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THE  
MONTHLY WEATHER REPORT  
OF THE  
METEOROLOGICAL OFFICE  
FOR THE YEAR  
1909

ISSUED AS A SUPPLEMENT TO THE  
WEEKLY WEATHER REPORT  
(VOL. XXVI.-NEW SERIES)

AND FORMING  
PART II. OF THE BRITISH METEOROLOGICAL YEAR BOOK, 1909.

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Published by the Authority of the Meteorological Committee.

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## PREFACE.

The Monthly Weather Report is issued as a supplement to the Weekly Weather Report and is included in the subscription to the latter. The Report gives a complete resumé of the observations dealt with each month at the Meteorological Office, and takes the place of the summaries printed up to the end of 1907 in Parts II. and III. of the annual volumes of "Observations at Stations of the Second Order" as well as the old "Monthly Summary" to the Weekly Weather Report. Monthly Summaries for a number of additional stations will be found in the "Meteorological Record" issued by the Royal Meteorological Society or in the Journal of the Scottish Meteorological Society. The summaries given in the latter are also printed in the Quarterly Reports of the Registrar General for Scotland. The Meteorological data in the Quarterly Reports of the Registrar General for England and Wales and for Ireland are abstracted from the Monthly Weather Report. Additional information as to rainfall is to be found in the annual volumes of "British Rainfall."

### MONTHLY SUMMARIES FOR YEARS 1869 TO 1907.

Monthly summaries of observations made at stations in connexion with the Meteorological Office were first published in 1869 in the "Quarterly Weather Report," a publication issued for each of the years 1869 to 1880.

**Stations of the Second Order.** (*Normal Climatological Stations*). A permanent Meteorological Committee was appointed by the Congress of Official Delegates which met in Vienna in 1873, and at a meeting held in Utrecht in 1874 prescribed an international form for the publication of observations from Stations of the Second Order. Summaries in this form have been published for each year commencing with 1873 in the annual volumes of "Observations at Stations of the Second Order." For the years 1873 to 1876 these volumes formed an appendix to the "Quarterly Weather Report." For the years 1876 to 1880 inclusive the summaries were printed month by month in the Quarterly Report, and also in the annual volumes referred to above. The volume for the year 1906 is now in the press; that for 1907 will be issued as soon as possible. The summaries for 1908 are printed in the Monthly Weather Report of that year.

**Telegraphic Reporting Stations.** Summaries of the observations at the hour of morning observation (8 a.m. G.M.T.) at these stations were published in international form for the years 1876 to 1880 inclusive in the "Quarterly Weather Report." The corresponding summaries for the years 1881 to 1883 (inclusive) have not been issued. For the years 1884 to 1887 the summaries were printed in the "Monthly Weather Report," which also contains abridged summaries for the remaining stations included in the Weekly Weather Report. In 1888 the Monthly Weather Report was merged in the Weekly Weather Report to which it formed a supplement (Monthly Summary). The scope of this supplement has been successively enlarged. In 1902 full summaries for a few normal climatological stations were added. In the following year, 1903, an annual summary was issued for the first time. In 1906 the form was extended so as to include both the morning and the evening observations, and a column was added giving for each month the number of days of fog. At the close of 1907 the publication included results for all stations in connexion with the Office, either directly or through the Royal Meteorological Society or the Scottish Meteorological Society, for which monthly summaries are prepared. In the same year the title "Monthly Weather Report" was revived.

The observations on which these statistics are based have been carried out on a uniform plan, and the results form a homogeneous series as far as that is possible. Particulars of the methods adopted in taking the observations are given in the "Observer's Handbook." Attention is here drawn to the fact that a change was made at the commencement of 1906 in the method of computing the number of days of gale. Up to the end of 1905 wind-force 7 on the Beaufort scale was regarded as the lower limit for a "gale" but in January, 1906, when a revised scale of velocity equivalents of the Beaufort numbers was brought into use, force 8 was adopted for this limit in order to bring the results into conformity with the uninterrupted practice of the Office in relation to the service of storm warnings. At stations for which summaries are supplied by the Royal Meteorological Society (marked **M** in the reports) the number of days of gale are computed with reference to force 8, but the results are based on observations at 9 a.m. and 9 p.m. only, whereas at other stations a "day of gale" is one on which a wind of force 8 or above occurred at any time during the 24 hours. Another break in continuity was introduced by the change in the hour of morning observations from 8 a.m. G.M.T. to 7 a.m. at telegraphic reporting stations on July 1st, 1908. At normal climatological stations the hours 9 a.m. and 9 p.m. have been adhered to.

### THE MONTHLY WEATHER REPORT FOR 1909.

**Additional Observations in the early Afternoon.** Advantage was taken of the change in the hour of observing at telegraphic reporting stations from 8 a.m. to 7 a.m., referred to in the Report for 1908, to arrange for regular observations at 7 a.m., 1 p.m., and 9 p.m., at a number of these stations. This combination of hours is among those recognised by the Committee appointed by the Congress of Vienna as suitable for use at stations of the second order. Space has been provided in the Reports for 1909 for summaries of the observations taken at



these three epochs. In view of the importance of an observation in the early afternoon for the adequate representation of an element such as humidity which exhibits conspicuous diurnal variations, summaries of the observations taken at 1 p.m. at those telegraphic reporting stations at which there was difficulty in arranging for an observation at 9 p.m. are also printed. The hours of observation at these stations are accordingly 7 a.m., 1 p.m., and 6 p.m. The observers at several normal climatological stations have co-operated in the endeavour to give a more adequate representation of the distribution of humidity by contributing observations at 3 p.m., the hour associated by international convention with 9 a.m. and 9 p.m. Summaries of these observations are also printed. The type used for the names of stations in the tables given in the Reports, indicates the hours at which observations are taken in accordance with the system explained in the notes of each issue.

**Wind Summaries.** The additional observation gave rise to some difficulty in connexion with the arrangement of the summaries of wind. For some stations there are three observations each day, for others only two, while for a few stations there is only one. In previous years it has been customary to multiply by two the figures giving the number of observations of calm and of wind from each of eight principal points for those stations at which only one observation per day is taken. This manipulation of the figures rendered the results for the whole set of stations approximately comparable. In the reports for the current year it has been adhered to in the case of stations reporting through the Scottish Meteorological Society (marked S), but no attempt has been made to "weight" the figures for English or Irish stations, and accordingly the sum of the numbers of calms and of winds from each of the eight directions is 93, 62, or 31 for months of 31 days, according as observations are taken three times, twice, or once a day, and similarly for other months. Reduction to an approximately comparable basis may be effected by dividing by 3, 2, or 1, as the case may be.

**Correction of Barometer readings for Diurnal Range.** The readings of the barometer quoted in the tables are the means of observations at 9 a.m. and 9 p.m., 7 a.m., 1 p.m., and 9 p.m., or 7 a.m. and 6 p.m., respectively. The figures shown in the column headed "C. Correction for Diurnal Range," gives the amount of the correction required to reduce to the true mean for 24 hours. They are based on the harmonic analysis of the hourly averages for the 35 years, 1871-1905, for the four observatories: Valencia, Aberdeen, Falmouth, Kew. As a general rule, only the corrections due to the second harmonic component are applied, as those for other components either vanish or are very small for the combinations of hours used in the Reports. The only exception is in the case of the correction applied during December, January, and February, to the combination 7 a.m., 1 p.m., 9 p.m. During these months the correction due to the third component is opposite in sign and approximately equal in magnitude to that due to the second component, and hence the whole correction may be taken as zero.

#### GENERAL ARRANGEMENT OF THE REPORT.

The arrangement of each issue of the Report is as follows:—

I. General remarks on the Weather over the British Islands.

II. Summaries, in international form, of observations made at normal climatological stations at 9 a.m. [3 p.m.], and 9 p.m., and at telegraphic reporting stations at 7 a.m., 1 p.m., and 9 p.m., or at 7 a.m., [1 p.m.] and 6 p.m. The international form has been extended to include information regarding the duration of bright sunshine, earth temperature at 1 foot and 4 feet (from 1906), the number of observations of fresh or strong winds (forces 4-7 of the Beaufort Scale, from 1906), the number of days of fog (from 1906), and of ground frost (minimum temperatures on the grass, 30° and below, from 1908). Summaries for districts, based on observations at the stations of the Weekly Weather Report are given for the elements dealt with in that Report.

III. Abridged summaries of extremes of temperature, rainfall, sunshine, earth temperatures, and grass minimum temperatures for auxiliary climatological stations.

IV. A plate of four maps showing:—

- i. The monthly distribution of pressure and winds based on the morning observations at telegraphic reporting stations; also the average distribution of pressure for the month for the period 1871-1905.
- ii. The movements of depressions.
- iii. The distribution of mean temperature over the land and in the coastal waters.
- iv. The distribution of bright sunshine. This map was added for the first time in the issue for 1908.

V. A full page map showing by means of isohyetal lines the distribution of the month's precipitation. These maps are prepared by Dr. H. R. Mill, the Director of the British Rainfall Organization, and are based on data from nearly 1,000 stations.



## LIST OF STATIONS.

The Stations included in the Monthly Report and in the Weekly Weather Report are shown in the following list, arranged under the Districts. The positions of the stations may be identified on the accompanying map by the numbers which give their heights in feet above the Mean Sea Level.

*Height above Mean Sea Level.*—The figures given in this column refer, in general, to the height of the ground on which the rain gauge stands. At Sunshine Stations which do not possess a rain gauge, the height refers to the sunshine recorder.

*Nature of Information published.*—The character of the information given for each station is indicated by the following symbols :—

- W. Weekly Weather Report. Temperature and rainfall data.  
 ☉ Bright Sunshine data.  
 M. Monthly Weather Report. Full summary in the international form.  
 m. Monthly Weather Report. Abridged summary of temperature and rainfall.

*Average Values.*—Reference is made to Publications of the Office containing average values for long periods by means of the following letters :—

- a. Appendix III. of the Weekly Weather Report for 1906. Monthly averages of mean maximum, mean minimum and mean temperature, and of rainfall for the 35 years 1871-1905 and (when available) of bright sunshine for the twenty-five years 1881-1905.  
 b. Appendix I. to the volume of "Meteorological Observations at Stations of the Second Order" for 1891. Monthly averages for all elements for the fifteen years 1876-1890.  
 c. "Temperature Tables of the British Islands," 1871-1900. Monthly average of mean maximum, mean minimum and mean temperature generally for the thirty years 1871-1900, together with information on the extremes of temperature in the same period.  
 d. "Rainfall tables of the British Islands," Part I., 1866-80, Part II., 1880-90. Monthly averages of rainfall for lustra and for the periods named.

*Royal Observatory, Greenwich.*—The averages for Temperature and Rainfall, with which the current values are compared, are for the 65 years 1841-1905. The averages for sunshine are for the period 1897-1906.

*Radcliffe Observatory, Oxford.*—The averages with which the figures given in the second line are compared, are for the 54 years 1855-1908 in the case of pressure, and for the 94 years 1815-1908 in that of rainfall. The values for the current months given in this second line are the means of observations at 8 a.m., Noon, and 8 p.m., reduced to mean daily values by the application of monthly corrections based on observations during the period 1880-1887. The value given under the heading "Cloud" is the mean of observations at 8 a.m., Noon, and 8 p.m. The total rainfall and the maximum rainfall in a day are taken from the daily readings of the self-recording rain gauge, which correspond to the civil day ending at midnight.

*Meteorological Societies.*—Data for stations marked *R* are supplied by the Royal Meteorological Society, and for stations marked *S* by the Scottish Meteorological Society. Stations marked M or S are in connection with one or other of the Societies as well as with the Office.

Stations.	Height in feet above M.S.L.	Character of informa- tion published.	Averages.	Stations.	Height in feet above M.S.L.	Character of informa- tion published.	Averages.
<b>O. SCOTLAND, N.</b>				<b>1. SCOTLAND, E.</b>			
a. Islands.							
b. Mainland.							
a. { Balta Sound - - - S	31	W, ☉, m.	—	{ Aberdeen - - - -	46	W, ☉, M.	a, c.
Castlebay, Barra Island - - -	38	W, ☉, M.	—	Balmoral - - - -	920	W. m.	—
Deerness - - - S	160	☉, M.	a, b, c.	Balruddery - - - -	276	☉, m.	—
Stornoway - - - -	51	W, ☉, M.	a, b, c.	Crathes - - - -	140	☉, m.	—
Sumburgh Head - - -	112	W, M.	a, c.	Crieff - - - -	440	W. M.	—
b. { Dunrobin Castle - - - R	12	M.	c, d.	Dundee - - - -	160	M.	c, d.
Fort Augustus - - -	68	W, ☉, M.	a, c.	Edinburgh - - - -	253	☉	a, d.
Fort William - - -	175	W. M.	a, c.	Gordon Castle - - - R	101	☉, W. M.	c, d.
Glencarron - - - R	489	W. M.	a, c.	Leith - - - -	18	W. M.	a, c.
Strathpeffer Spa - - -	200	W, ☉, M.	a.	Marchmont - - - -	498	W, ☉, M.	a, c.
Wick - - - -	80	W, M.	a, c.	Nairn - - - -	82	W, ☉, M.	a, c.
				Stonehaven - - - -	786	☉	—
				Tillypronie - - - -	1,116	M.	—
				West Linton - - - S	800	W, ☉, m.	—



Stations.	Height in feet above M.S.L.	Character of informa- tion published.	Averages.	Stations.	Height in feet above M.S.L.	Character of informa- tion published.	Averages.	
<b>2. ENGLAND, N.E.</b>				<b>5. ENGLAND, S.E.</b>				
a. Northern.				Bexhill-on-Sea - - - - -				
a.	Alnwick Castle - - - - -	210	W, m.	a.	Bognor - - - - -	27	m.	—
	Ampleforth - - - - -	349	m.	—	Bournemouth - - - - -	20	⊙, m.	—
	Cockle Park - - - - -	324	⊙, M.	a.	Brighton - - - - -	145	⊙, m.	—
	Durham - - - - -	336	W, ⊙, M.	a, b, c.	Broadstairs - - - - -	31	⊙, m.	a, d.
	Newcastle - - - - -	152	⊙, m.	a.	Bucklebury - - - - -	140	⊙, m.	—
	Rounton - - - - -	249	W, M.	c.	Dover - - - - -	409	m.	—
	Scarborough - - - - -	100	W, ⊙, M.	a, c.	Dungeness - - - - -	231	⊙, m.	—
	Seaham - - - - -	139	M.	a, c, d.	Eastbourne - - - - -	21	W, M.	a, c.
	Shields - - - - -	96	W, M.	a, c, d.	Epsom - - - - -	39	⊙, M.	a.
	Whitby - - - - -	88	⊙, M.	a, d.	Folkestone - - - - -	160	m.	—
	York - - - - -	56	W, ⊙, M.	a, c, d.	Hastings (St. Leonards) - - - - -	121	⊙, m.	—
b. Southern.				Hove - - - - -	178	W, ⊙, M.	a, c, d.	
b.	Fulbeck - - - - -	180	W, ⊙, M.	a.	Lewes - - - - -	57	⊙	—
	Hull - - - - -	2	⊙, M.	a.	Littlestone - - - - -	—	⊙	a.
	Lincoln - - - - -	58	W, M.	a, d.	Maidenhead - - - - -	99	m.	—
	Rauceby - - - - -	124	⊙, M.	a.	Margate - - - - -	35	W, ⊙, m.	a, c, d.
	Skegness - - - - -	12	W, ⊙, M.	—	Marlborough - - - - -	424	W, ⊙, m.	a, c.
	Spurn Head - - - - -	26	W, M.	a, c.	Matfield - - - - -	319	m.	—
	Tealby - - - - -	251	m.	a.	Portsmouth - - - - -	11	⊙, M.	a.
<b>3. ENGLAND, E.</b>				Ramsgate - - - - -	—	⊙	—	
a. Northern.				Reading - - - - -	264	M.	d.	
a.	Cromer - - - - -	196	W, ⊙, M.	—	Salisbury - - - - -	180	M.	a, d.
	Geldeston - - - - -	37	W, ⊙, M.	a, c, d.	Sandown - - - - -	20	m, ⊙	—
	Hillington - - - - -	88	W, ⊙, M.	a, b, c.	Southampton - - - - -	65	W, ⊙, M.	a, c, d.
	Lowestoft - - - - -	83	⊙, M.	a, d.	Swarraton - - - - -	310	W, m.	a, c.
	Norwich - - - - -	93	W, m.	d.	Totland Bay - - - - -	140	⊙, m.	a.
	Yarmouth - - - - -	17	W, ⊙, M.	a, c.	Tunbridge Wells - - - - -	421	W, ⊙, m.	a, c.
					Ventnor - - - - -	80	⊙, M.	a, c.
b. Southern.				Westbourne - - - - -	30	⊙	—	
b.	Bennington - - - - -	406	M.	a, c.	Wisley, Surrey - - - - -	150	W, ⊙, m.	—
	Berkhamsted - - - - -	400	⊙, M.	a, c.	Wokingham - - - - -	216	m.	—
	Cambridge - - - - -	41	W, ⊙, M.	a, d.	Worthing - - - - -	36	⊙, m.	a, c.
	Clacton-on-Sea - - - - -	54	W, ⊙, M.	—				
	Felixstowe - - - - -	10	W, ⊙, m.	—				
	Rothamsted - - - - -	424	W, ⊙, m.	a, c, d.				
	Shoeburyness - - - - -	13	W, m.	a, d.				
	Southend - - - - -	100	⊙, m.	a.				
	Woburn - - - - -	291	M.	—				
<b>4. MIDLAND COUNTIES.</b>				<b>LONDON.</b>				
a. Eastern.				Bunhill Row (City) - - - - -	80	⊙	a.	
a.	Bawtry - - - - -	65	W, m.	a, c.	Camden Square - - - - -	110	⊙, M.	a, d.
	Belvoir Castle - - - - -	259	⊙, M.	a, d.	Greenwich - - - - -	155	W, ⊙, M.	a, c, d.
	Birmingham, Edgbaston - - - - -	535	W, ⊙, M.	a, d.	Kew - - - - -	18	W, ⊙, M.	a, c, d.
	Bradford - - - - -	439	⊙, m.	(d.)	Norwood - - - - -	220	M.	a.
	Coventry - - - - -	270	⊙, m.	a.	Plumstead - - - - -	300	⊙	—
	Garforth - - - - -	195	⊙, M.	—	Tottenham - - - - -	51	W, ⊙, M.	—
	Harrogate - - - - -	476	W, ⊙, m.	a.	Westminster - - - - -	27	W, ⊙, M.	a.
	Huddersfield - - - - -	409	M.	—				
	Kingston-on-Soar - - - - -	125	m.	—				
	Nottingham - - - - -	82	W, ⊙, M.	a.				
	Oxford - - - - -	208	W, ⊙, M.	a, c.				
	Raunds - - - - -	205	W, m.	—				
	Rugby - - - - -	379	m.	a, c.				
	Sheffield - - - - -	429	⊙, M.	a, c, d.				
	Wakefield - - - - -	96	M.	a, c.				
	Winslow - - - - -	379	m.	—				
	Worksop - - - - -	56	⊙, m.	a, d.				
b. Western.				<b>6. SCOTLAND, W. (a.)</b>				
b.	Bath - - - - -	66	W, ⊙, M.	a.	<b>ISLE OF MAN (b.)</b>			
	Buxton - - - - -	987	W, ⊙, M.	a, b	Cally, Gatehouse - - - - -			
	Cheadle (Tea) - - - - -	646	W, m.	a, b, c.	Colmonell - - - - -			
	Cheltenham - - - - -	214	⊙, M.	a, c.	Dumfries - - - - -			
	Cirencester - - - - -	446	W, ⊙, m.	a, c.	Glasgow - - - - -			
	Hereford - - - - -	291	W, m.	a.	Kilmarnock - - - - -			
	Mayfield (Staffs) - - - - -	374	m.	—	Laudale - - - - -			
	Shrewsbury - - - - -	191	W, M.	d.	Oban - - - - -			
	Stokesay - - - - -	370	M.	—	Poltalloch - - - - -			
					Rothesay - - - - -			
				Thorntonhall - - - - -				
				b. Douglas - - - - -				
				277				
				W, ⊙, M.				
				a, c, d.				
<b>7. a. ENGLAND, N.W.</b>				Cally, Gatehouse - - - - -				
a.	Aspatria - - - - -	250	W, ⊙, M.	a.	Colmonell - - - - -			
	Blackpool - - - - -	66	W, ⊙, M.	a.	Dumfries - - - - -			
	Burnley - - - - -	459	⊙, m.	d.	Glasgow - - - - -			
	Carnforth - - - - -	174	⊙, m.	—	Kilmarnock - - - - -			
	Darwen - - - - -	722	⊙, M.	—	Laudale - - - - -			
	Hawarden Bridge - - - - -	22	m.	a.	Oban - - - - -			
	Hoylake - - - - -	30	⊙, m.	a.	Poltalloch - - - - -			
	Lancaster - - - - -	311	⊙, m.	—	Rothesay - - - - -			
	Liverpool (Bidston Obs.) - - - - -	188	W, ⊙, M.	a, c.	Thorntonhall - - - - -			
	Manchester (Prestwich) - - - - -	320	W, ⊙, M.	a, c.	b. Douglas - - - - -			
a.	" (Oldham Road) - - - - -	190	⊙, M.	a.	277			
	" (Whitworth Park) - - - - -	125	⊙, M.	—	W, ⊙, M.			
	Newton Rigg - - - - -	559	W, ⊙, M.	a.	a, c, d.			
	Southport - - - - -	37	⊙, M.	a.				
Stonyhurst - - - - -	375	W, ⊙, M.	a, c, d.					



Station.	Height in feet above M.S.L.	Character of informa- tion published.	Averages.	Station.	Height in feet above M.S.L.	Character of informa- tion published.	Averages.
<b>(b) NORTH WALES.</b>				<b>9. IRELAND, N.</b>			
Aberdovey - - - -	22	⊙, m.	—	a. Western.			
Bettws-y-Coed - - -	101	W, ⊙, M.	—	b. Eastern.			
Colwyn Bay - - - -	82	⊙, m.	—	{ Blacksod Point - - -	37	W, M.	a.
Holyhead - - - -	48	W, M.	a, c.	{ Malin Head - - -	230	W, M.	a, c.
Llandudno - - - M	71	W, ⊙, M.	a, b, c, d.	{ Markree Castle - - -	122	W, ⊙, M.	a, b, c.
Rhyl - - - -	30	⊙, m.	a.	{ Armagh - - - -	196	W, ⊙, M.	a, c, d.
St. Asaph (St. Beuno's Coll.)	479	m.	—	b. { Belfast - - - -	61	⊙, M.	a, d.
Towyn - - - - M	10	⊙, m.	—	{ Donaghadee - - - -	40	W, M.	a, c.
<b>8. a. SOUTH WALES.</b>				<b>10. IRELAND, S.</b>			
<b>b. ENGLAND, S.W.</b>				a. Eastern.			
Aberystwyth - - - M	59	⊙, m.	—	b. Western.			
Cardiff - - - -	50	W, ⊙, M.	a, d.	{ Clongowes Wood College - -	245	⊙, m.	—
Haverfordwest - - -	93	⊙, m.	—	{ Dublin, City - - -	47	W, M.	a, b, c.
Llangammarch Wells - -	550	W, ⊙, m.	a.	{ " Trinity College - -	12	⊙, M.	—
Pembroke (St. Ann's Head) -	149	W, ⊙, M.	a, c.	{ " Phoenix Park - -	155	⊙, M.	a, c.
Port Talbot - - - -	179	⊙	—	{ " Glasnevin - - -	67	m.	a, c.
Swansea - - - -	24	m.	—	{ Kilkenny - - - -	212	W, m.	a, c.
Tenby - - - -	79	⊙	a.	{ Kingstown - - - -	42	m.	—
Arlington - - - -	613	W, m.	a, c.	{ Mountmellick - - -	253	m.	—
Clifton (Bristol) - - -	229	W, ⊙, m.	a, d.	{ Waterford - - - -	20	W, M.	a.
Cullompton - - - -	202	W, ⊙, m.	a, c.	{ Ballinacurra - - - -	24	⊙, m.	—
Falmouth - - - -	167	W, ⊙, M.	a, c.	{ Birr Castle - - - -	175	W, ⊙, M.	a, b, c.
Forest of Dean - - - -	200	m.	—	{ Cahir - - - -	199	W, m.	—
" " - - - -	900	⊙, m.	a, d.	b. { Foynes - - - -	108	W, m.	a, c.
Newquay - - - -	100	⊙, m.	a, d.	{ Killarney - - - -	174	W, M.	a, c.
Penzance - - - -	54	⊙, m.	d.	{ Roche's Point - - -	32	W, M.	a, c.
Plymouth - - - -	116	W, ⊙, M.	a, c.	{ Valencia - - - -	30	W, ⊙, M.	a, c.
Portland Bill - - - -	19	W, M.	—	<b>11. ENGLISH</b>			
Rousdon - - - -	515	⊙, M.	c.	<b>CHANNEL.</b>			
Salcombe - - - -	300	⊙	—	{ Guernsey (Villa Carey) - -	180	W, ⊙, m.	a.
Shaftesbury - - - -	722	W, m.	a, d.	{ " Brooklyn - - -	297	⊙, M.	a, c.
Torquay - - - -	12	⊙	a, d.	{ Jersey (St. Aubin's) - -	25	W, M.	a, c.
Weymouth - - - -	21	⊙, m.	—	{ " (St. Helier's) - -	—	⊙	a.
Whitchurch - - - -	593	M.	—	{ Scilly - - - -	131	W, ⊙, M.	a, c.
Woolacombe - - - -	59	⊙, M.	a.				

## CORRECTIONS FOR MONTHLY WEATHER REPORT, JANUARY TO AUGUST, 1909.

January,	p. xii.	...	Bognor.—Rainfall, 1.16 ins. ; number of days, 18.
February,	p. xxi.	...	Kew.—Overcast, 11.
March,	p. xxix.	...	District 1.—Bright sunshine, total hours, 56.
	p. xxx.	...	Westminster.—Mean temperature, 39.5. Difference, — 3.4
	p. xxxi.	...	Portsmouth.—Clear sky, 8.
	p. xxxi.	...	Southport.—Clear sky, 3.
	p. xxxii.	...	Margate.—Rainfall, 2.53 ins. Difference, + 1.10.
April,	p. xxxiii.	...	Yarmouth.—Dep. of wet third col., 2.4.
	p. xxxiii.	...	Geldeston.—Dep. of wet third col., 2.6.
	p. xxxix.	...	Wick.—Hail, 1.
	p. xlii.	...	West Linton.—Rainfall, 2.54 ins.
June,	p. lx.	...	Westminster.—Cloud amount, 6 p.m., 7.5.
	p. lxii.	...	Cheadle.—Mean maximum, 58.7.
July,	p. lxxi.	...	Douglas.—Hail, 0.
August,	p. lxxix.	...	Cheltenham.—Vap. Pressure III., .424.



THE following is a LIST of the VOLUNTEER OBSERVERS to whom the Committee are indebted for observations contributed to the Monthly Weather Report during 1909, together with the NAMES of their STATIONS :—

Names of Stations.	Names of Observers.	Names of Stations.	Names of Observers.
Aberdovey - - -	W. J. Eves.	Garforth - - -	Prof. Seton, for the Yorkshire College, Leeds.
Aberystwyth - - -	Dr. A. Thomas, for the District Council.	Geldeston - - -	E. T. Dowson.
Alnwick Castle - - -	Robert Kyle, for the Duke of Northumberland, K.G.	Glasgow - - -	Prof. Becker and the Staff of Observatory.
Ampleforth - - -	Rev. B. A. Barnett, O.S.B.	Glencarron - - -	D. D. Munro.
Arlington (N. Devon) - - -	Miss Chichester.	Gordon Castle - - -	C. Webster, for the Duke of Richmond and Gordon.
Armagh - - -	J. L. E. Dreyer, Ph.D., and Staff of Observatory.	Greenwich - - -	Astronomer Royal.
Aspatia - - -	J. Smith Hill, B.A., B.Sc.	Guernsey (Villa Carey) - - -	F. E. Carey, M.D.
		" (Fort Road) - - -	A. Collenette.
Ballinacurra - - -	John H. Bennett.		
Balmoral - - -	J. M. Troup, for J. Michie, M.V.O.	Harrogate - - -	C. E. Rivers, for the Corporation.
Balruddery - - -	G. Davie, for J. White.	Hastings (St. Leonards) - - -	H. Colborne, M.R.C.S., for the Corporation.
Balta Sound - - -	T. Edmonston Saxby, L.R.C.S.	Haverfordwest - - -	J. W. Phillips.
Bath - - -	W. H. Symons, M.D., for the Corporation.	Hawarden Bridge - - -	F. B. Summers.
Bawtry (Hesley Hall) - - -	B. I. Whitaker, J.P.	Hereford (Belmont) - - -	Canon T. B. Harrington, O.S.B.
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Blackpool - - -	E. W. Rees Jones, M.D., for the Corporation.	Killarney - - -	E. W. Griffin, M.D.
Bognor - - -	H. C. L. Morris, M.D., and Herbert Gardner.	Kilmarnock - - -	D. K. Robb, for West of Scotland Agricultural College.
Bournemouth - - -	C. Dales, for the Corporation.	Kingston-on-Soar - - -	Fred Wakerly, for the Midland Agricultural and Dairy College.
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Buxton - - -	F. T. Kildsen.	Lincoln - - -	W. Barr, for the Corporation.
		Littlestone-on-Sea - - -	H. T. Tubbs.
Cahir - - -	R. W. Smith, Junr.	Llandudno - - -	W. Little, for Town Council.
Cally Gatehouse - - -	W. Thomson, for Col. F. Murray, Raillie.	Llangamarch Wells - - -	W. Black Jones, M.D., M.O.H.
Cambridge - - -	R. Irwin Lynch, M.A., for the Botanic Garden Syndicate.	London (Bunhill Row) - - -	Messrs. De la Rue.
Cardiff - - -	E. Walford, M.D., for the Corporation.	" (Camden Sq.) - - -	H. R. Mill, D.Sc., LL.D.
Carnforth - - -	W. Farrer.	" (Plumstead) - - -	J. G. Waller.
Cheadle - - -	Col. B. H. Philips.	" (Westminster) - - -	J. H. Cowham.
Cheltenham - - -	A. C. Saxby, for the Corporation.	Lowestoft - - -	C. W. Edwards, for the Corporation.
Cirencester - - -	M. Kershaw, B.A., for the R. A. College.		
Clacton-on-Sea - - -	A. W. Shadick, for the Town Council.	Maidenhead - - -	G. H. Palmer.
Clifton (the College) - - -	D. Rintoul, M.A.	Manchester - - -	J. Niven, M.A., M.B., for the Corporation.
Clongowes Wood College, - - -	Rev. J. J. Nerney S.J.	(Oldham Road) - - -	
Cockle Park, near Morpeth. - - -	T. E. W. Dobson, for Northumberland County Council.	Manchester (Prestwich) - - -	F. Gore for the Medical Superintendent of the Asylum.
Colmonell - - -	A. Ogg, for J. W. McConnel.	Manchester (Whitworth Pk.) - - -	W. A. Harwood for the University of Manchester.
Colwyn Bay - - -	W. Jones, A.M.I.C.E., for District Council.	Marchmont - - -	J. A. Wood, for Sir H. P. Campbell, Bt.
Coventry - - -	E. Hugh Snell, M.D., for the Corporation.	Margate - - -	J. Stokes, J.P., for the Corporation.
Crathes - - -	J. Smith.	Markree Castle - - -	J. R. Armstrong, for Captain Cooper.
Crieff - - -	Dr. Meikle.	Marlborough - - -	Meddowes Taylor, for the College.
Cromer - - -	W. H. Archer, for the District Council.	Matfield - - -	D'Arcy Reeve.
Cullompton - - -	M. T. Foster.	Mayfield - - -	G. C. Lawson.
		Mountmellick - - -	W. A. Robinson.
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Dover - - -	W. C. Hawke, for the Corporation.	Newton Rigg - - -	W. T. Lawrence, for the Cumberland County Council.
Dublin (City) - - -	Sir John W. Moore, M.D.	Nottingham - - -	J. Brown, A.M.I.C.E., City Engineer.
" (Glasnevin) - - -	F. W. Moore, M.R.I.A.	Norwich - - -	A. W. Preston.
" (Phoenix Park) - - -	Lt.-Col. J. Pery, R.E.	Norwood - - -	W. Marriott.
" (Trinity College) - - -	Prof. Thrift.		
Dumfries - - -	C. C. Easterbrook, M.D., Crichton R. Institute.	Oban - - -	E. Baily, M.D., M.O.H.
Dundee - - -	J. Carnochan.	Oxford - - -	A. A. Rambaut, M.A., F.R.S., for the Radcliffe Observatory.
Dunrobin Castle - - -	D. Melville, for the Duke of Sutherland, K.G.		
Durham - - -	Prof. R. A. Sampson, M.A., F.R.S.	Penzance - - -	C. H. Benn, for the District Council.
		Plymouth - - -	H. Victor Prigg, A.M.I.C.E., for the Corporation.
Eastbourne - - -	S. R. Henderson, for the Corporation.	Poltalloch - - -	D. S. Melville.
Edinburgh - - -	Regius Keeper, Botanic Gardens.	Portsmouth - - -	A. Mearns Fraser, M.D., for the Corporation.
Epsom - - -	Spencer C. Russell.	Port Talbot - - -	Miss Talbot and G. Lipscombe.
Felixstowe - - -	Coastguard, for the Urban District Council.		
Folkestone - - -	A. E. Nichols, C.E., for the Corporation.		
Forest of Dean - - -	V. F. Leese.		
Fort Augustus - - -	Rev. C. von Dieckhoff.		
Fort William - - -	W. T. Kilgour.		
Foynes - - -	J. J. Alcorn, for Lord Monteagle, K.P.		
Fulbeck - - -	Rev. Vere F. Willson, M.A.		



THE following is a LIST of the VOLUNTEER OBSERVERS to whom the Committee are indebted for observations contributed to the Monthly Weather Report during 1909, together with the NAMES of their STATIONS—*cont.* :—

Names of Stations.	Names of Observers.	Names of Stations.	Names of Observers.
Ramsgate - - -	T. G. Taylor, C.E., for the Corporation.	Tealby - - -	Rev. S. Lewin, B.A.
Rauceby Hall - -	J. Hope, for General Sir M. Willson, K.C.B.	Tenby - - -	R. J. Truscott, for the Corporation.
Raunds - - -	Léon H. Lea.	Thorntonhall,	J. Wilson, for A. Henderson Bishop.
Reading (Leighton Park School)	John Ridges, M.A.	Lanarkshire,	
Rhyl - - -	A. A. Goodall, C.E., for District Council.	Tillypronie - - -	Robert Littlejohn, for Sir John F. Clark, Bart.
Rothamsted - - -	The Lawes' Agricultural Trust.	Torquay - - -	F. March, for the Corporation.
Rothsay - - -	D. Penney,	Totland Bay - - -	J. Dover, M.A.
Rounton - - -	J. Hanagan, for Sir Hugh Bell, Bart.	Tottenham - - -	J. F. Butler-Hogan, M.D., LL.D., for District Council.
Rousdon - - -	C. Grover, for the Hon. Lady Peek.	Towyn - - -	E. Lewys Lloyd, M.D., for the District Council.
Rugby (the School) -	Rev. D. E. Shorto, M.A.	Tunbridge Wells - -	F. G. Smart, M.A., M.B.
St. Asaph - - -	Rev. J. Rowland, S.J.	Ventnor Hospital - -	Miss M. Gibson.
Salcombe - - -	V. W. Twining, M.D., for the Corporation.	Wakefield - - -	Alex. French, M.R.C.S., L.R.C.P.
Salisbury - - -	Thos. Challis, for the Earl of Pembroke, G.C.V.O.	Waterford - - -	J. N. White.
Sandown - - -	C. E. Gilchrist, for Free Library.	Westbourne - - -	Rev. L. B. Birkett.
Scarborough - - -	W. W. Larkin, for the Corporation.	West Linton - - -	Rev. J. S. Begg.
Seaham - - -	G. H. Aird.	Weymouth - - -	J. J. Brown, Hon. Borough Meteorologist.
Shaftesbury - - -	Rev. F. Ehlers.	Whitby - - -	T. Newbitt, for the Lit. and Phil. Soc.
Sheffield - - -	F. Howarth, F.R.A.S.	Whitechurch - - -	E. E. Glyde.
Shoeburyness - - -	Supt. of Experiments.	Winslow - - -	R. A. Easton.
Shrewsbury - - -	Capt. C. S. Reid, R.E.	Wisley - - -	The Superintendent, for the Roy. Hort. Society.
Skegness - - -	S. Coetmore Jones, for the District Council.	Woburn - - -	H. M. Freear, F.C.S., for the Royal Agricultural Society.
Southampton - - -	A. Vaughan, for Director General, Ordnance Survey.	Wokingham - - -	The Medical Superintendent of the Sanatorium.
Southend-on-Sea - -	E. J. Elford, C.E., for the Corporation.	Woolacombe - - -	R. N. Kivell.
Southport - - -	J. Baxendell, for the Corporation.	Workop - - -	Lt.-Col. H. Mellish, J.P.
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Stonehaven - - -	J. Hart, for the Corporation.		
Stonyhurst - - -	Rev. W. Sidgreaves, S. J. and the Staff of Observatory.	York (Museum) - -	Oxley Grabham, M.A., for the York Phil. Soc.
Strathpeffer Spa - -	H. W. Kaye, B.A., M.B.	" (Bootham) - -	H. Richardson, M.A.
Swansea - - -	D. Bliss, for the Corporation.		
Swarraton - - -	Rev. W. L. W. Eyre, M.A.		

Meteorological Office,  
London, S.W.,  
October 25th, 1909.



# MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

(Supplement to the Weekly Weather Report.)

SUMMARY OF OBSERVATIONS COMPILED FROM THE RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS IN THE UNITED KINGDOM, WITH A CHART OF RAINFALL CONTRIBUTED BY THE BRITISH RAINFALL ORGANISATION.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE,

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THIRTY-FOURTH YEAR.  
Vol. XXVI. (New Series)  
Weekly Weather Report.

No. I.

JANUARY, 1909.

[Price 6d.]

## SUMMARY OF OBSERVATIONS.

**Pressure, Winds and Weather.**—The mean atmospheric pressure over the United Kingdom for the month of January was above the normal at all stations, the excess being very slight, 0.01 in., in Shetland, but southward of Aberdeen it was everywhere more than 0.1 in., as much as 0.22 in. along the south of Ireland and at Scilly. There was thus an appreciable increase in the gradient across the country, to 0.49 in. between Sumburgh Head and Jersey, against the normal of 0.32 in. The mean distribution was in fair accordance with the average, the highest values, above 30.25 ins., being found from the Bay of Biscay eastward to the central and eastern parts of the Continent. To the northward and north-westward the readings show a more or less steady diminution, to 29.74 ins. in Shetland, and to 29.26 ins. in the south-west of Iceland, so that there was a difference of rather more than an inch between Brest and Reykjavik, a distance of 1,100 miles. This pressure distribution was associated with the general prevalence of a South-Westerly type of conditions over the British Isles. Southerly to Westerly winds were largely in the ascendant, excepting in the more southern districts of England, where the direction was much more variable, Easterly, North-Easterly and North-Westerly currents being well represented. The range of pressure exceeded 2.1 ins. at Wick, and 2 ins. at Aberdeen, but over the south-west of England, at Bath, Portland Bill, Jersey and Scilly, it was less than 1.4 in.

At the commencement of the month the whole country was embraced by an extensive continental anticyclone, whose central space was transferred slowly westward from Russia, where, in the Moscow neighbourhood, the barometer stood at about 31 ins. on the 1st. At Jersey the barometer rose to 30.78 ins. on the 2nd, and two days later to 30.75 ins. at Oxford, the highest readings of the month. On the 6th the region of maximum pressure passed from the Continent to the Bay of Biscay. During this period disturbances were found about Iceland, and their influence on the conditions over the British Isles was very slight, the weather generally being of a quiet character, mild, cloudy to showery, and with little wind.

From the 7th to the 19th the area of highest pressure was nearly always to the south-westward of our coasts and down the Bay of Biscay to the Spanish Peninsula, while disturbances visited Norway and Sweden, as well as Iceland and the intervening sea. The transfer of the first of this series of disturbances from beyond the north of Iceland to Norway and down to the Baltic, between the 6th and the 8th, marked the beginning of a spell of unsettled conditions over these Islands. Strong to high Southerly to Westerly winds were felt almost daily in many neighbourhoods, frequently increasing to the force of a gale, mainly on the more exposed sections of the southern, western and northern coasts. On the 7th a strong Westerly gale was experienced at Sumburgh Head, Stornoway and Holyhead, a whole gale at Wick; and on the 8th a strong Northerly gale at Holyhead and Spurn Head, and a whole North-Westerly gale at Malin Head. The anemometrical records show that on the 7th, in gusts, the wind attained a velocity at the rate of 69 miles an hour at Southport, and on the 8th gusts of 64 miles at Alnwick. With the break in the weather thunderstorms occurred in western Scotland on the 6th, and in many parts of Scotland and England on the 7th, but no large falls of rain were reported.

Deep cyclonic systems continued to traverse the regions about the Arctic Circle, but for an interval of nearly a week their effect on our weather was less marked, there being very few instances of the Westerly current exceeding the force of a strong or high wind. On the morning of the 13th a small secondary disturbance appeared over the English Channel, and a large and deep primary system to the southward of Iceland. The former passed away eastward without materially affecting the conditions, while the northern disturbance brought about very stormy weather, much rain, with some hail, falling over the Kingdom generally, considerable quantities of sleet or snow in Scotland and Ireland. The depression followed an erratic path. By the afternoon of the 13th the pressure minimum, below 28.5 ins., was near the Farøe; it remained in that neighbourhood until the night of the 14th, then moved up to eastern Iceland, and on the 16th disappeared north-eastward beyond the Arctic Circle. It was a very extensive system, one portion covering a great part of Europe, the barometer at one time being below 29.5 ins. over the whole of the British Isles and from the Bay of Biscay across northern France and Germany to the Baltic and Scandinavia. At the home stations the lowest reading was 28.35 ins. at Wick, early on the 14th, and many other places had readings below 29 ins. Strong to high winds from Westerly points were experienced all over the country, gales in numerous localities—between the 13th and 16th a strong gale at Blacksod Point, Holyhead, Pembroke, Portland Bill and Jersey, a whole gale at Malin Head, and a storm at Scilly; the anemometrical records disclose a mean hourly velocity of 51 miles at Fleetwood on the 14th and 16th, while there were several instances of gusts at the rate of 60 or more miles per hour, 66 miles at Holyhead on the 14th, and at

Aberdeen on the 15th, 65 miles at Alnwick, and 76 miles at Scilly on the 16th. Thunderstorms visited many parts of the Kingdom, and the precipitation was very heavy in the western half—on the 13th an inch at Kinlochewe and Fort Augustus, on the 14th exceeding an inch at Caragh Lake and Dunfanaghy (Ireland), Bethesda and Bettws-y-Coed (Wales), and Ardnadam (Scotland), and on the 16th Kinlochewe had another inch, and Ardnadam and Laudale over an inch. In many districts the precipitation was in the form of snow, which in various parts of Ireland and Scotland interfered greatly with road and railway traffic.

No sooner had this disturbance disappeared than another and deeper one reached the south of Iceland, where the barometer fell to nearly 28 ins. on the 17th. The system rapidly expanded over the British Isles, where, however, pressure did not descend as low as 29 ins. at any station; the wind backed more Southerly and again increased, a strong South-Westerly gale blowing at Blacksod Point, Roche's Point (with gusts at the rate of 61 miles an hour), and Holyhead on the 17th and 18th. Further very heavy precipitation occurred in the far west and north on the 17th, exceeding an inch in Ireland at Dunfanaghy, Caragh Lake, Enistymon, Blacksod Point, Carrigallen, Markree Castle, and amounting to 2.2 ins. at Mallaranny; and in Scotland at Thorntonhall, Laudale, Kinlochewe, Ardnadam, Poltalloch, Fort Augustus, Glencarron, Crieff, and as much as 2.5 ins. at Fort William. At Ardnadam the five days, 13th to 17th, yielded 5.8 inches. In both countries great inconvenience and considerable damage and losses were occasioned by floods resulting from the heavy rain and snowfalls of this period, and at Kilmore, Galway, an immense bog slide overwhelmed houses and cattle, and submerged the roads, rivers and landmarks of the district. The pressure minimum remained in the Iceland region until the 19th, then disappeared to the north-eastward.

A complete change in the conditions marked the remainder of the month, a dry, quiet, anticyclonic type being the dominant feature, the high pressure system advancing from the Atlantic and passing beyond the North Sea, while depressions still affected Iceland and northern Scandinavia. Hitherto mildness had been the feature of the month, temperature maintaining a moderately high level. There were hardly any instances of afternoon maxima above 55°, and only a few night frosts. After the 19th there was increasing cold, and frost of more or less severity became general over England, less marked in Scotland, and still less so in Ireland. Between the 25th and 30th there were numerous records of shade minima below 20°, 14° at Garforth, 13° at Llangammarch Wells, Buxton and Harrogate, and 11° at Wokingham. On some days the afternoon maxima were below 30°, only 27° at Llangammarch Wells and Bradford, and 26° at Huddersfield on the 27th. This period was also very dry, little or no rain falling over a large extent of country after the 17th or 18th. No rain was registered during the thirteen days, 19th to 31st, at Portland Bill, Weymouth, Parkstone (Dorset), Ventnor, Maidenhead, Isleworth, Garforth and Hovingham Hall (Yorks), and many other places had none on twelve consecutive days.

Much fog was experienced inland towards the close of the month, the Metropolis being visited on the 27th and 28th by the densest for some time past. The fog area was surrounded by brilliant sunshine—from seven to eight hours daily. Along the south and east coasts of England the atmosphere was rather foggy at times during the first four days of the month; on the western Channel from the 20th to the 23rd; on the English Channel from the 25th to the 29th; and on the east coast from the 19th to the 30th. There was a general decrease in the temperature of the sea water round our coasts, but it was still higher than that of the air on shore, by as much as 4° to 6° in several localities.

**Rainfall.**—There was an excess of precipitation over Scotland and in some parts of northern Ireland, small as a rule, but at Fort William there was an excess of 3.2 ins. Over the rest of the kingdom there was a deficiency, of more than an inch in many localities, more than 2 ins. at Douglas, Waterford and Valencia, and as much as 3.4 ins. at Roche's Point. The largest aggregates were 12.3 ins. at Fort William, 10.6 ins. at Ardnadam, and 10.2 ins. at Laudale, but at a very large number of stations the totals were less than an inch; Sandwich, Spurn Head and Worcester Lodge (Forest of Dean) less than half an inch. Rain was registered on every day at Balta Sound, on 30 days at Castlebay, and on 29 days at some other north-western stations, while generally the frequency was small, less than 10 days in various neighbourhoods, 7 days at Beaconsfield, and 6 at Cuckfield.

**Bright Sunshine.**—There was a general excess of sunshine excepting in Ireland and the west and north of Scotland, Durham being 30 hours to the good, and Newquay 34 hours. Dover totalled 89 hours (35 per cent. of the possible duration), Newquay 87 hours (34 per cent.), and Felixstowe 84 hours (33 per cent.); but Manchester City had only 15 hours (6 per cent.), Fort Augustus 12 hours (5 per cent.), and Balta Sound 6 hours (3 per cent.).



TABLE A.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at 9 a.m., 3 p.m. and 9 p.m. at NORMAL STATIONS in the BRITISH ISLANDS

DISTRICT.	STATION.	Height of Barometer at Station above M.S.L.	BAROMETER.			AIR TEMPERATURE.								HYGROMETER.																				
			Mean at 32° F. at Station Level and Lat.	Diff. from Normal.	Cor. for Diurnal Range.	Mean of		Mean of A and B.	Diff. from Normal.	Absolute Maximum and Minimum.				Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.																				
						A	B			Max.	Day.	Min.	Day.	Dry Bulb.			Dep. of Wet.			Vap. Pressure.			Humidity.											
														I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.									
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
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																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
																							I.	II.	III.	I.	II.	III.</						



Earth Temperature.		BRIGHT SUNSHINE.				CLOUD (0-10.)			RAIN AND OTHER FORMS OF PRECIPITATION.				WEATHER.										WIND.										STATIONS.	
At 1 foot depth.	At 4 feet depth.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	Mean Amount.			Total Fall.	Diff. from Normal.	Most in a day.		Precipitation.	No. of Days of										No. of Observations at 9 a.m., 8 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.										
						I.	II.	III.			Ins.	Ins.		Ins.	Snow.	Hail.	Thunderstorm.	Clear Sky.	Overcast.	Fog.	Ground Frost.	Wind force 8 and above.	Forces 4-7.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		
At 1 foot depth.	At 4 feet depth.	Hrs.	Hrs.	%	%	I.	II.	III.	Ins.	Ins.	Ins.	14th	30	6	11	2	0	26	0	—	2	64	0	3	0	0	7	10	24	30	19	(Isd.)		
—	—	18	—	—	—	9.5	9.3	8.4	3.32	—	0.39	14th	30	6	11	2	0	26	0	—	2	64	0	3	0	0	7	10	24	30	19	Castlebay (Barra)		
—	—	26	—	12	—	7.6	—	6.3	3.95	+0.54	0.65	10th	22	8	6	6	1	11	0	—	4	46	1	2	0	0	0	17	19	15	8	Deerness.		
—	—	—	—	—	—	7.8	7.3	7.8	4.36	+0.39	0.58	10th	29	8	0	0	0	16	0	—	1	44	1	8	0	0	3	13	16	47	5	Sumburgh Head.		
—	—	20	—	9	—	8.3	8.3	6.8	6.15	+0.90	0.78	13th	29	10	8	2	0	13	0	—	10	76	2	5	0	0	0	19	36	19	12	Stornoway.		
—	—	—	—	—	—	6.3	—	6.5	2.85	+0.46	0.45	7th	18	8	2	0	1	8	0	—	3	17	0	5	0	0	0	19	8	26	4	Wick.		
—	—	24	—	11	—	7.2	—	5.6	3.63	+0.52	0.52	13th	23	11	0	0	3	11	0	—	2	20	14	3	0	0	0	4	19	16	6	Strathpeffer.		
—	—	—	—	—	—	8.7	—	8.2	8.92	—	1.25	1.33	17th	27	2	0	1	1	21	0	—	1	45	4	5	0	4	0	0	0	49	0	Glencarron.	
—	—	12	—	5	—	7.9	—	6.6	6.18	+0.61	1.60	17th	24	9	1	0	1	15	3	—	1	26	9	1	0	0	0	7	35	8	2	Fort Augustus.		
—	—	—	—	—	—	9.3	—	8.4	12.25	+3.18	2.52	17th	29	6	3	0	0	23	8	—	3	18	6	2	2	0	0	6	18	26	2	Fort William		
36.3	—	—	—	—	—	—	—	—	3.36	+0.69	0.48	13th	17	8	0	0	—	—	0	—	0	5	1	5	4	1	0	5	21	25	—	Dunrobin Castle.		
—	—	21	—	4	—	8.1	—	7.2	6.33	+0.41	2.52	—	26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
—	—	—	—	—	—	5.7	—	4.3	2.05	+0.09	0.45	14th	19	7	0	2	7	3	0	—	5	20	0	2	1	0	11	9	18	10	11	Tillypronie.		
—	—	—	—	—	—	7.6	—	8.5	1.47	—	0.38	14th	13	5	0	0	0	13	0	—	1	6	0	0	8	1	1	4	35	5	11	Dundee		
—	—	45	—	20	—	6.5	6.7	7.4	2.80	+0.90	0.44	17th	24	9	0	0	3	16	1	—	0	8	16	3	0	0	0	1	20	47	6	Nairn.		
—	—	52	—	23	—	6.9	—	5.5	2.01	0.00	0.55	14th	17	9	0	0	3	7	0	—	0	3	0	0	0	0	1</							



TABLE A. (continued).—Giving a Summary of the METEOROLOGICAL OBSERVATIONS made at 9 a.m., 3 p.m. and 9 p.m. at NORMAL STATIONS in the BRITISH ISLANDS

DISTRICT.	STATION.	Height of Barometer cistern above M.S.L.	BAROMETER.			AIR TEMPERATURE.								HYGROMETER.											
			Mean at 82° F. at Station Level and Lat.	Diff. from Normal.	Cor. for Diurnal Range.	Mean of		Mean of A and B.	Diff. from Normal.	Absolute Maximum and Minimum.				Observations at 9 a.m., 3 p.m. and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.											
						A	B			Max.	Day.	Min.	Day.	Dry Bulb.			Dep. of Wet.			Vap. Pressure.			Humidity.		
														I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
5. ENGLAND, S.E.	Reading - - -	264	29°868	—	—	43°1	32°3	37°7	—	51	10th	22	29th	36°6	—	37°7	0°7	—	0°8	203	—	211	94	—	93
	Salisbury - - -	186	29°974	—	—	44°5	32°5	38°5	+1°0	52	11th	19	28th	36°9	—	37°8	1°2	—	1°0	196	—	208	90	—	92
	Brighton - - -	48	30°138	—	—	44°3	36°1	40°2	+0°4	50	11th	27	29th	39°2	—	—	1°5	—	—	210	—	—	88	—	—
	Portsmouth - -	18	30°133	—	—	46°1	35°4	40°8	+1°1	51	11th	25	28th	39°2	—	—	1°3	—	—	214	—	—	89	—	—
	Eastbourne - -	38	30°136	—	—	45°5	35°7	40°6	+0°4	51	15th	25	29th	39°6	—	40°6	1°6	—	1°5	216	—	226	87	—	88
	Dungeness - - -	21	30°118	+°132	+°002	44°0	32°6	38°3	-1°1	50	11th	20	30th	38°5	43°0	41°4	1°5	2°6	2°1	203	223	218	87	80	84
	Hastings - - -	174	29°984	—	—	44°2	35°3	39°8	+0°3	49	11th	27	29th	38°4	—	39°5	1°4	—	1°2	204	—	218	88	—	90
	Southampton -	84	30°105	—	—	45°2	34°7	40°0	+0°2	52	17th	22	28th	38°4	—	39°6	1°3	—	1°5	210	—	218	88	—	87
	Ventnor - - -	80	30°091	—	—	46°7	37°5	42°1	+0°4	52	1st	29	31st	41°0	—	—	1°9	—	—	217	—	—	85	—	—
	District Value -					43°4	33°9	38°9	-0°8	55		11													
LONDON -	Tottenham - - -	55	30°090	—	—	43°3	34°7	39°0	0°0	51	15th	21	28th	37°3	—	39°3	1°1	—	1°1	207	—	223	89	—	90
	Camden Square -	123	30°038	—	—	42°6	34°0	38°3	-0°3	51	14th	25	25th	37°6	—	39°7	1°1	—	1°3	204	—	218	90	—	89
	Westminster - -	54	30°097	+°144	+°003	43°6	34°9	39°3	+0°1	52	14th	25	30th	37°6	—	40°7	1°1	—	2°1	204	—	211	91	—	84
	Greenwich - - -	159	29°991	—	—	43°0	34°0	38°5	+0°1	50	11th, 15th	21	28th	37°2	—	38°7	1°4	—	1°6	195	—	204	88	—	87
	Norwood - - -	235	29°930	—	—	43°1	34°0	38°6	0°0	50	11th	22	29th	36°9	—	38°4	1°4	—	1°5	192	—	203	88	—	88
	Kew - - -	84	30°138	+°146	—	42°5	34°5	38°5	-0°2	51	15th	24	29th	37°1	41°2	38°9	1°8	3°1	1°9	186	198	200	84	77	85
	Bunhill Row - -		30°134	+°150	—	—	—	38°7	-0°2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Plumstead - - -			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Laudale - - -	25	29°878	—	—	45°8	36°7	41°3	+1°3	53	2nd	25	16th	41°6	—	42°1	1°3	—	1°5	239	—	242	90	—	89
	Poltalloch - - -	135	29°805	—	—	44°7	35°9	40°3	+1°1	50	1, 2, 3, 4	28	16th	39°5	—	40°1	1°6	—	2°0	211	—	208	87	—	84
6. SCOTLAND, W.	Glasgow - - -	154	29°755	—	—	43°8	36°3	40°1	+1°7	50	17th	29	16th	39°3	—	40°2	1°8	—	1°9	208	—	215	84	—	84
	Rothsay - - -	76	29°873	—	—	45°5	36°9	41°2	+1°7	52	17th, 18th	32	13th, 16th	40°3	—	41°5	1°8	—	2°2	214	—	217	86	—	83
	Colmonell - - -	140	29°864	—	—	43°8	35°8	39°8	+0°5	51	1st, 2nd	31	9, 16, 24	39°6	—	—	1°6	—	—	211	—	—	87	—	—
	Dumfries - - -	60	29°970	—	—	42°2	34°1	38°2	-0°2	49	1, 2, 18th	22	25th	38°2	—	39°0	1°4	—	1°7	202	—	205	88	—	86
	Gally, Gatehouse	120	—	—	—	43°8	34°8	39°3	+1°0	49	18th, 20th	29	9th	38°2	—	39°3	1°4	—	1°9	202	—	204	88	—	85
	Douglas - - -	284	29°747	—	—	45°2	37°4	41°3	+0°7	50	3rd	30	14th	41°0	—	41°6	1°8	—	1°7	224	—	231	86	—	87
	District Value -					44°3	33°9	40°3	+0°6	53		22													
	Southport - - -	42	30°060	—	—	42°7	35°1	38°9	+0°3	52	18th	24	28th	37°5	—	39°1	1°4	—	1°5	197	—	209	83	—	88
	Manchester (City)	195	29°890	—	—	43°1	35°7	39°4	—	51	18th	20	28th	38°0	—	39°8	1°8	—	1°9	197	—	211	84	—	84
	„ (Whitworth Pk)	127	29°943	—	—	42°7	34°1	38°4	—	51	3rd	21	28th	36°4	40°1	38°3	1°5	—	1°4	187	—	203	87	82	87
7. ENG. LAND, N.W.	Darwen - - -	710	29°291	—	—	41°4	32°2	36°8	—	48	2nd, 18th	22	25th	36°5	—	37°0	1°1	—	0°9	196	—	204	89	—	91
	Aspatia - - -	254	29°752	—	—	43°2	34°1	38°7	+1°5	49	1st	24	25th	38°1	—	39°4	1°1	—	1°0	211	—	223	90	—	91
	Newton Rigg - -	559	29°408	—	—	42°1	31°9	37°0	+0°2	50	3rd	22	27th	35°2	—	37°3	0°9	—	1°0	188	—	203	91	—	92
	Stonyhurst - - -	363	29°638	—	—	42°2	33°4	37°8	+0°1	50	18th	19	28th	36°4	—	37°9	1°6	—	1°6	185	—	199	83	—	85
	Blackpool - - -	73	30°015	—	—	42°8	34°7	38°8	+0°4	50	18th	23	28th	38°8	—	38°9	1°3	—	0°9	211	—	219	90	—	93
	M'nch't'r (Prestwich)	320	29°734	—	—	42°0	32°7	37°4	-0°5	50	18th	16	28th	35°7	—	38°1	1°0	—	1°1	192	—	207	91	—	90
	Liverp'l, Bidston Obs.	197	29°879	—	—	43°2	35°7	39°5	+0°2	51	3rd, 18th	23	28th	38°1	—	39°5	1°9	—	1°7	193	—	209	84	—	86
	Llandudno - - -	21	30°084	—	—	—	37°6	—	—	—	—	26	24th	41°5	—	42°0	2°7	—	2°5	207	—	216	80	—	82
	HOLYHEAD - - -	48	30°039	+°181	—	46°1	38°9	42°5	+0°6	51	1, 2, 3rd	32	23rd, 24th	42°4	45°1	43°2	1°3	1°9	1°4	243	256	249	90	85	89
	Bettws-y-Coed - -	100	29°984	—	—	45°9	34°7	40°3	+0°2	55	1st	22	25th	38°5	—	39°7	1°5	—	1°3	203	—	218	87	—	89
8. SOUTH WALES	District Value -					43°5	34°5	39°2	-0°5	55		16													
	Llangammarch Wells	585	29°515	—	—	42°8	29°7	36°3	-0°2	50	2nd	13	25th	35°2	—	—	0°6	—	—	194	—	—	94	—	—
	PEMBROKE - - -	150	29°976	+°194	—	47°0	39°5	43°3	+0°7	52	2nd, 13th	28	23rd, 24th	43°1	44°5	44°3	2°1	2°5	2°7	233	238	233	83	81	79
	Clifton - - -	229	—	—	—	43°7	35°4	39°6	0°0	51	2nd, 18th	23	28th	—	—	—	—	—	—	—	—	—	—	—	—
	PORTLAND BILL -	23	30°149	+°170	—	46°6	39°1	42°9	+2°0	51	1, 10, 14	30	23rd, 24th	43°1	44°8	43°9	1°2	1°3	1°2	252	267	260	90	90	91
	Plymouth - - -	116	30°078	—	—	47°5	37°4	42°5	+0°4	52	11th	26	24th, 25th	41°8	45°6	43°1	1°5	2°6	1°6	239	253	249	88	81	88
	Falmouth - - -	183	30°018	+°208	—	47°2	40°6	43°9	+0°4	52	1st	31	24th	43°2	46°0	43°5	2°6	3°5	2°5	224	235	229	81	76	80
	Woolacombe - - -	79	30°073	—	—	46°8	39°4	43°1	+0°1	52	18th	28	27th	42°7	—	42°8	2°5	—	2°3	222	—	226	81	—	82
	Rousdon - - -	516	29°623	—	—	45°0	35°3	40°2	+																



CLIMATOLOGICAL STATIONS, at 7 a.m., 1 p.m. and 6 p.m. or 9 p.m. or at 7 a.m. and 6 p.m. at TELEGRAPHIC REPORTING during the Month of JANUARY, 1909.

Earth Temperature.		BRIGHT SUNSHINE.				CLOUD (0-10.)			RAIN AND OTHER FORMS OF PRECIPITATION.				WEATHER. No. of Days of										WIND.													STATIONS.
At 1 foot depth.	At 4 feet depth.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	Mean Amount.			Total Fall.	Diff. from Normal.	Most in a day.		Precipitation.	Snow.	Hail.	Thunderstorm.	Clear Sky.	Overcast.	Fog.	Ground Frost.	Wind-force 8 and above.	No. of Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.														
						I.	II.	III.			Amount.	Day.										Force 4-7.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.					
39°6	—	57	—	—	—	7°0	—	6°8	0°65	-1°62	0°14	10th	12	0	0	0	3	13	2	—	2	3	24	4	1	3	2	5	7	14	2	Reading.				
—	43°3	76	+23	29	+8	8°4	—	7°0	1°43	-1°61	0°30	14th	22	1	0	0	1	16	4	20	1	11	1	7	12	4	2	1	9	7	19	Salisbury.				
—	—	—	—	—	—	7°7	—	—	1°24	-1°24	0°28	14th, 17th	13	0	2	1	4	21	2	11	0	3	4	5	4	2	1	1	3	6	5	Brighton.				
40°8	45°7	79	—	31	—	6°5	—	—	0°85	-1°64	0°25	14th	11	0	0	0	8	16	4	13	0	9	0	3	8	1	2	3	4	6	4	Portsmouth.				
40°7	45°4	73	+17	28	+6	7°3	—	6°4	1°32	-1°41	0°42	15th	13	1	1	0	3	15	2	—	0	9	0	11	20	1	3	0	12	3	12	Eastbourne.				
—	—	—	—	—	—	7°7	7°5	7°2	1°07	-0°78	0°36	15th	15	2	3	1	0	13	7	—	0	38	0	11	13	7	3	4	12	30	13	Dunghess.				
38°9	44°5	79	+18	31	+8	6°5	—	5°8	1°16	-1°34	0°47	15th	12	1	2	1	3	10	3	16	3	15	3	5	9	7	3	1	8	17	9	Hastings.				
—	—	72	+20	28	+8	7°3	—	6°2	0°92	-1°88	0°25	14th	15	0	2	0	3	13	8	18	1	14	0	1	18	0	5	0	22	2	14	Southampton.				
—	—	81	+23	31	+9	7°4	—	—	1°09	-1°70	0°29	10th	12	0	2	0	4	14	0	—	0	11	5	11	7	4	2	2	3	21	7	Ventnor.				
39°3	44°2	65	+15	23	+6	7°3	—	6°6	0°96	-1°31	0°47	14	14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
—	44°5	60	—	24	—	8°5	—	7°0	0°70	—	0°17	7th	8	1	0	0	1	19	7	12	0	6	7	8	7	1	0	2	19	11	7	Tottenham.				
38°2	43°6	45	—	18	—	7°2	—	—	0°71	-1°26	0°16	10th	13	1	0	0	5	17	5	18	—	—	6	5	5	1	0	1	3	7	3	Camden Square.				
—	—	33	+14	13	+6	6°6	—	7°2	0°70	-1°12	0°18	10th	17	1	1	2	2	15	3	18	3	8	11	3	10	2	2	1	11	15	7	Westminster.				
—	43°3	61	+20	23	+7	7°7	—	7°2	0°77	-1°11	0°26	15th	12	2	1	2	2	17	11	16	0	12	7	4	8	4	1	2	9	20	7	Greenwich.				
38°2	—	—	—	—	—	7°8	—	7°5	1°04	-0°81	0°22	14th	16	1	0	2	2	17	14	19	0	6	16	4	7	1	2	3	10	13	6	Norwood.				
38°4	44°2	46	+4	18	+1	7°5	7°1	6°5	0°77	-1°02	0°19	10th	14	0	2	1	2	15	9	19	0	15	22	6	8	5	0	7	21	15	9	Kew.				
—	—	23	+8	9	+3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Bunhill Row				
—	—	37	—	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Plumstead.				
—	—	—	—	—	—	9°4	—	8°0	10°19	+1°86	1°24	17th	28	5	4	3	0	20	0	—	4	47	0	7	0	0	1	12	7	25	10	Laudale.				
—	—	—	—	—	—	9°1	—	8°3	6°50	+1°47	1°20	17th	25	5	5	1	0	22	0	—	3	26	8	9	1	0	0	4	13	21	6	Poltalloch.				
—	—	19	-4	8	-2	8°6	—	7°6	4°61	+0°99	0°94	17th	20	5	2	1	0	17	0	13	0	13	8	0	0	1	6	3	24	15	5	Glasgow.				
—	43°4	—	—	—	—	8°3	—	6°7	5°05	+0°45	0°87	14th	26	6	1	1	1	16	7	—	3	18	6	4	1	0	1	10	6	28	6	Rothsay.				
—	—	—	—	—	—	7°8	—	—	3°64	-0°95	0°52	18th	19	1	3	4	2	20	0	4	6	24	2	6	0	2	2	6	8	28	8	Colmonell.				
—	—	—	—	—	—	—	—	—	4°59	+0°59	0°94	18th	19	3	0	0	—	2	18	1	18	2	6	1	3	7	3	20	12	8	Dumfries.					
—	—	—	—	—	—	—	—	—	3°13	-1°52	0°30	17th	21	2	3	2	—	3	—	1	15	0	1	17	3	8	0	7	3	23	3	Cally.				
—	—	50	+1	21	+1	7°1	—	6°9	1°77	-2°23	0°50	7th	17	2	5	0	4	16	1	17	7	16	2	2	0	3	5	7	12	24	7	Douglas.				
—	—	35	-2	15	-1	8°4	—	7°8	4°01	+0°22	1°24	22	22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
37°3	41°6	52	+11	21	+4	6°4	—	7°6	2°09	-0°61	0°40	14th	19	2	6	0	1	15	5	14	6	31	3	2	1	2	12	12	8	16	6	Southport.				
37°3	43°4	15	—	6	—	—	—	—	1°82	-1°07	0°41	14th	14	3	2	1	—	—	4	12	0	4	7	1	1	5	8	11	15	11	3	Manchester (City).				
—	—	26	—	11	—	7°2	—	7°9	1°56	—	0°30	14th	15	0	0	1	3	20	2	24	0	18	22	1	0	6	6	22	17	15	4	" (Whit. Pk.)				
37°6	41°9	40	—	16	—	7°5	—	7°7	3°08	—	0°80	14th	18	4	3	2	2	17	0	21	0	23	0	1	0	0	3	16	20	16	6	Darwen.				
—	—	47	—	20	—	6°9	—	6°6	3°88	+0°99	0°57	18th	20	3	1	0	3	13	1	15	4	15	9	1	1	0	2	2	22	21	4	Aspatia.				
37°2	40°6	49	+9	21	+4	5°6	—	5°9	3°39	+0°03	0°59	13th	18	4	3	0	3	8	1	20	4	21	5	3	0	3	10	9	16	15	1	Newton Rigg.				
—	—	38	+4	16	+2	7°5	—	6°1	2°68	-1°41	0°58	14th	19	5	4	2	5	16	3	17	0	12	23	1	3	1	0	3	13	16	2	Stonyhurst.				
39°0	43°8	55	+17	23	+8	7°9	—	7°5	1°82	-0°94	0°28	14th	19	0	5	1	2	19	3	12	4	21	2	2	1	2	11	12	10	11	11	Blackpool.				
—	—	26	+5	11	+2	8°9	—	7°2	2°16	-0°93	0°48	14th	16	4	1	1	1	20	2	18	5	16	15	4	0	4	1	12	4	20	2	Manch's'r (Prest).				
—	—	69	—	28	—	5°6	—	7°7	1°41	-0°73	0°28	7th	17	4	5	1	3	12	6	—	0	18	0	1	0	7	10	12	15	13	4	Liverp'ol, Bid.Obs.				
—	—	62	+14	25	+6	7°2	—	9°3	2°16	-0°46	0°59	14th	18	1	0	0	0	21	0	—	2	3	1	2	0	4	5	5	5	36	4	Llandudno.				
—	—	—	—	—	—	6°4	6°6	6°5	2°00	-1°09	0°49	28th	16	0	2	0	1	6	0	—	8	41	6	7	2	2	1	11	25	26	13	Holyhead.				
39°8																																				



TABLE B.—SUMMARY of the OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE at additional STATIONS, JANUARY, 1909.

DISTRICT.	STATION.	Height of Gauge above M.S.L.	AIR TEMPERATURE.								Earth Temperature		Grnd Frost.	RAIN AND OTHER FORMS OF PRECIPITATION.						BRIGHT SUNSHINE.				
			Mean of		Mean of A and B.	Diff. of Mean from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.		No. of Days.	Total Fall.	Diff. from Normal.	Most in a day.		Number of Days.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	
			A	B			Max.	Day.	Min.	Day.							Amt.	Day.						
			Max.	Min.																				Hrs.
O SCOTLAND, N.	p Balta Sound	31	43°0	35°5	39°3	—	50	3rd, 4th	25	30th	—	—	—	3°82	—	0°65	10th	31	6	—	3	—		
	p Crathes	140	42°7	30°2	36°5	—	52	4th	19	13th	35°8	38°8	25	1°47	—	0°77	14th	11	63	—	28	—		
1. SCOTLAND, E.	p Stonehaven	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	61	—	27	—		
	p Balruddery	276	42°5	31°9	37°2	—	51	3rd 4th	21	12th	—	—	—	2°12	—	0°43	17th	17	45	—	20	—		
	Edinburgh	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	36	+ 5	16	+ 3		
	a West Linton	800	39°5	30°3	34°9	- 0°9	47	1, 4, 18th	20	25th	—	—	23	4°40	—	0°84	17th	20	38	—	16	—		
	a Alnwick Castle	210	43°7	32°7	38°2	+ 0°4	53	3rd	18	28th, 29th	—	—	—	1°39	- 0°72	0°30	7th	12	—	—	—	—		
	p Newcastle-on-Tyne	152	43°9	34°3	39°1	—	52	2nd, 18th	22	28th	—	—	—	0°83	- 1°03	0°16	15th	13	36	+ 9	15	+ 4		
2. ENGLAND, N.E.	p Ampleforth	349	40°3	30°8	35°6	—	51	18th	18	26th	—	—	—	0°60	—	0°17	9th	11	—	—	—	—		
	p Tealby	251	41°0	31°8	36°4	- 0°5	49	18th, 19th	21	22nd	—	—	—	0°70	- 1°01	0°32	9th	8	—	—	—	—		
	a Fulbeck	180	41°4	31°7	36°6	+ 0°4	49	2nd	18	27th	—	—	—	0°77	- 0°90	0°16	9th, 13th	10	—	—	—	—		
	a Raucby	124	42°5	31°1	36°8	—	51	2nd	20	27th, 28th	37°3	43°5	23	1°05	- 0°80	0°24	13th	13	57	—	23	—		
3. ENGLAND, E.	a Felkstone	10	42°0	33°0	37°5	- 1°0	48	14th	21	28th	—	—	—	0°86	—	0°18	7th, 10th	14	84	—	33	—		
	a Rothamsted	424	42°7	32°0	37°4	+ 0°3	51	10th	18	28th	—	—	—	0°86	- 1°35	0°17	7th	14	76	+ 28	30	+ 11		
	a Shoburness	13	42°2	33°7	38°0	- 0°3	50	11th	22	28th	—	—	—	0°60	- 0°78	0°14	10th	13	—	—	—	—		
	a Southend-on-Sea	100	42°0	34°0	38°0	—	49	3rd	22	28th	38°4	—	24	0°81	- 0°69	0°14	15th	8	82	—	32	—		
	a Harrogate	476	41°3	31°7	36°5	- 0°4	48	1, 5, 18th	13	27th	38°3	40°6	19	1°08	- 1°11	0°30	14th	13	47	—	19	—		
	a Bradford	380	40°9	32°2	36°6	—	49	2nd, 3rd	19	28th	37°1	43°3	—	2°23	—	0°52	14th	16	36	—	15	—		
	a Cheadle	646	40°1	30°9	35°5	- 1°1	48	18th	20	28th	—	—	24	1°83	- 0°76	0°43	7th	15	—	—	—	—		
	a Bawtry	65	41°4	31°4	36°4	- 0°9	54	3rd	15	26th	—	—	—	0°82	- 0°83	0°23	14th	10	—	—	—	—		
4. MIDLAND COUNTIES	a Worksop	56	42°6	31°1	36°9	- 0°4	53	3rd	16	26th	37°4	41°7	24	1°12	- 0°87	0°25	13th	13	49	+ 13	20	+ 5		
	a Mayfield (Staffs.)	374	40°5	29°7	35°1	—	49	18th	18	25th	—	—	—	1°89	—	0°37	7th	13	—	—	—	—		
	a Kingston-on-Soar	125	41°5	30°7	36°1	—	50	2nd, 18th	18	27th	39°6	—	—	0°93	—	0°28	7th	12	—	—	—	—		
	p Rugby	379	42°9	31°6	37°3	+ 0°5	52	10th	18	28th	—	—	22	1°17	—	0°25	7th	13	—	—	—	—		
	a Raunds	210	42°5	31°1	36°8	- 1°0	51	3rd	18	26th	—	—	18	0°86	—	0°27	7th	10	—	—	—	—		
	a Winslow	379	40°8	32°3	36°6	—	48	14th	17	28th	—	—	—	0°91	—	0°15	10th	15	—	—	—	—		
	a Hereford	291	42°9	32°8	37°9	- 0°4	54	10th	22	25th	—	—	24	1°01	- 1°29	0°26	15th	18	—	—	—	—		
	a Cirencester	446	41°8	31°0	36°4	- 0°9	49	10th	20	28th	—	—	18	1°26	- 1°26	0°49	15th	13	47	0	19	0		
	a Epsom	160	42°4	31°8	37°1	—	50	14th	17	29th	—	—	23	1°17	—	0°23	14th	18	—	—	—	—		
	a Wokingham	216	42°4	26°8	34°6	—	51	10th, 14th	11	29th	—	—	—	0°77	—	0°16	10th	12	—	—	—	—		
	a Maidenhead	99	42°6	32°0	37°3	—	51	14th	22	26th	—	—	24	0°76	- 1°21	0°21	10th	10	—	—	—	—		
	a Marlborough	424	42°5	31°2	36°9	- 0°6	50	2nd	18	28th	—	—	21	0°88	- 1°92	0°22	14th	15	51	+ 9	20	+ 3		
	a Bucklebury	409	41°7	32°2	37°0	—	50	10th	18	29th	—	—	23	0°70	—	0°18	10th	12	—	—	—	—		
	a Swaraton	310	42°2	32°0	37°1	- 0°3	50	14th	17	28th	—	—	—	1°01	- 1°79	0°20	10th	16	—	—	—	—		
	a Margate	85	43°2	35°2	39°2	+ 0°2	50	11th, 14th	23	28th	39°1	42°4	8	0°67	- 1°06	0°21	10th	10	67	+ 20	26	+ 7		
	Broadstairs	140	—	—	—	—	—	—	—	—	—	—	—	0°72	—	0°23	10th	13	80	—	31	—		
	Ramsgate	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	72	—	28	—		
	a Wisley	150	41°9	33°4	37°7	- 0°3	51	14th	19	29th	38°6	43°6	18	0°84	—	0°19	10th	12	49	—	19	—		
5. ENGLAND, S.E.	a Dover	421	43°7	34°0	38°9	—	50	11th	24	29th	40°0	45°3	17	0°99	—	0°46	15th	11	89	—	35	—		
	a Tunbridge Wells	281	41°8	32°5	37°2	- 0°2	48	14th	21	28th	38°0	—	20	1°16	- 1°40	0°34	14th	16	65	+ 18	25	+ 7		
	p Folkestone	121	43°5	34°5	39°0	—	49	11th, 15th	25	29th	—	—	—	0°86	- 1°53	0°29	10th	11	82	—	32	—		
	Littlestone	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	68	—	26	—		
	a Bexhill	27	44°5	36°0	40°3	—	50	11th	28	29th, 31st	41°5	—	18	1°06	—	0°47	15th	12	74	—	29	—		
	Hove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	79	—	31	—		
	p Lewes	58	43°3	33°5	38°7	—	50	11th	17	28th	—	—	—	1°35	—	0°33	10th	24	—	—	—	—		
	a Worthing	36	44°0	34°8	39°4	+ 0°5	50	11th	26	28th, 29th	39°0	44°9	15	1°07	- 1°39	0°29	14th	15	82	—	32	—		
	a Bognor	20	44°2	35°6	39°9	—	51	11th	26	28th	—	—	14	0°92	—	0°29	14th	17	83	—	32	—		
	Westbourne	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	73	—	28	—		
	a Totland Bay	140	45°1	36°9	41°0	+ 1°1	52	1st	25	28th	—	—	11	0°91	- 1°46	0°19	15th	15	78	—	30	—		
	a Sandown	—	47°3	36°7	42°0	—	55	11th	29	27th	—	—	—	1°24	—	0°30	15th	16	81	—	31	—		
6. SCOTLAND, W.	p Bournemouth	145	45°1	35°2	40°2	—	52	10th, 11th	21	28th	40°2	43°5	—	0°99	—	0°20	10th, 15th	13	73	—	28	—		
	p Oban	20	45°7	37°0	41°4	—	51	2nd	30	16th	—	—	1	6°91	—	0°96	16th	24	17	—	7	—		
	a Thorntonhall (Lanarkshire)	440	41°9	33°9	37°9	—	49	17th	28	16, 25, 31st	—	—	—	5°59	—	1°11	17th	19	34	—	15	—		
	a Kilmarnock	90	44°0	34°8	39°4	0°0	51	17th	27	10th	—	—	—	4°72	—	0°82	13th	21	34	—	15	—		
	a Carnforth	174	42°8	33°2	38°0	—	50	18th	23	28th	—	—	16	2°26	—	0°45	14th	19						

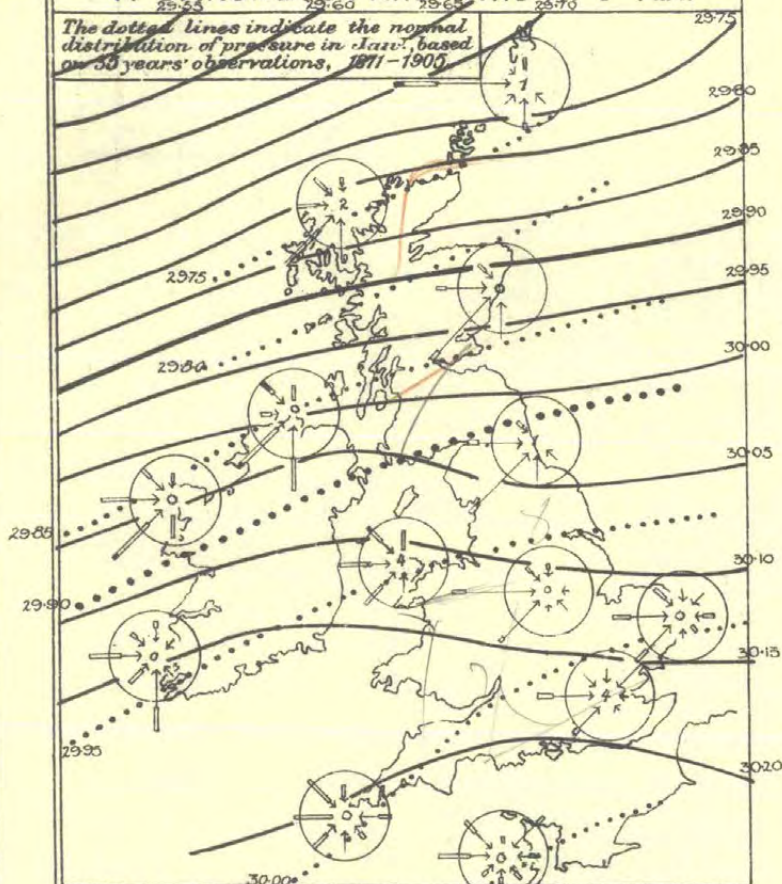


# MONTHLY WEATHER CHARTS, JANY, 1909.

XIII.

## 1. BAROMETER AND WIND AT 7 A.M.

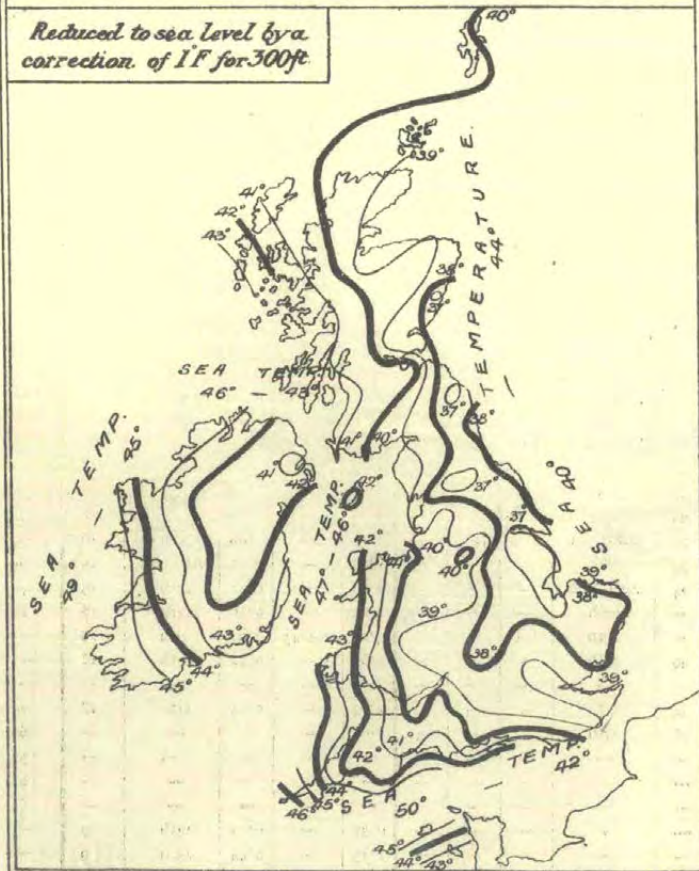
The dotted lines indicate the normal distribution of pressure in Jan., based on 55 years' observations, 1811-1906.



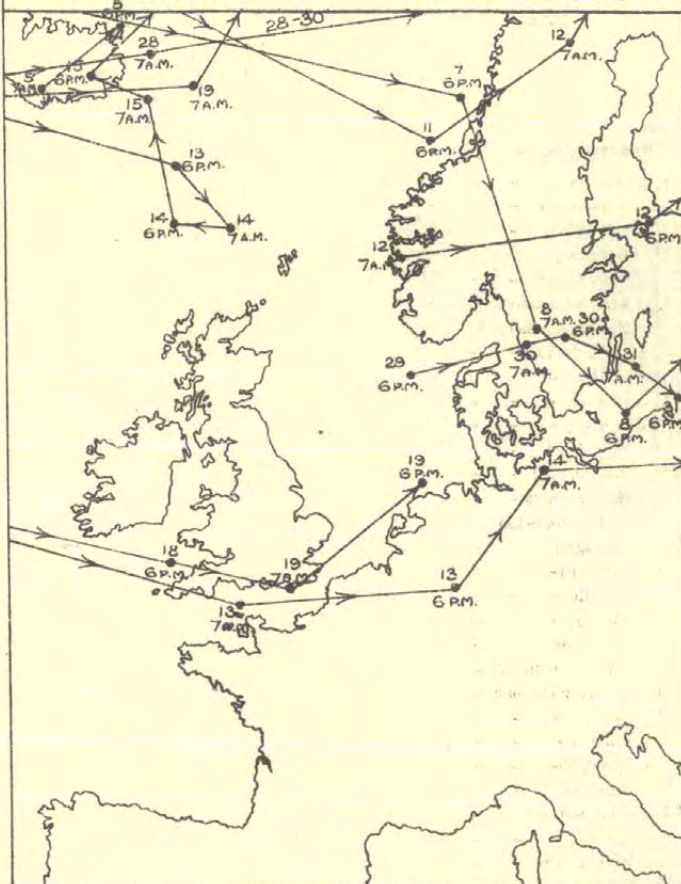
WIND ROSES. The arrows fly with the wind and indicate frequency and force, thus:   
 Light moderate strong   
 30 Obs. 1 inch 30

## 3. DISTRIBUTION OF MEAN TEMPERATURE.

Reduced to sea level by a correction of 1°F for 300ft.



## 2. MOVEMENTS OF DEPRESSIONS.

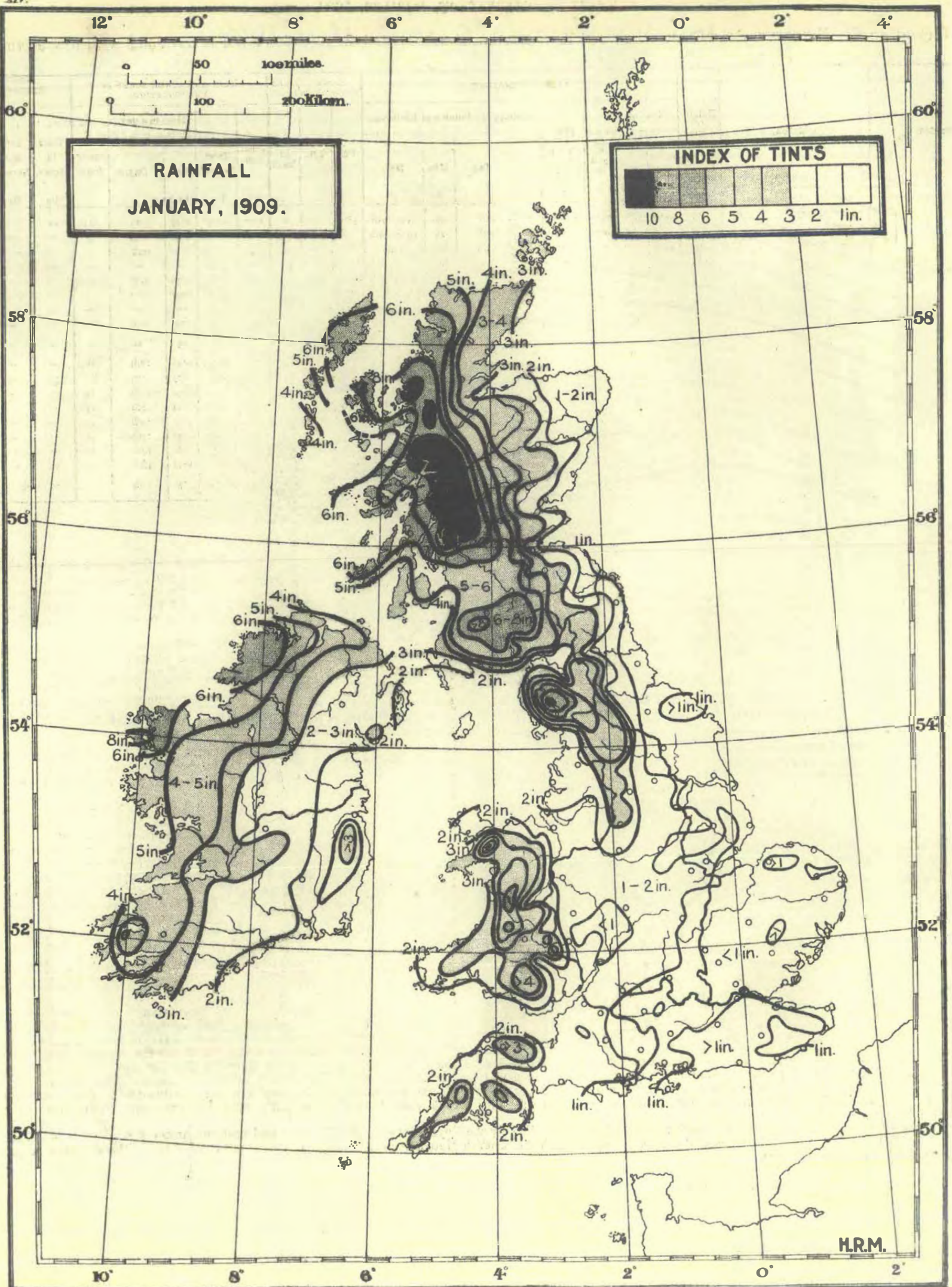


## 4. BRIGHT SUNSHINE, IN HOURS.

Isohels are shown for 20, 50, and 80 hours.







Scale 1 : 5,000,000.



TABLE B (continued).—SUMMARY of the OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE at additional STATIONS, JANUARY, 1909.

DISTRICT.	STATION.	Height of Gauge above M.S.L.  Ft.	AIR TEMPERATURE.								Earth Temperature		Gr'd Frost.  No. of Days.	RAIN AND OTHER FORMS OF PRECIPITATION.					BRIGHT SUNSHINE.			
			Mean of		Mean of A and B.	Diff. of Mean from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.		Total Fall.	Diff. from Normal.	Most in a day.		Num-ber of Days.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.
			A	B			Max.	Day.	Min.	Day.						Amt.	Day.					
			Max.	Min.																		
8. ENGLAND, S.W. (continued)	a Shaftesbury - - - ft	722	42°0	33°9	38°0	+ 0°6	50	2nd	26	24th, 27th	38°9	—	—	1°20	- 1°58	0°24	10th	14	—	—	—	—
	a Arlington - - -	613	43°9	34°6	39°3	- 0°6	50	18th	26	25, 27, 28th	—	—	—	3°62	- 0°86	0°86	10th	20	—	—	—	—
	a Culmpton - - - ft	202	44°7	34°2	39°5	- 0°3	51	14th	23	28th	—	—	17	1°77	- 1°49	0°30	10th	16	43	- 2	17	0
	Torquay - - -	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	76	+ 17	29	+ 6
	a Weymouth - - -	21	46°0	37°0	41°5	—	52	17th	28	27th	—	—	—	0°80	—	0°18	12th	11	69	—	27	—
	a Newquay - - -	100	47°4	40°3	43°9	+ 0°2	52	1, 14, 18th	27	24th	45°1	—	—	2°24	- 1°10	0°34	12th	17	87	+ 34	34	+ 14
	Salcombe - - -	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	81	—	31	—
a Penzance - - -	54	49°2	41°8	45°5	—	53	29th	30	24th	—	—	—	2°93	—	0°55	12th	19	83	—	32	—	
9. IRELAND, N.	— - - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
10. IRELAND, S.	p Dublin (Glasnevin) - -	67	46°8	36°0	41°4	+ 0°9	54	3rd	29	23rd	—	—	20	1°35	- 0°93	0°28	18th	17	—	—	—	—
	a Kingstown - - -	42	47°4	39°5	43°5	—	55	3rd, 17th	32	16th	—	—	—	0°78	—	0°15	5th	13	55	—	22	—
	p Clongowes Wood College	245	45°6	34°6	40°1	—	52	3rd	27	23rd	—	—	—	1°58	—	0°32	18th	17	—	—	—	—
	p Newcastle (Co. Wicklow)	256	46°4	38°1	42°3	—	53	3rd	31	16th	—	—	—	1°09	—	0°24	18th	14	—	—	—	—
	a Kilkenny - - -	212	46°5	36°0	41°3	+ 0°6	53	2nd	25	24th	—	—	—	1°77	- 1°62	0°37	16th	17	—	—	—	—
	a Cahir - - - ft	199	47°1	37°4	42°3	+ 1°0	52	2nd	28	23rd	—	—	—	3°07	—	0°45	15th	26	—	—	—	—
	a Foynes - - -	108	48°3	39°5	43°9	+ 2°5	54	2nd	31	16th	—	—	—	4°00	+ 0°34	0°61	14th	24	—	—	—	—
a Ballinacurra - - -	34	48°7	38°0	43°4	—	54	2nd	30	19th	—	—	—	1°42	—	0°28	28th	14	50	—	20	—	
11. ENGLISH CHANNEL	a Guernsey (Villa Carey) -	180	48°3	40°8	44°6	+ 1°3	53	1st, 10th	31	28th	—	—	—	2°11	- 1°48	0°70	12th	14	65	+ 13	25	+ 5

## NOTES ON THE STATISTICAL TABLES.

**Hours of Observation.**—The following types are used to indicate the hours of observation at Stations included in Table A:—Clarendon, Normal Climatological Stations—I, 9 a.m. [II, 3 p.m.], III, 9 p.m. Black Capitals, telegraphic reporting normal climatological stations—I, 7 a.m., II, 1 p.m., III, 9 p.m. Roman, telegraphic reporting stations—I, 7 a.m., [II, 1 p.m.], III, 6 p.m. Italic, auxiliary climatological stations—I, 9 a.m. only (9 a.m. and 6 p.m. at Ventnor). The summaries are based on observations made three times a day wherever the data are available, except in the case of the element pressure (see below). At stations shown in clarendon type the maximum and minimum temperatures are read at 9 p.m.; at the remaining stations these observations are made at I. In Table B the letters *a* and *p* indicate whether the readings of the maximum and minimum are taken at the hours of morning or evening observation.

**Barometer.**—The correction for latitude has not been applied to the readings quoted in the Tables. It is applied to the readings at sea level from which the chart showing the mean monthly distribution of pressure is prepared. The values given in the tables are for station level. The values printed are (1) for stations shown in clarendon type, the means of observations at 9 a.m. and 9 p.m.; (2) for stations shown in Capitals, the means of observations at 7 a.m., 1 p.m., 9 p.m.; (3) for stations shown in Roman type, the means of observations at 7 a.m. and 6 p.m.; (4) for stations shown in italic type, the means of observations at 9 a.m. The column headed C gives the correction for diurnal variation required to reduce the means of observations at fixed hours to true diurnal means, based on the analysis of the values obtained at the four observatories for the period 1871-1905. The difference from normal is based upon the 7 a.m. readings only, except in the cases of Kew, Greenwich, Aberdeen, Valencia and Falmouth (see below).

**Rainfall.**—The amounts are those for the 24 hours commenced at the time of morning observation.

**Weather Phenomena.**—The number of days of Rain, Snow, Hail, Thunderstorm, Fog, Ground Frost, and Gale, are counted irrespective of the hours at which the phenomena occur. Except in the cases of rainfall (see above) and ground frost the day is the civil day. A day is reckoned as a day of "clear sky," if the mean of the estimates of the "amount of cloud" at the fixed hours of observation is less than 2, and as an "overcast" day if the mean is greater than 8. Days of Ground Frost are days on which the minimum thermometer on the grass falls to 30° or below; the "day" is taken as the 24 hours ending at 9 a.m.

**Wind Summaries.**—The results given under wind direction, and the number of observations of calms and of fresh or strong wind, are based on the observations at fixed hours. At Deerness, Aberdeen, Valencia, Falmouth, Kew, Glasgow, Stonyhurst and Armagh the wind observations are based on the records of a standard Robinson anemometer (factor 2·2). Velocities of between 13 and 38 miles in the hour have been entered as "fresh or strong winds," velocities of 39 miles in the hour, or above, as gales.

**Averages.**—The normal averages used for stations are—Pressure, Temperature, and Rainfall for the 35 years 1871-1905; Bright Sunshine for the 25 years 1881-1905. The values are published in Appendix III. to the Weekly Weather Report for 1906. For the Royal Observatory, Greenwich, and the Radcliffe Observatory, Oxford, averages for longer periods are used. See Notes in Monthly Weather Reports for 1908. Monthly averages of pressure at telegraphic reporting stations for the epoch 8 a.m. are published in Appendix I. to the Daily Weather Report. In order to render these averages comparable with the data for the present month, a correction, based on the results for the four observatories as published in "Hourly Readings at the Observatories under the Meteorological Council," has been applied to each of them before the figures given in the column headed "Barometer—Difference from Normal" were computed.

**Aberdeen, Falmouth, Kew, Valencia, Oxford, Greenwich.**—The figures quoted in the second line assigned to these observatories in the columns for Barometer and Mean Temperature are the true daily means computed from the hourly tabulations of the traces of the photographic recording instruments. For Kew, Falmouth, Aberdeen and Valencia the divergences of the means of the readings at 9 a.m. and 9 p.m. from their normal averages are also given.

**Royal Observatory, Greenwich.**—The earth temperatures are taken at a depth of 3 ft. 2 ins. The daily rainfall amounts are those for the 24 hours comprising the civil day. The number of days in the month which were persistently overcast from midnight to midnight was 1, the number of persistently cloudless days was 0, the number of persistently foggy days was 2.

**¶ Mean Values for Districts.**—The stations used in the Weekly Weather Report for the computation of "district values" of rainfall and temperature are distinguished by the sign ¶, those used for the computation of "district values of bright sunshine" by the sign §. These stations are distributed between Tables A and B. The monthly mean values for districts given in this Report for maximum, minimum and mean temperature, duration of bright sunshine, number of rain days and amount of rainfall, are computed from the data for these "representative" stations. The mean temperature for districts is computed in the manner shown in the preface to this and previous volumes of the Weekly Weather Report. The monthly mean values for districts for "amount of cloud" are computed from the data for all stations included in Table A. The extreme values of the various elements in each district are printed in distinctive type. In the lines devoted to district values, the columns referring to absolute highest and absolute lowest temperature and the maximum amount of rainfall in a day contain the extreme values for the district at any station included in either table of the Report. The averages for districts with which the current values are compared are for the 25 years 1881-1905, as in the case of the corresponding values published in the Weekly Weather Report.

**Meteorological Societies.**—Information for stations marked ¶ is supplied by the Royal Meteorological Society, and that for stations marked § is supplied by the Scottish Meteorological Society. Stations marked S are in connexion with the Scottish Meteorological Society and those marked M with the Royal Meteorological Society, as well as with the Meteorological Office.







# MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

(Supplement to the Weekly Weather Report.)

SUMMARY OF OBSERVATIONS COMPILED FROM THE RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS IN THE UNITED KINGDOM, WITH  
A CHART OF RAINFALL CONTRIBUTED BY THE BRITISH RAINFALL ORGANISATION.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE,

AND PUBLISHED FOR H.M. STATIONERY OFFICE BY WYMAN AND SONS, LTD., FETTER LANE, E.C.; OR OLIVER AND BOYD, EDINBURGH; OR E. PONSONBY,  
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THIRTY-FOURTH YEAR. } No. II.  
Vol. XXVI. (New Series)  
Weekly Weather Report.

FEBRUARY, 1909.

[Price 6d.]

## SUMMARY OF OBSERVATIONS.

**Pressure, Winds and Weather.**—The distribution of atmospheric pressure during the month under review was somewhat abnormal, not only over the British Isles, but over surrounding regions also. Disturbances were few in number and their movements were irregular and uncertain, the extremes of pressure being found in the neighbourhood of the Gulf of Bothnia, where the barometer descended to 28·7 ins. on the 15th, and rose to 30·8 ins. some ten days later. As a general rule pressure was at a moderately high level over and in the immediate vicinity of the United Kingdom, the anticyclonic systems, however, continually shifting to and fro, sometimes found out on the Atlantic, at others centred over various parts of Western, Central, or Northern Europe. The central space of only one of these high pressure areas visited this country. It appeared originally on the evening of the 9th, as two separate Arctic systems, one between Iceland and Greenland, the other in the White Sea region. On the 11th they coalesced over Southern Norway, and then moved slowly south-westward across Scotland and Ireland, meanwhile increasing considerably in intensity, so that the barometer rose to 30·6 ins. and upwards all over Ireland and Wales, and on the morning of the 14th it touched 30·69 ins. at Roche's Point, the highest reading reported during the month in these islands. There were few other occasions when the mercury, under the influence of Continental high pressure systems, rose as high as 30·5 ins., but in the night of the 25th an anticyclone over Northern Europe gave readings above 30·6 ins. in Scotland, 30·66 ins. at Sumburgh Head. Reports from steamships supplied by wireless telegraphy show that these anomalous high pressure conditions were also in the ascendant on the eastern side of the Atlantic; the few disturbances encountered were of an unimportant character, and hardly any of them appear to have advanced to the eastward of the 20th meridian. Under these circumstances the mean distribution of pressure differed rather considerably from the normal. Throughout the United Kingdom the barometer values were well above the average, by more than 0·1 in. at Jersey and Dungeness, and by more than 0·2 in. at the great majority of stations, as much as 0·26 in. at Stornoway. This resulted in reducing the mean gradient between Jersey and Sumburgh Head from 0·26 in. to 0·13 in. Over the southern half of England the mean isobar for 30·1 ins. forms a cloud curve, and as far north as Shetland the readings are above 30 ins., diminishing northward and westward to below 29·65 ins. in the south-west of Iceland. In the absence of great and deep depressions the absolute range of pressure was very moderate, amounting to an inch on our south-western coasts, from Valencia to Jersey, and exceeding 1½ in. over North Britain and the North of Ireland, nearly 1·6 in. in Shetland. With pressure differing so markedly from the normal the winds varied greatly in direction all over the country, Southerly to Westerly and North-Westerly being the most frequent in the northern and north-western districts, and North-Easterly to South-Easterly over the more southern districts, so that an anticyclonic circulation is found round the space of maximum barometer values. As may be inferred from the general pressure conditions the month was as a whole of a quiet type, seldom interrupted by winds of any great strength.

The centres of the low pressure systems observed during the month were in nearly all cases situated far away from our coasts—about Iceland, Northern and Eastern Europe, or on the Mediterranean. A depression which passed from the Iceland region across to Scandinavia in the early days of the month occasioned an increase of the Westerly current to a strong or high wind in many parts of the United Kingdom, but the most striking feature associated with the passage of the system was the very heavy rain which fell in a few localities:—On the 2nd, 1 in. at Oban, 1·1 in. at Fort Augustus and Poltalloch, 1·3 in. at Thorntonhall, 1·4 in. at Graythwaite, 1·7 in. at Fort William, 1·8 in. at Kilmarnock, 2·6 ins. at Glencarron, and 3 ins. at Kinlochewe and Laudale; on the 3rd, 1 in. at Lancaster, 1·1 in. at Burnley, Kirkby Lonsdale and Mallaranny, 1·2 in. at Uldale, 2 ins. at Stonyhurst and Graythwaite, and 2·5 ins. at Gruline (Mull); on the 4th, 1·3 in. at Malin Head, and 1·1 in. at Marchmont. Nearly all these stations are in the north-western quarter of the country—other districts were practically unaffected. In the Uldale portion of Cumberland the heavy rainfall of the 3rd resulted in a great flood on the following day.

