9	74·6	25·7	−0·3	23·6	79	
Cuddalore	39	1006·3	−1·2	1002·1	92·6	+0·1	97	17	77·4	+0·6	73	12	82·4	88·5	76·9	78·7	28·3	−0·2	30·1	75	
Vellore	703	983·5	−0·9	979·6	90·6	−1.6	94	27,28,30	76·3	+1·0	72	10	80·1	87·1	73·6	76·0	25·4	−0·5	26·6	72	
Madras	51	1005·3	−1·2	1001·6	90·7	−3·2	94	4 days	77·0	−0·2	73	11,12,21	81·6	86·3	75·7	77·8	27·7	0	28·6	75	
Arogyavaram	2,299	930·7	...	927·3	83·1	...	87	12,28	70·5	...	61	21	74·0	80·7	68·2	70·6	20·9	...	21·0	74	
Madras Deccan—																					
Cuddapah	428	992·4	−1·8	988·2	90·0	−3·6	94	6 days	76·5	0	71	21,22	81·9	86·5	75·3	78·6	27·0	+0·6	29·8	73	
Bellary	1,473	957·1	−1·9	953·5	86·6	−3·9	91	11,18,19	73·3	+0·3	70	20,22	72·8	83·1	70·5	72·9	24·4	+2·0	23·0	74	
Kurnool	923	975·2	−1·8	971·1	87·4	−2·6	94	11	72·6	−1·4	68	22	77·1	84·9	72·5	74·5	25·2	+0·4	24·4	80	
Rentichintala	348	993·5	...	989·4	89·9	−4·1	95	17	76·9	−0·4	72	22	81·8	88·2	74·9	76·2	26·4	−0·8	25·4	72	
Anantapur	1,147	968·7	...	963·9	89·2	...	94	4 days	73·6	...	69	22	77·7	85·9	72·5	74·8	24·9	...	24·4	77	
Madras Coast, North—																					
Nellore	66	1003·9	−1·7	1000·4	91·4	−3·3	97	12,17	78·2	0	72	19	82·6	88·4	75·9	78·2	27·5	−0·2	28·3	73	
Ongole	38	1004·0	...	1000·3	92·4	...	100	12	78·7	...	71	22	83·4	88·5	75·4	76·3	26·4	...	25·4	69	
Masulipatam	10	1004·7	−2·3	1001·3	88·5	−2·0	95	12	78·9	+1·3	73	22	81·7	84·5	78·1	79·1	32·3	+1·4	31·5	84	
Cocanada	26	1003·7	−2·2	1000·5	88·7	−1·1	94	5.12,19	77·4	−0·7	73	19,27,28	81·9	84·3	77·8	78·7	30·7	−0·1	30·9	83	
Vizagapatam	126	999·8	−2·2	996·8	87·5	−0·9	94	6,13	78·1	−0·3	73	27	82·0	82·9	77·3	77·7	29·9	−0·3	30·1	80	
Calingapatam	19	1003·3	−2·1	1000·3	87·8	−2·0	95	7	78·7	+0·3	76	8,20,26	81·4	84·0	78·4	79·3	31·8	−0·1	32·1	87	
Hill Stations excluding Kashmir																					
Shillong	4,921	847·8	−1·1	845·1	74·9	+0·6	80	20	62·6	+1·0	59	18,21	69·9	69·0	65·9	66·2	20·1	+0·6	20·6	81	
Cherrapunji	4,309	867·0	−0·7	864·1	73·1	−0·2	81	20	64·4	−0·2	61	28	68·9	68·5	66·7	66·9	21·7	+0·6	22·0	91	
Aijal	3,599	...	...	..	78·7	...	85	20	67·4	...	65	5 days	70·7	71·1	69·2	70·1	23·8	...	24·8	93	
Darjiling	7,432	775·0	−1·5	772·8	65·9	+1·3	71	21	56·6	+0·6	54	28,29,30	61·0	59·8	60·3	59·1	17·8	+1·3	17·1	97	
Kalimpong	3,965	877·1	−0·8	874·6	75·5	+2·8	81	20	66·5	+0·7	65	6 days	69·3	71·1	67·9	68·9	22·6	0	23·5	93	
Katmandu	4,388	864·9	...	861·7	83·7	+1·1	88	5 days	67·0	+1·3	64	26,27,30	72·5	74·4	68·4	69·9	22·2	+0·9	23·2	81	
Gyanste	13,110	626·4	...	...	70·0	+2·9	77	2	41·9	+2·1	36	25,27	56·8	...	47·9	...	8·5	+0·5	...	55	
Muktesar	7,592	770·6	−1·4	768·6	66·9	−0·8	73	12	56.4	+1·3	52	30	59·5	61·7	57·9	59·7	15·9	+1·5	16·7	91	
Mussoorie	6,699	795·0	...	793·1	69·2	+1·7	72	23,30	59·3	+2·0	51	30	64·1	63·2	59·4	62·6	15·7	−0·5	18·1	89	
Simla	7,224	779·8	−1·3	778·8	69·7	+1·3	74	15	56·8	+0·5	44	30	63·4	64·7	58·0	61·0	12·6	−0·8	17·1	74	
Abu	3,945	876·0	−1·5	874·2	78·0	+2·8	84	10,24,28	66·0	+1·2	63	30	69·2	74·1	66·3	69·5	20·9	+2·2	22·8	85	
Pachmarhi	3,528	888·6	−2·5	886·3	76·0	−1·5	83	1	68·1	+2·0	65	6	70·6	73·2	69·3	71·0	24·3	+2·8	25·0	94	
Mahabaleshwar	4,534	859·7	−1·8	857·3	66·6	−1·2	72	1	61·2	+0·4	59	5 days	62·9	63·3	62·9	63·3	19·6	+0·4	19·9	100	

(b) Mean of 29 days.

Cloud amount (Oktas).			Rainfall, inches.				Number of rainy days, (0·10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from:—																		STATION
											0830 hrs. I. S. T.									1730 hrs. I. S. T.									
Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																													Malabar—*contd.*
6·7	...	7·1	17·32	...	4·59	20	24	...	5·8	...	4	3	5	1	1	0	4	10	2	2	1	0	1	0	2	8	16	0	Alleppey
5·8	+0·4	6·3	4·01	−0·50	0·55	2	11	+2·9	6·0	+0·2	7	2	0	0	0	0	1	17	3	3	0	0	0	0	0	6	21	0	Trivandrum
6·2	...	6·6	0·82	...	0·19	1	4	...	10·3	...	0	0	0	0	0	0	17	13	0	0	0	0	0	0	0	24	6	0	Nagercoil
																													Madras, South East
3·7	+0·8	4·8	0·05	−1·09	0·05	18	0	−1·9	10·4	+2·6	0	0	1	3	12	11	2	1	0	0	0	0	9	15	6	0	0	0	Pamban
5·4	+0·6	6·8	5·02	+0·32	1·28	30	7	+0·5	3·6	+0·4	1	0	0	0	0	0	10	11	8	1	2	3	2	0	2	9	2	9	Madura
6·5	+2·3	6·5	3·63	+0·33	1·20	12	5	−0·1	5·6	+0·8	0	0	0	0	2	15	13	1	0	0	0	0	9	10	3	1	1	1	Nagapatam
6·2	+2·0	6·8	6·94	+2·22	1·89	10	9	+3·0	12·5	+1·9	1	0	0	0	0	0	19	10	0	2	0	2	2	4	3	9	6	2	Trichinopoly
5·1	+1·2	5·7	0·29	−1·30	0·14	20	1	−2·3	10·7	+6·0	0	0	0	0	12	15	3	0	0	0	0	0	0	11	15	4	0	0	Coimbatore
5·7	+1·0	6·7	3·77	−2·30	0·92	12	8	−0·5	4·7	+1·6	0	0	0	0	5	18	5	0	2	0	3	0	0	3	6	9	0	9	Salem
7·1	+2·5	5·2	2·81	−2·40	1·79	20	3	−3·2	6·3	+2·4	0	0	0	0	2	23	3	1	1	0	0	1	9	1	17	0	0	2	Cuddalore
4·9	+0·9	6·6	3·96	−2·92	1·67	10	7	−1·1	3·9	+0·8	0	0	0	0	1	11	3	1	14	0	0	0	0	7	5	2	1	15	Vellore
6·4	+1·4	6·5	6·74	+2·06	1·70	11	9	+2·0	10·4	+0·4	0	0	0	0	2	11	16	1	0	0	1	3	15	1	2	7	1	0	Madras
6·8	...	7·0	3·52	...	0·98	20	7	...	7·4	...	0	0	0	0	0	1	22	3	4	2	0	0	1	0	1	17	9	0	Arogyavaram
																													Madras Deccan—
6·0	+0·6	6·4	7·91	+1·88	2·91	21	9	+0·7	3·5	−1·4	0	0	0	0	0	0	6	1	23	0	0	2	0	0	1	6	2	19	Cuddapah
6·7	+1·7	6·8	3·89	+1·02	2·32	21	7	−0·1	8·2	+1·9	0	0	0	0	0	1	20	2	7	0	0	0	0	0	4	21	4	1	Bellary
6·5	+1·1	7·2	17·75	+11·79	4·67	21	11	+1·8	11·2	+5·1	0	0	0	0	0	9	16	5	0	1	0	0	0	0	6	11	12	0	Kurnool
6·8	+1·0	7·8	4·06	−0·70	1·35	22	8	+0·7	6·1	+0·2	1	0	0	0	1	7	18	2	1	2	0	0	0	0	3	24	1	0	Rentichintala
5·9	...	6·7	5·85	−0·43	2·05	19	6	−0·9	11·0	...	0	0	0	0	0	5	23	1	1	0	0	0	0	0	3	22	4	1	Anantapur
																													Madras Coast—North
5·8	+0·4	6·9	8·51	+4·05	3.68	21	6	+0·1	4·0	−0·3	0	0	0	0	2	1	12	4	11	0	0	1	3	0	0	12	2	12	Nellore
5·7	...	6·7	15·58	...	9·16	22	7	...	7·2	...	0	0	0	0	0	9	17	2	2	1	0	0	3	2	9	13	1	1	Ongole
6·2	+0·8	6·5	6·97	+0·60	1·98	21	11	+1·1	7·2	+2·7	0	0	0	0	2	10	11	5	2	1	0	0	0	13	4	2	3	7	Masulipatam
6·3	+0·9	6·1	7·03	+0·87	1·73	21	9	+0·2	6·5	+2·3	0	0	0	1	1	26	0	2	0	0	2	0	1	0	25	1	1	0	Cocanada
6·1	+0·3	6·4	11·59	+5·04	2·38	21	12	+2·9	5·6	+2·2	1	0	0	1	1	8	14	4	1	0	0	1	1	5	14	5	2	2	Vizagapatam
7·0	+2·5	7·4	10·25	+3·32	2·95	20	13	+3·9	7·9	+3·4	0	2	0	1	1	7	12	7	0	0	1	2	2	2	12	10	1	0	Calingapatam
																													Hill stations excluding Kashmir
6·4	+0·8	7·2	15·90	+4·11	3·42	29	17	−0·3	1·7	+0·2	0	1	1	1	0	1	0	0	26	1	0	0	0	1	2	0	0	26	Shillong
6·5	+0·4	6·3	74·09	+30·74	13·61	29	21	+1·8	5·9	+2·0	1	10	5	4	6	3	0	0	1	2	6	1	3	3	7	3	2	3	Cherrapunji
5·1	...	5·9	13·52	...	2·90	13	21	...	3·4	...	0	0	7	8	5	8	0	0	2	2	1	2	1	2	10	3	5	4	Aijal
6·9	+0·5	6·7	17·11	−1·79	2·32	30	20	+3·0	4·6	+1·4	0	1	18	4	1	0	5	0	1	0	0	12	6	0	2	7	0	3	Darjiling
5·1	+0·2	5·9	17·43	+6·11	2·96	16	14	+1·3	4·8	−0·8	1	0	0	4	0	0	3	10	12	0	0	0	28	0	0	0	1	1	Kalimpong
6·7	+0·7	6·7	5·39	−1·77	1·08	12	12	−1·3	0·8	0	2	1	5	4	0	0	0	0	18	3	1	2	1	0	0	0	3	20	Katmandu
3·1	−1·0	...	0·50	−0·79	0·21	3	2	−2·5	2·0	−0·4	1	1	3	4	1	1	0	0	19	...	...	...	...	...	...	...	...	...	Gyanste
5·1	+0·8	5·3	12·01	+4·08	2·20	15	14	+3.9	7·6	+2·6	0	6	6	1	1	4	8	3	1	0	3	3	1	1	6	11	3	2	Muktesar
5·3	+0·5	6·7	10·14	+0·19	6·20	26	7	−5·8	...	...	5	4	4	6	6	2	1	1	1	2	3	1	6	8	3	2	1	4	Mussoorie
3·5	−0·1	5·5	5·55	+0·13	3·04	18	8	−1·3	1·3	−1·2	4	6	2	2	2	1	0	0	13	5	5	2	2	3	5	1	4	3	Simla
3·1	−1·3	5·6	4·97	−4·40	2·43	11	6	−1·6	3·4	−2·0	1	1	0	0	3	10	1	2	12	1	1	1	0	4	9	2	2	10	Abu
7·1	+1·9	7·1	37·93	+23·74	7·19	6	21	+7·9	3·5	−0·9	4	1	4	0	0	5	9	5	2	4	4	1	0	0	1	8	6	6	Pachmarhi
8·0	+1·0	8·0	49·65	+20·91	6·79	22	29	+6·4	7·5	−0·3	1	0	0	0	0	25	0	4	0	0	0	0	0	0	24	4	2	0	Mahabaleshwar

STATION	Height of bar, cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F				Minimum temperature, °F				Dry bulb temperature, °F		Wet bulb temperature, °F		Vapour pressure, millibars.			Relativ humidit %	
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.
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 —*contd.*																					
Mercara .	3,781	883·8	—1·3	882·5	69·8	—2·0	75	11,30	62·7	+0·9	61	21	64·4	66·7	64·0	65 8	20·2	+0·7	21·3	93	+6
Ootacamund .	7,364	778·5	—0·9	777·0	64.5	—0·1	69	5 days	54·1	+3·1	50	21	56·5	57·9	54·4	55·5	13·7	+0·5	14·2	88	+5
Coonoor .	5,730	826·0	...	...	72·2	+1·1	75	4 days	58·1	+1·8	55	16,18	66·9	...	63·4	...	18·6	+4·2	...	83	+17
Kodaikanal .	7,688	770·2	—0·2	768·4	64·0	+1·3	68	27	53·1	+1·1	51	4 days	57·3	56·8	53·9	55·3	12·9	+0·3	12·6	81	+5
Ceylon																					
Colombo .	24	1009·9	—0·6	1007·1	85·6	—0·4	87	6 days	78·0	+1·4	74	1,29	81·2	82·3	77·2	77·3	30·1	+1·2	29·7	83	0
Trincomalee .	24	1008·1	+0·1	1004·8	92·4	+0·4	98	28	77·8	+1·1	73	13	81·9	85·5	75·6	77·0	27·4	+0·1	27·8	74	—4
Hambantota .	61	1007·5	—0·8	1004·6	85·4	—1·2	95	26	(b) 76·1	+0·1	71	1	79·3	80·4	76·0	76·1	29·2	+0·8	28·8	86	+1
Mannar . .	12	1008·6	...	1005·4	87·3	...	89	20,27	79·6	...	76	25	82·5	82·7	77·8	77·7	30·4	...	30·2	80	...

(*b*) Mean of 29 days.

Cloud amount, (Oktas).			Rainfall, inches.				Number of rainy days, (0·10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																		STATION
											0830 hrs. I. S. T.									1730 hrs. I. S. T.									
0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																													Hill Stations Excluding Kashmir —*contd.*
7·4	+1·0	7·3	20·54	+9·46	2·02	22	27	+8·8	8·7	+2·5	0	0	0	0	3	3	12	12	0	0	0	0	0	5	5	10	10	0	Mercara
5·2	−0·5	6·6	1·98	−3·85	0·53	23	6	−6·0	1·2	−2·3	0	0	0	0	0	1	10	0	19	0	0	0	0	0	1	4	1	24	Ootacamund
4·8	−0·2	...	3·60	+0·04	1·08	17	8	+1·0	4·7	+1·2	1	0	0	4	7	6	8	4	0	...	...	...	...	...	...	...	...	...	Coonoor
6·0	+1·5	7·7	2·76	−4·52	0·57	10	7	−4·9	11·5	+4.2	1	0	0	4	1	0	9	15	0	2	0	0	3	1	1	9	14	0	Kodaikanal
																													Ceylon
6·0	+0·2	7·0	3·16	−2·51	1·37	29	9	+0·2	...	...	0	0	0	3	1	9	15	1	1	0	0	0	0	3	16	11	0	0	Colombo
6·0	+2·4	6·8	3·29	−0·60	2·59	30	2	−3·4	...	...	0	0	0	0	0	30	0	0	0	1	1	0	5	2	19	2	0	0	Trincomalee
6·1	+2·3	7·1	1·75	−0·91	0·54	8	5	+0·2	...	...	0	0	0	0	1	27	2	0	0	0	0	0	0	6	21	3	0	0	Hambantota
6·5	...	6·6	0	...	0	...	0	...	...	...	0	0	0	0	12	18	0	0	0	0	0	0	0	13	17	0	0	0	Mannar

TABLE III—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M. T.) AT 4TH CLASS STATIONS—SEPTEMBER 1949

STATION	Maximum temperature, °F.				Minimum temperature, °F.				Mean dry bulb temperature, °F. 0830 hrs. I. S. T.	Mean wet bulb temperature, °F. 0830 hrs. I.S.T.	Vapour pressure, millibars.		Relative humidity, %		Mean cloud amount 0830 hrs. I. S. T.	Rainfall, inches.				Number of rainy days, (0·10" or more).		Wind
	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.			Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 0830 hrs.I.S.T.	Departure from normal.		Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Resultant direction 0830 hrs. I.S.T.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Assam																						
Lumding .	91·3	+2·7	96	2	75·3	+0·1	73	29	84·8	78·7	30·9	+0·3	75	—10	...	5·40	—1·98	0·96	29	13	+2·2	...
Kashmir																						
Jammu . .	94·7	+2·8	100	12,13	76·1	+1·0	62	30	81·5	74·7	26·0	+2·8	72	+4	3·2	6·30	+2·79	2·65	21	3	—1·1	...
Kargil (R)																						
Mysore																						
Balehonnur .	74·0	—2·4	77	11days	64·6	+0·1	61	21,30	67·7	66·9	22·2	+0·5	96	+3	...	14·80	+7·12	1·71	20	23	+7·0	...
Tibet																						
Yatung (Chumbi)	67·3	+4·6	70	5,7	45·9	—1·2	43	28,30	57·9	56·6	15·1	+2·6	93	+8	1·9	3·01	—1·34	0·61	16	12	+1·0	...

(R) Register not received.

TABLE IV—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M. T.) AT 5TH CLASS STATIONS—SEPTEMBER 1949

Division.	Station.	Rainfall, inches.				Number of rainy days (0·10" or more).		Division.	Station.	Rainfall, inches.				Number of rainy days (0·10" or more).
		Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.			Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.
1	2	3	4	5	6	7	8	1	2	3	4	5	6	7
Assam . .	Mawsynram .	56·22	...	11·20	28	18	...	East Punjab—*contd.*	Dalhousie . .	4·82	—2·03	2·85	2	6
West Bengal .	Bankura . .	4·16	—3·71	0·67	5	8	—3·0	Kashmir . .	Sonamarg . .	1·03	—2·02	0·49	30	2
Bihar . .	Muzaffarpur .	8·97	+0·32	2·07	12	12	+2·5		Gurez . .	3·43	—1·57	1·50	28	4
	Chapra . .	12·21	+4·73	2·21	17	14	+5·3	Bombay, Deccan .	Khandala . .	41·25	+13·90	6·90	22	29
	Arrah . .	13·29	+5·10	2·19	12	14	+4·5	Madras, Southeast .	Palamcottah .	0·95	—0·28	0·95	30	1
East Punjab .	Dharampore .	2·85	—4·26	0·80	30	6	—1·5							
	Kyelang . .	0·45	—1·16	0·30	29	2	—0·6	Sikkim . . .	Lachung .	10·46	+2·77	1·17	21	21

MONTHLY MEANS OF UPPER WINDS

NOTE.—Data upto 9·0 Km. a. s. l. are given under Table A and data above 9·0 Km. a. s. l. under Table B.

In Tables A and B—

n Represents the number of observations.

V Represents the mean wind speed in m/second irrespective of direction.

v Represents the resultant mean velocity in m/second.

D Represents the direction of the resultant mean wind in degrees East of North.

For the co-ordinates of stations for which data have been published in these Tables and other particulars please refer to the Monthly Weather Report January 1948 and subsequent issues.

The data for Minicoy from Jan. 1949 to Sept. 1949 have been included in this issue.

—10 D. D. G. ob.

Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

September 1949

Station	AHMEDABAD												ALLAHABAD										
Time in I. S. T.	0230				0730				1430				0230				0730				1430		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface	30	2·1	1·7	240	30	1·8	1·5	262	30	2·5	2·0	282	30	1·2	0·8	89	30	1·4	0·7	94	30	2·5	0·6
0·15 a. g.	30	8·2	7·1	256	29	6·6	6·0	274	29	4·6	3·9	272	29	5·1	2·4	114	29	4·3	2·1	102	28	4·6	1·8
0·6 a. s. l.	30	9·7	9·0	275	29	9·5	8·8	295	29	4·8	4·2	271	26	5·1	2·1	144	27	5·4	2·0	123	28	4·5	1·3
1·0 ,,	29	7·8	6·7	276	28	8·0	6·7	291	28	5·1	4·3	271	25	4·7	2·0	153	23	4·7	1·0	157	28	4·9	1·8
1·5 ,,	28	5·1	3·1	283	27	6·3	4·0	269	26	4·9	3·3	276	22	3·8	0·8	140	22	5·1	1·0	124	24	5·4	0·8
2·0 ,,	24	4·9	2·0	54	24	5·6	1·3	304	20	4·9	1·2	327	18	3·4	0·3	360	20	5·2	1·6	77	21	4·7	0·6
2·5 ,,	22	6·5	3·9	73	22	5·7	2·3	45	17	5·5	2·8	55	14	3·6	0·7	33	18	4·7	0·8	79	17	3·6	1·1
3·0 ,,	21	7·3	5·5	63	17	6·9	5·2	63	13	5·2	3·1	70	12	4·1	0·6	8	15	4·2	1·5	114	14	4·5	1·5
4·0 ,,	15	5·8	4·3	56	14	6·5	5·7	61	9	4·8	2·7	43	2	2·7	1·8	358	12	4·6	0·8	172	11	4·7	2·0
5·0 ,,	5	4·1	2·1	60	8	6·8	6·4	54	8	6·2	3·5	59					10	4·3	2·0	220	6	6·7	5·5
6·0 ,,	4	4·7	4·4	51	4	6·6	6·2	76	6	6·9	5·8	96					8	4·8	0·9	182	4	5·9	4·7
7·5 ,,	3	6·0	5·9	53	2	7·8	7·3	79	4	5·1	2·9	76					6	4·5	0·7	225	3	8·0	6·1
9·0 ,,					2	8·0	7·3	77	3	4·3	2·2	350					3	6·2	2·4	250	3	6·5	4·2

Station	AMBALA												ASANSOL										
Time in I. S. T.	0230				0730				1430				0230				0730				1430		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface	30	1·7	1·5	103	30	2·1	1·9	109	30	2·2	0·2	75	30	1·5	0·9	145	30	1·4	1·1	124	30	2·1	1·6
0·15 a. g.	30	5·8	4·1	119	30	5·2	4·3	112	30	4·9	0·2	70	29	4·5	2·9	167	29	3·3	1·9	130	30	4·2	3·0
0·6 a. s. l.	30	5·7	3·8	128	29	5·8	3·4	133	30	4·6	4·0	334	29	5·1	3·6	173	28	4·7	1·9	139	30	4·3	3·0
1·0 ,,	29	4·7	1·0	142	27	4·8	1·9	141	28	4·3	1·5	292	26	5·3	3·4	167	21	5·4	2·3	168	26	4·5	3·1
1·5 ,,	29	5·5	2·0	328	27	4·6	0·4	12	23	4·9	3·2	304	20	4·8	2·1	165	16	4·7	1·2	151	23	5·1	3·1
2·0 ,,	28	6·9	5·1	320	25	6·9	3·5	339	21	5·3	4·0	317	15	4·1	1·8	144	16	5·0	1·0	111	19	4·4	1·9
2·5 ,,	26	7·4	5·5	325	24	8·2	3·9	207	17	6·5	5·2	323	11	4·0	1·8	120	14	5·4	1·3	117	16	4·3	1·6
3·0 ,,	20	7·5	5·0	328	22	8·3	4·1	342	16	7·1	5·4	330	11	4·1	2·3	126	12	5·3	2·7	124	13	3·9	2·7
4·0 ,,	8	6·4	3·8	326	19	6·1	5·1	333	8	6·6	4·4	314	9	3·3	1·9	129	6	5·3	3·0	101	11	4·6	2·5
5·0 ,,	5	6·5	5·0	325	17	5·9	4·0	327	6	4·4	3·7	280					2	5·0	1·1	252	10	4·3	3·2
6·0 ,,	4	5·1	4·4	333	10	6·5	5·1	283	6	8·8	8·2	294					2	5·5	1·3	193	9	4·3	2·1
7·5 ,,	2	8·3	8·3	286	5	9·3	8·2	287	5	11·0	10·0	281					2	6·5	2·5	142	6	5·7	0·7
9·0 ,,					2	6·5	6·1	287	5	15·8	14·7	281					1	5·0	5·0	245	5	6·5	1·9

Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

September 1949

Station	ANANTAPUR								BANGALORE												BAREILLY			
Time in I. S. T.	0730				1430				0230				0730				1430				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	30	4·7	4·5	258	30	5·0	4·5	274	30	4·4	4·3	261	30	4·6	4·4	266	30	5·4	5·0	269	30	2·2	1·9	89
0·15 a. g. .	27	6·6	6·5	255	29	7·6	7·2	271	23	9·0	8·8	260	28	8·3	8·1	259	30	7·9	7·6	263	27	4·8	3·4	103
0·6 a. s. l. .	27	7·6	7·4	259	29	8·1	7·7	269	..	..	..	..	..	..	..	..	..	..	..	..	25	5·3	3·0	115
1·0 „ .	27	11·8	11·7	275	29	9·0	8·8	270	27	6·5	6·3	258	28	6·5	6·4	260	30	7·1	6·8	264	24	5·3	2·2	118
1·5 „ .	27	10·7	10·5	284	28	9·3	9·2	273	13	13·1	12·9	274	13	13·5	13·3	273	29	8·3	8·1	272	24	6·1	1·8	101
2·0 „ .	26	8·9	8·4	282	27	9·9	9·6	279	10	11·5	11·0	275	8	12·9	12·3	271	26	8·8	8·6	276	23	6·6	1·8	32
2·5 „ .	24	8·5	8·1	279	23	10·4	10·1	281	8	8·4	7·3	279	7	11·1	10·2	276	16	8·0	7·5	277	20	6·0	2·1	2
3·0 „ .	23	8·2	7·5	278	18	10·0	9·5	282	8	7·3	6·7	284	6	8·1	7·4	280	11	5·8	5·3	260	20	5·0	1·8	9
4·0 „ .	13	6·2	4·7	290	10	9·5	9·2	281					3	3·5	2·7	293	6	3·3	2·6	303	18	4·6	1·7	348
5·0 „ .	11	4·1	2·4	267	8	7·6	7·3	277					2	2·5	2·3	306	4	3·0	2·5	269	14	4·3	1·6	316
6·0 „ .	9	3·6	1·3	264	5	5·3	4·1	266					2	1·7	1·7	291	4	2·3	1·0	74	13	4·2	1·5	279
7·5 „ .	6	4·3	1·6	93	4	5·5	2·1	242					1	5·5	5·5	40	2	5·3	5·3	125	9	4·1	2·2	261
9·0 „ .	3	9·8	9·8	85	2	7·7	7·5	109													9	4·4	3·2	287

Station	BAREILLY				BHOPAL												BHUJ							
Time in I. S. T.	1430				0230				0730				1430				0230				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	30	2·0	0·6	97	30	3·9	1·8	263	30	3·3	2·4	284	30	4·5	2·0	317	30	2·6	2·4	242	30	2·0	1·8	248
0·15 a. g. .	29	3·2	0·4	92	24	8·6	4·1	276	27	7·0	4·1	299	25	6·7	3·3	311	29	7·8	7·7	255	29	6·8	6·6	255
0·6 a. s. l. .	29	3·3	0·7	105	24	7·9	3·7	269	27	5·9	3·4	297	25	6·5	3·3	303	29	10·6	10·3	257	29	11·3	11·1	265
1·0 „ .	29	4·6	0·9	103	20	9·1	4·6	292	16	8·6	4·4	320	22	6·7	3·3	331	27	6·7	6·1	245	26	8·5	8·3	256
1·5 „ .	29	6·2	0·9	75	19	6·2	2·7	337	14	6·6	3·3	4	20	7·3	4·1	356	25	4·9	3·0	235	23	5·9	4·7	237
2·0 „ .	27	6·0	1·3	346	17	5·3	2·7	26	12	5·5	3·9	55	16	7·0	5·3	33	22	3·9	0·8	186	21	4·7	2·3	198
2·5 „ .	23	5·4	3·0	330	15	6·2	4·1	42	12	6·1	4·8	48	12	6·9	5·1	52	19	3·9	2·3	89	19	4·2	2·7	136
3·0 „ .	23	4·9	2·4	318	13	6·0	4·6	39	11	5·6	4·6	45	7	6·5	5·6	68	18	4·3	3·5	80	19	4·8	3·7	95
4·0 „ .	22	4·6	2·5	309	8	5·9	3·9	39	9	4·4	3·1	71	5	6·2	4·6	51	14	4·3	3·4	51	16	5·7	4·6	57
5·0 „ .	21	5·3	3·5	298	2	5·7	5·4	62	9	5·1	3·8	95	4	4·6	2·9	73	6	4·9	4·5	54	12	4·7	3·7	65
6·0 „ .	21	7·1	5·3	300					8	6·4	4·3	80	3	5·0	4·8	100	3	9·0	7·6	95	12	6·5	5·3	63
7·5 „ .	12	9·5	6·3	280					4	5·6	1·5	45	3	6·3	6·1	108					10	5·8	4·7	60
9·0 „ .	5	5·6	5·2	279					3	3·0	2·9	299	1	6·5	6·5	180					8	4·7	2·0	51

Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

September 1949

Station	BHUJ				BIKANER								BOMBAY										
Time in I.S.T.	1430				0730				1430				0230				0730				1430		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	30	3·8	3·6	246	30	2·8	1·7	225	30	2·3	0·9	264	30	2·7	1.2	270	30	2·5	1·1	263	30	4 7	4·0
0·15 a. g. .	30	6·9	6·7	245	30	8·9	5·5	230	29	4·5	2·0	245	24	5·0	3·7	262	26	4·9	2·9	252	28	6·1	5·3
0·6 a. s. l. .	30	7·1	6·7	253	29	9·6	5·5	250	29	4·3	2·1	256	23	6·3	5·8	274	23	6·5	5·6	270	25	7·7	7 1
1·0 ,, .	30	6·8	6·2	259	29	7·9	4·0	256	29	4·6	1·9	256	21	6·5	6·0	276	20	6·7	5·8	274	23	7 9	7·5
1·5 ,, .	25	5·2	4·0	255	28	5·0	1·6	246	27	4·7	1·4	231	12	5·5	4·9	276	15	6·7	5·6	274	17	6·3	5·8
2·0 ,,	18	4·6	0·3	77	28	5·3	0·6	288	27	5·0	1·0	236	8	5·3	3·3	286	9	4·9	2·9	285	10	4·5	3·6
2·5 ,, .	13	4 8	2·2	84	27	5·6	1·0	332	25	5·0	1·4	346	5	4 9	3 7	299	7	5·1	2·3	312	8	4·4	2·9
3·0 ,, .	11	5·2	4·0	87	28	5·6	1·9	2	25	5·9	2·6	17	4	4·1	2·4	319	6	4·3	3·3	341	8	4·1	2·4
4·0 ,, .	10	5·3	4·2	82	26	7·3	5·9	28	25	5·4	3·1	3	3	3·8	3 2	332	4	3·6	2·5	344	4	5·3	4·6
5·0 ,, .	10	4·8	3·1	40	20	5·6	3·4	44	24	5·7	3·9	350	1	5·0	5·0	290	2	4·5	4·5	280	1	2·0	2·0
6·0 ,, .	8	6·1	4·7	53	15	6·5	3·5	24	22	7·0	4·7	346	1	6·5	6·5	320	2	3·3	2·8	252			
7·5 ,, .	4	4·0	3·7	59	10	6·6	4·9	1	18	5·9	3·9	356					2	3·5	1·1	300			
9·0 ,, .	2	3·0	1·2	49	7	6·1	4 0	323	8	5·4	5·2	298											

Station	CALCUTTA												COCHIN										
Time in I.S.T.	0230				0730				1430				0230				0730				1430		
Height in K.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	30	1·5	1·3	157	30	1·6	1·2	158	30	2·6	2·3	157	30	2·1	1·0	327	30	1·4	0·3	45	30	3·7	2·9
0·15 a. g. .	30	4·8	3·5	169	30	3·6	2·4	161	30	4·3	3·7	159	21	3·6	2·3	311	29	2·8	1·1	338	29	5·1	4·5
0·6 a. s. l. .	30	7·2	5·7	197	30	5·9	3·5	189	29	4·8	3·6	163	21	6·8	6·7	297	29	6·8	6·5	302	27	7·8	7·4
1·0 ,, .	27	6·5	5·1	198	30	5·9	3·5	189	28	5·2	3·5	160	19	8·7	8·6	298	26	9·0	8·8	300	25	9·7	9·1
1·5 ,, .	27	6·0	4·1	185	29	5·6	3·1	175	23	5·0	3·2	144	13	9·5	9·3	295	20	9·6	9·4	295	18	9·4	9·2
2·0 ,, .	25	5.6	4·0	181	28	5·6	2·7	178	20	5·3	3·5	143	12	9·3	9·1	288	11	7·7	7·5	288	12	7·7	7·6
2·5 ,, .	24	5·5	3·6	180	23	4·9	1·9	171	19	5·3	3·3	143	4	11·6	11·5	281	8	5·4	3·7	291	6	5·8	5·3
3·0 ,, .	21	5·4	2·9	184	21	5·3	1·6	141	19	5·5	3·2	143	3	10·0	10·0	277	7	4·9	4·1	296	6	6·3	5·9
4·0 ,, .	8	5·8	3 7	137	11	4·6	2·9	101	10	4 5	2·8	124					4	2·7	2·1	324	4	2·9	1·5
5·0 ,, .	3	4·0	2·1	193	6	4·4	2·3	113	8	4·4	3·6	108					3	4·7	4·3	92	2	2·3	2·3
6·0 ,, .					5	6·5	5·4	111	7	5·0	4·2	103					2	3·7	3·7	100	2	4·5	4·5
7·5 ,, .					3	7·5	6·1	121	3	4·7	4·4	133					2	7·0	6·9	109	1	6·5	6·5
9·0 ,, .					1	7·5	7·5	110	3	5·7	4·9	143					2	8·7	8·7	103	1	7·0	7·0

Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

September 1949

Station	COOCH BEHAR								CUTTACK												DEOLALI			
Time in I.S.T.	0730				1430				0230				0730				1430				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	30	1·4	1·2	89	30	1·8	0·8	142	30	1·0	0·4	188	30	0·5	0·1	55	30	1·5	0·8	165	23	1·8	1·7	266
0·15 a. g. .	26	4·1	3·2	95	30	3·8	2·1	145	27	5·1	3·2	202	30	3·8	0·7	206	29	4·7	2·8	174	12	5·5	5·4	256
0·6 a. s. l. .	20	5·2	3·4	126	29	4·1	2·5	152	25	7·9	5·5	211	27	6·7	2·3	222	29	5·5	2·6	172	12	3·7	3·6	256
1·0 ,, .	19	5·3	3·0	117	26	4·3	2.7	152	25	7·3	4·0	212	25	6·9	2·5	245	26	6·3	2·2	192	12	6·5	6·2	276
1·5 ,, .	16	4·9	2·4	102	22	4·4	2·0	153	22	7·3	4·1	204	23	7·3	2·2	235	19	6·8	2·4	193	9	7·7	7·2	280
2·0 ,, .	15	4·9	2·3	106	21	4·1	1·9	155	8	6·3	2·5	205	19	7·6	1·6	208	15	6·5	2·7	230	6	5·3	3·8	315
2·5 ,, .	12	3.1	0·5	107	17	4·2	1·9	167	2	6·0	4·6	192	16	5·6	1·4	195	8	4·6	2·3	260	6	4·6	3·4	353
3·0 ,, .	12	3·0	0·2	67	17	3·9	1·6	169	2	6·0	4·5	164	13	5·4	1·7	224	8	4·3	2·8	258	6	3·5	2·9	13
4·0 ,, .	11	3·5	1·0	243	11	4·7	2·5	205					9	3·4	1·8	251	2	3 5	3·5	220	4	2·1	1·2	334
5·0 ,, .	10	3·7	1·4	224	8	4·0	1·9	213					2	3·7	3·6	167	2	4·7	4·7	223	3	2·8	1·2	304
6·0 ,, .	9	4·1	2·4	212	6	3·0	1·7	199					1	3·0	3·0	150	1	6·5	6·5	220	3	4·0	1·1	270
7·5 ,, .	5	4·3	1·9	204	5	4·7	2·9	182									1	4·5	4·5	225	1	4·0	4·0	285
9·0 ,, .	2	4·3	3·9	130	4	6·7	5·3	129													1	4·0	4·0	305

Station	DIBRUGARH								GADAG												GAYA			
Time in I.S.T.	0730				1430				0230				0730				1430				0230			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	30	1·0	0·8	49	30	2·1	1 2	27	30	5·0	4·9	248	30	4·5	4·3	253	30	5·3	5·0	259	30	2·2	1·2	102
0·15 a. g. .	17	2·6	1·8	61	27	2·4	0·9	31	26	9·8	9·6	259	27	7·9	7·8	255	26	10·0	9·6	263	29	4·4	2·5	143
0·6 a. s l. .	15	3·1	2·4	57	26	2·7	0 8	113	..	..	..	..	..	..	..	..	..	..	..	..	29	5·2	2·8	156
1·0 ,, .	14	3·6	2·3	49	26	3·3	0·4	155	25	11·5	11·4	274	27	10·8	10·5	271	26	10·1	9·7	271	28	4·2	2·1	128
1·5 ,, .	14	3·0	1·1	96	26	3·3	1·7	206	19	10·9	10·7	285	21	11·3	10·7	283	24	10·5	10·3	276	26	4·1	1·7	114
2·0 ,, .	12	3·4	1·1	159	26	3·8	2·9	207	18	8·9	8·5	287	18	9·6	9·0	286	19	8·8	8·6	284	21	4·1	2·1	120
2·5 ,, .	11	3·6	1·8	181	22	4·3	3·2	203	18	6·7	6·2	290	17	7·4	6·7	279	13	8·7	8·2	288	16	4·0	1·6	132
3 0 ,, .	10	3·5	1·8	173	19	4·3	3·1	199	16	6·8	6·1	290	14	7·1	6·3	277	10	8·8	8·3	286	13	3·7	2·1	140
4 0 ,, .	6	3·4	0·9	212	17	4·5	2·8	215	8	7·3	7·2	290	12	6·7	6·2	280	4	9·0	8·9	278	4	3·6	2·7	135
5·0 ,, .	6	4·2	2·6	164	17	4·7	3·0	242	5	3·5	3·1	289	12	4·7	3·9	288	2	3·7	3·7	277				
6·0 ,, .	6	4·7	1·9	131	15	3·9	2·3	243	2	5·5	5·5	258	10	4·5	3·2	272	1	4·0	4·0	250				
7·5 ,, .	6	2·7	1·4	162	13	3·6	2·7	249					8	4·3	1·1	126								
9·0 ,, .	5	3·6	2·0	80	12	3·6	0·9	242					4	6·9	5·7	106								

Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

September 1949

Station	GAYA								GOPALPUR								GORAKHPUR						
Time in I.S.T.	0730				1430				0730				1430				0730				1430		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	30	2·6	1·4	100	30	2·6	1·9	57	30	2·4	1·4	232	30	5·5	4·0	180	30	1·7	1·6	82	30	2·0	0·9
0·15 a. g. .	29	4·3	2·5	130	30	4·2	2·7	66	28	5·1	3·4	229	29	8·3	5·7	189	30	4·9	4·6	89	30	4·8	3·0
0·6 a. s. l. .	29	5·5	2·9	136	30	4·7	2·7	83	28	6·4	3·9	238	29	6·2	3·7	196	24	6·1	5·6	114	30	4·8	3·7
1·0 ,, . .	29	5·4	2·9	117	30	4·9	2·3	106	28	7·0	4·1	252	27	5·6	2·0	212	22	6·2	5·0	112	27	4·4	2·9
1·5 ,, . .	27	5·5	3·2	97	29	5·1	2·1	128	26	7·6	4·7	263	26	5·7	2·6	250	16	4·6	1·4	85	24	5·6	2·7
2·0 ,, . .	26	5·4	3·0	98	24	5·9	2·1	159	22	6·5	4·2	264	22	7·1	3·3	253	16	4·7	1·0	46	20	5·9	1·2
2·5 ,, . .	24	5·2	3·0	100	22	5·0	1·6	146	19	6·1	4·6	260	21	7·6	2·9	244	15	4·5	1·1	50	16	5·1	0·7
3·0 ,, . .	21	5·0	3·5	106	18	4·7	2·3	146	18	6·2	4·7	250	18	7·2	3·2	235	13	3·4	0·9	285	15	4·3	0·6
4·0 ,, . .	17	3·5	2·0	146	13	4·7	1·6	125	15	5·2	2·3	243	16	6·2	2·4	225	12	2·7	0·8	240	11	3·5	0·1
5·0 ,, . .	14	3·8	2·5	136	11	5·2	0·9	140	8	4·4	1·7	207	14	5·7	0·8	206	10	4·5	3·0	239	7	3·8	1·3
6·0 ,, . .	11	3·6	2·1	156	7	4·5	1·3	306	7	3·6	1·1	296	13	5·7	0·9	257	9	5·4	2·5	258	5	3·0	1·0
7·5 ,, . .	5	3·5	1·1	170	5	4·7	2·6	81	3	3·3	1·1	98	8	4·7	3·6	140	7	4·9	1·0	280	2	4·3	4·2
9·0 ,, . .	4	5·3	2·6	154	3	6·5	3·9	131	2	5·3	4·7	108	5	6·0	5·5	95	6	7·5	2·3	196			

Station	HYDERABAD DN.												JAGDALPUR										
Time in I. S. T.	0230				0730				1430				0230				0730				1430		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	30	3·9	3·3	269	30	4·1	3·7	276	30	4·9	3·7	282	30	1·5	0·7	201	30	1·8	0·9	200	30	2·8	1·5
0·15 a. g. .	30	9·6	8·4	281	30	7·9	7·0	278	30	7·3	6·1	285	24	6·3	3·4	216	27	5·9	3·0	219	28	5·8	2·8
0·6 a. s. l. .	30	6·8	6·0	273	30	5·6	5·0	277	30	6·4	5·0	284	24	5·0	2·8	218	27	4·1	2·2	220	28	4·7	2·5
1·0 ,, . .	30	12·3	10·6	294	30	11·9	9·8	296	30	7·6	6·4	283	23	8·3	4·4	244	25	8·1	4·2	259	28	6·4	3·0
1·5 ,, . .	25	10·7	10·0	292	25	11·7	10·3	298	28	8·6	7·1	288	17	9·9	3·7	252	16	10·0	5·3	268	19	8·0	3·9
2·0 ,, . .	24	10·2	9·1	291	23	10·7	8·9	287	23	9·4	7·7	287	15	10·7	4·6	258	11	9·6	3·5	275	17	8·1	4·5
2·5 ,, . .	8	7·3	5·2	274	22	9·9	8·3	285	9	9·4	9·1	287	12	9·6	5·9	264	9	9·1	1·7	245	13	8·2	3·6
3·0 ,, . .	6	8·0	4·8	268	21	9·1	7·4	287	3	10·5	9·7	289	11	6·9	2·6	297	7	8·7	3·1	142	9	7·8	3·7
4·0 ,, . .	1	4·0	4·0	235	14	8·1	7·1	281					5	4·5	0·4	245	5	7·9	5·6	112	7	5·6	4·6
5·0 ,, . .					11	4·7	3·4	287					2	2·7	2·7	286	3	8·3	6·6	121	4	4·7	4·2
6·0 ,, . .					7	4·9	0·7	40					1	3·0	3·0	45	1	4·5	4·5	95	4	5·7	3·8
7·5 ,, . .					3	5·7	1·8	129									1	5·5	5·5	90	4	5·7	2·7
9·0 ,, . .					2	8·3	5·1	114									1	10·0	10·0	75	2	4·3	0·6

Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

September 1949

Station	JAMSHEDPUR								JHARSUGUDA												JODHPUR			
Time in I.S.T.	0730				1430				0230				0730				1430				0230			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	30	1·6	0·6	80	30	3·1	2·0	114	30	1·1	0·5	155	30	0·8	0·5	81	30	1·4	0·7	206	30	3·3	2·7	243
0·15 a. g. .	30	2·6	0·9	96	30	4·5	3·2	121	28	5·1	2·5	153	30	3·9	1·1	153	28	3·9	1·6	186	30	8·6	7·6	242
0·6 a. s. l. .	30	4·1	1·4	168	30	4·3	2·9	120	28	5·8	2·8	187	27	5·9	1·6	178	27	4·7	2·1	172	30	9·6	8·0	245
1·0 „ . .	27	5·2	1·3	168	29	4·6	2·8	123	22	6·4	2·8	184	24	6·6	1·1	179	27	5·3	1·5	175	30	8·3	6·5	243
1·5 „ . .	20	6·0	1·7	146	23	4·5	1·8	119	20	6·5	2·7	183	20	6·8	1·1	203	23	6·8	2·3	128	30	5·7	2·5	234
2·0 „ . .	19	6·1	2·5	129	23	5·1	2·3	115	16	6·2	2·7	123	14	7·7	2·1	114	14	5·7	2·1	131	27	4·5	0·8	26
2·5 „ . .	17	5·7	2·6	123	22	5·3	2·4	118	15	6·7	3·3	114	13	8·0	3·4	105	12	5·6	2·9	89	26	6·0	2·2	35
3·0 „ . .	16	5·5	2·6	127	19	5·4	2·6	131	14	6·9	3·5	104	11	8·7	5·0	117	11	6·1	3·0	95	23	6·9	3·6	30
4·0 „ . .	11	5·7	2·4	150	14	4·4	1·2	164	9	6·7	3·9	86	8	8·9	6·7	121	6	5·3	2·3	125	13	6·6	5·5	46
5·0 „ . .	8	4·6	3·2	109	11	5·4	1·2	160					5	4·6	2·3	157	5	6·1	1·3	30	5	5·4	4·3	29
6·0 „ . .	7	5·8	4·5	114	8	6·6	2·6	200					5	5·0	2·1	199	2	6·7	3·7	283	4	7·1	6·9	49
7·5 „ . .	5	5·4	3·9	114	6	5·2	1·9	171					3	5·5	3·2	118	2	6·7	3·3	295				
9·0 „ . .	3	2·8	1·8	173	4	5·5	3·5	83					2	6·5	3·5	127	2	9·0	1·9	317				

Station	JODHPUR								JABBULPORE												MADHOSAGAR			
Time in I.S.T.	0730				1430				0230				0730				1430				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	30	3·3	2·8	238	30	3·7	2·0	235	30	1·4	0·6	213	30	1·5	0·7	237	30	2·3	0·7	324	30	1·7	0·4	276
0·15 a. g. .	30	6·3	5·5	239	30	4·7	2·0	250	27	5·0	1·5	224	29	4·6	1·7	244	27	4·9	1·9	325	30	4·5	1·2	281
0·6 a. s. l. .	30	8·2	6·9	255	30	5·3	2·8	234	27	5·5	1·5	226	28	5·3	1·7	247	27	5·1	2·1	328	28	6·2	2·1	309
1·0 „ . .	30	7·2	4·8	251	30	4·8	2·3	250	21	6·1	1·0	158	19	7·1	0·2	260	26	5·7	2·0	347	27	6·8	3·0	338
1·5 „ . .	29	5·8	1·6	270	30	4·7	2·0	275	20	6·1	0·8	126	16	7·1	1·3	95	21	6·7	3·0	8	25	7·0	3·7	350
2·0 „ . .	29	6·1	1·5	21	30	4·7	1·4	320	14	5·5	1·8	87	13	7·5	3·2	86	16	7·3	3·4	41	24	7·1	4·7	352
2·5 „ . .	29	5·8	2·4	31	28	5·2	1·9	350	9	6·6	3·3	63	13	6·7	4·0	78	12	6·3	2·5	46	23	7·6	4·6	8
3·0 „ . .	27	7·0	4·2	31	25	5·8	2·8	14	6	6·9	4·4	66	12	7·3	5·0	79	9	6·8	3·1	27	20	6·9	4·0	7
4·0 „ . .	25	6·4	4·0	49	21	4·9	2·3	14	1	5·0	5·0	335	10	5·2	2·7	88	6	4·7	3·2	347	16	5·5	1·1	242
5·0 „ . .	24	7·0	4·2	20	15	6·9	6·4	4					7	5·3	3·0	95	2	6·0	1·5	301	14	5·3	1·4	265
6·0 „ . .	19	6·9	4·2	39	14	7·0	4·4	360					4	4·1	0·9	343	1	9·0	9·0	290	13	6·0	1·9	284
7·5 „ . .	8	5·6	4·3	23	10	5·9	4·6	11					3	4·8	2·1	336	1	8·5	8·5	321	12	6·7	2·6	291
9·0 „ . .	3	2·7	1·8	24	2	6·3	6·3	17					3	3·7	1·7	239	1	7·0	7·0	270	10	8·1	1·4	303

Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

September 1949

Station	MADHOSAGAR				MADRAS												MALEGAON						
Time I.S.T.	1430				0230				0730				1430				0230				0730		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	30	2·3	1·0	351	30	4·1	2·7	234	30	3·1	3·7	234	30	3·3	2·4	249	30	4·1	3·8	262	30	3·4	3·0
0·15 a. g. .	30	4·5	2·1	350	27	8·5	7·8	237	30	7·9	7·3	247	30	5·4	4·2	248	26	8·8	8·3	271	26	6·6	6·0
0·6 a. s. l. .	30	4·9	2·7	358	27	11·4	10·5	257	30	10·8	9·9	272	30	5·9	5·5	259	26	8·8	8·3	271	26	6·6	6·0
1·0 ,, .	28	5·3	3·0	2	27	11·9	11·1	265	30	11·3	10·7	284	30	7·0	6·6	268	26	9·9	8·3	285	26	8·3	6·7
1·5 ,, .	27	6·2	3·6	3	27	11·0	10·2	268	30	10·3	9·7	285	30	8·5	8·0	274	25	9·1	6·9	305	25	8·4	6·1
2·0 ,, .	26	6·8	4·0	10	25	9·1	8·6	272	30	8·7	8·3	280	28	9·7	9·1	273	23	7·0	4·5	338	21	6·0	3·5
2·5 ,, .	26	7·5	4·6	8	21	7·7	7·2	282	28	8·2	8·0	275	24	9·6	9·1	273	20	6·3	3·9	346	16	5·0	2·7
3·0 ,, .	26	7·8	4·6	10	17	6·6	6·0	285	27	7·9	7·5	274	24	10·4	9·9	275	17	5·7	3·1	357	14	4·5	2·3
4·0 ,, .	20	5·7	2·6	342	5	6·9	4·5	258	22	7·0	6·3	262	18	8·6	7·6	275	14	5·8	2·8	22	11	4·6	2·6
5·0 ,, .	17	5·9	2·3	328					16	5·7	4·0	242	16	5·7	4·3	278					8	5·3	3·0
6·0 ,, .	13	6·2	3·1	298					15	5·3	2·7	159	14	4·6	2·0	284					6	4·4	1·5
7·5 ,, .	12	6·3	1·2	7					6	9·1	7·0	104	5	5·2	1·5	204					4	5·6	5·3
9·0 ,, .	11	6·5	0·7	284					4	12·1	12·1	95	2	15·3	14·7	138					4	7·4	6·5

Station	MALEGAON				MANGALORE												MASULIPATAM						
Time in I.S.T.	1430				0230				0730				1430				0230				0730		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	30	4·9	3·7	288	30	2·6	1·2	297	30	2·3	0·4	15	30	3·3	2·5	267	30	3·2	2·0	231	30	2·7	2·2
0·15 a. g. .	27	7·0	5·4	292	26	4·7	3·3	279	28	4·4	1·3	292	30	5·8	4·5	273	26	8·9	7·7	229	28	6·7	6·1
0·6 a. s. l. .	27	7·0	5·4	292	23	7·2	7·0	286	26	6·4	5·8	283	29	7·4	7·0	283	26	11·4	9·8	250	28	12·3	11·4
1·0 ,, .	27	6·9	5·3	299	20	8·5	8·2	291	22	7·5	7·2	285	27	8·5	8·1	285	25	11·0	10·1	269	28	11·4	10·6
1·5 ,, .	26	7·3	5·0	304	11	9·0	8·9	282	15	8·9	8·7	284	20	8·5	8·0	279	25	11·4	10·7	279	28	10·4	9·4
2·0 ,, .	19	7·0	3·8	297	7	10·3	10·2	282	8	8·9	8·7	284	13	6·9	6·3	280	23	11·8	11·0	284	25	9·0	7·8
2·5 ,, .	12	6·0	2·3	339	2	7·0	7·0	278	5	8·1	8·0	271	9	6·6	6·1	268	17	10·2	9·5	284	23	9·0	8·1
3·0 ,, .	10	5·6	1·8	315	2	7·7	7·5	266	4	6·6	6·2	256	9	6·1	5·6	267	13	9·2	8·0	286	21	8·9	8·0
4·0 ,, .	8	4·9	1·7	22					4	5·6	5·2	237	9	5·1	4·5	262	7	6·4	4·1	274	16	7·5	6·9
5·0 ,, .	5	4·5	2·6	66					3	4·2	4·0	251	8	4·6	2·3	249					12	5·5	4·2
6·0 ,, .	1	0·5	0·5	105					1	13·0	13·0	255	8	3·4	1·6	215					8	5·5	1·0
7·5 ,, .	1	3·0	3·0	280									8	4·1	3·7	97					6	6·0	1·6
9·0 ,, .	1	1·0	1·0	355									6	7·2	6·7	94					3	11·2	11·2

Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9. Km. above sea-level

September 1949

Station	MASULIPATAM				NAGERCOIL												NAGPUR							
Time in I.S.T.	1430				0230				0730				1430				0230				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	30	2·5	2·1	261	30	4·9	4·6	285	30	5·0	4·8	282	30	6·9	6·4	274	30	1·7	0·9	272	30	2·4	1·2	274
0·15 a. g. .	29	6·1	5·2	262	30	9·9	9·8	295	30	10·5	10·4	294	30	12·4	11·9	278	26	6·4	3·8	292	26	6·3	3·0	296
0·6 a. s. l. .	29	7·3	6·4	275	29	15·7	15·3	297	30	14·7	14·5	299	30	13·9	13·8	293	26	7·7	4·6	302	24	8·0	3·9	323
1·0 ,, .	28	9·5	8·6	285	29	15·7	15·6	296	28	15·3	15·0	298	30	14·5	14·3	299	24	8·2	4·1	326	23	9·4	4·7	336
1·5 ,, .	27	10·9	9·6	283	28	14·2	14·0	290	28	14·0	13·7	291	29	15·0	14·8	296	22	6·8	2·5	346	19	8·2	3·0	2
2·0 ,, .	27	10·6	9·1	280	26	14·7	14·2	282	28	13·9	13·4	287	29	15·3	14·8	292	20	5·9	1·9	1	18	7·3	3·6	34
2·5 ,, .	25	9·6	8·2	280	21	10·7	10·2	278	28	12·1	11·7	283	26	13·5	13·0	290	17	5·9	2·0	13	14	6·2	2·9	40
3·0 ,, .	24	9·5	8·3	277	20	7·2	5·4	287	28	9·7	8·6	278	23	12·8	12·4	289	12	5·6	2·6	56	12	4·9	2·2	15
4·0 ,, .	19	7·8	7·2	272	6	5·3	4·0	274	18	7·9	7·0	290	18	7·8	7·3	282	3	4·5	4·3	81	9	4·8	2·2	82
5·0 ,, .	14	7·4	5·8	268	1	8·0	8·0	255	14	5·9	3·5	291	12	6·0	4·4	293	1	3·0	3·0	85	5	4·8	0·7	119
6·0 ,, .	11	6·6	3·4	257	1	10·0	10·0	225	13	6·0	2·2	346	10	4·3	1·6	4	1	4·0	4·0	144	5	4·9	2·0	151
7·5 ,, .	11	6·7	0·8	182					10	5·9	1·0	47	7	6·9	4·9	75					3	3·5	2·2	296
9·0 ,, .	8	7·9	3·3	95					10	8·1	6·7	102	5	7·9	7·1	128					3	4·2	1·9	224

Station	NAGPUR				NEW DELHI												POONA							
Time in I.S.T.	1430				0230				0730				1430				0230				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	30	3·1	1·4	308	30	2·3	1·0	153	30	1·8	0·1	185	30	2·4	0·7	24	30	3·2	2·9	280	30	3·3	3·3	283
0.15 a. g. .	28	5·6	1·7	294	26	6·2	3·7	179	28	5·4	1·7	217	29	4·1	0·9	9	29	6·1	6·0	260	30	5·2	5·1	262
0·6 a. s. l. .	28	6·0	2·3	297	26	5·7	3·0	186	28	5·7	1·4	272	29	4·5	1·1	31	29	4·1	4·1	259	30	3·8	3·6	261
1·0 ,, .	26	6·0	2·5	322	26	4·7	1·4	185	27	5·7	1·4	321	27	4·7	1·8	356	29	7·9	7·6	272	30	8·1	7·7	271
1·5 ,, .	19	7·0	2·1	336	23	5·8	2·1	9	27	5·5	2·6	360	27	5·4	2·9	352	22	8·8	8·3	287	26	9·0	8·0	281
2·0 ,, .	17	7·8	2·2	347	22	6·0	3·4	3	27	6·4	4·3	359	27	6·6	3·9	347	19	6·4	5·6	296	25	7·4	5·9	298
2·5 ,, .	11	7·0	1·7	306	19	6·4	5·2	349	26	6·8	5·3	351	26	7·7	5·0	345	16	4·3	2·7	316	19	5·1	3·6	305
3·0 ,, .	7	5·9	0·6	10	18	5·1	3·7	345	22	7·4	5·5	358	23	7·4	4·5	340	16	4·7	2·9	308	19	4·5	3·1	314
4.0 ,, .	5	6·4	1·2	211	10	5·7	4·0	343	18	5·8	3·9	359	19	6·5	4·0	325	9	4·5	3·8	295	17	5·3	4·3	298
5·0 ,, .	4	4·9	2·3	121	3	3·0	2·3	261	14	5·0	2·4	335	18	5·7	3·5	283	2	5·7	5·7	279	16	4·9	3·2	292
6·0 ,, .	2	2·7	1·7	124	1	2·5	2·5	352	14	5·9	4·1	306•	17	7·4	4·8	290					14	3·9	1·3	6
7 ,, .									10	6·6	5·7	324	14	8·7	6·1	296					11	4·5	2·2	40
9·0 ,, .									9	6·3	4·2	293	10	8·9	6·8	282					6	6·4	5·6	74

Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

September 1949

Station	POONA				PORT BLAIR												RAIPUR						
Time in I.S.T.	1430				0230				0730				1430				0230				0730		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	30	6·5	6·0	301	30	4·6	4·3	230	30	3·9	3·6	235	30	5·3	5·0	239	30	2·3	1·3	231	30	2·2	1·0
0·15 a. g. .	29	8·3	7·6	271	23	8·0	7·8	235	28	7·5	7·3	229	25	8·4	8·1	237	23	7·0	3·1	242	27	6·7	2·9
0·6 a. s. l. .	29	6·3	5·6	270	23	10·2	10·0	238	25	10·7	10·3	238	24	10·2	9·7	243	23	8·1	3·4	246	27	8·3	3·1
1·0 ,, . .	29	8·1	7·0	271	17	8·4	8·1	241	21	9·9	9·6	243	19	10·8	10·1	246	23	8·4	2·2	259	25	7·9	2·8
1·5 ,, . .	25	8·6	8·3	274	13	6·2	5·9	243	18	8·2	7·7	244	11	8·5	7·3	249	19	7·2	0·9	274	20	6·8	2·1
2·0 ,, . .	14	8·3	7·9	278	7	3·6	3·1	230	16	6·7	6·0	242	10	8·5	7·7	257	17	6·2	0·2	282	14	6·7	2·2
2·5 ,, . .	11	6·9	6·5	290	4	2·6	1·9	203	15	6·0	5·1	245	7	7·7	6·7	260	14	6·1	0·6	87	12	6·5	2·2
3·0 ,, . .	9	5·5	4·3	311	2	1·7	1·3	307	14	5·3	4·0	247	5	4·1	3·5	267	7	6·6	4·7	94	10	5·9	2·7
4·0 ,, . .	7	5·1	3·9	284					10	4·5	3·0	237	4	5·7	3·8	239	3	3·2	1·5	150	8	4·6	1·9
5·0 ,, . .	4	4·3	4·0	285					4	2·9	2·3	187	3	4·8	1·9	119	2	1·5	1·5	82	5	2·7	1·8
,, . .	2	1·7	0·9	343					2	3·0	2·1	227	3	5·2	4·0	88	2	5·3	5·1	85	5	2·4	0·7
7·5 ,, . .	2	2·7	2·7	75					2	5·0	3·3	121	3	6·2	6·1	61					5	5·2	1·0
9·0 ,, . .	1	9·5	9·5	65					1	10·5	10·5	75	1	11·0	11·0	95					4	3·9	1·3

Station	RAIPUR				SAHARSA								TEZPUR										
Time in I.S.T.	1430				0730				1430				0230				0730				1430		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	30	2·9	0·8	242	30	1·6	1·4	88	30	2·0	1·4	107	30	0·8	0·1	74	31	0·9	0·2	97	30	0·7	0·4
0·15 a. g. .	29	5·7	1·7	254	29	5·1	4·4	92	29	4·3	2·8	106	26	3·8	1·4	97	30	3·0	1·6	89	29	3·2	1·6
0·6 a. s. l. .	29	5·3	1·5	250	19	5·2	4·5	113	28	4·5	3·3	114	21	4·5	1·7	233	25	3·9	1·8	108	28	3·2	0·9
1·0 ,, . .	27	6·3	1·5	258	15	4·7	4·0	112	23	4·7	3·2	116	21	5·2	2·8	248	23	4·3	2·2	93	28	3·5	1·9
1·5 ,, . .	18	6·0	1·1	282	15	4·3	2·8	111	20	5·5	4·3	120	17	4·9	2·5	239	21	3·4	1·7	82	26	4·4	2·7
2·0 ,, . .	14	6·2	1·1	307	13	3·7	2·3	104	20	5·8	4·3	123	14	4·4	2·9	238	20	4·5	0·6	211	26	5·1	3·5
2·5 ,, . .	9	4·5	0·8	342	13	3·3	2·5	103	16	4·4	3·0	125	14	4·6	3·4	234	19	4·6	1·9	245	24	5·8	4·4
3·0 ,, . .	6	4·8	0·9	302	12	3·4	2·5	104	15	4·4	3·1	127	11	5·3	4·3	236	17	5·4	3·2	258	24	6·0	4·7
4·0 ,, . .	4	3·5	2·5	108	9	3·7	2·0	156	12	4·5	2·2	121	9	7·4	6·4	224	14	7·6	6·3	268	23	5·9	4·6
5·0 ,, . .	2	4·5	1·3	326	6	3·2	1·7	121	9	5·1	1·0	164					13	11·7	11·5	271	17	5·3	3·7
6·0 ,, . .	1	5·5	5·5	95	6	3·3	1·1	154	8	5·9	2·4	266					10	11·1	10·3	266	15	5·4	3·1
7·5 ,, . .					3	5·3	1·7	106	6	6·1	4·2	265					8	10·4	9·6	268	12	3·9	2·9
9·0 ,, . .					2	8·5	8·4	85	4	7·1	4·5	265					5	8·9	8·8	263	11	4·9	2·8

Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

September 1949

Station	TRICHINOPOLY												TRIVANDRUM				UDAIPUR							
Time in I.S.T.	0230				0730				1430				0730				0230				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	30	3·1	3·0	269	30	2·8	2·7	272	30	3·6	2·9	282	30	1·6	1·5	333	30	1·3	1·2	264	30	1·3	0·9	272
0·15 a. g. . .	30	8·7	8·5	268	30	7·2	7·0	269	30	6·9	6·0	278	30	6·0	5·8	328	30	4·5	3·5	269	30	4·4	3·6	289
0·6 a. s. l. .	30	13·1	12·9	270	30	12·3	12·3	273	30	7·3	7·0	262	30	10·7	10·3	307	...	..	...	...	...	...	...	...
1·0 „ . .	30	12·7	12·6	274	30	12·6	12·3	276	30	8·5	8·3	261	24	11·3	11·0	301	30	5·4	4·2	275	30	6·1	3·7	302
1·5 „ . .	30	9·1	8·9	274	30	9·6	9·3	273	30	9·3	9·1	263	21	11·2	10·9	296	29	5·8	2·0	305	30	6·2	2·4	323
2·0 „ . .	27	7·5	7·1	276	30	8·1	7·7	279	30	9·9	9·6	269	17	10·6	10·2	290	29	5·5	2·1	43	28	5·8	3·1	42
2·5 „ . .	23	7·6	7·0	283	29	7·6	6·8	279	30	9·5	9·2	277	13	8·9	8·1	286	26	6·5	5·0	54	26	7·2	4·6	46
3·0 „ . .	23	7·9	7·1	284	29	7·7	7·6	279	29	8·5	7·7	283	9	7·4	6·0	271	25	7·9	6·4	48	25	7·8	5·5	46
4·0 „ . .	6	6·4	6·1	260	26	5·8	5·1	283	29	8·0	7·5	283	5	5·8	2·4	258	3	4·5	2·5	6	18	5·4	3·9	56
5·0 „ . .	1	2·0	2·0	195	22	4·8	2·9	259	24	6·1	4·6	288	3	5·3	2·3	2					12	5·9	3·7	63
6·0 „ . .					22	5·2	1·9	208	23	5·0	2·2	283	3	6·3	6·3	69					12	7·1	5·2	71
7·5 „ . .					14	7·6	6·2	104	15	5·5	2·5	123	1	3·0	3·0	100					6	7·9	5·7	66
9·0 „ . .					12	11·5	10·1	98	10	8·5	5·4	103	1	7·5	7·5	105					3	7·5	3·2	65

Station	UDAIPUR				VENGURLA												VERAVAL							
Time in I.S.T.	1430				0230				0730				1430				0230				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	30	2·4	1·1	236	30	0·7	0·6	281	30	0·8	0·3	287	30	2·7	2·3	251	30	4·5	4·5	268	30	3·5	3·3	273
0·15 a. g. . .	30	5·4	2·5	271	22	4·1	2·6	259	21	3·7	1·5	252	27	4·8	4·1	264	30	7·3	6·7	266	29	6·7	6·1	275
0·6 a. s. l. .	..	..	..	..	22	6·4	5·5	276	19	6·2	5·5	271	23	8·0	7·7	281	28	8·0	7·6	270	29	8·2	7·8	274
1·0 „ . .	30	4·6	2·7	298	15	7·5	7·4	279	15	7·1	6·6	276	17	8·4	8·0	284	28	7·0	6·6	267	29	7·6	7·3	270
1·5 „ . .	30	5·1	2·4	323	11	7·3	7·2	282	10	7·1	6·6	273	15	7·0	6·5	286	26	5·3	4·5	257	26	4·9	3·5	248
2·0 „ . .	26	6·1	2·5	13	6	6·7	6·4	277	7	7·8	7·3	277	6	6·0	5·4	290	24	4·4	1·5	227	21	4·7	1·1	188
2·5 „ . .	22	6·8	3·5	11	2	5·5	5·4	262	3	5·7	5·5	258	3	5·7	5·1	269	19	4·5	2·5	86	17	4·4	2·2	90
3·0 „ . .	21	8·2	5·1	12					2	6·3	5·9	268	1	7·5	7·5	250	18	4·6	3·1	74	15	4·3	2·8	82
4·0 „ . .	15	8·0	4·9	359					1	7·0	7·0	295					13	3·8	2·9	64	13	4·2	2·8	72
5·0 „ . .	11	6·9	2·6	338					1	7·5	7·5	300					3	3·8	3·4	2	11	4·7	2·6	41
6·0 „ . .	8	7·7	3·6	345													1	3·0	3·0	95	8	5·1	4·2	56
7·5 „ . .	4	5·5	5·5	39																	4	4·9	4·8	59
9·0 „ . .	2	6·5	6·1	62																	3	5·3	4·1	101

Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

September 1949

Station	VERAVAL				VIZAGAPATAM												MINICOY							
Time in I.S.T.	1430				0230				0730				1430				0230				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	30	5·0	4·9	276	30	2·5	1·8	229	30	2·1	1·4	240	30	4·6	3·8	202	30	4·5	4·2	284	30	3·9	3·7	28
0·15 a. g.	30	8·2	8·0	268	23	5·1	5·1	241	27	4·9	3·8	239	28	6·3	5·9	210	26	8·8	8·4	286	30	7·2	6·9	28
0·6 a. s. l.	30	8·2	7·9	274	23	8·2	7·9	248	26	8·8	7·7	246	28	6·4	5·4	229	34	10·1	9·9	289	28	10·0	9·6	29
1·0 ,,	28	7·0	6·3	275	23	8·7	7·9	257	24	9·6	8·5	256	26	7·1	5·8	250	21	11·1	11·0	289	26	11·3	11·0	29
1·5 ,,	28	5·3	4·5	273	22	10·4	9·7	262	23	9·6	8·5	266	25	8·5	6·2	261	14	11·4	11·2	287	24	10·6	10·4	29
2·0 ,,	25	4·3	2·7	282	21	9·0	8·6	263	23	8·5	7·7	266	23	8·8	5·7	262	11	10·0	9·6	286	17	8·5	8·2	28
2·5 ,,	22	4·8	0·7	319	17	6·8	6·3	273	22	6·7	6·0	271	22	8·7	6·0	256	6	8·8	8·4	287	14	8·1	7·6	28
3·0 ,,	22	5·1	1·0	33	13	7·1	6·1	269	20	6·7	5·5	273	19	8·1	6·4	264	6	9·9	9·5	277	13	7·6	7·1	28
4·0 ,,	19	4·8	1·5	79	6	6·0	2·9	309	11	5·0	3·4	285	15	8·0	7·0	244	3	7·7	7·4	282	8	7·4	6·4	29
5·0 ,,	15	5·5	1·7	19					8	4·8	1·4	319	12	8·2	6·3	250					3	3·8	1·1	8
6·0 ,,	14	5·2	3·9	49					6	4·8	3·0	46	9	8·7	5·3	266					2	5·0	1·7	11
7·5 ,,	11	5·8	4·8	48					3	9·0	9·0	78	4	9·3	4·2	16					1	7·5	7·5	10
9·0 ,,	10	5·5	5·0	64					2	6·7	6·7	105	2	6·0	5·2	69					1	12·0	12·0	7

Station	MINICOY																						
Time in I.S.T.	1430																						
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface	30	4·5	4·3	289																			
0·15 a. g.	29	8·0	7·8	287																			
0·6 a. s. l.	29	10·3	10·1	290																			
1·0 ,,	28	11·3	11·1	291																			
1·5 ,,	25	10·6	10·4	288																			
2·0 ,,	18	9·9	9·7	287																			
2·5 ,,	14	8·5	8·3	283																			
3·0 ,,	6	6·0	5·7	286																			
4·0 ,,	4	5·4	3·5	301																			
5·0 ,,	2	5·0	2·1	25																			
6·0 ,,	1	6·0	6·0	85																			
7·5 ,,																							
9·0 ,,																							

Monthly Mean Directions and Velocities of Upper Winds

Winds at and above 10 Km. above sea-level

September 1949

Height in Km.	n	V	v	D
AHMEDABAD				
10	5	5·4	1·3	267
11	3	8·7	1·1	310
12	2	8·3	8·3	198
13	1	4·0	4·0	210
14	1	2·5	2·5	105
15	1	4·5	4·5	110
16	1	5·0	5·0	95
17	1	11·0	11·0	95
ALLAHABAD				
10	2	7·3	3·5	238
11	2	8·0	6·1	231
12	1	5·0	5·0	85
13	1	5·0	5·0	70
14	1	11·0	11·0	70
15	1	8·5	8·5	90
16	1	8·0	8·0	90
17	1	12·0	12·0	80
18	1	15·0	15·0	105
19	1	17·0	17·0	70
20	1	10·0	10·0	115
AMBALA				
10	6	14·9	13·6	273
11	3	7·3	7·1	289
12	2	10·7	9·2	283
13	1	5·0	5·0	10
14	1	8·0	8·0	350
ANANTAPUR				
10	2	11·5	11·5	88
11	2	11·0	10·9	91
12	1	19·0	19·0	100
13	1	31·0	31·0	90
ASANSOL				
10	4	7·7	4·0	136
11	3	7·2	3·0	150
12	3	5·2	1·9	116
13	2	2·5	2·3	290
14	2	4·7	4·5	271
15	1	8·0	8·0	100
16	1	9·5	9·5	125
17	1	9·0	9·0	95
18	1	10·5	10·5	90
BAREILLY				
10	7	7·4	7·3	267
11	7	8·0	7·7	270
12	4	7·3	6·4	269
13	2	5·7	4·3	15
14	1	7·0	7·0	350
15	1	6·0	6·0	360
BHOPAL				
10	2	4·5	4·5	268
BHUJ				
10	7	4·1	1·5	7
BIKANER				
10	13	6·6	5·5	319
11	5	7·6	7·2	294
12	3	7·3	7·1	289
13	3	8·2	8·2	292
14	1	6·5	6·5	309
15	1	5·5	5·5	340
CALCUTTA				
10	3	6·7	5·3	126
11	3	7·3	4·8	112
12	3	7·0	5·5	120
13	2	12·0	9·9	122
14	2	12·7	11·7	105
15	2	10·5	10·2	99
16	2	14·5	14·5	93
17	2	17·0	16·5	104
18	2	18·5	17·8	110
COCHIN				
10	3	11·8	11·8	98
11	1	20·0	20·0	10·5
12	1	24·5	24·5	95
13	1	35·5	35·5	80
COOCH BEHAR				
10	5	6·3	5·4	136
11	3	5·0	2·5	190
12	3	9·2	7·2	250
13	3	14·2	11·6	250
14	1	5·5	5·5	155
15	1	7·0	7·0	125
16	1	12·0	12·0	130
17	1	19·0	19·0	145
18	1	21·5	21·5	150
19	1	21·0	21·0	160
20	1	33·5	33·5	175
21	1	43·5	43·5	175
DEOLALI				
10	1	3·0	3·0	65
11	1	6·0	6·0	110
DIBRUGARH				
10	13	4·0	0·2	343
11	10	5·2	0·3	70
12	4	5·1	1·5	327
13	4	5·9	3·9	12
14	2	2·7	2·2	42
15	2	7·5	6·5	78
16	1	3·5	3·5	120
GADAG				
10	3	8·7	8·6	100
11	1	7·0	7·0	95
GAYA				
10	3	7·7	3·1	120
11	2	10·0	9·7	87
12	2	10·3	10·3	90
13	1	14·0	14·0	90
14	1	12·0	12·0	90
15	1	13·5	13·5	100
16	1	11·5	11·5	95
17	1	14·0	14·0	95
18	1	11·5	11·5	90
19	1	12·0	12·0	90
20	1	12·0	12·0	80
21	1	10·0	10·0	75
22	1	7·0	7·0	70
23	1	10·5	10·5	50
24	1	27·0	27·0	80
25	1	35·0	35·0	85
26	1	44·0	44·0	80
27	1	55·5	55·5	100
28	1	61·5	61·5	100
GOPALPUR				
10	6	7·7	7·5	96
11	4	11·7	11·5	99
12	3	13·8	13·8	95
13	1	22·0	22·0	105
14	1	28·0	28·0	90
15	1	31·0	31·0	75
GORAKHPUR				
10	5	7·7	2·6	99
11	2	6·7	1·7	208
12	1	8·0	8·0	270
13	1	9·5	9·5	310
HYDERABAD				
10	1	7·0	7·0	115
JAGDALPUR				
10	3	8·5	8·0	91
11	2	8·5	8·5	77
12	1	6·5	6·5	70
JAMSHEDPUR				
10	5	3·5	2·0	125
11	2	7·5	7·5	93
12	2	7·5	6·7	103
13	1	13·5	13·5	90
14	1	12·5	12·5	95
15	1	14·0	14·0	85
16	1	18·5	18·5	70
17	1	19·5	19·5	80
JHARSUGUDA				
10	4	8·0	3·3	147
11	1	12·5	12·5	90
12	1	15·0	15·0	80
JODHPUR				
10	5	5·8	4·2	25
11	3	7·9	5·0	291
12	2	11·7	9·4	355
13	2	15·0	12·3	10
14	1	2·5	2·5	140
15	1	6·0	6·0	110
16	1	11·5	11·5	125
JUBBULPORE				
10	3	4·0	3·6	255
11	1	3·5	3·5	240
MADHOSAGAR				
10	19	8·3	3·7	272
11	16	8·5	4·2	267

Monthly Mean Directions and Velocities of Upper Winds

Winds at and above 10 km. above sea-level

September 1949

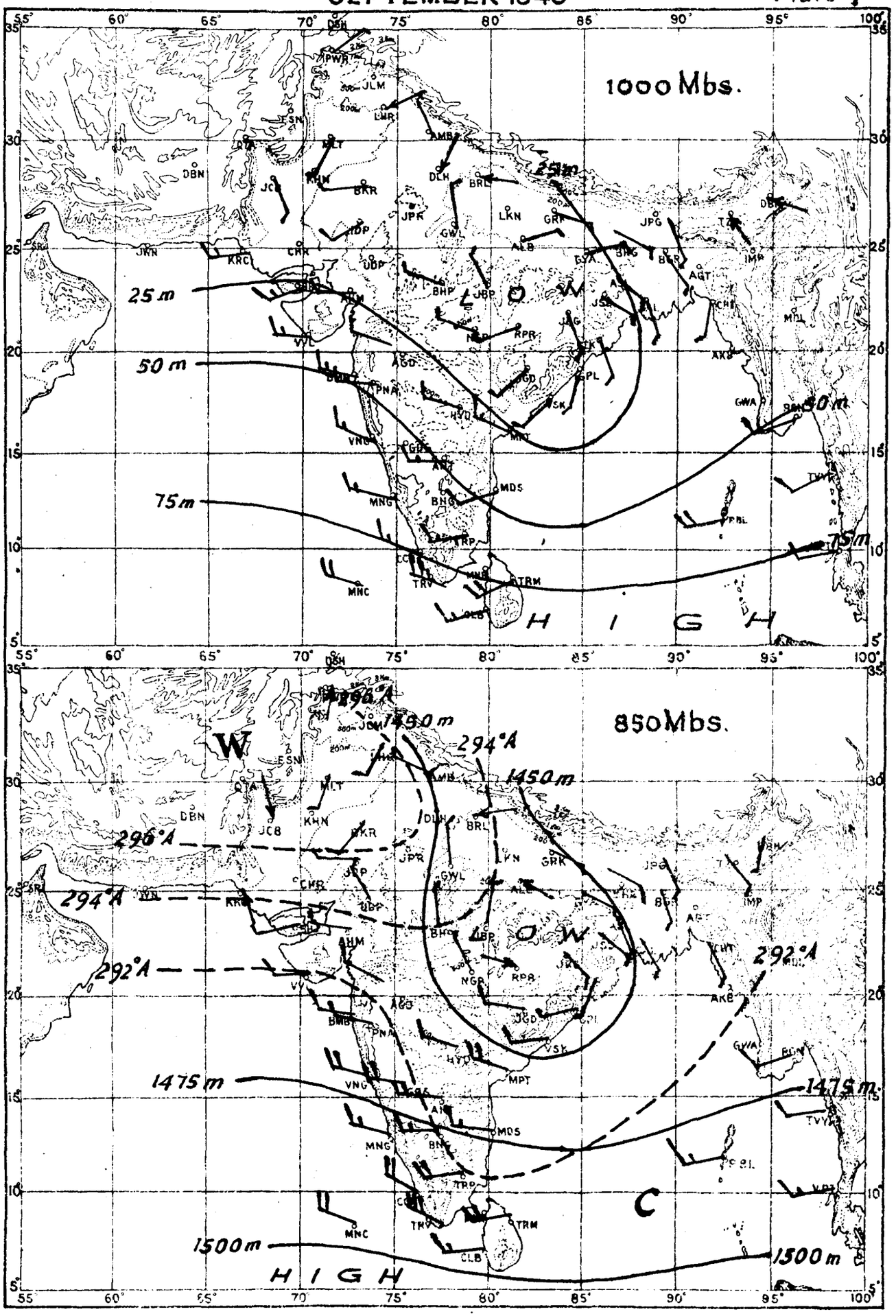
Height in Km.	n	V	v	D
	MADHOSAGAR—*contd.*			
12	15	8·9	5·1	273
13	10	8·9	6·0	260
14	10	8·9	5·3	264
15	7	7·9	3·3	303
16	5	7·1	1·1	76
17	5	6·7	2·1	71
18	4	6·7	6·7	75
19	3	8·7	8·4	93
20	2	8·0	7·9	117
21	1	6·0	6·0	64
22	1	4·0	4·0	70
23	1	4·0	4·0	130
24	1	4·0	4·0	170
25	1	6·5	6·5	160
26	1	9·5	9·5	145
27	1	11·0	11·0	150
28	1	14·5	14·5	160
29	1	11·0	11·0	175
30	1	21·0	21·0	180
	MADRAS			
10	3	13·5	11·4	110
	MALEGAON			
10	2	8·5	8·4	102
	MANGALORE			
10	6	9·6	7·8	87
11	4	15·4	12·0	116
12	1	14·5	14·5	85
13	1	29·5	29·5	85
14	1	34·5	34·5	75
15	1	32·5	32·5	70
	MASULIPATAM			
10	8	9·9	6·8	95
11	4	9·7	8·3	93
12	2	13·3	13·1	95
13	2	20·5	20·5	82
14	2	26·5	25·7	78
15	2	26·5	23·5	75
	NAGERCOIL			
10	15	9·2	8·1	97
11	2	15·7	10·7	96
12	1	18·0	18·0	100
	NAGPUR			
10	2	3·7	3·1	36
11	1	4·0	4·0	330
12	1	3·5	3·5	329
	NEW DELHI			
10	16	9·2	6·7	269
11	14	8·8	8·1	275
12	12	7·9	5·7	284
13	11	7·7	6·7	281
14	10	8·5	7·4	276
15	7	5·8	5·3	314
16	6	5·1	3·5	315
17	5	4·9	1·7	325
18	2	11·3	4·8	320
19	2	17·7	11·9	287
20	1	25·0	25·0	285
	POONA			
10	7	8·8	8·4	77
11	3	11·7	11·6	79
12	2	13·7	13·7	87
	PORT BLAIR			
10	2	10·7	10·7	94
11	1	7·0	7·0	130
12	1	11·5	11·5	100
13	1	20·0	20·0	105
	RAIPUR			
10	3	4·2	2·4	207
11	1	0·5	0·5	145
12	1	1·0	1·0	60
13	1	6·0	6·0	90
14	1	5·0	5·0	70
	SAHARASA			
10	2	6·7	5·9	174
11	1	8·5	8·5	245
12	1	10·0	10·0	240
	TEZPUR			
10	16	6·3	4·3	270
11	10	6·9	1·9	281
12	10	8·1	3·7	292
13	10	8·2	2·8	290
14	6	8·5	2·7	303
15	4	11·9	4·7	325
16	3	14·7	3·4	317
17	3	13·8	2·6	309
18	2	15·0	12·9	52
19	2	18·5	14·9	26
20	1	23·0	23·0	340
	TRICHINOPOLY			
10	13	10·6	9·3	102
11	4	17·6	17·5	94
12	3	25·0	24·9	89
13	1	28·0	28·0	85
14	1	31·5	31·5	95
15	1	46·0	46·0	85
	TRIVANDRUM			
10	1	12·5	12·5	94
11	1	15·0	15·0	85
12	1	24·5	24·5	85
	UDAIPUR			
10	3	4·8	2·6	344
11	1	5·0	5·0	45
	VERAVAL			
10	9	6·8	6·6	109
11	6	11·0	10·7	87
12	2	10·5	10·5	88
13	1	8·0	8·0	65
14	1	15·5	15·5	70
	VIZAGAPATAM			
10	3	10·0	9·9	100
11	1	15·0	15·0	86
12	1	13·0	13·0	101

GIPN S1—10 D. D. G. Ob. Poona—10-2-55—260.

MONTHLY MEAN CONSTANT PRESSURE CHARTS.

SEPTEMBER 1949

Plate 1



RESULTANT WIND ——\ = 5 Knots, ——\ = 10 Knots, ——◣ = 50 Knots.

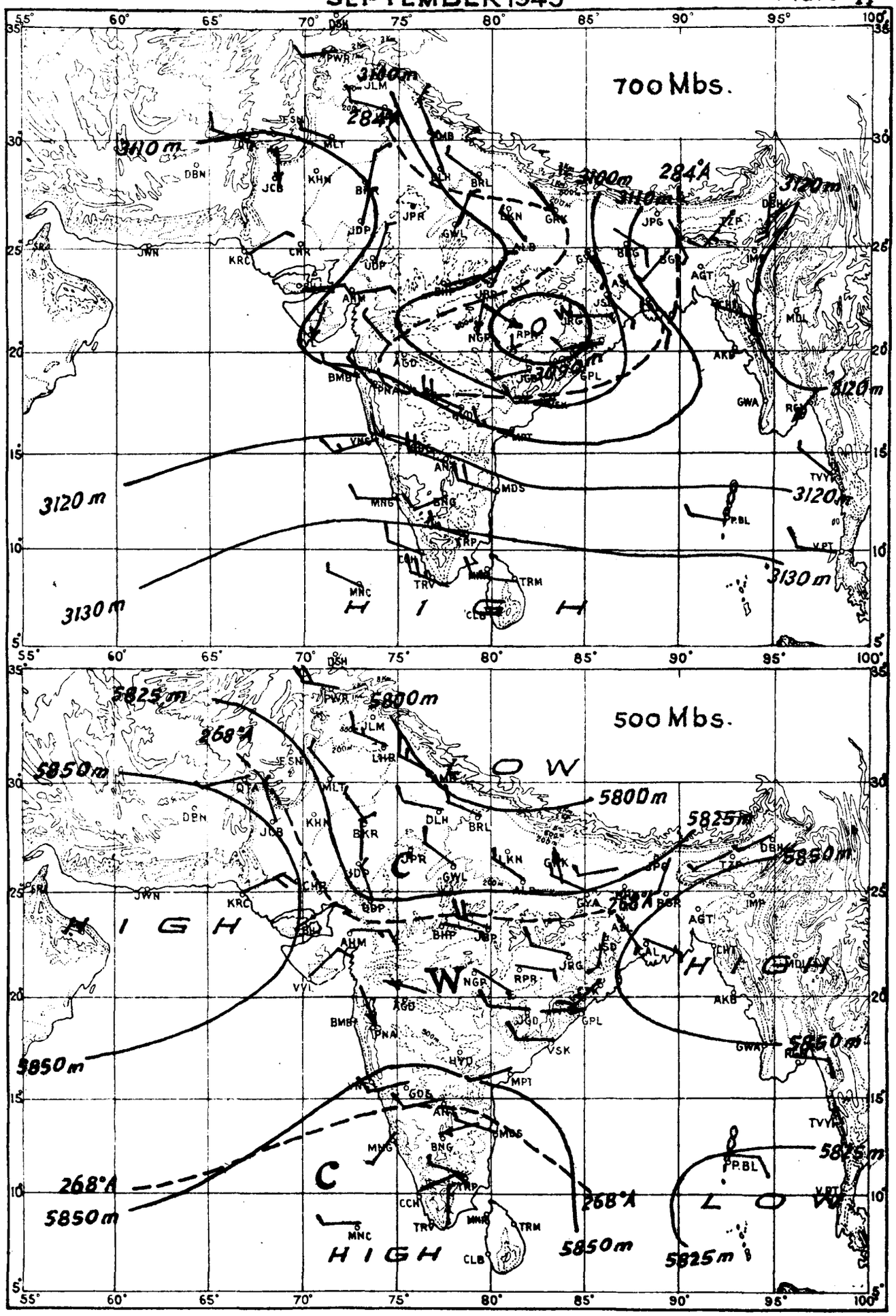
------ Isotherms in degrees absolute. ——— Contours in geopotential metres.

G. PZ. P. POONA 53

MONTHLY MEAN CONSTANT PRESSURE CHARTS.

SEPTEMBER 1949

Plate II



RESULTANT WIND ——= 5 Knots; ——= 10 Knots; ——= 50 Knots.

------ Isotherms in degrees absolute. ——— Contours in geopotential metres.

G.PZ.P.POONA,53.

Registered No. B-3097

INDIA WEATHER REVIEW, 1949

Monthly Weather Report

October

JAN 27 1953

Published by authority of the Government of India

The Chief feature of the month was a severe cyclone in the Bay of Bengal which caused great devastation in coastal Andhra Desa in the last week.

The southwest monsoon withdrew from the country after the 3rd of October. A trough of low pressure moved across lower Burma into the north Andaman Sea and the adjoining areas of the east Central Bay of Bengal on the 5th morning. It developed into a deep depression by the 8th morning when it was centred 200 miles eastsoutheast of Gopalpur. Moving westnorthwestwards and at the same time weakening, the depression crossed the coast near Gopalpur on the morning of 9th and lay as a low pressure area over Hyderabad and the adjoining areas on the 11th. It caused widespread rain in West Bengal, Orissa and the Central Provinces between the 9th and 11th with locally very heavy falls along the Orissa coast; Puri and Balasore reported 6″ each on the morning of the 9th.

The depression became unimportant on the 12th after inducing a well-marked trough of low pressure off the Konkan coast where weather remained disturbed until the 20th.

In association with these developments, there was considerable incursion of moist air into the interior of the Peninsula which resulted in well-marked thunderstorm activity in the central parts of the country, the Deccan and Mysore between the 12th and 20th. There was also widespread thundershowers in Assam during this period.

Weather became unsettled in the Andaman Sea on the 20th and a deep depression formed on the morning of the 23rd centred about 100 miles south of Port Blair. Moving in a northwesterly direction and intensifying rapidly, the depression developed into a severe cyclone by the 26th morning, when it was centred about 350 miles southeast of Masulipatam. The severe cyclone struck the coast 25 miles eastnortheast of Masulipatam at about 2 a.m. on the 28th, near about the time of high tide. After passing inland, the storm weakened rapidly and lay as a deep depression with centre near Khammameth on the 28th evening. Thereafter, it moved northnortheastwards, being centred about 50 miles east of Chanda on the 29th morning and 70 miles southwest of Banaras on the next morning; it filled up over Bihar by the 1st November.

In association with this severe cyclone, there were very high winds and widespread heavy rain in coastal Andhra Desa, some falls being exceptionally heavy. Masulipatam recorded 20″ of rain during the 24 hours ending at 0830 hrs. on 28th. Winds exceeding 50 m.p.h. raged continuously for over 12 hours along the Masulipatam-Cocanada strip of the coast between the 27th and 28th. The observatory at Masulipatam recorded a wind-speed of 80 m.p.h. at 0230 hrs. on the 28th.

The fierce winds and heavy rains which accompanied the cyclone caused appalling destruction of life and property and indescribable sufferings to the people in Andhra Desa. A huge storm wave, which rose to a height of 10 to 15 feet, is reported to have swept over the entire coast of the West and East Godavari districts up to a distance of 4 to 5 miles inland and inundated a number of villages. Most of the houses were blown away, all trees uprooted and the ground was laid bare. The torrential rains caused heavy breaches along the roads and railway lines and completely paralysed the telegraph and telephone communications in the Kistna, Guntur, the West Godavari and East Godavari districts, while streams, canals and tanks became flooded and their banks breached. Special mention may be made here about the severe floods in the Budameru river in the Kistna district which rose to record level. According to reports, over 750 human beings and nearly 30,000 cattle perished, while approximately a million acres of crops and over quarter million houses were either destroyed or severely damaged during the cyclone. The total losses were estimated at several crores of rupees. The remnant depression during the movement in the interior of the country was responsible for widespread and locally very heavy rain along the Orissa coast and along and near its track.

Price : Re. 1

Two feeble western disturbances moved across the northeast Punjab during the month. The first one gave isolated light showers in Kashmir on the 23rd and the second scattered showers in the West Punjab and Kashmir between 28th and 30th.

Night temperatures were 5° to 10° F. above normal in Bihar, the east United Provinces, Gujarat and the central parts of the country on most of the days during the second and third weeks.

The total rainfall for the month was in large excess in Orissa, Bihar, the east United Provinces and the central parts of the country and in slight to moderate excess in West Bengal, north Hyderabad, Mysore and the north Madras coast. It was normal in the Bay Islands, Assam, Chota Nagpur, south Hyderabad and the Madras Deccan and in slight to moderate defect in the west United Provinces, Gujarat, the Konkan, the Bombay Deccan and Malabar. Elsewhere it was in large defect. Averaged over the plains of India, the month's rainfall was 34% in excess.

The mean maximum temperature was above normal in Bihar and below normal in Berar and the west United Provinces.

The mean minimum temperature was above normal in Assam, Bihar, the east United Provinces, Gujarat and the central parts of the country and normal elsewhere.

Relative humidity was in excess in the west United Provinces, Gujarat, the central parts of the country, the Bombay Deccan, Hyderabad and Mysore and normal elsewhere.

The cloud amount was in defect in west Rajputana and normal in Assam, West Bengal and the East Punjab and in the Peninsula outside Hyderabad; elsewhere it was in excess.

Data from Kashmir are not available.

Table I contains the divisional and sub-divisional means of rainfall, temperature, humidity and cloud amount for the 13 chief political divisions and the 27 sub-divisions. The stations whose observations are used for preparing these means are given in the subsequent tables.

The highest maximum temperature given for any station in the accompanying tables is that recorded within the 24 hours ending at 0830 hours I. S. T. of the date noted in the succeeding column; similarly the heaviest fall in 24 hours for any station denotes the amount recorded during the 24 hours ending at 0830 hours I. S. T. of the date given in the succeeding column.

POONA 5 :
The 7th March, 1950

S. Basu,
for *Director General of Observatories.*

—	Rainfall				Departure from normal of				
							0830 hrs I.S.T.		
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Maximum temperature.	Minimum temperature.	Vapour pressure.	Relative humidity.	Cloud.
1	2	3	4	5	6	7	8	9	10
Division	"	"	"		°	°	mb.	%	
1. Assam	5·15	4·76	+0·39	+8	+1·7	+2·0	+1·7	+1	+0·6
2. West Bengal	6·31	4·75	+1·56	+33	+1·3	+1·9	+1·7	+1	+0·5
3. Orissa	12·44	5·45	+6·99	+128	−0·5	+1·7	+2·3	+5	+1·4
4. Bihar	4·17	2·55	+1·62	+64	+1·4	+2·2	+2·5	+3	+0·7
5. United Provinces	2·67	1·34	+1·33	+99	−0·5	+2·6	+2·6	+5	+0·6
6. East Punjab	0·09	0·58	−0·49	−84	+0·2	+0·2	+0·7	+1	−0·1
7. Rajputana	0·14	0·34	−0·20	−59	−0·8	+1·2	+0·8	−1	0
Division—*contd.*									
8. Bombay (including Saurashtra & Cutch).	1·59	2·50	−0·91	−36	−0·7	+1·6	+1·7	+4	+0·6
9. Central India (including Madhya Bharat & Bhopal & Vindhya Pradesh).	3·12	1·44	+1·68	+117	−0·7	+3·3	+3·4	+13	+1·4
10. Central Provinces and Berar.	6·44	2·29	+4·15	+181	−2·1	+3·1	+3·5	+13	+1·7
11. Hyderabad	2·74	2·36	+0·38	+16	−0·8	+1·8	+2·1	+9	+1·4
12. Mysore	7·77	6·08	+1·69	+28	+0·3	+1·0	+1·2	+8	+0·6
13. Madras	6·55	7·95	−1·40	−18	+0·5	+1·5	+0·8	+1	+0·7
Mean of India	4·02	3·01	+1·01	+34	−0·3	+1·9	+1·9	+5	+0·8
Sub-Division									
1. Bay Islands	13·37	12·51	+0·86	+7	+0·1	+0·6	−0·2	+5	+1·2
2. Assam	5·15	4·76	+0·39	+8	+1·7	+2·0	+1·7	+1	+0·6
3. West Bengal	6·31	4·75	+1·56	+33	+1·3	+1·9	+1·7	+1	+0·5
4. Orissa	12·44	5·45	+6·99	+128	−0·5	+1·7	+2·3	+5	+1·4
5. Chota Nagpur	3·01	2·75	+0·26	+9	+0·2	+1·7	+2·8	+5	+0·8
6. Bihar	4·90	2·42	+2·48	+102	+2·6	+2·7	+2·3	+2	+0·5
7. United Provinces, East	4·70	1·79	+2·91	+163	−0·7	+3·3	+2·8	+4	+0·7
8. United Provinces, West.	0·64	0·89	−0·25	−28	−0·2	+1·7	+2·3	+6	+0·4
9. East Punjab	0·09	0·58	−0·49	−84	+0·2	+0·2	+0·7	+1	−0·1
10. Kashmir	Data incomplete								
11. Rajputana, West	0·05	0·16	−0·11	−69	−1·3	+0·5	+1·1	−3	−0·3
12. Rajputana, East	0·24	0·53	−0·29	−55	−0·4	+1·9	+0·5	+1	+0·3
13. Gujarat	0·71	1·07	−0·36	−34	−0·7	+3·8	+3·6	+8	+0·6
14. Saurashtra and Cutch.	0·07	0·50	−0·43	−86	−0·8	+1·1	−1·6	−2	+0·5
Sub-Division—*contd.*									
15. Madhya Bharat & Bhopal.	2·87	1·13	+1·74	+154	−0·7	+3·7	+3·2	+13	+1·6
16. Vindhya Pradesh	3·45	1·84	+1·61	+87	−0·6	+2·8	+3·6	+11	+1·2
17. Berar	6·09	1·87	+4·22	+226	−3·4	+3·1	+4·7	+19	+1·6
18. Central Provinces, West.	5·79	1·68	+4·11	+245	−2·1	+3·2	+4·5	+16	+1·5
19. Central Provinces, East.	7·37	3·20	+4·17	+130	−1·5	+3·0	+1·8	+7	+1·9
20. Konkan	2·68	5·32	−2·64	−50	−1·1	+0·8	+1·9	+3	+0·6
21. Bombay Deccan.	2·62	3·38	−0·76	−22	−0·3	+0·8	+2·5	+8	+0·6
22. Hyderabad, North	2·50	2·02	+0·48	+24	−1·5	+1·9	+2·5	+13	+1·6
23. Hyderabad, South	2·98	2·70	+0·28	+10	−0·3	+1·8	+1·8	+7	+1·3
24. Mysore	7·77	6·08	+1·69	+28	+0·3	+1·0	+1·2	+8	+0·6
25. Malabar	6·93	10·63	−3·70	−35	0	+0·8	+0·5	+1	+0·9
26. Madras, South-East.	4·15	8·52	−4·37	−51	+1·1	+1·4	+0·1	−1	+0·6
27. Madras, Deccan.	4·39	4·23	+0·16	+4	−0·6	+1·8	+1·7	+1	+0·8
28. Madras Coast, North.	12·75	8·48	+4·27	+50	+0·5	+1·8	+1·6	+3	+0·7

TABLE II.—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M.

STATION.	Height of barometer above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relative humidity, %.	
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Bay Islands																					
Port Blair	261	1001·4	−0·8	998·8	84·0	+0·1	87	4	74·4	+0·6	72	15	80·3	77·6	77·0	75·5	29·9	−0·2	29·3	86	+5
Assam																					
Dibrugarh	348	999·4	−1·8	995·2	85·9	+1·6	93	9,11	71·0	+1·5	66	29	78·1	78·7	73·9	75·1	27·0	+1·2	28·3	82	0
Sibsagar	317	1000·7	−1·3	996·7	86·4	+2·1	93	11	72·4	+1·8	68	22,24,25	79·1	79·6	75·6	76·2	28·7	+1·2	29·2	85	−3
Tezpur	258	1002·8	−1·5	998·4	88·5	+3·2	93	7,8,9	73·1	+1·9	69	24,25	78·1	81·2	75·2	76·7	28·0	+2·0	29·3	87	+5
Gauhati	182	1005·0	−1·2	1000·8	87·7	+0·7	92	12	73·1	+2·1	67	21	79·2	81·5	75·5	76·3	28·8	+1·9	28·9	84	+1
Dhubri	115	1007·9	−0·5	1004·1	84·1	−0·2	88	10,11	75·3	+2·5	69	31	79·3	81·3	76·3	77·3	29·6	+2·3	30·2	87	+5
Silchar	96	1007·8	−1·4	1003·9	88·0	−0·2	95	9,10	74·5	+2·3	67	20	79·4	82·3	76·6	78·5	29·7	+1·3	31·2	88	+6
West Bengal																					
Dum Dum	33	1009·2	..	1005·9	89·4	..	93	21	76·3	..	70	23	83·5	82·6	77·1	76·8	28·7	..	28·6	74	..
Calcutta	21	1009·5	−1·3	1006·2	91·1	+1·9	94	4 days	76·5	+2·7	69	23	84·7	82·3	78·8	77·7	30·8	+2·2	30·5	76	−6
Saugor Island	10	1009·6	−1·3	1006·5	86·3	−0·5	90	5,7,22	78·4	+2·1	74	20	83·2	81·9	78·7	77·8	31·5	+1·8	31·8	81	+3
Sandheads	32	1008·3	−2·1	1005·2	..	..	..	..	..	..	..	..	84·2	84·0	78·8	78·4	31·0	+1·1	30·8	78	+6
Midnapore	149	1004·5	−1·8	1001·7	89·5	+0·4	93	1	73·6	+0·2	68	24	82·3	82·9	77·2	77·6	29·7	+2·9	29·6	79	+4
Contai	36	1008·2	..	1005·1	87·5	..	92	23,24	77·1	..	72	24,25	82·8	83·3	78·3	78·4	31·1	..	30·8	81	..
Burdwan	106	1006·4	−1·6	1003·1	89·6	+0·5	93	4 days	76·2	+2·0	68	23	81·3	83·0	76·5	77·7	28·7	+1·3	29·7	80	+3
Krishnagar	48	1009·2	−0·8	1005·9	92·0	+2·5	96	7	74·5	+1·5	68	22	82·8	82·7	78·2	77·9	31·1	+3·0	30·2	81	+8
Asansol	414	996·0	−1·4	992·5	89·8	+0·8	93	5 days	73·4	+2·6	65	23,24	81·5	82·5	75·5	75·5	27·4	+1·6	27·0	75	−1
Berhampore	62	1008·3	−1·3	1004·6	92·5	+4·1	96	18,20,21	74·5	+0·6	68	22,23,24	83·5	84·6	77·4	77·6	29·5	+1·4	29·2	74	−4
Malda	103	1006·8	−1·4	1003·5	89·4	+1·3	93	7	74·8	+2·5	66	23,24	82·8	84·0	76·3	77·7	28·0	+0·2	29·3	73	−2
Cooch Behar	145	1006·4	..	1002·3	89·0	..	95	10	73·6	..	68	25,26	80·4	82·8	75·6	77·6	27·8	..	30·3	79	..
Jalpaiguri	271	1001·6	−1·2	997·5	87·6	+0·7	92	6,7,10	72·8	+2·5	68	25	77·6	83·4	74·2	76·9	27·2	+1·0	28·6	84	+1
Orissa																					
Balasore	65	1007·9	−1·2	1004·9	87·5	−0·9	93	21	75·4	+2·1	69	24,25	81·7	81·5	77·1	77·9	29·9	+2·3	31·1	81	+3
Chandbali	20	1008·7	−1·9	1005·8	88·4	+0·5	95	20	73·0	−1·6	71	25	82·2	82·4	77·9	78·1	30·4	+1·4	30·6	81	0
Puri	20	1009·1	−1·3	1006·1	88·2	−0·4	94	5	78·0	+1·0	74	4 days	82·9	83·5	78·1	78·3	30·4	+1·3	31·0	80	+3
Gopalpur	56	1007·8	−1·4	1004·7	87·7	−0·5	94	5	76·4	+1·8	74	4 days	81·9	82·8	77·9	78·4	30·8	+2·8	31·1	84	+6
Cuttack	87	1006·7	−1·8	1003·2	88·7	−1·0	94	5	..	..	..	..	80·9	82·3	76·8	77·2	29·8	+2·3	29·7	82	+4
Angul	455	994·6	−1·0	991·3	87·8	−0·7	93	5	74·5	+2·9	66	25	78·7	82·2	75·0	75·6	28·3	+2·4	27·4	84	+7
Sambalpur	486	993·4	−1·6	989·7	89·0	+0·2	93	13,21	72·8	+1·3	64	25	79·3	83·0	75·2	75·5	28·1	+2·6	26·7	82	+6
Chota Nagpur																					
Jamshedpur	423	995·7	−1·4	992·2	88·5	−1·2	92	8	74·0	+2·9	64	25	79·7	82·7	74·6	75·6	27·1	+2·5	27·2	78	+3
Chaibasa	742	984·8	−1·1	981·4	89·2	+1·0	94	21	72·7	+2·6	63	24,25	78·7	82·8	74·0	75·3	26·8	+2·3	26·5	80	+4
Ranchi	2,150	937·4	−1·4	935·1	84·6	+1·5	89	7	64·8	−1·4	51	23	75·9	76·9	70·1	70·2	22·5	+2·4	22·5	75	+9
Hazaribagh	2,006	942·7	−1·4	939·7	84·1	+0·5	89	13	67·3	+0·8	57	23,24	76·3	76·7	70·3	70·5	22·9	+3·4	23·2	74	+9
Daltonganj	725	985·4	−1·5	981·9	88·4	−0·7	93	13,14	70·6	+4·1	57	26	78·5	81·6	73·0	74·7	25·3	+3·3	26·1	76	0
Dhanbad	839	981·7	..	..	89·1	..	93	18	71·3	..	63	23	80·7	..	74·2	..	25·9	..	..	73	..
Bihar																					
Purnea	124	1006·2	−1·4	1002·3	90·8	+2·9	95	7	73·3	+2·5	63	22	82·2	83·4	76·8	78·1	28·9	+2·1	30·1	77	−3
Saharsa	156	1004·8	..	1001·1	89·1	..	93	11,12,13	74·6	..	67	22,23	81·5	84·1	76·0	77·5	28·2	..	29·4	77	..
Darbhanga	161	1005·0	−1·2	1001·1	90·9	+2·7	96	8	74·0	+2·4	66	23	81·3	84·5	76·3	77·9	28·7	+2·7	29·8	79	+8
Motihari	218	1002·9	−1·3	999·0	89·7	+1·6	95	14	70·4	+1·1	61	23	82·4	81·7	75·6	76·6	26·9	+0·8	29·1	73	−4
Patna	173	1003·9	−1·8	1000·5	90·6	+2·0	95	4 days	75·3	+2·5	66	26	82·7	85·4	75·4	75·1	26·6	+1·3	24·8	70	+1
Dehri	352	997·6	..	994·0	90·4	..	95	13	73·6	..	64	23,26	80·4	84·5	74·1	76·0	25·7	..	26·8	73	..

Cloud amount. (Oktas)		Rainfall, inches.				Number of rainy days (0·10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																			STATION.
										0830 hrs. I.S.T.										1730 hrs. I. S. T.									
Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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
																													Bay Islands
+1·2	6·8	13·37	+0·86	3·57	22	18	+1·3	8·1	+0·5	0	4	2	1	2	8	8	3	3	1	5	1	2	3	5	5	2	7		Port Blair
																													Assam
+0·1	2·9	8·65	+2·66	3·57	12	8	−0·6	0·7	0	9	4	2	1	1	0	1	3	10	0	1	2	0	0	1	0	0	27		Dibrugarh
0	8·5	2·36	−2·81	0·80	16	5	−2·9	1·5	+0·1	4	4	4	2	3	4	1	3	6	8	5	1	2	2	1	0	2	10		Sibsagar
+0·5	2·3	3·49	−0·61	2·16	13	6	−0·3	1·2	−0·3	0	2	18	1	1	0	3	0	6	0	0	2	0	0	1	0	0	28		Tezpur
−0·5	3·3	3·01	+0·23	0·91	12	7	+2·8	2·1	+0·9	7	7	5	1	1	1	2	4	3	0	3	2	1	2	4	5	0	14		Gauhati
+0·8	3·3	5·88	+0·98	2·25	31	5	0	2·7	−0·5	1	9	7	1	3	2	1	0	7	0	3	1	2	5	4	0	0	16		Dhubri
+1·7	4·0	94·9	+2·24	3·48	19	16	+8·1	0·5	−0·5	0	2	2	2	2	0	1	1	21	0	0	0	1	0	2	0	1	27		Silchar
																													West Bengal
..	4·8	6·34	..	1·60	9	9	..	3·7	..	5	4	2	5	5	2	1	3	4	4	1	1	1	6	5	0	3	10		Dum Dum
+0·6	4·8	3·60	−0·88	1·04	20	5	−1·2	1·3	−0·8	4	4	2	1	5	5	0	1	9	2	0	0	0	3	2	1	1	22		Calcutta
+0·2	4·4	4·93	+3·14	1·11	15	13	+5·5	8·2	+2·4	7	6	2	2	5	6	1	1	1	3	5	1	5	7	7	0	1	2		Saugor Island
+0·8	4·3	10·64	+6·01	2·45	16	12	+6·3	..	..	1	6	2	5	5	8	2	2	0	1	3	4	5	8	6	1	1	2		Sandheads
+0·5	4·4	4·24	+0·44	0·91	28	9	+3·4	2·6	+1·2	2	10	5	2	4	3	2	1	2	0	3	2	1	8	3	1	0	13		Midnapore
..	3·1	5·68	..	1·38	27	11	..	4·2	..	2	6	3	3	5	4	3	2	3	4	0	2	1	15	1	0	1	7		Contai
−0·3	3·5	5·45	+2·15	1·78	3	8	+3·6	2·7	+1·4	8	3	2	2	2	7	1	1	5	6	3	1	2	4	6	0	1	8		Burdwan
+1·4	5·0	8·97	+4·73	1·34	17	13	+8·0	..	..	3	3	0	2	8	4	4	3	4	1	1	1	3	5	1	1	0	18		Krishnagar
−0·4	3 7	1·55	−2·79	0·96	2	3	−2·5	2·6	−0·4	3	1	4	2	2	1	4	5	9	0	0	1	6	1	0	0	3	20		Asansol
+0·8	4·3	1·68	−1·96	0·52	8	5	+0·5	1·6	+0 2	2	1	4	1	7	2	2	2	10	0	0	2	0	6	2	0	1	20		Berhampore
+0·6	3·8	3·91	−0·44	1·62	1	5	+0·7	2·6	−0·2	6	4	4	3	2	2	4	5	1	1	0	2	4	6	2	1	3	12		Malda
..	3·7	20·54	+13·23	10·79	13	10	+3·8	2·3	..	1	9	9	4	3	2	1	0	2	0	0	1	1	2	3	0	2	22		Cooch Behar
+1·1	3·2	10·39	+4·83	3·52	13	8	+2·5	2·6	+1·4	7	14	5	1	0	0	0	1	3	1	3	2	2	2	2	4	0	15		Jalpaiguri
																													Orissa
+1·7	4·8	19·98	+13·55	6·00	9	13	+6·6	2·5	+0·7	7	3	4	2	4	4	0	2	5	0	1	0	2	5	0	0	1	22		Balasore
+0·9	(a) 4·9	10·34	+2·71	3·80	28	11	+2·7	(c) 4·1	+0·4	8	0	4	0	3	4	2	9	0	3	8	2	12	1	1	1	1	1		Chandbali
+1·4	5·1	21·69	+14·48	6·40	9	14	+6·7	9·0	+2·6	5	5	0	4	4	4	3	6	0	3	5	0	6	8	8	1	0	0		Puri
+2·0	5·3	20·46	+11·86	7·61	28	13	+6·1	7·1	+1·1	13	2	0	2	3	1	1	5	4	3	1	4	4	6	5	2	2	4		Gopalpur
+0·5	5·2	10·19	+4·85	1·47	10	12	+5·7	3·2	+1·9	0	3	1	0	0	0	0	0	27	1	4	2	1	0	0	0	0	23		Cuttack
+1·3	5·3	8·59	+4·65	3·07	14	12	+6·3	3·9	+0·8	5	4	1	2	2	1	5	10	1	6	4	4	4	5	2	2	2	2		Angul
+1·6	4·9	1·27	−0·87	0·53	29	4	+0·5	3·0	+0·7	4	9	5	2	5	3	1	0	2	5	6	2	3	2	2	1	4	6		Sambalpur
																													Chota Nagpur
+0·7	4·7	2·44	−0·22	0·37	29	9	+4·8	2·8	+0·7	0	0	7	2	0	1	9	4	8	0	1	8	6	0	2	1	3	10		Jamshedpur
+0·9	4·5	2·23	−0·70	1·70	15	4	−0·4	1·2	0	1	5	0	0	2	7	0	0	16	1	3	0	2	1	0	1	0	23		Chaibasa
+0·4	3·8	3·12	−0·01	0·90	14	7	+2·2	2·0	−0·9	2	1	4	0	1	0	1	1	21	2	1	6	2	0	0	1	1	16		Ranchi
+0·9	3·5	2·98	−0·12	1·04	14	5	+0·4	4·2	−0·1	2	1	4	3	2	1	1	7	10	4	1	5	3	2	1	2	6	7		Hazaribagh
+1·0	4·0	4·27	+2·34	2·49	2	5	+1.8	2·0	0	0	2	5	4	1	0	2	1	16	2	1	7	2	0	0	6	1	12		Daltonganj
..	..	0·51	..	0·19	28	3	..	2·2	..	1	2	6	1	0	3	4	1	13	..	..	..	..	..	..	..	..	..		Dhanbad
																													Bihar
+0·7	2·0	6·63	+3·41	3·55	31	5	+1·6	1·8	+0·5	0	1	10	4	0	4	5	1	6	0	0	1	0	0	0	1	0	29		Purnea
..	2·4	6·25	..	3·90	31	3	..	1·9	..	0	7	6	2	0	5	6	3	2	0	0	2	1	0	0	3	0	25		Saharsa
+0·4	2·6	12·59	+10·29	7·35	31	6	+3·5	1·5	+0·2	0	6	4	4	0	1	7	1	8	0	1	4	0	0	1	0	2	23		Darbhanga
+0·7	2·4	5·74	+3·43	2·00	31	6	+3·5	1·9	+0·2	0	2	7	1	0	0	0	1	20	0	0	2	0	0	0	1	1	27		Motihari
+0·6	3·2	3·27	+0·97	2·98	31	3	+0·1	3·1	+1·1	1	6	1	3	3	6	2	2	7	0	4	0	1	1	5	4	2	14		Patna
..	3·2	2·09	+0·14	1·44	31	2	−0·6	2·6	..	3	1	1	2	3	9	3	3	6	5	5	1	2	0	0	2	8	8		Dehri

(a) Mean of 30 days.

(c) Mean of 28 days.

TABLE II.—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M.

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Re hur
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Bihar—*contd.*																				
Gaya	365	997·3	−1·6	993·7	90·9	+2·3	95	12,13	73·1	+3·1	61	26	81·0	84·7	74·0	74·6	25·5	+2·7	24·8	70
Naya Dumka	489	993·6	−1·4	989·9	91·5	+3·4	94	6 days	..	..	..	..	81·3	84·9	74·3	76·2	25·8	+0·4	27·2	70
Sabour	122	1005·9	−1·7	1002·1	91·0	+2·9	95	12,13	73·9	+2·9	63	23,24	82·5	83·5	77·0	78·3	29·2	+2·7	31·0	77
U.P., East																				
Gonda	360	998·0	..	994·4	89·7	−1·1	94	13,14	70·2	+2·7	59	25	78·1	81·9	72·7	74·1	25·5	+2·3	25·1	76
Gorakhpur	254	1001·1	−1·7	998·8	90·6	+1·5	96	10	72·9	+3·5	64	22,26	80·4	85·5	73·8	74·5	25·7	+1·1	24·1	73
Banaras	250	1001·2	−1·7	997·8	90·6	+0·1	96	13	72·0	+4·0	60	26	79·8	84·8	73·9	74·4	26·0	+2·9	24·4	74
Allahabad (Bamrauli).	322	998·5	−1·9	995·8	90·7	+0·3	95	13,14	71·1	+4·0	60	26	79·0	85·4	72·7	73·9	24·3	+3·0	23·5	73
Fatehpur	375	997·0	..	994·0	88·4	−4·1	95	14,16	70·0	+3·5	57	26	77·5	83·8	72·0	74·2	24·3	+2·8	24·9	75
Kanpur	414	995·4	−1·7	992·8	90·1	−1·1	96	16	69·7	+3·7	58	26	78·2	84·5	70·9	74·2	22·1	+1·3	23·9	69
Lucknow	371	997·5	−1·1	994·4	90·8	−0·6	96	14	69·5	+2·9	58	25	74·6	83·1	71·1	74·4	24·3	+2·5	25·3	82
Bahraich	407	996·4	−0·8	993·0	89·6	−0·5	94	10,14	70·3	+1·9	59	25	78·9	85·8	72·8	76·4	25·0	+1·9	26·9	73
U.P., West																				
Jhansi	823	982·6	1·0	975·9	92·3	−0·8	97	20	68·9	+2·2	57	26	78·3	87·1	69·3	72·5	21·5	+3·8	20·7	69
Agra	553	991·3	−1·0	988·4	90·9	−1·9	98	15	67·2	+2·1	57	27	74·5	87·1	65·6	67·7	17·4	+2·3	14·2	63
Mainpuri	516	992·7	−0·6	988·4	91·9	−1·3	98	14,15	68·9	+3·9	60	24	76·7	85·3	70·5	70·7	22·7	+4·1	19·3	73
Aligarh	615	989·2	..	986·0	91·9	−1·2	97	14,15	64·8	−1·1	53	26	75·1	86·4	67·1	71·2	19·0	+3·2	19·5	64
Bareilly	568	990·5	−1·2	987·2	90·3	+0·6	95	5 days	68·3	+2·5	60	25	77·5	84·2	70·2	71·4	21·7	+0·7	20·0	68
Meerut	728	994·9	..	..	91·7	..	96	15,16	63·2	..	53	27	72·0	..	64·0	..	16·8	..	..	63
Roorkee	899	979·3	−1·3	975·9 ~~979·5~~	89·3	+1·1	93	4 days	62·5	+1·1	52	26	70·9	84·2	65·4	69·8	19·0	+1·1	16·8	74
Dehra Dun	2,239	934·9	−0·9	932·6	84·7	+1·8	88	7	61·7	+1·4	52	26	71·2	80·2	63·2	69·5	16·1	+0·9	19·4	63
East Punjab																				
New Delhi	714	985·6	−1·2	982·7	92·0	−0·5	96	5 days	65·2	+0·9	55	27,31	71·1	86·6	63·3	67·1	16·1	+0·9	13·8	51
Hissar	725	985·9	−0·5	982·7	93·6	−1·0	100	13	61·5	−1·7	47	31	69·0	88·6	62·8	68·3	16·3	+2·1	14·3	64
Patiala	822	981·9	..	978·7	91·4	..	97	13,16,17	62·8	..	53	25,26,31	72·6	84·2	64·2	67·6	16·6	..	15·6	62
Ambala	892	979·6	−0·9	976·5	92·8	+1·0	98	6,12,13	64·0	+1·9	51	27	71·4	88·1	63·5	70·9	16·5	+0·4	18·2	65
Ludhiana	810	982·4	−0·9	979·6	93·7	+1·4	99	4 days	62·8	−0·4	50	31	71·6	89·6	61·9	67·5	14·5	−0·6	13·2	55
Amritsar	756	984·3	..	981·7	90·9	..	97	13,16	60·1	..	48	31	70·6	85·3	63·5	67·3	16·9	..	14·7	66
Kashmir																				
Srinagar	5,205	844·1	−0·8	840·8	72·2	−1·6	84	5 days	41·4	+0·8	30	27	48·7	64·6	45·6	52·7	9·1	−0·5	8·1	80
Gulmarg	8,709	Closed during winter months.																		
Dras (R)	10,059																			
Leh	11,529	668·5	−0·9	665·1	60·2	+1·9	71	4,5	30·9	+0·3	24	31	44·3	55·2	31·2	37·9	1·9	−2·1	2·2	25
Skardu (R)	7,505																			
Gilgit (R)	4,890																			
Misgar (R)	10,190																			
Rajputana, West																				
Sri Ganganagar	580	..	..	..	92·2	−2·9	99	15	60·2	+0·5	44	30,31	72·4	87·1	61·4	68·5	13·7	+1·4	15·4	49
Bikaner	734	985.2	−1·7	982·2	93·7	−3·1	101	14,15,16	62·7	−3·6	46	31	71·5	91·4	62·3	72·4	14·9	+2·1	19·3	58
Phalodi	794	983·9	..	981·4	94·1	..	101	14,16	66·4	..	48	31	71·9	92·2	61·4	68·8	13·1	..	13·2	47
Jaisalmer	793	983·2	..	980·4	94·5	..	100	4 days	65·3	..	47	31	75·5	90·9	60·8	65·5	11·5	..	10·0	38
Jodhpur	736	985·5	+0·5	982·3	96·2	+0·7	103	14	69·5	+4·1	50	31	76·3	93·2	61·3	67·8	14·1	−0·2	11·5	38
Barmer	638	988·8	−0·5	985·5	97·3	+0·2	104	14	71·1	+0·8	58	30,31	76·2	93·2	63·9	70·7	14·4	−2·5	15·3	48

(R) Register not received.

Cloud amount, (Oktas)			Rainfall, inches.				Number of rainy days, (0·10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																			STATION.
											0830 hrs. I.S.T.									1730 hrs. I.S.T.										
Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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
																														Bihar—*contd.*
2·5	+0·6	3·3	1·85	−0·07	1·61	31	2	−0·9	3·7	+0·7	2	0	3	5	5	8	1	0	7	4	5	4	2	0	1	4	5	6		Gaya
1·6	−0·5	3·3	1·55	−2·26	0·72	20	4	−0·6	1·8	+0·6	3	3	3	6	0	2	6	7	1	2	4	6	7	1	1	5	5	0		Naya Dumka
2·9	+0·3	3·6	3·05	−0·09	2·07	31	4	+1·1	3·1	+0·6	0	3	6	3	2	6	7	2	2	1	2	4	2	0	0	2	8	12		Sabour
																														U. P., East
2·1	+0·7	1·9	4·96	+3·17	3·19	30	4	+2·3	2·1	+0·1	2	1	7	0	0	0	6	4	11	1	0	2	0	0	0	0	1	27		Gonda
1·9	+0·7	2·1	4·17	+1·20	2·00	30	3	+0·7	2·0	+1·0	1	0	6	2	0	1	6	1	14	0	2	0	0	0	1	11	1	16		Gorakhpur
2·5	+0·8	3·3	2·72	+0·54	1·24	30	4	+1·8	4·2	+2·2	0	1	9	3	4	8	8	0	1	6	3	1	1	3	1	12	3	1		Banaras
2·3	+0·6	2·7	4·09	+1·75	2·87	30	4	+1·5	1·9	−0·4	1	1	3	4	2	6	4	3	7	4	3	0	1	0	0	4	5	14		Allahabad (Bamrauli)
1·8	+0·5	2·0	2·95	+2·06	1·49	30	5	+3·6	1·8	+0·2	1	2	1	0	0	1	5	8	13	1	3	0	0	0	0	0	3	24		Fatehpur
1·7	+1·0	2·1	4·02	+2·72	1·90	29	4	+2·5	4·0	+0·5	5	3	1	0	0	3	7	3	0	4	3	0	0	1	1	5	2	15		Kanpur
1·7	+0·7	1·6	6·30	+5·02	4·88	30	3	+1·3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		Lucknow
1·8	+0·8	1·8	8·40	+6·82	5·26	30	4	+2·3	2·1	+0·9	0	2	4	3	0	0	2	2	18	0	2	0	0	0	0	2	0	27		Bahraich
																														U. P., West
1·7	+0·7	1·5	2·64	+1·65	1·50	30	4	+2·9	2·5	+0·1	5	0	5	0	0	2	4	4	11	7	3	2	0	0	0	5	2	12		Jhansi
1·1	+0·3	0·9	0·06	−0·65	0·06	30	0	−0·8	1·7	−0·7	2	2	0	0	0	1	2	1	23	1	1	0	0	0	0	1	0	28		Agra
1·6	+0·6	1·4	0·42	−0·53	0·41	30	1	0	1·6	+0·5	1	0	2	1	2	3	7	5	10	1	1	0	2	0	6	6	1	14		Mainpuri
1·3	+0·8	1·2	0·53	+0·22	0·53	1	1	+0·7	3·5	+0·4	1	0	2	0	1	0	6	0	21	2	0	3	0	0	0	2	8	16		Aligarh
1·5	+0·6	1·2	1·08	−0·19	0·67	31	2	+1·1	1·8	+0·8	2	3	5	3	1	2	3	3	9	1	0	0	2	0	1	6	5	16		Bareilly
0·4	..	..	0	−0·81	0	..	0	−0·9	3·3	..	0	0	2	1	1	0	1	14	12	..	..	..	..	..	..	..	.	..		Meerut
0·6	0	0·8	0·34	−0·50	0·34	1	1	+0·1	2·3	+1·1	0	0	0	12	0	0	0	6	13	0	0	0	2	0	0	0	9	20		Roorkee
0·8	−0·2	1·0	0·08	−1·18	0·08 ~~0·68~~	1	0	−1·6	2·2	+0·3	2	4	0	1	0	4	1	3	16	0	0	0	1	0	2	5	1	22		Dehra Dun
																														East Punjab
0·7	0	0·8	0·06	−0·34	0·06	1	0	−0·6	5·7	..	1	2	1	1	0	1	15	5	5	4	0	1	2	0	0	5	14	5		New Delhi
0·4	−0·3	0·2	0·10	−0·51	0·10	30	1	+0·4	2·9	−0·3	2	0	1	2	1	6	5	2	12	6	1	1	0	2	1	4	8	8		Hissar
0·7	..	0·3	0	..	0	..	0	..	4·5	..	3	2	1	6	1	0	1	5	12	8	5	0	3	1	0	1	9	4		Patiala
0·4	−0·3	0·1	0·15	−0·72	0·15	1	1	+0·1	4·1	+2·2	0	1	0	7	0	0	0	4	19	0	0	1	5	0	0	0	5	20		Ambala
0·6	0	0·5	0·06	−0·37	0·06	30	0	−0·7	1·7	+0·7	0	1	1	3	1	0	4	4	17	1	1	0	2	1	0	2	6	18		Ludhiana
0·5	..	0	0·03	..	0·03	28	0	..	2·3	..	5	2	4	4	0	1	2	2	11	6	0	0	3	0	0	1	18	3		Amritsar
																														Kashmir
2·1	−0·2	1·8	0·61	−0·56	0·45	29	2	−0·8	1·9	−0·1	0	1	2	6	1	0	2	1	18	1	2	0	2	0	0	6	9	11		Srinagar
																														Gulmarg
																														Dras (R)
1·2	−1·0	1·6	0·03	−0·07	0·03	30	0	−0·3	3·7	+1·8	0	1	2	2	1	2	0	0	23	1	1	0	1	2	15	6	2	3		Leh
																														Skardu (R)
																														Gilgit (R)
																														Misgar (R)
																														Rajputana, West
0·1	−0·1	0·1	0	−0·10	0	..	0	−0·3	2·6	−2·0	1	1	2	1	5	7	1	2	11	2	0	1	0	0	5	3	3	17		Sri Ganganagar
0·2	−0·4	0·2	0	−0·21	0	..	0	−0·4	(g) 2·8	−1·0	0	10	0	2	0	7	0	2	10	3	5	0	1	0	8	0	9	5		Bikaner
0·3	..	0·4	0	−0·07	0	..	0	−0·07	5·5	..	5	1	2	4	7	4	7	1	0	5	2	0	0	0	6	8	10	0		Phalodi
0	..	0·4	0	..	0	..	0	..	5·2	..	1	4	1	0	0	10	1	3	11	1	7	0	0	0	9	1	11	2		Jaisalmer
0·9	−0·1	1·0	0·23	0·09	0·23	1	1	+0·5	4·0	−0·8	3	12	3	1	0	0	5	1	6	5	9	0	0	0	3	7	4	3		Jodhpur
0·3	−0·4	1·2	0	−0·10	0	..	0	−0·5	5·3	+0·6	5	2	0	1	1	2	2	15	3	1	5	2	1	0	6	3	10	3		Barmer

(g) Mean of 24 days

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Re hu
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Rajputana, East																				
Sikar	1,406	962·6	..	959·7	93·3	..	99	14,15,16	62·3	..	44	31	75·0	87·7	63·0	68·1	14·3	..	14·6	49
Jaipur	1,431	962·2	−1·3	959·1	92·9	−1·2	98	4 days	65·5	+1·2	53	31	78·5	87·8	63·6	65·7	13·3	−0·7	11·9	41
Ajmer	1,593	956·3	−1·7	953·7	91·9	+0·4	98	15	66·1	+1·5	52	31	75·6	88·2	61·5	64·3	13.2	−1·6	10·6	45
Kotah	843	981·8	−1·1	978·2	93·8	−0·8	100	15	71·7	+1·4	65	31	78·0	90·2	67·6	70·4	18·3	+2·3	16·0	56
Jhalawar	1,053	974·0	−1·8	970·5	91·9	0	95	6 days	67·5	+3·4	61	30	75·3	88·8	67·4	69·2	19·4	+2·2	15·8	65
Udaipur	1,910	946·4	..	943·5	91·0	..	96	15	66·1	..	54	21	74·5	85·5	64·7	68·3	16·7	..	16·9	58
Gujarat																				
Deesa	466	994·3	−1·6	990·6	(a) 97·7	−0·1	100	14	(a) 69·4	+2·7	60	29	79·2	91·4	68·0	71·0	18·4	+0·8	16·7	55
Surat	39	1009·6	−0·6	1005·6	93·8	−0·3	98	10,17,23	75·4	+3·3	68	30	78·8	89·3	75·6	78·3	28·8	+5·0	28·0	85
Ahmedabad	163	1004·8	−1·6	1001·4	95·9	−1·3	100	17	76·1	+3·4	66	30	79·0	92·8	70·3	73·9	21·5	+1·9	19·8	64
Dohad	1,093	973·0	..	970·1	91·0	−1·9	95	21	70·8	+3·9	62	31	76·1	85·3	72·1	73·1	25·1	+4·9	22·3	82
Baroda	115	1006·3	..	1002·8	95·3	−0·1	99	21	71·9	+5·8	56	31	78·0	89·6	74·2	76·9	27·2	+5·3	25·8	83
Saurashtra and Cutch																				
Bhuj	343	999·3	−0·6	996·3	94·1	−2·0	99	19	70·1	−0·4	52	30,31	75·5	91·4	66·9	66·9	18·6	−1·9	11·4	62
Dwarka	37	1009·6	−0·9	1007·1	87·0	−0·3	95	24	75·5	0	62	31	79·0	82·6	71·9	74·2	23·5	−2·4	25·1	70
Jamnagar	60	1008·9	−0·8	..	92·0	−1·6	98	20	71·7	+0·9	64	29	79·2	..	72·2	..	23·8	−1·3	..	70
Rajkot	432	995·5	−1·3	992·1	95·4	−0·4	100	18,19,20	70·7	+2·0	54	30	76·8	92·5	67·9	69·3	19·2	−2·0	15·3	62
Veraval	26	1009·8	−0·6	1006·9	89·9	..	98	18	72·1	..	56	30	79·2	84·4	72·3	78·4	23·9	..	30·4	72
Bhavnagar	55	1008·6	−1·2	1005·3	96·2	+0·4	101	22	73·5	+2·8	62	31	78·3	92·0	69·0	73·5	20·0	−0·4	19·8	60
Madhya Bharat and Bhopal																				
Neemuch	1,626	956·1	−0·9	953·2	91·8	+0·8	96	8,15	68·3	+3·7	63	20,22,31	75·6	86·6	65·6	67·6	17·5	+1·5	14·6	58
Ratlam	1,596	956·7	..	953·6	89·7	..	93	21	68·8	..	63	20,21,22	76·4	85·5	70·0	75·2	22·3	..	24·5	70
Indore	1,839	948·4	−1·0	945·3	86·8	−1·9	90	7 days	66·5	+4·2	59	28	74·0	82·8	68·8	69·3	22·0	+3·6	18·9	77
Bhopal	1,643	954·7	−1·5	951·9	87·4	−1·3	92	20,21	68·5	+3·3	61	26,28	75·3	82·4	69·3	70·1	21·8	+4·5	19·8	74
Guna	1,571	957·1	−1·4	954·5	89·0	−0·6	93	14,15,16	65·6	+3·4	57	26	73·8	84·5	68·0	70·3	20·5	+3·3	19·9	75
Gwalior	681	987·1	..	984·2	90·5	..	96	14,15	64·8	..	54	25,26	77·5	85·3	67·7	70·8	18·7	..	19·2	59
Madhosagar	757	984·5	..	981·4	92·5	..	100	14	69·7	..	63	25,31	77·7	86·2	67·5	69·6	18·5	..	16·1	57
Vindhya Pradesh																				
Nowgong	750	984·9	−1·0	981·5	90·5	−0·2	95	22	67·4	+2·6	55	26	75·8	84·4	70·0	73·4	22·4	+2·8	23·1	74
Sutna	1,041	973·8	−2·2	(a) 970·4	88·6	+0·2	93	13,22	68·4	+2·5	55	26	74·5	(a) 82·7	70·3	(a) 72·1	23·7	+3·4	(a) 22·3	79
Umaria	1,506	959·1	..	956·2	85·1	−1·7	90	22	66·5	+3·4	54	26,27	74·4	79·8	70·8	73·7	24·3	+4·6	25·9	84
Berar																				
Buldana	2,133	938·3	..	935·6	83·5	..	80	8	69·0	..	62	31	72.2	79·6	67·7	70·1	21·4	..	21·3	79
Akola	925	978·5	−1·6	975·0	89·2	−3·4	93	4 days	71·4	+4·5	64	31	74·9	86·5	71·1	73·3	24·1	+5·2	22·4	81
Amraoti	1,213	968·5	−1·8	965·1	86·7	−4·2	91	4 days	70·5	+1·8	65	27	74·6	83·8	69·7	71·9	22·5	+4·1	21·3	77
C. P., West																				
Khandwa	1,044	974·5	−1·6	971·3	88·9	−3·6	93	22	69·4	+3·3	61	28	76·7	83·9	71·4	72·8	23·9	+5·5	22·5	77
Hoshangabad	992	976·5	−2·0	972·9	88·9	−0·8	93	20,22,23	69·3	+2·6	62	30	76·0	83·9	71·3	74·5	24·1	+4·3	24·9	79
Saugor	1,806	948·7	−1·7	946·0	85·5	−2·7	90	22	68·1	+1·8	60	28	74·2	79·6	67·7	68·6	20·3	+4·1	19·7	72
Jubbulpore	1,289	966·3	−1·3	963·2	87·4	−0·4	91	5 days	68·2	+4·7	56	26,27	74·3	81·0	70·8	72·9	24·2	+3·9	24·0	83
Seoni	2,027	942·4	−0·8	939·0	..	..	..	..	67·6	+3·5	59	26	73·8	78·6	68·9	70·0	22·0	+4·1	21·8	80
Betul	2,144	938·3	..	935·4	82·3	..	88	13	65·9	..	56	27	73·1	76·7	68·6	69·9	22·0	..	22·0	79
Nagpur	1,010	975·3	−1·9	972·1	87·7	−2·9	92	7,8,21	69·7	+3·2	61	16,27	76·2	83·2	71·4	73·0	23·9	+5·2	22·8	78

(a) Mean of 30days.

Cloud amount, (Oktas).			Rainfall, inches.				Number of rainy days, (0.10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																			STATION.
											0830 hrs. I.S.T.									1730 hrs. I.S.T.										
0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
4	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	
																														Rajputana, East
·2	..	1·0	0	..	0	..	0	..	2·1	..	0	2	3	2	0	3	0	0	21	9	4	2	0	1	0	1	11	3		Sikar
·2	+0·2	1·3	0·02	−0·46	0·02	1	0	−0·7	3·2	0	4	5	3	3	1	0	0	2	13	9	2	3	2	2	0	1	8	4		Jaipur
·9	0	1·3	0	−0·38	0	..	0	−0·7	3·3	+1·2	3	2	0	2	2	3	3	1	15	6	3	1	0	1	1	6	5	8		Ajmer
·9	+0·6	5·4	0·47	−0·18	0·26	31	3	+2·0	0·7	−0·8	0	0	0	0	0	0	3	1	27	0	0	0	0	0	1	1	0	29		Kotah
·6	+0·2	2·8	0·39	−0·16	0·28	5	2	+0·5	2·1	+0·5	3	1	0	0	0	3	1	2	21	7	9	1	0	1	1	0	2	10		Jhalawar
·5	..	3·6	0·33	−0·24	0·16	5	2	+0·9	1·6	..	2	0	1	0	0	0	2	5	21	2	2	0	1	3	7	1	2	13		Udaipur
																														Gujarat
·9	−0·1	1·3	0	−0·31	0	..	0	−0·5	5·5	+0·9	2	0	2	5	0	7	4	1	10	4	9	8	0	1	4	3	0	2		Deesa
·6	+0·4	2·3	2·64	+1·13	1·46	1	2	0	3·0	+0·4	0	1	2	5	1	2	0	5	15	2	1	0	0	0	24	1	0	3		Surat
·5	+1·2	2·8	0·32	−0·03	0·28	2	1	+0·3	2·3	−0·7	3	6	4	2	3	1	2	4	6	1	6	6	3	1	0	1	2	11		Ahmedabad
·2	+1·1	2·7	0·52	−0·88	0·40	14	1	−1·0	4·7	+1·8	2	5	3	3	3	5	5	2	3	3	4	0	2	2	13	4	1	2		Dohad
.0	+0·6	2·4	0·06	−1·70	0·03	1,12	0	−1·3	1·5	−0·4	0	0	0	1	3	2	0	0	25	1	1	2	0	1	3	3	2	18		Baroda
																														Saurashtra and Cutch
·9	−0·2	1·3	0	−0·33	0	..	0	−0·5	4·0	−0·5	5	2	0	0	0	4	6	6	8	11	3	0	0	0	5	4	5	3		Bhuj
·1	+0·2	2·2	0	−0·25	0	..	0	−0·3	8·8	+1·9	10	7	1	0	0	0	3	10	0	6	0	0	0	1	0	6	18	0		Dwarka
·7	+1·8	..	0	−0·31	0	..	0	−0·5	1·8	−4·5	1	2	0	0	0	2	2	0	24	..	..	..	..	..	..	..	..	..		Jamnagar
·3	+0·5	3·0	0·22	−0·35	0·16	25	1	−0·1	6·7	+2·5	8	3	1	0	2	3	6	7	1	9	2	2	2	1	0	4	11	0		Rajkot
·5	+0·7	2·6	0·18	−0·44	0·15	10	1	+0·2	9·1	..	9	5	1	0	0	0	2	7	7	1	0	0	1	1	4	15	9	0		Veraval
·4	+0·2	3·8	0	−0·90	0	..	0	−0·9	3·6	+0·2	2	0	0	1	3	6	8	3	8	0	0	14	7	6	2	0	1	1		Bhavnagar
																														Madhya Bharat and Bhopal
·2	+2·0	4·8	0·41	−0·21	0·22	4	2	+1·1	3·7	−0·2	2	5	1	2	0	6	3	7	5	2	13	3	2	1	3	5	0	2		Neemuch
·9	..	5·5	0	..	0	..	0	..	4·3	..	3	8	5	0	1	6	7	1	0	4	11	4	0	0	2	5	5	0		Ratlam
·8	+2·2	4·2	4·47	+3·26	3·48	13	6	+4·0	3·7	+0·2	1	5	1	3	0	0	5	5	11	5	8	1	4	3	3	3	2	2		Indore
·3	+1·5	3·4	3·74	+2·08	1·03	1	6	+3·6	3·1	+0·8	3	10	1	0	0	2	4	5	6	8	8	1	1	0	1	1	5	6		Bhopal
·2	+1·0	2·9	2·86	+1·81	2·49	1	3	+1·4	2·9	+1·2	4	2	1	0	2	2	5	1	14	14	6	0	0	0	1	1	3	6		Guna
·5	..	1·5	0·97	..	0·80	1	1	..	0·5	..	2	1	0	1	1	0	2	7	17	3	2	0	0		0	1	4	21		Gwalior
·8	..	1·3	0·37	..	0·21	30	2	..	3·7	..	5	2	2	0	1	10	1	2	8	7	7	2	1	2	0	1	8	3		Madhosagar
																														Vindhya Pradesh
·2	+0·5	2·3	1·07	−0·06	0·37	13	3	+1·5	1·8	+0·6	0	5	0	0	0	20	1	2	3	0	10	1	0	0	0	0	2	18		Nowgong
·8	+1·0	(a) 3·0	5·13	+3·20	1·66	1	5	+2·8	2·1	0	0	1	5	2	1	4	8	3	7	1	4	5	1	0	0	3	9	7		Sutna
·4	+2·0	4·4	4·15	−1·68	1·21	10	6	+3·3	1·9	+0·1	1	1	2	5	0	0	5	3	14	2	5	3	2	0	0	2	2	15		Umaria
																														Berar
·1	..	5·0	3·06	..	1·72	14	6	..	4·1	..	0	1	0	4	3	3	0	20	0	7	8	1	0	1	0	2	12	0		Buldana
·4	+1·0	3·8	4·68	+2·86	2·44	14	5	+2·5	3·1	+0·4	2	1	3	0	4	0	13	8	0	7	4	1	2	2	0	4	9	2		Akola
·6	+2·2	4·6	7·49	+5·58	3·19	18	9	+6·4	4·1	+0·9	0	8	0	0	0	5	0	18	0	0	15	0	2	0	2	0	12	0		Amraoti
																														C. P., West
·3	+1·5	4·2	3·36	+1·97	2·50	11	3	+1·0	3·0	+0·4	2	2	2	3	2	1	5	5	9	8	9	1	0	1	2	1	6	3		Khandwa
·8	+2·0	4·2	4·85	+3·57	1·79	13	5	+3·0	1·8	+0·5	1	4	5	1	0	3	2	0	15	8	6	1	1	0	0	1	0	14		Hoshangabad
·7	+0·9	3·7	3·68	+2·59	1·82	1	6	+4·1	..	..	2	7	2	1	1	2	7	1	8	3	7	3	0	0	1	3	2	12		Saugor
·0	+2·3	3·9	6·00	+4·12	1·61	30	10	+7·7	2·4	+1·0	0	4	1	6	1	3	3	1	12	2	9	1	2	0	0	2	2	13		Jubbulpore
·8	+0·9	3·6	10·12	+7·85	3·09	9	10	+6·9	3·1	+0·7	9	7	1	1	1	0	0	2	10	11	6	3	3	0	1	1	2	4		Seoni
·0	..	4·6	4·27	..	0·89	3	9	..	2·5	..	3	2	5	6	2	1	3	4	5	7	7	2	2	0	1	2	7	3		Betul
·1	+1·7	4·3	6·71	+4·54	2·16	10	11	+7·9	3·6	..	8	6	2	1	1	0	2	6	5	1	11	3	1	3	0	1	4	7		Nagpur

TABLE II.—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M

STATION,	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Rela hum
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
C. P., East																				
Gondia	1,026	974·9	..	971·6	86·5	..	90	22	71·5	..	63	26,27	75·7	81·2	72·2	74·2	25·4	..	25·7	84
Pendra	2,040	941·4	−1·4	938·7	83·0	−0.1	86	2,13,22	66·9	+2·8	59	26	73·9	76·3	69·3	70·5	22·8	+3·5	23·4	79
Champa	805	982·6	..	978·9	88·2	..	92	1,9,22	72·7	..	64	26	76·4	83·1	72·8	74·8	25·9	..	25·7	83
Raipur	979	976·4	−1·6	973·2	86·1	−2·4	90	1,8,21	72·5	+2·8	63	26	77·2	82·5	71·8	72·4	23·7	+0·8	23·0	76
Titilagarh	691	985·9	..	982·6	88·2	..	92	5,6,8	73·7	..	66	25	78·5	82·6	74·5	76·0	27·3	..	27·7	82
Kanker	1,318	964·9	−1·5	961·6	85·5	−1·0	89	1,2,21	70·6	+3·4	61	26	76·0	80·4	72·1	73·7	25·1	+2·0	25·4	81
Chanda	634	988·1	−1·8	984·6	86·7	−3·1	90	5,7	71·3	+3·1	63	26,27	76·2	81·8	72·1	75·3	25·0	+1·5	27·2	81
Jagdalpur	1,815	948·1	−1·4	944·7	83·9	−1·0	88	5,6	69·6	+3·5	62	26,27	74·1	78·1	71·4	72·7	24·9	+1·0	24·8	88
Konkan																				
Dahanu	15	1009·6	..	1007·0	87·5	..	92	25	74·8	..	65	30	79·0	84·8	75·1	78·1	28·0	..	29·8	84
Bombay	35	1009·2	−0·9	1006·2	88·7	−0·1	95	24	76·9	+1·3	71	31	82·2	83·9	77·4	78·1	29·9	+1·6	30·2	80
Alibag	23	1010·1	−0·3	..	86·2	−2·3	89	5 days	75·3	+0·8	66	31	79·9	..	76·4	..	29·5	+2·8	..	85
Harnal	66	1007·4	..	1005·5	85·7	..	88	19	76·1	..	72	4 days	81·2	83·0	76·1	77·3	28·5	..	29·4	79
Devgad	110	1005·9	..	1003·5	86·0	..	90	30	75·7	..	72	31	78 3	62·9	76·0	78·2	29·6	..	30·7	89
Vengurla	29	1009·3	..	1006·5	87·9	..	90	7,19,31	74·4	..	68	31	78·9	83·0	76·4	78·0	29·9	..	30·5	89
Marmagao	202	1003·4	−0·7	1000·6	84 9	−1·0	89	23	75·0	+0·3	71	19	80·2	81·6	76·3	77·1	29·2	+1·4	29 8	83
Honavar	85	1008·3	..	1005·5	87·0	..	90	24	74·7	..	72	1	79·3	82·6	76·3	78·1	28·9	..	30·9	86
Bombay, Deccan																				
Jalgaon	660	987·6	..	984·4	92·1	..	95	9,22,30	70·6	..	61	28	76·2	87·2	72·0	73·5	24·9	..	22·0	76
Malegaon	1,432	961·7	−1·6	957·6	89·0	−2·7	93	31	68·4	+2·5	57	31	76·9	83·2	70·4	71·9	22·4	+3·4	21·6	69
Ahmednagar	2,154	937·7	−1·6	934·3	87·5	−1·1	90	9 days	67·5	+1·9	60	31	74·2	83·7	68·7	69·3	21·8	+3·2	18·6	75
Poona	1,834	948·4	−1·3	945·1	88·2	−1·2	92	8,29,30	68·7	+2·4	58	31	73·4	82·6	70·0	71·7	23·7	+2·9	22·0	85
Sholapur	1,570	957·1	−1·1	953·1	92·4	+1·8	97	30	67·7	−1·1	61	28	76·3	87·5	70·0	72·2	22·5	+2·8	20·8	73
Miraj	1,817	848·8	−1·2	944·9	88·8	+1·9	92	7 days	67·7	−0·6	61	31	72·3	84·5	69·7	71·2	23·8	+2·8	20·7	88
Kolhapur	1,885	947·0	..	943·5	87·3	..	91	18,30	67·6	..	60	31	72·2	81·9	69·7	72·1	23·8	..	22·9	88
Bijapur	1,950	944·4	−1·2	940·5	88·6	−0·1	92	11,17	69·4	+0·6	64	26	75·5	85·9	69·1	70·2	21·7	+1·1	18·9	72
Belgaum	2,562	925·0	−0·5	921·5	82·9	−0·5	87	8	64·9	−0·5	61	4,30,31	70·2	78·3	68·1	70·5	22·7	+1·8	22·3	90
Gadag	2,131	938·5	−0·9	935·0	88·4	+1·6	91	5 days	69·1	+0·1	66	2	74·5	83·1	70·4	72·6	23·8	+2·3	23·1	81
Hyderabad, North																				
Aurangabad	1,905	946·4	−1·3	943·2	87·3	−2 4	90	21,24,31	68·4	+1·5	62	26,30	74·4	83·3	69·2	70·4	22·3	+4·3	20·1	78
Parbhani	1,350	962·9	..	959·3	89·2	..	93	13	68·6	..	62	26,27	75 6	83·5	70·5	72·3	23·2	..	21·5	77
Bidar	2,178	936·2	..	933·2	85·8	+0·2	90	13,15	69·5	−0·1	64	27	73·7	83·1	68·6	70·0	21·9	+1.3	19·8	75
Nizamabad	1,250	966·5	−2·3	963·2	87·7	−1·6	93	13,14	70·9	+2·9	61	27	74·4	83·8	71·2	73·7	24·7	+2·5	23·8	85
Ramagundam	527	991·8	..	988·3	89·1	..	93	9	74·2	..	67	26	78 9	85·2	74·1	75·5	26·6	..	25·7	79
Hyderabad, South																				
Gulbarga	1,503	958 6	−1·7	955·1	89·9	−0·6	94	15	70·7	+1·7	65	27	75·9	86·4	70·4	71·7	23·1	+2·5	21·9	76
Raichur	1,311	965·4	−1·2	961·2	90·1	+0·2	95	17	72·5	+0·3	65	27	76·7	87·8	70·6	71·9	23·1	+0·3	20·2	74
Hyderabad (Begumpet)	1,778	949·5	−1·3	946·2	88·1	−0·1	93	13	70·3	+2·6	63	26	76·8	82·3	71·9	73·5	24·7	+2·5	24·6	78
Hanamkonda	881	979·1	−1·9	975·7	88·8	−0·7	92	19	73·5	+2·6	67	26	78·3	83·7	73·6	74·5	26·2	+1·8	25·0	79
Khammameth(R)	367																			
Mysore																				
Chitaldrug	2,405	929·5	−0·9	925·8	85·7	+0·5	91	16	69·5	+1·3	65	18	72·2	82·9	69·0	70·4	23·0	+1·5	20·3	85
Hassan	3,149	905·7	..	903·0	82·2	0	87	2	65·5	+0·8	62	10,18	68·5	76·3	67·3	72·8	22·4	+1·3	26·1	94

(R)Register not received.