In the evening of the 4th there were some indications of the existence of a disturbance at some distance beyond our north-western coasts, and subsequent observations showed it to be a very rapidly moving low pressure system. By the morning of the 5th its centre had already crossed the country, and was situated off the Yorkshire coast. Continuing its swift eastward course it was disappearing across the Crimea by the evening of the 6th. It was of only moderate depth, 29½ ins. in the north-east of England on the morning of the 5th, but it produced a strong or high North-Westerly to Northerly wind in many districts, a gale at Holyhead and over the inland

counties of England, a strong gale at Yarmouth, and a whole gale at Spurn Head. At Southport the anemometer registered a mean hourly velocity of 48 miles, and at Fleetwood 51 miles, while at Gorleston gusts at the rate of 60 miles per hour were recorded. An inch of rain fell at Alnwick Castle.

Shallow local disturbances, secondaries to a main system near Iceland, caused rather heavy local rains in the south-west of Ireland and the west of Scotland between the 6th and the 9th—on the 6th 1 in. at Cahirciveen and Valencia Island, and 1·1 in. at Lickeen; on the 7th, 1·4 in. at Cahirciveen and Caragh Lake, and 1·7 in. at Valencia Island; on the 8th, 1·5 in. at Laudale; and on the 9th 1·8 in. at Gruline.

On the evening of the 9th the Iceland disturbance began to spread in a south-easterly direction, and by the morning of the 10th its central space extended down the east coast of Britain, subsequently passing down to France and on to the Mediterranean. Strong to high Westerly to Northerly winds were felt in many districts, but only in a few isolated neighbourhoods was the force of a gale reached, and with the exception of 1·1 in. of rain at Clacton-on-Sea the precipitation presented no unusual features.

These disturbances, however, were of such short duration that they were of minor importance in their influence upon the character of the month, which was determined in the main by the decided predominance of anticyclonic conditions. Apart from the heavy local rains to which reference has been made, the period was very dry in nearly all parts of the Kingdom. In many places the rainless weather which set in about January 19th or 20th was maintained unbroken through the first seven or eight days of February. Then there were some trivial showers on one or two days, followed by another rainless spell of from fourteen to eighteen consecutive days from about the 10th or 12th. At Cuckfield (Sussex) rain was measured on one day only during the month; at Dursley (Gloucestershire) on two days, and at a number of other places on three or four days. Quite at the close of the month snow was setting in. With the prevalent dryness there was much fine bright weather. This was particularly noticeable over England during the seven days, 18th to 24th, when the duration of bright sunshine was abnormally large, numerous localities aggregating more than 50 hours, some of the Channel stations exceeding 60 hours, up to 63 at Bournemouth, 64 at Worthing, and over 65 at Jersey and Hastings, these last being equal to 90 per cent. of the possible duration—a very exceptional record for the time of year. Notwithstanding the dryness and brightness the weather was almost continuously cold, there being very few instances of afternoon temperatures above 55°, nearly all on the 4th, 58° at Cambridge and Epsom, and 59° at Killarney. From the middle of the month low temperatures ruled persistently, shade minima below 25° being common, and on the 23rd, 15° was registered at Cirencester, Maidenhead, and Woburn, 14° at Llangammarch Wells and Marlborough, 11° at Raunds, and 7° at Wokingham. Thunderstorms were almost entirely absent.

Fog was rarely reported inland, and even along the coasts it was less frequent than usual, but between the 21st and 26th many places on the coasts of Ireland were visited.

The temperature of the sea-water along our shores showed a further decline, as compared with January, in most localities, but off the north-west of Ireland and the north-east of Britain a recovery had set in, the improvement amounting to a degree in places. Nearly everywhere the water was warmer than the air on shore, to the extent of 3° or 4° in several localities, 6° at Plymouth and Wick.

Aurora was witnessed at Deerness on the nights of the 22nd and 23rd. A remarkable meteor was seen over Southern England on the evening of the 22nd, moving slowly from East to West, leaving a luminous streak which remained visible for the exceptionally long period of more than two hours.

**Rainfall.**—Practically all over the country the precipitation, in the form of rain, hail, or snow, was below the normal, the deficiency being over 2 ins. at several western stations, 3·1 ins. at Arlington, and 3·5 ins. at Fort William. At Gruline 8 ins. fell, and at Laudale 6½ ins., but there were very few other aggregates of as much as 5 ins. As a general rule the totals were less than an inch, in a large proportion of cases less than half-an-inch, only 0·24 in. at Cambridge, 0·22 in. at Brandon (Suffolk), and 0·12 in. at Cuckfield. Precipitation was measured on 21 days at Balta Sound and Caragh Lake, and on 20 days at Wick, but at the great majority of stations on less than ten days.

**Bright Sunshine.**—Over Ireland, the greater part of Scotland and the north-east of England there was a deficiency of bright sunshine, while over the rest of England there was a considerable excess, Markree Castle showing a loss of 32 hours, against a gain of 51 hours at Eastbourne, and 52 hours at Plymouth. The aggregate totals ranged from 30 hours (11 per cent. of the possible duration) at Markree Castle, and 35 hours (13 per cent.) at Newcastle-on-Tyne, to 136 hours (49 per cent.) at Salcombe, 137 hours (50 per cent.) at Worthing, and 140 hours (51 per cent.) at Rousdon.



TABLE A.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at 9 a.m., 3 p.m. and 9 p.m. at NORMAL STATIONS in the BRITISH ISLANDS

DISTRICT.	STATION.	Height of Barometer cistern above M.S.L.	BAROMETER.			AIR TEMPERATURE.								HYGROMETER.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
			Mean at 32° F. at Station Level and Lat.	Diff. from Normal.	C. for Diurnal Range.	Mean of		Mean of A and B.	Diff. from Normal.	Absolute Maximum and Minimum.				Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
						A	B			Max.	Day.	Min.	Day.	Dry Bulb.			Dep. of Wet.			Vap. Pressure.			Humidity.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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for notes see p. XXV.

NOTE.—The Sunshine Values entered to Woburn are recorded at Aspley Guise.



CLIMATOLOGICAL STATIONS, at 7 a.m., 1 p.m. and 6 p.m. or 9 p.m. or at 7 a.m. and 6 p.m. at TELEGRAPHIC REPORTING during the month of FEBRUARY, 1909.

Earth Temperature.		BRIGHT SUNSHINE.				CLOUD (0-10.)			RAIN AND OTHER FORMS OF PRECIPITATION.				WEATHER. No. of Days of										WIND.								STATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
At 1 foot depth.	At 4 feet depth.	Total in Hrs.	Diff. from Normal.	Per Cent.	Diff. from Normal.	Mean Amount.			Total Fall.	Diff. from Normal.	Most in a day.		Precipitation.	Snow.	Hail.	Thunderstorm.	Clear Sky.	Overcast.	Fog.	Ground Frost.	Wind force 8 and above.	No. of Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
						I.	II.	III.			Amount.	Day.										Forces 4-7.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.		N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
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TABLE A. (continued).—Giving a Summary of the METEOROLOGICAL OBSERVATIONS made at 9 a.m., 3 p.m. and 9 p.m. at NORMAL STATIONS in the BRITISH ISLANDS

DISTRICT.	STATION.	Height of Barometer cistern above M.S.L.	BAROMETER.			AIR TEMPERATURE.								HYGROMETER.											
			Mean at 32° F. at Station Level and Lat.	Diff. from Normal.	Cor. for Diurnal Range.	Mean of		Mean of A and B.	Diff. from Normal.	Absolute Maximum and Minimum.				Observations at 9 a.m., 3 p.m. and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.											
						A	B			Max.	Day.	Min.	Day.	Dry Bulb.			Dep. of Wet.			Vap. Pressure.			Humidity.		
														I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
			Ins.	Ins.		Max.	Min.			Max.	Day.	Min.	Day.	I.	II.	III.	I.	II.	III.	I.	II.	III.	%	%	%
5. ENGLAND, S.E.	Reading -	264	29°840	—	—	43°1	28°9	36°0	—	56	4th	18	23rd	33°6	—	34°5	0°9	—	1°1	1°174	—	1°178	90	—	88
	Salisbury -	186	29°944	—	—	45°0	29°2	37°1	-2°2	55	4th	19	23rd	34°6	—	34°4	1°3	—	1°2	1°175	—	1°175	87	—	87
	Brighton -	48	30°081	—	—	43°4	32°9	38°2	-2°4	52	15th	27	24th	37°7	—	—	2°3	—	—	1°183	—	—	80	—	—
	Portsmouth -	18	30°135	—	—	44°6	32°9	38°8	-1°8	53	4th	24	23rd	37°8	—	—	2°1	—	—	1°138	—	—	83	—	—
	Eastbourne -	36	30°090	—	—	43°7	33°0	38°4	-2°6	51	4th	26	23rd	38°3	—	37°6	2°0	—	1°9	1°195	—	1°192	82	—	84
	Dungeness -	21	30°061	+1°08	+0°04	42°2	30°0	36°1	-3°9	50	4th	20	23rd, 24th	35°6	41°3	38°6	1°3	2°5	1°7	1°185	2°09	1°201	88	81	86
	Hastings -	174	29°939	—	—	42°1	33°6	37°9	-2°2	53	4th	28	28th	37°2	—	37°2	2°0	—	1°9	1°184	—	1°185	83	—	83
	Southampton -	84	30°065	—	—	44°8	32°3	38°6	-2°6	56	4th	24	23rd	37°5	—	37°4	2°0	—	1°9	1°189	—	1°189	83	—	83
	Ventnor -	80	30°036	—	—	45°1	35°2	40°2	-2°0	53	15th	29	15th	39°1	—	—	2°5	—	—	1°191	—	—	80	—	—
	District Value -					43°1	31°3	37°2	-2°7	58		7													
LONDON -	Tottenham -	55	30°069	—	—	43°2	31°4	37°3	-2°5	56	4th	21	23rd	35°9	—	26°0	1°1	—	1°0	1°193	—	1°195	89	—	90
	Camden Square -	123	30°009	—	—	43°6	30°3	37°0	-3°0	56	4th	21	23rd	35°7	—	36°9	1°2	—	1°5	1°188	—	1°191	88	—	85
	Westminster -	54	30°065	+1°39	+0°04	44°2	31°8	38°0	-2°4	56	4th	23	23rd, 24th	35°1	—	40°2	1°0	—	2°8	1°185	—	1°194	90	—	78
	Greenwich -	159	29°965	—	—	43°5	30°9	37°2	-2°6	56	4th	19	23rd	35°6	—	35°6	1°7	—	1°8	1°177	—	1°175	84	—	83
	29°958							36°9	-2°6																
	Norwood -	235	29°907	—	—	43°0	31°5	37°3	-2°6	55	4th	22	23rd	35°4	—	36°0	1°8	—	1°9	1°172	—	1°175	83	—	83
	Kew -	34	30°114	+1°50	—	43°6	31°6	37°6	-2°4	55	4th	21	20th	35°8	42°7	36°7	2°2	5°1	2°6	1°170	1°178	1°170	81	65	78
	Bunhill Row -		30°106	+1°50	—			37°3	-2°6																
	Plumstead -																								
	District Value -																								
6. SCOTLAND, W.	Laudale -	25	30°055	—	—	44°7	35°8	40°3	+0°4	52	2nd	25	13th	41°4	—	40°2	1°4	—	1°3	1°236	—	1°227	89	—	90
	Poltalloch -	135	29°959	—	—	44°2	34°4	39°3	+0°1	50	2nd, 3rd	27	27th	38°3	—	38°3	2°1	—	2°2	1°191	—	1°189	83	—	82
	Glasgow -	184	29°901	—	—	43°6	36°0	39°8	+0°8	51	3rd, 21st	30	25th	38°5	—	39°7	2°2	—	2°3	1°193	—	1°201	81	—	81
	Rothsay -	76	30°022	—	—	45°3	36°6	41°0	+1°2	52	3rd	29	27th	39°9	—	39°9	2°3	—	2°3	1°201	—	1°201	82	—	82
	Colmonell -	140	29°959	—	—	44°6	34°9	39°8	+0°3	53	21st	21	13th	38°0	—	—	1°2	—	—	1°204	—	—	89	—	—
	Dumfries -	80	30°074	—	—	44°3	33°1	38°7	-0°5	55	21st	25	7th	37°5	—	40°3	2°2	—	2°6	1°182	—	1°199	81	—	80
	Cally, Gatehouse -	120				44°6	33°9	39°3	+0°4	52	16th	26	13th, 25th	38°0	—	37°8	1°4	—	1°5	1°201	—	1°198	88	—	88
	Douglas -	284	29°816	—	—	44°9	36°6	40°8	+0°1	51	3rd, 4th	28	13th	40°2	—	40°7	1°4	—	1°6	1°222	—	1°225	88	—	87
	District Value -					44°5	35°0	39°8	+0°8	55		21													
	District Value -																								
7. ENGLAND, N.W.	Southport -	42	30°101	—	—	43°1	33°3	38°2	-1°4	52	22nd	25	25th	36°7	—	37°5	1°5	—	1°5	1°189	—	1°195	87	—	87
	Manchester (City) -	195	29°927	—	—	43°4	34°7	39°1	—	53	4th	30	28th	37°5	—	38°9	2°0	—	2°3	1°188	—	1°196	83	—	82
	„ (Whitworth Pk) -	127	29°976	—	—	43°7	33°4	38°6	—	53	4th	27	23rd	36°5	41°3	37°9	1°8	—	2°1	1°183	—	1°188	83	76	81
	Darwen -	710	29°332	—	—	41°0	31°0	36°0	—	50	4th	26	25th	36°0	—	36°0	1°4	—	1°5	1°190	—	1°186	87	—	86
	Aspatria -	254	29°835	—	—	43°7	33°9	38°8	+0°6	55	21st	25	13th	37°0	—	37°7	1°2	—	1°2	1°199	—	1°204	89	—	89
	Newton Rigg -	559	29°480	—	—	42°5	31°2	36°9	-0°2	53	22nd	22	13th	34°3	—	36°3	0°9	—	1°2	1°180	—	1°192	90	—	90
	Stonyhurst -	363	29°741	—	—	42°1	32°5	37°3	-1°4	48	22nd	27	25th	36°1	—	37°5	2°1	—	2°4	1°175	—	1°182	81	—	79
	Blackpool -	78	30°059	—	—	43°0	32°8	37°9	-1°4	51	22nd	22	25th	38°1	—	37°6	1°5	—	1°4	1°200	—	1°198	87	—	88
	M'nch't'r (Prestwich) -	820	29°774	—	—	42°8	31°9	37°4	-1°3	52	22nd	28	16, 20, 25	36°0	—	37°5	0°9	—	1°4	1°195	—	1°197	92	—	88
	Liverpl', Bidston Obs. -	197	29°914	—	—	42°9	34°2	38°6	-1°4	54	4th	23	25th	37°1	—	38°3	2°0	—	2°0	1°183	—	1°192	83	—	83
8. NORTH WALES	Llandudno -	21	30°113	—	—	—	36°1	—	—	—	—	27	25th	40°6	—	41°0	2°7	—	2°7	1°200	—	1°202	79	—	79
	HOLYHEAD -	48	30°072	+2°08	—	45°5	37°7	41°6	-0°2	53	21st	32	13th	41°3	44°6	42°1	1°1	2°3	1°7	1°236	2°43	1°232	92	32	87
	Bettws-y-Coed -	100	30°007	—	—	45°9	32°3	39°1	-2°3	57	21st, 22nd	22	14th, 25th	38°4	—	37°4	1°9	—	1°4	1°195	—	1°196	85	—	88
	District Value -					43°6	33°2	38°4	-1°1	57		22													
	Llangammarch Wells -	586	29°497	—	—	43°8	27°1	35°5	-4°0	54	4th	14	25th	33°9	—	—	1°1	—	—	1°173	—	—	88	—	—
	PEMBROKE -	150	29°960	+1°15	—	45°8	37°3	41°6	-0°8	52	3rd	26	14th	40°6	43°6	41°2	2°2	3°2	2°5	1°269	2°17	1°209	83	76	81
	Clifton -	229	—	—	—	43°9	32°2	38°1	-2°4	51	3, 4, 21	25	14th, 23rd	—	—	—	—	—	—	—	—	—	—	—	—
	PORTLAND BILL -	23	30°103	+1°35	—	44°4	36°4	40°4	-2°0	50	3, 5, 15	28	25th	39°7	43°3	41°1	1°1	2°2	1°3	1°222	2°33	1°230	91	83	89
	Plymouth -	116	30°026	—	—	46°4	35°9	41°2	-1°5	53	3rd, 4th	27	14th	40°2	44°4	40°3	2°0	3°2	2°0	1°212	2°29	1°214	83	77	84
	Falmouth -	183	29°967	+1°13	—	45°6	38°8	42°2	-1°5																



CLIMATOLOGICAL STATIONS, at 7 a.m., 1 p.m. and 6 p.m. or 9 p.m. or at 7 a.m. and 6 p.m. at TELEGRAPHIC REPORTING during the Month of FEBRUARY, 1909.

Earth Temperature.		BRIGHT SUNSHINE.				CLOUD (0-10.)			RAIN AND OTHER FORMS OF PRECIPITATION.				WEATHER.										WIND.										STATIONS.	
At 1 foot depth.	At 4 feet depth.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	Mean Amount.			Total Fall.	Diff. from Normal.	Most in a day.		Precipitation.	Snow.	Hail.	Thunderstorm.	Clear Sky.	Overcast.	Fog.	Ground Frost.	Wind force 8 and above.	No. of Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.												
						I.	II.	III.			Amount.	Day.										Force 4-7.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.			
37.5	—	99	—	36	—	5.2	—	4.5	0.30	-1.50	0.13	10th	2	5	0	0	8	7	0	—	0	5	14	2	8	7	1	3	1	15	5	Reading.		
—	40.0	117	+ 41	42	+15	6.1	—	5.0	0.63	-1.94	0.25	10th	15	5	0	0	7	11	1	26	0	13	0	10	8	5	12	1	2	7	11	Salisbury.		
37.9	42.9	116	—	42	—	5.1	—	—	0.28	-1.71	0.11	9th	6	4	0	0	11	12	0	21	0	6	2	5	5	3	3	1	1	5	3	Brighton.		
38.5	42.7	126	+ 51	46	+19	4.6	—	5.1	0.50	-1.74	0.15	10th	10	5	0	0	10	8	0	19	0	18	0	4	5	2	6	0	1	2	8	Portsmouth.		
36.8	41.6	126	+ 44	46	+17	7.5	7.6	7.4	0.59	-0.73	0.15	9th	13	7	0	0	0	13	4	—	0	35	0	9	23	12	8	5	5	12	10	Dungeness.		
—	101	+ 26	37	+10	5.0	—	—	4.9	0.49	-1.56	0.12	9th	11	6	0	0	8	8	2	20	3	17	0	11	11	8	7	1	4	5	9	Hastings.		
—	124	+ 44	45	+16	4.9	—	—	4.8	0.43	-1.85	0.14	10th	9	3	0	0	12	12	1	22	0	26	0	1	26	2	8	1	3	2	13	Southampton.		
37.0	41.5	108	+ 33	39	+12	5.5	—	5.4	0.63	-1.35	0.75	9th	7	2	1	0	12	9	0	—	0	16	1	14	8	10	4	2	1	10	6	Ventnor.		
—	41.9	74	—	27	—	8.5	—	7.6	0.48	—	0.19	9th	7	5	0	0	1	17	3	22	0	5	4	9	11	8	2	2	3	8	9	Tottenham.		
35.0	40.9	67	—	24	—	7.6	—	—	0.50	-1.13	0.13	9th, 28th	8	3	0	0	4	18	2	24	—	—	3	6	5	1	3	0	0	5	5	Camden Square.		
—	55	+ 21	20	+ 8	5.8	—	—	5.1	0.48	-1.11	0.18	28th	9	6	0	0	6	10	3	25	2	11	4	6	10	6	10	1	4	9	6	Westminster.		
—	40.8	41	+ 34	33	+12	6.7	—	5.3	0.61	-0.85	0.19	28th	9	6	0	0	5	12	5	22	0	9	3	7	11	7	7	2	5	9	5	Greenwich.		
35.7	—	—	—	—	—	6.7	—	5.3	0.61	-1.04	0.20	28th	9	7	0	0	6	11	13	24	0	6	7	8	9	8	4	2	3	8	7	Norwood.		
35.9	41.7	83	+ 27	30	+10	6.3	6.4	5.0	0.33	-1.22	0.12	28th	7	3	0	0	3	12	3	25	0	19	16	11	13	7	9	4	4	9	11	Kew.		
—	48	+ 17	18	+ 7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Bunhill Row		
—	53	—	19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Plumstead.		
—	—	—	—	—	—	8.6	—	6.6	6.76	+0.06	3.02	2nd	13	2	0	0	0	14	0	—	2	32	9	6	1	8	12	9	0	9	2	—	Laudale.	
—	—	—	—	—	—	8.0	—	5.9	3.19	-0.47	1.12	2nd	14	0	0	0	0	13	0	—	1	16	7	3	11	1	6	11	8	7	5	—	Poltalloch.	
—	42.5	—	—	—	—	8.9	—	7.4	1.72	-1.07	0.73	2nd	10	0	0	0	0	14	0	14	0	3	13	2	5	10	3	8	3	9	3	—	Glasgow.	
—	—	—	—	—	—	7.6	—	5.1	2.51	-1.13	0.82	2nd	12	0	0	0	1	8	5	—	1	14	6	4	2	10	1	14	4	8	7	—	Rothsay.	
—	—	—	—	—	—	7.2	—	—	2.78	-0.85	0.77	4th	12	0	0	0	1	13	0	8	1	24	0	10	2	14	4	6	4	14	2	—	Colmonell.	
—	—	—	—	—	—	6.0	—	7.0	1.57	-1.69	0.62	4th	9	2	0	0	3	13	4	15	0	8	1	4	13	6	11	1	4	5	11	—	Dumfries.	
—	—	—	—	—	—	—	—	—	2.29	-1.83	0.50	4th	9	2	0	0	—	—	—	1	—	1	7	0	2	15	11	7	0	4	2	15	—	Cally.
—	—	79	+ 10	30	+ 4	7.5	—	6.2	1.96	-1.23	0.58	3rd	10	2	2	0	1	14	1	9	0	17	5	5	7	4	12	6	3	6	8	—	Douglas.	
—	61	— 1	23	0	7.7	—	—	6.4	2.89	-0.92	3.02	—	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
35.4	39.1	91	+ 26	34	+10	7.0	—	6.0	0.98	-1.08	0.41	9th	11	2	2	0	3	11	2	19	1	28	4	5	4	6	16	3	3	6	9	—	Southport.	
35.5	40.9	45	—	17	—	—	—	—	1.39	-0.81	0.47	3rd	8	2	0	0	—	—	2	?	0	3	1	8	7	11	9	4	5	7	4	—	Manchester (City).	
—	53	—	20	—	7.9	7.0	6.5	1.11	—	0.39	—	3rd	8	4	0	0	3	14	0	24	0	13	8	8	8	12	13	10	8	8	9	—	" (Whit. Pk.).	
35.6	39.5	64	—	24	—	8.2	—	6.4	2.90	—	0.91	3rd	10	6	0	0	2	14	0	24	1	25	0	6	7	2	4	15	6	8	8	—	Darwen.	
—	83	—	31	—	6.4	—	5.8	2.14	-0.11	0.66	—	4th	10	3	0	0	5	11	0	23	0	3	12	3	8	3	7	3	8	7	5	—	Aspatia.	
36.0	38.8	78	+ 18	29	+ 7	6.9	—	5.6	2.59	-0.32	0.68	3rd	10	5	0	0	6	13	1	25	0	15	2	15	2	11	7	3	5	9	2	—	New n Rigg.	
—	78	+ 20	29	+ 7	6.9	—	5.4	4.20	+1.02	2.00	—	3rd	12	6	3	0	5	12	1	23	0	7	25	1	6	5	2	3	5	4	5	—	Stonyhurst.	
37.6	41.6	93	+ 30	35	+12	7.4	—	6.5	0.94	-1.27	0.28	9th	10	2	0	0	14	1	22	1	18	1	5	7	4	18	3	4	6	8	—	Blackpool.		
—	58	+ 18	22	+ 7	8.4	—	5.6	1.69	-0.56	0.42	—	4th, 9th	9	3	0	0	4	14	1	19	1	13	6	15	6	11	3	1	0	13	1	—	Manch'str (Prest).	
—	95	—	35	—	6.8	—	6.4	0.51	-1.22	0.22	—	9th	9	4	0	0	3	10	1	—	1	14	1	5	7	9	13	0	6	11	4	—	Liverpol, Bid. Obs.	
—	78	+ 8	29	+ 3	7.4	—	8.5	1.08	-0.99	0.57	—	9th	10	0	1	0	0	19	0	—	0	7	3	1	9	6	4	8	2	21	2	—	Llandudno.	
—	—	—	—	—	7.1	5.9	6.4	0.66	-1.76	0.31	—	9th	10	2	1	1	2	5	2	—	2	40	2	9	17	6	2	21	9	7	11	—	Holyhead.	
38.1	42.4	70	—	26	—	6.6	—	5.6	1.80	—	0.83	9th	13	1	1	0	3	9	0	14	3	8	1	7	10	6	0	4	10	12	6	—	Bettws-y-Coed.	
38.4	40.4	82	+ 15	31	+ 6	7.3	—	6.2	1.64	-0.76	2.03	—	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	



TABLE B.—SUMMARY of the OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE at additional STATIONS, FEBRUARY, 1909.

DISTRICT.	STATION.	Height of Gauge above M.S.L. Ft.	AIR TEMPERATURE.								Earth Temperature		Grnd Frost. No. of Days.	RAIN AND OTHER FORMS OF PRECIPITATION.					BRIGHT SUNSHINE.					
			Mean of		Mean of A and B.	Diff. of Mean from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.		Total Fall.	Diff. from Normal.	Most in a day.		Number of Days.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.		
			A	B			Max.	Day.	Min.	Day.						Ins.	Ins.						Ins.	Day.
			Max.	Min.																				
0 SCOTLAND, N.	p Balta Sound - - S	31	42.5	34.3	38.4	—	49	22nd	29	12th	—	—	—	1.50	—	0.22	14th	21	56	—	23	—		
1. SCOTLAND, E.	p Crathes - - S	140	43.9	31.3	37.6	—	53	3rd	21	7th	35.8	37.8	17	0.80	—	0.20	9th	17	59	—	23	—		
	Stonehaven - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	64	—	25	—		
	p Balruddery - - S	276	43.6	31.8	37.7	—	56	3rd	26	7th	—	—	—	0.97	—	0.30	4th, 9th	10	61	—	23	—		
	Edinburgh - - -	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	53	3	20	—		
2. ENGLAND, N.E.	a West Linton - - S	800	40.0	29.7	34.9	- 1.4	49	3rd, 21st,	20	7th, 25th	—	—	22	2.68	—	0.93	2nd	11	69	—	26	—		
	a Alnwick Castle - -	210	42.7	32.1	37.4	- 1.0	55	3rd	22	7th	—	—	—	2.44	+ 0.29	1.01	5th	9	—	—	—	—		
	p Newcastle-on-Tyne -	152	43.4	33.8	38.6	—	55	3rd	27	7th	—	—	—	1.64	+ 0.05	0.63	4th	12	35	13	13	- 5		
	p Ampleforth - - -	349	42.7	30.4	36.6	—	53	3rd	22	1st	—	—	—	0.72	—	0.38	4th	4	—	—	—	—		
3. ENGLAND, E.	p Tealby - - -	251	42.9	32.0	37.5	- 0.9	53	3rd	25	14th	—	—	—	1.24	- 0.58	0.57	6th	8	—	—	—	—		
	a Fulbeck - - -	180	42.6	30.3	36.5	- 1.9	53	4th	24	14th	—	—	—	0.55	- 1.05	0.19	9th, 10th	9	—	—	—	—		
	a Rauceby - - -	124	43.2	29.9	36.6	—	55	4th	20	22nd	36.5	41.5	23	0.40	- 1.55	0.14	10th	7	84	—	31	—		
	a Felixstowe - - -	10	41.4	31.4	36.4	- 2.9	57	4th	22	23rd	—	—	—	1.71	—	0.54	10th	11	102	—	37	—		
4. MIDLAND COUNTIES	a Rothamsted - - -	424	42.7	28.6	35.7	- 2.7	55	4th	18	23rd	—	—	—	0.37	- 1.52	0.13	9th	8	93	+ 25	34	+ 9		
	a Shoeburyness - - -	13	41.6	31.5	36.6	- 3.2	54	4th	25	22nd, 28th	—	—	—	1.09	- 0.10	0.37	9th	11	—	—	—	—		
	a Southend-on-Sea - -	100	42.6	32.1	37.4	—	53	4th	26	23rd	37.1	—	26	0.85	- 0.55	0.32	10th	7	106	—	39	—		
	a Harrogate - - -	476	41.3	30.7	36.0	- 1.7	49	3rd	22	20th	36.4	38.6	22	0.78	- 1.29	0.22	10th	10	72	—	27	—		
5. ENGLAND, S.E.	a Bradford - - -	330	41.8	31.4	36.6	—	52	22nd	24	21st	35.0	40.4	18	0.77	—	0.26	3rd	9	50	—	19	—		
	a Cheadle - - -	646	41.4	30.7	36.1	- 1.6	53	4th	25	25th	—	—	24	0.60	- 1.64	0.26	9th	8	—	—	—	—		
	a Bawtry - - -	65	43.3	30.5	36.9	- 2.1	54	4th, 5th	21	21, 22, 23rd	—	—	—	0.44	- 1.11	0.24	10th	5	—	—	—	—		
	a Worksope - - -	56	44.5	29.6	37.1	- 1.1	56	3rd	20	23rd	36.0	39.5	23	0.55	- 1.36	0.31	10th	7	67	+ 10	25	+ 4		
6. SCOTLAND, W.	a Mayfield (Staffs.) -	374	41.7	27.9	34.8	—	55	4th	17	22nd, 23rd	—	—	22	0.76	—	0.34	9th	9	—	—	—	—		
	a Kingston-on-Soar - -	125	42.9	28.7	35.8	—	56	4th	16	23rd	37.4	—	—	0.55	—	0.30	10th	8	—	—	—	—		
	p Rugby - - -	379	43.3	29.5	36.4	- 2.1	55	4th	19	23rd	—	—	24	0.55	—	0.35	10th	6	—	—	—	—		
	a Raunds - - -	210	43.5	27.0	35.3	- 4.2	56	4th	11	23rd	—	—	23	0.34	—	0.13	10th	5	—	—	—	—		
7. ENGLAND, N.W.	a Winslow - - -	379	41.7	29.1	35.4	—	53	4th	20	23rd	—	—	—	0.39	—	0.13	10th	7	—	—	—	—		
	a Hereford - - -	291	44.5	30.0	37.3	- 2.4	57	4th	20	14th	—	—	—	0.36	- 1.66	0.19	9th	7	—	—	—	—		
	a Cirencester - - -	446	43.1	27.9	35.5	- 2.9	52	4th	15	23rd	—	—	25	0.43	- 1.84	0.32	10th	6	105	+ 33	38	+ 12		
	a Epsom - - -	160	42.9	28.2	35.6	—	58	4th	18	23rd	—	—	26	0.80	—	0.25	28th	8	—	—	—	—		
8. ENGLAND, S.W.	a Wokingham - - -	216	43.7	21.7	32.7	—	55	4th	7	23rd	—	—	—	0.30	—	0.07	26th, 27th	6	—	—	—	—		
	a Maidenhead - - -	99	44.3	28.7	36.5	—	57	4th	15	23rd	—	—	26	0.32	- 1.58	0.10	10th	6	—	—	—	—		
	a Marlborough - - -	424	43.2	27.4	35.3	- 3.6	52	4th	14	23rd	—	—	25	0.74	- 1.62	0.27	9th	12	87	+ 28	32	+ 11		
	a Bucklebury - - -	409	42.5	29.3	35.9	—	53	4th	21	22nd	—	—	23	0.41	—	0.22	10th	6	—	—	—	—		
9. ENGLAND, S.W.	a Swaraton - - -	310	43.0	28.4	35.7	- 3.1	55	4th	18	23rd	—	—	—	0.66	- 1.75	0.28	10th	8	—	—	—	—		
	a Margate - - -	85	42.5	33.7	38.1	- 1.9	56	4th	27	28th	37.1	40.2	15	1.43	+ 0.05	0.63	10th	11	96	+ 25	35	+ 9		
	Broadstairs - - -	140	—	—	—	—	—	—	—	—	—	—	—	1.45	—	0.75	10th	10	108	—	39	—		
	Ramsgate - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	107	—	39	—		
10. ENGLAND, S.W.	a Wisley - - -	150	43.3	29.9	36.6	- 2.6	56	4th	17	23rd	36.2	41.0	24	0.33	—	0.11	28th	6	91	—	33	—		
	a Dover - - -	421	42.2	31.9	37.1	—	55	4th	26	28th	37.9	43.0	25	0.67	—	0.17	10th	11	123	—	45	—		
	a Tunbridge Wells - -	231	41.6	29.7	35.7	- 3.2	54	4th	19	23rd	35.3	—	—	0.63	- 1.51	0.14	9th	10	104	+ 36	33	+ 14		
	p Folkestone - - -	121	41.7	31.8	36.8	—	53	4th	25	28th	—	42.3	—	0.42	- 1.51	0.14	10th	9	117	—	42	—		
11. ENGLAND, S.W.	Littlestone - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	114	—	41	—		
	a Bexhill - - -	27	42.7	33.9	38.3	—	52	4th	28	28th	39.5	—	19	0.43	—	0.11	9th	8	118	—	43	—		
	Hove - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	125	—	45	—		
	p Lewes - - -	58	42.5	30.1	36.3	—	51	4th	19	23rd	—	—	—	0.56	—	0.26	9th	15	—	—	—	—		
12. ENGLAND, S.W.	a Worthing - - -	86	43.7	32.2	38.0	- 2.0	52	15th	27	23rd	37.0	42.4	23	0.30	- 1.69	0.14	9th	6	137	—	50	—		
	a Bognor - - -	20	43.5	33.3	38.4	—	51	4th	27	23rd	—	44.2	17	0.30	—	0.10	9th, 10th	3	130	—	47	—		
	Westbourne - - -	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	112	—	41	—		
	a Totland Bay - - -	140	43.7	33.1	38.4	- 2.0	51	4th	25	23rd	—	—	18	0.32	- 1.75	0.14	10th	6	127	—	46	—		
13. ENGLAND, S.W.	a Sandown - - -	20	45.6	34.2	39.9	—	56	4th	28	14th	—	—	—	0.50	—	0.22	9th	7	124	—	45	—		
	p Bournemouth - - -	145	45.0	31.6	38.3	—	55	4th	23	23rd, 25th	37.4	40.5	—	0.44	—	0.27	10th	6	124	—	45	—		
	p Oban - - -	20	46.2	36.5	41.4	—	54	3rd	25	13th	—	—	3	2.51	—	1.03	2nd	10	60	—	23	—		
	a Thorntonhall (Lanarkshire)	440	42.5	32.7	37.6	—	51	21st	22	25th	—	—	16	2.20	—	1.31	2nd	10	60	—	23	—		
14. ENGLAND, S.W.	a Kilmarnock - - -	90	44.3	33.8	39.1	- 0.2	53	21st	25	13th	—	—	—	3.22	—	1.75	2nd	10	54	—	20	—		
	a Carnforth - - -	174	43.6	31.1	37.4	—	56	22nd	24	25th	—	—	23	1.95	—	0.70	3rd	9	79	—	30	—		
	a Lancaster - - -	311	42.9	33.3	38.1	—	54	22nd	26	25th	36.9	41.3	23	2.65	—	1.04	3rd	11	78	—	29	—		
	a Burnley - - -	459	42.3	30.6	36.5	—	52	22nd	24	16th, 23rd	34.9	39.5	22	3.15	—	1.10	3rd	8	58	—	22	—		
15. ENGLAND, S.W.	a Hoylake - - -	307	43.9	34.1	39.0	—	52	3rd	25	25th	—	—	19	0.57	—	0.31	9th	7	81	—	31	—		
	p Rhyl - - -	30	46.1	34.3	40.2	—	56	4th	24	25th	—	—	14	0.81	- 0.69	0.51	9th	7	85	—	31	—		
	a Colwyn Bay - - -	65	45.7	35.7	40.7	—	57	21st	27	25th	—	—	—	0.98	—	0.63	9th	5	84	—	31	—		
	a Hawarden Bridge - -	22	44.2	32.3	38.3	- 2.5	57	4th	25	25th	—	—	—	0.77	- 0.66	0.47	9th	5	—	—	—	—		
16. ENGLAND, S.W.	a St. Asaph (St. Beuno's Coll.)	479	43.6	33.8	38.7	—	55	22nd	25	25th	—	—	14	1.30	—	0.74	9th	9	—	—	—	—		
	a Towyn - - -	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	p Aberdovey - - -	22	45.6	36.3	41.0	—	55	20th, 22nd	29	14th, 25th	—	—	—	0.81	—	0.38	9th	11	104	—	38	—		
	p Aberystwyth - - -	59	45.1	37.8	41.5	—	53	22nd	30	13th	—	—	—	—	—	—	—	—	81	—	30	—		
17. ENGLAND, S.W.	Haverfordwest - - -	93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	110	—	40	—		
	Tenby - - -	79	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	108	+ 29	39	+ 10		
	Port Talbot - - -	179	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	97	—	35	—		
	Forest of Dean - - -	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
18. ENGLAND, S.W.	" - - -	900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		

\* The gauge at Folkestone is not of standard type.

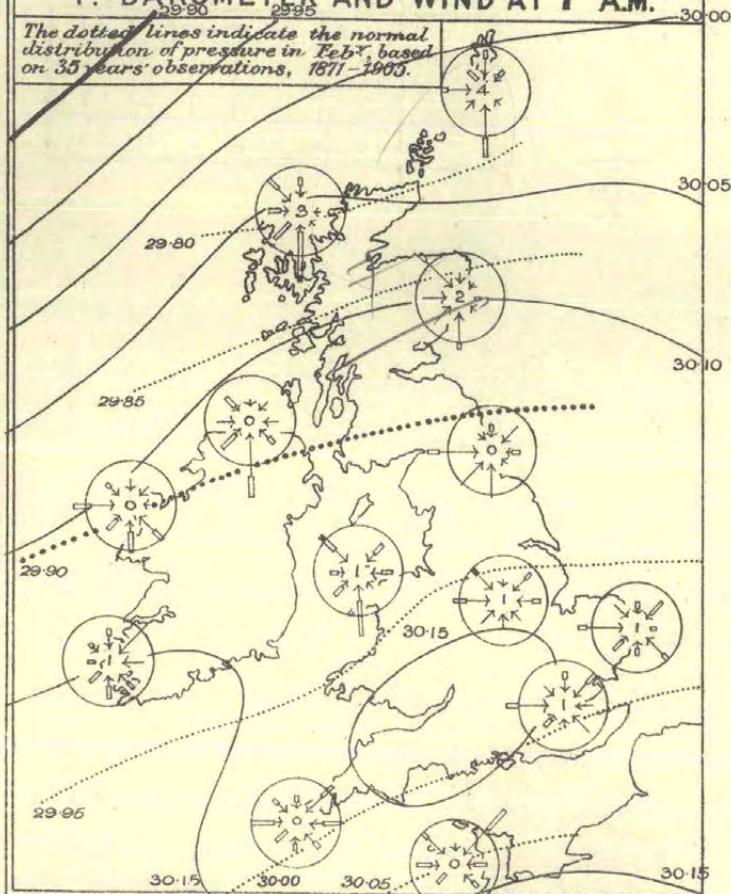


# MONTHLY WEATHER CHARTS, FEB., 1909.

XIII

## 1. BAROMETER AND WIND AT 7 A.M.

The dotted lines indicate the normal distribution of pressure in Feb., based on 35 years' observations, 1871-1905.



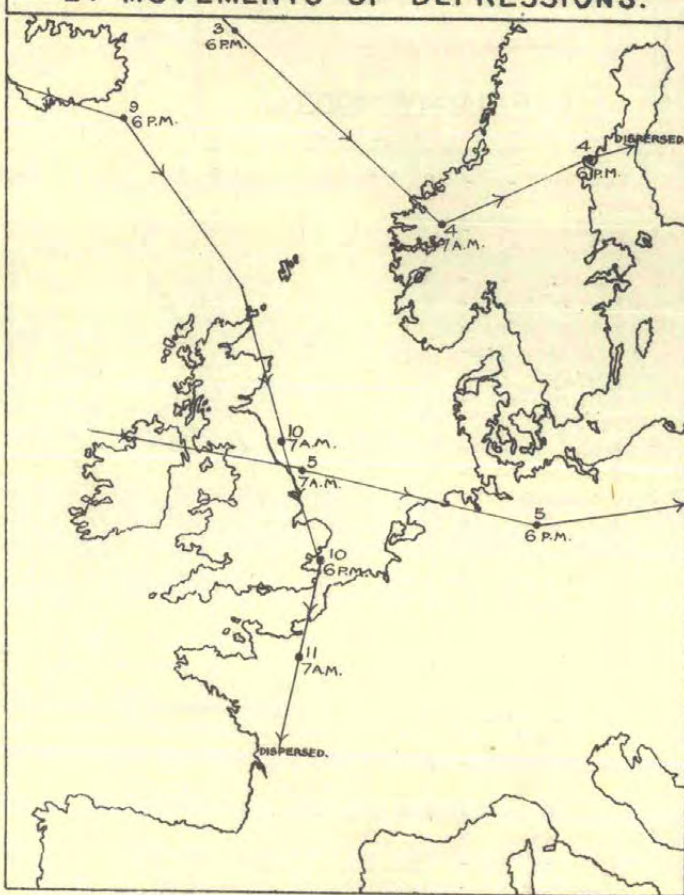
WIND ROSES The arrows fly with the wind and indicate frequency and force, thus:   
 Light moderate Strong   
 30 Obs. = 1 inch

## 3. DISTRIBUTION OF MEAN TEMPERATURE.

Reduced to sea level by a correction of 1°F for 300ft



## 2. MOVEMENTS OF DEPRESSIONS.



## 4. BRIGHT SUNSHINE, IN HOURS.

Isohels are shown for 40, 70, 100 and 130 hrs.





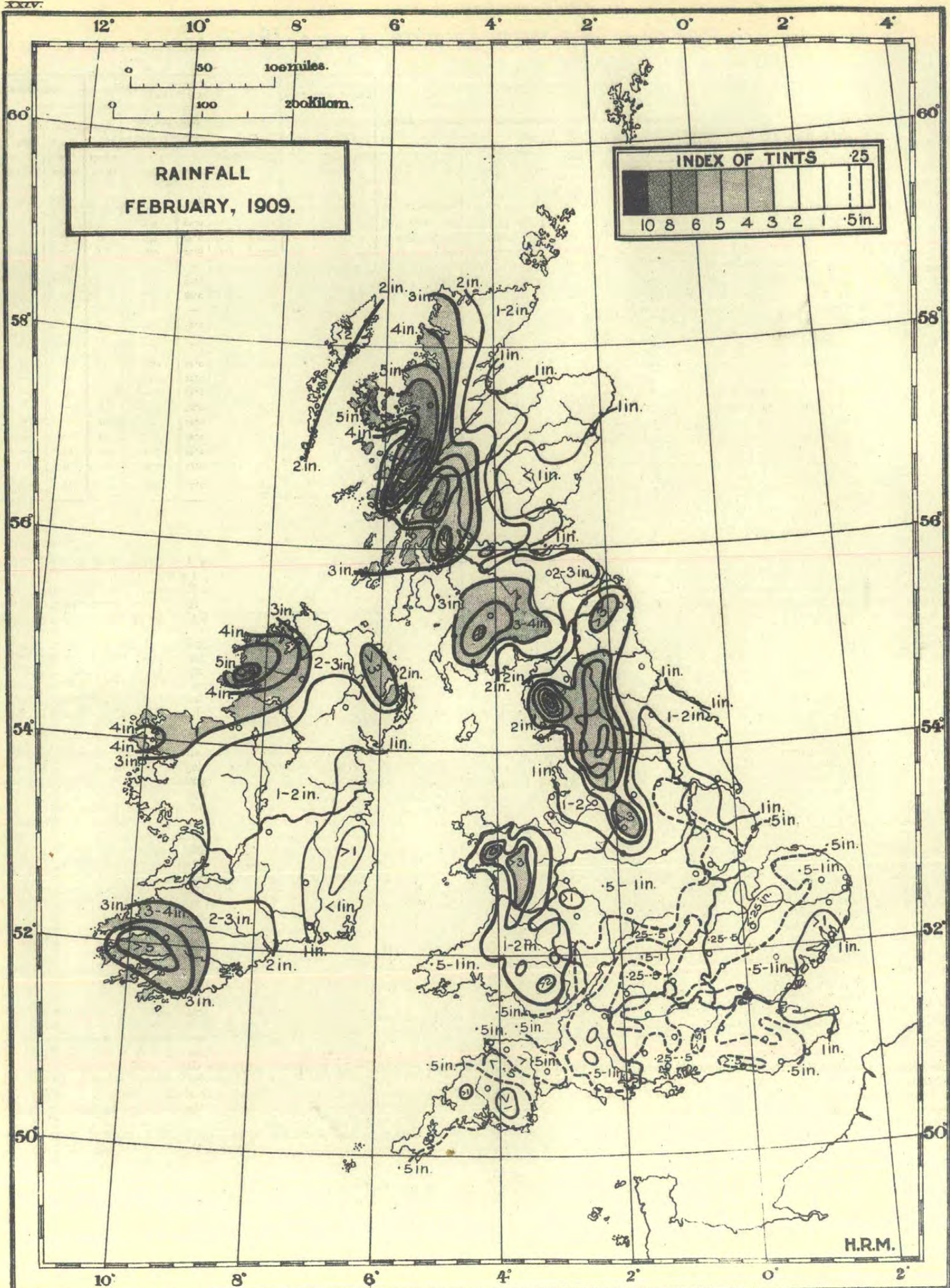




TABLE B (continued).—SUMMARY of the OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE at additional STATIONS, FEBRUARY, 1909.

DISTRICT.	STATION.	Height of Gauge above, M.S.L.	AIR TEMPERATURE.								Earth Temperature		Gr'd Frost.	RAIN AND OTHER FORMS OF PRECIPITATION.					BRIGHT SUNSHINE.					
			Mean of		Mean of A and B.	Diff. of Mean from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.		No. of Days.	Total Fall.	Diff. from Normal.	Most in a day.		Number of Days.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	
			A	B			Max.	Day.	Min.	Day.							Ins.	Ins.						Ins.
			Max.	Min.																				
		Ft.	°	°	°	°	°																	
8. ENGLAND, S.W. (continued)	a Shaftesbury - - - ft	722	42.1	31.6	36.9	- 1.5	54	4th	26	26th, 27th	37.5	—	—	0.58	- 1.88	0.28	9th	5	—	—	—	—		
	a Arlington - - - -	613	43.7	32.5	38.1	- 2.5	52	23rd	23	25th	—	—	—	0.91	- 3.05	0.42	9th	11	—	—	—	—		
	a Cullompton - - - ft	202	45.9	30.9	38.4	- 2.7	54	3rd	20	14th	—	—	23	0.59	- 2.23	0.32	9th	8	95	+ 26	34	+ 9		
	Torquay - - - -	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	124	+ 49	45	+ 18		
	a Weymouth - - - -	21	45.2	34.3	39.8	—	52	4th	26	25th	—	—	—	0.26	—	0.23	9th	3	128	—	46	—		
	a Newquay - - - -	100	46.2	37.8	42.0	- 1.8	53	20th, 21st	28	14th	43.1	—	—	0.56	- 2.23	0.28	8th	5	122	+ 43	44	+ 16		
	Salcombe - - - -	390	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	136	—	49	—		
	a Penzance - - - -	54	48.0	40.1	44.1	—	54	3rd	29	14th	—	—	—	0.83	—	0.23	9th	7	117	—	42	—		
9. IRELAND, N.	— - - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
10. IRELAND, S.	p Dublin (Glasnevin) - -	37	46.9	36.6	41.8	+ 0.6	55	4th	24	14th	—	—	15	1.04	- 0.95	0.42	28th	11	—	—	—	—		
	a Kingstown - - - -	42	46.5	39.3	42.9	—	57	4th	31	14th	—	—	—	0.27	—	0.11	8th	7	63	—	23	—		
	p Clongowes Wood College	245	46.8	33.8	40.3	—	54	21st, 23rd	21	14th	—	—	15	0.56	—	0.15	9th	9	85	—	31	—		
	p Newcastle (Co. Wicklow)	256	46.2	37.2	41.7	—	54	4th	24	14th	—	—	—	0.71	—	0.25	8th	6	—	—	—	—		
	a Kilkenny - - - -	212	46.9	35.3	41.1	- 0.5	55	4th	22	14th	—	—	—	0.76	- 1.80	0.25	8th	11	—	—	—	—		
	a Cahir - - - - ft	199	46.9	36.8	41.9	+ 0.1	57	4th	21	14th	—	—	—	1.45	—	0.24	8th	16	—	—	—	—		
	a Foynes - - - -	108	47.7	37.8	42.8	0.0	56	4th	24	13th	—	—	—	1.90	- 1.11	0.34	9th	19	—	—	—	—		
	a Ballinacurra - - - -	34	48.2	36.6	42.4	—	56	3rd	25	14th	—	—	—	2.08	—	0.73	7th	10	64	—	23	—		
11. ENGLISH CHANNEL	a Guernsey (Villa Carey) -	180	46.5	38.0	42.3	- 1.3	54	22nd	32	27th	—	—	—	1.07	- 1.70	0.32	9th	9	116	+ 29	42	+ 11		

## NOTES ON THE STATISTICAL TABLES.

**Hours of Observation.**—The following types are used to indicate the hours of observation at Stations included in Table A:—Clarendon, Normal Climatological Stations—I, 9 a.m. [II, 3 p.m.], III, 9 p.m. Black Capitals, telegraphic reporting normal climatological stations—I, 7 a.m., II, 1 p.m., III, 9 p.m. Roman, telegraphic reporting stations—I, 7 a.m., [II, 1 p.m.], III, 6 p.m. Italic, auxiliary climatological stations—I, 9 a.m. only (9 a.m. and 6 p.m. at Ventnor). The summaries are based on observations made three times a day wherever the data are available, except in the case of the element pressure (see below). At stations shown in clarendon type the maximum and minimum temperatures are read at 9 p.m.; at the remaining stations these observations are made at I. In Table B the letters *a* and *p* indicate whether the readings of the maximum and minimum are taken at the hours of morning or evening observation.

**Barometer.**—The correction for latitude has not been applied to the readings quoted in the Tables. It is applied to the readings at sea level from which the chart showing the mean monthly distribution of pressure is prepared. The values given in the tables are for station level. The values printed are (1) for stations shown in clarendon type, the means of observations at 9 a.m. and 9 p.m.; (2) for stations shown in Capitals, the means of observations at 7 a.m., 1 p.m., 9 p.m.; (3) for stations shown in Roman type, the means of observations at 7 a.m. and 6 p.m.; (4) for stations shown in italic type, the means of observations at 9 a.m. The column headed C gives the correction for diurnal variation required to reduce the means of observations at fixed hours to true diurnal means, based on the analysis of the values obtained at the four observatories for the period 1871–1905. The difference from normal is based upon the 7 a.m. readings only, except in the cases of Kew, Greenwich, Aberdeen, Valencia and Falmouth (see below).

**Rainfall.**—The amounts are those for the 24 hours commenced at the time of morning observation.

**Weather Phenomena.**—The number of days of Rain, Snow, Hail, Thunderstorm, Fog, Ground Frost, and Gale, are counted irrespective of the hours at which the phenomena occur. Except in the cases of rainfall (see above) and ground frost the day is the civil day. A day is reckoned as a day of "clear sky," if the mean of the estimates of the "amount of cloud" at the fixed hours of observation is less than 2, and as an "overcast" day if the mean is greater than 8. Days of Ground Frost are days on which the minimum thermometer on the grass falls to 30° or below; the "day" is taken as the 24 hours ending at 9 a.m.

**Wind Summaries.**—The results given under wind direction, and the number of observations of calms and of fresh or strong wind, are based on the observations at fixed hours. At Deerness, Aberdeen, Valencia, Falmouth, Kew, Glasgow, Stonyhurst and Armagh the wind observations are based on the records of a standard Robinson anemometer (factor 2.2). Velocities of between 13 and 38 miles in the hour have been entered as "fresh or strong winds," velocities of 39 miles in the hour, or above, as gales.

**Averages.**—The normal averages used for stations are—Pressure, Temperature, and Rainfall for the 35 years 1871–1905; Bright Sunshine for the 25 years 1881–1905. The values are published in Appendix III. to the Weekly Weather Report for 1906. For the Royal Observatory, Greenwich, and the Radcliffe Observatory, Oxford, averages for longer periods are used. See Notes in Monthly Weather Reports for 1908. Monthly averages of pressure at telegraphic reporting stations for the epoch 8 a.m. are published in Appendix I. to the Daily Weather Report. In order to render these averages comparable with the data for the present month, a correction, based on the results for the four observatories as published in "Hourly Readings at the Observatories under the Meteorological Council," has been applied to each of them before the figures given in the column headed "Barometer—Difference from Normal" were computed.

**Aberdeen, Falmouth, Kew, Valencia, Oxford, Greenwich.**—The figures quoted in the second line assigned to these observatories in the columns for Barometer and Mean Temperature are the true daily means computed from the hourly tabulations of the traces of the photographic recording instruments. For Kew, Falmouth, Aberdeen and Valencia the divergences of the means of the readings at 9 a.m. and 9 p.m. from their normal averages are also given.

**Royal Observatory, Greenwich.**—The earth temperatures are taken at a depth of 3 ft. 2 ins. The daily rainfall amounts are those for the 24 hours comprising the civil day. The number of days in the month which were persistently overcast from midnight to midnight was 2, the number of persistently cloudless days was 0, the number of persistently foggy days was 3.

**Mean Values for Districts.**—The stations used in the Weekly Weather Report for the computation of "district values" of rainfall and temperature are distinguished by the sign †, those used for the computation of "district values of bright sunshine" by the sign §. These stations are distributed between Tables A and B. The monthly mean values for districts given in this Report for maximum, minimum and mean temperature, duration of bright sunshine, number of rain days and amount of rainfall, are computed from the data for these "representative" stations. The mean temperature for districts is computed in the manner shown in the preface to this and previous volumes of the Weekly Weather Report. The monthly mean values for districts for "amount of cloud" are computed from the data for all stations included in Table A. The extreme values of the various elements in each district are printed in distinctive type. In the lines devoted to district values, the columns referring to absolute highest and absolute lowest temperature and the maximum amount of rainfall in a day contain the extreme values for the district at any station included in either table of the Report. The averages for districts with which the current values are compared are for the 25 years 1881–1905, as in the case of the corresponding values published in the Weekly Weather Report.

**Meteorological Societies.**—Information for stations marked ‡ is supplied by the Royal Meteorological Society, and that for stations marked § is supplied by the Scottish Meteorological Society. Stations marked S are in connexion with the Scottish Meteorological Society and those marked M with the Royal Meteorological Society, as well as with the Meteorological Office.







# MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

(Supplement to the Weekly Weather Report.)

SUMMARY OF OBSERVATIONS COMPILED FROM THE RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS IN THE UNITED KINGDOM, WITH A CHART OF RAINFALL CONTRIBUTED BY THE BRITISH RAINFALL ORGANISATION.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE,

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## SUMMARY OF OBSERVATIONS.

**Pressure, Winds and Weather.**—The mean distribution of atmospheric pressure for March was quite exceptional, disclosing a complete reversal of the normal conditions, and affording a clue to the unusually unsettled character of the weather. A closed space across the face of the Bristol Channel indicates the position of the lowest pressure, the values at Pembroke and Scilly being below 29.5 ins., those over England and the greater part of Ireland being only slightly higher. Northward they increased to nearly 29.65 ins. in the north of the Hebrides and in Shetland. Still increasing northward the region of highest pressure was situated beyond the north of Iceland, where the mean barometer was above 30.06 ins. This displacement of the normal conditions affected such a vast area that even at the Azores the month's pressure was below 30 ins. Compared with the normals the values over these islands were far lower than usual, the deficiency at Scilly being as much as 0.43 in., and at several other southern stations exceeding 0.4 in., the deficiency diminishing northward to rather more than 0.12 in. in Shetland and the Hebrides. While on various occasions the barometer descended below 29 ins., there were very few days on which it passed above 30 ins., and on the south-east coast of England there was no reading as high as 30 ins. Consequently the range of pressure during the month was small, less than an inch over the south-east quarter of England, 0.85 in. at Dover, and only at some of the west coast stations did it exceed 1½ in., amounting to nearly 1.7 in. at Blacksod Point and Valencia, the only stations above 1½ in. The distribution of the winds shows a strongly marked cyclonic circulation round the Bristol Channel pressure minimum. Easterly to Northerly and North-Westerly breezes largely prevailed over the northern and western parts of the kingdom, Stornoway reporting no wind in the South-Western half of the compass, Scilly had a fair distribution in all quarters, while southern England had a prevalence of Westerly to Southerly and Easterly, Jersey having only one or two observations in the North-Eastern half of the compass. Notwithstanding the very disturbed conditions prevalent throughout the month the winds were generally of little force, there being comparatively few records of more than a strong breeze.

An inspection of the series of daily maps covering Europe and the eastern half of the Atlantic (information from the latter region being received by wireless telegraphy from a number of steamers) shows that the atmospheric conditions during the month were divided into two nearly equal parts. For about seventeen days pressure was almost continuously high over the Iceland region and thence down the Atlantic, beyond our western coasts, to and beyond the Azores. This anticyclone was of only moderate intensity, no barometric readings as high as 30½ ins. being reported. Of the disturbances which appeared to the eastward of the Banks of Newfoundland during this period, not one made its way to the British Isles, advancing, instead, on about a south-easterly path towards the Spanish Peninsula and Madeira. The low pressure systems which affected our weather were found in the vicinity of our southern and eastern coasts, all of them very slow-moving, and following most irregular paths. Within the seventeen days only three depressions came into our immediate neighbourhood. A disturbance which appeared over Norway on the 1st passed down to the Irish Sea by next day, then followed a path to the Isle of Wight, across the Netherlands, to the North Sea, and thence to the Baltic. On the morning of the 5th, when the system had worked back to the North Sea, it expanded westward across the British Isles, and a separate space of minimum pressure was formed off the south-west of Ireland. The progress of this area was much more complex than that of the parent system. At a very slow pace it advanced to the western end of the English Channel, then worked round by Lancashire and the Irish Sea back to the mouth of the English Channel, down to the lower part of the Bay of Biscay, up the west of France, and then down the Bay again, where it dispersed on the 12th, having occupied a week on the journey. No sooner had it collapsed than another formed over Copenhagen on the evening of the 12th, and, like its predecessors, following a tortuous path it was off the Yorkshire coast on the morning of the 14th, passed slowly down to Belgium, curved round to Holland, and there died out on the 16th. Throughout the first half of the month, therefore, pressure was persistently low over our southern and eastern districts, the lowest barometer reading reported being 28.98 ins. at Portland Bill and Guernsey on the evening of the 6th, while from the 8th to the 13th readings above 30 ins. were registered in the extreme north and west, the highest point for the month, 30.3 ins., being reached at Castlebay and Blacksod Point on the morning of the 12th.

It will be gathered from these facts that the pressure distribution favoured winds from between East and North or North-West over nearly the whole kingdom. In the absence, however, of steep gradients, the period, although extremely unsettled, was far from stormy, the records of gale force being exceptionally rare, the only instances of a strong gale being on the 7th at Aberdeen, when the anemometer registered a gust with a velocity at the rate of 62 miles per hour, and at Wick. The

weather itself was of a most inclement character, cold rain, snow, sleet or hail being experienced every day over the country generally. Some of the principal snowfalls recorded were:—On the 2nd, Aspatria and Carlisle 6 ins., Oundle 9 ins.; 3rd, Sparkhill, Birmingham, 7 ins., Belvoir Castle 8½ ins., and Epsom 10 ins., 3rd and 4th, Tonbridge 22 ins.; 6th, Uldale 6 ins., Belvoir Castle 8 ins., Tenbury 8½ ins.; 7th, Huddersfield 10 ins., and Sparkhill 11 ins. Records of an inch or more of rain or of melted snow were numerous. On the 3rd 1.9 in. at Dungeness (snow); on the 5th 1.5 in. at Plymouth; on the 6th 1.5 in. at Sparkhill (snow), 1.6 in. at Salisbury and Shaftesbury, 1.9 in. at Abergavenny; on the 7th 1.5 in. at Ardross Castle and Crathes (snow), 1.6 in. at Mallaranny, and 2 ins. at Balmoral (snow); on the 8th 1.6 in. at Barnstaple; and on the 9th 1.5 in. at Ampleforth Abbey. These very unsettled conditions were also marked by cold of unusual severity. There was a general absence of afternoon temperatures above 50°, the maxima being frequently below 40°, and in the first week many places failed to pass above 32°, the lowest maximum, 30°, being at Birmingham on the 3rd, at Sparkhill on the 3rd and 4th, and at Morpeth on the 4th. Night frosts of great severity were recorded, there being a very large number of shade minima below 20°, and even those below 10° are too numerous to mention individually. Marlborough reported 0° on the 3rd, West Linton 1° on the 5th, Swarraton 3° on the 3rd, and Kingston-on-Soar 3° on the 5th, and Balmoral 5° on the 6th. At the close of the period, on the 17th, Wokingham dropped to 8°, Llangammarch Wells to 12°, and Marlborough to 13°. At Totland Bay the 3rd was the coldest March day in twenty three years, since observations were commenced, minimum below 20°, maximum 32°.

During the remainder of the month the type of conditions was of a different character. Pressure was continuously low, but the depressions all came to us from the Atlantic. Two of these dispersed near the Irish coast, one on the English Channel, and three moved eastward across Ireland, England and the North Sea. On the 18th the barometer fell to 28.61 ins. at Valencia, the month's lowest record, to 28.89 ins. at Shields on the 25th, and to 28.87 ins. at Holyhead on the 29th. The winds were now more from Westerly (Southerly to North-Westerly) directions, but gales were again very rare, only Scilly and Roche's Point reporting a strong South-Easterly gale on the 18th. Snow gave way to daily falls of rain, which were occasionally very heavy locally, 1.6 in. at Graythwaite on the 28th. There was a considerable improvement in the temperature, but it was not until the 29th that a few places passed up into the sixties, 61° at Cromer, Hillington, Geldeston, Camden Town and Maidenhead, and 62° at Greenwich. In several localities, however, the thermometer failed to touch 50° throughout the month, Brighton just reached this limit on the 29th, and St. Leonards 51° on the 25th. The nights during this period were relatively milder than the days, many of the minima being above 40°. Thunderstorms were almost entirely absent.

Aurora was witnessed at Isleworth on the 2nd, at Castlebay on the 11th, at Nairn, Gordon Castle, Cromer and Cahir on the 19th, and at Dublin on the 20th.

Fog was fairly frequent inland, intense darkness prevailing in London on the 3rd, at Tottenham on the 22nd, and at Ampleforth from 2 p.m. to 2.45 p.m. on the 30th. Between the 20th and 30th there was much fog on the eastern and western coasts, very thick in places on several days, but the south coast was not much affected.

The temperature of the sea water round our shores was nearly everywhere a little lower than in February. Off Eastbourne and Margate the water was 1° colder than the air on shore, but in nearly all other localities it was warmer than the air, as much as 6° off Plymouth and Shetland.

**Rainfall.**—There was a marked deficiency of precipitation in the north and west of Scotland, and as marked an excess over the rest of the kingdom. Fort William received only 0.3 in., a loss of 6.4 ins., Oban 0.7 in., and Fort Augustus 0.8 in., a loss of 2.9 ins. There were no other totals of less than an inch. As a rule the records were very large, there being an average excess of about 1½ in. The largest amounts were 7 ins. at Whitchurch (Devon), 7.4 ins. at Tillypronie, 9.1 ins. at Sheepstore (Devon), and 11.1 ins. at Nuns Cross (Devon). Precipitation was measured on 31 days at Dyce (Aberdeen), on 30 days at Jersey, Guernsey (Brooklyn) and Foynes, and on 20 days and upwards in nearly all localities, but on only 9 days at Fort William and Oban.

**Bright Sunshine.**—Very cloudy, dull weather prevailed in all districts except the north-west of Scotland, resulting in the loss, on the average, of an hour per day of bright sunshine over the country generally. Aberdeen lost 73 hours, Hastings 59, and Geldeston 57 hours. The aggregates ranged from 141 hours (39 per cent. of the possible) at Scilly, 131 hours (36 per cent.) at Penzance, and 127 hours (35 per cent.) at Stornoway to 43 hours (12 per cent.) at Birmingham and Bunhill Row (London City), and 40 hours (11 per cent.) at Whitworth Park, Manchester.



TABLE A.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at 9 a.m., 3 p.m. and 9 p.m. at NORMAL STATIONS in the BRITISH ISLANDS

DISTRICT.	STATION.	Height of Barometer at 32° F. at Level and Latitude of Station.	BAROMETER.			AIR TEMPERATURE.								HYGROMETER.											
			Mean at 32° F.	Diff. from Normal.	Cor. for Diurnal Range.	Mean of		Mean of A and B.	Diff. from Normal.	Absolute Maximum and Minimum.				Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.											
						A	B			Max.	Day.	Min.	Day.	Dry Bulb.			Dep. of Wet.			Vap. Pressure.			Humidity.		
														I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
O. SCOTLAND, N.																									
Islands.	CASTLEBAY - -	48	29.514	- .192	- .002	43.5	36.1	39.8	- 1.8	49	24th	28	2nd	39.1	41.9	39.9	2.0	3.0	2.4	In. .200	In. .207	In. .200	% 84	% 78	% 81
	Deerness - -	163	29.433	-	- .006	40.3	33.6	37.0	- 2.3	45	28th	27	6th	37.6	-	36.8	1.8	-	1.8	.191	-	.186	84	-	84
	SUMBURGH HEAD	126	29.481	- .122	- .002	39.7	32.0	35.9	- 2.7	44	22nd, 23rd	24	17th	35.4	38.5	36.1	1.4	2.6	1.9	.180	.183	.178	87	79	83
	STORNOWAY -	52	29.570	- .124	- .002	42.8	31.8	37.3	- 2.4	51	21st	19	5th	35.6	41.6	36.5	1.1	2.1	1.4	.189	.220	.189	90	84	88
Mainland.	Wick - -	80	29.503	- .156	+ .003	41.2	30.9	36.1	- 3.4	47	28th	15	5th	35.5	-	36.6	1.4	-	1.6	.181	-	.186	87	-	86
	Strathpeffer -	210	29.362	-	- .007	40.5	31.1	35.8	- 3.3	48	23rd	15	6th	35.3	-	34.8	1.4	-	1.1	.180	-	.180	87	-	90
	Glencarron - S	504	29.039	-	- .006	40.5	29.0	34.8	- 3.5	52	22nd	15	3rd, 5th	34.9	-	33.9	2.1	-	1.7	.161	-	.161	80	-	82
	Fort Augustus S	78	29.504	-	- .006	41.9	31.1	36.5	- 3.2	53	22nd	13	5th	35.2	-	36.4	1.2	-	1.4	.182	-	.189	88	-	88
	Fort William - S	38	29.542	-	- .006	43.4	31.3	37.4	- 3.2	52	21st	19	5th	36.1	-	37.0	2.4	-	2.5	.169	-	.174	79	-	79
	Dunrobin Castle S	16	29.591	-	- .006	41.7	32.1	36.9	- 3.4	49	13th	22	5th	37.4	-	36.2	2.1	-	1.8	.184	-	.179	81	-	83
District Value -						41.4	31.0	36.0	- 3.3	53			18												
1. SCOTLAND, E.																									
	Tillypronie - S	1120	28.355	-	- .007	38.2	27.3	32.8	- 3.7	48	22nd	17	6th	32.2	-	30.9	1.1	-	0.7	.162	-	.156	86	-	89
	Dundee - -	164	29.394	-	- .007	41.0	31.9	36.5	- 3.5	48	27th	22	4th, 5th	36.3	-	35.4	0.9	-	0.8	.197	-	.192	91	-	91
	Nairn - -	82	29.487	- .185	+ .004	40.5	28.0	34.3	- 5.5	50	24th	7	6th	31.8	38.8	36.5	0.8	2.2	1.6	.160	.194	.186	90	83	86
	Gordon Castle S	107	29.473	-	- .006	41.0	30.0	35.5	- 5.0	50	20th	14	6th	35.9	-	35.7	1.7	-	1.4	.180	-	.184	85	-	87
	Aberdeen - -	90	29.483 29.478	- .225 - .225	- .007	39.8	33.0	36.4 36.4	- 3.7 - 3.2	45	23rd	23	6th	35.6	38.3	36.7	1.3	2.2	1.8	.185	.189	.184	88	82	85
	Balmoral - - S	927	-	-	-	39.4	26.0	32.7	- 3.6	48	22nd	5	6th	31.2	-	-	1.7	-	-	.135	-	-	76	-	-
	Crieff - -	436	29.088	-	- .007	41.3	31.6	36.5	- 3.6	49	22nd, 26th	21	6th	36.2	-	36.0	1.7	-	1.5	.182	-	.184	86	-	87
	Leith - -	37	29.492	- .280	+ .004	41.9	32.6	37.3	- 4.1	49	19th	20	6th	35.3	-	38.8	1.1	-	1.7	.185	-	.203	90	-	86
	Marchmont - S	500	28.987	-	- .007	40.7	30.2	35.5	- 3.7	48	20, 27, 28	18	17th	34.5	-	33.9	1.1	-	0.7	.178	-	.181	88	-	92
District Value -						40.4	29.7	34.9	- 4.4	50			1												
2. ENGLAND, N.E.																									
Northern Part.	Seaham - -	138	29.364	-	- .003	41.9	33.6	37.8	- 3.4	50	20th	23	6th	37.4	-	36.1	1.3	-	0.8	.198	-	.202	89	-	93
	Whitby - -	145	29.332	-	- .008	45.1	32.7	38.9	- 2.5	58	29th	17	6th	38.0	-	37.4	1.6	-	1.2	.204	-	.204	85	-	88
	Cockle Pk (Morpeth)	331	29.159	-	- .008	40.2	31.0	35.6	-	48	20th	19	5th, 6th	36.0	-	35.5	0.7	-	0.9	.200	-	.193	93	-	92
	Shields - -	117	29.386	- .318	+ .003	42.2	31.5	36.9	- 3.9	54	20th	21	5th, 6th	35.6	-	38.6	0.4	-	0.8	.201	-	.219	97	-	94
	Durham - -	352	29.123	-	- .008	42.1	31.6	36.9	- 3.3	55	20th	18	6th	36.6	-	35.7	1.1	-	0.6	.197	-	.199	89	-	93
	Rounton - -	245	29.230	-	- .008	43.2	31.9	37.6	- 2.3	56	30th	19	4th	36.5	-	36.0	1.0	-	0.9	.196	-	.193	91	-	91
Southern Part.	Scarborough - M	100	29.361	-	- .008	44.6	34.0	39.3	- 2.0	57	29th	26	5, 6, 17	39.3	-	38.3	1.5	-	1.2	.211	-	.207	88	-	90
	York - -	63	29.463	-	- .008	44.7	32.7	38.7	- 2.7	58	20th	19	1st	37.1	-	38.6	0.9	-	0.8	.203	-	.219	92	-	94
	Spurn Head - -	28	29.453	- .376	+ .003	42.0	34.1	38.1	- 2.9	55	29th	27	17th	36.6	40.1	38.6	0.8	1.6	1.4	.201	.216	.207	93	87	89
	Lincoln - -	42	-	-	-	45.1	31.2	38.2	- 3.6	60	29th	18	5th	37.4	-	-	1.2	-	-	.205	-	-	87	-	-
	Skegness - -	16	29.493	- .368	+ .003	42.5	32.2	37.4	-	58	29th	22	5th, 18th	36.0	-	38.4	0.7	-	0.9	.199	-	.214	94	-	93
	Hull - -	2	29.489	-	- .008	44.9	33.3	39.1	- 1.9	60	29th	22	17th	38.5	-	38.6	1.6	-	1.3	.201	-	.209	87	-	90
District Value -						43.3	32.2	37.6	- 3.0	60			14												
3. ENGLAND, E.																									
Northern Part.	Lowestoft - -	75	29.442	-	- .009	42.2	34.0	38.1	- 3.1	54	31st	23	5th	39.0	-	37.1	1.8	-	1.1	.202	-	.199	85	-	90
	Cromer - -	139	29.378	-	- .009	44.2	33.3	38.8	-	61	29th	24	5th, 17th	38.4	-	37.4	1.5	-	0.8	.202	-	.208	88	-	93
	Hillingdon - -	92	29.403	-	- .009	44.6	32.7	38.7	- 2.8	61	29th	17	5th	38.3	-	37.6	1.2	-	0.8	.208	-	.209	90	-	93
	Norwich - -	93	-	-	-	45.0	34.1	39.6	-	60	29th	20	5th	-	-	-	-	-	-	-	-	-	-	-	-
	YARMOUTH - -	27	29.490	- .366	- .003	42.6	33.6	38.1	- 2.4	56	29th	21	5th	36.5	39.8	36.8	1.0	1.6	0.9	.197	.213	.201	92	88	93
Southern Part.	Geldeston - -	47	29.472	-	- .009	44.7	33.6	39.2	- 2.4	61	29th	19	5th	38.8	-	37.9	1.3	-	0.8	.211	-	.211	90	-	93
	Cambridge - -	43	29.468	-	- .009	45.1	33.3	39.2	- 2.7	60	29th	12	5th	38.6	-	38.1	1.1	-	0.7	.218	-	.222	91	-	93
	CLACTON - -	62	29.458	- .382	- .003	41.9	32.9	37.4	- 4.8	52	27th	19	5th	36.0	40.1	37.8	0.8	1.7	1.1	.197	.214	.206	93	86	91
	Woburn - -	294	29.218	-	- .009	43.9	32.9	38.4	-	59	29th	17	5th	37.6	-	38.2	1.4	-	1.4	.202	-	.209	87	-	88
	Bennington - -	411	29.120	-	- .009	43.7	32.7	38.2	- 3.1	57	29th	18	5th	37.4	-	36.7	1.2	-	1.0	.199	-	.198	89	-	91
	Berkhamsted - S	397	29.100	-	- .009	44.1	32.8	38.5	- 3.0	57	29th	17	5th	36.8	-	37.4	1.2	-	1.1	.195	-	.202	89	-	90
District Value -						44.0	33.4	38.5	- 2.5	61			12												
4. MIDLAND COS.																									
Eastern Part.	Garforth - -	198	-	-	- .008	43.2	29.5	36.4	-	56	20th	8	1st	37.1	-	36.4	1.1	-	1.0	.204	-	.200	90	-	91
	Huddersfield -	411	29.063	-	- .008	42.3	31.8	37.1	-	55	29th	23	1st	36.1	-	36.7	-	-	-	-	-	-	-	-	-
	Wakefield - -	100	29.412	-	- .008	45.0	32.6	38.8	- 2.3	56	21st, 29th	19	5th	37.6	-	39.0	1.7	-	1.9	.192	-	.200	85	-	84
	Belvoir Castle -	276	29.219	-	- .009	43.7	32.5	38.1	- 2.6	58	29th	16	5th	36.2	-	37.3	0.8	-	0.6	.199	-	.211	93	-	95
	Coventry - -	309	29.190	-	-	44.0	32.4	38.2	- 3.9	58	29th	12	5th	37.1	-	-	1.3	-	-	.195	-	-	88	-	-
	NOTTINGHAM -	85	29.412	- .386	- .003	44.1	31.6	37.9	- 3.7	59	29th	14	5th	35.4	42.6	38.3	0.7	2.3	0.7	.194	.225	.217	94	83	94
	Birmingham -	542	28.923	-	- .009	42.6	32.6	37.6	- 3.6	57	29th	19	3rd	35.4	-	38.1	1.1	-	1.1	.188	-	.212	88	-	90
	Oxford - -	212	29.303 29.289	- .392 - .390	-	44.6	32.9	38.8	- 3.3	59	29th	19	5th	36.0 39.0	-	39.5 -	1.3 1.9	-	-	.192 .201	-	-	89 85	-	-
	Bath - -	84	29.423	- .395	+ .004																				



CLIMATOLOGICAL STATIONS, at 7 a.m., 1 p.m. and 6 p.m. or 9 p.m. or at 7 a.m. and 6 p.m. at TELEGRAPHIC REPORTING during the month of MARCH, 1909.

Earth Temperature.		BRIGHT SUNSHINE.				CLOUD (0-10.)			RAIN AND OTHER FORMS OF PRECIPITATION.				WEATHER.										WIND.										STATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
At 1 foot depth.	At 4 feet depth.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	Mean Amount.			Total Fall.	Diff. from Normal.	Most in a day.		Precipitation.	Snow.	Hail.	Thunderstorm.	Clear Sky.	Overcast.	Fog.	Ground Frost.	Wind-force 8 and above.	No. of Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
						I.	II.	III.			Amount.	Day.										Forces 4-7.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
°	°	Hrs.	Hrs.	%	%				Ins.	Ins.	Ins.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															</



TABLE A. (continued).—Giving a Summary of the METEOROLOGICAL OBSERVATIONS made at 9 a.m., 3 p.m. and 9 p.m. at NORMAL STATIONS in the BRITISH ISLANDS

DISTRICT.	STATION.	Height of Barometer cistern above M.S.L.	BAROMETER.			AIR TEMPERATURE.								HYGROMETER.												
			Mean at 32° F. at Level and Latitude of Station.	Diff. from Normal.	Cor. for Diurnal Range.	Mean of		Mean of A and B.	Diff. from Normal.	Absolute Maximum and Minimum.				Observations at 9 a.m., 3 p.m. and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.												
						A	B			Max.	Day.	Min.	Day.	Dry Bulb.			Dep. of Wet.			Vap. Pressure.			Humidity.			
														I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.	
5. ENGLAND, S.E.	Reading - - -	264	29.245	Ins.	-	0.009	44.7	33.2	39.0	-	59	29th	15	3rd	37.6	-	38.7	1.1	-	1.2	2.04	-	2.12	91	-	91
	Salisbury - - -	186	29.319	-	-	0.009	45.2	32.5	38.9	-3.1	56	29th	10	3rd, 5th	38.4	-	38.4	1.4	-	0.9	2.04	-	2.14	88	-	93
	Brighton - - -	48	29.484	-	-	-	43.4	35.3	39.4	-3.3	50	29th	21	5th	39.0	-	-	1.5	-	-	2.09	-	-	88	-	-
	Portsmouth - - -	18	29.520	-	-	-	45.3	35.4	40.4	-2.6	54	29th	20	3rd	40.3	-	-	1.7	-	-	2.15	-	-	87	-	-
	Eastbourne - - -	36	29.494	-	-	0.009	44.3	35.1	39.7	-3.3	53	11th	18	5th	39.6	-	39.7	1.2	-	1.3	2.23	-	2.21	89	-	87
	Dungeness - - -	21	29.475	-0.409	+	0.003	42.5	31.6	37.1	-4.8	50	29th	12	5th	37.1	41.6	40.6	0.6	1.7	1.1	2.09	2.28	2.30	95	87	91
	Hastings - - -	174	29.335	-	-	0.009	42.5	35.3	38.9	-3.5	51	25th	24	1st	38.5	-	39.2	1.5	-	1.3	2.03	-	2.14	87	-	89
	Southampton - - -	84	29.449	-	-	0.009	45.8	34.9	40.4	-3.2	59	29th	11	3rd	39.9	-	40.0	1.6	-	1.5	2.21	-	2.20	87	-	87
	Ventnor - - -	80	29.426	-	-	-	45.7	35.9	40.8	-3.3	53	29th	25	3rd	40.1	-	-	1.8	-	-	2.12	-	-	85	-	-
	District Value - - -						43.9	33.4	38.5	-3.7	61		0													
LONDON -	Tottenham - - -	55	29.454	-	-	0.009	44.1	34.7	39.4	-3.2	58	29th	13	5th	39.0	-	39.9	1.6	-	1.4	2.09	-	2.22	86	-	88
	Camden Square - - -	123	29.398	-	-	0.009	45.3	34.2	39.8	-3.2	61	29th	19	5th	39.2	-	40.6	1.5	-	1.7	2.10	-	2.18	86	-	86
	Westminster - - -	54	29.458	-0.401	+	0.003	44.9	34.1	39.8	-3.1	59	29th	18	5th	37.0	-	42.2	0.9	-	1.7	2.02	-	2.33	92	-	88
	Greenwich - - -	159	29.355 29.348	-0.398	-	0.009	45.5	33.8	39.6	-2.9 -2.6	62	29th	14	5th	38.8	-	38.8	1.6	-	1.6	2.05	-	2.05	87	-	87
	Norwood - - -	235	29.324	-	-	0.009	44.7	34.3	39.5	-3.0	59	29th	19	2nd	38.7	-	39.1	1.8	-	1.8	1.99	-	2.03	85	-	85
	Kew - - -	34	29.498 29.490	-0.402 -0.402	-	0.009	44.7	35.3	40.0	-2.5 -2.2	58	29th	17	5th	39.0	43.6	39.9	2.2	3.7	2.1	1.95	2.08	2.05	83	73	83
	Bunhill Row - - -			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Plumstead - - -			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
6. SCOT- LAND, W.	Laudale - - -	25	29.538	-	-	0.007	44.6	32.2	38.4	-3.1	54	23rd	19	3rd	39.3	-	38.0	1.9	-	1.8	2.06	-	1.97	85	-	85
	Poltalloch - - -	135	29.411	-	-	0.006	44.2	31.4	37.8	-2.9	53	21st	22	3rd	36.5	-	35.6	1.7	-	1.6	1.84	-	1.79	85	-	85
	Glasgow - - -	184	29.343	-	-	0.007	42.0	33.3	37.7	-2.8	49	22nd	22	3rd	36.4	-	37.6	2.1	-	2.2	1.76	-	1.84	80	-	81
	Rothsay - - -	76	29.476	-	-	0.007	44.3	34.6	39.5	-1.9	51	12, 19, 22	25	3rd, 5th	38.0	-	37.8	2.2	-	2.2	1.87	-	1.86	81	-	82
	Colmonell - - -	140	29.416	-	-	-	44.4	31.0	37.7	-3.7	54	22nd	17	3rd	35.9	-	-	1.6	-	-	1.82	-	-	86	-	-
	Dumfries - - -	60	29.490	-	-	0.007	44.6	32.3	38.5	-2.8	57	22nd	15	5th	36.7	-	39.2	1.9	-	1.8	1.82	-	2.05	84	-	5
	Cally, Gatehouse - - -	120	-	-	-	0.007	45.0	31.3	38.2	-2.7	57	22nd	20	3rd, 16th	39.0	-	36.4	1.9	-	1.6	2.01	-	1.85	85	-	86
	Douglas - - -	284	29.204	-	-	0.008	43.4	33.7	38.6	-3.2	50	20th, 24th	24	5th	38.4	-	37.7	1.7	-	1.6	2.02	-	1.97	85	-	85
	District Value - - -						44.0	32.3	38.1	-2.7	57		9													
7. ENG- LAND, N.W.	Southport - - -	42	29.471	-	-	0.008	44.2	33.9	39.1	-2.4	57	22nd	22	4th	38.7	-	38.3	1.8	-	1.3	2.00	-	2.05	86	-	89
	Manchester (City) - - -	195	29.302	-	-	0.008	44.3	35.1	39.7	-	56	29th	22	5th	38.2	-	39.7	1.9	-	2.0	1.98	-	2.09	84	-	84
	„ (Whitworth Pk) - - -	127	29.345	-	-	0.008	44.4	34.2	39.3	-	56	29th	16	5th	37.8	42.3	39.1	1.7	-	1.7	1.94	-	2.06	84	73	83
	Darwen - - -	710	29.723	-	-	0.008	41.7	31.1	36.4	-	53	20th	19	4th	36.7	-	36.6	0.8	-	0.8	2.01	-	2.05	92	-	92
	Aspatia - - -	254	29.241	-	-	0.008	42.7	31.3	37.0	-3.7	52	22nd	13	3rd	36.2	-	36.1	1.2	-	1.1	1.94	-	1.94	88	-	90
	Newton Rigg - - -	559	28.891	-	-	0.008	42.2	30.3	36.3	-3.3	55	22nd	10	4th	34.4	-	35.3	0.8	-	0.7	1.83	-	1.93	92	-	94
	Stonyhurst - - -	363	29.122	-	-	0.008	43.0	32.9	38.0	-2.6	53	20th, 29th	20	4th	37.4	-	37.9	1.7	-	1.7	1.92	-	1.96	83	-	83
	Blackpool - - -	73	29.433	-	-	0.008	43.9	33.3	38.6	-2.7	54	29th	17	4th	39.3	-	38.8	1.6	-	1.3	2.09	-	2.11	88	-	90
	M'nch't'r (Prestwich) - - -	320	29.154	-	-	0.008	43.6	32.6	38.1	-3.0	56	20th	15	5th	36.7	-	38.1	1.0	-	1.1	1.98	-	2.07	91	-	90
	Liverpl. Bidston Obs. - - -	197	29.288	-	-	0.008	43.5	34.4	39.0	-3.1	54	29th	25	4th	38.4	-	38.6	1.8	-	1.6	1.97	-	2.03	86	-	87
	Llandudno - - -	21	29.493	-	-	0.009	44.6	35.3	40.0	-3.2	54	19th, 29th	24	4th	40.3	-	40.4	2.4	-	2.2	2.02	-	2.07	81	-	83
	HOLYHEAD - - -	48	29.442	-0.379	-	0.003	44.2	35.6	39.9	-3.1	54	19th	28	4th, 5th	39.0	42.8	40.9	0.9	1.7	1.0	2.20	2.38	2.35	93	87	92
	Bettws-y-Coed - - -	100	29.393	-	-	0.009	45.7	33.5	39.6	-3.4	56	19th, 21st	17	4th, 5th	39.1	-	38.2	1.4	-	0.8	2.11	-	2.14	89	-	94
	District Value - - -						43.8	33.3	38.4	-2.9	57		10													
8. SOUTH WALES	Llangammarch Wells - - -	585	28.871	-	-	-	43.3	29.1	36.2	-5.3	52	19th	7	4th	36.2	-	-	1.2	-	-	1.91	-	-	89	-	-
	PEMBROKE - - -	150	29.320	-0.419	-	0.003	44.3	35.9	40.1	-2.9	49	18, 23, 30	26	5th	39.2	42.0	40.8	0.8	1.8	1.7	2.24	2.29	2.19	93	86	87
	Clyfton - - -	229	-	-	-	-	44.6	33.6	39.1	-3.3	54	29th	19	5th	-	-	-	-	-	-	-	-	-	-	-	
	PORTLAND BILL - - -	23	29.485	-0.412	-	0.003	44.5	37.0	40.8	-3.6	50	29th	26	4th	39.9	43.1	41.4	1.2	2.2	1.5	2.22	2.31	2.30	91	82	89
	Plymouth - - -	116	29.392	-	-	0.010	47.0	36.4	41.7	-2.5	55	21st, 23rd	25	5th	41.7	44.8	41.1	1.7	3.1	1.7	2.34	2.39	2.28	86	78	86
	Falmouth - - -	183	29.335 29.333	-0.406 -0.401	-	0.008	46.4	37.4																		



CLIMATOLOGICAL STATIONS, at 7 a.m., 1 p.m. and 6 p.m. or 9 p.m. or at 7 a.m. and 6 p.m. at TELEGRAPHIC REPORTING during the Month of MARCH, 1909.

Earth Temperature.		BRIGHT SUNSHINE.				CLOUD (0-10.)			RAIN AND OTHER FORMS OF PRECIPITATION.				WEATHER.								WIND.												STATIONS.	
At 1 foot depth.	At 4 feet depth.	Total in Hrs.	Hrs.	Diff. from Normal.	Per Cent.	Diff. from Normal.	Mean Amount.			Total Fall.	Diff. from Normal.	Most in a day.		Precipitation.	Snow.	Hail.	Thunderstorm.	Clear Sky.	Overcast.	Fog.	Ground Frost.	Wind-force 8 and above.	No. of Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.											
							I.	II.	III.			Amount.	Day.										Force 4-7.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		
—	—	65	—	—	—	—	7°6	—	7°2	2°75	+1°19	0°90	6th	24	8	0	0	2	17	0	—	0	3	21	4	1	6	3	6	5	10	6	Reading.	
39°3	—	83	—	50	23	—13	7°3	—	6°9	4°81	+2°64	1°61	6th	25	7	1	0	1	14	2	18	1	13	0	14	11	2	3	15	2	9	Salisbury.		
—	39°4	—	—	—	—	—	7°9	—	—	3°30	+1°58	0°37	24th	23	5	0	0	2	19	0	12	0	4	3	6	4	1	5	4	3	1	4	Brighton.	
40°5	42°6	101	—	28	—	—	6°3	—	—	3°93	+2°19	0°63	6th	23	4	1	0	0	16	0	14	0	19	0	5	5	0	2	4	4	6	5	Portsmouth.	
39°7	41°7	78	—	57	21	—16	7°4	—	7°2	4°03	+1°99	0°58	24th	25	6	0	0	4	17	0	—	0	6	4	5	8	3	2	1	26	3	10	Eastbourne.	
—	—	—	—	—	—	—	8°2	8°6	8°4	5°06	+3°68	1°90	3rd	27	9	0	0	0	20	9	—	0	56	0	13	12	5	7	17	22	7	10	Dungeness.	
39°3	40°8	78	—	59	21	—16	7°6	—	7°5	3°48	+1°53	0°83	3rd	25	10	0	0	1	16	—	13	1	24	1	13	6	2	2	18	6	6	8	Hastings.	
—	—	86	—	40	24	—11	7°0	—	7°0	3°58	+1°52	0°80	6th	23	8	1	0	2	13	2	16	0	23	0	3	11	0	11	0	19	1	17	Southampton.	
—	—	104	—	39	28	—11	7°2	—	—	3°96	+2°09	0°43	6th	26	9	0	0	1	21	1	—	0	8	2	8	8	2	6	6	13	8	9	Ventnor.	
39°1	40°8	78	—	21	—13	—	7°5	—	7°4	3°78	+1°97	1°90	—	24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	40°7	55	—	15	—	—	8°9	—	8°7	2°61	—	0°40	6th	24	7	1	0	0	23	0	12	0	4	4	5	11	1	3	13	9	8	8	Tottenham.	
37°7	39°3	60	—	16	—	—	7°9	—	—	2°85	+1°29	0°39	6th	25	5	0	0	3	19	2	16	—	—	2	5	3	3	4	4	1	4	5	Camden Square.	
—	—	52	—	17	14	—5	7°1	—	7°8	2°83	+1°29	0°45	6th	27	11	1	0	0	15	0	15	0	16	3	7	7	2	4	12	15	7	5	Westminster.	
—	39°8	75	—	24	21	—6	7°7	—	8°8	3°08	+1°56	0°51	6th	22	10	1	0	1	19	1	16	0	7	2	9	6	3	8	13	12	4	5	Greenwich.	
37°8	—	—	—	—	—	—	7°8	—	7°8	3°12	+1°55	0°51	6th	24	10	1	0	1	18	2	15	0	8	2	12	8	2	5	19	4	8	2	Norwood.	
38°5	40°8	67	—	39	18	—11	8°0	8°8	7°7	2°68	+1°17	0°52	6th	23	8	1	0	0	19	0	17	0	24	10	11	13	3	8	22	12	5	9	Kew.	
—	—	43	—	27	12	—7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Bunhill Row	
—	—	54	—	—	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Plumstead.	
—	—	—	—	—	—	—	7°8	—	6°6	1°53	—5°11	0°35	17th	12	12	0	0	0	12	0	—	0	35	9	15	0	17	10	9	0	0	2	Laudale.	
—	—	—	—	—	—	—	7°2	—	5°8	1°23	—2°52	0°24	7th	11	3	0	0	4	13	2	—	3	20	13	9	10	6	10	7	3	1	3	Poltalloch.	
—	—	50	—	34	14	—9	8°6	—	8°3	2°86	+0°26	0°66	24th	15	5	0	0	0	18	0	15	0	9	16	8	13	15	4	1	1	0	4	Glasgow.	
—	41°3	—	—	—	—	—	6°4	—	5°0	2°45	—0°92	0°53	7th	16	7	0	0	5	11	5	—	2	16	6	12	2	34	3	2	1	0	2	Rothsay.	
—	—	—	—	—	—	—	7°4	—	—	3°00	—0°14	0°58	24th	18	8	1	0	4	18	2	13	1	24	2	8	8	30	6	4	0	0	4	Colmonell.	
—	—	—	—	—	—	—	6°4	—	5°9	4°35	+1°54	0°92	17th	20	7	0	0	0	7	—	—	2	10	0	23	6	5	1	0	0	2	Dumfries.		
—	—	—	—	—	—	—	—	—	—	3°70	+0°13	0°49	28th	21	9	1	0	—	—	—	—	2	7	0	5	12	7	14	0	8	0	16	Cally.	
—	—	108	—	25	30	—7	7°7	—	7°0	4°13	+1°37	1°05	28th	20	8	5	0	1	14	6	15	0	19	4	9	17	7	5	1	4	4	11	Douglas.	
—	—	79	—	32	22	—9	7°4	—	6°4	2°76	—0°76	1°12	—	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
37°7	39°1	103	—	8	28	—3	7°5	—	6°6	2°85	+0°68	0°61	24th	18	5	4	0	—	16	1	16	0	26	5	6	11	5	12	11	4	1	7	Southport.	
36°9	39°8	49	—	13	—	—	—	—	—	3°03	+0°60	0°83	24th	18	6	0	0	—	—	4	?	0	2	2	12	8	8	11	8	3	3	7	Manchester (City).	
—	—	40	—	11	—	—	8°7	8°4	7°3	2°60	—	0°64	24th	15	5	0	0	0	17	2	14	0	16	0	9	14	12	16	19	3	6	8	" (Whit. P'k).	
37°0	38°6	58	—	16	—	—	8°5	—	7°9	4°14	—	0°82	24th	19	8	0	0	0	19	0	22	0	25	2	2	7	6	8	16	3	9	9	Darwen.	
—	—	95	—	26	—	—	7°6	—	6°2	4°23	+1°44	0°65	29th	23	9	0	0	—	12	0	20	0	5	14	17	15	4	3	1	5	2	1	Aspatia.	
37°4	38°5	80	—	30	22	—8	7°2	—	6°5	2°92	+0°45	0°56	24th	19	8	0	0	3	17	1	20	0	17	7	9	4	10	11	6	1	5	9	Newton Rigg.	
—	—	71	—	35	20	—9	7°7	—	5°6	2°66	—0°86	0°75	28th	17	13	2	0	3	15	0	15	0	6	20	4	12	3	4	5	5	4	5	Stonyhurst.	
38°4	40°9	110	—	2	30	0	7°7	—	7°8	2°70	+0°47	0°70	28th	17	5	0	0	1	17	0	16	0	20	1	8	12	7	10	9	5	2	8	Blackpool.	
—	—	50	—	33	14	—9	8°5	—	6°6	3°34	+0°80	0°91	24th	15	7	0	0	2	18	1	14	0	18	7	14	8	9	4	10	2	5	3	Manch'str (Prest).	
—	—	114	—	31	—	—	6°9	—	6°8	2°40	+0°62	0°44	24th	19	9	1	0	2	14	1	—	0	9	0	7	9	12	11	4	5	8	6	Liverpol, Bid.Obs.	
—	—	107	—	4	29	—2	7°1	—	8°5	2°52	+0°47	0°43	4th	22	5	0	0	0	16	0	—	0	4	1	5	9	10	1	10	6	18	2	Llandudno.	
—	—	—	—	—	—	—	7°3	7°6	8°2	3°47	+1°06	1°04	28th	23	9	6	0	0	14	6	—	1	32	4	14	17	11	11	8	14	6	8	Holyhead.	
38°5	41°5	82	—	23	—	—	6°9	—	6°5	4°10	—	0°66	24th	26	10	1	0	0	12	0	11	1	9	0	5	14	4	9	1	14	13	2	Bettws-y-Coed.	



TABLE B.—SUMMARY of the OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE at additional STATIONS, MARCH, 1909.

DISTRICT.	STATION.	Height of Gauge above M.S.L.	AIR TEMPERATURE.								Earth Temperature		Grnd Frost.	RAIN AND OTHER FORMS OF PRECIPITATION.					Number of Days.	BRIGHT SUNSHINE.				
			Mean of		Mean of A and B.	Diff. of Mean from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.		No. of Days.	Total Fall.	Diff. from Normal.	Most in a day.			Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	
			A	B			Max.	Day.	Min.	Day.							Amt.	Day.						
			Max.	Min.																				Max.
		Ft.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°		
0. SCOTLAND, N.	p Balta Sound	S	31	40.2	32.8	36.5	—	45	23rd	16	16th	—	—	—	3.08	—	0.43	21st	29	105	—	29	—	
	p Crathes	S	140	40.0	29.9	35.0	—	46	23rd	14	6th	36.1	37.6	16	6.46	—	1.49	7th	24	45	—	12	—	
1. SCOTLAND, E.	Stonehaven	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	57	—	16	—	
	p Balruddery	S	276	42.1	31.0	36.6	—	50	26th	21	4th	—	—	—	4.51	—	1.35	7th	21	64	—	18	—	
2. ENGLAND, N.E.	Edinburgh	—	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	59	—	34	16	-10
	a West Linton	S	800	38.6	26.1	32.4	- 6.3	49	22nd	1	5th	—	—	23	3.68	—	1.00	24th	22	77	—	21	—	—
3. ENGLAND, E.	a Alnwick Castle	—	210	41.4	31.4	36.4	- 3.8	54	20th	14	6th	—	—	—	6.35	+4.02	1.03	24th	21	—	—	—	—	—
	p Newcastle-on-Tyne	—	152	42.7	33.3	38.0	—	54	21st	23	6th	—	—	—	4.26	+2.27	0.72	6th	24	47	—	43	13	-12
4. MIDLAND COUNTIES	p Ampleforth	—	349	42.8	31.7	37.3	—	56	20th	19	17th	—	—	—	4.22	—	1.46	9th	12	—	—	—	—	—
	p Tealby	—	251	43.9	32.9	38.4	- 2.6	58	29th	22	4th, 5th	—	—	—	3.20	+1.42	0.56	24th	15	—	—	—	—	—
5. ENGLAND, S.E.	a Fulbeck	—	180	44.0	31.8	37.9	- 3.6	59	29th	19	5th	—	—	—	3.74	+2.30	1.25	6th	23	—	—	—	—	—
	a Rauceby	—	124	44.5	31.6	38.1	—	59	29th	18	6th	38.1	40.5	17	3.57	+2.07	0.86	6th	23	85	—	23	—	—
6. SCOTLAND, W.	a Felixstowe	—	10	42.0	33.2	37.6	- 4.2	51	25th	20	5th, 17th	—	—	—	2.66	—	0.40	6th	26	85	—	23	—	—
	a Rothamsted	—	424	43.8	32.8	38.4	- 2.7	57	29th	16	5th	—	—	—	3.35	+1.55	0.66	6th	27	69	—	48	19	-13
7. ENGLAND, N.W.	a Soeburyness	—	13	42.7	33.7	38.2	- 4.3	56	29th	23	5th	—	—	—	2.26	+1.10	0.31	6th	26	—	—	—	—	—
	a Southend-on-Sea	—	100	43.5	34.3	38.9	—	56	29th	21	4th	38.7	—	19	2.90	+1.58	0.72	3rd	21	74	—	20	—	—
8. ENGLAND, S.W.	a Harrogate	—	476	42.0	31.2	36.6	- 3.4	55	20th	20	4th	36.7	37.9	18	4.46	+2.34	1.25	6th	25	74	—	20	—	—
	a Bradford	—	330	42.0	31.6	36.8	—	55	29th	21	6th	35.4	38.6	16	4.14	—	0.88	6th	21	59	—	16	—	—
9. ENGLAND, S.W.	a Cheadle	—	646	42.0	30.6	36.3	- 4.0	53	29th	16	4th	—	—	22	4.18	+1.96	1.30	6th	22	—	—	—	—	—
	a Bawtry	—	65	45.1	32.2	38.7	- 2.8	59	29th	21	17th	—	—	—	2.78	+1.28	1.10	6th	17	—	—	—	—	—
10. ENGLAND, S.W.	a Worksop	—	56	45.7	31.8	38.8	- 2.9	58	29th	21	17th	37.7	39.1	18	3.23	+1.36	1.14	6th	23	70	—	31	19	- 9
	a Mayfield (Staffs.)	—	874	42.5	30.4	36.5	—	56	29th	9	5th	—	—	18	3.56	—	1.06	6th	18	—	—	—	—	—
11. ENGLAND, S.W.	a Kingston-on-Soar	—	125	44.2	31.1	37.7	—	59	29th	3	5th	38.5	—	—	2.81	—	0.83	6th	23	—	—	—	—	—
	p Rugby	—	379	44.2	31.9	38.1	- 3.3	58	29th	8	5th	—	—	21	3.37	—	0.70	6th	20	—	—	—	—	—
12. ENGLAND, S.W.	a Raunds	—	210	45.0	31.8	38.4	- 3.4	61	29th	14	5th	—	—	17	2.89	—	0.60	6th	22	—	—	—	—	—
	a Winslow	—	379	43.6	31.9	37.8	—	59	29th	18	5th	—	—	—	2.18	—	0.47	6th	21	—	—	—	—	—
13. ENGLAND, S.W.	a Hereford	—	291	44.7	30.8	37.8	- 4.5	59	30th	9	4th	—	—	23	2.59	+0.93	0.50	6th	24	—	—	—	—	—
	a Cirencester	—	446	42.9	30.6	36.8	- 4.1	56	29th	8	3rd	—	—	16	3.71	+1.70	0.96	6th	22	72	—	44	20	-12
14. ENGLAND, S.W.	a Epsom	—	160	44.2	32.1	38.2	—	58	29th	9	5th	—	—	20	4.51	—	1.05	6th	28	—	—	—	—	—
	a Wokingham	—	216	—	—	—	—	—	—	7	5th	—	—	—	3.70	—	0.97	6th	23	—	—	—	—	—
15. ENGLAND, S.W.	a Maidenhead	—	99	46.3	32.5	39.4	—	61	29th	13	5th	—	—	23	2.87	+1.18	0.58	6th	25	—	—	—	—	—
	a Marlborough	—	424	43.2	29.8	36.5	- 4.6	54	30th	0	3rd	—	—	19	4.68	+2.41	1.52	6th	24	60	—	45	16	-13
16. ENGLAND, S.W.	a Bucklebury	—	409	43.4	31.9	37.7	—	57	29th	11	3rd	—	—	20	3.07	—	0.86	6th	22	—	—	—	—	—
	a Swaraton	—	310	44.1	31.1	37.6	- 3.5	59	29th	3	3rd	—	—	—	4.09	+1.91	0.98	6th	23	—	—	—	—	—
17. ENGLAND, S.W.	a Margate	—	35	43.7	34.6	39.2	- 3.2	56	29th	21	5th	38.6	39.6	8	2.04	+0.61	0.30	3rd, 30th	20	79	—	43	22	-11
	Broadstairs	—	140	—	—	—	—	—	—	—	—	—	—	—	—	3.01	—	0.35	3rd	22	82	—	22	—
18. ENGLAND, S.W.	Ramsgate	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	89	—	24	—	—
	a Wisley	—	150	44.5	33.7	39.1	- 2.9	58	29th	14	2nd	38.8	40.3	15	3.31	—	0.90	6th	24	69	—	19	—	—
19. ENGLAND, S.W.	a Dover	—	421	42.5	33.2	37.9	—	53	29th	17	5th	39.0	41.8	15	3.55	—	1.00	3rd	24	31	—	22	—	—
	a Tunbridge Wells	—	231	42.7	32.1	37.4	- 4.2	57	29th	17	5th	37.5	—	—	4.51	+2.47	0.78	6th	26	68	—	54	19	-14
20. ENGLAND, S.W.	p Folkestone	—	121	42.3	33.7	38.0	—	51	29th	12	5th	—	40.8	—	2.36	+0.53	0.42	3rd	25	75	—	21	—	—
	Littlestone	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	74	—	20	—	—
21. ENGLAND, S.W.	a Bexhill	—	27	42.7	35.1	38.9	—	49	25th	21	5th	40.7	—	7	3.41	—	0.60	3rd	25	78	—	21	—	—
	Hove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	92	—	25	—	—
22. ENGLAND, S.W.	p Lewes	—	58	43.8	34.5	39.2	—	55	29th	8	5th	—	—	—	3.89	—	0.61	24th	26	—	—	—	—	—
	a Worthing	—	36	44.1	34.7	39.4	- 2.8	51	28th, 29th	20	5th	39.8	41.6	13	3.03	+1.36	0.37	6th, 24th	21	96	—	26	—	—
23. ENGLAND, S.W.	a Bognor	—	20	43.8	35.4	39.6	—	51	25th	21	3rd	—	43.0	13	3.23	—	0.50	6th	26	106	—	29	—	—
	Westbourne	—	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	96	—	26	—	—
24. ENGLAND, S.W.	a Totland Bay	—	140	43.9	35.2	39.6	- 2.9	53	29th	20	3rd	—	—	12	3.72	+1.98	0.46	6th	24	97	—	27	—	—
	a Sandown	—	20	46.8	35.9	41.4	—	55	25th	21	3rd	—	—	—	3.93	—	0.51	24th	25	106	—	29	—	—
25. ENGLAND, S.W.	p Bournemouth	—	145	45.7	34.4	40.1	—	55	21st, 30th	16	3rd	39.0	40.1	—	4.34	—	1.00	6th	23	94	—	26	—	—
	p Oban	—	20	45.3	31.7	38.5	—	53	21st, 23rd	21	5th	—	—	21	0.69	—	0.21	4th	9	95	—	26	—	—
26. ENGLAND, S.W.	a Thorntonhall (Lanarkshire)	—	440	40.8	29.6	35.2	—	51	22nd	9	3rd	—	—	17	3.83	—	1.12	24th	17	49	—	14	—	—
	a Kilmaronock	—	90	43.5	30.6	37.1	- 4.1	52	23rd	11	3rd	—	—	—	1.62	—	0.33	24th	12	52	—	14	—	—
27. ENGLAND, S.W.	a Carnforth	—	174	44.2	32.3	38.3	—	57	29th	18	4th	—	—	19	2.69	—	0.81	28th	15	96	—	26	—	—
	a Lancaster	—	311	44.0	33.3	38.7	—	55	29th	21	4th	38.9	41.6	21	3.22	—	0.71	28th	20	87	—	24	—	—
28. ENGLAND, S.W.	a Burnley	—	459	42.3	31.2	36.8	—	55	29th	18	4th, 5th	35.9	38.3	20	2.51	—	0.52	28th	17	51	—	14	—	—
	a Hoylake	—	307	44.9	34.9	39.9	—	55	22, 28, 29	21	4th	—	—	15	2.25	—	0.47	24th	20	101	—	28	—	—
29. ENGLAND, S.W.	p Rhyl	—	30	45.3	34.2	39.8	—	56	29th	18	4th	—	—	11	1.58	-0.07	0.31	24th	18	110	—	30	—	—
	a Colwyn Bay	—	65	44.4	35.5	40.0	—	55	29th	25	4th	—	—	—	2.09	—	0.48	24th	15	92	—	25	—	—
30. ENGLAND, S.W.	a Hawarden Bridge	—	22	44.6	33.3	39.0	- 3.9	57	29th	13	4th	—	—	—	2.51	+1.04	0.34	4th	21	—	—	—	—	—
	a St. Asaph (St. Beuno's Coll.)	—	479	43.4	33.6	38.5	—	56	20th	21	4th	—	—	16	2.04	—	0.35	24th	19	—	—	—	—	—
31. ENGLAND, S.W.	a Towyn	—	10	45.8	35.3	40.6	—	56	19th	19	5th	40.1	44.9	9	3.28	—	0.55	28th	19	109	—	30	—	—
	p Aberdovey	—	22	45.5	36.9	41.2	—	55	20th	25	4th, 5th	—	—	—	3.53	—	0.84	24th	18	110	—			

\* The gauge at Folkestone is not of standard type.