Cloud amount, (Oktas).			Rainfall, inches.				Number of rainy days (0·10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																			STATION
											0830 hrs. I. S. T.									1730 hrs. I. S. T.										
0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
4	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
																														C. P., East
8	..	3·3	9·15	..	4·20	14	6	..	2·5	..	4	10	5	1	3	1	1	3	3	5	4	1	3	1	1	0	7	9		Gondia
3	+0·9	+4·4	4·98	+1·99	1·60	30	9	+4·9	2·9	+0·8	11	4	1	0	5	0	2	6	2	12	4	0	1	4	3	1	5	1		Pendra
1	..	4·3	4·86	..	1·60	15	7	..	3·9	..	11	3	5	0	1	3	0	5	3	10	5	1	3	1	1	2	5	3		Champa
7	+2·4	4·6	5·76	+3·59	1·90	2	7	+3·7	4·3	..	8	5	3	2	2	2	2	3	4	8	7	3	2	1	1	1	0	8		Raipur
6	..	4·5	4·41	..	1·50	9	11	..	1·9	..	3	4	1	3	5	6	5	0	4	6	7	5	2	1	0	1	1	8		Titilagarh
1	+1·8	5·2	7·20	+2·76	1·90	10	10	+4·7	2·8	+0·5	0	0	0	0	0	0	0	0	28	1	2	0	1	0	2	0	0	25		Kanker
5	+2·2	4·9	8·35	+6·31	2·16	29	10	+7·1	2·5	+0·8	0	0	0	2	0	0	1	15	7	5	3	2	5	0	0	0	4	12		Chanda
5	+2·3	6·6	10·56	+6·20	2·15	30	15	+9·3	3·1	+1·3	0	9	0	0	0	0	0	5	9	0	14	0	6	0	3	0	4	4		Jagdalpur
																														Konkan
3	..	3·7	1·91	..	0·77	12	5	..	5·9	..	1	3	18	9	0	0	0	0	0	6	0	3	1	0	3	10	8	0		Dahanu
2	+1·1	3·6	1·35	−1·19	0·62	1	3	−0·1	6·1	0	0	1	3	4	5	5	8	2	3	3	7	4	3	5	3	4	1	1		Bombay
1	+0·2	..	2·32	−2·71	0·65	21	3	−2·1	3·0	−2·2	1	5	2	10	1	0	0	0	12	..	..	..	..	..	.	..	..	..		Alibag
5	..	2·8	1·60	..	1·18	21	3	..	6·5	..	5	0	19	0	1	0	5	1	0	0	0	2	3	0	9	7	10	0		Harnai
1	..	5·0	8·46	..	2·16	23	9	..	6·9	..	0	5	17	3	1	0	0	5	0	0	1	0	0	4	8	8	10	0		Devgad
6	..	5·1	5·25	..	2·30	24	7	..	..	..	1	2	1	2	1	0	0	0	24	0	1	0	1	3	10	10	1	5		Vengurla
8	+0·6	5·1	4·77	−1·71	1·55	25	7	−0·9	6·6	+1·9	3	2	9	6	5	0	2	4	0	0	0	2	0	9	3	10	7	0		Marmagao
2	..	5·8	2·27	−4·95	1·02	24	6	−1·9	1·6	..	0	1	8	5	0	0	0	0	17	0	0	0	2	2	0	9	8	10		Honavar
																														Bombay, Deccan
1	..	3·5	2·08	+0·64	1·19	13	2	+0·2	2·9	..	0	4	6	3	0	5	6	7	0	5	6	5	2	4	1	2	6	0		Jalgaon
1	+0·5	4·4	5·60	+3·89	2·18	15	6	+3·3	3·2	−0·7	1	0	0	0	0	1	0	0	29	0	14	0	0	0	0	3	4	10		Malegaon
7	+1·2	3·6	1·52	−0·65	0·45	18	4	+0·6	3·0	−1·8	3	0	0	1	0	0	1	4	22	5	4	1	0	0	0	0	13	8		Ahmednagar
7	+1·5	4·2	1·59	−1·95	0·43	15	8	+2·9	2·0	−2·0	1	0	3	1	2	4	5	0	15	2	0	3	0	0	4	9	8	5		Poona
9	+0·8	4·6	1·64	−1·40	0·84	23	3	−1·3	4·1	−1·8	2	9	2	0	0	3	2	2	11	4	13	0	0	1	3	2	0	8		Sholapur
9	−0·1	5·1	4·10	−0·02	2·86	18	6	−0·4	..	..	3	2	4	1	1	1	7	7	5	1	2	3	2	1	4	15	3	0		Miraj
2	..	3·5	1·61	..	0·79	22	4	..	5·8	..	0	1	4	1	0	2	6	2	15	1	0	2	2	0	2	21	2	1		Kolhapur
8	−0·1	4·5	1·60	−1·29	0·65	23	5	+0·9	4·4	+1·1	8	3	1	2	1	2	4	8	2	8	6	1	2	0	4	6	4	0		Bijapur
4	−0·5	3·9	3·52	−1·25	1·56	21	6	−1·5	3·4	+0·3	4	5	3	1	2	2	7	4	3	0	4	7	0	1	6	13	0	0		Belgaum
8	+0·7	6·0	2·73	−1·08	1·01	20	5	−2·3	8·0	+0·9	3	2	2	1	1	3	9	7	3	3	4	2	1	1	5	8	5	2		Gadag
																														Hyderabad, North
4	+2·4	5·6	0·84	−0·95	0·65	15	2	−0·8	4·7	−0·2	5	6	6	4	1	5	3	1	0	10	13	0	0	2	3	1	2	0		Aurangabad
5	..	4·9	1·36	−0·73	0·36	1,18	6	+3·0	..	..	0	8	0	0	0	0	14	0	9	15	3	4	0	0	0	7	1	1		Parbhani
9	+1·9	4·9	2·23	+0·02	1·83	19	3	−0·7	5·7	+0·2	6	4	1	3	2	2	3	10	0	3	12	1	0	0	3	2	8	2		Bidar
2	+0·6	3·7	5·58	+3·58	2·17	19	6	+3·0	1·8	−0·5	1	0	0	0	0	1	1	4	24	4	7	2	0	0	0	2	1	15		Nizamabad
1	..	5·2	6·25	..	3·08	29	4	..	3·6	..	4	4	1	4	2	1	5	6	4	8	8	2	3	0	0	2	4	4		Ramagundam
																														Hyderabad, South
0	+1·4	4·9	2·03	−0·66	1·24	17	4	0	6·9	+1·3	7	3	5	0	0	2	7	7	0	8	9	1	1	1	2	4	5	0		Gulbarga
5	+1·8	5·8	4·54	+1·49	1·59	17	6	+1·7	5·2	−0·5	1	5	1	2	0	1	4	16	1	4	7	3	3	0	1	2	11	0		Raichur
5	+1·1	5·7	0·75	−1·70	0·24	21	4	−0·3	5·2	+1·4	5	1	2	1	1	0	3	6	12	12	3	2	3	0	0	4	2	5		Hyderabad (Begumpet)
1	+0·8	4·6	4·61	+2·00	3·89	29	3	−1·1	5·8	+2·8	7	1	2	7	5	0	3	4	2	13	8	3	1	1	0	1	2	2		Hanamkonda
																														Khammameth (R)
																														Mysore
3	+0·7	5·8	4·42	−0·34	1·70	20	5	−1·4	4·8	+1·1	1	0	3	1	0	5	14	5	2	2	1	4	0	0	4	9	6	5		Chitaldrug
5	+0·6	7·2	6·16	+0·09	1·40	2	11	+1·9	5·1	+1·8	1	1	2	1	1	6	13	2	4	2	0	2	3	0	5	15	2	2		Hassan

STATION	Height of bar. cistern above mean sea level in feet.	Pressure at station level, in millibars.			Maximum temperature, °F.				Minimum temperature °F				Dry bulb temperature, °F		Wet bulb temperature °F.		Vapour pressure, millibars.			Relati humi %	
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Mysore—*contd.*																					
Bangalore	3,021	909·9	−0·7	906·5	82·1	+0·4	86	8	66·9	+2·0	14	2	70·5	77·2	68·3	69·1	22·6	+1·4	21·0	89	+1
Mysore	2,518	926·3	−0·7	922·9	83·9	−0·3	89	2	67·6	+0·6	63	29	71·5	79·2	69·0	70·2	23·2	+1·1	21·6	88	+
Malabar																					
Mangalore	72	1008·5	−0·3	1005·6	85·6	−0·3	88	5 days	75·5	+0·9	72	23	79·5	82·1	76·1	77·0	29·2	+0·7	29·4	85	+
Calicut	27	1010·0	−0·4	1006·9	86·9	+0·6	90	30,31	75·5	+0·7	73	22,23	78·4	82·8	75·8	77·6	29·3	+0·5	30·0	88	+
Palghat	319	1000·1	..	996·5	86·6	..	90	17	74·5	..	71	22	78·0	80·9	75·1	76·0	28·4	..	28·4	87	.
Cochin	10	1011·0	−0·5	1007·6	84·1	−0·2	88	25,30,31	76·1	+0·8	73	22	80·2	81·6	76·2	77·0	29·0	+0·4	29·6	83	+
Alleppey	12	1010·7	..	1007·5	86·2	..	89	25,29	75·6	..	73	4 days	80·8	81·7	77·3	77·1	30·4	..	29·7	85	.
Trivandrum	211	1003·9	−0·4	1000·8	86·1	..	89	4	74·4	..	71	22	78·7	81·0	75·4	76·1	28·6	+0·6	28·5	85	
Nagercoil	195	1004·0	..	1000·7	90·8	..	95	4	76·4	..	75	9 days	81·5	83·1	75·1	75·8	26·8	..	27·1	73	.
Madras, South-east																					
Pamban	37	1008·6	−0·8	1005·4	87·5	−0·4	90	4,7,8	78·9	+1·2	73	8	82·8	82·8	77·2	77·8	29·4	−0·5	30·3	78	−
Madura	437	994·9	−1·1	991·3	92·9	+2·7	97	28,29	(a) 76·2	+1·6	73	3,22	81·7	86·2	75·2	76·3	26·9	+0·1	26·5	73	−
Negapatam	31	1008·9	−0·8	1005·4	89·8	+1·1	93	5,8,12	77·2	+0·7	73	3	81·8	85·3	76·4	78·3	29·7	+0·8	29 9	77	−
Trichinopoly	295	999·9	−1·2	995·9	90·7	+0·3	94	12	75·0	+1·0	71	1,15	80·1	87·0	74·7	76·9	26·7	−1·0	27·0	77	−
Coimbatore	1,341	964·7	−0·9	961·1	87·8	+0·1	92	1	72·2	+1·5	70	25	75·9	80·2	72·9	75·2	26·3	+0·8	27·6	85	+
Salem	913	978·9	−1·1	974·7	90·1	+0·3	94	2,30	73·8	+1·9	70	6	77·1	84·7	73·3	75·3	26·3	+0·4	25·7	83	+
Cuddalore	39	1008·2	−1·2	1004·5	90·7	+2·2	96	11	76·8	+1·3	73	7	82·5	84·9	76·8	78·1	28·9	−0·4	29·8	76	−
Vellore	703	(a) 985·6	−0·8	981·8	(a) 90·6	+1·7	95	4 days	(a) 74·0	+1·2	70	15	(a) 79·4	85·5	(a) 73·9	75·6	(a) 26·1	−0·6	25·7	(a) 76	−
Madras	51	1007·7	−1·3	1004·3	91·3	+1·2	97	11	76·9	+1·9	74	15,18,24	82·1	83·5	76·7	77·2	28·9	+0·3	29·0	78	−
Arogyavaram	2,299	932·9	..	929·8	84·0	..	89	30	69·7	..	66	19	75·1	79·6	69·9	70·2	22·9	..	20·7	77	
Madras, Deccan																					
Cuddapah	428	995·0	−1·4	990·7	92·1	+0·1	96	11	77·2	+2·7	72	27	83·4	87·2	76·5	78·8	28·0	+1·7	29·8	72	−
Bellary	1,473	960·0	−1·1	955·9	88·8	−1·0	94	15	73·4	+2·1	70	18	77·3	85·0	72·1	72·2	24·6	+2·6	21·2	74	−
Kurnool	923	978·2	−1·3	974·1	90·6	0	95	31	72 5	+0·8	65	27	79·1	87·1	72·7	74·1	24·5	+0·9	22·9	73	−
Rentichintala	348	997·3	..	993·3	90·1	−1·4	94	14	75·3	+1·5	73	1,21,29	81·2	87·2	75·2	75·7	27·1	+1·6	25·1	74	
Anantapur	1,147	970·8	..	966·3	90·5	..	95	13	73·8	..	68	27	78·9	86·3	73·5	75·0	25·7	..	24·5	77	
Madras Coast North																					
Nellore	66	1006·7	−1·7	1003·2	93·4	+2·6	99	10	(a) 80·0	+4·0	73	15	83·1	86·0	77·2	78·3	29·2	+0·2	29·6	77	−
Ongole	38	1007·5	..	1003·8	92·2	..	97	10,12	77·0	..	70	28	82·7	85·2	77·7	78·2	30·2	..	29·8	78	
Masulipatam	10	1008·4	−2·2	1004·9	88·7	+0·1	93	4,5	77·9	+1·9	71	26,27,28	82·7	84·2	78·6	78·6	31·6	+2·0	30 8	82	−
Cocanada	26	1008·0	−2·0	1004·6	88·8	+0·9	95	4	76·8	+0·9	63	28	82·8	84 5	77·8	77·9	30·3	+1·9	29·6	79	−
Vizagapatam	126	1004·8	−1·8	1001·7	86·9	−0·7	95		77·2	+0·7	72	30	82·0	83·4	77·0	77·6	29·4	+2·0	29·7	79	−
Calingapatam	19	1008·4	−1·9	1005·5	87·5	−0·6	93		77·1	+1·4	74	25	80·6	83·8	77·5	78·7	30·8	+1·8	31·2	86	−
Hill Stations excluding Kashmir																					
Shillong	4,921	851·7	−0·5	849·0	72·9	+1·8	78	11	56·9	+2·1	49	23	67·8	66·4	62·3	63·5	17 0	+0·9	18·7	73	−
Cherrapunji	4,309	870·6	−0·2	867·7	73·2	+1·3	78	9,11	61·5	+1·0	55	21	69·2	67·3	64·4	64·7	18·5	−0·9	19 9	78	−
Aijal	3,599	..	..	..	73·9	..	80	2,3	66·2	..	64	13,21	70·6	69·5	68·6	68·7	23·1	..	23·4	90	
Darjiling	7,432	777·9	−0·9	775·6	65·1	+3·4	70	6	53·2	+3·0	47	31	60·2	57·3	57·7	56·3	15·4	+2·2	15·1	87	−
Kalimpong	3,965	881·0	−0·8	879·9	74·2	+2·2	78	7,8,9	63·0	+2·7	55	31	65·7	68 3	64·2	66·5	19·9	+2·1	21·2	92	−
Katmandu	4,383	869·2	..	865·9	82·2	+2·1	88	6,7	60 3	+3·9	52	23	67·3	69·5	63 3	64·3	18·2	+2·5	18·7	81	−

(a) Mean of 30 days.

Cloud amount, (Oktas).			Rainfall, inches.				Number of rainy days, (0·10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																		STATION
											0830 hrs. I.S.T.									1730 hrs. I.S.T.									
	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
1	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53
																													Mysore—*contd.*
·9	+0·6	6·3	10·25	+4·38	1·80	13	14	+5·5	5·1	+1·0	1	1	0	2	1	2	9	9	6	3	0	2	2	1	6	5	10	2	Bangalore
·9	+0·5	6·7	10·05	+4·17	2·42	22	16	+7·4	4·1	−0·5	1	1	1	0	2	3	19	1	3	2	1	2	1	1	3	21	0	0	Mysore
																													Malabar
·3	+0·5	6·2	2·94	−5·21	0·90	26	7	−3·4	4·7	+0·6	2	2	14	5	1	0	0	3	4	3	0	0	0	4	7	7	10	0	Mangalore
·1	+0·9	6·5	8·33	−1·94	2·61	26	9	−2·2	6·3	+1·9	1	6	9	2	0	3	4	5	1	1	0	1	0	1	6	12	10	0	Calicut
·8	..	6·7	3·90	..	1·08	10	6	..	4·8	..	0	0	2	1	0	4	22	1	1	1	0	0	0	0	7	21	2	0	Palghat
·9	+2·1	7·4	10·47	−2·90	3·42	10	11	−3·2	6·2	+2·5	2	10	6	3	0	0	2	7	1	0	0	0	1	0	5	13	12	0	Cochin
·5	..	6·7	9·79	..	2·30	9	13	..	5·8	..	2	3	8	4	2	1	1	7	3	1	1	0	0	2	6	6	15	0	Alleppey
·4	−0·1	6·3	6·00	−4·73	1·66	21	7	−5·2	5·3	+1·6	11	6	0	2	0	2	0	10	0	2	0	0	0	3	2	7	16	1	Trivandrum
·5	..	6·3	2·21	..	1·32	29	6	..	8·5	..	0	0	0	0	0	0	18	13	0	0	0	0	0	0	1	26	4	0	Nagercoil
																													Madras, South-east
·1	+0·5	5·8	4·80	−3·73	2·00	8	8	−1·4	7·5	+0·3	2	0	0	8	9	9	2	1	0	0	0	0	11	15	3	1	0	1	Pamban
·5	+0·4	6·6	1·32	−6·10	0·38	22	5	−5·2	3·0	+0·3	3	2	1	0	0	0	8	10	7	2	2	4	3	1	1	4	3	11	Madura
·3	+1·3	5·9	3·58	−7·00	0·76	9	9	−1·2	4·8	+0·5	0	0	0	0	2	12	13	2	2	0	1	3	11	5	7	4	0	0	Negapatam
·0	+0·5	5·9	7·47	+0·26	2·64	22	8	−1·5	7·2	+1·5	0	0	0	2	0	1	14	13	1	2	0	2	7	3	5	4	4	4	Trichinopoly
·7	+0·4	6·6	6·53	+0·22	1·83	31	11	+1·3	5·2	+2·5	1	1	1	1	11	12	2	2	0	0	0	1	1	12	13	3	1	0	Coimbatore
·2	+0·6	6·3	6·90	+0·46	2·75	17	10	+0·3	3·6	+1·2	0	0	3	0	4	11	10	0	3	0	1	5	0	3	1	3	2	16	Salem
·5	+1·9	4·7	2·04	−9·49	0·67	5	6	−4·8	5·2	+2·1	1	0	1	0	2	16	9	1	1	0	3	1	18	4	3	0	1	1	Cuddalore
(a) ·6	−0·2	5·5	6·55	−0·25	2·03	15	8	−1·2	(b) 2·6	+0·6	0	0	0	2	3	5	0	3	17	0	1	4	6	3	8	0	2	7	Vellore
·3	−0·3	5·1	3·45	−8·59	1·15	24	10	−0·7	8·1	−0·6	1	0	0	1	4	11	9	5	0	0	3	3	19	1	1	2	2	0	Madras
·7	..	7·0	6·25	..	2·15	13	7	..	3·9	..	6	2	1	1	2	1	3	9	6	9	2	2	1	3	1	2	5	6	Arogyavaram
																													Madras, Deccan
·3	+0·1	5·2	2·45	−2·41	1·25	15	3	−3·8	1·9	−1·8	0	0	0	0	0	0	4	1	26	0	1	2	2	0	0	2	4	20	Cuddapah
·7	+1·6	6·3	4·49	+0·33	1·09	20	6	+0·1	4·1	+1·0	4	0	2	0	0	0	1	13	11	5	2	0	1	0	0	4	10	9	Bellary
·7	+1·0	6·2	6·59	+3·39	2·27	18	6	+1·1	3·7	+0·6	1	4	0	1	0	6	8	9	2	6	5	4	1	1	2	4	5	3	Kurnool
·5	+0·4	7·1	5·37	+0·38	1·92	21	5	−2·6	4·0	−0·2	1	1	1	1	3	3	7	5	9	8	1	3	2	2	0	9	3	3	Rentichintala
·3	..	5·3	3·06	−0·88	1·25	22	4	−1·5	5·9	..	2	2	2	0	0	2	10	11	2	7	3	4	1	0	1	6	4	5	Anantapur
																													Madras Coast, North
·7	−0·3	5·2	1·06	−8·50	0·51	15	2	−6·9	2·7	−0·2	2	0	1	0	6	1	3	4	14	0	3	11	8	0	1	2	3	3	Nellore
·3	..	4·1	4·95	..	1·66	2	8	..	3·8	..	3	2	0	4	2	2	5	5	8	0	1	12	13	2	0	1	2	0	Ongole
·9	+1·1	4·9	24·45	+15·85	19·78	28	9	+0·5	6·2	+2·6	2	2	0	4	4	3	2	4	10	2	0	2	3	10	1	0	0	13	Masulipatam
·1	0	4·1	15·87	+7·35	7·31	29	10	+1·4	7·0	+2·1	0	5	0	1	1	14	1	9	0	0	4	1	10	0	11	0	5	0	Cocanada
·6	+0·3	4·7	12·50	+4 67	3·13	30	9	+0·7	5·1	+1·9	3	5	0	1	2	2	11	2	5	0	3	5	5	7	5	2	0	4	Vizagapatam
·6	+2·2	5·8	9·86	+1·99	3·30	27	12	+4·7	7·7	+3·0	8	1	1	1	3	1	4	12	0	1	3	7	7	4	5	2	1	1	Calingapatam
																													Hill Stations excluding Kashmir
·9	+0·5	6·2	4·35	−2·37	1·36	17	11	+1·0	1·5	+0·3	0	0	3	2	0	4	0	0	22	0	0	0	0	0	3	0	0	28	Shillong
·3	+0·5	4·2	6·73	−12·69	1·96	17	8	−1·3	4·5	+1·4	0	17	5	1	0	3	2	0	3	0	6	3	1	0	7	6	0	8	Cherrapunji
·5	..	6·2	8·36	..	1·82	13	14	..	2·7	..	1	4	11	5	3	3	3	0	1	2	0	1	2	1	11	5	4	5	Aijal
·7	+1·4	5·8	3·45	−1·96	1·30	31	6	+1·2	3 7	+1·1	0	1	17	4	0	1	3	0	5	0	0	5	3	1	5	14	0	3	Darjiling
·2	+1·2	4·7	7·10	+2·09	1·77	13	6	+1·2	5·2	−1·2	1	0	0	2	0	0	2	19	7	0	0	0	30	0	0	0	1	0	Kalimpong
0	−0·2	3·1	3·86	+2·42	1·43	31	6	+2·8	0 8	0	0	0	3	3	0	0	0	0	25	2	0	1	1	1	0	0	1	25	Katmandu

(b) Mean for 29 days.

TABLE II.—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M.

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level, in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relati humidi %	
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.
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 —*contd.*																					
Gyantse	13,110	627·7	..	..	67·9	+7·3	74	5	33·2	+4·4	24	23,24	51·0	..	41·4	..	6·0	+0·2	..	47	−3
Muktesar	7,592	773·9	−0·8	771·8	68·0	+3·0	75	11	51·5	+1·8	45	29,30	58·0	59·8	50·0	54·0	8·7	−0·2	11·6	58	+1
Mussooree	6,699	798·5	..	796·9	67·3	+3·2	72	12	54·7	+3·4	47	30	61·9	59·1	51·8	54·8	9·7	+0·2	12·9	53	−11
Simla	7,224	783·8	−0·1	782·2	66·0	+1·7	72	14	51·7	+0·3	43	30	59·8	60·4	47·0	50·9	5·4	−1·7	8 5	57	−7
Abu	3,945	881·2	−1·2	879·4	80·3	+1·2	87	13	64·2	−0·2	56	31	71·3	75·9	59·4	61·0	12·5	+1·0	12·3	48	0
Pachmarhi	3,528	894·0	−1·6	891·9	77·9	−1·4	82	7,20	61·9	+3·0	53	25,26	70·6	73·3	65·5	67·3	19·6	−2·6	20·4	77	+17
Mahabaleshwar	4,534	862·9	−0·8	860 8	74·7	+0·5	78	30	64·8	+3·5	59	1	65·7	67·5	62·3	65·1	17·8	+1·8	20·1	82	+5
Mercara	3,781	885·3	−0·7	883·3	75·3	0	78	16,30	63·3	+0·8	60	29	66·1	69·3	64·8	67·1	20·4	+0·9	21·8	93	+6
Ootacamund	7,364	779·7	−0·6	777·8	65·9	+1·3	69	29,31	53·5	+3·0	48	29	57·0	58·8	55·3	56·8	14·3	+1·6	15·0	90	+11
Coonoor	5,730	826·1	..	..	(a) 70·0	+0·3	73	1,27	(a) 56·8	+0·7	54	29	66·0	..	62·0	..	17·5	+2·2	..	81	+6
Kodaikanal	7,688	771·6	+0·3	769·6	63·7	+1·6	68	30	52·3	+1·1	51	5 days	56·5	56·1	54·6	55·6	13·9	+1·1	14·9	89	+9
Ceylon																					
Colombo	24	1010·4	−0·6	1007·6	85·2	−0·5	87	2,31	76·1	+1·1	73	6 days	81·1	81·5	77·1	76·5	30·0	+1·1	29·9	83	−4
Trincomalee	24	1009·3	−0·1	1006·3	89·3	+0·1	94	8,30	76·3	+0·8	74	4 days	80·8	83·0	75·3	77·3	27·5	−0·5	29·4	76	−6
Hambantota	61	1008·2	−0·9	1005·2	87·3	+1·1	92	11	76·3	+1·2	73	12,15	81·4	81·4	76·4	76·4	28·8	+0·9	28·8	78	−6
Mannar	12	1009·9	..	1006·7	86·9	..	88	9 days	77·1	..	71	25,26	81·6	82·6	77·1	78·3	29·8	..	31·2	81	..

(a) Mean of 30 days.

Cloud amount, (Cktas).			Rainfall, inches.				Number of rainy days, (0·10″ or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from:—																			STATION.
											0830 hrs. I. S. T.									1730 hrs. I. S. T.										
0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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	
																														Hill Stations excluding Kashmir—*contd.*
0·9	−0·7	..	0·12	0	0·12	12	1	+0·5	2·6	−0·4	0	3	5	7	1	2	0	0	13	..	..	..	..	..	..	..	..	..		Gyantse
1·1	−0·3	1·1	2·22	+0·34	2·07	30	2	−0·3	5·9	+1·2	0	11	6	1	1	0	4	3	5	0	0	0	1	0	11	16	1	2		Muktesar
1·1	−0·5	1·4	0 18	−0·96	0·18	1	1	−1·3	1·2	−3·1	9	5	0	5	7	3	1	1	0	2	1	0	4	16	8	0	0	0		Mussooree
0·6	−0·5	1·3	0·20	−0·98	0·20	1	1	−0·9	1·5	−1·3	1	2	1	6	6	1	1	0	13	2	3	3	3	8	4	1	2	5		Simla
1·6	+0·5	1·9	0·32	−0·44	0·24	1	1	+0·1	1·5	−1·9	1	0	0	0	0	1	1	1	27	1	0	0	0	2	1	2	2	23		Abu
4·1	+1·9	4·1	4·05	+1·75	1·13	13	10	+7·0	3·1	+0·8	1	6	3	1	2	0	2	7	9	4	7	1	0	0	0	0	4	15		Pachmarhi
3·8	0	6·0	2·86	−3·49	0·79	16	8	+0·1	5·5	−2·1	0	18	2	2	0	4	0	5	0	0	5	0	1	0	9	0	16	0		Mahabaleshwar
6·7	+1·3	6·6	7·15	−1·14	1·70	10	12	−0·9	4·5	+1·1	5	1	5	1	3	2	7	7	0	2	1	0	1	3	4	10	10	0		Mercara
3·8	−1·0	6·4	10·09	+2·11	1·52	16	19	+5·2	0·1	−2·7	0	0	0	1	0	0	0	1	29	0	0	0	0	0	0	0	0	31		Ootacamund
4·7	−0·9	..	12·19	+2·06	4·72	31	17	+2·9	1·8	−1·0	4	0	1	5	10	2	3	3	3	..	..	..	..	..	..	..	..	..		Coonoor
5·5	+0·7	7·5	9·37	−0·87	0·95	24	19	+3·7	6·9	+0·1	2	5	1	2	2	0	2	14	3	2	1	0	3	4	1	2	10	8		Kodaikanal
																														Ceylon
5·7	0	6·6	10·23	−4·22	3·82	2	9	−7·1	..	..	0	0	5	4	1	6	12	0	3	0	0	1	0	0	13	16	0	1		Colombo
5·7	+1·8	6·9	4·23	−4·08	3·24	11	4	−6·9	..	..	0	0	1	0	1	24	3	1	1	2	4	7	1	1	8	2	3	3		Trincomalee
5·2	+1·4	6·9	1·73	−2·55	0·46	21	6	−1·9	..	..	0	0	0	0	3	24	3	1	0	1	0	0	0	7	18	4	1	0		Hambantota
6·0	..	6·9	6·06	..	2·00	16	5	..	..	..	1	0	0	2	14	11	0	2	1	0	0	0	0	9	21	1	0	0		Mannar

TABLE III.—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M. T.) AT 4TH CLASS STATIONS—OCTOBER 1949.

STATION.	Maximum temperature, °F.				Minimum temperature, °F.				Mean dry bulb temperature, 0830 hrs. I.S.T. °F	Mean wet bulb temperature, 0830 hrs. I.S.T. °F	Vapour pressure, millibars.		Relative humidity, %		Mean cloud amount, 0830 hrs. I.S.T.	Rainfall, inches.				Number of rainy days (0·10" or more)		V
	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.			Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 0830 hrs. I.S.T.	Departure from normal.		Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Resultant direction 0830 hrs.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Assam																						
Lumding .	90·8	+5·9	96	12	71·6	+1·7	66	22,23	83·5	77·0	28·7	+1·5	73	—14	..	0·40	—3·14	0·27	14	1	—4·9	..
Kashmir																						
Jammu . .	89·3	+1·2	94	15	65·5	—1·7	57	27,30, 31	70·3	61·7	14·8	+1·2	57	+4	1·3	0·43	—0·33	0·30	1	2	+0·9	..
Kargil (R) .																						
Mysore																						
Balehonnur .	79·9	+0·9	82	4 days	64·7	+0·3	61	16,28	68·9	67·5	22·4	+0·6	93	+1	..	7·99	+0·16	2·27	23	10	—1·4	..
Tibet																						
Yatung (Chumbi)	63·1	+4·4	67	2,3,4	39·6	+2·7	31	23	52·8	51·7	12·8	+4·0	93	+10	2·3	1·60	—0·34	0·96	31	4	+0·6	..

(R) Register not received.

TABLE IV.—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M. T.) AT 5TH CLASS STATIONS—OCTOBER 1949.

Division	Station	Rainfall, inches.				Number of rainy days, (0·10" or more).		Division	Station	Rainfall, inches.				Num rainy (0·10" o
		Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.			Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.
1	2	3	4	5	6	7	8	1	2	3	4	5	6	7
Assam . .	Mawsynram .	4·55	..	1·55	19	5	..	Kashmir . .	Sonamarg .	2·45	—0·08	1·25	29	2
West Bengal .	Bankura . .	4·20	+1·08	1·19	30	7	+2·5		Gurez . .	9·45	+6·97	6·50	29	5
								Bombay, Deccan .	Khandala. .	3·33	—3·76	0·78	1	8
Bihar . .	Muzaffarpur .	6·59	+4·18	4·10	31	4	+1·5	Madras, Southeast .	Palamcottah .	2·15	—4·90	0·43	1	7
	Chapra . .	3·16	+1·05	2·64	31	3	+0·5	Sikkim . .	Lachung (R) .					
	Arrah .	1·50	—0·92	1·13	30	2	—1·0							
East Punjab . .	Dharampore .	0·58	—0·46	0·58	1	1	—0·3							
	Kyelang . .	0·77	—0·01	0·67	30	2	+0·7							
	Dalhousie .	0·20	—1·14	0·20	29	1	—1·1							

(R) Register not received.

MONTHLY WEATHER REPORT OCTOBER 1949.

Monthly Means of Upper Winds

NOTE.—Data up to 9·0 Km. a. s. l. are given under Table A and data above 9·0 Km. under Table B.

In Tables A and B

n represents the number of observations.

V represents the mean wind speed in m/second irrespective of direction.

v represents the resultant mean velocity in m/second.

D represents the direction of the resultant mean wind in degrees East of North.

For the coordinates of the stations for which data have been published in these Tables and other particulars please refer to the Monthly Weather Report January 1949 and subsequent issues.

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

October 1949

Station	AHMEDABAD												ALLAHABAD										
Time in I. S. T.	0230				0730				1430				0230				0730				1430		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	31	0·9	0·6	248	31	0·9	0·4	9	31	1·2	0·5	19	31	0·6	0·2	285	31	0·9	0·4	276	31	2·3	1·3
0·15 a. g. .	31	5·9	2·8	265	31	5·6	1·8	16	31	2·6	0·8	36	30	4·9	0·8	302	28	4·4	1·1	277	30	4·3	2·8
0·6 a. s. l. .	31	5·2	2·3	283	31	6·2	2·5	354	31	2·6	0·7	8	29	5·0	1·4	339	28	4·1	1·3	14	30	4·1	2·6
1·0 ,, .	31	4·1	1·4	305	31	4·7	1·9	338	31	2·8	0·9	349	28	5·2	1·6	328	28	4·8	1·8	356	29	4·0	2·5
1·5 ,, .	31	3·8	1·5	359	31	4·0	0·8	323	31	3·2	0·9	346	27	4·9	2·9	315	28	5·5	2·7	345	28	4·4	2·3
2·0 ,, .	31	4·1	1·8	45	31	4·3	1·2	69	29	3·8	0·9	5	27	5·1	3·2	312	28	5·6	3·0	332	27	5·2	2·5
2·5 ,, .	30	5·1	2·3	48	31	4·6	1·4	79	29	3·9	1·2	346	26	4·2	2·0	307	27	5·3	2·1	321	26	5·1	2·5
3·0 ,, .	30	5·0	2·0	54	30	5·3	0·5	114	28	4·0	1·6	294	24	3·7	1·2	271	27	4·7	1·8	241	26	5·0	2·6
4·0 ,, .	23	4·7	1·1	352	28	5·7	0·9	271	23	5·3	2·1	254	9	7·1	5·3	232	24	5·2	3·5	229	24	6·2	5·1
5·0 ,, .	11	5·5	2·8	254	25	6·1	2·2	281	19	6·3	3·4	259	3	6·2	4·8	230	21	6·1	4·6	247	21	6·9	5·8
6·0 ,, .	5	3·2	1·9	308	21	5·8	2·8	255	16	6·0	3·3	262	3	6·3	4·4	256	16	7·0	6·5	247	19	9·0	8·2
7·5 ,, .	1	1·5	1·5	90	17	7·8	3·4	277	16	7·3	3·9	277					13	8·2	7·1	256	12	9·6	9·0
9·0 ,, .					17	8·9	5·1	263	13	6·4	3·6	247					8	8·1	6·4	270	9	13·0	10·9

Station	AMBALA												ANANTAPUR								ASANSOL		
Time in I. S. T.	0230				0730				1430				0730				1430				0230		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	31	2·0	0·9	360	31	1·7	0·4	68	31	2·9	2·0	304	31	2·4	1·6	281	31	3·0	1·3	352	31	1·5	0·3
0·15 a. g. .	31	7·4	4·4	352	31	6·4	1·0	18	31	6·4	3·9	301	31	4·4	3·1	275	31	4·6	2·7	9	30	4·2	0·5
0·6 a. s. l	31	8·0	5·3	344	31	6·8	2·4	6	31	6·3	4·0	308	31	5·1	4·0	290	31	4·4	2·4	356	30	4·6	0·8
1·0 ,, .	31	7·8	5·2	333	31	7·0	3·7	340	31	5·1	2·8	313	31	5·8	3·7	331	31	4·3	2·3	346	31	4·8	0·8
1·5 ,,	31	7·4	4·9	322	31	7·5	4·4	327	31	5·2	3·0	318	31	5·0	2·5	359	31	4·7	2·1	347	29	4·9	1·3
2·0 ,, .	31	6·7	4·2	320	31	7·5	3·6	328	31	6·0	3·0	323	29	5·4	3·1	3	31	5·6	2·7	341	21	4·8	0·9
2·5 ,, .	25	6·2	2·0	267	29	6·2	3·1	327	31	5·6	1·8	321	27	6·0	3·6	358	30	5·8	2·9	341	14	3·9	0·9
3·0 ,,	20	4·6	1·8	171	29	6·0	1·3	326	31	5·0	1·2	293	28	5·8	2·8	356	30	6·1	3·0	339	13	3·6	0·9
4·0 ,, .	11	5·4	3·2	212	26·	6·4	2·2	182	31	6·1	2·1	233	25	4·5	1·3	65	27	5·1	2·1	14	7	5·1	3·4
5·0 ,, .	9	7·9	5·3	251	23	6·7	3·1	248	31	7·8	4·2	249	24	5·5	2·7	87	26	6·1	3·1	54			
6·0 ,, .	5	15·1	9·6	258	22	9·8	5·9	272	29	11·6	8·4	256	19	5·8	4·5	91	25	5·8	3·2	70			
7·5 ,, .					22	16·0	13·1	269	28	18·4	15·1	259	17	6·4	5·8	88	19	5·3	4·5	92			
9·0 ,, .					15	19·2	15·3	269	22	20·8	18·2	262	11	6·4	5·8	92	14	6·4	5·5	92			

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

October 1949

Station	ASANSOL								BAIRAGARH												BANGALORE			
me in I.S.T.	0730				1430				0230				0730				1430				0230			
eight in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
ace . .	31	1·4	0·1	302	31	1·8	0·7	122	31	1·9	0·3	85	31	1·5	0·4	351	31	2·4	1·5	7	31	2·1	1·5	274
a. g. .	31	3·6	1·1	3	30	3·8	1·2	117	29	5·9	1·6	91	30	4·7	1·1	14	30	4·2	2·9	13	27	5·5	4·7	281
a. s. l. .	31	4·7	1·6	30	30	3·5	0·4	94	29	5·4	1·3	95	30	4·1	0·8	357	30	3·7	2·5	13				
,, .	29	4·5	1·8	14	30	3·9	0·1	116	28	6·1	2·7	82	30	6·0	2·7	46	30	4·7	3·6	12	27	4·6	3·3	276
,, .	29	4·6	0·7	47	30	4·9	0·3	217	30	5·8	3·0	47	27	5·8	3·3	49	29	5·1	3·6	22	22	5·0	2·3	354
,, .	29	3·9	0·3	78	27	4·8	0·6	245	27	6·4	3·3	31	26	6·9	4·8	30	26	5·6	3·7	15	16	5·0	2·9	7
,, .	26	5·0	0·5	290	24	4·7	1·6	306	21	5·9	3·3	12	25	7·6	5·4	22	25	5·9	3·2	16	12	5·1	3·6	354
,, .	23	3·9	1·0	240	21	4·2	2·1	307	19	6·4	3·7	353	23	6·8	3·2	3	22	5·0	2·1	342	10	4·1	2·4	349
,, .	21	4·0	1·9	274	17	4·6	2·6	293	7	5·3	3·0	259	16	5·3	0·6	87	19	6·4	3·7	246				
,, .	18	5·4	3·3	296	15	4·9	3·3	298	4	5·7	4·5	254	13	5·3	1·3	236	12	8·3	4·5	250				
,, .	14	5·8	3·6	290	15	5·9	3·8	291	1	6·5	6·5	255	10	7·5	2·3	268	11	8·4	5·5	251				
,, .	10	5·5	2·9	260	14	7·0	5·8	267	1	10·0	10·0	260	6	5·7	2·3	255	10	9·4	6·9	251				
,, .	5	8·8	4·9	255	14	8·6	7·1	261					4	7·4	4·3	276	7	9·3	5·8	274				

Station	BANGALORE				BAREILLY												BHUJ							
me in I.S.T.	0730				1430				0730				1430				0230				0730			
ight in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
ace . .	31	2·1	1·5	287	31	2·6	1·4	309	31	1·5	0·6	60	31	2·0	1·1	43	31	1·4	0·7	271	31	0·8	0·5	297
a. g. .	31	4·6	3·1	300	31	4·1	2·3	310	29	4·5	1·3	329	29	4·5	3·0	307	31	6·8	4·9	319	31	5·7	4·0	325
a. s. l. .									29	4·9	2·2	306	29	4·4	2·7	309	31	7·1	5·0	328	31	6·6	4·4	342
,, .	31	3·5	2·4	297	31	3·6	2·0	309	29	5·3	3·4	307	30	4·1	2·8	299	31	4·6	2·0	333	31	4·9	2·2	327
,, .	25	5·3	3·4	345	31	4·5	2·8	320	28	5·4	4·0	304	30	4·4	2·9	301	31	4·1	0·6	155	31	4·3	0·4	209
,, .	23	5·7	3·6	358	28	4·7	2·8	344	28	6·2	4·3	305	29	4·6	3·7	305	29	4·3	1·5	151	31	4·7	1·8	165
,, .	22	5·2	2·9	348	26	4·8	2·5	357	26	4·5	2·3	306	28	4·4	3·1	293	25	5·0	1·9	160	27	5·0	2·4	147
,, .	20	5·9	2·8	329	23	4·7	2·0	8	25	4·2	1·1	308	27	4·8	2·3	288	25	4·8	0·9	151	25	5·2	2·2	145
,, .	15	5·1	0·8	347	14	5·8	1·7	15	23	4·8	2·3	209	27	6·7	4·1	257	17	4·9	0·3	312	23	5·0	0·6	103
,, .	11	5·5	2·3	75	12	5·3	1·4	70	21	8·7	4·9	231	27	9·4	5·1	245	5	5·9	4·8	279	22	5·4	1·1	334
,, .	9	5·7	3·2	71	8	6·9	3·1	87	17	12·0	8·0	241	27	11·3	9·5	263	3	2·5	2·3	37	22	5·7	2·1	282
,, .	5	4·4	3·7	79	1	3·5	3·5	235	8	13·0	6·9	256	21	14·5	13·3	262					13	7·8	3·3	292
,, .	3	6·3	2·4	112	1	4·5	4·5	260	6	11·7	7·7	298	14	16·1	8·3	258					7	7·1	3·8	235

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

October 1949

Station	BHUJ				BIKANER								BOMBAY										
Time in I.S.T.	1430				0730				1430				0230				0730				1430		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	31	2·1	1·2	343	31	1·0	0·4	194	31	1·5	0·7	290	31	0·9	0·8	89	31	1·1	0·9	96	31	4·7	3·8
0·15 a. g. .	31	4·1	2·5	340	31	5·9	0·7	187	30	3·4	1·7	293	31	3·4	0·6	45	31	3·1	1·5	87	30	4·0	3·0
0·6 a. s. l. .	31	4·0	2·2	338	31	6·3	0·9	322	30	3·7	1·9	300	30	3·9	1·5	345	31	4·0	1·4	26	30	3·3	1·3
1·0 ,, .	31	3·7	1·7	334	31	5·1	1·4	293	30	4·0	1·7	311	30	3·9	1·9	34	31	4·3	1·9	54	30	3·5	1·0
1·5 ,, .	29	3·3	1·3	283	30	4·1	1·9	294	31	3·9	2·0	289	30	4·4	2·6	49	30	4·5	2·9	76	30	3·9	1·6
2·0 ,, .	27	3·9	1·2	227	30	5·0	2·7	275	31	4·4	2·8	270	28	4·6	2·6	59	28	4·3	2·8	87	30	4·0	1·3
2·5 ,, .	26	3·9	1·2	207	30	4·9	2·6	258	31	5·2	3·3	254	26	4·8	2·4	74	27	3·8	1·7	65	30	3·2	1·0
3·0 ,, .	25	4·5	1·2	203	30	6·1	2·0	241	30	5·9	3·7	247	23	4·1	1·6	60	27	3·2	1·2	67	30	2·7	0·6
4·0 ,, .	23	5·2	1·2	230	29	7·4	3·3	249	29	7·9	5·4	260	9	3·0	1·5	273	20	4·2	1·8	240	30	4·5	0·9
5·0 ,, .	21	6·2	2·0	287	27	9·1	5·3	258	28	10·1	7·7	269	6	4·9	2·7	255	19	6·3	2·8	224	26	5·9	1·5
6·0 ,, . .	20	7·9	3·3	286	20	11·7	6·7	272	22	10·4	7·3	269	4	6·6	3·7	240	16	6·3	1·1	255	23	5·8	1·3
7·5 ,, .	11	8·5	3·7	264	7	5·3	4·7	292	12	7·7	5·1	286					10	5·5	1·5	258	16	6·1	1·5
9·0 ,, .	6	9·0	2·4	286	7	8·5	8·4	275	10	10·3	8·0	288					9	5·6	0·7	147	11	7·7	1·4

Station	CALCUTTA												COCHIN										
Time in I.S.T.	0230				0730				1430				0230				0730				1430		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	31	1·1	0·3	154	31	1·6	0·4	66	31	2·0	0·5	206	31	1·9	0·2	74	31	1·2	0·5	63	31	4·5	3·5
0·15 a. g. .	31	4·6	1·1	191	31	3·8	0·5	70	31	3·7	1·0	171	29	3·5	1·1	328	29	3·2	1·1	62	31	5·1	4·0
0·6 a. s. l. .	31	6·1	1·6	198	30	5·1	0·5	18	31	4·0	0·9	160	24	5·7	4·6	305	28	4·9	2·8	309	31	5·8	4·3
1·0 ,, .	31	5·9	1·4	195	29	5·1	0·7	39	31	4·6	1·0	149	18	5·7	4·5	293	28	5·0	3·3	298	31	5·5	3·8
1·5 ,, .	31	5·5	1·2	171	29	4·8	1·3	105	27	4·9	1·1	168	16	5·1	3·7	290	22	4·7	2·4	281	24	4·4	1·7
2·0 ,, .	31	5·4	1·6	161	27	5·1	1·4	121	28	5·2	1·2	199	10	4·3	2·7	280	20	4·7	2·4	286	20	4·3	1·2
2·5 ,, .	28	5·2	1·9	187	24	5·7	1·7	144	23	5·5	1·2	256	9	5·2	1·7	287	13	2·9	0·4	15	19	4·2	1·5
3·0 ,, .	22	4·9	2·0	216	24	5·2	1·5	162	21	5·4	1·5	232	9	4·7	1·6	301	12	3·3	0·7	347	17	4·1	1·7
4·0 ,, .	9	4·9	3·5	208	17	4·3	2·3	210	15	5·0	2·4	258	5	2·8	1·7	346	5	3·0	2·3	39	13	4·2	1·1
5·0 ,, .					14	4·0	1·0	237	11	4·0	2·5	290					4	2·7	2·3	51	10	3·3	0·8
6·0 ,, .					10	4·7	2·3	298	10	4·4	3·0	293					4	4·6	3·5	83	7	3·6	1·7
7·5 ,, .					6	4·3	1·7	310	5	5·3	3·9	273					3	6·3	6·3	111	5	6·1	5·1
9·0 ,, .					4	4·7	4·1	235	5	4·1	2·5	243					3	10·3	10·3	99	4	7·1	7·0

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

October 1949

Station	COOCH BEHAR								CUTTACK												DEOLALI			
Time in I.S.T.	0730				1430				0230				0730				1430				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	1·2	0·8	82	31	1·2	0·4	189	31	0·6	0·4	49	31	0·5	0·2	32	31	1·1	0·4	109	22	0·4	0·1	318
0·15 a. g	29	3·4	2·4	91	31	2·3	1·0	191	27	4·2	0·8	267	30	3·8	1·1	29	28	4·0	1·6	105				
0·6 a. s. l.	28	4·3	2·1	100	31	2·7	1·0	197	27	6·0	1·9	190	28	6·1	1·4	95	28	4·5	1·8	110	19	1·8	0·3	224
1·0 ,,	24	4·6	1·8	85	29	3·2	1·5	221	26	5·4	1·5	193	26	6·3	1·4	100	27	4·4	1·3	104	19	3·9	1·9	68
1·5 ,,	22	4·8	0·8	77	28	4·3	2·1	249	24	5·6	0·6	183	23	5·6	2·3	69	20	4·4	1·4	47	16	5·4	3·6	66
2·0 ,,	20	4·4	0·3	121	27	4·7	2·6	260	19	4·5	1·3	345	22	5·4	1·1	68	18	4·3	1·1	18	16	5·0	2·5	65
2·5 ,,	19	4·8	0·8	212	24	4·9	2·8	271	9	3·8	0·6	343	19	4·6	1·1	175	17	4·7	1·4	357	17	4·1	2·1	75
3·0 ,,	17	4·4	0·3	247	22	5·2	3·1	272	7	4·2	0·9	54	17	4·1	0·4	131	16	5·0	0·5	310	17	3·1	0·8	27
4·0 ,,	17	7·1	4·9	269	20	7·7	6·5	281					16	4·0	0·7	159	11	5·2	0·7	279	12	4·0	0·8	246
5·0 ,,	17	9·0	6·9	263	19	10·2	8·9	267					11	4·2	1·2	80	6	4·1	1·8	67	11	7·1	1·1	203
6·0 ,,	16	10·0	7·5	259	15	11·4	8·4	267					8	4·3	1·6	130	4	4·4	1·8	109	9	6·5	1·0	226
7·5 ,,	15	8·9	7·4	264	13	12·5	10·8	265					2	4·0	3·7	87	4	5·5	3·3	156	4	3·0	2·6	191
9·0 ,,	11	8·5	7·0	267	11	12·9	11·9	262									4	5·3	3·1	149	2	2·5	1·3	135

Station	DIBRUGARH								GADAG												GAYA			
Time in I.S.T.	0730				1430				0230				0730				1430				0230			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	1·9	1·6	55	31	2·1	1·4	45	31	3·1	2·8	262	31	2·1	1·2	268	31	2·7	0·9	294	31	1·6	1·0	166
0·15 a. g.	26	3·1	2·8	59	27	1·9	0·9	53	28	6·9	5·8	281	31	5·2	2·8	292	30	4·8	1·5	292	31	3·6	1·1	216
0·6 a. s. l.	24	2·8	2·7	56	27	1·6	0·7	99													31	4·0	0·7	275
1·0 ,,	24	2·5	2·3	50	27	2·2	0·3	95	28	7·3	5·5	304	31	5·8	2·7	343	30	4·9	1·9	291	29	4·0	1·1	310
1·5 ,,	24	2·4	1·1	70	28	2·6	1·5	222	27	5·4	2·2	21	28	5·4	1·9	44	30	5·1	1·9	308	28	4·6	0 9	298
2·0 ,,	23	2·5	0·3	180	28	3·2	2·7	218	26	4·9	2·1	42	28	5·5	1·8	69	27	4·3	1·7	324	27	4·5	1·2	276
2·5 ,,	22	3·0	1·4	246	25	3·1	2·5	211	25	4·4	1·2	32	27	4·9	0·7	33	28	4·3	1·7	336	20	3·3	0·4	270
3·0 ,,	22	3·2	1·8	242	24	3·2	2·5	223	23	4 0	0·8	326	26	5·1	0·3	202	26	5·0	1 8	333	20	3·7	0·7	210
4·0 ,,	21	5·0	3·8	265	22	4·9	3·7	260	17	3 1	1·6	279	25	4·5	0·5	283	19	4·3	1·9	347	6	3·4	2·6	290
5·0 ,,	17	8·2	6·9	274	20	8·4	7·3	263	12	3·1	1·1	311	25	4·8	1·6	86	14	4·1	1·1	24				
6·0 ,,	14	6·1	4·8	280	17	9·3	8·3	277	5	3·5	2·3	113	22	4·4	2·6	93	11	4·3	1·3	17				
7·5 ,,	9	6·2	4·7	273	13	10·7	10·0	271					20	4·9	3·5	80	8	3·7	2·3	15				
9·0 ,,	6	4·9	3·8	260	10	11·2	10·3	270					17	7·3	6·6	85	7	4·4	2·0	53				

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

October 1949

Station	GAYA								GOPALPUR								GORAKHPUR							
Time in I.S.T.	0730				1430				0730				1430				0730				1430			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	1·8	0·9	171	31	2·7	0·3	351	31	2·8	0·8	330	31	3·5	1·9	147	31	0·8	0·4	28	31	1·3	0·4	
0·15 a. g. .	30	3·2	1·6	206	31	4·6	1·2	321	27	5·2	2·0	316	28	5·7	3·7	149	29	3·5	0·6	38	30	2·9	1·2	
0·6 a. s. l. .	30	3·9	0·9	355	31	4·1	1·0	308	27	5·8	0·5	178	28	5·0	1·8	144	28	3·5	0·9	290	30	3·4	1·5	
1·0 „ .	30	4·5	1·1	4	31	4·6	1·1	263	25	5·4	1·0	55	26	4·7	1·0	81	28	4·2	1·5	291	29	3·6	1·5	
1·5 „ .	29	4·7	1·6	6	28	4·2	0·5	280	22	5·1	2·2	21	25	4·8	1·1	24	28	5·3	1·8	303	28	4·2	1·7	
2·0 „ .	29	4·6	1·0	20	24	4·6	1·3	284	18	4·3	1·8	22	24	4·1	1·4	357	28	4·7	1·6	286	27	4·5	2·3	
2·5 „ .	29	4·4	0·5	250	21	4·5	1·5	289	17	3·7	1·4	357	21	3·8	0·9	27	27	4·3	1·8	275	26	4·5	2·3	
3·0 „ .	27	3·9	0·9	258	20	5·2	1·7	300	17	3·6	0·9	341	21	3·8	0·7	54	26	4·4	2·3	283	26	5·1	3·3	
4·0 „ .	22	3·5	1·4	264	15	5·6	3·4	280	16	3·4	1·0	185	20	4·4	1·1	80	24	5·3	3·9	253	24	6·4	5·0	
5·0 „ .	22	4·4	2·9	249	12	5·4	4·2	278	16	4·3	1·8	107	20	5·0	1·9	92	20	6·2	5·2	251	23	7·9	7·1	
6·0 „ .	20	5·8	4·3	247	11	6·7	5·7	258	15	4·8	3·1	99	16	4·7	2·1	86	20	8·0	6·8	246	20	9·2	9·0	
7·5 „ .	14	7·7	6·0	259	8	11·5	11·4	260	11	5·7	4·0	113	11	5·2	3·1	116	12	9·0	8·1	250	11	10·9	10·5	
9·0 „ .	3	5·5	4·7	290	3	12·8	12·8	244	10	5·9	4·7	107	8	6·7	6·2	95	4	12·3	9·7	255	6	14·7	14·2	

Station	HYDERABAD (Dn.)												JAGDALPUR										
Time in I.S.T.	0230				0730				1430				0230				0730				1430		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	31	1·9	1·0	348	31	1·7	0·9	332	31	4·0	2·1	340	31	0·9	0·5	17	31	0·8	0·2	34	31	2·3	0·5
0·15 a. g. .	31	6·6	3·1	22	31	5·6	2·7	353	31	6·5	3·3	354	28	4·3	0·9	46	29	4·1	1·2	45	30	4·5	1·6
0·6 a. s. l. .	31	4·9	2·2	7	31	3·8	1·6	333	31	6·0	3·1	351	28	3·0	0·7	50	29	2·7	0·7	56	30	3·8	1·2
1·0 „ .	31	8·3	3·8	18	31	8·0	4·1	2	31	5·6	2·9	359	28	5·5	1·7	51	28	6·0	1·7	50	30	5·0	1·6
1·5 „ .	28	7·7	4·0	8	29	8·7	4·3	360	30	6·5	3·2	360	27	5·1	1·2	62	24	6·3	2·3	40	25	4·9	2·0
2·0 „ .	28	7·0	3·4	349	29	7·8	4·4	349	29	6·4	2·6	351	24	4·8	1·3	11	22	5·9	2·3	52	24	4·3	1·3
2·5 „ .	22	7·6	4·0	347	27	7·5	4·5	353	25	6·2	2·3	350	21	4·9	1·9	7	21	6·4	2·5	45	22	4·2	1·2
3·0 „ .	18	6·3	2·9	1	27	7·6	4·2	355	17	5·8	1·5	325	21	4·6	1·8	43	20	5·3	1·9	67	20	4·4	1·0
4·0 „ .	4	5·4	1·0	229	25	7·1	3·2	5	2	4·7	3·8	165	14	4·2	1·2	79	19	5·4	2·2	72	19	4·2	0·6
5·0 „ .					19	5·7	2·4	102	1	4·0	4·0	185	9	4·9	3·2	96	17	5·3	2·8	93	17	4·5	1·6
6·0 „ .					16	6·0	3·4	99	1	3·0	3·0	335	2	6·3	6·3	85	15	5·5	3·2	110	16	5·2	1·9
7·5 „ .					10	5·5	4·1	92	1	4·5	4·5	25					12	5·6	3·0	119	15	4·8	2·1
9·0 „ .					4	7·0	6·5	81	1	3·5	3·5	65					8	4·8	2·2	112	11	4·6	3·3

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

October 1949

Station	JAMSHEDPUR								JHARSUGUDA												JODHPUR			
Time in I.S.T.	0730				1430				0230				0730				1430				0230			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
urface . .	31	1·5	0·4	23	31	2·3	0·8	94	31	0·8	0·5	51	31	0·9	0·6	53	31	1·1	0·6	44	31	2·8	1·7	25
·15 a. g. .	31	2·6	0·3	23	30	3·7	1·3	65	31	4·6	2·6	46	31	4·4	2·6	55	31	3·7	1·2	36	31	7·5	3·5	27
·6 a. s. l. .	31	4·3	1·3	61	30	3·2	0·9	82	31	4·9	1·7	83	31	5·2	2·8	69	30	3·8	1·2	48	31	7·5	3·1	16
·0 „ .	28	5·0	1·6	33	29	3·5	0·7	112	30	4·9	1·0	106	29	5·7	2·2	64	30	4·3	1·4	54	31	5·9	2·1	2
·5 „ .	27	4·8	0·7	63	25	4·0	0·4	118	28	4·3	0·9	58	25	5·2	1·4	28	28	5·0	1·6	59	31	4·4	1·6	266
·0 „ .	26	4·4	0·8	49	25	4·8	0·3	96	24	3·9	0·2	337	24	4·5	1·7	21	24	4·9	1·2	45	31	4·3	2·4	268
·5 .	26	4·5	0·2	87	21	4·3	1·4	320	24	4·0	0·4	305	22	4·3	1·3	343	22	4·2	1·4	349	30	5·1	3·5	261
·0 , .	26	4·3	0·8	187	20	4·3	1·2	305	24	4·1	0·4	323	22	4·4	0·5	293	22	4·2	1·3	324	27	4·7	2·6	260
·0 „ .	21	4·6	1·7	252	16	4·3	1·8	292	20	4·5	1·0	300	21	4·0	0·6	252	21	5·3	1·0	330	10	6·5	7·1	272
·0 „ .	20	4·5	1·7	268	14	5·4	2·7	305					18	4·3	1·4	204	18	4·5	0·8	293	4	4·5	3·9	343
.0 „ .	18	3·8	1·7	255	12	5·3	3·3	293					16	4·0	1·5	192	17	4·4	1·2	239	2	4·3	4·0	341
·5 „ .	9	3·5	1·2	263	10	5·5	3·5	276					14	4·7	1·7	156	13	4·7	2·3	247				
·0 „ .	7	4·5	2·7	269	6	3·7	2·5	251					7	5·1	2·2	96	9	5·1	2·2	248				

Station	JODHPUR								JUBBULPORE												MADHOSAGAR			
Time in I. S. T.	0730				1430				0230				0730				1430				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	2·2	1·3	33	31	2·2	1·3	316	31	0·6	0·2	13	31	0·9	0·2	112	31	1·8	1·5	13	31	1·0	0·6	245
0·15 a. g. .	31	5·6	2·2	30	31	3·5	1·4	297	28	3·8	0·2	16	31	3·8	0·5	84	30	3·7	3·0	1	31	4·8	1·9	303
0·6 a. s. l. .	31	5·8	2·3	22	31	3·6	1·6	298	28	4·1	0·6	29	31	4·2	0·6	45	30	3·7	2·9	2	30	5·6	1·9	350
1·0 „ .	31	4·7	1·4	9	31	3·4	1·7	298	28	5·0	2·2	31	28	5·8	2·3	33	30	3·9	2·9	9	30	5·8	2·1	6
1·5 „ .	31	3·5	1·0	294	31	3·6	1·8	279	26	5·4	3·1	20	27	6·3	3·7	39	30	4·8	3·0	16	29	5·4	2·4	350
2·0 „ .	31	4·4	2·4	260	30	3·8	2·4	266	25	5·9	3·2	8	23	7·1	5·2	21	28	6·1	4·3	17	29	5·9	3·2	330
2·5 „ .	31	5·5	3·0	248	30	5·2	3·2	260	22	5·9	3·0	16	23	7·0	4·8	16	23	5·8	3·8	5	29	6·4	3·8	323
3·0 „ .	31	5·2	2·5	255	30	5·0	2·9	259	20	5·0	1·9	29	23	5·8	2·9	13	22	5·3	2·2	313	29	6·7	3·8	312
4·0 „ .	31	6·8	3·0	274	28	6·1	4·0	256	3	5·0	4·6	78	20	5·5	0·2	95	20	6·3	3·7	269	28	7·4	3·6	268
5·0 „ .	27	8·2	3·9	291	26	8·7	4·7	276					13	6·0	4·8	228	15	6·9	5·3	255	25	9·5	5·4	239
6·0 „ .	24	10·0	6·7	286	25	10·4	6·9	270					12	6·9	5·9	222	12	7·2	6·7	253	25	10·2	7·4	242
7·5 „ .	11	10·6	5·5	281	23	13·7	10·5	271					10	6·5	5·9	232	10	7·8	6·5	259	19	8·6	6·1	249
9·0 „ .	3	6·0	5·8	268	17	13·3	9·7	277					7	7·4	4·5	240	4	9·6	8·9	255	16	8·3	6·0	269

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

October 1949

Station	MADHOSAGAR				MADRAS												MALEGAON						
Time in I.S.T.	1430				0230				0730				1430				0230				0730		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface	31	2·5	1·7	330	31	2·9	2·2	236	31	2·5	2·1	252	31	4·2	1·9	126	31	2·0	1·5	295	31	2·2	1·8
0·15 a. g.	31	4·2	3·1	347	30	6·2	4·6	219	31	5·6	4·2	258	31	5·7	1·6	133	29	4·3	2·9	324	29	3·6	2·0
0·6 a. s. l.	31	4·4	3·2	352	30	6·9	4·2	224	31	6·2	4·0	256	31	4·6	1·2	286	29	4·4	2·9	323	29	3·6	1·8
1·0 ,,	30	4·3	3·0	347	30	5·7	2·3	272	31	5·5	2·9	279	31	4·7	2·8	306	29	4·9	3·1	21	29	3·6	1·7
1·5 ,,	30	4·7	3·4	333	29	5·3	2·7	322	31	5·1	2·8	327	31	5·1	3·4	321	29	5·2	3·9	43	27	4·9	2·8
2·0 ,,	30	4·9	3·5	329	29	5·3	3·4	336	31	5·3	3·6	345	31	5·7	3·5	328	28	6·2	4·1	53	27	5·7	3·4
2·5 ,,	30	5·2	3·1	324	29	5·3	3·7	342	31	5·5	3·4	343	31	6·0	3·5	328	23	5·3	3·0	47	27	5·5	3·4
3·0 ,,	29	6·1	3·6	293	26	4·7	3·2	352	30	5·3	1·9	360	31	6·1	2·9	321	19	5·0	3·7	36	27	4·9	2·3
4·0 ,,	28	9·0	5·7	258	18	3·7	0·9	58	30	5·4	1·5	69	27	5·5	1·4	11	13	3·4	1·2	308	21	4·8	1·7
5·0 ,,	28	10·8	7·7	255					24	5·6	4·1	92	24	5·4	1·7	83					20	6·6	1·7
6·0 ,,	27	11·0	8·9	257					19	5·2	3·7	98	24	5·2	2·9	83					18	8·1	2·3
7·5 ,,	25	13·2	11·9	258					11	6·0	5·4	86	16	5·7	3·6	92					18	5·9	1·7
9·0 ,,	23	15·4	13·7	262					8	9·1	8·0	102	10	6·9	5·5	107					14	6·6	1·7

Station	MALEGAON				MANGALORE												MASULIPATAM						
Time in I.S.T.	1430				0230				0730				1430				0230				0730		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface	31	3·0	2·0	31	31	2·0	0·7	69	31	1·9	1·1	79	31	4·1	2·4	259	31	2·0	1·1	290	31	1·6	0·6
0·15 a. g.	30	4·5	3·2	36	28	4·4	1·4	355	31	3·5	1·1	62	31	5·5	3·8	263	28	4·8	1·3	193	29	4·9	1·5
0·6 a. s. l.	30	4·5	3·2	36	28	5·2	3·1	314	31	4·4	1·9	324	31	5·5	3·3	287	28	5·1	0·8	176	29	5·2	1·0
1·0 ,,	30	4·1	2·8	31	28	4·2	2·7	311	30	4·3	2·9	323	30	4·5	2·1	292	28	5·3	1·1	339	29	5·5	0·4
1·5 ,,	30	4·7	3·3	36	22	3·3	1·5	293	27	3·8	1·8	323	29	3·6	0·9	307	27	5·2	1·8	341	29	5·4	1·6
2·0 ,,	30	5·0	2·7	35	15	3·2	0·9	227	26	3·5	1·1	53	25	2·8	0·3	193	25	5·1	2·4	331	27	5·3	3·7
2·5 ,,	27	5·0	1·6	32	13	3·8	1·5	117	25	3·3	1·8	87	25	2·7	0·3	181	21	4·8	2·2	324	26	5·2	2·4
3·0 ,,	24	4·7	1·1	31	11	3·5	1·4	85	25	3·1	1·9	92	24	2·9	0·7	110	19	4·7	2·1	333	25	4·7	1·4
4·0 ,,	16	5·0	1·3	242	7	4·2	1·2	208	20	3·8	0·8	94	24	3·2	1·4	98	15	5·5	1·3	67	22	5·0	1·3
5·0 ,,	11	6·8	3·5	223	1	4·0	4·0	200	19	3·7	2·3	98	22	4·0	3·2	87					17	5·7	4·2
6·0 ,,	9	7·5	3·7	221					16	4·6	2·6	86	22	4·9	3·6	85					16	6·6	4·9
7·5 ,,	4	10·7	9·1	233					14	4·3	3·7	85	20	5·6	4·5	87					11	5·7	4·8
9·0 ,,	3	12·5	10·1	234					9	7·3	6·8	92	16	8·3	7·8	96					9	7·3	6·7

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

October 1949

Station	MASULIPATAM				MINICOY												NAGARCOIL							
Time in I.S.T.	1430				0230				0730				1430				0230				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
urface . .	31	2·4	0·6	142	31	3·6	3·2	284	31	2·9	2·5	290	31	3·4	3·0	292	31	3·5	3·3	291	31	2·9	2·6	288
·15 a. g. .	28	4·1	1·1	136	28	6·7	5·9	284	30	6·0	5·4	288	30	7·1	6·6	292	30	8·5	8·7	297	31	7·1	6·9	296
·6 a. s. l. .	28	3·9	0·3	176	26	7·4	6·7	285	30	6·9	6·2	291	30	7·8	7·0	292	30	10·2	9·8	301	31	9·7	9·3	301
·0 „ .	28	4·4	1·3	331	24	7·2	6·6	291	30	7·3	6·7	290	29	7·7	7·1	290	30	8·8	8·3	294	31	9·6	9·1	297
·5 „ .	28	5·8	2·7	344	21	6·7	6·2	287	28	6·9	6·3	285	28	7·4	6·6	283	30	6·3	5·3	283	30	6·7	5·8	288
·0 „	25	6·0	2·8	341	15	6·5	6·2	283	25	6·0	5·2	288	25	6·7	5·8	285	29	7·5	5·5	289	28	5·9	4·4	285
·5 „ .	25	5·5	2·4	339	12	5·4	3·2	310	24	5·9	4·5	286	24	5·9	4·9	285	25	6·2	3·7	292	28	5·7	3·7	290
·0 „ .	25	5·5	2·0	331	9	4·7	3·7	303	23	5·2	3·8	296	16	4·7	3·4	295	25	4·6	1·4	329	28	5·3	2·7	294
·0 „ .	21	4·8	1·6	45	4	5·1	4·6	292	18	5·5	3·4	313	11	3·7	1·9	301	5	5·6	3·7	319	28	5·0	1·3	288
·0 „ .	19	5·5	2·8	86	1	6·0	6·0	295	13	4·9	1·6	348	7	5·3	1·5	46	1	3·5	3·5	100	28	5·6	0·8	248
·0 „ .	18	5·9	3·7	94					10	5·0	1·8	1	7	5·6	3·1	63	1	4·0	4·0	95	18	4·4	1·8	68
·5 „ .	13	6·1	4·8	87					5	7·2	5·2	70	3	10·5	10·3	81					16	6·6	5·5	85
·0 „ .	9	5·4	5·0	96					2	6·0	5·1	84	1	8·0	8·0	80					9	9·3	8·3	100