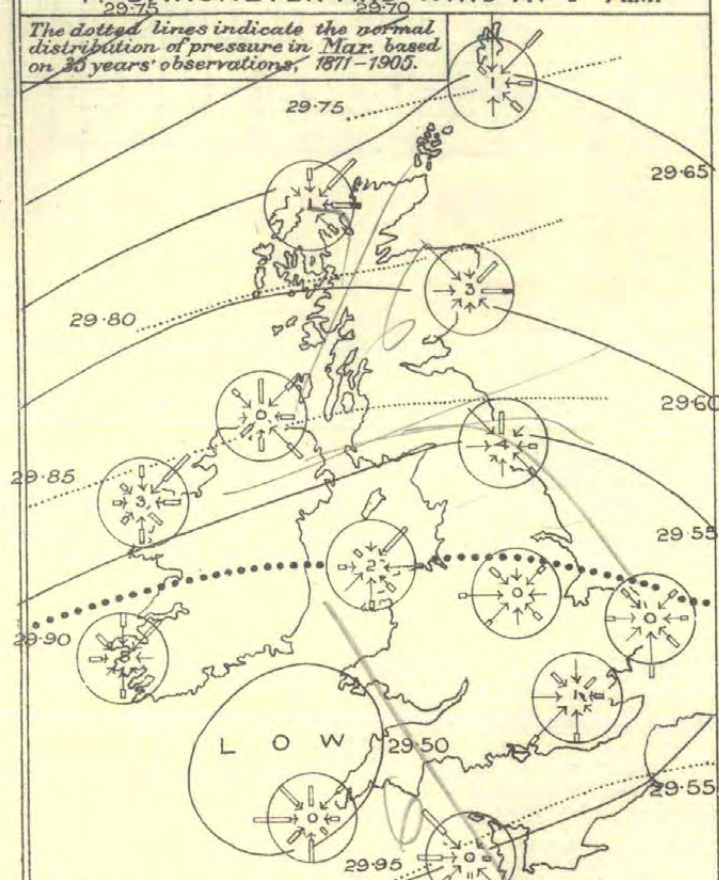


# MONTHLY WEATHER CHARTS, MAR., 1909.

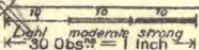
XXXIII

## 1. BAROMETER AND WIND AT 7 A.M.

The dotted lines indicate the normal distribution of pressure in Mar. based on 30 years' observations, 1871-1905.



WIND ROSES. The arrows fly with the wind and indicate frequency and force, thus:

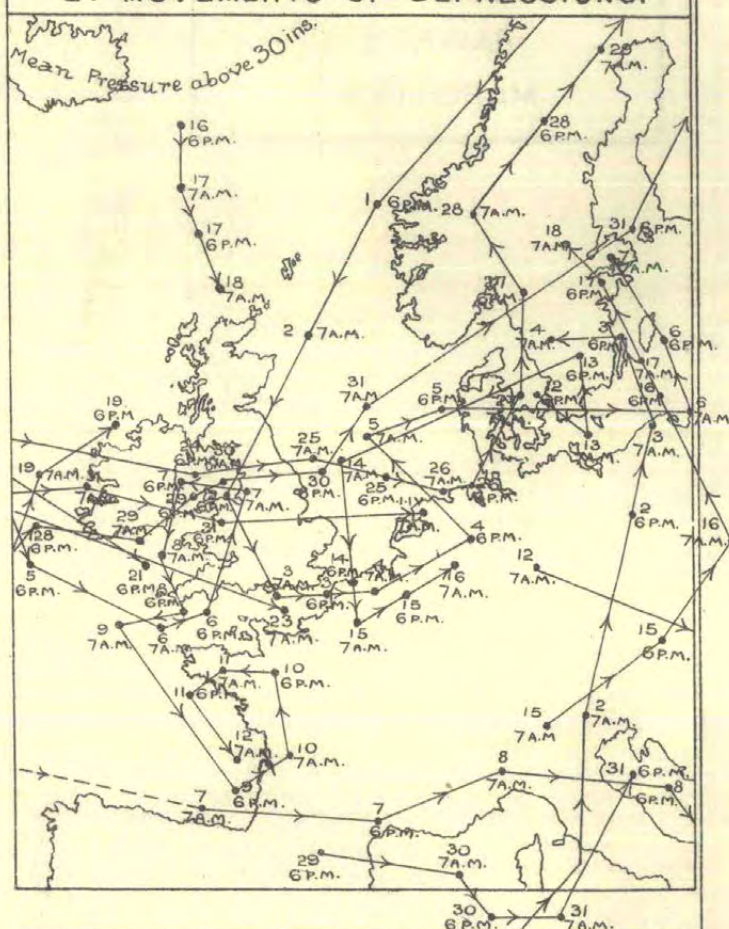


## 3. DISTRIBUTION OF MEAN TEMPERATURE.

Reduced to sea level by a correction of 1°F for 300ft.



## 2. MOVEMENTS OF DEPRESSIONS.



## 4. BRIGHT SUNSHINE, IN HOURS.

Isobels are shown for 60, 80, 100, 120, and 140 hours.





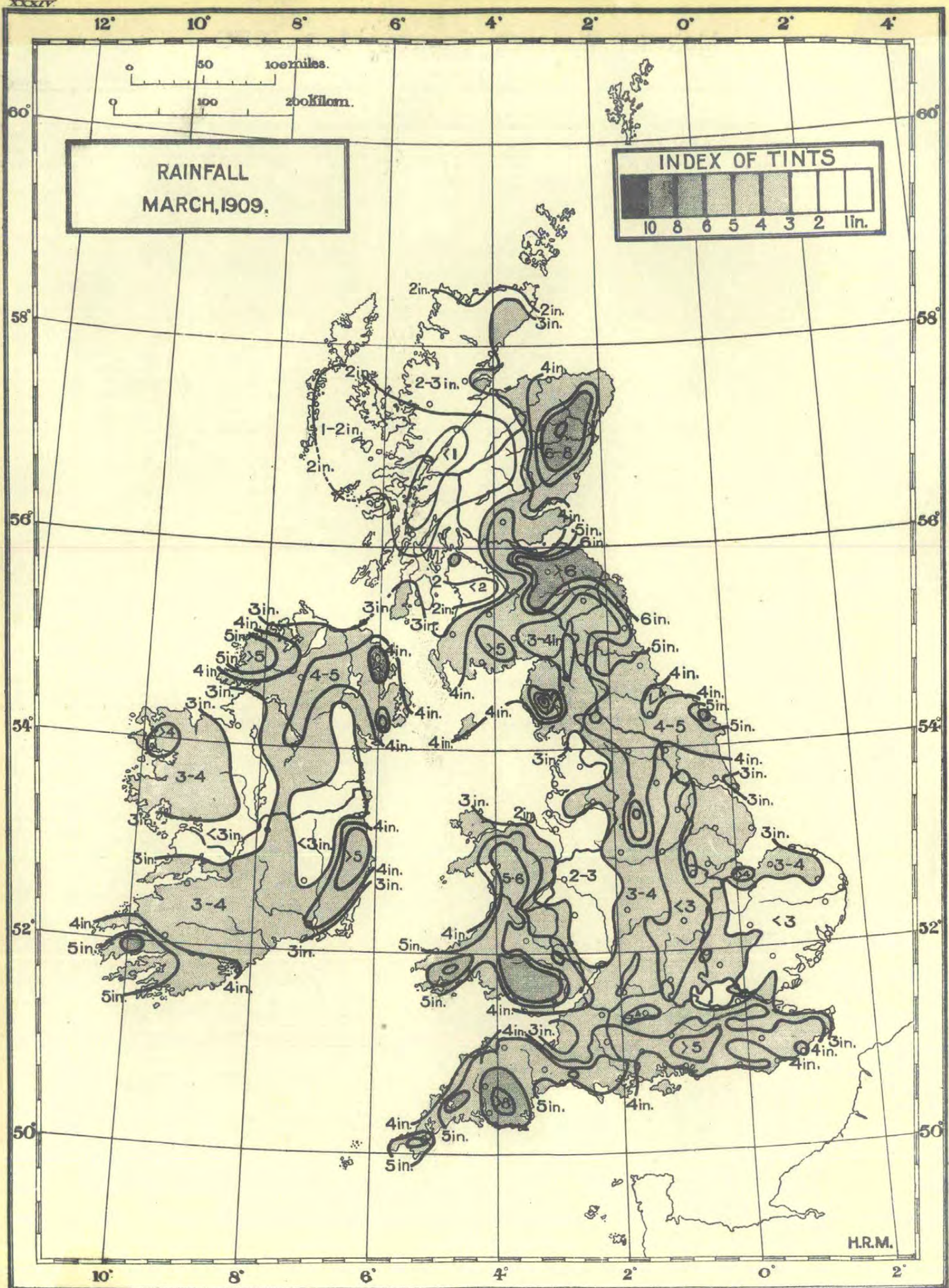




TABLE B (continued).—SUMMARY of the OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE at additional STATIONS, MARCH, 1909.

DISTRICT.	STATION.	Height of Gauge above M.S.L.  Ft.	AIR TEMPERATURE.								Earth Temperature		Grnd Frost.  No. of Days.	RAIN AND OTHER FORMS OF PRECIPITATION.					BRIGHT SUNSHINE.				
			Mean of		Mean of A and B.  °	Diff. of Mean from Normal.  °	Absolute Maximum and Minimum.				1 ft.	4 ft.		Total Fall.  Ins.	Diff. from Normal.  Ins.	Most in a day.		Number of Days.	Total in Hours.  Hrs.	Diff. from Normal.  Hrs.	Per Cent.  %	Diff. from Normal.  %	
			A	B			Max.	Day.	Min.	Day.						Amt.	Day.						
			Max.	Min.																			
8. ENGLAND, S.W. (continued)	¶ a Shaftesbury - - -	722	42.4	32.2	37.3	- 3.6	51	29th	20	3rd	38.4	—	—	4.69	+2.51	1.64	6th	25	—	—	—	—	
	¶ a Arlington - - -	613	43.7	33.0	38.4	- 2.8	60	29th	17	5th	—	—	—	5.26	+1.55	0.95	24th	28	—	—	—	—	
	¶ § a Culmington - - -	202	45.9	32.6	39.3	- 4.4	55	23rd	17	4th	—	—	18	5.34	+2.92	1.10	5th	27	79	- 42	22	- 11	
	¶ a Torquay - - -	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	107	- 33	29	- 9	
	¶ a Weymouth - - -	21	45.9	35.9	40.9	—	54	29th	23	4th	—	—	—	3.90	—	0.95	6th	25	99	—	27	—	
	¶ a Newquay - - -	100	46.4	37.2	41.8	- 2.8	55	18th	25	4th	42.9	—	—	3.72	+1.38	0.43	27th	27	116	- 18	32	- 5	
	¶ a Salcombe - - -	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	113	—	31	—	
¶ a Penzance - - -	54	48.9	38.7	43.8	—	56	21st	28	4th	—	—	—	5.84	—	1.04	27th	26	131	—	36	—		
9. IRELAND, N.		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
10. IRELAND, S.	¶ p Dublin (Glasnevin) - -	37	45.7	33.5	39.6	- 2.8	55	23rd	22	5th	—	—	20	2.91	+0.86	0.50	28th	21	—	—	—	—	
	¶ a Kingstown - - -	42	45.0	36.0	40.5	—	55	24th	26	4th	—	—	—	3.20	—	0.50	5th	24	106	—	29	—	
	¶ p Clongowes Wood College	245	46.4	31.0	38.7	—	55	29th	19	3rd	—	—	19	2.52	—	0.43	27th, 28th	23	110	—	30	—	
	¶ p Newcastle (Co. Wicklow)	256	44.5	34.6	39.6	—	53	24th	25	5th	—	—	—	4.79	—	0.83	28th	20	—	—	—	—	
	¶ a Kilkenny - - -	212	46.8	33.7	40.3	- 2.9	56	23rd, 24th	21	5th	—	—	—	2.73	+0.56	0.51	28th	21	—	—	—	—	
	¶ a Cahir - - -	199	46.6	34.8	40.7	- 2.6	56	24th	15	5th	—	—	—	3.30	—	0.70	27th	28	—	—	—	—	
	¶ a Foynes - - -	108	46.9	35.5	41.2	- 2.4	55	28th	25	6th	—	—	—	3.09	+0.28	0.40	27th	30	—	—	—	—	
¶ § a Ballinacurra - - -	34	48.3	35.2	41.8	—	58	25th	24	4th	—	—	—	3.49	—	0.81	27th	18	123	—	34	—		
11. ENGLISH CHANNEL		¶ a Guernsey (Villa Carey) -	180	47.5	39.0	43.3	- 1.7	57	29th	31	5th	—	—	—	5.08	+2.65	0.73	29th	28	115	- 32	32	- 8

## NOTES ON THE STATISTICAL TABLES.

**Hours of Observation.**—The following types are used to indicate the hours of observation at Stations included in Table A:—**Clarendon**, Normal Climatological Stations—I, 9 a.m. [II, 3 p.m.], III, 9 p.m. Black Capitals, telegraphic reporting normal climatological stations—I, 7 a.m., II, 1 p.m., III, 9 p.m. Roman, telegraphic reporting stations—I, 7 a.m., [II, 1 p.m.], III, 6 p.m. Italic, auxiliary climatological stations—I, 9 a.m. only (9 a.m. and 6 p.m. at *Ventnor*). The summaries are based on observations made three times a day wherever the data are available, except in the case of the element pressure (see below). At stations shown in clarendon type the maximum and minimum temperatures are read at 9 p.m.; at the remaining stations these observations are made at 1. In Table B the letters *a* and *p* indicate whether the readings of the maximum and minimum are taken at the hours of morning or evening observation.

**Barometer.**—The correction for latitude has not been applied to the readings quoted in the Tables. It is applied to the readings at sea level from which the chart showing the mean monthly distribution of pressure is prepared. The values given in the tables are for station level. The values printed are (1) for stations shown in clarendon type, the means of observations at 9 a.m. and 9 p.m.; (2) for stations shown in Capitals, the means of observations at 7 a.m., 1 p.m., 9 p.m.; (3) for stations shown in Roman type, the means of observations at 7 a.m. and 6 p.m.; (4) for stations shown in italic type, the means of observations at 9 a.m. The column headed C gives the correction for diurnal variation required to reduce the means of observations at fixed hours to true diurnal means, based on the analysis of the values obtained at the four observatories for the period 1871–1905. The difference from normal is based upon the 7 a.m. readings only, except in the cases of Kew, Greenwich, Aberdeen, Valencia and Falmouth (see below).

**Rainfall.**—The amounts are those for the 24 hours commenced at the time of morning observation.

**Weather Phenomena.**—The number of days of Rain, Snow, Hail, Thunderstorm, Fog, Ground Frost, and Gale, are counted irrespective of the hours at which the phenomena occur. Except in the cases of rainfall (see above) and ground frost the day is the civil day. A day is reckoned as a day of “clear sky,” if the mean of the estimates of the “amount of cloud” at the fixed hours of observation is less than 2, and as an “overcast” day if the mean is greater than 8. Days of Ground Frost are days on which the minimum thermometer on the grass falls to 30° or below; the “day” is taken as the 24 hours ending at 9 a.m.

**Wind Summaries.**—The results given under wind direction, and the number of observations of calms and of fresh or strong wind, are based on the observations at fixed hours. At Deerness, Aberdeen, Valencia, Falmouth, Kew, Glasgow, Stonyhurst and Armagh the wind observations are based on the records of a standard Robinson anemometer (factor 2.2). Velocities of between 13 and 38 miles in the hour have been entered as “fresh or strong winds,” velocities of 39 miles in the hour, or above, as gales.

**Averages.**—The normal averages used for stations are—Pressure, Temperature, and Rainfall for the 35 years 1871–1905; Bright Sunshine for the 25 years 1881–1905. The values are published in Appendix III. to the Weekly Weather Report for 1906. For the Royal Observatory, Greenwich, and the Radcliffe Observatory, Oxford, averages for longer periods are used. See Notes in Monthly Weather Reports for 1908. Monthly averages of pressure at telegraphic reporting stations for the epoch 8 a.m. are published in Appendix I. to the Daily Weather Report. In order to render these averages comparable with the data for the present month, a correction, based on the results for the four observatories as published in “Hourly Readings at the Observatories under the Meteorological Council,” has been applied to each of them before the figures given in the column headed “Barometer—Difference from Normal” were computed.

**Aberdeen, Falmouth, Kew, Valencia, Oxford, Greenwich.**—The figures quoted in the second line assigned to these observatories in the columns for Barometer and Mean Temperature are the true daily means computed from the hourly tabulations of the traces of the photographic recording instruments. For Kew, Falmouth, Aberdeen and Valencia the divergences of the means of the readings at 9 a.m. and 9 p.m. from their normal averages are also given.

**Royal Observatory, Greenwich.**—The earth temperatures are taken at a depth of 3 ft. 2 ins. The daily rainfall amounts are those for the 24 hours comprising the civil day. The number of days in the month which were persistently overcast from midnight to midnight was 1, the number of persistently cloudless days was 0, the number of persistently foggy days was 0.

**¶ § Mean Values for Districts.**—The stations used in the Weekly Weather Report for the computation of “district values” of rainfall and temperature are distinguished by the sign ¶, those used for the computation of “district values of bright sunshine” by the sign §. These stations are distributed between Tables A and B. The monthly mean values for districts given in this Report for maximum, minimum and mean temperature, duration of bright sunshine, number of rain days and amount of rainfall, are computed from the data for these “representative” stations. The mean temperature for districts is computed in the manner shown in the preface to this and previous volumes of the Weekly Weather Report. The monthly mean values for districts for “amount of cloud” are computed from the data for all stations included in Table A. The extreme values of the various elements in each district are printed in distinctive type. In the lines devoted to district values, the columns referring to absolute highest and absolute lowest temperature and the maximum amount of rainfall in a day contain the extreme values for the district at any station included in either table of the Report. The averages for districts with which the current values are compared are for the 25 years 1881–1905, as in the case of the corresponding values published in the Weekly Weather Report.

**Meteorological Societies.**—Information for stations marked ¶ is supplied by the Royal Meteorological Society, and that for stations marked § is supplied by the Scottish Meteorological Society. Stations marked S are in connexion with the Scottish Meteorological Society and those marked M with the Royal Meteorological Society, as well as with the Meteorological Office.







# MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

(Supplement to the Weekly Weather Report.)

SUMMARY OF OBSERVATIONS COMPILED FROM THE RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS IN THE UNITED KINGDOM, WITH A CHART OF RAINFALL CONTRIBUTED BY THE BRITISH RAINFALL ORGANISATION.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE,

AND PUBLISHED FOR H.M. STATIONERY OFFICE BY WYMAN AND SONS, LTD., FETTER LANE, E.C.; OR OLIVER AND BOYD, EDINBURGH; OR E. PONSONBY, 116, GRAFTON STREET, DUBLIN.

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## SUMMARY OF OBSERVATIONS.

**Pressure, Winds and Weather.**—After the very striking reversal in the distribution of atmospheric pressure which formed an almost constant feature of March, the conditions last month assumed a more normal character. The means of the barometric readings show that over the British Isles generally the values differed only slightly from the average, being in excess to the extent of 0.12 in. at Jersey, and in defect by 0.07 in. at Blacksod Point, the divergence in most cases not amounting to 0.05 in. From a mean of 30.04 ins. at Jersey the results diminished to 29.81 ins. at Blacksod Point, the diminution continuing over the ocean to slightly below 29.7 ins. at Reykjavik, in the southwest of Iceland. The extreme range of pressure was moderate to slight, less than 0.8 in. at Jersey, between that and an inch from the Thames Valley southward, and amounting to or slightly exceeding 1.5 in. in the northwest of Ireland. In close agreement with the general pressure distribution the winds were in most parts of the country from between South and West, but with a fair proportion from South-East or East in several localities. As may be inferred from the slight gradient and the absence of any great range of pressure the month as a whole was of a quiet character; the wind exceeding the force of a strong breeze on various days, but seldom reaching the force of a gale.

The morning of April 1st witnessed a sudden change in the type of weather. The last of the long series of depressions of the previous month was passing away eastward across the Netherlands and Germany, and a well-marked anticyclone was spreading down from beyond the Arctic Circle. For ten days this high pressure system was the dominating factor over Western Europe; its central space at first covered Britain, then drifted slowly eastward as far as the Baltic, and afterwards returned to this country. On the 2nd the barometer stood above 30.5 ins. in most parts of the Kingdom, 30.56 ins. at Dover being the highest record for the month. On the return of the system readings of about 30.5 ins. were again registered in several localities. The eastward transference of this high pressure in the first part of the period was associated with a corresponding eastward expansion of an extensive disturbance, which wireless reports from steamers showed occupying the greater portion of the northern half of the Atlantic. While, therefore, England and Eastern Scotland were wholly within the influence of the high pressure area, the more western parts of the Kingdom, although the barometer was also high there, were affected by the ocean depression. At the west coast stations strong to high southerly winds were experienced during the first five days, attaining gale force in places, a strong gale at Roche's Point on the 2nd. Extremely unsettled weather also ruled in those regions, falls of more than an inch of rain in a day occurring in Ireland and Western Scotland:—on the 2nd 1.5 in. at Ballinacurra, 1.6 in. at Hurdlestown and Waterford and 2 ins. at Newmarket-on-Fergus; on the 3rd, 1.6 in. at Ballinacurra, Roche's Point and Rotheray, and 1.9 in. at Killybegs (Donegal); and on the 4th 1.5 in. at Gruline (Mull). Subsequently these districts were favoured with the exceptionally brilliant weather which had set in over the eastern parts of the Kingdom at the commencement of the month. At a very large number of stations in England, Wales and Eastern Scotland no rain was measured during the first ten to twelve days, and the sky generally was cloudless. During the week ending on the 10th many neighbourhoods in the south and east of England had more than 80 hours of sunshine, up to 85 hours at Lowestoft. At Felixstowe, Greenwich, Worthing, Tunbridge Wells, Hastings, Yarmouth and Lowestoft the week's record was 93 per cent. of the time the sun was above the horizon.

In the Monthly Summary for March, 1907, p. xxiii., special direction was directed to "Cloudless Weather and Coast and Inland Temperatures." The period now under notice provided numerous instances of the same nature, the daily range of temperature on the coast being very much smaller than it was inland. Thus, on April 10th, Llangammarch Wells had a range of 47°, Marlborough 44°, and Shrewsbury 43°, against 19° at Felixstowe, 18° at Margate and Douglas, 15° at Falmouth and Sandown, 14° at Bexhill-on-Sea, and 13° at Aberystwyth. It was during this very fine spell that the highest and the lowest temperatures of the month were registered, maxima of 70° and upwards occurring in several localities. On the 10th, the temperature at Hereford and Shrewsbury rose to 73°, and at Cullompton and Maidenhead to 74°. In Ireland 72° was reached at Killarney on the 9th; and in Scotland 69° at Crieff and Dumfries on the 8th. Night minima below the freezing point in the shade were experienced in numerous neighbourhoods, below 25° in several instances—on the 2nd, 22° at Newton Rigg, Cally, West Linton and Fort William, 21° at Balmoral and 20° at Wokingham and Fort Augustus; on the 6th, 18° at Balmoral; and on the 10th, 22° at Llangammarch Wells.

After the 7th the anti-cyclone diminished in intensity, and by the evening of the 10th it was withdrawing across the Bay of Biscay.

Concurrently, the depression situated far out on the Atlantic moved north-eastward towards Iceland, then eastward to Shetland by the morning of the 12th. The distribution of pressure over these islands underwent a complete alteration, and for the rest of the month cyclonic conditions prevailed. From Shetland the disturbance already referred to passed across Denmark to North Germany and Russia. It was followed immediately by another which appeared off the South of Iceland on the morning of the 12th. Over Britain these systems produced the lowest barometer readings of the month, 29.19 ins. at Stornoway on the evening of the 12th. From the 14th to the 20th, a large system of low pressure occupied the ocean beyond our western coasts. On the 21st, it advanced towards Ireland, where on the following day the barometer fell rapidly, until at 4 p.m. on the 22nd it touched 28.8 ins. at Blacksod Point. The system then withdrew to the Atlantic, to about 53°N., 25°W., on the morning of the 24th. From this position it advanced slowly towards the south-west of Ireland, and between the 26th and 28th, it moved north-eastward across Ireland and Scotland to Southern Norway. Smaller secondary disturbances visited the country on the 24th, 28th and 29th. During this disturbed period of nearly three weeks strong or high winds were felt on most days. On the 13th, Stornoway had a westerly gale; on the 21st, Roche's Point a strong southerly gale, with gusts attaining a velocity up to 66 miles per hour; on the 22nd, Blacksod Point a south-westerly gale, Holyhead and Penderennis and Roche's Point a southerly gale; and on the 23rd, Malin Head a south-easterly gale. The weather throughout this period was of a typical April character in all parts of the Kingdom, with bright sunshine more than usually abundant, and yet rain was almost of daily occurrence, mostly in gentle showers, but on the 15th, an inch was measured at Ballinacurra; on the 22nd, 1.3 in. at Abersychan (Monmouth), and 1.1 in. at Sheepstor (Dartmoor); on the 23rd, an inch at Abersychan; and next day an inch at Uldale (Cumberland). In the closing days hail, and on the 30th, sleet and snow fell in many districts. Mildness prevailed during the first fortnight of this broken weather, with no great variations of temperature, but the last week was distinctly colder, and on the 30th, the maximum was below 50° over a large extent of country, violent fluctuations of as much as 10° or 12° occurring with some of the snow squalls. Thunderstorms were experienced at one or other of our stations on nearly every day in some parts of the country, but with the exception of Norwich on the 27th, and Newquay on the 29th, they were not noted as of any great severity.

Aurora was observed at Deerness on the 11th, and at Gordon Castle on the 16th.

There was a good deal of fog reported on the western and eastern coasts from the 7th to the 10th, and on the English Channel from the 14th to the 19th; at times it was rather thick.

On all coasts there was a general increase in the temperature of the sea water since March, the greatest being along the coast of Sussex and Kent. Off the west of Ireland and the north-east of Scotland the water was slightly warmer than the air on shore, but in nearly all other localities it was colder, by as much as 4° or 5° along the east of England.

**Rainfall.**—In many parts of eastern, central and southern England, and at some places in the north of Scotland, the total rainfall for the month was slightly below the average. In all other districts an excess was reported, and in parts of Ireland and the west of Scotland affected by the heavy downpour of the first 5 days the excess was large, the aggregate being in many places more than twice as much as the normal. At Dublin (City) so large an April rainfall had not been recorded since the year 1877. Our map shows the heaviest rainfall—over 8 ins.—in two small areas situated in the south-west of Ireland and the central part of North Wales respectively. The largest total shown in the tables is 6.6 ins. at Ballinacurra. In many parts of eastern, central and southern England less than an inch and a half was collected, the smallest amounts being 0.9 in. at Cromer and Jersey and 1.0 in. at Brighton. Ireland and the west and north of Scotland experienced a measureable quantity of precipitation on 20 or more days, and Toynes and Roche's Point on as many as 27 days, the number decreasing to 15 or less in the drier portions of England generally, to 10 at Rauceby, Lincoln and Cambridge, and to 9 at Raunds.

**Bright Sunshine.**—Over the country generally the aggregate duration was in excess of the normal, the finest weather occurring in the east and south east of England, where the total amounted in many places to more than 60 per cent. of the possible duration. In London (at Westminster), the total of 220 hours was as many as 107 above the average, and was 13 hours in excess of anything registered in April since the recording instrument was installed in 1893. In Scotland and in some portions of the south west of England the amount agreed very closely with the normal.



TABLE A.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at 9 a.m., 3 p.m. and 9 p.m. at NORMAL STATIONS in the BRITISH ISLANDS

DISTRICT.	STATION.	Height of Barometer at Level and Latitude of Station.	BAROMETER.			AIR TEMPERATURE.								HYGROMETER.											
			Mean at 32° F. at Level and Latitude of Station.	Diff. from Normal.	Cor. for Diurnal Range.	Mean of		Mean of A and B.	Diff. from Normal.	Absolute Maximum and Minimum.				Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.											
						A	B			Max.	Day.	Min.	Day.	Dry Bulb.			Dep. of Wet.			Vap. Pressure.			Humidity.		
														I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
<b>O. SCOTLAND, N.</b>																									
Islands.	CASTLEBAY - - -	Ft. 48	29°737	- '044	- '002	48°3	41°5	44°9	0°0	52	7, 8, 10	34	30th	44°0	46°7	44°5	1°6	2°6	1°8	2°52	2°60	2°53	87	82	87
	Deerness - - -	163	29°649	- - -	- '007	47°4	38°3	42°9	+0°5	53	7th	31	30th	44°3	- - -	41°9	2°1	- - -	1°4	2°47	- - -	2°37	84	- - -	89
	SUMBURGH HEAD	126	29°686	- '003	- '002	45°9	37°1	41°5	0°0	53	10th	30	30th	40°6	44°1	40°9	1°3	2°4	1°3	2°25	2°37	2°29	89	81	90
	STORNOWAY - -	52	29°747	- '026	- '002	50°4	38°9	44°7	+1°5	58	7th	31	7th	42°6	48°6	42°8	1°9	3°3	1°9	2°33	2°65	2°35	86	77	85
	Wick - - -	80	29°729	- '013	+ '003	50°0	36°9	43°5	+0°4	58	8th, 10th	29	7th	42°0	- - -	44°3	2°2	- - -	2°3	2°21	- - -	2°41	84	- - -	82
Mainland.	Strathpeffer - -	210	29°594	- - -	- '008	52°1	36°4	44°3	+0°7	61	7th	28	2nd	45°4	- - -	42°2	3°5	- - -	2°6	2°28	- - -	2°16	75	- - -	81
	Glencarron - -	504	29°266	- - -	- '007	51°0	36°2	43°6	+0°7	59	7, 10, 19	27	2nd	44°6	- - -	41°7	3°7	- - -	2°9	2°17	- - -	2°06	73	- - -	79
	Fort Augustus -	78	29°766	- - -	- '007	52°1	35°7	43°9	-0°6	63	8th, 9th	20	2nd	43°1	- - -	43°5	2°5	- - -	2°5	2°25	- - -	2°29	81	- - -	80
	Fort William -	88	29°805	- - -	- '007	52°5	37°0	44°8	-0°3	59	8th, 10th	22	2nd	44°3	- - -	43°3	3°2	- - -	3°0	2°22	- - -	2°18	76	- - -	78
	Dunrobin Castle	16	29°815	- - -	- '007	50°3	37°5	43°9	+0°1	60	8th	31	30th	44°8	- - -	43°1	3°0	- - -	2°5	2°33	- - -	2°29	78	- - -	82
District Value - -						50°6	36°9	43°5	+0°6	63		20													
<b>1. SCOTLAND, E.</b>																									
	Tillypronie - -	1120	28°637	- - -	- '007	50°0	33°0	41°5	+1°1	62	8th	27	30th	42°3	- - -	38°1	2°9	- - -	1°8	2°13	- - -	1°96	79	- - -	84
	Dundee - - -	164	29°704	- - -	- '007	52°0	36°1	44°1	+2°8	65	8th	26	2nd	44°5	- - -	41°6	1°9	- - -	1°2	2°54	- - -	2°39	87	- - -	90
	Nairn - - -	82	29°724	- '014	+ '003	53°2	34°6	43°9	-0°2	63	7th	25	2nd	39°6	50°9	47°4	2°1	6°2	4°5	2°03	2°32	2°28	83	62	70
	Gordon Castle	107	29°737	- - -	- '007	52°4	35°8	44°1	-0°2	62	10th	29	2nd, 6th	47°3	- - -	41°9	4°8	- - -	2°3	2°22	- - -	2°20	68	- - -	84
	Aberdeen - - -	90	29°774	- '007	- '007	49°2	38°0	43°6	-0°2	61	10th	32	7th, 30th	44°4	47°1	42°9	3°1	3°9	2°5	2°26	2°36	2°24	77	73	82
	Balmoral - - -	927	- - -	- - -	- - -	49°6	31°5	40°6	-0°1	61	9th	18	6th	41°1	- - -	- - -	2°2	- - -	- - -	2°12	- - -	- - -	82	- - -	- - -
	Criff - - -	436	29°387	- - -	- '007	53°2	35°8	44°5	-0°3	69	8th	25	2nd	44°4	- - -	41°9	3°1	- - -	2°2	2°26	- - -	2°22	77	- - -	85
	Leith - - -	37	29°809	- '007	+ '003	53°9	38°0	46°0	+0°7	65	8th, 10th	28	2nd	42°0	- - -	49°1	2°1	- - -	4°3	2°23	- - -	2°50	84	- - -	72
	Marchmont - -	500	29°334	- - -	- '007	53°6	36°4	45°0	+1°8	67	10th	30	2, 5, 6, 30	46°2	- - -	41°8	4°1	- - -	2°3	2°25	- - -	2°19	73	- - -	83
	District Value - -						52°1	35°5	43°5	+0°2	69		18												
<b>2. ENGLAND, N.E.</b>																									
Northern Part.	Seaham - - -	138	29°751	- - -	- '008	51°7	39°2	46°5	+1°9	66	10th	30	5th	47°6	- - -	43°2	3°5	- - -	2°2	2°53	- - -	2°37	76	- - -	83
	Whitby - - -	145	29°741	- - -	- '008	56°8	38°1	47°5	+2°5	69	10th	28	6th	48°7	- - -	44°6	4°2	- - -	2°6	2°49	- - -	2°42	74	- - -	82
	Cockle Pk (Morpeth)	331	29°537	- - -	- '008	51°0	35°8	43°4	- - -	65	8th	28	7th	46°1	- - -	41°9	3°6	- - -	1°8	2°38	- - -	2°32	76	- - -	87
	Shields - - -	117	29°761	+ '022	+ '003	53°8	37°1	45°5	+1°3	67	10th	29	7th, 8th	42°4	- - -	47°7	1°7	- - -	2°8	2°35	- - -	2°66	87	- - -	81
	Durham - - -	352	29°517	- - -	- '008	55°6	36°6	46°1	+1°9	69	10th	28	7th	47°2	- - -	43°1	3°8	- - -	2°5	2°44	- - -	2°29	75	- - -	82
	Rounton - - -	245	29°634	- - -	- '008	56°2	36°5	46°4	+2°6	68	10th	25	6th	46°5	- - -	42°4	3°9	- - -	2°1	2°31	- - -	2°26	73	- - -	83
	Scarborough - M	100	29°774	- - -	- '008	56°5	40°3	48°4	+3°7	66	11th	34	3rd	49°1	- - -	46°8	4°0	- - -	2°7	2°56	- - -	2°57	73	- - -	81
	York - - -	53	29°884	- - -	- '008	57°5	38°5	48°0	+2°1	69	9th	30	7th	47°6	- - -	46°0	3°4	- - -	2°8	2°51	- - -	2°48	76	- - -	80
	Spurn Head - -	28	29°838	+ '049	+ '002	53°0	41°0	47°0	+2°2	63	26th	36	1, 3, 10	43°9	50°8	46°8	1°9	4°3	2°5	2°45	2°68	2°62	85	72	82
	Lincoln - - -	42	- - -	- - -	- - -	58°8	37°9	48°4	+1°8	69	10th	30	3, 4, 7	50°0	- - -	- - -	3°6	- - -	- - -	2°83	- - -	- - -	76	- - -	- - -
Southern Part.	Skegness - - -	16	29°928	+ '073	+ '002	55°4	39°5	47°5	- - -	68	10th	31	8th	43°3	- - -	49°5	1°8	- - -	4°1	2°42	- - -	2°58	86	- - -	72
	Hull - - -	2	29°935	- - -	- '008	57°6	38°1	47°9	+2°7	68	8, 10, 11	28	8th	50°4	- - -	45°7	4°8	- - -	2°8	2°53	- - -	2°45	70	- - -	80
District Value - -						55°8	38°2	46°7	+2°4	70		25													
<b>3. ENGLAND, E.</b>																									
Northern Part.	Lowestoft - -	75	29°902	- - -	- '009	54°2	40°6	47°4	+2°2	70	11th	32	3rd	50°1	- - -	45°4	4°5	- - -	1°4	2°56	- - -	2°71	71	- - -	89
	Cromer - - -	139	- - -	- - -	- '009	57°0	39°9	48°5	- - -	71	11th	32	4th	- - -	- - -	- - -	- - -	- - -	2°2	2°54	- - -	2°43	70	- - -	83
	Hillington - -	92	29°859	- - -	- '009	58°9	37°0	48°0	+1°9	69	9th, 11th	27	3rd	50°1	- - -	44°4	4°6	- - -	2°2	2°54	- - -	- - -	- - -	- - -	- - -
	Norwich - - -	98	- - -	- - -	- - -	59°0	38°2	48°6	- - -	70	9th, 11th	27	3rd	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
	YARMOUTH	27	29°945	+ '080	- '003	54°3	40°5	47°4	+2°6	70	11th	34	2nd	44°5	50°9	45°9	2°6	4°9	2°6	2°37	2°56	2°56	80	69	84
	Geldeston - -	47	29°931	- - -	- '009	58°2	38°1	48°2	+2°4	71	9th	26	3rd	50°6	- - -	45°2	5°1	- - -	2°5	2°50	- - -	2°43	68	- - -	81
	Cambridge - -	43	29°932	- - -	- '009	60°2	36°6	48°4	+1°4	71	9th	27	7th	50°4	- - -	45°8	5°0	- - -	3°1	2°55	- - -	2°46	69	- - -	78
	CLACTON	62	29°927	+ '090	- '003	54°2	41°9	48°1	+1°4	69	11th	31	2nd	46°3	51°6	47°4	2°4	4°3	2°7	2°60	2°77	2°64	83	73	82
	Woburn - - -	294	29°681	- - -	- '009	58°9	36°5	47°7	- - -	70	9th	25	2nd	49°1	- - -	45°8	4°9	- - -	3°2	2°40	- - -	2°42	69	- - -	77
	Bennington -	411	29°572	- - -	- '009	58°3	38°2	48°3	+2°2	72	9th	29	2nd	49°3	- - -	44°4	5°3	- - -	3°1	2°31	- - -	2°26	66	- - -	77
District Value - -						57°6	38°8	47°9	+2°3	72		25													
<b>4. MIDLAND COS.</b>																									
Eastern Part.	Garforth - - -	198	- - -	- - -	- '008	56°5	33°9	45°2	- - -	68	9th	20	7th	48°1	- - -	42°8	4°3	- - -	2°3	2°43	- - -	2°32	72	- - -	83
	Huddersfield -	411	29°487	- - -	- '008	55°6	37°7	46°7	- - -	67	9th	27	7th	47°0	- - -	43°8	4°0	- - -	2°4	2°37	- - -	2°38	74	- - -	83
	Wakefield - -	100	29°821	- - -	- '008	59°0	36°9	48°0	+2°6	70	11th	27	7th	47°8	- - -	48°2	4°8	- - -	3°7	2°26	- - -	2°52	68	- - -	75
	Belvoir Castle -	276	29°666	- - -	- '009	58°0	36°8	47°4	+1°5	69	9th, 10th	27	2nd	48°5	- - -	44°6	4°2	- - -	2°8	2°45	- - -	2°34	72	- - -	80
	Coventry - - -	309	29°648	- - -	- - -	58°5	38°3	48°4	+1°4	68	9th, 10th	29	2nd	49°3	- - -	- - -	5°3	- - -	- - -	2°32	- - -	- - -	66	- - -	- - -
	NOTTINGHAM	85	29°854	+ '054	- '003	58°1	37°1	47°6	+1°2	69	9th	28	7th	42°4	55°8	45°4	1°4	6°8	2°1	2°41	2°75	2°56	89	61	85
	Birmingham -	542	29°375	- - -	- '009	57°5	39°3	48°4	+2°7	70	10th	31	2nd	44°8	- - -	47°9	3°4	- - -	4°7	2°29	- - -	2°36	76	-	



CLIMATOLOGICAL STATIONS, at 7 a.m., 1 p.m. and 6 p.m. or 9 p.m. or at 7 a.m. and 6 p.m. at TELEGRAPHIC REPORTING during the month of APRIL, 1909.

Earth Temperature.		BRIGHT SUNSHINE.				CLOUD (0-10.)			RAIN AND OTHER FORMS OF PRECIPITATION.				WEATHER. No. of Days of										WIND.										STATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
At 1 foot depth.	At 4 feet depth.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	Mean Amount.			Total Fall.	Diff. from Normal.	Most in a day.		Precipitation.	Snow.	Hail.	Thunderstorm.	Clear Sky.	Overcast.	Fog.	Ground Frost.	Wind-force 8 and above.	No. of Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
						I.	II.	III.			Amount.	Day.										Forces 4-7.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
°	°	Hrs.	Hrs.	%	%				Ins.	Ins.	Ins.	3rd, 13th																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												</



TABLE A. (continued).—Giving a Summary of the METEOROLOGICAL OBSERVATIONS made at 9 a.m., 3 p.m. and 9 p.m. at NORMAL STATIONS in the BRITISH ISLANDS

DISTRICT.	STATION.	Height of Barometer at 32° F. at Level and Latitude of Station.	BAROMETER.			AIR TEMPERATURE.								HYGROMETER.																										
			Mean at 32° F. at Level and Latitude of Station.	Diff. from Normal.	C. for Diurnal Range.	Mean of		Mean of A and B.	Diff. from Normal.	Absolute Maximum and Minimum.				Observations at 9 a.m., 3 p.m. and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.																										
						A	B			Max.	Day.	Min.	Day.	Dry Bulb.			Dep. of Wet.			Vap. Pressure.			Humidity.																	
														I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.															
																							Max.	Min.	Max.	Day.	Min.	Day.	I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
5. ENGLAND, S.E.	Reading -	264	29.700	Ins.	—	0.09	58.0	37.4	48.2	—	72	10th	27	2nd	49.2	—	45.3	3.5	—	2.3	.268	—	.250	76	—	83														
	Salisbury -	186	29.785	—	—	0.09	59.2	38.9	49.1	+2.0	73	10th	29	2nd	49.5	—	45.4	2.8	—	1.5	.285	—	.269	81	—	89														
	Brighton -	48	29.968	—	—	—	54.1	42.2	48.2	+0.6	65	7th	31	2nd	49.6	—	—	3.3	—	—	.276	—	—	78	—	—														
	Portsmouth -	18	30.006	—	—	—	56.6	42.5	49.6	+2.1	66	10th	32	2nd	51.0	—	—	4.2	—	—	.272	—	—	73	—	—														
	Eastbourne -	36	29.968	—	—	0.09	53.6	40.9	47.3	-0.3	61	9th	31	2nd	49.9	—	46.7	3.5	—	2.3	.280	—	.268	78	—	83														
	Dungeness -	21	29.950	+0.094	+	0.02	52.4	40.7	46.6	+0.1	59	9th	29	2nd	45.2	51.5	48.4	1.7	3.4	2.3	.262	.295	.283	88	78	84														
	Hastings -	174	29.819	—	—	0.09	54.3	42.3	48.3	+1.3	63	9th	31	2nd	49.5	—	46.7	4.0	—	2.4	.261	—	.264	73	—	83														
	Southampton -	84	29.917	—	—	0.09	58.1	41.3	49.7	+1.3	72	10th	30	2nd	51.5	—	47.2	4.7	—	2.7	.274	—	.269	72	—	82														
	Ventnor -	80	29.909	—	—	—	54.5	43.7	49.1	+0.9	65	10th	34	2nd	50.0	—	—	3.7	—	—	.271	—	—	76	—	—														
	District Value -						56.6	40.2	48.1	+1.3	74																													
LONDON	Tottenham -	55	29.922	—	—	0.09	59.0	40.4	49.7	+1.9	70	9th	29	2nd	51.8	—	47.2	4.8	—	2.2	.278	—	.279	72	—	83														
	Camden Square -	123	29.861	—	—	0.09	60.4	39.9	50.2	+1.7	71	11th	29	2nd	50.7	—	48.1	4.5	—	3.0	.262	—	.264	71	—	79														
	Westminster -	54	29.916	+0.081	+	0.03	58.5	41.8	50.2	+2.3	70	9th, 11th	34	2nd, 9th	45.0	—	53.5	2.2	—	6.2	.249	—	.258	84	—	63														
	Greenwich -	159	29.818	—	—	0.09	60.6	38.6	49.6	+1.5	71	11th	29	2nd	51.0	—	46.2	5.1	—	3.2	.253	—	.242	68	—	78														
	Norwood -	235	29.770	—	—	0.09	59.4	40.0	49.7	+2.2	72	11th	28	2nd	51.4	—	46.7	5.7	—	3.5	.245	—	.239	65	—	75														
	Kew -	34	29.963	+0.081	—	0.09	58.3	40.2	49.3	+1.9	68	9th	30	2nd	49.1	57.1	47.8	4.3	8.4	3.7	.250	.256	.247	72	56	75														
	Bunhill Row -		29.951	+0.079	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—														
	Plumstead -			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—														
	Laudale -	25	29.807	—	—	0.08	53.1	38.4	45.8	+0.2	63	10th	29	2nd	46.5	—	44.4	3.0	—	2.6	.252	—	.238	80	—	81														
	Poltalloch -	135	29.701	—	—	0.07	53.5	37.2	45.4	+0.3	63	10th	27	1st	44.1	—	41.9	2.0	—	2.1	.245	—	.224	84	—	85														
6. SCOT. LAND, W.	Glasgow -	184	29.664	—	—	0.08	52.7	39.3	46.0	+1.1	62	10th	30	7th	44.8	—	44.6	3.4	—	3.0	.228	—	.234	77	—	79														
	Rothsay -	76	29.793	—	—	0.07	53.8	38.9	46.4	+0.8	63	8th	32	9th	45.2	—	43.5	2.0	—	1.9	.255	—	.242	85	—	85														
	Colmonell -	150	29.743	—	—	—	53.9	37.3	45.6	+0.1	67	10th	27	2nd, 6th	44.6	—	—	2.3	—	—	.243	—	—	82	—	—														
	Dumfries -	60	29.835	—	—	0.07	57.0	37.9	47.5	+1.6	69	8th	29	2nd	45.7	—	47.0	3.2	—	3.1	.237	—	.251	78	—	78														
	Cally, Gatehouse -	120	—	—	—	0.07	53.7	36.8	45.3	+0.3	64	7, 8, 9th	26	2nd	47.6	—	42.8	2.3	—	2.1	.275	—	.231	84	—	84														
	Douglas -	284	29.596	—	—	0.08	51.7	40.3	46.0	+0.6	60	9th	36	1st	46.3	—	44.4	3.1	—	2.0	.250	—	.251	80	—	85														
	District Value -						53.6	38.1	45.7	+1.0	69																													
	Southport -	42	29.891	—	—	0.08	55.0	39.9	47.5	+1.6	63	10th	29	2nd	48.9	—	45.8	4.2	—	2.9	.250	—	.245	72	—	80														
	Manchester (City) -	195	29.729	—	—	0.08	56.7	41.1	48.9	—	68	10th	34	2nd	48.1	—	47.8	4.6	—	3.8	.237	—	.249	70	—	74														
	„ (Whitworth Pk) -	127	29.775	—	—	0.08	56.9	40.1	48.5	—	67	8th	30	2nd	49.1	54.8	46.9	5.1	—	3.3	.234	—	.247	68	59	77														
7. ENG. LAND, N.W.	Darwen -	730	29.142	—	—	0.08	53.6	37.2	45.4	—	65	10th	30	2nd	47.5	—	43.5	4.2	—	2.6	.243	—	.232	73	—	81														
	Aspatia -	254	29.620	—	—	0.08	54.4	38.6	46.5	+1.3	68	10th	29	6th	47.0	—	44.5	3.2	—	2.7	.255	—	.239	79	—	81														
	Newton Rigg -	559	29.283	—	—	0.08	54.1	30.2	45.2	+0.8	66	9th	25	2nd	44.2	—	43.9	2.7	—	2.6	.232	—	.231	80	—	80														
	Stonyhurst -	363	29.537	—	—	0.08	54.0	38.4	46.2	+1.0	62	10th	31	2nd	47.0	—	44.7	3.5	—	2.8	.247	—	.239	76	—	80														
	Blackpool -	73	29.844	—	—	0.08	53.8	39.2	46.5	+0.7	62	10th	29	2nd	49.0	—	45.4	3.8	—	2.5	.259	—	.248	74	—	82														
	M'nch't'r (Prestwich) -	320	29.581	—	—	0.08	56.3	38.3	47.3	+1.8	68	10th	31	2nd	47.8	—	45.3	3.6	—	2.5	.249	—	.247	75	—	82														
	Liverp'l, Bidston Obs. -	197	29.710	—	—	0.08	54.8	41.1	48.0	+1.4	63	10th	33	2nd	48.4	—	46.7	4.6	—	3.4	.236	—	.242	70	—	77														
	Llandudno -	21	29.913	—	—	0.08	54.7	41.8	48.3	+1.2	66	10th	32	2nd	49.6	—	47.1	4.3	—	3.0	.255	—	.254	72	—	79														
	HOLYHEAD -	48	29.851	+0.020	—	0.03	53.3	41.7	47.5	+0.8	61	19th, 21st	32	2nd	45.8	51.8	46.5	1.9	3.5	2.1	.266	.297	.262	86	77	85														
	Bettws-y-Coed -	100	29.796	—	—	0.08	56.1	38.8	47.5	+0.9	68	10th	27	2nd	49.8	—	44.7	3.9	—	2.0	.266	—	.251	74	—	86														
8. NORTH WALES	District Value -						54.8	39.4	46.8	+1.3	68																													
	Llangammarch Wells -	585	29.312	—	—	—	55.3	35.7	45.5	+0.6	70	9th	22	10th	46.2	—	—	3.1	—	—	.244	—	—	79	—	—														
	PEMBROKE -	160	29.752	+0.034	—	0.03	51.5	42.2	46.9	+0.4	64	9th	35	6th	45.0	48.9	46.3	1.5	2.8	2.0	.264	.279	.268	89	81	86														
	Clifton -	229	—	—	—	—	57.4	41.3	49.4	+2.0	71	9th, 10th	31	2nd	—	—	—	—	—	—	—	—	—	—	—	—														
	PORTLAND BILL -	23	29.956	+0.083	—	0.03	50.7	44.3	47.5	-0.9	60	10th	37	2nd	46.6	49.4	47.4	2.2	3.0	2.5	.267	.281	.269	85	80	83														
	Plymouth -	116	29.864	—	—	0.09	56.7	43.8	50.3	+1.9	72	9th	36	15th	—	—	—	—	—	—	—	—	—	—	—	—														
	Falmouth -	183	29.789	+0.0																																				



CLIMATOLOGICAL STATIONS, at 7 a.m., 1 p.m. and 6 p.m. or 9 p.m. or at 7 a.m. and 6 p.m. at TELEGRAPHIC REPORTING during the Month of APRIL, 1909.

Earth Temperature.		BRIGHT SUNSHINE.				CLOUD (0-10).			RAIN AND OTHER FORMS OF PRECIPITATION.				WEATHER. No. of Days of										WIND.								STATIONS.				
At 1 foot depth.	At 4 feet depth.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	Mean Amount.			Total Fall.	Diff. from Normal.	Most in a day.	Precipitation.	Snow.	Hail.	Thunderstorm.	Clear Sky.	Overcast.	Fog.	Ground Frost.	Wind-force 8 and above.	No. of Observations at 9 a.m., 8 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.														
		Hrs.	Hrs.	%	%	I.	II.	III.			Day.										Forces 4-7.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.					
—	—	215	—	—	—	4.5	—	3.9	2.01	+0.42	0.50	19th	11	0	1	1	12	3	0	—	0	18	0	2	5	4	6	7	15	3	Reading.				
49°0	—	—	—	—	—	5.4	—	4.6	1.99	-0.23	0.48	22nd	15	0	1	0	8	3	0	10	16	0	4	3	9	2	2	19	10	11	Salisbury.				
—	45°3	233	+62	57	+15	4.5	—	—	0.98	-0.71	0.21	19, 22, 23	11	0	1	0	10	6	0	2	5	2	0	4	4	3	7	4	5	1	Brighton.				
49°1	47°7	222	—	54	—	4.3	—	—	1.36	-0.29	0.35	19th	11	0	0	1	13	8	0	7	19	0	2	1	3	6	3	8	7	0	Portsmouth.				
47°6	45°9	239	+67	58	+16	3.9	—	2.4	2.01	+0.14	0.68	19th	13	0	0	1	14	4	0	—	3	4	2	10	7	3	1	19	7	7	Eastbourne.				
—	—	—	—	—	—	5.6	6.2	6.2	1.98	+0.60	0.92	23rd	15	0	2	3	0	4	1	—	50	1	3	20	11	4	5	32	11	3	Dungeness.				
49°0	45°5	243	+70	59	+17	4.5	—	3.0	2.16	+0.34	0.84	19th	13	0	3	1	8	2	4	2	20	1	1	6	9	6	4	15	13	5	Hastings.				
—	—	226	+58	55	+14	4.6	—	3.4	1.30	-0.68	0.31	22nd	11	0	0	1	9	6	1	7	28	0	0	11	1	18	0	20	0	13	Southampton.				
—	—	224	+43	55	+11	5.0	—	—	1.45	-0.40	0.32	19th	15	0	1	1	8	10	2	—	11	2	1	3	10	8	8	17	9	2	Ventnor.				
47°9	45°9	235	+74	57	+18	4.8	—	3.9	1.77	+0.15	0.92	—	14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
—	45°6	230	—	56	—	5.3	—	3.9	1.75	—	0.53	19th	11	0	1	1	7	7	1	7	3	1	1	8	4	9	4	18	13	2	Tottenham.				
46°7	44°0	219	—	53	—	4.7	—	—	1.90	+0.22	0.53	19th	12	0	0	1	10	7	0	11	—	—	1	2	5	3	0	4	6	5	4	Camden Square.			
—	—	220	+107	53	+25	3.5	—	5.1	1.96	+0.31	0.66	19th	13	1	3	1	8	5	0	10	11	1	2	5	9	5	4	18	11	5	Westminster.				
—	45°8	250	+103	60	+24	5.0	—	4.7	1.64	+0.07	0.41	19th	16	0	2	2	10	9	0	16	8	2	2	5	8	5	7	21	8	2	Greenwich.				
47°8	—	—	—	—	—	4.8	—	4.0	1.87	+0.19	0.55	19th	14	0	2	2	10	6	1	8	3	1	2	11	7	2	9	13	11	4	Norwood.				
47°1	45°4	240	+91	58	+22	5.2	5.8	3.6	1.82	+0.20	0.42	19th	12	0	3	1	7	5	1	14	0	27	9	4	6	17	3	12	22	15	2	Kew.			
—	—	214	+96	52	+23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Bunhill Row			
—	—	206	—	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Plumstead.			
—	—	—	—	—	—	6.9	—	6.0	6.12	+1.98	1.12	3rd	21	2	2	0	4	12	0	—	33	12	4	0	9	7	15	0	9	4	Laudale.				
—	—	—	—	—	—	6.5	—	5.1	4.25	+1.74	1.30	3rd	20	1	0	0	6	12	2	—	21	10	2	3	1	7	11	14	8	4	Poltalloch.				
—	—	135	+7	32	+2	8.3	—	7.2	3.41	+1.36	0.69	26th	15	0	1	0	0	18	1	7	5	13	2	0	13	4	4	14	8	2	Glasgow.				
—	43°6	—	—	—	—	5.0	—	3.3	5.69	+3.05	1.55	3rd	19	0	1	1	11	4	5	—	10	7	1	1	9	4	18	3	13	4	Rothsay.				
—	—	—	—	—	—	6.3	—	—	2.52	+0.20	0.36	3rd	16	0	0	1	5	12	0	6	3	28	4	2	0	6	10	16	12	8	2	Colmonell.			
—	—	—	—	—	—	5.9	—	5.3	3.58	+1.31	0.82	24th	17	0	3	2	0	4	—	—	14	7	0	2	6	7	11	12	8	7	Dumfries.				
—	—	—	—	—	—	—	—	—	4.11	+1.31	0.71	3rd	19	2	3	0	—	—	—	—	9	0	4	10	5	11	3	9	1	17	Cally.				
—	—	190	+10	45	+2	6.4	—	4.3	3.43	+1.03	0.72	15th	17	1	2	0	6	8	6	1	22	1	1	3	8	10	7	12	14	4	Douglas.				
—	—	163	+9	39	+2	6.5	—	5.2	4.07	+1.31	1.55	—	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
46°8	45°1	221	+58	53	+14	5.3	—	4.3	2.98	+1.26	0.54	24th	16	0	2	1	4	3	0	10	35	3	1	1	9	12	8	12	12	2	Southport.				
44°3	43°8	176	—	42	—	—	—	—	3.01	+1.10	0.53	19th	14	0	3	2	—	—	—	—	0	6	0	2	0	3	5	8	8	10	14	9	3	Manchester (City).	
—	—	188	—	45	—	6.2	6.0	5.5	2.82	—	0.52	19th	13	0	2	3	0	6	1	9	0	31	11	1	4	9	11	16	12	22	4	—	(Whit. P'k).		
45°8	42°8	176	—	42	—	6.1	—	5.2	4.77	—	0.74	23rd	14	0	2	4	—	—	—	—	8	0	8	0	28	1	0	2	0	14	18	6	14	5	Darwen.
—	—	193	—	46	—	5.4	—	4.0	2.74	+0.71	0.94	24th	16	0	1	1	6	3	0	11	0	10	9	1	1	1	5	12	19	8	4	Aspatia.			
44°2	42°0	197	+47	47	+11	5.5	—	4.0	2.36	+0.30	0.69	24th	17	1	1	1	6	3	0	13	0	27	2	0	2	4	11	13	16	3	4	Newton Rigg.			
—	—	195	+45	47	+11	5.8	—	4.2	4.36	+1.88	0.68	19th	17	0	1	3	7	7	0	12	15	2	5	7	3	5	8	13	2	3	Stonyhurst.				
45°5	44°0	217	+63	52	+15	5.7	—	5.0	2.86	+1.06	0.42	24th	15	0	2	2	4	7	0	8	0	26	0	2	2	9	11	8	13	12	3	Blackpool.			
—	—	199	+64	46	+16	7.2	—	3.8	3.63	+1.57	0.54	19th	15	0	2	4	3	7	0	6	0	25	8	5	5	7	3	13	3	15	1	Manch'str (Prest).			
—	—	228	—	55	—	4.1	—	5.6	2.10	+0.53	0.30	13th	16	1	2	3	7	4	0	—	18	1	1	2	11	11	6	16	10	2	2	Liverp'ol, Bid.Obs.			
—	—	194	+38	47	+9	5.3	—	5.3	2.58	+0.80	0.40	13th	18	0	2	1	4	5	0	—	2	0	1	5	4	3	4	9	33	1	1	Llandudno.			
—	—	—	—	—	—	5.8	5.8	4.9	3.35	+1.39	0.66	15th	17	1	1	0	5	5	4	—	1	31	8	4	4	4	5	17	28	13	7	Holyhead.			
44°9	44°3	171	—	41	—	5.2	—	4.3	4.29	—	0.62	15th	18	1	2	3	5	4	0	4	2	10	2	0											



TABLE B.—SUMMARY of the OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE at additional STATIONS, APRIL, 1909.

DISTRICT.	STATION.	Height of Gauge above M.S.L.	AIR TEMPERATURE.								Earth Temperature		Grnd Frost.	RAIN AND OTHER FORMS OF PRECIPITATION.						BRIGHT SUNSHINE.			
			Mean of		Mean of A and B.	Diff. of Mean from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.		No. of Days.	Total Fall.	Diff. from Normal.	Most in a day.		Number of Days.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.
			A	B			Max.	Day.	Min.	Day.							Amt.	Day.					
			Max.	Min.																			
		Ft.	°	°	°	°	°	°	°	°	°	°	Ins.	Ins.	Ins.			Hrs.	Hrs.	%	%		
0 SCOTLAND, N.	p Balta Sound - - - S	31	46.4	37.4	41.9	—	54	10th	32	29th, 30th	42.6	—	—	2.33	—	0.28	23rd	23	135	—	31	—	
	p Crathes - - - S	140	52.3	33.7	43.0	—	65	8th, 10th	27	7th	42.5	41.0	18	2.99	—	0.60	13th	14	149	—	35	—	
	Stonehaven - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	151	—	36	—	
1. SCOTLAND, E.	p Balruddery - - - S	276	53.2	35.2	44.2	—	68	8th	26	2nd	—	—	—	3.85	—	0.55	13th	18	153	—	36	—	
	Edinburgh - - -	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	149	+ 27	35	+ 6	
	a West Linton - - - S	800	51.7	33.6	42.7	+ 0.1	65	10th	22	2nd	—	—	19	3.08	—	0.59	24th	18	155	—	37	—	
	a Alnwick Castle - - -	210	52.8	37.3	45.1	+ 1.7	67	10th	27	7th	—	—	—	3.00	+ 0.92	0.57	20th	14	—	—	—	—	
	p Newcastle-on-Tyne - - -	152	55.0	39.5	47.3	—	67	10th	30	7th	—	—	—	2.68	+ 0.95	0.63	24th	16	157	+ 49	38	+ 12	
	p Ampleforth - - -	349	—	—	—	—	—	—	—	—	—	—	—	2.68	—	0.59	19th	16	—	—	—	—	
2. ENGLAND, N.E.	p Tealby - - -	251	56.4	38.7	47.6	+ 2.1	67	8th, 10th	32	2nd	—	—	—	1.90	+ 0.08	0.74	19th	12	—	—	—	—	
	a Fulbeck - - -	180	57.9	38.4	48.2	+ 2.3	70	9th	28	7th	—	—	—	1.51	- 0.13	0.62	19th	12	—	—	—	—	
	a Raucby - - -	124	58.6	37.0	47.8	—	70	9th	28	3rd	47.8	44.4	10	1.70	- 0.20	0.81	19th	10	247	—	60	—	
3. ENGLAND, E.	a Felixstowe - - -	10	54.2	40.7	47.5	+ 1.2	68	11th	29	2nd	—	—	—	1.65	—	0.55	29th	14	251	—	61	—	
	a Rothamsted - - -	424	57.9	36.9	47.4	+ 1.6	69	9th	28	2nd	—	—	—	1.63	- 0.21	0.51	29th	12	237	+ 87	58	+ 22	
	a Shoburyness - - -	13	55.9	41.0	48.5	+ 1.2	70	11th	30	2nd	—	—	—	1.48	+ 0.22	0.50	19th	13	—	—	—	—	
	a Southend-on-Sea - - -	100	57.8	42.1	50.0	—	69	12th	31	2nd	48.8	—	4	1.43	- 0.32	0.48	19th	13	236	—	57	—	
	a Harrogate - - -	476	55.1	37.0	46.1	+ 1.9	68	9th	28	7th	43.3	42.7	10	2.87	+ 0.79	0.51	19th	15	216	—	52	—	
	a Bradford - - -	330	54.1	37.9	46.0	—	67	9th	29	7th	42.9	40.8	9	3.12	—	0.58	23rd	15	189	—	45	—	
	a Cheadle - - -	646	56.3	37.1	46.7	+ 1.9	66	10th	28	2nd	—	—	16	2.49	+ 0.44	0.43	13th	17	—	—	—	—	
	a Bawtry - - -	65	59.9	36.4	48.2	+ 2.0	70	8th	24	5th	—	—	—	1.33	- 0.27	0.46	19th	12	—	—	—	—	
	a Worksop - - -	56	59.5	36.3	47.9	+ 1.9	71	10th	23	5th	46.1	44.4	16	1.52	- 0.18	0.44	19th	11	209	+ 77	50	+ 18	
4. MIDLAND COUNTIES	a Mayfield (Staffs.) - - -	374	56.6	34.2	45.4	—	69	10th	25	2nd	—	—	15	1.92	—	0.39	13th	15	—	—	—	—	
	a Kingston-on-Soar - - -	125	58.1	35.3	46.7	—	68	10th	23	8th	46.1	—	—	1.12	—	0.29	19th	14	—	—	—	—	
	p Rugby - - -	379	58.8	37.0	47.9	+ 1.8	70	9th, 10th	29	2nd	—	—	16	1.37	—	0.26	29th	12	—	—	—	—	
	a Raunds - - -	210	60.2	35.8	48.0	+ 1.2	72	9th	25	8th	—	—	16	1.14	—	0.60	19th	9	—	—	—	—	
	a Winslow - - -	379	58.2	38.1	48.2	—	66	9th	28	2nd	—	—	—	1.95	—	0.63	29th	12	—	—	—	—	
	a Hereford - - -	291	59.1	37.8	48.5	+ 1.8	73	10th	25	2nd	—	—	17	1.96	+ 0.21	0.58	22nd	14	—	—	—	—	
	a Cirencester - - -	446	57.0	37.2	47.1	+ 1.6	70	9th, 10th	28	2nd	—	—	3	1.85	- 0.12	0.50	23rd	13	196	+ 39	48	+ 10	
	a Epsom - - -	160	58.9	38.0	48.5	—	71	9th	24	2nd	—	—	13	2.01	—	0.44	19th	13	—	—	—	—	
	a Wokingham - - -	216	60.2	34.5	47.4	—	72	10th	20	2nd	—	—	—	2.22	—	0.61	19th	12	—	—	—	—	
	a Maidenhead - - -	99	61.3	37.2	49.3	—	74	9th, 10th	27	2nd	—	—	19	2.16	+ 0.52	0.62	19th	12	—	—	—	—	
	a Marlborough - - -	424	57.4	35.3	46.4	+ 0.5	72	10th	23	2nd	—	—	17	1.80	- 0.33	0.35	29th	16	200	+ 58	49	+ 15	
	a Bucklebury - - -	409	56.5	37.5	47.0	—	70	10th	25	2nd	—	—	19	1.59	—	0.28	22nd	14	—	—	—	—	
	a Swaraton - - -	310	58.2	37.6	47.9	+ 2.2	71	9th	25	2nd	—	—	—	1.98	+ 0.05	0.40	22nd	15	—	—	—	—	
	a Margate - - -	35	57.2	43.0	50.1	+ 3.2	69	11th	36	3rd, 4th, 5th	47.4	45.2	1	1.51	+ 0.05	0.44	23rd	12	250	+ 94	61	+ 23	
	Broadstairs - - -	140	—	—	—	—	—	—	—	—	—	—	—	1.53	—	0.48	23rd	11	253	—	64	—	
	Ramsgate - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	266	—	65	—	
	a Wisley - - -	150	58.1	38.6	48.4	+ 0.9	71	10th	27	2nd	47.0	45.7	13	2.00	—	0.62	19th	13	238	—	58	—	
	a Dover - - -	421	54.5	41.1	47.8	—	65	11th	33	2nd	46.9	45.1	9	1.88	—	0.82	23rd	13	273	—	66	—	
5. ENGLAND, S.E.	a Tunbridge Wells - - -	231	57.3	39.2	48.3	+ 1.9	69	9th	29	2nd	47.5	—	—	1.73	- 0.12	0.56	19th	14	251	+ 89	61	+ 22	
	p Folkestone - - -	121	54.4	41.1	47.8	—	63	9th	33	2nd	—	44.1	—	1.62	- 0.20	0.57	23rd	11	256	—	62	—	
	Littlestone - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	240	—	58	—	
	a Bexhill - - -	27	53.6	43.1	48.4	—	59	19th, 20th	32	2nd	49.0	—	7	2.13	—	0.80	19th	13	253	—	62	—	
	Hove - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	242	—	59	—	
	p Lewes - - -	58	55.7	38.2	47.0	—	67	9th	29	2nd	—	—	—	1.67	—	0.50	19th	21	—	—	—	—	
	a Worthing - - -	36	54.1	41.5	47.8	+ 0.7	62	9th	31	2nd	48.5	46.2	3	1.44	- 0.16	0.47	19th	14	245	—	60	—	
	a Bognor - - -	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Westbourne - - -	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	233	—	57	—	
	a Totland Bay - - -	140	54.0	41.9	48.0	+ 1.1	62	10th	31	2nd	—	—	9	1.36	- 0.39	0.37	19th	13	227	—	55	—	
	a Sandown - - -	20	56.7	43.3	50.0	—	68	11th	34	2nd	—	—	—	1.37	—	0.32	19th	15	220	—	54	—	
	p Bournemouth - - -	145	56.7	41.1	48.9	—	70	10th	30	2nd	46.7	46.1	—	1.34	—	0.29	19th	12	225	—	55	—	
6. SCOTLAND, W.	p Oban -																						

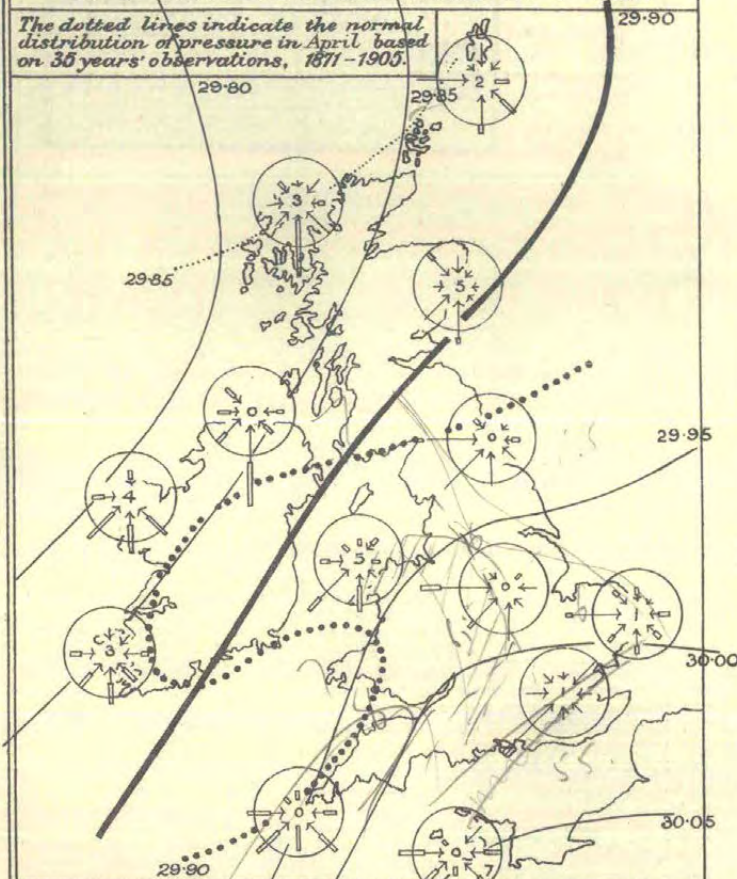


# MONTHLY WEATHER CHARTS, APRIL, 1909.

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## 1. BAROMETER AND WIND AT 7 A.M.

The dotted lines indicate the normal distribution of pressure in April based on 35 years' observations, 1871-1905.



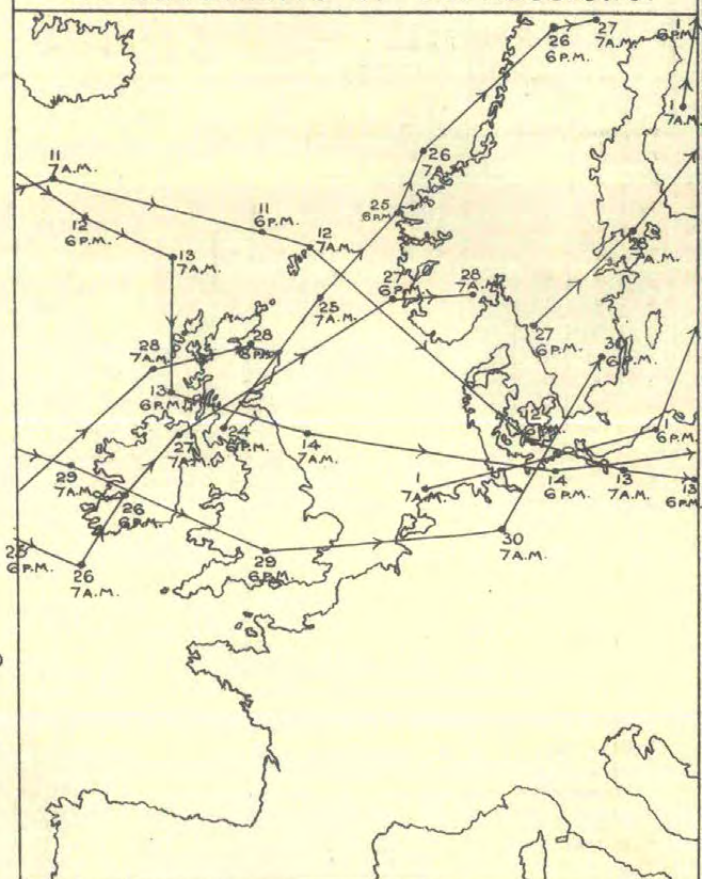
WIND ROSES. The arrows fly with the wind and indicate frequency and force, thus:   
 Light moderate strong   
 30 Obs. = 1 inch

## 3. DISTRIBUTION OF MEAN TEMPERATURE.

Reduced to sea level by a correction of 1°F for 300ft.



## 2. MOVEMENTS OF DEPRESSIONS.



## 4. BRIGHT SUNSHINE, IN HOURS.

Isobels are shown for 130, 170, 210, and 250 h<sup>rs</sup>.









TABLE B (continued).—SUMMARY of the OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE at additional STATIONS, APRIL, 1909.

DISTRICT.	STATION.	Height of Gauge above M.S.L.	AIR TEMPERATURE.								Earth Temperature		Grnd Frost.	RAIN AND OTHER FORMS OF PRECIPITATION.						BRIGHT SUNSHINE.			
			Mean of		Mean of A and B.	Diff. of Mean from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.		No. of Days.	Total Fall.	Diff. from Normal.	Most in a day.		Number of Days.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.
			A	B			Max.	Day.	Min.	Day.							Amt.	Day.					
			Max.	Min.																			
		Ft.	°	°	°	°	°	°	°	°	°			Ins.	Ins.	Ins.		Hrs.	Hrs.	%	%		
8. ENGLAND, S.W. (continued)	a Shaftesbury - - -	722	55.2	40.0	47.6	+ 2.1	71	10th	28	2nd	47.4	—	—	1.43	- 1.01	0.33	19th	13	—	—	—	—	
	a Arlington - - -	613	54.6	40.2	47.4	+ 2.1	69	10th	32	2nd, 6th	—	—	—	3.67	+ 0.68	0.68	12th	18	—	—	—	—	
	a Culmpton - - -	202	58.3	40.0	49.2	+ 1.3	74	10th	31	2nd	—	—	5	2.91	+ 0.48	0.50	22nd	17	178	+ 25	43	+ 6	
	Torquay - - -	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	194	+ 19	47	+ 4	
	a Weymouth - - -	21	55.1	43.1	49.1	—	67	10th	34	2nd	—	—	—	1.11	—	0.45	19th	11	209	—	51	—	
	a Newquay - - -	100	54.2	44.5	49.4	+ 1.4	65	9th	36	6th	49.7	—	—	1.85	- 0.25	0.35	29th	16	194	+ 24	47	+ 6	
	Salcombe - - -	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	184	—	45	—	
9. IRELAND, N.	a Penzance - - -	54	56.5	46.5	51.5	—	66	10th	37	6th	—	—	—	2.07	—	0.32	2nd	14	188	—	46	—	
10. IRELAND, S.	p Dublin (Glasnevin) - -	37	54.8	39.0	46.9	+ 0.9	70	10th	29	8th	—	—	15	4.50	+ 2.56	2.08	3rd	20	—	—	—	—	
	a Kingstown - - -	42	54.2	42.2	48.2	—	70	10th	35	6th	—	—	—	3.81	—	1.30	3rd	20	187	—	45	—	
	p Clongowes Wood College	245	54.8	37.1	46.0	—	68	10th	25	8th	—	—	7	4.51	—	0.93	3rd	19	184	—	44	—	
	Mountmellick - - -	253	55.7	38.4	47.1	—	69	10th	31	6th, 9th	—	—	—	4.87	—	0.99	2nd	21	—	—	—	—	
	p Newcastle (Co. Wicklow)	256	53.7	40.8	47.3	—	69	10th	34	6th	—	—	—	4.05	—	0.92	3rd, 15th	17	—	—	—	—	
11. ENGLISH CHANNEL	a Kilkenny - - -	212	55.6	39.8	47.7	+ 0.6	69	10th	31	8th	—	—	—	4.62	+ 2.42	1.17	2nd	20	—	—	—	—	
	a Cahir - - -	199	55.5	40.5	48.0	+ 0.7	69	10th	29	6th	—	—	—	5.46	—	1.51	2nd	23	—	—	—	—	
	a Foynes - - -	108	55.7	41.8	48.8	+ 1.5	68	10th	35	6th, 7th	—	—	—	4.01	+ 1.57	0.67	2nd	27	—	—	—	—	
	a Ballinacurra - - -	34	54.7	41.2	48.0	—	64	9th	31	9th	—	—	—	6.64	—	1.60	3rd	21	178	—	43	—	
	a Guernsey (Villa Carey) -	189	56.6	45.0	50.8	+ 2.1	72	10th	40	2nd, 15th	—	—	—	1.82	- 0.63	0.58	19th	11	223	+ 30	55	+ 8	

## NOTES ON THE STATISTICAL TABLES.

**Hours of Observation.**—The following types are used to indicate the hours of observation at Stations included in Table A:—Clarendon, Normal Climatological Stations—I, 9 a.m. [II, 3 p.m.], III, 9 p.m. Black Capitals, telegraphic reporting normal climatological stations—I, 7 a.m., II, 1 p.m., III, 9 p.m. Roman, telegraphic reporting stations—I, 7 a.m., [II, 1 p.m.], III, 6 p.m. Italic, auxiliary climatological stations—I, 9 a.m. only (9 a.m. and 6 p.m. at *Ventnor*). The summaries are based on observations made three times a day wherever the data are available, except in the case of the element pressure (see below). At stations shown in clarendon type the maximum and minimum temperatures are read at 9 p.m.; at the remaining stations these observations are made at I. In Table B the letters *a* and *p* indicate whether the readings of the maximum and minimum are taken at the hours of morning or evening observation.

**Barometer.**—The correction for latitude has not been applied to the readings quoted in the Tables. It is applied to the readings at sea level from which the chart showing the mean monthly distribution of pressure is prepared. The values given in the tables are for station level. The values printed are (1) for stations shown in clarendon type, the means of observations at 9 a.m. and 9 p.m.; (2) for stations shown in Capitals, the means of observations at 7 a.m., 1 p.m., 9 p.m.; (3) for stations shown in Roman type, the means of observations at 7 a.m. and 6 p.m.; (4) for stations shown in italic type, the means of observations at 9 a.m. The column headed C gives the correction for diurnal variation required to reduce the means of observations at fixed hours to true diurnal means, based on the analysis of the values obtained at the four observatories for the period 1871–1905. The difference from normal is based upon the 7 a.m. readings only, except in the cases of Kew, Greenwich, Aberdeen, Valencia and Falmouth (see below).

**Rainfall.**—The amounts are those for the 24 hours commenced at the time of morning observation.

**Weather Phenomena.**—The number of days of Rain, Snow, Hail, Thunderstorm, Fog, Ground Frost, and Gale, are counted irrespective of the hours at which the phenomena occur. Except in the cases of rainfall (see above) and ground frost the day is the civil day. A day is reckoned as a day of “clear sky,” if the mean of the estimates of the “amount of cloud” at the fixed hours of observation is less than 2, and as an “overcast” day if the mean is greater than 8. Days of Ground Frost are days on which the minimum thermometer on the grass falls to 30° or below; the “day” is taken as the 24 hours ending at 9 a.m.

**Wind Summaries.**—The results given under wind direction, and the number of observations of calms and of fresh or strong wind, are based on the observations at fixed hours. At Deerness, Aberdeen, Valencia, Falmouth, Kew, Glasgow, Stonyhurst and Armagh the wind observations are based on the records of a standard Robinson anemometer (factor 2.2). Velocities of between 13 and 38 miles in the hour have been entered as “fresh or strong winds,” velocities of 39 miles in the hour, or above, as gales.

**Averages.**—The normal averages used for stations are—Pressure, Temperature, and Rainfall for the 35 years 1871–1905; Bright Sunshine for the 25 years 1881–1905. The values are published in Appendix III. to the Weekly Weather Report for 1906. For the Royal Observatory, Greenwich, and the Radcliffe Observatory, Oxford, averages for longer periods are used. See Notes in Monthly Weather Reports for 1908. Monthly averages of pressure at telegraphic reporting stations for the epoch 8 a.m. are published in Appendix I. to the Daily Weather Report. In order to render these averages comparable with the data for the present month, a correction, based on the results for the four observatories as published in “Hourly Readings at the Observatories under the Meteorological Council,” has been applied to each of them before the figures given in the column headed “Barometer—Difference from Normal” were computed.

**Aberdeen, Falmouth, Kew, Valencia, Oxford, Greenwich.**—The figures quoted in the second line assigned to these observatories in the columns for Barometer and Mean Temperature are the true daily means computed from the hourly tabulations of the traces of the photographic recording instruments. For Kew, Falmouth, Aberdeen and Valencia the divergences of the means of the readings at 9 a.m. and 9 p.m. from their normal averages are also given.

**Royal Observatory, Greenwich.**—The earth temperatures are taken at a depth of 3 ft. 2 ins. The daily rainfall amounts are those for the 24 hours comprising the civil day. The number of days in the month which were persistently overcast from midnight to midnight was 0, the number of persistently cloudless days was 3, the number of persistently foggy days was 0.

**† § Mean Values for Districts.**—The stations used in the Weekly Weather Report for the computation of “district values” of rainfall and temperature are distinguished by the sign †, those used for the computation of “district values of bright sunshine” by the sign §. These stations are distributed between Tables A and B. The monthly mean values for districts given in this Report for maximum, minimum and mean temperature, duration of bright sunshine, number of rain days and amount of rainfall, are computed from the data for these “representative” stations. The mean temperature for districts is computed in the manner shown in the preface to this and previous volumes of the Weekly Weather Report. The monthly mean values for districts for “amount of cloud” are computed from the data for all stations included in Table A. The extreme values of the various elements in each district are printed in distinctive type. In the lines devoted to district values, the columns referring to absolute highest and absolute lowest temperature and the maximum amount of rainfall in a day contain the extreme values for the district at any station included in either table of the Report. The averages for districts with which the current values are compared are for the 25 years 1881–1905, as in the case of the corresponding values published in the Weekly Weather Report.

**Meteorological Societies.**—Information for stations marked M is supplied by the Royal Meteorological Society, and that for stations marked S is supplied by the Scottish Meteorological Society. Stations marked S are in connexion with the Scottish Meteorological Society and those marked M with the Royal Meteorological Society, as well as with the Meteorological Office.



For the year ending 1901, the following statement shows the receipts and disbursements of the Department of the Interior, Bureau of Land Management, for the year ending 1901.

RECEIPTS	DISBURSMENTS	BALANCE	
		1900	1901
Land Sales	Land Sales		
Mineral Rights	Mineral Rights		
Patents	Patents		
Interest	Interest		
Other	Other		
Total	Total		

STATEMENT OF THE STATISTICAL TABLE

The following table shows the statistical data for the year ending 1901, as reported by the various bureaus of the Department of the Interior. The data is presented in a tabular form, with the columns representing the different categories of the data, and the rows representing the different years.

The data is as follows:

Category	1900	1901
Land Sales	1,234,567	1,345,678
Mineral Rights	567,890	678,901
Patents	234,567	345,678
Interest	123,456	234,567
Other	98,765	109,876
Total	2,239,255	2,314,100

The above table shows the statistical data for the year ending 1901, as reported by the various bureaus of the Department of the Interior. The data is presented in a tabular form, with the columns representing the different categories of the data, and the rows representing the different years.



# MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

(Supplement to the Weekly Weather Report.)

SUMMARY OF OBSERVATIONS COMPILED FROM THE RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS IN THE UNITED KINGDOM, WITH  
A CHART OF RAINFALL CONTRIBUTED BY THE BRITISH RAINFALL ORGANISATION.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE,

AND PUBLISHED FOR H.M. STATIONERY OFFICE BY WYMAN AND SONS, LTD., FETTER LANE, E.C.; OR OLIVER AND BOYD, EDINBURGH; OR E. PONSONBY,  
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THIRTY-FOURTH YEAR.  
Vol. XXVI. (New Series)  
Weekly Weather Report.

No. V.

MAY, 1909.

[Price 6d.]

## SUMMARY OF OBSERVATIONS.

**Pressure, Winds and Weather.**—The general distribution of atmospheric pressure during the period under review was mainly of an anticyclonic type. Through the first half of May the high pressure system ruled almost exclusively over the British Isles, but the position of its central space changed about very considerably, its wanderings forming, roughly, a circular path. At the beginning of the month it was on the Atlantic, immediately to the westward of Ireland, but in the course of about nine days it was transferred to the Bay of Biscay, thence across to the Baltic, to Scandinavia, and then westward to Iceland. Here it divided into two parts, one remaining practically stationary, the other, moving to the British Isles, the Bay of Biscay, and later, back to the Atlantic beyond our western coasts by the middle of the month. Throughout this fortnight the barometer descended below 30 ins. only at some of the south and south-west coast stations, associated with the very slow progress of a disturbance which according to wireless reports from steamers made its appearance on the evening of the 3rd in about 53° N., 32° W. From this position it advanced along a south-easterly course to the northern part of Spain by the 9th, then passed to the western Mediterranean and dispersed. On the 17th there was a temporary break in the high pressure conditions, occasioned by the passage of another Atlantic disturbance which had appeared over mid-ocean on the 12th. It subsequently advanced to the southward of the Azores, thence to Portugal, and taking a north-easterly course from the neighbourhood of Lisbon it crossed northern France to Denmark and northern Russia. From the 18th to the 24th the pressure distribution was again anticyclonic over Western Europe generally, and cyclonic out on the Atlantic, but from the 25th to the end of the month the British Isles were visited by a series of disturbances of no great intensity, moving on a general north-easterly path across Ireland and Scotland. On the 3rd the barometer rose to 30.5 ins. at Yarmouth; on the 6th to 30.6 ins. at Aberdeen and in Shetland; on the 13th to nearly 30.5 ins. at Blacksod Point; on the 19th to nearly 30.4 ins. at Yarmouth; and on the 24th it passed above 30.4 ins. at Bath. The disturbances which visited this country were very shallow, the barometer sinking to or below 29.5 ins. in the last week only, below 29.3 ins. over the north-western districts in the afternoon of the 26th, 29.23 ins. at Stornoway being the lowest value reported. The extreme range of pressure for the month was consequently small, from 0.75 in. to an inch in the south and east of England, against 1.2 in. at Stornoway, and 1.3 in. at Aberdeen. For the whole month the mean pressure values were everywhere above the normal, by 0.03 in. at Valencia, and 0.04 in. at Blacksod Point, but by as much as 0.14 in. at Yarmouth. The values indicate the region of lowest pressure to have been on the Atlantic, the barometer averaging slightly above 30 ins. on our western and north-western coasts and in the south of Iceland, while two areas of high pressure were indicated, above 30.1 ins. over northern Iceland and beyond the Arctic Circle, and above 30.15 ins. over the Low Countries. Owing to the ever-changing positions of the various pressure systems the wind was very variable in direction, all quarters of the compass being represented, and an Easterly current was as frequent as a Westerly one. In the absence of any great disturbances the wind was generally light to moderate in force, but from the 4th to the 8th a high wind from some Easterly direction was felt at various stations on the southern coasts, and on the 7th the pressure anemometer at Plymouth registered gusts in which the velocity was at the rate of 64 miles per hour. From the 9th to the 25th much weaker winds were reported, but from the 26th to the 31st the force of a high wind was again experienced locally, South-Easterly in Shetland, Westerly or South-Westerly in other districts. At Jersey on the 26th, and at Wick on the 30th, the strength of a gale was attained, the only instances during the month at the telegraphic reporting stations.

The very inclement weather which marked the closing days of April was maintained over the country generally on the opening day of May. With the high pressure system off the Irish coast and a depression covering the Baltic region the British Isles were within a broad belt of air coming from the North. Temperature was consequently very low, failing to touch 50° over a great part of the country, a number of stations registering maxima as low as 42° to 45°, and even at several of the southern stations the readings were 46° to 48°. Accompanying this cold, snow fell pretty generally throughout Britain, nearly all places along the south coast of England and in the Isle of Wight experiencing it. At Llandudno and Ranceby thunderstorms occurred. Following immediately upon this polar weather the conditions underwent a remarkable change, the Atlantic anticyclone working round by the Bay of Biscay, and the wind shifting into Southerly directions in all districts. Weather of an exceptionally brilliant character followed. For the week ending with the 8th the sunshine records were above the average at every station in the kingdom, the excess in very numerous instances being at the rate of more than six hours per day, and at Westminster nearly eight hours a day. The total duration

for the seven days exceeded 90 hours in many parts of England and Wales, amounting to 93.2 hours at Cardiff and Wisley, 93.3 at Cambridge, 93.5 at Hastings, 94 at Jersey and Southend, 95.7 at Yarmouth, and 95.8 at Worthing. The smallest returns were 50 hours at Valencia, and 49 at Fort Augustus. Here and there slight showers fell, but as a general rule the weather was rainless. However, notwithstanding the fine weather and its unprecedented brightness, the temperature, under the influence of an East wind, did not rise as high as might have been expected. At the beginning of the week the thermometer kept well below the normal, then rose to 73° at Cally, 74° at Bettws-y-Coed and Dumfries, and 75° at Crieff. This warmer interval was maintained into the middle of the following week, the values just quoted being repeated at other stations, while at Killarney 76° was reached on the 10th.

During the later half of the second week the pressure distribution was very similar to that noticed at the beginning of the month, an anticyclone on the Atlantic and a depression beyond the North Sea. Winds from the northern regions again invaded the country, and produced another very cold interval. Maximum afternoon temperatures below 50° were numerous as far south as the shores of the English Channel, 42° at Huddersfield on the 17th, and not higher than 39° at Sumburgh Head on the 14th. Sharp night frosts were also registered over a wide area, the thermometer in the screen sinking to 25° at Kingston-on-Soar (Notts.) and Mayfield (Staffs.), to 24° at Llangammarch Wells, Balmoral, Cally and Poltalloch, and to 22° at West Linton. Thermometers freely exposed on the grass fell below 20° at several stations, to 18° at Thorntonhall, 17° at Birmingham, 14° at Carlisle, and 13° at Llangammarch Wells.

In spite of these wintry conditions, there was a very striking persistency of dry and sunny weather in many parts of the Kingdom. No precipitation was measured during the first twenty-three days at Abergavenny, Bath, Parkstone (Dorset) and Rochford (Worcestershire), and at numerous stations the period was marked by only one or two slight showers, this remark applying to the usually rainy districts in the west as well as to the drier eastern neighbourhoods. Regardless of a settled, or an unsettled, type of weather there was always an abundance of bright sunshine, and near the close of the dry spell there was a sudden increase of warmth, so that between the 21st and 23rd maximum day temperatures of 80° and upwards occurred in various parts of England, 84° at Maidenhead on the 21st, and at Camden Square and Greenwich on the 22nd.

This was a brief period of heat, for on the 24th disturbances began to move in from the Atlantic, and the weather became much less settled, with frequent rain, and in many places thunder, lightning or both. On the 24th and 25th there were some falls of an inch or more of rain, in the more southern districts on the former date, and in the north of England and south of Scotland on the latter, 1.3 in. at Watergate, Sussex, being the largest quantity in the south, 2 ins. at Crieff in the north. The rainfall of the closing week was consequently above the normal in most localities, and temperature and sunshine below the normal.

Fog was experienced on many parts of the western and south-western coasts from the 10th to the 12th, the 20th to the 24th, and the 30th and 31st, dense at times. It was also rather more frequent in the neighbourhood of Shetland and the Orkneys, but on the east coast of Britain and along the eastern half of the English Channel it was rarely noted.

The temperature of the coastal sea water was everywhere higher than in the preceding month, by as much as 5° or 6° in some localities, but compared with the temperature of the air on shore the water was a little warmer off the west of Ireland and the north-east of Scotland, cooler in most other districts, by about 5° off the north-east of England.

**Rainfall.**—In most parts of Scotland the precipitation was rather above the normal, but elsewhere it was in defect, considerably so in many localities. At a very large number of stations precipitation was measured on less than ten days, at Margate, Dover, Parkstone, Jersey, Braceland (Forest of Dean) and Mallaranny on 5 days, and at Newquay on only 4 days, whereas few had more than 20 days, 22 at Ardross Castle, Kinlochewe and Stornoway, and 23 at Castlebay. In many instances the aggregate totals for the month were less than an inch, about 0.5 in. at Weymouth, in the Forest of Dean, at Shrewsbury and Ruthin, while only a few spots in the mountainous districts of western Scotland and the north-west of England reported more than 6 ins.

**Bright Sunshine.**—With two or three unimportant exceptions the bright sunshine records were above the average, the excess being more than 100 hours at a number of southern stations, 130 hours at Westminster, and 140 at Greenwich. Both Eastbourne and Totland Bay aggregated 351 hours, and Worthing 353 hours, these totals being 74 per cent. of the possible duration. Worthing had 220 hours more than Fort Augustus. At various stations the month's totals were the largest registered in any month since the introduction of sunshine recorders.



TABLE A.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at 9 a.m., 3 p.m. and 9 p.m. at NORMAL STATIONS in the BRITISH ISLANDS

DISTRICT.	STATION.	Height of Barometer at Level and Latitude of Station.	BAROMETER.			AIR TEMPERATURE.								HYGROMETER.											
			Mean at 32° F. at Level and Latitude of Station.	Diff. from Nor- mal.	Cor. for Diurnal Range.	Mean of		Mean of A and B.	Diff. from Nor- mal.	Absolute Maximum and Minimum.				Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.											
						A	B			Max.	Day.	Min.	Day.	Dry Bulb.			Dep. of Wet.			Vap. Pressure.			Humidity.		
														I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
O. SCOTLAND, N.	CASTLEBAY -	Ft. 48	Ins. 29.947	+ .084	- .002	52.3	44.0	48.2	- 0.7	63	6th	32	1st	47.3	50.3	48.7	2.9	4.0	3.0	.259	.268	.272	80	74	80
Islands.	Deerness -	163	29.848	-	- .006	50.7	41.1	45.9	- 0.5	62	23rd	32	15th	47.0	-	44.3	2.7	-	1.8	.265	-	.256	81	-	87
	SUMBURGH HEAD	126	29.883	+ .113	- .002	48.9	38.5	43.7	- 1.5	60	21st	28	14th	42.7	46.2	43.2	1.6	2.3	1.4	.239	.261	.249	87	84	89
	STORNOWAY	52	29.958	+ .104	- .002	53.9	41.7	47.8	+ 0.5	67	7th	32	15th, 16th	46.7	52.5	46.4	2.5	4.7	2.5	.261	.278	.259	82	70	83
Mainland.	Wick -	80	29.933	+ .091	+ .003	53.0	40.2	46.6	- 0.7	63	23rd	27	16th	45.7	-	46.5	2.5	-	2.5	.251	-	.259	82	-	82
	Strathpeffer -	210	29.800	-	- .006	57.7	40.6	49.2	+ 1.0	72	8th	30	15th	50.5	-	46.8	4.3	-	3.3	.264	-	.246	72	-	78
	Glencarron -	504	29.474	-	- .006	55.5	40.3	47.9	- 0.1	70	6th, 21st	26	15th	48.9	-	46.5	4.9	-	3.8	.236	-	.232	68	-	74
	Fort Augustus -	73	29.973	-	- .006	57.3	40.2	48.8	- 0.6	70	6, 7, 22	27	15th, 16th	49.3	-	48.5	3.8	-	3.7	.263	-	.255	74	-	75
	Fort William -	38	29.998	-	- .006	57.8	41.3	49.6	- 0.4	71	6th	26	15th	50.2	-	48.3	5.0	-	4.0	.247	-	.247	68	-	73
	Dunrobin Castle -	16	29.998	-	- .005	55.0	41.3	48.2	0.0	66	23rd, 24th	32	15th	49.0	-	47.2	3.5	-	3.3	.269	-	.255	77	-	78
	District Value -					54.9	40.4	47.3	- 0.5	72		26													
1. SCOTLAND, E.	Tillypronie -	1120	28.825	-	- .006	54.5	36.4	45.5	+ 0.2	71	8th	28	1, 2, 15, 16	46.1	-	42.3	3.1	-	2.1	.250	-	.230	80	-	84
	Dundee -	164	29.891	-	- .006	56.6	40.1	48.4	- 1.0	73	22nd	30	15th	49.6	-	45.4	2.8	-	1.9	.292	-	.266	81	-	86
	Nairn -	82	29.924	+ .093	+ .003	57.7	39.2	48.5	- 0.5	72	5th	30	15th, 16th	45.4	54.6	52.6	2.6	6.6	5.8	.246	.263	.257	82	62	65
	Gordon Castle -	107	29.929	-	- .006	57.3	40.0	48.7	- 0.4	71	22nd	29	17th	51.0	-	47.6	4.4	-	2.7	.268	-	.267	72	-	81
	Aberdeen -	90	29.966	+ .107	- .006	53.1	40.7	46.9	- 1.4	67	23rd	32	15th	48.3	50.2	45.7	3.8	4.5	2.9	.251	.257	.243	74	71	80
	Balmoral -	927	-	-	-	55.3	35.5	45.4	- 0.7	70	8th	24	16th, 17th	46.6	-	-	-	-	-	-	-	-	-	-	-
	Crieff -	486	29.577	-	- .006	57.5	39.2	48.4	- 1.7	75	8th	28	15th, 16th	49.4	-	46.7	4.3	-	2.9	.253	-	.253	72	-	81
	Leith -	37	29.997	+ .096	+ .003	57.4	42.8	50.1	0.0	69	22nd	32	15th	47.5	-	53.0	3.6	-	6.2	.246	-	.253	75	-	63
	Marchmont -	500	29.515	-	- .006	57.5	39.1	48.3	+ 0.4	73	22nd	28	15th	50.4	-	46.3	5.2	-	3.8	.245	-	.232	67	-	74
	District Value -					56.5	39.3	47.5	- 0.9	75		22													
2. ENGLAND, N.E.	Seaham -	188	29.933	-	- .007	55.9	42.2	49.1	+ 0.1	69	20th	32	1st	52.2	-	46.4	5.0	-	2.5	.277	-	.264	69	-	83
Northern Part.	Whitby -	145	29.915	-	- .007	59.7	42.5	51.1	+ 2.2	73	23rd	32	8th	53.5	-	48.9	5.4	-	3.4	.282	-	.274	68	-	73
	Cockle P'rk (Morpeth) -	381	29.722	-	- .007	56.4	39.1	47.8	-	71	22nd	29	15th	50.7	-	44.6	3.4	-	1.5	.294	-	.267	78	-	89
	Shields -	117	29.945	+ .126	+ .003	56.0	41.1	48.6	0.0	71	22nd	29	1st	47.5	-	51.4	2.7	-	4.1	.266	-	.279	82	-	74
	Durham -	352	29.695	-	- .007	53.4	40.0	49.2	+ 0.4	73	22nd	29	1st	52.6	-	46.8	5.0	-	2.7	.282	-	.266	70	-	82
	Rounton -	245	29.803	-	- .007	59.1	40.2	49.7	+ 1.5	76	22nd	30	1st	52.7	-	47.0	5.6	-	3.0	.262	-	.253	66	-	78
	Scarborough -	100	29.944	-	- .007	57.7	43.2	50.5	+ 1.2	73	22nd	32	1st	53.1	-	49.5	4.3	-	3.1	.294	-	.279	72	-	79
	York -	53	30.048	-	- .007	61.1	42.6	51.9	+ 0.9	78	21st	32	1st	53.4	-	50.9	5.1	-	3.8	.280	-	.279	69	-	76
Southern Part.	Spurn Head -	28	30.051	+ .128	+ .003	55.9	45.0	50.5	+ 0.7	73	23rd	35	1st	48.5	53.5	50.4	2.0	3.6	2.9	.292	.314	.294	86	76	81
	Lincoln -	42	-	-	-	61.8	41.8	51.8	- 0.4	79	21st	30	1st	54.8	-	-	4.9	-	-	.308	-	-	71	-	-
	Skegness -	16	50.079	+ .137	+ .003	57.1	43.8	50.5	-	76	23rd	33	1st	49.1	-	53.1	2.1	-	3.2	.297	-	.319	85	-	78
	Hull -	2	30.092	-	- .007	60.6	42.1	51.4	+ 1.2	79	22nd	31	1st	54.9	-	49.6	5.3	-	3.1	.294	-	.280	68	-	80
	District Value -					58.8	41.8	49.9	+ 0.6	82		28													
3. ENGLAND, E.	Lowestoft -	75	30.035	-	- .007	55.5	43.8	49.7	- 0.4	72	23rd	33	1st	53.1	-	48.4	4.3	-	2.1	.294	-	.288	73	-	95
Northern Part.	Cromer -	139	-	-	- .007	58.9	43.5	51.2	-	79	23rd	34	16th	-	-	-	-	-	-	-	-	-	-	-	-
	Hillington -	92	29.992	-	- .007	61.9	40.3	51.1	0.0	82	22nd	29	11th	54.8	-	48.7	5.1	-	3.3	.297	-	.265	69	-	77
	Norwich -	98	-	-	-	62.1	41.6	51.9	-	80	22nd	29	16th	-	-	-	-	-	-	-	-	-	-	-	-
	YARMOUTH -	27	30.080	+ .141	- .003	55.9	44.2	50.1	+ 0.1	75	23rd	33	1st, 2nd	49.6	53.5	49.5	3.4	4.5	3.0	.273	.293	.281	77	71	80
	Geldeston -	47	30.067	-	- .007	60.5	41.0	50.8	- 0.1	82	22nd	27	16th	55.2	-	48.6	5.7	-	2.6	.290	-	.280	67	-	82
Southern Part.	Cambridge -	43	30.062	-	- .007	62.8	40.2	51.5	- 0.7	81	22nd	29	9th	55.7	-	50.0	6.3	-	3.3	.291	-	.289	64	-	79
	CLACTON -	62	30.047	+ .125	- .003	58.0	45.6	51.8	- 0.5	75	22nd	35	2nd	50.6	54.9	51.2	2.6	3.6	2.2	.303	.334	.320	82	77	85
	Woburn -	294	29.805	-	- .007	62.6	38.9	50.8	-	79	21st	26	16th	54.9	-	50.4	6.3	-	4.0	.281	-	.277	64	-	75
	Bennington -	411	29.686	-	- .007	62.1	41.0	51.6	+ 0.4	80	22nd	32	16th	54.9	-	48.7	6.7	-	3.5	.264	-	.261	61	-	76
	Berkhamsted -	397	29.691	-	- .007	63.0	39.1	51.1	0.0	79	21st	29	16th	54.1	-	49.1	6.0	-	3.7	.269	-	.261	64	-	75
	District Value -					60.5	42.1	50.9	- 0.3	82		26													
4. MIDLAND COS.	Garforth -	198	-	-	- .007	60.0	37.9	49.0	-	78	21st	27	19th	53.2	-	47.1	5.2	-	2.5	.285	-	.275	70	-	83
Eastern Part.	Huddersfield -	411	29.651	-	- .007	58.9	41.1	50.0	-	78	21st	31	1st	51.3	-	48.2	4.4	-	2.9	.279	-	.278	73	-	81
	Wakefield -	100	29.967	-	- .007	61.1	41.2	51.2	+ 0.6	78	21st	33	1st, 14th	53.1	-	-	5.4	-	-	.264	-	-	65	-	-
	Belvoir Castle -	276	29.812	-	- .007	61.3	41.6	51.5	+ 0.5	79	21st	29	19th	53.4	-	48.9	5.5	-	3.6	.271	-	.263	67	-	76
	Coventry -	309	29.780	-	-	63.0	41.3	52.2	- 0.2	79	21st	32	13th	54.3	-	-	6.3	-	-	.265	-	-	63	-	-
	NOTTINGHAM -	85	30.001	+ .120	- .002	61.8	41.8	51.8	+ 0.3	80	21st	33	1st, 19th	49.5	59.4	49.7	2.4	5.9	2.4	.294	.338	.297	84	67	84
	Birmingham -	542	29.514	-	- .007	61.4	42.4	51.9	+ 1.2	79	21st	32	1st	50.0	-	51.3	4.5	-	5.4	.262	-	.259	72	-	68
	Oxford -	212	29.885	+ .129	-	63.2	41.7	52.5	+ 0.3	80	21st	33	2nd	52.0	-	54.2	4.5	-	-	.277	-	-	72	-	-
			29.874	+ .130	-	63.2	41.7	52.5	+ 0.3	80				53.8	-	-	6.0	-	-	.266	-	-	64	-	-
Western Part.	Bath -	84	30.021	+ .133	+ .003	63.7	41.5	52.6	- 1.1	79	21st	30	3rd	50.1	-	60.0	2.3	-	-	.303	-	-	84	-	-
	Shrewsbury -	212	29.862	-	- .007	63.5	40.6	52.1	+ 0.3	80	21st	23	16th	54.3	-	49.7	6.0	-	4.0	.280	-	.270	65	-	74
	Sheffield -	450	29.614	-	- .007	60.1	42.4	51.3	+ 0.4	77	21st	32	1st	52.7	-	49.7	4.9	-	3.1	.285	-	.291	71	-	80
	Buxton -	997	-	-	- .007	58.8	38.0	48.4	+ 0.4	77	21st	29	2nd, 19th	-	-	-	-	-	-	-	-	-	-	-	-
	Stokesay -	375	29.696	-	- .007	63.1	38.3	50.7	-	77	21st	28	13th	54.7	-	47.6	5.4	-	3.0	.289	-	.260	68	-	79
	Cheltenham -	206	29.882	-	- .007	63.0	43.1	53.1	+ 1.5	80	21st	33	2nd	56.2	-	51.4	6.4	-	4.4	.286	-	.271	63	-	72
	District Value -					62.5	40.8	51.2	+ 0.1	82		25													

For notes see p. lv.