Station	NAGARCOIL				NAGPUR												NEW DELHI							
Time in I.S.T.	1430				0230				0730				1430				0230				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
urface . .	31	5·5	5·1	276	31	0·9	0·9	352	31	1·5	1·0	347	31	2·1	1·2	27	31	1·8	1·2	297	31	2·0	1·7	276
·15 a. g. .	31	9·9	9·4	269	27	5·0	3·1	23	28	5·1	3·5	7	30	3·8	2·2	41	31	6·7	3·9	319	31	5·0	2·6	306
·6 a. s. l. .	31	9·3	8·9	288	27	5·5	3·4	39	28	5·9	3·9	38	30	4·1	2·3	36	31	6·7	3·6	332	31	5·7	2·7	324
·0 „ .	31	8·7	8·1	297	26	5·3	3·3	42	27	6·1	3·8	56	30	4·1	2·4	37	31	6·3	3·9	328	31	5·9	3·3	330
·5 „ .	29	7·9	7·3	301	27	6·0	3·3	27	25	6·3	4·2	44	24	5·2	3·3	21	31	6·3	4·3	313	31	6·0	3·9	327
·0 „ .	29	7·1	6·1	292	26	5·8	3·0	18	25	6·6	4·7	25	24	5·5	3·5	10	30	6·7	4·7	300	31	5·7	3·3	315
·5 „ .	29	7·4	6·2	288	24	4·8	2·2	343	24	6·6	5·1	20	22	5·1	3·5	357	20	7·2	5·2	279	31	5·7	3·1	310
·0 „ .	28	7·7	5·7	290	23	4·6	1·9	323	23	4·9	3·3	7	21	4·7	2·5	345	15	7·7	4·6	285	30	6·9	3·7	295
·0 „ .	26	7·2	4·5	280	5	3·8	1·1	206	20	4·4	1·3	292	17	4·2	2·2	235	3	9·7	7·7	228	28	6·5	3·2	235
·0 „ .	22	6·5	3·2	274	1	1·0	1·0	360	19	5·8	2·7	216	17	4·7	2·5	233					24	8·1	3·7	252
·0 .	17	6·1	1·6	282	1	2·5	2·5	65	17	6·0	2·7	204	14	5·5	3·3	225					20	8·9	3·7	271
5 .	14	6·8	2·0	309					8	5·2	2·5	208	10	3·5	1·7	166					16	9·7	5·1	311
0 .	12	7·8	3·4	95					6	5·9	3.9	254	8	4·6	1·2	163					12	11·1	6·7	298

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

October 1949

Station	NEW DELHI				POONA												PORT BLAIR						
Time in I.S.T.	1430				0230				0730				1430				0230				0730		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface	31	3·3	2·2	328	31	1·0	0·8	266	31	1·2	0·5	229	31	3·4	0·9	328	31	3·5	1·1	241	31	2·9	0·7
0·15 a. g.	31	4·6	3·1	325	30	3·2	2·1	287	30	2·5	0·9	223	31	4·3	1·2	293	26	6·5	3·4	222	30	5·9	1·7
0·6 a. s. l.	31	4·4	2·6	333	30	2·3	1·6	241	30	1·9	0·8	219	31	3·5	1·0	316	26	6·7	3·6	236	28	7·3	2·3
1·0 ,,	31	4·7	3·2	323	30	4·4	1·9	336	31	4·7	1·1	62	31	4·0	1·1	280	22	5·1	1·6	234	26	6·2	2·9
1·5 ,,	31	4·8	3·2	311	31	5·2	2·6	54	31	5·3	3·1	75	31	4·0	0·9	289	17	4·3	1·0	189	24	5·6	1·3
2·0 ,,	31	5·3	3·7	312	30	4·0	2·4	83	31	4·9	2·4	92	29	4·5	0·8	77	12	5·0	0·6	100	19	5·6	0·4
2·5 ,,	31	5·3	3·5	305	30	3·6	1·1	98	29	4·3	1·6	77	25	4·1	1·2	74	4	5·7	0·5	135	19	6·0	0·8
3·0 ,,	31	5·8	3·2	298	30	3·6	0·3	52	29	3·8	1·0	42	23	3·8	0·6	52	3	5·7	1·6	46	18	6·5	2·2
4·0 ,,	31	6·4	3·8	276	22	3·6	0·5	176	25	4·0	1·0	282	19	4·3	0·9	261	1	6·0	6·0	205	13	6·5	3·4
5·0 ,,	30	10·4	7·2	256	5	4·2	1·5	192	24	5·1	1·0	225	17	5·9	1·7	252					8	5·4	3·4
6·0 ,,	27	12·8	8·6	268	3	4·5	1·6	216	21	4·5	0·4	198	16	6·3	0·9	213					7	6·1	3·7
7·5 ,,	22	14·3	11·3	270	1	5·5	5·5	75	18	3·5	0·5	330	12	4·8	1·0	220					3	7·0	5·7
9·0 ,,	19	15·2	12·1	271					12	3·6	1·8	68	7	3·4	1·8	204					2	7·7	7·1

Station	PORT BLAIR				RAIPUR												SAHARSA						
Time in I.S.T.	1430				0230				0730				1430				0730				1430		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface	31	2·9	1·0	199	31	1·5	0·6	22	31	1·6	0·9	13	31	2·1	1·0	37	31	1·0	0·2	94	31	1·7	0·8
0·15 a. g.	29	5·6	0·8	170	28	4·7	2·7	17	31	5·1	2·9	33	28	4·3	2·8	22	31	4·3	0·5	100	30	3·7	1·3
0·6 a. s. l.	28	6·5	1·2	224	28	5·2	3·0	34	31	6·0	3·3	47	28	4·1	2·5	30	30	4·7	0·7	298	30	4·0	1·4
1·0 ,,	24	6·6	0·7	175	27	5·3	2·9	60	28	5·9	3·3	50	29	4·8	2·6	37	29	4·7	1·2	308	27	4·4	1·9
1·5 ,,	17	5·6	1·0	104	24	4·3	1·9	23	27	5·0	2·5	40	25	4·9	2·6	33	28	5·2	1·8	333	25	4·8	2·2
2·0 ,,	14	6·4	0·5	317	24	4·6	1·2	47	23	5·8	3·4	26	25	5·0	2·6	24	26	5·3	0·8	4	22	5·6	2·4
2·5 ,,	9	6·4	3·8	44	23	4·6	1·0	346	22	5·0	2·5	6	23	3·9	1·8	6	25	5·0	1·2	277	22	5·4	3·0
3·0 ,,	8	6·0	4·4	55	19	4·3	1·6	297	22	4·9	2·2	354	20	4·3	1·2	338	25	5·6	2·6	279	20	6·5	4·2
4·0 ,,	7	7·9	6·5	62	8	3·1	1·6	244	19	4·1	1·0	246	16	4·9	1·0	340	19	6·2	3·0	289	12	8·0	6·8
5·0 ,,	5	6·9	4·0	52	3	4·2	1·0	70	18	4·5	0·8	204	15	4·1	1·0	246	17	7·4	5·1	280	8	8·2	7·5
6·0 ,,	3	8·0	3·5	57	1	3·0	3·0	230	16	5·1	2·0	175	12	5·0	1·7	178	14	6·9	5·4	265	8	9·1	8·7
7·5 ,,	3	8·8	7·9	66					15	4·4	2·3	191	9	3·8	1·9	157					3	17·0	17·0
9·0 ,,	2	5·0	4·9	120					15	4·3	0·9	193	5	3·6	0·9	163							

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

October 1949

Station	TEZPUR												TRICHINOPOLY											
Time in I.S.T.	0230				0730				1430				0230				0730				1430			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	1·2	1·0	57	31	0·9	0·2	97	31	0·8	0·1	43	31	2·2	1·9	263	31	2·2	2·0	269	31	2·3	1·3	281
5 a. g.	31	3·6	2·5	69	30	3·0	1·6	89	31	2·6	0·6	115	31	6·7	5·5	266	31	6·0	5·7	275	31	4·7	2·3	268
6 a. s. l.	30	3·3	1·3	113	25	3·9	1·8	108	30	3·1	0·7	133	31	8·3	6·9	268	31	7·3	6·4	276	31	4·4	2·6	269
0 ,,	27	3·3	0·5	161	23	4·3	2·2	93	30	3·3	1·3	210	31	6·1	4·3	266	31	5·9	4·8	274	31	4·2	2·6	288
5 ,,	28	3·7	2·2	256	21	3·4	1·7	82	29	4·4	3·2	234	31	4·6	2·2	280	30	4·8	3·1	287	31	4·3	2·7	293
0 ,,	24	4·1	2·3	248	20	4·5	0·6	211	30	5·8	4·6	240	30	4·9	3·2	316	30	5·1	2·3	322	31	4·3	2·5	311
5 ,,	22	5·3	3·3	243	19	4·6	1·9	245	29	6·2	4·6	245	26	4·4	1·8	343	30	5·1	2·6	327	31	4·5	2·7	322
0 ,,	19	4·9	3·7	239	17	5·4	3·2	258	29	6·8	5·6	254	26	4·6	1·7	328	30	4·8	2·3	323	30	4·2	2·2	314
0 ,,	14	5·8	5·0	251	14	7·6	6·3	268	24	7·8	6·9	270	12	3·3	0·3	160	30	4·5	1·5	336	30	4·5	2·0	311
0 ,,					13	11·7	11·5	271	23	10·6	10·0	272	4	4·0	3·8	83	27	4·7	1·3	37	30	4·8	1·3	10
0 ,,					10	11·1	10·3	266	21	10·9	9·7	271	4	5·5	4·8	83	27	4·8	2·2	79	29	4·9	1·8	57
5 ,,					8	10·4	9·6	268	20	11·8	11·1	266	1	9·5	9·5	75	21	6·5	4·8	94	23	5·0	3·2	66
0 ,,					5	8·9	8·8	263	19	12·4	11·5	267					19	8·2	6·8	95	14	6·6	4·9	96

Station	TRIVANDRUM				UDAIPUR												VENGURLA							
Time in I.S.T.	0730				0230				0730				1430				0230				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	1·5	1·3	353	31	0·3	0·2	273	31	0·2	1·6	334	31	1·5	0·4	290	31	0·6	0·1	82	31	0·4	0·2	64
15 a. g.	30	4·9	4·4	344	31	3·5	1·9	305	31	2·9	2·0	319	31	3·7	1·1	279	29	3·9	1·7	15	31	3·3	1·4	58
6 a. s. l.	30	7·1	6·4	315													28	5·3	2·9	337	31	5·2	1·4	348
0 ,,	29	7·7	6·8	302	31	5·1	1·4	315	31	4·4	0·7	343	31	3·7	1·1	293	25	4·6	2·8	331	30	5·2	1·6	349
5 ,,	25	6·8	5·7	295	31	4·2	0·8	25	31	3·9	0·5	102	31	3·3	1·3	285	22	4·9	2·6	342	29	5·3	2·2	56
0 ,,	22	6·5	4·9	291	31	3·8	0·5	40	31	4·1	0·6	43	31	3·1	1·2	304	18	5·6	2·2	60	28	5·6	2·2	89
5 ,,	21	5·3	3·0	287	30	4·7	0·8	337	31	4·6	1·1	85	30	3·6	2·3	293	15	5·4	2·1	99	25	4·5	1·8	110
0 ,,	21	5·1	2·3	299	28	5·2	1·9	306	31	4·9	1·1	293	28	4·4	2·0	296	13	5·2	1·2	142	25	4·3	1·0	140
0 ,,	19	4·6	0·5	333	10	4·3	1·3	321	27	6·0	2·6	265	25	6·0	3·1	273	1	5·5	5·5	210	19	4·2	0·1	319
0 ,,	13	5·5	0·9	18	2	4·0	0·5	45	23	6·6	3·7	254	21	7·3	4·6	265					13	4·1	1·6	66
0 ,,	6	5·0	1·0	345					18	7·0	5·0	266	19	9·1	6·5	269					11	3·9	1·9	78
5 ,,	5	6·9	2·1	38					9	9·1	7·1	266	10	11·3	7·7	269					6	5·2	2·5	88
0 ,,									4	6·0	2·4	281	7	7·9	3·4	289					4	6·4	4·7	69

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

October 1949

Station	VENGURLA				VERAVAL												VIZAGAPATAM						
Time in I.S.T.	1430				0230				0730				1430				0230				0730		
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	31	3·8	2·9	244	31	2·9	2·4	328	31	1·8	1·6	6	31	4·9	4·0	278	31	2·5	0·5	60	31	1·8	0·5
0·15 a. g. .	30	5·5	4·1	258	31	7·0	5·4	339	31	7·4	5·7	360	31	6·0	4·2	267	28	3·6	0·6	233	28	3·2	0·4
0·6 a. s. l. .	29	4·8	2·3	267	31	5·8	3·8	336	31	7·0	4·7	352	31	4·0	1·6	342	28	5·1	0·6	188	27	5·1	0·6
1·0 ,, .	27	3·6	0·4	211	31	4·4	2·3	21	31	5·5	2·9	8	31	4·2	2·7	18	25	4·7	0·9	17	23	4·8	0·9
1·5 ,, .	25	3·9	1·0	114	31	4·7	3·1	60	31	4·9	2·7	73	31	4·3	2·6	41	24	4·7	1·1	20	23	4·5	1·5
2·0 ,, .	24	4·1	1·1	130	31	4·9	3·4	71	31	5·1	3·4	83	31	4·5	2·5	56	23	4·9	1·5	22	23	4·3	1·8
2·5 ,, .	22	4·4	1·4	235	30	5·6	2·9	91	31	5·6	3·3	92	31	5·1	3·3	85	15	4·3	1·8	343	22	4·4	2.0
3·0 ,, .	20	4·6	1·5	251	28	5·6	1·6	123	30	6·1	2·5	110	30	5·1	1·2	126	14	4·4	1·2	335	21	4·6	2·0
4·0 ,, .	16	4·3	0·5	172	19	4·7	1·1	192	24	5·9	2·3	215	28	5·1	1·9	247	6	3·0	2·2	41	18	4·5	2·8
5·0 ,, .	10	2·9	0·8	139					18	6·8	1·7	258	25	5·9	2·0	267					15	5·8	4·8
6·0 ,, .	10	3·5	1·1	102					16	6·3	0·7	309	24	6·1	1·8	315					14	7·2	6·7
7·5 ,, .	6	5·7	4·0	67					8	7·7	1·7	322	21	6·1	2·0	319					8	7·8	7·5
9·0 ,, .	5	6·0	3·3	109					5	9·2	2·2	9	17	8·3	2·3	289					4	5·4	5·2

Station	VIZAGAPATAM			
Time in I.S.T.	1430			
Height in Km.	n	V	v	D
Surface . .	31	4·3	2·5	132
0·15 a. g. .	29	5·2	3·1	147
0·6 a. s. l. .	28	4·8	1·5	148
1·0 ,, .	25	4·0	1·3	29
1·5 ,, .	23	4·6	1·6	16
2·0 ,, .	23	4·4	2·5	14
2·5 ,, .	22	4·5	2·7	13
3·0 ,, .	21	4·9	2·5	27
4·0 ,, .	21	5·0	2·8	64
5·0 ,, .	18	6.5	5·0	68
6·0 ,, .	17	7·1	6·0	77
7·5 ,, .	12	4·9	3·8	95
9·0 ,, .	9	5·1	3·7	73

Table B.—Monthly Mean Directions and Velocities of Upper Winds

Winds at and above 10 Km. above sea-level

October 1949

Height in Km.	n	V	v	D
		AHMEDABAD		
10	28	7·5	5·0	247
11	21	8·3	6·3	239
12	18	8·0	5·3	233
13	16	7·4	3·6	226
14	13	7·8	4·5	194
15	9	7·4	3·6	199
16	9	7·1	2·9	185
17	9	8·7	3·6	155
18	5	8·0	1·3	155
19	3	6·7	4·5	176
20	2	11·5	6·2	172
21	2	13·5	8·9	183
		ALLAHABAD		
10	9	12·7	11·3	257
11	7	15·1	13·5	258
12	7	14·1	12·7	259
13	2	10·7	7·1	305
14	2	11·3	12·1	329
15	2	11·0	8·9	336
16	1	10·0	10·0	290
17	1	5·5	5·5	255
18	1	4·0	4·0	325
19	1	3·5	3·5	10
20	1	5·0	5·0	355
21	1	3·5	3·5	350
22	1	4·0	4·0	360
23	1	4·5	4·5	35
24	1	5·0	5·0	5
25	1	5·0	5·0	345
26	1	7·5	7·5	10
27	1	5·0	5·0	15
28	1	6·0	6·0	40
29	1	6·5	6·5	60
		AMBALA		
10	29	29·0	16·7	269
11	23	18·5	16·4	271
12	18	16·3	15·9	277
13	12	19·6	18·9	273
14	9	16·7	16·2	269
15	7	18·4	17·0	269
16	4	19·0	18·0	279
17	2	15·5	14·7	281
		AMBALA—(*contd.*)		
18	1	20·0	20·0	305
19	1	12·5	12·5	310
20	1	20·0	20·0	305
21	1	9·0	9·0	290
22	1	9·5	9·5	270
		ANANTAPUR		
10	17	8·5	8·1	106
11	6	10·6	10·0	99
12	4	8·1	7·6	90
13	3	13·7	12·5	113
14	3	17·5	16·0	108
15	1	29·0	29·0	90
16	1	29·5	29·5	100
		ASANSOL		
10	17	8·8	7·6	264
11	9	9·4	8·1	250
12	6	6·6	4·6	247
13	6	6·7	4·1	240
14	6	7·8	4·0	247
15	5	7·9	7·5	244
16	4	6·4	6·3	250
17	4	6·3	6·1	251
18	3	5·3	5·2	268
19	3	19·0	5·3	227
20	2	7·7	6·7	249
		BAIRAGARH		
10	10	8·5	5·8	274
11	5	8·1	5·6	271
12	3	7·7	6·6	247
13	3	8·2	6·8	256
14	2	12·0	12·0	260
15	2	10·3	9·2	251
16	1	11·5	11·5	195
		BANGALORE		
10	4	6·3	4·9	105
11	1	5·0	5·0	140
		BAREILLY		
10	16	17·9	15·2	272
11	10	17·9	14·6	279
12	6	17·7	17·0	277
		BAREILLY—(*contd.*)		
13	4	21·9	21·0	276
14	3	18·2	17·6	283
15	2	18·5	18·3	266
16	2	20·3	20·3	272
17	1	15·0	15·0	285
18	1	16·5	16·5	295
19	1	15·0	15·0	295
20	1	16·0	16·0	270
21	1	20·0	20·0	280
22	1	18·5	18·5	290
23	1	26·0	26·0	285
		BHUJ		
10	9	5·5	2·5	230
		BIKANER		
10	15	12·5	12·0	280
11	8	13·5	12·7	275
12	5	14·3	13·6	275
13	2	16·0	14·9	272
14	1	22·0	22·0	290
		BOMBAY		
10	15	6·1	2·1	109
11	4	8·9	8·2	95
12	4	11·4	10·6	107
13	2	14·7	14·5	130
14	2	13·3	13·1	119
15	2	16·0	15·3	121
16	1	12·0	12·0	105
17	1	19·0	19·0	110
18	1	19·0	19·0	90
19	1	15·5	15·5	80
		CALCUTTA		
10	7	3·7	3·5	260
11	3	4·5	4·4	231
12	2	5·5	5·4	235
13	2	7·0	7·0	243
14	2	8·3	8·1	230
15	2	15·5	14·7	226
16	2	9·3	7·1	213
17	2	9·3	3·7	234
18	1	1·0	1·0	10
		COCHIN		
10	5	10·1	9·8	92
11	4	11·3	11·1	93
12	2	16·3	16·1	100
13	1	22·5	22·5	100
14	1	21·5	21·5	95
15	1	30·0	30·0	90
16	1	49·5	49·1	100
17	1	28·0	28·0	105
		COOCH BEHAR		
10	16	10·7	9·5	273
11	4	10·7	10·1	289
12	4	12·9	11·9	289
13	2	15·7	13·0	278
14	2	12·3	10·9	284
15	1	11·5	11·5	320
16	1	17·0	17·0	315
		CUTTACK		
10	3	4·8	2·3	177
11	3	7·0	3·0	219
		DEOLALI		
10	2	4·5	3·8	187
11	1	7·0	7·0	140
12	1	9·5	9·5	155
		DIBRUGARH		
10	14	10·0	8·6	270
11	12	11·6	10·7	275
12	8	9·7	7·8	285
13	4	10·3	9·7	293
14	4	8·7	8·5	292
15	4	6·5	5·7	308
16	4	4·6	4·2	315
17	3	5·0	2·9	342
18	3	8·2	0·5	207
19		4·5	4·5	105
		GADAG		
10	22	8·0	5·6	101
11	9	6·8	5·7	135
12	3	8·2	6·9	122
13	3	6·7	5·9	96
14	1	11·5	11·5	105

Table B.—Monthly Mean Directions and Velocities of Upper Winds

Winds at and above 10 km. above sea-level

October 1949

Height in Km.	n	V	v	D
	GADAG—(*contd.*)			
15	1	14·0	14·0	80
16	1	21·5	21·5	95
	GAYA			
10	4	9·7	7·8	262
11	2	5·7	5·1	275
12	1	7·5	7·5	260
13	1	1·0	1·0	125
14	1	9·0	9·0	300
	GOPALPUR			
10	18	5·9	5·4	92
11	8	7·5	7·0	101
12	8	9·5	9·2	108
13	8	10·5	10·3	100
14	7	9·7	9·6	102
15	7	11·7	11·4	108
16	7	11·6	11·4	103
17	4	11·3	10·2	103
18	1	8·5	8·5	105
19	1	12·0	12·0	100
20	1	12·0	12·0	85
	GORAKHPUR			
10	5	14·6	13·3	268
11	1	10·5	10·5	300
	HYDERABAD			
10	2	9·7	9·5	82
	JAGDALPUR			
10	15	4·6	2·3	107
11	12	5·3	3·0	143
12	9	5·8	4·6	144
13	8	7·7	6·1	142
14	6	12·0	7·3	160
15	3	14·8	14·5	146
16	2	16·7	16·7	149
17	1	12·5	12·5	155
18	1	14·5	14·5	155
	JAMSHEDPUR			
10	12	5·0	3·5	245
11	3	5·2	4·6	215
12	2	5·7	4·9	215
13	2	5·5	4·1	206

Height in Km.	n	v	V	D
	JAMSHEDPUR(*contd*)			
14	2	9·0	5·7	158
15	2	10·7	2·7	192
	JHARSUGUDA			
10	15	4·3	1·4	193
11	6	5·7	4·5	237
12	5	5·8	5·2	226
13	4	6·5	5·1	208
14	4	10·6	7·9	218
15	3	16·0	15·4	238
16	2	25·5	25·3	245
17	1	25·0	25·0	245
	JODHPUR			
10	15	13·6	10·0	275
11	9	12·3	10·8	277
12	4	13·1	9·6	292
13	4	13·7	9·7	286
14	3	16·5	12·5	315
15	2	10·0	4·8	38
16	2	6·0	3·7	26
17	1	2·5	2·5	340
18	1	3·0	3·0	345
19	1	2·5	2·5	345
20	1	1·5	1·5	355
21	1	1·0	1·0	25
22	1	2·5	2·5	110
23	1	9·5	9·5	175
24	1	4·0	4·0	180
25	1	3·5	3·5	195
26	1	2·0	2·0	190
27	1	3·5	3·5	335
28	1	4·0	4·0	300
29	1	3·5	3·5	305
30	1	10·0	10·0	315
	JUBBULPUR			
10	8	9·0	6·1	257
11	1	13·0	13·0	255
	MADHOSAGAR			
10	34	12·6	10·6	273
11	24	10·6	8·8	277
12	20	9·8	8·1	276
13	18	9·4	7·0	277

Height in Km.	n	v	V	D
	MADHOSAGAR (*contd.*)			
14	17	8·5	5·3	284
15	15	7·9	3·5	268
16	11	6·3	2·1	246
17	8	7·2	1·8	34
18	7	9·3	3·8	32
19	5	11·6	4·8	353
20	1	4·0	4·0	105
21	1	6·0	6·0	90
22	1	8·0	8·0	35
23	1	6·5	6·5	250
24	1	10·5	10·5	260
25	1	24·5	24·5	260
26	1	27·5	27·5	265
27	1	35·5	35·5	270
28	1	40·5	40·5	280
29	1	42·5	42·5	275
30	1	59·5	59·5	300
31	1	76·0	76·0	300
	MADRAS			
10	13	9·2	8·1	107
11	7	9·9	9·7	100
12	5	14·7	14·2	101
13	4	17·7	16·5	115
14	4	21·4	20·7	112
15	4	25·1	23·6	106
16	2	21·5	20·1	111
17	2	20·5	20·5	108
18	2	22·3	21·9	101
19	2	27·3	27·3	114
20	2	23·3	22·8	105
	MALEGAON			
10	15	6·9	2·4	160
11	1	11·0	11·0	180
12	1	10·0	10·0	165
13	1	12·0	12·0	165
14	1	10·0	10·0	165
15	1	3·0	3·0	150
16	1	3·0	3·0	327
17	1	3·5	3·5	10
	MANGALORE			
10	19	8·9	8·3	92

Height in Km.	n	V	v
	MANGALORE—(		
11	7	13·5	13·0
12	6	16·7	16·5
13	4	21·4	21·3
14	4	23·5	11·9
15	4	24·1	23·9
16	4	25·0	25·0
17	3	24·5	22·7
18	2	29·2	27·3
19	1	22·0	22·0
20	1	25·5	25·5
21	1	34·5	34·5
	MASULIPATA		
10	16	7·7	7·0
11	5	9·2	9·2
12	4	14·1	14·1
13	3	16·3	16·3
14	2	19·0	18·9
15	2	19·0	18·7
16	2	19·3	18·9
17	2	23·0	23·0
18	2	24·0	23·7
	MINICOY		
10	2	4·0	3·9
11	1	11·0	11·0
12	1	12·0	12·0
	NAGARCOI		
10	14	10·6	9·3
11	6	12·5	11·8
12	3	9·8	8·7
13	1	10·5	10·5
14	1	11·5	11·5
15	1	18·0	18·0
16	1	23·5	23·5
17	1	33·0	33·0
18	1	34·0	34·0
19	1	33·0	33·0
	NAGPUR		
10	10	4·3	1·3
11	6	5·3	2·2
12	5	5·8	2·8

Table B.—Monthly Mean Directions and Velocities of Upper Winds

Winds at and above 10 Km. above sea-level

October 1949

Height in Km.	n	V	v	D
		NAGPUR—(*contd.*)		
13	4	6·9	4·2	203
14	1	9·0	9·0	200
15	1	6·5	6·5	180
		NEW DELHI		
10	28	13·1	10·6	280
11	22	15·2	12·6	281
12	17	13·2	6·9	292
13	15	13·9	11·7	282
14	15	14·0	12·2	282
15	14	15·5	14·0	284
16	10	17·1	14·1	291
17	6	13·3	10·6	275
18	4	10·0	4·7	315
19	4	9·0	1·2	150
20	2	7·5	4·9	275
21	2	12·5	8·1	295
22	2	24·7	21·5	304
23	2	27·5	19·3	294
		POONA		
10	15	4·8	2·0	170
11	9	5·2	3·9	194
12	8	6·7	5·2	178
13	4	6·4	5·8	148
14	3	5·8	5·7	137
15	2	12·0	11·9	120
16	1	18·0	18·0	120
		PORT BLAIR		
10	2	9·0	9·0	107
11	1	13·0	13·0	110
12	1	13·0	13·0	105
13	1	11·0	11·0	90
		RAIPUR		
10	19	5·5	1·0	167
11	8	6·9	1·5	160
12	7	8·9	2·0	176
13	7	9·2	3·4	163
14	5	11·3	5·9	145
15	4	8·6	4·5	178
16	3	12·0	11·3	180
17	2	15·3	14·9	173

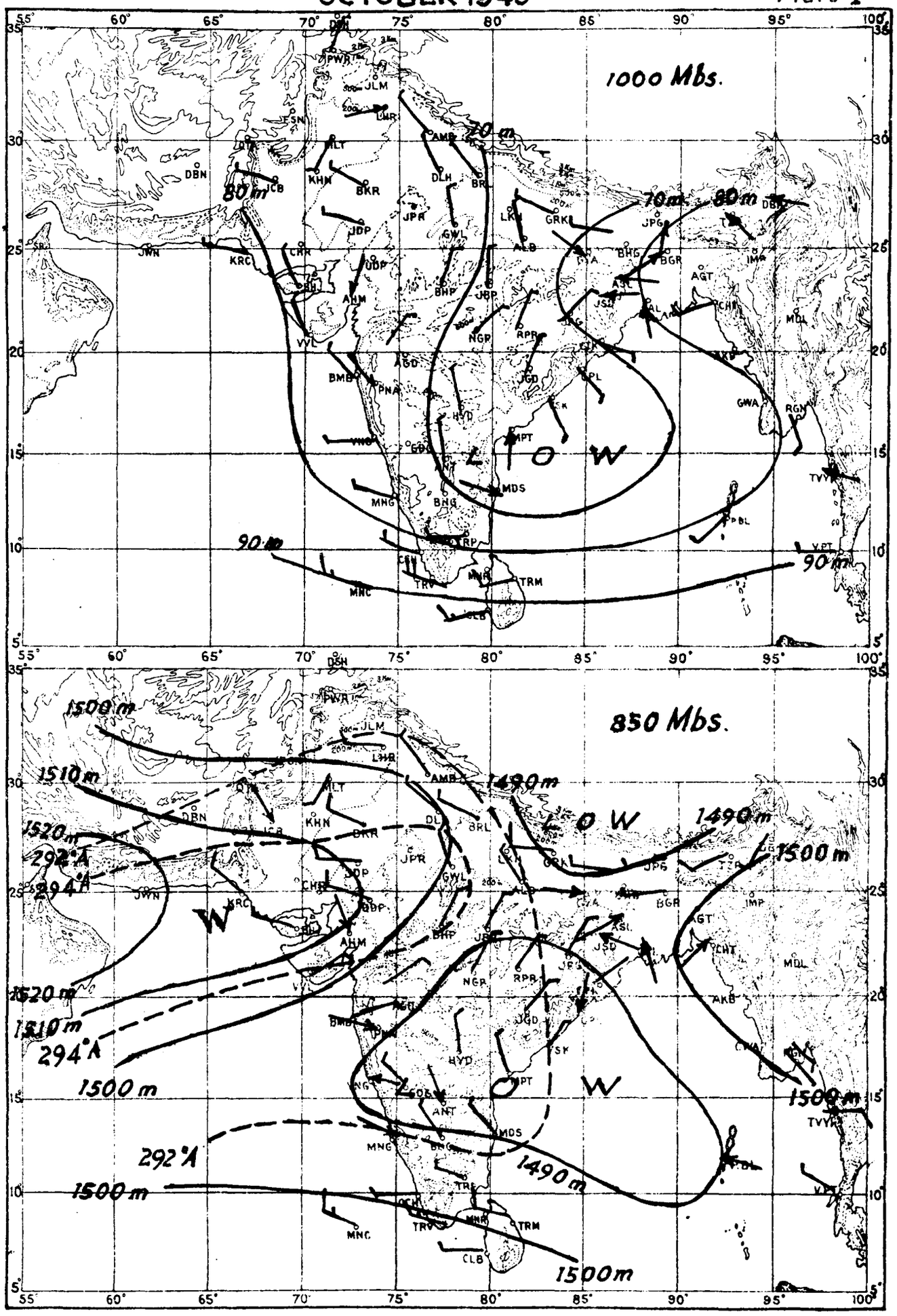
Height in Km.	n	V	v	D
		TEZPUR		
10	22	12·2	11·7	267
11	15	13·6	12·9	265
12	15	15·6	14·8	264
13	15	14·2	13·8	268
14	14	14·6	14·2	268
15	12	14·0	12·7	269
16	12	15·0	12·8	272
17	11	14·5	12·0	272
18	8	12·3	10·5	278
19	5	9·1	5·9	224
20	5	9·8	5·9	271
21	2	10·3	7·9	247
22	1	7·0	7·0	260
		TRICHINOPOLY		
10	22	9·2	8·5	92
11	6	12·3	11·9	97
12	6	16·7	16·4	99
13	5	23·8	23·3	98
14	2	32·0	32·0	85
		UDAIPUR		
10	10	9·6	5·1	288
11	3	7·0	2·6	351
12	2	8·3	6·9	38
13	2	9·3	8·3	33
14	2	12·7	10·7	49
15	1	7·5	7·5	360
		VENGURLA		
10	7	6·6	3·3	118
11	3	7·8	5·7	132
12	3	9·8	7·9	136
13	2	14·7	13·9	105
14	2	16·0	15·8	104
15	1	18·0	18·0	110
16	1	15·5	15·5	110
17	1	13·0	13·0	125
		VERAWAL		
10	16	9·9	2·0	239
11	8	7·7	3·3	124
12	6	7·4	5·2	113
13	4	8·9	8·1	121
14	2	10·3	8·3	156

Height in Km.	n	V	v	D
		VIZAGAPATAM		
10	5	5·9	4·7	95

MONTHLY MEAN CONSTANT PRESSURE CHARTS.

OCTOBER 1949

Plate I



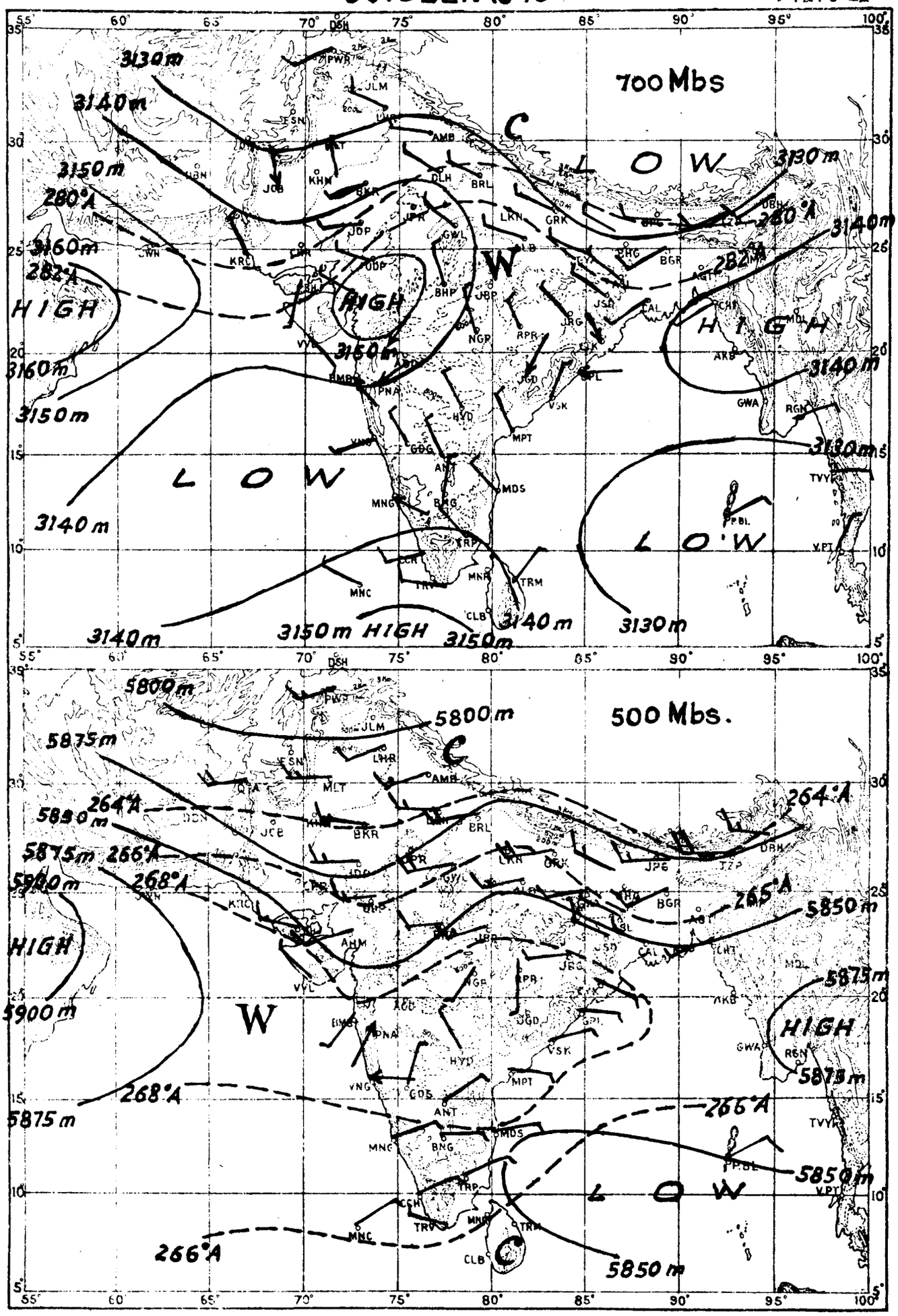
RESULTANT WIND ——— = 5 Knots, ——— = 10 Knots, ——— = 50 Knots.

------ Isotherms in degrees absolute. ——— Contours in geopotential metres.

MONTHLY MEAN CONSTANT PRESSURE CHARTS.

OCTOBER 1949

Plate II



RESULTANT WIND —\ = 5 Knots; —\ = 10 Knots; —◣ = 50 Knots.

------ Isotherms in degrees absolute. ——— Contours in geopotential metres.

G.PZ.P.POONA,53.

Registered No. B-3097

INDIA WEATHER REVIEW, 1949

Monthly Weather Report

November

JAN 27 1956

Published by authority of the Government of India

Chief features :—(i) Weak northeast monsoon in the Madras Presidency and (ii) abnormally low night temperatures in the Deccan and the central parts of the country during the first two weeks.

During the first fortnight of November, weather was practically dry over the country except for local showers in Malabar, the Konkan and the south Deccan on the 3rd and scattered showers in the extreme south of the Peninsula upto the 9th.

The northeast monsoon set in along the Coromandal coast on the 16th and extended into the whole of the Madras Presidency by the next day. There was widespread rain in the Madras Presidency with locally heavy falls in the Madras Deccan and along the north Coromandal-south Circars coast between the 16th and 18th. Rainfall also extended into Mysore and the south Bombay Deccan on the 18th. After the 20th, the northeast monsoon gradually weakened, although local or scattered showers continued in the south of the Peninsula till the 23rd. Towards the end of the month there was again a temporary strengthening of the monsoon along and near the Coromandal coast in association with a low pressure wave which moved from the southwest Bay of Bengal westwards across Ceylon and local thunder-rain occurred in southeast Madras on the 27th and 28th.

Three western disturbances moved across the country during the month. The first one was feeble and moved across the West and East Punjab between the 4th and 6th without causing any precipitation. The second disturbance while moving across the East and West Punjab induced a secondary over Rajputana on the 21st. The latter moved eastnortheastwards and became unimportant over Bihar, after causing local thundershowers in southeast Rajputana, Madhya Bharat and Gujarat on the 22nd. The third disturbance moved from the Gulf of Oman to the northeast Punjab hills between the 25th and 29th causing only scattered showers in the North-West Frontier Province and Kashmir on the 28th. Elsewhere over the country weather was dry except for local showers in Assam on the 24th and 25th.

Night temperatures were markedly below normal in the Deccan and the central parts of the country during the first half of the month and appreciably above normal over the same region during the second half.

The total rainfall of the month was in moderate to large defect in the Bay Islands, Assam, West Bengal, Orissa, the east United Provinces, east Rajputana, Gujarat, Madhya Bharat and Bhopal and the Peninsula. Elsewhere no rain fell. Averaged over the plains of India the month's rainfall was 68% in defect.

The mean maximum temperature was below normal in the east United Provinces and west Rajputana and normal elesewhere. The mean minimum temperature was below normal in northeast India outside Assam, in the west United Provinces, the East Punjab, Rajputana, Saurashtra and Cutch, Madhya Bharat and Bhopal, Vindhya Pradesh, the Central Provinces and south Hyderabad and normal elsewhere.

The mean relative humidity was in defect in Assam, West Bengal, Chota Nagpur, the East Punjab and east Rajputana and normal elsewhere.

Price: *Re.* 1

Cloud amount was normal in the Bay Islands, Assam, the west United Provinces, Rajputana, Madhya Bharat and Bhopal, Malabar and southeast Madras. Elsewhere it was below normal. Data from Kashmir are not available.

Table I contains the divisional and sub-divisional means of rainfall, temperature, humidity and cloud amount for the 13 chief political divisions and the 27 sub-divisions. The stations whose observations are used for preparing these means are given in the subsequent tables.

The highest maximum temperature given for any station in the accompanying tables is that recorded within the 24 hours ending at 8.30 hours I.S.T. of the date noted in the succeeding column; similarly the heaviest fall in 24 hours for any station denotes the amount recorded during the 24 hours ending at 8.30 hours I.S.T. of the date given in the succeeding column.

POONA 5 :
Dated the 16th December, 1949.

S. BASU,
for *Director General of Observatories.*

—	Rainfall.				Departure from normal of				
							0830 hrs. I.S.T.		
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Maximum temperature.	Minimum temperature.	Vapour pressure.	Relative humidity.	Cloud.
1	2	3	4	5	6	7	8	9	10
	"	"	"		°	°	mbs.	%	
Division—									
1. Assam . .	0·53	1·01	—0·48	—48	+1·8	—0·6	—0·5	—6	—0·2
2. West Bengal .	0·02	0·73	—0·71	—97	—0·2	—2·7	—2·7	—6	—0·6
3. Orissa . .	0·10	2·13	—2·03	—95	—0·5	—2·6	—2·0	—2	—1·3
4. Bihar . .	0	0·44	—0·44	—100	—1·3	—3·1	—1·6	—4	—0·8
5. United Provinces	0·01	0·22	—0·21	—95	—2·5	—2·0	—1·4	—3	—0·3
6. East Punjab	0	0·12	—0·12	—100	+0·1	—3·5	—2·3	—9	—0·3
7. Rajputana .	0·02	0·16	—0·14	—87	—1·2	—2·8	—2·1	—8	—0·1
Sub-Division—									
1. Bay Islands	3·19	10·52	—7·33	—70	+1·4	+0·7	+0·1	0	+0·3
2. Assam . .	0·53	1·01	—0·48	—48	+1·8	—0·6	—0·5	—6	—0·2
3. West Bengal .	0·02	0·73	—0·71	—97	—0·2	—2·7	—2·7	—6	—0·6
4. Orissa . .	0·10	2·13	—2·03	—95	—0·5	—2·6	—2·0	—2	—1·3
5. Chota Nagpur .	0	0·56	—0·56	—100	—1·7	—4·3	—1·9	—6	—1·0
6. Bihar . .	0	0·37	—0·37	—100	—1·0	—2·0	—1·3	—3	—0·7
7. United Provinces, East.	0·02	0·25	—0·23	—92	—3·8	—1·3	—1·4	—2	—0·5
8. United Provinces, West.	0	0·19	—0·19	—100	—1·0	—2·7	—1·4	—4	0
9. East Punjab .	0	0·12	—0·12	—100	+0·1	—3·5	—2·3	—9	—0·3
10. Kashmir . .	Data incomplete								
11. Rajputana, West	0	0·04	—0·04	—100	—2·2	—2·7	—1·7	—5	—0·1
12. Rajputana, East	0·03	0·28	—0·25	—89	—0·3	—2·9	—2·5	—10	—0·1
13. Gujarat . .	0·06	0·48	—0·42	—87	+0·5	+0·1	—1·0	—1	—0·5
14. Saurashtra and Cutch.	0	0·15	—0·15	—100	—0·9	—2·0	—2·1	—2	—0·4

—	Rainfall.				Departure from normal of				
							0830 hrs. I. S. T.		
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Maximum temperature.	Minimum temperature.	Vapour pressure.	Relative humidity.	Cloud.
1	2	3	4	5	6	7	8	9	10
	"	"	"		°	°	mb.	%	
Division—*contd.*									
8. Bombay (including Saurashtra & Cutch).	0·18	0·80	—0·62	—77	0	—1·4	1·3	—3	—0·7
9. Central India (including Madhya Bharat & Bhopal & Vindhya Pradesh)	0·08	0·60	—0·52	—87	—0·4	—3·1	—1·0	—1	—0·4
10. Central Provinces & Berar.	0	0·67	—0·67	—100	—1·4	—2·6	—1·1	0	—0·9
11. Hyderabad .	0·16	1·05	—0·89	—85	—0·5	—2·1	—1·4	+1	—1·0
12. Mysore . .	0·57	2·73	—2·16	—79	—0·1	—1·5	—2·1	—4	—1·0
13. Madras . .	3·04	6·59	—3·55	—56	+0·1	—0·9	—1·2	—2	—0·5
Mean of India .	0·46	1·44	—0·98	—68	—0·6	—2·1	—1·5	—3	—0 6
Sub-Division—*contd.*									
15. Madhya Bharat & Bhopal.	0·13	0·70	—0·57	—81	+0·1	—2·1	—1·3	—3	—0·1
16. Vindhya Pradesh	0	0·47	—0·47	—100	—0·9	—4·4	—0·7	+2	—0·7
17. Berar . .	0	0·69	—0·69	—100	—1·1	—1·9	—0·9	+3	—0·7
18. Central Provinces, West.	0	0·66	—0·66	—100	—1·5	—2·6	—0·7	0	—0·8
19. Central Provinces, East.	0	0·69	—0·69	—100	—1·4	—2·7	—1·6	0	—1·0
20. Konkan . .	0·57	1·29	—0·72	—56	—0·3	—1·4	—0·8	—1	—1·0
21. Bombay Deccan	0·19	1·17	—0·98	—84	+0·5	—1·7	—1·0	—5	—1 1
22. Hyderabad, North.	0.25	0·97	—0·72	—74	—0·6	—1·9	—1·7	+4	—0·8
23. Hyderabad, South.	0·08	1·13	—1·05	—93	—0·4	—2·3	—1·2	—1	—1·1
24. Mysore . .	0·57	2·73	—2·16	—79	—0·1	—1·5	—2·1	—4	—1·0
25. Malabar . .	2·40	5·49	—3·09	—56	+1·4	—0·5	—1·1	—4	0·3
26. Madras, South-East.	5·15	9·71	—4·56	—47	+0·4	—0·4	—1·5	—3	+0·1
27. Madras, Deccan	1·40	2·19	—0·79	—36	—1·3	—1·9	—0·7	—1	0·9
28. Madras Coast, North.	1·42	6·23	—4·81	—77	0	—1·2	—1·0	+1	—1·3

TABLE II—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M

STATION	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Rela hum	
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	2
Bay Islands																					
Port Blair	259	1003·2	0	1000·7	85·3	+1·4	87	7,17,19	74·2	+0·7	68	23	82·6	78·5	76·9	74·6	29·3	+0·1	27·4	76	
Assam																					
Dibrugarh	348	1003·5	−1·2	999·5	80·7	+1·1	88	4	57·8	−2·2	51	26	69·7	69·4	64·0	64·9	18·0	−1·8	19·0	72	−
Sibsagar	317	1004·6	−1·1	1000·7	79·3	+1·2	85	6,9	58·7	−1·1	52	26	68·8	69·9	65·5	66·2	19·7	−1·1	20·5	84	−
Tezpur	258	1007·0	−1·0	1002·7	83·0	+2·1	88	5,7	61·2	−0·4	56	28	70·0	72·7	65·8	67·3	20·0	0	20·3	79	−
Gauhati	182	1009·2	−0·6	1005·0	82·1	+0·8	87	2,6	61·6	+0·2	55	20	69·5	74·2	66·3	67·9	20·9	+0·1	20·3	84	−
Dhubri	115	1012·1	+0·1	1008·1	...	...	...	...	...	...	...	...	70·5	73·9	66·6	68·5	20·4	−0·1	21·2	81	+
Silchar	96	1011·2	−1·2	1007·4	84·7	−0·8	91	4,7	65·0	+1·5	58	28	72·1	76·8	67·7	70·9	21·1	−0·6	23·0	79	−
West Bengal																					
Dum Dum	33	1014·3	...	1010·5	83·1	...	88	1,25	62·0	...	55	27	72·2	75·8	64·5	66·8	17·5	...	18·4	64	
Calcutta	21	1014·5	−0·1	1010·9	84·1	−0·1	89	4 days	62·2	−1·5	56	28	73·5	74·2	65·2	66·3	17·2	−3·0	18·4	63	−
Saugor Island	10	1014 5	−0·1	1011·0	80·7	−1·6	85	1	66·0	−1·4	59	26	73·6	74·8	65·8	66·7	17·9	−4·7	18·8	66	−
Sandheads	32	1014·0	+0·6	1011·0	...	...	...	...	...	...	...	...	77·5	77·8	69·8	68·9	21·7	−1·3	19·9	66	+
Midnapore	149	1009·7	−0·4	1006·3	82·7	−1·7	89	1	57·6	−5·7	51	27	70·6	77·3	62·0	66·7	15·2	−2·8	17·7	60	−
Contai	36	1013·5	...	1010·1	82·7	...	89	11	53·1	...	56	13,14,28	69·9	78·5	63·8	68·3	17·6	...	19·3	70	
Burdwan	106	1011·2	−0·6	1007·4	83·7	−0·2	90	24	60·1	−3·8	53	26	67·8	76·7	61·3	68·2	15·6	−3·2	19·7	67	−
Krishnagar	48	1013·7	−0·1	1010·3	85·7	+1·4	91	9	58·8	−3·5	50	26	70·3	75·5	64·1	66·9	17·9	−1·9	18·7	70	+
Asansol	414	1000·9	−0·2	997·2	83·3	−0·6	87	4 days	57·5	−2·5	52	13,14,26	68·4	75·7	60·8	63·6	14·9	−2·0	14·8	62	−
Berhampore	62	1013·0	−0·5	1009·0	84·7	+1·9	89	1	59·7	−4·0	51	26	70·1	76·7	63·1	67·3	16·6	−3·2	18·5	65	−
Malda	103	1011·6	−0·5	1008·0	80·8	−1·5	86	7	59·2	−1·9	48	26	71·0	73·7	64·2	66·9	17·2	−2·3	19·2	67	−
Cooch Behar	145	1010·7	..	1006·8	83·2	..	87	4,5	60·4	..	54	25	71·9	73·5	65·3	68·1	18·4	..	20·9	68	
Jalpaiguri	271	1005·6	−0·9	1001·8	82·4	+0·4	89	4	60·5	−0·3	55	25	66·6	76·3	62·6	67·6	17·6	−1·4	19·3	79	−
Orissa																					
Balasore	65	1013·2	+0·1	1009·8	83·5	−0·8	91	25	61·1	−2·1	55	14	72·2	74·1	63·6	67·5	16·3	−2·8	20·2	60	−
Chandbali	20	1014·6	+0·2	1011·3	84·2	+0·1	93	25	63·8	−1·7	57	13	71·5	75·5	66·0	67·8	19·3	−1·8	20·0	74	−
Puri	20	1014·9	+0·6	1011·4	83·7	−0·9	88	1	67·7	−1·5	63	15	74·4	78·3	67·1	69·7	19·1	−2·6	21·0	67	−
Gopalpur	56	1013·6	+0·6	1010·1	84·8	+0·7	89	1	65·9	−1·4	61	13	72·9	78·2	67·8	70·8	21·0	−0·6	22·3	76	+
Cuttack	87	1012·2	−0·3	1008·5	84·2	−0·8	89	26	63·5	−2·3	59	14,15	70·3	78·5	64·3	68·1	17·3	−2·9	18·7	70	−
Angul	455	1000·2	+0·8	996·6	82·2	−1·6	88	1	59·7	−2·6	53	15	68·7	76·8	62·6	65·2	16·8	−2·1	16·9	70	−
Sambalpur	486	999·3	+0·5	995·0	83·8	−0·1	90	24,25	55·9	−5·4	51	14,15	67·2	76·1	61·7	64·1	16·3	−1·8	14·5	71	−
Chota Nagpur																					
Jamshedpur	423	1001·1	+0·4	997·1	82·0	−3·0	88	24	56·7	−2·3	51	14	66·3	75·2	59·1	64·3	14·1	−2·3	15·5	64	−
Chaibasa	742	989·9	+0·2	986·1	83·2	+0·3	89	24	56·3	−3·4	50	14	66·7	76·5	59·9	64·0	14·3	−3·0	14·7	66	−
Ranchi	2,150	941·5	−0·3	939·0	76·8	−0·7	83	25	50·1	−7·1	42	14	66·0	69·1	56·0	58·5	12·3	−1·1	12·6	52	−
Hazaribagh	2,006	946·6	+0·1	944·1	75·1	−2·5	79	23,24	51·8	−5·4	41	29	64·2	66·9	55·3	57·4	11·2	−2·1	12·3	55	−
Daltonganj	725	991·1	+0·1	987·8	80·0	−2·4	86	24	51·2	−3·2	44	15	63·2	72·0	57·9	64·0	13·8	−1·2	16·8	71	−
Dhanbad	839	986·2	...	...	81·0	...	85	24	56·7	...	49	26	68·7	...	58·4	...	11·9	...	...	49	
Bihar																					
Purnea	124	1011·0	−0·7	1007·2	82·5	+0·1	88	8	57·7	−0·9	47	26	68·1	72·7	63·6	67·2	18·1	−0·6	20·3	77	−
Saharsa	156	1009·7	...	1006·3	80·6	...	87	8	59·5	...	48	26	69·5	73·2	63·7	66·3	17·3	...	18·8	71	
Darbhanga	161	1010·1	−0·2	1006·4	82·0	−0·9	89	8	59·2	−0·3	50	25,26	67·7	73·6	63·1	66·1	17·8	−0·8	18·5	77	−
Motihari	218	1007·9	−0·4	1004·4	80·5	−1·7	85	7,8,9	54·2	−1·8	45	25	69·7	73·1	63·8	66·2	17·5	−0·5	18·8	71	−
Patna	173	1009·5	−0·6	1006·2	80·1	−2·0	84	9	57·9	−3·1	51	25,26	67·5	74·1	59·4	62·7	13·8	−3·1	14·2	60	−
Dehri	352	1003·3	...	999·9	81·3	...	86	24	58·1	...	53	15,17,26	66·3	73·6	59·8	62·2	14·7	...	13·9	67	
Gaya	365	1002·9	−0·3	999·5	81·1	−0·2	84	25	53·8	−3·2	47	26	65·3	73·9	58·6	61·2	14·0	−0·2	12·9	65	−

Cloud amount, (Oktas).			Rainfall, inches.				Number of rainy days, (0.10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																			STATION.
											0830 hrs. I. S. T.									1730 hrs. I. S. T.										
Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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
																														Bay Islands
4·9	+0·3	4·9	3·19	—7·33	1·38	11	7	—6·6	6·4	—2·0	2	8	9	4	1	1	1	1	3	2	7	8	1	1	3	1	2	5		Port Blair
																														Assam
2·4	—0·2	2·0	0·95	—0·37	0·38	23	3	+0·5	1·0	+0·4	2	5	17	1	0	0	0	2	3	0	0	1	0	0	0	0	0	29		Dibrugarh
2·7	—2·7	2·1	2·10	+0·88	0·88	25	4	+1·7	1·6	+0·5	7	5	7	2	1	0	0	2	6	5	2	2	0	0	0	0	1	20		Sibsagar
1·3	—1·0	0·9	0·84	—0·06	0·70	1	2	+0·2	1·1	—0·4	0	5	20	1	1	0	0	0	3	0	0	4	1	1	0	0	0	24		Tezpur
1·6	—1·0	2·5	0·16	—0·39	0·16	1	1	—0·2	1·8	+0·7	8	12	3	1	1	0	1	2	2	0	4	1	1	2	0	0	0	22		Gauhati
1·9	+0·2	1·5	0	—0·40	0	...	0	—0·7	2·7	—1·3	2	10	8	1	2	1	0	0	6	3	5	1	1	1	2	1	1	15		Dhubri
3·6	+1·1	0·7	1·21	—0·54	1·21	1	1	—1·1	0·4	—0·6	0	5	5	4	1	1	0	0	14	0	0	0	0	0	1	0	0	29		Silchar
																														West Bengal
0·9	...	1·1	0	...	0	...	0	...	3·0	...	12	1	0	0	0	0	1	10	6	3	1	0	0	0	0	2	9	15		Dum Dum
1·0	—0·8	0·9	0	—0·81	0	...	0	—1·1	1·8	—0·1	12	1	0	0	0	0	2	8	7	2	0	0	0	0	0	0	5	23		Calcutta
1·3	—1·3	1·4	0·17	—1·11	0·17	1	1	—0·3	7·3	+1·8	20	4	0	0	0	2	0	4	0	12	1	0	0	1	7	1	6	2		Saugor Island
1·9	—0·9	2·3	0	—2·75	0	...	0	—2·5	...	...	16	6	0	0	0	1	1	4	2	10	3	1	0	0	2	4	9	1		Sandheads
0·6	—1·2	0·8	0	—0·87	0	...	0	—1·1	2·3	+1·0	16	3	0	0	0	1	0	2	8	4	0	0	0	0	0	0	0	26		Midnapore
1·0	...	1·2	2·62	...	2·62	1	1	...	(b) 2·1	...	16	0	0	0	0	0	2	8	3	11	0	0	0	4	1	0	1	13		Contai
0·9	—0·8	0·4	0	—0·86	0	...	0	—1·0	2·2	+1·0	6	1	0	0	0	2	1	17	3	3	3	0	0	0	3	0	10	11		Burdwan
1·5	—0·2	1·3	0	—0·98	0	...	0	—1·2	1·8	+0·6	2	0	0	0	3	1	21	2	1	0	0	0	0	1	1	7	1	20		Krishnagar
0·7	—1·4	1·0	0	—0·57	0	...	0	—1·0	4·3	+1·2	1	0	0	0	0	0	12	16	1	1	0	0	0	0	0	0	12	17		Asansol
1·6	—0·2	1·5	0	—0·65	0	...	0	—0·7	1·0	0	5	0	2	0	3	0	2	3	15	1	0	0	0	0	0	0	3	26		Berhampore
1·0	+0·2	0·5	0	—0·45	0	...	0	—0·7	2·8	+0·4	6	0	0	0	1	1	3	15	4	2	0	0	0	1	1	4	10	12		Malda
0·8	...	0·9	0	—0·45	0	...	0	—0·8	1·8	...	1	13	10	1	1	0	1	0	3	1	2	0	0	1	1	0	0	25		Cooch Behar
1·2	+0·1	1·7	0	—0·49	0	...	0	—0·8	1·9	+0·9	14	8	3	0	0	0	0	1	4	0	0	0	1	2	1	1	0	25		Jalpaiguri
																														Orissa
1·5	—0·7	1·5	0	—1·50	0	...	0	—1·5	1·5	—0·1	14	3	0	0	0	1	1	9	2	0	0	0	0	0	0	0	0	30		Balasore
0·9	—1·8	1·8	0	—1·65	0	...	0	—1·5	3·2	0	12	0	0	0	1	0	2	15	0	4	12	5	3	1	0	3	1	1		Chandbali
1·2	—1·2	1·5	0·51	—2·68	0·51	1	1	—1·4	6·3	+0·6	17	6	0	0	0	2	1	4	0	4	8	2	4	4	6	0	2	0		Puri
1·7	—0·5	2·0	0	—3·93	0	...	0	—2·8	(b) 5·3	—0·9	21	3	0	0	0	0	0	5	1	1	4	5	9	3	2	0	1	5		Gopalpur
1·1	—1·4	1·5	0	—1·62	0	...	0	—1·6	2·0	+0·8	1	0	0	0	0	0	0	2	27	0	0	0	0	0	0	0	0	30		Cuttack
0·9	—1·8	1·4	0	—1·11	0	...	0	—1·4	3·8	+0·8	2	2	0	0	0	2	14	10	0	14	2	0	1	0	1	6	6	0		Angul
0·7	—1·4	0·7	0	—0·81	0	...	0	—1·0	1·8	—0·3	12	11	2	0	1	1	0	0	3	5	3	1	0	0	0	1	3	17		Sambalpur
																														Chota Nagpur
1·1	—1·1	1·1	0	—0·37	0	...	0	—0·7	2·6	+1·0	0	0	0	0	0	1	15	9	5	0	0	0	0	0	0	6	3	21		Jamshedpur
1·1	—0·9	1·9	0	—0·70	0	...	0	—1·0	1·0	—0·2	0	0	0	1	0	6	0	1	22	0	0	0	0	0	2	0	0	28		Chaibasa
0·2	—1·6	0·3	0	—0·61	0	...	0	—1·0	3·3	+0·6	6	0	1	0	0	0	0	6	17	10	0	0	0	0	0	0	3	17		Ranchi
0·8	—0·7	0·7	0	—0·56	0	...	0	—0·9	4·9	+0·6	3	0	0	0	0	0	0	20	7	6	0	0	0	0	0	1	21	2		Hazaribagh
0·6	—0·6	0·3	0	—0·56	0	...	0	—0·8	1·8	+0·3	1	1	4	2	2	0	1	0	19	1	1	3	0	1	1	4	0	19		Daltonganj
...	...	...	0	...	0	...	0	...	4·0	...	3	0	0	0	0	7	3	11	6	...	...	...	...	...	...	...	...	...		Dhanbad
																														Bihar
0·5	—0·5	0·3	0	—0·34	0	...	0	—0·5	1·5	+0·5	0	0	0	1	0	11	11	1	6	0	0	0	0	0	1	4	0	25		Purnea
0·5	...	0·2	0	...	0	...	0	...	1·7	...	0	1	0	0	1	17	2	0	9	0	0	0	0	0	1	2	0	27		Saharsa
0·5	—0·5	0	0	—0·27	0	...	0	—0·4	0·8	—0·1	1	1	0	0	0	1	17	1	9	0	0	0	0	0	1	2	0	27		Darbhanga
0·3	—0·4	0·2	0·03	—0·21	0·03	1	0	—0·3	1·5	—0·1	2	0	2	0	1	2	2	1	20	0	0	0	0	0	0	3	0	27		Motihari
0·1	—1·0	(b) 0·2	0	—0·34	0	...	0	—0·5	3·2	+1·7	0	0	0	0	1	16	7	4	2	0	0	0	0	0	7	9	6	7		Patna
0·1	...	0·4	0	—0·46	0	...	0	—0·7	2·8	...	1	0	0	0	2	25	1	1	0	6	1	0	0	0	0	0	13	10		Dehri
0·5	—0·7	0·4	0	—0·49	0	...	0	—0·7	3·4	+0·5	0	0	0	1	17	10	1	0	1	2	0	0	0	0	1	9	16	2		Gaya

STATION	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Bihar—*contd.*																				
Naya Dumka	489	998·3	−0·4	994·6	83·5	+1·1	88	25	56·1	−3·5	46	26	71·9	76·8	61·1	63·6	13·3	−3·9	14·4	51
Sabour	122	1011·1	0	1007·4	80·4	−1·8	85	1,8	54·5	−2·4	44	26	68·4	69·8	61·9	64·9	16·0	−1·7	18·7	67
U. P., East																				
Gonda	360	1003·1	...	1000·3	79·5	−4·2	84	7	53·6	−1·3	46	25	61·4	69·8	58·0	62·8	14·9	0	16·5	77
Gorakhpur	254	1006·4	−0·5	1003·6	79·7	−2·4	85	7	57·2	−0·1	51	26,27	65·6	73·8	59·3	64·2	14·1	−2·6	16·1	67
Banaras	250	1007·9	+0·6	1004·1	80·0	−3·0	84	23,24	53·6	−2·3	48	17,27	63·7	74·0	57·5	62·0	13·5	−1·9	13·6	67
Allahabad (Bamrauli).	322	1004·8	0	1001·9	80·5	−2·9	86	23	53·4	−0·9	47	25	63·0	74·1	57·3	62·7	13·7	−0·7	14·1	69
Fatehpur	375	1003·1	...	1000·2	76·8	−8·1	82	29	53·2	−1·5	48	16,25	61·8	73·3	55·8	62·1	12·6	−1·5	14·0	66
Kanpur	414	1001·6	+0·2	999·3	80·2	−2·6	87	30	53·0	−0·9	47	16	62·6	74·8	55·7	62·2	11·9	−1·8	13·7	61
Lucknow	371	1003·1	+0·2	1000·6	81·3	−2·6	86	23	52·6	−1·5	46	16	61·3	70·9	55·3	63·4	12·3	−1·9	16·6	66
Bahraich	407	1001·5	+0·2	998·6	78·2	−4·8	84	7,8,10	54·0	−2·1	45	25	64·9	72·8	58·7	63·3	14·4	−1·0	15·7	66
U. P., West																				
Jhansi	823	988·0	+0·2	985·3	84·5	−0·9	89	29	52·6	−2·3	47	4 days	65·3	78·5	56·5	64·6	11·6	−0·3	14·5	55
Agra	553	997·1	+0·4	994·1	82·7	−1·7	87	4 days	50·6	−1·3	45	25	59·6	77·9	50·8	59·0	8·5	−2·0	8·5	51
Mainpuri	516	997·8	0	994·5	83·8	−0·8	88	10,23	51·4	−1·8	46	15	61·1	75·4	54·0	62·5	11·1	−0·9	13·5	61
Aligarh	615	994·3	...	991·8	82·1	−1·6	87	7,8	48·8	−5·3	44	24,25	59·4	75·0	50·9	59·9	8·9	−1·1	10·9	52
Bareilly	568	995·3	−0·6	992·6	80·4	−1·2	85	4,7,9	51·7	−1·8	45	26	60·0	71·8	54·2	59·5	11·1	−2·2	11·8	66
Meerut	728	990·1	...	...	81·4	...	86	4,8,9	48·0	...	43	15	56·9	...	49·0	...	8·3	...	...	53
Roorkee	899	984·0	−0·4	981·4	79·2	−0·4	85	4	46·7	−3·0	40	25	54·3	71·1	49·2	57·2	9·6	−2·3	9·6	68
Dehra Dun	2,239	938·3	−0·2	936·9	75·5	−0·3	79	4,5	47·9	−3·2	42	25	58·0	66·7	51·0	58·2	9·9	−0·9	13·0	60
East Punjab																				
New Delhi	714	991·1	+0·2	988·5	81·6	−1·6	87	8,9	50·4	−1·4	44	25	59·0	74·8	47·9	56·7	6·5	−2·5	7·8	38
Hissar	725	990·9	+0·2	988·6	83·3	−1·0	91	9	45·4	−4·4	40	24,25	51·5	77·8	45·1	58·8	7·3	−1·4	8·5	57
Patiala	822	986·7	...	984·6	80·9	...	88	9	47·2	...	40	15	56·2	71·2	48·4	58·0	7·9	...	10·6	53
Ambala	892	984·4	0	981·9	83·0	+0·9	90	9	47·0	−2·9	41	4 days	53·3	74·1	46·3	56·4	7·7	−2·8	7·8	54
Ludhiana	811	987·4	0	985·3	83·4	+2·0	90	8	45·9	−5·1	38	24,25	55·3	76·4	46·6	57·6	7·2	−2·7	7·7	47
Amritsar	756	989·5	...	987·4	80·1	...	86	5	42·3	...	31	24	52·5	70·9	47·5	56·7	9·0	...	9·6	67
Kashmir																				
Srinagar	5,205	846·3	−0·3	843·5	57·7	−4·8	65	5,6	28·6	−2·3	22	23,24,25	34·3	50·2	32·6	41·9	5·9	−0·6	5·9	84
Gulmarg ~~(D)~~	8,709								Closed during winter months.											
Dras (R)	10,059																			
Leh	11,529	667·1	−2·0	664·7	42·1	−4·7	48	1,2	17·3	−3·1	12	23,24	23·3	34·8	17·8	26·1	1·7	−1·2	2·3	41
Skardu (R)	7,505																			
Gilgit (R)	4,890																			
Misgar (R)	10,190																			
Rajputana, West																				
Sri Ganganagar	580	...	...	...	82·0	−2·5	88	6,7	44·1	−3·7	37	24	57·1	74·5	48·3	58·0	7·4	−1·7	9·1	48
Bikaner	734	990·7	+0·7	988·3	83·6	−4·1	91	6,7	44·7	−6·6	38	24	54·2	80·3	47·2	64·7	7·9	+0·1	14·0	56
Phalodi	794	988·7	...	987·1	84·2	...	92	3,7	52·2	...	47	16,24	58·8	81·1	51·2	66·5	9·7	...	15·7	56
Jaisalmer	793	988·3	...	985·6	85·9	...	92	3,6	50·5	...	43	14	60·6	81·2	46·3	56·3	4·3	...	4·1	25
Jodhpur	736	990·6	+1·8	987·9	87·2	−0·4	92	4,6	56·6	+0·9	48	30	63·4	83·1	49·0	60·0	5·4	−2·6	7·4	27
Barmer	638	993·3	+0·6	990·8	87·7	−1·7	94	5	59·3	−1·6	53	12	63·9	83·5	51·9	62·7	7·9	−2·6	9·9	38

(R) Register not received.

Cloud amount (Oktas).			Rainfall, inches.				Number of rainy days (0·10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from:—																			STATION.
											0830 hrs. I. S. T.									1730 hrs. I. S. T.										
Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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
																														Bihar—*contd.*
0·4	−0·8	0·9	0	−0·54	0	...	0	−0·8	2·3	+1·2	4	2	0	0	1	4	7	12	0	4	0	0	0	0	2	14	10	0		Naya Dumka
0·8	−0·6	0·5	0	−0·38	0	...	0	−0·7	3·5	+1·0	1	0	0	0	2	8	15	4	0	0	0	0	0	0	0	6	14	10		Sabour
																														U. P., East
0·4	−0·5	0·3	0	−0·20	0	...	0	−0·5	2·0	+0·3	2	0	2	0	0	0	16	3	7	0	0	0	0	0	0	0	0	30		Gonda
0·1	−0·5	0	0·10	−0·09	0·10		1	+0·7	2·0	+1·2	1	1	0	0	0	1	21	2	4	0	0	0	0	0	0	9	0	21		Gorakhpur
0	−1·0	0·2	0·01	−0·36	0·01	1	0	−0·6	4·6	+3·0	0	0	0	0	4	19	4	1	2	1	0	0	0	0	2	20	7	0		Banaras
0·4	−0·7	0·4	0·02	−0·29	0·02	1	0	−0·5	1·9	+0·2	0	1	0	0	2	8	9	0	10	1	1	0	0	0	0	6	1	21		Allahabad (Bamrauli).
0·3	−0·7	0·1	0	−0·09	0	...	0	−0·4	1·9	+0·4	0	2	0	0	0	5	13	8	2	0	1	0	0	0	0	0	1	28		Fatehpur
0·4	−0·1	0·2	...	−0·35	0	...	0	−0·4	4·3	+1·8	1	0	0	0	0	5	12	3	9	0	1	0	0	0	4	7	1	17		Kanpur
0·4	−0·6	0·4	0	−0·22	0	...	0	−0·4	1·2	+0·3	4	0	0	0	0	5	8	8	5	0	0	0	0	0	1	3	3	23		Lucknow
0·4	−0·2	0·4	0	−0·28	0	...	0	−0·5	2·2	+1·0	3	0	0	0	0	1	3	8	15	0	1	0	0	0	2	2	0	25		Bahraich
																														U. P., West
0·4	−0·4	0·5	0	−0·29	0	...	0	−0·5	2·4	+0·7	1	0	1	1	0	3	9	3	12	6	1	0	0	0	0	6	0	17		Jhansi
0·4	−0·4	0·6	0	−0·14	0	...	0	−0·3	1·2	−0·9	0	0	0	0	1	2	2	2	23	0	0	0	0	0	0	1	2	27		Agra
0·8	0	1·2	0	−0·15	0	...	0	−0·3	0·8	−0·1	0	0	0	0	0	1	4	4	21	0	0	0	0	0	0	3	3	24		Mainpuri
1·0	+0·4	1·3	0	−0·03	0	...	0	−0·1	3·7	+0·8	0	0	1	0	0	0	11	1	17	2	0	0	0	0	0	3	5	20		Aligarh
1·0	+0 3	1·6	0	−0·18	0	...	0	−0·3	1·8	+1·0	4	1	2	0	0	0	7	6	10	0	0	0	0	0	1	5	2	22		Bareilly
0·4	...	...	0	−0·13	0	...	0	−0·3	3·4	...	1	0	0	0	0	0	8	9	12	...	...	...	...	...	...	...	...	...		Meerut
0·7	0	1·0	0	−0·23	0	...	0	−0·5	1·0	0	0	0	0	1	0	0	0	6	23	0	0	0	0	0	0	0	9	21		Roorkee
1·0	−0·1	1·5	0	−0·35	0	...	0	−0·7	1·8	0	2	4	0	0	0	3	5	4	12	0	0	0	0	0	1	0	4	25		Dehra Dun
																														East Punjab
0·8	0	1·5	0	−0·10	0	...	0	−0·3	6·1	...	0	0	1	0	0	0	18	6	5	5	0	0	0	0	0	2	19	4		New Delhi
0·4	−0·2	0·5	0	−0·06	0	...	0	−0·2	3·2	+0·5	1	1	1	2	5	7	7	4	2	6	1	1	0	0	2	4	13	3		Hissar
1·1	...	1·7	0	...	0	...	0	...	4·2	...	7	0	1	0	1	0	1	7	13	5	2	0	0	0	0	3	13	7		Patiala
0·3	−0·7	0·6	0	−0·19	0	...	0	−0·4	5·8	+0·4	0	0	0	0	0	0	1	0	29	0	0	0	0	0	0	7	6	17		Ambala
0·8	−0·2	1·3	0	−0·13	0	..	0	−0·4	1·3	+0·5	0	0	2	2	0	0	3	5	18	0	0	0	0	0	0	2	9	19		Ludhiana
1·2	...	1·4	0	...	0	...	0	...	1·5	...	2	3	1	0	0	2	0	2	20	5	0	0	1	0	0	0	11	13		Amritsar
																														Kashmir
2·2	0	2·7	0·17	−0·27	0·13	27	1	−0·1	1·5	−0·3	0	0	2	5	1	0	1	2	19	2	1	0	1	0	0	1	7	18		Srinagar
																														Gulmarg
																														Dras (R)
2·8	+0·2	3·6	0·58	+0·54	0·40	30	2	+1·8	3·7	+1·8	0	7	2	1	0	0	0	0	20	0	1	0	1	0	18	1	1	8		Leh
																														Skardu (R)
																														Gilgit (R)
																														Misgar (R)
																														Rajputana, West
0·3	−0·2	0·6	0	−0·01	0	...	0	0	...	...	0	1	4	0	1	2	1	3	18	1	1	1	0	0	1	1	5	20		Sri Ganganagar
0·8	−0·2	0·8	0	−0·05	0	...	0	−0·1	1·3	−1·2	0	3	0	1	0	1	0	1	24	2	7	0	0	0	1	0	10	10		Bikaner
1·1	...	1·4	0	−0·02	0	...	0	−0·1	4·3	...	4	1	0	9	15	1	0	0	0	12	6	2	0	0	1	3	6	0		Phalodi
1·1	...	0·7	0	...	0	...	0	...	2·7	...	0	7	2	0	0	0	0	0	21	2	12	0	0	0	5	1	6	4		Jaisalmer
0·9	−0·1	1·2	0	−0·11	0	...	0	−0·2	2·8	−1·7	0	23	5	0	0	0	0	0	2	5	9	3	1	1	1	1	4	5		Jodhpur
1·1	0	1·4	0	−0·03	0	...	0	−0·2	3·3	−0·3	5	2	0	0	0	0	0	17	6	6	8	2	2	0	0	0	10	2		Barmer

(R) Reports not received

TABLE II—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G.

STATION	Height of bar. cistern above mean sea level in feet.	Pressure at station level in Millibars.			Maximum temperature, °F.				Minimum temperature °F.				Dry bulb temperature, °F.		Wet bulb temperature °F.		Vapour pressure, millibars.			R hu
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Rajputana East																				
Sikar	1,406	967·4	...	965·1	83·0	...	89	7,8,22	46·4	...	37	24	57·4	75·5	47·7	58·5	7·2	...	9·1	43
Jaipur	1,431	966·9	0	964·4	84·1	—1·3	88	4,6	50·0	—3·7	42	25	66·2	77·7	52·0	57·8	8·7	—0·8	7·2	31
Ajmer	1,593	961·6	+0·3	959·1	82·9	—0·7	87	3,22	50·6	—2·1	43	15	59·0	76·8	47·8	55·5	6·5	—3·5	6·5	40
Kotah	843	987·2	+0·4	983·9	86·8	+0·1	90	5 days	56·1	—3·0	51	6	64·5	81·2	53·4	60·7	9·1	—1·7	8·8	42
Jhalwar	1,053	879·4	+0·6	975·8	85·4	+0·7	92	21	51·2	—2·6	44	16,17	59·8	81·7	51·5	60·0	9·2	—2·3	8·0	53
Udaipur	1910	950·7	...	947·9	85·1	...	89	5	50·4	...	43	16,17	62·9	80·1	51·2	59·7	8·4	...	9·1	42
Gujarat																				
Dessa*	466																			
Surat	39	1013.9	+1·1	1010·2	94·6	+2·7	99	2	65·3	+0·4	60	12,13	71·3	85·9	63·7	71·5	16·7	+0·2	19·8	65
Ahmedabad	163	1009·7	+0·3	1006·5	91·1	—1·5	95	3	66·1	+0·5	61	15,16,17	68·9	87·3	56·0	66·3	9·6	—2·4	12·6	39
Dohad	1,093	977·6	...	974·7	88·5	—0·6	92	2,21,22	58·0	—0·3	50	17	65·1	84·6	56·5	65·9	11·8	—1·6	13·4	55
Baroda	115	1010·9	...	1007·6	93·0	+1·5	98	21	57·0	—0·3	50	13,14,17	66·2	86·1	60·0	70·8	15·5	—0·2	18·8	71
Saurashtra and Cutch																				
Bhuj	343	1004·0	+0·9	1001·2	88·3	—1·5	94	4	58·1	—3·9	52	15,17	64·5	85·5	54·4	59·9	10·0	—4·0	6·1	47
Dwarka	37	1013·9	+0·3	1011·2	86·0	—1·1	95	4	65·8	—2·9	59	15	70·9	80·5	63·9	67·1	17·1	—2·2	16·6	67
Jamnagar	60	1013·5	+0·8	...	87·2	—1·8	93	4 days	60·7	—1·4	54	16	69·3	...	59·6	...	13·4	—3·0	...	62
Rajkot	432	999·9	+0·4	996·6	91·0	—0·1	96	3,20	59·9	—0·7	53	12,13	69·3	90·4	60·8	63·3	14·4	+2·1	7·7	37
Veraval	26	1013·6	+0·5	1010·9	90·6	...	98	4	62·0	...	57	13	74·1	82·7	59·9	72·7	11·3	...	22·9	59
Bhavnagar	55	1013·2	+0·5	1010·1	90·5	—0·2	94	3,4,21	61·4	—1·2	55	14,17	66·8	87·0	55·2	66·2	9·7	—3·4	12·6	43
Madhya Bharat and Bhopal																				
Neemuch	1,626	960·7	—0·4	957·9	85·3	+0·8	90	22,29	53·9	—1·2	49	15,16	64·4	81·4	50·8	58·6	7·2	—3·2	7·3	35
Ratlam	1,596	961·1	...	958·3	86·0	...	91	22	56·5	...	50	5	64·5	81·6	56 5	65·9	12·7	...	15·4	60
Indore	1,823	952·7	+0·2	949·6	84·0	—0·3	88	21,24,28	53·2	—0·4	43	17	65·8	80·2	56·5	61·0	11·9	—1·4	10·5	55
Bhopal	1,643	959·4	+0·2	956·8	83·8	+0·2	90	22,29	52·7	—2·5	46	16,17	67·5	77·7	56·9	60·6	11·4	—0·5	11·5	51
Guna	1,571	961·8	+0·3	959·3	83·3	—0·5	90	22	47·6	—3·5	38	16	61·0	77·2	53·9	62·1	11·4	—0·2	12·9	63
Gwalior	681	992·4	...	989·8	83·4	...	89	22	46·6	...	41	15,25	65·1	75·6	53·3	59·0	8·5	...	9·7	41
Madhosagar	757	989·7	...	987·0	85·3	...	90	22	55·2	...	51	15,17	64·7	77·3	54·0	59·1	9·5	...	9·0	47
Vindhya Pradesh																				
Nowgong	750	990·5	+0·5	987·4	82·2	0·6	89	30	48·0	—4·8	41	16	61·7	74·8	54·8	61·3	11·7	—1·4	12·5	61
Sutna	1,041	979·4	—0·3	976·7	82·1	—0·2	90	30	49·3	—4·9	44	17	58·2	77·4	53·5	61·5	11·9	—1·0	11·5	71
Umaria	1,506	964·2	...	961·2	79·1	—2·4	87	24	48·6	3·6	43	15,17	63·0	73·4	57·1	63·4	13·6	+0·4	15·9	68
Berar																				
Buldana	2,133	942·4	...	939·9	82·4	...	88	23,24,27	60·8	...	53	16	67·7	80·0	58·5	64·1	13·0	...	14·0	56
Akola	925	983·7	+0·5	980·0	87·5	0·5	93	24,25	56·5	—1·9	45	10	63·7	83·9	57·2	64·2	13·1	—0·4	11·6	64
Amraoti	1,213	974·0	+0·6	970·6	85·0	—1·6	91	25	60·7	—1·9	54	9	68·7	82·4	57·9	61·9	11·6	—1·8	9·7	48
C. P. West																				
Khandwa	1,044	979·5	+0·3	976·2	87·4	—0·4	93	24	53·3	—3·2	46	17	66·5	81·9	57·8	62·7	12·4	—0·3	10·8	56
Hoshangabad	992	981·9	+0·1	978·5	84·5	—0·1	90	2	55·1	—3·3	50	9,18	65·2	79·6	56·8	63·6	12·0	—0·5	12·9	57
Saugor	1,808	953·6	+0·1	951·1	80·3	—1·8	87	23	57·7	—0·7	52	15	67·3	73·0	54·3	57·3	9·0	—1·6	9·8	41
Jubbulpur	1,289	971·7	+0·7	968·5	82·0	—0·2	89	30	50·5	—1·8	45	17	60·2	74·8	55·5	52·9	12·9	—1·0	14·3	72
Seoni	2,027	946·7	+0·6	943·8	75·8	—5·6	82	25	52·6	—2·7	47	9,12,14	62·9	75·3	54·8	59·1	11·4	—1·4	10·4	58
Betul	2,144	942·9	...	940·2	80·4	...	88	22,28	50·8	...	44	10,14,17	63·8	73·2	56·3	60·9	12·4	...	13·4	61
Nagpur	1,010	981·2	+0·6	677·7	84·4	—1·1	92	30	55·1	—4·0	49	14	66·4	78·8	59·6	64·9	14·4	+0·6	14·8	65

*Data not reliable.

Cloud amount (Oktas)			Rainfall inches				Number of rainy days (0.10" or more)		Wind velocity, miles per hour		Wind direction—Number of winds from:—																			STATION
											0830 hrs. I. S. T.									1730 hrs. I. S. T.										
	Departure from normal	Mean 1730 hrs. I.S.T.	Total of the month	Departure from normal	Heaviest fall 24 hours	Date	Total in the month	Departure from normal	Mean	Departure from normal	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
	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
																														Rajputana, East
0	...	1·5	0	...	0	...	0	...	1·3	...	0	2	6	2	0	0	0	1	19	8	0	0	0	0	0	1	12	9		Sikar
1	+0·4	1·2	0	−0·14	0	...	0	−0·3	2·4	−0·4	3	5	4	1	1	0	0	0	16	6	2	1	0	1	0	3	10	7		Jaipur
8	0	0·8	0	−0·19	0	..	0	−0·4	2·1	+0·9	0	1	0	0	0	1	3	1	24	2	4	1	0	0	1	4	5	13		Ajmer
4	−0·6	0·7	0	−0·23	0	...	0	−0·6	0	−1·0	0	0	0	0	0	0	0	0	30	0	1	0	0	0	0	1	0	28		Kotah
0	0	1·0	0·14	−0·59	0·14	22	1	−0·1	1·3	+0·1	1	0	1	0	0	1	0	0	27	2	13	2	1	0	1	1	1	9		Jhalawar
0	...	0·8	0·03	−0·08	0·03	22	0	−0·3	1·0	...	1	0	0	0	0	0	0	1	28	0	3	1	0	0	4	2	1	19		Udaipur
																														Gujarat
																														Deesa*
7	−0·7	0·5	0	−0·32	0	...	0	−0·5	3·2	+0·4	0	9	5	7	0	0	0	0	9	0	5	0	7	0	7	0	4	7		Surat
0	0	0·9	0·15	+0·01	0·15	22	1	+0·6	3·4	0	1	14	14	1	0	0	0	0	0	5	7	3	1	0	0	1	5	8		Ahmedabad
9	−0·6	0·7	0·09	−0·56	0	...	0	−0·9	4·0	+1·4	0	5	12	4	7	0	0	0	2	3	6	2	8	0	7	1	2	1		Dohad
6	−0·5	1·0	0	−0·80	0	...	0	−1·5	1·1	−0·6	1	3	1	2	0	0	0	0	23	2	0	1	1	0	1	0	4	21		Baroda
																														Saurashtra and Cutch
7	−0·2	0·5	0	−0·08	0	...	0	−0·2	1·9	−1·5	0	0	0	0	0	0	0	0	30	11	11	1	0	0	1	0	2	4		Bhuj
6	−0·7	0·7	0	−0·08	0	...	0	−0·1	8·4	+1·1	8	18	2	1	0	0	0	0	1	9	5	2	0	0	0	0	14	0		Dwarka
8	−0·1	...	0	−0·06	0	...	0	−0·2	2·1	−3·5	0	1	1	0	0	0	0	0	28	...	...	...	...	...	...	...	...	...		Jamnagar
9	−0·2	1·1	0	−0·23	0	...	0	−0·3	4·3	+0·7	3	8	7	2	0	0	1	1	8	9	10	5	1	0	0	1	4	0		Rajkot
6	−0·5	0·8	0	−0·17	0	...	0	−0·2	6·7	...	3	22	0	0	0	0	0	0	5	0	0	0	1	8	7	8	5	1		Veraval
9	−0·6	1·4	0	−0·26	0	22	0	−0·3	2·4	−0·6	0	1	0	0	0	0	9	4	16	0	5	12	4	2	1	0	0	6		Bhavnagar
																														Madhya Bharat and Bhopal
4	+0·4	1·1	0·10	−0·21	0·10	22	1	+0·6	2·9	−0·4	2	9	4	2	0	0	0	1	12	6	11	1	2	0	3	2	2	3		Neemuch
9	...	1·8	0·40	...	0·40	22	1	...	4·2	...	6	10	5	4	2	2	0	0	1	4	11	6	1	0	2	3	3	0		Ratlam
9	−0·3	1·1	0·36	−0·25	0·36	24	1	+0·1	2·7	−0·3	1	4	2	2	1	0	0	0	20	6	8	3	3	1	3	0	5	1		Indore
8	−0·6	0·7	0	−1·01	0	...	0	−1·2	2·4	+0·7	1	6	3	4	2	2	0	1	11	3	10	2	0	0	1	0	0	14		Bhopal
9	+0·2	1·0	0·07	−0·80	0·07	22	0	−0·8	2·1	+0·8	3	0	9	2	3	1	0	0	12	4	3	0	0	0	2	2	3	16		Guna
5	...	0·8	0·07	...	0·07	22	0	...	0·5	...	1	0	0	1	1	0	1	5	21	2	1	0	0	0	0	0	5	22		Gwalior
4	...	0·9	0	...	0	...	0	...	3·6	...	1	0	0	0	2	19	1	1	6	15	5	0	0	0	0	0	10	0		Madhosagar
																														Vindhya Pradesh
4	−0·8	0·4	0	−0·43	0	...	0	−0·7	1·3	+0·5	0	0	0	0	2	22	0	0	6	0	3	0	0	0	1	0	2	24		Nowgong
5	−0·7	0·6	0	−0·35	0	...	0	−0·7	1·6	−0·1	0	0	0	0	3	9	10	1	7	3	0	1	0	0	0	4	11	11		Sutna
6	−1·4	1·1	0	−0·64	0	...	0	−0·7	1·6	+0·1	2	0	2	3	2	0	0	0	21	0	1	0	0	0	0	1	2	26		Umaria
																														Berar
7	...	1·5	0	...	0	...	0	...	3·6	...	1	1	1	7	14	6	0	0	0	3	24	1	0	0	0	0	2	0		Buldana
9	−0·9	1·1	0	−0·73	0	...	0	−1·0	2·6	0	1	1	1	3	9	0	1	0	14	4	7	7	3	2	0	1	2	4		Akola
2	−0·6	1·4	0	−0·66	0	...	0	−1·0	4·6	+1·3	0	26	0	0	0	2	0	2	0	0	16	0	10	0	2	0	2	0		Amraoti
																														C. P., West
6	−0·8	0·9	0	−0·76	0	...	0	−1·0	2·2	−0·1	2	4	1	2	2	1	0	0	18	9	14	2	3	0	0	0	1	1		Khandwa
2	−0·2	2·5	0	−0·67	0	...	0	−0·9	1·3	−0·3	0	7	11	4	0	0	0	0	8	1	2	1	0	0	0	0	0	26		Hoshangabad
7	−0·6	1·2	0	−0·63	0	...	0	−0·9	...	...	2	6	3	0	0	2	3	3	11	4	5	1	0	0	0	1	3	16		Saugor
4	−0·9	0·5	0	−0·43	0	..	0	−0·9	1·9	+0·7	0	0	1	14	5	1	0	0	9	3	4	1	1	0	2	1	1	17		Jubbulpur
5	−1·0	1·0	0	−0·68	0	...	0	−1·0	2·6	+0·4	4	4	0	0	0	1	0	0	21	11	9	2	3	3	1	0	1	0		Seoni
7	...	1·0	0	...	0	...	0	...	2·7	...	0	0	10	11	0	0	0	0	9	8	9	4	0	0	0	1	2	6		Betul
9	−1·1	0·9	0	−0·77	0	...	0	−1·1	2·7	...	13	8	1	0	0	0	0	3	5	0	13	2	0	2	1	0	0	12		Nagpur

STATION	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature °F.		Wet bulb temperature °F.		Vapour pressure, millibars.			
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
C. P., East																				
Gondia	1,026	980·6	...	977·4	82·5	...	87	24,26,30	56·4	...	50	15	63·7	78·7	54·2	66·1	15·1	...	16·2	76
Pendra	2,040	946·2	+0·4	943·4	77·2	−0·4	85	24	53·1	−2·2	49	4 days	65·0	69·1	56·3	58·3	12·0	−1·3	12·3	57
Champa	878	988·1	...	984·7	82·7	...	89	24,25	58·3	...	53	15	64·7	78·5	58·9	63·8	14·5	...	13·6	69
Raipur	979	982·2	+0·6	979·0	81·5	−2·2	89	23,24	58·2	−2·4	52	14,16	66·2	77·6	59·4	63·7	14·3	−1·7	14·1	65
Titilagarh	691	991·9	...	988·1	83·5	...	90	25	58·6	...	52	14,15,21	66·7	77·8	62·2	67·8	17·2	...	18·7	77
Kanker	1,318	970·5	+0·9	967·1	81·5	−1·5	89	27	54·0	−3·0	47	15	64·2	77·3	59·4	64·2	15·1	−1·4	14·4	73
Chanda	634	994·0	+0·8	987·3	82·4	−2·9	89	24,25	56·2	−2·8	48	15	65·2	77·0	60·6	67·5	16·0	−1·3	18·7	76
Jagdalpur	1,815	953·3	+1·1	949·8	80·8	−0·2	87	24	54·6	−3·3	48	14	63·0	76·1	59·6	66·4	16·0	−2·4	18·2	83
Konkan																				
Dahanu	15	1013·2	...	1010·7	86·9	...	95	19	66·7	...	61	6,12	73·3	82·8	66·7	75·7	19·4	...	27·2	70
Bombay	35	1012·6	+0·5	1009·8	90·3	+0·9	94	3,4,28	71·9	−0·6	69	6 days	77·9	82·1	70·7	73·7	22·3	−0·8	24·6	69
Alibag	23	1013·4	+1·1	...	86·4	−2·0	89	6 days	68·0	−1·7	61	12	74·8	...	69·0	...	21·5	+0·3	...	73
Harnai	66	1011·1	...	1008·5	87·1	...	90	18,29,30	74·7	...	71	6	79·5	82·1	68·8	74·6	19·2	...	25·9	56
Devgad	117	1009·3	...	1005·8	89·2	...	92	21	70·9	...	66	8,11	73·8	85·5	67·8	75·3	20·5	...	25·3	73
Vengurla	29	1012·1	...	1008·9	92·4	...	95	26	67·1	...	59	6	72·6	84·0	67·7	74·9	20·9	...	25·5	65
Marmagao	202	1005·9	+2·3	1002·7	88·4	+0·2	94	29	71·4	−1·9	62	6	76·9	83·2	69·0	72·9	20·6	−2·0	23·0	64
Honavar	85	1010·7	...	1007·2	91·3	...	95	29	69·4	...	62	9,10,11	77·8	85·3	68·6	74·6	19·7	...	24·4	62
Bombay, Deccan																				
Jalgaon	660	992·5	...	989·4	89·8	...	95	24	55·3	...	45	12	65·3	85·9	57·7	65·5	12·9	...	12·2	61
Malegaon	1,432	966·2	+0·5	962·2	87·4	−0·3	93	4 days	56·4	−1·3	48	11	67·2	82·8	58·0	64·0	12·3	−1·1	11·9	53
Ahmednagar	2,154	941·7	+0·2	938·3	87·0	+1·9	92	1,24	57·1	−1·1	49	16	68·3	82·7	58·5	63·7	12·8	−1·2	12·5	54
Poona	1,834	952·4	+0·5	948·8	87·7	+1·2	93	24	57·3	−1·2	49	11,15,16	65·5	83·2	59·8	65·2	15·2	+0·1	13·9	71
Sholapur	1,570	961·3	+0·8	957·5	88·8	+1·3	95	1	60·6	−2·2	52	10	72·0	84·7	61·3	63·4	14·2	−0·6	11·3	52
Miraj (R)	1,817	952·3	+0·3	948·3	86·1	+0·9	92	1,24	60·3	−2·3	51	5	68·3	83·3	61·4	67·0	15·8	−0·8	15·9	67
Kolhapur	1,885	950·5	...	946·8	86·3	...	91	1,24	59·9	...	52	7	66·7	83·2	59·9	63·9	14·9	...	12·4	67
Bijapur	1,950	947·7	+0·1	944·5	84·7	−1·0	89	24	60·5	−2·2	51	10	70·6	82·5	60·6	63·4	14·0	−2·3	12·2	55
Belgaum	2,562	927·7	+0·7	924·2	82·2	−0·5	87	24	58·7	−2·8	49	7	67·8	81·0	59·8	63·9	14·4	−1·5	13·4	62
Gadag	2,131	941·5	+0·4	938·7	85·9	+1·0	90	1	63·4	−1·4	56	6,10	73·0	81·2	63·8	66·5	16·5	−0·7	16·3	59
Hyderabad, North																				
Aurangabad	1,905	950·7	+0·3	947·4	86·8	+0·7	92	25	58·5	−1·8	50	16	68·0	83·2	58·2	63·1	12·6	−0·9	11·6	57
Parbhani	1,350	967·8	...	964·3	86·8	...	92	9,24,25	57·0	...	50	5,15	68·7	81·9	59·9	65·7	13·6	...	14·3	57
Bidar	2,178	940·5	...	937·6	82·0	−0·5	87	1	62·2	−2·4	57	10	68·3	78·0	59·9	61·7	13·7	−1·5	12·2	60
Nizamabad	1,250	971·6	+0·3	968·5	84·1	−1·5	92	24	58·1	−2·3	51	15	64·2	81·2	60·3	64·4	16·1	−1·3	13·0	79
Ramagundam	527	997·7	...	994·4	85·3	...	95	25	61·7	...	55	14,15	70·4	80·3	63·8	66·8	17·3	...	16·3	68
Hyderabad, South																				
Gulbarga	1,503	963·2	+0·4	959·1	82·3	0	91	22,23	60·8	−2·4	51	10	69·9	84·4	62·1	64·5	15·8	−0·6	12·7	63
Raichur	1,311	969·6	+0·7	965·7	85·3	−1·3	89	5 days	65·5	−2·1	58	9,10	72·2	83·1	63·9	65·2	16·5	−2·3	13·2	61
Hyderabad (Begumpet)	1,778	954·3	+0·9	951·3	85·7	+0·6	91	24,26	57·9	−3·7	49	9	68·7	79·0	62·3	64·6	16·6	−1·2	14·9	70
Hanamkonda	881	984·7	+0·4	981·4	84·5	−0·8	91	25,26	62·9	−1·2	55	15	71·2	79·6	64·5	67·0	17·8	−0·8	16·9	68
Khammameth(R)	367																			
Mysore																				
Chitaldrug	2,405	932·4	+0·9	929·2	82·2	−1·0	86	1	63·9	−1·0	57	6,10	70·7	79·9	62·7	63·5	16·2	−2·6	13·3	64
Hassan	3,149	908·2	...	905·1	80·8	0	84	24	59·5	−1·9	52	9	66·0	77·6	62·5	66·5	17·9	−1·0	17·7	82
Bangalore	3,021	912·4	+0·6	909·6	79·6	+0·3	83	1	60·8	−0·9	54	9	68·3	74·6	61·5	62·0	16·0	−2·7	13·9	68
Mysore	2,518	928·6	+0·6	925·3	82·0	−0·3	85	2	62·9	−1·5	56	9,10	69·7	79·9	63·1	64·3	17·0	−3·1	14·2	69

(R) Register not received.

Cloud amount (Oktas).		Rainfall, inches.				Number of rainy days (0.10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from:—																			STATION
										0830 hrs. I. S. T.									1730 hrs. I. S. T										
Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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
																													C. P., East
...	0·5	0	...	0	...	0	...	1·7	...	8	8	6	2	0	0	0	3	3	1	1	0	0	0	3	0	0	25		Gondia
−1·5	0·9	0	−0·72	0	...	0	−1·3	2·8	+0·8	14	2	1	1	3	0	1	6	2	12	1	0	0	4	0	0	13	0		Pendra
...	0·9	0	...	0	...	0	...	3·7	...	15	3	0	0	0	0	0	11	1	14	0	0	0	0	1	1	11	3		Champa
−0·7	0·8	0	−0·53	0	...	0	−1·1	2·3	...	10	6	1	2	1	1	1	1	7	6	4	0	0	0	0	0	1	19		Raipur
...	0·8	0	...	0	...	0	...	0·5	...	0	0	0	1	4	1	1	0	23	1	1	0	0	0	0	0	0	28		Titilagarh
−0·4	1·5	0	−0·38	0	...	0	−0·8	1·4	−0·5	0	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	30		Kanker
−0·8	1·7	0	−0·66	0	...	0	−1·3	0·9	−0·5	0	3	0	0	0	0	0	1	26	0	1	0	0	0	0	0	0	29		Chanda
1·6	1·9	0	1·14	0	...	0	−1·9	1·8	+0·2	0	7	0	0	0	0	0	4	19	0	18	0	0	0	0	0	5	7		Jagdalpur
																													Konkan
...	0·5	0	...	0	...	0	...	5·9	...	2	4	14	10	0	0	0	0	0	14	0	0	0	0	0	4	12	0		Dahanu
−1·2	0·7	0	−0·53	0	...	0	−0·8	4·9	−1·4	3	8	7	1	0	0	0	4	7	5	0	0	1	4	2	3	15	0		Bombay
−1·4	...	0·14	−1·41	0·14	2	1	−0·4	1·9	−2·6	0	3	3	0	0	0	0	0	24	..	...	...	...	...	...	...	...	...		Alibag
...	0·5	0	...	0	...	0	...	6·8	...	3	2	20	1	1	0	3	0	0	0	1	0	0	0	0	4	25	0		Harnai
...	2·0	1·0	...	1·34	2	2	...	6·0	...	0	5	25	0	0	0	0	0	0	0	0	1	0	0	2	14	13	0		Devgad
...	1·6	0·55	...	0·55	3	1	...	...	...	3	5	0	0	0	0	0	0	22	0	3	1	1	1	4	6	0	14		Vengurla
−0·4	2·4	1·80	+0·60	1·27	3	2	−0·4	5·0	0	0	0	26	3	1	0	0	0	0	0	0	0	0	2	2	20	6	0		Marmagao
...	3·0	0·35	−1·53	0·26	3	1	−1·8	1·8	...	0	3	17	1	0	0	0	0	9	0	0	1	1	0	0	14	3	11		Honavar
																													Bombay, Deccan
...	1·3	0	−1·44	0	...	0	−1·8	3·3	...	0	1	21	8	0	0	0	0	0	4	10	11	4	0	1	0	0	0		Jalgaon
−1·5	1·3	0·09	−0·78	0·09	2	0	−1·2	2·7	−0·5	0	0	0	0	0	0	0	0	30	0	20	1	0	0	0	0	0	9		Malegaon
−1·0	1·2	0	−1·11		...	0	−1·4	3·0	−1·1	0	0	0	1	0	1	0	0	28	0	17	4	0	1	0	0	0	8		Ahmednagar
−0·8	1·9	0	−1·08	0	2	0	−1·6	1·4	−2·3	0	0	1	0	0	0	2	0	27	0	1	16	0	0	0	0	1	12		Poona
−1·0	1·8	0·02	−1·31	0·02	18	0	−1·7	4·5	−1·6	0	3	6	8	0	0	0	0	13	0	11	8	6	0	0	0	0	5		Sholapur
−1·2	2·2	0·31	−1·51	0·21	19	2	−0·5	5·8	+0·8	0	2	13	1	0	0	4	3	7	0	10	16	3	0	0	0	1	0		Miraj
...	1·5	1·03	...	0·36	19	4	...	5·6	...	0	7	9	0	0	0	0	0	14	0	14	14	0	0	0	1	1	0		Kolhapur
−1·1	2·1	0·56	−0·71	0·56	19	1	−0·8	2·5	+0·1	2	7	5	6	2	1	0	1	6	3	9	7	6	1	1	0	1	2		Bijapur
−1·7	1·2	0·18	−1·37	0·18	18	1	−1·4	4·0	+0·8	0	9	21	0	0	0	0	0	0	0	6	23	0	0	0	1	0	0		Belgaum
−0·5	2·6	0·87	−0·91	0·75	3	2	−1·0	4·8	+0·5	1	11	12	3	0	0	0	0	3	0	10	12	2	0	0	0	0	6		Gadag
																													Hyderabad, North
0	2·8	0·02	−0·93	0·02	20	0	−1·3	4·0	−0·6	0	11	15	1	0	0	0	0	3	5	8	12	1	1	1	1	0	1		Aurangabad
...	1·4	0	−1·36	0	...	0	−1·8	...	...	0	30	0	0	0	0	0	0	0	2	26	1	0	0	0	0	0	1		Parbhani
−1·0	1·7	0·96	+0·10	0·96	19	1	−0·7	6·3	+0·8	2	11	9	4	1	3	0	0	0	2	20	4	2	0	0	0	2	0		Bidar
−1·5	0·7	0	−0·69	0	...	0	−1·1	2·0	−0·2	0	0	0	0	0	0	0	0	30	10	13	1	0	0	0	0	0	6		Nizamabad
...	1·5	0	...	0	...	0	...	2·4	...	12	2	1	1	0	0	0	3	11	8	18	2	1	0	0	0	0	1		Ramagundam
																													Hyderabad, South
−0·7	1·6	0	−1·10	0	...	0	−1·7	7·1	+1·2	2	17	10	1	0	0	0	0	0	0	14	14	2	0	0	0	0	0		Gulbarga
−0·7	2·5	0·27	−0·89	0·27	17	1	−0·8	5·8	+0·4	2	12	5	6	0	0	1	1	3	1	13	11	4	0	0	1	0	0		Raichur
−1·4	1·6	0·04	−1·10	0·04	18	0	−2·1	4·1	+0·3	2	4	4	0	1	0	0	0	19	3	16	9	1	0	0	0	0	1		Hyderabad (Begumpet)
−1·4	1·2	0	−1·10	0	...	0	−1·7	2·8	−0·1	12	7	1	2	3	1	0	2	2	9	13	2	1	2	0	0	0	3		Hanamkonda
																													Khammameth (R)
																													Mysore
−1·1	2·7	0·58	−1·79	0·58	18	1	−2·4	4·3	+0·6	0	0	17	10	0	0	1	0	2	0	4	16	3	0	0	0	0	7		Chitaldrug
−0·2	4·0	0·72	−2·31	0·60	2	2	−2·6	4·2	+1·4	0	4	14	5	0	0	0	0	7	3	9	12	3	1	0	0	1	1		Hassan
−1·3	4·3	0·10	−2·57	0·10	17	1	−3·5	5·8	+1·4	0	15	10	3	0	0	0	0	2	3	10	12	1	0	1	0	2	1		Bangalore
−1·5	3·6	0	−2·74	0	...	0	−4·2	6·8	+1·8	1	8	16	1	1	0	1	0	2	5	8	14	1	0	0	1	0	1		Mysore

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			R hu
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Malabar																				
Mangalore	72	1010·2	+0·4	1007·0	89·4	+1·6	93	24,27,30	72·4	−1·2	66	11	77·5	83·9	70·4	74·2	22·2	−3·1	24·5	69
Calicut	27	1011·5	+0·1	1008·0	89·5	+2·2	91	4 days	73·7	−0·2	68	12	78·5	86·0	73·6	76·9	26·1	−1·0	27·5	79
Palghat	319	1001·7	...	997·8	90·3	...	94	24	72·4	...	66	12	78·6	85·9	72·3	77·8	24·2	...	28·8	73
Cochin	10	1012·0	+0·2	1008·8	86·1	+0·4	89	2,5	75·1	−0·2	71	13,25,26	80·7	83·7	74·9	76·1	26·9	−0·3	27·3	75
Alleppey	12	1011·8	...	1008·5	86·7	...	94	29,30	75·6	...	70	13	83·3	83·8	77·5	76·3	29·6	...	27·6	76
Trivandrum	211	1005·0	+0·4	1002·1	86·6	...	91	29,30	73·2	...	68	24	78·1	82·0	74·3	75·9	27·3	−0·1	27·8	83
Nagercoil	195	1005·7	...	1002·5	87·1	...	92	5	74·1	...	71	11	79·6	81·3	73·3	74·3	24·6	...	25·8	73
Madras, South-East																				
Pamban	37	1011·4	+0·8	1008·2	83·9	−1·2	88	2	77·1	+0·9	73	17	79·8	80·8	75·5	75·1	28·2	−0·9	27·2	82
Madura	437	998·1	+0·4	994·4	87·0	+0·3	92	1	(c) 73·0	0	69	9,10	78·3	82·1	72·0	73·6	24·0	−1·6	24·4	72
Negapatam	31	1012·1	+1·0	1009·1	84·0	−0·3	88	1,2	74·7	+0·3	70	10	78·1	80·7	73·9	74·5	26·7	−0·8	26·3	81
Trichinopoly	295	1003·5	+0·7	999·7	86·3	−0·2	90	13	72·4	+0·5	67	10	77·4	82·3	71·9	73·1	24·3	−2·7	23·7	76
Coimbatore	1,341	967·5	+0·5	963·7	86·7	+1·3	90	13	69·3	+0·3	64	12,26	74·1	83·5	69·4	73·1	22·4	−1·2	23·1	78
Salem	913	982·1	+0·7	978·2	89·0	+2·0	92	4,14	68·5	−0·7	61	24	74·4	84·1	68·2	70·4	20·8	−2·9	16·0	72
Cuddalore	39	1012·2	+0·9	1008·7	84·9	+0·5 ~~+·05~~	90	12	72·0	−0·7	66	10	77·1	81·0	72·6	74·0	25·3	−1·8	25·5	80
Vellore	703	989·9	+1·4	986·3	85·1	+0·8 ~~+·08~~	89	1,12	66·2	−2·9	59	9,10	72·5	80·9	68·9	69·4	22·6	−1·9	19·3	82
Madras	51	1012·1	+0·8	1009·2	85·2	−0·2	89	12	71·4	−0·5	66	9,10	77·3	79·9	72·8	72·5	25·5	−1·3	23·9	80
Arogyavaram	2,299	936·5	...	933·5	79·5	...	84	1	61·4	...	55	9,10	68·8	75·2	64·2	64·5	18·7	...	16·4	77
Madras, Deccan																				
Cuddapah	428	999·8	+1·0	995·8	87·5	−0·2	92	1,2	69·0	−0·9	61	9	76·7	82·9	71·4	74·6	23·9	+0·1	25·5	77
Bellary	1,473	963·8	+0·6	960·1	85·4	−1·6	89	4 days	65·2	−1·0	59	9	71·4	82·2	64·5	65·8	18·1	−0·6	14·6	67
Kurnool	923	983·0	+1·0	979·0	86·6	−1·3	90	4 days	63·2	−2·7	53	9,10	72·9	83·3	65·8	67·7	18·5	−1·3	16·1	67
Rentaichintala	348	1003·2	...	999·2	85·0	−2·1	90	1,25	64·8	−2·9	58	8	73·0	82·8	67·4	69·1	20·4	−0·9	18·1	74
Anantapur	1,147	974·7	...	970·9	85·5	...	90	1	63·9	...	55	7,8,9	73·1	82·3	66·2	68·0	18·9	...	16·9	68
Madras Coast, North																				
Nellore	66	1012·0	+1·0	1009·0	86·8	+1·5	92	2	70·8	−1·1	65	9	76·6	80·0	71·8	72·6	24·7	−1·8	24·0	81
Ongole	38	1013·3	...	1009·4	85·9	...	90	26	69·7	...	65	6,7,9	75·6	80·8	69·9	72·2	22·5	...	23·1	74
Masulipatam	10	1014·3	+0·7	1011·2	84·0	−0·8	89	25	71·6	+0·4	67	9	76·9	80·0	72·6	72·7	25·4	+0·6	24·2	81
Cocanada	26	1014·0	+0·9	1010·8	83·8	+0·7	89	25,26	70·0	−1·6	65	8	78·1	80·2	71·0	71·0	22·7	−0·6	21·8	69
Vizagapatam	126	1010·4	+0·5	1007·4	83·2	−0·8	86	26	70·0	−2·4	64	7	77·2	78·9	68·2	69·8	19·5	−2·0	20·8	62
Calingapatam	19	1014·1	+0·4	1010·9	82·7	−0·8	87	1	68·0	−1·3	64	7,8,15	71·1	79·6	68·4	72·3	22·4	−1·1	23·8	86
Hill Stations excluding Kashmir																				
Shillong	4,921	852·5	−0·7	850·1	67·4	+1·4	73	4 days	44·8	−1·4	37	26	60·7	58·0	52·1	55·3	9·9	−2·3	14·0	55
Cherrapunji	4,309	871·8	−0·2	869·5	67·3	−0·2	77	8	52·9	−1·1	46	25,26,29	62·7	59·2	55·3	56·0	11·8	−1·2	14·2	63
Aijal	3,599	...	...	...	73·0	...	81	5	62·0	...	52	29	65·1	65·5	63·3	63·8	19·0	...	19·7	91
Darjiling	7,432	777·9	−1·2	775·5	56·0	+0·4	66	9	42·1	−1·0	39	5 days	50·5	46·3	46·8	45·3	9·7	+0·4	9·9	77
Kalimpong	3,965	881·9	−1·4	879·8	68·5	+1·7	74	7,8,9	53·5	+0·1	51	25,26	56·7	60·3	54·3	56·7	13·3	0	14·2	85
Katmandu	4,388	870·8	...	867·7	72·0	−0·8	78	8	45·2	−0·5	38	23,24	51·9	58·6	49·9	53·7	11·5	+0·8	12·0	87
Gyantse	13,110	625·5	...	...	55·3	+4·7	65	1	17·9	+0·7	11	26	36·3	...	27·2	...	2·3	−1·5	...	33
Muktesar	7,592	799·1	...	797·9	61·7	+2·2	68	19,20	45·8	+0·7	43	11,30	52·9	50·9	41·9	43·9	5·2	−0·7	7·3	39
Mussooree	6,699	774·0	−0·9	772·6	59·9	+1·1	65	17	43·2	+0·3	39	30	49·6	50·7	38·5	42·5	4·1	−1·1	6·4	35
Simla	7,224	783·9	+0·7	782·9	57·9	−0·4	64	19	43·0	−1·2	39	30	51·3	50·5	37·2	39·6	2·5	−1·8	4·3	21

(c) Mean of 29 days

Cloud amount (Oktas)			Rainfall, inches				Number of rainy days (0·10" or more)		Wind velocity, miles per hour		Wind direction—Number of winds from :—																	STATION
											0830 hrs. I.S.T.									1730 hrs. I.S.T.								
Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																													Malabar
2·0	−1·4	2·9	0·19	2 66	0·17	19	1	−3·4	4 4	+0·4	0	0	27	3	0	0	0	0	0	1	0	0	0	0	3	10	16	0	Mangalore
4·1	−0·1	4·2	1·55	−3·91	0·77	15	4	−2·2	5·4	+1·6	0	14	15	0	0	0	1	0	0	0	0	1	0	0	7	15	7	0	Calicut
3·2	...	3·5	1·30	...	0·84	2	2	...	5·0	...	0	0	21	7	0	0	0	0	2	0	1	16	1	0	0	8	1	3	Palghat
5·2	+1·2	5·6	4·08	−28·61	1·31	5	6	−2·4	4·3	+1·0	1	12	13	4	0	0	0	0	0	0	0	0	0	0	9	14	6	1	Cochin
4·0	...	3·7	5·61	...	2·60	21	7	...	4·3	...	0	6	12	7	1	0	1	1	2	1	0	0	0	1	3	18	7	0	Alleppey
4·2	−0·8	5·5	3·79	−3·19	1·24	19	7	−2·5	3·2	+0·6	6	10	2	5	1	0	0	0	6	1	0	0	2	4	8	3	4	8	Trivandrum
5·0	...	6·3	7·26	...	1·42	2	11	...	6·0	...	4	20	1	0	0	0	0	2	3	0	14	1	3	1	6	5	0	0	Nagercoil
																													Madras, South-East
5·1	+1·1	5·2	15·47	+3·75	3·81	21	15	+2·0	9·4	+0·5	13	5	1	2	0	0	1	8	0	10	16	3	1	0	0	0	0	0	Pamban
5·4	+0·3	6·3	3·73	−2·00	1·20	2	7	−1·0	3·3	−0·8	11	8	2	0	0	0	0	2	7	4	12	9	0	0	1	0	0	4	Madura
6·4	+1·0	6·3	7·05	−10·49	2·19	27	11	−2·0	9·3	+3·2	3	6	1	1	0	0	0	19	0	2	24	2	0	0	0	0	2	0	Negapatam
4·5	0	6·0	2·46	−3·38	0·94	27	5	−3·5	5·1	+1·3	18	11	0	1	0	0	0	0	0	1	10	12	0	1	0	0	0	6	Trichinopoly
4·1	−0·7	4·1	0·87	−3·16	0·31	19	2	−4·8	4·0	+1·8	8	14	6	0	0	1	0	1	0	4	13	8	0	2	2	1	0	0	Coimbatore
3·7	−0·5	4·7	0·39	−3·42	0·12	1,22	2	−4·2	4·9	+2·3	1	10	16	0	0	0	1	0	2	0	3	17	2	0	0	1	0	7	Salem
5·9	+1·0	4·7	4·24	−11·28	1·71	27	6	−5·6	6·2	+2·4	12	8	0	1	0	0	0	9	0	1	28	0	0	0	0	0	1	0	Cuddalore
3·4	−0·7	3·8	2·29	−5·39	0·88	1	4	−4·5	2·8	+0·8	0	4	0	0	0	0	0	0	26	1	17	6	1	1	0	0	0	4	Vellore
4·3	−0·5	5·0	6·93	−7·03	4·65	17	5	−6·1	12·0	−2·3	4	9	0	1	0	0	2	14	0	7	22	0	1	0	0	0	0	0	Madras
4·6	...	5·1	3·41	...	1·55	17	4	...	2·9	...	6	6	5	0	1	0	0	0	12	9	12	7	1	0	0	1	0	0	Arogyavaram
																													Madras, Deccan
2·7	−1·1	3·3	3·10	−0·43	2·66	17	3	−2·2	2·4	−1·0	0	0	1	0	0	0	0	0	29	0	1	4	1	0	0	0	0	24	Cuddapah
3·6	+0·1	3·5	0·62	−1·35	0·31	3	3	−0·1	2·0	−0·4	0	1	7	5	0	0	0	1	16	1	8	10	3	0	0	0	0	8	Bellary
1·7	−1·3	2·6	0·70	−0·49	0·68	17	1	−1·1	1·5	−0·9	0	4	4	4	0	0	0	0	18	3	7	8	8	1	0	0	0	3	Kurnool
3·3	−1·4	3·6	2·10	+0·20	1·55	1	2	−1·6	2·4	−0·9	1	1	1	2	1	7	3	2	12	14	2	6	3	0	0	0	1	4	Rentaichintala
2·4	...	2·3	0·48	−1·89	0·28	17	2	−1·7	5·7	...	2	8	10	1	0	0	2	1	6	1	15	13	0	0	0	0	0	1	Anantapur
																													Madras Coast, Notrh
3·1	−1·9	3·6	4·38	−7·32	4·11	17	1	−7·8	2·4	−0·6	10	1	0	0	0	0	1	9	9	2	9	15	1	0	0	0	0	3	Nellore
2·1	...	1·8	5·22	...	4·06	17	2	...	2·9	...	10	3	0	0	1	0	1	4	11	0	11	12	4	0	0	0	0	3	Ongole
3·1	0	3·7	2·51	−3·27	2·06	2	2	−2·7	4·8	+0·6	9	8	5	0	1	0	0	1	6	3	0	3	12	0	0	0	0	12	Masulipatam
1·6	−2·0	1·9	0	−5·59	0	...	0	−4·5	6·6	−0·4	0	17	0	0	0	1	0	11	1	0	10	7	13	0	0	0	0	0	Cocanada
1·9	−1·8	2·1	0	−4·67	0	...	0	−3·9	4·0	+0·2	8	6	1	0	0	0	4	5	6	0	4	17	5	1	0	0	0	3	Vizagapatam
2·3	−0·6	2·4	0·20	−3·19	0·20	1	1	−1·7	6·8	+0·8	12	1	1	0	0	0	2	14	0	0	5	12	10	2	0	0	0	1	Calingapatam
																													Hill Stations excluding Kashmir
3·9	−1·2	5·4	0·46	−1·15	0·38	30	1	−1·7	2·3	+1·1	1	1	6	7	0	2	0	1	12	2	1	1	0	0	2	0	2	22	Shillong
1·6	−0·7	2·4	0·28	−2·42	0·28	1	1	−0·8	4·7	+2·0	0	21	5	0	1	3	0	0	0	0	9	1	1	0	7	1	1	10	Cherrapunji
2·8	...	2·7	0·11	...	0·08	1	0	...	3·0	...	1	4	8	8	2	6	0	0	1	3	0	2	2	1	12	1	9	0	Aijal
3·7	+0·8	4·0	0·01	−0·80	0·01	26	0	−1·2	3·8	+1·8	0	4	19	3	0	0	2	0	2	0	1	5	1	1	2	16	0	4	Darjiling
3·0	+0·8	3·5	0	−0·71	0	...	0	−1·4	6·3	−0·2	1	0	0	0	0	0	2	24	3	0	0	0	29	1	0	0	0	0	Kalimpong
1·9	−1·2	1·3	0	−0·06	0	...	0	−0·2	0·9	0	0	0	0	2	1	0	0	0	27	3	0	4	2	1	0	0	1	19	Katmandu
3·1	−0·8	...	0	−0·05	0	...	0	−0·2	3·7	+0·6	1	0	3	4	2	4	0	1	15	...	...	...	...	...	...	...	...	...	Gyantse
1·1	−0·1	1·7	0	−0·17	0	...	0	−0·9	...	...	9	7	2	5	5	1	0	1	0	3	2	0	5	10	7	2	1	0	Muktesar
3·8	−0·5	0·9	0·04	−0·38	0·04	30	0	−0·7	6·8	+2·2	1	6	8	2	0	2	7	4	0	0	0	0	1	0	8	15	5	1	Mussooree
1·1	−0·2	2·6	0	−0·52	0	...	0	−1·1	1·5	−1·2	3	2	0	3	5	1	0	0	16	2	3	1	2	8	8	2	2	2	Simla

STATION.	Height of bar. cistern above mean sea level in feet.	Pressure at station level, in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Rel humi %	
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	2
Hill Stations excluding Kashmir—(*contd.*)																					
Abu	3,945	884·4	+0·3	882·8	75·1	+1·4	79	19,26	55·3	—2·5	49	14	63·6	69·7	49·6	52·5	6·5	—1·9	6·5	33	—
Pachmarhi	3,528	897·7	0	895·9	74·3	—0·2	79	5 days	46·7	—4·0	39	17	63·4	69·4	53·9	59·3	10·4	—1·3	13 0	52	-
Mahabaleshwar	4,534	865·4	+0·6	863·7	76·4	+2·4	80	1,25	62·3	+3·5	53	12	63·7	68·2	55·0	59·0	11·2	—0·9	13·3	55	—
Mercara	3,781	886·6	—0·3	884·9	76·4	+1·3	78	4 days	59·5	—0·9	52	10,11	64·9	72·5	58·8	64·2	14·4	—3·2	17·1	70	—
Ootacamund	7,364	781·2	+0·7	779·4	67·3	+3·6	70	14,15,16	45·1	—3·0	30	10	54·6	58·9	49·1	53·3	9·9	—1·8	11·9	69	-
Coonoor	5,730	827·8	...	...	64·8	—2·2	70	24	50·7	—2·6	39	9	62·5	...	56·2	...	13·2	—1·0	...	70	-
Kodaikanal	7,688	772·5	+0·9	770·9	60·7	—0·2	65	4	48·3	—1·1	44	26,28	54·0	54·7	49·7	52·5	10·7	—1·2	12·6	77	-
Ceylon																					
Colombo	24	1011·2	+0·1	1008·2	86·3	+0·3	90	24,29	73·5	—0·2	70	11,24,25	78·4	82·2	74·9	75·7	28·0	+0·2	27·4	84	-
Trincomalee	24	1011·6	+1·4	1008·7	83·1	—2·0	87	1,2	75·0	+0·4	72	5,10	78·8	80·7	74·5	75·4	27·2	—0·8	27 7	81	-
Hambantota	61	1009·6	+0·4	1006·4	85·9	+0·5	89	5	73·9	0	69	24	78·7	81·4	75·2	76·7	28·3	+0·5	29·2	84	-
Mannar	12	1012·2	...	1009·1	84·7	...	88	1,2,28 ~~12,28~~	76·1	...	71	10	79·2	81·4	75·2	75·9	28·0	...	28·1	82	.

Cloud amount Oktas).			Rainfall, inches.				Number of rainy days (0·10″ or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																		STATION
											0830 hrs. I. S. T.									1730 hrs. I. S. T.									
Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																													Hill Stations—excluding Kashmir— *(contd.)*
0·8	—0·2	0·6	0	—0·22	0	..	0	—0·4	0·7	—2·2	0	0	0	0	0	0	0	0	30	2	0	0	0	0	0	1	3	24	Abu
0·7	—0·8	0·2	0	—0·74	0	..	0	—1·2	1·7	—0·2	4	7	5	1	0	0	0	0	13	1	7	2	0	0	0	0	2	18	Pachmarhi
0·8	—1·4	1·5	0·76	—0·80	0·40	3	2	—0·4	6·3	—1·2	0	22	4	4	0	0	0	0	0	0	12	1	2	0	1	0	14	0	Mahabaleshwar
5·7	+0·9	5·6	0·19	—2·81	0·19	2	1	—4·3	5·3	+1·2	11	12	4	0	0	0	1	2	0	10	10	1	0	0	1	4	4	0	Mercara
3·0	—1·6	4·6	1·39	—4·94	0·30	2	6	—4·5	0	—2·7	0	0	0	0	0	0	0	0	30	0	0	0	0	0	0	0	0	30	Ootacamund
3·9	—1·2	...	13,14	—1·91	3·58	1	8	—4·7	2·1	—1·0	2	0	1	9	11	1	1	3	2	...	...	...	...	...	...	...	...	...	Coonoor
4·6	—0·3	6·6	7·63	—2·56	1·93	2	10	—2·8	9·4	+1·9	2	8	6	6	1	2	1	2	2	1	7	7	2	1	0	1	8	3	Kodaikanal
																													Ceylon
4·3	—0·7	6·5	12·52	—0·33	3·18	3	13	—0·6	...	...	2	16	5	0	2	0	0	0	5	4	3	2	1	1	3	3	10	3	Colombo
6·3	+1·7	6·6	12·51	—1·15	2·65	4	12	—1·9	...	...	2	3	3	2	0	3	2	6	9	13	12	1	0	1	0	0	1	2	Trincomalee
6·0	+1·9	6·7	3·82	—3·19	1·61	14	10	0	...	...	16	0	0	0	0	1	3	10	0	4	1	5	7	7	4	0	2	0	Hambantota
4·8	...	6·6	5·29	...	1·49	4	10	...	...	...	5	7	5	8	2	2	0	0	1	12	9	3	4	0	1	1	0	0	Manhar

TABLE III—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M. T.) AT 4TH CLASS STATIONS—NOVEMBER 1949

STATION	Maximum temperature, °F.				Minimum temperature, °F.				Mean dry bulb temperature 0830 hrs. I. S. T. °F.	Mean wet bulb temperature 0830 hrs. I.S.T. °F.	Vapour pressure, millibars.		Relative humidity, %		Mean cloud amount 0830 hrs. I.S.T.	Rainfall, inches.				Number of rainy days (0·10" or more).		W
	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.			Mean 0830 hrs. I.S.T.	Departure from normal.	Mean. 0830 hrs. I.S.T.	Departure from normal.		Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date	Total in the month.	Departure from normal.	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
Assam																						
Lumding	84·1	+5·0	88	2	57·8	−1·9	50	29	74·7	67·5	20·0	−0·3	68	−21	..	0	−1·15	0	..	0	−1·9	...
Kashmir																						
Jammu	80·5	+2·5	87	9	52·7	−3·5	44	24	58·4	48·3	7·2	−2·3	42	−14	1·3	0	−0·28	0	..	0	−0·6	...
Kargil (R)																						
Mysore																						
Balehonnur	79·6	+0·7	83	23,24	59·2	−2·3	52	10	66·5	62·4	18·1	−1·1	81	−4	..	1·43	−1·41	0·65	1	3	−1·7	...
Tibet																						
Yatung (Chumbi)	55·8	+3·6	64	3,5	27·7	0	21	22,27,29	41·8	40·6	8·3	+2·4	91	+11	0·5	0	−0·44	0	..	0	−0·9	...

(R) Register not received.

TABLE IV—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M. T.) AT 5TH CLASS STATIONS—NOVEMBER 1949

Division.	Station.	Rainfall, inches.				Number of rainy days, (0·10" or more).		Division.	Station.	Rainfall, inches.				Number rainy da (0·10" or m
		Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.			Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.
1	2	3	4	5	6	7	8	1	2	3	4	5	6	7
Assam	Mawsynram	0	...	0	..	0	...	Kashmir	Sonamarg	3·01	+1·46	1·15	27	4
West Bengal	Bankura	0	−0·65	0	..	0	−1·1		Gurez*					
Bihar	Muzaffarpur	0	−0·29	0	..	0	−0·5	Bombay, Deccan	Khandala	0	−0·76	0	..	0
	Chapra	0	+0·36	0	..	0	−0·5	Madras, Southeast	Palamcottah	5·36	−2·07	1·05	21	13
	Arrah	0	−0·37	0	..	0	−0·6	Sikkim	Lachung	1·03	−0·53	0·52	17	3
East Punjab	Dharampore	0	−0·32	0	..	0	−0·8							
	Kyelang	0	−0·35 ~~−03·5~~	0	..	0	−0·8							
	Dalhousie	0	−0·76	0	..	0	−0·9							

*Data not reliable.

MONTHLY WEATHER REPORT NOVEMBER 1949

Monthly Means of Upper Winds

Note:—Data upto 9.0 Km. a.s.l. are given under Table A and data above 9.0 Km. under Table B.

In tables A & B

n represents the number of observations.

V represents the mean wind speed in m/sec. irrespective of direction.

v represents the resultant mean velocity in m/sec.

D represents the direction of the resultant mean wind in degrees East of North.

For the coordinates of the stations for which data have been published in these tables and other particulars please refer to the Monthly Weather Report January 1949, and subsequent issues.

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

NOVEMBER, 1949

Station	AHMEDABAD												ALLAHABAD										
Time in I. S. T.	0230				0730				1430				0230				0730				1430		
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	30	0·9	0·6	4	30	1·2	1·1	50	30	1·5	0·7	42	30	0·6	0·5	253	30	0·8	0·7	251	30	2·0	1·8
0·15 a. g. .	30	5·7	4·0	32	30	7·5	6·5	64	29	2·3	1·2	50	30	4·7	3·9	299	30	4·5	3·9	277	30	3·3	3·0
0·6 a. s. l. .	30	4·3	2·1	41	30	5·1	3·2	71	29	2·5	1·0	31	30	5·7	5·0	314	30	5·0	4·9	315	30	4·0	3·8
1·0 „ . .	30	3·4	1·1	76	30	3·6	1·2	35	30	2·5	0·5	355	30	7·0	6·2	319	30	6·1	5·6	317	30	5·8	5·4
1·5 „ . .	30	3·5	0·6	158	30	3·2	0·6	254	30	3·0	0·7	286	30	8·3	7·5	311	30	8·1	7·3	318	30	7·8	6·7
2·0 „ . .	30	3·7	1·1	202	30	3·4	1·5	251	30	3·5	1·6	264	30	8·5	7·3	302	30	9·1	8·4	310	30	8·6	7·7
0·5 „ . .	30	4·5	1·9	234	30	4·5	2·3	262	30	4·1	2·7	260	28	8·1	7·6	299	30	9·1	8·4	302	30	8·9	8·2
3·0 „ . .	30	5·1	3·6	260	30	5·3	3·2	263	30	5·5	4·6	260	25	9·0	8·3	290	28	9·0	8·4	289	30	10·5	9·8
4·0 „ . .	22	8·8	7·7	264	30	7·7	6·4	263	29	8·8	7·9	262	6	14·9	14·5	272	26	12·6	11·9	283	29	14·0	13·7
5·0 „ . .	18	12·3	11·4	269	30	11·4	10·5	264	28	11·9	10·9	258					23	16·4	15·8	269	26	16·0	15·8
6·0 „ . .	12	15·0	14·6	259	28	15·3	14·5	261	27	15·9	16·6	265					14	17·8	17·3	259	22	19·0	18·6
7·5 „ . .	3	15·5	15·2	256	26	20·5	19·7	262	22	20·8	19·5	263					9	22·8	22·5	251	12	22·3	21·7
9·0 „ . .					20	25·3	24·6	257	16	26·4	25·2	260					4	21·0	20·9	251	8	29·5	28·8

Station	AMBALA												ANANTAPUR								ASANSOL		
Time in I.S.T.	0230				0730				1430				0730				1430				0230		
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	30	1·9	1·7	322	30	1·4	1·1	323	30	3·3	3·1	304	30	1·4	0·9	79	30	3·2	2·9	68	0	2·1	1·9
0·15 a. g. .	30	8·1	7·8	333	30	7·0	5·3	326	30	5·9	5·5	303	29	3·8	2·8	94	30	5·3	5·0	72	30	6·1	5·7
0·6 a. s. l. .	30	8·5	8·3	331	30	8·3	7·6	326	30	6·1	5·8	306	29	5·0	4·5	91	30	5·0	4·5	72	0	7·1	6·7
1·0 „ . .	30	8·0	7·5	323	30	8·2	7·9	325	30	6·1	5·8	312	28	7·1	6·6	83	30	4·2	3·6	71	30	7·3	6·7
1·5 „ . .	30	7·1	6·5	316	30	7·6	6·7	321	30	6·1	5·5	316	28	6·5	5·6	73	30	5·4	4·5	76	29	9·1	7·9
2·0 „ . .	30	5·8	5·0	309	30	6·7	5·6	319	30	5·6	4·7	313	28	7·3	5·6	76	30	6·3	5·3	80	18	9·3	8·1
2·5 „ . .	30	5·6	4·4	298	30	5·3	3·8	296	30	5·2	4·2	298	27	6·7	5·9	75	30	6·7	5·1	80	8	10·5	8·9
3·0 „ . .	29	6·2	4·9	287	30	5·3	4·3	285	30	5·6	4·2	290	27	5·7	4·9	73	30	6·0	4·6	80	7	11·0	10·3
4·0 „ . .	15	7·5	7·0	266	30	7·9	6·8	267	29	7·4	6·7	274	27	5·5	4·6	76	29	5·7	4·5	82	4	12·5	12·4
5·0 „ . .	11	19·2	13·8	263	29	13·1	12·5	270	29	11·6	10·9	270	27	5·2	4·1	72	28	5·1	4·0	78			
6·0 „ . .	4	21·0	20·8	259	27	17·0	16·3	268	27	17·3	16·6	267	25	3·7	2·4	74	28	3·9	1·9	70			
7·5 „ . .					19	25·5	25·2	265	19	25·2	24·6	263	22	3·8	0·8	148	24	4·2	0·7	131			
0·9 „ . .					8	32·2	31·6	261	13	34·2	34·0	261	20	5·2	2·3	197	18	5·8	3·2	198			

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

NOVEMBER, 1949

Station	ASANSOL								BANGALORE												BAREILLY			
ne in I. S. T.	0730				1430				0230				0730				1430				0730			
lt. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
ice. . .	30	2·0	1·9	295	30	1·9	1·7	330	30	2·6	2·3	71	30	2·7	2·4	69	30	3·8	2·7	71	30	0·9	0·7	303
a. g. .	30	5·3	4·8	319	30	3·7	3·3	331	29	6·5	5·4	65	30	6·1	5·4	65	30	5·0	3·8	65	30	5·8	5·3	313
a. s. l. .	30	6·7	6·2	342	30	3·8	3·4	332	...	...	...	...	...	...	...	...	...	...	...	...	30	7·8	7·5	311
,, . .	30	6·3	5·2	337	30	4·6	4·2	326	30	5·4	4·8	66	30	4·7	4·3	64	30	4·7	3·5	66	30	8·1	7·7	309
,, . .	30	6·9	5·7	327	30	6·9	6·5	323	25	6·3	4·5	63	26	7·5	5·5	70	30	5·2	4·1	68	30	8·5	7·8	307
,, . .	30	9·2	7·5	318	30	9·8	9·2	317	23	6·6	3·7	70	26	7·1	4·8	71	29	5·4	4·5	73	30	7·9	7·1	301
,, . .	30	10·5	9·4	315	29	11·1	10·3	310	21	6·0	4·2	59	26	7·4	5·6	73	27	5·7	4·5	70	30	7·3	6·5	300
,, . .	25	11·0	9·9	303	28	12·7	12·0	304	20	6·0	5·1	66	25	6·5	5·4	75	26	5·7	4·8	72	29	7·8	7·2	289
,, . .	17	10·6	9·5	284	26	15·4	14·8	293					22	5·6	4·9	75	24	5·7	5·0	80	28	9·7	8·6	279
,, . .	12	10·1	9·7	266	21	15·8	14·8	278					22	5·3	4·5	81	20	5·7	4·9	86	20	13·0	12·1	274
,, . .	9	13·4	13·2	254	14	16·1	15·4	267					21	5·2	4·5	61	19	5·5	4·7	76	12	6·6	16·1	263
,, . .	6	15·0	14·8	248	10	16·5	16·3	263					17	4·5	2·6	97	18	5·0	3·3	100	2	25·7	25·5	254
,, . .	2	14·5	14·3	252	8	21·0	20·6	255					12	6·0	2·9	107	18	5·0	3·2	132				

Station	BAREILLY				BHOPAL												BHUJ							
e in I. S. T.	1430				0230				0730				1430				0230				0730			
t. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
ce . .	30	2·1	1·7	310	30	1·4	0·6	81	30	1·2	0·7	81	30	2·1	1·2	4	28	0·7	0·6	10	28	C A L M		
a. g. .	30	4·9	4·0	295	30	5·2	3·0	91	30	4·7	2·6	108	30	3·2	1·8	13	28	6·0	4·9	8	28	4·5	3·7	33
. s. l. .	30	4·4	3·9	300	29	5·0	2·7	90	30	4·3	2·4	109	30	2·8	1·4	13	28	5·8	4·8	19	28	5·4	4·0	42
,, . .	30	5·3	5·0	303	30	4·0	2·0	54	30	4·1	1·8	40	30	3·3	1·9	15	28	4·0	2·7	54	28	4·2	1·9	41
,, . .	30	7·2	6·4	304	30	3·9	2·2	321	30	4·6	3·0	359	30	3·3	1·9	360	28	3·9	0·9	169	28	3·7	0·9	298
,, . .	30	7·3	6·8	306	30	4·9	3·3	312	30	5·6	3·8	324	30	3·7	2·2	318	28	4·4	1·8	210	28	4·5	1·0	275
,, . .	30	7·8	7·2	298	24	5·2	3·2	306	30	5·4	3·4	301	30	5·1	3·8	292	27	5·1	2·8	251	28	4·9	2·0	281
,, . .	30	8·4	7·8	292	24	6·0	4·3	285	29	5·9	5·1	280	30	6·9	6·1	278	26	5·7	3·8	269	28	5·5	3·6	267
,, . .	28	11·3	10·7	287	7	8·4	7·6	260	29	8·8	7·2	278	29	9·7	9·1	269	19	8·7	8·0	260	28	8·3	7·1	260
,, . .	25	14·9	14·5	276	3	10·0	9 9	243	27	12·3	11·7	266	28	13·3	12·3	269	7	11·5	11·0	275	27	12·4	11·7	261
,, . .	20	18·1	17·7	270	1	13·5	13·5	295	22	14·5	13·8	265	25	16·2	15·6	263	1	8·0	8·0	255	24	16 3	15·0	262
,, . .	11	27·9	27·1	229					14	19·6	19·1	257	17	19·9	19·3	267					16	22·8	22·0	262
,, . .	3	35·8	35·7	252					5	21·3	21·0	251	4	25·1	24·2	267					9	27 7	26·7	261

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

NOVEMBER, 1949

Station	BHUJ				BIKANER								BOMBAY										
Time in I. S. T.	1430				0730				1430				0230				0730				1430		
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	29	1·7	1·4	17	30	1·9	1·1	131	30	1·1	0·7	324	30	0·6	0·5	102	30	1·3	1·2	95	30	4·3	3·2
0·15 a. g. .	28	3·7	3·2	21	30	4·2	1·9	109	29	2·5	1·6	334	30	3·3	2·8	47	30	4·3	4·0	75	30	2·7	1·9
0·6 a. s. l. .	28	3·3	2·6	31	30	3·8	1·2	3	29	2·4	1·4	328	30	4·2	3·1	54	30	4·6	3·9	85	29	2·3	1·
1·0 ,, . .	28	3·1	1·7	7	30	3·2	2·0	329	29	2·9	1·6	320	30	3·8	2·5	80	30	3·7	2·8	84	29	2·9	1·9
1·5 ,, . .	28	3·8	0·8	302	30	4·1	3·0	322	30	3·5	1·8	301	30	4·0	3·1	116	30	3·0	1·6	107	30	3·0	1·8
2·0 ,, . .	28	4·3	1·3	264	30	5·0	2·8	240	30	4·3	2·8	276	30	3·6	3·0	137	30	3·0	1·3	138	30	3·1	1·3
2·5 ,, . .	28	4·7	2·7	252	30	6·2	3·4	283	30	6·5	5·2	272	29	3·7	2·0	158	30	3·7	1·2	136	30	3·3	1·0
3·0 ,, . .	28	5·9	4·5	252	30	7·2	5·7	267	30	8·5	7·7	273	29	3·7	1·3	169	30	4·1	1·0	150	29	3·6	0·6
4·0 ,, . .	28	8·8	7·8	256	30	10·5	10·0	268	29	11·9	10·7	269	18	4·5	2·0	270	30	4·8	1·6	249	28	4·6	1·4
5·0 ,, . .	28	12·2	11·3	261	23	13·1	12·3	270	29	15·4	14·7	268	8	5·4	4·1	258	29	5·4	3·7	266	28	5·8	3·5
6·0 ,, . .	26	16·0	15·3	255	13	17·1	16·4	264	21	17·8	17·1	269	5	7·5	7·1	246	28	6·9	5·9	259	27	8·0	6·3
7·5 ,, . .	20	23·4	22·6	259	3	24·8	24·8	272	6	24·0	23·0	264					26	10·1	9·6	251	21	11·0	10·5
9·0 ,, . .	12	26·7	25·4	258					1	27·0	27·0	245					16	13·6	12·8	248	13	13·5	13·1

Station	CALCUTTA												COCHIN										
Time in I. S. T.	0230				0730				1430				0230				0730				1430		
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	30	1·6	1·3	348	30	1·8	1·6	339	30	2·1	1·9	333	30	1·1	0·9	103	30	1·0	0·9	93	30	2·9	2·6
0·15 a.g. .	30	5·5	4·6	352	30	5·1	4·2	352	30	3·4	3·0	333	30	2·8	0·9	119	30	2·8	2·1	73	30	3·4	2·9
0·6 a. s. l. .	30	6·3	5·6	350	30	5·0	4·4	354	30	3·7	3·1	326	30	3·0	0·7	103	30	2·8	1·2	64	30	2·1	0·7
1·0 ,, . .	30	6·2	5·5	341	29	5·7	4·8	347	30	4·9	4·4	321	29	3·1	2·1	88	30	3·1	1·9	72	30	3·3	2·2
1·5 ,, . .	30	6·8	5·9	325	29	5·9	4·5	321	30	6·9	6·3	317	24	4·3	2·8	77	30	4·2	3·2	80	30	4·6	3·0
2·0 ,, . .	30	7·5	6·2	308	29	7·1	5·4	304	30	8·9	8·0	310	19	4·9	3·0	84	28	5·7	3·9	84	29	4·9	3·0
2·5 ,, . .	26	8·7	7·7	302	29	8·7	7·2	301	29	10·0	9·3	302	17	5·6	3·5	88	24	5·9	3·5	82	29	5·8	3·5
3·0 ,, . .	23	8·9	8·0	288	29	9·5	8·1	297	29	10·9	10·1	301	15	6·1	3·4	69	21	5·4	3·5	83	26	6·0	3·7
4·0 ,, . .	4	12·9	11·5	286	23	8·5	7·7	282	28	11·6	10·8	289	3	7·0	6·4	76	18	5·4	4·7	84	26	5·8	4·6
5·0 ,, . .					16	7·6	6·5	260	23	12·2	11·3	281					17	5·8	4·7	90	24	5·9	4·8
6·0 ,, .					14	8·0	7·4	259	21	13·6	12·8	278					16	6·1	5·0	67	21	7·1	6·4
7·5 ,,					6	10·9	10·6	264	14	16·1	15·4	267					12	4·9	3·7	93	19	6·0	5·1
9·0 ,, . .									10	18·9	16·2	274					9	5·7	4·4	128	18	5·9	4·0

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

NOVEMBER, 1949

Station	COOCH BEHAR								CUTTACK												DEOLALI			
Time in I. S. T.	0730				1430				0230				0730				1430				0730			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	30	1·5	1·2	55	30	0·9	0·2	174	30	0·2	0·2	315	30	0·2	0·2	311	30	0·8	0·5	341	24	0·0	0·8	32
0·15 a. g.	30	4·3	3·9	71	30	1·9	0·2	152	30	4·1	2·5	329	30	4·1	3·1	349	30	2·5	1·9	334	24	3·3	3·0	81
0·6 a. s. l.	29	4·4	3·6	83	30	2·4	0·5	130	30	4·8	3·5	358	30	5·2	4·2	25	30	2·6	2·3	340	24	2·6	2·3	54
1·0 „	29	4·5	4·3	83	30	2·9	1·2	115	30	5·7	4·8	358	30	5·3	4·5	18	30	3·8	3·3	340	24	5 8	5 2	113
1·5 „	29	6·1	5·6	88	30	4·6	2·8	101	30	5·8	4·6	360	29	5·2	3·6	358	30	5·4	4·6	331	24	5·2	4·0	111
2·0 „	29	6·8	5·9	84	30	5·2	3·8	76	25	5·5	3·9	342	29	·2	3·5	330	28	6·6	5·9	330	24	3·9	2·3	114
2·5 „	28	6·4	2·1	54	30	5·7	2·4	8	7	5·6	5·0	336	29	5·8	3·5	313	28	7·0	6·1	319	24	4·5	1·1	161
3·0 „	28	8·8	5·2	279	29	8·1	5·9	294	5	8·4	7·1	327	29	5·7	3·9	308	29	6·7	5·8	308	24	4·3	0·8	222
4·0 „	26	14·5	13·5	275	27	16·8	16·2	277					26	5·7	4·2	298	28	6·1	5·1	291	24	5·4	2·3	254
5·0 „	25	18·0	17·3	272	26	19·0	18·6	274					26	6·0	5·2	282	28	7·0	6·1	285	23	6·4	4·6	259
6·0 „	23	20·4	19·6	268	26	21·5	20·8	272					23	7·2	6·7	270	24	7·6	6·1	275	21	8·1	7·2	248
7·5 „	15	26·6	25·8	259	12	27·8	26·9	266					4	9·1	8·5	247	22	10·2	9·3	260	17	13·4	13·0	253
9·0 „	6	31·1	29·6	264	6	33·7	31·2	267					1	6·0	6·0	260	19	12·7	12·1	261	7	19·8	19·1	259

Station	DIBRUGARH								GADAG												GAYA			
Time in I. S. T.	0730				1430				0230				0730				1430				0230			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	30	2·0	1·8	72	30	1·3	1·0	61	30	3·6	3·0	109	30	3·3	3·1	102	30	3·8	3·4	85	30	1·7	1·3	185
0·15 a. g.	27	3·8	3·7	66	29	2·0	1·5	58	30	7·7	6·9	105	29	7·6	7·0	102	30	6·0	5·3	84	30	4·8	4·3	292
0·6 a. s. l.	26	3·5	3·3	49	29	2·1	1·7	67	...	...	...	...	...	...	...	...	...	...	..	...	30	6·3	6·1	307
1·0 „	26	3·4	3·2	44	28	2·2	1·3	55	30	7·4	6·9	98	29	8·5	8·1	93	30	6·1	5·6	82	30	6·7	6·3	305
1·5 „	26	2·6	2·1	56	28	2·5	0·7	136	29	7·1	6·6	80	28	7·4	6·9	81	30	6·3	5·6	80	30	8·1	7·3	305
2·0 „	26	2·1	0·9	110	28	3·5	2·5	187	29	6·0	4·8	75	28	6.6	6·0	71	30	6·0	5·3	85	27	9·5	8 9	304
2·5 „	25	2·6	1·7	135	28	4·3	3·7	198	29	5·2	4·2	75	28	5·5	4·7	77	28	5·7	4·6	83	5	7·3	6·9	318
3·0 „	24	3·3	2·4	175	28	5·0	4·4	217	28	5·0	3·7	85	28	5·1	4·1	82	27	5·1	4·1	83	5	8·2	7·7	309
4·0 „	22	7·4	6·4	257	27	9·4	7·7	255	23	4·0	3·2	80	26	4·8	4·0	76	24	5·1	4·3	80				
5·0 „	17	18·8	18·0	267	17	18·9	18·8	258	16	4·1	2·9	77	26	4·1	2·4	76	22	4·8	3·4	82				
6·0 „	9	20·2	19·5	278	6	17·9	17·5	265	10	3·1	1·7	67	26	3·5	0 6	75	22	4·1	1·8	62				
7·5 „	3	19·7	19·7	287	3	27·5	27·2	282					23	4·1	1·9	206	19	3·9	1·5	224				
9·0 „	1	45·0	45·0	305	1	32·0	32·0	285					18	7·4	5·8	222	17	5·6	3·9	206				