NOTE.—The Sunshine Values entered to Woburn are recorded at Aspley Guise.







TABLE A. (continued).—Giving a Summary of the METEOROLOGICAL OBSERVATIONS made at 9 a.m., 3 p.m. and 9 p.m. at NORMAL STATIONS in the BRITISH ISLANDS

DISTRICT.	STATION.	Height of Barometer at 32° F. at Level and Latitude of Station.	BAROMETER.			AIR TEMPERATURE.								HYGROMETER.											
			Mean at 32° F. at Level and Latitude of Station.	Diff. from Normal.	C. for Diurnal Range.	Mean of		Mean of A and B.	Diff. from Normal.	Absolute Maximum and Minimum.				Observations at 9 a.m., 3 p.m. and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.											
						A	B			Max.	Day.	Min.	Day.	Dry Bulb.			Dep. of Wet.			Vap. Pressure.			Humidity.		
														I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
5. ENGLAND, S.E.	Reading - - -	264	29° 8'13	—	—	63° 3	40° 8	52° 1	—	82	22nd	31	2nd	54° 0	—	49° 4	3° 9	—	2° 1	31° 2	—	30° 0	75	—	86
	Salisbury - - -	186	29° 394	—	—	64° 4	40° 2	52° 3	—0° 3	81	21st	31	2, 3, 15	55° 6	—	50° 0	4° 3	—	2° 5	32° 7	—	29° 8	74	—	83
	Brighton - - -	48	30° 063	—	—	60° 0	44° 6	52° 3	—0° 7	70	6th	35	3rd	54° 2	—	—	5° 2	—	—	28° 6	—	—	68	—	—
	Portsmouth - -	18	30° 092	—	—	62° 6	45° 3	54° 0	+1° 0	74	22nd	35	3rd	56° 3	—	—	5° 1	—	—	31° 8	—	—	69	—	—
	Eastbourne - -	36	30° 069	—	—	58° 1	45° 2	51° 7	—0° 9	71	22nd	36	1st	54° 0	—	51° 7	4° 6	—	3° 2	30° 5	—	30° 8	73	—	80
	Dungeness - - -	21	30° 055	+1° 17	+0° 03	57° 3	45° 3	51° 3	—0° 4	68	21st, 31st	33	2nd	50° 8	55° 6	53° 4	2° 7	4° 2	3° 5	30° 4	33° 0	31° 6	82	74	77
	Hastings - - -	174	29° 022	—	—	59° 2	45° 4	52° 3	+0° 4	72	21st	35	1st	54° 0	—	50° 8	5° 0	—	3° 0	28° 8	—	29° 6	69	—	80
	Southampton -	84	30° 021	—	—	63° 5	44° 0	53° 8	+0° 1	78	21st	33	2nd	57° 2	—	51° 6	6° 9	—	3° 9	29° 6	—	29° 0	63	—	76
	Ventnor - - -	80	30° 004	—	—	60° 0	46° 6	53° 3	+0° 2	71	22nd	37	2nd	55° 1	—	—	5° 2	—	—	29° 9	—	—	69	—	—
	District Value -					61° 5	43° 0	51° 9	—0° 5	84		26													
LONDON -	Tottenham - - -	55	30° 038	—	—	62° 7	43° 3	53° 0	—0° 8	81	22nd	33	16th	56° 6	—	51° 6	4° 8	—	2° 2	33° 6	—	33° 4	72	—	85
	Camden Square -	123	29° 080	—	—	65° 9	42° 8	54° 4	+0° 1	84	22nd	34	16th	56° 4	—	52° 8	6° 4	—	3° 6	29° 0	—	30° 6	64	—	77
	Westminster - -	54	30° 031	+1° 15	+0° 03	63° 2	44° 9	54° 1	+0° 7	81	22nd	35	1st, 2nd	49° 7	—	58° 5	3° 4	—	8° 6	27° 5	—	26° 9	77	—	55
	Greenwich - - -	159	29° 934	—	—	64° 8	41° 7	53° 2	—0° 6	84	22nd	33	16th	56° 4	—	50° 6	6° 6	—	3° 9	28° 6	—	27° 4	63	—	75
	Norwood - - -	235	29° 873	—	—	63° 9	42° 6	53° 3	+0° 5	83	22nd	33	2nd, 16th	56° 6	—	50° 8	7° 0	—	3° 9	27° 8	—	27° 5	61	—	74
	Kew - - -	34	30° 077	+1° 17	+0° 08	62° 8	43° 6	53° 3	+0° 6	81	21st	35	2nd	54° 3	61° 0	52° 7	5° 8	9° 5	4° 9	27° 6	27° 9	27° 7	66	52	69
	Bunhill Row - -		30° 068	+1° 17	—	—	—	—	+1° 0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Plumstead - - -		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Laudale - - -	25	29° 996	—	—	57° 8	43° 0	50° 4	+0° 1	70	6th	27	15th	52° 1	—	49° 6	4° 6	—	3° 6	28° 5	—	27° 6	73	—	77
	Poltalloch - - -	135	29° 903	—	—	58° 5	40° 5	49° 5	—0° 6	70	5th, 9th	24	15th	50° 4	—	46° 0	4° 6	—	3° 4	25° 7	—	23° 6	71	—	77
	Glasgow - - -	154	29° 850	—	—	58° 4	43° 2	50° 8	+0° 8	70	8th	31	15th	50° 2	—	49° 1	4° 8	—	3° 9	25° 8	—	26° 5	70	—	75
	Rothsay - - -	76	29° 071	—	—	53° 8	42° 9	50° 9	+0° 9	70	8th	30	2, 15, 16	50° 2	—	47° 7	3° 5	—	2° 9	27° 8	—	26° 4	77	—	81
	Colmonell - - -	150	29° 934	—	—	59° 9	41° 0	50° 5	+0° 7	72	6th	27	16th	51° 3	—	—	3° 2	—	—	29° 8	—	—	79	—	—
	Dumfries - - -	60	29° 948	—	—	59° 3	41° 8	50° 6	—0° 4	72	20th	28	16th	50° 7	—	48° 7	4° 4	—	3° 8	26° 4	—	25° 5	72	—	74
	Cally, Gatehouse -	120	—	—	—	59° 4	39° 6	49° 5	—0° 4	73	8th	25	16th	52° 6	—	46° 6	2° 2	—	2° 3	33° 7	—	26° 5	85	—	84
	Douglas - - -	284	29° 771	—	—	55° 4	42° 7	49° 1	—0° 8	65	21st	31	16th	50° 1	—	47° 5	3° 4	—	2° 4	28° 5	—	27° 7	78	—	83
	District Value -					58° 5	41° 7	49° 7	—0° 2	73		24													
	Southport - - -	42	30° 049	—	—	59° 2	42° 4	50° 8	+0° 3	78	21st	31	16th	53° 3	—	49° 7	5° 7	—	3° 6	27° 1	—	27° 0	66	—	76
	Manchester (City) -	195	29° 887	—	—	61° 0	44° 5	52° 8	—	79	21st	34	1st	53° 4	—	51° 8	6° 1	—	5° 0	26° 9	—	27° 1	65	—	70
	„ (Whitworth Pk) -	127	29° 928	—	—	60° 6	43° 0	51° 8	—	80	21st	33	2nd	53° 0	58° 5	50° 9	4° 2	—	3° 0	29° 5	—	29° 8	75	62	81
	Darwen - - -	730	29° 303	—	—	58° 2	39° 9	49° 1	—	76	21st	28	1st	51° 8	—	47° 6	5° 4	—	3° 6	26° 4	—	25° 5	67	—	76
	Aspatia - - -	254	29° 798	—	—	59° 3	41° 7	50° 5	+0° 1	73	20th	28	2nd	51° 9	—	48° 1	4° 7	—	3° 2	27° 9	—	26° 9	72	—	79
	Newton Rigg - - -	559	29° 459	—	—	59° 2	39° 2	49° 2	+0° 1	70	22nd	27	16th	50° 1	—	48° 8	4° 0	—	3° 4	26° 6	—	26° 6	74	—	77
	Stonyhurst - - -	363	29° 698	—	—	58° 3	41° 4	49° 9	—0° 4	75	21st	30	2nd	51° 9	—	48° 6	5° 0	—	3° 6	27° 4	—	26° 5	69	—	76
	Blackpool - - -	73	30° 006	—	—	57° 9	41° 2	49° 6	—1° 1	73	21st	29	16th	53° 1	—	49° 1	4° 3	—	3° 0	29° 4	—	27° 7	72	—	79
	M'ch't'r (Prestwich) -	320	29° 733	—	—	60° 3	41° 3	50° 8	+0° 4	79	21st	31	1st	52° 8	—	49° 4	4° 2	—	2° 7	29° 3	—	28° 7	74	—	82
	Liverp'l, Bidston Obs. -	197	29° 868	—	—	59° 4	44° 0	51° 7	+0° 2	76	21st	36	15th	52° 9	—	50° 7	5° 4	—	4° 6	26° 9	—	26° 0	67	—	71
	Llandudno - - -	21	30° 066	—	—	59° 6	44° 6	52° 1	+0° 5	74	20th	32	16th	54° 7	—	52° 4	5° 0	—	3° 8	29° 7	—	29° 7	70	—	76
	HOLYHEAD - - -	48	30° 015	+0° 05	—	57° 8	45° 1	51° 5	+0° 5	71	20th	37	1st, 16th	50° 7	55° 9	50° 1	3° 1	4° 8	2° 6	29° 3	32° 0	29° 7	80	71	82
	Bettws-y-Coed - -	100	29° 942	—	—	62° 0	40° 8	51° 4	—0° 0	77	21st	29	16th	55° 5	—	48° 5	6° 0	—	2° 5	28° 8	—	28° 0	65	—	82
	District Value -					59° 5	42° 2	50° 8	—0° 2	80		26													
	Llangamarch Wells -	585	29° 443	—	—	61° 2	37° 4	49° 3	—1° 2	75	21st	24	19th	52° 6	—	—	5° 4	—	—	26° 5	—	—	67	—	—
	PEMBROKE - - -	150	29° 897	+0° 07	—	55° 6	45° 1	50° 4	—0° 3	67	6th	37	16th	48° 8	53° 2	49° 8	2° 3	3° 8	3° 0	29° 0	30° 6	28° 5	84	75	81
	Clifton - - -	229	—	—	—	64° 2	45° 1	54° 7	+1° 3	81	21st	35	2nd	—	—	—	—	—	—	—	—	—	—	—	—
	PORTLAND BILL - -	23	30° 060	+0° 08	—	55° 3	46° 4	50° 9	—2° 5	61	30th	39	2nd	50° 1	53° 8	51° 2	2° 5	3° 4	2° 6	29° 9	32° 2	31° 1	83	77	83



CLIMATOLOGICAL STATIONS, at 7 a.m., 1 p.m. and 6 p.m. or 9 p.m. or at 7 a.m. and 6 p.m. at TELEGRAPHIC REPORTING during the Month of MAY, 1909.

Earth Temperature.		BRIGHT SUNSHINE.				CLOUD (0-10.)			RAIN AND OTHER FORMS OF PRECIPITATION.				WEATHER. No. of Days of								WIND.												STATIONS.	
At 1 foot depth.	At 4 feet depth.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	Mean Amount.			Total Fall.	Diff. from Normal.	Most in a day.		Precipitation.	Snow.	Hail.	Thunderstorm.	Clear Sky.	Overcast.	Fog.	Ground Frost.	Wind-force 8 and above.	No. of Observations at 9 a.m., 8 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.												
						I.	II.	III.			Amount.	Day.										Forces 4-7.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.			
55°8	—	306	—	—	—	3·7	—	3·5	1·49	—0·12	0·75	24th	9	0	1	0	14	4	0	—	0	29	2	1	10	3	2	6	5	4	Reading.			
—	51°0	337	+116	71	+25	4·3	—	4·2	1·72	—0·25	0·91	24th	7	1	0	1	7	2	0	6	0	16	0	2	4	4	14	5	6	11	16	Salisbury.		
55°8	52°4	344	—	72	—	2·8	—	—	1·03	—0·56	0·57	24th	8	1	0	1	8	5	0	1	0	9	2	3	4	6	5	2	4	4	1	Brighton.		
53°5	50°8	351	+123	74	+26	2·1	—	2·3	1·29	—0·31	0·41	24th	0	1	1	0	20	1	0	—	0	6	2	2	14	8	6	1	13	8	8	Portsmouth.		
—	—	—	—	—	—	5·5	6·3	6·3	0·90	—0·33	0·33	16th	8	1	0	0	0	2	2	—	0	55	0	6	23	17	4	5	26	9	3	Eastbourne.		
54°7	50°6	341	+106	72	+23	3·3	—	2·9	1·12	—0·48	0·35	24th	9	1	1	1	14	3	0	0	0	24	0	3	11	15	4	2	13	9	5	Dungeness.		
—	—	327	+108	69	+23	2·2	—	2·5	1·32	—0·59	0·63	24th	0	1	0	0	17	1	0	3	0	27	0	2	15	4	15	0	21	0	5	Hastings.		
—	—	344	+116	72	+24	3·7	—	—	1·41	—0·17	0·88	24th	7	1	0	1	11	4	1	—	0	13	4	3	1	19	3	7	10	9	6	Southampton.		
53°9	50°7	326	+117	68	+24	3·7	—	3·6	1·36	—0·44	0·93	8	8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Ventnor.		
—	50°4	306	—	64	—	4·5	—	4·6	1·57	—	0·46	24th	8	2	0	0	7	4	0	3	0	0	2	4	11	6	10	3	15	4	7	Tottenham.		
53°5	49°5	276	—	58	—	3·8	—	—	1·80	+0·05	0·57	24th	9	0	0	0	14	6	0	5	—	—	0	2	5	7	1	2	5	4	5	Camden Square.		
—	—	297	+130	62	+27	2·9	—	4·7	1·42	—0·27	0·38	24th	9	0	0	1	7	3	0	4	0	13	1	3	8	10	5	2	22	4	7	Westminster.		
—	50°7	326	+140	68	+29	4·7	—	4·5	1·24	—0·68	0·66	25th	10	1	0	0	0	6	0	13	0	6	2	6	9	11	4	6	17	4	3	Greenwich.		
53°1	—	—	—	—	—	4·3	—	4·2	1·38	—0·34	0·54	24th	9	1	1	0	9	6	0	1	0	7	5	9	14	5	3	8	11	5	2	Norwood.		
52°5	49°5	315	+114	66	+24	4·8	5·1	3·3	1·54	—0·19	0·74	24th	10	0	0	1	7	4	0	13	0	24	9	8	10	18	4	11	19	9	5	Kew.		
—	—	290	+115	61	+24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Bunhill Row.		
—	—	267	—	56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Plumstead.		
—	—	—	—	—	—	7·3	—	7·1	5·77	+1·99	0·75	28th	19	2	2	0	5	19	0	—	2	38	6	13	0	2	4	22	2	11	2	Laudale.		
—	—	—	—	—	—	6·3	—	5·7	3·69	+1·10	0·53	30th	19	0	1	0	5	12	0	—	0	24	5	6	6	1	7	15	13	6	3	Poltalloch.		
—	—	193	+28	39	+6	7·7	—	7·4	3·02	+0·60	0·87	25th	17	0	1	0	4	18	0	4	0	6	8	3	1	15	3	3	13	11	5	Glasgow.		
—	47°4	—	—	—	—	4·9	—	5·8	3·18	+0·45	0·64	30th	20	0	0	0	9	12	0	—	0	11	10	7	0	12	3	7	7	11	5	Rothesay.		
—	—	—	—	—	—	6·7	—	—	1·61	+0·91	0·40	24th	15	0	0	0	3	11	0	6	4	25	0	6	0	8	12	8	14	6	8	Colmonell.		
—	—	—	—	—	—	5·6	—	5·1	2·02	—0·39	0·75	26th	10	0	1	0	0	3	0	—	0	15	0	3	3	13	5	10	10	10	8	Dumfries.		
—	—	—	—	—	—	—	—	—	2·74	—0·20	0·46	22nd	15	0	0	0	—	—	0	—	0	11	0	1	10	5	11	7	14	2	12	Cally.		
—	—	281	+55	57	+11	5·8	—	5·6	1·47	—0·85	0·37	24th	10	0	0	2	5	9	6	2	0	20	0	3	6	12	9	7	11	7	7	Douglas.		
—	—	237	+41	48	+8	6·3	—	6·1	2·88	+0·01	0·87	16	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
53°8	50°8	285	+72	58	+14	4·9	—	5·6	1·40	—0·70	0·53	24th	9	0	2	2	4	9	0	12	0	25	5	5	2	13	10	5	7	10	5	Southport.		
49°8	48°2	191	—	39	—	—	—	—	1·56	—0·76	0·58	25th	12	0	0	1	—	—	0	3	0	4	1	8	9	10	9	7	8	5	5	Manchester (City).		
—	—	200	—	41	—	6·3	5·9	5·9	1·46	—	0·50	25th	13	0	0	0	5	12	0	7	0	16	8	5	7	20	10	14	10	11	8	" (Whit. P'k).		
51°9	47°0	219	—	45	—	5·8	—	6·5	3·38	—	0·75	25th	13	1	1	2	4	9	0	6	0	20	1	1	2	7	4	12	7	13	15	Darwen.		
—	—	250	—	51	—	5·4	—	5·5	1·48	—0·83	0·33	25th	13	1	1	0	8	6	0	8	0	14	6	6	8	4	3	5	19	10	1	Aspatia.		
50°3	46°6	254	+36	52	+12	5·2	—	4·8	1·67	—0·52	0·52	25th	10	0	2	0	6	4	1	9	0	21	11	3	3	3	13	8	12	6	3	Newton Rigg.		
—	—	242	+47	49	+9	5·2	—	4·8	2·45	—0·23	0·70	25th	13	1	2	1	7	6	0	8	0	6	21	1	9	7	2	7	7	7	1	Stonyhurst.		
50°7	47°9	288	+85	59	+18	5·6	—	5·6	2·13	+0·10	0·87	24th	13	0	1	2	5	7	0	9	0	19	1	3	6	11	12	3	10	9	7	Blackpool.		
—	—	215	+43	44	+9	6·6	—	7·1	2·19	—0·20	0·63	25th	13	1	0	2	4	12	1	5	1	10	3	12	4	7	2	17	0	15	2	Manch'st'r (Prest).		
—	—	200	—	59	—	3·7	—	5·8	1·24	—0·62	0·25	24th	9	0	1	2	7	4	0	—	0	14	0	2	7	13	11	4	7	11	7	Liverpol, Bid.Obs.		
—	—	283	+77	58	+16	4·3	—	3·9	0·94	—0·90	0·47	24th	10	0	0	1	10	3	1	—	0	0	3	8	7	8	2	3	5	21	5	Llandudno.		
—	—	—	—	—	—	5·6	4·9	5·2	1·37	—0·45	0·63	24th	11	0	0	1	4	2	7	—	0	31	3	4	12	11	3	10	29	11	10	Holyhead.		
49°2	47°2	241	—	50	—	4·0	—	4·0	1·18	—	0·43	24th	11	0	1	0	8	2	0	2	0	5	2	5	2	4	10	1	22	10	6	Bettws-y-Coed.		
51°0	48°0	264	+65	54	+13	5·2	—	5·4	1·57	—0·66	0·87	11																						



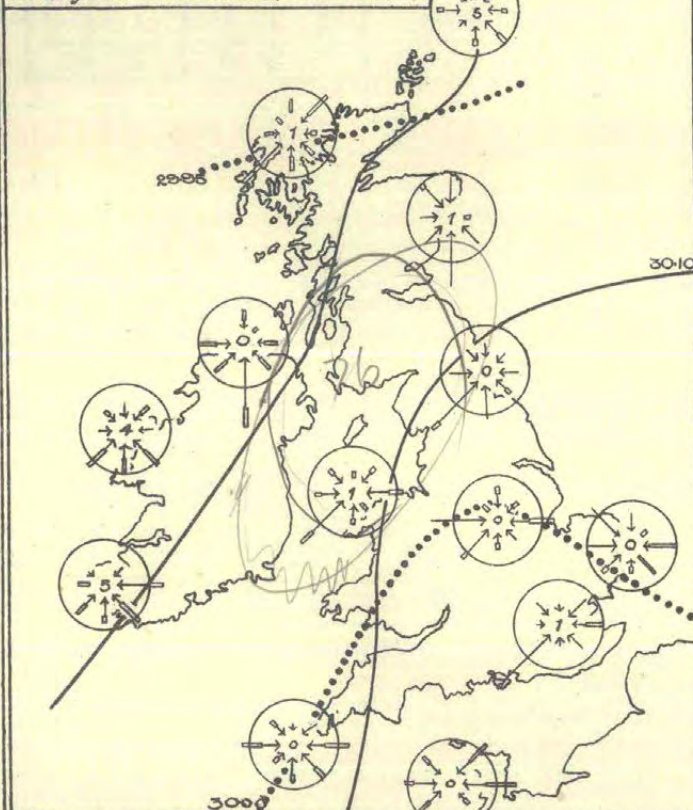
TABLE B.—SUMMARY of the OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE at additional STATIONS, MAY, 1909.

DISTRICT.	STATION.	Height of Gauge above M.S.L. Ft.	AIR TEMPERATURE.								Earth Temperature		Grnd Frost. No. of Days.	RAIN AND OTHER FORMS OF PRECIPITATION.					BRIGHT SUNSHINE.					
			Mean of		Mean of A and B.	Diff. of Mean from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.		Total Fall.	Diff. from Normal.	Most in a day.		Number of Days.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.		
			A	B			Max.	Day.	Min.	Day.						Ins.	Ins.						Ins.	Days.
			Max.	Min.																				
0 SCOTLAND, N.	p Balta Sound - - - S	31	49.5	39.6	44.6	—	60	21st	30	14th	45.8	—	—	1.80	—	0.35	3rd	18	185	—	35	—		
	p Crathes - - - S	140	56.9	37.8	47.4	—	72	8th	26	17th	47.8	45.3	14	2.55	—	0.89	25th	15	180	—	36	—		
	Stonehaven - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	195	—	39	—		
1. SCOTLAND, E.	p Balruddery - - - S	276	58.5	39.4	49.0	—	74	22nd	30	2nd 16th	—	—	—	3.22	—	1.45	25th	17	208	—	41	—		
	Edinburgh - - -	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	194	+ 30	39	+ 6		
	a West Linton - - - S	800	55.9	38.0	47.0	- 0.7	67	8th, 22nd	22	16th	—	—	15	2.80	—	0.77	25th	17	190	—	38	—		
	a Alnwick Castle - - -	210	56.8	40.1	48.5	+ 0.3	68	21st, 22nd	28	16th	—	—	—	2.02	- 0.14	1.35	25th	8	—	—	—	—		
	p Newcastle-on-Tyne - - -	152	58.6	42.9	50.8	—	75	21st	31	1st	—	—	—	1.62	- 0.24	0.98	25th	11	193	+ 48	39	+ 10		
	p Ampleforth - - -	349	58.8	39.3	49.1	—	74	22nd	30	1st	—	—	—	1.49	—	0.60	25th	10	—	—	—	—		
2. ENGLAND, N.E.	p Tealby - - -	251	59.2	42.1	50.7	+ 0.6	78	22nd	31	1st	—	—	—	0.60	- 1.30	0.35	25th	6	—	—	—	—		
	a Fulbeck - - -	180	62.0	41.9	52.0	+ 0.2	81	21st	30	1st	—	—	—	0.83	- 1.02	0.47	25th	10	—	—	—	—		
	a Rauceby - - -	124	62.2	41.0	51.6	—	82	21st	31	1st	53.7	48.8	11	1.12	- 0.82	0.64	25th	9	245	—	50	—		
3. ENGLAND, E.	a Felixstowe - - -	10	57.4	44.4	50.9	- 1.3	74	23rd	34	9th, 11th	—	—	—	1.34	—	0.70	25th	10	296	—	62	—		
	a Rothamsted - - -	424	62.1	39.6	50.9	- 0.1	78	21st, 22nd	29	15th	—	—	—	1.20	- 0.82	0.63	24th	11	297	+ 101	62	+ 21		
	a Shoburyness - - -	13	60.3	44.8	52.6	0.0	79	22nd	35	2, 11, 13	—	—	—	1.05	- 0.24	0.31	24th	7	—	—	—	—		
	a Southend-on-Sea - - -	100	61.4	46.1	53.8	—	80	22nd	35	2nd	54.3	—	0	1.03	- 0.35	0.32	24th	6	318	—	66	—		
	a Harrogate - - -	476	58.9	39.8	49.4	+ 0.5	75	21st	29	1st	47.8	46.0	9	1.78	- 0.20	0.54	25th	12	236	—	48	—		
	a Bradford - - -	330	58.4	40.7	49.6	—	76	21st	31	1st, 14th	48.9	44.9	8	2.42	—	0.65	25th	13	217	—	44	—		
4. MIDLAND COUNTIES	a Cheadle - - -	646	59.8	40.8	50.3	+ 0.6	78	21st	30	1st	—	—	15	1.77	- 0.44	0.53	24th	12	—	—	—	—		
	a Bawtry - - -	65	64.8	40.2	52.5	+ 1.4	80	21, 22, 23	30	19th	—	—	—	1.36	- 0.54	0.34	25th	10	—	—	—	—		
	a Worksop - - -	56	62.8	39.3	51.1	0.0	78	21st	20	13th	51.0	48.7	14	1.40	- 0.64	0.36	25th	11	232	+ 62	48	+ 13		
	a Mayfield (Staffs.) - - -	374	60.0	37.4	48.7	—	76	21st	25	19th	—	—	12	1.72	—	0.56	24th	11	—	—	—	—		
	a Kingston-on-Soar - - -	125	62.0	38.1	50.1	—	79	21st	25	19th	50.3	—	—	1.20	—	0.41	24th	13	—	—	—	—		
	p Rugby - - -	379	62.4	39.2	50.8	- 0.1	79	22nd	29	15th	—	—	11	1.61	—	0.59	24th	10	—	—	—	—		
	a Raunds - - -	210	64.1	39.6	51.9	+ 0.1	82	21st	29	9th	—	—	13	1.51	—	0.51	24th	9	—	—	—	—		
	a Winslow - - -	379	63.7	40.8	52.3	—	81	21st	31	16th	—	—	—	1.61	—	0.54	24th	11	—	—	—	—		
	a Hereford - - -	201	63.8	39.7	51.8	- 0.2	79	21st	30	15th	—	—	19	0.82	- 1.22	0.54	24th	9	—	—	—	—		
	a Cirencester - - -	446	62.8	40.7	51.8	+ 1.1	80	21st	31	3rd	—	—	4	1.56	- 0.52	0.55	26th	8	287	+ 83	60	+ 18		
	a Epsom - - -	160	63.7	40.7	52.2	—	83	22nd	32	15th	—	—	9	1.52	—	0.61	24th	9	—	—	—	—		
	a Wokingham - - -	216	64.3	36.0	50.2	—	80	21st	26	2nd	—	—	—	1.53	—	0.83	24th	8	—	—	—	—		
	a Maidenhead - - -	99	66.6	39.8	53.2	—	84	21st	30	3rd	—	—	18	1.33	- 0.45	0.75	24th	8	—	—	—	—		
	a Marlborough - - -	424	62.8	37.7	50.3	- 0.6	80	21st	27	3rd	—	—	13	1.42	- 0.56	0.50	24th	6	278	+ 92	58	+ 19		
	a Bucklebury - - -	409	62.3	40.5	51.4	—	79	21st	31	2nd, 3rd	—	—	13	1.78	—	0.85	24th	8	—	—	—	—		
	a Swarraton - - -	310	62.8	38.8	50.8	+ 0.2	79	21st	28	3rd	—	—	—	1.55	- 0.44	0.84	24th	10	—	—	—	—		
	a Margate - - -	35	61.1	46.1	53.6	+ 1.2	82	22nd	37	3rd	52.6	49.9	0	0.96	- 0.64	0.40	25th	5	315	+ 117	66	+ 25		
	Broadstairs - - -	140	—	—	—	—	—	—	—	—	—	—	—	1.05	—	0.46	25th	6	331	—	69	—		
	Ramsgate - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	332	—	70	—		
	a Wisley - - -	150	63.2	41.3	52.3	- 0.2	80	21st	32	16th	53.1	50.5	10	1.51	—	0.67	24th	9	325	—	68	—		
	a Dover - - -	421	59.1	44.3	51.7	—	77	21st	35	1st, 2nd, 3rd	51.4	48.5	1	0.78	—	0.32	25th	7	337	10.9	71	—		
5. ENGLAND, S.E.	a Tunbridge Wells - - -	231	62.0	41.6	51.8	+ 0.4	81	21st	33	2nd	54.1	—	10	1.88	+ 0.07	0.52	26th	10	331	+ 125	69	+ 26		
	p Folkestone - - -	121	59.1	44.2	51.7	—	77	21st	32	3rd	—	47.9	—	0.72	- 0.98	0.23	25th	6	340	—	71	—		
	Littlestone - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	319	—	67	—		
	a Bexhill - - -	27	59.1	46.1	52.6	—	68	21st	34	2nd	55.1	—	0	1.19	—	0.38	24th	9	335	—	70	—		
	Hove - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	335	—	70	—		
	p Lewes - - -	58	60.8	41.6	51.2	—	76	21st	32	3rd	—	—	—	1.26	—	0.44	24th	12	—	—	—	—		
	a Worthing - - -	36	60.1	44.0	52.1	- 0.2	68	6, 20, 22	33	2nd	54.2	50.8	2	1.56	+ 0.05	0.81	24th	8	353	—	74	—		
	a Bognor - - -	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	Westbourne - - -	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	345	—	72	—		
	a Totland Bay - - -	140	59.9	44.6	52.3	+ 0.6	71	21st	37	3rd	—	—	3	1.38	- 0.31	0.68	24th	8	351	—	74	—		
	a Sandown - - -	20	60.9	46.0	53.5	—	74	22nd	35	2nd	—	—	—	1.75	—	0.98	24th	7	337	—	71	—		
	p Bournemouth - - -	145	62.4	42.8	52.6	—	74	21st	31	3rd	52.4	51.2	—	1.79	—	0.76	24th	6	335	—	70	—		
6. SCOTLAND, W.	p Obau - - -	20																						



## 1. BAROMETER AND WIND AT 7 A.M.

The dotted lines indicate the normal distribution of pressure in May, based on 35 years' observations, 1871-1905.



WIND ROSES. The arrows fly with the wind and indicate frequency and force, thus:

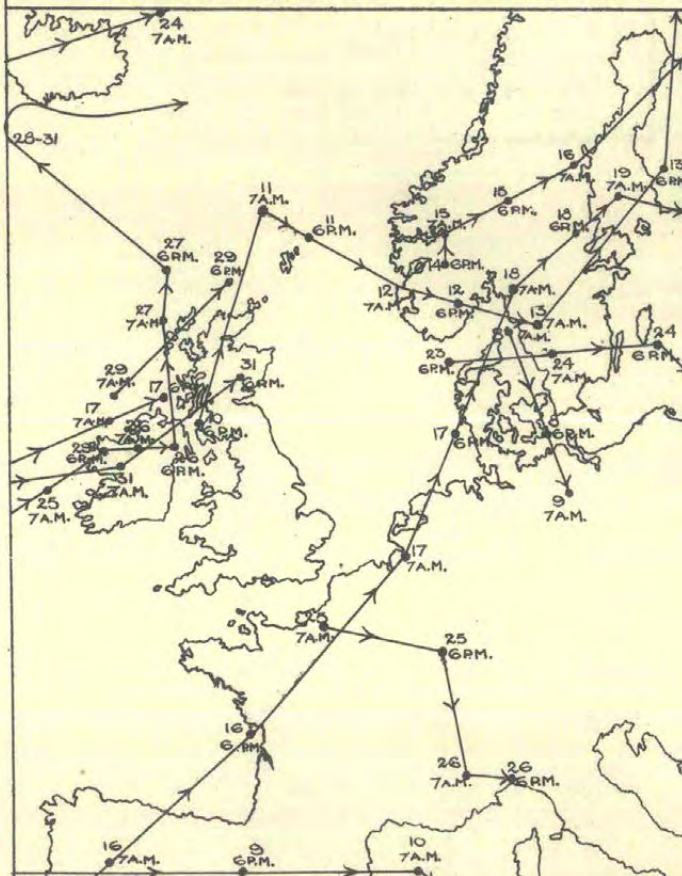
Light moderate strong  
30 Obs 1 inch

## 3. DISTRIBUTION OF MEAN TEMPERATURE.

Reduced to sea level by a correction of 1°F for 300 ft.



## 2. MOVEMENTS OF DEPRESSIONS.



## 4. BRIGHT SUNSHINE, IN HOURS.

Isohels are shown for 150, 200, 250, 300 and 350 hrs.





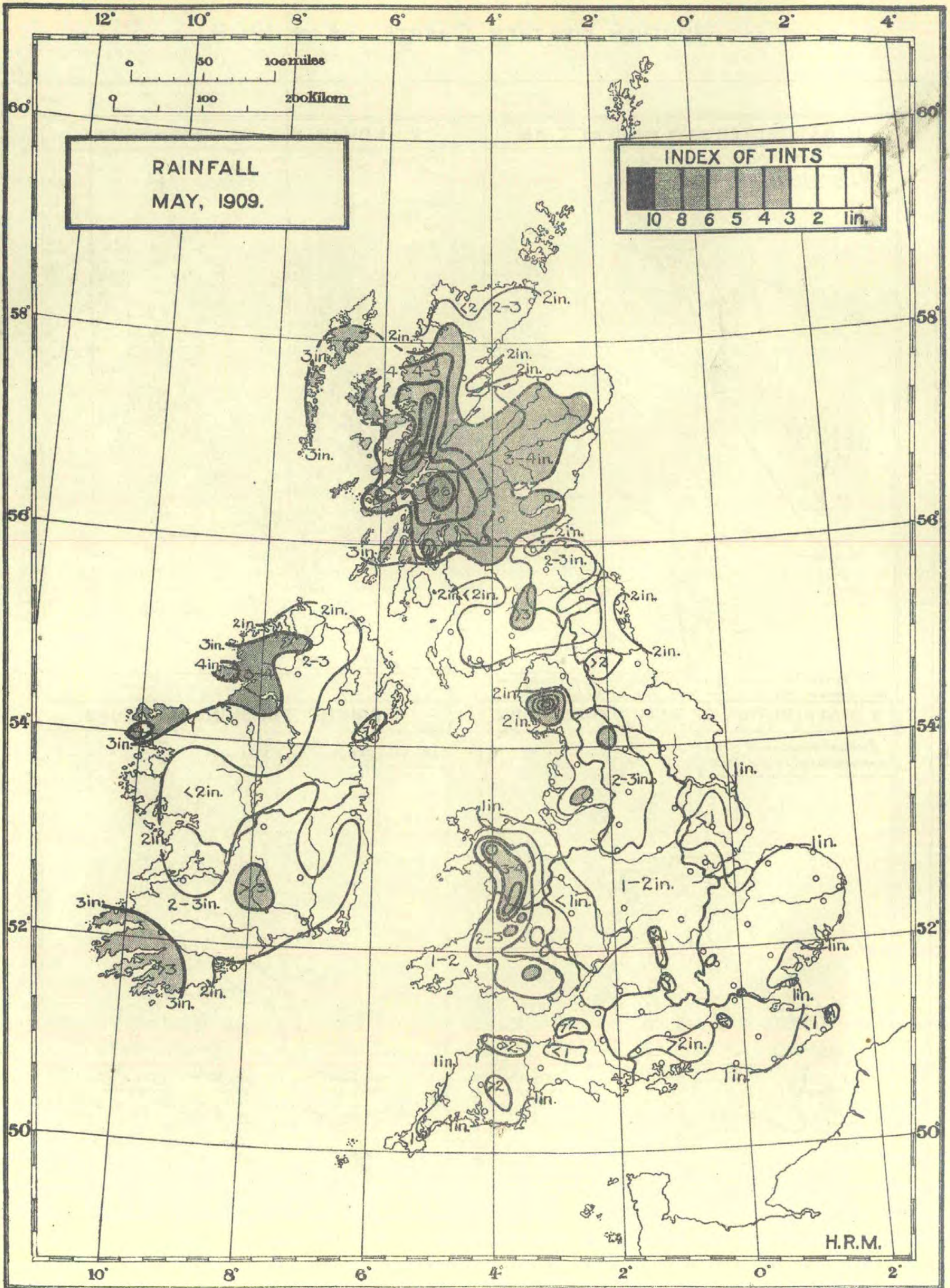




TABLE B (continued).—SUMMARY of the OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE at additional STATIONS, MAY, 1909.

DISTRICT.	STATION.	Height of Gauge above M.S.L.	AIR TEMPERATURE.								Earth Temperature		Grnd Frost.	RAIN AND OTHER FORMS OF PRECIPITATION.					BRIGHT SUNSHINE.				
			Mean of		Mean of A and B.	Diff. of Mean from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.		No. of Days.	Total Fall.	Diff. from Normal.	Most in a day.		Number of Days.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.
			A	B			Max.	Day.	Min.	Day.							Ins.	Ins.					
			Max.	Min.																			
		Ft.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
8. ENGLAND, S.W. (continued)	a Shaftesbury - - -	722	61.1	42.2	51.7	+ 1.2	78	21st	32	1st	53.5	—	—	1.22	-0.88	0.62	24th	6	—	—	—	—	
	a Arlington - - -	613	60.8	42.4	51.6	+ 1.0	74	21st	32	19th	—	—	—	2.60	-0.18	1.30	26th	12	—	—	—	—	
	a Culmpton - - -	202	64.5	41.0	52.8	+ 0.3	80	21st	31	19th	—	—	3	1.35	-0.70	0.60	26th	7	284	+ 83	60	+18	
	Torquay - - -	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	315	+ 87	66	+18
	a Weymouth - - -	21	60.1	45.1	52.6	—	69	12th	34	3rd	—	—	—	1.16	—	0.47	24th	7	327	—	69	—	
	a Newquay - - -	100	58.7	46.7	52.7	+ 1.0	69	20th	36	2nd	54.1	—	—	0.53	-1.16	0.26	25th	4	301	+ 80	63	+17	
9. IRELAND, N.	a Salcombe - - -	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	332	—	70	—
	a Penzance - - -	54	60.5	47.6	54.1	—	71	12th	34	2nd	—	—	—	0.95	—	0.61	25th	9	292	—	62	—	
	p Dublin (Glasnevin) - -	37	59.8	42.2	51.0	+ 0.9	72	21st	29	2nd	—	—	12	1.32	-0.69	0.28	17th	13	—	—	—	—	
	a Kingstown - - -	42	58.3	44.9	51.6	—	70	21st	34	1st	—	—	—	0.91	—	0.31	27th	11	257	—	53	—	
	p Clongowes Wood College -	245	50.9	39.5	49.7	—	70	21st	26	15th	—	—	11	1.30	—	0.35	30th	11	236	—	48	—	
	a Mountmellick - - -	253	60.1	41.0	50.6	—	72	10th	29	2nd	—	—	—	1.83	—	0.44	24th	11	—	—	—	—	
10. IRELAND, S.	p Newcastle (Co. Wicklow) -	256	57.6	42.6	50.1	—	70	22nd	32	2nd	—	—	—	1.15	—	0.37	24th	10	—	—	—	—	
	a Kilkenny - - -	212	60.4	42.0	51.2	- 0.4	71	10th	29	16th	—	—	—	2.11	+0.05	0.55	24th	9	—	—	—	—	
	a Cahir - - -	199	60.3	42.7	51.5	- 0.1	69	10th 11th	30	2nd	—	—	—	3.23	—	0.64	31st	12	—	—	—	—	
	a Foynes - - -	108	60.5	44.3	52.4	+ 0.9	71	10th 10th	33	14th	—	—	—	1.55	-0.68	0.37	25th, 30th	18	—	—	—	—	
	a Ballinacurra - - -	34	59.5	44.2	51.9	—	72	11th	32	2nd	—	—	—	2.21	—	0.79	24th	10	247	—	52	—	
	11. ENGLISH CHANNEL	a Guernsey (Villa Carey) -	180	61.6	47.2	54.4	+ 1.6	78	21st	40	2, 11, 15	—	—	—	0.73	-1.18	0.32	24th	6	343	+ 85	73	+18

## NOTES ON THE STATISTICAL TABLES.

**Hours of Observation.**—The following types are used to indicate the hours of observation at Stations included in Table A:—Clarendon, Normal Climatological Stations—I, 9 a.m. [II, 3 p.m.], III, 9 p.m. Black Capitals, telegraphic reporting normal climatological stations—I, 7 a.m., II, 1 p.m., III, 9 p.m. Roman, telegraphic reporting stations—I, 7 a.m., [II, 1 p.m.], III, 6 p.m. Italic, auxiliary climatological stations—I, 9 a.m. only (9 a.m. and 6 p.m. at Ventnor). The summaries are based on observations made three times a day wherever the data are available, except in the case of the element pressure (see below). At stations shown in clarendon type the maximum and minimum temperatures are read at 9 p.m.; at the remaining stations these observations are made at I. In Table B the letters *a* and *p* indicate whether the readings of the maximum and minimum are taken at the hours of morning or evening observation.

**Barometer.**—The correction for latitude has not been applied to the readings quoted in the Tables. It is applied to the readings at sea level from which the chart showing the mean monthly distribution of pressure is prepared. The values given in the tables are for station level. The values printed are (1) for stations shown in clarendon type, the means of observations at 9 a.m. and 9 p.m.; (2) for stations shown in Capitals, the means of observations at 7 a.m., 1 p.m., 9 p.m.; (3) for stations shown in Roman type, the means of observations at 7 a.m. and 6 p.m.; (4) for stations shown in italic type, the means of observations at 9 a.m. The column headed C gives the correction for diurnal variation required to reduce the means of observations at fixed hours to true diurnal means, based on the analysis of the values obtained at the four observatories for the period 1871–1905. The difference from normal is based upon the 7 a.m. readings only, except in the cases of Kew, Greenwich, Aberdeen, Valencia and Falmouth (see below).

**Rainfall.**—The amounts are those for the 24 hours commenced at the time of morning observation.

**Weather Phenomena.**—The number of days of Rain, Snow, Hail, Thunderstorm, Fog, Ground Frost, and Gale, are counted irrespective of the hours at which the phenomena occur. Except in the cases of rainfall (see above) and ground frost the day is the civil day. A day is reckoned as a day of “clear sky,” if the mean of the estimates of the “amount of cloud” at the fixed hours of observation is less than 2, and as an “overcast” day if the mean is greater than 8. Days of Ground Frost are days on which the minimum thermometer on the grass falls to 30° or below; the “day” is taken as the 24 hours ending at 9 a.m.

**Wind Summaries.**—The results given under wind direction, and the number of observations of calms and of fresh or strong wind, are based on the observations at fixed hours. At Deerness, Aberdeen, Valencia, Falmouth, Kew, Glasgow, Stonyhurst and Armagh the wind observations are based on the records of a standard Robinson anemometer (factor 2.2). Velocities of between 13 and 38 miles in the hour have been entered as “fresh or strong winds,” velocities of 39 miles in the hour, or above, as gales.

**Averages.**—The normal averages used for stations are—Pressure, Temperature, and Rainfall for the 35 years 1871–1905; Bright Sunshine for the 25 years 1881–1905. The values are published in Appendix III. to the Weekly Weather Report for 1906. For the Royal Observatory, Greenwich, and the Radcliffe Observatory, Oxford, averages for longer periods are used. See Notes in Monthly Weather Reports for 1908. Monthly averages of pressure at telegraphic reporting stations for the epoch 8 a.m. are published in Appendix I. to the Daily Weather Report. In order to render these averages comparable with the data for the present month, a correction, based on the results for the four observatories as published in “Hourly Readings at the Observatories under the Meteorological Council,” has been applied to each of them before the figures given in the column headed “Barometer—Difference from Normal” were computed.

**Aberdeen, Falmouth, Kew, Valencia, Oxford, Greenwich.**—The figures quoted in the second line assigned to these observatories in the columns for Barometer and Mean Temperature are the true daily means computed from the hourly tabulations of the traces of the photographic recording instruments. For Kew, Falmouth, Aberdeen and Valencia the divergences of the means of the readings at 9 a.m. and 9 p.m. from their normal averages are also given.

**Royal Observatory, Greenwich.**—The earth temperatures are taken at a depth of 3 ft. 2 ins. The daily rainfall amounts are those for the 24 hours comprising the civil day. The number of days in the month which were persistently overcast from midnight to midnight was 0, the number of persistently cloudless days was 1, the number of persistently foggy days was 0.

**Mean Values for Districts.**—The stations used in the Weekly Weather Report for the computation of “district values” of rainfall and temperature are distinguished by the sign †, those used for the computation of “district values of bright sunshine” by the sign §. These stations are distributed between Tables A and B. The monthly mean values for districts given in this Report for maximum, minimum and mean temperature, duration of bright sunshine, number of rain days and amount of rainfall, are computed from the data for these “representative” stations. The mean temperature for districts is computed in the manner shown in the preface to this and previous volumes of the Weekly Weather Report. The monthly mean values for districts for “amount of cloud” are computed from the data for all stations included in Table A. The extreme values of the various elements in each district are printed in distinctive type. In the lines devoted to district values, the columns referring to absolute highest and absolute lowest temperature and the maximum amount of rainfall in a day contain the extreme values for the district at any station included in either table of the Report. The averages for districts with which the current values are compared are for the 25 years 1881–1905, as in the case of the corresponding values published in the Weekly Weather Report.

**Meteorological Societies.**—Information for stations marked ‡ is supplied by the Royal Meteorological Society, and that for stations marked § is supplied by the Scottish Meteorological Society. Stations marked S are in connexion with the Scottish Meteorological Society and those marked M with the Royal Meteorological Society, as well as with the Meteorological Office.







# MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

(Supplement to the Weekly Weather Report.)

SUMMARY OF OBSERVATIONS COMPILED FROM THE RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS IN THE UNITED KINGDOM, WITH A CHART OF RAINFALL CONTRIBUTED BY THE BRITISH RAINFALL ORGANISATION.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE,

AND PUBLISHED FOR H.M. STATIONERY OFFICE BY WYMAN AND SONS, LTD., FETTER LANE, E.C.; OR OLIVER AND BOYD, EDINBURGH; OR E. PONSONBY, 116, GRAFTON STREET, DUBLIN.

THIRTY-FOURTH YEAR.  
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## SUMMARY OF OBSERVATIONS.

**Pressure, Winds and Weather.**—Practically throughout the period under notice the distribution of atmospheric pressure over the British Isles and surrounding regions was of an abnormal character, so that the winds and weather differed greatly from the usual experience during the Mid-summer month. On the opening day there was a sudden change from the brilliantly fine type of conditions which had been experienced down to the close of May. An extensive system of high barometer readings made its appearance on the eastern side of the Atlantic, from the Azores and Portugal northward to Iceland and Greenland, while an elongated trough of low pressure stretched from Morocco north-eastward across the western countries of the Continent to Scandinavia and Finland. For close upon three weeks the relative distribution of high and low pressure systems did not undergo any very decided modification, the Continental disturbances at times keeping away more to the eastward, and the anticyclone out on the Atlantic at the same time expanding so as to more completely embrace these islands and south-western Europe. It was at nearly the end of this period that the barometer attained its highest level during the month at the home stations, rising above 30.5 ins. in Ireland on the 17th, 30.56 ins. at Valencia, and on the following day mounting to 30.51 ins. at Scilly. The centres of the numerous depressions which appeared within the region under observation during this portion of the month were almost without exception found over the south-western, central, eastern or northern parts of the Continent. On the morning of the 19th the high pressure area was taking up a more southerly position on the ocean, westward from the Bay of Biscay, and there were indications of the existence of a disturbance to the westward or south-westward of Iceland. Wireless reports from steamers beyond the north of Ireland showed that in the evening of the same day the depression was rapidly spreading down upon our north-western coasts. Subsequent reports, however, disclosed a cyclonic system which was extraordinarily slow and erratic in its movements. Its minimum of pressure did not reach the neighbourhood of Galway until the evening of the 21st. Growing deeper it passed back to Mayo by next morning, the barometer sinking below 29.5 ins. over the Kingdom generally, and at Blacksod Point it touched 29.18 ins., the lowest reading for the month. Then gradually diminishing in intensity the system wandered on an irregular path to the neighbourhood of Southampton by the morning of the 24th, afterwards passing across south-eastern England to the Wash and the lower part of the North Sea. Returning westward its centre reached the Yorkshire coast on the morning of the 27th, and two days later the disturbance was completely dispersed over the north of Ireland, other shallow depressions then appearing on the Continent between Spain and Scandinavia.

It will thus be seen that there was no break of any consequence in the area of high pressure occupying the ocean beyond the Western coasts. This is reflected in the mean results for the month, which show values as high as 30.28 ins. in the Azores, and 30.12 ins. in western Iceland, gradually and fairly uniformly diminishing eastward across the British Isles, to less than 29.9 ins. in the north of Denmark. Over southern Britain the mean values were all below the average, to the extent of 0.05 in. at London and Dungeness, while over the rest of the Kingdom the figures show an excess of pressure, which at Stornoway amounted to 0.12 in. The distribution of mean pressure consequently showed considerable variation, the isobars being at right angles to the normal, and for the usual South-Westerly to Westerly type a well-defined Northerly type was substituted. But while the wind was almost always from points in the northern half of the compass, it was generally of little strength, the only instance of a gale experienced at a telegraphic reporting station being on the 4th, from North-East, at Portland Bill. There were only a few other cases in the whole month of the force of a high wind being felt. The self-recording anemometers registered neither gales nor severe squalls.

The weather experienced throughout the country under these unusual conditions was of an exceedingly variable description, and as might be inferred from the pressure distribution it was much more disturbed in the eastern districts than in the western ones. During the first part of the month, until the appearance of the disturbance near Iceland on the 19th, the northern and western portions of the Kingdom were favoured with very dry weather, large numbers of stations returning only a few trifling showers. Ardross, Bray and Newcastle (Wicklow) had 14 consecutive rainless days, Glenarm and Mallaranny 15, Ennistymon 16, and Holyhead 17, while there were several cases of one or two slight showers in the course of 19 days. Over the south-eastern quarter of England, on the other hand, the opening days were extremely unsettled, under the influence of the various shallow disturbances centred about the Bay of Biscay, northern France and the Low Countries. With the prevailing Northerly breeze thunderstorms were experienced on the 1st at many places in the counties between the Wash and the English Channel, and falls of more than an inch of rain occurred over a still wider area, the largest amounts returned being 1.4 in. at Totland Bay and Berkhamsted, 1.5 in. at Southampton, Reading and Olfley, 1.6 in. at Swarraton, and 1.7 in. at Maidenhead. For some days the weather remained in a thundery condition; on the 3rd Sandgate had

1.1 in. of rain, Falmouth and Plymouth 1.2 in., and Jersey and Guernsey 1.4 in., on the 5th Mountmellick 1.3 in., and on the 6th Portsmouth 1.3 in. Later, as the disturbances passed further eastward, and the Atlantic high pressure system took more complete possession of the country, the dry weather in the west and north spread to all districts, so that in many localities in the eastern and south-eastern counties there were from seven to ten days without rain. These periods, however, though very dry were not, as a general rule, attended by fine weather, the polar breezes being accompanied by much cloud and dulness, so that the registered duration of bright sunshine in the majority of districts was well below the normal.

The 19th witnessed the end of the dry weather, and from the 20th to the close of the month the conditions were of a most disturbed character, nearly the entire period being under the influence of the slow moving low pressure system whose progress has been described above. Every day thunderstorms were experienced, and except on the 25th, 26th and 30th they affected extensive regions in Ireland and Scotland as well as in England. Rain was general, frequently heavy, and in some localities accompanied by hail. At Clifton 1.3 in. was measured on the 20th. On the 21st rainfalls exceeding an inch occurred in various parts of Ireland, 1.5 in. at Blacksod Point, also at Rothesay. Next day the largest falls were all in the north, 1.3 in. at Carlisle, Colmonell, Kilmarnock, Glasgow and Wick, and 1.7 in. at Dumfries. More than an inch fell in the Birmingham district on the 23rd, and in eastern Ireland, Bray had 1.2 in., and Kingstown 1.4 in. There were again several large amounts over England on the 24th, ranging up to 1.5 in. at Garforth, and in Ireland Broadford, Clare, had 1.4 in. On the 28th Ruthin had a fall of 1.5 in.

Another very striking feature of the month was its persistent coldness. From beginning to end there was not a day of real summer heat. Afternoon temperatures as high as 70° were uncommonly rare, while there was an unusual frequency of maximum readings below 60°. The warmest days (more local than general) were at the beginning, in the middle and at the end of the month, 74° at Folkestone on the 1st, at Oundle on the 13th, Dundrum on the 14th, and at Swansea on the 30th; 75° at Bexhill and St. Leonards on the 1st, and Camden Square on the 17th; and 76° at Maidenhead on the 16th. On the other hand, between the 4th and 6th, and on some other occasions, there were numbers of maxima of 52° and lower, 50° as far south as Totland Bay, Isle of Wight, on the 4th, the same day that Salisbury had a maximum of 49° only. On the 15th Sumburgh Head did not rise above 48°. Throughout the Kingdom the nights were, relatively, not nearly so cold as the days. The minimum temperatures were nearly always in the forties, but between the 19th and the 22nd they were considerably higher, up to 58° at Dublin, Clacton-on-Sea, Tottenham and in London, and 59° at Dundrum. At the opposite extreme there were a few instances of frost in the shade, 31° at Burnley, and 30° at Garforth on the 7th; 30° at Llangammarch Wells on the 8th; 31° at Garforth on the 3rd and 13th; and 29° at Llangammarch Wells on the 14th. Still lower readings were obtained from thermometers freely exposed on the grass, as low as 21° at Llangammarch Wells on the 8th. As a result of these cold conditions the mean temperature of day and night for the month was everywhere below the average, by more than 4° in many localities, and as much as 5.5 at Greenwich and Lincoln.

Fog occurred on the south coast of England, between Dungeness and Portland Bill, only on the 19th; on various sections of the western coasts on the 5th and 6th, 13th to 20th, and 28th to 30th; while on the east coast of Britain it was frequently reported—from the 1st to the 5th, and the 15th to the 29th, but rarely south of the Humber.

The temperature of the sea water round our coasts was everywhere warmer than in May, by 5° or more in several neighbourhoods, 8° off the Isle of Man. Off the east of Ireland, at the western end of the English Channel, and at some places on our north-eastern coasts the water was rather colder than the air on shore, by as much as 4° off Scarborough.

**Rainfall.**—There was a complete reversal of the usual distribution of rain. It was lightest and least frequent over the western and northern districts, heaviest and most frequent over southern and south-eastern England. Roche's Point, Holyhead and several places in Scotland had less than an inch, Southampton, Swarraton, Olfley and other neighbourhoods in southern England over 5 ins., and Cockfield, Suffolk, over 6 ins. Several places in the west and north had rain on less than 10 days, on 7 days only at Newcastle (Wicklow), against 20 days at Southampton, Salisbury and Wisley, 21 days at Thetford, and 22 days at Hillington.

**Bright Sunshine.**—With few exceptions the sunshine records were below the average, the loss in many cases being exceptionally large. Edinburgh, with a total of 175 hours, had an excess of 23 hours, and Glasgow, with 177 hours, showed a gain of 12 hours, but the largest aggregates, 238 hours at Scilly, 234 hours at Jersey, &c., were a little below the normal, while in numerous instances there was a loss of more than 50 hours, 90 hours at Greenwich, 91 at Kew, 92 at Cirencester, and 100 at Southampton. Several English stations aggregated less than 100 hours for the month, Westminster 91, Birmingham 84, Plumstead 83, and Hull only 79.



TABLE A.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at 9 a.m., 3 p.m. and 9 p.m. at NORMAL STATIONS in the BRITISH ISLANDS

DISTRICT.	STATION.	Height of Barometer cistern above M.S.L.	BAROMETER.			AIR TEMPERATURE.								HYGROMETER.											
			Mean at 32° F. at Level and Latitude of Station.	Diff. from Normal.	Cor. for Diurnal Range.	Mean of		Mean of A and B.	Diff. from Normal.	Absolute Maximum and Minimum.				Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.											
						A	B			Max.	Day.	Min.	Day.	Dry Bulb.			Dep. of Wet.			Vap. Pressure.			Humidity.		
														I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
O. SCOTLAND, N.																									
Islands.	CASTLEBAY -	48	29.959	+ .098	-.001	56.3	48.0	52.2	-1.4	62	27th	45	5th, 16th	51.0	54.2	51.0	2.5	3.6	2.3	3.11	3.22	3.23	83	77	84
	Deerness -	103	29.822	—	-.004	53.4	45.2	49.3	-2.0	58	17th	39	5th	50.0	—	47.9	2.5	—	1.7	3.00	—	2.95	83	—	89
	SUMBURGH HEAD	126	29.829	+ .043	-.001	51.9	43.6	47.8	-1.9	57	23rd	38	5, 6, 12	47.3	50.1	46.7	1.6	2.4	1.4	2.87	3.01	2.86	89	83	90
	STORNOWAY	52	29.976	+ .116	-.001	56.0	46.3	51.2	-1.2	62	28th	41	7th	50.2	55.1	49.4	2.2	3.4	1.8	3.07	3.41	3.07	85	78	88
Mainland.	Wick -	80	29.901	+ .058	+ .003	55.6	45.1	50.4	-1.8	61	18th, 19th	39	7th	49.4	—	51.0	2.3	—	2.7	2.95	—	3.06	85	—	82
	Strathpeffer -	210	29.794	—	-.005	59.5	45.7	52.6	-1.5	67	13th	40	10th, 21st	53.4	—	50.4	3.3	—	2.9	3.20	—	2.94	79	—	81
	Glencarron -	504	29.467	—	-.004	57.8	44.5	51.2	-2.6	69	14th	35	6th	52.0	—	49.5	3.9	—	2.6	2.89	—	2.90	75	—	82
	Fort Augustus -	73	29.939	—	-.004	59.0	45.1	52.1	-2.8	66	16th	35	6th	52.7	—	52.4	3.3	—	2.9	3.12	—	3.19	78	—	81
	Fort William -	98	29.966	—	-.004	61.6	45.4	53.5	-1.8	71	14th	37	6th	54.1	—	52.2	4.6	—	3.2	2.98	—	3.08	72	—	79
	Dunrobin Castle	16	29.985	—	-.004	56.6	45.6	51.1	-2.1	63	19th	40	6th	52.7	—	50.1	3.6	—	2.5	3.06	—	3.02	77	—	83
District Value -						57.3	45.1	50.8	-1.8	71		35													
1. SCOTLAND, E.																									
	Tillypronie -	1120	28.786	—	-.004	57.7	41.7	49.7	-1.8	68	13th	35	5th	49.6	—	47.0	2.8	—	1.9	2.89	—	2.80	81	—	87
	Dundee -	164	29.824	—	-.005	60.7	45.4	53.1	-2.5	71	19th	39	7th, 13th	54.7	—	49.9	3.4	—	1.7	3.40	—	3.19	79	—	89
	Nairn -	82	29.903	+ .071	+ .003	58.1	44.6	51.4	-3.3	65	19th	35	6th	49.4	56.2	53.8	2.4	4.8	4.2	2.93	3.23	3.04	84	71	74
	Gordon Castle	107	29.894	—	-.004	58.4	43.8	51.1	-3.8	66	20th	36	13th	53.2	—	50.1	3.1	—	1.8	3.23	—	3.16	80	—	87
	Aberdeen -	90	29.905	+ .044	-.005	55.7	45.6	50.7	-3.2	63	8th	36	13th	51.7	53.6	50.1	3.7	4.3	2.8	2.91	2.99	2.92	76	73	81
	Balmoral -	927	—	—	—	59.2	42.0	50.6	-2.1	65	14th	33	3rd, 7th	49.3	—	—	—	—	—	—	—	—	—	—	—
	Crieff -	436	29.516	—	-.004	63.6	44.2	53.9	-2.3	73	13th	36	6th	54.6	—	51.2	4.3	—	2.6	3.12	—	3.11	74	—	83
	Leith -	37	29.936	+ .031	+ .003	59.3	47.7	53.5	-2.4	66	7th, 17th	42	6th, 7th	51.2	—	55.4	2.7	—	4.4	3.09	—	3.22	82	—	73
	Marchmont -	500	29.445	—	-.005	58.5	43.6	51.1	-2.9	67	7th	37	7th, 13th	53.0	—	48.2	4.3	—	2.1	2.92	—	2.85	73	—	86
District Value -						58.9	44.2	51.2	-2.8	73		31													
2. ENGLAND, N.E.																									
Northern Part.	Seaham -	138	29.827	—	-.005	56.6	46.3	51.5	-3.4	69	20th	38	7th	52.7	—	49.7	2.8	—	2.0	3.28	—	3.10	81	—	87
	Whitby -	145	29.807	—	-.006	61.1	46.2	53.7	-1.3	70	19, 20, 21	34	4th, 5th	54.3	—	51.3	3.6	—	2.7	3.29	—	3.12	78	—	82
	Cockle Pk (Morpeth) -	331	29.633	—	-.005	58.7	43.7	51.2	—	66	19th	36	7th	52.7	—	48.5	2.9	—	1.3	3.26	—	3.09	82	—	91
	Shields -	117	29.843	+ .010	+ .003	57.1	44.9	51.0	-3.6	68	19th, 20th	36	7th	50.6	—	53.4	1.9	—	3.5	3.21	—	3.16	87	—	77
	Durham -	352	29.594	—	-.005	59.3	43.8	51.6	-4.1	69	19th	33	7th	54.0	—	49.5	3.5	—	2.0	3.27	—	3.06	78	—	86
	Rounton -	245	29.696	—	-.006	59.1	43.7	51.4	-3.3	69	20th	34	4th	52.8	—	48.8	3.2	—	1.5	3.16	—	3.07	79	—	89
Southern Part.	Scarborough -	100	29.822	—	-.006	58.9	47.8	53.4	-2.2	69	20th	44	11th	53.9	—	51.4	3.0	—	2.0	3.34	—	3.28	80	—	87
	York -	53	29.928	—	-.006	61.5	46.7	54.1	-3.4	69	17th, 20th	38	3rd	55.4	—	51.9	4.1	—	2.3	3.29	—	3.26	75	—	85
	Spurn Head -	28	29.914	-.029	+ .003	57.5	49.0	53.3	-2.7	70	20th	40	2nd	52.2	56.1	53.4	2.2	3.4	2.3	3.32	3.57	3.48	85	78	85
	Lincoln -	42	—	—	—	60.6	46.1	53.4	-5.5	71	20th	35	7th	54.9	—	—	4.3	—	—	3.21	—	—	74	—	—
	Skegness -	16	29.936	-.025	+ .003	57.6	48.9	53.3	—	70	20th	40	7th	52.0	—	54.0	0.7	—	1.1	3.69	—	3.85	95	—	92
	Hull -	2	29.962	—	-.006	60.1	47.1	55.6	-3.3	72	20th	38	7th	55.7	—	51.9	3.3	—	2.2	3.53	—	3.29	79	—	86
District Value -						59.2	46.0	52.2	-3.0	72		33													
3. ENGLAND, E.																									
Northern Part.	Lowestoft -	75	29.874	—	-.006	57.6	48.3	53.0	-3.4	71	20th	39	7th	54.6	—	51.4	3.5	—	1.7	3.31	—	3.35	78	—	88
	Cromer -	139	—	—	-.006	58.1	47.8	53.0	—	71	20th	43	8th	—	—	—	—	—	—	—	—	—	—	—	—
	Hillington -	92	29.844	—	-.006	60.1	46.1	53.1	-4.7	71	20th	35	7th	53.7	—	50.3	2.4	—	1.2	3.46	—	3.33	84	—	91
	Norwich -	93	—	—	—	60.6	47.9	54.3	—	71	20th, 21st	36	7th	—	—	—	—	—	—	—	—	—	—	—	—
	YARMOUTH -	27	29.915	-.039	-.002	58.3	49.1	53.7	-2.9	71	20th	43	8th, 11th	52.9	56.5	52.3	2.2	4.3	2.1	3.41	3.38	3.36	86	73	85
Southern Part.	Geldeston -	47	29.905	—	-.006	60.1	47.0	53.6	-3.7	71	20th	37	7th	55.9	—	51.6	3.4	—	1.7	3.54	—	3.38	79	—	88
	Cambridge -	43	29.915	—	-.006	61.2	47.0	54.1	-4.7	70	20th	40	11th	54.6	—	52.5	3.3	—	2.2	3.41	—	3.40	80	—	86
	CLACTON -	62	29.883	-.051	-.002	59.6	49.3	54.5	-4.4	69	1st, 20th	39	11th	52.7	58.7	53.1	1.9	5.5	2.1	3.47	3.39	3.46	88	68	85
	Woburn -	294	29.670	—	-.006	60.1	45.8	53.0	—	68	17th	38	12th	53.7	—	51.6	2.9	—	1.8	3.38	—	3.36	82	—	87
	Bennington -	411	29.560	—	-.006	60.5	45.9	53.2	-4.6	71	17th	39	11th	53.0	—	50.6	2.8	—	2.0	3.28	—	3.17	81	—	86
	Berkhamsted -	397	29.555	—	-.006	60.7	45.9	53.3	-4.4	69	18th	38	12th	53.2	—	50.9	2.7	—	1.9	3.33	—	3.23	82	—	87
District Value -						59.8	47.7	53.4	-3.6	72		35													
4. MIDLAND COS.																									
Eastern Part.	Garforth -	198	—	—	-.006	60.8	43.5	52.2	—	68	13th	30	7th	54.4	—	50.1	3.6	—	1.7	3.30	—	3.22	78	—	88
	Huddersfield -	411	29.538	—	-.006	59.1	45.5	52.3	—	68	13th	37	7th	52.4	—	50.3	3.2	—	2.4	3.15	—	3.08	80	—	84
	Wakefield -	100	29.860	—	-.006	61.4	46.2	53.8	-3.0	68	17th, 20th	37	6th	54.3	—	—	4.3	—	—	3.08	—	—	73	—	—
	Belvoir Castle -	276	29.681	—	-.006	59.3	46.3	52.8	-5.1	71	20th	36	7th	53.1	—	50.5	2.8	—	1.7	3.29	—	3.24	81	—	89
	Coventry -	309	29.649	—	—	61.7	47.1	54.4	-4.4	69	14th	39	13th	54.3	—	—	4.0	—	—	3.15	—	—	75	—	—
	NOTTINGHAM	35	29.874	-.028	-.002	60.6	47.3	54.0	-4.3	69	20th	36	7th	52.1	57.4	52.1	2.4	4.5	2.5	3.27	3.45	3.24	83	73	83
Western Part.	Birmingham -	542	29.400	—	-.006	59.6	46.8	53.2	-4.2	68	14th	41	6th	51.1	—										



CLIMATOLOGICAL STATIONS, at 7 a.m., 1 p.m. and 6 p.m. or 9 p.m. or at 7 a.m. and 6 p.m. at TELEGRAPHIC REPORTING during the month of JUNE, 1909.

Earth Temperature.		BRIGHT SUNSHINE.				CLOUD (0-10.)			RAIN AND OTHER FORMS OF PRECIPITATION.				WEATHER. No. of Days of								WIND.												STATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
At 1 foot depth.	At 4 feet depth.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	Mean Amount.			Total Fall.	Diff. from Normal.	Most in a day.		Precipitation.	Snow.	Hail.	Thunderstorm.	Clear Sky.	Overcast.	Fog.	Ground Frost.	Wind force 8 and above.	No. of Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
						I.	II.	III.			Amount.	Day.										Forces 4-7.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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TABLE A. (continued).—Giving a Summary of the METEOROLOGICAL OBSERVATIONS made at 9 a.m., 3 p.m. and 9 p.m. at NORMAL STATIONS in the BRITISH ISLANDS

DISTRICT.	STATION.	Height of Barometer at Level and Latitude of Station.	BAROMETER.			AIR TEMPERATURE.								HYGROMETER.												
			Mean at 32° F. at Level and Latitude of Station.	Diff. from Normal.	C. for Diurnal Range.	Mean of		Mean of A and B.	Diff. from Normal.	Absolute Maximum and Minimum.				Observations at 9 a.m., 3 p.m. and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.												
						A	B			Max.	Day.	Min.	Day.	Dry Bulb.			Dep. of Wet.			Vap. Pressure.			Humidity.			
														I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.	
5. ENGLAND, S.E.	Reading - - -	264	29.683	Ins.	—	.006	61.8	47.3	54.6	—	71	8th	40	8th	53.6	—	53.0	2.6	—	2.3	In. In. In.	—	—	% % %	—	—
	Salisbury - - -	186	29.770	—	—	.006	62.2	46.4	54.3	-4.7	72	14th, 17th	38	8th	55.4	—	52.6	2.5	—	1.3	.339	—	.340	82	—	84
	Brighton - - -	48	29.908	—	—	—	60.5	49.8	55.2	-3.9	72	1st	41	8th	56.0	—	—	3.4	—	—	.355	—	—	79	—	—
	Portsmouth - - -	18	29.952	—	—	—	61.6	49.6	55.6	-3.4	69	13th	44	8th, 11th	56.1	—	—	3.8	—	—	.347	—	—	76	—	—
	Eastbourne - - -	36	29.925	—	—	.006	60.6	49.6	55.1	-3.3	74	1st	41	8th	55.7	—	54.0	3.0	—	1.8	.362	—	.368	82	—	88
	Dungeness - - -	21	29.910	—	.053	+ .003	59.6	48.9	54.3	-3.4	67	1st	37	11th	54.1	58.0	56.5	2.5	3.9	3.2	.349	.370	.366	83	77	80
	Hastings - - -	174	29.775	—	—	.006	60.9	49.3	55.1	-2.7	75	1st	42	11th	55.4	—	52.5	3.5	—	1.9	.344	—	.344	78	—	87
	Southampton - - -	84	29.891	—	—	.006	61.9	48.8	55.4	-4.3	70	18th	41	8th	55.9	—	54.1	3.6	—	2.1	.351	—	.362	79	—	86
	Ventnor - - -	80	29.860	—	—	—	61.2	49.9	55.6	-3.0	70	18th	43	12th	56.3	—	—	3.6	—	—	.354	—	—	77	—	—
	District Value - - -						60.7	48.1	53.9	-4.0	76		33													
LONDON -	Tottenham - - -	55	29.895	—	—	.006	60.9	48.7	54.8	-4.5	70	19th	40	12th	55.1	—	53.3	2.3	—	1.3	.372	—	.375	85	—	92
	Camden Square - - -	123	29.839	—	—	.006	63.9	48.5	56.2	-4.7	75	17th	39	11th	55.3	—	54.5	3.3	—	2.7	.346	—	.350	79	—	83
	Westminster - - -	54	29.888	—	.050	+ .003	61.5	49.5	55.5	-4.4	71	17th	43	11th, 12th	52.1	—	58.2	2.4	—	5.7	.327	—	.328	83	—	68
	Greenwich - - -	169	29.792	—	—	.006	62.4	47.2	54.8	-5.5	74	19th	38	11th	54.5	—	52.4	3.3	—	2.1	.334	—	.338	78	—	86
	Norwood - - -	235	29.745	—	—	.006	61.7	47.9	54.8	-4.5	72	19th	38	11th	54.2	—	52.9	3.1	—	2.1	.336	—	.344	80	—	86
	Kew - - -	34	29.937	—	.029	—	61.3	48.8	55.1	-4.1	72	21st	41	11th	54.6	59.7	54.4	3.6	6.2	3.3	.329	.336	.333	77	66	79
	Bunhill Row - - -	—	29.929	—	.029	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Plumstead - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Laudale - - -	25	29.974	—	—	.005	61.1	45.8	53.5	-2.2	70	30th	38	13th	55.6	—	52.5	3.8	—	2.4	.339	—	.334	77	—	84
	Poltalloch - - -	135	29.842	—	—	.004	60.0	44.1	54.1	-3.9	67	29th	34	3rd	53.3	—	50.4	3.8	—	2.5	.308	—	.303	75	—	83
6. SCOT. LAND, W.	Glasgow - - -	184	29.789	—	—	.005	61.3	47.3	54.3	-1.5	72	14th	41	6th	54.2	—	52.5	4.7	—	3.3	.303	—	.312	72	—	79
	Rothsay - - -	76	29.916	—	—	.004	62.6	46.0	54.3	-1.6	71	30th	38	13th	55.1	—	52.1	4.0	—	2.5	.326	—	.324	75	—	83
	Colmonell - - -	150	29.885	—	—	—	61.3	44.7	53.0	-2.4	67	13th	33	6th	53.7	—	—	—	—	—	—	—	—	—	—	—
	Dumfries - - -	155	29.841	—	—	.005	62.4	46.6	54.5	-2.6	70	15th	37	6th	54.4	—	52.8	3.9	—	3.1	.319	—	.319	75	—	79
	Cally, Gatehouse - - -	120	—	—	—	.005	63.4	44.3	53.9	-1.7	73	14th	36	13th	56.7	—	50.3	2.4	—	2.7	.389	—	.309	85	—	85
	Douglas - - -	284	29.692	—	—	.006	58.8	47.6	53.2	-2.2	66	15th	43	12th, 13th	53.8	—	51.1	3.6	—	2.3	.323	—	.318	78	—	85
	District Value - - -						61.4	46.5	53.1	-2.2	73		32													
	Southport - - -	42	29.950	—	—	.006	59.2	47.1	53.2	-3.7	68	15th	37	7th	54.6	—	53.0	3.8	—	2.7	.324	—	.330	77	—	82
	Manchester (City) - - -	195	29.774	—	—	.006	60.9	48.2	54.6	—	67	20th	41	7th	54.4	—	53.9	4.5	—	3.9	.310	—	.317	73	—	76
	„ (Whitworth Pk) - - -	127	29.820	—	—	.006	60.2	47.2	53.7	—	66	20th	39	7th	54.0	58.5	53.2	2.6	—	1.5	.344	—	.363	84	74	90
7. ENG. LAND, N.W.	Darwen - - -	730	29.199	—	—	.006	59.0	43.7	51.4	—	65	13th	35	7th	52.8	—	50.1	3.6	—	2.1	.311	—	.310	78	—	86
	Aspatia - - -	254	29.711	—	—	.005	61.4	44.8	53.1	-2.6	69	15th	36	6th	54.9	—	51.4	4.5	—	2.4	.316	—	.319	73	—	84
	Newton Rigg - - -	559	29.369	—	—	.005	62.1	42.9	52.5	-2.6	71	16th	32	7th	53.4	—	51.4	2.9	—	2.4	.330	—	.318	81	—	84
	Stonyhurst - - -	368	29.593	—	—	.006	59.7	45.7	52.7	-3.9	66	14th	37	7th	54.2	—	52.1	4.1	—	3.1	.315	—	.311	75	—	80
	Blackpool - - -	73	29.909	—	—	.006	59.5	45.9	52.7	-4.1	66	15th	35	7th	55.7	—	52.4	3.9	—	2.0	.338	—	.340	76	—	87
	M'nch't'r (Prestwich) - - -	320	29.629	—	—	.006	60.2	45.6	52.9	-3.8	67	13th, 30th	37	7th	53.6	—	51.8	2.6	—	1.7	.339	—	.341	82	—	88
	Liverpl. Bidston Obs. - - -	197	29.772	—	—	.006	58.4	48.3	53.4	-4.2	66	21st	42	7th	53.4	—	52.6	3.3	—	2.9	.320	—	.321	79	—	80
	Llandudno - - -	21	29.974	—	—	.006	59.4	48.6	54.0	-3.6	67	18th	42	7th	54.9	—	53.9	2.6	—	2.0	.358	—	.359	83	—	87
	HOLYHEAD - - -	48	29.942	—	—	.006	58.0	48.6	53.3	-3.1	64	18th, 19th	46	4, 6, 8, 14	52.3	56.3	51.9	1.8	3.1	1.5	.350	.366	.346	87	80	90
	Bettws-y-Coed - - -	100	29.854	—	—	.006	60.4	45.1	52.8	-5.3	69	19th	37	7, 8, 13th	55.3	—	50.8	3.6	—	1.7	.340	—	.328	77	—	88
8. SOUTH WALES	District Value - - -						59.9	46.8	52.6	-3.6	71		31													
	Llangammarch Wells - - -	585	29.338	—	—	—	60.4	43.0	51.7	-5.1	69	14th	30	14th	54.0	—	—	3.5	—	—	.322	—	—	77	—	—
	PEMBROKE - - -	150	29.815	—	.010	—	59.0	43.1	53.6	-2.5	67	14th	43	13th	52.3	56.4	51.7	2.1	4.2	2.0	.336	.340	.332	85	74	87
	Clifton - - -	229	—	—	—	—	61.5	49.3	55.4	-4.0	70	14th, 17th	44	5th, 8th	—	—	—	—	—	—	—	—	—	—	—	—
	PORTLAND BILL - - -	28	29.926	—	.054	—	58.6	50.6	54.6	-3.5	68	17th	45	4th, 5th	53.4	56.5	53.9	2.2	2.8	1.9	.347	.376	.361	85	82	87
	Plymouth - - -	116	29.881	—	—	.006	62.9	49.2	56.1	-2.7	73	17th	44	28th	57.6	59.4	54.9	3.2	3.3	2.2	.385	.409	.371	81	81	86
	Falmouth - - -	183	29.816	—	.002	+ .002	59.9	49.9	54.9	-2.7																



CLIMATOLOGICAL STATIONS, at 7 a.m., 1 p.m. and 6 p.m. or 9 p.m. or at 7 a.m. and 6 p.m. at TELEGRAPHIC REPORTING during the Month of JUNE, 1909.

Earth Temperature.		BRIGHT SUNSHINE.				CLOUD (0-10.)			RAIN AND OTHER FORMS OF PRECIPITATION.				WEATHER. No. of Days of								WIND.										STATIONS.		
At 1 foot depth.	At 4 feet depth.	Total In Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	Mean Amount.			Total Fall.	Diff. from Normal.	Most in a day.		Precipitation.	Snow.	Hail.	Thunderstorm.	Clear Sky.	Overcast.	Fog.	Ground Frost.	Wind-force 8 and above.	No. of Observations at 9 a.m., 8 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.											
						I.	II.	III.			Amount.	Day.										Force 4-7.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.		N.W.	
—	—	122	—	25	%.	7.1	—	6.4	4.15	+2.23	1.48	1st	18	0	0	1	2	11	0	—	0	1	28	4	11	1	0	4	4	6	2	Reading.	
58.8	—	—	—	—	—	7.7	—	7.5	4.34	+2.07	0.70	22nd	20	0	0	2	0	15	1	0	0	5	0	7	4	2	2	5	11	5	24	Salisbury.	
—	55.4	143	-80	29	-17	8.6	—	—	2.08	+0.12	0.60	3rd	16	0	0	1	0	21	0	0	0	6	1	9	0	1	2	3	6	3	5	Brighton.	
58.2	55.9	144	—	30	—	6.9	—	—	3.90	+1.99	1.32	6th	15	0	0	1	5	15	0	0	0	20	0	5	5	3	0	1	3	4	9	Portsmouth.	
57.8	54.9	172	-50	35	-11	7.5	—	7.7	2.20	+0.24	0.61	3rd	15	0	0	2	2	16	0	—	0	1	4	7	16	2	5	3	15	1	7	Eastbourne.	
—	—	—	—	—	—	7.9	7.3	7.1	3.09	+1.56	0.75	3rd	15	0	0	2	0	13	2	—	0	40	0	13	25	9	2	4	26	5	6	Dungeness.	
58.7	54.8	152	-77	31	-16	7.6	—	6.7	2.61	+0.72	0.62	3rd	17	0	0	3	0	12	2	0	2	20	1	10	11	8	4	2	9	8	7	Hastings.	
—	—	112	-100	23	-20	6.8	—	6.8	5.45	+3.36	1.53	1st	20	0	0	2	3	12	0	0	0	9	0	2	22	0	5	0	13	2	16	Southampton.	
—	—	158	-38	33	-7	7.6	—	—	3.10	+1.20	0.72	1st	17	0	0	1	1	12	0	—	0	14	3	13	5	4	4	6	12	4	9	Ventnor.	
87.6	84.7	181	-80	27	-16	7.6	—	7.1	3.49	+1.62	1.65	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	54.2	106	—	22	—	8.4	—	7.2	3.80	—	0.54	12th	18	0	0	2	1	15	0	0	0	5	12	16	3	4	1	8	4	6	6	Tottenham.	
56.7	53.1	92	—	19	—	8.7	—	—	3.79	+1.50	0.53	26th	17	0	1	2	1	24	0	0	—	—	2	12	3	1	0	1	3	3	5	Camden Square.	
—	—	91	-76	19	-15	8.6	—	7.9	4.02	+1.81	0.95	26th	19	0	1	3	0	19	0	0	0	12	0	9	14	5	1	2	10	6	13	Westminster.	
—	54.7	107	-90	22	-18	8.8	—	7.5	3.67	+1.63	1.08	24th	16	0	0	1	0	16	0	2	0	3	4	15	11	4	2	4	10	3	7	Greenwich.	
55.8	—	—	—	—	—	8.9	—	7.4	4.33	+1.96	0.79	12th	19	0	0	3	0	19	1	1	0	5	12	16	7	1	2	5	4	4	9	Norwood.	
56.2	52.9	105	-91	21	-19	8.6	8.7	7.2	3.41	+1.19	0.48	1st	18	0	1	3	0	17	0	1	0	10	11	23	16	6	0	10	7	6	11	Kew.	
—	—	95	-82	19	-17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Bunhill Row.
—	—	83	—	17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Plumstead.
—	—	—	—	—	—	8.0	—	6.7	1.99	-1.99	0.72	21st	12	0	0	1	1	18	0	—	0	30	9	29	0	1	5	5	2	6	3	Laudale.	
—	—	—	—	—	—	6.5	—	6.3	3.18	-0.04	0.95	24th	11	0	0	2	5	13	0	—	1	7	6	8	8	2	11	3	2	12	8	Poltalloch.	
—	—	177	+12	34	+2	8.6	—	6.9	3.09	+0.26	1.31	22nd	13	0	0	2	0	15	0	0	0	10	5	7	18	1	0	3	10	6	6	Glasgow.	
—	51.7	—	—	—	—	4.8	—	6.0	3.16	-0.08	1.52	21st	13	0	0	2	8	10	1	—	0	10	13	7	3	19	0	1	1	7	9	Rothsay.	
—	—	—	—	—	—	6.9	—	—	2.45	-0.12	1.27	22nd	12	0	0	2	4	14	2	1	0	14	0	4	4	2	10	4	8	6	22	Colmonell.	
—	—	—	—	—	—	5.8	—	6.2	3.66	+1.18	1.65	22nd	12	0	0	2	0	2	0	—	0	8	0	7	14	17	5	2	4	6	5	Dumfries.	
—	—	—	—	—	—	—	—	—	3.09	-0.04	0.96	22nd	16	0	0	1	—	0	—	0	0	1	2	6	0	8	4	13	9	17	15	Cally.	
—	—	228	+8	45	+1	7.0	—	6.1	1.80	-0.73	0.49	21st	10	0	0	2	1	14	2	0	0	14	2	10	9	4	4	6	3	6	16	Douglas.	
—	—	203	-12	40	-3	6.8	—	6.4	2.83	0.00	1.85	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
58.1	55.0	181	-26	36	-5	7.5	—	6.7	2.68	+0.52	0.55	23rd	14	0	3	4	3	12	0	2	0	21	5	10	8	12	3	3	3	4	12	Southport.	
54.9	52.6	115	—	23	—	—	—	—	2.05	-0.82	0.50	21st	14	0	0	3	—	0	0	0	2	0	10	13	8	3	5	6	7	8	8	Manchester (City).	
—	—	101	—	20	—	8.3	7.4	7.8	1.90	—	0.49	21st	13	0	0	2	0	19	0	1	0	8	11	13	17	13	3	5	5	14	9	" (Whit. Pk.).	
55.2	50.8	129	—	26	—	7.9	—	7.6	3.94	—	0.64	21st	15	0	0	4	0	15	0	1	0	26	3	4	18	3	2	3	6	8	13	Darwen.	
—	—	198	—	39	—	6.5	—	4.8	2.11	-0.36	0.61	22nd	13	0	0	1	4	9	0	1	0	6	7	17	11	3	1	2	6	6	7	Aspatia.	
55.6	51.0	168	-41	33	-3	7.1	—	5.7	2.65	+0.61	0.80	22nd	12	0	0	0	3	9	1	4	0	5	17	10	6	3	5	2	7	6	4	Newton Rigg.	
—	—	147	-49	29	-10	7.9	—	5.8	2.79	-0.39	0.40	21st	16	0	0	4	2	12	0	1	0	0	21	6	13	2	1	3	5	7	2	Stonyhurst.	
55.7	51.7	196	-3	39	-1	7.5	—	8.0	2.14	-0.08	0.50	22nd	14	0	1	4	0	18	0	3	0	9	1	7	9	14	3	2	3	7	14	Blackpool.	
—	—	116	-53	23	-11	8.9	—	8.7	2.16	-0.71	0.63	21st	15	0	2	3	1	24	0	0	0	5	4	17	10	8	2	2	1	15	1	Manch'str (Prest).	
—	—	179	—	36	—	7.2	—	7.7	2.54	+0.37	0.45	22nd	15	0	2	5	1	16	0	—	0	4	0	8	8	7	5	0	3	21	8	Liverp'ol, Bid.Obs.	
—	—	188	-16	38	-3	6.4	—	5.9	1.95	-0.02	0.40	4th	16	0	0	0	6	11	0	—	0	0	2	11	7	3	0	5	5	20	7	Llandudno.	
—	—	—	—	—	—	7.8	6.9	5.6	0.76	-1.43	0.40	21st	8	0	0	0	0	8	6	—	0	23	2	16	15	6	0	5	9	10	27	Holyhead.	
52.6	50.3	131	—	26	—	6.8	—	5.6	2.30	—	0.43	20th	13	0	0	0	2	8	0	0	0	2	2	9	15	9	0	0	14	5	6	Bettws-y-Coed.	
66.4																																	



TABLE B.—SUMMARY of the OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE at additional STATIONS, JUNE, 1909.

DISTRICT.	STATION.	Height of Gauge above M.S.L.	AIR TEMPERATURE.								Earth Temperature		Grnd Frost.	RAIN AND OTHER FORMS OF PRECIPITATION.						BRIGHT SUNSHINE.				
			Mean of				Absolute Maximum and Minimum.				1 ft.	4 ft.		No. of Days.	Total Fall.	Diff. from Normal.	Most in a day.		Number of Days.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	
			A	B	Mean of A and B.	Diff. of Mean from Normal.	Max.	Day.	Min.	Day.							Amt.	Day.						
																								Max.
		Ft.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
0 SCOTLAND, N.	p Balta Sound - - -	8	81	52.3	44.0	48.2	—	59	23rd	39	3rd, 5th	50.7	—	—	1.53	—	0.64	22nd	16	118	—	21	—	
	p Crathes - - -	8	140	59.8	43.6	51.7	—	70	7th	31	13th	53.5	49.9	4	1.35	—	0.62	22nd	10	128	—	24	—	
1. SCOTLAND, E.	Stonehaven - - -	—	—	56.9	45.3	51.1	—	69	9th	33	13th	—	—	—	0.85	—	0.41	21st	11	156	—	30	—	
	p Balruddery - - -	8	276	62.7	43.1	52.9	—	71	7, 19, 20	35	7th	—	—	—	0.72	—	0.27	21st	10	188	—	36	—	
	Edinburgh - - -	—	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	175	+ 23	34	+	
	a West Linton - - -	8	800	58.1	42.1	50.1	- 3.4	65	14th	31	6th, 13th	—	—	2	1.84	—	0.98	22nd	14	153	—	31	—	
	a Alnwick Castle - - -	—	210	58.0	45.2	51.6	- 2.8	71	19th	33	7th	—	—	—	1.99	- 0.06	0.55	26th	10	—	—	—	—	
	p Newcastle-on-Tyne - - -	—	152	58.4	47.0	52.7	—	67	7th	40	6th	—	—	—	2.23	+ 0.25	0.86	26th	14	116	- 26	23	- 5	
2. ENGLAND, N.E.	p Ampleforth - - -	—	849	59.4	45.1	52.3	—	69	22nd	39	3, 7, 15	—	—	—	2.27	—	0.86	24th	11	—	—	—	—	
	p Tealby - - -	—	251	58.7	45.9	52.3	- 4.3	68	20th	37	7th	—	—	—	3.86	+ 1.80	0.98	27th	18	—	—	—	—	
	a Fulbeck - - -	—	180	60.5	46.5	53.5	- 4.9	70	20th	36	7th	—	—	—	2.51	+ 0.53	0.99	24th	17	—	—	—	—	
	a Rauceby - - -	—	124	60.3	46.5	53.4	—	72	20th	36	7th	57.3	52.7	0	2.80	+ 0.89	0.93	24th	16	109	—	23	—	
	a Felixstowe - - -	—	10	60.2	48.9	54.6	- 3.4	71	1st	38	11th, 12th	—	—	—	3.25	—	0.52	3rd	16	149	—	30	—	
	a Rothamsted - - -	—	424	59.7	46.4	53.1	- 4.4	68	17th	38	8th, 11th	—	—	—	3.62	+ 1.34	1.17	1st	18	116	- 77	24	- 15	
3. ENGLAND, E.	a Shobern - - -	—	18	60.9	49.4	55.2	- 4.3	72	19th	40	11th, 12th	—	—	—	2.38	+ 0.59	0.53	3rd	16	—	—	—	—	
	a Southend-on-Sea - - -	—	100	60.8	48.5	54.7	—	69	1, 8, 19	40	11th, 12th	57.4	—	0	3.12	+ 1.07	0.58	3rd	15	129	—	26	—	
	a Harrogate - - -	—	476	59.2	44.3	51.8	- 3.7	69	17th	36	4th, 7th	52.1	50.0	1	3.39	+ 0.94	0.90	24th	18	134	—	27	—	
	a Bradford - - -	—	880	58.9	45.5	52.2	—	66	13th, 20th	35	7th	54.4	49.6	1	3.06	—	0.63	23rd	14	140	—	28	—	
	a Cheadle - - -	—	646	58.8	44.6	51.7	- 4.2	66	20th	37	9th	—	—	0	3.61	+ 0.82	1.00	24th	15	—	—	—	—	
	a Bawtry - - -	—	65	62.0	45.3	53.7	- 4.2	72	20th	33	7th	—	—	—	2.22	+ 0.17	0.63	24th	16	—	—	—	—	
4. MIDLAND COUNTIES	a Worksop - - -	—	56	61.7	46.0	53.9	- 3.7	71	17th	33	7th	55.2	52.5	2	3.08	+ 1.01	0.69	25th	17	97	- 68	19	- 14	
	a Mayfield (Staffs.) - - -	—	874	59.3	44.7	52.0	—	67	20th	32	7th	—	—	1	2.59	—	0.92	24th	12	—	—	—	—	
	a Kingston-on-Soar - - -	—	125	60.7	45.6	53.2	—	71	17th	34	7th	54.4	—	—	2.34	—	0.57	24th	19	—	—	—	—	
	p Rugby - - -	—	379	60.4	45.3	52.9	- 4.6	70	14th	35	13th	—	—	0	3.46	—	0.65	1st	17	—	—	—	—	
	a Raunds - - -	—	210	61.4	45.4	53.4	- 4.9	71	20th	38	12th	—	—	1	2.80	—	0.51	20th	16	—	—	—	—	
	a Winslow - - -	—	379	60.5	46.5	53.5	—	69	20th	40	12th	—	—	—	3.94	—	0.64	23rd	17	—	—	—	—	
	a Hereford - - -	—	291	61.8	46.2	54.0	- 4.3	70	18th	37	13th	—	—	2	1.68	- 0.54	0.34	23rd	17	—	—	—	—	
	a Cirencester - - -	—	446	59.9	45.6	52.8	- 4.2	70	14th	39	28th	—	—	0	4.28	+ 1.89	0.80	20th	16	103	- 92	21	- 19	
	a Epsom - - -	—	180	61.1	47.4	54.3	—	71	17th	36	11th	—	—	1	4.00	—	0.90	12th	19	—	—	—	—	
	a Wokingham - - -	—	216	61.5	44.5	53.0	—	70	17th	33	11th	—	—	—	3.87	—	1.21	1st	18	—	—	—	—	
	a Maidenhead - - -	—	99	65.0	47.3	56.2	—	76	15th	39	8th	—	—	0	4.51	+ 2.23	1.65	1st	18	—	—	—	—	
	a Marlborough - - -	—	424	60.3	44.6	52.5	- 4.7	69	14th, 17th	35	8th	—	—	2	3.00	+ 0.54	0.67	23rd	19	100	- 82	20	- 17	
	a Bucklebury - - -	—	409	60.0	46.1	53.1	—	68	14th, 15th	40	8, 11, 12	—	—	3	3.59	—	1.00	1st	17	—	—	—	—	
	a Swarraton - - -	—	310	60.1	46.1	53.1	- 3.7	68	17th	37	8th	—	—	—	5.28	+ 3.01	1.56	1st	19	—	—	—	—	
	a Margate - - -	—	85	60.4	50.0	55.2	- 2.9	70	19th, 21st	43	8th	56.2	53.8	0	2.23	+ 0.34	0.60	3rd	15	131	- 55	27	- 11	
	Broadstairs - - -	—	140	—	—	—	—	—	—	—	—	—	—	—	—	2.58	—	0.82	3rd	15	153	—	31	—
	Ramsgate - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	155	—	32	—	
	a Wisley - - -	—	150	60.8	47.5	54.2	- 4.9	71	19th	37	11th	56.6	54.3	0	3.80	—	0.65	26th	20	116	—	24	—	
5. ENGLAND, S.E.	a Dover - - -	—	421	59.9	48.2	54.1	—	75	1st	39	8th	55.2	51.5	0	2.81	—	0.91	3rd	17	157	—	32	—	
	a Tunbridge Wells - - -	—	231	60.8	47.0	53.9	- 4.2	70	1st	36	11th	58.0	—	—	2.91	+ 0.62	0.53	3rd	19	125	- 75	26	- 15	
	a Matfield - - -	—	320	61.0	46.7	53.9	—	70	1st, 19th	38	11th	—	—	2	2.70	—	0.63	3rd	18	—	—	—	—	
	p Folkestone - - -	—	121	60.0	48.2	54.1	—	74	1st	38	8th	—	51.5	—	2.40	+ 0.47	0.83	3rd	13	151	—	31	—	
	Littlestone - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	144	—	30	—	
	a Bexhill - - -	—	27	60.6	50.4	55.5	—	75	1st	42	11th	58.5	—	0	2.63	—	0.54	1st	15	150	—	31	—	
	Hove - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	143	—	29	—	
	p Lewes - - -	—	58	61.0	48.1	54.6	—	73	1st	36	8th	—	—	—	2.37	—	0.67	3rd	18	—	—	—	—	
	a Worthing - - -	—	86	60.8	49.2	55.0	- 3.2	69	1st	41	11th	58.3	54.5	0	2.44	+ 0.55	0.60	3rd	17	144	—	30	—	
	a Bognor - - -	—	20	60.3	49.1	54.7	—	69	18th	41	11th	—	52.5	0	2.54	—	0.49	3rd	17	151	—	31	—	
	Westbourne - - -	—	80	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	145	—	30	—	
	a Totland Bay - - -	—	140	59.7	49.0	54.4	- 3.1	67	18th	42	8th	—	—	0	3.62	+ 1.61	1.44	1st	17	153	—	31	—	
	a Sandown - - -	—	20	63.1	50.2	56.7	—	72	18th	45	12th	—	—	—	2.92	—	0.77	1st	16	157	—	32	—	
	p Bournemouth - - -	—	145	61.9																				

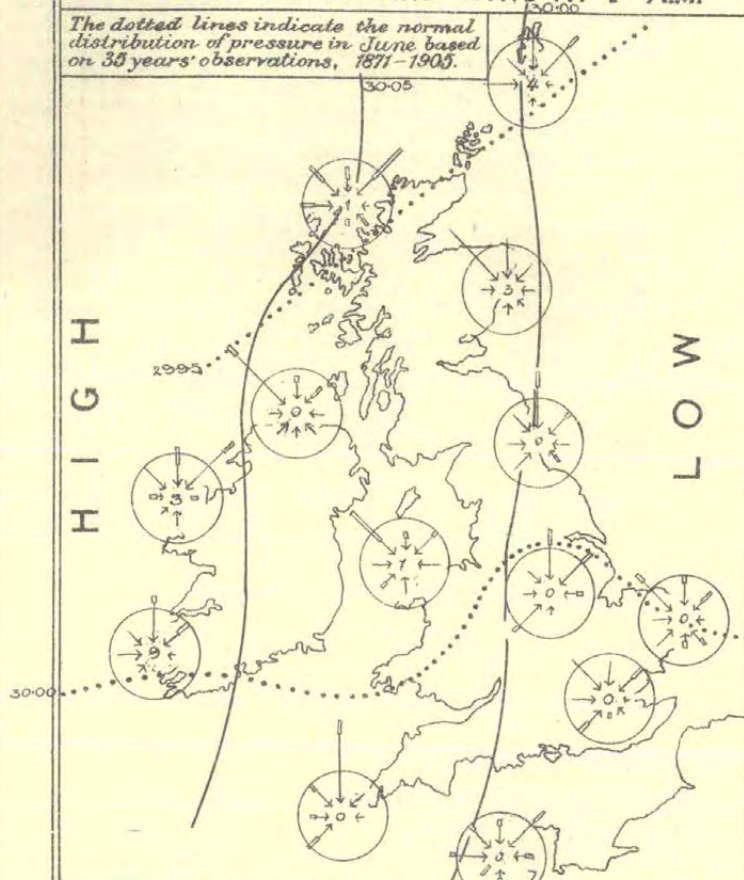


# MONTHLY WEATHER CHARTS, JUNE, 1909.

xliii.

## 1. BAROMETER AND WIND AT 7 A.M.

The dotted lines indicate the normal distribution of pressure in June based on 35 years' observations, 1871-1905.