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

NOVEMBER, 1949

Station	GAYA								GOPALPUR								GORAKHPUR							
Time in I. S. T.	0730				1430				0730				1430				0730				1430			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	30	2·2	2·0	192	30	4·0	3·7	296	30	3·7	3·6	335	30	3·3	2·3	85	30	1·0	9·0	261	30	1·8	1·4	271
0·15 a. g. .	30	4·3	3·9	251	30	4·9	4·7	301	30	6·7	6·0	341	30	4·1	2·7	71	30	4·7	4·1	297	30	3·2	2·5	276
0·6 a. s. l. .	30	4·9	4·6	305	30	4·3	4·1	294	30	6·0	4·9	30	30	3·8	3·5	359	30	5·0	4·2	300	30	4·5	3·4	290
1·0 „ .	30	6·0	5·6	309	30	5·4	5·1	297	30	6·1	5·5	26	30	4·7	4·3	350	30	5·0	3·5	300	30	5·1	4·1	300
1·5 „ . .	30	7·4	6·4	312	30	6·7	5·8	304	30	5·1	3·9	21	30	5·4	4·3	352	30	6·5	4·3	305	30	4·3	5·5	304
2·0 „ . .	30	10·2	8·7	310	30	9·4	8·2	307	30	4·7	2·9	8	30	5·5	3·8	348	30	8·5	5·9	304	30	9·4	7·0	301
2·5 „ . .	30	11·3	10·4	304	30	12·3	11·0	302	30	5·4	3·0	354	29	5·6	4·0	333	29	9·7	8·0	301	30	10·2	9·0	299
3·0 „ . .	30	12·0	11·3	293	30	12·7	12·2	296	30	5·1	3·2	343	29	5·0	3·6	331	28	9·9	9·2	294	30	10·6	9·8	296
4·0 „ . .	19	11·1	10·6	278	28	14·5	14·1	286	29	4·1	2·4	316	29	4·4	2·6	311	22	10·5	9·9	284	28	13·1	12·5	291
5·0 „ . .	13	11·5	11·2	262	22	15·7	15·2	281	26	5·1	3·1	314	29	5·5	3·7	308	14	12·1	11·7	263	21	15·2	14·5	279
6·0 „ . .	7	15·6	15·0	257	17	17·3	17·0	272	25	5·2	3·1	286	27	5·5	4·4	282	12	17·0	16·6	263	15	17·6	17·1	271
7·5 „ . .	1	22·0	22·0	230	12	23·7	23·0	265	20	7·1	5·7	263	21	9·5	7·6	276	5	25·2	24·8	256	8	24·3	23·8	265
9·0 „ . .					4	26·5	26·4	246	17	10·6	8·8	254	14	11·3	10·2	263								

Station	HYDERABAD (Dn.)												JAGDALPUR											
Time in I. S. T.	0230				0730				1430				0230				0730				1430			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	30	0·9	0·7	53	30	0·7	0·6	43	30	3·2	2·2	60	30	0·1	0·1	297	30	C	A	L	M	30	1·0	0·9	34
0·15 a. g. .	30	6·8	5·3	72	30	6·2	4·8	71	30	4·7	3·6	62	30	3·9	3·0	31	30	3·3	2·7	32		30	2·6	2·1	19
0·6 a. s. l. .	30	4·5	3·5	58	30	3·8	2·7	59	30	4·5	3·3	66	30	2·6	2·1	30	30	1·6	1·2	33		30	2·0	1·8	28
1·0 „ . .	30	7·2	5·9	69	30	7·2	5·9	69	30	4·5	3·5	63	30	4·7	3·0	40	30	5·3	4·6	41		30	2·6	2·3	16
1·5 „ . .	30	7·0	5·4	58	29	7·9	6·2	58	30	4·7	3·9	69	30	4·2	3·0	26	30	4·6	3·7	33		30	3·1	2·2	25
2·0 „ . .	30	7·1	4·8	54	28	7·3	5·2	51	30	5·0	3·5	69	30	4·5	2·7	23	30	4·5	2·8	29		30	3·9	2·4	17
2·5 „ . .	30	7·0	4·6	61	28	7·3	4·5	52	27	5·0	3·3	57	27	5·0	2·8	18	30	4·7	2·7	27		29	4·1	2·4	2
3·0 „ . .	30	6·6	3·1	57	28	6·1	3·5	51	27	5·0	3·0	50	27	5·1	2·2	347	30	4·7	1·9	10		29	4·1	2·4	349
4·0 „ . .	2	8·0	4·7	207	28	5·3	2·0	56	24	4·4	2·0	37	21	4·5	2·7	319	30	4·3	1·9	319		29	4·1	2·4	321
5·0 „ . .					26	4·8	0·8	34	24	4·6	0·7	351	14	6·4	4·8	310	30	4·8	2·4	296		29	4·7	3·1	296
6·0 „ . .					26	4·3	0·9	253	24	4·9	1·6	280	9	6·3	5·8	262	29	5·8	4·0	269		28	5·9	4·8	281
7·5 „ . .					17	5·8	4·6	253	22	5·9	4·4	249	2	12·0	11·5	282	26	8·4	7·4	258		25	8·0	7·0	259
9·0 „ . .					2	15·3	14·9	262	19	9·8	9·1	245	1	18·0	18·0	280	23	11·5	10·4	257		23	11·5	10·5	254

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

NOVEMBER, 1949

Station	JAMSHEDPUR								JHARSUGUDA												JODHPUR			
Time in I. S. T.	0730				1430				0230				0730				1430				0230			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface. . .	30	1·8	1·7	285	30	2·0	1·7	302	30	0·7	0·6	10	30	0·7	0·7	6	30	0·5	0·4	331	30	3·2	2·9	46
0·15 a. g.. .	30	3·4	3·3	290	30	2·5	2·3	315	30	4·2	4·0	12	30	4·3	3·8	22	30	2·2	1·5	327	30	6·8	5·5	60
0·6 a. s. l. .	30	4·1	3·3	333	30	3·0	2·7	322	30	4·7	3·7	3	30	5·1	4·1	21	30	2·4	1·9	328	30	5·6	4·2	61
1·0 „ . .	30	5·0	4·1	339	30	4·1	3·6	322	30	4·1	3·1	349	30	4·6	3·5	3	30	3·1	2·7	327	30	3·7	1·5	71
1·5 „ . .	30	6·5	5·1	328	30	6·7	6·0	322	30	4·7	3·8	336	30	4·6	3·5	339	30	5·4	4·8	332	30	3·7	1·5	239
2·0 „ . .	30	8·3	7·1	318	30	9·2	8·6	319	30	6·1	5·1	328	30	6·5	5·5	323	30	6·9	6·1	330	30	4·6	2·0	248
2·5 „ . .	29	8·7	7·8	312	30	9·7	9·1	311	28	6·9	5·9	322	30	6·4	5·4	317	30	7·4	6·7	319	29	5·5	3·7	265
3·0 „ . .	29	8·7	7·9	299	29	10·4	10·0	302	26	7·8	6·9	310	30	6·8	5·8	313	30	8·1	7·5	306	27	6·7	5·6	273
4·0 „ . .	27	9·7	8·8	285	29	11·9	11·4	287	21	8·4	7·8	287	30	8·3	7·4	284	30	9·5	8·8	286	12	9·0	5·6	279
5·0 „ . .	22	12·3	11·0	279	27	13·1	12·4	281					28	9·6	8·7	273	28	10·2	9·7	276	4	11·9	11·4	267
6·0 „ . .	18	13·1	12·6	265	26	13·8	12·8	275					27	9·8	9·1	265	27	11·3	10·7	272				
7·5 „ . .	10	13·4	13·1	255	15	16·8	16·7	261					20	11·8	11·1	257	20	14·4	14·0	258				
9·0 „ . .	6	16·4	16·0	251	5	20·2	19·7	246					12	14·9	14·4	247	15	17·2	16·4	247				

Station	JODHPUR								JUBBULPORE												MADHOSAGAR			
Time in I. S. T.	0730				1430				0230				0730				1430				0730			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . . .	30	2·8	2·7	50	30	1·7	0·9	33	30	0·6	0·5	130	30	1·1	1·0	151	30	1·2	0·7	348	30	1·5	1·4	220
0·15 a. g. .	30	5·2	4·7	65	29	2·4	1·0	2	30	2·9	1·5	49	30	2·7	1·3	140	30	3·0	2·1	352	30	3·8	2·1	294
0·6 a. s. l. .	30	4·8	2·8	63	29	2·8	1·1	25	30	3·0	1·9	35	30	3·0	1·2	101	30	3·1	2·1	353	30	4·7	3·1	330
1·0 „ . .	30	3·8	1·1	17	29	2·8	1·2	357	30	4·0	2·9	360	30	4·6	3·0	17	30	3·4	2·6	350	30	4·7	3·8	327
1·5 „ . .	30	3·6	1·3	302	30	3·5	1·3	303	30	5·7	4·3	337	30	5·9	4·7	352	30	4·1	3·5	337	30	5·8	4·9	314
2·0 „ . .	30	4·4	2·5	282	30	4·3	2·5	261	30	5·9	4·6	314	30	5·4	4·3	326	30	5·3	4·4	323	30	7·5	6·6	301
2·5 „ . .	30	5·1	3·4	261	30	5·4	4·5	263	28	6·0	4·8	305	29	5·8	4·4	290	29	6·2	5·3	300	30	8·3	7·1	297
3·0 „ . .	29	6·3	5·3	257	30	7·6	6·9	266	27	7·5	6·3	300	29	6·9	5·8	287	29	7·0	6·3	291	30	7·9	7·1	289
4·0 „ . .	27	10·0	9·2	272	29	11·2	10·4	269					29	9·0	8·2	274	29	10·0	9·4	280	30	11·1	10·4	280
5·0 „ . .	27	15·3	14·6	267	29	16·7	15·8	266					26	12·7	12·0	267	29	13·2	12·1	275	29	15·5	14·8	268
6·0 „ . .	24	20·2	17·5	269	28	20·9	20·1	264					21	14·6	14·1	260	29	16·1	15·3	273	28	20·9	19·9	268
7·5 „ . .	12	23·8	22·7	255	21	25·0	24·1	267					10	18·9	18·3	258	25	20·2	19·4	269	15	25·3	24·7	262
9·0 „ . .	7	33·8	32·0	257	12	29·3	25·0	260					3	19·2	18·2	257	11	23·4	22·4	259	7	36·3	35·8	255

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

NOVEMBER, 1949

Station	MADHOSAGAR				MADRAS												MALEGAON						
Time in I. S. T.	1430				0230				0730				1430				0230				0730		
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	30	2·1	1·6	317	30	2·4	1·9	338	30	2·4	2·0	328	30	5·5	4·9	19	30	2·6	2·0	282	30	2·2	2 0
0·15 a. g. .	30	3·6	3·0	325	29	6·0	5·7	30	29	6·0	5·3	11	30	6·3	5·9	26	30	4·1	2·6	92	30	2·8	0 9
0·6 a. s. l. .	30	3·4	2·9	324	29	7·4	6·7	40	29	7·3	6·6	41	29	6·3	5·9	31	30	4·1	2·6	92	30	2·8	0 9
1·0 „ . .	30	3·6	3·1	316	29	8·0	6·3	43	29	7·6	6·7	49	29	6·8	5·9	32	29	5·5	4·3	96	30	4·7	3 7
1·5 „ . .	30	4·8	4·2	306	27	6·9	5·0	46	28	7·8	6·3	62	28	6·8	5·3	50	30	4·5	2·9	95	30	4·4	2·9
2·0 „ . .	30	6·5	5·6	299	27	6·7	5·4	55	27	7·5	6·0	68	26	6·6	5·8	59	30	3·3	1·5	145	30	3·6	1·6
2·5 „ . .	30	7 6	6·7	287	23	6·9	5·6	64	27	7·2	5·8	78	23	6·9	5·6	64	28	3·5	1·5	186	30	3·8	0·9
3·0 „ . .	30	8·8	8·2	282	23	6·9	5·7	67	27	6·9	5·7	80	24	7·3	6·1	71	27	3·9	1·8	226	30	4·5	1·3
4·0 „ . .	30	12·9	12·3	275	17	5·9	4·8	71	24	6·8	6·1	76	21	7·0	5·9	64	21	6·0	3·7	278	29	5·4	3·0
5·0 „ . .	30	17·6	17·2	269					22	6·3	5·5	81	20	6·4	5·5	75					27	7·9	6·4
6 0 „ . .	30	22·0	21·5	269					19	5·9	5·3	73	20	5·5	4·6	74					27	9·1	7·9
7·5 „ . .	22	27·7	27·0	265					17	6·1	4·7	97	12	4·9	4·1	72					27	14·1	13·5
9·0 „ . .	14	34·7	33·9	261					10	5·7	4·5	108	12	5·2	4·0	106					17	18·3	17·5

Station	MALEGAON				MANGALORE												MASULIPATAM						
Time in I. S. T.	1430				0230				0730				1430				0230				0730		
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	30	2·1	0·9	64	30	2·7	2·7	89	30	2·7	2·6	92	30	2·9	2·5	262	30	1·6	1·2	13	30	1·4	1·3
0·15 a. g. .	30	2·7	1·6	90	30	3·7	2·8	75	30	4·9	4·8	91	30	3·6	3·0	273	30	4·3	3·3	57	30	4·7	4·2
0·6 a. s. l. .	30	2·7	1·6	90	29	2·9	2·1	54	30	4·9	3·8	78	30	2·4	1·2	84	29	4·0	3·6	58	30	5·3	4·6
1·0 „ . .	30	2·7	1·5	85	29	4·7	3·5	80	30	4·5	3·7	87	29	3·5	3·2	84	30	4·4	3·9	51	30	4·9	4·4
1·5 „ .	30	2·9	1·9	86	29	6·4	5·2	84	29	5·7	5·0	91	29	5·6	5·0	84	29	5·2	4·4	58	29	5·2	4·4
2·0 „ . .	30	2·5	0·7	109	29	6·0	4·9	86	29	5·3	4·1	89	29	6·1	4·7	82	29	5·3	4·4	68	28	5·9	5·0
2·5 „ . .	30	2·9	0·7	229	25	5·7	4·2	77	29	5·8	4·5	86	28	5·9	4·5	84	25	5·9	4·7	66	26	5·7	4·6
3·0 „ . .	30	4·1	2·0	247	21	5·9	4·4	77	28	5·9	4·3	76	28	5·3	4·2	91	23	5·8	4·3	77	26	5·2	3·9
4·0 „ .	27	5·8	4·1	257	10	3·9	3·1	68	27	5·6	5·0	83	26	5·5	4·9	89	13	4·9	3·6	63	24	5·6	3·6
5·0 „ . .	27	8·6	6·8	261	1	1·0	1·0	245	24	5·1	4·1	82	26	5·6	4·8	84					23	4·2	2·6
6·0 „ . .	24	9·8	8·5	261	1	2·0	2·0	85	23	4·9	4·1	74	26	5·2	4·1	78					21	3·6	1·1
7 5 „ . .	24	13·9	13·3	257					20	4·1	2·7	101	24	4·9	3·8	97					20	3·8	1·1
9·0 „ . .	19	16·5	15·9	254					17	4·6	2·7	161	22	5·4	3·3	144					19	5·3	3·5

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

NOVEMBER, 1949

Station	MASULIPATAM				MINICOY												NAGERCOIL							
Time in I. S. T.	1430				0230				0730				1430				0230				0730			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	30	1·8	1·2	85	30	1·7	0·9	6	30	1·4	0·8	20	30	2·3	1·3	7	30	2·9	2·4	38	30	2·4	2·1	47
0·15 a. g.	29	3·7	2·5	70	30	3·4	2·0	9	30	3·3	1·6	20	29	3·6	2·3	5	27	5·3	3·8	30	28	5·3	4·4	44
0·6 a. s. l.	29	3·6	3·1	37	30	3·7	1·9	31	30	3·9	2·3	45	29	4·2	2·4	23	27	6·4	4·8	33	28	7·1	6·4	43
1·0 ,,	29	4·4	3·7	44	29	4·3	2·2	115	28	4·9	2·9	62	25	5·2	2·9	57	26	7·5	6·3	40	28	8·1	7·4	53
1·5 ,,	29	5·3	4·3	54	24	6·1	3·3	81	27	6·5	4·3	76	23	6·2	3·3	72	26	8·3	6·7	51	27	8·1	7·1	58
2·0 ,,	27	5·4	4·3	61	22	6·9	5·0	78	24	7·7	5·1	81	23	6·8	3·3	82	24	7·9	5·6	66	27	7·9	5·6	68
2·5 ,,	25	5·9	4·3	62	19	6·5	4·4	90	24	7·5	4·9	83	21	6·8	3·2	94	18	7·2	4·3	75	24	7·2	3·6	82
3·0 ,,	24	6·2	4·3	62	15	5·4	3·8	82	24	6·5	4·5	81	18	6·5	3·3	97	17	7·0	4·2	82	24	6·6	3·2	85
4·0 ,,	25	4·9	3·4	55	4	4·1	3·7	109	20	5·3	3·7	102	14	5·9	4·0	95	3	7·2	4·4	90	24	6·3	4·5	75
5·0 ,,	24	5·6	2·8	63					18	5·9	5·0	86	12	5·9	4·6	90	2	3·7	2·6	76	20	5·6	3·9	72
6·0 ,,	24	4·1	1·6	53					16	5·0	4·6	94	9	5·9	4·0	89	2	5·3	4·6	102	18	5·8	5·2	72
7·5 ,,	22	4·8	1·2	317					12	4·9	3·3	82	7	5·0	2·3	78					16	5·5	3·3	78
9·0 ,,	15	5·9	2·9	254					10	4·9	4·0	125	6	4·5	4·2	97					7	7·9	6·0	95

Station	NAGERCOIL				NAGPUR												NEW DELHI							
Time in I. S. T.	1430				0230				0730				1430				0230				0730			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	30	3·5	1·4	51	30	0·8	0·8	2	30	0·8	0·7	10	30	1·5	1·1	43	30	2·1	2·0	283	30	2·4	2·2	279
0·15 a. g.	30	7·6	2·5	50	30	4·8	3·5	49	30	4·4	4·1	35	30	3·1	2·3	45	30	7·1	6·3	325	30	5·7	5·0	309
0·6 a. s. l.	30	7·7	4·7	45	30	4·9	3·5	61	30	5·4	4·4	67	30	3·0	2·2	42	30	7·4	6·7	323	30	6·9	6·0	319
1·0 ,,	30	7·3	5·5	42	30	4·4	3·0	45	30	5·0	3·7	51	30	3·1	2·2	38	30	7·3	6·5	316	30	6·9	6·3	312
1·5 ,,	28	8·4	6·6	47	28	4·6	2·9	15	30	6·0	4·3	23	30	3·7	2·6	4	30	7·4	6·8	309	30	7·5	6·7	307
2·0 ,,	28	9·5	7·3	53	27	4·4	2·5	338	30	5·5	2·8	2	30	4·5	2·9	345	26	8·3	7·4	299	30	8·1	7·2	303
2·5 ,,	26	8·9	5·9	55	27	4·6	2·7	314	29	4·7	2·4	332	30	4·9	3·2	335	21	8·0	6·9	285	30	8·6	7·7	293
3·0 ,,	26	7·8	4·3	68	24	5·4	4·1	317	29	4·9	2·8	321	30	5·1	3·5	314	18	8·2	7·7	275	28	9·3	8·4	285
4·0 ,,	22	7·8	5·0	80	8	6·3	5·7	277	28	6·1	4·7	286	30	6·7	5·5	276	3	10·0	9·9	279	22	10·6	9·9	274
5·0 ,,	20	8·6	7·3	88					27	8·5	3·6	276	28	9·2	7·6	278					19	15·0	14·6	270
6·0 ,,	16	7·5	6·8	87					23	10·6	9·7	268	26	11·2	10·3	275					14	21·2	21·0	264
7·5 ,,	13	9·5	8·4	84					19	13·3	12·4	266	24	15·0	13·9	257					3	31·2	30·3	254
9·0 ,,	10	9·9	8·5	88					12	16·1	15·2	253	17	16·9	15·9	259								

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

NOVEMBER, 1949

Station	NEW DELHI				POONA												PORT BLAIR						
Time in I. S. T.	1430				0230				0730				1430				0230				0730		
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface	30	3·8	3·6	313	30	1·7	1·2	245	30	1·1	0·9	236	30	3·1	2·8	109	30	2·3	0·9	77	30	2·2	1·1
0·15 a. g.	30	5·0	4·7	312	29	3·3	1·6	73	30	2·5	1·5	101	30	3·1	2·9	87	30	4·6	1·8	73	30	4·7	2·4
0·6 a. s. l.	30	4·6	4·3	314	30	2·2	1·0	214	30	1·4	0·1	197	30	2·7	2·4	86	30	5·3	2·3	82	29	5·7	2·8
1·0 ,,	30	5·3	5·0	309	29	5·5	4·5	88	30	5·9	5·6	112	30	2·6	2·2	93	28	5·3	2·8	94	26	5·1	2·7
1·5 ,,	30	6·6	6·1	307	29	5·9	5·4	98	30	5·9	5·3	105	30	3·0	2·3	97	28	5·6	3·1	92	24	5·2	3·5
2·0 ,,	30	7·5	6·7	299	30	4·6	4·1	111	30	4·1	2·9	98	30	3·7	2·4	103	20	4·9	2·6	98	21	5·2	3·5
2·5 ,,	30	7·9	7·1	296	30	4·0	2·1	129	30	3·9	1·9	104	29	3·7	1·7	114	12	4·9	3·4	100	20	5·1	3·6
3·0 ,,	30	8·8	8·0	287	29	3·7	0·6	120	30	3·6	0·9	95	28	3·9	1·3	93	9	4·5	3·7	107	18	4·6	2·8
4·0 ,,	30	12·8	12·3	275	22	4·1	1·2	249	30	4·3	0·1	297	25	4·4	0·6	178	4	4·3	4·2	72	16	5·1	3·8
5·0 ,,	29	14·7	14·0	271	2	4·3	4·1	268	30	4·5	1·9	279	25	5·1	2·4	260					15	5·4	4·4
6·0 ,,	27	19·2	18·7	270	2	7·5	6·1	268	30	5·2	4·0	260	25	6·1	4·9	262					14	5·5	4·9
7·5 ,,	23	27·8	27·4	267	2	12·7	11·4	271	25	9·3	8·6	250	21	0·2	9·6	254					10	6·3	5·9
9·0 ,,	7	37·1	37·0	265	1	23·0	23·0	250	21	14·1	13·5	250	19	13·1	12·6	253					5	3·7	3·6

Station	PORT BLAIR				RAIPUR								SAHARSA										
Time in I. S. T.	1430				0230				0730				1430				0730				1430		
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface	30	3·2	1·7	79	30	1·8	1·1	356	30	1·2	0·9	15	30	1·5	1·0	17	30	0·6	0·5	237	30	2·0	1·8
0·15 a. g.	29	5·1	2·6	76	30	4·7	3·2	28	30	4·7	3·4	36	30	2·9	2·1	8	30	5·4	4·7	280	30	3·6	3·3
0·6 a. s. l.	28	5·0	3·0	82	30	4·6	3·2	26	30	5·3	4·3	38	30	2·9	2·2	10	30	4·0	3·2	301	30	3·5	3·2
1·0 ,,	26	4·6	3·3	81	30	4·0	3·2	13	30	4·6	4·0	25	29	3·0	2·5	11	30	3·9	2·1	311	30	3·8	3·0
1·5 ,,	25	5·0	3·9	84	30	4·3	2·9	2	30	4·6	3·5	7	29	4·1	3·3	5	29	5·3	0·9	360	30	5·8	3·0
2·0 ,,	23	4·8	3·3	92	30	5·7	4·0	340	30	5·7	3·9	340	30	5·3	3·7	340	29	7·6	2·3	330	30	8·9	5·1
2·5 ,,	22	4·7	3·5	93	30	5·1	3·7	332	30	5·3	3·6	332	30	5·4	3·5	325	29	9·8	6·3	304	30	11·8	8·8
3·0 ,,	21	4·6	3·7	92	26	4·9	3·5	319	30	5·2	3·3	324	30	6·0	4·6	313	29	11·7	10·7	297	30	14·8	12·3
4·0 ,,	19	4·5	4·5	86	5	3·5	3·4	284	29	6·7	5·5	239	29	6·8	5·7	287	22	12·3	11·8	283	27	14·7	13·1
5·0 ,,	18	5·7	4·6	82	4	7·3	6·9	273	28	8·4	7·1	274	27	8·8	8·1	282	15	13·1	12·7	267	22	16·4	16·0
6·0 ,,	16	5·6	4·7	88	2	10·0	9·8	266	26	10·4	9·5	267	27	11·4	10·6	268	11	17·3	17·1	257	17	17·9	17·4
					1	14·0	14·0	280															
7·5 ,,	13	6·1	5·2	94					25	13·7	13·0	265	23	14·6	13·9	265					10	23·3	22·5
9·0 ,,	12	5·3	4·1	95					18	18·4	17·7	255	18	17·5	16·5	253					6	31·7	30·0

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

NOVEMBER, 1949

Station	TEZPUR												TRICHINOPOLY											
Time in I. S. T.	0230				0730				1430				0230				0730				1430			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
rface	30	1·4	1·2	48	30	0·9	0·9	54	30	1·0	0·9	68	30	2·2	2·0	34	30	2·1	1·9	15	30	2·7	2·2	42
15 a. g.	30	4·9	4·5	68	30	4·3	4·1	70	30	3·6	3·2	70	30	7·2	6·6	41	30	6·1	5·5	27	30	4·5	4·0	46
6 a. s. l.	29	5·0	4·3	90	30	5·7	5·0	86	30	3·4	2·6	83	30	9·4	8·9	46	30	8·0	7·5	43	30	5·5	5·0	46
0 ,,	28	4·0	2·8	83	29	5·2	3·9	83	30	3·8	2·3	100	29	7·7	7·0	48	30	7·6	6·6	52	30	5·9	5·0	47
5 ,,	28	3·3	1·8	85	29	4·4	2·9	90	30	3·8	1·7	136	28	6·7	4·5	43	30	7·3	5·3	55	29	7·0	5·2	48
0 ,,	28	3·9	2·1	100	28	4·7	3·1	91	30	4·6	2·1	187	28	7·3	4·4	46	28	7·6	4·7	66	26	7·0	4·7	51
5 ,,	26	3·6	1·8	106	28	4·4	2·9	92	29	5·6	3·2	225	26	6·9	4·8	58	28	7·3	5·5	74	26	7·4	4·9	56
0 ,,	24	5·4	3·2	245	27	4·9	2·0	225	28	6·8	4·6	250	26	5·6	4·1	64	27	7·5	5·8	76	26	6·8	4·7	57
0 ,,	16	13·5	11·5	267	26	10·7	9·5	268	27	13·3	13·0	272	5	5·6	4·2	88	24	6·5	5·4	78	24	5·6	4·0	65
0 ,,					25	18·0	17·6	268	23	19·1	18·7	267	3	3·0	0·7	57	22	6·0	5·0	86	25	5·2	4·0	80
0 ,,					24	21·1	20·3	270	22	22·7	22·1	265	1	3·5	3·5	95	22	6·4	5·8	77	22	5·6	4·8	72
5 ,,					16	24·8	23·9	267	18	29·4	28·2	266					20	5·9	4·7	100	17	7·3	5·6	82
0 ,,					9	28·5	27·8	258	15	32·5	31·3	264					18	5·5	4·5	112	9	5·2	3·5	114

Station	TRIVANDRUM				UDAIPUR												VENGURLA							
Time in I. S. T.	0730				0230				0730				1430				0230				0730			
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
rface	30	0·7	0·6	43	30	0·1	0·1	315	30	0·1	0·1	360	30	1·0	0·2	288	30	1·2	1·1	26	30	0·9	0·7	27
15 a.g.	29	3·2	1·3	32	30	2·9	2·0	39	30	2·4	2·0	326	30	2·5	0·2	305	30	4·5	3·9	36	30	3·9	3·7	80
6 a.s.l.	29	2·6	0·9	18													30	5·7	3·9	65	30	6·1	5·7	103
0 ,,	28	3·1	2·1	57	30	4·3	2·4	69	30	3·6	1·7	73	30	2·5	0·6	265	29	5·3	4·7	90	30	6·4	5·8	105
5 ,,	28	4·7	3·1	74	30	3·3	1·1	185	30	3·7	0·1	254	30	2·8	1·3	277	28	5·7	5·3	92	30	5·1	4·1	101
0 ,,	25	5·4	2·7	69	30	4·0	2·8	221	30	4·6	3·4	253	30	3·5	2·2	271	28	5·1	4·4	96	28	4·7	3·7	85
5 ,,	23	5·3	1·5	81	30	5·0	3·7	262	30	5·1	3·8	266	30	4·5	3·3	269	16	4·3	3·6	95	27	4·9	3·2	79
0 ,,	21	5·5	2·2	77	29	6·3	5·4	270	29	5·8	4·5	266	30	6·4	5·6	268	13	4·6	3·5	96	26	4·7	3·6	90
0 ,,	21	5·7	4·2	77	2	9·0	9·0	267	29	9·4	8·6	265	30	10·4	9·7	267	1	5·5	5·5	140	25	5·5	4·2	88
0 ,,	16	5·4	4·6	85					24	13·6	12·8	268	30	15·3	14·3	264	1	2·0	2·0	305	23	4·0	2·3	77
0 ,,	16	5·4	5·2	75					22	17·2	16·5	269	29	19·4	19·0	265	1	3·5	3·5	235	23	3·8	0·4	322
5 ,,	11	5·8	3·4	86					12	20·9	19·7	261	19	23·6	22·7	267					18	5·4	3·7	241
0 ,,	8	5·4	4·7	94									10	27·3	26·4	262					10	9·7	7·8	249

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

NOVEMBER, 1949

Station	VENGURLA				VERAVAL												VIZAGAPATAM						
Time in I. S. T.	1430				0230				0730				1430				0230				0730		
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	30	2·0	1·1	264	30	2·4	2·1	21	30	3·0	2·8	37	30	3·6	2·7	233	30	0·7	0·4	6	30	4·4	0·7
0·15 a. g. .	30	3·0	0·9	284	30	6·3	4·4	13	30	7·4	6·5	30	30	5·0	3·9	214	30	2·8	2·1	30	30	3·3	2·9
0·6 a.s.l. .	30	3·1	2·3	57	30	4·4	2·7	36	30	3·8	2·7	51	30	2·7	0·3	70	30	3·7	3·2	50	30	4·7	4·2
1·0 „ . .	30	4·6	4·1	64	30	3·7	2·3	73	30	3·3	2·4	73	30	3·2	2·1	49	30	4·0	3·6	41	30	5·0	4·5
1·5 „ . .	30	6·1	5·3	75	30	4·4	3·0	91	30	3·7	2·3	115	30	3·9	2·3	32	28	4·7	3·7	51	30	4·9	4·0
2·0 „ . .	30	5·8	5·0	77	30	4·5	2·3	102	30	4·2	1·7	126	30	4·2	1·8	41	26	5·1	3·6	53	28	4·7	3·5
2·5 „ . .	29	4·9	4·0	75	30	4·5	1·3	171	30	3·7	1·0	199	30	5·5	0·2	293	18	5·2	2·5	38	27	4·9	3·2
3·0 „ . .	27	4·1	3·0	83	29	4·4	2·1	240	30	4·1	2·0	245	30	4·1	1·9	245	16	4·1	2·3	36	26	4·3	2·6
4·0 „ . .	26	4·7	3·0	88	21	5·6	3·9	254	30	5·9	4·2	241	30	6·6	4·8	251	11	4·0	2·0	44	26	3·8	1·7
5·0 „ . .	26	4·3	1·7	64					29	8·4	7·8	257	30	9·4	7·9	256					24	4·5	1·2
6·0 „ . .	26	4·4	0·7	211					25	11·5	10·7	257	26	10·5	9·5	262					22	4·0	1·8
7·5 „ . .	19	5·6	4·1	238					18	16·2	15·8	259	21	16·3	15·1	252					16	6·5	5·1
9·0 „ . .	10	8·3	6·7	246					4	17·5	16·5	259	12	20·5	20·3	247					10	5·5	4·7

Station	VIZAGAPATAM																						
Time in I. S. T.	1430																						
Ht. in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v
Surface . .	30	2·5	2·3	93																			
0·15 a. g. .	30	3·9	3·7	92																			
0·6 a. s. l.	30	3·1	3·0	25																			
1·0 „ . .	30	4·0	3·5	15																			
1·5 „ . .	30	4·6	3·4	21																			
2·0 „ . .	30	4·7	3·2	20																			
2·5 „ . .	30	4·6	3·0	26																			
3·0 „ . .	30	4·3	2·4	23																			
4·0 „ . .	30	3·9	2·1	14																			
5·0 „ . .	30	4·6	1·7	3																			
6·0 „ . .	30	4·4	1·8	322																			
7·5 „ . .	25	5·[illegible]	3·5	283																			
9·0 „ . .	19	8·5	6·8	250																			

Table B.—Monthly Mean Directions and Velocities of Upper Winds

Winds at and above 10·0 Km. above Sea-level

NOVEMBER, 1949

Height (Km.)	n	V	v	D
		AHMEDABAD		
10	22	26·8	25·5	255
11	9	26·6	26·2	256
12	3	27·2	27·0	264
13	3	27·2	26·8	261
14	2	35·5	35·3	260
		ALLAHABAD		
10	5	50·6	30·2	261
11	1	33·5	33·5	260
		AMBALA		
10	13	41·5	41·2	259
11	5	41·5	41·3	255
12	2	46·0	46·0	261
		ANANTAPUR		
10	32	7·2	5·0	205
11	16	9·7	7·4	190
12	9	9·4	8·0	201
13	4	10·4	9·0	174
14	1	6·0	6·0	220
		ASANSOL		
10	8	20·7	19·9	251
11	1	23·0	23·0	245
		BANGALORE		
10	27	6·2	4·1	112
11	10	8·5	6·7	154
12	7	11·1	10·3	153
13	7	13·7	12·9	153
14	2	4·5	2·5	358
15	1	5·5	5·5	155
16	1	12·5	12·5	150
17	1	7·0	7·0	105
18	1	13·0	13·0	85
19	1	13·0	13·0	90
		BHOPAL		
10	8	27·6	27·0	251
11	1	38·5	38·5	265
		BHUJ		
10	13	30·7	29·2	258
11	1	30·5	30·5	265

Height (Km.)	n	V	v	D
		BOMBAY		
10	22	15·8	15·1	247
11	2	23·0	23·0	242
12	1	20·0	20·0	265
13	1	24·5	24·5	245
14	1	26·0	26·0	240
15	1	28·0	28·0	240
16	1	23·0	23·0	240
17	1	18·5	18·5	250
18	1	13·5	13·5	250
19	1	11·0	11·0	245
		CALCUTTA		
10	7	20·2	18·0	264
11	3	25·8	25·3	278
12	1	20·0	20·0	240
13	1	25·5	25·5	230
14	1	21·5	21·5	245
15	1	21·0	21·0	260
16	1	21·0	21·0	250
		COCHIN		
10	25	6·8	5·4	122
11	13	7·1	6·1	127
12	11	8·7	6·9	136
13	10	9·9	7·7	131
14	9	11·1	9·4	140
15	8	10·5	10·4	132
16	5	13·2	11·6	124
17	4	18·0	16·0	110
18	4	11·7	10·5	134
19	2	8·5	8·4	64
20	1	9·0	9·0	120
		COOCH BEHAR		
10	6	31·4	31·3	253
11	2	32·5	32·0	250
12	2	30·7	30·7	248
13	1	34·0	34·0	255
14	1	33·5	33·5	250
15	1	32·5	32·5	245
16	1	29·0	29·0	240
		CUTTACK		
10	17	13·3	12·4	251

Height (Km.)	n	V	v	D
		CUTTACK		
11	10	13·3	12·4	246
12	6	11·7	11·4	240
13	3	12·2	11·9	228
14	2	7·5	7·5	218
		DECLALI		
10	6	21·5	20·7	248
11	1	18·0	18·0	245
		GADAG		
10	29	9·3	7·7	218
11	14	10·3	8·1	207
12	7	10·2	5·6	192
13	4	13·7	3·5	196
14	3	12·5	11·1	178
		GOPALPUR		
10	27	11·1	9·6	252
11	8	14·6	13·4	260
12	7	15·1	14·4	256
13	5	19·3	18·5	256
14	4	19·4	19·3	267
15	3	20·3	17·5	255
16	2	17·2	15·5	231
17	1	19·0	19·0	245
18	1	19·0	19·0	250
19	1	18·0	18·0	245
		HYDERABAD (Dn.)		
10	16	12·4	11·4	241
11	12	15·5	14·3	235
12	9	16·1	14·6	235
13	6	14·5	12·7	227
		JAGDALPUR		
10	38	13·0	12·0	254
11	27	13·9	11·9	235
12	17	13·4	11·6	239
13	9	11·2	10·5	222
14	8	13·8	11·7	213
15	6	14·3	11·1	235
16	4	9·3	6·5	247
17	2	15·3	10·9	269

Height (Km.)	n	V	v	D
		JAMSHEDPUR		
10	9	18·8	18·3	248
11	2	26·7	26·3	248
		JHARSUGUDA		
10	20	17·4	16·8	246
11	9	20·5	20·3	246
12	7	24·3	24·0	234
13	6	25·5	24·9	226
14	3	27·5	26·9	216
15	1	14·0	14·0	230
16	1	16·5	16·5	235
17	1	1·0	1·0	225
18	1	2·0	2·0	65
19	1	3·5	3·5	60
		JODHPUR		
10	5	35·1	34·0	253
11	2	34·3	34·1	277
		JUBBULPORE		
10	4	27·3	27·0	252
11	2	25·0	25·0	251
		MADHOSAGAR		
10	11	42·5	41·8	262
11	3	51·5	50·0	255
		MADRAS		
10	20	6·5	5·1	124
11	6	8·8	7·8	124
12	6	11·7	10·9	131
13	5	14·2	13·9	131
14	4	20·1	19·7	129
15	1	6·5	6·5	110
16	1	21·5	21·5	105
		MALEGAON		
10	31	19·8	18·2	250
11	13	20·7	20·2	239
12	10	23·9	23·4	232
13	6	31·9	30·9	235
14	5	30·4	30·1	222
15	1	30·5	30·5	240

Table B.—Monthly Mean Directions and Velocities of Upper Winds

Winds at and above 10·0 Km. above Sea-level

NOVEMBER, 1949

Height (Km.)	n	V	v	D
		MANGALORE		
10	35	5·7	3·8	177
11	18	8·0	6·1	179
12	15	8·5	6·3	175
13	13	9·8	7·0	167
14	12	8·6	7·3	169
15	10	11·7	8·6	149
16	5	15·1	13·6	142
17	5	11·6	10·9	148
18	1	18·0	18·0	190
19	1	20·0	20·0	185
		MASULIPATAM		
10	28	7·7	5·5	222
11	11	7·8	6·5	230
12	7	10·1	9·7	248
13	2	7·7	7·7	218
14	2	9·3	8·9	211
		MINICOY		
10	11	6·5	4·3	130
11	11	9·3	7·4	129
12	7	11·4	7·4	170
13	5	8·8	5·7	145
14	4	15·0	5·9	153
15	3	27·7	26·9	146
16	2	18·7	18·7	168
17	2	10·3	8·9	170
18	2	19·7	17·7	181
19	2	25·5	22·4	196
20	1	7·0	7·0	70
21	1	6·0	6·0	30
22	1	6·0	6·0	145
23	1	10·0	10·0	125
24	1	17·0	17·0	115
25	1	28·0	28·0	115
26	1	26·5	26·5	90
		NAGERCOIL		
10	15	10·5	8·9	100
11	4	11·9	10·8	100
12	2	10·0	9·7	68
13	2	11·3	10·9	103
14	1	15·0	15·0	125
15	1	16·5	16·5	125

Height (Km.)	n	V	v	D
		NAGPUR		
10	20	13·2	17·1	249
11	8	18·3	15·6	246
12	8	20·7	18·2	240
13	7	21·9	19·5	228
14	5	21·2	20·2	218
15	3	22·3	22·3	215
16	1	24·0	24·0	225
		NEW DELHI		
10	4	39·6	39·4	267
11	3	37·5	36·8	259
		POONA		
10	36	14·4	13·9	245
11	16	16·7	16·0	233
12	14	17·0	16·2	233
13	7	15·0	14·4	220
14	3	14·3	14·3	222
15	1	9·5	9·5	235
		PORT BLAIR		
10	13	5·7	4·6	113
11	8	6·7	4·9	122
12	8	7·1	5·3	112
13	8	8·3	7·0	131
14	7	11·0	10·1	124
15	7	11·2	10·6	114
16	6	11·3	10·1	127
17	7	16·2	15·4	118
18	5	17·0	15·6	106
19	3	23·0	21·9	100
20	1	9·0	9·0	100
21	1	5·0	5·0	95
		RAIPUR		
10	26	18·9	17·3	254
11	10	23·1	22·1	256
12	7	24·9	24·2	249
13	3	31·7	30·2	249
14	1	32·0	32·0	270
15	1	30·0	30·0	260
16	1	40·0	40·0	260
		SAHARSA		
10	1	31·0	31·0	245

Height (Km.)	n	V	v	D
		TEZPUR		
10	16	36·3	34·4	261
11	8	42·4	40·7	267
12	6	38·8	36·3	265
13	4	40·1	39·2	265
14	4	41·9	40·5	266
15	3	34·3	34·2	255
16	1	44·0	44·0	250
		TRICHINOPOLY		
10	23	7·5	6·7	132
11	4	6·5	5·7	144
12	2	7·3	6·9	107
13	1	10·0	10·0	110
14	1	9·0	9·0	120
		TRIVANDRUM		
10	4	7·7	7·5	106
11	3	9·3	8·2	112
12	2	20·0	18·5	103
13	1	27·0	27·0	125
		UDAIPUR		
10	3	25·5	25·5	270
11	1	20·0	20·0	260
		VENGURLA		
10	16	11·4	10·2	235
11	5	10·8	5·9	243
12	3	13·7	13·5	193
13	2	9·3	7·3	217
		VERAVAL		
10	8	22·2	21·9	247
11	4	23·4	22·9	250
		VIZAGAPATAM		
10	24	9·5	8·3	242
11	14	11·0	8·9	233
12	13	12·0	9·8	212
13	12	12·6	10·9	200
14	11	11·2	9·5	205
15	9	12·4	9·0	202
16	8	12·8	9·7	200
17	6	12·3	6·0	203
18	6	13·0	6·7	234

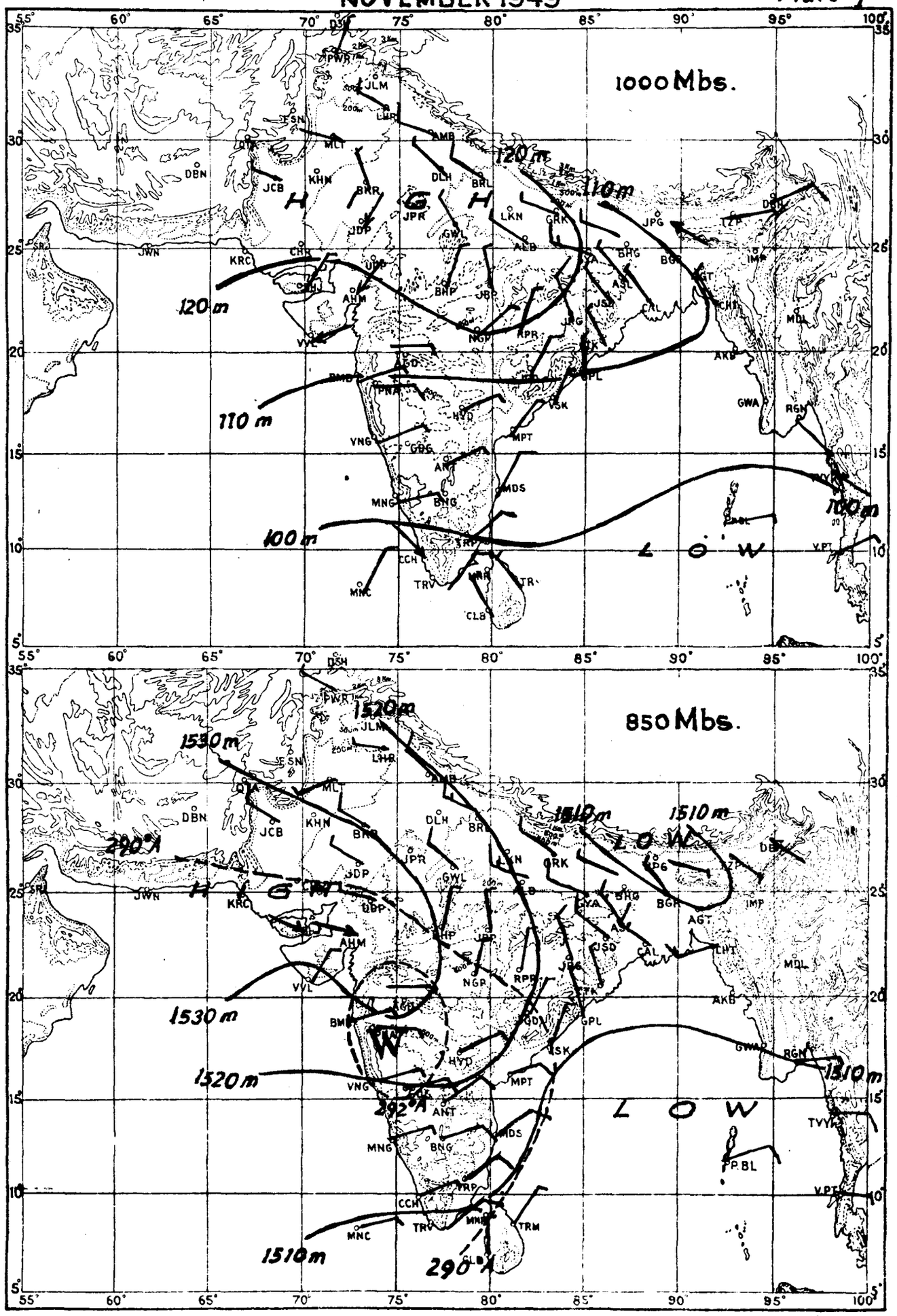
Height (Km.)	n	V	v	D
		VIZAGAPATAM		
19	3	18·0	17·0	2
20	3	24·0	22·4	2
21	2	43·5	41·7	2
22	2	42·5	37·0	2
23	1	28·0	28·0	2
24	1	24·0	24·0	2
25	1	34·0	34·0	2

GIPN—S2—12 D.D.G.Obs. Poona—28-3-55—260.

MONTHLY MEAN CONSTANT PRESSURE CHARTS.

NOVEMBER 1949

Plate I



RESULTANT WIND —\= 5 Knots; —\= 10 Knots; —\= 50 Knots.

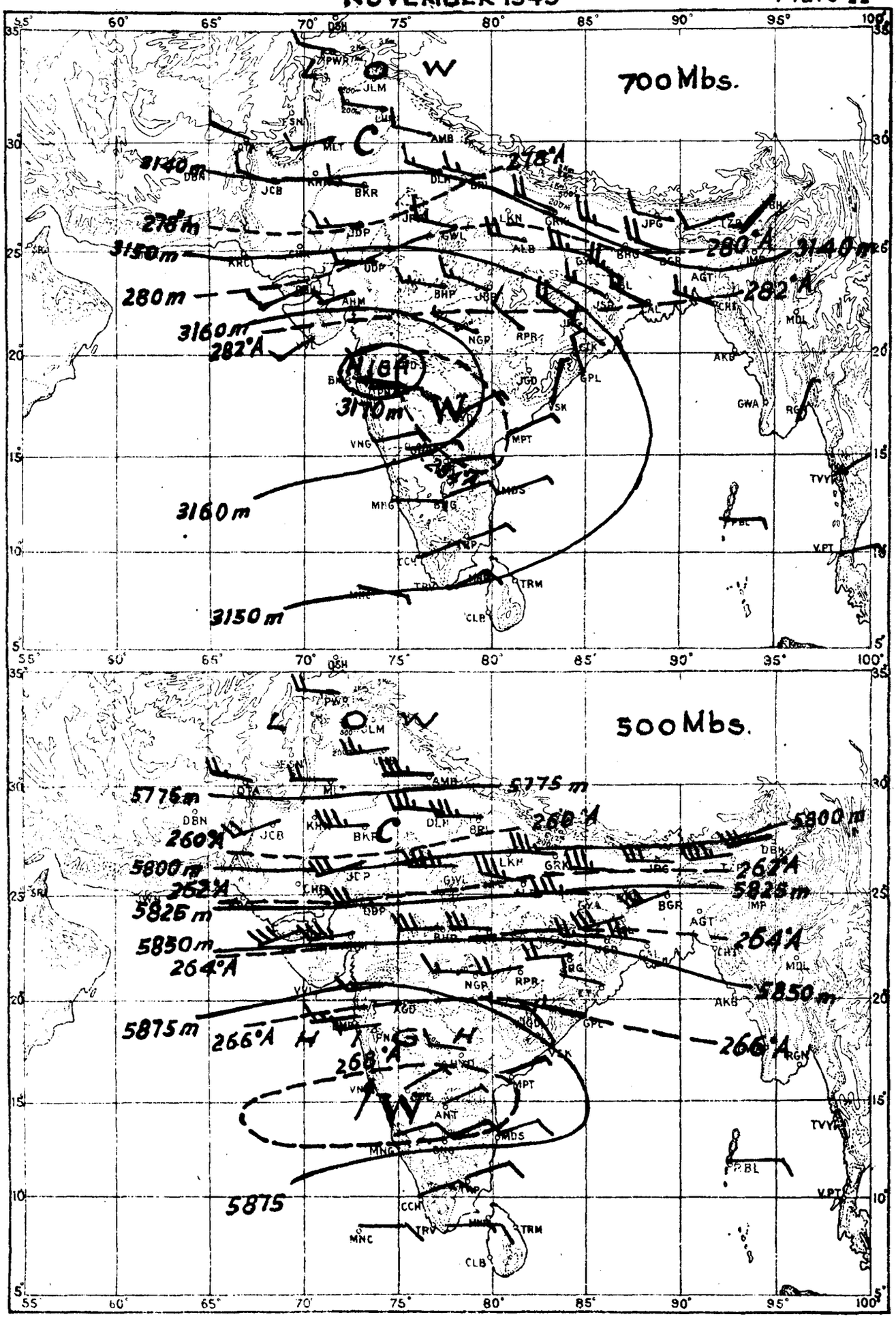
------ Isotherms in degrees absolute ——— Contours in geopotential metres.

G.PZ.P.POONA,

MONTHLY MEAN CONSTANT PRESSURE CHARTS.

NOVEMBER 1949

Plate II



RESULTANT WIND —\= 5 Knots, —\= 10 Knots, —\= 50 Knots.

------ Isotherms in degrees absolute. ——— Contours in geopotential metres.

G PZ.P.POONA,53.

The northeast monsoon was weak throughout the month with the result that little or no rain fell over most of its field of activity. According to a report of the Government of Madras, the drought conditions led to the withering of standing crops in many districts of southeast Madras.

There were local or scattered showers in Assam in the beginning of the month and again on a few days in the second and third weeks.

Nights were unusually cold in Bihar, Chota Nagpur, West Bengal and Eastern Pakistan on most of the days during the month.

The rainfall for the month was in slight excess in Assam and in large defect in the Bay Islands, Chota Nagpur, the West United Provinces, the East Punjab, West Rajputana, Vindhya Pradesh, the West Central Provinces and the Madras Presidency outside the Madras Deccan. Elsewhere no rain fell. Averaged over the plains of India, the month's rainfall was 87% in defect.

The mean maximum temperature was above normal in the Bay Islands and the Bombay Deccan and normal elsewhere. The mean minimum temperature was below normal in Assam, West Bengal, Bihar, the West United Provinces, the East Punjab, East Rajputana and Vindhya Pradesh and normal elsewhere.

The mean relative humidity was in defect in West Bengal, Bihar, the East Punjab, and Southeast Madras and normal elsewhere.

Cloud amount was normal in the Bay Islands, Orissa, Mysore and the Madras Presidency outside the North Madras coast and in defect elsewhere.

Data from Kashmir are not available.

Table I contains the divisional and sub-divisional means of rainfall temperature, humidity and cloud amount for the 13 chief political divisions and the 27 sub-divisions. The stations whose observations are used for preparing these means are given in the subsequent tables.

The highest maximum temperature given for any station in the accompanying tables is that recorded within the 24 hours ending at 8-30 hours I. S. T. of the date noted in the succeeding column; similarly the heaviest fall in 24 hours for any station denotes the amount recorded during the 24 hours ending at 8-30 hours I. S. T. of the date given in the succeeding column.

POONA-5;
Dated the 27th April 1950

S. BASU,
for *Director General of Observatories.*

	Rainfall				Departure from normal of				
							0830 hrs. I.S.T.		
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Maximum temperature.	Minimum temperature.	Vapour pressure.	Relative humidity.	Cloud.
1	2	3	4	5	6	7	8	9	10
	"	"	"		°	°	mb.	%	
vision—									
Assam	0·31	0·28	+0·03	+11	−0·8	−2·2	−0·8	−5	−0·4
West Bengal	0	0·15	−0·15	−100	−0·2	−2·7	−1·7	−7	−1·0
Orissa	0	0·26	−0·26	−100	+1·5	+0·9	+0·8	+2	−0·2
Bihar	0	0·18	−0·18	−100	0	−2·4	−1·3	−7	−0·8
United Provinces	0·04	0·40	−0·36	−90	−1·2	−2·2	−1·2	−2	−0·7
East Punjab	0·06	0·51	−0·45	−88	+1·0	−2·5	−1·7	−7	−0·4
Rajputana	0·01	0·17	−0·16	−94	0	−1·7	−0·6	−2	−0·8
b-Division—									
Baylslands	0·27	7·92	−7·65	−97	+2·0	+0·6	−0·1	+2	+0·8
Assam	0·31	0·28	+0·03	+11	−0·8	−2·2	−0·8	−5	−0·4
West Bengal	0	0·15	−0·15	−100	−0·2	−2·7	−1·7	−7	−1·0
Orissa	0	0·26	−0·26	−100	+1·5	+0·9	+0·8	+2	−0·2
Chota Nagpur	0·01	0·24	−0·23	−96	+0·1	−1·2	−0·7	−5	−0·7
Bihar	0	0·15	−0·15	−100	−0·1	−3·2	−1·7	−8	−0·8
United Provinces, East.	0	0·29	−0·29	−100	−1·8	−1·7	−1·5	−4	−0·8
United Provinces, West.	0·07	0·50	−0·43	−86	−0·5	−2·8	−1·0	−1	−0·6
East Punjab	0·06	0·51	−0·45	−88	+1·0	−2·5	−1·7	−7	−0·4
Kashmir	Data incomplete.								
Rajputana, West	0·02	0·13	−0·11	−85	−0·5	−1·1	+0·5	+1	−0·7
Rajputana, East	0	0·21	−0·21	−100	+0·4	−2·4	−1·8	−5	−0·9
Gujarat	0	0·05	−0·05	−100	+0·5	−0·9	−0·9	+2	−0·9
Saurashtra and Cutch.	0	0·07	−0·07	−100	−0·4	−0·5	−0·4	+3	−0·6

	Rainfall				Departure from normal of				
							0830 hrs. I.S.T.		
	Actual.	Normal.	Departure from normal.	Percentage departure from normal.	Maximum temperature.	Minimum temperature.	Vapour pressure.	Relative humidity.	Cloud.
1	2	3	4	5	6	7	8	9	10
	"	"	"		°	°	mb.	%	
Division—*contd.*									
8. Bombay (including Saurashtra and Cutch).	0	0·17	−0·17	−100	+0·7	−0·7	−0·4	+1	−0·9
9. Central India (including Madhya Bharat & Bhopal and Vindhya Pradesh)	0·01	0·32	−0·31	−97	+1·1	−1·9	−0·7	−1	−1·0
10. Central Provinces and Berar	0	0·36	−0·36	−100	+1·7	+0·7	+0·4	+1	−1·1
11. Hyderabad	0	0·21	−0·21	−100	+1·6	+0·3	−0·3	+1	−1·1
12. Mysore	0	0·50	−0·50	−100	−0·1	−1·8	−1·7	−1	−0·6
13. Madras	0·43	2·40	−1·97	−82	+0·6	−1·0	−1·5	−3	−0·3
Mean of India	0·07	0·53	−0·46	−87	+0·5	−1·1	−0·7	−2	−0·7
Sub-Division—*contd.*									
15. Madhya Bharat and Bhopal.	0	0·27	−0·27	−100	+1·3	−1·6	−0·7	−1	−1·1
16. Vindhya Pradesh	0·02	0·39	−0·37	−95	+0·9	−2·4	−0·7	−2	−0·9
17. Berar	0	0·49	−0·49	−100	+1·7	+1·1	+0·1	+4	−1·5
18. Central Provinces, West.	0·01	0·44	−0·43	−98	+1·8	−0·2	+0·3	+2	−0·9
19. Central Provinces, East.	0	0·21	−0·21	−100	+1·5	+1·5	+0·7	−1	−1·1
20. Konkan	0	0·23	−0·23	−100	−0·5	−1·4	+0·1	+3	−0·8
21. Bombay Deccan	0	0·26	−0·26	−100	+2·2	−0·4	−0·4	−2	−1·1
22. Hyderabad, North.	0	0·23	−0·23	−100	+1·8	+0·8	−0·7	+2	−1·2
23. Hyderabad, South.	0	0·20	−0·20	−100	+1·4	0	0	0	−1·0
24. Mysore	0	0·50	−0·50	−100	−0·1	−1·8	−1·7	−1	−0·6
25. Malabar	0·05	1·40	−1·35	−96	+0·8	−1·7	−2·3	−5	+0·4
26. Madras, South East	1·06	4·75	−3·69	−78	+0·7	−0·7	−2·5	−7	−0·2
27. Madras Deccan	0	0·30	−0·30	−100	−0·4	−1·4	−0·4	−3	−0·3
28. Madras Coast, North	0·03	1·06	−1·03	−97	+1·1	−0·6	0	+2	−1·1

STATION	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature °F		Wet bulb temperature °F.		Vapour pressure, millibars.			Relative humidity %	
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Bay Islands																					
Port Blair	259	1003·1	−1·1	1000·6	85·6	+2·0	87	6 days	73·5	+0·6	66	12	81·3	77·8	74·7	72·8	26·5	−0·1	25·3	73	+2
Assam																					
Dibrugarh	348	1004·5	−1·9	1000·6	71·8	−2·2	78	1	50·8	−0·3	44	28	61·2	61·2	58·1	58·1	15·2	0	15·2	82	−9
Sibsagar	317	1005·6	−1·9	1001·9	71·5	−0·7	77	1	50·0	−0·9	43	28	57·9	61·9	56·7	58·8	15·4	−0·1	15·6	93	−1
Tezpur	258	1008·1	−1·6	1003·7	74·8	−0·4	80	1	52·6	−1·5	48	28	58·6	63·0	56·9	59·4	15·3	−0·2	15·8	89	+1
Gauhati	182	1010·3	−1·4	1006·3	74·1	−1·5	80	1,2	51·0	−1·7	45	16	58·4	66·0	56·6	60·2	14·6	−1·4	15·0	89	0
Dhubri	115	1013·0	−0·9	1009·2	...	...	...	...	...	...	...	...	60·7	66·1	57·5	60·1	14·9	−1·0	15·1	81	−2
Silchar	96	1013·0	−1·4	1008·9	78·3	−1·5	82	3	51·8	−2·9	47	23,24	60·6	67·9	57·9	61·4	15·4	−1·0	15·6	82	−1
West Bengal																					
Dum Dum	33	1015·1	...	1011·4	78·7	...	86	2	53·0	...	48	28	64·3	71·0	56·8	60·1	12·4	...	12·7	60	...
Calcutta	21	1015·5	−1·5	1011·9	79·7	+0·3	87	2	53·9	−1·1	49	17,31	64·3	68·7	57·8	60·6	13·5	−1·3	14·4	66	−11
Saugor Island	10	1015·4	−1·7	1011·9	77·0	+0·1	83	3,4	59·3	+0·1	53	22	68·4	70·3	61·7	62·0	16·0	−1·4	15·0	66	−11
Sandheads	32	1014·0	−2·3	1011·1	...	...	...	...	...	...	...	...	74·6	75·4	65·3	64·8	16·9	−1·4	16·3	58	0
Midnapore	149	1010·7	−1·8	1007·0	79·4	−0·4	86	1,2	52·0	−3·5	47	17,29	65·3	72·9	56·7	60·9	11·9	−1·2	12·8	53	−10
Contai	36	1014·3	...	1010·7	80·2	...	87	2	57·0	...	52	17,28,29	63·3	73·5	58·2	62·3	14·4	...	14·3	73	...
Burdwan	106	1012·3	−1·9	1008·6	79·2	+0·3	87	2	52·4	−3·5	48	17	60·0	71·7	53·6	61·4	11·1	−2·4	13·7	63	−5
Krishnagar	48	1015·0	−1·2	1011·2	80·1	+1·4	87	1,2	49·2	−3·9	45	23,28	60·2	69·7	55·6	60·3	13·1	−1·4	13·5	73	−1
Asansol	414	1001·9	−1·3	997·9	78·0	−0·6	87	1	51·1	−2·3	46	17	62·1	70·1	55·0	59·1	11·7	−1·3	12·2	61	−6
Berhampore	62	1014·1	−1·7	1010·1	78·3	+1·2	87	2	50·6	−4·5	47	18	60·8	70·2	54·8	60·4	12·0	−2·7	13·3	66	−10
Malda	103	1012·8	−1·7	1009·0	74·3	−1·5	81	1	48·3	−4·2	42	22	64·5	66·2	56·7	58	12·0	−2·3	13·5	59	−14
Cooch Behar	145	1011·8	...	1007·7	75·9	...	80	6	50·2	...	46	21,31	61·1	64·6	57·0	59·8	13·7	...	15·2	77	...
Jalpaiguri	271	1006·6	−1·7	1002·7	74·2	−2·5	78	1	51·5	−1·7	47	21	56·3	67·9	54·2	59·9	13·5	−1·1	14·0	87	+3
Orissa																					
Balasore	65	1014·0	−1·6	1010·5	80·7	+0·7	88	1	56·7	+1·0	51	18	66·6	70·2	59·6	63·5	14·3	+0·1	17·2	64	−6
Chandbali	20	1015·3	−1·3	1012·1	82·1	+1·8	91	2	57·9	+0·1	51	31	67·2	71·1	62·2	64·2	16·8	+0·8	17·9	75	0
Puri	20	1015·4	−1·2	1011·9	81·2	+0·7	85	1	63·7	+1·2	60	6 days	70·0	75·7	63·8	67·4	17·7	+0·6	18·9	69	−3
Gopalpur	56	1014·0	−1·4	1010·5	82·1	+1·7	87	2	62·0	+1·0	57	18,19	69·1	76·0	65·2	71·0	20·0	+2·8	23·7	80	+8
Cuttack	87	1012·6	−2·2	1008·9	82·9	+1·7	90	2	60·2	+1·5	53	18	64·8	76·5	60·5	65·0	15·9	+0·1	15·9	76	+1
Angul	455	1000·4	−1·1	996·7	81·0	+1·0	86	2,3,4	55·9	+0·9	51	18,29	62·8	75·6	58·7	63·5	15·2	+0·7	14·7	77	+5
Sambalpur	486	999·3	−1·6	995·3	82·8	+2·6	88	1,2,3	53·5	−0·3	46	18	63·7	74·8	58·4	62·8	14·1	−0·1	14·2	71	−2
Chota Nagpur																					
Jamshedpur	423	1001·5	−1·5	997·4	77·9	−1·9	86	1	51·9	+0·4	45	17	59·7	72·3	54·6	61·0	12·3	−0·6	13·0	70	−5
Chaibasa	742	990·6	−1·1	986·3	80·3	+2·1	88	1	53·2	+1·6	48	17,18	60·4	73·7	55·3	61·1	12·7	−0·6	12·8	71	−5
Ranchi	2,150	941·7	−1·3	938·6	74·6	+1·7	85	1	46·7	−3·9	42	17	59·9	65·7	51·7	55·0	10·0	−0·3	10·6	56	−2
Hazaribagh	2,006	946·5	−1·5	943·7	71·7	−0·7	81	1	47·7	−2·3	41	30	59·3	63·0	50·4	52·5	8·8	−1·6	9·3	52	−9
Daltonganj	725	991·4	−1·5	987·6	75·7	−0·7	86	1	45·0	−1·5	40	17,28,29	55·8	67·7	51·8	59·8	11·3	−0·3	13·9	74	−5
Dhanbad	839	986·7	...	...	76·3	...	85	1	50·6	...	47	6 days	61·5	...	52·2	...	9·0	...	...	49	...
Bihar																					
Purnea	124	1012·1	−1·7	1008·1	75·6	−0·7	81	2	45·8	−3·7	40	23	58·5	62·3	54·1	58·3	12·3	−1·4	14·9	74	−11
Saharsa	156	1010·5	...	1007·0	74·5	...	80	2	47·5	...	42	22,23	58·9	65·7	53·9	51·4	12·0	...	12·1	70	...
Darbhanga	161	1010·9	−1·6	1007·1	75·7	−0·7	81	1,2	48·3	−3·5	44	22	57·3	64·4	53·9	58·3	12·5	−1·8	14·0	81	−2
Motihari	218	1008·6	−1·8	1005·0	73·4	−1·8	79	1	44·9	−3·2	41	21	57·7	62·2	54·1	57·6	12·7	−0·8	14·2	79	−1
Patna	173	1010·2	−2·0	1006·8	74·3	−0·3	81	1	49·1	−3·2	45	27	58·9	67·6	52·3	56·6	10·6	−2·2	10·7	63	−7
Dehri	352	1003·9	...	1000·2	75·9	...	85	1	50·4	...	47	22,30	59·4	68·8	53·0	56·8	10·4	...	10·8	63	...

Cloud amount, (Oktas).			Rainfall, inches.				Number of rainy days (0·10" or more)		Wind velocity, miles per hour.		Wind direction—Number of winds from:—																		STATION
											0830 hrs. I. S. T.									1730 hrs. I. S. T.									
Mean 0830 hrs. I.S.T.	Departure from normal	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																													Bay Islands
5·0	+0·8	5·2	0·27	−7·65	0·20	9	1	−6·2	7·9	−1·2	4	20	6	0	0	0	0	1	0	4	24	3	0	0	0	0	0	0	Port Blair
																													Assam
3·3	+0·7	2·6	0·98	+0·35	0·41	2	3	+1·6	1·0	+0·5	4	7	9	1	2	0	1	3	4	1	1	1	0	1	0	0	0	27	Dibrugarh
4·3	−1·6	2·5	3·01	+2·43	1·16	1	5	+3·5	1·8	+0·8	3	1	5	0	2	3	0	4	13	10	5	1	0	0	0	0	0	15	Sibsagar
1·8	−0·2	0·8	0·75	+0·50	0·42	20	2	+1·3	1·3	−0·1	1	5	18	5	0	0	0	0	2	2	4	0	0	0	0	0	0	25	Tezpur
1·6	−0·3	1·5	0	−0·16	0	...	0	−0·5	1·6	+0·5	10	7	2	5	1	1	0	0	5	0	4	1	3	0	0	0	1	22	Gauhati
0·4	−0·9	0·7	0	−0·07	0	...	0	−0·1	2·2	−1·3	1	8	6	3	2	2	0	0	9	0	2	1	0	1	5	3	2	17	Dhubri
0·5	−1·5	0·7	0	−0·42	0	...	0	−0·7	0·7	−0·2	0	2	5	3	0	0	1	0	20	0	1	0	0	0	0	0	0	30	Silchar
																													West Bengal
0·2	...	0·3	0	...	0	...	0	...	1·9	...	9	3	1	0	0	0	0	3	15	3	1	0	0	0	0	0	10	17	Dum Dum
0·3	−1·1	0·6	0	−0·18	0	...	0	−0·3	2·4	+0·5	9	3	0	0	0	1	0	2	16	2	0	0	0	0	0	0	1	28	Calcutta
0·3	−1·6	0·3	0	−0·21	0	...	0	−0·4	6·2	+0·7	15	10	1	0	0	1	0	4	0	11	3	0	1	4	5	3	2	2	Saugor Island
1·1	−0·7	0·5	0	−0·15	0	...	0	−0·3	...	...	16	9	0	0	1	4	0	1	0	10	7	2	1	0	1	1	6	3	Sandheads
0·2	−1·1	0·5	0	−0·16	0	...	0	−0·3	2·2	+0·8	17	8	1	0	0	0	0	0	5	5	4	1	0	0	0	0	0	21	Midnapore
0·3	...	0·3	0	...	0	...	0	...	2·2	...	28	1	0	0	0	0	0	1	1	5	0	0	0	13	1	0	0	12	Contai
0	−1·4	0·3	0	−0·19	0	...	0	−0·3	1·7	+0·5	9	3	0	0	0	0	8	5	6	3	5	0	2	0	2	1	7	11	Burdwan
0·1	−1·2	0·3	0	−0·11	0	...	0	−0·2	1·7	+0·6	6	0	0	0	3	0	18	3	1	0	0	0	0	0	0	1	0	30	Krishnagar
0·4	−1·0	0·4	0	−0·18	0	...	0	−0·4	3·2	−0·1	2	1	0	0	0	0	6	14	8	1	0	0	0	0	0	1	8	21	Asansol
0	−1·4	0·3	0	−0·16	0	...	0	−0·4	1·0	+0·1	3	0	0	0	2	2	4	3	17	1	0	0	0	0	0	0	0	30	Berhampore
0·1	−0·5	0	0	−0·07	0	...	0	−0·2	2·1	−0·7	7	1	0	0	2	3	3	9	6	2	0	0	0	0	1	4	9	15	Malda
0·7	...	0·8	0	−0·16	0	...	0	−0·3	1·5	...	2	8	13	2	1	0	0	0	5	1	0	1	0	1	1	1	0	26	Cooch Behar
0·9	−0·1	1·6	0	−0·17	0	...	0	−0·4	1·9	+1·1	12	5	2	0	0	0	0	0	12	1	0	1	1	0	3	5	0	20	Jalpaiguri
																													Orissa
0·8	−0·7	0·7	0	−0·16	0	...	0	−0·3	1·5	−0·1	17	6	0	0	0	0	0	5	3	0	0	0	0	0	0	0	0	31	Balasore
0·6	−1·2	0·6	0	−0·03	0	...	0	−0·1	3·3	0	16	1	0	0	0	0	3	11	0	1	7	9	14	0	0	0	0	0	Chandbali
0·8	−0·6	0·9	0	−0·24	0	...	0	−0·4	6·7	+0·9	23	7	0	0	0	0	1	0	0	0	1	2	13	8	7	0	0	0	Puri
1·2	−0·2	0·9	0	−0·53	0	...	0	−0·7	5·4	−0·7	23	2	0	0	0	0	0	5	1	0	0	7	12	10	2	0	0	0	Gopalpur
1·2	−0·6	0·7	0	−0·23	0	...	0	−0·4	1·3	+0·4	0	2	0	0	0	0	0	0	29	0	0	1	0	0	0	0	0	30	Cuttack
2·3	+0·7	1·1	0	−0·14	0	...	0	−0·4	3·3	+0·3	3	0	1	2	2	4	12	5	2	12	5	2	1	1	1	4	2	3	Angul
0·9	−0·5	0·5	0	−0·17	0	...	0	−0·3	1·3	−0·6	9	8	1	0	0	0	0	0	13	1	2	0	0	1	1	2	2	22	Sambalpur
																													Chota Nagpur
0·5	−1·1	0·7	0	−0·23	0	...	0	−0·4	1·9	+0·4	0	0	1	0	0	2	10	5	13	1	3	4	0	0	1	2	3	17	Jamshedpur
1·1	−0·4	1·2	0·03	−0·15	0·03	4	0	−0·4	0·9	−0·2	0	1	0	0	0	8	1	1	20	0	1	0	0	0	6	1	0	23	Chaibasa
0·3	−1·1	0·4	0	−0·27	0	...	0	−0·6	2·6	−0·3	1	0	0	0	2	1	3	0	24	3	0	0	0	0	0	1	2	25	Ranchi
1·1	−0·2	0·5	0	−0·27	0	...	0	−0·5	4·6	+0·1	4	0	0	0	1	3	5	7	11	8	1	0	0	0	0	1	18	3	Hazaribagh
0·4	−0·6	0·4	0	−0·25	0	...	0	−0·5	1·8	+0·3	0	1	9	0	0	0	2	1	18	2	3	4	3	0	0	7	1	11	Daltonganj
...	...	...	0	...	0	...	0	...	3·2	...	0	1	1	0	0	6	9	0	14	...	...	...	...	...	...	...	...	...	Dhanbad
																													Bihar
0·2	−0·7	0·1	0	−0·12	0	...	0	−0·3	1·4	+0·3	0	2	3	0	0	12	8	1	5	0	0	0	0	0	0	0	0	31	Purnea
0·5	...	0	0	...	0	...	0	...	1·5	...	1	2	1	0	0	20	3	1	3	0	0	0	0	0	0	4	0	27	Saharsa
0·3	−0·6	0	0	−0·12	0	...	0	−0·3	0·6	−0·5	0	2	1	0	2	4	8	0	14	0	0	0	0	0	0	1	0	30	Darbhanga
0·1	−1·1	0·1	0	−0·15	0	...	0	−0·4	1·4	+0·1	0	0	0	0	0	0	3	1	27	0	0	0	0	0	0	4	0	27	Motihari
0·2	−0·8	0·2	0	−0·22	0	...	0	−0·5	3·1	+1·4	0	2	0	0	3	16	5	1	4	0	0	0	0	0	0	15	8	8	Patna
0·2	...	0·3	0	−0·18	0	...	0	−0·5	2·8	...	1	1	0	2	0	27	0	0	0	0	3	0	0	0	1	0	19	8	Dehri

TABLE II—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M.

STATION	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature °F.		Vapour pressure, millibars.			Rela hum %	
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Bihar—*contd.*																					
Gaya	365	1003·4	−1·5	999·9	76·1	+1·5	84	1	46·8	−1·8	43	23,29	56·7	67·5	50·7	55·1	9·9	−1·1	9·2	64	−
Naya Dumka	489	998·9	−1·8	995·3	78·1	+1·7	86	1,2	48·4	−3·2	45	22	62·5	71·5	53·5	58·1	10·0	−2·8	10 4	51	−1
Sabour	122	1012·1	−1·5	1008·2	75·0	−0·7	81	2	43·5	−4·4	40	5,22,23	59·1	62·6	53·7	57·1	11·6	−1·9	13·5	68	−1
U. P., East																					
Gonda	360	1003·5	...	1000·4	72·9	−2·9	80	1	45·1	−2·6	41	21,22	52·5	63·2	49·4	56·0	10·7	−1·3	12·2	79	−
Gorakhpur	254	1006·9	−2·0	1003·9	73·4	−1·1	80	1	48·7	−1·1	45	22,23	56·2	66·7	51·6	58·2	11·0	−1·6	12·6	72	−
Banaras	250	1007·3	−2·1	1004·4	74·0	−1·2	83	1	46·1	−2·1	40	22	54·7	68·2	50·6	57·8	10·7	−1·3	11·5	74	−
Allahabad (Bamrauli).	322	1005·2	−1·8	1002·1	74·7	−1·0	82	1	46·3	−0·8	42	8	54·8	67·3	50·6	56·9	10·7	−0·3	11·2	73	−
Fatehpur	375	1003·4	...	999·6	71·7	−4·4	77	2,31	44·9	−2·6	41	7,21	54·5	69·7	49·3	58·2	9·9	−1·7	11·3	57	−
Kanpur	413	1001·9	−1·6	999·1	73·5	−0·5	81	1	45·3	−1·2	41	5	51·8	68·8	47·7	56·7	9·6	−1·2	10·5	73	−
Lucknow	371	1003·4	−1·5	1000·8	74·3	−1·6	82	1	46·0	−1·3	41	23	52·4	65·1	48·4	57·6	9·6	−1·4	12·8	73	−
Bahraich	407	1002·0	−1·1	998·5	66·5	−8·5	73	1,26	45·9	−2·3	41	21	56·1	65·6	51·7	57·4	11·1	−0·4	12·6	70	−1
U. P., West.																					
Jhansi	823	988·3	−1·2	984·9	77·8	−0·3	83	31	45·8	−2·5	41	5,7	56·8	73·0	49·9	58·2	9·2	−0·9	9.7	58	−
Agra	553	997·3	−1·4	994·3	74·5	−0·9	80	1	43·5	−2·8	40	4,27	51·3	71·2	45·0	54·4	7·3	−1·5	6·7	70	+
Mainpuri	516	998·1	−1·6	995·3	75·2	−0·2	81	1	44·3	−2·0	41	5 days	51·8	68·5	47·6	58·6	9·6	−0·2	12·3	71	
Aligarh	615	994·8	...	991·9	74·0	0	78	1	41·7	−5·4	37	21,27,28	50·0	67·4	45·0	55·9	8·0	−1·2	10·1	65	+
Bareilly	568	995·6	−2·1	992·4	72·6	−0·5	78	1	45·5	−1·1	41	21	52·0	64·8	47·2	54·0	8·8	·0	9·3	68	−1
Meerut	728	990·2	...	...	72·3	...	78	1	42·8	...	36	21	48·2	...	43·5	...	7·2	...	...	65	..
Roorkee	899	983·7	−2·3	981·0	70·5	−0·7	77	1	40·0	−2·8	34	20,21	46·2	64·2	43·5	53·4	8·5	−1·1	8·8	78	−
Dehra Dun	2239	937·5	−2·0	936·0	67·9	−1·2	73	1	42·4	−2·7	37	21	48·3	59·4	44 7	52·9	8·6	−0·1	11·1	76	+
East Punjab																					
New Delhi	714	991·1	−1·6	987·2	72·9	−0·8	78	1	44·3	−0·7	38	21	50·4	66·8	43·5	53·2	6·5	−1·9	7·8	53	−
Hissar	725	991·4	−1·0	988·4	75·2	+1·0	81	1,31	39·9	−3·3	35	7	44·2	69·9	40·1	55·3	6·6	−1·6	8·4	67	−
Patiala	822	986·5	...	984·5	71·0	...	76	1,31	42·5	...	36	4 days	48·0	63·2	43·2	52·6	7·2	...	8·8	66	..
Ambala	892	983·8	−2·3	981·7	72·7	+0·4	78	31	41·7	−2·1	35	21	46·2	65·1	43·3	53·6	8·1	−0·8	8·9	68	−
Ludhiana	811	987·3	−1·9	985·3	73·6	+2·8	80	1	40·7	−3·5	34	21	45·1	67·2	41·0	53·2	7·0	−1·7	7·5	68	−
Amritsar	756	989·3	...	987·4	70·1	...	76	1	37·0	...	30	20	42·8	62·1	40·0	51·5	7·2	...	8·3	77	..
Kashmir																					
Srinagar	5205	845·5	−1·3	843·1	46·7	−1·5	53	5 days	25·9	−1·7	20	21	29·6	41·3	28·0	36·4	4·7	−0·8	5·5	84	−
Gulmarg	8709							Closed during winter months.													
Dras (R)	10059																				
Leh	11529	666·2	−0·2	664·0	28·6	−26·3	37	1	6·7	−6·0	−3	26	10·3	17·8	8·1	13·6	1·3	−3 3	1·5	57	+
Skardu (R)	7505																				
Gilgit (R)	4890																				
Misgar (R)	10190																				
Rajaputana, West																					
Sri Ganganagar	580	...	...	...	72·0	−1·6	75	7 days	40·0	0	35	21	47·7	64·8	43·5	54·5	7·9	+0·4	9·8	69	-
Bikaner	734	990·5	−1·5	987·7	76·0	−0·5	83	30,31	39·2	−2·8	34	3,5,7	46·8	74·1	41·3	57·3	6·5	+0·2	8·3	55	-
Phalodi	800	988·3	...	986·6	77·0	...	84	30	45·9	...	41	4 days	50·5	74·6	45·0	63·5	7·7	...	15·1	62	.
Jaisalmer	793	988·2	...	985·7	78·8	...	83	5,29,30	45·4	...	38	5	52·0	74·9	43·8	56·1	6·3	...	6·8	42	.
Jodhpur	736	990·6	+0·3	987·7	79·3	+0·3	85	22	49·2	−1·3	41	3	54·3	76·6	47·2	61·8	7·9	+0·5	11·9	55	
Barmer	638	993 7	−0·7	990·8	80·0	−0·1	86	30	53·2	−0·3	45	21	56·4	77·4	50·0	60·3	9·4	+1·0	10·4	51	·

(R) Register not received.

Cloud amount, (Oktas).			Rainfall, inches.				Number of rainy days (0-10" or more.)		Wind velocity miles per hour.		Wind direction—Number of winds from:—																		STATION
											0830 hrs. I. S. T.									1730 hrs. I. S. T.									
Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	ure from normal	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																													Bihar—*contd.*
0·2	−0·8	0·3	0	−0·18	0	...	0	−0·4	3·2	+0·1	0	0	0	4	22	4	0	0	1	5	2	0	0	0	0	12	11	1	Gaya
0·1	−0·8	0·1	0	−0·13	0	...	0	−0·3	1·6	+0·5	1	0	0	0	0	0	16	5	9	1	0	0	0	0	2	12	6	10	Naya Dumka
0·2	−1·1	0·2	0	−0·12	0	...	0	−0·1	2·5	−0·2	1	0	1	0	3	17	7	0	2	2	1	0	0	0	0	2	13	13	Sabour
																													U. P., East
0·3	−1·2	0·9	0	−0·32	0	...	0	−1·1	2·4	+0·3	1	0	1	0	0	1	12	2	14	0	0	0	0	0	0	1	0	30	Gonda
0·2	−0·7	0	0	−0·19	0	..	0	−0·4	1·6	+0·8	1	1	0	0	0	3	14	2	10	0	0	0	0	0	0	6	0	25	Gorakhpur
0·6	−0·5	0·3	0	−0·27	0	...	0	−0·5	4·5	+2·7	1	2	0	0	4	17	5	0	2	3	1	0	0	0	3	21	3	0	Banaras
0·6	−0·9	0 5	0	−0·34	0	...	0	−0·7	2·1	0	1	1	1	0	1	11	6	0	10	1	2	0	0	0	0	5	2	21	Allahabad (Bamrauli)
0·3	−1·1	0·3	0	−0·34	0	...	0	−1·1	2·2	+0·6	0	0	0	0	0	2	5	7	17	0	0	0	0	0	0	6	0	25	Fatehpur
0 4	−0·3	0	0	−0·28	0	...	0	−0·8	5·0	+2·9	0	0	0	0	1	4	11	2	13	0	2	0	0	0	5	11	2	11	Kanpur
0·3	−0·7	0·4	0	−0·32	0	...	0	−0·7	1 3	+0·3	1	1	1	0	2	2	13	3	8	0	0	0	0	0	4	4	1	22	Lucknow
0·3	−0·7	0·6	0	−0·34	0	..	0	−0·9	2·1	+0·9	0	1	1	1	0	1	7	4	16	0	0	0	0	0	0	2	0	29	Bahraich
																													U. P., West
0·4	−0·7	0·3	0	−0·29	0	...	0	−0·8	2·0	+0·3	4	0	1	0	0	1	8	1	16	6	0	0	0	0	0	7	1	17	Jhansi
0·2	−1·2	0·5	0	−0·30	0	...	0	−0·8	1·3	−1·0	0	0	0	0	0	1	0	1	29	2	2	1	0	0	0	0	2	24	Agra
0·5	−0·9	1·4	0	−0·37	0	...	0	−0·8	1·4	+0·3	0	0	0	1	0	2	6	2	20	0	0	0	2	0	1	9	1	18	Mainpuri
0·9	−0·5	1·8	0	−0·43	0	..	0	−1·2	3·4	+0·4	0	0	0	0	0	0	7	1	23	0	0	1	0	0	0	4	2	24	Aligarh
0·8	−0·6	2·7	0	−0·41	0	..	0	−1·0	2·3	+1·1	1	0	1	1	0	1	13	5	9	1	0	0	0	0	2	11	3	14	Bareilly
0·6	...	...	0	−0·48	0	...	0	−1·2	3·3	...	1	0	0	0	0	0	4	11	15	...	...	...	...	...	...	...	...	...	Meerut
1·5	−0·3	1·3	0·18	−0·50	0·18	10	1	−0·3	1·1	−0·2	0	0	0	0	0	0	0	5	26	0	1	0	0	0	0	0	10	20	Roorkee
2·4	−0·1	2·1	0·38	−0·64	0 31	10	1	−0·7	1·6	+0·1	1	7	0	0	0	0	1	1	21	0	0	0	0	0	3	1	2	25	Dehra Dun
																													East Punjab
1·4	−0·4	2·7	0	−0·43	0	...	0	−0·9	6·3	...	0	1	1	1	0	2	16	5	5	3	3	3	1	0	0	6	14	1	New Delhi
0·8	−0·9	1·3	0	−0·39	0	...	0	−1·0	3·4	+0·4	2	3	1	1	2	11	4	3	4	4	3	1	1	0	1	3	11	7	Hissar
2·9	...	3 0	0 28	...	0·20	13	1	...	4·2	...	7	2	1	1	1	0	2	11	6	3	0	1	1	0	0	4	12	10	Patiala
1·2	−1·0	1·2	0·20	−0·56	0·15	14	1	−0·5	(b) 8·4	+6·3	0	0	0	1	0	0	0	8	22	1	0	0	0	0	0	1	14	15	Ambala
1 9	−0·2	2·2	0·19	−0·53	0·13	10	1	−0·4	1·3	+0·2	1	1	1	1	1	0	5	5	16	1	0	0	0	0	0	0	4	26	Ludhiana
2·4	...	3·3	0 03	...	0·03	10	0	...	1·7	...	2	3	0	0	0	0	0	4	22	2	1	1	0	0	0	1	8	18	Amritsar
																													Kashmir
4·9	0	4·5	0·47	−0·85	0·23	10	2	−1·4	1·4	−0·6	0	0	3	7	3	0	1	4	13	5	3	0	0	0	0	2	7	14	Srinagar
																													Gulmarg
																													Dras (R)
5·1	+1·3	4·9	0·77	−2·49	0·17	10	3	−7·3	2·8	+0·9	0	13	1	0	0	0	0	0	17	0	13	2	0	0	4	0	0	12	Leh
																													Skardu (R)
																													Gilgit (R)
																													Misgar (R)
																													Rajputana, West
0·8	−1·0	1·4	0·11	−0·01	0·07	13	0	−1·0	...	..	1	0	5	2	1	1	3	1	17	1	2	0	0	0	1	1	2	24	Sri Ganganagar
1·2	−0·6	1·1	0	−0·20	0	...	0	−0·5	1·4	−1·1	0	3	0	10	0	2	0	1	15	0	5	0	1	0	5	0	9	11	Bikaner
0 9	...	1·2	0	−0·10	0	...	0	−0·2	4·6	...	1	0	2	13	10	0	1	4	0	11	5	1	1	1	2	3	7	0	Phalodi
0·9	...	1·1	0	...	0	...	0	...	3·4	...	0	7	0	2	0	2	0	0	20	1	14	0	0	0	8	1	3	4	Jaisalmer
1·2	−0·5	1·0	0	−0·11	0	...	0	−0·3	3·1	−3·0	2	21	1	0	0	0	0	0	7	6	7	4	0	2	3	2	3	4	Jodhpur
0·9	−0·7	1·0	0	−0·10	0	...	0	−0·3	3·4	−0·7	2	0	0	0	0	2	0	19	8	5	9	0	2	3	3	1	5	3	Barmer

(b) Mean of 29 days.

STATION	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperatur °F.		Vapour pressure, millibars			Relative humidity, %		
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	2
Rajputana, East																						
Sikar	1,419	966·9	...	964·4	76·1	...	81	30,31	40·6	...	34	26	47·1	69·7	41·6	55·3	6·5	...	8·3	61	...	3
Jaipur	1,431	966·6	−1·7	963·8	76·3	−0·1	80	31	45·1	−2·5	40	5,6	56·0	70·1	46·7	54·1	6·7	−1·6	7·1	44	−11	2
Ajmer	1,593	960·8	−1·8	958·3	75·4	0	80	31	43·0	−3·6	37	6	49·0	70·1	42·1	53·0	6·0	−2·5	6·9	54	−3	2
Kotah	843	987·2	−1·2	983·7	79·5	+0·4	83	14,31	50·5	−1·6	45	5	55·4	74·8	47·9	58·3	8·1	−1·3	9·1	54	−3	3
Brijnagar	1,053	979·4	−1·3	975·3	79·6	+1·4	83	5 days	46·8	−1·9	41	4	52·2	76·2	46·4	58·3	7·9	−1·8	8·4	61	−2	2
Udaipur	1,910	950·3	...	947·2	78·8	...	84	19,29	45·6	...	38	4	55·3	74·4	46·5	56·8	7·2	...	8·8	47	...	2
Gujarat																						
Deesa*	466																					
Surat	39	1013·9	−0·4	1010·3	90·7	+2·8	94	4 days	57·1	−2·3	53	25,26	62·7	83·8	57·0	68·3	13·3	+0·1	16·6	69	+11	4
Ahmedabad	163	1010·0	−1·0	1006·6	85·2	−1·2	90	1,20	59·6	0	55	9	62·0	81·5	51·7	61·8	8·5	−1·2	10·0	45	−3	27
Dohad	1,093	977·5	...	974·1	84·2	−0·1	89	1	52·5	−0·6	49	9,13,24	58·7	80·7	50·4	61·4	8·8	−1·9	9·9	52	−13	27
Baroda	115	1011·2	...	1007·7	87·8	+0·6	92	1	50·3	−1·0	45	13,24	54·7	82·5	51·1	66·4	11·1	−0·5	14·9	77	+13	39
Saurashtra and Cutch																						
Bhuj	343	1004·0	−0·9	1001·3	82·0	+0·2	86	31	53·4	−1·0	44	5	58·2	79·5	51·4	59·5	9 9	−0·9	8·4	59	+10	25
Dwarka	37	1014·4	−1·0	1011·7	80·5	−0·7	85	1	61·9	0	55	5	65·1	76·9	59·6	63·4	5·0	−0·1	13·8	70	+6	46
Jamnagar	60	1013·5	−1·1	...	80·3	−0·9	83	9	54·5	−0·2	49	4	62·5	...	54·5	...	11·0	−0·3	...	56	−3	...
Rajkot	432	1000·1	−0·9	997·0	84·4	−0·7	88	1,19	53·5	0	45	24	58·7	82·3	51·3	62·8	19·6	+0·6	10·7	57	+8	29
Veraval	26	1014·1	−0·7	1010·9	85·9	...	92	2,3,20	58·2	...	52	4,24	65·6	79·8	54·8	68·3	9·9	...	18·4	47	−2	54
Bhavnagar	55	1013·5	−0·9	1010·1	85·2	+0·1	89	1	54·3	−1·4	46	25	58·3	82·1	49·7	62·4	8·3	−1 4	10·4	50	+2	28
Madhya Bharat and Bhopal																						
Neemuch	1,626	960·4	−0·8	957·4	79·7	+1·3	84	19	48·7	−0·7	43	4	56·3	75·7	46·4	56·6	6·6	−2·1	8·0	44	−9	26
Ratlam*	1,596	960·6	...	957·6	81·4	...	86	1	51·3	...	46	13	54·0	77·4	47·0	59·1	8·2	...	9·7	58	...	30
Indore	1,839	952·1	−1·4	948·7	80·4	+0·7	85	1,20	47·2	−2·4	43	12,17,24	57·0	77·1	50·1	60·6	9·6	−1·3	11·4	60	+8	36
Bhopal	1,643	958·8	−1·6	956·0	80·8	+1·8	86	1	48·6	−0·9	45	5 days	59·3	75·0	51·2	59·1	9·6	−0·2	10·7	56	−2	36
Guna	1,571	961·6	−1·3	958·7	79·1	+1·2	84	23	43·2	−2·3	39	12,21	52·6	73·4	47·1	58·0	8·8	−0·4	10·7	66	0	37
Gwalior	681	992·6	...	989·7	76·0	...	83	31	40·8	...	36	21	56·3	69·2	47·2	54·1	7·2	...	7·6	46	...	32
Madhosagar	757	989·9	...	986·4	77·6	...	83	31	48·7	...	44	21	55·4	70·9	48·7	55·3	8·9	...	8·1	58	...	31
Vindhya Pradesh																						
Nowgong	750	990·6	−1·2	987·1	75·8	+1·3	81	1	42·7	−3·7	37	6	53·1	70·1	48·1	56·9	9·2	−1·2	9·9	66	−10	39
Sutna	1,041	979·3	−2·1	976·4	77·6	+1·9	87	1	44·2	−3·3	39	7,27	53·7	72·1	48·0	57·2	8·7	−1·4	9·2	62	−4	33
Umaria	1,506	963·7	...	960·5	76·4	−0·5	85	1	45·5	−0·3	38	5	54·9	69·6	50·3	58·8	10·7	+0·4	12·5	74	+7	53
Berar																						
Buldana	2,133	941·7	...	939·4	81·9	...	87	3,6	59·0	...	56	4 days	63·6	79·0	54·5	62·0	10·8	...	12·1	54	...	36
Akola	925	983·3	−1·4	979·3	86·7	+2·0	91	4 days	54·4	+1·1	48	18	59·1	83·2	53·0	63·1	11·1	+0·2	10·5	65	+8	27
Amravoti	1,213	973·3	−1·4	969·8	84·7	+1·5	89	1	59·5	+1·1	56	31	65·9	82·1	56·1	61·7	11·0	0	9·6	51	0	26
C.P., West																						
Khandwa	1,044	979·1	−1·4	975·3	85·8	+1·7	90	4 days	50·3	−1·2	44	18	60·7	80·2	53·7	63·5	10·9	+0·4	12·6	61	+1	36
Hoshangabad	992	981·6	−1·6	977·9	81·9	+1·9	88	1	52·5	−1·4	47	17	59·1	77·4	52·4	61·8	10·5	−0·3	11·8	62	+2	37
Saugor	1,808	953·1	−1·7	950·2	76·4	−0·5	83	1	52·6	−0·4	49	5,12,17	60·2	71·0	49·7	55·3	8·0	−0·8	8·6	45	−6	33
Jubbulpore	1,289	971·3	−1·2	967·7	80·0	+2·9	86	1	47·5	+1·0	41	17	55·8	73·1	51·6	61·0	11·2	+0·2	12·9	73	0	46
Seoni	2,027	945·9	−1·3	942·8	(f) 80·0	+2·3	85	20	51·6	+1·0	47	4 days	58·8	74·3	52·8	60·7	11·2	+0·6	12·6	64	+4	43
Betul	2,144	942·1	...	939·2	79·6	...	85	1	48·3	...	41	17,18	58·8	72·0	52·9	59·4	11·5	...	12·0	67	...	46
Nagpur	1,010	980·5	−1·6	976·8	84·1	+2·4	89	1,3	53·7	−0·1	48	17,18	62·9	79·3	56·9	63·5	12·7	+1·7	12·9	67	+11	38
C.P., East																						
Gondia	1,026	980·2	...	976·8	81·6	...	87	1,3	55·2	...	48	17,18	62·7	77·6	56·5	66·4	14·8	...	17·1	77	...	53
Pendra	2,040	945·6	−1·4	942·5	75·3	−1·6	84	1	50·6	+1·0	45	27	61·5	67·5	53·5	56·4	10·7	−0·2	11·1	57	−7	49
Champa	805	987·9	...	984·2	81·5	...	88	2,3	55·6	...	49	17	61·1	77·6	55·6	62·7	12·7	...	12·6	69	...	40

* Data not reliable. (f) Mean of 25 days.

Cloud amount, (Oktas).			Rainfall, inches.				Number of rainy days (0·10" or more).		Wind velocity miles per hour.		Wind direction—Number of winds from :—																			STATION
											0830 hrs. I. S. T.									1730 hrs. I. S. T.										
0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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
																														Rajputana, East
·5	...	2·0	0	...	0	...	0	...	1·9	...	0	3	8	3	0	0	0	0	17	3	1	0	0	0	0	3	16	8		Sikar
·9	—0·6	1·5	0	—0·30	0	...	0	—0·7	2·8	—0·3	4	4	4	2	0	0	0	0	17	6	1	0	2	5	2	3	6	6		Jaipur
·9	—0·5	0·7	0	—0·26	0	...	0	—0·4	2·2	+1·0	1	0	0	1	0	0	2	2	25	3	3	1	0	0	2	1	3	18		Ajmer
·1	—1·3	0·5	0	—0·21	0	...	0	—0·5	0	—1·0	0	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	0	31		Kotah
·4	—1·1	0·5	0	—0·19	0	...	0	—0·3	1·2	—0·3	1	1	0	0	0	0	0	2	27	6	14	1	0	0	0	1	2	7		Brijnagar
·5	...	0·7	0	—0·11	0	...	0	—0·3	0·5	...	0	1	0	0	0	0	0	0	30	0	3	1	3	0	3	1	3	17		Udaipur
																														Gujarat
																														Deesa*
·3	—1·0	0·3	0	—0·08	0	...	0	—0·1	3·3	+0·6	3	11	2	0	0	0	0	1	14	0	8	0	0	0	0	1	19	3		Surat
·3	—0·7	0·5	0	—0·04	0	...	0	—0·1	3·6	0	2	11	11	0	0	0	0	2	5	5	5	2	0	0	0	3	9	7		Ahmedabad
·5	—1·0	0·3	0	—0·08	0	...	0	—0·3	4·2	+1·7	0	9	10	1	5	2	0	0	4	5	8	0	1	0	8	6	1	2		Dohad
	—1·0	0·2	0	—0·02	0	...	0	—0·1	1·5	—0·6	5	7	1	0	1	0	0	0	17	4	2	1	0	0	0	2	3	19		Baroda
																														Saurashtra and Cutch
·7	—0·4	0·7	0	—0·07	0	...	0	—0·1	2·3	—1·3	0	0	0		0	2	0	0	29	10	11	0	0	0	3	2	2	3		Bhuj
·5	0	1·2	0	—0·09	0	...	0	—0·2	7·7	+0·2	5	18	5	0	0	0	1	0	2	7	6	2	0	0	1	3	12	0		Dwarka
·1	—0·9	...	0	—0·08	0	...	0	—0·1	1·5	—4·5	0	2	-	0	0	0	0	0	27	...	...	...	...	...	...	...	...	...		Jamnagar
·4	—1·0	0·3	0	—0·06	0	...	0	—0·2	4·2	+0·6	2	6	4	5	2	0	0	1	11	12	8	2	0	0	0	2	7	0		Rajkot
·9	—0·3	0·3	0	—0·07	0	...	0	—0·2	8·6	...	7	23	0	0	0	0	0	0	1	1	3	0	0	4	3	14	5	1		Veraval
·2	—1·2	0·5	0	—0·06	0	...	0	—0·1	3·0	—0·1	3	0	0	1	1	4	10	4	8	4	10	13	3	0	0	0	1	0		Bhavnagar
																														Madhya Bharat and Bhopal
·6	—0·4	0·9	0	—0·18	0	...	0	—0·5	2·8	—0·7	6	12	2	3	1	0	0	3	4	7	13	2	1	0	0	1	3	4		Neemuch
·4	...	0·9	0	...	0	...	0	...	4·7	...	9	16	1	2	0	1	2	0	0	2	8	6	1	0	3	7	4	0		Ratlam
·4	—1·0	0·5	0	—0·27	0	...	0	—0·6	2·8	0	1	5	2	1	0	0	1	1	20	6	3	0	1	0	1	5	12	3		Indore
·2	—1·5	0·3	0	—0·20	0	...	0	—0·5	2·4	+0·8	3	8	2	0	0	1	0	0	17	3	8	1	0	0	2	3	7	7		Bhopal
·4	—1·0	0·6	0	—0·42	0	...	0	—1·2	2·2	+0·6	2	1	9	4	0	1	1	0	13	3	1	0	0	1	1	4	12	9		Guna
·5	...	0·7	0	...	0	...	0	...	0·9	...	3	0	1	0	1	0	0	3	23	1	1	1	0	0	0	0	5	23		Gwalior
·4	...	1·1	0	...	0	...	0	...	3·2	...	1	0	0	0	1	22	2	1	4	9	8	1	1	0	0	1	10	1		Madhosagar
																														Vindhya Pradesh
·5	—1·0	0·5	0	—0·40	0	...	0	—0·7	1·3	+0·4	0	1	0	0	4	13	1	1	11	0	12	0	0	0	0	0	5	14		Nowgong
·7	—0·7	0·5	0	—0·43	0	...	0	—0·9	1·7	0	0	1	2	3	0	9	4	2	10	3	1	2	0	0	0	4	14	7		Sutna
·7	—1·1	0·8	0·07	—0·28	0·07	3	0	—0·9	1·9	+0·1	0	1	2	2	1	0	0	0	25	2	1	0	0	0	1	1	5	21		Umaria
																														Berar
·4	...	1·1	0	...	0	...	0	...	3·5	...	0	1	1	5	9	8	0	7	0	8	5	1	1	0	2	0	14	0		Buldana
·2	—1·4	0·9	0	—0·54	0	...	0	—0·9	2·5	+0·1	1	2	6	5	5	3	1	0	8	7	8	2	0	1	0	6	6	1		Akola
·5	—1·1	1·1	0	—0·44	0	...	0	—0·8	4·3	+1·0	0	19	0	0	0	4	0	8	0	0	5	0	4	0	5	0	17	0		Amravoti
																														C.P., West
·4	—1·0	0·4	0	—0·32	0	...	0	—0·5	2·4	+0·2	3	5	1	0	1	0	0	0	21	15	5	0	1	0	0	2	7	1		Khandwa
·0	—0·4	1·3	0	—0·47	0	...	0	—0·7	1·7	—0·2	1	6	13	3	0	0	0	0	8	0	0	2	1	0	0	0	0	28		Hoshangabad
·7	—0·7	0·7	0	—0·51	0	...	0	—0·8	...	...	1	6	7	4	1	2	2	1	7	2	9	1	2	2	1	3	3	8		Saugor
·3	—1·0	0·4	0	—0·37	0	...	0	—0·7	1·9	+0·8	0	3	0	17	2	1	0	0	8	5	6	1	1	0	1	1	2	14		Jubbulpore
·3	—1·1	1·1	0	—0·52	0	...	0	—0·9	2·5	+0·5	2	3	0	0	2	1	1	0	22	5	5	2	4	7	2	0	3	3		Seoni
·3	...	0·9	0	...	0	...	0	...	2·7	...	1	1	8	8	1	0	0	0	12	5	9	3	0	0	1	5	5	3		Betul
·4	—1·3	0·9	0·04	—0·43	0·04	4	0	—0·8	2·4	...	8	6	0	0	0	0	1	3	13	0	2	7	2	3	6	1	2	8		Nagpur
																														C.P., East
1	...	0·3	0·02	...	0·02	4	0	...	1·8	...	7	11	4	2	3	0	0	2	2	3	1	0	0	0	3	0	2	22		Gondia
5	—1·1	1·1	0	—0·29	0	...	0	—0 5	3·1	+0·8	10	4	2	1	6	3	1	4	0	12	2	1	0	7	0	1	7	1		Pendra
·6	...	0·9	0·16	...	0·16	4	1	...	3·1	...	14	2	1	0	0	0	0	11	3	9	2	0	0	0	1	8	3	8		Champa

TABLE II—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M. T.)

STATION	Height of barometer cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relative humidity, %		
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
C.P., East—*contd.*																						
Raipur	979	981·7	−1·5	978·3	81·3	+1·3	87	1,2,4	56·8	+2·3	51	28	64·3	77·4	58·4	64·4	14·1	+1·8	14·8	68	+4	46
Titilagarh	691	991·9	..	987·8	83·1	..	88	2	55·0	..	49	18	63·7	77·0	58·4	65·1	14·3	..	15·8	71	..	50
Kanker	1,318	970·0	−1·3	966·7	81·3	+1·4	87	4	52·3	+1·6	46	29	62·1	77·3	57·2	63·5	13·8	+0·6	13 8	72	−3	44
Chanda	634	993·5	−1·5	989·7	83·2	+0·7	87	1,2	55·1	+2·3	46	17	64·7	77·3	60·1	66·8	15·7	+1·6	17·5	75	+3	56
Jagdalpur	1,815	953·3	−0·8	949·4	81·8	+2·4	85	4 days	49 9	+0·2	44	18	58·9	75·5	56·0	61·8	14·1	−0 2	13·3	83	−3	44
Konkan																						
Dahanu	15	1013·4	...	1010·8	81·7	...	85	2,6,11	61·0	...	56	30	66·3	77·9	61·6	72·9	16·6	...	25·4	75	...	77
Bombay	35	1012 7	−0·8	1009·8	86·8	+0·2	92	1,19	67·2	−1·6	63	24	73 5	79·3	66·6	71·3	19·1	−0 5	22·6	68	−2	65
Alibag	23	1013·4	−0·5	...	84·2	−1·0	88	1,18	63 7	−1·5	57	22	69·4	...	64·5	...	18·5	+1·5	...	75	+11	..
Harnai	66	1010·8	...	1008·5	84·7	...	90	2,6	71·9	...	66	12	77·5	80·4	66·6	72·7	17·3	...	24·0	55	...	6
Devgad	117	1009·5	...	1005·6	87·2	...	91	1	68·1	...	61	20,21	70·9	84·0	65·6	72·5	19·1	...	22·1	75	...	5
Vengurla	29	1012·3	...	1008·7	90·2	...	94	19	62·8	...	59	19	67·9	81·9	63·7	71·9	18·3	...	22·2	79	...	6
Marmagao	202	1006·1	−0·8	1002·3	86·0	−0·7	90	1	69·7	−1·1	66	24	74·8	82·4	66·2	71·1	18·1	−0·7	20·8	62	0	5
Honavar	85	1010·9	...	1006·8	91·2	...	99	19	70·6	...	63	4 days	74·0	84·8	65·1	72·6	17·1	...	21·8	61	...	5
Bombay Deccan																						
Jalgaon	660	992·6	...	988·8	87 8	...	93	2	(k) 51·1	...	46	12,20	59·9	84·0	53·7	65·9	11·4	...	13·6	65	...	3
Malegaon	1,432	966·0	−0·9	961·6	87·4	+2·4	91	2,3,21	51·9	−0·4	47	23	60·8	82·8	52·9	62·7	10·2	−0·3	10·5	56	−1	2
Ahmednagar	2,154	941·1	−1·3	937·6	86·9	+3·8	90	5 days	53·0	+0·1	45	19	62·5	83·3	54·5	62·6	11·3	+0·2	11·0	59	+4	2
Poona	1,834	951·8	−1·1	948·0	87·4	+2·5	92	3	52·1	−0·9	46	22	58·5	82·3	54·0	62·5	12·5	+0·1	11·3	74	+3	3
Sholapur	1,570	960·9	−0·9	957·0	88·2	+2·7	92	22	58·6	+0·1	51	19	68·4	84·7	56·9	62·9	11·2	−0·9	10·7	47	−6	2
Miraj	1.817	952·1	−0·2	948·1	87·6	+3·6	90	6 days	56·2	−0·8	48	24	63·1	84·5	55·1	64·1	11·6	−1·6	12·1	60	0	3
Kolhapur	1,885	950·2	...	946·3	86·4	...	90	21	56·1	...	49	24	62·8	83·7	55·1	61·3	11·7	...	9·4	57	...	2
Bijapur	1,950	947·7	−1·1	944·2	85·2	+1·0	90	21	58·6	0	52	19	68·3	82·6	58·1	62·6	12·4	−1·6	11·3	52	−9	2
Belgaum	2,562	927·5	−0·5	924·0	83·3	+1·3	86	21	56·3	−2·1	51	23,24	65·1	81·3	57·5	60·9	13·1	−0·3	10·0	61	−1	2
Gadag	2,131	941·5	−0·9	938·3	85·3	+1·9	88	4 days	61·4	+0·1	56	27	69·8	81·0	60·5	62·8	14·3	−0·3	12·2	57	−5	3
Hyderabad, North																						
Aurangabad	1,905	950·0	−1·4	946·7	85·9	+2·4	89	1,3,4	55·5	−0·3	50	22,23	62·5	83·1	53·5	66·6	10·4	−0·6	10·0	55	+2	2
Parbhani	1,350	967·3	...	963·7	86·4	...	91	2	55·5	...	49	18	66·1	82·0	57·1	65·4	12·0	...	13·9	54	...	3
Bidar	2,178	940·3	...	937·1	82·6	+1·5	88	21	60·8	−0·7	58	19	66·7	78·6	57·9	59·7	12·8	−1·0	9·9	57	−8	3
Nizamabad	1,250	971·1	−1·5	967·9	85·3	+1·6	91	22	57·5	+2·5	49	18	61·9	82·2	57·9	63·6	14·6	+0·2	11·7	77	+10	3
Ramagundam	527	997·6	...	993·8	86·3	...	91	2	58·5	...	51	18	67·3	81·5	62·1	65·1	16·7	...	13·7	73	...	3
Hyderabad, South																						
Gulbarga	1,503	963·0	−1·3	958·9	86·1	+0·7	90	21	58·9	+0·2	53	19	67·8	83·3	59·2	63·3	13·7	+0·5	11·8	59	0	3
Raichur	1,311	969·5	−1·0	965·8	85·9	+1·1	87	7 days	64·4	+0·7	58	20	69·7	82·4	61·5	63·8	15·0	−1·3	10·7	61	−4	2
Hyderabad (Begumpet).	1,778	954·2	−0·7	950·8	85·5	+2 0	90	2	54·7	−1·7	49	20	64·0	79·5	59·0	63·3	15·0	+0·2	13·3	74	+3	3
Hanamkonda	881	984·6	−1·5	981·2	84·9	+1·7	90	2	61·0	+0·7	55	20	69·3	80 0	63·5	65·1	17·4	+0·7	14·4	71	+1	4
Khammameth (R)	367																					
Mysore																						
Chitaldrug (a)	2,405	932·2	−0·8	928·9	81·7	−0·7	84	6 days	60·6	−1·2	56	22	67·6	79·1	60·9	61·5	15·6	−0·9	11·6	66	−2	3
Hassan	3,149	908·1	...	904·8	80·5	−0·1	84	21	55·8	−1·8	52	24	61·7	77·8	57·7	62·4	14·6	−2·2	13·0	79	+4	4
Bangalore	3,021	912·6	−0 3	909·4	78·7	+0·5	81	5 days	56·8	−1·4	54	22,24	63·3	74·1	58·7	59·2	15·0	−1·6	11·2	76	−2	4
Mysore	2,518	928·6	−0·6	925·1	81·1	−0·8	84	1,21	59·2	−1·9	56	20	65·6	79·8	60·1	62·0	15·5	−2·1	11·8	73	−1	4
Malabar																						
Mangalore	72	1010·4	−0·5	1006·7	89·2	+0·1	93	21	68·8	−2·4	66	20,27,28	73·9	82·6	66·0	72·1	18·2	−3·0	22·1	64	−3	4
Calicut	27	1011·5	−0·6	1007·6	89·6	+1·9	92	19	69·9	−1·4	67	21,22	74·9	85·7	69·0	75·2	21·5	−2·1	25·1	73	−4	4
Palghat	319	1002·1	...	997·4	91·3	...	93	9,20,23	71·1	...	68	11,16	76·2	87·6	68 3	69·4	20·1	...	16·3	65	...	4
Cochin	10	1012·0	−0·7	1008·2	86·8	+0·3	89	4 days	72 8	1·4	69	21	78·0	83·2	70·1	73·8	21·5	−2·1	24 2	66	−7	4

(R) Register not received. (k) Mean of 20 days. (a) Data except wind for 30 days.

Cloud amount, (Oktas).		Rainfall, inches.				Number of rainy days. (0·10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																		STATION
										0830 hrs. I. S. T.									1730 hrs. I. S. T.									
Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																												C. P., East—*contd.*
−0·7	1·3	0	−0·26	0	..	0	−0·3	2·7	..	3	4	0	0	4	2	1	5	12	3	2	0	0	0	1	2	1	22	Raipur
...	0·6	0	...	0	..	0	...	0·4	...	0	0	0	2	2	0	0	0	27	1	2	1	0	1	0	0	0	26	Titilagarh
−1·1	1·9	0	−0·14	0	..	0	−0·4	1·3	−0·4	0	0	0	0	0	0	0	0	31	0	1	0	0	0	0	0	1	29	Kanker
−0·7	1·2	0	+0·27	0	..	0	−0·7	0	−1·3	0	1	0	0	0	0	0	0	30	0	0	0	1	0	0	0	0	30	Chanda
−1·7	1·3	0	−0·16	0	..	0	−0·4	1·5	+0·3	0	2	0	0	0	0	0	1	28	2	14	0	2	0	0	1	5	7	Jagdalpur
																												Konkan
..	0·3	0	...	0	..	0	...	7·0	...	3	3	11	11	1	1	0	0	1	16	0	0	0	0	0	0	15	0	Dahanu
−1·2	0·2	0	−0·08	0	..	0	−0·2	4·7	−1·8	1	14	14	1	0	0	0	0	1	12	0	0	0	0	0	1	18	0	Bombay
−1·4	...	0	−0·15	0	..	0	−0·4	1·8	−2·7	2	8	6	0	0	0	0	0	15	...	...	...	...	...	...	...	...	...	Alibag
...	0	0	...	0	..	0	...	7·2	...	8	6	10	1	0	0	0	6	0	0	0	0	0	0	1	3	27	0	Harnai
...	0·9	0	...	0	..	0	...	7·5	...	0	8	23	0	0	0	0	0	0	0	0	0	0	0	0	10	21	0	Devgad
...	1·0	0	...	0	..	0	...	...	...	7	5	0	0	0	0	0	0	19	0	0	0	0	0	3	16	0	12	Vengurla
+0·1	1·9	0	−0·35	0	..	0	−0·6	5·8	+0·4	0	4	23	4	0	0	0	0	0	0	0	0	0	0	1	17	13	0	Marmagao
...	2·4	0	−0·37	0	..	0	−0·4	2·7	...	0	5	18	1	0	0	0	0	7	0	0	2	1	0	0	18	6	4	Honavar
																												Bombay Deccan
...	0·5	0	−0·22	0	..	0	−0·4	2·6	...	1	4	18	3	0	0	0	0	5	9	5	2	0	0	2	2	6	5	Jalgaon
−1·6	0·5	0	−0·21	0	..	0	−0·4	2·6	−0·3	0	0	0	0	0	0	0	0	31	3	3	0	0	0	1	0	1	23	Malegaon
−1·2	0·4	0	−0·26	0	..	0	−0·5	2·6	−0·8	0	0	0	1	1	0	0	5	24	3	10	2	0	0	0	0	1	15	Ahmednagar
−0·9	0·7	0	−0·15	0	..	0	−0·5	1·2	−2·3	0	0	0	0	0	3	4	0	24	1	0	8	2	0	1	3	6	10	Poona
−1·2	0·8	0	−0·41	0	..	0	−0·7	3·1	−2·6	0	4	3	13	1	0	0	1	9	3	5	2	3	0	0	0	1	17	Sholapur
−0·8	1·5	0	−0·28	0	..	0	−0·6	5·0	+0·1	3	4	11	1	0	1	4	3	4	0	7	12	4	2	3	2	1	0	Miraj
...	0·4	0	...	0	..	0	...	5·3	...	0	5	9	1	0	3	1	0	12	0	7	11	1	0	0	3	3	6	Kolhapur
−1·1	1·3	0	−0·25	0	..	0	−0·6	2·7	+0·4	1	1	2	8	6	2	1	1	9	1	6	10	5	2	0	1	0	6	Bijapur
−1·3	0·7	0	−0·34	0	..	0	−0·5	3·5	+0·4	0	1	28	0	0	0	0	0	2	1	1	28	0	0	0	1	0	0	Belgaum
−0·1	1·7	0	−0·41	0	..	0	−0·6	4·6	+0·2	1	10	11	3	1	0	0	0	5	1	9	8	2	0	0	0	0	11	Gadag
																												Hyderabad, North
−0·9	1·3	0	−0·27	0	..	0	−0·5	3·4	−0·9	2	8	15	1	0	1	3	0	1	0	2	6	2	5	7	8	1	0	Aurangabad
...	1·5	0	−0·22	0	..	0	−0·4	...	...	0	27	2	0	1	0	1	0	0	0	21	4	0	1	1	4	0	0	Parbhani
−1·4	1·7	0	−0·24	0	..	0	−0·5	5·7	+0·2	0	1	7	7	5	9	0	0	2	2	20	3	1	2	2	0	0	1	Bidar
−1·2	0·7	0	−0·18	0	..	0	−0·4	1·4	−0·4	1	0	0	1	0	0	0	0	29	11	10	0	0	0	1	1	0	8	Nizamabad
...	1·5	0	...	0	..	0	...	2·1	...	9	6	0	2	0	0	1	1	12	1	14	11	2	1	0	0	0	2	Ramagundam
																												Hyderabad, South
−0·7	1·3	0	−0·15	0	..	0	−0·3	5·2	+0·3	0	13	9	3	3	1	1	0	1	2	9	7	8	3	1	0	0	1	Gulbarga
−0·6	2·1	0	−0·13	0	..	0	−0·3	4·6	−0·7	4	5	4	11	0	0	0	4	3	1	8	12	9	1	0	0	0	0	Raichur
−1·5	1·2	0	−0·30	0	..	0	−0·4	3·2	+0·1	0	1	1	2	0	0	0	0	27	1	4	15	4	0	0	0	1	6	Hyderabad (Begumpet).
−1·3	1·3	0	−0·23	0	..	0	−0·4	2·6	0	4	2	0	4	13	2	0	0	6	8	7	9	2	1	0	0	0	4	Hanamkonda
																												Khammameth (R)
								(b)																				**Mysore**
−0·5	2·2	0	−0·52	0	..	0	−0·8	5·4	+0·8	0	0	16	9	3	0	0	1	1	0	6	20	3	0	0	0	0	1	Chitaldrug (a)
−0·9	2·0	0	−0·66	0	..	0	−1·1	4·3	+1·3	0	3	20	6	1	0	0	0	1	2	4	21	3	0	0	0	0	1	Hassan
−0·1	2·8	0	−0·44	0	..	0	−1·2	6·3	+1·5	0	10	18	3	0	0	0	0	0	1	13	15	2	0	0	0	0	0	Bangalore
−0·8	2·8	0	−0·40	0	..	0	−0·9	7·8	+1·5	2	18	10	1	0	0	0	0	0	0	17	13	1	0	0	0	0	0	Mysore
																												Malabar
−0·4	2·0	0	−0·51	0	..	0	−0·7	5·2	+0·7	0	1	29	1	0	0	0	0	0	0	0	0	0	0	0	13	18	0	Mangalore
+0·2	3·1	0	−1·01	0	..	0	−1·6	6·0	+2·0	0	15	15	1	0	0	0	0	0	0	0	0	0	0	5	15	11	0	Calicut
...	2·4	0	...	0	..	0	...	7·4	...	0	0	29	2	0	0	0	0	0	0	3	24	2	0	0	0	0	2	Palghat
+2·2	5·0	0	−1·60	0	..	0	−2·5	4·5	+0·9	0	15	14	2	0	0	0	0	0	0	0	0	0	1	9	16	5	0	Cochin

(b) Mean of 29 days.

STATION	Height of bar, cistern above mean sea level in feet	Pressure at station level in millibars.			Maximum temperature, °F.				Minimum temperature, °F.				Dry bulb temperature, °F.		Wet bulb temperature, °F.		Vapour pressure, millibars.			Relative humidity, %		
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	2
Malabar—*contd.*																						
Alleppey	12	1011·6	...	1008·1	89·1	...	92	17	71·8	...	66	4	79·6	83·5	73·1	75·0	24·9	...	25·8	72	...	6
Trivandrum	211	1004·5	—0·8	1001·8	88·6	...	94	20	71·9	...	68	21,22,25	76·2	82·9	70·5	73·8	22·9	—1·9	24·4	75	—5	6
Nagercoil	195	1005·2	...	1002·1	88·5	...	91	12,26	73·9	...	70	21,22	79·2	83·0	69·1	72·1	19·8	...	21·9	58	...	5
Madras, South-East																						
Pamban	37	1011·5	—0·6	1008·6	81·4	—1·2	83	6 days	75·3	+0·5	72	18	77·1	78·5	72·8	72·6	25·6	—2·3	24.0	81	—4	7
Madura	437	998·4	—0·6	994·5	85·5	+0·8	89	10	69·1	—1·1	65	13	75·9	81·9	68·7	70·5	20·7	—2·4	20·3	67	—10	5
Nagapatam	31	1010·5	—0·3	1009·6	82·3	+0·3	94	8,11	72·8	+0·5	68	24	76·2	79·3	70·9	72·1	23·5	—1·8	23·6	76	—5	6
Trichinopoly	295	1003·9	—0·7	1000·0	85·7	+0·6	88	9	68·3	—1·2	65	4 days	74·3	81·6	68.3	70·6	20·9	—2·9	20·6	72	—8	
Coimbatore	1,341	967 9	—0·5	963·6	86·3	+2·0	89	9	66·1	+0·1	63	11,20	70·8	83·7	64·8	65·9	18·3	—2·8	13·7	71	—8	
Salem	913	932·7	—0·4	978·0	88·8	+2·7	91	9,31	65·7	—0·2	62	14	71·2	84 6	64·4	67·4	17·5	—3·4	15·2	67	—8	
Cuddalore	39	1012·7	—0·5	1009·1	82·5	—0·1	84	5,6	68·4	—1·8	63	31	73·8	79·2	68·9	70·5	21·8	—2·8	21·6	77	—6	
Vellore	703	990·6	+0·1	986·5	83·7	+1.3	86	9,10,12	62·3	—2 5	58	31	69·5	80·7	65·2	66·9	19·2	—2·3	16·2	78	—7	
Madras	51	1012·9	—0·3	1009·8	83·6	—0·5	85	4 days	67·4	—1·5	62	31	74·1	78·7	69·4	69·5	22·4	—2·2	20·5	78	—6	
Arogyavaram	2,299	936·7	...	933·4	78·3	...	81	13,20	57·3	...	54	24	65·4	75·0	61·1	61·7	16·6	...	13·4	78	...	
Madras Deccan																						
Cuddapah	428	999·9	—0·9	996·2	86·0	0	88	12,13,14	64·5	—1·2	61	20,26	75·3	80·7	68·3	71·9	20·5	0·5	22·7	69	—7	
Bellary	1,473	963·9	—0·8	960·2	84·9	—0·8	87	5 days	60·9	—1·0	58	22	68·3	82·0	61·5	64·2	15·6	—0·6	12·5	66	—1	
Kurnool	923	983·2	—0·6	979·0	86·0	—0·4	88	1,12,21	59·2	—1·6	52	22	69·4	82·7	62·8	66·2	16 6	—0·1	14·6	67	—4	
Rentichintala	348	1013·5	...	999·2	85·4	—0·4	88	1,13,31	60·2	—1·7	56	21,23	69·4	84·2	63·6	66·3	17·5	—0·4	14·0	71	—0	
Anantapur	1,147	975·0	...	970·9	84·0	...	87	12,13	58·4	...	54	21,22	69·0	81·3	62·6	66·1	16·5	...	15·1	61	...	
Madras Coast, North																						
Nellore	66	1012·7	—0·5	(a) 1009·5	86·2	+2·5	89	13	66·5	—1·9	63	31	72·5	(a) 79·1	68·7	(a) 70·4	22·3	—1·5	(a) 21·5	81	—3	
Ongole	38	1013·9	...	1010·3	84·6	...	86	6 days	66·3	...	63	17,22,26	72·3	79·4	67·6	69·3	20·9	...	19·9	77	...	
Masulipatam	10	1015·0	—1·0	1011·4	82·3	—0·3	85	13	67·3	+0·8	64	17,20,21	74·2	78·7	69·7	71·0	22·8	+1·6	22·4	79	+1	
Cocanada	26	1014·6	—0·9	1011·2	82·3	+1·8	86	12	66·0	—0·4	62	18,19	74·3	78·6	68·1	69·8	20·7	+1·0	20·9	71	—1	
Vizagapatam	126	1011·0	—1·2	1007·7	81·2	+0·5	84	2	65·9	—2·0	61	19,20	72·5	77·1	66·8	68·7	19·9	+1·8	20·1	73	+10	
Calingapatam	19	1014·9	—1·3	1011·4	81·5	+1·2	86	12,21	63·5	+0·4	58	19	68·3	77·6	65·0	69·8	19·5	+0·5	21·3	83	+5	
Hill Stations excluding Kashmir																						
Shillong	4,921	851·2	—1·8	849·1	58·7	—2·9	66	2	37·4	—2·6	32	3,22	51·6	49·6	44·8	46·6	7·2	—2·1	9·6	58	—11	
Cherrapunji	4,309	870·7	—1·3	868·1	59·3	—3·0	65	25	43·5	—4·5	40	21,22	54·4	50·4	47·1	47·5	8·0	—2·2	10·4	58	—2	
Aijal	3,599	...	...	...	66·4	...	72	25,26,28	...	...	...	...	58·3	58·2	54·5	54·8	12·7	...	13·2	81	...	
Darjiling	7,432	775·4	—2 8	773·1	46·9	—3·6	59	29	34·4	—2·2	32	12,21	40·6	38·9	38·4	37·7	7·3	+0·3	7·4	82	+16	
Kalimpong	3,965	880·2	—3·6	878 6	58·3	—4·0	64	2	46·3	—1·9	43	29	49·3	51·8	47·4	49·0	10·3	—0·6	10·5	87	+14	
Katmandu	4,388	869·6	...	866·1	64·0	—1·9	68	2,3,6	36·2	—1·5	31	3,25,27	41·3	51·5	40·2	46·9	7·7	—0·1	9·2	91	+5	
Gyantse	13,110	620·7	...	...	43·7	—0·9	56	19	9·5	+0·1	—3	27	25·3	...	18·6	...	1·5	—1·5	...	30	—28	
Muktesar	7,592	771·0	—2·9	769·8	52·6	—0·6	58	18	33.5	—4·9	30	11	41·1	43·1	32·5	36·1	3·3	—0·6	4·7	39	0	
Mussoorie	6,699	796·3	...	795·2	53·4	—0·2	63	17,18	38·7	—0·9	32	11	43·8	43·6	36·4	39·1	4·7	—0·3	6·6	51	+6	
Simla	7,224	780·9	—2·3	780·3	50·1	—0·5	59	5	36·5	—2·8	29	10,11	43·6	42·8	32·7	35·1	2·4	—1·0	4·2	29	—5	
Abu	3,945	883·3	—0·7	881·5	69·9	+1·5	79	19	50·3	—2·2	45	25	57·2	64·1	45·8	48·9	6·0	—0·5	5·7	37	—7	
Pachmarhi	3,528	896·9	—1·5	894·8	73·0	+1·7	77	1,20	44·7	—1·1	38	12	58·3	67·2	52 5	56·3	10·6	+0·5	10·7	68	+6	
Mahabaleshwar	4,534	864·9	—0·5	863·0	77·4	+4·7	81	2,4,20	60·4	+3·9	54	27,28	61·7	68·6	52·0	56·4	9·3	—0·1	10·6	52	—3	

(a) Mean of 30 days.

Cloud amount (Oktas).		Rainfall, inches.				Number of rainy days, (0·10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from:—																		STATION
										0830 hrs. I. S. T.									1730 hrs. I. S. T.									
Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm	
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
																												Malabar—*contd.*
...	3·1	1·18	...	0·65	28	4	...	4·3	...	0	7	15	8	0	0	0	0	1	1	0	0	0	0	4	17	9	0	Alleppey
−0·4	4·3	0·20	−2·27	0·08	9	0	−3·7	3·5	+0·9	3	17	5	4	1	0	0	0	1	0	1	0	0	1	24	4	1	0	Trivandrum
...	5·6	0·20	...	0·06	27	0	...	8·0	...	1	28	1	0	0	0	0	0	1	0	16	1	0	0	7	6	0	1	Nagercoil
																												Madras, South East
+0·6	4·3	8·09	+0·50	1·69	19	6	−3·4	12·9	+1·5	17	5	0	0	0	0	0	9	0	14	16	1	0	0	0	0	0	0	Pamban
−0·1	4·6	0	−2·01	0	...	0	−3·6	4·5	+0·3	20	5	0	0	0	0	0	6	0	6	15	7	0	0	0	0	0	3	Madura
+0·5	4·7	0·10	−10·85	0·06	5	0	−9·1	11·8	+3·5	3	10	0	0	0	0	2	16	0	2	27	1	0	0	0	0	1	0	Negapatam
−0·2	3·7	0	−2·80	0	...	0	−4·5	6·7	+1·3	19	7	0	0	0	0	0	4	1	0	7	24	0	0	0	0	0	0	Trichinopoly
−1·7	2·6	0	−1·36	0	...	0	−2·6	4·1	+1·6	8	15	8	0	0	0	0	0	0	5	14	10	2	0	0	0	0	0	Coimbatore
−0·2	2·8	0	−1·03	0	...	0	−2·2	5·8	+2·5	0	3	22	0	0	0	3	0	3	0	5	21	4	0	0	0	0	1	Salem
+0·8	3·3	0·29	−7·20	0·26	27	1	−5·3	7·0	+2·2	14	8	0	0	0	0	0	7	2	0	31	0	0	0	0	0	0	0	Cuddalore
−1·0	2·7	0	−2·62	0	...	0	−3·9	3·8	+1·5	0	0	1	1	0	0	0	0	29	0	13	18	0	0	0	0	0	0	Vellore
−0·2	3·5	0·04	−5·41	0·04	6	0	−5·4	10·8	−1·7	1	12	1	0	0	0	1	16	0	2	25	4	0	0	0	0	0	0	Madras
...	3·6	0	...	0	...	0	...	2·7	...	0	3	4	1	1	1	0	0	21	0	16	13	2	0	0	0	0	0	Arogyavaram
																												Madras Deccan
−0·7	2·2	0	−0·81	0	...	0	−1·5	3·1	−1·4	0	0	0	0	0	0	0	0	31	0	2	7	0	0	0	0	0	22	Cuddapah
+0·4	2·6	0	−0·13	0	...	0	−0·3	2·0	−0·4	0	0	1	9	1	0	0	0	20	0	5	12	3	0	0	0	0	11	Bellary
0	2·4	0	−0·20	0	...	0	−0·3	2·1	−0·3	0	1	1	2	2	1	0	0	24	0	1	7	16	1	0	0	0	6	Kurnool
−0·8	2·8	0	−0·12	0	...	0	−0·4	2·3	−0·9	1	2	0	0	1	1	1	3	22	8	2	9	4	1	0	0	0	7	Rentichintala
...	1·7	0	−0·25	0	...	0	−0·5	5·6	...	1	0	5	4	2	3	0	0	16	0	5	25	1	0	0	0	0	0	Anantapur
																												Madras Coast, North
−1·5	(a) 3·0	0	−2·86	0	...	0	−3·0	1·4	−1·6	2	0	0	0	1	0	0	5	23	0	7	11	3	0	0	0	0	9	Nellore
...	2·3	0	...	0	...	0	...	3·3	...	11	4	1	1	0	0	1	2	11	0	1	17	12	0	0	0	0	1	Ongole
−0·3	1·7	0	−0·65	0	...	0	−0·9	4·7	+0·5	6	17	3	0	0	0	0	1	4	0	2	1	24	2	0	0	0	2	Masulipatam
−2·0	0·8	0·08	−0·62	0·08	7	0	−0·8	5·9	−0·5	0	14	0	1	0	2	0	11	3	0	2	2	27	0	0	0	0	0	Cocanada
−1·5	1·3	0·06	−0·51	0·03	7,13	0	−0·9	2·9	−0·5	2	6	0	0	0	0	6	4	13	0	0	18	7	4	1	0	0	1	Vizagapatam
−0·1	1·2	0	−0·54	0	...	0	−0·4	5·5	0	7	1	0	0	0	0	8	15	0	0	1	13	13	2	2	0	0	0	Calingapatam
																												Hill Stations excluding Kashmir
−1·1	5·4	0·38	+0·10	0·27	31	1	+0·1	1·9	+0·7	0	1	2	4	1	4	2	0	17	1	0	0	0	0	1	1	2	26	Shillong
+0·1	1·9	0	−0·49	0	...	0	−0·7	4·6	+2·1	0	15	7	1	0	7	1	0	0	1	3	1	1	0	9	5	4	7	Cherrapunji
...	0·5	0	...	0	...	0	...	1·5	...	0	0	11	7	0	4	0	3	6	0	0	0	0	1	9	0	16	5	Aijal
+1·5	5·1	0·36	+0·09	0·10	11	1	+0·3	3·9	+2·0	0	1	23	4	0	0	1	1	1	0	2	4	1	0	2	21	0	1	Darjiling
+1·2	4·0	0·42	+0·10	0·42	12	1	+0·3	5·2	−1·6	0	0	0	2	0	0	0	20	9	0	0	0	31	0	0	0	0	0	Kalimpong
−0·4	1·7	0·25	−0·08	0·25	11	1	+0·2	1·0	0	1	0	0	2	1	0	2	0	25	1	0	4	4	2	1	0	1	18	Katmandu
−0·3	...	0	−0·01	0	...	0	0	4·2	+0·7	0	1	2	8	1	1	0	1	17	...	...	...	...	...	...	...	...	...	Gyantse
−1·2	1·5	0·19	−0·86	0·19	10	1	−0·8	7·8	+2·6	0	2	4	0	1	2	11	7	4	0	1	1	1	0	3	14	7	4	Muktesar
−0·8	1·7	0·44	−0·94	0·40	10	1	−1·6	...	...	11	11	1	3	3	2	0	0	0	2	2	2	5	12	6	1	1	0	Mussoorie
−0·5	3·2	0·56	−0·68	0·56	10	1	−1·4	1·2	−1·8	12	2	0	1	1	0	0	0	15	2	6	6	2	5	2	0	2	6	Simla
−0·9	0·6	0	−0·12	0	...	0	−0·3	0·9	−2·0	0	3	0	0	0	0	1	1	26	1	0	0	0	0	1	0	0	29	Abu
−1·0	0·5	0	−0·43	0	...	0	−0·8	1·6	−0·2	0	1	1	1	1	4	2	4	17	4	0	0	0	1	0	4	5	17	Pachmarhi
−1·3	0·7	0	−0·26	0	...	0	−0·6	5·8	−1·3	0	17	5	6	0	3	0	0	0	1	6	1	1	0	6	0	16	0	Mahabaleshwar

TABLE II—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S T. (0300 HRS. G. M. T

STATION	Height of bar. cistern above mean sea level in feet.	Pressure at station level in millibars.			Maximum temperature, °F				Minimum temperature, °F				Dry bulb temperature, °F		Wet bulb temperature, °F		Vapour pressure, millibars.			Relative humidity, %		
		Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 1730 hrs. I.S.T.	Mean 0830 hrs. I.S.T.	Departure from normal.	Mean
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 —*contd.*																						
Mercara .	3,781	886·4	−1·1	884·4	75·9	+1·0	80	21	55·9	−1·8	52	21,31	60·9	73·5	56·0	61·1	13·2	−2·5	13·3	74	−9	4
Ootacamund .	7,364	780·7	−0·3	779·1	69.3	+4·3	73	30	40·5	−3·4	33	10,11	51·8	58·7	43·2	51·5	6·8	−2·2	10·4	52	−12	6
Coonoor .	5,730	826·2	...	...	62·2	−3·4	72	23	43·9	−5·3	38	11,25	60·9	...	52·1	...	10·2	−1·8	...	57	−15	..
Kodaikanal .	7,688	771·8	0	770·2	62·5	+0·8	68	31	46·3	−0·9	42	3	54·2	54·6	45·1	49·9	6·9	−2·3	10·7	52	−12	7
Ceylon																						
Colombo .	24	1010·5	−1·2	1007·7	85·5	−0·9	89	2	(b) 72·0	−0·5	66	12,14	(b) 76·1	79·9	72·6	74·4	(b) 25·8	−0·1	26·6	(b) 84	−2	7
Trincomalee .	24	1011·4	+0·1	1008·9	79·8	−2·7	82	1,2,3	75·3	+0·9	72	4 days	77·8	78·2	73·8	73·9	26·7	−0·5	26·7	82	−3	8
Hambantota .	61	1008·4	−1·4	1005·8	83·7	−0·9	89	4	73·2	+0·4	69	14	76·1	79·5	72·8	75 0	26·1	+0·3	27·6	85	−2	8
Mannar . .	12	1012·2	...	1009·3	82·0	...	85	1,2,4	74·6	...	69	13	77·1	79·0	73·1	73·0	26·0	...	25·0	82	...	7

(b) Mean of 29 days.

d amount, Oktas).		Rainfall, inches.				Number of rainy days, (0·10" or more).		Wind velocity, miles per hour.		Wind direction—Number of winds from :—																			STATION
										0830 hrs. I. S. T.									1730 hrs. I. S. T.										
Departure from normal.	Mean 1730 hrs. I.S.T.	Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Mean.	Departure from normal.	N	NE	E	SE	S	SW	W	NW	Calm	N	NE	E	SE	S	SW	W	NW	Calm		
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
																													Hill Stations excluding Kashmir —*contd.*
−0·3	4·3	0	−0·72	0	...	0	−1·2	7·8	+3·2	12	13	6	0	0	0	0	0	0	12	13	5	0	0	0	0	1	0		Mercara
−1 7	2·7	0	−1·72	0	...	0	−3·7	(f) 0·2	−2·7	0	0	6	0	0	0	0	0	19	0	1	4	0	1	0	0	0	19		Ootacamund
−2·7	...	0	−5·58	0	...	0	−6·6	2·7	−0·5	8	1	0	4	10	2	0	3	3	...	...	...	...	...	...	...	...	...		Coonoor
−0·5	4·1	0·07	−5·09	0·04	6	0	−7·1	10·4	+2.2	1	9	9	9	0	0	0	3	0	3	10	3	2	0	0	1	8	4		Kodaikanal
																													Ceylon
+0·9	6·3	3·35	−2·23	0·84	19	6	−1·6	...	...	7	21	2	0	0	0	0	0	1	9	15	0	2	1	0	0	4	0		Colombo
+1·9	7·2	32·45	+18·79	12·71	18	14	+0·4	...	...	12	15	0	1	0	0	0	0	3	17	13	1	0	0	0	0	0	0		Trincomalee
+1·9	6·8	7·30	+2·31	2·36	26	10	+1·7	...	...	21	3	0	0	0	0	2	5	0	7	16	3	0	3	2	0	0	0		Hambantota
...	6·1	10·36	...	1·92	27	8	...	...	...	7	20	2	1	0	1	0	0	0	10	19	1	0	0	1	0	0	0		Mannar

(f) Mean of 25 days.

TABLE III—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M T.) AT 4TH CLASS STATIONS—DECEMBER 1949

STATION	Maximum temperature, °F.				Minimum temperature, °F.				Mean dry bulb temperature, °F. 0830 hrs. I. S. T.	Mean wet bulb temperature, °F. 0830 hrs. I.S.T.	Vapour pressure, millibars.		Relative humidity, %		Mean cloud amount 0830 hrs. I. S. T.	Rainfall, inches.				Number of rainy days, (0·10" or more).		Wind
	Mean.	Departure from normal.	Highest.	Date.	Mean.	Departure from normal.	Lowest.	Date.			Mean 0830 hrs. I.S.T.	Departure from normal.	Mean 0830 hrs. I.S.T.	Departure from normal.		Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.	Resultant direction 0830 hrs. I.S.T.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Assam																						
Lumding	75·5	+1·5	81	2	46·3	−4·4	41	6 days	63·4	58·1	13·9	−1·4	69	−22	...	0·14	0	0·10	11	1	+0·6	...
Kashmir																						
Jammu	70·1	+2·1	79	1	44·8	−4·3	39	22	51·5	44·4	6·9	−1·5	53	−9	3·3	0·15	−1·09	0·15	10	1	−1·6	...
Kargil (R)																						
Mysore																						
Balehonnur	79·6	+0·7	83	1	56·1	−2·5	50	22	65·0	59·0	14·6	−1·6	70	−6	...	0	−0·47	0	...	0	−0·8	...
Tibet																						
Yatung (Chumbi)	44·7	−2·1	55	2	18·5	−2·6	13	2 4	29·8	28·5	4·8	+0·6	87	+4	2·1	0·59	+0·22	0·57	10	1	+0·2	..

(R) Register not received.

TABLE IV—ABSTRACT OF OBSERVATIONS RECORDED AT 0830 HRS. I. S. T. (0300 HRS. G. M. T.) AT 5TH CLASS STATIONS—DECEMBER 1949

Division.	Station.	Rainfall, inches.				Number of rainy days (0·10" or more).	
		Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.
1	2	3	4	5	6	7	8
Assam	Mawsynram	0	...	0	...	0	..
West Bengal	Bankura	0	−0·11	0	...	0	−0·3
Bihar	Muzaffarpur	0	−0·12	0	...	0	−0·3
	Chapra	0	−0·14	0	..	0	−0·4
	Arrah	0	−0·17	0	...	0	−0·5
East Punjab	Dharampore	0·65	−1·13	0·65	10	1	−1·5
	Kyelang	0	−1·12	0	...	0	−2·9

Division.	Station.	Rainfall, inches.				Number of rainy days (0·10" or more).	
		Total of the month.	Departure from normal.	Heaviest fall in 24 hours.	Date.	Total in the month.	Departure from normal.
1	2	3	4	5	6	7	8
East Punjab—*contd.*	Dalhousie	0·53	−3·32	0·46	10	1	−3
Kashmir	Sonamarg	1·35	−4·27	0·65	10	4	−3
	Gurez	18·28	+15·51	3·50	31	8	+1
Bombay, Deccan	Khandala	0	−0·12	0	...	0	0
Madras, Southeast	Palamcottah	0·98	−3·26	0·56	5	3	−2
Sikkim	Lachung	2·60	+1·99	0·70	9	5	+3

MONTHLY MEANS OF UPPER WINDS

NOTE.—Data upto 9·0 Km. a. s. l. are given under Table A and data above 9·0 Km. a. s. l. under Table B.

In Tables A and B—

n Represents the number of observations.

V Represents the mean wind speed in m/second irrespective of direction.

v Represents the resultant mean velocity in m/second.

D Represents the direction of the resultant mean wind in degrees East of North.

For the co-ordinates of the stations for which data have been published in these Tables and other particulars please refer to the Monthly Weather Report January 1949 and subsequent issues.