WIND ROSES. The arrows fly with the wind and indicate frequency and force, thus:

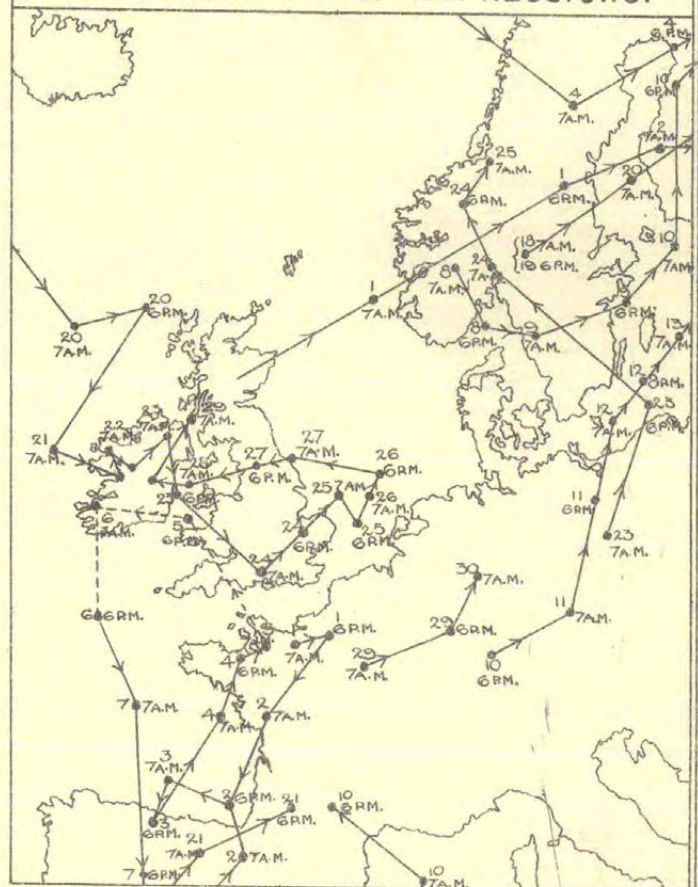
Light moderate strong  
30 Obs = 1 inch

## 3. DISTRIBUTION OF MEAN TEMPERATURE.

Reduced to sea level by a correction of 1° for 300ft.

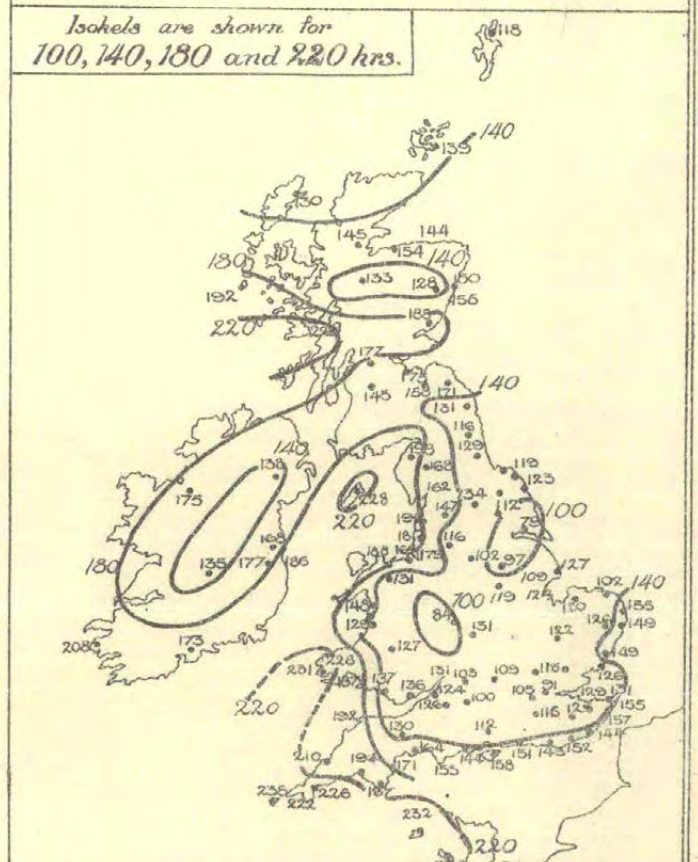


## 2. MOVEMENTS OF DEPRESSIONS.



## 4. BRIGHT SUNSHINE, IN HOURS.

Isobels are shown for 100, 140, 180 and 220 hrs.





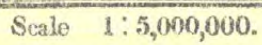




TABLE B (continued).—SUMMARY of the OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE at additional STATIONS, JUNE, 1909.

DISTRICT.	STATION.	Height of Gauge above M.S.L. Ft.	AIR TEMPERATURE.								Earth Temperature		Gr'd Frost. No. of Days.	RAIN AND OTHER FORMS OF PRECIPITATION.						BRIGHT SUNSHINE.			
			Mean of				Absolute Maximum and Minimum.				1 ft.	4 ft.		Total Fall.	Diff. from Normal.	Most in a day.		Number of Days.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	
			A	B	Mean of A and B.	Diff. of Mean from Normal.	Max.	Day.	Min.	Day.						Amt.	Day.						
			Max.	Min.	°	°	°	°	°	°	°	°		Ins.	Ins.	Ins.	Ins.	Ins.	Ins.	Hrs.	Hrs.	%	%
8. ENGLAND, S.W. (continued)	a Swansea - - -	24	63·8	48·9	56·4	—	74	30th	44	8th, 27th	—	—	0	1·84	—	0·40	20th	13	—	—	—	—	
	a Shaftesbury - -	722	59·3	46·1	52·7	- 3·3	68	14th	41	5th	55·9	—	—	3·39	+1·02	0·59	3rd	17	—	—	—	—	
	a Arlington - - -	613	59·7	45·9	52·8	- 3·4	68	15th, 30th	39	28th	—	—	—	2·21	-0·97	0·58	3rd	17	—	—	—	—	
	a Cullompton - -	202	63·9	47·4	55·7	- 2·5	72	30th	39	14th, 28th	—	—	0	2·83	+0·43	0·54	23rd	18	130	- 67	27	- 13	
	Torquay - - -	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	171	- 60	35	- 13	
	a Weymouth - - -	21	62·1	49·6	55·9	—	70	17th	44	8th	—	—	—	3·14	—	0·65	29th	17	153	—	32	—	
	a Newquay - - -	100	57·8	50·4	54·1	- 3·1	62	30th	45	14th	57·4	—	—	2·48	+0·51	1·58	3rd	9	210	- 10	43	- 2	
9. IRELAND, N.	Salcombe - - -	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	197	—	41	—	
	a Penzance - - -	54	62·5	51·0	56·8	—	71	15th	47	12th, 22nd	—	—	—	2·06	—	0·88	3rd	11	222	—	46	—	
10. IRELAND, S.	p Dublin (Glasnevin) -	37	61·2	46·1	53·7	- 2·5	68	15th, 18th	37	7th	—	—	5	2·11	+0·03	0·62	21st	10	—	—	—	—	
	a Kingstown - - -	42	60·9	49·1	55·0	—	69	14th	44	3rd	—	—	—	2·80	—	1·42	23rd	8	186	—	37	—	
	p Clongowes Wood College	245	61·3	44·4	52·9	—	70	15th	34	7th	—	—	?	1·65	—	0·41	23rd	10	177	—	35	—	
	a Mountmellick - -	253	60·5	46·5	53·5	—	71	30th	39	7th	—	—	—	3·25	—	1·30	5th	12	—	—	—	—	
	p Newcastle (Co. Wicklow)	256	59·8	46·4	53·1	—	67	18th	42	4th	—	—	—	3·56	—	1·11	21st	7	—	—	—	—	
	a Kilkenny - - -	212	62·7	47·2	55·0	- 2·2	72	30th	40	7th	—	—	—	2·67	+0·20	0·76	23rd	12	—	—	—	—	
	a Cahir - - -	199	63·0	46·9	55·0	- 1·8	72	30th	40	22nd	—	—	—	1·62	—	0·39	24th	14	—	—	—	—	
11. ENGLISH CHANNEL	a Foynes - - -	108	61·9	49·0	55·5	- 1·5	72	30th	41	7th, 8th	—	—	—	2·13	-0·22	0·81	22nd	13	—	—	—	—	
	a Ballinacurra - - -	34	63·5	47·8	55·7	—	71	30th	43	1st, 22nd	—	—	—	1·20	—	0·57	20th	10	173	—	35	—	
	a Guernsey (Villa Carey) -	180	62·2	50·7	56·5	- 1·2	68	15th, 21st	47	13th	—	—	—	3·62	+1·48	1·32	3rd	10	231	- 17	48	- 4	

## NOTES ON THE STATISTICAL TABLES.

**Hours of Observation.**—The following types are used to indicate the hours of observation at Stations included in Table A:—Clarendon, Normal Climatological Stations—I, 9 a.m. [II, 3 p.m.], III, 9 p.m. Black Capitals, telegraphic reporting normal climatological stations—I, 7 a.m., II, 1 p.m., III, 9 p.m. Roman, telegraphic reporting stations—I, 7 a.m., [II, 1 p.m.], III, 6 p.m. Italic, auxiliary climatological stations—I, 9 a.m., only (9 a.m. and 6 p.m. at *Ventnor*). The summaries are based on observations made three times a day wherever the data are available, except in the case of the element pressure (see below). At stations shown in clarendon type the maximum and minimum temperatures are read at 9 p.m.; at the remaining stations these observations are made at I. In Table B the letters *a* and *p* indicate whether the readings of the maximum and minimum are taken at the hours of morning or evening observation.

**Barometer.**—The correction for latitude has not been applied to the readings quoted in the Tables. It is applied to the readings at sea level from which the chart showing the mean monthly distribution of pressure is prepared. The values given in the tables are for station level. The values printed are (1) for stations shown in clarendon type, the means of observations at 9 a.m. and 9 p.m.; (2) for stations shown in Capitals, the means of observations at 7 a.m., 1 p.m., 9 p.m.; (3) for stations shown in Roman type, the means of observations at 7 a.m. and 6 p.m.; (4) for stations shown in italic type, the means of observations at 9 a.m. The column headed C gives the correction for diurnal variation required to reduce the means of observations at fixed hours to true diurnal means, based on the analysis of the values obtained at the four observatories for the period 1871–1905. The difference from normal is based upon the 7 a.m. readings only, except in the cases of Kew, Greenwich, Aberdeen, Valencia and Falmouth (see below).

**Rainfall.**—The amounts are those for the 24 hours commenced at the time of morning observation.

**Weather Phenomena.**—The number of days of Rain, Snow, Hail, Thunderstorm, Fog, Ground Frost, and Gale, are counted irrespective of the hours at which the phenomena occur. Except in the cases of rainfall (see above) and ground frost the day is the civil day. A day is reckoned as a day of “clear sky,” if the mean of the estimates of the “amount of cloud” at the fixed hours of observation is less than 2, and as an “overcast” day if the mean is greater than 8. Days of Ground Frost are days on which the minimum thermometer on the grass falls to 30° or below; the “day” is taken as the 24 hours ending at 9 a.m.

**Wind Summaries.**—The results given under wind direction, and the number of observations of calms and of fresh or strong wind, are based on the observations at fixed hours. At Deerness, Aberdeen, Valencia, Falmouth, Kew, Glasgow, Stonyhurst and Armagh the wind observations are based on the records of a standard Robinson anemometer (factor 2·2). Velocities of between 13 and 38 miles in the hour have been entered as “fresh or strong winds,” velocities of 39 miles in the hour, or above, as gales.

**Averages.**—The normal averages used for stations are—Pressure, Temperature, and Rainfall for the 35 years 1871–1905; Bright Sunshine for the 25 years 1881–1905. The values are published in Appendix III. to the Weekly Weather Report for 1906. For the Royal Observatory, Greenwich, and the Radcliffe Observatory, Oxford, averages for longer periods are used. See Notes in Monthly Weather Reports for 1908. Monthly averages of pressure at telegraphic reporting stations for the epoch 8 a.m. are published in Appendix I. to the Daily Weather Report. In order to render these averages comparable with the data for the present month, a correction, based on the results for the four observatories as published in “Hourly Readings at the Observatories under the Meteorological Council,” has been applied to each of them before the figures given in the column headed “Barometer—Difference from Normal” were computed.

**Aberdeen, Falmouth, Kew, Valencia, Oxford, Greenwich.**—The figures quoted in the second line assigned to these observatories in the columns for Barometer and Mean Temperature are the true daily means computed from the hourly tabulations of the traces of the photographic recording instruments. For Kew, Falmouth, Aberdeen and Valencia the divergences of the means of the readings at 9 a.m. and 9 p.m. from their normal averages are also given.

**Royal Observatory, Greenwich.**—The earth temperatures are taken at a depth of 3 ft. 2 ins. The daily rainfall amounts are those for the 24 hours comprising the civil day. The number of days in the month which were persistently overcast from midnight to midnight was 4, the number of persistently cloudless days was 0, the number of persistently foggy days was 0.

**Mean Values for Districts.**—The stations used in the Weekly Weather Report for the computation of “district values” of rainfall and temperature are distinguished by the sign †, those used for the computation of “district values of bright sunshine” by the sign §. These stations are distributed between Tables A and B. The monthly mean values for districts given in this Report for maximum, minimum and mean temperature, duration of bright sunshine, number of rain days and amount of rainfall, are computed from the data for these “representative” stations. The mean temperature for districts is computed in the manner shown in the preface to this and previous volumes of the Weekly Weather Report. The monthly mean values for districts for “amount of cloud” are computed from the data for all stations included in Table A. The extreme values of the various elements in each district are printed in distinctive type. In the lines devoted to district values, the columns referring to absolute highest and absolute lowest temperature and the maximum amount of rainfall in a day contain the extreme values for the district at any station included in either table of the Report. The averages for districts with which the current values are compared are for the 25 years 1881–1905, as in the case of the corresponding values published in the Weekly Weather Report.

**Meteorological Societies.**—Information for stations marked ‡ is supplied by the Royal Meteorological Society, and that for stations marked § is supplied by the Scottish Meteorological Society. Stations marked S are in connexion with the Scottish Meteorological Society and those marked M with the Royal Meteorological Society, as well as with the Meteorological Office.







# MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

(Supplement to the Weekly Weather Report.)

SUMMARY OF OBSERVATIONS COMPILED FROM THE RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS IN THE UNITED KINGDOM, WITH A CHART OF RAINFALL CONTRIBUTED BY THE BRITISH RAINFALL ORGANISATION.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE,

AND PUBLISHED FOR H.M. STATIONERY OFFICE BY WYMAN AND SONS, LTD., FETTER LANE, E.C.; OR OLIVER AND BOYD, EDINBURGH; OR E. PONSONBY, 116, GRAFTON STREET, DUBLIN.

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## SUMMARY OF OBSERVATIONS.

**Pressure, Winds and Weather.**—Throughout July the distribution of pressure over the British Isles, the northern half of Europe, and the Icelandic region was of an unsettled type, and although the atmospheric conditions differed materially from those of June, the weather of the two months presented many features in common—both being dull, wet and cold. The anticyclone which during the greater part of June had maintained a position on the Atlantic, took up a more southerly position towards the close of the month, and from the beginning to the end of July the area of maximum pressure was found beyond our own south-western coasts, over the Bay of Biscay and the Spanish Peninsula, or over the more western portion of the Continent. Northward of this anticyclone the whole region within the limits of observation was open to the advance of cyclonic systems from the northern portion of the Atlantic. These disturbances were very numerous. Some pressure minima passed eastward across or immediately to the south of Iceland, but the majority visited some part of the United Kingdom, not one, however, being found as far south as the English Channel. For the whole of the month, therefore, the distribution of mean pressure was of a very regular character. There was a belt of low barometer readings, below 29·7 ins., extending from off the south coast of Iceland eastward across the Faerøe and beyond the north of Scotland to Scandinavia. Southward across the British Isles there was a gradual increase in the values, to 30·05 ins., on the western half of the English Channel, above 30·1 ins. on the Bay of Biscay, and as high as 30·38 ins. at the Azores. Over Iceland the values increased northward, to above 29·75 ins. along the north coast.

At the home stations the mean readings were slightly above the average in the south, from Valencia to Jersey, but over the rest of the Kingdom they were below it, the deficiency increasing northward to more than 0·1 in. over Scotland, and amounting to 0·16 in. at Sumburgh Head. Over North Britain the barometer stood highest, slightly above 30·25 ins., on the 1st and 2nd; but elsewhere it attained its maximum level on the 19th or 20th, on the former day amounting to 30·44 ins. at Valencia. Although a very unsettled month, the disturbances as a rule were not of much depth, the barometer rarely descending as low as 29·5 ins. On the 23rd, however, it fell below 29·1 ins. at Stornoway, and two days later, in another depression, it dropped to 29·08 ins. at Shields. These two stations consequently returned the greatest range of pressure for the month, 1·2 in., but at most places it was less than an inch, less than 0·8 in. from Jersey and Portland Bill to Clacton-on-Sea.

While the relative distribution over these islands was slightly more northerly than the usual westerly type, the pressure gradient showed a considerable increase, the difference between Jersey and Sumburgh Head being as much as 0·37 in., against an average of 0·17 in. This steeper gradient for the month under review was marked in all parts of the country by winds of more than ordinary strength for the time of year. Fresh to strong breezes were in fact experienced very commonly, and during the second half of the period the force of a high wind was felt nearly every day in various localities. On the 8th Spurn Head, and on the 10th Roche's Point and Markree Castle, reported a Northerly gale, on the 20th Markree Castle, and on the 24th Spurn Head had a South-West gale. The self-recording instruments registered neither gales nor severe squalls.

During the first half of the month the centres of all but one of the disturbances were in the extreme north of the field of observation, the exception being one which appeared to the southward of Iceland on the 5th. Moving on a general south-easterly course this crossed Scotland on the 6th, and then travelled away to the Baltic and North Russia. It was one of the salient features of this portion of the month that the northern disturbances produced very frequent but not heavy rains over these islands, and it was this frequency rather than the quantity of the rain which led to the common impression that the month was generally wet. In many localities the amount of rain collected was below the average to an appreciable extent. For about a week round the 17th several places in the south and east had either no rain at all, or only some trifling showers. The passage of small secondary disturbances marked the outburst of local thunderstorms in many districts on various days, the storms being heavy and accompanied by hail in a few neighbourhoods, but the rainfalls of an inch or more on any one day were unusually few in number—on the 9th 1·1 in. at Bethesda and Towyn, and 1·2 in. at Mount Callan (Clare); on the 15th 1 in. at Stonyhurst, and 1·4 in. at Ford (Argyll); and on the 16th 1·2 in. at Caraghlake (Kerry).

With the appearance of a depression to the north-westward of the Hebrides on the morning of the 20th there came a change in the character of the rainfall, which for the remainder of the month was not only frequent but also very heavy. The disturbance of the 20th moved due east

between the Faerøe and Shetland, dispersing on reaching Norway on the 22nd, when another was found to be approaching the Hebrides from the westward. This proved to be one of the two deepest systems of the month. On the morning of the 24th wireless reports from Atlantic liners showed the formation of a new depression about 300 miles west from the Fastnet. By the morning of the 25th its centre was nearing Pembroke, and on the morning of the 26th it was off Aberdeen. On that date wireless reports again disclosed the existence of an Atlantic disturbance. By the evening of the 27th this was entering the Bristol Channel, and maintaining an easterly to north-easterly course it traversed southern England. Smaller disturbances arrived on our north-western coasts from the Atlantic on the 29th and 30th, and they served to maintain the very unsettled weather to the close of the month.

This constant succession of low pressure systems explains the unusually windy character of the period from the 20th. Heavy rain fell generally, and on almost all days there were instances of 1 inch or more in 24 hours. The 27th was one of the most remarkable of the wet days, more than an inch of rain being registered at a large number of places in the southern half of England, the records showing 1·5 in. at Salisbury, Shaftesbury and Tavistock, 1·6 in. at Watergate (Sussex), and 1·8 in. at Plymouth. Thunderstorms occurred in Lancashire on the 23rd and 24th; over northern England on the 25th; in the Thames Valley and southward on the 26th; and in the north-east of England on the 30th.

These very inclement conditions were associated with abnormally low day temperatures. In many districts the thermometer never rose to 70°, and on numerous occasions the maximum failed to reach 60°. At Douglas, for instance, there were as many as 13 days below 60°. On the 11th the maximum was 54° at Ampleforth, Belvoir, Bridlington and Lincoln, and the same value was recorded at Morpeth (Cockle Park) on the 25th, on which date Mountmellick only touched 53°. At Seaham, on the 1st, the maximum was as low as 52°. Temperatures above 75° were rarely registered, Cambridge and Raunds touching 77° on the 17th, Greenwich, Camden Square 78° on the 18th, and Maidenhead on the 20th and 21st. The nights generally were not so cold, but there were a few minimum shade temperatures below 40°, as low as 35° at Balmoral and Llangammarch Wells on the 1st, and at Alnwick on the 2nd; and 33° at West Linton on the 1st.

Earthquake shocks were felt at Laudale on the 28th and 29th.

Fog was reported rather frequently on the Irish coast, in most neighbourhoods from the 12th to the 18th, and the 27th to the 31st. On the western coast it was more often observed than for a long time past. Stations on the Welsh coast and across the Bristol Channel had fog on numerous occasions. Along the English Channel it was less frequent, affecting the western half as a rule. Between Shetland and the Moray Firth there were ten days with fog, but it was almost entirely absent along the rest of the east of Britain.

The mean temperature of the sea water round our coasts was higher than in June, the difference amounting as a rule to between 2° and 4°. Generally speaking, the water was also warmer than the air on shore, but on our extreme western and northern coasts the difference was scarcely perceptible.

**Rainfall.**—The rainfall map for last month shows that the areas of maximum fall occupied their accustomed places over the north-west of Ireland and the western portions of Great Britain. In other parts of the Kingdom the distribution was of a less normal character, the most striking feature being perhaps the deficiency existing over the north-easterly portion of England, almost the only district in which the fall was below the average. A total of more than 7 ins. was recorded in several parts of the wetter regions, and as much as 10·6 ins. at Killibegs, 8·9 ins. at Cruachan, and 8·8 ins. at Ford (both on Loch Awe). Among the smallest aggregates may be mentioned 1·4 in. at Ballinacurra, and 1·6 in. at Hawarden Bridge, Newquay, Scilly and Portland Bill. The number of days with rain was almost everywhere in excess of the average; at Stonyhurst and Blacksod Point there were 27 such occasions, at Arlington 28, and at Glencarron as many as 30.

**Bright Sunshine.**—The total amount recorded was in nearly all places below the average, but in the southern parts of England the deficiency was not so large as in June. At many scattered places in the western and northern parts of the United Kingdom, the duration was less than 120 hours, the smallest aggregates being 91 hours at Fort Augustus, 112 hours at York, and 114 hours at Lancaster and Manchester (Whitworth Park). More than 200 hours were recorded at many stations situated both in the east and south-west of England, and as many as 228 hours at Weymouth, 230 hours at Guernsey (Villa Carey), and 233 hours at Torquay.



TABLE A.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at 9 a.m., 3 p.m. and 9 p.m. at NORMAL STATIONS in the BRITISH ISLANDS

DISTRICT.	STATION.	Height of Barometer at Level and Latitude of Station.	BAROMETER			AIR TEMPERATURE.								HYGROMETER.												
			Mean at 32° F. at Level and Latitude of Station.	Diff. from Normal.	C. for Diurnal Range.	Mean of		Mean of A and B.	Diff. from Normal.	Absolute Maximum and Minimum.				Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.												
						A	B			Max.	Day.	Min.	Day.	Dry Bulb.			Dep. of Wet.			Vap. Pressure.			Humidity.			
														I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.	
1. SCOTLAND, N.																										
Islands.	CASTLEBAY -	48	29.717	-0.070	-0.001	57.3	51.1	54.2	-3.0	60	31st	48	28th	53.7	55.5	53.6	1.9	2.1	1.8	In. .360	In. .381	In. .361	% 88	% 86	% 88	
	Deerness -	163	29.532	-	-0.004	56.7	48.1	52.4	-1.8	61	15th	44	12th	53.1	-	51.1	2.5	-	1.3	.339	-	.344	84	-	91	
	SUMBURGH HEAD	126	29.532	-1.162	-0.001	55.0	47.0	51.0	-1.8	59	7th	43	2nd, 28th	50.4	52.6	50.1	1.4	2.1	1.0	.330	.340	.336	90	86	93	
	STORNOWAY	52	29.685	-1.101	-0.001	59.1	49.8	54.5	-0.3	68	1st	44	1st	53.4	57.6	52.6	2.2	3.3	2.0	.347	.379	.343	85	80	86	
	Wick -	80	29.626	-1.137	+0.003	60.1	46.7	53.4	-1.9	66	3rd	40	24th, 28th	52.5	-	54.5	2.1	-	2.6	.338	-	.352	86	-	82	
Mainland.	Strathpeffer -	210	29.518	-	-0.005	62.8	49.8	56.3	-0.2	69	2nd	44	1st	57.3	-	53.5	3.8	-	2.9	.361	-	.331	77	-	81	
	Glencarron -	504	29.222	-	-0.004	57.9	47.6	52.8	-2.5	72	1st	41	1st	53.9	-	51.6	2.5	-	2.0	.346	-	.330	84	-	86	
	Fort Augustus -	73	29.691	-	-0.004	61.2	48.8	55.0	-2.1	68	8th	39	12th	55.0	-	54.4	2.5	-	2.4	.362	-	.356	84	-	84	
	Fort William -	88	29.748	-	-0.004	61.1	49.0	55.1	-2.1	70	1st	39	12th	55.6	-	53.1	3.2	-	2.2	.354	-	.344	79	-	84	
	Dunrobin Castle -	16	29.704	-	-0.004	60.9	48.6	54.8	-1.3	65	16th, 20th	44	1st, 24th	56.3	-	54.0	4.0	-	2.9	.344	-	.341	76	-	82	
District Value -																										
1. SCOTLAND, E.																										
Northern Part.	Tillypronie -	1120	28.554	-	-0.005	62.2	45.9	54.1	-0.2	70	2nd	40	2nd	54.2	-	51.5	3.7	-	2.7	.326	-	.314	78	-	82	
	Dundee -	164	29.593	-	-0.005	65.5	49.1	57.3	-1.5	73	16th	39	1st	58.7	-	55.0	3.9	-	2.3	.383	-	.370	77	-	85	
	Nairn -	82	29.636	-1.120	+0.003	63.0	48.3	55.7	-1.7	69	2, 12, 22	41	24th	52.8	60.1	57.7	2.3	5.3	4.1	.338	.363	.361	85	70	76	
	Gordon Castle -	107	29.630	-	-0.005	63.8	47.4	55.6	-1.8	75	2nd	37	12th	57.8	-	54.9	4.1	-	2.3	.362	-	.367	76	-	85	
	Aberdeen -	90	29.646	-1.136	-0.005	61.7	50.5	56.1	-1.1	71	3rd	46	9th	57.2	58.9	55.2	4.7	4.9	3.0	.337	.355	.352	72	71	81	
Southern Part.	Balmoral -	927	29.642	-1.135	-	64.0	44.7	54.4	-0.7	73	19th	35	1st	55.2	-	-	-	-	-	-	-	-	-	-	-	
	Grieff -	436	29.305	-	-0.005	65.4	48.3	56.9	-1.9	73	8th	39	1st	57.5	-	54.0	4.4	-	2.7	.349	-	.342	74	-	82	
	Leith -	37	29.726	-1.105	+0.003	63.8	51.3	57.6	-1.5	70	8th	47	1st, 2nd	55.0	-	60.4	3.2	-	5.4	.344	-	.365	80	-	69	
	Marchmont -	500	29.244	-	-0.005	62.5	48.1	55.3	-1.9	68	13th, 16th	43	2, 12, 27th	57.0	-	53.8	4.4	-	2.6	.341	-	.342	73	-	82	
	District Value -																									
2. ENGLAND, N.E.																										
Northern Part.	Seaham -	188	29.655	-	-0.006	63.7	51.6	57.7	-1.0	71	9th	41	2nd	59.3	-	55.1	4.9	-	2.5	.366	-	.365	71	-	84	
	Whitby -	145	29.653	-	-0.006	66.7	51.0	58.9	-0.1	74	18th	37	2nd	59.6	-	56.4	4.8	-	3.0	.370	-	.367	72	-	81	
	Cockle Pk (Morpeth) -	381	29.448	-	-0.006	63.3	48.3	55.8	-	71	16th	42	1st, 2nd	57.4	-	53.7	3.8	-	1.8	.365	-	.365	77	-	88	
	Shields -	117	29.667	-0.097	+0.003	64.4	49.4	56.9	-1.4	72	16th	39	2nd	56.0	-	60.2	3.1	-	5.1	.363	-	.370	80	-	71	
	Durham -	352	29.433	-	-0.006	64.3	50.0	57.2	-2.3	72	16th	36	2nd	58.7	-	55.2	4.5	-	2.3	.365	-	.373	74	-	85	
Southern Part.	Rounton -	245	29.552	-	-0.006	64.3	49.6	57.0	-1.1	72	16th	38	2nd	57.5	-	54.4	3.9	-	2.1	.361	-	.364	76	-	86	
	Scarborough -	127	29.679	-	-0.006	65.8	51.9	58.9	-0.5	73	18th	42	2nd	59.2	-	59.0	3.9	-	3.5	.386	-	.394	77	-	79	
	York -	53	29.797	-	-0.006	65.1	52.0	58.6	-2.1	71	13th	44	2nd	59.0	-	57.0	3.8	-	2.5	.385	-	.391	77	-	84	
	Spurn Head -	28	29.799	-0.094	+0.003	63.7	52.8	58.3	-1.9	72	3rd, 4th	46	2nd	56.2	61.3	59.7	2.4	5.0	3.7	.383	.388	.399	85	72	78	
	Lincoln -	42	-	-	-	67.0	51.4	59.2	-2.7	73	15th	45	2nd	60.8	-	-	3.9	-	-	.413	-	-	77	-	-	
Southern Part.	Skegness -	16	29.846	-0.071	+0.003	65.5	51.1	58.3	-	80	17th	46	27th	55.5	-	61.6	1.5	-	4.0	.397	-	.428	90	-	77	
	Hull -	2	29.842	-	-0.006	65.8	51.9	58.9	-1.7	73	13th	46	2nd	60.4	-	57.6	4.3	-	2.6	.393	-	.398	75	-	83	
	District Value -																									
	3. ENGLAND, E.																									
	Northern Part.	Lowestoft -	75	29.805	-	-0.006	66.1	52.3	59.2	-1.4	76	18th	47	11th	61.1	-	57.9	4.5	-	2.4	.399	-	.407	74	-	85
Cromer -		139	-	-	-0.006	66.2	51.7	59.0	-	75	18th, 19th	48	2nd	-	-	-	-	-	-	-	-	-	-	-	-	
Hillington -		92	29.769	-	-0.006	66.5	50.8	58.7	-2.7	74	3rd	44	5th	58.5	-	57.2	3.2	-	1.9	.394	-	.412	80	-	88	
Norwich -		98	-	-	-	67.4	52.1	59.8	-	75	3rd	47	13th	-	-	-	-	-	-	-	-	-	-	-	-	
YARMOUTH -		27	29.844	-0.073	-0.002	66.5	52.3	59.4	-1.3	75	3rd, 18th	48	11th, 27th	56.4	63.3	58.8	2.4	6.0	3.2	.385	.392	.400	85	68	81	
Southern Part.	Geldeston -	47	29.839	-	-0.006	67.6	51.4	59.5	-1.8	76	17th	46	20th	61.1	-	57.6	4.4	-	2.3	.401	-	.407	75	-	85	
	Cambridge -	43	29.859	-	-0.007	68.3	51.2	59.8	-2.6	77	17th	45	5th	60.8	-	57.5	4.8	-	2.5	.390	-	.403	73	-	85	
	CLACTON -	62	29.850	-0.052	-0.002	67.3	53.2	60.3	-2.6	76	18th	47	2nd	57.6	63.8	59.1	2.2	5.1	2.4	.410	.425	.426	85	72	85	
	Woburn -	294	29.627	-	-0.007	66.8	50.9	58.9	-	74	17th	42	2nd	59.6	-	57.8	4.0	-	2.5	.390	-	.406	76	-	84	
	Bennington -	411	29.525	-	-0.007	67.5	50.7	59.1	-2.4	75	18th	44	1st	59.0	-	56.9	4.1	-	2.6	.377	-	.386	75	-	83	
Southern Part.	Berkhamsted -	397	29.520	-	-0.007	67.6	50.6	59.1	-2.2	76	18th	40	1st	59.3	-	56.9	4.2	-	2.7	.378	-	.384	75	-	83	
	District Value -																									
	4. MIDLAND COS.																									
	Eastern Part.	Garforth -	198	-	-	-0.006	64.5	49.9	57.2	-	71	3rd	36	2nd	58.0	-	56.1	3.7	-	3.0	.377	-	.369	78	-	82
		Huddersfield -	411	29.427	-	-0.006	63.7	51.4	57.6	-	73	2nd	40	2nd	57.1	-	55.0	3.6	-	2.1	.365	-	.374	78	-	86
Wakefield -		100	29.752	-	-0.006	66.5	51.9	59.2	-0.8	72	8th	40	2nd	58.1	-	-	4.0	-	-	.367	-	-	76	-	-	
Belvoir Castle -		276	29.601	-	-0.006	66.2	51.8	59.0	-2.4	73	13th	43	2nd	58.8	-	56.6	3.6	-	2.3	.389	-	.391	78	-	85	
Coventry -		309	29.592	-	-	67.0	52.0	59.5	-2.5	74	17th	42	1st	60.0	-	-	5.0	-	-	.369	-	-	71	-	-	
Western Part.	NOTTINGHAM	85	29.790	-0.063	-0.002	66.6	51.6	59.1	-2.4	73	13th, 18th	42	2nd	57.0	63.6	57.6	2.6	5.8	2.9	.388	.402	.391	83	69	82	
	Birmingham -	542	29.341	-	-0.006	65.3	51.8	58.6	-1.8	72	9, 17, 20	45	2nd	56.2	-	57.5	3.3	-	3.8	.359	-	.368	80	-	77	
	Oxford -	212	29.720	-0.022	-	67.4	52.7	60.1	-1.9	73	17, 18, 20	45	1st	58.4	58.9	59.5	3.6	-	-	.383	-	-	78	-	-	
	Bath -	84	29.880	-0.002	+0.004	66.1	53.5	59.8	-1.9	72	2nd	44	2nd	58.6	-	62.0	3.1	-	-	.399	-	-	81	-	-	
	Shrewsbury -	212	29.688	-	-0.006	66.7	51.9	59.3	-1.5	73	2nd	42	1st	60.0	-	57.4	4.7	-	2.9	.380	-	.389	73	-	82	
Western Part.	Sheffield -	450	29.395	-	-0.006	64.6	52.1	58.4	-2.3	72	2nd	45	2nd	58.6	-	56.4	4.4	-	2.8	.367	-	.376	74	-	82	
	Buxton -	997	28.824	-	-0.006	61.7	48.8	55.3	-2.5	70	2nd	37	2nd	56.6	59.3	53.1	3.2	4.1	1.5	.367	.382	.362	79	75	89	
	Stokesay -	375	29.531	-	-0.006	66.9	50.5	58.7	-	73	17th	41	20th	60.6	-	55.6	4.4	-	2.1	.394	-	.383	75	-	86	
	Cheltenham -	206	29.727	-	-0.007	67.4	52.9	60.2	-1.0	73	17th	47	20th	61.6	-	58.0	4.8	-	2.8	.399	-	.399	73	-	83	
	District Value -																									



Hrs.	Hrs.	%	%	8.7	8.4	8.6	Ins.	Ins.	Ins.	23rd	23	0	0	0	0	19	2	—	0	46	2	5	1	2	2	3	13	32	33	(Isd.)
152	147	+ 8	27	+ 1	8.5	—	2.75	—	0.42	23rd	23	0	0	0	0	19	2	—	0	46	2	5	1	2	2	3	13	32	33	Castlebay (Barra)
—	—	—	—	—	7.8	7.6	2.44	—	0.58	3rd	17	0	0	0	0	16	5	—	1	25	6	5	3	3	2	11	1	19	12	Deerness.
—	—	—	—	—	8.3	7.8	2.82	—	0.80	22nd	20	0	0	0	0	15	6	—	0	10	4	10	11	4	6	6	9	32	11	Sumburgh Head.
—	129	-15	24	- 3	8.3	7.8	3.07	—	0.49	6th, 20th	26	0	0	0	1	15	0	—	0	51	2	10	5	1	1	12	20	29	13	Stornoway.
—	—	—	—	—	7.5	—	2.79	—	0.65	20th	23	0	0	0	0	8	2	—	0	10	7	20	0	0	1	9	5	10	10	Wick.
—	123	- 7	23	- 2	7.7	—	1.98	—	0.31	15th	21	0	0	1	1	15	0	—	0	12	14	4	1	2	1	2	14	13	11	Strathpeffer.
—	—	—	—	—	9.1	—	6.61	—	0.88	20th	30	0	0	0	1	25	0	—	0	31	0	6	0	9	0	2	0	45	0	Glencarron.
—	91	- 9	17	- 2	7.5	—	3.91	—	0.69	30th	20	0	0	0	1	16	0	—	0	17	2	1	12	4	0	7	20	10	0	Fort Augustus.
—	—	—	—	—	8.8	—	6.16	—	0.98	20th	26	0	0	0	1	26	1	—	0	7	4	0	7	2	2	0	25	16	6	Fort William
58.2	—	—	—	—	6.8	—	1.90	—	0.29	15th	15	0	0	0	1	10	0	—	0	3	7	0	3	4	10	0	7	12	19	Dunrobin Castle
—	123	- 4	23	- 1	8.1	7.9	7.9	3.91	1.01	—	24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	6.6	—	2.81	—	0.33	6th, 15th	16	0	0	0	1	7	3	0	4	12	0	6	3	1	0	2	5	19	26	Thillyprone.
—	—	—	—	—	7.1	—	2.71	—	0.98	25th	16	0	0	1	1	10	0	—	2	9	0	2	7	1	5	0	26	10	11	Dundee.
—	158	—	30	—	8.1	6.6	3.29	—	1.00	29th	20	0	0	0	0	6	0	—	0	1	15	3	2	13	0	1	13	37	9	Nairn.
—	145	—	28	—	7.8	—	2.21	—	0.41	25th	19	0	0	1	0	13	0	—	0	9	0	4	6	1	3	4	19	11	14	Gordon Castle.
—	52.4	150	-13	29	- 2	7.7	7.6	4.84	1.53	25th	18	0	0	0	0	16	0	—	0	17	17	5	2	8	4	11	16	12	18	Aberdeen.
—	—	—	—	—	7.9	—	3.04	—	0.52	6th	14	0	0	1	3	17	1	1	1	12	0	10	4	2	2	2	8	30	4	Balmoral.
—	—	—	—	—	7.8	—	2.53	—	0.63	25th	17	0	0	1	2	14	0	—	0	24	0	6	1	7	0	2	0	43	3	Crieff.
—	—	—	—	—	6.6	—																								

\* (3 ft.)



TABLE A. (continued).—Giving a Summary of the METEOROLOGICAL OBSERVATIONS made at 9 a.m., 3 p.m. and 9 p.m. at NORMAL STATIONS in the BRITISH ISLANDS

DISTRICT.	STATION.	Height of Barometer at Level and Latitude of Station.	BAROMETER.				AIR TEMPERATURE.								HYGROMETER.											
			Mean at 32° F. at Level and Latitude of Station.	Diff. from Normal.	C. for Diurnal Range.	Mean of		Mean of A and B.	Diff. from Normal.	Absolute Maximum and Minimum.				Observations at 9 a.m., 3 p.m. and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.												
						A	B			Max.	Day.	Min.	Day.	Dry Bulb.			Dep. of Wet.			Vap. Pressure.			Humidity.			
														I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.	
		Ft.	In.	In.														In.	In.	In.	%	%	%			
5. ENGLAND, S.E.	Reading - - -	264	29.660	—	—	67.7	52.0	59.9	—	76	18th	44	1st	59.9	—	58.4	3.9	—	2.6	.396	—	.410	77	—	84	
	Salisbury - - -	186	29.764	—	—	67.9	51.0	59.5	—2.9	76	18th	40	2nd	61.0	—	57.2	3.2	—	1.9	.433	—	.412	81	—	88	
	Brighton - - -	48	29.916	—	—	64.7	54.5	59.6	—2.9	72	28th	45	1st	60.7	—	—	3.6	—	—	.426	—	—	78	—	—	
	Portsmouth - - -	18	29.969	—	—	67.0	55.0	61.0	—1.4	74	19th	46	2nd	61.6	—	—	4.2	—	—	.415	—	—	76	—	—	
	Eastbourne - - -	36	29.931	—	—	64.2	54.0	59.1	—2.8	70	28th	45	1st	60.1	—	58.1	3.0	—	1.8	.428	—	.430	82	—	89	
	Dungeness - - -	21	29.905	—0.038	+ .003	63.5	53.6	58.6	—3.0	69	28th	44	1st	57.8	61.7	60.4	1.7	3.2	2.6	.427	.447	.442	89	81	85	
	Hastings - - -	174	29.776	—	—	64.2	53.4	58.8	—2.6	69	28th	43	1st	60.0	—	56.9	3.3	—	1.4	.415	—	.421	80	—	92	
	Southampton - - -	84	29.891	—	—	67.8	53.7	60.8	—2.3	75	19th	46	2nd	61.7	—	58.3	4.4	—	2.3	.414	—	.417	75	—	86	
	Ventnor - - -	80	29.881	—	—	65.0	54.8	59.9	—2.1	72	19th	48	1st	60.4	—	—	3.5	—	—	.415	—	—	79	—	—	
District Value - - -						66.2	53.0	59.1	—2.3	78		37														
LONDON -	Tottenham - - -	55	29.862	—	—	68.4	53.6	61.0	—2.3	76	18th	45	1st	61.9	—	59.6	5.0	—	2.4	.401	—	.410	73	—	80	
	Camden Square - - -	123	29.810	—	—	70.4	53.1	61.8	—2.6	78	18th	44	1st	62.0	—	60.0	5.1	—	3.2	.396	—	.417	72	—	81	
	Westminster - - -	54	29.867	—0.043	+ .003	68.2	53.9	61.1	—2.8	75	18th	46	1st	57.2	—	64.7	2.8	—	6.8	.386	—	.393	82	—	64	
	Greenwich - - -	159	29.763	—	—	70.1	—	61.3	—2.4	78	18th	46	1st	61.2	—	58.8	4.8	—	3.3	.392	—	.597	73	—	80	
	Norwood - - -	235	29.719	—	—	69.2	52.7	61.0	—1.9	78	18th	45	1st	61.8	—	58.9	4.7	—	2.8	.404	—	.412	73	—	83	
	Kew - - -	34	29.909	—0.032	—	68.1	54.0	61.1	—1.7	75	18th	45	1st	60.9	65.6	60.1	4.9	6.9	3.6	.384	.403	.408	72	65	79	
	Bunhill Row - - -		29.903	—0.031	—	—	—	60.5	—1.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	Plumstead - - -		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	Laudale - - -	25	29.763	—	—	61.6	49.6	55.6	—1.9	74	1st	43	12th, 28th	57.4	—	53.9	2.9	—	1.7	.389	—	.368	83	—	88	
6. SCOTLAND, W.	Poltalloch - - -	135	29.664	—	—	60.5	49.1	54.8	—3.0	67	1st	?	?	55.2	—	52.8	3.0	—	2.5	.352	—	.333	81	—	83	
	Glasgow - - -	184	29.597	—	—	61.7	50.1	55.9	—2.1	68	1st	45	1st	56.0	—	54.1	3.7	—	2.5	.346	—	.351	77	—	83	
	Rothsay - - -	76	29.733	—	—	62.6	50.0	56.3	—1.4	68	1st, 31st	44	25th	56.5	—	53.1	2.8	—	1.5	.376	—	.362	82	—	89	
	Colmonell - - -	150	—	—	—	62.3	49.8	56.1	—1.2	67	31st	40	1st	55.6	—	—	—	—	—	—	—	—	—	—		
	Dumfries - - -	155	29.660	—	—	63.4	50.4	56.9	—2.7	68	1, 17, 31	42	1st	56.3	—	55.3	3.0	—	2.6	.369	—	.364	81	—	83	
	Cally, Gatehouse - - -	120	—	—	—	63.7	50.0	56.9	—0.9	72	8th	42	28th	57.0	—	53.3	2.0	—	2.3	.405	—	.343	87	—	84	
	Douglas - - -	284	29.571	—	—	60.5	50.4	55.5	—2.2	66	13th	47	27th	55.2	—	53.6	2.2	—	1.3	.376	—	.376	86	—	91	
	District Value - - -						62.1	49.7	55.5	—1.8	74		38													
	Southport - - -	42	29.845	—	—	62.2	53.7	58.0	—1.7	71	2nd	43	1st	58.2	—	57.2	3.1	—	2.3	.393	—	.400	81	—	85	
7. ENGLAND, N.W.	Manchester (City) - - -	195	29.678	—	—	63.9	53.6	58.8	—	73	2nd	46	1st	58.7	—	58.0	4.2	—	3.4	.374	—	.386	76	—	80	
	„ (Whitworth Pk) - - -	127	29.721	—	—	64.2	53.0	58.6	—	74	2nd	46	2nd	58.7	62.7	57.4	3.4	—	2.0	.392	—	.412	80	72	87	
	Darwen - - -	730	29.102	—	—	61.6	49.5	55.6	—	70	2nd	39	1st	56.2	—	54.1	2.6	—	1.5	.379	—	.378	84	—	89	
	Aspatria - - -	264	29.567	—	—	63.1	50.4	56.8	—1.9	69	31st	42	1st	56.4	—	54.6	2.6	—	1.5	.384	—	.387	84	—	91	
	Newton Rigg - - -	559	29.230	—	—	63.3	49.2	56.3	—1.6	69	8th	40	1st	56.0	—	55.1	2.3	—	1.9	.383	—	.380	85	—	87	
	Stonyhurst - - -	363	29.482	—	—	61.7	51.5	56.6	—2.5	71	2nd	43	1st	57.4	—	55.9	3.7	—	2.7	.369	—	.370	78	—	83	
	Blackpool - - -	73	29.802	—	—	62.4	53.1	57.8	—2.1	70	2nd	40	1st	58.4	—	56.5	2.7	—	1.6	.408	—	.409	83	—	89	
	M'nch't'r (Prestwich) - - -	320	29.532	—	—	63.5	51.4	57.5	—2.0	73	2nd	43	1st	57.8	—	56.0	2.3	—	1.3	.410	—	.411	85	—	91	
	Liverp'l, Bidston Obs. - - -	197	29.673	—	—	62.8	53.6	58.2	—2.1	73	2nd	47	1st	57.6	—	56.5	2.9	—	2.5	.391	—	.384	82	—	84	
8. NORTH WALES	Llandudno - - -	21	29.882	—	—	63.8	53.6	58.7	—1.8	71	2nd, 3rd	48	1st	58.7	—	57.6	2.5	—	1.6	.417	—	.426	84	—	89	
	HOLYHEAD - - -	48	29.855	—0.036	—	61.7	52.5	57.1	—1.8	65	2, 19, 30	50	1st, 2nd	56.1	60.0	55.6	1.8	3.3	1.4	.398	.415	.402	88	80	90	
	Bettws-y-Coed - - -	100	29.774	—	—	63.9	51.7	57.8	—2.8	73	2nd	42	1st	58.8	—	56.1	3.8	—	1.9	.383	—	.396	77	—	87	
	District Value - - -						63.1	52.1	57.1	—1.8	74		39													
	Llangammarch Wells - - -	585	29.304	—	—	63.4	48.9	56.2	—3.2	71	2nd	35	1st	57.4	—	—	3.0	—	—	.384	—	—	81	—	—	
	PEMBROKE - - -	150	29.794	—0.007	—	59.5	52.7	56.1	—2.8	63	1st	48	1, 11, 12	55.5	57.3	55.8	1.5	2.0	1.1	.397	.410	.414	90	87	93	
	Clifton - - -	229	—	—	—	66.6	54.3	60.5	—2.1	75	2nd	49	1st	—	—	—	—	—	—	—	—	—	—	—	—	
	PORTLAND BILL - - -	23	29.942	—0.025	—	61.3	55.5	58.4	—3.3	65	28th	51	1st, 2nd	57.7	60.1	58.2	1.9	2.7	1.9	.420	.434	.427	88	83	88	
	Plymouth - - -	116	29.911	—	—	66.3	54.0	60.2	—1.3	74	19th, 20th	49	12th	59.8	62.0	59.0	3.0	4.5	3.1	.424	.416	.406	83	76	82	
9. ENGLAND, S.W.	Falmouth - - -	183	29.848	+0.042	—	64.7	54.3	59.5	—1.1	71	18th	51	12th	60.0	62.9	57.2	3.6	5.2	1.8	.406	.408	.415	78	71	88	
	Woolacombe - - -	79	29.877	—	—	62.1	54.9	58.5	—3.6	66	1st,															



CLIMATOLOGICAL STATIONS, at 7 a.m., 1 p.m. and 6 p.m. or 9 p.m. or at 7 a.m. and 6 p.m. at TELEGRAPHIC REPORTING during the Month of JULY 1909.

Earth Temperature.		BRIGHT SUNSHINE.				CLOUD (0-10.)			RAIN AND OTHER FORMS OF PRECIPITATION.				WEATHER. No. of Days of								WIND.												STATIONS.	
At 1 foot depth.	At 4 feet depth.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	Mean Amount.			Total Fall.	Diff. from Normal.	Most in a day.		Precipitation.	Snow.	Hail.	Thunderstorm.	Clear Sky.	Overcast.	Fog.	Ground Frost.	Wind-force 8 and above.	No. of Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.												
						I.	II.	III.			Amount.	Day.										Forces 4-7.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.			
62.6	—	192	—	39	—	7.0	—	6.1	2.68	+0.27	1.15	27th	14	0	0	0	2	10	0	—	0	4	15	4	0	0	0	2	19	14	8	Reading.		
—	58.7	189	-46	39	-9	7.1	—	6.5	3.75	+1.25	1.48	27th	20	0	1	1	0	12	1	0	0	20	0	4	0	0	2	4	20	15	17	Salisbury.		
—	—	—	—	—	—	7.5	—	—	2.71	+0.60	0.77	27th	14	0	0	2	2	17	0	0	0	15	1	2	0	0	0	3	15	6	4	Brighton.		
62.4	58.7	201	—	41	—	6.6	—	—	2.05	-0.20	1.05	27th	11	0	0	1	3	11	0	0	0	19	0	4	0	0	0	0	5	15	7	Portsmouth.		
61.1	58.0	187	-53	38	-11	7.4	—	6.1	2.57	+0.26	0.82	27th	16	0	0	1	4	13	0	—	0	1	0	5	4	0	2	1	16	20	14	Eastbourne.		
—	—	—	—	—	—	7.9	7.5	7.4	2.81	+1.14	0.54	16th	20	0	0	4	0	16	4	—	0	67	0	7	1	0	1	5	49	17	13	Dungeness.		
61.8	57.8	180	-60	37	-12	7.4	—	6.2	2.28	+0.07	0.50	27th	19	0	0	3	0	14	1	0	0	24	2	4	1	0	0	2	23	18	12	Hastings.		
—	—	192	-32	39	-7	6.7	—	4.8	2.71	+0.13	1.08	27th	14	0	0	2	4	10	0	0	0	18	0	2	3	0	0	0	29	2	26	Southampton.		
—	—	190	-31	39	-6	7.3	—	—	2.11	-0.19	0.99	27th	14	0	0	1	1	16	0	—	0	21	0	5	0	0	0	4	24	20	9	Ventnor.		
61.3	57.7	183	-33	37	-7	7.3	—	6.2	2.62	+0.43	1.48	—	16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
—	57.1	188	—	38	—	7.6	—	6.0	2.97	—	1.12	27th	14	0	1	2	0	10	0	0	0	3	0	4	3	0	2	1	21	19	12	Tottenham.		
60.7	55.9	163	—	33	—	7.1	—	—	3.49	+0.92	1.14	27th	18	0	0	1	6	16	0	0	—	—	1	4	0	0	0	2	5	8	11	Camden Square.		
—	—	166	-15	34	-3	6.5	—	7.0	2.95	+0.57	0.88	27th	19	0	0	3	0	12	0	0	0	19	0	3	1	0	0	4	20	18	16	Westminster.		
—	58.2	179	-57	36	-11	7.8	—	6.4	3.16	+0.76	0.81	27th	18	0	1	3	1	14	0	0	0	6	0	8	1	0	1	4	27	13	8	Greenwich.		
59.9	—	—	—	—	—	7.5	—	6.2	3.36	+0.83	1.02	27th	19	0	0	2	2	13	0	0	0	4	4	7	0	0	0	2	12	26	11	Norwood.		
60.4	55.9	182	-26	37	-5	8.1	7.2	6.1	2.68	+0.30	0.95	27th	16	0	0	4	0	14	0	0	0	16	7	10	0	0	0	6	36	21	13	Kew.		
—	—	167	-17	34	-3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Bunhill Row.		
—	—	148	—	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Plumstead.		
—	—	—	—	—	—	9.0	—	8.7	7.14	+2.01	1.53	20th	23	0	0	1	0	22	0	—	0	32	11	18	1	0	0	3	0	27	2	—	Laudale.	
—	—	—	—	—	—	7.9	—	7.8	6.33	+2.15	1.15	20th	23	0	0	0	1	13	2	—	0	19	4	9	5	0	0	3	9	21	11	—	Poltalloch.	
—	—	129	-15	25	-3	8.6	—	7.8	3.46	+0.11	1.02	25th	20	0	0	0	0	20	0	0	0	6	9	2	1	2	0	0	13	27	8	—	Glasgow.	
—	53.9	—	—	—	—	7.2	—	7.1	5.38	+1.37	0.95	15th	21	0	0	0	2	14	0	—	0	17	5	5	1	2	0	1	5	24	19	—	Rothesay.	
—	—	—	—	—	—	8.0	—	—	5.83	+2.65	1.20	25th	19	0	0	0	4	22	3	0	0	26	2	4	0	0	6	2	24	6	18	—	Colmonell.	
59.0	56.4	—	—	—	—	8.0	—	7.4	3.46	+0.13	1.11	25th	15	0	0	1	0	13	0	0	0	17	0	5	2	1	0	2	23	11	18	—	Dumfries.	
—	—	—	—	—	—	—	—	—	4.06	+0.33	0.43	25th	21	0	0	0	—	—	0	—	0	7	0	4	3	0	1	4	14	6	30	—	Cally.	
—	—	172	-27	34	-5	7.3	—	6.7	5.04	+1.87	1.08	24th	19	0	4	4	0	12	1	0	0	31	1	2	2	1	3	2	14	22	15	—	Douglas.	
—	—	151	-22	30	-4	8.0	—	7.6	5.05	+1.44	1.53	—	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
62.4	58.8	168	-31	33	-7	7.5	—	7.1	4.99	+2.00	1.01	30th	22	0	0	1	0	16	0	0	1	47	1	2	1	0	2	2	12	31	11	—	Southport.	
59.1	55.9	120	—	24	—	—	—	—	4.63	+1.10	1.26	30th	21	0	0	1	—	—	0	0	0	4	0	4	2	1	2	9	20	19	5	—	Manchester (City).	
—	—	114	—	23	—	8.2	—	7.6	4.94	—	1.03	30th	22	0	0	0	0	15	0	0	0	7	4	3	2	1	0	6	19	18	9	—	" (Whit. Pk.).	
58.6	53.8	116	—	23	—	8.4	—	8.0	7.80	—	0.99	30th	26	0	2	3	0	17	0	0	0	31	0	0	2	0	0	5	16	28	11	—	Darwen.	
—	—	145	—	28	—	7.5	—	7.9	5.41	+1.43	0.89	25th	23	0	0	1	1	13	0	0	0	14	3	3	2	0	0	0	18	25	11	—	Aspatia.	
58.2	53.8	159	-19	31	-4	7.6	—	7.2	3.90	+0.73	0.82	24th	19	0	0	2	0	12	0	0	0	12	10	2	0	1	2	5	20	20	2	—	Newton Rigg.	
—	—	131	-48	26	-10	8.5	—	7.9	7.51	+3.32	1.01	15th	27	0	1	1	20	0	0	0	0	8	10	2	1	0	0	1	19	23	6	—	Stonyhurst.	
58.5	54.4	172	-16	34	-3	8.3	—	8.3	4.81	+1.80	0.95	15th	21	0	0	1	0	20	0	0	0	37	0	2	3	1	2	1	12	31	10	—	Blackpool.	
—	—	122	-42	24	-9	8.9	—	8.8	5.83	+2.24	1.09	30th	24	0	0	1	0	25	0	0	0	6	3	4	2	0	0	4	3	41	5	—	Manch'str (Prest).	
—	—	180	—	36	—	7.8	—	7.7	3.12	+0.22	0.53	15th	20	0	0	0	1	15	0	—	0	30	0	0	2	2	1	2	22	27	6	—	Liverpol. Bid.Obs.	
—	—	164	-21	33	-4	7.4	—	7.0	3.89	+1.33	0.73	15th	22	0	0	1	2	12	0	—	0	4	1	3	1	1	0	4	14	32	6	—	Llandudno.	
—	—	—	—	—	—	7.3	7.0	6.7	4.95	+2.36	1.54	24th	22	0	0	0	0	7	4	—	0	44	1	3	1	2	0	2	32	34	18	—	Holyhead.	
55.4	52.4	127	—	25	—	7.3	—	6.7	3.38	—																								



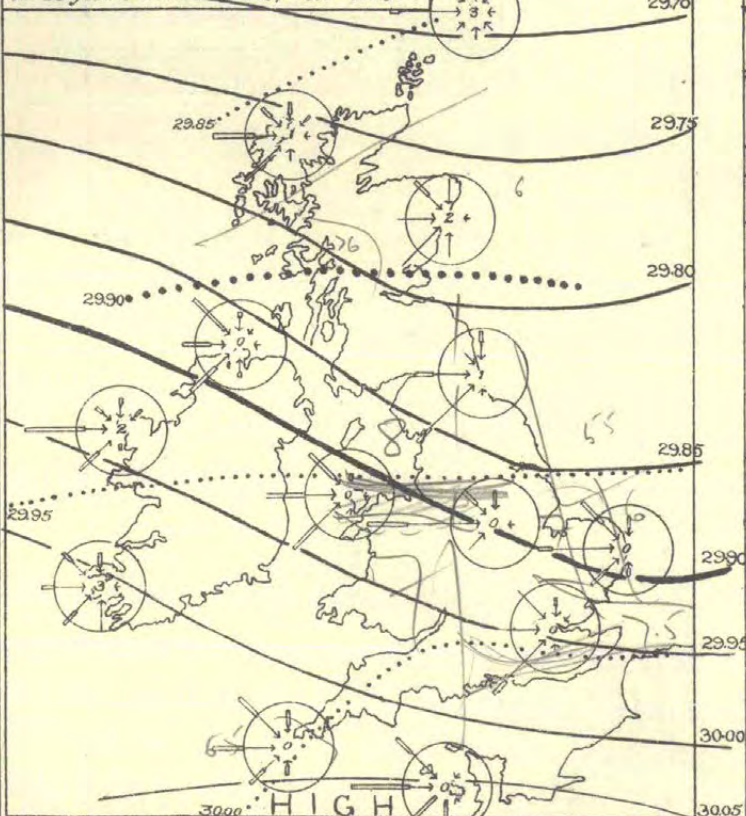
TABLE B.—SUMMARY of the OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE at additional STATIONS, JULY, 1909.

DISTRICT.	STATION.	Height of Gauge above M.S.L.	AIR TEMPERATURE.								Earth Temperature		Grnd Frost.	RAIN AND OTHER FORMS OF PRECIPITATION.				BRIGHT SUNSHINE.				
			Mean of		Mean of A and B.	Diff. of Mean from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.		Total Fall.	Diff. from Normal.	Most in a day.		Number of Days.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.
			A	B			Max.	Day.	Min.	Day.						Amt.	Day.					
			Max.	Min.																		
0 SCOTLAND, N.	p Balta Sound - - - S	31	55.8	47.9	51.9	—	59	24th	40	2nd	53.6	—	—	3.68	—	0.84	22nd	25	137	—	25	—
1. SCOTLAND, E.	p Crathes - - - S	140	65.2	47.9	56.6	—	75	16th	37	2nd	57.6	53.6	0	5.32	—	1.65	25th	18	124	—	24	—
	Stonehaven - - -	—	62.5	49.4	56.0	—	70	14th	44	2, 9, 27	—	—	—	4.55	—	1.97	25th	16	160	—	31	—
	p Balruddery - - - S	278	65.9	46.5	56.2	—	73	8th, 14th	36	1st	—	—	—	2.45	—	0.96	25th	19	176	—	34	—
2. ENGLAND, N.E.	Edinburgh - - -	253	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	168	+ 24	33	+ 5
	a West Linton - - - S	800	60.2	46.1	53.2	- 4.1	68	8th	33	1st	—	—	1	4.44	—	0.71	25th	23	137	—	27	—
	a Alnwick Castle - -	210	63.7	49.5	56.6	- 1.5	73	16th	35	2nd	—	—	—	2.54	- 0.27	0.61	15th	16	—	—	—	—
3. ENGLAND, E.	p Newcastle-on-Tyne -	152	65.1	52.1	58.6	—	73	2nd	41	2nd	—	—	—	2.38	- 0.37	0.44	24th	19	142	- 4	28	- 1
	p Ampleforth - - -	349	62.6	50.0	56.3	—	70	18th	40	2nd	—	—	—	2.48	—	0.36	29th	16	—	—	—	—
	p Tealby - - -	251	64.0	51.0	57.5	- 2.9	70	13th	46	2nd	—	—	—	5.41	+ 2.81	1.40	27th	15	—	—	—	—
4. MIDLAND COUNTIES	a Fulbeck - - -	180	66.6	51.5	59.1	- 1.9	73	13th	45	1st	—	—	—	3.39	+ 0.96	1.08	27th	18	—	—	—	—
	a Rauceby - - -	124	67.3	51.1	59.2	—	74	18th	46	2nd	60.9	55.1	0	3.68	+ 1.11	1.17	27th	16	180	—	36	—
	a Felixstowe - - -	10	64.3	53.4	58.9	- 3.1	74	17th	48	1, 2, 20	—	—	—	3.48	—	1.19	27th	16	205	—	41	—
5. ENGLAND, S.E.	a Rothamsted - - -	424	66.5	51.0	58.8	- 2.3	74	18th	44	1st	—	—	—	2.73	+ 0.10	0.55	27th	20	193	- 22	39	- 5
	a Shoburness - - -	13	67.9	53.9	60.9	- 2.4	76	18th	45	2nd	—	—	—	2.65	+ 0.84	0.96	27th	16	—	—	—	—
	a Southend-on-Sea -	100	67.5	52.3	59.9	—	76	18th	45	2nd	61.1	—	0	3.11	+ 0.99	1.11	27th	16	192	—	39	—
6. SCOTLAND, W.	a Harrogate - - -	476	62.9	50.0	56.5	- 2.3	69	2nd	41	2nd	54.6	52.9	0	3.77	+ 1.01	0.46	31st	19	136	—	27	—
	a Bradford - - -	439	63.3	51.4	57.4	—	71	2nd	41	2nd	57.7	53.2	0	3.30	—	0.80	30th	21	151	—	30	—
	a Cheadle - - -	646	64.4	49.4	56.9	- 2.0	71	9th, 13th	38	1st	—	—	0	4.93	+ 1.86	1.02	27th	22	—	—	—	—
7. ENGLAND, N.W.	a Bawtry - - -	65	66.5	51.0	58.8	- 2.2	73	3rd	42	2nd	—	—	—	3.54	+ 0.98	1.04	30th	15	—	—	—	—
	a Worksop - - -	56	67.0	51.2	59.1	- 1.7	74	13th	40	2nd	58.4	55.3	0	3.57	+ 1.11	0.88	27th	17	140	- 26	28	- 5
	a Mayfield (Staffs.) -	374	64.6	49.9	57.3	—	71	9th	37	2nd	—	—	0	4.25	—	1.10	27th	20	—	—	—	—
8. ENGLAND, S.W.	a Kingston-on-Soar -	125	66.4	50.9	58.7	—	72	18th	40	2nd	58.7	—	—	3.74	—	0.97	27th	21	—	—	—	—
	p Rugby - - -	379	66.4	50.5	58.5	- 2.2	75	17th	41	1st	—	—	0	2.89	—	1.14	27th	13	—	—	—	—
	a Raunds - - -	210	68.9	50.5	59.7	- 2.2	77	17th	43	1st	—	—	0	2.69	—	0.65	27th	15	—	—	—	—
9. ENGLAND, S.W.	a Winslow - - -	379	67.3	51.1	59.2	—	76	17th	41	1st	—	—	—	4.06	—	0.78	27th	19	—	—	—	—
	a Hereford - - -	291	68.7	51.4	60.1	- 1.1	75	21st	42	2nd	—	—	0	2.99	- 0.09	1.00	27th	14	—	—	—	—
	a Cirencester - - -	446	65.9	50.2	58.1	- 2.2	71	17, 18, 20	42	2nd, 20th	—	—	0	2.24	- 0.61	0.86	27th	18	179	- 20	36	- 4
10. ENGLAND, S.W.	a Epsom - - -	160	68.1	52.4	60.3	—	77	18th	42	1st	—	—	0	3.69	—	0.86	27th	20	—	—	—	—
	a Wokingham - - -	216	68.1	50.2	59.2	—	75	18th	37	2nd	—	—	—	2.53	—	1.06	27th	17	—	—	—	—
	a Maidenhead - - -	99	71.3	51.9	61.6	—	78	20th, 27st	42	1st	—	—	1	3.40	+ 0.85	1.09	27th	19	—	—	—	—
11. ENGLAND, S.W.	a Marlborough - - -	424	65.2	51.2	58.2	- 2.0	72	18th	40	20th	—	—	0	2.73	+ 0.03	0.86	27th	19	168	- 22	34	- 5
	a Bucklebury - - -	409	66.5	51.0	58.8	—	72	18th, 20th	43	1st	—	—	0	2.37	—	0.86	27th	19	—	—	—	—
	a Swarraton - - -	310	65.6	51.3	59.0	- 1.3	73	18th	40	2nd	—	—	—	2.71	+ 0.14	1.22	27th	16	—	—	—	—
12. ENGLAND, S.W.	a Margate - - -	85	67.2	54.0	60.6	- 1.8	74	18th	50	1st, 27th	59.3	56.1	0	2.86	+ 0.83	0.76	27th	15	162	- 45	33	- 9
	Broadstairs - - -	140	—	—	—	—	—	—	—	—	—	—	—	3.58	—	0.70	27th	15	176	—	36	—
	Ramsgate - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	192	—	39	—
13. ENGLAND, S.W.	a Wisley - - -	150	67.8	52.9	60.4	- 3.1	75	18th	42	1st	60.4	57.2	0	2.35	—	0.80	27th	15	196	—	40	—
	a Dover - - -	231	64.0	52.4	58.2	—	71	19th	46	3rd	58.0	53.9	0	2.43	—	0.62	27th	17	179	—	37	—
	a Tunbridge Wells -	421	67.0	51.0	59.0	- 2.4	75	18th	43	1st	61.5	—	—	2.93	+ 0.53	0.68	27th	16	183	- 28	37	- 6
14. ENGLAND, S.W.	a Matfield - - -	320	67.1	51.8	59.5	—	76	18th	43	1st	—	—	0	3.01	—	0.65	27th	16	—	—	—	—
	p Folkestone - - -	121	63.6	52.8	58.2	—	68	29th	45	3rd	—	54.5	—	2.21	+ 0.03	0.58	27th	16	183	—	37	—
	Littlestone - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	168	—	34	—
15. ENGLAND, S.W.	a Bexhill - - -	27	64.2	54.2	59.2	—	69	28th	43	1st	62.2	—	0	2.36	—	0.65	27th	18	179	—	37	—
	Hove - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	189	—	39	—
	p Lewes - - -	58	64.9	53.4	59.2	—	71	20th	45	2nd	—	—	—	2.44	—	0.70	27th	23	—	—	—	—
16. ENGLAND, S.W.	a Worthing - - -	36	65.3	53.4	59.4	- 2.1	72	28th	44	1st	61.6	57.4	0	2.15	+ 0.08	1.02	27th	12	201	—	41	—
	a Bognor - - -	20	65.0	53.9	59.5	—	70	28th	45	1st	—	55.2	0	1.76	—	0.88	27th	12	205	—	42	—
	Westbourne - - -	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	202	—	41	—
17. ENGLAND, S.W.	a Totland Bay - - -	140	64.3	54.2	59.3	- 1.4	70	19th	45	2nd	—	—	0	2.34	- 0.03	1.07	27th	13	182	—	37	—
	a Sandown - - -	20	68.5	54.7	61.6	—	74	19th	49	1st	—	—	—	2.21	—	1.07	27th	13	204	—	42	—
	p Bournemouth - - -	145	67.6	53.2	60.4	—	75	19th	44	2nd	61.1	59.1	—	1.71	—	0.96	27th	14	206	—	42	—
18. ENGLAND, S.W.	p Oban - - -	20	61.6	50.9	56.3	—	71	1st	44	1st	—	—	0	5.60	—	1.06	23rd	23	127	—	24	—
	a Thorntonhall (Lanarkshire)	440	61.7	47.4	54.6	—	67	8th	39	1, 12, 28	—	—	0	4.40	—	1.31	25th	21	135	—	26	—
	a																					



## 1. BAROMETER AND WIND AT 7 A.M.

The dotted lines indicate the normal distribution of pressure in July based on 35 years' observations, 1871-1905.



WIND ROSES. The arrows fly with the wind and indicate frequency and force, thus:

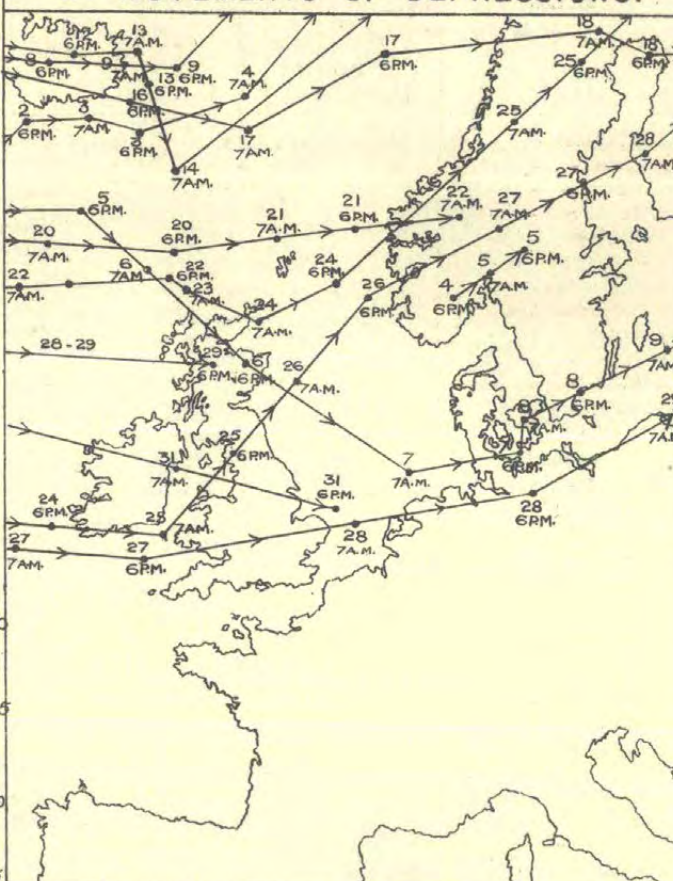
Light moderately strong  
30 Obs = 1 inch

## 3. DISTRIBUTION OF MEAN TEMPERATURE.

Reduced to sea level by a correction of 1°F for 300ft.



## 2. MOVEMENTS OF DEPRESSIONS.

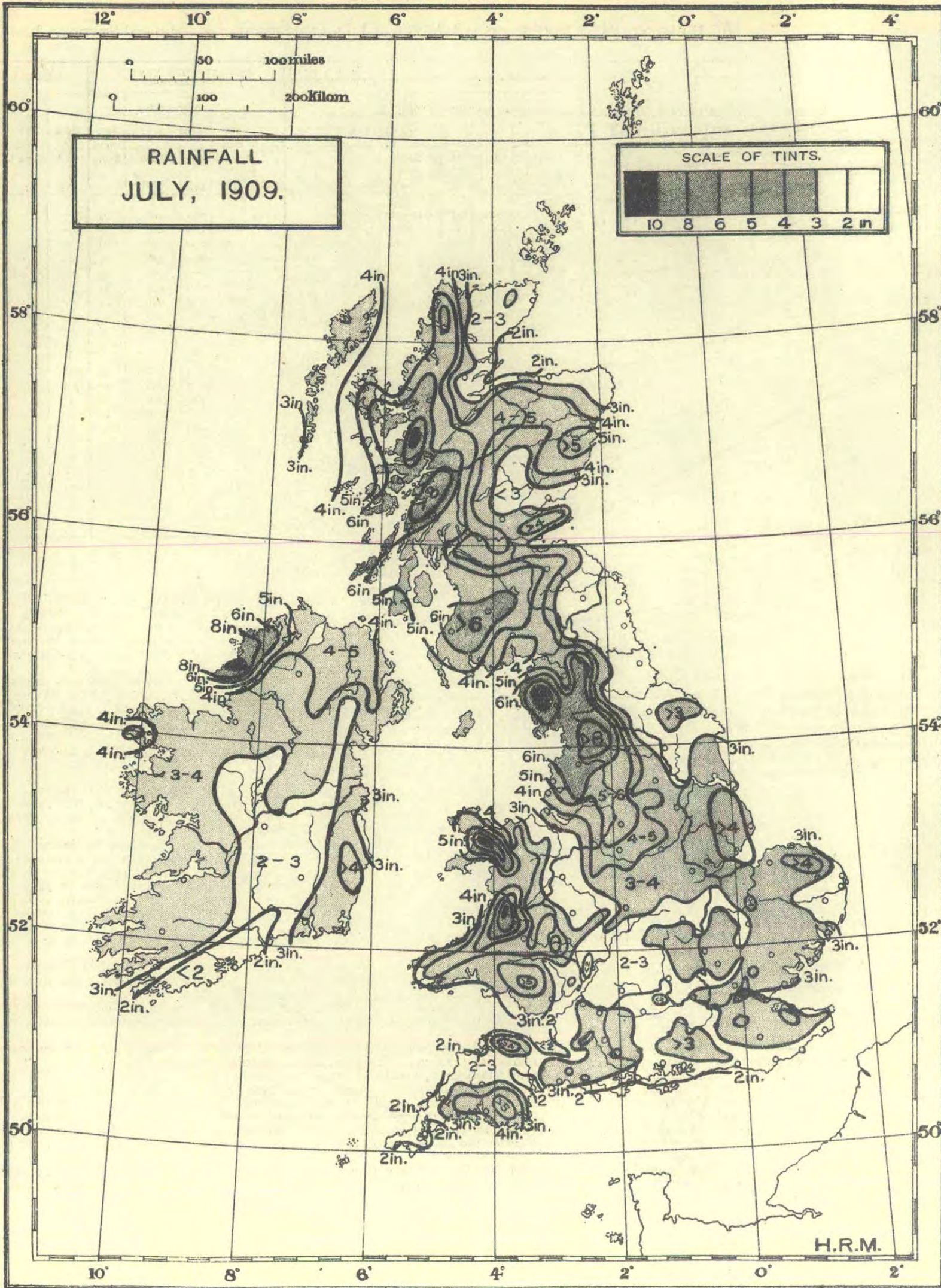


## 4. BRIGHT SUNSHINE, IN HOURS.

Isobels are shown for 100, 140, 180, and 220 hrs.







Scale 1 : 5,000,000.



TABLE B (continued).—SUMMARY of the OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE at additional STATIONS, JULY, 1909.

DISTRICT.	STATION.	Height of Gauge above. M.S.L.	AIR TEMPERATURE.								Earth Temperature		Grnd Frost.	RAIN AND OTHER FORMS OF PRECIPITATION.					BRIGHT SUNSHINE.			
			Mean of		Mean of A and B.	Diff. of Mean from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.		No. of Days.	Total Fall.	Diff. from Normal.	Most in a day.		Number of Days.	Total in Hours.	Diff. from Normal.	Per Cent.
			A	B			Max.	Day.	Min.	Day.			Ins.				Ins.					
			Max.	Min.														Ins.				
			Ft.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
S. ENGLAND, S.W.- (continued)	a Swansea - - -	24	66.2	54.9	60.6	—	71	1st, 2nd	48	1, 10, 11th	—	—	0	3.21	—	0.77	9th	24	—	—	—	—
	a Shaftesbury - -	722	65.0	51.1	53.1	- 2.1	74	19th	45	1st	59.9	—	—	3.80	+ 0.96	1.52	27th	18	—	—	—	—
	a Arlington - - -	618	61.9	51.6	56.8	- 2.6	69	2nd	46	2nd, 5th	—	—	—	4.26	+ 0.11	0.82	9th	28	—	—	—	—
	a Cullompton - -	202	68.2	53.0	60.6	- 1.1	75	18th	45	27th	—	—	0	2.85	- 0.17	0.94	27th	19	167	- 21	34	- 5
	Torquay - - -	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	233	+ 10	48	+ 2
	a Weymouth - - -	21	66.3	55.1	60.7	—	71	19th	46	2nd	—	—	—	1.69	—	0.94	27th	11	228	7.4	47	—
	a Newquay - - -	100	61.8	55.1	58.5	- 1.6	66	2, 30, 31st	51	2nd, 20th	60.4	—	—	1.63	- 0.95	0.42	10th	15	185	- 29	38	- 6
9. IRELAND, N.	Salcombe - - -	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	219	—	45	—
	a Penzance - - -	54	66.1	55.6	60.9	—	72	1st	51	23rd	—	—	—	2.09	—	0.58	26th	19	215	6.9	44	—
10. IRELAND, S.	p Dublin (Glasnevin) -	67	65.3	51.4	58.4	- 0.8	74	2nd	43	27th, 28th	—	—	0	3.12	+ 0.37	0.49	24th	18	—	—	—	—
	a Kingstown - - -	42	65.2	53.3	59.3	—	72	3rd	47	28th	—	—	—	1.86	—	0.41	24th	17	134	—	27	—
	p Clongowes Wood College	245	—	—	—	—	—	—	—	—	—	—	—	2.75	—	0.61	24th	21	138	—	28	—
	a Mountmellick - -	253	62.6	50.9	56.8	—	72	20th	40	12th	—	—	—	2.81	—	0.82	25th	20	—	—	—	—
	p Newcastle (Co. Wicklow)	256	65.3	51.4	58.4	—	73	3rd	45	28th	—	—	—	2.38	—	0.66	24th	17	—	—	—	—
	a Kilkenny - - -	212	65.4	51.9	58.7	- 1.0	71	3rd	41	27th	—	—	—	1.79	- 0.91	0.47	24th	16	—	—	—	—
	a Cahir - - -	199	65.5	51.7	58.6	- 1.0	75	1st	42	12th	—	—	—	2.63	—	0.83	24th	21	—	—	—	—
11. ENGLISH CHANNEL	a Foynes - - -	108	62.6	53.2	57.9	- 0.6	71	1st	46	27th	—	—	—	3.33	+ 0.29	0.71	9th	26	—	—	—	—
	a Ballinacurra - - -	34	66.9	52.1	59.5	—	74	18th	46	14, 19, 27	—	—	—	1.35	—	0.50	26th	11	164	—	33	—
	a Guernsey (Villa Carey) -	180	65.1	54.6	59.9	- 1.5	71	2, 20, 31st	47	2nd	—	—	—	1.46	- 0.89	0.50	9th	17	230	- 26	48	- 5

## NOTES ON THE STATISTICAL TABLES.

**Hours of Observation.**—The following types are used to indicate the hours of observation at Stations included in Table A:—Clarendon, Normal Climatological Stations—I, 9 a.m. [II, 3 p.m.], III, 9 p.m. Black Capitals, telegraphic reporting normal climatological stations—I, 7 a.m., II, 1 p.m., III, 9 p.m. Roman, telegraphic reporting stations—I, 7 a.m., [II, 1 p.m.], III, 6 p.m. Italic, auxiliary climatological stations—I, 9 a.m. only (9 a.m. and 6 p.m. at Ventnor). The summaries are based on observations made three times a day wherever the data are available, except in the case of the element pressure (see below). At stations shown in clarendon type the maximum and minimum temperatures are read at 9 p.m.; at the remaining stations these observations are made at I. In Table B the letters *a* and *p* indicate whether the readings of the maximum and minimum are taken at the hours of morning or evening observation.

**Barometer.**—The correction for latitude has not been applied to the readings quoted in the Tables. It is applied to the readings at sea level from which the chart showing the mean monthly distribution of pressure is prepared. The values given in the tables are for station level. The values printed are (1) for stations shown in clarendon type, the means of observations at 9 a.m. and 9 p.m.; (2) for stations shown in Capitals, the means of observations at 7 a.m., 1 p.m., 9 p.m.; (3) for stations shown in Roman type, the means of observations at 7 a.m. and 6 p.m.; (4) for stations shown in italic type, the means of observations at 9 a.m. The column headed C gives the correction for diurnal variation required to reduce the means of observations at fixed hours to true diurnal means, based on the analysis of the values obtained at the four observatories for the period 1871–1905. The difference from normal is based upon the 7 a.m. readings only, except in the cases of Kew, Greenwich, Aberdeen, Valencia and Falmouth (see below).

**Rainfall.**—The amounts are those for the 24 hours commenced at the time of morning observation.

**Weather Phenomena.**—The number of days of Rain, Snow, Hail, Thunderstorm, Fog, Ground Frost, and Gale, are counted irrespective of the hours at which the phenomena occur. Except in the cases of rainfall (see above) and ground frost the day is the civil day. A day is reckoned as a day of “clear sky,” if the mean of the estimates of the “amount of cloud” at the fixed hours of observation is less than 2, and as an “overcast” day if the mean is greater than 8. Days of Ground Frost are days on which the minimum thermometer on the grass falls to 30° or below; the “day” is taken as the 24 hours ending at 9 a.m.

**Wind Summaries.**—The results given under wind direction, and the number of observations of calms and of fresh or strong wind, are based on the observations at fixed hours. At Deerness, Aberdeen, Valencia, Falmouth, Kew, Glasgow, Stonyhurst and Armagh the wind observations are based on the records of a standard Robinson anemometer (factor 2.2). Velocities of between 13 and 38 miles in the hour have been entered as “fresh or strong winds,” velocities of 39 miles in the hour, or above, as gales.

**Averages.**—The normal averages used for stations are—Pressure, Temperature, and Rainfall for the 35 years 1871–1905; Bright Sunshine for the 25 years 1881–1905. The values are published in Appendix III. to the Weekly Weather Report for 1906. For the Royal Observatory, Greenwich, and the Radcliffe Observatory, Oxford, averages for longer periods are used. See Notes in Monthly Weather Reports for 1908. Monthly averages of pressure at telegraphic reporting stations for the epoch 8 a.m. are published in Appendix I. to the Daily Weather Report. In order to render these averages comparable with the data for the present month, a correction, based on the results for the four observatories as published in “Hourly Readings at the Observatories under the Meteorological Council,” has been applied to each of them before the figures given in the column headed “Barometer—Difference from Normal” were computed.

**Aberdeen, Falmouth, Kew, Valencia, Oxford, Greenwich.**—The figures quoted in the second line assigned to these observatories in the columns for Barometer and Mean Temperature are the true daily means computed from the hourly tabulations of the traces of the photographic recording instruments. For Kew, Falmouth, Aberdeen and Valencia the divergences of the means of the readings at 9 a.m. and 9 p.m. from their normal averages are also given.

**Royal Observatory, Greenwich.**—The earth temperatures are taken at a depth of 3 ft. 2 ins. The daily rainfall amounts are those for the 24 hours comprising the civil day. The number of days in the month which were persistently overcast from midnight to midnight was 1, the number of persistently cloudless days was 0, the number of persistently foggy days was 0.

**¶ Mean Values for Districts.**—The stations used in the Weekly Weather Report for the computation of “district values” of rainfall and temperature are distinguished by the sign ¶, those used for the computation of “district values of bright sunshine” by the sign §. These stations are distributed between Tables A and B. The monthly mean values for districts given in this Report for maximum, minimum and mean temperature, duration of bright sunshine, number of rain days and amount of rainfall, are computed from the data for these “representative” stations. The mean temperature for districts is computed in the manner shown in the preface to this and previous volumes of the Weekly Weather Report. The monthly mean values for districts for “amount of cloud” are computed from the data for all stations included in Table A. The extreme values of the various elements in each district are printed in distinctive type. In the lines devoted to district values, the columns referring to absolute highest and absolute lowest temperature and the maximum amount of rainfall in a day contain the extreme values for the district at any station included in either table of the Report. The averages for districts with which the current values are compared are for the 25 years 1881–1905, as in the case of the corresponding values published in the Weekly Weather Report.

**Meteorological Societies.**—Information for stations marked ¶ is supplied by the Royal Meteorological Society, and that for stations marked § is supplied by the Scottish Meteorological Society. Stations marked S are in connexion with the Scottish Meteorological Society and those marked M with the Royal Meteorological Society, as well as with the Meteorological Office.



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# MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

(Supplement to the Weekly Weather Report.)

SUMMARY OF OBSERVATIONS COMPILED FROM THE RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS IN THE UNITED KINGDOM, WITH

A CHART OF RAINFALL CONTRIBUTED BY THE BRITISH RAINFALL ORGANISATION.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE,

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THIRTY-FOURTH YEAR.  
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AUGUST, 1909.

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## SUMMARY OF OBSERVATIONS.

**Pressure, Winds and Weather.**—There were during the period now under review two well-marked types of pressure distribution over the British Isles and Western Europe. Almost constantly through the first half of August an anticyclonic system ruled. It varied somewhat in position and shape, at times extending from the Atlantic eastward across these Islands to Russia, at others contracting and occupying only the western regions, with its maximum of pressure further south and south-west. At no time, however, was it of any great intensity, the barometer nowhere passing above 30.4 ins. On the east coast of England pressure increased to 30.3 ins. on the 5th, and in the south-west of Ireland it touched 30.38 ins. on the 11th, the highest record in the kingdom. After the 15th the conditions underwent a decided change, the anticyclone breaking up, and the distribution of pressure assuming a very unsettled type, a number of disturbances advancing from the northern portion of the Atlantic, several crossing the British Isles, others passing eastward in the neighbourhood of Iceland. Some of these more northern ones were of moderate depth, the barometer descending to nearly 29 ins. on a few occasions in Iceland and northern Norway. As a rule the depressions which visited this country were very shallow. There were few days on which the barometer fell as low as 29.5 ins., but at Portland Bill 29.37 ins. was recorded on the morning of the 17th, and at Sumburgh Head the same reading on the 20th. For the whole month, therefore, the extreme range of pressure was unusually small, greatest in the south-west of England, where it did not amount to an inch, and least, about  $\frac{1}{2}$  in., from Malin Head across to Leith and Shields. The mean values for the month ranged from a little above 30.05 ins. at some south-western stations and in France to 29.81 ins. at Sumburgh Head, and 29.61 ins. at Reykjavik (Iceland), the Shetland value being slightly below the normal, while all other stations showed an excess, from 0.02 in. at Wick to 0.12 in. at Roche's Point and Valencia. The general distribution did not differ to any extent from the usual Westerly type, but the mean gradient was a little greater, and this is reflected in the comparative frequency of strong winds during the month. Gale force was but rarely experienced—on the 2nd from North-East at Yarmouth; on the 4th from South at Stornoway; on the 8th from West at Wick; and on the 20th from West at Malin Head (a strong gale).

In the rear of the series of disturbances which occasioned the very unsettled weather towards the close of July a decided increase of pressure set in on the last night, with the expansion eastward of an anticyclonic system out on the Atlantic. The observations for the opening day of August, however, afforded a very interesting instance of the development of a disturbance within a high pressure system, and within the region of rising barometer. On the morning of the 1st it was found that the ascent of the barometer was not so marked over southern Scotland as in neighbouring districts, so that a depression was forming; there was already a cyclonic circulation of light airs, and rain had set in over southern Ireland, North Wales and eastern Scotland. In the course of the day the minimum pressure was transferred to the Midland districts, where there was a slight decline of the barometer. Except in a few situations there was hardly any wind, but the weather was of an exceedingly unsettled type, rain falling pretty generally, heaviest over England, and particularly over the north-eastern counties, between the Wash and the Tyne, where many amounts exceeding an inch were measured, the records ranging upwards to 1.3 in. at Skegness, 1.4 in. at Scarborough, 1.5 in. at Ampleforth, 1.6 in. at Hillington, 1.7 in. at Whitby, and the very large quantity of 2.7 ins. at Hull.

The morning of the 2nd found the disturbance passing away to the eastward across the Low Countries, the anticyclone was becoming established over these Islands, and a spell of fine, dry and warm weather had set in. At Cuckfield, Sandown, Totland Bay, Guernsey and Ballinacurra no rain fell during the first sixteen days of the month; at Harefield, in West Middlesex, none was measured in the sixteen days, 3rd to 18th; and over a considerable part of England and locally in Ireland there were fourteen or fifteen consecutive rainless days. This period was also the brightest which the country had experienced since May, the sunshine records in all districts being well above the normal. Temperature consequently improved very decidedly after the cold of the early days, many of the shade minima on the 3rd being below 40°, Balmoral 30°. From the 6th to the 15th the thermometer rose to 80° and upwards at numerous stations, at some of them on every day. By the 7th a maximum of 85° was reached at Maidenhead, and later still higher levels were attained, all at stations in England, the highest values being 89° at Cullompton, and 90° at Maidenhead on the 12th, and 92° at Epsom on the 15th.

The end of this fine period was indicated on the 15th by the break up of the high pressure system as it drifted from these islands towards central Europe, disturbances at the same time spreading down upon us from the Iceland region, and colder, unsettled and rainy weather soon became

general over the country. While the main depression was far out on the Atlantic on the 15th, wireless reports from steamers showed the formation of a small secondary beyond the south-west of Ireland, and during its passage across to the Wash thunderstorms were experienced in many parts of Ireland and England, and at Whitby 1.3 in. of rain fell on the 16th; at Hull 0.6 in. fell in 20 minutes. On the morning of the 17th steamer reports disclosed the formation of another disturbance in about 51° N., 18° W. It advanced to the mouth of the English Channel by evening, and next day moved across south-eastern England to the middle of the North Sea, where it dispersed. This was one of the two deepest depressions of the month, and it was accompanied by strong or high winds from various points of the compass over the southern half of England, attaining the force of a gale locally on the French coast. During the progress of this system only a few places, nearly all in the eastern counties, reported thunderstorms. The most striking feature was the general and very heavy rain which accompanied the disturbance. At numerous stations in England and Wales more than an inch was registered as the result of the downpour of the 17th. Some of the principal falls were 1.4 in. at Bournemouth, Winslow and Hull; 1.5 in. at Parkstone, Oxford, Bawtry, Workshop and Bridlington; 1.6 in. at Temple Bruer and Rauceby; 1.7 in. at Beaconsfield and Tealby; 1.9 in. at Marlborough; 2.2 ins. at Salisbury (in 5 hours); and 2.6 ins. at Maidenhead (nearly all within 2 hours). Similarly large quantities were reported at other places in the district round Maidenhead.

A disturbance which appeared off the south-west of Iceland on the 18th made very slow progress on its journey to the eastward, its centre not passing Shetland until the night of the 21st, dispersing on reaching Southern Norway next morning. This was the second moderately deep depression which visited us. It produced a good deal of squally strong to high South-Westerly and Westerly winds on various sections of our coasts, and unsettled weather generally. On the 19th Kirkby Lonsdale had over an inch of rain, and Kinlochewe 1.6 in.; on the 20th Dungeness 1.1 in., and Lancaster 1.5 in.; and on the 21st and 22nd thunderstorms occurred at a number of places in Ireland and England, but without exceptionally large rainfalls.

Wireless reports showed a new disturbance in about 58° N., 25° W., on the morning of the 22nd. It subsequently moved slowly across Scotland to the North Sea by the 25th, on which date thunderstorms occurred in many of our eastern counties, and very heavy rain fell in the south-east, as much as 1.3 in. at St. Leonards, and 1.4 in. at Dungeness.

A small secondary depression which appeared in about 54° N., 19° W., on the 28th was marked by some heavy rainfalls in the west as it moved eastward across Ireland and England, 1.3 in. being registered at Dunfanaghy.

This disturbed period, covering the second half of the month, was cold as well as wet, the afternoon temperatures being frequently below 60°, and on the 30th the maximum at Deerness was as low as 51°. As a rule the nights were not so cold, but on several occasions there were minimum values below 40°, down to 34° at Llangammarch Wells on the 28th.

Much fog was experienced on the western coasts daily through the first half of the month, at times very dense and interfering with navigation, especially between the 10th and 15th. With the exception of the 6th and 9th there was not much fog on the east coast of Britain, and along the English Channel it was only occasionally reported locally. The second half of the month was almost entirely free on all coasts.

The temperature of the sea water along our shores was warmer than it was in July, generally by about 2° or 3°. Off the west of Ireland and the south-east of England the sea was somewhat warmer than the air on shore, but in most localities it was colder, by as much as 4° off the north-east of England and of Ireland.

Aurora was reported at Sumburgh Head on the 2nd and 4th.

**Rainfall.**—There was an excess of rain over the north east and south-east counties of England, all other districts returning a deficiency, the loss in the west being large. Southern Ireland was exceptionally dry. Ballinacurra had only 0.3 in. for the month, Kilkenny less than  $\frac{1}{2}$  in., the loss at many stations exceeding 3 ins., at Valencia as much as 4.4 ins. The largest aggregates reported were 6 ins. at Kinlochewe, and 6.7 ins. at Glencarron. Rain was registered on 25 days at Glencarron and Fort William, and on 24 days at Sumburgh Head, but in many localities on less than 10 days, 6 at Ballinacurra and Waterford, and in Guernsey, 5 at Villa Carey, and 4 at Brooklyn.

**Bright Sunshine.**—There was an excess of bright sunshine in all districts, to the extent of 2 hours per day at some stations in the south-west of England, where the records showed 62 per cent. of the possible duration. Weymouth totalled 276 hours, Penzance 275, Falmouth and Torquay 273, and Salcombe 272 hours. The smallest aggregates were 123 hours at Whitworth Park, Manchester, and 117 hours (25 per cent. of the possible) at Fort Augustus.



TABLE A.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at 9 a.m., 3 p.m. and 9 p.m. at NORMAL STATIONS in the BRITISH ISLANDS

DISTRICT.	STATION.	Height of Barometer at Station.	BAROMETER.			AIR TEMPERATURE.								HYGROMETER.											
			Mean at 32° F. at Level and Latitude of Station.	Diff. from Normal.	Cor. for Diurnal Range.	Mean of		Mean of A and B.	Diff. from Normal.	Absolute Maximum and Minimum.				Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.											
						A	B			Max.	Day.	Min.	Day.	Dry Bulb.			Dep. of Wet.			Vap. Pressure.			Humidity.		
														I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
<b>0. SCOTLAND, N.</b>																									
Islands.	CASTLEBAY - -	48	29'841	+ '075	- '001	57'7	50'9	54'3	-2'6	60	1, 11, 16	47	31st	53'9	56'1	54'2	1'4	1'7	1'6	In. '376	In. '401	In. '375	% 91	% 88	% 89
	Deerness - -	163	29'656	-	- '004	57'6	48'6	53'1	-0'9	65	15th	43	23rd	54'6	-	51'7	2'9	-	1'7	'350	-	'342	81	-	88
	SUMBURGH HEAD	126	29'651	- '006	- '001	56'5	46'9	51'7	-1'3	65	18th, 19th	38	5th, 8th	51'4	53'4	50'7	1'7	2'6	1'9	'336	'337	'322	89	83	88
	STORNOWAY -	52	29'789	+ '052	- '001	59'4	49'2	54'3	-0'3	64	2, 15, 16	41	23rd	53'2	58'0	53'3	1'9	3'5	1'8	'352	'380	'357	87	79	88
Mainland.	Wick - -	80	29'747	+ '023	+ '003	61'3	47'6	54'5	-0'4	70	7th, 15th	37	3rd	53'8	-	54'5	2'7	-	2'7	'340	-	'350	82	-	82
	Strathpeffer -	210	29'645	-	- '005	63'2	49'6	56'4	+1'4	72	15th	40	3rd	57'0	-	54'5	3'5	-	2'9	'364	-	'345	78	-	81
	Glencarron -	504	29'325	-	- '004	59'2	48'4	53'8	-1'1	65	15th	41	17th	53'9	-	52'6	2'3	-	1'8	'351	-	'348	85	-	88
	Fort Augustus -	78	29'819	-	- '004	62'4	49'7	56'1	-0'8	71	10th	37	3rd	56'0	-	55'3	3'1	-	2'5	'363	-	'367	80	-	84
	Fort William -	88	29'877	-	- '004	62'0	49'8	55'9	-1'4	69	15th	39	3rd	55'7	-	54'2	2'9	-	2'2	'364	-	'358	82	-	85
	Dunrobin Castle	16	29'831	-	- '004	62'5	49'4	56'0	+0'2	73	9th	43	3rd	57'0	-	54'4	4'3	-	3'0	'349	-	'344	75	-	81
District Value -						60'6	48'7	54'3	-0'2	73		37													
<b>1. SCOTLAND, E.</b>																									
Northern Part.	Tillypronie -	1120	28'682	-	- '005	63'5	45'5	54'5	+1'0	76	10th	39	3rd	54'6	-	52'0	3'7	-	2'2	'334	-	'337	78	-	86
	Dundee - -	164	29'724	-	- '005	65'4	50'8	58'1	+0'5	78	9th	38	26th	58'3	-	55'7	3'3	-	2'3	'394	-	'383	80	-	86
	Nairn - -	82	29'762	+ '039	+ '003	63'5	48'0	55'8	-0'9	74	8th	37	3rd	53'1	61'0	59'1	2'4	5'5	4'7	'339	'371	'363	83	70	72
	Gordon Castle	107	29'760	-	- '005	64'8	48'0	56'4	-0'3	77	15th	40	3rd	58'8	-	55'2	4'5	-	2'4	'365	-	'368	74	-	85
	Aberdeen - -	90	29'783	+ '033	- '005	62'5	51'1	56'8	+0'3	76	12th	44	30th	57'7	60'2	54'8	4'5	5'6	2'8	'350	'357	'351	73	68	82
	Balmoral - -	927	29'777	+ '032	-	64'3	45'9	55'1	+1'3	78	8th	30	3rd	53'5	-	-	-	-	-	-	-	-	-	-	-
	Crieff - -	436	29'434	-	- '005	66'6	49'3	58'0	+0'5	80	10th	40	26th	57'7	-	55'4	3'9	-	2'7	'356	-	'363	77	-	83
	Leith - -	37	29'849	+ '050	+ '003	65'1	52'1	58'6	-0'1	76	8th, 15th	44	3rd	55'4	-	61'7	2'3	-	5'3	'374	-	'386	86	-	70
Southern Part.	Marchmont -	500	29'378	-	- '005	64'4	49'6	57'0	+0'7	78	9th, 10th	41	3rd, 26th	57'7	-	54'8	4'1	-	2'9	'361	-	'350	76	-	81
District Value -						64'1	48'9	56'1	+0'3	80		30													
<b>2. ENGLAND, N.E.</b>																									
Northern Part.	Seaham - -	138	29'777	-	- '006	65'6	52'2	58'9	+0'9	78	12th, 15th	46	22nd, 31st	60'2	-	56'5	4'0	-	2'1	'404	-	'399	76	-	86
	Whitby - -	145	29'753	-	- '006	68'5	52'7	60'6	+2'2	82	15th	47	21st, 22nd	60'8	-	58'1	3'9	-	2'5	'405	-	'408	78	-	84
	Cockle P'rk (Morpeth)	381	29'575	-	- '006	64'1	49'4	56'8	-	75	9th	41	22nd	58'8	-	55'2	3'2	-	1'7	'403	-	'394	81	-	89
	Shields - -	117	29'791	+ '057	+ '003	65'5	50'7	58'1	+0'3	78	15th	42	22nd	56'2	-	61'2	2'2	-	4'1	'388	-	'411	86	-	77
	Durham - -	352	29'559	-	- '006	66'6	50'4	58'5	+0'2	81	9th	43	22nd	60'5	-	56'8	3'1	-	1'8	'435	-	'415	82	-	89
	Rounton - -	245	29'663	-	- '006	67'4	50'1	58'8	+1'2	81	9th	43	22nd	59'9	-	55'7	3'9	-	1'7	'397	-	'394	77	-	89
Southern Part.	Scarborough -	127	29'795	-	- '006	67'5	53'6	60'6	+1'9	79	12th, 15th	48	22nd, 31st	60'9	-	53'0	3'8	-	2'6	'414	-	'404	78	-	83
	York - -	58	29'903	-	- '006	69'2	52'4	60'8	+1'1	82	9th	46	28th, 30th	61'5	-	58'5	3'8	-	2'3	'424	-	'420	78	-	85
	Spurn Head -	28	29'906	+ '039	+ '003	65'8	54'0	59'9	0'0	79	15th	45	31st	57'0	64'2	60'3	1'9	5'3	3'1	'408	'426	'425	88	71	81
	Lincoln - -	42	-	-	-	69'3	51'7	60'5	0'0	85	12th	43	28th	61'7	-	-	3'1	-	-	'405	-	-	82	-	-
Southern Part.	Skegness - -	16	29'938	+ '049	+ '003	66'7	51'8	59'3	-	84	12th	45	22nd, 28th	56'1	-	62'1	1'4	-	3'7	'410	-	'438	90	-	78
	Hull - -	2	29'944	-	- '006	69'8	52'2	61'0	+1'4	83	15th	46	28th, 31st	62'1	-	58'5	3'8	-	2'1	'435	-	'426	78	-	86
District Value -						67'4	51'8	59'2	+1'4	85		41													
<b>3. ENGLAND, E.</b>																									
Northern Part.	Lowestoft -	75	29'899	-	- '007	66'8	52'2	59'5	-1'1	86	12th	44	31st	63'0	-	57'0	3'9	-	1'4	'444	-	'422	77	-	91
	Cromer - -	139	-	-	- '007	67'1	52'5	59'8	-	84	12th	46	4th	-	-	-	-	-	-	-	-	-	-	-	-
	Hillington -	92	29'870	-	- '007	68'8	50'6	59'7	-0'8	84	12th	43	22nd	60'3	-	57'1	3'0	-	1'4	'428	-	'424	82	-	91
	Norwich - -	98	-	-	-	70'2	52'1	61'2	-	83	12th, 15th	45	4th	-	-	-	-	-	-	-	-	-	-	-	-
	YARMOUTH -	27	29'940	+ '038	- '002	67'1	53'2	60'2	-0'3	84	12th	46	22nd	57'4	64'5	59'0	2'1	5'1	2'2	'409	'436	'430	87	72	87
	Geldeston -	47	29'934	-	- '007	69'9	51'0	60'5	-0'1	85	12th	42	4th	62'8	-	57'5	4'5	-	1'6	'426	-	'425	75	-	89
Southern Part.	Cambridge -	43	29'941	-	- '007	71'0	50'8	60'9	-0'6	85	12th	44	31st	62'4	-	58'4	4'8	-	1'9	'416	-	'436	74	-	88
	CLACTON -	62	29'930	+ '040	- '002	68'4	54'2	61'3	-0'9	84	12th	48	3rd, 22nd	58'7	65'8	60'0	2'1	4'5	1'9	'429	'477	'456	87	76	89
	Woburn - -	294	29'702	-	- '007	70'5	50'4	60'5	-	85	12th	42	3rd	61'6	-	59'1	4'1	-	2'6	'423	-	'429	77	-	85
	Bennington -	411	29'598	-	- '007	70'6	51'4	61'0	+0'2	84	12th	43	3rd	61'8	-	58'6	4'5	-	2'5	'409	-	'415	74	-	84
Southern Part.	Berkhamstead -	397	29'594	-	- '007	70'9	50'3	60'6	+0'1	86	12th	40	3rd	61'7	-	57'1	4'7	-	1'7	'403	-	'416	73	-	89
District Value -						69'2	52'2	60'2	+0'5	86		40													
<b>4. MIDLAND COS.</b>																									
Eastern Part.	Garforth - -	198	-	-	- '006	67'5	49'4	58'5	-	81	15th	37	28th	60'7	-	56'6	4'2	-	2'3	'407	-	'396	76	-	86
	Huddersfield -	411	29'532	-	- '006	66'7	51'6	59'2	-	81	9th	45	30th	60'1	-	56'6	4'1	-	2'3	'401	-	'396	77	-	86
	Wakefield -	100	29'847	-	- '006	69'6	51'7	60'7	+1'8	83	15th	44	22nd	61'1	-	-	4'5	-	-	'399	-	-	74	-	-
	Belvoir Castle -	276	29'691	-	- '007	68'8	51'2	60'0	-0'1	84	12th	41	28th	60'3	-	57'6	3'1	-	2'1	'425	-	'413	81	-	86
	Coventry - -	309	29'670	-	-	70'1	50'0	61'1	+0'3	83	12th	43	28th	61'6	-	-	4'6	-	-	'403	-	-	74	-	-
	NOTTINGHAM	85	29'884	+ '051	- '002	69'6	50'9	60'3	0'0	85	12th	43	28th	56'1	67'0	58'7	1'4	6'1	2'3	'410	'450	'423	90	68	85
Eastern Part.	Birmingham -	542	29'424	-	- '007	68'8	52'4	60'6	+1'0	84	12th	46	28th	57'9	-	60'3	3'2	-	4'5	'392	-	'392	81	-	76
	Oxford - -	212	29'791	+ '066	-	70'2	52'9	61'6	+0'5	85	12th	45	22, 28th	59'0	-	62'1	2'6	-	-	'419	-	-	84	-	-
			29'779	+ '053	-									61'6	-	4'3	-	-	-	<					



CLIMATOLOGICAL STATIONS, at 7 a.m., 1 p.m. and 6 p.m. or 9 p.m. or at 7 a.m. and 6 p.m. at TELEGRAPHIC REPORTING during the month of AUGUST, 1909.

Earth Temperature.		BRIGHT SUNSHINE.				CLOUD (0-10.)			RAIN AND OTHER FORMS OF PRECIPITATION.				WEATHER. No. of Days of										WIND.										STATIONS.
At 1 foot depth.	At 4 feet depth.	Total in Hrs.	Diff. from Normal.	Per Cent.	Diff. from Normal.	Mean Amount.			Total Fall.	Diff. from Normal.	Most in a day.		Precipitation.	Snow.	Hail.	Thunderstorm.	Clear Sky.	Overcast.	Fog.	Ground Frost.	Wind-force 8 and above.	No. of Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.											
						I.	II.	III.			Amount.	Day.										Forces 4-7.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		
—	—	122	—	26	—	8.6	9.1	8.1	Ins. 2.10	Ins. —	Ins. 0.28	13th	23	0	0	1	0	21	5	—	0	38	1	9	4	4	2	11	14	29	19	Castlebay (Barra)	
—	—	125	+ 6	27	+ 2	7.5	—	7.4	3.39	+0.46	0.79	24th	19	0	0	0	0	15	0	—	0	25	5	6	3	2	3	7	13	12	11	Deerness.	
—	—	—	—	—	—	7.9	7.2	8.6	2.30	-0.78	0.50	16th	24	0	0	0	0	16	0	—	0	35	5	8	5	2	4	5	9	44	11	Sumburgh Head.	
—	—	134	0	29	0	7.6	7.8	7.9	2.66	-1.22	0.34	3rd	21	0	0	0	0	12	0	—	1	55	6	7	6	5	2	8	23	28	8	Stornoway.	
—	—	—	—	—	—	7.2	—	6.9	2.85	+0.11	0.70	24th	21	0	0	0	0	8	0	—	1	15	1	10	0	3	0	13	2	29	4	Wick.	
—	—	148	+26	32	+ 6	7.2	—	7.5	1.53	-1.10	0.33	19th	21	0	0	0	0	11	0	—	0	12	18	1	1	3	1	2	15	15	6	Strathpeffer.	
—	—	—	—	—	—	8.2	—	8.6	6.68	-0.63	0.97	19th	25	0	0	0	0	21	1	—	0	35	0	6	0	9	0	0	0	47	0	Glencarron.	
—	—	117	+27	25	+ 6	7.5	—	7.9	2.40	-1.16	0.66	19th	19	0	0	0	0	15	0	—	0	25	1	3	9	1	1	4	36	7	0	Fort Augustus.	
—	—	—	—	—	—	8.6	—	8.5	5.03	-0.99	1.22	19th	25	0	0	0	0	21	0	—	0	13	10	0	4	2	0	0	14	27	5	Fort William.	
58.9	—	—	—	—	—	6.8	—	7.6	1.81	-0.92	0.27	14th	18	0	0	0	0	8	0	—	0	5	3	0	3	3	7	1	9	24	12	Dunrobin Castle.	
—	—	131	+16	28	+ 3	7.7	8.0	7.9	3.36	-0.93	1.22		22																				
—	—	—	—	—	—	6.8	—	6.4	2.20	-1.25	0.45	21st	20	0	0	1	1	9	4	1	2	17	0	8	7	2	3	2	12	15	13	Tillypronie.	
—	—	—	—	—	—	7.9	—	7.3	1.78	-1.57	0.78	28th	12	0	0	0	0	10	1	0	0	4	0	1	6	1	8	3	26	10	7	Dundee.	
—	—	154	—	33	—	6.6	6.6	7.0	1.57	-1.08	0.32	24th	20	0	0	1	0	5	0	—	0	2	25	0	3	7	2	0	12	35	9	Nairn.	
—	—	134	—	29	—	8.0	—	7.5	2.80	-0.63	0.46	31st	17	0	0	1	0	15	0	—	0	13	0	2	5	0	7	5	21	7	15	Gordon Castle.	
—	54.2	150	- 3	32	- 1	7.0	7.7	7.2	2.30	-0.78	0.32	28th	16	0	0	1	1	13	0	—	0	11	10	11	2	6	10	15	15	7	17	Aberdeen.	
—	—	—	—	—	—	7.8	—	—	1.73	-2.05	0.30	30th	13	0	0	0	2	17	0	1	1	8	0	8	0	0	2	12	10	30	0	Balmoral.	
—	—	—	—	—	—	7.3	—	6.8	2.48	-1.51	0.76	1st	17	0	0	0	1	14	0	—	1	22	0	2	0	0	13	1	1	2	35	8	Crieff.
—	—	—	—	—	—	7.3	—	6.2	1.78	-1.11	0.44	28th	18	0	0	0	3	13	0	—	0	5	0	5	2	7	0	2	21	18	7	Leith.	
58.0	—	163	+15	35	+ 3	6.6	—	6.5	2.32	-1.30	0.55	1st	17	0	0	2	3	16	0	0	0	0	0	8	5	9	1	7	8	20	4	Marchmont.	
—	—	152	+ 3	33	+ 1	7.3		6.9	2.23	-0.94	0.78		17																				
—	—	—	—	—	—	7.6	—	5.3	3.11	+0.37	0.61	16th	17	0	0	1	3	14	1	—	0	9	12	4	2	1	1	6	19	12	5	Seaham.	
—	—	180	—	40	—	4.8	—	5.2	5.27	+2.89	1.70	1st	16	0	0	1	11	9	0	—	0	2	2	5	4	0	4	0	26	8	13	Whitby.	
57.4	55.5	164	—	36	—	6.3	—	5.5	2.96	-0.06	0.55	1st	18	0	0	2	3	6	0	0	2	23	6	3	3	0	5	0	2	26	17	Cockle Pk (Mor-	
—	—	—	—	—	—	6.9	—	7.2	3.36	+0.52	0.60	18th	18	0	0	1	3	17	0	—	0	12	1	2	2	6	2	9	19	11	10	Shields. (peth.)	
—	—	172	+22	38	+ 5	7.8	—	6.9	2.93	+0.18	0.65	16th	17	0	0	1	2	17	0	0	0	11	15	3	1	1	1	2	19	11	9	Durham.	
61.0	—	—	—	—	—	6.6	—	6.1	4.06	+1.28	0.90	1st	18	0	0	1	5	12	2	0	0	6	12	6	5	1	1	12	15	3	7	Rounton.	
—	59.1	168	—	37	—	6.9	—	7.1	4.12	+1.32	1.43	1st	15	0	0	1	0	9	2	0	0	19	4	3	9	1	7	1	24	0	13	Scarborough.	
59.9	56.8	170	+19	38	+ 5	5.6	—	4.2	2.86	+0.24	0.92	17th	15	0	0	1	5	3	0	—	0	1	0	7	3	3	4	8	8	26	3	York.	
—	—	—	—	—	—	6.3	5.1	5.5	3.92	+1.96	1.21	1st	11	0	1	2	4	3	1	—	0	36	1	7	3	11	12	14	19	16	10	Spurn Head.	
61.1	57.3	—	—	—	—	—	—	—	4.23	+1.66	1.52	17th	13	0	0	0	—	—	0	—	0	0	24	1	2	1	0	0	9	16	9	Lincoln.	
—	201	—	—	45	—	5.7	—	5.0	3.38	—	1.32	1st	15	0	0	1	5	9	3	—	0	5	15	4	4	4	4	4	6	15	6	Skegness.	
60.2	55.9	170	—	38	—	6.3	—	5.9	5.86	+3.02	2.68	1st	13	0	1	1	4	11	1	0	0	5	20	5	1	3	1	5	6	10	11	Hull.	
60.4	56.6	179	+18	40	+ 4	6.4		5.9	3.57	+0.83	2.68		15																				
63.0	59.9	214	—	48	—	6.0	—	4.0	1.22	-1.10	0.33	1st	9	0	0	3	7	7	2	0	0	13	7	6	8	4	3	3	10	12	9	Lowestoft.	
—	—	179	—	40	—	—	—	—	1.59	—	0.60	1st	17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Cromer.
—	—	185	+ 6	41	+ 1	7.1	—	5.8	3.42	+0.52	1.55	1st	18	0	0	3	5	12	0	0	0	6	9	6	6	3	0	2	11	16	9	Hillington.	
—	—	—	—	—	—	—	—	—	1.87	—	0.42	1st	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Norwich.
63.4	60.3	212	—	47	—	6.4	5.7	5.9	1.56	-0.87	0.30	1st	13	0	0	3	0	4	8	—	1	14	6	3	12	4	7	10	15	26	11	Yarmouth.	
—	—	193	+ 2	43	0	7.0	—	5.2	1.97	-0.21	0.59	18th	12	0	0	3	4	13	0	—	0	1	8	7	2	4	6	5	12	14	4	Geldeston.	
62.5	59.7	227	+38	51	+ 9	6.1	—	4.2	1.91	-0.48	0.59	1st	15	0	0	3	7	8	2	0	0	21	16	1	2	0	5	6	17	8	7	Cambridge.	
62.1	60.1	234	—	53	—	5.1	5.4	5.6	2.12	—	0.66	24th	13	0	0	2	7	7	1	0	0	24	3	4	7	7	8	16	10	20	18	Clacton.	
—	—	209	—	47	—	6.6	—	5.8	2.30	—	0.77	17th	14	0	0	0	6	11	1	—	0	9	13	5									



TABLE A. (continued).—Giving a Summary of the METEOROLOGICAL OBSERVATIONS made at 9 a.m., 3 p.m. and 9 p.m. at NORMAL STATIONS in the BRITISH ISLANDS

DISTRICT.	STATION.	Height of Barometer cistern above M.S.L.	BAROMETER.			AIR TEMPERATURE.								HYGROMETER.											
			Mean at 32° F. at Level and Latitude of Station.	Diff. from Nor- mal.	C. for Diurnal Range.	Mean of		Mean of A and B.	Diff. from Nor- mal.	Absolute Maximum and Minimum.				Observations at 9 a.m., 3 p.m. and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.											
						A	B			Max.	Day.	Min.	Day.	Dry Bulb.			Dep. of Wet.			Vap. Pressure.			Humidity.		
														I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
		ft.	ins.	ins.		Max.	Min.			Max.	Day.	Min.	Day.	I.	II.	III.	I.	II.	III.	I.	II.	III.	%	%	%
5. ENGLAND, S.E.	Reading - - -	264	29.725	—	—	—	—	—	—	—	—	—	—	62.9	—	59.7	4.6	—	2.6	.424	—	.430	74	—	85
	Salisbury - - -	186	29.819	—	—	72.6	50.7	61.7	+0.5	86	12th	44	22, 28th	63.3	—	58.4	3.4	—	1.7	.467	—	.436	80	—	89
	Brighton - - -	48	29.957	—	—	69.5	55.4	62.5	+0.3	83	8th	46	3rd	64.0	—	—	4.8	—	—	.437	—	—	73	—	—
	Portsmouth - - -	18	30.011	—	—	71.2	56.3	63.8	+1.4	85	12th	49	22nd	64.3	—	—	4.9	—	—	.439	—	—	73	—	—
	Eastbourne - - -	38	29.978	—	—	68.5	55.7	62.1	-0.1	80	9th	48	3rd	63.8	—	61.0	3.8	—	2.7	.469	—	.454	79	—	85
	Dungeness - - -	21	29.963	+0.041	+0.003	67.5	55.0	61.3	-0.7	75	9th	46	3rd, 4th	60.3	65.7	63.2	2.1	4.0	2.7	.455	.490	.487	87	78	84
	Hastings - - -	174	29.823	—	—	68.9	55.5	62.2	+0.6	78	8th	46	3rd	64.1	—	59.7	4.8	—	2.7	.439	—	.427	74	—	84
	Southampton - - -	84	29.936	—	—	72.1	54.3	63.2	+0.8	85	12th	46	22nd	64.3	—	60.5	4.9	—	2.4	.446	—	.453	74	—	86
	Ventnor - - -	80	29.928	—	—	69.8	56.9	63.4	+1.0	82	9th	50	3rd, 27th	64.6	—	—	5.3	—	—	.432	—	—	72	—	—
	District Value - - -	—	—	—	—	69.9	53.5	61.2	+0.4	92	—	35	—	—	—	—	—	—	—	—	—	—	—	—	—
LONDON -	Tottenham - - -	55	29.936	—	—	71.4	54.3	62.9	+0.6	85	12th	46	3rd	64.6	—	61.0	5.0	—	2.4	.445	—	.464	73	—	86
	Camden Square - - -	123	29.881	—	—	73.3	53.4	63.4	+0.1	86	12th	45	3rd	63.7	—	60.8	4.7	—	2.1	.435	—	.464	74	—	83
	Westminster - - -	54	29.941	+0.043	+0.003	71.5	55.4	63.5	+1.1	85	12th	47	3rd	58.5	—	67.0	2.7	—	6.4	.408	—	.441	83	—	66
	Greenwich - - -	159	29.832	—	—	72.9	52.5	62.7	-0.2	86	12th	45	31st	63.9	—	58.6	5.3	—	2.1	.422	—	.428	71	—	86
	Norwood - - -	235	29.786	—	—	72.5	53.0	62.8	+0.8	86	12th	45	3rd	64.1	—	59.5	5.4	—	2.7	.421	—	.424	70	—	83
	Kew - - -	34	29.976	+0.050	+0.007	70.4	54.1	62.3	+0.6	83	12th	47	3rd	62.4	69.0	60.8	4.4	7.8	2.8	.422	.435	.442	75	61	83
	Bunhill Row - - -	—	29.967	+0.049	—	—	—	62.1	+0.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Plumstead - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Laudale - - -	25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Poltalloch - - -	135	29.786	—	—	62.0	49.4	55.7	-1.8	71	15th	40	3rd	55.8	—	54.0	3.0	—	2.7	.363	—	.342	81	—	82
6. SCOTLAND, W.	Glasgow - - -	184	29.720	—	—	63.2	51.3	57.3	+0.2	73	15th	42	26th	56.9	—	55.5	3.4	—	2.5	.371	—	.377	79	—	84
	Rothsay - - -	76	29.852	—	—	63.6	50.5	57.1	-0.2	71	6th, 10th	43	3rd	57.6	—	54.9	2.4	—	1.6	.404	—	.385	84	—	90
	Colmonell - - -	150	29.780	—	—	65.5	50.1	57.8	+0.4	78	6th	38	3rd	58.2	—	—	3.0	—	—	.396	—	—	81	—	—
	Dumfries - - -	155	29.775	—	—	65.0	52.0	58.5	-0.2	78	8th, 11th	46	17th	57.4	—	56.5	3.1	—	3.0	.381	—	.371	81	—	81
	Cally, Gatehouse - - -	120	—	—	—	65.7	49.6	57.7	+0.9	74	9th	40	3rd	59.6	—	54.3	2.3	—	2.1	.437	—	.363	86	—	85
	Douglas - - -	284	29.676	—	—	62.8	51.2	57.0	-0.3	73	14th	46	3rd	57.6	—	55.1	2.8	—	2.2	.396	—	.377	83	—	86
	District Value - - -	—	—	—	—	64.0	50.3	56.9	+0.4	78	—	37	—	—	—	—	—	—	—	—	—	—	—	—	
	Southport - - -	42	29.941	—	—	63.0	53.5	58.3	-1.2	72	15th	45	3rd, 7th	59.9	—	58.2	3.1	—	2.4	.419	—	.412	82	—	85
	Manchester (City) - - -	195	29.772	—	—	67.1	53.8	60.5	—	78	8th	47	30th	59.1	—	59.7	3.2	—	3.4	.410	—	.412	81	—	80
	„ (Whitworth Pk) - - -	127	29.821	—	—	67.3	52.3	59.8	—	81	15th	45	28th	59.5	64.9	58.3	2.1	—	1.7	.441	—	.435	87	74	90
7. ENG. LAND, N.W.	Darwen - - -	722	29.201	—	—	65.0	50.0	57.5	—	79	9th	42	30th	59.6	—	55.5	3.8	—	1.6	.397	—	.397	79	—	89
	Aspatria - - -	254	29.682	—	—	64.7	50.7	57.7	-0.1	75	9th	40	30th	59.6	—	55.4	3.2	—	1.6	.416	—	.397	81	—	80
	Newton Rigg - - -	559	29.343	—	—	65.5	49.4	57.5	+0.7	80	8th	41	30th	57.4	—	56.8	2.2	—	1.9	.406	—	.405	86	—	87
	Stonyhurst - - -	363	29.590	—	—	63.8	51.8	57.8	-0.5	75	15th	45	30th	59.3	—	56.8	3.4	—	2.6	.408	—	.389	80	—	83
	Blackpool - - -	78	29.903	—	—	62.9	52.7	57.8	-1.6	72	15th	42	3rd	59.4	—	57.7	2.5	—	1.8	.428	—	.423	85	—	88
	M'nch't'r (Prestwich) - - -	320	29.630	—	—	67.3	51.6	59.5	+0.7	81	15th	44	28th	58.5	—	57.4	2.2	—	2.4	.423	—	.400	86	—	85
	Liverpl. Bidston Obs. - - -	197	29.765	—	—	63.6	54.0	58.8	-1.1	75	15th	50	3rd	59.6	—	57.6	3.7	—	2.9	.397	—	.391	76	—	82
	Llandudno - - -	21	29.974	—	—	65.5	53.3	59.4	-1.0	75	12th	48	28th	60.7	—	59.9	2.7	—	2.5	.443	—	.436	84	—	85
	HOLYHEAD - - -	48	29.941	+0.076	—	62.5	53.3	57.9	-1.3	71	14th	50	3, 6, 31st	57.0	60.8	56.8	1.6	3.2	1.8	.417	.431	.407	89	82	88
	Bettws-y-Coed - - -	100	29.861	—	—	66.9	50.8	58.9	-0.9	82	15th	40	3rd	60.7	—	56.5	3.1	—	1.9	.432	—	.401	82	—	88
8. SOUTH WALES	District Value - - -	—	—	—	—	64.9	52.1	58.0	-0.1	82	—	40	—	—	—	—	—	—	—	—	—	—	—	—	
	Llangamarch Wells - - -	585	29.377	—	—	67.8	47.0	57.4	-1.1	81	12th	34	28th	58.6	—	—	2.9	—	—	.405	—	—	82	—	—
	PEMBROKE - - -	150	29.849	+0.078	+0.002	64.7	53.9	59.3	-0.1	77	7th	48	3rd	57.7	61.8	57.9	1.9	3.7	2.2	.420	.432	.414	88	79	86
	Clifton - - -	229	—	—	—	70.6	55.1	62.9	+1.3	83	9th, 15th	48	3rd, 28th	—	—	—	—	—	—	—	—	—	—	—	
	PORTLAND BILL - - -	23	29.978	+0.041	+0.002	66.2	57.9	62.1	+0.1	76	9th	53	30th, 31st	60.9	64.6	61.6	3.0	4.5	3.1	.438	.456	.448	82	76	82
	Plymouth - - -	116	29.934	—	—	70.7	55.0	62.9	+1.7	83	8th	47	22nd	64.6	68.0	62.5	4.9	6.5	4.4	.453	.463	.431	75	68	76
	Falmouth - - -	183	29.865	+0.083	+0.006	67.8	55.9	61.9	+1.4	77	14th	50	4th	63.1	65.8	59.5	4.2	6.0	2.3	.439	.431	.435	76	69	86
	Woolacombe - - -	79	29.920	—	—	67.6	55.9	61.8	-																



CLIMATOLOGICAL STATIONS, at 7 a.m., 1 p.m. and 6 p.m. or 9 p.m. or at 7 a.m. and 6 p.m. at TELEGRAPHIC REPORTING during the Month of August, 1909.

Earth Temperature.		BRIGHT SUNSHINE.				CLOUD (0-10.)			RAIN AND OTHER FORMS OF PRECIPITATION.				WEATHER. No. of Days of										WIND.										STATIONS.
At 1 foot depth.	At 4 feet depth.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	Mean Amount.			Total Fall.	Diff. from Normal.	Most in a day.		Precipitation.	Snow.	Hail.	Thunderstorm.	Clear Sky.	Overcast.	Fog.	Ground Frost.	Wind-force 8 and above.	No. of Observations at 9 a.m., 8 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.											
						I.	II.	III.			Amount.	Day.										Forces 4-7.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		
—	—	238	—	53	—	5.5	—	3.7	1.80	-0.63	0.54	17th	10	0	0	2	11	10	0	—	0	9	14	2	1	1	3	8	18	7	8	Reading.	
64.4	—	—	—	—	—	4.7	—	3.9	3.79	+1.03	2.18	17th	10	0	0	0	9	4	0	0	0	11	0	18	2	0	2	4	7	12	17	Salisbury.	
—	61.7	249	+32	56	+7	5.4	—	—	2.85	+0.47	0.96	24th	10	0	0	3	9	11	1	0	0	8	1	3	4	0	0	5	12	3	3	Brighton.	
64.8	61.4	255	—	57	—	3.8	—	—	2.52	+0.24	0.66	24th	9	0	0	0	14	7	0	0	0	8	1	3	4	0	2	0	5	9	6	Portsmouth.	
65.4	60.3	246	+38	55	+8	5.0	—	4.7	3.74	+1.17	1.18	24th	9	0	0	1	9	9	0	—	0	0	7	4	12	2	1	0	16	6	14	Eastbourne.	
—	—	—	—	—	—	6.4	6.5	6.7	3.31	+1.33	1.37	24th	11	0	0	3	0	5	3	—	0	45	0	11	13	4	1	7	35	14	8	Dungeness.	
64.4	60.4	239	+26	54	+6	4.5	—	4.7	3.29	+0.82	1.27	24th	11	0	0	2	10	8	2	0	0	18	3	13	4	1	3	5	14	13	6	Hastings.	
—	—	247	+39	56	+9	4.7	—	—	3.4	2.12	-0.64	0.73	17th	9	0	0	0	12	5	1	0	0	14	0	1	11	2	4	2	18	6	18	Southampton.
—	—	244	+37	55	+8	4.3	—	—	2.75	+0.47	0.93	24th	10	0	0	0	9	7	0	—	0	8	5	10	2	2	3	11	9	8	12	Ventnor.	
63.3	60.2	230	+38	52	+8	5.0	—	4.5	2.60	+0.12	2.63	11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	59.9	233	—	52	—	6.1	—	4.5	1.56	—	0.43	17th	10	0	0	1	8	9	0	0	0	1	7	1	5	1	4	1	15	15	13	Tottenham.	
63.4	58.8	189	—	42	—	5.3	—	—	1.46	-0.93	0.42	17th	11	0	0	1	10	12	0	0	—	—	2	3	3	1	1	1	5	7	8	Camden Square.	
—	—	216	+48	49	+11	4.8	—	4.9	1.43	-0.96	0.37	17th	9	0	0	1	8	8	0	0	0	10	3	4	6	3	2	2	14	12	16	Westminster.	
—	61.2	223	+18	50	+3	5.9	—	4.3	1.80	-0.54	0.47	24th	11	0	0	2	8	10	0	0	0	2	5	7	4	4	3	4	20	8	7	Greenwich.	
62.8	—	—	—	—	—	5.1	—	4.1	2.09	-0.27	0.49	17, 24	12	0	0	1	11	8	1	0	0	2	11	5	5	3	2	2	13	12	9	Norwood.	
62.4	58.4	223	+35	50	+8	5.9	5.7	4.6	1.31	-0.96	0.34	24th	12	0	0	1	8	12	0	0	0	7	25	9	3	7	0	7	20	11	11	Kew.	
—	—	206	+42	46	+9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Bunhill Row.	
—	—	187	—	42	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Plumstead.	
—	—	—	—	—	—	—	—	—	—	—	1.63	12th	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Laudale.	
—	—	—	—	—	—	8.1	—	8.1	4.20	-0.66	0.70	23th	23	0	0	0	1	20	1	—	0	14	17	2	3	0	2	1	7	26	4	Poltalloch.	
—	—	148	+16	32	+3	8.7	—	7.0	3.22	-0.84	0.93	28th	16	0	0	0	0	15	0	0	0	5	12	1	2	4	0	0	9	24	10	Glasgow.	
—	55.2	—	—	—	—	5.6	—	6.7	3.45	-1.42	0.74	28th	18	0	0	0	4	11	1	—	0	10	9	6	2	6	0	1	0	26	12	Rothsay.	
—	—	—	—	—	—	7.5	—	—	3.00	-1.12	0.85	28th	16	0	0	0	3	15	2	0	0	16	2	10	2	4	0	8	10	6	20	Colmonell.	
60.1	58.1	160	—	35	—	7.0	—	4.9	1.79	-2.18	0.30	26th	17	0	0	0	4	11	1	0	0	11	6	8	2	0	3	6	17	8	12	Dunfries.	
—	—	—	—	—	—	—	—	—	2.74	-1.99	0.41	23rd	18	0	0	0	—	—	—	—	—	1	0	5	7	0	7	8	16	2	17	Cally.	
—	—	222	+47	49	+10	6.9	—	5.0	2.56	-1.57	0.88	22nd	16	0	0	4	8	9	7	0	0	19	4	5	1	1	3	5	11	20	12	Douglas.	
—	—	185	+31	41	+7	7.3	—	6.3	3.06	-1.84	1.63	17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Southport.	
62.6	60.6	174	+3	38	0	7.1	—	6.5	3.00	-0.71	0.77	20th	16	0	0	1	1	13	0	0	2	31	4	5	4	1	1	2	12	21	12	Manchester (City).	
60.2	58.1	129	—	29	—	—	—	—	3.13	-0.61	0.81	15th	16	0	0	0	—	—	0	0	0	1	1	3	3	4	7	11	14	14	5	„ (Whit. P'k).	
—	—	123	—	27	—	6.8	—	4.5	3.41	—	0.86	15th	16	0	0	0	6	9	2	0	0	6	5	1	3	1	1	21	17	7	6	Darwen.	
60.2	56.0	148	—	33	—	7.2	—	7.0	4.05	—	0.68	26th	19	0	0	1	1	15	0	0	0	16	0	1	2	0	1	2	17	30	9	Aspatia.	
—	—	168	—	37	—	6.6	—	4.7	2.72	-1.73	0.62	28th	12	0	0	1	6	9	0	0	0	7	17	2	1	0	0	2	15	10	15	Newton Rigg.	
60.3	56.3	169	+17	37	+4	6.6	—	6.0	2.88	-0.60	0.44	29th	14	0	0	1	5	11	1	0	0	9	12	1	2	2	3	7	17	14	4	Stonyhurst.	
—	—	153	+1	34	0	7.4	—	4.2	3.19	-2.06	0.90	20th	18	0	0	1	5	7	0	0	0	2	19	4	2	0	0	1	16	16	4	Blackpool.	
58.4	55.2	172	+9	38	+2	8.1	—	6.7	2.97	-0.63	0.69	20th	17	0	0	1	2	14	2	0	1	22	10	2	3	1	1	1	16	16	12	Manch'st'r (Prest).	
—	—	142	+5	31	+1	9.2	—	4.2	3.48	-0.40	0.67	16th	17	0	0	1	0	10	1	0	1	3	15	4	2	1	1	6	4	23	6	Liverpol, Bid. Obs.	
—	—	182	—	40	—	7.5	—	6.7	2.45	-0.63	0.76	20th	15	0	0	1	0	12	2	—	0	13	1	3	2	1	1	4	15	24	11	Llandudno.	
—	—	202	+35	45	+8	6.4	—	4.9	3.03	-0.00	0.94	17th	15	0	0	0	5	10	0	—	0	3	0	5	1	1	0	6	5	34	10	Holyhead.	
—	—	—	—	—	—	7.1	6.6	5.4	2.25	-0.98	0.64	20th	17	0	0	4	1	6	8	—	0	34	5	7	10	0	0	5	31	13	22	Bettws-y-Coed.	
56.8	53.9	176	—	39	—	5.6	—	5.1	3.02	—</																							



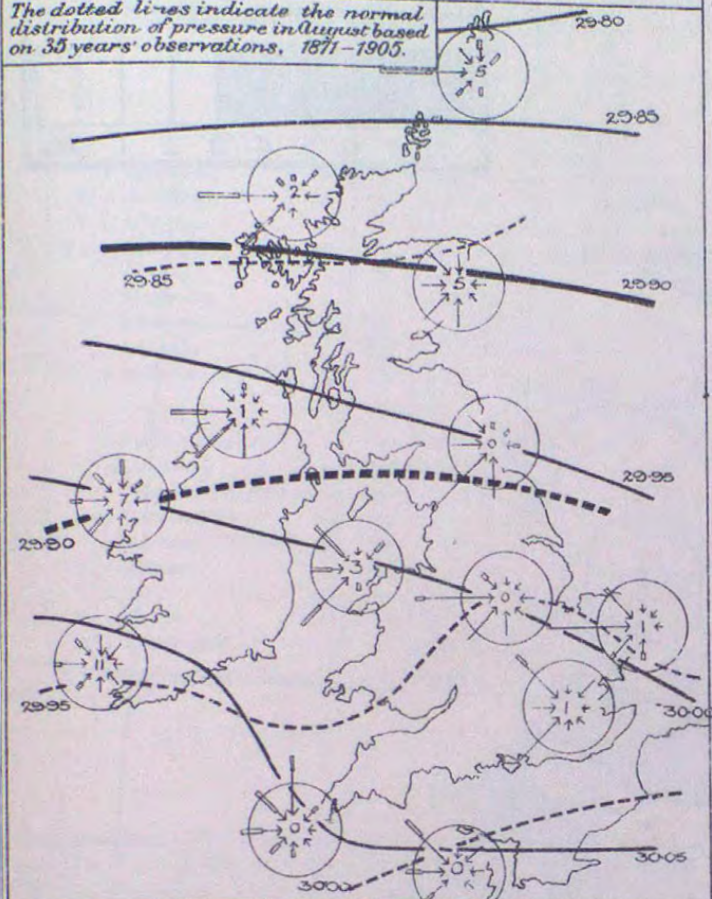
TABLE B.—SUMMARY of the OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE at additional STATIONS, AUGUST, 1909.

DISTRICT.	STATION.	Height of Gauge above M.S.L. Ft.	AIR TEMPERATURE.								Earth Temperature		Grnd Frost. No. of Days.	RAIN AND OTHER FORMS OF PRECIPITATION.				Number of Days.	BRIGHT SUNSHINE.					
			Mean of		Mean of A and B. °	Diff. of Mean from Normal. °	Absolute Maximum and Minimum.				1 ft.	4 ft.		Total Fall. Inch.	Diff. from Normal. Inch.	Most in a day.			Total in Hours. Hrs.	Diff. from Normal. Hrs.	Per Cent. %	Diff. from Normal. %		
			A Max.	B Min.			Max.	Day.	Min.	Day.						Amt.	Day.							
																							°	°
O. SCOTLAND, N.	p Balta Sound - - -	8	31	56.3	47.6	52.0	—	61	4th, 6th	40	23rd	53.4	—	—	2.13	—	0.33	16th	21	142	—	30	—	
1. SCOTLAND, E.	p Crathes - - -	8	140	65.5	48.0	56.8	—	78	6, 12, 15	37	30th	59.3	56.3	0	2.20	—	0.37	28th	16	136	—	29	—	
	Stonehaven - - -	—	286	64.0	50.4	57.2	—	77	12th	41	30th	—	—	—	2.62	—	0.45	16th	14	160	—	35	—	
	p Balruddery - - -	8	276	66.6	48.7	57.7	—	80	9th	37	26th	—	—	—	1.94	—	0.35	1st	16	162	—	35	—	
	Edinburgh - - -	—	263	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	166	+ 20	36	+	
2. ENGLAND, N.E.	a West Linton - - -	8	800	61.6	47.1	54.4	- 1.9	75	10th	34	3rd	—	—	1	2.88	—	0.71	28th	21	139	—	30	—	
	a Alnwick Castle - -	—	210	65.0	51.7	58.4	+ 1.1	76	6th, 15th	45	26th	—	—	—	3.31	+ 0.10	0.60	1st	18	—	—	—	—	
	p Newcastle-on-Tyne -	—	162	67.0	53.6	60.3	—	80	15th	45	22nd	—	—	—	2.97	- 0.14	0.86	16th	19	144	+ 11	32	+ 3	
	p Ampleforth - - -	—	349	67.2	50.6	58.9	—	82	9th	41	30th	—	—	—	4.19	—	1.50	1st	18	—	—	—	—	
3. ENGLAND, E.	p Tealby - - -	—	251	68.4	51.9	60.2	+ 0.8	82	12th	44	22nd	—	—	—	5.10	+ 1.88	1.65	17th	14	—	—	—	—	
	a Fulbeck - - -	—	180	70.4	51.7	61.1	+ 0.5	84	7th, 12th	44	28th	—	—	—	3.35	+ 0.72	1.23	17th	14	—	—	—	—	
	a Rauceby - - -	—	124	69.7	51.1	60.4	—	84	12th	45	22nd	62.5	57.3	0	3.56	+ 0.90	1.63	17th	13	200	—	44	—	
	a Felixstowe - - -	—	10	66.2	53.6	59.9	- 1.9	80	12th	48	4, 11, 28	—	—	—	1.98	—	0.55	24th	13	245	—	55	—	
4. MIDLAND COUNTIES	a Rothamsted - - -	—	424	68.8	50.8	59.8	- 0.4	82	12th	43	3rd, 28th	—	—	—	2.34	- 0.25	0.99	17th	11	226	+ 35	51	+ 8	
	a Shoburyness - - -	—	13	70.1	54.5	62.3	- 0.6	86	12th	48	3rd, 22nd	—	—	—	2.18	+ 0.43	0.74	24th	9	—	—	—	—	
	a Southend-on-Sea - -	—	100	70.7	54.0	62.4	—	86	12th	47	3rd, 22nd	63.7	—	0	2.37	+ 0.43	0.78	24th	10	227	—	51	—	
	a Harrogate - - -	—	476	66.7	50.9	58.8	+ 0.8	81	9th	43	28th, 30th	57.0	55.3	0	3.41	+ 0.58	0.87	18th	17	182	—	40	—	
5. ENGLAND, S.E.	a Bradford - - -	—	489	65.8	51.3	58.6	—	80	9th	42	3rd	59.2	56.1	—	2.93	—	0.95	1st	15	168	—	37	—	
	a Cheadle - - -	—	646	67.6	49.7	58.7	+ 0.8	80	12th	41	27th	—	—	0	2.86	- 0.74	0.57	17th, 20th	17	—	—	—	—	
	a Bawtry - - -	—	65	71.0	50.0	60.5	+ 0.7	84	9th, 15th	44	26th	—	—	—	2.94	+ 0.45	1.48	17th	13	—	—	—	—	
	a Worksop - - -	—	56	70.6	50.3	60.5	+ 0.8	84	12th	42	28th	60.0	57.1	0	3.07	+ 0.53	1.49	17th	15	174	+ 27	39	+ 6	
6. SCOTLAND, W.	a Mayfield (Staffs.) -	—	874	68.2	48.2	58.2	—	83	12th	40	3rd	—	—	0	2.76	—	0.65	17th	15	—	—	—	—	
	a Kingston-on-Soar - -	—	125	69.0	49.2	59.1	—	84	12th	40	27th	59.1	—	—	2.64	—	1.20	17th	13	—	—	—	—	
	p Rugby - - -	—	379	70.2	50.4	60.3	+ 0.4	84	12th	40	28th	—	—	0	1.76	—	0.80	17th	12	—	—	—	—	
	a Raunds - - -	—	210	71.5	50.2	60.9	- 0.4	86	12th	42	3rd	—	—	0	2.21	—	0.89	17th	12	—	—	—	—	
7. ENGLAND, N.W.	a Winslow - - -	—	379	69.4	51.7	60.6	—	83	12th	42	28th	—	—	—	3.31	—	1.42	17th	12	—	—	—	—	
	a Hereford - - -	—	291	71.2	49.5	60.4	+ 0.1	85	12th	41	28th	—	—	0	1.39	- 1.19	0.54	17th	10	—	—	—	—	
	a Cirencester - - -	—	446	69.7	49.2	59.5	+ 0.5	85	12th	40	28th	—	—	—	3.49	+ 0.34	1.06	17th	13	219	+ 37	49	+ 8	
	a Epsom - - -	—	160	72.1	52.2	62.2	—	92	15th	42	3rd	—	—	0	2.32	—	0.50	17th, 24th	11	—	—	—	—	
8. ENGLAND, S.W.	a Wokingham - - -	—	216	70.7	47.3	59.3	—	85	12th	35	3rd	—	—	—	2.43	—	1.00	17th	10	—	—	—	—	
	a Maidenhead - - -	—	99	74.6	51.4	63.1	—	90	12th	42	3rd	—	—	0	4.06	+ 1.85	2.63	17th	11	—	—	—	—	
	a Marlborough - - -	—	424	70.1	48.0	59.1	- 0.3	85	12th	38	28th	—	—	—	3.71	+ 0.85	1.92	17th	13	214	+ 36	48	+ 8	
	a Bucklebury - - -	—	409	69.6	51.0	60.3	—	85	12th	40	17th	—	—	—	2.47	—	1.05	17th	11	—	—	—	—	
9. ENGLAND, E.	a Swarraton - - -	—	310	70.1	50.4	60.3	+ 0.8	85	12th	42	22nd	—	—	—	2.25	- 0.65	0.77	17th	11	—	—	—	—	
	a Margate - - -	—	35	68.8	56.2	62.5	+ 0.2	83	12th	49	4th	61.2	58.3	0	2.49	+ 0.44	1.11	24th	11	195	+ 5	44	+ 1	
	Broadstairs - - -	—	140	—	—	—	—	—	—	—	—	—	—	—	—	2.63	—	1.10	24th	10	224	—	50	—
	Ramsgate - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	229	—	51	—	
10. ENGLAND, S.E.	a Wisley - - -	—	160	71.1	51.8	61.5	- 1.0	86	12th	44	3rd	62.3	59.7	0	2.16	—	0.50	17th	11	226	—	51	—	
	a Dover - - -	—	231	68.1	54.3	61.2	—	83	12th	47	4th, 5th	60.4	56.2	0	2.51	—	1.04	24th	12	235	—	53	—	
	a Tunbridge Wells - -	—	421	70.3	52.4	61.4	+ 0.7	84	12th	43	3rd	63.7	—	0	2.60	+ 0.26	0.77	17th	9	230	+ 34	52	+ 8	
	a Matfield - - -	—	320	69.9	52.6	61.3	—	84	12th	44	3rd	—	—	0	2.35	—	0.73	17th, 24th	9	—	—	—	—	
11. ENGLAND, S.W.	p Folkestone - - -	—	121	68.0	54.2	61.1	—	80	13th	44	4th	—	56.7	—	1.97	- 0.47	0.81	24th	9	234	—	53	—	
	Littlestone - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	228	—	51	—	
	a Bexhill - - -	—	27	68.6	56.4	62.5	—	79	8th	45	3rd	64.0	—	—	3.28	—	1.20	24th	10	241	—	54	—	
	Hove - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	239	—	54	—	
12. ENGLAND, S.W.	p Lewes - - -	—	68	70.1	53.7	61.9	—	82	12th, 13th	45	28th	—	—	—	3.20	—	0.86	24th	15	—	—	—	—	
	a Worthing - - -	—	36	69.5	54.8	62.2	+ 0.7	81	8th, 9th	46	3rd, 22nd	63.7	59.9	0	2.72	+ 0.41	0.80	24th	12	250	—	56	—	
	a Bognor - - -	—	20	68.8	55.1	62.0	—	81	9th	46	22nd	—	57.9	0	2.40	—	0.71	24th	13	258	—	58	—	
	Westbourne - - -	—	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	250	—	56	—	
13. ENGLAND, S.W.	a Totland Bay - - -	—	140	68.4	55.1	61.8	+ 0.1	80	9th	50	5th	—	—	0	2.86	+ 0.48	0.70	24th	9	249	—	56	—	
	a Sandown - - -	—	20	71.1	56.3	63.7	—	83	12th	47	22nd	—	—	—	2.78	—	0.94	24th	9	243	—	55	—	
	p Bournemouth - - -	—	145	71.1	53.6	62.4	—	84	8, 9, 12	46	29th	62.5	61.4	—	3.28	—	1.41	17th	10	261	—	59	—	
	p Obau - - -	—	20	64.2	51.1	57.7	—	76	15th	43	3rd	—	—	0	3.00	—	0.54	20th	19	134	—	29	—	
14. ENGLAND, S.W.	a Thorntonhall (Lanarkshire)	—	440	62.9	48.2	55.6	—	73	10th	38	26th	—	—	0	2.72	—	0.59	28th	15	148	—	32	—	
	a Kilmarnock - - -	—	90	63.8	47.9	55.9	- 1.8	72	15th	37	26th	—	—	—	3.49	—	0.75	28th	15	132	—	29	—	
	a Carnforth - - -	—	174	64.0	51.5	57.8	—	75	9th	42	30th	—	—	0	3.66	—	1.09	20th	19	162	—	36	—	
	a Lancaster - - -	—	311																					



## 1. BAROMETER AND WIND AT 7 A.M.

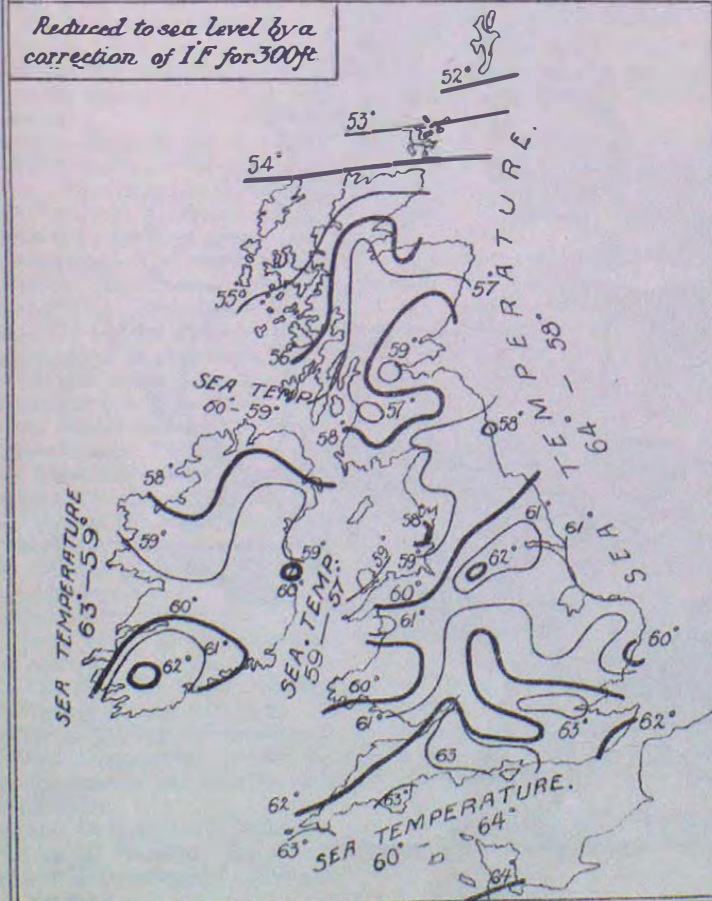
The dotted lines indicate the normal distribution of pressure in August based on 35 years' observations, 1871-1905.



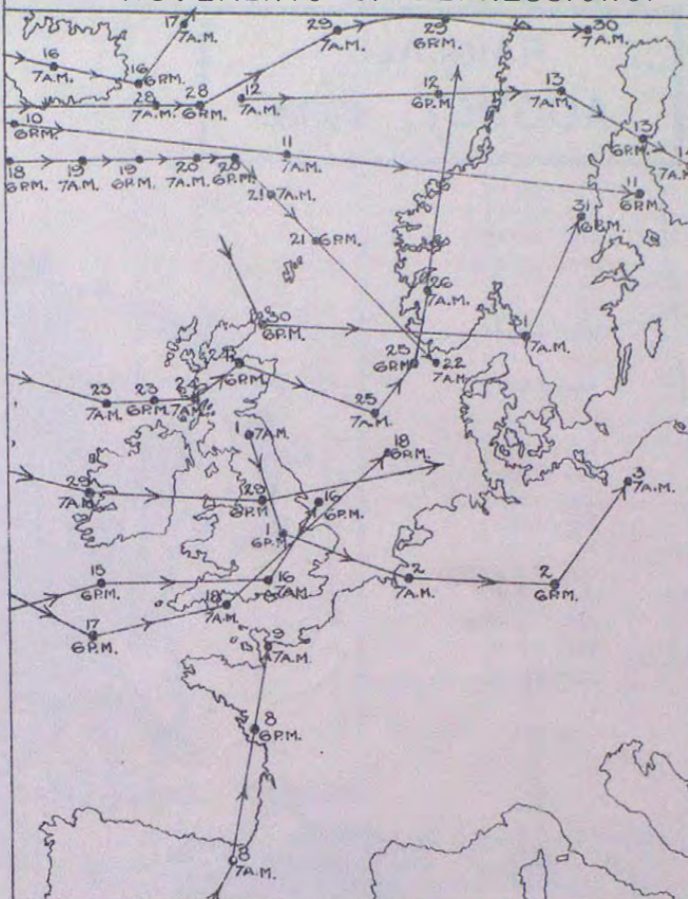
WIND ROSES. The arrows fly with the wind and indicate frequency and force, thus:   
 Light moderate strong   
 30 Obs = 1 inch

## 3. DISTRIBUTION OF MEAN TEMPERATURE.

Reduced to sea level by a correction of 1°F for 300ft

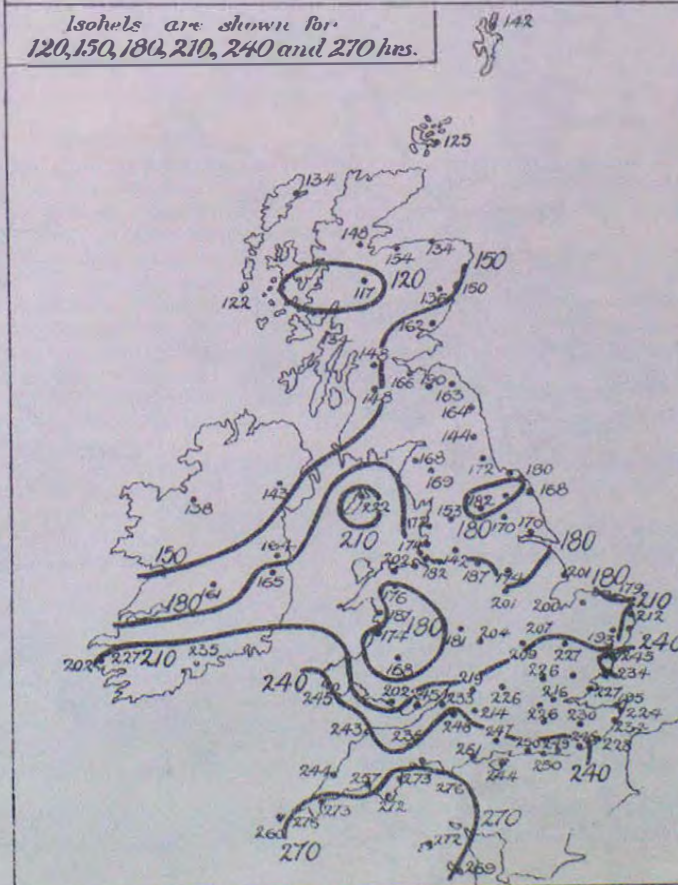


## 2. MOVEMENTS OF DEPRESSIONS.



## 4. BRIGHT SUNSHINE, IN HOURS.

Isohels are shown for 120, 150, 180, 210, 240 and 270 hrs.





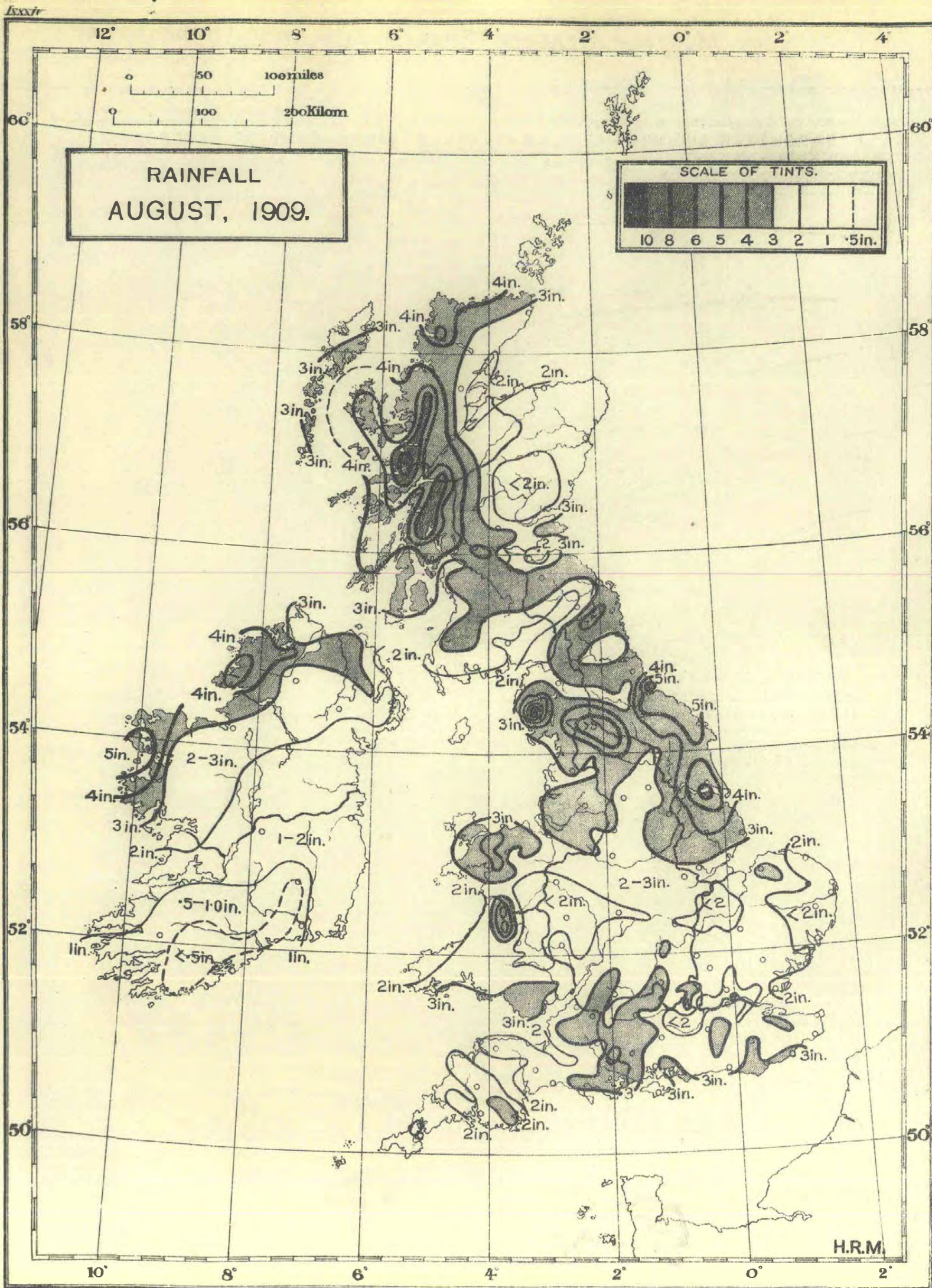




TABLE B (continued).—SUMMARY OF THE OBSERVATIONS OF TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE at additional STATIONS, AUGUST, 1909.

DISTRICT.	STATION.	Height of Gauge above M.S.L.	AIR TEMPERATURE.								Earth Temperature		Grnd Frost.	RAIN AND OTHER FORMS OF PRECIPITATION.					BRIGHT SUNSHINE.				
			Mean of				Absolute Maximum and Minimum.				1 ft.	4 ft.		No. of Days.	Total Fall.	Diff. from Normal.	Most in a day.		Number of Days.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.
			A	B	Mean of A and B.	Diff. of Mean from Normal.	Max.	Day.	Min.	Day.							Amt.	Day.					
		Ft.	°	°	°	°	°	°	°	°	°	°	°	Ins.	Ins.	Ins.		Hrs.	Hrs.	%	%		
8. ENGLAND, S.W.- (continued)	a Swansea - - -	24	70.5	—	—	—	80	10th, 12th	—	—	—	—	0	1.89	—	0.40	22nd	15	—	—	—	—	
	a Shaftesbury - - ft	722	69.1	53.4	61.3	+ 1.9	83	12th	45	22nd	62.9	—	—	2.63	- 0.32	1.02	17th	12	—	—	—	—	
	a Arlington - - -	613	67.5	51.4	59.5	+ 0.6	81	12th	43	5th	—	—	—	3.11	- 1.85	1.03	20th	15	—	—	—	—	
	a Cullompton - - ft	202	72.7	51.2	62.0	+ 1.5	89	12th	41	3rd	—	—	0	2.18	- 0.83	0.59	17th	15	236	+ 54	53	+ 12	
	Torquay - - -	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	273	+ 63	62	+ 15	
	a Weymouth - - -	21	70.2	55.6	62.9	—	86	9th	48	5th	—	—	—	2.28	—	0.92	17th	10	276	—	62	—	
	a Newquay - - -	100	65.5	56.0	60.8	0.0	75	15th	49	3rd, 28th	60.0	—	—	1.03	- 1.75	0.35	20th	10	244	+ 39	55	+ 9	
	Salcombe - - -	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	272	—	62	—	
	a Penzance - - -	54	70.5	56.8	63.7	—	80	7th	51	4th	—	—	—	1.81	—	0.57	24th	12	275	—	62	—	
9. IRELAND, N.	— - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
10. IRELAND, S.	p Dublin (Glasnevin) - -	67	66.8	51.1	59.0	+ 0.5	78	12th, 14th	42	30th, 31st	—	—	0	1.02	- 2.43	0.29	21st	15	—	—	—	—	
	a Kingstown - - -	42	67.0	53.8	60.4	—	78	14th	46	30th	—	—	—	1.19	—	0.40	20th	12	200	—	44	—	
	p Clongowes Wood College	245	67.0	48.4	57.7	—	78	6th	39	30th	—	—	0	1.29	—	0.52	29th	12	185	—	41	—	
	a Mountmellick - - -	253	67.5	49.3	58.4	—	79	6th	40	17th	—	—	—	1.10	—	0.27	29th	12	—	—	—	—	
	p Newcastle (Co. Wicklow)	256	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	a Kilkenny - - -	212	68.2	50.0	59.1	- 0.2	80	11th	39	6th	—	—	—	0.48	- 3.20	0.24	29th	7	—	—	—	—	
	a Cahir - - - ft	199	68.3	51.3	59.8	+ 1.0	78	6th	42	6th	—	—	—	0.93	—	0.27	29th	10	—	—	—	—	
	a Foynes - - -	108	66.2	53.4	59.8	+ 1.0	76	15th	47	17, 18, 26	—	—	—	1.08	- 2.99	0.19	20th	16	—	—	—	—	
	a Ballinacurra - - -	34	70.0	52.0	61.0	—	82	12th	43	30th	—	—	—	0.30	—	0.12	29th	6	235	—	53	—	
11. ENGLISH CHANNEL	a Guernsey (Villa Carey) -	189	70.8	56.4	63.6	+ 1.7	84	15th	49	4th	—	—	—	1.00	- 1.71	0.32	20th	5	272	+ 30	62	+ 7	

## NOTES ON THE STATISTICAL TABLES.

**Hours of Observation.**—The following types are used to indicate the hours of observation at Stations included in Table A:—Clarendon, Normal Climatological Stations—I, 9 a.m. [II, 3 p.m.], III, 9 p.m. Black Capitals, telegraphic reporting normal climatological stations—I, 7 a.m., II, 1 p.m., III, 9 p.m. Roman, telegraphic reporting stations—I, 7 a.m., [II, 1 p.m.], III, 6 p.m. Italic, auxiliary climatological stations—I, 9 a.m. only (9 a.m. and 6 p.m. at *Ventnor*). The summaries are based on observations made three times a day wherever the data are available, except in the case of the element pressure (see below). At stations shown in clarendon type the maximum and minimum temperatures are read at 9 p.m.; at the remaining stations these observations are made at I. In Table B the letters *a* and *p* indicate whether the readings of the maximum and minimum are taken at the hours of morning or evening observation.

**Barometer.**—The correction for latitude has not been applied to the readings quoted in the Tables. It is applied to the readings at sea level from which the chart showing the mean monthly distribution of pressure is prepared. The values given in the tables are for station level. The values printed are (1) for stations shown in clarendon type, the means of observations at 9 a.m. and 9 p.m.; (2) for stations shown in Capitals, the means of observations at 7 a.m., 1 p.m., 9 p.m.; (3) for stations shown in Roman type, the means of observations at 7 a.m. and 6 p.m.; (4) for stations shown in italic type, the means of observations at 9 a.m. The column headed C gives the correction for diurnal variation required to reduce the means of observations at fixed hours to true diurnal means, based on the analysis of the values obtained at the four observatories for the period 1871–1905. The difference from normal is based upon the 7 a.m. readings only, except in the cases of Kew, Greenwich, Aberdeen, Valencia and Falmouth (see below).

**Rainfall.**—The amounts are those for the 24 hours commenced at the time of morning observation.

**Weather Phenomena.**—The number of days of Rain, Snow, Hail, Thunderstorm, Fog, Ground Frost, and Gale, are counted irrespective of the hours at which the phenomena occur. Except in the cases of rainfall (see above) and ground frost the day is the civil day. A day is reckoned as a day of “clear sky,” if the mean of the estimates of the “amount of cloud” at the fixed hours of observation is less than 2, and as an “overcast” day if the mean is greater than 8. Days of Ground Frost are days on which the minimum thermometer on the grass falls to 30° or below; the “day” is taken as the 24 hours ending at 9 a.m.

**Wind Summaries.**—The results given under wind direction, and the number of observations of calms and of fresh or strong wind, are based on the observations at fixed hours. At Deerness, Aberdeen, Valencia, Falmouth, Kew, Glasgow, Stonyhurst and Armagh the wind observations are based on the records of a standard Robinson anemometer (factor 2.2). Velocities of between 13 and 38 miles in the hour have been entered as “fresh or strong winds,” velocities of 39 miles in the hour, or above, as gales.

**Averages.**—The normal averages used for stations are—Pressure, Temperature, and Rainfall for the 35 years 1871–1905; Bright Sunshine for the 25 years 1881–1905. The values are published in Appendix III, to the Weekly Weather Report for 1906. For the Royal Observatory, Greenwich, and the Radcliffe Observatory, Oxford, averages for longer periods are used. See Notes in Monthly Weather Reports for 1908. Monthly averages of pressure at telegraphic reporting stations for the epoch 8 a.m. are published in Appendix I, to the Daily Weather Report. In order to render these averages comparable with the data for the present month, a correction, based on the results for the four observatories as published in “Hourly Readings at the Observatories under the Meteorological Council,” has been applied to each of them before the figures given in the column headed “Barometer—Difference from Normal” were computed.

**Aberdeen, Falmouth, Kew, Valencia, Oxford, Greenwich.**—The figures quoted in the second line assigned to these observatories in the columns for Barometer and Mean Temperature are the true daily means computed from the hourly tabulations of the traces of the photographic recording instruments. For Kew, Falmouth, Aberdeen and Valencia the divergences of the means of the readings at 9 a.m. and 9 p.m. from their normal averages are also given.

**Royal Observatory, Greenwich.**—The earth temperatures are taken at a depth of 3 ft. 2 ins. The daily rainfall amounts are those for the 24 hours comprising the civil day. The number of days in the month which were persistently overcast from midnight to midnight was 0, the number of persistently cloudless days was 0, the number of persistently foggy days was 0.

**Mean Values for Districts.**—The stations used in the Weekly Weather Report for the computation of “district values” of rainfall and temperature are distinguished by the sign †, those used for the computation of “district values of bright sunshine” by the sign §. These stations are distributed between Tables A and B. The monthly mean values for districts given in this Report for maximum, minimum and mean temperature, duration of bright sunshine, number of rain days and amount of rainfall, are computed from the data for these “representative” stations. The mean temperature for districts is computed in the manner shown in the preface to this and previous volumes of the Weekly Weather Report. The monthly mean values for districts for “amount of cloud” are computed from the data for all stations included in Table A. The extreme values of the various elements in each district are printed in distinctive type. In the lines devoted to district values, the columns referring to absolute highest and absolute lowest temperature and the maximum amount of rainfall in a day contain the extreme values for the district at any station included in either table of the Report. The averages for districts with which the current values are compared are for the 25 years 1881–1905, as in the case of the corresponding values published in the Weekly Weather Report.

**Meteorological Societies.**—Information for stations marked † is supplied by the Royal Meteorological Society, and that for stations marked § is supplied by the Scottish Meteorological Society. Stations marked S are in connexion with the Scottish Meteorological Society and those marked M with the Royal Meteorological Society, as well as with the Meteorological Office.



1. The first of the three main branches of the Army is the Infantry. The Infantry is the main fighting arm of the Army and is responsible for the majority of the fighting in any war. The Infantry is divided into three main branches: the Regular Infantry, the National Guard, and the Reserve Infantry. The Regular Infantry is the main fighting arm of the Army and is responsible for the majority of the fighting in any war. The National Guard is the main fighting arm of the State and is responsible for the majority of the fighting in any war. The Reserve Infantry is the main fighting arm of the Reserve and is responsible for the majority of the fighting in any war.

2. The second of the three main branches of the Army is the Cavalry. The Cavalry is the main fighting arm of the Army and is responsible for the majority of the fighting in any war. The Cavalry is divided into three main branches: the Regular Cavalry, the National Guard, and the Reserve Cavalry. The Regular Cavalry is the main fighting arm of the Army and is responsible for the majority of the fighting in any war. The National Guard is the main fighting arm of the State and is responsible for the majority of the fighting in any war. The Reserve Cavalry is the main fighting arm of the Reserve and is responsible for the majority of the fighting in any war.



# MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

(Supplement to the Weekly Weather Report.)

SUMMARY OF OBSERVATIONS COMPILED FROM THE RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS IN THE UNITED KINGDOM, WITH  
A CHART OF RAINFALL CONTRIBUTED BY THE BRITISH RAINFALL ORGANISATION.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE,  
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## SUMMARY OF OBSERVATIONS.

**Pressure, Winds and Weather.**—The distribution of atmospheric pressure in the course of September was of an unusual type. Through the first three weeks it was nearly always anticyclonic, but during the greater part of this period the area of maximum pressure was found out on the Atlantic, to the westward and south-westward. On the 12th it was shown by wireless reports from Transatlantic liners that the barometer stood above 30·6 ins. beyond the 25th meridian. At times, however, the anticyclone expanded in a north-easterly direction across these islands to Scandinavia and Northern Russia, and on some days pressure was as high in the vicinity of the Gulf of Finland as it had previously been on the ocean. In the British Isles the barometer attained its highest level on the 14th, when it passed 30·4 ins. at many stations, and reached 30·45 ins. at Donaghadee. Nearly the whole of the disturbances of this period had their pressure minima more or less distant from our coasts, most of them about Iceland and Scandinavia, but one which appeared to the southward of Iceland on the 5th followed a south-easterly course across the North of Scotland to Denmark. It proved to be the deepest which visited this country in the whole month. As the system approached the Hebrides the barometer fell rapidly, and on the 6th it dropped to 29·13 ins. at Stornoway, and below 29·5 ins. over Scotland and the North of England. With the closing week of the month the distribution became considerably modified, the anticyclones keeping to the northern and north-eastern regions, about Iceland and Northern Europe, while the British Isles were affected by disturbances which came from various quarters, or even formed over the country. But these depressions were all very shallow, so that few stations registered barometer readings below 29½ ins. The extreme range of pressure was consequently small, exceeding an inch in the northern districts of Britain, rather more than ½ in. at Stornoway, while southward it diminished to less than ½ in. at Jersey. For the whole month the results show a mean pressure of 30·1 ins. off the west of Ireland, the values decreasing to about 30 ins. on the eastern side of the North Sea, and rather below 29·95 ins. in Iceland. At all the home stations the mean readings were above the average, by only 0·02 in. at Dungeness, but the excess increasing westward and northward to as much as 0·21 in. at Stornoway. The mean gradient was very slight, at about right angles to the normal, and favoured the prevalence of a Northerly type of conditions. The winds experienced were variable in direction, all quarters being represented, but those from points in the Northern half of the compass predominated. Only on seven out of the first eleven days of the month did the force exceed that of a strong breeze at the telegraphic reporting stations; Holyhead reported a north-westerly gale, and Malin Head a strong gale from the same quarter on the 7th.

Notwithstanding the general prevalence of anticyclonic conditions the first week was characterised by changeable unsettled weather, and, as already noted, it was more breezy than the rest of the month. These results were due to the disturbances which were mainly to the northward and north-eastward. The influence of a depression centred over northern Sweden on the 1st, extended to these islands, rain falling in nearly all districts, and thunderstorms occurring in isolated places in southern England. The deep disturbance of the 6th produced thunderstorms in eastern England, and in a severe storm at Cromer 1·55 in. of rain fell in 55 minutes. At Donaghadee the day's rainfall amounted to 1·1 in.

This was followed by a spell of about a fortnight of much finer and drier weather over the greater part of the kingdom. At Mallaranny (Mayo), no rain fell on 17 consecutive days (9th to 25th), at Aberystwyth and Lampeter on 15 days (8th to 22nd), at Ennistymon (Clare) on 14 days (7th to 20th), and in numerous instances only a few light showers were experienced in from 15 to 20 days. Southport and the Manchester district had 0·01 in., and Liverpool 0·02 in. in 15 days, the Isle of Man 0·04 in. in 20 days. But this dry spell was marked by two very striking local interruptions. A shallow disturbance which appeared near Gibraltar on the 5th, moved slowly northward across Spain and western France, and on the 10th it lay over Brittany, causing strong to high Easterly and North-Easterly winds in the extreme south of England, with thunderstorms at a number of stations, and very heavy rain, an inch at Parkstone (Dorset), 1·1 in. at Portland Bill, 1·2 in. at Totland Bay, 1·5 in. at Sandown, and 1·8 in. at Ventnor.

On the 17th there occurred a very remarkable thunderstorm over many of the southern counties, mainly within the Thames watershed. The lightning was very frequent, and of the most brilliant description, and the thunder was of extraordinary violence. During the progress of the storm rain fell heavily, in several localities mixed with hail. At Epsom 0·14 in. fell in 2 minutes, mixed with small but very hard cubes of ice; at

Watlington (Oxon) 0·3 in. fell in 20 minutes; at Oxford 0·8 in. in 15 minutes, the total for the day being an inch; and at Wisley 1·4 in. fell in two hours.

After the 21st the weather fell into an extremely unsettled state. The south-eastern counties of England were visited by thunderstorms on the 22nd, and on the next day thunderstorms of more or less violence burst over nearly all England, the south of Scotland and in some parts of Ireland, Darwen reporting 1·1 in. of rain, Bradford 1·5 in., and Belvoir Castle 1·9 in., while it was stated that 3·4 ins. fell at Castle Bytham (Lincs.). On the 24th the storm had extended as far north as the Orkneys, severe at Deerness, Kirkwall was flooded, and there was loss of life. Very heavy rain fell on this day in Wales and the west of England, 1·1 in. at Abersychan (Monmouth), 1·2 in. at Bettws-y-coed and Newchurch, 1·4 in. at Overcourt (Bristol), 1·6 in. at Newport and Ynis-y-fro, and 1·7 in. at Pant-yr-Eos.

Local thunderstorms occurred in the south-east of England on the 25th, but by far the worst and most destructive rainstorms of the month were associated with a shallow irregularity of pressure which left the Atlantic on the 27th, and dispersed on the Thames Estuary on the 30th. It seems to have produced no thunderstorms, but rain fell in large quantities, and especially on the 27th and 28th in the western districts. On the former date the amounts ranged up to 1·7 in. at Limerick, 1·9 in. at Carrigoran (Clare) and Holyhead, and 2·2 ins. at Mount Callan (Clare); on the 28th over 2 ins. in South Wales and North Devon. The area over which more than an inch of rain fell on each of these two days was unusually extensive.

Another notable feature of the month was the almost entire absence of warm days, maximum temperatures of 70° and upwards being exceptionally rare. On the 3rd Whitby registered 73°; on the 19th Cullompton and Killarney 72°; on the 22nd Maidenhead 72°, Guernsey 74°, and Reading 75·5°; and on the 23rd Hillington 74°. Afternoon readings below 60° were very commonly experienced, below 55° in numerous instances, 48° at Sumburgh Head on the 6th, 49° at Thorntonhall on the 27th, Buxton on the 28th, and Sumburgh Head on the 30th. As a general rule the nights were relatively milder than the days, many of the minimum values being as high as 56° to 59°. But there were a few nights of sharp cold, the shaded thermometer sinking to between 32° and 30° in various parts of the kingdom on the mornings of the 2nd, 8th, 9th, 14th, 15th and 16th. West Linton had a minimum of 27° on the 15th, and Balmoral 26° on the 16th.

A severe magnetic storm occurred on the 25th, and it appears to have been world-wide in extent, interrupting telegraphic communications.

Aurora was observed at Balta Sound on the 10th, 16th and 19th; at Deerness on the 21st; and at Castlebay, Fort William, and in Anglesey and the Isle of Man on the 25th.

Fog was frequently and extensively experienced on the western and the eastern coasts, dense on some days, between the 17th and the 30th.

The temperature of the sea water round our coasts was colder than during August, by from 3° to 5° in many localities, but the water was generally warmer than the air on shore, in several places by 3° or 4°.

**Rainfall.**—There was an excess of precipitation in most parts of eastern, south-eastern, midland and north-western England, the excess being more than an inch at a number of stations, as much as 2·1 ins. at Ventnor. The total rainfall exceeded 5 ins. in parts of Wiltshire; it was between 6 and 8 ins. over a large area in the inland parts of Wales. In other districts there was a marked deficiency, which ranged up to 4·5 ins. at Fort William, and 5·1 ins. at Glencarron. In the extreme south of Ireland the total rainfall was less than 1 inch. The largest aggregate totals were 5·5 ins. at Arlington, 5·3 ins. at Bettws-y-Coed, and 4·9 ins. at Ventnor; the smallest 0·7 in. at Ballinacurra, and 0·6 in. at Scilly. Rain fell on 24 days at Cromer, on 9 days at Douglas. The Ballinacurra observer notes:—"The remarkable feature of this month was the continued drought following the very small August rainfall, 0·3 in., and unrelieved by sufficient rain to properly moisten the surface of the ground until the night of the 27th." At this station 0·5 in. fell in the last four days of the month, an amount which equalled the total quantity previously received in more than eight weeks.

**Bright Sunshine.**—Only the north of Scotland had an excess of sunshine, Fort Augustus returning an excess of 47 hours, and Stornoway 35 hours. In other regions the deficiency ranged up to 49 hours at Greenwich, 50 hours at Prestwich, and 52 hours at Oxford. At Whitworth Park, Manchester, the total duration was only 58 hours, or 15 per cent. of the possible, Hull, Birmingham, Huddersfield, Prestwich and Newcastle-on-Tyne returning 16 per cent. Guernsey had the largest records, 172 hours (46 per cent.) at Brooklyn, and 182 hours (49 per cent.) at Villa Carey.



TABLE A.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at 9 a.m., 3 p.m. and 9 p.m. at NORMAL STATIONS in the BRITISH ISLANDS

DISTRICT.	STATION.	Height of Barometer at Level and Latitude of Station.	BAROMETER.			AIR TEMPERATURE.								HYGROMETER.											
			Mean at 32° F. at Level and Latitude of Station.	Diff. from Normal.	C. for Diurnal Range.	Mean of		Mean of A and B.	Diff. from Normal.	Absolute Maximum and Minimum.				Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.											
						A	B			Max.	Day.	Min.	Day.	Dry Bulb.			Dep. of Wet.			Vap. Pressure.			Humidity.		
														I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
<b>1. SCOTLAND, N.</b>																									
Islands.	CASTLEBAY - -	48	29.973	+ .189	-.002	56.5	49.2	52.9	+0.5	62	25th	44	14th	51.9	54.9	52.9	2.0	3.5	2.6	In. .334	In. .336	In. .331	% 87	% 77	% 83
	Deerness - -	163	29.835	—	-.006	53.6	46.2	49.9	-1.6	59	10th	43	14th	51.3	—	49.2	1.8	—	1.5	.334	—	.316	88	—	90
	SUMBURGH HEAD	126	29.852	+ .180	-.002	53.4	45.1	49.3	-1.3	58	17th	39	14th	48.4	51.7	48.6	1.3	2.2	1.2	.308	.327	.312	91	86	92
	STORNOWAY -	52	29.970	+ .206	-.002	57.2	45.7	51.5	0.0	63	23rd	38	14th	49.1	55.9	49.6	1.6	3.2	1.6	.309	.359	.314	89	80	89
	Wick - -	80	29.900	+ .135	+ .003	55.3	44.2	49.8	-2.1	62	18th	32	14th	49.3	—	50.4	1.7	—	1.8	.308	—	.320	88	—	88
Mainland.	Strathpeffer -	210	29.804	—	-.007	57.8	44.8	51.3	-0.5	67	10th	37	13th	51.9	—	49.4	2.6	—	2.1	.319	—	.300	83	—	86
	Glencarron -	504	29.487	—	-.006	57.2	43.8	50.5	-1.0	66	11, 17, 23	35	14th	51.0	—	48.1	3.0	—	1.8	.299	—	.291	80	—	87
	Fort Augustus -	73	29.966	—	-.006	58.2	44.1	51.2	-2.1	68	10th	31	2nd	50.3	—	50.8	2.1	—	1.9	.311	—	.324	85	—	87
	Fort William -	28	30.005	—	-.006	59.4	44.2	51.8	-1.9	68	23rd	33	2nd, 14th	51.3	—	50.1	2.7	—	2.1	.310	—	.308	82	—	85
	Dunrobin Castle	16	30.002	—	-.006	56.8	45.5	51.2	-1.4	63	10th	40	13th	52.4	—	50.0	2.7	—	2.1	.326	—	.310	82	—	86
District Value -						56.9	44.6	50.4	-1.3	68		31													
<b>1. SCOTLAND, E.</b>																									
Northern Part.	Tillypronie -	1120	28.814	—	-.006	57.2	41.0	49.1	-0.6	68	18th	35	2nd	48.9	—	46.8	2.2	—	1.3	.296	—	.292	86	—	91
	Dundee - -	164	29.868	—	-.007	58.3	44.3	51.3	-2.3	67	10th	35	14th, 15th	51.2	—	49.2	2.2	—	1.3	.324	—	.319	86	—	91
	Nairn - -	82	29.917	+ .171	+ .003	58.4	42.1	50.3	-2.6	68	17th, 18th	31	14th	46.7	56.5	53.5	1.3	4.1	2.7	.289	.343	.336	91	74	82
	Gordon Castle -	107	29.914	—	-.006	59.2	43.0	51.1	-2.2	69	18th	35	13th	53.3	—	50.9	2.5	—	2.2	.338	—	.318	83	—	86
	Aberdeen - -	90	29.937	+ .150	-.007	55.5	46.1	50.8	-2.2	64	19th	39	14th	51.8	54.3	50.5	2.7	4.0	2.1	.316	.315	.314	82	75	86
Southern Part.	Balmoral - -	927	—	—	—	59.2	39.3	49.3	-0.5	66	11th	26	16th	46.8	—	—	1.9	—	—	.275	—	—	86	—	—
	Grieff - -	486	29.566	—	-.007	58.8	43.3	51.1	-2.3	70	9th	35	15th	50.8	—	49.5	2.7	—	1.6	.304	—	.314	82	—	89
	Leith - -	37	29.978	+ .142	+ .003	57.8	45.0	51.4	-3.5	64	9th, 17th	35	15th, 16th	48.4	—	54.8	1.8	—	3.3	.295	—	.340	87	—	79
	Marchmont -	500	29.499	—	-.007	56.8	43.8	50.3	-2.2	66	10th	38	2, 15, 16	51.8	—	48.7	2.8	—	1.4	.313	—	.309	81	—	90
	District Value -						57.6	42.8	49.9	-2.4	70		26												
<b>2. ENGLAND, N.E.</b>																									
Northern Part.	Seaham - -	188	29.882	—	-.008	57.0	47.7	52.4	-2.1	68	3rd	40	9th	53.0	—	51.3	2.3	—	1.4	.343	—	.343	84	—	90
	Whitby - -	145	29.860	—	-.008	61.2	48.2	54.7	-0.3	73	3rd	40	9th	54.1	—	52.5	2.4	—	2.0	.352	—	.342	85	—	86
	Cockle Pk (Morpeth)	331	29.684	—	-.008	56.8	44.1	50.5	—	66	19th	35	15th	52.1	—	49.3	2.0	—	0.9	.341	—	.332	87	—	94
	Shields - -	117	29.905	+ .124	+ .003	57.9	45.7	51.8	-2.5	68	3rd, 19th	38	15th	50.5	—	54.2	1.6	—	2.9	.327	—	.340	89	—	81
	Durham - -	352	29.657	—	-.008	57.4	45.3	51.4	-2.7	69	19th	36	9th	52.9	—	50.4	2.3	—	1.2	.341	—	.337	85	—	92
Southern Part.	Rounton - -	245	29.758	—	-.008	58.2	44.6	51.4	-2.2	69	3rd	35	9th	52.2	—	49.8	1.9	—	1.2	.340	—	.327	87	—	91
	Scarborough -	127	29.878	—	-.008	59.7	49.2	54.5	-0.7	71	3rd	42	9th	54.8	—	52.8	2.8	—	2.4	.351	—	.335	82	—	84
	York - -	53	29.989	—	-.008	60.7	46.6	53.7	-1.8	70	19th	38	9th	54.0	—	52.1	2.1	—	1.5	.357	—	.350	85	—	89
	Spurn Head -	28	29.970	+ .056	+ .003	59.3	50.3	54.8	-2.0	71	3rd	38	2nd	53.5	58.1	55.4	1.8	3.9	2.5	.359	.371	.368	88	76	84
	Lincoln - -	42	—	—	—	60.7	47.2	54.0	-2.3	68	24th	37	2nd	54.3	—	—	2.5	—	—	.356	—	—	84	—	—
<b>3. ENGLAND, E.</b>																									
Northern Part.	Lowestoft -	188	29.945	—	-.009	60.0	49.0	54.5	-2.6	68	6th	40	8th	57.6	—	53.8	3.1	—	1.3	.384	—	.377	81	—	91
	Cromer - -	139	—	—	-.009	59.6	49.5	54.6	—	68	24th	44	3rd	—	—	—	—	—	—	—	—	—	—	—	—
	Hillington -	9	29.916	—	-.009	61.2	46.5	53.9	-2.3	74	23rd	35	2nd	55.4	—	52.0	2.1	—	1.0	.378	—	.361	86	—	93
	Norwich - -	98	—	—	—	61.6	48.1	54.9	—	74	23rd	40	10th	—	—	—	—	—	—	—	—	—	—	—	—
	YARMOUTH -	27	29.986	+ .047	-.003	60.4	49.6	55.0	-1.9	68	6th	42	8th	53.2	58.8	54.1	1.4	3.8	1.7	.366	.383	.370	91	77	88
Southern Part.	Geldeston -	47	29.972	—	-.009	61.7	46.9	54.3	-2.5	71	23rd	39	2nd	56.7	—	52.2	2.4	—	1.1	.389	—	.361	85	—	93
	Cambridge -	43	29.979	—	-.009	62.4	47.2	54.8	-2.3	70	6th	35	2nd	55.1	—	52.2	2.1	—	1.2	.378	—	.361	87	—	92
	CLACTON -	62	29.958	+ .029	-.003	61.4	49.9	55.7	-2.2	67	3rd, 6th	41	2nd	53.6	59.8	54.6	1.4	4.1	2.0	.372	.390	.370	90	76	87
	Woburn - -	294	29.739	—	-.009	60.8	46.4	53.6	—	68	22nd	35	10th	53.8	—	52.0	1.8	—	1.2	.367	—	.360	88	—	92
	Bennington -	411	29.627	—	-.009	61.3	47.3	54.3	-2.2	67	6th	39	8th	54.4	—	51.7	2.3	—	1.5	.358	—	.344	84	—	90
<b>4. MIDLAND COS.</b>																									
Eastern Part.	Berkhamsted -	397	29.625	—	-.009	61.7	46.1	53.9	-2.4	70	22nd	38	8th	54.2	—	51.0	2.0	—	0.9	.364	—	.351	86	—	94
	District Value -						61.3	48.0	54.3	-1.6	72		35												
	Garforth - -	198	—	—	-.008	59.5	44.0	51.8	—	67	3rd, 19th	30	2nd	53.1	—	49.7	2.1	—	1.2	.347	—	.330	86	—	92
	Huddersfield -	411	29.615	—	-.009	58.1	46.8	52.5	—	67	19th	38	2nd	51.9	—	50.9	1.8	—	1.3	.343	—	.342	89	—	91
	Wakefield -	100	29.932	—	-.008	61.0	46.7	53.9	-1.0	67	3rd	36	2nd	53.2	—	—	2.3	—	—	.343	—	—	84	—	—
Western Part.	Belvoir Castle -	276	29.753	—	-.009	59.8	46.3	53.1	-2.7	66	19th, 24th	34	2nd	52.8	—	51.1	1.3	—	0.9	.364	—	.352	91	—	93
	Coventry - -	309	29.719	—	—	60.7	48.0	54.4	-1.8	68	6th	35	2nd	53.4	—	—	2.3	—	—	.345	—	—	85	—	—
	NOTTINGHAM -	85	29.942	+ .063	-.003	60.6	47.4	54.0	-1.9	68	19th	37	2nd, 3rd	51.3	58.8	52.4	1.1	4.1	1.1	.349	.375	.363	92	76	92
	Birmingham -	542	29.464	—	-.009	59.0	48.2	53.6	-1.9	67	19th	41	9th	50.9	—	53.1	1.5	—	2.3	.333	—	.348	90	—	85
	Oxford - -	212	29.825	+ .062	—	61.0	47.7	54.4	-2.2	69	22nd	39	2nd	51.9	—	53.9	1.4	—	—	.349	—	—	91	—	—
Western Part.	Bath - -	84	29.951	+ .063	+ .004	61.6	46.8	54.2	-2.3	69	22nd	37	3rd	51.9	—	57.5	1.7	—	—	.341	—	—	88	—	—
	Shrewsbury -	212	29.819	—	-.009	60.6	45.6	53.1	-3.2	71	19th	35	2nd	53.0	—	51.5	1.6	—	0.8	.3					



CLIMATOLOGICAL STATIONS, at 7 a.m., 1 p.m., and 6 p.m. or 9 p.m. or at 7 a.m. and 6 p.m. at TELEGRAPHIC REPORTING during the month of SEPTEMBER, 1909.

Earth Temperature.		BRIGHT SUNSHINE.				CLOUD (0-10.)			RAIN AND OTHER FORMS OF PRECIPITATION.				WEATHER. No. of Days of										WIND.										STATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
At 1 foot depth.	At 4 feet depth.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	Mean Amount.			Total Fall.	Diff. from Normal.	Most in a day.		Precipitation.	Snow.	Hail.	Thunderstorm.	Clear Sky.	Overcast.	Fog.	Ground Frost.	Wind-force 8 and above.	No. of Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
						I.	II.	III.			Amount.	Day.										Forces 4-7.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
°	°	Hrs.	Hrs.	%	%				Ins.	Ins.	Ins.	12th																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						



TABLE A. (continued).—Giving a Summary of the METEOROLOGICAL OBSERVATIONS made at 9 a.m., 3 p.m. and 9 p.m. at NORMAL STATIONS in the BRITISH ISLANDS

DISTRICT.	STATION.	Height of Barometer at 32° F. at Level and Latitude of Station.	BAROMETER.			AIR TEMPERATURE.								HYGROMETER.												
			Mean at 32° F. at Level and Latitude of Station.	Diff. from Normal.	Cor. for Diurnal Range.	Mean of		Mean of A and B.	Diff. from Normal.	Absolute Maximum and Minimum.				Observations at 9 a.m., 3 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.												
						A	B			Max.	Day.	Min.	Day.	Dry Bulb.			Dep. of Wet.			Vap. Pressure.			Humidity.			
														I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.	
5. ENGLAND, S.E.	Reading - - -	264	29.751	—	—	61.8	47.0	54.4	—	76	22nd	36	8th	54.3	—	53.2	2.0	—	1.9	365	—	352	86	—	87	
	Salisbury - - -	186	29.839	—	—	63.0	46.5	54.8	—1.7	71	22nd	37	3rd	54.9	—	52.8	1.7	—	1.0	352	—	372	89	—	93	
	Brighton - - -	48	29.978	—	—	62.9	51.0	57.0	—1.6	71	12th	43	3rd	57.7	—	—	3.1	—	—	387	—	—	81	—	—	
	Portsmouth - - -	18	30.030	—	—	63.1	51.4	57.3	—1.2	71	12th	44	3rd	57.5	—	—	2.8	—	—	392	—	—	82	—	—	
	Eastbourne - - -	36	29.999	—	—	62.9	51.3	57.1	—1.5	69	12th	44	2nd	58.0	—	55.6	2.8	—	1.6	401	—	400	85	—	90	
	Dungeness - - -	21	29.972	+0.020	+0.003	62.6	50.5	56.6	—1.9	66	12th	39	2nd	55.0	61.9	59.2	1.4	4.1	2.6	392	423	422	91	76	85	
	Hastings - - -	174	29.845	—	—	62.9	50.9	56.9	—1.3	69	22nd	42	1st	57.7	—	55.0	3.0	—	2.1	390	—	372	81	—	86	
	Southampton - - -	84	29.959	—	—	62.9	49.5	56.2	—2.1	69	6th	41	3rd, 8th	57.1	—	54.4	3.0	—	1.5	382	—	383	82	—	90	
	Ventnor - - -	80	29.941	—	—	62.3	52.1	57.2	—2.2	68	12th	44	8th	57.9	—	—	3.5	—	—	379	—	—	78	—	—	
	District Value - - -					62.1	48.9	55.2	—2.0	76		30														
LONDON	Tottenham - - -	55	29.969	—	—	63.2	47.2	55.2	—2.5	70	22nd	39	15th	56.9	—	54.6	2.3	—	1.4	397	—	391	85	—	91	
	Camden Square - - -	123	29.905	—	—	63.6	48.6	56.1	—2.4	70	6th	40	2nd	56.0	—	54.1	2.4	—	1.5	381	—	376	85	—	90	
	Westminster - - -	54	29.968	+0.037	+0.003	61.9	49.5	55.7	—2.2	69	6th	42	2nd	52.4	—	58.2	1.3	—	3.8	358	—	376	91	—	77	
	Greenwich - - -	159	29.862	+0.041	+0.010	62.8	47.5	55.2	—3.0	71	6th	37	2nd	55.8	—	53.2	2.5	—	1.7	375	—	358	85	—	88	
	Norwood - - -	235	29.811	—	—	62.5	48.4	55.5	—2.1	71	6th	40	2nd	55.4	—	53.1	2.5	—	1.4	367	—	365	84	—	90	
	Kew - - -	34	30.008	+0.045	+0.010	61.6	48.9	55.3	—1.8	69	6th	40	2nd	55.0	60.3	54.7	2.5	5.1	2.3	362	371	363	84	71	85	
	Bunhill Row - - -		29.998	+0.046	—	—	—	55.2	—1.5	—		—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Plumstead - - -			—	—	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6. SCOT- LAND, W.	Laudale - - -	25	30.004	—	—	60.5	46.8	53.7	0.0	70	23rd	39	2nd	54.0	—	51.2	1.9	—	1.1	367	—	350	88	—	93	
	Poltalloch - - -	135	29.902	—	—	59.1	44.6	51.9	—2.2	63	17, 23, 25	33	2nd, 15th	52.2	—	49.1	2.4	—	1.7	328	—	307	84	—	88	
	Glasgow - - -	184	29.839	—	—	57.4	45.6	51.5	—1.7	63	9th	37	15th	50.4	—	50.8	2.3	—	1.8	311	—	328	85	—	88	
	Rothsay - - -	76	29.964	—	—	59.8	45.9	52.9	—1.0	65	10th, 17th	38	2nd, 21st	52.4	—	50.1	2.2	—	1.4	335	—	326	85	—	90	
	Colmonell - - -	150	29.907	—	—	61.9	44.2	53.1	—0.8	69	23rd	31	14th	51.8	60.0	—	2.1	5.1	—	331	367	—	86	71	—	
	Dumfries - - -	155	29.891	—	—	59.5	46.4	53.0	—1.7	66	10, 17, 25	37	15th	50.8	—	51.3	2.8	—	2.3	301	—	319	81	—	84	
	Gally, Gatehouse - - -	120	—	—	—	61.0	43.5	52.3	—0.9	68	10th	34	2nd, 14th	55.1	—	49.8	2.0	—	2.0	377	—	307	87	—	87	
	Douglas - - -	284	29.747	—	—	58.7	48.6	53.7	—0.6	66	19th	43	14th	54.5	—	52.7	3.0	—	1.8	348	—	354	81	—	88	
		District Value - - -					59.8	45.4	52.3	—0.9	70		31													
	7. ENG- LAND, N.W.	Southport - - -	42	30.006	—	—	59.4	47.4	53.4	—1.9	65	24th	38	2nd	54.1	—	52.7	2.5	—	1.7	349	—	351	83	—	88
Manchester (City) - - -		196	29.836	—	—	59.5	49.3	54.4	—	66	24th	42	9th	53.8	—	54.4	2.8	—	2.8	343	—	351	82	—	82	
„ (Whitworth Pk) - - -		127	29.880	—	—	59.7	47.9	53.8	—	67	24th	39	9th	53.7	58.3	53.2	1.3	—	1.0	376	—	377	91	77	93	
Darwen - - -		722	29.263	—	—	57.6	44.8	51.2	—	66	19th	37	14th	52.9	—	50.7	2.2	—	1.3	344	—	338	85	—	91	
Aspatria - - -		254	29.770	—	—	59.8	44.2	52.0	—1.7	69	17th	38	15th	52.9	—	49.9	2.1	—	1.0	348	—	338	86	—	93	
Newton Rigg - - -		559	29.432	—	—	59.6	42.4	51.0	—1.9	68	25th	32	14th, 15th	49.9	—	50.2	1.1	—	1.4	331	—	327	93	—	86	
Stonyhurst - - -		363	29.659	—	—	58.1	46.5	52.3	—2.2	62	24th	37	2nd	52.5	—	51.6	2.5	—	2.0	333	—	333	84	—	86	
Blackpool - - -		73	29.968	—	—	59.7	46.2	52.8	—2.7	65	24th	35	14th	55.6	—	52.2	2.8	—	1.6	365	—	348	82	—	89	
M'ch't'r (Prestwich) - - -		320	29.693	—	—	59.3	46.6	53.0	—1.9	68	19th	38	9th	52.7	—	52.0	1.8	—	1.9	349	—	338	88	—	87	
Liverpl., Bidston Obs. - - -		197	29.326	—	—	58.6	49.4	54.0	—2.1	63	24th	41	14th	53.9	—	53.6	2.8	—	2.2	338	—	350	82	—	85	
8. SOUTH WALES	Llandudno - - -	21	30.030	—	—	59.7	49.4	54.6	—2.4	66	17th	40	14th	55.4	—	54.8	2.1	—	1.3	379	—	393	87	—	92	
	HOLYHEAD - - -	48	29.989	+0.098	+0.003	59.8	49.2	54.5	—2.0	67	23rd	43	15th, 16th	53.1	58.6	54.2	1.4	3.2	1.5	365	396	378	90	80	90	
	Bettws-y-Coed - - -	100	29.907	—	—	60.3	45.8	53.1	—3.5	68	17th	35	14th	53.3	—	51.2	2.0	—	0.9	351	—	353	86	—	94	
		District Value - - -					59.5	46.7	52.8	—2.1	69		32													
	Llangamarch Wells - - -	585	29.418	—	—	59.5	42.4	51.0	—3.5	66	19th	30	9th	51.5	—	—	1.5	—	—	341	—	—	89	—	—	
	PEMBROKE - - -	150	29.872	+0.077	+0.003	60.3	49.9	55.1	—1.7	63	10, 12, 29	44	8th, 15th	53.2	58.2	54.2	1.5	3.5	1.5	363	382	378	90	79	90	
	Clifton - - -	229	—	—	—	60.6	49.5	55.1	—2.6	67	22nd	43	9th	—	—	—	—	—	—	—	—	—	—	—	—	
	PORTLAND BILL - - -	23	29.990	+0.018	+0.003	61.3	52.8	57.1	—2.2	66	12th	47	8th, 9th	55.7	59.7	57.4	1.5	2.1	1.4	401	446	429	90	88	91	
	Plymouth - - -	116	29.930	—	—	62.8	49.6	56.2	—1.5	68	12th	43	3rd	57.3	60.3	56.2	3.1	5.2	3.1	386	376	369	81	72	81	
	Falmouth - - -	183	29.875	+0.074	+0.009	61.0	51.3	56.2	—1.2	65	5th	45	9th	50.6	59.7	54.9	2.7	3.9	1.7	380	394	382	82	77	89	
9. IRELAND, N.	Woolacombe - - -	79	29.938	—	—	61.4	52.7	57.1																		



CLIMATOLOGICAL STATIONS, at 7 a.m., 1 p.m. and 6 p.m. or 9 p.m. or at 7 a.m. and 6 p.m. at TELEGRAPHIC REPORTING during the Month of SEPTEMBER, 1909.

Earth Temperature.		BRIGHT SUNSHINE.				CLOUD (0-10).			RAIN AND OTHER FORMS OF PRECIPITATION.				WEATHER. No. of Days of										WIND.										STATIONS.
At 1 foot depth.	At 4 feet depth.	Total in Hrs.	Diff. from Normal.	Per Cent.	Diff. from Normal.	Mean Amount.			Total Fall.	Diff. from Normal.	Most in a day.		Precipitation.	Snow.	Hail.	Thunderstorm.	Clear Sky.	Overcast.	Fog.	Ground Frost.	Wind-force 8 and above.	No. of Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.											
						I.	II.	III.			Amount.	Day.										Forces 4-7.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		
—	—	98	—	26	—	6.8	—	5.0	2.43	-0.41	0.62	28th	20	0	0	1	2	7	0	—	0	5	37	1	8	0	0	1	5	4	4	Reading.	
58.2	—	—	—	—	—	7.4	—	5.9	4.00	+1.54	1.72	28th	18	0	0	0	1	9	2	0	0	9	0	9	12	2	5	0	4	8	20	Salisbury.	
—	59.7	152	-13	41	-3	6.9	—	—	2.73	+0.34	0.70	28th	16	0	0	1	2	15	0	0	0	11	2	5	6	2	3	1	3	5	3	Brighton.	
52.0	59.0	139	—	37	—	5.8	—	—	3.56	+1.02	1.35	28th	18	0	0	1	7	11	0	0	0	10	0	4	10	2	4	0	3	4	3	Portsmouth.	
59.4	59.6	152	-15	41	-4	6.0	—	—	4.43	+1.56	1.00	10th	17	0	0	2	5	6	0	—	0	0	0	6	25	3	2	2	10	4	8	Eastbourne.	
—	—	—	—	—	—	7.5	7.0	7.2	3.40	+1.10	0.94	28th	20	0	0	2	0	9	3	—	—	45	0	13	31	6	3	5	19	7	6	Dungeness.	
59.6	59.4	153	-14	41	-4	6.8	—	—	4.7	+0.54	0.83	22nd	19	0	0	3	4	8	3	0	0	16	2	12	12	5	4	3	10	6	6	Hastings.	
—	—	127	-32	34	-9	6.1	—	4.2	3.86	+1.30	1.85	28th	18	0	0	1	5	8	0	0	0	24	0	2	22	0	12	0	13	0	11	Southampton.	
—	—	139	-32	37	-9	6.6	—	—	4.93	+2.14	1.83	10th	18	0	0	0	2	10	1	—	0	7	3	13	15	6	4	6	3	5	5	Ventnor.	
57.9	58.5	133	-20	36	-5	6.7	—	5.1	3.40	+1.12	1.85	—	19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	58.7	109	—	29	—	7.2	—	5.7	2.55	—	0.37	4th	19	0	0	1	0	7	0	0	0	1	4	7	14	4	8	2	5	7	9	Tottenham.	
56.2	57.1	101	—	27	—	7.0	—	—	2.56	+0.39	0.39	28th	21	0	0	0	5	15	1	0	—	—	3	9	8	2	0	1	2	0	5	Camden Square.	
—	—	94	-23	25	-6	6.8	—	7.6	2.16	+0.10	0.39	28th	20	0	0	1	0	13	1	0	0	7	4	8	13	5	4	3	7	9	7	Westminster.	
—	58.2	106	-49	28	-13	7.4	—	5.2	2.48	+0.33	0.40	13th	17	0	0	1	2	9	5	2	0	2	4	13	10	7	4	4	9	5	4	Greenwich.	
57.1	—	—	—	—	—	7.2	—	5.2	2.53	+0.42	0.48	28th	19	0	0	2	3	9	4	0	0	2	21	9	10	2	1	0	7	4	6	Norwood.	
56.8	57.0	113	-28	30	-8	7.0	8.2	4.8	2.57	+0.44	0.40	28th	19	0	0	2	1	7	3	1	0	6	24	15	12	10	5	3	7	9	5	Kew.	
—	—	92	-21	25	-5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Bunhill Row.	
—	—	88	—	24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Plumstead.	
—	—	—	—	—	—	6.7	—	6.1	4.02	-3.20	0.95	3rd	13	0	0	0	5	13	0	—	0	23	26	12	0	5	2	8	0	5	2	Laudale.	
—	—	—	—	—	—	6.5	—	4.9	2.61	-2.51	0.52	3rd	13	0	0	0	4	7	1	—	0	12	12	9	6	3	6	8	5	8	3	Poltalloch.	
—	—	79	-21	21	-6	8.3	—	6.9	1.78	-1.80	0.34	27th	11	0	0	1	0	13	0	2	0	2	18	5	2	20	0	1	2	11	1	Glasgow.	
—	53.4	—	—	—	—	6.0	—	4.6	2.54	-1.95	0.47	5th	14	0	0	0	6	7	10	—	1	7	13	3	1	22	0	2	0	10	9	Rothesay.	
—	—	—	—	—	—	6.2	—	—	2.48	-1.58	0.59	27th	13	0	0	0	8	15	0	2	0	12	4	10	2	10	16	4	2	10	2	Colmonell.	
54.3	55.2	115	—	31	—	6.7	—	6.2	2.05	-1.32	0.77	27th	10	0	0	0	4	13	1	0	0	9	11	10	3	1	9	5	9	1	6	Dunfries.	
—	—	—	—	—	—	—	—	—	2.41	-1.72	0.63	27th	13	0	0	1	—	—	0	—	0	2	0	7	11	1	3	0	16	1	21	1	Cally.
—	—	151	+7	40	+2	6.7	—	5.2	2.97	-0.74	1.00	28th	9	0	0	2	5	11	6	0	0	11	4	7	10	11	2	3	3	10	10	Douglas.	
—	—	115	-10	31	-2	6.7	—	5.7	2.55	-1.56	1.00	—	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
56.4	57.5	108	-23	29	-6	6.9	—	6.4	2.47	-0.73	0.74	27th	14	0	1	1	1	9	2	4	2	16	4	7	10	17	8	3	1	6	4	Southport.	
54.6	56.4	65	—	17	—	—	—	—	2.73	-0.55	0.65	23rd	14	0	0	1	—	—	0	8	0	0	9	14	10	7	4	6	6	4	4	Manchester (City).	
—	—	58	—	15	—	8.1	—	6.1	2.19	—	0.58	29th	13	0	0	1	1	12	2	0	0	4	18	7	17	13	8	6	5	9	7	" (Whit. P'k).	
54.4	54.1	74	—	20	—	8.3	—	7.7	3.64	—	1.08	23rd	15	0	0	1	0	16	0	0	0	7	2	2	16	1	7	9	2	14	7	Darwen.	
—	—	131	—	35	—	6.3	—	5.0	2.58	-1.31	0.95	27th	13	0	0	1	3	5	1	1	0	11	24	13	7	0	0	0	2	11	3	Aspatia.	
54.4	54.3	124	+1	33	0	5.9	—	5.6	2.30	-0.77	0.81	27th	14	0	0	0	4	8	6	2	0	7	15	1	3	7	9	6	4	8	7	Newton Rigg.	
—	—	90	-37	24	-10	7.7	—	5.2	3.53	-0.93	0.83	5.27	14	0	0	1	1	10	0	2	0	3	30	6	11	2	1	1	3	4	2	Stonyhurst.	
55.2	54.8	120	-7	32	-2	7.3	—	8.1	3.00	-0.41	0.83	27th	14	0	1	1	0	13	1	4	2	9	4	5	8	17	9	3	1	7	6	Blackpool.	
—	—	61	-50	16	-14	9.0	—	5.2	2.50	-1.09	0.75	27th	15	0	0	1	0	12	0	0	0	6	13	11	13	7	1	3	2	9	1	Manchester (Prest).	
—	—	109	—	29	—	7.0	—	7.6	2.43	-0.53	1.00	27th	14	0	0	2	1	11	0	—	0	7	0	6	11	12	8	2	5	9	7	Liverpool, Bid. Obs.	
—	—	126	-3	34	-1	7.5	—	7.3	3.21	+0.45	1.27	27th	15	0	1	0	1	16	1	—	0	4	12	6	1	11	3	1	7	13	6	Llandudno.	
—	—	—	—	—	—	6.9	6.6	4.8	4.40	+1.44	1.86	27th	13	0	0	1	1	4	7	—	1	28	10	9	18	10	4	1	19	8	11	Holyhead.	
52.7	53.1	101	—	27	—	6.6	—	6.0	3.30	—	1.31	27th	16	0	0	1	1	9	0	0	0	3	4	6	6	8	8	1	6	8	13	Bettws-y-Coed.	
54.6	55.0	118	-10	31	-3	7.3																											



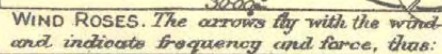
TABLE B.—SUMMARY of the OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE at additional STATIONS, SEPTEMBER, 1909.