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

DECEMBER 1949

Station	AHMEDABAD												ALLAHABAD											
Time in I. S. T.	0230				0730				1430				0230				0730				1430			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	0·8	0·6	351	31	1·0	0·9	54	31	1·9	0·9	13	31	0·7	0·4	272	31	1·0	0·6	250	31	2·2	1·7	290
0·15 a. g.	31	8·1	6·0	15	31	8·3	6·7	53	31	2·8	1·0	19	30	5·2	3·2	323	31	5·1	2·4	300	30	3·7	3·0	306
0·6 a. s. l.	31	4·6	3·0	17	31	5·4	3·3	45	31	2·8	1·4	9	30	6·0	4·1	325	31	5·2	3·9	310	30	3·8	3·4	300
1·0 ,,	31	3·3	1·4	23	31	3·8	1·3	5	31	3·1	1·7	342	31	6·4	5·6	301	31	6·2	5·5	300	31	5·7	5·5	301
1·5 ,,	31	3·6	0·7	262	31	3·8	2·0	303	31	4·4	2·9	312	31	7·7	7·3	295	31	8·1	7·6	298	31	8·2	7·9	297
2·0 ,,	31	4·4	3·0	280	31	5·1	3·9	299	31	5·5	4·2	295	30	9·5	9·3	290	31	9·8	9·3	294	31	9·8	9·5	294
2·5 ,,	31	6·0	5·2	286	31	6·3	5·4	289	30	7·0	6·3	286	28	11·2	10·9	290	30	11·1	10·5	292	31	12·5	11·4	289
3·0 ,,	30	7·8	6·8	292	31	7·9	7·0	290	30	8·6	7·8	285	24	11·6	11·3	287	30	12·4	11·8	292	31	13·5	13·2	290
4·0 ,,	11	13·4	11·7	277	31	12·7	11·7	287	30	13·6	12·5	285	3	12·8	12·1	293	27	16·1	15·9	292	30	17·0	16·6	288
5·0 ,,	2	17·3	15·1	285	30	15·9	14·7	281	30	16·7	15·4	284					21	20·3	20·0	287	29	21·5	21·4	286
6·0 ,,					29	19·3	18·6	280	29	20·1	19·2	283					20	26·1	25·7	286	27	26·5	26·0	287
7·5 ,,					26	26·3	25·2	279	28	25·4	24·2	279					14	38·9	38·9	287	16	35·1	34·7	283
9·0 ,,					14	36·4	34·7	276	17	31·4	30·2	274					6	43·9	43·5	283	6	38·6	37·5	283

Station	AMBALA												ANANTAPUR								ASANSOL			
Time in I. S. T.	0230				0730				1430				0730				1430				0230			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	1·6	1·3	315	31	1·5	1·1	318	31	2·9	2·4	300	31	1·0	0·4	149	31	3·5	3·2	78	31	1·5	1·2	321
0·15 a. g.	30	8·0	7·1	330	31	8·1	6·7	323	31	6·5	5·5	304	31	3·6	2·8	113	31	5·5	5·3	75	31	4·8	3·7	338
0·6 a. s. l.	30	8·5	7·5	329	31	8·3	7·2	323	31	6·0	5·0	302	31	5·0	4·7	107	31	5·0	4·9	79	31	5·9	4·8	325
1·0 ,,	30	7·6	6·2	324	31	7·6	6·6	322	31	6·1	5·1	309	31	6·7	6·5	86	31	4·4	4·3	83	31	7·2	6·7	298
1·5 ,,	30	7·0	6·3	316	31	7·2	6·5	317	31	7·1	5·8	317	31	6·9	6·3	72	30	4·8	4·6	77	31	10·0	9·5	293
2·0 ,,	30	7·0	6·5	314	31	6·3	5·6	319	31	6·6	5·2	312	31	6·6	5·7	61	30	5·1	4·3	71	25	11·7	11·4	298
2·5 ,,	30	7·0	6·3	312	30	6·1	5·1	318	30	7·0	5·8	306	31	5·6	4·6	66	31	5·3	4·0	63	14	11·8	11·6	299
3·0 ,,	29	7·1	6·5	300	30	6·7	5·7	308	30	7·8	6·5	301	31	5·2	4·3	59	31	5·5	3·9	50	11	13·4	13·3	290
4·0 ,,	21	9·8	8·9	289	29	10·3	9·6	293	28	9·9	9·3	289	31	5·3	3·2	51	31	5·4	3·8	46	2	23·7	23·7	290
5·0 ,,	12	13·6	12·7	291	26	15·8	15·4	284	27	15·8	15·0	291	31	4·9	2·7	30	30	5·4	3·3	37				
6·0 ,,	6	16·4	15·7	276	20	22·1	21·8	286	24	21·2	20·2	286	31	4·8	1·6	21	30	4·5	1·5	2				
7·5 ,,					16	28·4	27·8	283	19	31·4	30·6	283	30	7·8	3·4	317	29	8·1	3·6	301				
9·0 ,,					7	39·1	38·5	286	13	39·0	37·7	282	24	7·3	5·3	275	26	8·7	4·9	278				

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

DECEMBER 1949

Station	ASANSOL								BANGALORE												BAREILLY			
e in I. S. T.	0730				1430				0230				0730				1430				0730			
ght in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
ace . .	31	1·7	1·4	302	31	1·6	1·6	312	30	2·7	2·6	77	31	4·8	2·7	74	31	3·4	3·0	72	31	1·0	0·7	307
a. g. .	31	4·1	2·9	327	31	3·4	3·0	320	30	8·3	8·0	82	31	7·4	7·1	76	31	4·4	4·0	74	31	6·7	5·6	307
a. s. l. .	30	4·9	4·0	330	31	3·8	3·2	313	...	...	...	...	...	...	...	...	...	...	...	...	31	8·4	7·4	304
„ .	30	6·4	5·7	306	31	4·3	4·1	311	30	6·6	8·2	64	31	6·0	5·9	77	31	4·5	4·2	75	31	8·5	7·8	300
„ .	31	8·9	8·4	297	31	8·0	7·8	306	29	6·7	6·9	61	31	7·5	6·5	70	31	5·0	4·7	73	31	8·5	7·8	304
„ .	29	10·6	9·9	297	31	11·9	11·7	303	28	5·3	7·1	43	31	6·7	5·8	67	31	5·3	4·8	72	31	8·5	8·1	304
„ .	28	12·2	11·7	298	31	14·5	14·2	298	27	6·1	7·1	48	31	5·5	4·6	72	30	5·7	4·6	68	31	9·6	9·1	302
„ .	26	13·9	13·5	296	31	16·5	16·1	295	24	6·1	7·9	47	31	6·0	5·1	70	30	5·7	4·3	69	31	11·1	10·0	300
„ .	22	17·7	17·2	289	30	20·5	20·1	291					30	6·4	5·1	72	29	5·5	4·6	67	27	14·1	13·8	293
„ .	14	22·9	22·0	286	26	23·6	23·2	286					30	6·2	4·8	55	28	5·8	4·1	57	22	20·9	20·4	288
„ .	9	28·6	28·3	289	14	28·0	27·1	283					29	5·2	2·7	68	28	5·7	3·2	54	17	23·8	22·9	287
„ .	5	35·3	34·7	286	7	28·5	28·3	279					27	6·4	2·4	21	25	5·8	4·7	26	6	39·8	38·6	288
„ .	1	44·5	44·5	300	2	43·3	42·9	287					22	5·7	0·8	274	22	5·7	0·7	204	2	56·5	56·1	285

Station	BAREILLY				BHOPAL												BHUJ							
e in I. S. T.	1430				0230				0730				1430				0230				0730			
ght in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
ace . .	31	2·5	2·0	305	31	1·4	0·6	65	31	1·5	0·9	82	31	1·6	0·7	301	31	0·2	0·1	38	31	0·2	0·1	213
a. g. .	31	4·9	4·3	294	31	6·2	3·5	71	31	5·0	3·6	90	30	2·6	1·4	295	31	5·7	4·2	5	31	4·2	2·5	23
a. s. l. .	31	5·2	4·5	296	31	5·6	3·5	67	31	4·6	3·2	89	30	2·5	1·5	295	31	5·9	4·3	14	31	6·0	3·9	22
„ .	31	6·6	5·9	305	31	4·0	0·9	30	31	3·9	0·8	347	31	2·6	1·7	296	31	4·5	2·4	15	31	5·1	3·2	355
„ .	31	8·2	7·5	304	31	5·0	4·1	270	31	5·0	3·7	284	31	3·5	2·8	285	31	4·5	3·2	322	31	5·0	3·7	334
„ .	31	8·9	8·3	302	31	6·2	5·3	274	31	6·9	5·7	274	31	5·9	5·1	279	31	5·3	4·1	308	31	5·2	4·0	308
„ .	31	10·0	9·6	299	28	7·7	7·0	287	31	7·5	7·2	281	31	8·5	8·0	280	31	6·5	5·4	298	31	6·5	5·3	297
„ .	31	11·7	11·3	293	25	10·4	9·7	289	31	8·7	8·2	285	31	10·5	10·0	284	31	8·2	7·1	287	31	8·2	7·4	289
„ .	31	15·2	14·6	290	10	13·5	12·9	280	30	13·5	13·2	287	31	14·7	14·1	287	11	9·4	8·6	277	30	12·2	11·2	284
„ .	27	19·6	19·2	291	1	16·0	16·0	280	29	17·7	17·3	283	28	18·4	17·7	285	3	8·8	8·7	275	29	15·6	14·7	279
„ .	22	23·7	23·4	287					27	21·7	21·3	283	25	22·1	21·3	281	1	2·0	2·0	310	27	18·8	18·0	274
„ .	10	37·9	37·5	286					16	24·1	23·2	280	18	26·5	25·7	280					20	23·8	23·1	273
„ .	3	48·5	48·2	290					9	34·3	31·9	280	8	31·1	30·9	268					11	35·4	34·0	272

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

DECEMBER 1949

Station	BHUJ				BIKANER								BOMBAY											
Time in I.S.T.	1430				0730				1430				0230				0730				1430			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	2·1	1·3	11	31	1·2	0·6	126	31	1·2	0·7	327	31	0·3	0·2	78	31	0·6	0·6	83	31	5·3	4·9	29
0·15 a. g. .	31	3·0	1·9	14	30	4·3	1·4	118	29	2·5	1·4	310	31	3·5	2·9	28	31	3·7	3·0	36	31	3·1	2·6	31
0·6 a. s. l. .	31	3·7	1·8	3	30	4·0	1·4	344	29	2·6	1·5	309	31	4·3	3·4	18	31	4·3	3·1	39	31	2·5	1·3	1
1·0 ,, .	31	4·1	2·3	354	30	3·9	2·6	322	30	2·8	1·5	306	31	3·8	1·6	22	31	3·4	1·8	48	31	2·7	0·3	34
1·5 ,, .	31	4·5	3·1	320	30	4·3	3·3	320	31	3·9	2·9	281	31	3·6	1·7	141	31	3·5	1·9	165	31	3·4	0·5	26
2·0 ,,	31	5·9	4·8	305	30	5·7	4·8	313	31	5·7	4·7	283	31	4·3	1·8	139	30	3·8	0·7	202	31	3·8	1·3	33
2·5 ,, .	31	7·3	7·3	291	30	6·8	6·0	300	31	7·6	6·4	275	31	4·2	1·7	338	30	4·7	3·0	326	31	4·2	2·4	34
3·0 ,, .	31	9·3	8·7	287	30	8·9	8·1	285	31	10·0	9·3	288	31	5·6	3·7	322	30	6·8	4·5	326	31	5·9	3·5	33
4·0 ,, .	31	12·3	11·4	285	29	14·2	13·5	278	29	14·9	14·4	286	21	6·6	6·7	300	30	7·4	5·2	302	31	7·2	5·0	30
5·0 ,, .	31	14·9	14·0	281	23	18·0	17·6	284	28	19·6	19·0	284	6	8·9	8·5	291	30	8·1	6·8	297	31	8·3	6·9	29
6·0 ,, .	30	18·6	17·7	279	18	24·1	17·4	298	26	24·6	24·0	280	6	8·5	7·5	290	30	10·4	9·1	284	30	9·7	8·8	28
7·5 ,, .	21	26·1	25·4	276	3	31·2	31·0	277	8	24·1	23·6	285					23	15·2	13·9	281	27	14·7	13·1	28
9·0 ,, .	15	34·2	32·9	271	1	55·5	55·5	290	1	26·0	26·0	280					16	19·5	17·6	268	27	18·6	16.9	27

Station	CALCUTTA												COCHIN											
Time in I.S.T.	0230				0730				1430				0230				0730				1430			
Height in K.m.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	0·9	0·8	353	31	1·0	0·9	6	31	2·2	2·0	334	31	0·9	0·9	61	31	1·5	1·4	65	31	2·7	2·3	269
0·15 a. g. .	31	4·8	2·9	25	31	4·6	3·5	15	31	3·4	3·1	333	31	2·5	1·2	83	31	4·3	4·0	73	31	3·2	2·7	273
0·6 a. s. l .	31	4·6	3·3	343	31	4·3	3·4	355	31	3·7	3·5	326	31	2·6	1·2	74	31	2·8	1·7	47	31	2·4	2·0	36
1·0 ,, .	31	5·6	5·0	325	31	5·7	5·2	324	31	5·3	4·9	321	30	2·8	1·8	72	31	2·6	1·8	46	31	3·8	3·3	53
1·5 ,, .	31	8·3	7·5	312	31	8·0	7·4	316	31	8·5	8·2	317	30	4·0	3·6	63	31	3·9	2·3	79	30	4·9	3·7	63
2·0 ,, .	30	10.4	10·3	309	31	9·8	9·5	310	31	10·7	10·4	307	29	5·4	4·7	78	31	5·1	3·2	87	30	5·6	4·3	80
2·5 ,, .	27	11·3	11·0	306	31	11·4	11·1	301	31	12·4	12·2	301	27	6·8	5·4	80	30	6·3	5·1	85	30	6·9	5·7	79
3·0 ,, .	20	11·2	10·4	292	31	12·4	11·9	295	31	13·9	13·6	296	24	6·4	4·9	86	30	6·9	5·2	87	30	7·9	6·6	79
4·0 ,, .	1	8·5	8·5	270	23	14·9	14·3	287	30	17·7	17·3	287	9	5·7	4·6	79	28	7·4	6·6	79	27	7·9	6·6	80
5·0 ,, .					18	19·4	18·9	288	29	21·5	20·9	285					23	8·8	8·1	71	26	9·1	7·9	73
6 0 ,, .					9	26·6	25·9	288	25	24·9	24·2	279					21	9·3	8·2	75	24	8·4	7·2	72
7·5 ,, .					2	32·7	32·5	292	17	27·5	26·3	279					18	8·5	6·6	72	21	8·2	5·7	69
9·0 ,, .					1	41·0	41·0	285	9	33·7	32·6	276					12	6·5	5·1	86	19	8·1	5·0	71

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

DECEMBER 1949

Station	COOCH BEHAR								CUTTACK												DEOLALI			
e in I.S.T.	0730				1430				0230				0730				1430				0730			
ght in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
face . .	31	1·2	1·0	72	31	1·0	0·3	189	31	0·1	0·1	270	31	0·4	0·3	352	31	0·4	0·3	352	26	0·3	0·3	13
5 a. g. .	31	4·7	4·0	85	31	2·1	0·5	209	31	3·1	0·6	341	31	3·3	2·1	9	31	2·2	1·5	344	26	2·7	1·9	79
a. s. l. .	31	3·5	2·0	81	31	2·4	0·7	210	31	3·8	0·8	288	31	3·3	1·1	353	30	2·1	1·6	314	26	1·7	1·0	64
) ,, .	31	3·5	1·4	87	31	3·0	0·4	179	31	4·2	3·0	316	31	3·6	2·6	342	30	3·3	2·7	316	26	3·7	2·1	123
5 ,, .	31	4·3	2·3	90	30	3·7	0·8	101	30	6·2	5·7	329	31	6·2	5·7	337	30	5·9	5·5	323	26	4·2	2·3	169
) ,, .	30	4·5	1·3	62	28	4·0	0·9	50	28	7·3	6·9	327	31	7·2	6·7	329	30	7·1	6·8	320	26	4·2	1·3	243
5 ,, .	29	5·7	1·7	324	27	6·1	3·3	304	15	7·6	7·3	315	30	7·3	6·7	313	30	8·2	7·8	309	26	4·8	2·7	312
) ,, .	29	9·3	5·0	284	26	10·4	8·2	288	13	7·5	7·1	288	30	8·5	7·9	299	30	9·7	9·1	299	26	6·1	4·7	320
0 ,, .	25	17·2	16·2	281	25	17·3	16·6	277	4	9·3	8·3	305	25	11·9	7·1	288	29	14·4	13·7	293	26	8·3	6·4	299
0 ,, .	23	21·7	21·5	278	19	21·6	21·0	277					23	14·7	13·4	284	27	17·1	16·3	289	26	9·6	8·5	287
0 ,, .	19	23·9	23·5	280	19	26·6	26·1	277					23	17·8	17·1	277	27	19·6	18·8	282	26	11·5	10·4	282
5 ,, .	14	31·6	31·0	280	15	33·3	32·9	277					8	21·4	20·6	288	20	21·6	20·7	282	23	16·7	14·9	285
0 ,, .	7	35·5	34·7	274	8	37·4	36·8	281					2	24·7	24·6	289	10	21·7	21·5	272	18	21·9	19·9	274

Station	DIBRUGARH								GADAG												GAYA			
ne in I.S.T.	0730				1430				0230				0730				1430				0230			
ight in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
rface . .	31	1·6	1·3	60	31	2·2	1·5	14	31	3·3	2·8	121	31	3·4	3·0	126	31	3·7	3·3	89	31	1·5	1·0	150
15 a. g. .	25	3·0	2·7	57	31	2·2	1·6	26	31	7·8	7·4	114	31	7·3	6·4	121	31	4·9	4·7	87	31	4·3	2·7	292
6 a. s. l. .	25	2·6	2·3	57	31	2·5	1·7	73	..	..	..	..	..	..	..	..	..	..	..	..	31	5·7	5·1	311
0 ,, .	25	2·5	1·7	54	30	2·2	1·5	73	31	7·7	7·3	105	31	7·6	6·8	101	31	4·6	4·4	87	31	6·8	6 5	296
5 ,, .	25	3·0	1·4	81	30	2·7	0·8	145	31	6·6	5·9	82	31	7·0	6·4	78	31	4·8	4·6	80	30	8·4	8 1	289
0 ,, .	24	2·9	1·6	93	28	3·1	1·6	159	31	5·3	3·8	68	31	5·9	8·2	76	31	4·7	4·1	77	28	10·9	10·7	290
5 ,, .	23	3·0	1·9	108	28	4·2	2·2	167	31	5·0	3·5	65	31	5·0	3·6	65	31	5·3	4·0	63	15	10·5	10·2	289
0 ,, .	22	3·4	2·1	105	28	4·8	2·4	178	31	5·1	3·0	53	31	5·0	3·1	61	31	5·1	3·6	45	11	10·7	10·6	289
0 ,, .	16	5·9	3·1	269	24	6·1	2·8	245	24	4·7	1·9	56	31	5·1	3·0	47	31	4·8	2·4	36				
0 ,, .	10	14·1	11·3	261	20	15·4	14·1	259	16	3·8	2·6	333	30	4·9	2·6	20	31	4·6	1·8	15				
0 ,, .	7	25·4	24·9	260	15	19·1	18·6	267	8	5·1	3·0	316	30	5·5	2·2	343	31	5·2	1·7	325				
5 ,, .	3	25·3	25·0	278	8	27·9	26·8	276	1	8·0	8·0	15	29	8·4	5·6	310	29	9·0	4·9	304				
0 ,, .	1	29·0	29·0	285	1	27·5	27·5	285					28	8·4	6·6	282	24	9·9	7·2	287				

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

DECEMBER 1949

Station	GAYA								GOPALPUR								GORAKHPUR							
Time in I.S.T.	0730				1430				0730				1430				0730				1430			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	1·9	1·5	187	31	4·0	3·3	297	31	3·5	3·1	337	31	3·3	2·7	118	31	0·8	0·5	284	31	2·3	1·7	255
0·15 a. g.	31	4·3	3·0	237	31	5·0	4·6	297	31	3·8	2·9	343	31	4·6	3·9	116	31	4·7	3·5	300	31	3·6	3·0	270
0·6 a. s. l.	31	5·2	4·4	307	31	5·1	4·6	293	31	3·0	1·4	26	31	3·0	2·1	16	31	5·4	3·7	297	31	4·2	3·4	280
1·0 ,,	31	6·0	5·7	296	31	5·5	5·3	290	31	4·5	3·4	9	31	4·6	4·2	348	31	6·1	4·3	294	31	5·6	4·6	293
1·5 ,,	31	9·3	8·9	287	31	8·5	8·4	291	31	6·3	5·4	356	31	6·3	5·5	342	31	8·1	6·9	295	31	8·3	7·2	300
2·0 ,,	31	12·2	11·8	291	31	11·5	11·3	293	31	6·2	5·5	353	31	6·5	5·8	333	31	9·9	9·4	290	31	10·6	10·1	297
2·5 ,,	31	13·8	13·5	290	31	13·7	13·6	291	31	5·6	4·8	328	31	6·5	5·7	317	30	11·2	10·8	294	31	12·2	12·0	293
3·0 ,,	31	15·8	15·5	291	31	15·3	15·1	291	31	6·7	6·3	305	31	8·1	7·5	307	29	12·7	12·5	290	31	14·3	14·0	294
4·0 ,,	24	16·6	16·3	289	30	19·4	18·9	287	31	9·7	8·8	294	30	11·2	10·5	302	25	14·9	14·8	290	26	16·9	16·5	291
5·0 ,,	12	24·0	23·6	286	27	23·4	22·9	286	29	12·1	11·1	290	29	12·6	12·3	285	20	19·5	19·0	293	18	20·8	20·4	291
6·0 ,,	9	28·4	28·2	287	15	27·8	27·4	283	24	13·4	12·9	279	25	15·0	14·3	285	16	26·1	25·8	287	13	22·0	21·5	285
7·5 ,,	4	36·9	36·0	291	4	37·4	36·9	279	15	17·3	16·2	275	16	16·8	15·7	276	5	39·2	39·2	296	7	29·9	29·6	290
9·0 ,,	3	53·2	52·2	285	2	53·0	50·6	281	9	17·0	16·5	262	11	17·9	17·3	261	2	39·5	38·6	287	3	33·3	33·0	279

Station	HYDERABAD DN.												JAGDALPUR											
Time in I.S.T.	0230				0730				1430				0230				0730				1430			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface	31	1·0	0·8	108	31	0·4	0·3	140	31	2·0	1·8	89	31	0·1	0·1	288	31	0·1	0·1	135	31	1·2	0·5	14
0·15 a. g.	31	6·5	5·6	114	31	5·1	4·2	127	31	3·7	3·2	89	30	3·2	1·3	11	31	2·5	1·2	56	31	2·5	1·7	9
0·6 a. s. l.	31	4·0	3·3	107	31	2·8	2·2	115	31	3·4	3·3	113	30	2·4	1·2	359	31	1·5	0·6	65	31	2·0	1·4	13
1·0 ,,	31	7·1	6·3	107	31	6·4	5·4	95	31	3·2	2·8	74	30	3·7	1·9	23	31	3·3	2·4	19	31	2·4	2·0	357
1·5 ,,	31	5·3	4·0	94	31	5·9	4·9	55	31	3·4	2·9	67	30	3·6	3·1	359	31	4·4	3·7	359	31	2·9	2·6	357
2·0 ,,	31	6·1	4·3	13	31	6·2	4·7	12	31	3·4	2·6	37	29	5·0	4·1	343	31	5·7	5·2	351	30	3·9	3·3	343
2·5 ,,	30	5·7	4·1	359	31	5·5	4·2	8	31	3·9	2·7	2	27	6·2	5·5	330	31	5·7	5·1	342	29	5·2	4·2	324
3·0 ,,	28	6·0	3·7	358	31	5·4	3·3	359	31	5·1	3·5	338	26	7·7	6·6	316	31	6·6	5·3	319	29	7·0	6·1	308
4·0 ,,					31	6·1	4·0	321	27	6·1	4·4	314	19	8·8	7·7	301	31	8·3	7·3	299	27	9·5	8·6	295
5·0 ,,					31	7·1	5·8	306	26	7·1	5·1	309	8	9·7	8·8	292	29	10·1	8·9	284	27	10·9	10·3	290
6·0 ,,					31	8·0	6·6	297	26	9·1	7·4	292	3	13·8	13·1	288	28	12·7	11·7	285	26	13·1	12·4	287
7·5 ,,					22	12·1	9·8	294	25	11·4	9·5	280					22	17·0	15·2	288	24	17·2	15·6	284
9·0 ,,					9	13·2	11·8	265	22	14·7	12·5	275					19	19·6	18·2	275	16	18·7	17·7	275

Table A.— Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

DECEMBER 1949

Station	JAMSHEDPUR								JHARSUGUDA												JODHPUR			
ne in I.S.T.	0730				1430				0230				0730				1430				0230			
ght in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
ce . .	31	1·2	1·1	281	31	1·5	1·4	302	31	0·9	0·9	11	31	1·0	1·0	10	31	0·9	0·7	282	31	3·2	2·7	37
a. g. .	31	2·3	1·5	294	31	2·6	2·2	300	31	4·6	3·5	20	31	4·3	3·8	41	31	2·5	2·0	280	31	6·4	3·6	47
. s. l. .	31	3·4	1·5	337	31	2·6	2·2	300	31	4·6	2·2	320	31	4·0	1·5	16	31	2·8	2·2	283	31	5·5	2·2	34
,, . .	31	4·6	2·7	303	31	3·6	3·1	300	31	4·3	3·1	293	31	4·5	2·8	312	31	3·5	3·0	290	31	4·5	1·3	305
,, . .	31	6·8	6·1	297	31	7·2	6·8	304	31	5·7	5·0	299	31	6·0	5·5	303	31	6·1	5·7	303	31	4·6	3·3	284
,, . .	30	9·6	9·1	302	31	9·9	9·7	304	31	7·8	7·3	308	31	8·2	7·8	310	31	8·5	8·2	307	31	5·8	4·2	287
,, . .	30	11·1	10·7	300	30	11·7	11·4	300	25	9·4	8·9	308	31	9·0	8·6	306	31	10·2	10·0	304	31	6·9	5·4	295
,, . .	30	12·4	12·1	293	30	13·0	12·7	293	22	10·3	9·9	306	31	10·3	9·7	300	31	11·1	10·7	298	30	8·9	7·9	290
,, . .	28	15·6	15·1	289	30	17·0	16·6	287	13	14·8	14·3	296	31	14·5	13·8	291	30	14·9	14·5	290	3	12·7	12·3	309
,, . .	24	19·7	19·1	281	29	20·7	20·2	285					26	16·6	15·8	284	27	18·5	18·0	285				
,, . .	17	20·9	20·3	275	26	23·3	22·9	283					20	19·9	19·0	279	24	21·6	21·4	284				
,, . .	10	28·4	27·5	284	14	29·4	28·7	283					12	24·4	23·4	275	16	26·0	25·0	282				
,, . .	6	34·3	33·3	282	6	29·6	29·1	278					6	31·1	30·1	283	10	32·9	31·9	291				

Station	JODHPUR								JUBBULPORE												MADHOSAGAR			
ne in I.S.T.	0730				1430				0230				0730				1430				0730			
ght in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
ce . .	31	1·9	1·8	50	31	2·0	0·6	63	31	0·6	0·5	126	31	0·5	0·4	137	31	0·8	0·5	325	31	1·2	0·8	226
a .g. .	31	5·1	3·6	73	31	2·6	0·9	34	31	3·6	1·3	89	31	3·2	1·3	113	31	2·5	1·7	320	30	3·7	0·1	74
. s. l. .	31	4·9	1·8	34	31	2·9	0·7	26	31	3·8	1·0	76	31	3·9	1·5	100	31	2·6	1·7	322	30	3·8	1·4	346
,, . .	31	4·7	2·1	349	31	3·3	0·7	343	31	4·1	2·0	297	31	4·5	1·2	350	31	3·3	2·5	303	30	4·3	3·2	327
,, . .	31	4·5	2·9	330	31	4·2	2·2	290	31	5·9	5·0	285	31	6·1	4·7	292	31	5·5	4·8	283	31	6·0	5·7	303
,, . .	31	5·4	4·1	313	31	6·1	4·9	287	31	8·1	7·3	287	31	8·0	6·9	288	31	8·5	7·8	287	31	7·7	7·2	294
,, . .	31	6·8	5·7	295	31	8·6	7·8	284	26	8·9	8·1	292	31	8·8	8·2	292	31	9·7	9·0	288	31	9·4	9·0	291
,, . .	31	8·6	7·9	286	31	10·3	9·7	284	24	9·9	9·3	295	31	10·0	9·6	294	31	11·2	10·7	286	31	10·7	10·2	290
,, . .	31	13·4	12·9	281	31	18·1	13·9	283					31	14·4	14·0	289	31	14·0	13·5	286	31	15·4	15·0	287
,, . .	31	19·5	18·9	282	31	19·6	19·0	282					26	17·8	17·3	288	31	18·9	18·3	285	31	20·9	20·5	283
,, . .	27	24·2	23·7	281	28	24·0	23·4	280					18	21·6	21·4	286	31	22·4	21·7	284	31	26·6	26·1	284
,, . .	17	28·8	28·0	279	21	31·4	27·0	282					8	27·8	27·0	283	17	28·0	27·4	286	28	32·6	32·1	286
,, . .	6	33·9	33·9	271	9	32·4	30·4	276					6	34·7	32·2	279	8	29·5	28·9	276	24	42·2	41·3	282

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

DECEMBER 1949

Station	MADHOSAGAR				MADRAS												MALEGAON							
Time I.S.T.	1430				0230				0730				1430				0230				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	2·4	1·5	319	31	2·5	2·1	336	31	2·6	2·3	338	31	4·8	4·6	40	31	2·4	2·3	277	31	2·5	1·9	291
0·15 a. g. .	31	3·1	2·0	320	31	5·4	5·2	47	31	5·8	5·5	28	31	6·2	6·0	50	31	3·7	2·1	10	30	2·7	1·1	350
0·6 a. s. l. .	30	2·9	1·9	319	31	6·6	6·5	53	31	7·0	6·9	51	31	6·2	6·0	40	31	3·7	2·1	10	30	2·7	1·1	350
1·0 ,, .	30	3·3	2·6	300	31	7·5	7·0	51	31	7·9	7·6	57	31	6·4	6·1	41	31	4·9	2·6	59	30	3·5	1·8	104
1·5 ,, .	30	5·0	4·7	291	29	7·4	6·8	48	30	8·6	8·0	56	30	6·9	6·2	46	31	4·1	1·2	127	30	3·8	2·0	166
2·0 ,, .	31	7·4	6·8	285	28	6·5	5·5	52	29	6·9	6·3	63	29	6·7	5·7	52	31	4·7	2·6	209	31	5·3	3·1	231
2·5 ,, .	31	10·1	9·8	285	27	5·4	3·9	71	28	6·6	5·6	66	27	6·0	4·8	55	31	5·4	3·0	250	31	5·3	3·5	285
3·0 ,, .	31	12·5	12·0	281	25	5·9	4·9	66	26	6·7	5·5	68	25	6·1	4·7	58	31	6·6	4·5	287	31	6·4	5·3	308
4·0 ,, .	31	17·4	17·0	281	13	5·3	4·5	51	24	6·6	5·6	61	23	6·4	5·4	66	29	9·3	8·0	298	31	9·3	7·5	296
5·0 ,, .	31	21·7	21·3	283					21	6·4	4·4	47	21	7·3	5·9	60					31	11·3	9·9	291
6·0 ,, .	31	26·8	26·3	284					21	5·8	3·5	50	20	5·7	3·9	60					30	12·9	12·0	286
7·5 ,, .	30	33·3	32·7	282					17	6·7	4·0	47	15	6·6	4·0	34					28	18·4	17·1	284
9·0 ,, .	21	38·5	37·6	283					14	6·0	2·5	13	13	4·6	1·7	325					21	24·7	22·9	278

Station	MALEGAON				MANGALORE												MASULIPATAM							
Time in I.S.T.	1430				0230				0730				1430				0230				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	2·1	0·9	257	31	2·9	2·7	83	31	3·4	3·4	94	31	3·1	2·3	264	31	1·1	0·9	34	31	1·6	1·5	23
0·15 a. g. .	31	2·4	0·9	254	31	4·0	3·0	47	31	6·9	6·7	92	31	3·6	2·6	278	31	3·6	3·4	118	31	4·0	3·2	50
0·6 a. s. l. .	31	2·4	0·9	254	31	4·5	2·7	34	31	6·0	5·1	81	31	2·6	2·0	75	31	4·3	3·7	83	31	4·4	4·0	82
1·0 ,, .	31	2·5	0·8	260	31	5·7	4·3	81	31	4·5	3·8	92	31	3·9	3·8	78	31	4·9	4·1	53	31	5·3	4·8	69
1·5 ,, .	31	3·0	1·4	265	30	6·9	3·2	96	31	4·4	3·4	90	31	5·9	5·4	78	31	5·4	4·7	48	31	6·4	5·8	53
2·0 ,, .	31	4·1	2·7	289	28	6·9	3·6	100	31	5·4	3·9	85	31	6·9	5·9	81	31	4·8	3·9	42	31	5·9	4·9	42
2·5 ,, .	31	5·1	3·7	294	13	6·6	5·4	100	31	6·0	5·0	73	31	6·6	5·3	75	26	4·6	2·7	16	31	4·6	3·0	29
3·0 ,, .	30	6·7	5·1	300	10	5·9	4·8	91	31	6·1	4·9	73	31	6·0	4·8	73	24	4·8	2·9	10	31	4·8	3·1	12
4·0 ,, .	30	9·5	8·3	289	2	5·7	2·5	340	30	6·5	5·0	76	31	6·3	5·5	78	11	5·6	4·0	343	31	5·7	3·5	347
5·0 ,, .	30	11·6	10·5	291					29	6·8	5·7	66	31	7·0	5·6	69					31	5·9	3·7	318
6·0 ,, .	30	14·1	13·1	285					28	6·3	4·0	65	30	5·6	3·7	70					30	6·5	3·9	300
7·5 ,, .	30	18·3	17·1	280					22	7·4	3·4	57	29	6·5	2·7	37					23	9·9	6·9	292
9·0 ,, .	28	26·6	24·8	281					15	5·6	0·7	36	27	7·0	1·9	328					18	11·4	9·2	269

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

DECEMBER 1949

Station	MASULIPATAM				MINICOY												NAGERCOIL							
ne in I.S.T.	1430				0230				0730				1430				0230				0730			
ight in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
ace . .	31	2·0	1·9	115	31	2·4	1·9	36	31	1·9	1·5	16	31	3·0	2·5	20	31	4·0	3·9	43	31	3·4	3·3	40
a. g. .	31	3·6	3·4	109	31	3·7	3·2	33	31	3·5	2·7	22	31	4·5	3·9	24	31	7·4	7·2	45	31	8·4	8·3	45
a. s. l. .	31	3·5	2·8	58	31	4·0	3·6	43	31	4·4	3·9	38	31	4·8	4·4	35	31	7·3	7·3	38	31	7·5	7·3	38
„ .	31	4·7	4·0	43	29	4·6	3·9	67	31	5·0	4·6	51	30	4·8	4·3	52	31	8·1	7·9	39	31	7·7	7·3	40
„ .	31	5·5	4·7	37	28	5·7	4·3	69	31	5·7	4·5	65	30	4·6	3·6	65	31	8·0	6·9	54	30	8·2	7·1	55
„ .	31	5·2	4·3	27	25	6·2	4·1	80	31	5·9	4·2	84	27	6·4	3·1	82	30	7·5	5·4	63	30	8·3	5·9	68
„ .	31	4·9	3·6	20	23	6·7	5·2	88	26	6·5	4·3	91	25	6·7	3·7	81	24	7·0	4·9	70	30	8·5	6·1	79
„ .	31	5·4	3·3	6	19	6·1	5·5	85	25	7·2	5·4	93	23	7·3	5·5	80	24	6·5	5·0	80	29	8·0	6·5	80
„ .	31	5·8	3·4	343	8	7·8	7·1	86	25	7·0	5·8	83	22	8·9	7·7	80	9	7·4	3·9	73	27	8·3	7·1	75
„ .	31	6·4	4·4	320	2	8·0	7·9	89	22	8·6	7·5	85	20	9·7	8·7	79					25	8·7	7·3	72
„ .	29	6·5	4·5	313					20	8·4	7·5	81	18	9·4	8·3	78					25	10·2	8·6	78
„ .	26	9·7	6·4	295					17	11·7	10·7	75	12	11·5	9·7	87					21	10·8	9·6	71
„ .	17	11·3	8·8	274					15	8·9	7·7	93	12	8·0	5·2	78					17	13·3	11·6	72

Station	NAGERCOIL				NAGPUR												NEW DELHI							
ne in I.S.T.	1430				0230				0730				1430				0230				0730			
ight in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
ace . .	31	4·2	3·3	47	31	0·5	0·3	323	31	0·6	0·5	27	31	1·3	0·3	237	31	2·2	1·7	297	31	2·1	1·8	276
a. g. .	31	7·9	6·5	49	31	5·2	2·0	75	31	3·7	2·8	48	31	2·5	0·4	239	31	7·6	5·5	320	31	6·4	4·2	304
a. s. l. .	31	7·0	6·1	41	31	5·5	2·4	131	31	4·5	1·8	119	31	2·6	0·7	251	31	7·6	5·7	318	31	7·1	5·1	312
„ .	31	6·6	6·2	54	31	4·0	1·2	192	31	4·1	1·3	196	31	2·8	1·5	285	31	7·7	6·2	307	31	7·4	6·1	305
„ .	31	7·7	6·8	40	31	4·2	2·6	282	31	4·7	2·4	283	31	4·3	3·2	300	31	7·4	6·9	301	31	7·7	6·9	309
„ .	30	9·3	7·5	51	30	5·4	4·5	297	31	6·0	4·6	303	30	5·8	5·1	299	31	8·3	7·9	302	31	7·7	6·9	308
„ .	29	9·3	6·9	67	28	7·1	6·0	301	30	7·0	6·0	308	30	7·1	6·4	302	27	8·5	8·0	299	31	8·3	7·5	303
„ .	29	9·1	6·5	75	25	7·8	7·2	299	30	7·7	6·8	307	30	8·9	8·2	299	28	9·7	9·1	294	31	9·1	8·5	298
„ .	25	9·5	7·6	76	7	9·6	8·6	290	30	11·3	10·6	298	31	12·0	11·3	287	7	8·0	7·1	278	30	13·4	12·8	286
„ .	25	10·4	8·9	77					30	13·8	13·5	287	31	14·9	14·3	287					28	18·6	17·9	285
„ .	25	11·4	9·9	72					27	16·4	16·0	286	30	17·7	17·1	286					24	25·2	24·8	287
„ .	20	10·0	9·1	84					22	22·5	21·2	285	22	22·5	21·5	282					19	33·5	32·9	285
„ .	16	12·0	10·8	76					15	27·2	25·6	278	17	27·5	26·0	276					14	45·4	45·0	285

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

DECEMBER 1949

Station	NEW DELHI				POONA												PORT BLAIR							
Time in I.S.T.	1430				0230				0730				1430				0230				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	3·9	3·2	317	31	1·4	1·2	245	31	1·2	0·9	242	31	2·8	1·1	60	31	3·2	2·9	44	31	3·1	2·9	41
0·15 a. g. .	31	5·0	4·0	311	31	2·7	1·0	72	31	1·9	1·2	97	31	2·2	0·8	65	31	6·4	6·1	38	31	6·4	6·0	38
0·6 a. s. l. .	31	4·7	3·7	303	31	2·0	1·0	223	31	1·4	0·3	237	31	2·2	1·1	52	30	7·0	6·6	46	31	7·5	7·1	55
1·0 „ . .	31	5·8	4·9	307	31	4·7	2·7	77	31	4·6	3·1	108	31	2·2	0·8	86	23	5·6	4·8	71	25	6·8	5·9	75
1·5 „ . .	31	6·5	5·9	305	31	4·6	3·5	105	31	4·4	3·2	115	31	2·5	0·5	108	21	4·5	3·1	87	22	6·2	5·0	84
2·0 „ . .	31	7·4	6·8	301	31	4·4	3·4	120	31	3·8	1·2	91	31	3·1	0·7	353	18	4·4	2·6	79	19	5·1	3·8	77
2·5 „ . .	31	8·7	8·0	292	31	4·1	1·1	37	31	4·3	2·5	344	31	4·4	2·2	346	8	4·2	2·4	69	17	5·0	3·4	68
3·0 „ . .	31	10·5	9·7	287	30	5·7	3·2	328	31	5·8	3·9	327	31	5·6	3·1	327	6	4·4	4·1	70	15	5·4	3·7	69
4·0 „ . .	30	14·5	14·2	287	26	6·9	5·0	303	31	7·1	4·5	306	31	6·3	3·9	303	1	9·0	9·0	20	14	6·7	5·0	69
5·0 „ . .	29	19·7	19·2	285	3	8·3	7·5	275	30	7·0	5·5	298	30	6·9	6·1	291					11	8·2	6·5	58
6·0 „ . .	27	25·3	24·7	286	2	7·3	6·7	290	30	9·7	7·8	284	30	9·2	8·1	286					9	10·5	7·5	48
7·5 „ . .	22	35·8	35·2	283	1	12·0	12·0	315	27	14·3	12·0	280	30	15·1	12·9	284					6	10·3	9·3	47
9·0 „ . .	15	44·2	43·5	282					21	16·9	15·5	271	30	18·7	17·0	279					6	6·4	4·8	66

Station	PORT BLAIR				RAIPUR												SAHARSA							
Time in I.S.T.	1430				0230				0730				1430				0730				1430			
Height in Km.	n	V	v	D	n	V	v	D		V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	3·9	3·7	45	31	1·7	0·1	327	31	1·3	0·4	63	31	1·5	1·0	326	31	0·8	0·6	230	31	2·2	2·0	266
0·15 a. g. .	31	7·0	6·9	41	31	5·0	0·9	008	31	3·9	1·4	43	31	2·5	1·7	321	31	4·7	3·1	283	31	3·9	3·5	274
0·6 a. s. l. .	31	6·7	6·4	43	31	4·5	0·6	006	31	4·2	0·9	63	31	2·5	1·6	316	31	4·3	3·2	291	31	4·2	3·9	278
1·0 „ . .	27	5·1	4·1	63	31	3·1	1·7	291	31	3·6	1·2	308	31	2·7	1·8	309	31	4·6	3·0	288	31	5·2	4·5	278
1·5 „ . .	24	4·6	3·4	78	31	4·3	3·3	301	31	5·2	4·1	313	31	4·7	3·9	310	30	6·6	4·2	290	31	7·5	6·4	287
2·0 „ . .	19	4·5	2·7	67	30	7·2	6·2	313	31	7·4	6·5	315	31	6·3	5·8	312	30	8·9	6·3	295	31	10·0	8·9	291
2·5 „ . .	16	4·8	2·5	47	30	8·0	7·1	310	31	8·0	7·8	316	30	7·9	7·5	310	31	11·9	10·6	291	31	13·5	12·8	292
3·0 „ . .	16	5·4	3·1	56	22	9·0	8·2	309	31	9·0	8·0	307	29	9·3	8·7	302	28	14·4	14·0	290	31	16·0	15·7	292
4·0 „ . .	16	6·2	4·2	57	3	15·8	15·4	292	31	12·0	11·1	299	28	14·1	13·5	289	22	18·4	18·3	290	26	21·3	20·8	288
5·0 „ . .	12	7·1	4·3	57	1	18·5	18·5	265	28	15·4	14·3	288	26	17·2	16·5	285	21	23·7	23·4	287	22	25·1	24·8	289
6·0 „ . .	11	7·4	2·9	84					26	18·5	17·8	283	25	19·0	18·6	283	17	29·7	29·3	288	13	26·0	25·8	286
7·5 „ . .	6	11·4	6·0	65					18	24·8	24·3	280	18	25·1	23·3	284	6	47·4	47·1	287	4	35·5	35·0	285
9·0 „ . .	5	7·5	1·7	127					13	28·1	27·7	269	14	32·3	29·9	286	1	35·5	35·5	295	2	40·0	39·9	273

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

DECEMBER 1949

tation	TEZPUR												TRICHINOPOLY											
s in I.S.T.	0230				0730				1430				0230				0730				1430			
t in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
. .	31	0·9	0·8	47	31	0·8	0·7	62	31	0·9	0·5	62	31	2·6	2·5	28	31	2·2	2·1	10	31	3·2	2·9	51
g. . .	26	3·7	3·1	63	31	3·0	2·7	76	31	2·6	1·5	72	31	8·6	8·4	36	31	6·7	6·7	20	31	5·6	5·4	56
. i. .	26	3·4	2·0	90	30	4·0	2·9	85	31	2·5	1·6	76	31	10·6	10·5	46	31	9·6	9·5	37	31	6·6	6·5	48
. .	26	3·4	1·1	93	29	3·9	2·5	82	31	3·3	1·4	108	31	8·9	8·7	47	31	8·9	8·7	44	31	7·5	7·4	42
. .	26	4·1	0·3	120	29	4·6	2·2	85	31	4·2	1·8	147	30	7·3	5·8	46	31	7·4	6·3	52	31	7·6	7·4	39
. .	26	4·8	1·2	92	29	4·9	2·3	93	31	5·1	1·6	147	30	7·3	5·9	62	28	7·3	6·1	63	31	7·7	6·8	56
. .	26	5·2	1·2	86	27	4·9	3·0	88	31	5·7	0·8	153	27	7·3	6·2	74	28	7·7	6·7	69	28	8·4	6·8	68
. .	24	5·1	0·4	309	24	5·3	1·9	60	28	6·2	1·7	274	27	8·3	6·8	75	28	8·0	6·8	73	28	7·9	6·6	73
. .	15	8·8	6·3	273	21	11·2	8·1	273	27	12·4	10·9	272	1	5·5	5·5	105	28	8·0	7·0	74	28	7·6	6·4	71
. .					16	18·0	16·1	269	26	20·9	20·5	269					27	7·4	6·5	72	29	8·0	7·0	68
. .					13	21·0	20·1	270	24	24·3	23·9	268					27	7·1	5·6	67	27	7·6	6·8	60
. .					11	31·3	30·4	276	18	34·4	33·7	275					20	9·5	6·9	64	21	8·1	6·5	77
. .					5	40·5	39·8	278	12	44·7	43·9	275					18	7·3	5·1	84	16	8·5	5·8	67

ation	TRIVANDRUM				UDAIPUR												VENGURLA							
in I.S.T.	0730				0230				0730				1430				0230				0730			
In Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
. .	31	1·1	1·0	38	31	1·5	0·1	341	31	0·1	0·1	326	31	1·1	0·2	349	31	1·3	1·2	16	31	0·5	0·5	18
g. . .	30	2·8	2·2	65	31	3·1	2·3	009	30	2·7	1·7	008	31	2·4	0·3	010	31	4·5	4·0	27	31	3·4	2·6	65
l. .	30	2·7	1·5	80	...	...	...	...	...	...	...	...	...	...	...	...	31	5·8	3·3	47	31	5·6	3·6	85
. .	30	2·8	1·7	64	31	3·8	1·6	23	30	4·0	1·6	13	31	2·6	0·7	307	31	6·1	4·0	76	31	5·2	4·3	86
. .	30	4·1	2·0	27	31	3·3	1·5	241	31	3·7	1·1	295	31	3·1	2·1	274	31	5 1	4·6	87	31	4·5	3·7	82
. .	29	5·0	2·5	74	31	4·8	3·7	276	31	4·5	3·6	283	31	4·8	4·1	257	31	5·3	4·8	95	31	4·5	3·1	78
. .	28	5·6	3·9	84	30	6·7	6·2	283	31	6·6	5·9	293	31	7·0	6·3	282	24	4·5	2·8	65	31	5·1	2·7	53
. .	28	6·9	5·2	82	28	8·4	7·8	285	31	8·4	7·8	289	31	10·3	9·5	285	24	4·3	1·8	37	31	5·5	2·7	38
. .	27	7·5	6·3	71	3	16·0	15·7	287	31	13·1	12·5	288	31	14·8	13·9	286	8	5·6	3·1	05	31	5·3	3·0	35
. .	23	8·0	6·9	72					28	18·2	17·2	283	30	18·9	17·9	285	6	4·0	3·8	326	31	4·9	1·8	07
. .	22	8·8	8·0	77					27	22·6	18·1	280	30	23·3	22·8	286	4	7·3	6·3	325	31	5·5	2·9	323
. .	18	10·5	9·0	74					19	28·0	27·0	276	28	28·5	28·1	281					29	8·7	5·5	304
. .	17	7·6	6·1	84					11	36·0	35·3	277	19	33·7	32·8	280					22	9·6	7·2	277

Table A.—Monthly Mean Directions and Velocities of Upper Winds

Winds upto 9 Km. above sea-level

DECEMBER 1949

Station	VENGURLA				VERAVAL												VIZAGAPATAM							
Time in I.S.T.	1430				0230				0730				1430				0230				0730			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	1·9	1·5	259	31	3·4	3·0	028	31	3·0	2·8	31	31	4·0	2·9	269	31	0·2	0·1	331	31	0·1	0·1	270
0·15 a. g. .	31	2·7	2·3	259	31	8·3	7·3	020	31	7·7	7·3	30	31	5·2	3·1	271	31	2·1	0·9	019	31	1·9	1·1	10
0·6 a. s. l. .	31	2·4	1·5	64	31	5·8	4·2	028	31	3·7	2·9	26	31	3·9	3·1	359	31	3·0	1·6	72	31	3·1	2·1	49
1·0 „ .	31	4·0	3·6	69	31	4·0	2·2	044	31	3·1	2·3	002	31	4·2	3·8	011	31	4·0	3·0	36	31	4·1	3·3	42
1·5 „ .	31	5·7	5·3	71	31	3·6	1·5	353	31	4·2	2·6	339	31	4·1	3·2	354	30	4·8	4·1	24	31	5·2	4·6	30
2·0 „ .	31	5·9	4·7	60	31	4·3	2·8	322	30	4·3	2·9	326	31	4·6	3·5	324	29	4·3	3·2	12	30	4·8	4·2	11
2·5 „ .	31	5·7	4·2	52	31	4·6	3·6	303	30	4·8	3·4	305	31	5·3	4·3	300	18	4·2	3·3	321	29	5·2	4·1	339
3·0 „ .	31	5·4	3·7	44	30	5·9	4·6	296	30	5·7	4·2	303	31	6·5	5·5	296	15	6·4	5·3	310	29	5·9	4·4	324
4·0 „ .	31	4·5	2·2	42	21	7·3	5·8	279	30	8·5	7·0	287	31	9·5	8·2	288	7	7·4	6·7	301	29	7·3	5·7	310
5·0 „ .	31	4·8	1·6	358					30	11·3	10·2	282	31	11·4	10·1	282					29	8·5	6·8	295
6·0 „ .	31	6·1	2·8	309					27	14·4	13·0	273	29	14·4	13·1	276					26	9·6	8·6	279
7·5 „ .	29	9·1	6·2	294					18	20·5	19·4	273	26	19·0	17·3	275					18	14·1	12·2	299
9·0 „ .	25	10·1	8·0	268					11	26·4	24·7	260	17	26·8	24·8	268					11	14·7	14·1	272

Station	VIZAGAPATAM																							
Time in I.S.T.	1430																				0230			
Height in Km.	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D	n	V	v	D
Surface . .	31	3·5	3·2	101																				
0·15 a. g. .	31	5·3	4·8	107																				
0·6 a. s. l. .	31	3·2	2·5	24																				
1·0 „ .	31	3·6	3·2	11																				
1·5 „ .	31	4·9	4·2	359																				
2·0 „ .	31	5·2	4·5	352																				
2·5 „ .	31	5·2	4·3	340																				
3·0 „ .	31	6·3	5·0	322																				
4·0 „ .	31	8·1	6·7	305																				
5·0 „ .	31	9·5	8·3	296																				
6·0 „ .	31	11·1	10·0	293																				
7·6 „	28	15·1	12·1	283																				
9·0 „ .	20	15·2	15·2	276																				

Table B.—Monthly Mean Directions and Velocities of Upper Winds

Winds at and above 10 Km. above sea-level

DECEMBER 1949

ght in Km.	n	V	v	D
		AHMEDABAD		
10	19	33·1	32·0	266
11	15	38·4	37·3	263
12	11	40·5	40·0	262
13	10	44·1	43·9	268
14	6	45·1	44·8	264
15	5	50·0	49·4	267
16	3	54·0	53·8	256
17	2	55·3	55·2	257
18	1	71·0	71·0	260
		ALLAHABAD		
10	5	44·7	43·8	276
11	1	56·0	56·0	270
		AMBALA		
10	12	50·1	48·4	283
11	6	53·8	51·6	267
12	2	53·7	52·5	270
		ANANTAPUR		
10	48	9·1	6·8	257
11	43	9·1	6·9	237
12	37	9·9	7·3	229
13	35	9·3	5·9	229
14	27	7·6	4·6	235
15	21	7·4	5·6	263
16	15	6·7	4·2	251
17	10	6·9	2·8	295
8	5	5·9	1·5	335
19	1	3·0	3·0	20
		ASANSOL		
10	2	52·3	48·5	280
		BANGALORE		
10	38	7·5	4·1	195
11	23	7·4	5·7	178
12	22	6·9	4·0	170
13	18	6·4	3·0	185
14	16	5·6	2·2	179
15	11	4·4	2·1	114
16	6	6·0	4·8	104
17	3	6·3	2·6	134
18	2	12·7	6·4	20
		BAREILLY		
10	2	86·7	86·5	282
		BHOPAL		
10	11	33·5	32·8	268
11	10	36·7	36·2	264
12	4	36·9	36·8	272
13	3	42·7	41·9	285
14	3	36·3	36·2	263
15	2	39·0	39·0	263
16	1	8·0	8·0	275
17	1	13·5	13·5	230
		BHUJ		
10	19	36·6	34·5	264
11	11	38·2	37·1	262
12	6	39·6	37·6	266
13	5	38·6	38·0	269
14	4	40·8	40·5	269
		BIKANER		
10	14	23·2	22·1	264
11	11	23·3	22·5	265
12	10	20·8	20·1	269
13	9	22·4	21·8	270
14	8	21·2	20·3	261
15	8	19·8	19·1	252
16	7	19·6	18·9	249
17	6	20·1	19·0	256
18	5	13·7	13·0	261
19	3	14·3	13·3	265
20	3	12·0	11·2	270
21	2	7·0	7·0	259
22	1	4·0	4·0	295
		BOMBAY		
10	33	20·4	19·1	265
11	24	20·2	18·8	266
12	22	22·0	20·8	266
13	21	22·5	21·7	274
14	18	22·8	21·9	267
15	16	20·4	19·5	253
16	14	20·8	19 6	254
17	13	20·7	18·9	262
18	11	15·8	14·6	258
19	8	13·6	12·9	256
20	7	12·6	11·4	265
21	5	10·1	9·4	260
22	3	9·8	5·7	276
23	1	10·0	10·0	275
24	1	8·5	8·5	280
25	1	8·0	8·0	280
26	1	6·0	6·0	230
27	1	7·0	7·0	220
28	1	8·0	8·0	220
29	1	8·0	8·0	220
30	1	10·0	10·0	210
		CALCUTTA		
10	3	37·7	37·1	269
11	2	39·0	38·9	269
12	1	40·0	40·0	285
		COCHIN		
10	29	6·8	3·8	100
11	22	9·5	7·1	109
12	21	10·6	7·1	126
13	18	11·2	6·7	131
14	17	9·8	5·1	120
15	14	6·5	4·1	88
16	14	7·8	5·3	88
17	11	8·3	5·5	78
18	9	7·9	4·8	111
19	8	8·7	4·5	91
20	6	13·7	10·6	92
21	4	13·7	13·7	102
22	2	16·5	16·5	86
23	2	14·5	13·3	94
24	1	10·5	10·5	65
25	1	15·0	15·0	75
26	1	23·5	23·5	80
27	1	27·5	27·5	100
28	1	27·5	27·5	105
		COOCH BEHAR		
10	7	44·1	42·9	272
11	2	50·7	50·7	273
		CUTTACK		
10	9	24·1	23·9	268
11	4	23·5	23·0	267
12	3	26·7	25·7	259
13	3	24·7	24·3	268
		DEOLALI		
10	14	21·7	19·8	271
11	10	21·7	21·0	258
12	10	21·9	21·6	264
13	10	22·5	21·8	269
14	9	23·2	22·5	259
15	9	20·2	19·3	250
16	8	16·0	14·9	260
17	6	12·1	9·8	268
18	4	13·4	11·9	272
19	3	15·2	12·7	273
20	2	16·3	12·9	262
21	1	46·0	46·0	265
		GADAG		
10	48	10·0	8·2	262
11	32	10·3	7·8	245
12	24	10·6	7·4	248
13	20	9·1	5·6	259
14	19	6·7	3·4	250
15	12	4·9	3·0	262
16	8	3·5	3·4	270
17	6	3·8	2·1	187
18	3	4·5	1·8	174
19	1	4·0	4·0	270
20	1	6·0	6·0	250
21	1	11·5	11·5	240
22	1	12·5	12·5	230
23	1	6·0	6·0	210
24	1	5·0	5·0	130
25	1	2·0	2·0	105
		GAYA		
10	3	53·3	52·7	278
11	1	75·0	75·0	295
		GOPALPUR		
10	16	19·9	19·0	257
11	7	19·8	19·3	255
12	6	21·5	19·2	250
13	3	19·2	16·8	273
14	2	21·5	21·4	271
15	1	18·5	18·5	245
16	1	13·0	12·0	255
17	1	10·0	10·0	285
18	1	13·5	13·5	265
19	1	17·5	17·5	285
		GORAKHPUR		
10	3	44·0	43·5	282
		HYDERABAD		
10	29	16·0	13·8	270
11	20	15·2	14·3	259

Table B.—Monthly Mean Directions and Velocities of Upper Winds

Winds at and above 10 Km. above sea-level

DECEMBER 1949

Height in Km.	n	V	v	D
	HYDERABAD—*contd.*			
12	17	15·2	13·9	259
13	9	13·4	11·4	248
14	6	14·1	12·0	271
15	1	18·5	18·5	225
16	1	16·5	16·5	240
	JAGDALPUR			
10	29	20·2	19·0	264
11	20	19·8	19·4	256
12	15	19·7	18·5	266
13	12	16·5	16·1	256
14	10	15·1	14·3	246
15	7	11·3	9·7	253
16	6	15·2	13·2	256
17	6	12·2	9·5	269
18	3	7·2	3·4	298
19	1	6·5	6·5	300
20	1	3·5	3·5	260
21	1	2·5	2·5	36
22	1	4·5	4·5	65
23	1	10·0	10·0	65
	JAMSHEDPUR			
10	9	41·9	33·3	277
11	6	34·7	34·2	268
12	4	32·3	31·8	258
13	3	31·5	31·4	262
	JHARSUGUDA			
10	12	33·3	32·4	272
11	8	31·0	30·3	263
12	8	32·7	32·5	262
13	7	29·9	28·6	262
14	5	26·7	25·1	271
15	4	23·1	23·0	256
16	4	18·0	17·7	262
17	3	15·1	13·6	275
18	2	10·7	10·5	235
19	1	16·0	16·0	245
	JODHPUR			
10	5	40·5	40·0	267
11	5	61·5	61·1	264
	JUBBULPORE			
10	7	28·5	27·1	269
11	2	31·0	29·9	274
12	2	37·7	37·2	280
13	1	38·5	38·5	275
14	1	40·0	40·0	270
15	1	51·0	51·0	275
	MADHOSAGAR			
10	35	48·0	46·5	281
11	26	53·0	51·8	280
12	13	55·0	52·1	281
13	8	54·1	53·9	280
14	4	55·5	54·7	278
15	3	56·0	55·3	274
16	2	67·3	66·0	276
	MADRAS			
10	24	5·2	0·4	230
11	18	6·2	3·9	171
12	16	10·6	7·3	166
13	16	9·1	6·2	166
14	15	5·5	3·8	163
15	13	7·0	5·2	144
16	12	7·4	4·8	123
17	9	6·3	4·0	123
18	8	8·2	5·9	90
19	6	10·2	10·1	103
20	4	9·7	8·5	94
21	2	14·0	14·0	113
	MALEGAON			
10	41	27·2	25·8	274
11	23	27·5	23·1	266
12	19	28·5	27·5	271
13	15	28·0	26·8	270
14	12	30·4	28·4	271
15	8	26·3	24·5	269
16	6	18·2	17·6	262
17	5	18·1	17·2	261
18	3	8·8	8·7	263
	MANGALORE			
10	36	5·9	2·3	226
11	31	6·8	3·4	171
12	28	8·4	1·8	164
13	25	7·9	2·9	179
14	22	7·3	2·0	144
15	19	6·9	2·3	141
16	14	7·5	3·1	141
17	13	7·2	2·9	93
18	10	7·9	6·1	119
19	6	6·4	2·6	101
20	6	9·6	4·9	29
21	6	11·8	9·2	114
22	2	14·3	14·0	107
23	2	17·0	16·4	107
24	2	15·5	15·5	106
	MASULIPATAM			
10	30	12·1	10·6	262
11	22	12·4	10·8	256
12	14	11·8	11·3	232
13	13	13·0	11·5	240
14	11	13·8	10·3	252
15	8	7·7	6·8	252
16	7	10·1	7·5	273
17	3	11·0	8·2	275
18	2	10·3	5·3	285
19	2	13·0	8·0	250
20	1	21·0	21·0	295
21	1	28·0	28·0	290
22	1	30·5	30·5	270
23	1	40·0	40·0	270
	MINICOY			
10	24	9·7	8·5	111
11	17	11·0	8·3	125
12	15	13·2	8·5	157
13	13	10·5	4·8	139
14	12	7·4	4·9	98
15	8	11·5	8·8	137
16	9	11·9	9·6	120
17	8	12·3	7·5	105
18	6	24·0	20·6	103
19	4	23·7	22·3	88
20	3	23·2	23·0	99
21	1	17·0	17·0	90
	NAGERCOIL			
10	32	13·7	11·7	74
11	21	12·4	10·0	77
12	16	11·5	9·7	95
13	13	12·7	10·7	102
14	13	13·9	10·8	102
15	11	12·5	10·4	115
16	9	12·9	9·3	107
17	7	15·3	16·2	103
18	7	14·7	12·4	94
19	6	13·6	13·0	98
20	6	16·6	14·4	87
21	6	15·7	12·1	103
22	4	20·7	19·9	126
23	2	18·3	18·3	142
24	1	23·0	23·0	140
25	1	23·5	23·5	145
26	1	15·5	15·5	135
27	1	11·5	11·5	130
28	1	23·5	23·5	75
29	1	26·0	26·0	85
30	1	35·0	35·0	100
31	1	46·0	46·0	95
32	1	53·0	53·0	100
33	1	33·0	33·0	105
	NAGPUR			
10	25	28·8	27·6	270
11	18	30·2	29·5	267
12	11	26·7	26·5	267
13	11	29·6	28·2	270
14	9	26·9	25·8	260
15	7	28·1	27·9	260
16	3	23·0	22·8	262
17	3	21·7	21·7	266
18	2	18·0	17·5	253
19	1	22·5	22·5	265
20	1	20·0	20·0	260
21	1	22·5	22·5	260
22	1	26·0	26·0	245
23	1	28·0	28·0	270
	NEW DELHI			
10	22	49·6	48·6	284
11	14	55·9	52·5	282
12	11	52·1	51·6	284
13	4	42·9	42·9	274
14	3	29·0	28·7	277
15	3	33·0	33·0	277
16	3	27·8	27·4	277
17	3	25·2	25·2	278
18	3	22·3	22·3	282
19	2	21·3	21·3	282
20	2	16·7	16·4	284

Table B.—Monthly Mean Directions and Velocities of Upper Winds

Winds at and above 10 Km. above sea-level

DECEMBER 1949

Height in Km.	n	V	v	D
		POONA		
10	48	18·5	17·9	273
11	34	19·5	17·5	269
12	32	20·3	18·3	269
13	28	18·8	17·8	265
14	21	17·6	16·8	258
15	18	17·3	15·9	265
16	15	13·7	12·0	269
17	14	11·4	9·8	270
18	7	11·1	8·9	261
19	3	14·3	10·7	281
		PORT BLAIR		
10	11	6·6	1·5	85
11	10	6·5	2·2	175
12	10	8·1	4·9	176
13	9	9·6	6·1	186
14	8	11·6	9·2	151
15	7	17·5	15·1	141
16	4	11·4	7·9	127
17	5	7·7	4·6	116
18	4	7·2	6·5	85
19	4	8·7	5·7	128
20	3	8·2	8·0	73
21	3	14·3	13·0	82
22	1	15·0	15·5	65
23	1	19·5	19·5	100
24	1	15·0	15·0	105
25	1	16·0	16·4	95
		RAIPUR		
10	22	30·5	29·5	267
11	12	30·9	29·5	270
12	7	29·3	28·9	269
13	7	33·9	32·2	277
14	6	31·5	30·2	259
15	6	24·2	23·9	258
16	5	23·3	23·2	266
17	5	23·1	22·	266
18	5	20·0	19·2	266
19	5	24·0	23·7	267
20	4	30·5	30·4	263
21	3	41·3	41·2	259
22	1	28·0	28·0	280
		TEZPUR		
10	11	56·9	56·4	275
11	6	66·3	66·2	268
12	4	66·4	65·6	268
13	4	75·0	74·6	266
14	1	69·0	69·0	270
		TRICHINOPOLY		
10	30	7·2	3·9	105
11	18	7·7	6·0	128
12	17	10·3	8·6	143
13	16	11·9	9·5	145
14	16	9·9	7·6	141
15	12	9·9	9·3	121
16	10	9·1	7·7	100
17	8	4·0	1·8	48
18	4	6·4	4·0	58
19	4	5·7	4·0	57
20	1	15·5	15·5	90
21	1	14·0	14·0	110
		TRIVANDRUM		
10	14	8·4	6·7	105
11	12	9·7	7·7	125
12	10	11·9	9·2	131
13	5	7·9	2·0	93
14	5	6·8	1·2	102
15	4	4·1	1·6	252
16	3	6·8	4·5	115
		UDAIPUR		
10	15	37·0	36·6	273
11	9	42·4	42·2	267
12	5	43·9	42·7	266
13	4	45·2	44·1	271
14	4	47·1	46·2	272
15	1	49·5	49·2	279
		VENGURLA		
10	42	10·3	8·9	257
11	31	11·8	9·9	252
12	27	12·9	9·7	252
13	18	11·1	9·0	259
14	16	10·4	8 6	264
15	13	9·7	7·0	268
16	11	12·4	8·6	254
17	6	10·7	9·7	271
18	5	10·5	9·5	265
19	5	12·3	10·0	238
20	5	16·5	11·2	252
21	4	22·9	19·1	265
22	3	12·2	3·9	316
23	3	13·7	7·2	291
24	2	21·5	21·2	285
25	2	19·2	17·1	277
26	2	18·2	17·9	285
27	2	28·0	27·9	291
28	2	41·2	39·5	287
29	2	44·0	40·0	276
		VERAVAL		
10	19	26·8	25·7	256
11	18	27·1	26·3	255
12	16	28·3	27·3	258
13	10	29·5	28·7	256
14	5	27·7	26·9	260
15	5	24·5	24·3	259
16	4	21·6	21·5	257
		VIZAGAPATAM		
10	29	16·3	14·4	268
11	20	17·2	16·3	250
12	13	18·2	16·8	255
13	12	16·8	14·9	233
14	11	14·4	13·0	235
15	9	11·8	10·3	244
16	8	10·6	7·7	243
17	6	8·4	6·6	252
18	3	6·5	5·9	272
19	1	14·5	14·5	255
20	1	15·5	15·5	270

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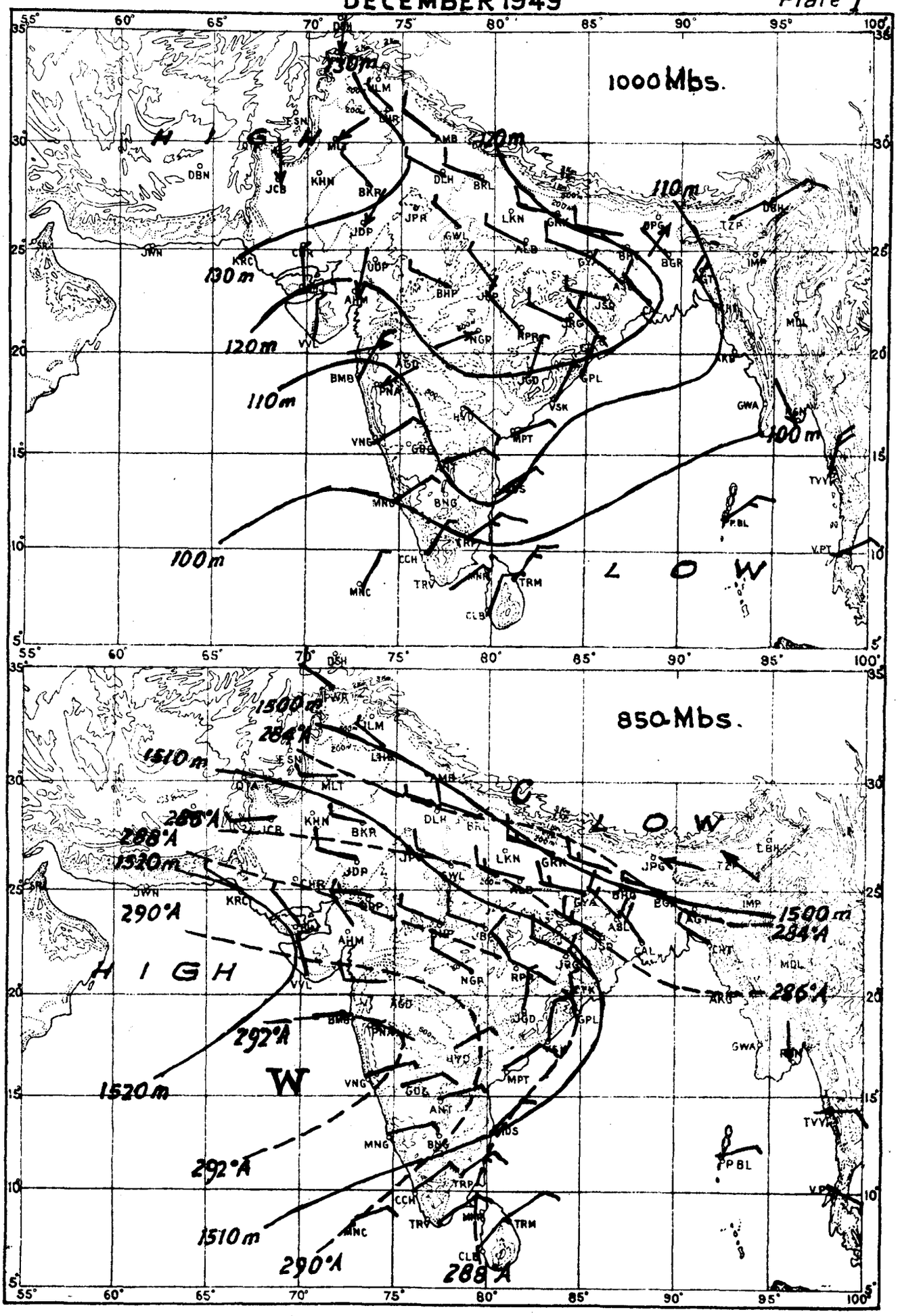
MONTHLY MEAN CONSTANT PRESSURE CHARTS.

DECEMBER 1949

Plate I



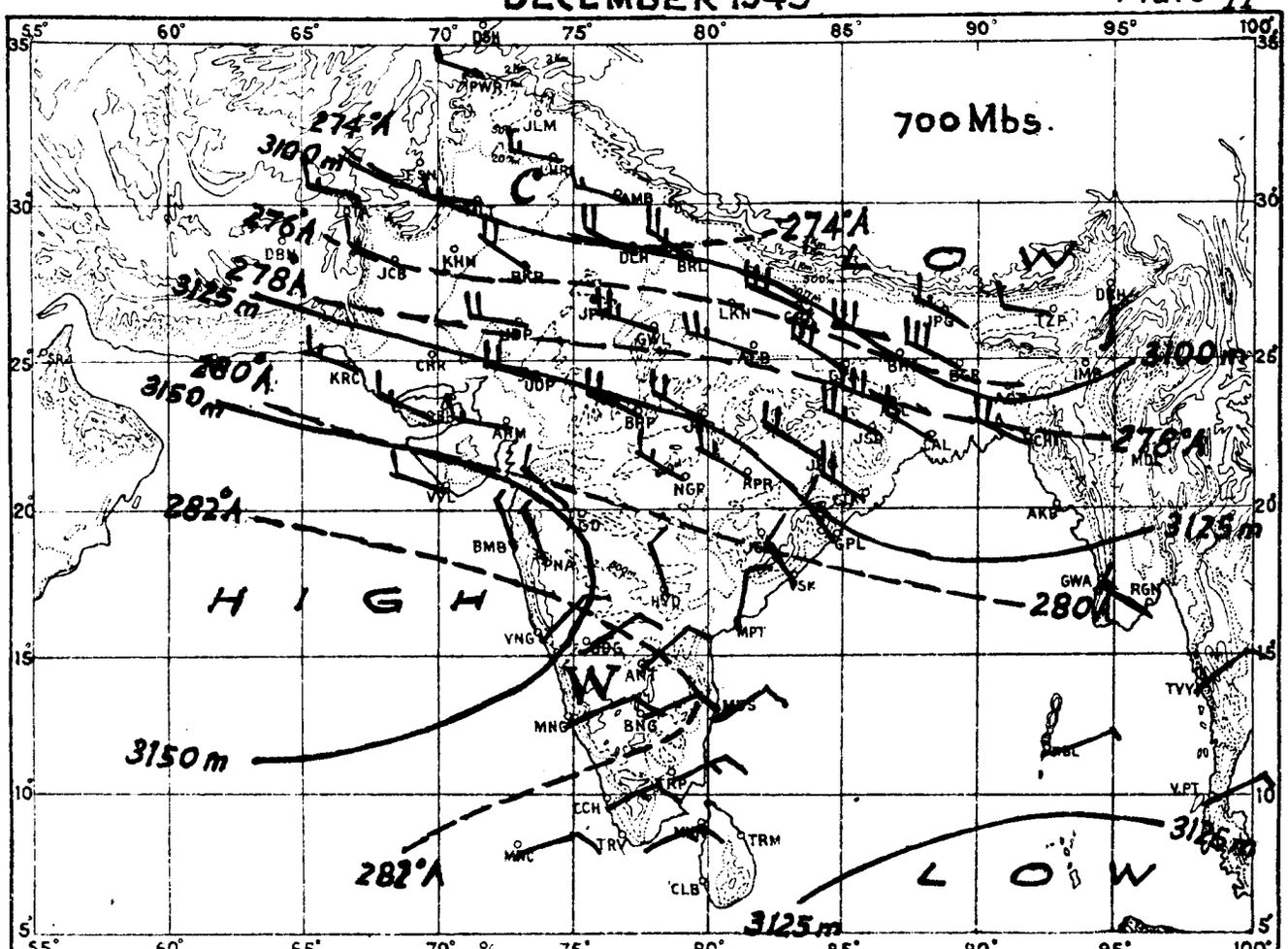
RESULTANT WIND —\ = 5 Knots; —\ = 10 Knots; —◥ = 50 Knots.

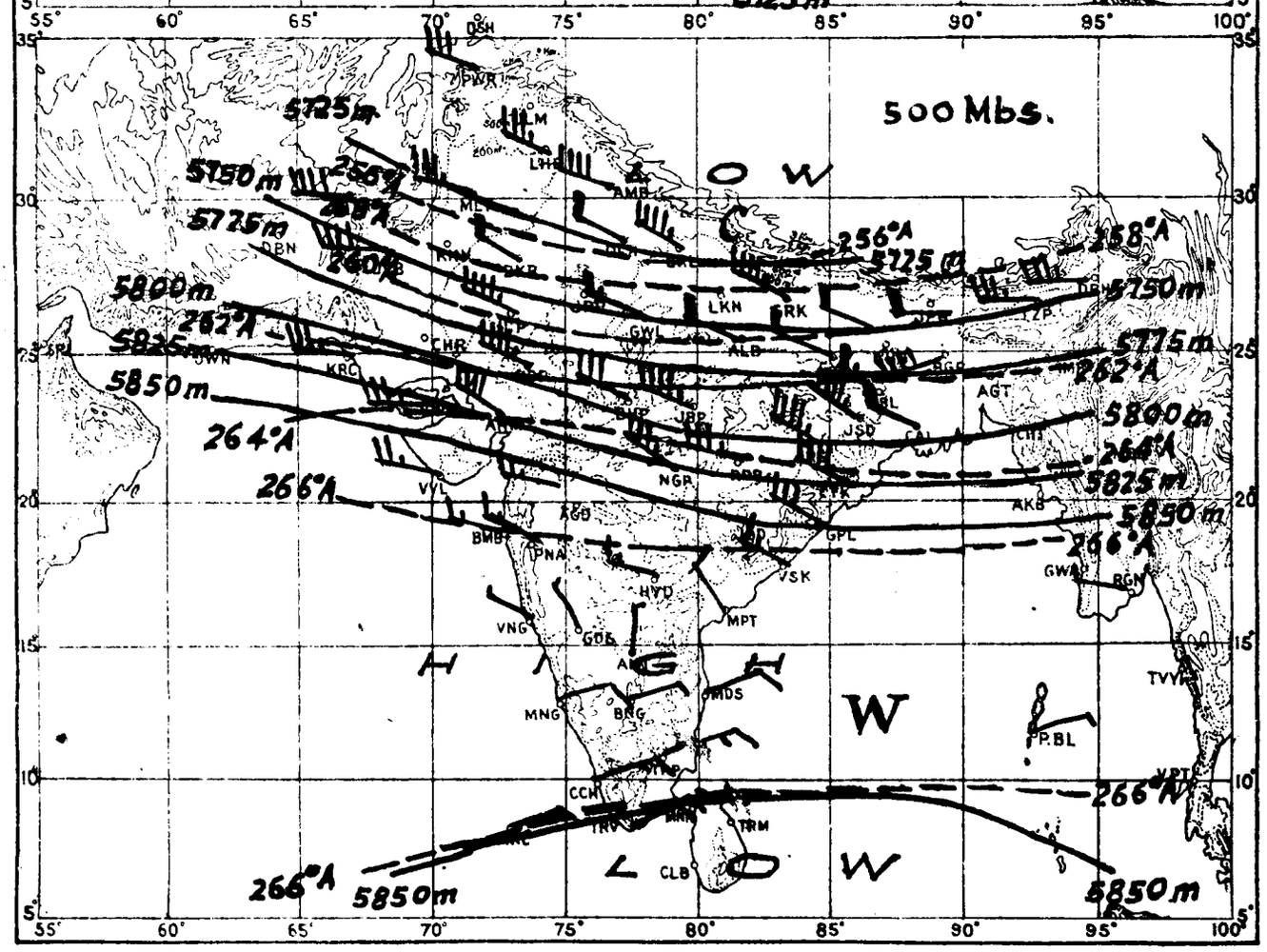
------ Isotherms in degrees absolute. ——— Contours in geopotential metres.

MONTHLY MEAN CONSTANT PRESSURE CHARTS.

DECEMBER 1949

Plate II





RESULTANT WIND —— = 5 Knots, —— = 10 Knots, —— = 50 Knots.

------ Isotherms in degrees absolute. ——— Contours in geopotential metres.