DISTRICT.	STATION.	Height of Gauge above M.S.L. Ft.	AIR TEMPERATURE.								Earth Temperature		Grnd Frost.	RAIN AND OTHER FORMS OF PRECIPITATION.					BRIGHT SUNSHINE.				
			Mean of		Mean of A and B.	Diff. of Mean from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.		No. of Days.	Total Fall.	Diff. from Normal.	Most in a day.		Number of Days.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.
			A	B			Max.	Day.	Min.	Day.							Amt.	Day.					
			Max.	Min.																			
O. SCOTLAND, N.	p Balta Sound - - -	S	31	53.5	45.6	49.6	—	60	18th	38	14th	50.6	—	—	1.60	—	0.31	9th	18	103	—	27	—
	p Crathes - - -	S	140	59.0	42.1	50.6	—	67	19th	29	15th	53.8	54.1	6	1.67	—	0.55	21st	15	96	—	25	—
	Stonehaven - - -	?	86	56.6	45.7	51.2	—	63	20th	37	15th	—	—	—	1.27	—	0.22	21st	16	121	—	32	—
1. SCOTLAND, E.	p Balruddery - - -	S	276	59.2	42.3	50.8	—	68	10th	33	15th	—	—	—	1.45	—	0.39	27th	16	123	—	33	—
	Edinburgh - - -		253	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	95	7	25	—
	a West Linton - - -	S	800	55.1	40.1	47.6	-4.9	64	10th	27	15th	—	—	8	2.06	—	0.61	27th	17	101	—	27	—
	a Alnwick Castle - - -		210	57.4	44.4	50.9	-2.6	68	19th	33	15th	—	—	—	2.63	+0.04	0.68	7th	16	—	—	—	—
	p Newcastle-on-Tyne - - -		152	57.7	47.3	52.5	—	66	19th	40	15th	—	—	—	1.72	-0.45	0.53	27th	18	62	37	16	-10
	p Ampleforth - - -		349	59.3	46.2	52.8	—	68	3rd	39	9th	—	—	—	1.72	—	0.80	27th	14	—	—	—	—
2. ENGLAND, N.E.	p Tealby - - -		251	59.4	47.0	53.2	-2.4	66	19th, 24th	39	9th	—	—	—	2.43	-0.25	0.60	25th	14	—	—	—	—
	a Fulbeck - - -		180	62.1	46.8	54.5	-1.4	70	19th	36	2nd	—	—	—	2.53	+0.47	0.72	23rd	21	—	—	—	—
	a Rauceby - - -		124	61.5	46.9	54.2	—	68	19th	38	2nd	56.6	56.0	0	2.67	+0.32	0.39	12th, 23rd	20	105	—	28	—
	a Felixstowe - - -		10	61.7	50.0	55.9	-1.1	68	6th	41	2nd	—	—	—	2.27	—	0.66	28th	16	146	—	39	—
	a Rothamsted - - -		424	60.4	47.2	53.8	-1.9	67	6th, 22nd	37	2nd	—	—	—	1.68	-0.72	0.25	28th	20	109	37	49	-10
	a Shoeburyness - - -		13	62.2	50.3	56.3	-2.3	67	3, 6, 24	41	2nd	—	—	—	1.75	-0.15	0.46	28th	19	—	—	—	—
3. ENGLAND, E.	a Southend-on-Sea - - -		100	62.2	49.5	55.9	—	68	3, 6, 24	41	2nd, 8th	58.7	—	0	1.79	-0.21	0.30	28th	16	131	—	35	—
	a Harrogate - - -		476	58.0	45.6	51.8	-2.3	67	3rd, 19th	38	9th	53.1	53.6	0	1.84	-0.64	0.47	27th	20	90	—	24	—
	a Bradford - - -		489	58.1	46.6	52.4	—	65	3rd, 19th	37	9th	54.2	55.5	0	3.24	—	1.46	23rd	17	74	—	20	—
	a Cheadle - - -	gr	646	58.3	46.1	52.2	-2.0	64	19th	40	2nd	—	—	0	3.00	+0.70	0.64	6th	19	—	—	—	—
	a Bawtry - - -		65	60.6	46.7	53.7	-1.7	67	6th, 24th	38	21st	—	—	—	1.93	-0.17	0.45	23rd	19	—	—	—	—
	a Worksop - - -	gr	56	61.0	46.5	53.8	-1.4	70	19th	35	2nd	55.1	55.1	1	2.25	+0.23	0.49	23rd	18	74	45	20	-12
4. MIDLAND COUNTIES	a Mayfield (Staffs.) - - -		374	58.9	45.5	52.2	—	66	19th	31	2nd	—	—	1	3.46	—	0.91	28th	17	—	—	—	—
	a Kingston-on-Soar - - -		125	60.3	46.7	53.5	—	68	24th	36	2nd	55.7	—	—	2.57	—	0.38	23rd	23	—	—	—	—
	p Rugby - - -		379	61.8	45.9	53.9	-1.7	69	22nd	35	2nd	—	—	0	2.31	—	0.39	28th	21	—	—	—	—
	a Raunds - - -	gr	210	62.7	46.1	54.5	-1.8	71	6th	35	2nd	—	—	1	2.15	—	0.25	30th	22	—	—	—	—
	a Winslow - - -		379	59.9	46.9	53.4	—	68	22nd	35	2nd	—	—	—	2.53	—	0.49	4th	21	—	—	—	—
	a Hereford - - -	gr	291	60.6	46.4	53.5	-2.3	71	19th	33	21st	—	—	25	2.67	+0.53	1.56	28th	15	—	—	—	—
	a Cirencester - - -		446	59.8	46.1	53.0	-2.1	66	6th, 22nd	36	3rd	—	—	4	3.00	+0.31	0.87	28th	20	95	44	25	-12
	a Epsom - - -		160	61.9	47.2	54.6	—	71	22nd	37	8th	—	—	3	3.12	—	0.54	28th	21	—	—	—	—
	a Wokingham - - -		216	61.8	43.6	52.7	—	69	6th	30	8th	—	—	—	3.58	—	0.80	17th	20	—	—	—	—
	a Maidenhead - - -		99	65.1	47.2	56.2	—	72	22nd	37	2nd, 8th	—	—	0	3.05	+0.76	0.61	28th	23	—	—	—	—
	a Marlborough - - -		424	61.2	44.7	53.0	-1.9	67	22nd	33	8th	—	—	6	3.51	+0.81	0.80	28th	22	102	28	27	-8
	a Bucklebury - - -		409	60.6	45.5	53.6	—	68	22nd	37	8th	—	—	3	3.36	—	0.77	28th	18	—	—	—	—
	a Swaraton - - -	gr	310	61.1	45.6	53.4	-2.1	70	22nd	34	3rd	—	—	—	2.97	+0.40	1.20	28th	17	—	—	—	—
	a Margate - - -		85	63.2	52.5	57.9	-0.7	70	23rd	47	3rd	57.2	57.0	0	2.36	+0.27	0.61	25th	17	143	7	38	-2
	Broadstairs - - -		140	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	154	—	41	—
	Ramsgate - - -		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	159	—	43	—
	a Wisley - - -		150	61.5	47.4	54.5	-3.5	70	6th	37	2nd	56.7	57.6	1	3.42	—	1.41	17th	20	116	—	31	—
	a Dover - - -		231	61.8	50.5	56.2	—	66	22nd	41	21st	57.0	56.3	0	2.36	—	0.67	25th	16	165	—	44	—
5. ENGLAND, S.E.	a Tunbridge Wells - - -	gr	421	61.7	47.3	54.5	-2.2	71	17th	37	2nd	57.4	—	—	3.80	+1.33	0.82	22nd	19	129	28	34	-8
	a Matfield - - -		320	62.1	48.0	55.1	—	71	17th	39	2nd	—	—	1	3.99	—	0.76	25th	19	—	—	—	—
	p Folkestone - - -		121	61.9	50.5	56.2	—	67	17th	43	1st	—	56.0	—	2.38	-0.09	0.57	22nd	18	156	—	42	—
	Littlestone - - -		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	153	—	41	—
	a Bexhill - - -		27	62.8	52.0	57.4	—	68	12th	41	2nd	60.0	—	0	2.74	—	0.82	10th	14	151	—	40	—
	Hove - - -		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	155	—	42	—
	p Lewes - - -		58	—	—	—	—	—	—	—	—	—	—	—	3.25	—	0.58	10th	23	—	—	—	—
	a Worthing - - -		36	62.8	50.4	56.6	-1.4	69	12th	42	1st	58.6	58.6	0	2.97	+0.52	0.72	28th	17	160	—	43	—
	a Bognor - - -		20	62.2	51.1	56.7	—	69	12th	41	1st	—	57.1	0	3.40	—	0.89	28th	18	165	45	44	—
	Westbourne - - -		30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	149	—	40	—
	a Totland Bay - - -		140	61.9	51.2	56.6	-1.2	69	21st	45	3rd	—	—	0	4.16	+1.68	1.39	28th	16	133	—	36	—
	a Sandown - - -		20	63.5	51.6	57.6	—	72	20th	41	2nd	—	—	—	4.28	—	1.52	10th	15	141	—	38	—
	p Bournemouth - - -		145	62.7	49.4	56.1	—	70	20th	42	3rd, 8th	57.1	58.4	—	3.13	—	1.10	28th	17	135	—	36	—
	p Oban - - -		20	62.3	46.9	54.6	—	70	23rd	38	21st	—	—	0	2.14	—	0.78	26th	13	155	—	41	—
	a Thorntonhall (Lanarkshire) - - -		440	57.4	42.3																		

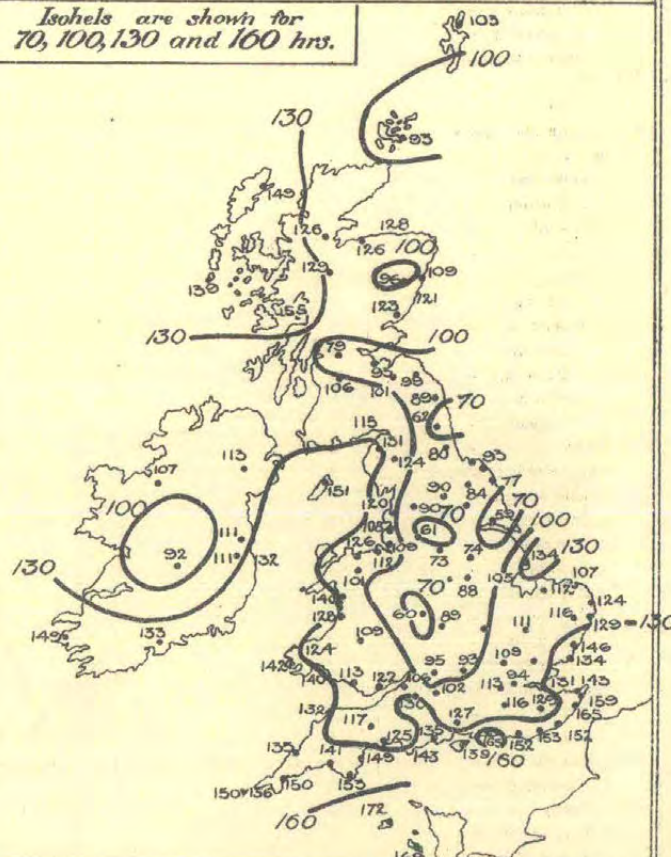
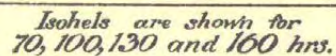


## XCiii.

The dotted lines indicate the normal distribution of pressure in Sept. based on 35 years' observations, 1871-1905.



*Reduced to sea level by a  
correction of 1' for 300ft*





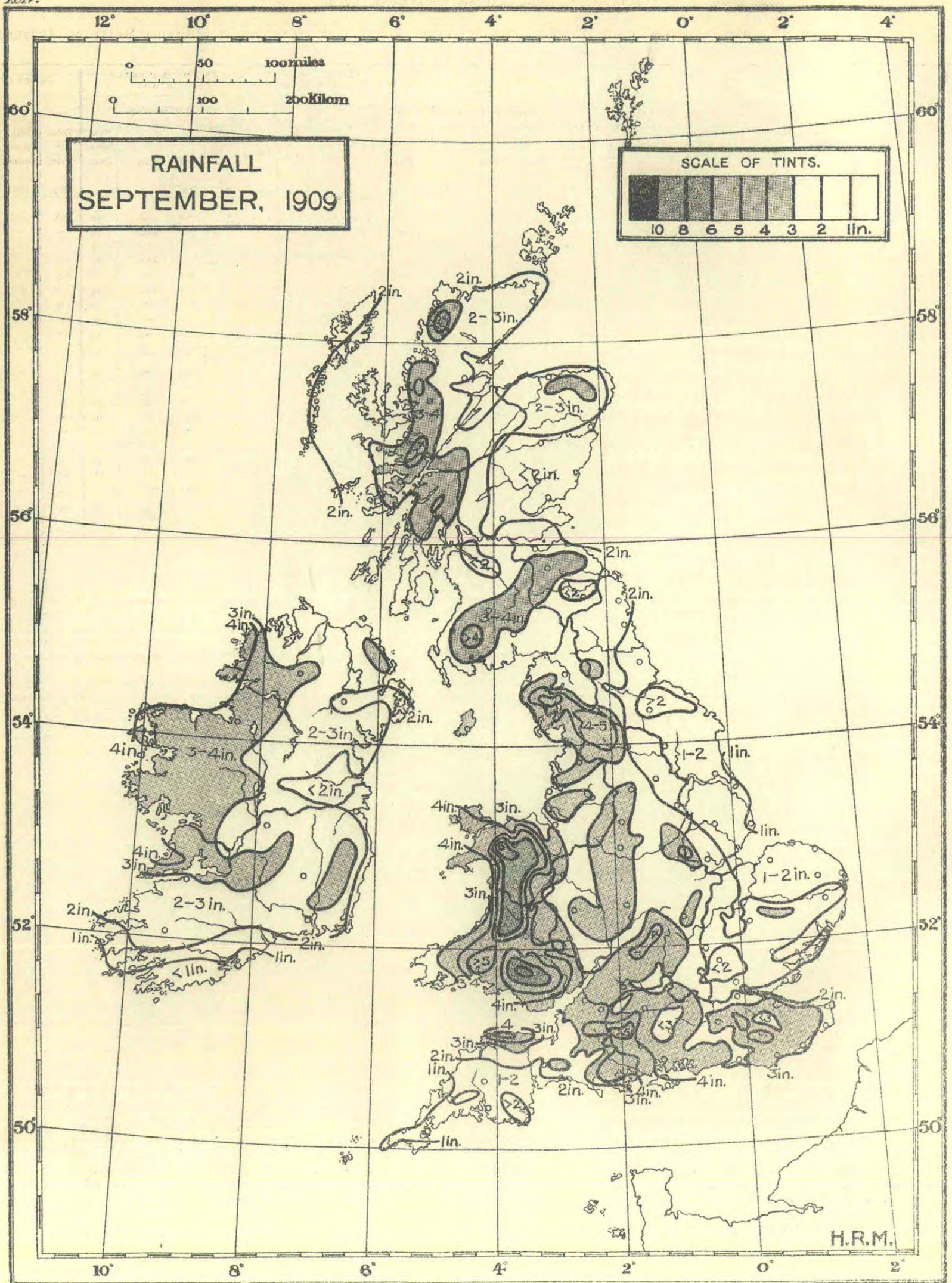




TABLE B (continued).—SUMMARY of the OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE at additional STATIONS, SEPTEMBER, 1909.

DISTRICT.	STATION.	Height of Gauge above. M.S.L.	AIR TEMPERATURE.								Earth Temperature		Grnd Frost.	RAIN AND OTHER FORMS OF PRECIPITATION.					BRIGHT SUNSHINE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
			Mean of		Mean of A and B.	Diff. of Mean from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.		No. of Days.	Total Fall.	Diff. from Normal.	Most in a day.		Number of Days.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
			A	B			Max.	Day.	Min.	Day.							Ins.	Ins.						Ins.	Day.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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## NOTES ON THE STATISTICAL TABLES.

**Hours of Observation.**—The following types are used to indicate the hours of observation at Stations included in Table A:—Clarendon, Normal Climatological Stations—I, 9 a.m. [II, 3 p.m.], III, 9 p.m. Black Capitals, telegraphic reporting normal climatological stations—I, 7 a.m., II, 1 p.m., III, 9 p.m. Roman, telegraphic reporting stations—I, 7 a.m., [II, 1 p.m.], III, 6 p.m. Italic, auxiliary climatological stations—I, 9 a.m. only, at Colmonell 3 p.m., Ventnor 6 p.m. The summaries are based on observations made three times a day wherever the data are available, except in the case of the element pressure (see below). At stations shown in clarendon type the maximum and minimum temperatures are read at 9 p.m.; at the remaining stations these observations are made at I. In Table B the letters *a* and *p* indicate whether the readings of the maximum and minimum are taken at the hours of morning or evening observation.

**Barometer.**—The correction for latitude has not been applied to the readings quoted in the Tables. It is applied to the readings at sea level from which the chart showing the mean monthly distribution of pressure is prepared. The values given in the tables are for station level. The values printed are (1) for stations shown in clarendon type, the means of observations at 9 a.m. and 9 p.m.; (2) for stations shown in Capitals, the means of observations at 7 a.m., 1 p.m., 9 p.m.; (3) for stations shown in Roman type, the means of observations at 7 a.m. and 6 p.m.; (4) for stations shown in italic type, the means of observations at 9 a.m. The column headed C gives the correction for diurnal variation required to reduce the means of observations at fixed hours to true diurnal means, based on the analysis of the values obtained at the four observatories for the period 1871-1905. The difference from normal is based upon the 7 a.m. readings only, except in the cases of Kew, Greenwich, Aberdeen, Valencia and Falmouth (see below).

**Rainfall.**—The amounts are those for the 24 hours commenced at the time of morning observation.

**Weather Phenomena.**—The number of days of Rain, Snow, Hail, Thunderstorm, Fog, Ground Frost, and Gale, are counted irrespective of the hours at which the phenomena occur. Except in the cases of rainfall (see above) and ground frost the day is the civil day. A day is reckoned as a day of "clear sky," if the mean of the estimates of the "amount of cloud" at the fixed hours of observation is less than 2, and as an "overcast" day if the mean is greater than 8. Days of Ground Frost are days on which the minimum thermometer on the grass falls to 30° or below; the "day" is taken as the 24 hours ending at 9 a.m.

**Wind Summaries.**—The results given under wind direction, and the number of observations of calms and of fresh or strong wind, are based on the observations at fixed hours. At Deerness, Aberdeen, Valencia, Falmouth, Kew, Glasgow, Stonyhurst and Armagh the wind observations are based on the records of a standard Robinson anemometer (factor 2.2). Velocities of between 13 and 38 miles in the hour have been entered as "fresh or strong winds," velocities of 39 miles in the hour, or above, as gales.

**Averages.**—The normal averages used for stations are—Pressure, Temperature, and Rainfall for the 35 years 1871-1905; Bright Sunshine for the 25 years 1881-1905. The values are published in Appendix III. to the Weekly Weather Report for 1906. For the Royal Observatory, Greenwich, and the Radcliffe Observatory, Oxford, averages for longer periods are used. See Notes in Monthly Weather Reports for 1908. Monthly averages of pressure at telegraphic reporting stations for the epoch 8 a.m. are published in Appendix I. to the Daily Weather Report. In order to render these averages comparable with the data for the present month, a correction, based on the results for the four observatories as published in "Hourly Readings at the Observatories under the Meteorological Council," has been applied to each of them before the figures given in the column headed "Barometer—Difference from Normal" were computed.

**Aberdeen, Falmouth, Kew, Valencia, Oxford, Greenwich.**—The figures quoted in the second line assigned to these observatories in the columns for Barometer and Mean Temperature are the true daily means computed from the hourly tabulations of the traces of the photographic recording instruments. For Kew, Falmouth, Aberdeen and Valencia the divergences of the means of the readings at 9 a.m. and 9 p.m. from their normal averages are also given.

**Royal Observatory, Greenwich.**—The earth temperatures are taken at a depth of 3 ft. 2 ins. The daily rainfall amounts are those for the 24 hours comprising the civil day. The number of days in the month which were persistently overcast from midnight to midnight was 0, the number of persistently cloudless days was 0, the number of persistently foggy days was 0.

**¶ Mean Values for Districts.**—The stations used in the Weekly Weather Report for the computation of "district values" of rainfall and temperature are distinguished by the sign ¶, those used for the computation of "district values of bright sunshine" by the sign §. These stations are distributed between Tables A and B. The monthly mean values for districts given in this Report for maximum, minimum and mean temperature, duration of bright sunshine, number of rain days and amount of rainfall, are computed from the data for these "representative" stations. The mean temperature for districts is computed in the manner shown in the preface to this and previous volumes of the Weekly Weather Report. The monthly mean values for districts for "amount of cloud" are computed from the data for all stations included in Table A. The extreme values of the various elements in each district are printed in distinctive type. In the lines devoted to district values, the columns referring to absolute highest and absolute lowest temperature and the maximum amount of rainfall in a day contain the extreme values for the district at any station included in either table of the Report. The averages for districts with which the current values are compared are for the 25 years 1881-1905, as in the case of the corresponding values published in the Weekly Weather Report.

**Meteorological Societies.**—Information for stations marked ¶ is supplied by the Royal Meteorological Society, and that for stations marked § is supplied by the Scottish Meteorological Society. Stations marked S are in connexion with the Scottish Meteorological Society and those marked M with the Royal Meteorological Society, as well as with the Meteorological Office.







# MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

(Supplement to the Weekly Weather Report.)

SUMMARY OF OBSERVATIONS COMPILED FROM THE RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS IN THE UNITED KINGDOM, WITH A CHART OF RAINFALL CONTRIBUTED BY THE BRITISH RAINFALL ORGANISATION.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE,

AND PUBLISHED FOR H.M. STATIONERY OFFICE BY WYMAN AND SONS, LTD., FETTER LANE, E.C.; OR OLIVER AND BOYD, EDINBURGH; OR E. PONSONBY, 116, GRAFTON STREET, DUBLIN.

THIRTY-FOURTH YEAR.  
Vol. XXVI. (New Series)  
Weekly Weather Report. } No. X.

OCTOBER, 1909.

[Price 6d.]

## SUMMARY OF OBSERVATIONS.

**Pressure, Winds and Weather.**—Since 1903 the British Isles have not experienced such an exceedingly unsettled October as the one now under review. Between the atmospheric conditions of October, 1908, and those of October, 1909, the contrast is very striking. October, 1909, witnessed the culmination of the unusually long spell of inclement weather which set in over the country so far back as the beginning of June. Throughout October the distribution of pressure was of a disturbed type; on every day the weather was under the influence of one or more low pressure systems. For rather more than the first three weeks, however, these depressions were found either on the Atlantic or working across to the Norwegian coast, so that this period was very mild and open, with an almost uninterrupted Southerly to Westerly wind. With the closing week came a totally different type, one of the Atlantic disturbances striking off to the south-east, past the mouth of the English Channel to the upper part of the Bay of Biscay, then curving to the north-eastward and passing to the eastern side of the North Sea and up across Norway. This movement was coincident with the very slow advance of an anticyclonic area from Northern Greenland across Iceland, its central space arriving over Scotland and northern Ireland on the evening of the 31st, when southern England was still affected by a depression centred over western France. With the wind largely from Northerly to Easterly points the last week proved very cold. In the only anticyclone which visited the country during the month, the barometer rose to 30.35 ins. at Aberdeen and Donaghadee late in the night of the 31st, but Jersey, on the northern edges of continental anticyclones, had registered 30.34 ins. on the 9th, and 30.35 ins. on the 22nd. Some of the disturbances were of considerable depth. On the afternoon of the 5th, when the centre of a depression was passing northward outside the Hebrides, the barometer fell to 28.63 ins. at Stornoway; in a similar case off the Irish coast on the 7th, Blacksod Point registered 28.89 ins., and on the 14th Stornoway 28.76 ins. The cyclonic system which branched off on the more southern route was not so deep, the barometer sinking to 29 ins. at Scilly on the 26th. It will be seen that the range of pressure was greatest over the northern and western districts, amounting to 1.5 in. or more at Aberdeen and some other stations, 1.7 in. at Stornoway. Over eastern and south-eastern England it was less than an inch. For the whole month the mean results were everywhere below the average, by 0.09 in. at Jersey, Dungeness and Yarmouth, but by as much as 0.25 in. at Blacksod Point. From 29.84 ins. at Jersey the values diminished northward to 29.51 ins. at Sumburgh Head, 29.44 ins. at Thorshavn (Farøe), and 29.43 ins. at Reykjavik (Iceland). The general distribution was of a well-marked South-Westerly type, but the gradient was nearly double the normal. From this it may be inferred that the period was of a boisterous character. At the telegraphic reporting stations there were only two days, the first and the last, on which the wind did not exceed the force of a strong breeze; on twenty-one days the force of a gale was attained, and on twelve of these it was a strong or whole gale at one or more stations.

With the deepest disturbance of the month, that of the 5th, Malin Head alone experienced a strong Westerly gale. On the morning of the 7th a depression which had been advancing from mid-Atlantic, appeared off Ireland, with a secondary disturbance in its rear, in about 30° W. The primary system travelled rapidly northward and disappeared next day beyond the Arctic Circle, having occasioned a strong Southerly gale at Roche's Point, Pembroke and Portland Bill, a whole South-Westerly gale at Malin Head. At Roche's Point the anemometer registered a mean hourly velocity of 52 miles, with gusts at the rate of 68 miles an hour; at Pendennis Castle an hourly velocity of 56 miles, with gusts of 67 miles. The secondary, assuming the "V"-shape formation, moved eastward across these islands on the 8th, resulting in a strong South-Westerly gale at Blacksod Point, North-Westerly at Roche's Point, and South-Easterly at Castlebary, while Malin Head had a whole gale South. Gusts at the rate of 61 miles an hour were recorded at Roche's Point, and of 64 miles at Pendennis Castle. Next day the disturbance dispersed on the Baltic.

Wireless reports from steamers showed that on the morning of the 8th there was a large low pressure system in about 52° N., 38° W. Its progress, however, was exceedingly slow, practically stationary to the southward of Iceland for several days, and it was not until the 16th that its centre passed to the eastward of the Farøe. Our weather was thus under its influence for more than a week, with gale force daily from the 9th to the 15th, strong South-Westerly at Malin Head on the 9th, at Blacksod Point on the 12th, Southerly at Sumburgh Head on the 14th, South-Westerly at Stornoway, Castlebary and Portland Bill on the 15th, and a whole South-Westerly gale at Malin Head, Blacksod Point and Nottingham on the 14th, and again at Malin Head next day. In gusts Pendennis Castle registered at the rate of 64 miles an hour on the 13th, and Holyhead 60, and Aberdeen 63 miles an hour on the 14th.

While continuing very disturbed, there was rather less wind down to the close of the 22nd, only Stornoway reporting a strong South-Westerly gale on the 20th, and Holyhead a gust at the rate of 60 miles an hour on the 21st.

On the morning of the 23rd a depression, secondary to a large one

beyond Shetland, appears to have formed off the West of Ireland. Moving north-eastward across the country at a moderate rate it caused a strong South-Westerly gale at Jersey, North-Westerly at Holyhead, and a whole South-Westerly gale at Pembroke and Portland Bill on the 23rd, and a strong North-Westerly gale at Holyhead and Portland Bill on the 24th. At Scilly, on the 23rd, the anemometer registered a mean hourly velocity of 70 miles, while in terrific gusts the velocity was at the rate of 90 miles an hour, the direction veering from South-West to West-North-West. Pendennis Castle had 55 miles an hour, with gusts of 73 miles; Roche's Point and Plymouth had gusts of 66, and Brighton 61 miles per hour. On the 24th Fleetwood registered 50 miles of Westerly wind in an hour, and Southport gusts of 60 miles per hour.

Towards the end of the month, during the progress of a disturbance from the Bay of Biscay to the North Sea, a strong North-Easterly gale was felt at Spurn Head on the 28th, and from North at Dungeness on the 29th, the Dover anemometer registering gusts of 61 miles per hour.

Even more remarkable than the numerous gales were the very frequent heavy rainstorms of this unsettled weather. On at least 23 days the rain records disclose falls of an inch and over at one or more stations. In the early days the largest falls were 1.8 in. at Laudale on the 7th, and 1.6 in. at Sheepstor (Dartmoor) on the 10th. Wales and north-western England had falls ranging up to 1.8 in. at Aspatria on the 12th, the storm passing to Scotland next day. On the 14th large quantities fell in Ireland, Wales and Scotland, up to 2 ins. at Kinlochewe (Ross). South-western England was visited on the 15th, when Arlington registered 2½ ins. Dumfries had 1.6 in. on the 17th, and on the 19th various parts of Ireland, North Wales and the north-west of England were again the scenes of heavy downpours, up to 1.8 in. at Graythwaite (N. Lancs.). On the next two days various places in western Scotland, and on the 22nd many Irish districts exceeded an inch. The 23rd was marked by numerous instances distributed over Ireland, Wales, north-western England and southern Scotland, up to 1.7 in. at Graythwaite. After a few local falls on the 24th and 25th a tremendous rainstorm burst over the south-east quarter of England and across to the Forest of Dean and Monmouthshire, on the 26th. Scores of stations within this limited area registered more than an inch, a considerable number 2 ins. and upwards, to 3 ins. at Heathfield (Sussex) and 3.3 ins. to 3.6 ins. at Brighton. The storm eased somewhat on the 27th, when Margate had 1.1 in., Canterbury 1.3 in., and Broadstairs 1.6 in., but on the 28th it renewed its intensity, and large falls were again general between Jersey and the Thames Estuary, several stations returning more than 2 ins., 2½ ins. at Broadstairs and Sandgate, 2.9 ins. at Margate, and 3 ins. at Kearsney (Kent). In the three days, 26th to 28th, Brighton received 5 ins., Sandgate 5.1 ins., Margate 5.5 ins., Broadstairs 5.8 ins., and Kearsney 6.04 ins. Only a few scattered thunderstorms were experienced, principally on the 12th, 13th and 21st.

During the very mild period from the 1st to about the 23rd, the day temperatures were generally above 60°, as high as 70° at Bawtry and Clongowes Wood on the 2nd, and at Scarborough and Whitby on the 4th. High night minima were also frequent, up to 60° at Bognor, Brighton, Portsmouth, Sandown, Weymouth and in London in the night of the 3rd and again in London in the night of the 16th. The remainder of the month was marked by sharp cold, and on the 29th snow fell as far south as the Isle of Wight. Towards the close afternoon maximum temperatures of 40° and under were registered, as low as 35° at Glasgow on the 31st. Rather severe frosts were also experienced, a shade minimum of 18° occurring at Balmoral on the 28th, and at Garforth on the 31st, and on the latter date the minimum at Llangammarch Wells went down to 16°.

Aurora was observed on several nights in various places. At about 9.30 a.m. on the 6th a remarkable meteor, "pear shaped, with two or three tails," was seen in the southern and midland counties, travelling from south to north.

Fog was prevalent on the western Channels, along southern Ireland, and on the north east coast of Britain from the 1st to the 3rd.

There was a general decrease in the temperature of the sea water round our coasts, by as much as 4° to 6° in places. Nearly everywhere the water was warmer than the air on shore, by from 3° to 5° in several localities.

**Rainfall.**—The month's precipitation was exceptional. Even in the normally drier districts in the south and east there were numerous aggregates exceeding 7 ins., up to 9.2 ins. at Kearsney, 9.4 ins. at Southampton, and 9.9 ins. at Watergate. In the western half of the kingdom many stations had more than 10 ins., up to 19.2 ins. at Treherbert, 21.1 ins. at Seathwaite, 30.5 ins. at The Sty. Llyn Llydaw, Snowdon, is credited with a fall of 56.5 ins. In the north-east of England Seaham had only 2 ins., and Whitby 1.7 in. Numbers of places had from 25 to 29 days with rain, Killarney 30, Foynes, Stornoway and Sumburgh Head 31.

**Bright Sunshine.**—The records of sunshine were very variable, from an excess of 23 hours at Edinburgh to a loss of 32 hours at Jersey, and of 33 hours at Brighton. The largest totals were 125 hours at Ballinacurra, and 122 hours at Nairn (39 per cent. of the possible duration); the smallest, 59 hours (19 per cent.) at Glasgow, and 53 hours (17 per cent.) at Kilmarnock.



TABLE A.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at 9 a.m., 3 p.m. and 9 p.m. at NORMAL STATIONS in the BRITISH ISLANDS

DISTRICT.	STATION.	Height of Barometer station above M.S.L.	BAROMETER.			AIR TEMPERATURE.								HYGROMETER.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
			Mean at 32° F. at Level and Latitude of Station.	Diff. from Normal.	C. Cor. for Diurnal Range.	Mean of		Mean of A and B.	Diff. from Normal.	Absolute Maximum and Minimum.				Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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CLIMATOLOGICAL STATIONS, at 7 a.m., 1 p.m. and 6 p.m. or 9 p.m. or at 7 a.m. and 6 p.m. at TELEGRAPHIC REPORTING during the month of OCTOBER, 1909.

Earth Temperature.		BRIGHT SUNSHINE.				CLOUD (0-10.)			RAIN AND OTHER FORMS OF PRECIPITATION.				WEATHER. No. of Days of										WIND.										STATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
At 1 foot depth.	At 4 feet depth.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	Mean Amount.			Total Fall.	Diff. from Normal.	Most in a day.		Precipitation.	Snow.	Hail.	Thunderstorm.	Clear Sky.	Overcast.	Fog.	Ground Frost.	Wind force 8 and above.	No. of Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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TABLE A. (continued).—Giving a Summary of the METEOROLOGICAL OBSERVATIONS made at 9 a.m., 3 p.m. and 9 p.m. at NORMAL STATIONS in the BRITISH ISLANDS

DISTRICT.	STATION.	Height of Barometer station above M.S.L.	BAROMETER.				AIR TEMPERATURE.								HYGROMETER.											
			Mean at 82° F. at Level and Latitude of Station.	Diff. from Normal.	C. Cor. for Diurnal Range.	Mean of		Mean of A and B.	Diff. from Normal.	Absolute Maximum and Minimum.				Observations at 9 a.m., 3 p.m. and 9 p.m., or at 7 a.m., 1 p.m., 4 p.m., or 9 p.m.												
						A	B			Max.	Day.	Min.	Day.	Dry Bulb.			Dep. of Wet.			Vap. Pressure.			Humidity.			
														I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.	
5. ENGLAND, S.E.	Reading - - -	264	29.522	—	—	57.5	45.1	51.3	—	66	1st	27	30th	52.0	—	50.4	1.7	—	1.2	343	—	335	88	—	91	
	Salisbury - - -	186	29.618	—	—	58.1	45.6	51.9	+3.1	65	3, 13, 18	28	30th	52.4	—	50.2	1.1	—	0.7	363	—	346	92	—	96	
	Brighton - - -	48	29.785	—	—	57.9	49.7	53.8	+2.2	63	8th	32	30th	55.1	—	—	2.6	—	—	361	—	—	83	—	—	
	Portsmouth - - -	18	29.824	—	—	58.8	49.9	54.4	+3.1	66	2nd	33	30th	54.9	—	—	2.0	—	—	375	—	—	87	—	—	
	Eastbourne - - -	36	29.806	—	—	58.6	49.7	54.2	+3.8	67	19th	32	30th	55.2	—	53.7	2.1	—	2.3	386	—	361	87	—	86	
	Dungeness - - -	21	29.787	—	—	58.8	47.6	53.2	+1.8	63	2, 8, 13	29	30th, 31st	52.9	57.7	56.0	1.8	3.2	2.6	351	384	375	88	80	83	
	Hastings - - -	174	29.604	—	—	58.4	48.7	53.6	+2.5	65	2nd	32	30th	54.5	—	52.8	2.4	—	1.6	357	—	355	84	—	88	
	Southampton - - -	84	29.744	—	—	58.5	47.6	53.1	+2.2	65	1, 5, 11	29	30th	54.1	—	52.0	1.9	—	1.2	376	—	367	87	—	91	
	Ventnor - - -	80	29.734	—	—	58.5	50.9	54.7	+1.8	66	2nd	33	30th	53.1	—	—	2.3	—	—	380	—	—	85	—	—	
	District Value - - -					58.0	47.4	52.5	+2.2																	
LONDON -	Tottenham - - -	55	29.749	—	—	58.6	47.8	53.2	+4.1	66	4th, 5th	31	30th	53.9	—	52.2	2.1	—	1.4	362	—	363	86	—	90	
	Camden Square - - -	123	29.688	—	—	59.1	47.8	53.5	+3.4	67	5th	29	30th	53.5	—	52.5	2.1	—	1.5	351	—	354	86	—	90	
	Westminster - - -	54	29.752	—	—	58.7	47.4	53.1	+3.9	65	3, 4, 5th	29	30th	51.3	—	54.2	1.6	—	2.9	337	—	341	89	—	80	
	Greenwich - - -	159	29.646	—	—	59.5	45.6	52.5	+2.1	68	4th	28	30th	53.8	—	51.0	2.3	—	1.4	350	—	338	85	—	90	
	Norwood - - -	235	29.582	—	—	58.4	46.6	52.5	+3.0	66	1st, 4th	29	30th	53.7	—	50.7	2.5	—	1.4	344	—	333	83	—	90	
	Kew - - -	34	29.788	—	—	58.1	47.0	52.6	+3.4	65	1st	31	30th	53.4	57.2	52.1	2.3	4.3	1.8	345	347	342	85	74	87	
	Bunhill Row - - -		29.777	—	—	—	—	53.1	+4.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Plumstead - - -			—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Laudale - - -	25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Poltalloch - - -	135	29.477	—	—	53.6	41.7	47.7	+0.2	62	1st	23	28th, 31st	47.4	—	45.4	2.4	—	2.2	270	—	253	83	—	84	
6. SCOT. LAND, W.	Glasgow - - -	184	29.425	—	—	52.7	43.4	43.1	+1.3	62	3rd	25	31st	47.8	—	46.3	2.5	—	2.2	283	—	282	82	—	84	
	Rothsay - - -	76	29.529	—	—	54.1	42.8	49.5	+0.7	63	2nd	29	30th	48.1	—	46.7	1.7	—	1.8	294	—	277	88	—	87	
	Colmonell - - -	150	29.490	—	—	55.0	43.3	49.2	+1.3	65	3rd	22	29th	48.3	—	51.4	2.1	—	5.3	287	—	297	85	—	79	
	Dumfries - - -	155	29.535	—	—	53.9	42.8	48.4	+0.7	62	11th	25	29th	47.8	—	47.5	2.0	—	1.9	270	—	283	81	—	86	
	Cally, Gatehouse - - -	120	—	—	—	54.0	41.2	47.6	+0.5	59	1st, 2nd	25	30th	49.8	—	45.9	2.0	—	1.8	307	—	268	87	—	83	
	Douglas - - -	284	29.385	—	—	54.3	44.8	49.6	+1.0	62	2nd	33	29th	50.3	—	48.7	2.1	—	1.8	321	—	310	85	—	87	
	District Value - - -					53.9	42.6	48.2	+0.8	68																
	Southport - - -	42	29.683	—	—	56.3	45.2	50.8	+2.2	65	2nd	27	31st	50.7	—	49.7	2.2	—	1.9	315	—	309	86	—	88	
	Manchester (City) - - -	195	29.530	—	—	56.1	46.4	51.3	—	64	2nd	30	31st	50.6	—	51.0	2.3	—	2.6	322	—	319	84	—	82	
	„ (Whitworth Pk) - - -	127	29.575	—	—	56.5	45.2	50.9	—	66	2nd	27	31st	50.5	54.0	50.3	2.1	—	2.1	314	—	311	85	74	85	
7. ENG. LAND, N.W.	Darwen - - -	730	28.949	—	—	53.3	42.0	47.7	—	62	2nd	28	31st	48.9	—	47.4	2.0	—	1.5	308	—	302	86	—	89	
	Aspatria - - -	254	29.296	—	—	54.4	43.4	48.9	+1.9	65	11th	24	29th	49.0	—	47.5	2.2	—	1.4	303	—	303	85	—	89	
	Newton Rigg - - -	559	29.071	—	—	54.4	41.3	47.9	+1.8	62	11th	21	31st	47.3	—	46.8	1.6	—	1.3	287	—	289	89	—	91	
	Stonyhurst - - -	303	29.335	—	—	54.2	43.9	49.1	+1.6	62	11th	28	31st	49.1	—	48.6	1.7	—	1.6	319	—	314	87	—	89	
	Blackpool - - -	73	29.639	—	—	56.0	45.1	50.6	+1.6	64	10th	26	31st	51.8	—	49.6	2.2	—	1.6	328	—	314	85	—	89	
	M'nc'h't'r (Prestwich) - - -	320	29.383	—	—	56.4	44.0	50.2	+2.4	66	17th	28	31st	49.5	—	49.6	1.4	—	1.8	318	—	310	90	—	88	
	Liverpl. Bidston Obs. - - -	197	29.511	—	—	55.7	45.4	50.6	+1.4	65	2nd	31	31st	50.6	—	50.1	2.7	—	2.4	301	—	301	91	—	83	
	Llandudno - - -	21	29.703	—	—	56.9	46.5	51.7	+1.1	65	2nd	29	31st	53.2	—	52.1	2.2	—	2.1	344	—	334	85	—	85	
	HOLYHEAD - - -	48	29.647	—	—	55.3	47.8	51.6	+0.8	63	4th	35	31st	51.5	53.8	51.8	1.6	2.2	1.9	339	353	336	89	85	87	
	Bettws-y-Coed - - -	100	29.604	—	—	55.6	43.9	49.8	+0.9	66	11th	26	31st	50.9	—	49.6	2.0	—	1.8	323	—	316	87	—	88	
8. SOUTH WALES	District Value - - -					55.7	44.7	50.0	+1.2	68																
	Llangammarch Wells - - -	585	29.126	—	—	55.6	42.2	48.9	+0.9	63	4th	16	31st	49.4	—	—	1.4	—	—	317	—	—	90	—	—	
	PEMBROKE - - -	150	29.567	—	—	56.3	49.7	53.0	+1.4	63	6th	35	31st	52.6	53.8	52.5	1.8	2.5	2.5	348	345	328	88	83	83	
	Clifton - - -	229	—	—	—	57.5	47.9	52.7	+3.0	67	3rd	29	31st	—	—	—	—	—	—	—	—	—	—	—	—	
	PORTLAND BILL - - -	23	29.764	—	—	57.8	51.6	54.7	+2.0	65	2nd	36	30th	54.8	56.6	55.0	0.7	1.0	0.8	410	429	409	95	93	94	
	Plymouth - - -	116	29.695	—	—	58.9	48.3	53.6	+2.3	65	1st	30	31st	53.7	56.1	53.4	1.7	2.8	1.7	376	383	373	89	83	89	
	Falmouth - - -	183	29.630	—	—	57.5	49.3	53.4	+1.5	63	3rd	35	31st	53.9	55.9	52.4	2.1	3.4	1.7	357	354	348	87	79	89	
	Woolacombe - - -	79	29.676	—	—	57.7	50.4	54.1	+0.2	64	10th	36	31st	55.3	—	53.7	3.2	—	2.8	348	—	336	80	—	81	
	Rousdon - - -	516	29.261	—	—	56.3	46.4	51.4	+1.7	66	1st	29	30th	52.2	—	50.8										



CLIMATOLOGICAL STATIONS, at 7 a.m., 1 p.m. and 6 p.m. or 9 p.m. or at 7 a.m. and 6 p.m. at TELEGRAPHIC REPORTING during the Month of OCTOBER, 1909.

Earth Temperature.		BRIGHT SUNSHINE.				CLOUD (0-10.)			RAIN AND OTHER FORMS OF PRECIPITATION.				WEATHER. No. of Days of										WIND.										STATIONS.			
At 1 foot depth.	At 4 feet depth.	Total in Hrs.	Diff. from Normal.	Per Cent.	Diff. from Normal.	Mean Amount.			Total Fall.	Diff. from Normal.	Most in a day.		Precipitation.	Snow.	Hail.	Thunderstorm.	Clear Sky.	Overcast.	Fog.	Ground Frost.	Wind-force 8 and above.	No. of Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.														
						I.	II.	III.			Amount.	Day.										Forces 4-7.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.					
—	—	89	—	—	—	7.5	—	5.7	3.90	+1.58	0.73	28th	24	0	0	0	4	14	0	—	0	2	11	1	7	0	2	10	19	12	0	Reading.				
54.5	—	—	—	—	—	7.3	—	6.0	6.11	+2.55	1.69	26th	29	0	1	0	2	14	0	6	1	25	0	6	3	0	3	10	19	13	8	Salisbury.				
—	57.7	87	-33	27	-10	8.0	—	—	8.12	+4.59	3.32	26th	24	1	0	0	4	22	1	1	0	22	2	2	0	3	6	10	3	1	1	Brighton.				
55.2	57.3	107	—	33	—	7.1	—	—	7.57	+4.17	1.87	26th	23	0	0	0	7	18	1	3	1	19	1	1	3	0	0	4	13	5	4	Portsmouth.				
56.4	58.0	100	-17	31	-5	6.8	—	5.8	6.28	+2.31	1.97	26th	23	0	0	0	4	12	0	—	0	8	0	1	8	1	0	2	31	4	15	4	Eastbourne.			
—	—	—	—	—	—	8.8	8.5	8.4	6.25	+3.01	2.43	28th	22	0	0	0	0	20	4	—	2	65	0	5	6	2	3	14	44	13	6	6	Dungeness.			
55.7	57.4	100	-19	31	-6	7.2	—	6.2	5.28	+1.56	1.43	26th	24	0	0	0	2	14	2	1	7	32	1	2	5	0	3	11	26	7	7	7	Hastings.			
—	—	90	-22	28	-7	6.9	—	5.7	9.40	+5.77	1.93	26th	26	0	0	0	7	14	2	3	1	38	0	0	8	0	3	3	38	1	9	9	Southampton.			
—	—	103	-19	32	-5	7.2	—	—	7.95	+4.18	1.86	28th	26	0	0	0	2	17	0	—	4	21	0	4	3	2	3	15	24	8	3	3	Ventnor.			
54.7	56.6	93	-13	29	-4	7.5	—	6.3	6.46	+3.19	3.32	28th	24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Tottenham.			
—	56.6	77	—	24	—	7.6	—	6.7	3.35	—	0.78	28th	22	0	0	0	2	16	1	2	0	7	1	2	3	1	3	9	29	7	7	7	Camden Square.			
52.9	54.8	69	—	21	—	7.4	—	—	4.16	+1.42	0.91	28th	23	0	0	0	5	20	0	3	—	—	2	2	3	1	1	3	12	5	2	2	Westminster.			
—	—	75	+6	23	+2	7.0	—	7.3	4.07	+1.34	0.83	28th	24	1	0	0	0	15	0	2	1	26	3	4	5	2	1	8	30	7	2	2	Greenwich.			
—	55.9	91	-4	27	-2	7.3	—	5.9	4.06	+1.28	0.66	26th	19	0	0	0	4	12	3	5	0	13	2	5	3	1	1	15	27	6	2	2	Norwood.			
53.9	—	—	—	—	—	7.5	—	6.5	4.16	+1.44	0.81	28th	23	0	0	0	4	17	2	5	0	13	9	4	3	0	1	14	23	5	3	3	Kew.			
54.1	55.4	88	-6	27	-2	8.0	7.3	6.1	3.52	+0.81	0.38	23th	20	0	0	0	2	17	0	5	0	34	10	5	5	3	0	22	36	9	3	3	Bunhill Row.			
—	65	+1	20	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Plumstead.			
—	76	—	23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Laudale.			
—	—	—	—	—	—	7.0	—	6.9	8.01	+2.58	1.05	14th	23	0	1	0	3	15	0	—	2	25	11	1	6	0	0	7	15	18	4	4	4	Poltalloch.		
—	—	59	-11	19	-3	7.9	—	7.1	5.30	+1.76	1.00	23rd	21	0	1	0	0	15	1	7	0	9	18	1	3	3	2	6	17	10	2	2	2	Glasgow.		
—	51.1	—	—	—	—	5.8	—	5.5	7.07	+2.31	0.88	11th	23	1	1	1	6	13	2	—	2	18	11	5	2	7	0	16	4	13	4	4	4	Rothsay.		
—	—	—	—	—	—	7.1	—	—	6.25	+1.26	0.83	19th	23	0	0	2	3	16	0	6	6	14	2	8	4	8	0	14	8	14	4	4	4	Colmonell.		
50.1	52.6	72	—	23	—	7.5	—	6.4	9.47	+5.43	1.60	17th	24	0	0	0	3	14	0	6	3	19	4	7	9	0	4	8	13	5	8	8	8	Dumfries.		
—	—	—	—	—	—	—	—	—	4.46	-0.54	0.45	19th	24	0	2	2	—	—	—	—	2	17	0	4	14	2	11	0	10	4	17	4	17	4	Cally.	
—	—	102	-1	32	0	7.2	—	4.6	8.39	+3.67	1.62	23rd	24	0	3	2	4	9	7	4	1	29	1	3	4	3	5	9	19	15	3	3	3	Douglas.		
—	81	-4	25	-2	7.1	—	—	—	6.1	6.74	1.62	23rd	22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Southport.		
51.4	51.2	105	+16	33	+5	6.5	—	6.4	4.64	+0.77	1.16	23rd	21	0	2	0	2	8	0	4	2	38	1	5	5	1	9	21	9	7	4	4	4	Manchest. (City).		
51.8	54.4	72	—	22	—	—	—	—	5.39	+1.66	0.86	3rd	24	0	0	1	—	—	—	—	0	6	0	5	2	4	5	4	10	18	14	4	1	1	" (Whit. Pk.).	
—	78	—	24	—	—	6.7	7.6	6.9	4.71	—	0.76	23rd	22	0	0	1	1	10	0	4	0	17	8	5	7	3	8	38	11	9	4	4	4	7	Darwen.	
50.2	52.1	84	—	26	—	7.6	—	7.7	8.22	—	1.18	23rd	26	0	3	2	1	15	0	6	3	33	0	0	8	0	1	28	14	4	7	5	5	5	Aspatia.	
—	87	—	27	—	—	6.0	—	5.5	7.88	+3.83	1.76	12th	25	1	1	1	3	6	0	7	4	24	12	4	1	1	2	16	17	4	5	2	2	2	Newton Rigg.	
50.4	51.8	86	+2	27	+1	5.8	—	6.0	5.45	+1.56	0.74	23rd	22	0	0	1	5	10	1	7	2	18	5	3	2	1	6	19	17	7	2	4	4	4	Stonyhurst.	
—	88	0	27	0	7.6	—	6.3	5.46	+0.49	1.20	23rd	22	0	3	4	1	10	0	5	0	2	13	9	5	5	1	1	17	13	7	4	5	5	5	Blackpool.	
52.0	53.5	93	+1	29	0	7.6	—	7.7	4.92	+0.90	1.15	23rd	22	0	4	0	1	16	0	6	0	29	0	3	6	3	9	12	16	8	5	3	3	3	Manch'str (Prest).	
—	82	+17	25	+5	6.9	—	6.1	5.60	+1.67	1.03	3rd	22	0	1	1	1	12	0	3	1	13	5	6	3	1	3	17	16	8	3	3	3	3	1	Liverp'ol, Bid.Obs.	
—	108	—	34	—	5.9	—	6.7	3.37	-0.17	0.52	3rd	24	0	5	1	2	8	0	—	1	13	0	5	4	4	14	13	15	7	0	1	0	1	Llandudno.		
—	—	102	+14	32	+5	7.3	—	8.5	4.83	+0.90	1.21	3rd	25	0	1	0	0	18	0	—	0	17	2	0	6	1	8	20	10	14	1	0	1	0	Holyhead.	
—	—	—	—	—	—	6.6	8.0	6.5	6.58	+2.25	1.42	12th	23	0	0	4	0	9	4	—	7	54	0	2	9	3	1	14	34	20	10	10	10	10	10	Bettws



TABLE B.—SUMMARY of the OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE at additional STATIONS, OCTOBER, 1909.

DISTRICT.	STATION.	Height of Gauge above M.S.L. Ft.	AIR TEMPERATURE.								Earth Temperature.		Grnd Frost.	RAIN AND OTHER FORMS OF PRECIPITATION.				BRIGHT SUNSHINE.					
			Mean of		Mean of A and B.	Diff. of Mean from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.	No. of Days.	Total Fall.	Diff. from Normal.	Most in a day.		Number of Days.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	
			A	B			Max.	Day.	Min.	Day.						Amt.	Day.						
			Max.	Min.																			°
			°	°	°	°	°	°	°	°	°	°	Ins.	Ins.	Ins.		Hrs.	Hrs.	%	%			
0. SCOTLAND, N.	p Balta Sound - - -	S	31	50.2	42.0	46.1	—	56	9th, 11th	33	26, 27, 31	46.7	—	—	5.28	—	0.54	20th	26	71	—	23	—
	p Crathes - - -	S	140	54.1	39.8	47.0	—	62	2, 3, 8	24	31st	49.6	51.4	10	2.77	—	0.62	23rd	20	93	—	30	—
	Stonehaven - - -	?	88	51.9	42.0	47.0	—	63	3rd	30	31st	—	—	—	2.61	—	0.63	23rd	20	111	—	35	—
1. SCOTLAND, E.	p Balruddery - - -	S	276	54.2	38.7	46.5	—	64	4th	24	31st	—	—	—	4.00	—	0.97	23rd	18	98	—	31	—
	Edinburgh - - -	—	253	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	104	+ 23	33	+ 7
	a West Linton - - -	S	800	50.7	39.7	45.2	- 0.1	61	2nd	22	29th, 30th	—	—	9	6.03	—	0.86	23rd	25	77	—	24	—
	a Alnwick Castle - - -	—	210	55.1	42.9	49.0	+ 1.9	66	4th	23	31st	—	—	—	2.72	- 0.64	0.67	23rd	22	—	—	—	—
	p Newcastle-on-Tyne - - -	—	152	55.8	45.2	50.5	—	64	3rd	28	31st	—	—	—	2.03	- 0.97	0.54	23rd	22	77	+ 7	24	+ 2
	p Ampleforth - - -	—	249	55.1	41.8	48.5	—	64	4th	29	31st	—	—	—	2.71	—	0.36	3rd	20	—	—	—	—
2. ENGLAND, N.E.	p Tealby - - -	—	251	56.7	44.1	50.4	+ 2.2	66	2nd	28 ?	31st	—	—	—	2.87	- 0.43	0.67	15th	20	—	—	—	—
	a Fulbeck - - -	—	180	57.3	44.7	51.0	+ 3.6	67	2nd	26	31st	—	—	—	2.16	- 0.31	0.27	23rd	23	—	—	—	—
	a Raucby - - -	—	124	57.9	44.4	51.2	—	67	2nd	28	26th	52.7	54.2	2	2.79	- 0.07	0.67	26th	24	98	—	30	—
	a Felixstowe - - -	—	10	58.1	49.2	53.7	+ 3.9	67	4th	33	26th, 30th	—	—	—	4.25	—	1.25	26th	19	99	—	31	—
	a Rothamsted - - -	—	424	57.0	46.0	51.5	+ 3.5	65	4th	29	26th	—	—	—	4.78	+ 1.71	0.98	28th	28	87	- 20	27	- 6
	a Shoburyness - - -	—	13	58.5	48.6	53.6	+ 2.6	67	2nd	32	30th	—	—	—	5.04	+ 2.78	2.50	26th	22	—	—	—	—
3. ENGLAND, E.	a Southend-on-Sea - - -	—	100	58.7	47.7	53.2	—	67	2nd, 3rd	30	30th	55.2	—	2	4.39	+ 1.95	2.00	26th	20	95	—	29	—
	a Harrogate - - -	—	476	54.8	42.8	48.8	+ 1.9	66	2nd	26	31st	50.0	51.0	4	2.41	- 0.91	0.39	3rd	23	99	—	31	—
	a Bradford - - -	—	439	55.2	44.5	49.9	—	65	2nd	24	31st	49.5	53.4	3	2.77	—	0.57	3rd	22	102	—	32	—
	a Cheadle - - -	—	646	54.9	42.8	48.9	+ 2.0	62	5th	29	31st	—	—	4	5.47	+ 2.21	0.83	15th	24	—	—	—	—
	a Bawtry - - -	—	65	58.4	43.5	51.0	+ 3.4	70	2nd	23	31st	—	—	—	2.08	- 0.52	0.45	15th	25	—	—	—	—
	a Worksop - - -	—	56	58.0	44.1	51.1	+ 3.1	68	4th	22	31st	51.3	52.9	6	2.52	- 0.14	0.32	15th	22	91	+ 8	28	+ 2
4. MIDLAND COUNTIES	a Mayfield (Staffs.) - - -	—	374	55.8	41.5	48.7	—	65	4th	22	31st	—	—	5	6.03	—	1.07	15th	23	—	—	—	—
	a Kingston-on Soar - - -	—	125	57.4	44.8	51.1	—	67	4th	28	26th	53.4	—	—	2.81	—	0.50	7th	27	—	—	—	—
	p Rugby - - -	—	379	57.3	42.7	50.0	+ 2.4	66	2nd, 3rd	27	31st	—	—	3	3.02	—	0.38	23rd	30	—	—	—	—
	a Raunds - - -	—	210	58.4	44.4	51.4	+ 3.4	68	4th	28	31st	—	—	3	3.35	—	0.70	26th	25	—	—	—	—
	a Winslow - - -	—	379	56.0	45.3	50.7	—	65	3rd	28	30th	—	—	—	3.37	—	0.53	26th	27	—	—	—	—
	a Hereford - - -	—	291	57.6	44.2	50.9	+ 2.5	65	2nd	24	31st	—	—	7	3.15	+ 0.38	0.48	23rd	24	—	—	—	—
	a Cirencester - - -	—	446	56.0	43.2	49.6	+ 2.0	65	3rd	27	31st	—	—	?	4.68	+ 1.53	0.76	23rd	28	84	- 17	26	- 5
	a Epsom - - -	—	180	58.1	46.7	52.4	—	65	1st	26	30th	—	—	4	4.93	—	1.12	23th	27	—	—	—	—
	a Wokingham - - -	—	216	58.1	44.8	51.5	—	69	1st	22	30th	—	—	—	5.51	—	1.37	28th	24	—	—	—	—
	a Maidenhead - - -	—	99	60.0	45.4	52.7	—	69	1st	27	30th	—	—	3	4.45	+ 1.43	1.06	28th	27	—	—	—	—
	a Marlborough - - -	—	424	56.8	44.8	50.8	+ 3.2	64	2, 3, 5, 8	25	30th	—	—	7	5.75	+ 2.35	0.80	12th	29	85	- 11	26	- 4
	a Bucklebury - - -	—	409	56.6	45.0	51.3	—	65	1st	26	30th	—	—	7	4.69	—	0.80	28th	25	—	—	—	—
	a Swaraton - - -	—	310	56.6	45.1	50.9	+ 2.9	63	2nd	25	30th	—	—	—	7.89	+ 4.32	1.32	28th	27	—	—	—	—
	a Margate - - -	—	35	59.3	48.5	53.9	+ 2.8	67	4th	35	30th	54.0	55.0	0	7.44	+ 4.64	2.93	23th	24	85	- 21	26	- 7
	Broadstairs - - -	—	140	—	—	—	—	—	—	—	—	—	—	—	—	7.94	—	2.73	28th	21	95	—	29
	Ramsgate - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	99	—	31	—
	a Wisley - - -	—	150	58.1	47.3	52.7	+ 4.0	65	1st	29	30th	53.5	55.5	3	4.00	—	1.00	28th	23	90	—	28	—
	a Dover - - -	—	231	57.5	47.3	52.4	—	65	4th	30	30th	54.1	55.1	?	6.58	—	2.18	28th	23	102	—	31	—
5. ENGLAND, S.E.	a Tunbridge Wells - - -	—	421	56.9	46.3	51.6	+ 2.8	65	2nd	27	30th	53.7	—	—	7.15	+ 3.62	1.73	26th	23	96	- 13	30	- 4
	a Matfield - - -	—	320	57.7	47.1	52.4	—	65	2nd	29	30th	—	—	5	5.94	—	1.49	26th	22	—	—	—	—
	p Folkestone - - -	—	121	57.8	48.1	53.0	—	64	2nd	32	30th	—	54.7	—	6.19	+ 2.89	2.40	23th	22	90	—	28	—
	Littlestone - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	96	—	30	—
	a Bexhill - - -	—	27	58.3	50.2	54.3	—	64	12th	31	30th	56.9	—	1	5.47	—	1.71	26th	21	104	—	32	—
	Hove - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	86	—	26	—
	p Lewes - - -	—	58	57.9	47.2	52.6	—	68	1st	28	30th	—	—	—	8.23	—	2.07	26th	29	—	—	—	—
	a Worthing - - -	—	36	58.3	48.7	53.5	+ 2.7	63	1, 2, 8, 11	30	30th	55.1	56.8	2	7.96	+ 4.51	2.34	26th	26	93	—	29	—
	a Bognor - - -	—	20	57.9	49.7	53.8	—	63	3rd, 8th	31	30th	—	56.3	3	6.37	—	1.63	26th	27	100	—	31	—
	Westbourne - - -	—	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	95	—	29	—
	a Totland Bay - - -	—	140	57.5	50.6	54.1	+ 2.9	64	2nd	33	30th	—	—	2	9.12	+ 5.46	2.11	26th	27	97	—	30	—
	a Sandown - - -	—	20	59.8	50.2	55.0	—	66	10th	32	30th	—	—	—	8.67	—	1.82	26th	27	104	—	32	—
6. SCOTLAND, W.	p Bournemouth - - -	—	145	58.2	48.2	53.2	—	65	1st, 2nd	30	30th	54.9	56.3	—	7.59	—	1.28	26th	28	105	—	32	—
	p Oban - - -	—	20	56.4	43.8	50.1	—	64	4th	25	31st	—	—	6	7.91	—	0.81	13th	24	97	—	31	—
	a Thorntonhall (Lanarkshire) - - -	—	440	52.3	40.7	46.5	—																

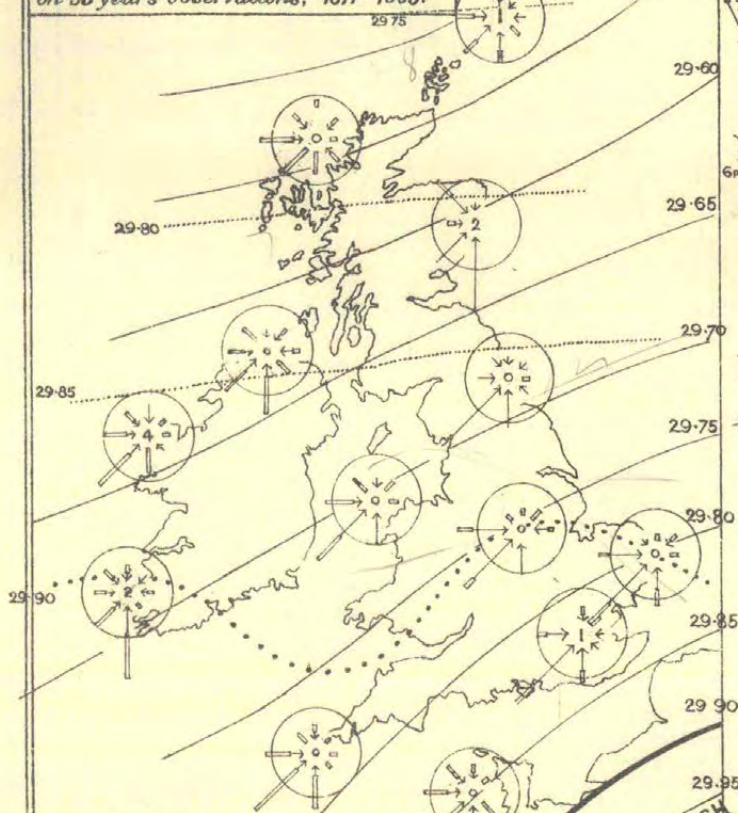


# MONTHLY WEATHER CHARTS, OCTOBER, 1909.

ciii.

## 1. BAROMETER AND WIND AT 8 A.M.

The dotted lines indicate the normal distribution of pressure in Octr based on 35 years' observations, 1871-1905.



WIND ROSES. The arrows fly with the wind and indicate frequency and force, thus:

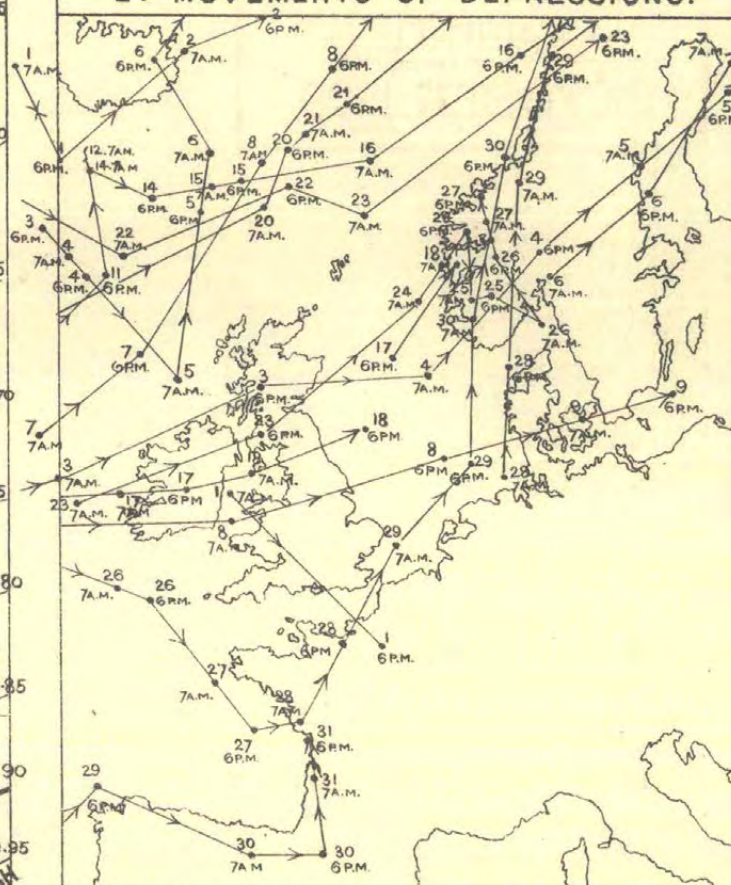
Light modernity strong  
30 Obs = 1 inch

## 3. DISTRIBUTION OF MEAN TEMPERATURE.

Reduced to sea level by a correction of 1°F for 300ft.

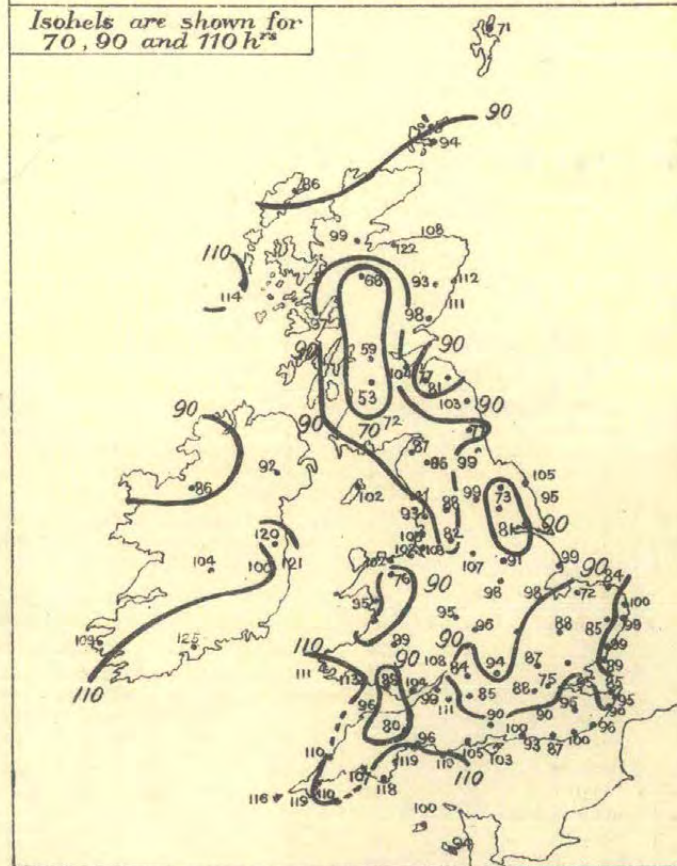


## 2. MOVEMENTS OF DEPRESSIONS.

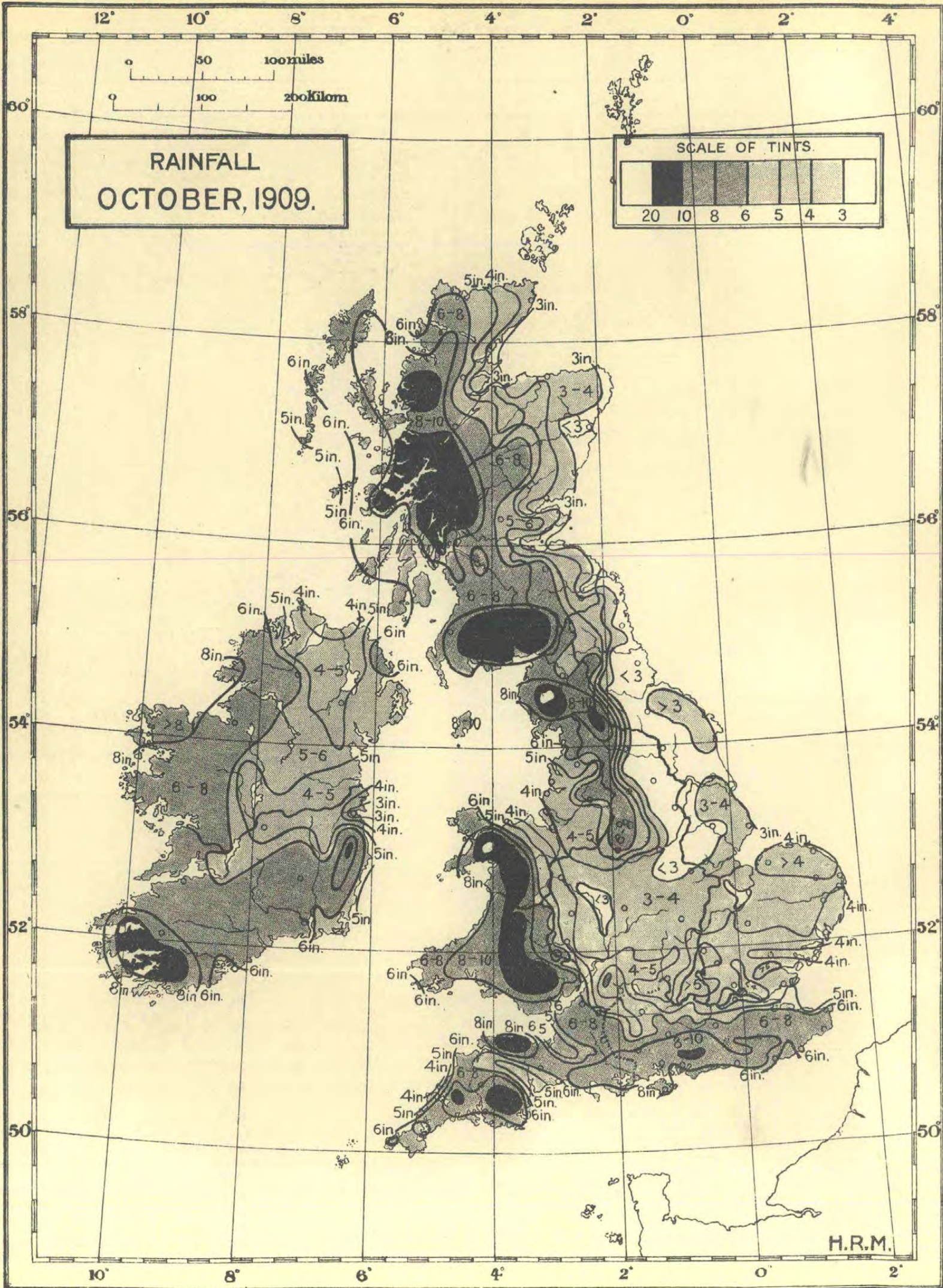


## 4. BRIGHT SUNSHINE, IN HOURS.

Isohels are shown for 70, 90 and 110 h<sup>rs</sup>.







Scale 1:5,000,000.



TABLE B (continued).—SUMMARY of the OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE at additional STATIONS, OCTOBER, 1909.

DISTRICT.	STATION.	Height of Gauge above M.S.L.	AIR TEMPERATURE.								Earth Temperature Frost.			RAIN AND OTHER FORMS OF PRECIPITATION.					BRIGHT SUNSHINE.				
			Mean of		Mean of A and B.	Diff. of Mean from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.	No. of Days.	Total Fall.	Diff. from Normal.	Most in a day.		Number of Days.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	
			A	B			Max.	Day.	Min.	Day.						Amt.	Day.						
			Max.	Min.																			°
		Ft.	°	°	°	°	°	°	°	°	°	°	Ins.	Ins.	Ins.	°	°	Hrs.	Hrs.	%	°		
S. ENGLAND, S.W.- (continued)	a Swansea - - - -	24	57.9	49.2	53.6	—	64	1st	33	30th, 31st	—	—	7	7.76	—	1.09	15th	26	—	—	—	—	
	¶ a Shaftesbury - - - fl	722	55.2	46.3	50.8	+ 2.1	64	1st	31	30th	53.4	—	—	6.91	+3.21	2.10	26th	26	—	—	—	—	
	¶ a Arlington - - - -	613	55.8	45.8	50.8	+ 1.6	62	18th	28	31st	—	—	—	10.10	+3.76	2.24	15th	29	—	—	—	—	
	¶ a Cullompton - - - fl	202	58.9	45.5	52.2	+ 3.4	69	1st	24	31st	—	—	3	6.07	+2.17	0.71	26th	28	80	— 15	25	— 4	
	¶ a Torquay - - - -	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	119	+ 9	37	+ 3	
	a Weymouth - - - -	21	59.2	50.3	54.8	—	68	2nd	32	30th	—	—	—	6.30	—	1.21	26th	23	119	—	—	37	—
	¶ a Newquay - - - -	100	58.0	50.3	54.2	+ 1.8	64	2nd, 3rd	34	31st	55.5	—	—	4.66	+0.49	0.65	25th	26	110	— 1	34	0	
	¶ a Salcombe - - - -	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	118	—	36	—	
	a Penzance - - - -	54	59.4	50.8	55.1	—	66	2nd	34	31st	—	—	—	7.65	—	1.24	1st	27	119	—	—	36	—
9. IRELAND, N.	— - - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
10. IRELAND, S.	p Dublin (Glasnevin) - -	67	57.2	42.8	50.0	+ 1.7	66	2, 4, 7	26	30th, 31st	—	—	9	3.07	+0.21	0.68	23rd	24	—	—	—	—	
	a Kingstown - - - -	42	57.9	47.0	52.5	—	67	3rd	33	29, 30, 31	—	—	—	2.87	—	0.43	22nd	22	121	—	—	38	—
	p Clongowes Wood College	245	55.6	40.9	48.3	—	70	2nd	20	31st	—	—	8	4.67	—	0.85	19th	25	100	—	—	31	—
	a Mountmellick - - - -	253	54.1	42.8	48.5	—	63	2nd	25	30th	—	—	—	5.47	—	1.01	19th	24	—	—	—	—	—
	p Newcastle (Co. Wicklow)	256	56.3	43.9	50.1	—	68	4th	31	30th	—	—	—	5.95	—	0.82	17th	25	—	—	—	—	—
	¶ a Kilkenny - - - -	212	56.3	43.6	50.0	+ 1.5	67	3rd	23	30th	—	—	—	6.30	+3.20	0.84	19th	26	—	—	—	—	—
	¶ a Cahir - - - - fl	199	56.6	43.9	50.3	+ 1.3	66	1, 2, 3	24	30th	—	—	—	7.13	—	0.88	14th	26	—	—	—	—	—
	¶ a Foynes - - - -	108	56.5	45.5	51.0	+ 1.8	67	2nd	28	29th	—	—	—	6.53	+2.78	1.10	22nd	31	—	—	—	—	—
	¶ a Ballinacurra - - - -	34	57.3	45.6	51.5	—	68	3rd	26	30th	—	—	—	6.15	—	1.00	12th	22	125	—	—	39	—
11. ENGLISH CHANNEL	¶ a Guernsey (Villa Carey) -	180	59.9	51.9	55.9	+ 2.2	67	18th	40	30th	—	—	—	7.38	+2.58	0.97	16th	27	106	— 9	32	— 3	

## NOTES ON THE STATISTICAL TABLES.

**Hours of Observation.**—The following types are used to indicate the hours of observation at Stations included in Table A:—Clarendon, Normal Climatological Stations—L, 9 a.m. [II, 3 p.m.], III, 9 p.m. Black Capitals, telegraphic reporting normal climatological stations—L, 7 a.m., II, 1 p.m., III, 9 p.m. Roman, telegraphic reporting stations—L, 7 a.m., [II, 1 p.m.], III, 6 p.m. Italic, auxiliary climatological stations—L, 9 a.m. only, at Colmonell 3 p.m., Ventnor 6 p.m. The summaries are based on observations made three times a day wherever the data are available, except in the case of the element pressure (see below). At stations shown in clarendon type the maximum and minimum temperatures are read at 9 p.m.; at the remaining stations these observations are made at L. In Table B the letters *a* and *p* indicate whether the readings of the maximum and minimum are taken at the hours of morning or evening observation.

**Barometer.**—The correction for latitude has not been applied to the readings quoted in the Tables. It is applied to the readings at sea level from which the chart showing the mean monthly distribution of pressure is prepared. The values given in the tables are for station level. The values printed are (1) for stations shown in clarendon type, the means of observations at 9 a.m. and 9 p.m.; (2) for stations shown in Capitals, the means of observations at 7 a.m., 1 p.m., 9 p.m.; (3) for stations shown in Roman type, the means of observations at 7 a.m. and 6 p.m.; (4) for stations shown in italic type, the means of observations at 9 a.m. The column headed C gives the correction for diurnal variation required to reduce the means of observations at fixed hours to true diurnal means, based on the analysis of the values obtained at the four observatories for the period 1871–1905. The difference from normal is based upon the 7 a.m. readings only, except in the cases of Kew, Greenwich, Aberdeen, Valencia and Falmouth (see below).

**Rainfall.**—The amounts are those for the 24 hours commenced at the time of morning observation.

**Weather Phenomena.**—The number of days of Rain, Snow, Hail, Thunderstorm, Fog, Ground Frost, and Gale, are counted irrespective of the hours at which the phenomena occur. Except in the cases of rainfall (see above) and ground frost the day is the civil day. A day is reckoned as a day of “clear sky,” if the mean of the estimates of the “amount of cloud” at the fixed hours of observation is less than 2, and as an “overcast” day if the mean is greater than 8. Days of Ground Frost are days on which the minimum thermometer on the grass falls to 30° or below; the “day” is taken as the 24 hours ending at 9 a.m.

**Wind Summaries.**—The results given under wind direction, and the number of observations of calms and of fresh or strong wind, are based on the observations at fixed hours. At Deerness, Aberdeen, Valencia, Falmouth, Kew, Glasgow, Stonyhurst and Armagh the wind observations are based on the records of a standard Robinson anemometer (factor 2.2). Velocities of between 13 and 38 miles in the hour have been entered as “fresh or strong winds,” velocities of 39 miles in the hour, or above, as gales. (At Brighton, Plymouth and Southport the equivalent values are obtained from a Dines Pressure Tube Anemometer.)

**Averages.**—The normal averages used for stations are—Pressure, Temperature, and Rainfall for the 35 years 1871–1905; Bright Sunshine for the 25 years 1881–1905. The values are published in Appendix III. to the Weekly Weather Report for 1906. For the Royal Observatory, Greenwich, and the Radcliffe Observatory, Oxford, averages for longer periods are used. See Notes in Monthly Weather Reports for 1908. Monthly averages of pressure at telegraphic reporting stations for the epoch 8 a.m. are published in Appendix I. to the Daily Weather Report. In order to render these averages comparable with the data for the present month, a correction, based on the results for the four observatories as published in “Hourly Readings at the Observatories under the Meteorological Council,” has been applied to each of them before the figures given in the column headed “Barometer—Difference from Normal” were computed.

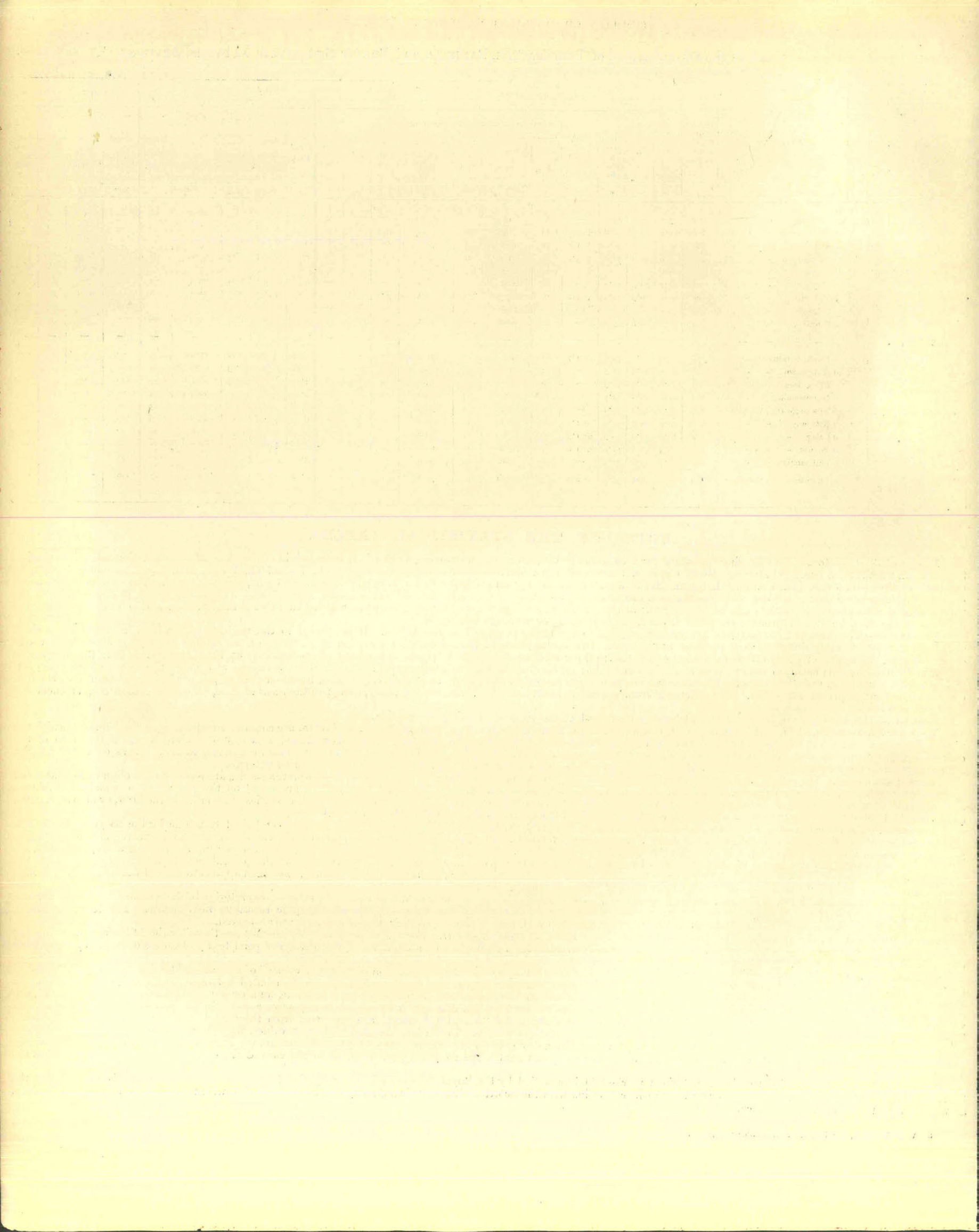
**Aberdeen, Falmouth, Kew, Valencia, Oxford, Greenwich.**—The figures quoted in the second line assigned to these observatories in the columns for Barometer and Mean Temperature are the true daily means computed from the hourly tabulations of the traces of the photographic recording instruments. For Kew, Falmouth, Aberdeen and Valencia the divergences of the means of the readings at 9 a.m. and 9 p.m. from their normal averages are also given.

**Royal Observatory, Greenwich.**—The earth temperatures are taken at a depth of 3 ft. 2 ins. The daily rainfall amounts are those for the 24 hours comprising the civil day. The number of days in the month which were persistently overcast from midnight to midnight was 2, the number of persistently cloudless days was 0, the number of persistently foggy days was 0.

**¶ Mean Values for Districts.**—The stations used in the Weekly Weather Report for the computation of “district values” of rainfall and temperature are distinguished by the sign ¶, those used for the computation of “district values of bright sunshine” by the sign §. These stations are distributed between Tables A and B. The monthly mean values for districts given in this Report for maximum, minimum and mean temperature, duration of bright sunshine, number of rain days and amount of rainfall, are computed from the data for these “representative” stations. The mean temperature for districts is computed in the manner shown in the preface to this and previous volumes of the Weekly Weather Report. The monthly mean values for districts for “amount of cloud” are computed from the data for all stations included in Table A. The extreme values of the various elements in each district are printed in distinctive type. In the lines devoted to district values, the columns referring to absolute highest and absolute lowest temperature and the maximum amount of rainfall in a day contain the extreme values for the district at any station included in either table of the Report. The averages for districts with which the current values are compared are for the 25 years 1881–1905, as in the case of the corresponding values published in the Weekly Weather Report.

**Meteorological Societies.**—Information for stations marked ¶ is supplied by the Royal Meteorological Society, and that for stations marked § is supplied by the Scottish Meteorological Society. Stations marked S are in connexion with the Scottish Meteorological Society and those marked M with the Royal Meteorological Society, as well as with the Meteorological Office.







# MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

(Supplement to the Weekly Weather Report.)

SUMMARY OF OBSERVATIONS COMPILED FROM THE RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS IN THE UNITED KINGDOM, WITH  
A CHART OF RAINFALL CONTRIBUTED BY THE BRITISH RAINFALL ORGANISATION.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE,  
AND PUBLISHED FOR H.M. STATIONERY OFFICE BY WYMAN AND SONS, LTD., FETTER LANE, E.C.; OR OLIVER AND BOYD, EDINBURGH; OR E. PONSONBY,  
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THIRTY-FOURTH YEAR.  
Vol. XXVI. (New Series)  
Weekly Weather Report. } No. XI.

NOVEMBER, 1909.

[Price 6d.]

## SUMMARY OF OBSERVATIONS.

**Pressure, Winds and Weather.**—Following the windy and exceptionally wet weather, which prevailed throughout October, the conditions experienced over the country generally during November were of an unusually fine, bright and dry type for the time of year. This change was associated with the frequent existence over or in the immediate neighbourhood of the British Isles of areas of high atmospheric pressure, so that the paths of most of the cyclonic systems of the month were at considerable distances from our shores. Several disturbances kept to the north of Iceland, while others moved eastward across the Spanish Peninsula towards the Mediterranean, South-Eastern Europe and Asia Minor. The improvement was noticeable on the opening day of the month. Through the first eleven days an anticyclonic pressure distribution was the dominant feature, the barometer descending below 30 ins. on some days only at northern stations, while on several days it was between 30·3 ins. and 30·5 ins. in the south and west. After a brief interval of unsettled conditions, the barometer falling to 28·74 ins. at Aberdeen late in the evening of the 12th, another period of high pressure set in on the 15th, and continued until the 25th, the barometer rising to its highest level for the month on the 24th, when it exceeded 30·5 ins. in Ireland and the south-west of England, reaching 30·59 ins. at Roche's Point. During the last five days of the month the type gradually became more and more disturbed, and in the night of the 29th-30th the central space of a very deep cyclonic system moved across the north of Scotland, the barometer descending below 29·5 ins. over the entire kingdom, below 29 ins. over Scotland and the north of England and of Ireland, and touching 28·62 ins. at Stornoway. The range of pressure was thus greatest in the Hebrides, where it amounted to 1·8 in., exceeding 1·5 in. over the northern half of the country, and diminishing southward to an inch on the Straits of Dover. For the whole month the mean distribution of pressure differed from the normal; the region of highest barometer, instead of being on the Continent, was found over the Atlantic, beyond our south-western coasts. The values ranged from 30·1 ins. in the south of Ireland to 29·82 ins. at Sumburgh Head, continuing to diminish northward to below 29·75 ins. in Iceland, and below 29·7 ins. at Bodö, in northern Norway. At all stations the results were above the average, by 0·06 in. at Dungeness, 0·07 in. at Sumburgh Head, 0·19 in. at Valencia and Roche's Point, and 0·2 in. at Blacksod Point. The gradient did not differ materially from the normal, but while in the main favourable to winds from between South-West and North-West, there was a considerable Easterly tendency over the southern districts, as indicated by the position of the mean highest pressure. Notwithstanding the general prevalence of a high barometer, however, the wind was often very brisk, exceeding the force of a strong breeze at one or more of the telegraphic reporting stations on numerous days.

Under the influence of a depression moving eastward along the Arctic Circle a Westerly gale was experienced in the extreme north of Scotland on the 9th and 10th, a strong gale at Malin Head and at Wick. At Loch Awe and Glencarron the rainfall on the 9th exceeded an inch. On the 11th a disturbance appeared to the southward of Iceland, and moving on a south-easterly course crossed the north of Scotland, and by the morning of the 13th it was over Kiel Bay, subsequently disappearing over northern Russia. It was the second deepest depression of the month in these islands, but the gale by which it was accompanied was the most extensively felt. Both on the 12th and the 13th the force of a gale was attained in many districts, a strong North-Westerly gale at Malin Head and Nottingham, a whole Westerly gale at Spurn Head. According to the anemometrical records a mean hourly velocity of 52 miles, from North-East, was registered at Deerness, and of 55 miles, from West, at Fleetwood, while in gusts a velocity at the rate of 62 miles per hour occurred at Southport, 66 miles per hour at Alnwick Castle, and 70 miles per hour at Aberdeen. During the progress of the disturbance rain fell heavily in the north of Scotland, where amounts of an inch and upwards were measured at several stations on the 11th and the 12th, on the former date as much as 2·1 ins. at Sandside (Orkney) and at Wick. A thunderstorm occurred at Fort William. Snow fell in many parts of the kingdom, but in no great depth, the largest fall, 6 ins., occurring at Crathes on the morning of the 13th, and 2 ins. at Kinlochewe.

A small shallow depression which appeared over Galway Bay on the evening of the 13th, and moved slowly south-eastward to northern France, caused very little wind, but it produced most disagreeable weather—cold, with showers of rain, hail, sleet and snow over a wide area.

By the middle of the month a deep cyclonic system had reached the Azores from the western Atlantic, and on the 15th the barometer stood below 28·9 ins. at Horta. Until the 21st the system appears to have remained stationary between the Azores and Portugal. In the night of the 17th, however, a small secondary became detached from the main system, and passed across northern Spain to the Mediterranean. A decided increase in the force of the East wind took place on its northern side; on

the 18th at Jersey and Portland Bill there was a strong gale and at Pendennis Castle a mean hourly velocity of 56 miles was attained, with gusts at the hourly rate of 75 miles per hour.

After this the conditions were very quiet for several days, also very dry between the 13th and 26th, rainless in many places on from twelve to fourteen days, only one or two trifling showers in other places. Wireless reports from the Atlantic showed that on the 21st the depression lying westward of Portugal began to travel slowly in a north-westerly course across the ocean. Curving round to northward and eastward it was in the neighbourhood of Iceland on the 25th, and began to affect our western coasts next day. Continuing to advance very slowly, its centre did not pass to the eastward of Shetland until the evening of the 30th. The influence of the system extended to practically all parts of western and north-western Europe, but as a rule the Southerly to South-Westerly wind blew with no greater force than that of a strong or high wind over the British Isles. It touched gale force at Stornoway on the 27th and 29th, at Dungeness on the 30th, a strong gale at Sumburgh Head on the 28th and 29th, and at Malin Head on the 30th. The weather, on the other hand, was the wettest and the most disturbed of the month. Thunderstorms occurred in several districts, mainly on the 27th and 29th, and over the country generally rain fell in considerable quantities. Daily from the 26th to the 30th there were records of more than an inch, most of the instances being in Scotland, the largest amounts returned being 1·6 in. at Glencarron and 2·7 ins. at Fort William.

Many of the observers describe the month as characterised by severe frosts, remarkable abundance of bright sunshine, and an unusual freedom from fog. There were very few occasions when the temperature stood above its normal level, the 3rd being an exceptional day, the thermometer rising to 60° and above at a number of stations in Ireland and in northern Britain, to 62° at Balruddery and Newcastle-on-Tyne. In the night of the 3rd temperature remained as high as 53° at Guernsey and Newquay, and 54° at Penzance, and above 50° at numerous stations, as far north as Strathpeffer, between the 2nd and 4th. Day maxima below 50° were, however, of common occurrence, while at times frosts of excessive severity were experienced. On the 1st Balmoral registered a minimum shade temperature of 16°, West Linton 17°, and Thorntonhall 19°; on the 8th Balmoral and West Linton 18°; but on the 15th intense cold was spreading over the northern and western districts, and next day the thermometer dropped to 3° (0° on the grass) at Balmoral, 10° at West Linton, 11° at Crathes, and 13° at Kilmarnock and Markree Castle, while the afternoon maximum was only 26° at Glasgow and 28° at Balmoral. On the 17th the minimum was 4° at Crathes (–5° on the grass) and Balmoral, and the maximum 25° at Balmoral and Glasgow, 26° at Aberdeen, the frost continuing unbroken in several places during three days. Until the 24th there were numerous shade minima below 20° in Scotland, Ireland and Wales.

Fog was rather prevalent on many parts of the Irish coast during the first three days, and on the English Channel in the first nine days, but the western and southern coasts were but rarely affected afterwards. On the east of Britain fog reports were fairly numerous from the 1st to the 9th, 14th to 20th, and 23rd to 27th. Land fogs were rare for the season.

There was a decided decrease in the temperature of the sea water along our coasts, the fall since October amounting to 8° or 9° in some localities, 10° at Margate. Notwithstanding this the water was warmer than the air on shore by 7° or 8° in many neighbourhoods, 10° off Spithead.

Aurora was seen at Balta Sound on the 7th, 20th, 21st and 30th.

**Rainfall.**—Other than at a few places in the north of Scotland the month's precipitation was everywhere below the average, and as a rule considerably so, the deficiency in several cases exceeding 3 ins., 3·6 ins. at Douglas, 3·7 ins. at Killarney and 3·9 ins. at Roche's Point. Aggregates above 5 ins. were not numerous; they were confined to the north-west of Scotland, the Highlands of North Wales, and the extreme west of Donegal. The limit 10 inches was exceeded at a few stations in the north-west of Scotland. Totals below an inch were very common, several stations returning less than ½ in., the figures ranging downwards to less than ¼ in. at Bawtry and Lincoln. Over a great part of the kingdom precipitation was registered on fewer than 10 days, on 6 days at Dundee, Temple Bruer, Southend, Tottenham, Marlborough and Southampton, on 4 days at Cuckfield, and on 3 days at Ampleforth, but at Stornoway on 27, and at Sumburgh Head on 30 days.

**Bright Sunshine.**—In all districts the duration of bright sunshine was largely in excess of the normal, by 61 hours at Plymouth, and 62 hours at Ventnor (more than 2 hours of excess per day). The largest totals were 138 hours (52 per cent. of the possible) at Bognor, 131 hours (50 per cent.) at Worthing, and 130 hours (49 per cent.) at Ventnor; the smallest, 24 hours (11 per cent.) at Balta Sound, 18 hours and 17 hours respectively (7 per cent.) at the two stations in Manchester.



TABLE A.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at 9 a.m., 3 p.m. and 9 p.m. at NORMAL STATIONS in the BRITISH ISLANDS

DISTRICT.	STATION.	Height of Barometer at 32° F. at Level and Latitude of Station.	BAROMETER.				AIR TEMPERATURE.								HYGROMETER.											
			Mean at 32° F. at Level and Latitude of Station.	Diff. from Normal.	C. for Diurnal Range.	Mean of		Mean of A and B.	Diff. from Normal.	Absolute Maximum and Minimum.				Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.												
						A	B			Max.	Day.	Min.	Day.	Dry Bulb.			Dep. of Wet.			Vap. Pressure.			Humidity.			
														I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.	
<b>O. SCOTLAND, N.</b>																										
Islands.	CASTLEBAY - - -	48	29'859	+ '171	'000	48'3	40'4	44'4	-0'2	55	3rd	32	14, 15, 16	44'6	46'4	44'8	1'2	2'5	2'3	2'54	2'59	2'46	86	83	83	
	Deerness - - -	163	29'643	—	'005	44'5	37'2	40'9	-1'5	53	3rd, 4th	30	14th, 15th	41'3	—	41'3	1'8	—	1'7	2'27	—	2'29	86	—	87	
	SUMBURGH HEAD	126	29'643	+ '074	'000	44'6	36'0	40'3	-2'0	51	4, 5, 28	28	15th	40'6	42'0	40'3	1'5	1'7	1'3	2'21	2'31	2'23	88	87	80	
	STORNOWAY - -	52	29'816	+ '156	'000	46'0	37'3	41'7	-0'6	55	3rd	26	15th	41'2	43'4	41'7	0'9	1'3	1'4	2'40	2'53	2'35	93	90	89	
Mainland.	Wick - - -	80	29'748	+ '104	'001	44'5	34'0	39'3	-2'4	56	3rd	12	17th	39'0	—	40'0	1'6	—	1'3	2'07	—	2'20	87	—	90	
	Strathpeffer - -	210	29'664	—	'006	46'2	34'9	40'6	+0'2	56	4th	21	17th	39'8	—	39'9	1'8	—	1'8	2'09	—	2'10	86	—	86	
	Glencarron - S	504	29'356	—	'006	44'7	33'8	39'3	-1'4	53	4th	19	15, 16, 17	38'7	—	39'0	1'5	—	1'6	2'06	—	2'07	88	—	87	
	Fort Augustus S	78	29'849	—	'006	45'0	31'6	38'3	-3'5	55	4th	15	17th	37'6	—	38'3	1'4	—	1'1	1'98	—	2'09	88	—	90	
	Fort William S	38	29'905	—	'006	44'9	33'1	39'0	-3'7	54	3rd	16	17th	38'1	—	39'0	1'3	—	1'4	2'03	—	2'10	88	—	89	
	Dunrobin Castle S	16	29'850	—	'005	46'4	35'0	40'7	-1'5	58	3rd	23	16th	39'9	—	40'5	1'9	—	2'0	2'14	—	2'16	83	—	83	
District Value - -						45'1	34'4	39'8	-2'4	58		12														
<b>1. SCOTLAND, E.</b>																										
	Tillypronie - - S	1120	28'653	—	'006	44'6	31'6	38'1	-0'4	58	12th	19	16th, 17th	37'3	—	36'7	1'6	—	1'6	1'96	—	1'89	85	—	84	
	Dundee - - S	164	29'756	—	'006	44'4	31'8	38'1	-3'1	54	3rd, 12th	16	17th	37'0	—	37'2	1'0	—	1'3	2'05	—	2'02	90	—	87	
	Nairn - - -	82	29'784	+ '124	'002	44'9	32'8	38'9	-2'1	58	3rd	14	17th, 18th	38'1	42'6	39'8	1'3	2'0	1'6	2'03	2'31	2'13	88	85	88	
	Gordon Castle S	107	29'760	—	'006	46'4	34'1	40'3	-1'7	60	3rd	21	15th, 17th	40'8	—	40'8	2'6	—	2'4	2'03	—	2'07	60	—	81	
	Aberdeen - - -	90	29'793 29'796	+ '079 + '088	'006	44'2	33'9	39'1 39'0	-2'8 -3'2	57	3rd	14	17th	37'9	41'8	39'0	1'8	2'7	2'2	1'93	2'11	1'95	85	80	83	
	Balmoral - - S	927	—	—	—	44'0	28'3	36'2	-2'0	60	4th	3	16th	33'4	—	—	1'8	—	—	1'55	—	—	81	—	—	
	Croft - - - S	436	29'448	—	'006	47'4	31'4	39'4	-1'6	61	3rd	16	17th	37'5	—	38'0	1'4	—	1'7	1'97	—	1'95	88	—	85	
	Leith - - -	37	29'883	+ '121	'002	46'7	33'3	40'0	-3'1	59	5th	20	19th	38'1	—	42'2	1'9	—	3'1	1'93	—	2'07	84	—	78	
	Marchmont - S	500	29'390	—	'007	45'1	33'5	39'3	-1'3	57	3rd	23	14th, 16th	38'7	—	39'4	2'0	—	1'8	1'97	—	2'06	85	—	87	
District Value - -						45'1	31'7	38'4	-3'0	62		3														
<b>2. ENGLAND, N.E.</b>																										
Northern Part.	Seaham - - -	138	29'803	—	'007	46'6	37'3	42'0	-1'1	57	3rd	27	14th	41'0	—	41'2	1'6	—	1'8	2'28	—	2'28	87	—	86	
	Whitby - - -	145	29'782	—	'007	48'3	37'9	43'1	-1'1	60	28th	26	14th	42'3	—	42'9	2'1	—	2'3	2'27	—	2'33	84	—	82	
	Cockle Pk (Morpeth)	331	29'590	—	'007	45'4	34'0	39'7	—	60	3rd	26	14th	39'3	—	38'6	1'5	—	1'5	2'16	—	2'08	87	—	86	
	Shields - - -	117	29'329	+ '126	'001	47'1	33'7	40'4	-2'7	58	3rd	26	14th	39'3	—	42'7	1'5	—	2'4	2'11	—	2'24	88	—	82	
	Durham - - -	352	29'575	—	'007	45'6	34'6	40'1	-1'5	60	3rd	23	14th	38'5	—	39'3	1'4	—	1'7	2'10	—	2'12	88	—	86	
	Rounton - - - ft	245	29'692	—	'007	44'7	33'1	38'9	-2'8	55	4th	18	16th	38'4	—	38'6	1'4	—	1'2	2'04	—	2'10	88	—	90	
Southern Part.	Scarborough - M	127	29'812	—	'008	49'4	38'9	44'2	+0'6	59	3rd	26	14th	43'8	—	43'1	2'5	—	2'1	2'32	—	2'33	80	—	83	
	York - - -	53	29'939	—	'008	47'1	34'9	41'0	-1'6	56	3rd	24	14th	39'9	—	39'9	1'2	—	1'0	2'22	—	2'26	91	—	92	
	Spurn Head - -	28	29'925	+ '031	'001	46'8	39'2	43'0	-1'2	55	5th	35	14, 22, 24	42'2	46'2	44'6	2'0	2'8	2'2	2'27	2'50	2'45	85	81	83	
	Lincoln - - -	42	—	—	—	47'0	34'3	40'7	-1'4	55	4th	28	14th, 16th	39'9	—	—	1'7	—	—	2'19	—	—	86	—	—	
	Skegness - - -	16	29'967	+ '100	'001	47'1	36'9	42'0	—	55	4th	26	14th	40'6	—	43'1	1'3	—	1'7	2'25	—	2'41	89	—	86	
	Hull - - -	2	29'973	—	'003	47'4	36'7	42'1	-0'3	58	4th	26	14th	42'1	—	42'8	2'0	—	1'9	2'26	—	2'35	85	—	85	
District Value - -						46'8	35'1	41'0	-2'2	60		18														
<b>3. ENGLAND, E.</b>																										
Northern Part.	Lowestoft - - ft	75	29'905	—	'008	47'7	38'1	42'9	-1'4	56	6th	29	14th	44'5	—	42'5	2'6	—	1'6	2'36	—	2'38	80	—	88	
	Cromer - - -	139	29'811	—	'008	48'3	38'8	43'6	—	57	5th	32	14th	43'1	—	44'0	1'8	—	1'7	2'39	—	2'50	85	—	86	
	Hillington - - ft	92	29'887	—	'008	46'9	35'4	41'2	-1'1	55	5th	24	14th	40'4	—	40'6	1'2	—	1'2	2'25	—	2'27	90	—	90	
	Norwich - - -	93	—	—	—	46'8	36'8	41'8	—	54	5th	26	23rd	—	—	—	—	—	—	—	—	—	—	—	—	
	YARMOUTH - -	27	29'952	+ '091	'000	47'3	39'2	43'3	-0'4	55	6th	30	15th	42'1	46'4	42'8	1'7	3'0	1'5	2'32	2'48	2'43	87	80	88	
	Geldeston - - -	47	29'939	—	'008	48'1	36'6	42'4	-1'1	58	6th	28	14th	41'3	—	40'8	1'6	—	1'1	2'27	—	2'32	88	—	92	
Southern Part.	Cambridge - - -	43	29'960	—	'009	47'3	34'9	41'1	-1'5	56	6th	25	9th	40'2	—	39'5	1'3	—	0'9	2'27	—	2'30	89	—	92	
	CLACTON - - -	62	29'938	+ '091	'000	46'9	37'3	42'1	-2'1	55	6th	30	23, 24, 26	40'8	45'8	41'8	1'1	2'9	1'5	2'32	2'45	2'34	92	80	88	
	Woburn - - -	294	29'720	—	'009	45'9	34'4	40'2	—	55	5th	25	20th	39'7	—	39'1	1'4	—	1'0	2'22	—	2'24	88	—	91	
	Bennington - - ft	411	29'603	—	'009	46'1	35'5	40'8	-1'6	52	4th	29	14th	39'4	—	39'2	1'4	—	1'0	2'14	—	2'19	89	—	92	
	Berkhamsted - ft	397	29'597	—	'009	46'5	33'7	40'1	-2'3	55	6th	24	9th	39'0	—	38'8	0'8	—	0'7	2'21	—	2'22	93	—	94	
District Value - -						47'2	36'8	42'0	-1'4	59		24														
<b>4. MIDLAND COS.</b>																										
Eastern Part.	Garforth - - -	198	—	—	'008	47'0	33'8	40'4	—	57	3rd	17	14th	41'1	—	39'5	1'9	—	1'3	2'25	—	2'22	85	—	89	
	Huddersfield - -	411	29'561	—	'008	45'7	36'8	41'3	—	55	3rd	25	14th	40'3	—	40'5	1'6	—	1'8	2'22	—	2'21	86	—	95	
	Wakefield - - ft	100	29'891	—	'008	48'3	35'5	41'9	-1'0	57	4th	20	14th	40'9	—	41'9	2'2	—	2'3	2'11	—	2'18	82	—	82	
	Belvoir Castle -	276	29'714	—	'008	46'2	35'2	40'7	-1'8	56	4th, 5th	25	14th	39'1	—	39'9	1'0	—	0'6	2'19	—	2'34	92	—	95	
	Coventry - - -	309	29'707	—	—	46'4	35'0	40'7	-2'2	56	4th	27	23rd	39'3	—	—	1'3	—	—	2'15	—	—	90	—	—	
	NOTTINGHAM - -	85	29'912	+ '107	'000	47'2	34'2	40'7	-1'8	57	4th	27	14th	38'8	45'8	41'2	0'9	2'5	1'0	2'19	2'53	2'37	93	82	93	
	Birmingham - -	542	29'435	—	'009	45'4	36'3	40'9	-1'8	56</																



CLIMATOLOGICAL STATIONS, at 7 a.m., 1 p.m. and 6 p.m. or 9 p.m. or at 7 a.m. and 6 p.m. at TELEGRAPHIC REPORTING during the month of NOVEMBER, 1909.

Earth Temperature.		BRIGHT SUNSHINE.				CLOUD (0-10.)			RAIN AND OTHER FORMS OF PRECIPITATION.				WEATHER.										WIND.										STATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
At 1 foot depth.	At 4 feet depth.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	Mean Amount.			Total Fall.	Diff. from Normal.	Most in a day.		Precipitation.	Snow.	Hail.	Thunderstorm.	Clear Sky.	Overcast.	Fog.	Ground Frost.	Wind force 8 and above.	No. of Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
						I.	II.	III.			Amount.	Day.										Forces 4-7.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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For notes see p. cxv.



CLIMATOLOGICAL STATIONS, at 7 a.m., 1 p.m. and 6 p.m. or 9 p.m. or at 7 a.m. and 6 p.m. at TELEGRAPHIC REPORTING during the Month of NOVEMBER, 1909.

Earth Temperature.		BRIGHT SUNSHINE.				CLOUD (0-10.)			RAIN AND OTHER FORMS OF PRECIPITATION.				WEATHER. No. of Days of										WIND.										STATIONS.
At 1 foot depth.	At 4 feet depth.	Total in Hrs.	Diff. from Normal.	Per Cent.	Diff. from Normal.	Mean Amount.			Total Fall.	Diff. from Normal.	Most in a day.		Precipitation.	Snow.	Hail.	Thunderstorm.	Clear Sky.	Overcast.	Fog.	Ground Frost.	Wind-force 3 and above.	No. of Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.											
						I.	II.	III.			Amount.	Day.										Forces 4-7.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		
—	—	94	—	36	—	5.7	—	6.6	0.42	-2.08	0.20	29th	8	0	0	0	3	10	1	—	0	0	21	3	9	2	2	0	7	4	12	Reading.	
42.9	—	—	—	—	—	5.6	—	5.3	0.83	-2.61	0.40	29th	17	1	0	0	7	10	7	23	0	6	1	12	16	1	0	1	5	10	14	Salisbury.	
—	49.6	126	+58	48	+22	5.8	—	—	1.40	-1.73	0.66	29th	8	0	0	0	8	13	2	10	0	11	3	7	7	1	1	0	3	4	4	Brighton.	
44.0	50.3	123	—	47	—	4.7	—	—	0.71	-2.45	0.45	29th	7	0	0	0	14	10	1	12	0	3	0	5	10	2	2	1	1	3	6	Portsmouth.	
45.8	51.8	124	+58	47	+22	4.7	—	3.5	1.28	-2.27	0.43	29th	8	0	0	0	13	9	0	—	0	1	1	5	22	1	2	0	10	5	14	Eastbourne.	
—	—	—	—	—	—	7.2	7.1	6.1	1.33	-1.32	0.57	14th	8	0	0	0	0	6	9	—	2	36	0	16	17	9	4	6	8	15	15	Duneness.	
43.5	50.5	126	+55	48	+21	4.8	—	4.4	0.60	-2.73	0.27	29th	9	0	0	0	11	9	6	12	2	18	0	10	12	6	4	3	5	10	10	Hastings.	
—	—	107	+44	41	+17	5.6	—	4.7	0.59	-2.61	0.36	29th	6	0	0	0	11	12	5	18	0	23	0	0	31	0	4	0	9	0	16	Southampton.	
—	—	130	+62	49	+23	5.1	—	—	1.56	-1.85	0.90	29th	10	0	0	0	10	8	0	—	0	14	7	18	5	8	1	2	4	7	8	Ventnor.	
43.4	4.97	105	+44	40	+17	5.5	—	5.2	0.83	-2.11	1.06	—	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	50.1	73	—	28	—	6.7	—	7.1	0.75	—	0.33	29th	2	0	0	0	3	13	3	15	0	1	2	15	12	2	0	2	10	7	10	Tottenham.	
42.0	49.3	59	—	23	—	6.4	—	—	0.75	-1.61	0.35	29th	11	0	0	0	9	14	4	19	—	—	6	9	5	1	0	1	3	3	2	Camden Square.	
—	45	+18	17	+7	—	5.4	—	6.2	0.67	-1.68	0.30	29th	11	3	0	0	6	11	4	13	1	10	9	9	10	5	2	2	10	7	6	Westminster.	
—	48.3	78	+30	29	+11	6.0	—	6.0	0.79	-1.43	0.41	29th	14	2	0	0	4	9	16	15	0	6	8	10	10	3	1	3	12	7	6	Greenwich.	
42.6	—	—	—	—	—	5.6	—	5.8	0.86	-1.54	0.42	29th	14	2	0	0	7	11	14	14	0	4	15	11	7	4	0	3	9	6	5	Norwood.	
42.8	49.6	77	+27	30	+11	6.2	6.9	5.9	0.70	-1.51	0.30	29th	11	0	0	0	5	11	9	17	0	15	28	14	16	2	0	3	10	13	4	Kew.	
—	—	33	+11	13	+5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Bunhill Row.
—	—	64	—	25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Plumstead.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Laudale.
—	—	—	—	—	—	6.5	—	5.4	4.85	-0.57	1.05	28th	16	0	2	0	6	11	0	—	1	13	21	8	0	1	0	2	14	8	6	Poltalloch.	
—	—	42	+16	18	+7	8.2	—	7.0	2.45	-1.25	1.06	29th	13	0	1	0	2	16	5	20	0	7	26	1	1	0	0	1	11	16	4	Glasgow.	
—	45.4	—	—	—	—	4.4	—	4.5	3.00	-1.95	0.55	28th	17	0	0	0	11	7	7	—	3	6	14	3	2	3	0	5	9	15	9	Rothesay.	
—	—	—	—	—	—	5.2	—	—	1.57	-3.35	0.27	30th	10	0	0	0	12	12	2	17	2	22	8	8	2	12	0	2	4	14	10	Colmonell.	
38.7	44.8	72	—	29	—	7.4	—	4.2	1.15	-2.89	0.32	27th	9	0	0	0	3	10	4	19	2	7	10	13	6	0	1	1	15	2	12	Dumfries.	
—	—	—	—	—	—	—	—	—	1.82	-3.49	0.29	27th	13	0	0	0	—	—	—	—	1	9	0	9	19	0	0	0	6	7	19	10	Cally.
—	—	107	+46	43	+19	5.9	—	4.6	1.25	-3.55	0.27	26th	15	1	2	0	6	7	0	10	1	13	1	11	8	1	1	3	3	17	10	Douglas.	
—	75	+28	31	+12	6.3	5.1	2.33	-3.03	1.06	—	—	—	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
39.5	45.5	80	+33	32	+13	6.2	—	5.7	1.70	-1.54	0.28	27th	15	0	3	0	2	10	1	18	2	25	4	10	11	1	1	7	10	7	9	Southport.	
40.7	48.7	17	—	7	—	—	—	—	1.32	-1.76	0.41	28th	11	0	0	0	—	—	7	13	0	3	6	9	5	2	4	11	8	8	7	Manchester (City).	
—	—	18	—	7	—	8.4	8.1	6.1	1.03	—	0.34	28th	10	0	0	0	1	14	4	21	0	3	29	9	12	1	1	13	7	12	6	" (Whit. Pk.).	
40.9	46.3	47	—	19	—	7.6	—	6.1	2.65	—	0.69	27th	17	0	3	0	1	13	1	20	2	12	0	2	5	0	1	8	9	17	18	Darwen.	
—	—	88	—	36	—	5.9	—	3.8	2.03	-2.08	0.42	28th	15	0	2	0	8	7	0	19	1	7	9	11	1	1	1	6	16	12	3	Aspatia.	
40.5	45.5	72	+23	29	+9	5.5	—	4.6	1.59	-2.21	0.36	27th	9	0	0	1	9	8	2	20	1	9	7	2	0	3	3	10	11	20	4	Newton Rigg.	
—	—	74	+29	29	+11	6.6	—	5.5	2.69	-1.69	0.72	28th	13	0	0	0	5	11	0	17	0	3	26	5	6	0	0	2	8	8	5	Stonyhurst.	
42.7	48.1	89	+42	35	+16	6.6	—	6.0	1.23	-2.25	0.30	27th	13	0	1	0	4	13	0	18	1	18	0	8	14	2	5	4	10	7	10	Blackpool.	
—	—	46	+16	18	+6	7.6	—	5.0	1.33	-2.03	0.39	28th	13	0	0	0	4	12	1	15	1	6	16	8	10	0	1	4	9	9	3	Manch'st r (Prest).	
—	—	79	—	31	—	5.6	—	6.1	0.88	-1.77	0.11	30th	19	0	2	1	3	6	2	—	1	12	2	9	8	1	2	5	12	15	6	Liverp'ol, Bid.Obs.	
—	—	60	+5	24	+2	6.9	—	8.1	1.57	-1.78	0.40	30th	15	0	0	0	0	0	0	—	0	1	2	3	2	16	2	4	15	9	7	Llandudno.	
—	—	—	—	—	—	7.1	6.4	5.4	2.75	-1.39	0.82	31th	13	1	2	0	0	5	2	—	1	39	3	7	15	15	1	3	17	13	16	Holyhead.	
41.0	47.3	44	—	17	—	6.0	—	5.4	3.27	—	0.80	30th	19	0	1	0	4	6	0														



TABLE B.—SUMMARY of the OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE at additional STATIONS, NOVEMBER, 1909.

DISTRICT.	STATION.	Height of Gauge above M.S.L.	AIR TEMPERATURE.								Earth Temperature		Grnd Frost.	RAIN AND OTHER FORMS OF PRECIPITATION.						BRIGHT SUNSHINE.			
			Mean of		Mean of A and B.	Diff. of Mean from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.	No. of Days.	Total Fall.	Diff. from Normal.	Most in a day.		Number of Days.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	
			A	B			Max.	Day.	Min.	Day.						Amt.	Day.						
			Max.	Min.																			°
		Ft.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	Hrs.	Hrs.	%	%		
O. SCOTLAND, N.	p Balta Sound - - -	S	31	44.3	36.1	40.2	—	51	3rd, 4th	28	3rd	40.3	—	—	3.88	—	0.55	8th	29	24	—	11	—
	p Crathes - - -	S	140	45.0	29.2	37.1	—	60	3rd	4	17th	39.9	44.5	18	1.82	—	0.54	13th	14	54	—	23	—
1. SCOTLAND, E.	Stonehaven - - -	—	286	44.2	32.9	38.6	—	55	4th	21	17th	—	—	—	1.43	—	0.42	1st	13	82	—	35	—
	p Balruddery - - -	S	276	47.3	30.2	38.8	—	62	3rd	17	17th	—	—	—	0.40	—	0.11	28th	11	110	—	46	—
	Edinburgh - - -	—	253	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75	+ 31	31	+13
	a West Linton - - -	S	800	42.4	26.5	34.5	- 5.8	52	3rd	10	16th	—	—	24	1.63	—	0.57	28th	14	86	—	36	—
	a Alnwick Castle - - -	—	210	46.3	33.8	40.1	- 2.2	59	3rd	26	1st, 14th	—	—	—	1.12	- 2.39	0.30	14th	15	—	—	—	—
	p Newcastle-on-Tyne - - -	—	152	46.5	36.9	41.7	—	58	3rd	28	15th	—	—	—	0.61	- 2.06	0.17	21st	11	47	+ 13	19	+5
2. ENGLAND, N.E.	p Ampleforth - - -	—	349	46.1	35.5	40.8	—	54	3rd, 4th	24	14th	—	—	—	0.34	—	0.22	27th	3	—	—	—	—
	p Tealby - - -	—	251	46.5	35.4	41.0	- 1.2	54	4th, 5th	26	14th	—	—	—	0.44	- 1.94	0.24	27th	7	—	—	—	—
	a Fulbeck - - -	—	180	47.0	33.5	40.3	- 1.7	56	5th	25	16th	—	—	19	0.39	- 1.65	0.10	27th	12	—	—	—	—
	a Rauceby - - -	—	124	47.7	34.8	41.3	—	58	28th	26	14th	42.9	49.2	20	0.62	- 1.67	0.14	27th	16	80	—	31	—
	a Felixstowe - - -	—	10	47.4	37.4	42.4	- 2.0	54	2, 5, 6	26	23rd	—	—	—	0.88	—	0.21	17th	9	113	—	44	—
3. ENGLAND, E.	a Rothamsted - - -	—	424	46.1	34.6	40.4	- 1.9	53	3, 6, 12	27	9th, 26th	—	—	—	1.10	- 1.66	0.37	29th	17	91	+ 31	35	+12
	a Shoburyness - - -	—	13	47.4	37.1	42.3	- 2.2	56	6th	29	23rd	—	—	—	1.26	- 0.87	0.42	14th	13	—	—	—	—
	a Southend-on-Sea - - -	—	100	47.5	35.4	41.5	—	59	6th	27	9th, 26th	44.4	—	16	1.38	- 0.73	0.53	14th	6	110	—	42	—
	a Harrogate - - -	—	476	45.1	35.4	40.3	- 1.4	55	4th	25	14th	42.6	45.1	17	0.97	- 1.72	0.32	27th	11	72	—	29	—
	a Bradford - - -	—	439	45.4	35.1	40.3	—	56	3rd	23	14th	41.5	48.8	19	0.90	—	0.30	30th	8	61	—	24	—
	a Cheadle - - -	—	646	45.2	34.7	40.0	- 1.5	54	4th	28	23rd	—	—	17	0.62	- 2.33	0.14	30th	10	—	—	—	—
	a Bawtry - - -	—	65	46.8	34.0	40.4	- 1.9	58	4th	20	14th	—	—	—	0.23	- 1.80	0.08	28th	9	—	—	—	—
	a Worksop - - -	—	56	48.5	33.8	41.2	- 1.2	59	4th	24	14th	41.4	46.4	22	0.27	- 1.76	0.11	28th	10	62	+ 16	25	+ 7
4. MIDLAND COUNTIES	a Mayfield (Staffs.) - - -	—	374	45.7	33.1	39.4	—	57	4th	24	14th	—	—	18	0.84	—	0.15	27th	11	—	—	—	—
	a Kingston-on-Soar - - -	—	125	46.6	32.5	39.6	—	57	5th	21	20th	43.8	—	—	0.56	—	0.16	27th	19	—	—	—	—
	p Rugby - - -	—	379	46.6	32.7	39.7	- 2.3	56	4, 6, 12	19	20th	—	—	15	0.68	—	0.16	29th	14	—	—	—	—
	a Raunds - - -	—	210	47.3	32.7	40.0	- 2.6	59	5th	26	20th	—	—	20	0.75	—	0.40	29th	16	—	—	—	—
	a Winslow - - -	—	379	45.1	34.1	39.6	—	54	3rd	27	20th	—	—	—	0.69	—	0.23	14th	14	—	—	—	—
	a Hereford - - -	—	291	46.9	34.3	40.6	- 2.5	57	3rd	24	23rd	—	—	25	1.06	- 1.49	0.41	14th	16	—	—	—	—
	a Cirencester - - -	—	446	46.6	33.7	40.2	- 1.7	56	5th	23	9th	—	—	?	0.79	- 2.18	0.20	29th	14	88	+ 31	34	+12
	a Epsom - - -	—	160	46.4	33.2	39.8	—	54	2nd	24	23rd	—	—	20	1.01	—	0.30	29th	18	—	—	—	—
	a Wokingham - - -	—	216	46.9	31.9	39.4	—	56	5th	21	23rd	—	—	—	0.67	—	0.36	29th	12	—	—	—	—
	a Maidenhead - - -	—	99	47.8	33.9	40.9	—	57	3rd	25	9th	—	—	15	0.59	- 1.87	0.23	29th	11	—	—	—	—
	a Marlborough - - -	—	424	46.5	32.1	39.3	- 2.8	54	3rd, 5th	22	9th	—	—	19	0.49	- 2.82	0.31	29th	6	88	+ 37	34	+14
	a Bucklebury - - -	—	409	45.7	34.2	40.0	—	53	3rd, 12th	26	9th	—	—	25	0.62	—	0.24	29th	11	—	—	—	—
	a Swarraton - - -	—	310	46.1	33.4	39.9	- 2.6	56	6th	22	9th	—	—	—	0.73	- 2.47	0.34	29th	13	—	—	—	—
	a Margate - - -	—	85	48.3	40.2	44.3	- 0.9	59	6th	31	26th	44.8	48.6	2	0.55	- 2.04	0.24	15th	7	96	+ 35	37	+14
	Broadstairs - - -	—	140	—	—	—	—	—	—	—	—	—	—	—	0.51	—	0.15	29th	9	110	—	42	—
	Ramsgate - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	110	—	42	—
5. ENGLAND, S.E.	a Wisley - - -	—	150	46.9	34.2	40.6	- 3.8	56	6th	26	9th	42.2	48.4	17	0.58	—	0.26	29th	12	77	—	29	—
	a Dover - - -	—	231	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	a Tunbridge Wells - - -	—	421	46.1	34.0	40.1	- 2.8	55	5th, 6th	26	9th	41.9	—	20	1.18	- 2.15	0.67	29th	13	112	+ 44	43	+17
	a Matfield - - -	—	320	46.9	35.4	41.2	—	57	6th	29	26th	—	—	21	1.20	—	0.69	29th	9	—	—	—	—
	p Folkestone - - -	—	121	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Littlestone - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	104	—	40	—
	a Bexhill - - -	—	27	48.5	38.5	43.5	—	56	2nd, 6th	29	21st	46.2	—	10	0.66	—	0.36	29th	9	120	—	46	—
	Hove - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	122	—	46	—
	p Lewes - - -	—	58	47.5	36.3	41.9	—	56	2nd, 6th	26	26th	—	—	—	1.74	—	0.60	29th	22	—	—	—	—
	a Worthing - - -	—	36	48.0	36.4	42.2	- 2.5	57	2nd, 6th	30	9, 21, 26	42.9	50.3	11	1.71	- 1.43	1.06	29th	8	131	—	50	—
	a Bognor - - -	—	20	48.6	37.5	43.1	—	55	3rd	30	24th	—	51.0	14	1.25	—	0.25	29th	16	138	—	52	—
	Westbourne - - -	—	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	99	—	38	—
	a Totland Bay - - -	—	140	48.2	37.7	43.0	- 2.7	56	6th	30	19th	—	—	13	0.77	- 2.28	0.39	29th	10	128	—	49	—
	a Sandown - - -	—	20	49.6	38.3	44.0	—	57	6th	29	26th	—	—	—	1.35	—	0.74	29th	12	124	—	47	—
6. SCOTLAND, W.	p Bournemouth - - -	—	145	48.8	35.7	42.3	—	57	4th	28	9, 23, 24	43.4											

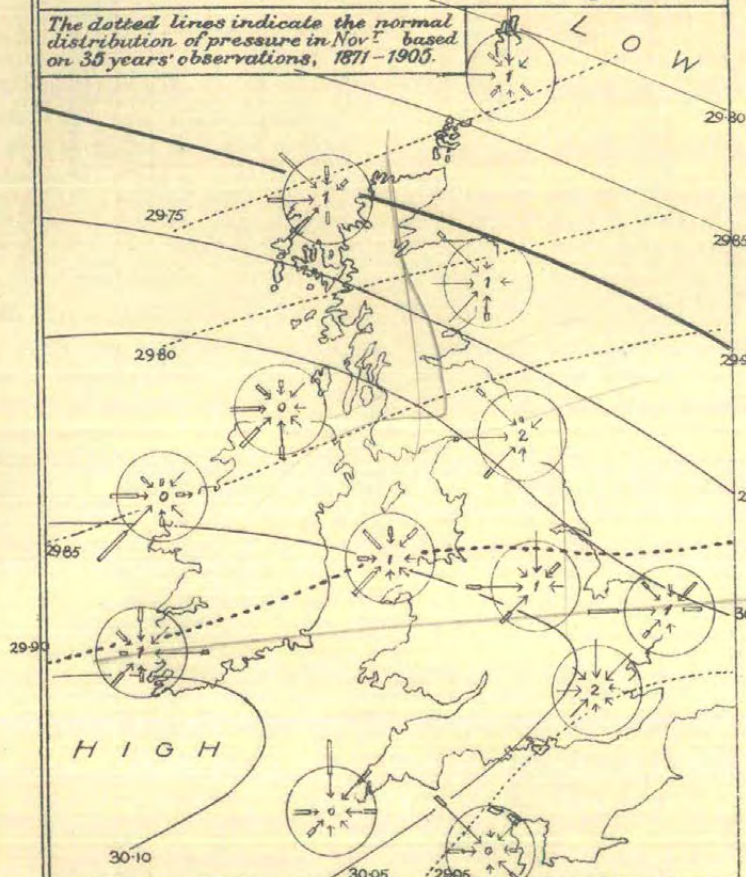


# MONTHLY WEATHER CHARTS, NOVEMBER 1909.

CXIII.

## 1. BAROMETER AND WIND AT 8 A.M.

The dotted lines indicate the normal distribution of pressure in Nov<sup>r</sup> based on 35 years' observations, 1871-1905.



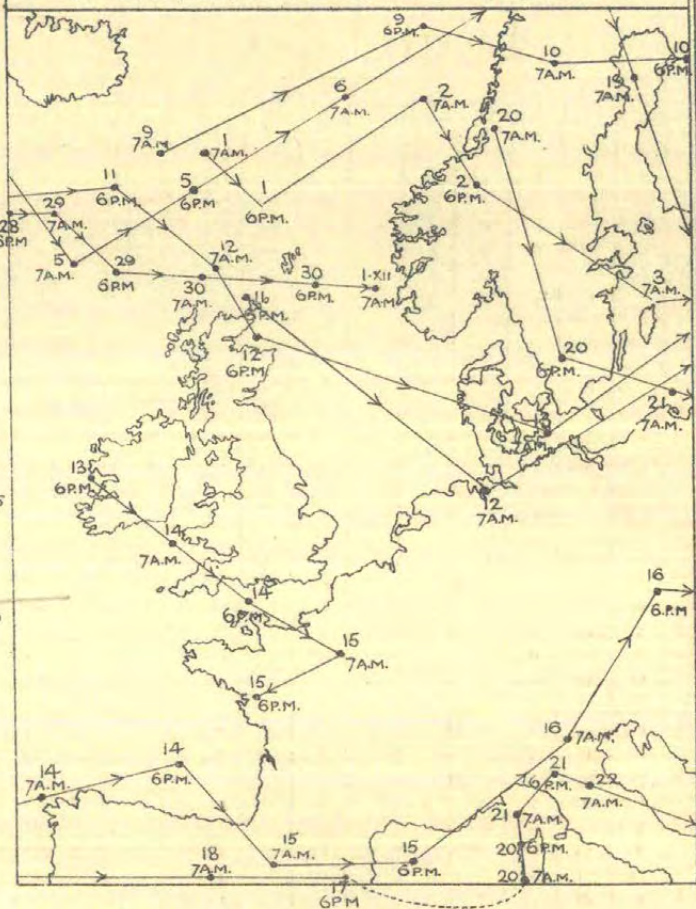
WIND ROSES. The arrows fly with the wind and indicate frequency and force, thus:   
 Light moderate strong   
 30 Obs = 1 inch

## 3. DISTRIBUTION OF MEAN TEMPERATURE.

Reduced to sea level by a correction of 1°F for 500ft.



## 2. MOVEMENTS OF DEPRESSIONS.



## 4. BRIGHT SUNSHINE, IN HOURS.

Isohels are shown for 50, 80 and 110 hours





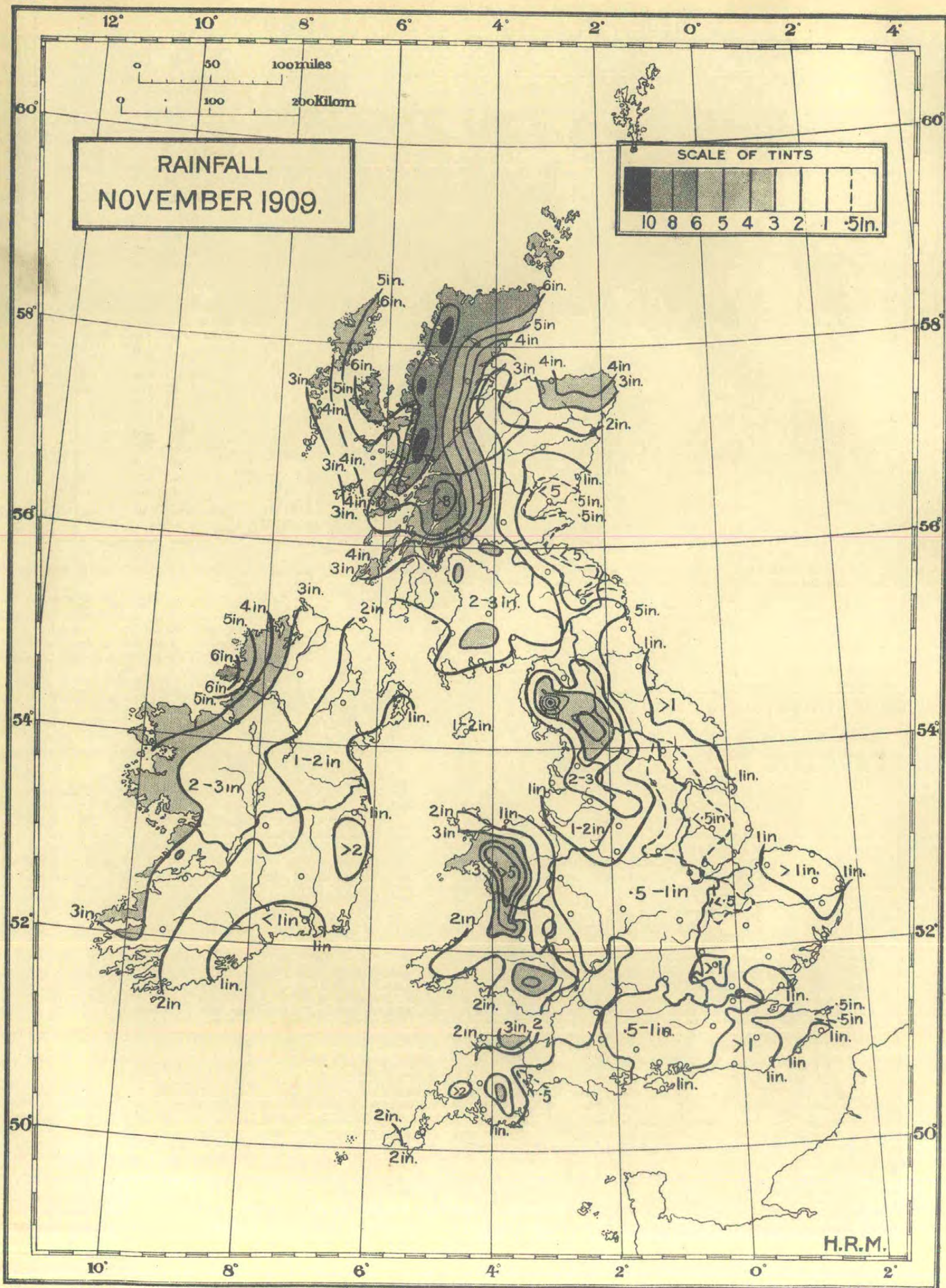




TABLE B (continued).—SUMMARY of the OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE at additional STATIONS, NOVEMBER, 1909.

DISTRICT.	STATION.	Height of Gauge above M.S.L. Ft.	AIR TEMPERATURE.								Earth Temperature		Grnd Frost.	RAIN AND OTHER FORMS OF PRECIPITATION.					BRIGHT SUNSHINE.					
			Mean of		Mean of A and B.	Diff. of Mean from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.		No. of Days.	Total Fall.	Diff. from Normal.	Most in a day.		Number of Days.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	
			A	B			Max.	Day.	Min.	Day.							Ins.	Ins.						
			Max.	Min.																				Ins.
8. ENGLAND, S.W. (continued)	a Swansea - - -	24	48.8	38.7	43.8	—	58	3rd	29	23rd	—	—	—	2.51	—	0.51	28th	15	84	—	32	—		
	¶ a Shaftesbury - -	722	45.5	35.7	40.6	- 2.4	55	6th	27	23rd	42.7	—	—	0.71	- 2.85	0.42	29th	8	—	—	—	—		
	¶ a Arlington - - -	613	46.2	36.4	41.3	- 2.6	54	3rd, 5th	25	23rd	—	—	—	3.00	- 2.68	0.46	27th, 28th	18	—	—	—	—		
	¶ a Cullompton - -	202	49.1	33.5	41.3	- 2.5	60	3rd	22	9th	—	—	17	1.26	- 2.38	0.38	29th	14	96	+ 40	37	+ 16		
	¶ Torquay - - -	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	116	+ 50	44	+ 19		
	a Weymouth - - -	21	49.6	38.5	44.1	—	58	3rd	30	23rd	—	—	—	0.68	—	0.29	29th	7	122	—	46	—		
	§ a Newquay - - -	100	49.5	40.8	45.2	- 2.8	56	2nd	30	23rd	47.0	—	—	1.39	- 2.33	0.30	29th	12	121	+ 46	46	+ 18		
9. IRELAND, N.	Salcombe - - -	300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	126	—	48	—		
	a Penzance - - -	54	50.9	41.6	46.3	—	58	2nd	30	23rd	—	—	—	2.29	—	0.49	30th	14	117	—	44	—		
	— - - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	p Dublin (Glasnevin) - -	67	48.6	35.5	42.1	- 2.0	59	3rd	25	16th, 24th	—	—	21	1.60	- 1.18	0.74	13th	14	—	—	—	—		
	a Kingstown - - -	42	49.5	39.1	44.3	—	59	3rd	30	15th, 16th	—	—	—	1.30	—	0.70	13th	12	97	—	38	—		
	p Clongowes Wood College -	245	46.5	30.5	38.5	—	56	3rd	18	16th	—	—	19	1.79	—	0.41	13th	20	86	—	34	—		
	a Mountmellick - - -	253	44.9	31.3	38.1	—	58	1st	21	24th	—	—	—	2.53	—	0.77	13th	13	—	—	—	—		
10. IRELAND, S.	p Newcastle (Co. Wicklow) -	256	48.9	37.6	43.3	—	62	3rd	29	24th	—	—	—	1.91	—	0.95	13th	12	—	—	—	—		
	¶ a Kilkenny - - -	212	47.4	32.4	39.9	- 4.2	58	3rd	20	24th	—	—	—	1.33	- 1.72	0.41	30th	17	—	—	—	—		
	¶ a Cahir - - -	199	47.3	32.1	39.7	- 4.6	56	2nd	19	23rd, 24th	—	—	—	1.29	—	0.44	30th	13	—	—	—	—		
	¶ a Foynes - - -	108	47.6	36.4	42.0	- 3.0	55	2, 3, 4	26	23rd	—	—	—	2.19	- 1.92	0.64	30th	24	—	—	—	—		
	a Ballinacurra - - -	34	49.9	35.3	42.6	—	61	3rd	24	24th	—	—	—	0.77	—	0.35	30th	9	94	—	36	—		
	¶ a Guernsey (Villa Carey) -	180	51.4	42.8	47.1	- 1.6	61	6th	34	24th	—	—	—	2.13	- 2.64	0.64	29th	13	76	+ 14	28	+ 5		
	11. ENGLISH CHANNEL																							

## NOTES ON THE STATISTICAL TABLES.

**Hours of Observation.**—The following types are used to indicate the hours of observation at Stations included in Table A:—Clarendon, Normal Climatological Stations—I, 9 a.m. [II, 3 p.m.], III, 9 p.m. Black Capitals, telegraphic reporting normal climatological stations—I, 7 a.m., II, 1 p.m., III, 9 p.m. Roman, telegraphic reporting stations—I, 7 a.m., [II, 1 p.m.], III, 6 p.m. Italic, auxiliary climatological stations—I, 9 a.m. only, at Colmonell 3 p.m., Ventnor 6 p.m. The summaries are based on observations made three times a day wherever the data are available, except in the case of the element pressure (see below). At stations shown in clarendon type the maximum and minimum temperatures are read at 9 p.m.; at the remaining stations these observations are made at I. In Table B the letters *a* and *p* indicate whether the readings of the maximum and minimum are taken at the hours of morning or evening observation.

**Barometer.**—The correction for latitude has not been applied to the readings quoted in the Tables. It is applied to the readings at sea level from which the chart showing the mean monthly distribution of pressure is prepared. The values given in the tables are for station level. The values printed are (1) for stations shown in clarendon type, the means of observations at 9 a.m. and 9 p.m.; (2) for stations shown in Capitals, the means of observations at 7 a.m., 1 p.m., 9 p.m.; (3) for stations shown in Roman type, the means of observations at 7 a.m. and 6 p.m.; (4) for stations shown in italic type, the means of observations at 9 a.m. The column headed C gives the correction for diurnal variation required to reduce the means of observations at fixed hours to true diurnal means, based on the analysis of the values obtained at the four observatories for the period 1871–1905. The difference from normal is based upon the 7 a.m. readings only, except in the cases of Kew, Greenwich, Aberdeen, Valencia and Falmouth (see below).

**Rainfall.**—The amounts are those for the 24 hours commenced at the time of morning observation.

**Weather Phenomena.**—The number of days of Rain, Snow, Hail, Thunderstorm, Fog, Ground Frost, and Gale, are counted irrespective of the hours at which the phenomena occur. Except in the cases of rainfall (see above) and ground frost the day is the civil day. A day is reckoned as a day of “clear sky,” if the mean of the estimates of the “amount of cloud” at the fixed hours of observation is less than 2, and as an “overcast” day if the mean is greater than 8. Days of Ground Frost are days on which the minimum thermometer on the grass falls to 30° or below; the “day” is taken as the 24 hours ending at 9 a.m.

**Wind Summaries.**—The results given under wind direction, and the number of observations of calms and of fresh or strong wind, are based on the observations at fixed hours. At Deerness, Aberdeen, Valencia, Falmouth, Kew, Glasgow, Stonyhurst and Armagh the wind observations are based on the records of a standard Robinson anemometer (factor 2.2). Velocities of between 13 and 38 miles in the hour have been entered as “fresh or strong winds,” velocities of 39 miles in the hour, or above, as gales. (At Brighton, Plymouth and Southport the equivalent values are obtained from a Dines Pressure Tube Anemometer.)

**Averages.**—The normal averages used for stations are—Pressure, Temperature, and Rainfall for the 35 years 1871–1905; Bright Sunshine for the 25 years 1881–1905. The values are published in Appendix III. to the Weekly Weather Report for 1906. For the Royal Observatory, Greenwich, and the Radcliffe Observatory, Oxford, averages for longer periods are used. See Notes in Monthly Weather Reports for 1908. Monthly averages of pressure at telegraphic reporting stations for the epoch 8 a.m. are published in Appendix I. to the Daily Weather Report. In order to render these averages comparable with the data for the present month, a correction, based on the results for the four observatories as published in “Hourly Readings at the Observatories under the Meteorological Council,” has been applied to each of them before the figures given in the column headed “Barometer—Difference from Normal” were computed.

**Aberdeen, Falmouth, Kew, Valencia, Oxford, Greenwich.**—The figures quoted in the second line assigned to these observatories in the columns for Barometer and Mean Temperature are the true daily means computed from the hourly tabulations of the traces of the photographic recording instruments. For Kew, Falmouth, Aberdeen and Valencia the divergences of the means of the readings at 9 a.m. and 9 p.m. from their normal averages are also given.

**Royal Observatory, Greenwich.**—The earth temperatures are taken at a depth of 3 ft. 2 ins. The daily rainfall amounts are those for the 24 hours comprising the civil day. The number of days in the month which were persistently overcast from midnight to midnight was 0, the number of persistently cloudless days was 0, the number of persistently foggy days was 0.

¶ **Mean Values for Districts.**—The stations used in the Weekly Weather Report for the computation of “district values” of rainfall and temperature are distinguished by the sign ¶, those used for the computation of “district values of bright sunshine” by the sign §. These stations are distributed between Tables A and B. The monthly mean values for districts given in this Report for maximum, minimum and mean temperature, duration of bright sunshine, number of rain days and amount of rainfall, are computed from the data for these “representative” stations. The mean temperature for districts is computed in the manner shown in the preface to this and previous volumes of the Weekly Weather Report. The monthly mean values for districts for “amount of cloud” are computed from the data for all stations included in Table A. The extreme values of the various elements in each district are printed in distinctive type. In the lines devoted to district values, the columns referring to absolute highest and absolute lowest temperature and the maximum amount of rainfall in a day contain the extreme values for the district at any station included in either table of the Report. The averages for districts with which the current values are compared are for the 25 years 1881–1905, as in the case of the corresponding values published in the Weekly Weather Report.

**Meteorological Societies.**—Information for stations marked ¶ is supplied by the Royal Meteorological Society, and that for stations marked § is supplied by the Scottish Meteorological Society. Stations marked S are in connexion with the Scottish Meteorological Society and those marked M with the Royal Meteorological Society, as well as with the Meteorological Office.







# MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

(Supplement to the Weekly Weather Report.)

SUMMARY OF OBSERVATIONS COMPILED FROM THE RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS IN THE UNITED KINGDOM, WITH A CHART OF RAINFALL CONTRIBUTED BY THE BRITISH RAINFALL ORGANISATION.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE,

AND PUBLISHED FOR H.M. STATIONERY OFFICE BY WYMAN AND SONS, LTD., FETTER LANE, E.C.; OR OLIVER AND BOYD, EDINBURGH; OR E. PONSOMBY, 116, GRAFTON STREET, DUBLIN.

THIRTY-FOURTH YEAR.  
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## SUMMARY OF OBSERVATIONS.

**Pressure, Winds and Weather.**—The closing month of the year was characterised by very variable atmospheric conditions over the United Kingdom, the distribution of pressure during the greater part of the period being of an exceedingly disturbed type, at times producing severe gales, heavy rain or snow, and rapid fluctuations of temperature. This unstable type was associated with the appearance over or in the immediate neighbourhood of these islands of a number of very deep cyclonic systems, in nearly all of which the barometer fell below 29 ins. Throughout the first seven days the conditions were entirely cyclonic, with the barometer below 29 ins. on six days, the lowest reading for the month, and for the whole of the year 1909, being registered at Spurn Head on the morning of the 3rd, when the instrument dropped to the very low level of 28.03 ins. On several occasions two of these deep pressure minima were found over different parts of the country at the same time. From the 8th to the 10th anticyclonic conditions prevailed over the southern districts, the barometer mounting to 30.48 ins. at Jersey on the 9th, the high pressure system being mainly on the Continent. A cyclonic system which occupied the whole country on the 11th quickly passed back to the upper region of the Atlantic, and an anticyclone which had hitherto been over Russia spread westward very rapidly, so that already on the 12th it embraced the whole of the British Isles and the greater portion of the Continent. Only in the south of England and of Ireland did the barometer fail to pass above 30.5 ins., exceeding 30.6 ins. in the northern districts, and on the evening of the 14th it touched 30.73 ins. at Aberdeen, or 2.7 ins. higher than the Spurn Head minimum on the 3rd. The maximum pressure in the system, a little above 30.8 ins., was attained on the 13th and 14th, between Christiania and Moscow. This anticyclonic interval over these islands was of brief duration. It came to an end on the 16th; thenceforward until the 28th the conditions were again wholly cyclonic, and on several days pressure descended below 29 ins. at various stations, sinking to 28.55 ins. at Blacksod Point on the morning of the 22nd. The last three days of the month were marked by cyclonic conditions in the north, and anticyclonic in the south, the barometer on the 30th ascending, for the second time, to 30.48 ins. at Jersey.

There was thus a very decided preponderance of low pressure conditions during the month, and the mean results show that the values were everywhere considerably below the average, the deficiency ranging from 0.18 in. at Stornoway to 0.29 in. at Nottingham and Spurn Head. The range of pressure was greater than in any previous month for a long time past, amounting to 1.6 in. at Jersey and Scilly, and exceeding 2 ins. at more than half the stations, up to 2.55 ins. at Shields. The distribution of the mean pressure for the month did not differ appreciably from the average. In consequence of the number of depressions that passed directly across the country from West to East the winds varied greatly in direction, but those in the western half of the compass predominated. The force exceeded that of a strong breeze at one or more of the telegraphic reporting stations on twenty-six days, and attained gale force on seventeen days, there being a number of instances of a strong or whole gale.

During the very disturbed week at the commencement of the month the weather was influenced by as many as six very deep depressions, so that the period was of an exceedingly wet boisterous character. A disturbance which appeared off our north-western coasts on the opening day occasioned Westerly high winds and gales over the southern half of the Kingdom, a strong gale at Jersey, the anemometers disclosing hourly wind-paths of 50 miles at Holyhead, and 56 miles at Scilly, while in sharp gusts Shoeburyness reached a rate of 63 miles per hour, Roche's Point 65 miles per hour, and Holyhead and Scilly 66 miles per hour. This system, however, travelled away rapidly across North Germany, and on the morning of the 2nd there were indications of the approach of another towards the Irish coast, which quickly developed into the deepest cyclonic area which visited our coasts during the year. By the evening of the 2nd its centre, with the barometer a little above 28.5 ins., was over Galway, but next morning it was out on the North Sea, off the coast of Yorkshire, with pressure down to 28 ins. The rate of translation in the interval was more than 30 miles an hour, then, slowing down, the system dispersed over southern Norway on the 5th. Its passage across the British Isles was marked by a South-Westerly to Westerly and North Westerly gale, which was general over Ireland and England, the force of a strong gale being felt at Malin Head, Roche's Point, Liverpool, Holyhead, and Dover, a whole gale at Pembroke, Scilly, Portland Bill, Dungeness, Skegness, Spurn Head, Nottingham and in London. At Scilly the greatest hourly travel of the wind was 54 miles, while in gusts a rate of 62 miles per hour was registered at Southport, 73 miles per hour at Roche's Point, and 75 miles per hour at Scilly and Pendennis Castle. Copious rain fell over the kingdom generally, and in Ireland, Wales and the North of England there were numerous records of an inch and upwards on the 2nd, ranging up to 1.5 in. at Giggleswick and Prestwich, and 1.6 in. at Pant-yr-Eos (Mon.) and Bettws-y-Coed. There was snow locally, and at West Linton on the morning of the 3rd it was from 4 ins. to 10 ins. deep.

Two depressions which appeared respectively on the 4th and the 5th near the Bristol Channel, and subsequently passed across the North Sea,

produced much less wind and rain, although a strong South-Westerly gale was felt at Jersey. Dungeness and Nottingham, and a few scattered stations had a little over an inch of rain. Snow was experienced in several localities, but not in any large quantity, Uldale (Cumberland) reporting, however, 6 ins. on the 6th.

On the 9th there was a low pressure minimum over Iceland, and Atlantic wireless reports showed another in about 50° N., 40° W. Both systems were moving on easterly paths, the former passing away across Northern Scandinavia, the latter reaching the Irish coast on the 11th, and then returning to the ocean. They caused high South-Westerly winds in some neighbourhoods, but only Stornoway and Malin Head attained gale force. The feature of the disturbances was the heavy rain they produced, the largest quantities registered being: on the 9th, 2.3 ins. at Oban, 2.5 ins. at Fort William and Kinlochewe, 2.9 ins. at Llandale, 2.7 ins. at Ford, and 3.7 ins. at Cruachan (both on Loch Awe); on the 10th 1.9 in. at Lancaster, 2 ins. at Port Talbot and Kirkby Lonsdale, and 2.5 ins. at Graythwaite; and on the 11th 1.7 in. at Arlington, and 2.1 ins. at Stonehaven. With a fall of  $\frac{1}{2}$  in. in the night of the 9th a flood occurred at Uldale.

Following this the country had a few days of very much quieter conditions, but on the 16th the north-eastern spur of a very deep cyclonic system centred near the Azores arrived near the mouth of the English Channel, bringing very heavy rain to the southern and south-western districts, the falls ranging up to 1.6 in. at Abersychan and Newport (Mon.), and 2.1 ins. at Portland Bill. As the depression passed up the Channel next day, the rain continued, more than an inch falling in the Forest of Dean region.

The unsettled weather was maintained for the rest of the month. The disturbance near Blacksod Point on the 22nd was centred out on the Atlantic, and from the 20th to the 26th it moved on a north-easterly course from the Azores to the north coast of Norway. It caused South-Easterly gales on our coasts on the 21st and 22nd, a strong gale at Roche's Point, Donaghadee, Portland Bill, Yarmouth and Nottingham, a whole gale at Malin Head, Pembroke and Spurn Head, the velocity in gusts rising to 65 miles per hour at Roche's Point, and to 60 miles at Gorleston per hour. Very heavy rains were again experienced, up to 2 ins. at Worcester Lodge (Forest of Dean) and Torquay, and 2.1 ins. at Newchurch (Mon.), Pant-yr-Eos and Burrator. In many places there was heavy snow, which lay from 4 ins. to 8 ins. deep. Subsequently, although Malin Head had a whole South-Westerly gale from the 24th to the 26th, there was less wind, but on several days there were records of more than an inch of rain.

Under these ever-changing conditions temperature varied greatly, the day readings sometimes as high as 55°, up to 58° at Torquay on the 3rd, and Kingstown on the 27th, and 59° at Kingstown on the 10th; at other times they were below the freezing point, 23° at West Linton, and 24° at Fort William on the 7th, and 26° at Fort Augustus on the 19th. Similarly with the night minima—numbers of instances were below 20°, down to 0° at Balmoral on the 7th, and 1° at Garforth on the 22nd, while readings above 47° were very numerous, 52° at Dublin, Glasnevin, and Markree Castle in the night of the 9th-10th.

There was comparative freedom from fog inland, but on the western and eastern coasts it was frequently reported, and especially on the 11th and 22nd in the west. On the English Channel there were few records, most of them towards the close of the month.

The temperature of the sea water round our coasts was lower than in November, to the extent of 5° or 6° in several places, but the water was everywhere warmer than the air on shore, by 5° to 7° in a number of instances, and 8° at Stornoway.

Brilliant aurora was witnessed at many northern stations on the 14th, and on various other dates there were less marked local displays.

**Rainfall.**—Over Northern Scotland there was a deficiency of precipitation, up to as much as 4.2 ins. at Glencarron, and in Southern Ireland the distribution was very irregular, from an excess of 2.2 ins. in Dublin (City) to a deficiency of 2 ins. at Killarney. All other districts returned an excess, of more than 2 ins. in numerous cases, ranging up to 4.9 ins. at Buxton. Only Nairn had an aggregate total of less than 2 ins., the amounts generally being large, ranging up to 9 ins. at Swansea and Llickeen, 9.6 ins. at Sheepstor (Dartmoor), 10 ins. at Buxton, 10.5 ins. at Cruachan, 10.7 ins. at Pant-yr-Eos, 10.8 ins. at Inverary, 10.9 ins. at Graythwaite, 16.2 ins. at Plynlimon, 17.1 ins. at Treherbert, and 18.9 ins. at Seathwaite. As a rule there were more than 20 days on which precipitation was measured, 28 at Llandrindod Wells and Huddersfield, but at Kilmarnock only on 11, and Ampleforth, Gordon Castle, Cruachan and Kinlochewe on 14 days.

**Bright Sunshine.**—There was a considerable deficiency of sunshine in the south-western islands, Scilly recorded 9 hours, and Jersey 17 hours less than the average. The mainland districts had an excess, ranging up to 19 hours at Tenby, 20 at Blackpool, and 27 at Pembroke. The largest aggregate was 75 hours at Bournemouth, Totland Bay, Rousdon (31 per cent. of the possible), and Oban (36 per cent.). About Manchester the records were very small, 5 hours (2 per cent.) in the City, 9 hours (4 per cent.) in Whitworth Park, and 10 hours (4 per cent.) at Prestwich. At Hull also the total was only 10 hours.



TABLE A.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at 9 a.m., 3 p.m. and 9 p.m. at NORMAL STATIONS in the BRITISH ISLANDS

DISTRICT.	STATION.	Height of Barometer cistern above M.S.L.	BAROMETER.			AIR TEMPERATURE.								HYGROMETER.											
			Mean at 32° F. at Level and Latitude of Station.	Diff. from Normal.	Cor. for Diurnal Range.	Mean of		Mean of A and B.	Diff. from Normal.	Absolute Maximum and Minimum.				Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.											
						A	B			Max.	Day.	Min.	Day.	Dry Bulb.			Dep. of Wet.			Vap. Pressure.			Humidity.		
														I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
O. SCOTLAND, N.																									
Islands.	CASTLEBAY - - -	48	29'469	- '178	'000	45'1	37'1	41'1	-0'6	52	9th	27	19th, 20th	41'5	42'2	42'3	2'1	2'5	2'3	In. '219	In. '223	In. '222	% 84	% 81	% 83
	Deerness - - -	163	29'313	-	'005	40'7	33'8	37'3	-2'4	50	10th	24	20th	37'9	-	37'7	1'0	-	1'6	'210	-	'198	90	-	86
	SUMBURGH HEAD	126	29'319	- '216	'000	41'8	30'3	36'1	-3'5	51	9th	19	21st	37'6	38'8	37'3	1'2	1'5	1'2	'202	'207	'199	90	88	90
	STORNOWAY - -	52	29'459	- '176	'000	41'8	32'1	37'0	-2'3	53	9th	23	19th	36'8	37'6	37'5	0'9	1'0	1'2	'201	'206	'201	93	91	90
	Wick - - -	80	29'404	- '209	+ '001	41'0	31'9	36'5	-1'9	50	10th	18	21st	36'7	-	37'0	1'4	-	0'8	'191	-	'204	83	-	93
Mainland.	Strathpeffer - -	210	29'304	-	'006	39'6	28'3	34'0	-2'4	54	10th	17	22nd	33'8	-	33'5	0'9	-	1'1	'176	-	'170	90	-	88
	Glencarron - -	504	28'990	-	'005	39'1	28'0	33'6	-3'4	52	10th	14	19th	34'0	-	34'1	0'8	-	1'4	'180	-	'169	91	-	85
	Fort Augustus -	78	29'479	-	'005	38'5	28'2	33'4	-4'6	51	10th	12	19th	33'7	-	34'1	1'0	-	0'8	'173	-	'181	89	-	91
	Fort William -	38	29'529	-	'005	39'3	29'4	34'4	-5'0	51	10th	11	20th	34'6	-	34'8	1'1	-	1'2	'179	-	'178	90	-	89
	Dunrobin Castle	16	29'513	-	'005	41'0	30'6	35'8	-2'9	54	10th	21	21st	35'7	-	35'3	1'0	-	1'3	'193	-	'181	90	-	87
District Value -						40'2	29'7	35'2	-3'8	54		11													
1. SCOTLAND, E.																									
Northern Part.	Tillypronie - -	1120	28'341	-	'005	38'7	28'1	33'4	-1'6	53	10th	19	19th	32'5	-	33'0	0'9	-	1'0	'166	-	'168	87	-	87
	Dundee - - -	164	29'406	-	'006	39'7	30'7	35'2	-2'2	51	10th	19	6th, 7th	34'9	-	35'0	0'6	-	0'7	'196	-	'194	94	-	92
	Nairn - - -	82	29'427	- '210	+ '002	39'3	28'7	34'0	-3'5	54	9th, 10th	18	22nd	34'1	36'4	34'2	1'0	1'2	0'9	'177	'193	'180	89	90	90
	Gordon Castle -	107	29'423	-	'006	41'6	29'6	35'6	-2'8	55	10th	17	21st	36'2	-	35'9	1'6	-	1'7	'184	-	'180	86	-	85
	Aberdeen - - -	90	29'457	- '204	'005	40'5	33'6	37'1	-0'9	53	10th	23	7th	36'2	38'1	36'5	1'6	2'1	1'9	'184	'189	'181	86	82	83
	Balmoral - - -	927	29'445	- '212	-	40'1	23'0	31'6	-2'9	53	10th	0	7th	28'0	-	-	1'5	-	-	'110	-	-	72	-	-
	Crieff - - -	436	29'091	-	'006	40'3	30'1	35'2	-1'9	51	10th	18	7th, 22nd	34'6	-	35'2	0'8	-	1'0	'185	-	'186	93	-	90
	Leith - - -	37	29'495	- '254	+ '002	43'0	34'1	38'6	-0'8	56	10th	23	6, 7, 8th	38'3	-	39'1	1'7	-	1'7	'198	-	'206	86	-	86
Marchmont - -	500	29'030	-	'006	41'8	30'9	36'4	-0'2	51	11th	18	21st	36'0	-	35'6	1'1	-	1'3	'191	-	'185	90	-	88	
District Value -						40'6	29'5	35'3	-2'4	56		0													
2. ENGLAND, N.E.																									
Northern Part.	Seaham - - -	188	29'432	-	'007	42'5	34'8	33'7	-0'1	52	28th	24	21st	38'3	-	38'1	1'2	-	1'2	'213	-	'209	90	-	89
	Whitby - - -	145	29'415	-	'007	43'5	34'0	38'8	-1'5	53	28th	23	21st	38'8	-	38'8	1'4	-	1'6	'208	-	'208	88	-	86
	Cockle P'rk (Morpeth)	331	29'228	-	'007	41'3	31'4	36'4	-	53	10th	22	20th, 21st	36'6	-	36'9	1'2	-	1'1	'195	-	'201	87	-	88
	Shields - - -	117	29'443	- '254	+ '001	43'3	33'0	38'2	-0'9	54	10th	23	20th	38'1	-	39'5	0'7	-	1'3	'215	-	'216	94	-	90
	Durham - - -	352	29'202	-	'007	41'5	32'5	37'0	-0'5	54	10th	18	21st	36'9	-	36'8	0'8	-	1'0	'209	-	'202	92	-	89
	Rounton - - -	245	29'323	-	'007	41'5	31'7	36'6	-0'9	51	11th	12	21st	36'3	-	36'8	0'9	-	1'2	'196	-	'195	92	-	89
	Scarborough - M	127	29'453	-	'007	43'9	34'7	39'3	+0'1	53	28th	25	21st	39'7	-	39'2	1'8	-	1'6	'209	-	'208	85	-	87
York - - -	53	29'564	-	'007	43'0	33'1	38'1	-0'1	54	28th	10	21st	37'8	-	38'3	0'9	-	0'7	'210	-	'217	93	-	94	
Southern Part.	Spurn Head - -	28	29'543	- '230	+ '001	42'7	35'5	39'1	-0'5	50	27th, 28th	27	20, 21, 22	39'0	40'5	39'9	1'1	1'5	1'4	'216	'220	'218	91	88	89
	Lincoln - - -	42	-	-	-	43'0	32'7	37'9	+0'5	54	11th	12	20th	37'9	-	-	1'2	-	-	'207	-	-	88	-	-
	Skegness - - -	16	29'599	- '269	+ '001	43'0	33'5	38'3	-	52	26th, 28th	19	21st, 22nd	37'5	-	39'1	0'8	-	0'8	'209	-	'223	93	-	93
Hull - - -	2	29'606	-	'008	43'0	33'5	38'3	+0'4	53	28th	12	21st	39'3	-	39'5	1'4	-	1'4	'213	-	'214	89	-	89	
District Value -						42'7	33'3	38'2	-0'9	54		10													
3. ENGLAND, E.																									
Northern Part.	Lowestoft - -	75	29'580	-	'008	44'2	34'6	39'4	+0'2	53	28th	24	19th	40'0	-	39'0	1'1	-	0'8	'225	-	'221	91	-	93
	Cromer - - -	139	-	-	'008	44'2	34'9	39'6	-	53	28th	25	21st	39'1	-	39'5	0'7	-	0'7	'225	-	'228	94	-	94
	Hillington - -	92	29'532	-	'008	42'8	33'3	38'1	+0'6	52	28th	18	21st	37'2	-	38'2	1'0	-	0'8	'202	-	'214	91	-	93
	Norwich - - -	93	-	-	-	43'7	34'2	39'0	-	53	27th	23	21st	-	-	-	-	-	-	-	-	-	-	-	-
	YARMOUTH - -	27	29'605	- '271	'000	43'6	35'0	39'3	+0'7	53	28th	26	19th	38'5	41'6	39'3	1'0	1'7	0'9	'213	'228	'223	92	87	93
Southern Part.	Geldeston - -	47	-	-	'008	44'7	34'9	39'8	+1'2	53	28th	25	21st	-	-	-	-	-	-	-	-	-	-	-	-
	Cambridge - -	43	29'606	-	'008	44'8	34'0	39'4	+1'4	54	3rd	21	21st	38'4	-	39'1	0'9	-	0'8	'220	-	'229	92	-	93
	CLACTON - - -	62	29'603	- '283	'000	43'3	34'8	39'1	+0'2	51	28th	25	22nd	38'4	41'6	39'7	1'0	1'6	1'1	'212	'229	'222	92	88	91
	Woburn - - -	294	29'360	-	'009	44'1	34'1	39'1	-	53	28th	19	21st	38'6	-	39'1	1'0	-	1'0	'219	-	'223	91	-	91
	Bennington -	411	29'258	-	'009	43'9	33'9	38'9	+0'8	52	3rd	23	21st	37'7	-	38'5	1'0	-	1'0	'206	-	'213	91	-	91
Berkhamsted -	397	29'242	-	'009	44'3	33'5	38'9	+0'7	52	3rd, 22nd	21	21st	38'0	-	38'9	0'6	-	0'7	'217	-	'223	95	-	94	
District Value -						44'1	34'6	39'6	+0'9	54		13													
4. MIDLAND COS.																									
Eastern Part.	Garforth - - -	198	-	-	'007	42'6	31'1	36'9	-	54	27th	1	22nd	37'7	-	37'6	1'0	-	0'8	'214	-	'214	92	-	92
	Huddersfield -	411	29'174	-	'007	42'0	33'9	38'0	-	53	28th	21	21st, 22nd	37'7	-	37'8	1'0	-	1'0	'210	-	'211	90	-	89
	Wakefield - -	100	29'510	-	'007	44'0	33'2	38'6	-0'3	54	10th	12	21st	38'6	-	39'7	1'5	-	1'9	'204	-	'206	87	-	84
	Belvoir Castle -	276	29'342	-	'008	43'5	33'7	38'6	+0'8	53	28th	17	21st	37'1	-	38'6	1'0	-	0'9	'201	-	'217	91	-	93
	Coventry - - -	309	29'320	-	-	43'6	33'7	38'7	+0'4	53	27th	22	21st	38'1	-	-	1'0	-	-	'209	-	-	91	-	-
	NOTTINGHAM -	85	29'535	- '289	'000	43'7	33'1	38'4	+0'2	54	27th	14	22nd	37'9	40'8	39'5	0'8	1'2	0'8	'211	'230	'226	93	91	94
	Birmingham -	542	29'056	-	'008	43'2	34'7	39'0	+0'3	52	2nd	22	21st	37'9	-	38'9	1'0	-	1'3	'212	-	'218	90	-	90
	Oxford - - -	212	29'454	- '263	-	45'4	34'8	40'1	+1'2	53	2, 2														



CLIMATOLOGICAL STATIONS, at 7 a.m., 1 p.m. and 6 p.m. or 9 p.m. or at 7 a.m. and 6 p.m. at TELEGRAPHIC REPORTING during the month of DECEMBER, 1909.

Earth Temperature.		BRIGHT SUNSHINE.				CLOUD (0-10.)			RAIN AND OTHER FORMS OF PRECIPITATION.				WEATHER. No. of Days of										WIND.										STATIONS.
At 1 foot depth.	At 4 feet depth.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	Mean Amount.			Total Fall.	Diff. from Normal.	Most in a day.		Precipitation.	Snow.	Hail.	Thunderstorm.	Clear Sky.	Overcast.	Fog.	Ground Frost.	Wind force 8 and above.	No. of Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.											
						I.	II.	III.			Amount.	Day.										Forces 4-7.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		
37.4	—	30	+10	15	+5	6.9	7.8	6.4	4.60	-1.26	2.46	23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(Isd.) Castlebay (Barra)
—	—	—	—	—	—	7.5	8.5	7.3	5.18	—	1.06	5th	24	8	5	1	0	13	0	—	1	31	4	14	12	8	9	10	8	13	15	Deerness.	
—	—	29	+4	16	+3	7.0	—	6.5	4.49	+0.33	0.73	9th	25	11	5	1	2	12	2	—	2	31	7	7	2	1	7	14	7	8	9	Sumburgh Head.	
—	—	—	—	—	—	8.1	7.6	6.8	4.22	-0.23	0.89	9th	27	6	0	0	0	15	1	—	0	36	4	14	11	1	8	13	13	18	11	Stornoway.	
—	—	39	+15	20	+8	6.7	7.2	6.5	5.00	-0.90	0.95	9th	27	10	2	0	0	11	4	—	2	36	9	20	3	3	4	5	13	17	19	Wick.	
—	—	—	—	—	—	7.3	—	7.7	2.76	-0.23	0.53	3rd	21	6	0	0	0	16	1	—	1	12	0	9	5	4	0	17	2	20	5	Strathpeffer.	
—	—	36	+7	18	+3	7.0	—	5.8	2.73	-0.90	0.64	19th	20	8	0	0	4	12	0	—	1	16	27	4	2	5	0	2	9	7	6	Glencarron.	
—	—	—	—	—	—	6.8	—	5.8	6.21	-4.22	1.05	27th	23	9	0	0	5	14	2	—	1	30	1	20	0	12	0	0	0	29	0	Fort Augustus.	
—	—	17	+7	8	+3	7.3	—	6.0	3.39	-2.43	0.88	9th	21	9	0	1	3	15	2	—	1	16	8	5	10	2	0	5	24	2	6	Fort William.	
—	—	—	—	—	—	6.0	—	6.2	7.92	-1.94	2.46	9th	21	7	0	0	6	12	8	—	1	11	16	0	11	9	0	1	19	6	0	Dunrobin Castle.	
—	—	—	—	—	—	5.6	—	5.6	2.73	-0.38	0.60	3rd	15	6	0	0	4	7	3	—	0	6	1	1	14	9	3	0	3	3	28		
—	—	30	+10	15	+5	6.9	7.8	6.4	4.60	-1.26	2.46	23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
—	—	—	—	—	—	5.8	—	5.2	2.13	-0.46	0.47	2	21	3	0	0	7	7	4	27	5	10	0	16	2	3	13	4	9	4	11	Tillypronie.	
—	—	—	—	—	—	8.2	—	7.9	2.85	+0.20	0.67	2nd	21	2	0	0	0	15	8	—	1	6	0	1	17	1	1	0	15	11	16	Dundee.	
—	—	52	—	26	—	6.5	6.4	7.3	1.91	-0.17	0.51	11th	22	1	0	0	2	10	5	—	0	3	28	1	1	6	1	1	10	37	8	Nairn.	
—	—	53	—	26	—	6.8	—	6.1	2.40	-0.34	0.69	3rd	14	2	2	0	3	10	0	—	0	4	0	1	3	0	12	14	16	6	10	Gordon Castle.	
—	40.6	49	+12	24	+6	6.3	6.4	6.4	4.01	+0.95	1.42	11th	19	7	1	0	5	14	0	—	0	17	10	3	0	4	7	13	16	22	18	Aberdeen.	
—	—	—	—	—	—	5.7	—	—	2.49	-0.81	0.41	11th	15	7	0	0	9	11	3	27	4	2	0	0	8	2	0	4	10	32	6	Balmoral.	
—	—	—	—	—	—	7.4	—	6.2	4.52	+0.21	1.25	27th	21	4	0	0	2	13	3	—	2	17	0	4	3	21	0	1	5	19	9	Crieff.	
—	—	—	—	—	—	7.4	—	7.8	2.67	+0.70	0.67	2nd	21	3	3	0	0	19	6	—	0	11	0	3	6	6	6	3	20	15	3	Leith.	
35.8	—	39	+4	18	+1	7.8	—	5.9	3.94	+0.99	1.41	2nd	18	4	0	0	4	16	1	19	0	1	0	4	8	8	0	1	9	26	6	Marchmont.	
—	—	46	+15	22	+7	6.9	—	6.6	3.32	+0.39	2.09	19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
—	—	—	—	—	—	7.5	—	6.8	3.58	+1.18	0.78	6th	17	3	1	1	3	18	0	—	1	24	2	0	8	4	5	6	13	17	7	Seaham.	
—	—	38	—	17	—	6.7	—	7.4	2.97	+0.60	0.63	2nd	19	1	0	1	4	15	0	—	0	2	0	0	10	4	8	2	26	3	9	Whitby.	
36.0	39.9	46	—	21	—	7.4	—	7.0	3.66	+0.94	0.94	2nd	21	3	0	2	3	16	1	16	1	35	0	2	6	3	7	5	10	5	24	Cockle Pk (Mor-	
—	—	—	—	—	—	7.9	—	8.5	4.21	+2.04	0.74	6th	18	5	3	0	0	20	0	—	4	6	2	3	2	8	4	6	12	16	9	Shields. [peth.]	
—	—	47	+5	21	+2	7.9	—	7.3	3.12	+0.79	0.67	2nd	17	5	0	0	4	21	0	15	3	13	10	6	5	7	1	9	12	9	9	Durham.	
37.2	—	—	—	—	—	7.7	—	6.5	4.20	+2.19	1.35	21st	20	5	0	0	5	16	2	21	2	9	2	3	12	1	8	16	11	3	6	Rounton.	
—	42.7	36	—	16	—	8.4	—	8.5	4.53	+2.17	0.90	21st	20	1	0	0	0	21	0	15	2	29	0	3	8	2	11	1	16	2	19	Scarborough.	
39.6	43.4	24	-1	11	0	7.5	—	7.6	4.37	+2.33	0.85	21st	21	5	1	0	3	17	3	—	0	2	0	6	2	14	5	11	1	11	12	York.	
—	—	—	—	—	—	7.8	7.8	7.5	3.48	+1.72	0.46	17th	19	2	2	0	0	15	3	—	4	72	1	2	4	12	8	13	23	18	12	Spurn Head.	
38.9	42.7	—	—	—	—	8.3	—	8.7	4.51	+2.65	0.83	21st	25	5	0	0	3	24	0	—	2	3	7	0	0	13	6	1	13	21	1	Lincoln.	
—	—	47	—	21	—	6.5	—	6.3	4.32	—	0.70	17th	23	3	0	0	4	15	0	—	2	13	0	3	1	9	6	5	16	12	10	Skegness.	
38.5	43.7	10	—	4	—	7.8	—	5.8	4.56	+2.39	0.83	21st	22	4	0	0	5	16	5	18	2	6	13	3	2	3	6	2	11	10	12	Hull.	
38.0	42.4	40	+2	18	+1	7.6	—	7.3	4.06	+1.84	1.35	20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
39.2	43.8	54	—	23	—	6.6	—	5.6	4.31	+2.32	0.60	2nd	23	6	1	0	4	11	1	13	1	20	2	3	1	6	6	3	10	18	13	Lowestoft.	
—	—	49	—	21	—	7.5	—	7.5	4.65	—	0.58	17th	26	1	0	0	0	12	2	—	0	20	0	2	1	6	10	10	15	11	7	Cromer.	
—	—	33	-8	14	-4	7.3	—	7.0	5.52	+3.25	0.99	17th	22	3	0	0	3	16	3	17	1	6	16	3	6	5	1	1	13	10	7	Hillington.	
—	—	—	—	—	—	—	—	—	49.1	—	0.61	17th	24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Norwich.
39.1	44.0	57	—	24	—	6.8	7.1	6.8	40.1	+1.90	0.50	2, 10, 21st	20	5	2	0	0	11	4	—	2	39	1	2	4	9	8	10	23	26	10	Yarmouth.	
—	—	50	+2	21	—	—	—	—	4.45	+2.46	0.57	2nd	25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Geldeston.
39.0	44.0	58	+18	25	+8	7.6	—	6.3	2.70	+1.03	0.51	2nd	22	4	0	0	3	16	5	26	2	12	7	2	4	3	9	12					



TABLE A. (continued).—Giving a Summary of the METEOROLOGICAL OBSERVATIONS made at 9 a.m., 3 p.m. and 9 p.m. at NORMAL STATIONS in the BRITISH ISLANDS

DISTRICT.	STATION.	Height of Barometer at Station.	BAROMETER.			AIR TEMPERATURE.								HYGROMETER.												
			Mean at 32° F. at Level and Latitude of Station.	Diff. from Normal.	C. for Diurnal Range.	Mean of		Mean of A and B.	Diff. from Normal.	Absolute Maximum and Minimum.				Observations at 9 a.m., 3 p.m. and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.												
						A	B			Max.	Day.	Min.	Day.	Dry Bulb.			Dep. of Wet.			Vap. Pressure.			Humidity.			
														I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.	
5. ENGLAND, S.E.	Reading - - -	264	29.402	Ins.	-	0.009	45.0	33.5	39.3	-	53	24th	20	21st	38.6	-	39.5	0.8	-	1.2	In. '219	In. '218	In. '218	% 94	% 94	% 90
	Salisbury - - -	186	29.493	-	-	0.009	46.5	31.9	39.2	+0.9	57	26th	19	21st, 22nd	38.9	-	39.8	0.8	-	0.9	'221	-	'227	94	-	93
	Brighton - - -	48	29.656	-	-	-	45.5	35.9	40.7	-0.5	51	2nd	25	21st	41.0	-	-	1.5	-	-	'225	-	-	88	-	-
	Portsmouth - -	18	29.695	-	-	-	47.1	36.4	41.8	+0.7	54	22nd	24	21st	41.7	-	-	1.3	-	-	'237	-	-	90	-	-
	Eastbourne - -	36	29.672	-	-	0.009	46.3	36.7	41.5	+0.9	52	23rd	25	21st	41.6	-	42.0	1.6	-	1.6	'235	-	'238	87	-	87
	Dungeness - - -	21	29.648	-0.284	+0.001	45.6	35.3	40.5	-0.4	52	22nd, 23rd	24	21st, 22nd	40.5	44.1	42.4	0.9	1.6	1.1	'233	'254	'248	93	87	91	
	Hastings - - -	174	29.517	-	-	0.009	45.3	36.3	40.8	0.0	52	22nd	26	20th	40.6	-	41.1	1.5	-	1.6	'221	-	'224	88	-	87
	Southampton -	84	29.613	-	-	0.009	46.7	35.7	41.2	+0.5	53	2nd	23	21st	40.1	-	40.8	1.0	-	1.3	'234	-	'233	92	-	90
	Ventnor - - -	80	29.609	-	-	-	46.9	38.5	42.7	-0.5	52	2nd	28	20th	42.8	-	-	1.7	-	-	'238	-	-	87	-	-
	District Value -						45.4	34.9	40.4	-0.3	57		15													
LONDON -	Tottenham - - -	55	29.609	-	-	0.009	45.1	36.7	40.9	+1.3	55	2nd	25	21st	40.2	-	41.2	0.5	-	0.8	'244	-	'248	94	-	93
	Camden Square -	123	29.551	-	-	0.009	45.5	35.1	40.3	+0.8	54	22nd	23	21st	40.2	-	41.3	1.0	-	1.4	'228	-	'231	91	-	88
	Westminster - -	54	29.612	-0.280	+0.002	46.1	35.1	40.6	+0.9	55	2nd, 22nd	25	21st, 22nd	39.5	-	42.2	1.2	-	1.6	'218	-	'235	90	-	88	
	Greenwich - - -	159	29.510	-0.285	-	-	45.2	35.0	40.1	+0.5	54	28th	22	21st	39.4	-	40.3	1.1	-	1.4	'220	-	'221	91	-	89
	Norwood - - -	235	29.433	-	-	0.009	45.0	35.8	40.4	+1.2	53	22nd	25	21st	39.3	-	40.1	1.2	-	1.4	'216	-	'219	90	-	88
	Kew - - -	34	29.654	-0.273	-	0.009	45.4	35.9	40.7	+1.4	54	28th	23	21st	39.8	43.3	40.8	1.7	2.6	1.8	'211	'225	'217	87	80	86
	Bunhill Row - -		29.644	-0.275	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Plumstead - - -			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Laudale - - -	25		-	-	0.006	42.8	34.3	38.6	-2.1	55	9th, 10th	25	6th, 20th	-	-	-	-	-	-	-	-	-	-	-	
	Poitalloch - - -	135	29.401	-	-	0.006	42.9	30.4	36.7	-2.8	52	10th, 27th	19	7, 19, 20	36.4	-	35.5	1.6	-	1.5	'185	-	'179	86	-	86
6. SCOT- LAND, W.	Glasgow - - -	184	29.379	-	-	0.006	41.0	33.6	37.3	-1.5	52	10th, 11th	20	8th	36.7	-	37.0	1.1	-	1.5	'201	-	'196	89	-	86
	Rothsay - - -	76	29.504	-	-	0.006	43.0	34.3	38.7	-1.3	54	10th, 11th	24	7, 8, 21, 22	37.7	-	38.0	1.5	-	1.5	'197	-	'199	87	-	87
	Colmonell - - -	150	29.450	-	-	-	44.0	30.4	37.2	-3.0	54	10th	15	8th, 21st	37.1	-	40.6	1.9	-	2.8	'185	-	'198	84	-	78
	Dumfries - - -	155	29.449	-	-	0.006	42.0	33.0	37.5	-1.0	52	10th	19	21st	37.1	-	37.3	1.1	-	1.5	'199	-	'193	90	-	87
	Cally, Gatehouse -	120		-	-	0.006	41.6	31.9	36.8	-1.9	49	10th, 11th	13	21st	37.2	-	35.9	1.4	-	1.8	'194	-	'178	87	-	84
	Douglas - - -	284	29.294	-	-	0.007	44.6	36.5	40.6	-1.2	51	10th	25	21st	40.1	-	40.5	1.4	-	1.1	'225	-	'235	88	-	90
	District Value -						42.7	32.7	37.9	-2.6	56		8													
	Southport - - -	42	29.585	-	-	0.008	43.6	35.2	39.4	+0.1	52	10th, 28th	18	21st	38.4	-	39.5	0.9	-	1.0	'214	-	'222	93	-	92
	Manchester (City) -	195	29.415	-	-	0.008	43.7	36.1	39.9	-	53	28th	22	20th	30.3	-	40.2	1.3	-	1.4	'220	-	'226	89	-	88
	„ (Whitworth Pk) -	127	29.465	-	-	0.008	43.5	34.9	39.2	-	54	28th	18	20th	33.4	40.0	39.9	0.5	-	0.6	'222	-	'234	96	92	94
7. ENG- LAND, N.W.	Darwen - - -	730	28.836	-	-	0.007	40.7	32.1	36.4	-	51	28th	22	19th, 20th	37.2	-	37.2	0.8	-	0.7	'210	-	'211	93	-	92
	Aspatria - - -	264	29.318	-	-	0.007	42.3	32.6	37.5	-0.5	52	11th	20	8th	37.7	-	37.6	1.0	-	1.1	'209	-	'203	90	-	90
	Newton Rigg - - -	559	28.970	-	-	0.007	40.8	29.7	35.3	-1.6	51	28th	15	8th	35.2	-	35.6	0.7	-	0.6	'192	-	'197	93	-	95
	Stonyhurst - - -	303	29.230	-	-	0.007	42.4	33.3	37.9	-0.4	52	28th	15	21st	37.5	-	38.2	1.0	-	1.3	'210	-	'209	90	-	86
	Blackpool - - -	78	29.545	-	-	0.007	43.4	34.3	38.9	-0.6	52	28th	14	21st	38.8	-	38.2	0.9	-	0.7	'219	-	'216	93	-	95
	M'ch't'r (Prestwich) -	320	29.267	-	-	0.008	42.5	33.0	37.8	-0.6	52	28th	17	20th, 21st	37.5	-	38.7	0.6	-	0.9	'213	-	'218	95	-	93
	Liverpl. Bidston Obs. -	197	29.400	-	-	0.008	44.6	36.5	40.6	+0.4	53	10th	22	21st	39.0	-	40.7	1.5	-	1.4	'213	-	'224	88	-	88
	Llandudno - - -	21	29.606	-	-	0.008	46.4	37.4	41.9	-0.4	55	10th, 28th	26	21st	41.9	-	42.7	1.3	-	1.3	'239	-	'246	91	-	89
	HOLYHEAD - - -	48	29.536	-0.272	—	0.009	46.0	39.0	42.5	-0.6	52	9th, 10th	30	21st, 22nd	42.9	44.0	43.3	1.4	1.7	1.5	'246	'250	'248	89	86	88
	Bettws-y-Coed - -	100	29.503	-	-	0.008	44.8	35.4	40.1	-2.2	53	10, 11, 27, 28	19	21st	39.3	-	40.3	0.2	-	0.1	'236	-	'247	99	-	100
District Value -						44.0	34.7	39.6	-0.8	56		10														
8. SOUTH WALES	Llangammarch Wells -	585	29.011	-	-	-	43.3	31.8	37.6	-2.5	52	27th	9	21st	37.8	-	-	0.6	-	-	'214	-	-	95	-	-
	PEMBROKE - - -	150	29.460	-0.281	—	0.000	47.5	39.2	43.4	-0.8	54	2nd	30	21st	43.3	45.0	43.5	1.3	1.9	1.4	'252	'255	'251	90	86	99
	Clifton - - -	229		-	-	-	45.9	35.5	40.9	+0.3	53	2nd, 22nd	24	21st	-	-	-	-	-	-	-	-	-	-	-	
	PORTLAND BILL - -	23	29.633	-0.304	—	0.000	48.0	41.9	45.0	+1.6	53	1st, 2nd	33	21st	45.0	46.0	44.5	1.0	1.4	0.9	'275	'278	'273	92	90	93
	Plymouth - - -	116	29.570	-	-	0.009	47.5	38.1	42.8	-0.4	54	1st	25	20th	42.2	45.1	42.9	1.2	2.3	1.7	'252	'256	'251	90	84	88
	Falmouth - - -	183	29.518	-0.238	—	0.009	47.5	40.3	43.9	-0.8	54	1st	32	17th	44.0	45.5	43.9	1.9	2.5	2.2	'246	'248	'240	85	82	84
	Woolacombe - - -	79	29.561	-	-	0.009																				



CLIMATOLOGICAL STATIONS, at 7 a.m., 1 p.m. and 6 p.m. or 9 p.m. or at 7 a.m. and 6 p.m. at TELEGRAPHIC REPORTING during the Month of DECEMBER, 1909.

Earth Temperature.		BRIGHT SUNSHINE.				CLOUD (0-10.)			RAIN AND OTHER FORMS OF PRECIPITATION.			WEATHER.										WIND.										STATIONS.			
At 1 foot depth.	At 4 feet depth.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	Mean Amount.			Total Fall.	Diff. from Normal.	Most in a day.		Precipitation.	Snow.	Hail.	Thunderstorm.	Clear Sky.	Overcast.	Fog.	Ground Frost.	Wind-force 8 and above.	No. of Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.													
						I.	II.	III.			Amount.	Day.										Forces 4-7.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.				
—	—	54	—	23	—	6.9	—	7.0	2.33	+0.17	0.49	17th	15	3	0	0	4	16	1	0	5	19	1	1	5	7	3	19	6	1	Reading.				
40.0	—	—	—	—	—	7.7	—	7.5	5.30	+1.98	1.37	21st	23	3	1	0	1	17	4	24	3	14	2	6	7	1	2	1	16	13	14	Salisbury.			
—	43.8	65	+16	27	+7	7.5	—	—	4.26	+1.65	0.99	21st	20	3	3	1	4	21	3	12	1	15	0	2	6	0	1	4	7	7	4	Brighton.			
41.2	45.9	71	—	29	—	6.9	—	—	4.62	+2.07	1.31	21st	22	2	4	3	7	17	2	11	0	10	0	3	3	1	0	6	10	5	5	Portsmouth.			
42.0	46.3	56	+3	23	+1	7.1	—	6.3	5.50	+2.32	0.91	21st	22	3	2	0	5	15	0	—	2	9	1	7	13	0	2	2	14	7	16	Eastbourne.			
—	—	—	—	—	—	8.0	8.5	7.7	5.72	+3.48	0.94	2nd	22	3	4	4	0	16	2	—	6	50	0	2	9	7	5	10	25	24	17	Dungeness.			
40.0	45.1	61	+5	25	+2	6.6	—	6.9	5.74	+2.89	1.07	5th	22	1	4	2	3	14	4	13	7	30	0	1	6	4	5	7	14	15	10	Hastings.			
—	—	61	+14	25	+6	6.7	—	5.5	4.42	+1.37	1.40	21st	22	4	0	2	8	15	4	13	2	24	0	0	11	0	8	0	22	3	18	Southampton.			
—	—	63	+15	26	+6	7.1	—	—	4.08	+1.23	0.77	21st	23	0	3	1	5	13	0	—	2	12	5	8	6	3	0	7	10	18	5	Ventnor.			
40.3	44.8	56	+11	23	+4	7.2	—	6.9	4.26	+1.70	1.40	—	22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
—	45.1	41	—	17	—	8.5	—	7.4	2.61	—	0.51	2nd	20	1	0	0	2	21	3	12	1	5	2	3	3	6	5	22	9	9	9	Tottenham.			
39.7	44.2	30	—	13	—	7.2	—	—	2.79	+0.74	0.44	2nd	24	0	0	0	7	20	1	18	—	—	0	3	2	2	2	2	7	10	3	3	Camden Square.		
—	—	29	+16	12	+7	6.9	—	5.9	2.24	+0.26	0.38	4th	23	5	0	0	6	16	1	14	4	18	4	1	6	4	4	4	18	15	6	6	Westminster.		
—	44.1	50	+17	21	+8	7.5	—	8.0	2.40	+0.57	0.33	4th	22	4	0	0	1	20	9	15	1	13	2	2	5	7	3	8	22	9	4	4	Greenwich.		
39.6	—	—	—	—	—	7.0	—	7.6	2.53	+0.56	0.39	2nd	23	3	0	0	5	19	5	13	2	10	2	2	4	6	3	11	18	12	4	4	Norwood.		
40.0	45.1	50	+14	21	+6	7.1	7.6	7.7	2.33	+0.41	0.40	2nd	22	3	0	0	3	15	7	15	0	27	14	3	8	9	3	10	26	14	5	5	Kew.		
—	—	13	+6	5	+2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Bunhill Row.		
—	—	36	—	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Plumstead.		
—	—	—	—	—	—	—	—	—	8.07	+1.41	2.94	9th	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Laudale.	
—	—	—	—	—	—	6.9	—	5.8	6.11	+0.59	1.59	9th	19	2	1	0	6	13	0	—	0	17	20	5	4	0	9	3	6	9	6	6	Poltalloch.		
—	—	21	+6	10	+3	8.7	—	8.4	4.16	+0.17	0.76	27th	16	4	0	0	1	20	4	19	0	8	17	4	1	16	0	1	14	5	4	4	Glasgow.		
—	41.8	—	—	—	—	5.4	—	4.8	6.17	+1.28	1.55	9th	13	4	0	0	7	7	6	—	0	19	10	7	1	20	0	5	3	12	4	4	4	Rothesay.	
—	—	—	—	—	—	5.8	—	—	4.59	+0.31	1.25	9th	20	6	2	0	6	12	1	17	0	18	2	4	6	14	10	2	4	10	10	10	10	Colmonell.	
36.4	40.4	43	—	20	—	—	—	—	5.0	5.47	+1.33	1.20	9th	15	4	0	0	0	13	0	15	4	9	8	10	1	9	7	3	12	3	9	9	Dumfries.	
—	—	—	—	—	—	—	—	—	4.84	+0.39	0.98	9th	19	4	1	0	—	—	0	—	0	7	0	9	20	2	4	0	5	3	19	3	19	Cally.	
—	—	59	+18	27	+9	7.1	—	6.4	6.64	+2.05	1.08	2nd	20	8	5	1	3	14	5	12	3	25	1	5	8	10	2	6	24	10	6	6	Douglas.		
—	—	40	+10	18	+4	7.1	—	6.1	5.59	+0.23	2.94	—	17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
37.3	40.8	43	+14	19	+6	7.7	—	7.1	5.94	+2.96	0.85	2nd	23	4	7	0	2	14	2	17	2	33	1	5	6	10	7	11	6	7	9	9	9	Southport.	
38.6	43.4	5	—	2	—	—	—	—	6.98	+3.80	1.21	2nd	25	3	1	0	—	—	2	11	0	3	2	2	7	11	6	12	11	7	4	4	4	Manchester (City).	
—	—	9	—	4	—	8.4	8.3	8.2	6.48	—	1.00	3rd	22	5	1	0	0	20	1	17	0	11	7	3	8	15	9	22	11	10	8	8	8	(Whit. Pk.)	
38.1	42.2	23	—	10	—	8.4	—	8.1	8.05	—	1.31	2nd	25	10	3	0	0	22	1	20	2	42	2	2	6	6	4	14	4	14	10	10	10	10	Darwen.
—	—	49	—	22	—	6.7	—	5.5	6.68	+2.87	1.20	9th	20	4	1	0	4	11	0	21	1	6	9	6	10	2	2	8	11	12	2	2	2	Aspatia.	
37.3	40.8	41	+8	19	+4	6.4	—	5.8	5.01	+1.29	0.65	2nd	20	5	0	0	4	10	2	25	4	14	6	4	1	6	8	12	10	11	4	4	4	Newton Rigg.	
—	—	30	+4	13	+2	8.2	—	7.5	7.25	+2.82	1.31	2nd	25	8	4	1	1	18	0	15	0	3	19	2	8	8	1	4	7	8	7	8	7	8	Stonyhurst.
40.3	44.6	47	+20	21	+9	8.8	—	7.8	5.94	+2.94	1.24	2nd	23	6	3	1	0	19	0	16	1	14	0	4	7	9	15	6	7	4	7	4	4	Blackpool.	
—	—	10	-6	4	-3	9.6	—	7.4	7.25	+3.83	1.52	2nd	21	5	1	0	1	22	4	17	1	14	11	3	4	10	1	16	6	9	2	2	2	Manch'str (Prest).	
—	—	52	—	23	—	7.7	—	7.5	5.99	+3.53	1.15	2nd	25	3	3	2	0	16	0	—	1	15	0	2	8	9	8	7	13	9	6	6	6	Liverpool, Bid. Obs.	
—	—	45	+8	20	+4	8.0	—	8.7	4.22	+1.35	0.78	2nd	22	3	2	1	0	19	0	—	0	4	2	0	8	9	6	10	15	4	8	8	8	8	Llandudno.
—	—	—	—	—	—	7.3	7.4	7.8	5.34	+1.54	0.81	10th	18	1	4	0	0	12	3	—	3	46	3	2	7	16	3	7	21	13	21	21	21	21	Holyhead.
40.1	43.9	27																																	



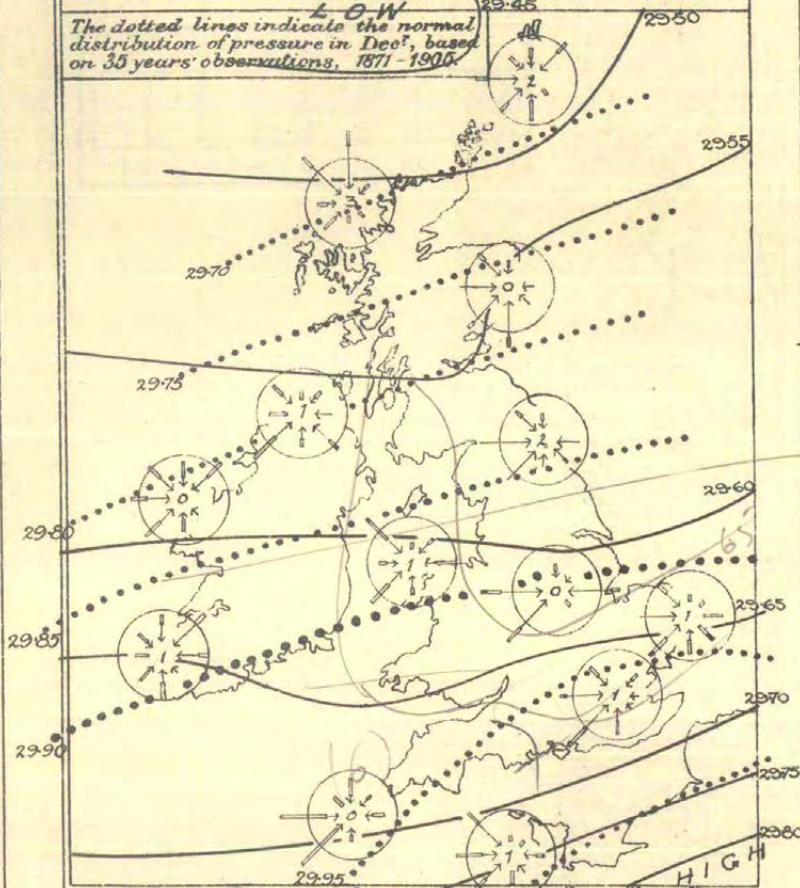
TABLE B.—SUMMARY of the OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE at additional STATIONS, DECEMBER, 1909.

DISTRICT.	STATION.	Height of Gauge above M.S.L.	AIR TEMPERATURE.								Earth Temperature		Gr'd Frost.	RAIN AND OTHER FORMS OF PRECIPITATION.						BRIGHT SUNSHINE.					
			Mean of		Mean of A and B.	Diff. of Mean from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.		No. of Days.	Total Fall.	Diff. from Normal.	Most in a day.		Number of Days.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.		
			A	B			Max.	Day.	Min.	Day.							Amt.	Day.							
			Max.	Min.																				Hrs.	Hrs.
0. SCOTLAND, N.	p Balta Sound - - - S	31	40.6	33.7	37.2	—	50	10th	23	21st	37.4	—	—	5.38	—	0.59	9th	27	22	—	13	—			
	p Crathes - - - S	140	40.1	29.1	34.6	—	54	10th	18	7th, 20th	35.4	39.1	25	4.13	—	0.75	27th	18	44	—	21	—			
1. SCOTLAND, E.	Stonehaven - - -	286	39.9	30.2	35.1	—	50	10th	12	2nd	—	—	—	4.52	—	2.09	11th	17	57	—	23	—			
	p Balruddery - - - S	276	40.6	29.1	34.9	—	52	10th	18	7th, 21st	—	—	—	3.22	—	0.75	27th	20	53	—	25	—			
	Edinburgh - - -	253	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39	+ 18	18	+ 8			
	a West Linton - - S	800	37.8	26.5	32.2	- 4.1	50	10th	6	8th	—	—	22	4.63	—	0.80	26th	21	39	—	18	—			
	a Alnwick Castle - -	210	42.6	32.7	37.7	- 0.6	53	10th	21	6th, 7th	—	—	—	4.12	+ 1.10	1.25	2nd	19	—	—	—	—			
	p Newcastle-on-Tyne -	152	42.7	34.8	38.8	—	54	10th, 11th	24	6th	—	—	—	3.86	+ 1.35	1.23	6th	17	19	- 5	9	- 2			
2. ENGLAND, N.E.	p Ampleforth - - -	349	41.0	31.9	36.5	—	51	28th	16	21st	—	—	—	4.44	—	1.10	23rd	14	—	—	—	—			
	p Tealby - - -	251	41.6	32.6	37.1	- 0.3	52	28th	16	20th	—	—	—	3.86	+ 1.78	0.71	21st	16	—	—	—	—			
	a Fulbeck - - -	180	42.4	33.4	37.9	+ 0.7	53	27th	20	20th	—	—	15	3.99	+ 2.13	0.79	21st	25	—	—	—	—			
	a Rauceby - - -	124	43.0	32.9	38.0	—	54	27th	20	22nd	3.92	44.4	16	4.28	+ 2.25	0.75	21st	24	41	—	18	—			
3. ENGLAND, E.	a Felixstowe - - -	10	43.9	34.8	39.4	+ 0.3	53	27th	25	21st, 22nd	—	—	—	3.99	—	0.74	21st	21	63	—	27	—			
	a Rothamsted - - -	424	44.7	33.4	39.1	+ 1.1	53	2nd	21	21st	—	—	—	3.15	+ 0.77	0.51	2nd	26	59	+ 17	25	+ 7			
	a Shoburness - - -	13	44.5	35.6	40.1	+ 0.5	53	27th	27	21st	—	—	—	2.74	+ 1.10	0.48	16th	22	—	—	—	—			
	a Southend-on-Sea -	100	43.7	34.3	39.0	—	51	28th	26	20th, 21st	40.6	—	20	2.66	+ 1.05	0.45	16th	20	62	—	26	—			
	a Harrogate - - -	476	41.0	32.1	36.6	- 0.8	52	28th	17	22nd	39.1	41.3	16	5.03	+ 2.55	1.04	2nd	24	41	—	18	—			
	a Bradford - - -	439	41.6	32.8	37.2	—	53	27th	18	20th	38.2	44.0	17	5.99	—	1.60	21st	25	32	—	14	—			
	a Cheadle - - -	646	41.2	31.5	36.4	- 0.7	51	27th	16	21st	—	—	18	5.76	+ 2.85	0.86	2nd	23	—	—	—	—			
	a Bawtry - - -	65	43.8	32.2	38.0	+ 0.2	55	27th	8	22nd	—	—	—	4.62	+ 2.70	0.81	21st	24	—	—	—	—			
4. MIDLAND COUNTIES	a Worksop - - -	56	43.5	31.8	37.7	0.0	54	27th	3	22nd	38.6	42.3	19	5.25	+ 3.09	0.91	21st	25	30	0	13	0			
	a Mayfield (Staffs.) -	374	41.9	31.0	36.5	—	53	27th	4	21st	—	—	16	7.40	—	1.34	2nd	25	—	—	—	—			
	a Kingston-on-Soar -	125	43.2	31.2	37.2	—	54	27th	7	21st	40.5	—	—	4.21	—	0.78	21st	23	—	—	—	—			
	p Rugby - - -	379	42.6	30.6	36.6	- 0.9	52	26th	19	20th	—	—	22	3.88	—	0.64	21st, 26th	19	—	—	—	—			
	a Raunds - - -	210	44.2	32.1	38.2	+ 0.5	53	26th	20	21st	—	—	17	3.94	—	0.87	21st	19	—	—	—	—			
	a Winslow - - -	379	43.2	33.1	38.2	—	51	27th	22	21st	—	—	—	2.80	—	0.37	21st	22	—	—	—	—			
	a Hereford - - -	201	44.8	33.3	39.1	+ 0.3	56	26th	19	21st	—	—	26	4.78	+ 2.39	0.98	21st	24	—	—	—	—			
	a Cirencester - - -	446	44.6	31.0	37.8	0.0	57	27th	14	20th	—	—	19	4.77	+ 2.09	0.99	21st	21	39	0	16	0			
	a Epsom - - -	160	45.3	33.6	39.5	—	54	27th	20	21st	—	—	17	3.42	—	0.70	21st	22	—	—	—	—			
	a Wokingham - - -	216	45.5	31.4	38.5	—	53	22nd	15	21st	—	—	—	2.70	—	0.45	2nd, 21st	20	—	—	—	—			
	a Maidenhead - - -	99	46.2	32.8	39.5	—	54	2nd, 27th	19	21st	—	—	18	2.36	+ 0.03	0.37	2nd	17	—	—	—	—			
	a Marlborough - - -	424	45.0	32.2	38.6	+ 0.5	52	2, 23, 27	17	21st	—	—	18	4.71	+ 1.75	0.70	2nd	23	48	+ 13	20	+ 5			
	a Bucklebury - - -	409	44.3	33.0	38.7	—	51	2nd	20	21st	—	—	25	3.59	—	0.92	17th	21	—	—	—	—			
	a Swaraton - - -	810	44.7	32.2	38.5	+ 0.3	52	2nd	17	21st	—	—	—	4.50	+ 1.46	1.06	21st	22	—	—	—	—			
	a Margate - - -	85	45.1	35.1	40.1	- 0.2	54	22nd	27	21st	41.1	44.0	10	3.42	+ 1.21	0.56	21st	18	52	+ 6	22	+ 3			
	Broadstairs - - -	140	—	—	—	—	—	—	—	—	—	—	—	4.03	—	0.75	21st	21	64	—	27	—			
	Ramsgate - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	67	—	28	—			
	a Wisley - - -	150	45.5	34.9	40.2	+ 0.7	54	22nd	22	21st	39.6	44.0	15	3.00	—	0.54	17th	20	58	—	24	—			
5. ENGLAND, S.E.	a Dover - - -	231	44.3	34.6	39.5	—	51	22, 23, 28	24	22nd	41.4	46.2	14	4.29	—	0.71	21st	22	67	—	28	—			
	a Tunbridge Wells -	421	43.7	33.2	38.5	+ 0.1	52	22nd	23	21st	33.8	—	18	4.66	+ 1.84	0.92	21st	22	59	+ 17	25	+ 7			
	a Matfield - - -	320	44.4	34.4	39.4	—	54	22nd	21	21st	—	—	17	4.61	—	0.96	21st	22	—	—	—	—			
	p Folkestone - - -	121	44.8	34.8	39.8	—	51	22, 23, 28	26	20th	—	45.5	—	3.71	+ 0.94	0.61	16th	21	61	—	25	—			
	Littlestone - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	46	—	19	—			
	a Bexhill - - -	27	45.7	36.3	41.0	—	50	28th	27	20th	42.2	—	11	4.99	—	0.88	5th	21	57	—	24	—			
	Hove - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	60	—	25	—			
	p Lewes - - -	58	45.6	34.7	40.2	—	54	22nd	22	21st	—	—	—	5.59	—	1.18	21st	19	—	—	—	—			
	a Worthing - - -	36	45.6	34.7	40.2	0.0	52	2nd	25	21st	40.0	45.2	15	4.75	+ 2.33	0.99	21st	22	66	—	27	—			
	a Bognor - - -	20	46.0	35.7	40.9	—	52	2nd	25	21st	—	—	16	4.00	—	0.89	21st	24	65	—	27	—			
	Westbourne - - -	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	54	—	22	—			
	a Totland Bay - - -	140	46.8	37.6	42.2	+ 0.8	52	2nd	26	21st	—	—	18	3.91	+ 1.35	1.04	21st	21	75	—	31	—			
	a Sandown - - -	20	48.3	36.7	42.5	—	53	2nd	26	22nd	—	—	—	4.66	—	0.79	21st	26	67	—	28	—			
	p Bournemouth - - -	145	43.3	35.1	39.2	—	53	2nd, 22nd	22	21st	40.6	43.4	—	4.49	—	1.39	21st	21	75	—	31	—			
6. SCOTLAND, W.	p Oban - - -	20	45.8	32.0	38.9	—	55	10th	17	7th	—	—	19	6.72	—	2.26	9th	17	75	—	36	—			
	a Thorntonhall (Lanarkshire)	440	40.0	28.8	34.4	—	52	9th, 10th	8	7th, 8th	—	—	21	4.58	—	1.29	9th	16	36						



## 1. BAROMETER AND WIND AT 7 A.M.

The dotted lines indicate the normal distribution of pressure in Dec., based on 35 years' observations, 1871-1905.



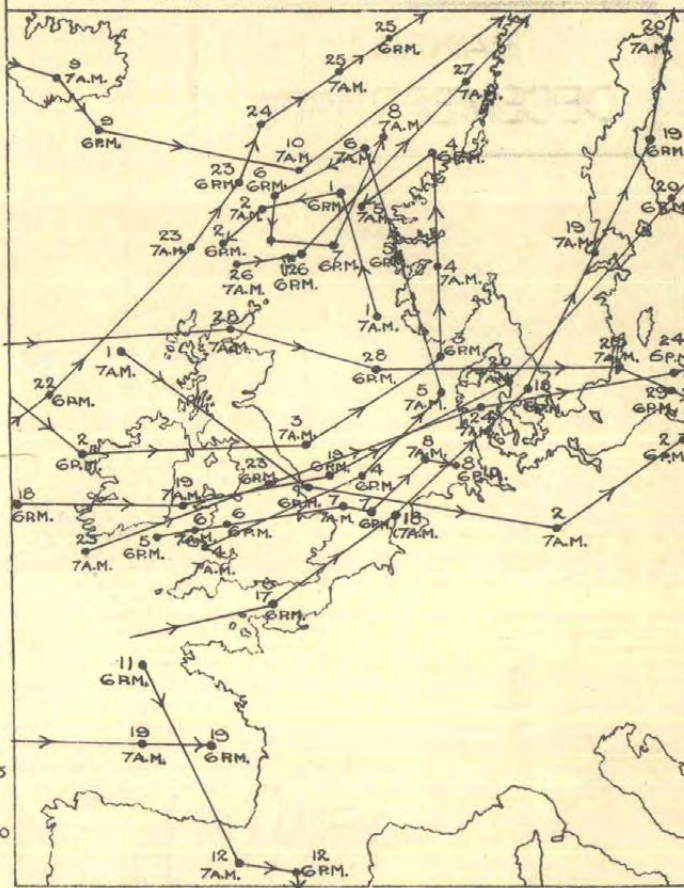
WIND ROSES. The arrows fly with the wind and indicate frequency and force, thus:  $\frac{1}{2}$  = 30 Obs = 1 inch

## 3. DISTRIBUTION OF MEAN TEMPERATURE.

Reduced to sea level by a correction of 1°F for 300ft



## 2. MOVEMENTS OF DEPRESSIONS.



## 4. BRIGHT SUNSHINE, IN HOURS.

Isohels are shown for 20, 40 and 60 hours.









TABLE B (continued).—SUMMARY of the OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE at additional STATIONS, DECEMBER, 1909.

DISTRICT.	STATION.	Height of Gauge above M.S.L.	AIR TEMPERATURE.								Earth Temperature		Grnd Frost.	RAIN AND OTHER FORMS OF PRECIPITATION.						BRIGHT SUNSHINE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
			Mean of				Absolute Maximum and Minimum.				1 ft.	4 ft.		No. of Days.	Total Fall.	Diff. from Normal.	Most in a day.		Number of Days.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
			A	B	Mean of A and B.	Diff. of Mean from Normal.	Max.	Day.	Min.	Day.							Ins.	Ins.						Ins.	Day.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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## NOTES ON THE STATISTICAL TABLES.

**Hours of Observation.**—The following types are used to indicate the hours of observation at Stations included in Table A:—Clarendon, Normal Climatological Stations—I, 9 a.m. [II, 3 p.m.], III, 9 p.m. Black Capitals, telegraphic reporting normal climatological stations—I, 7 a.m., II, 1 p.m., III, 9 p.m. Roman, telegraphic reporting stations—I, 7 a.m., [II, 1 p.m.], III, 6 p.m. Italic, auxiliary climatological stations—I, 9 a.m. only, at Colmonell 3 p.m., Ventnor 6 p.m. The summaries are based on observations made three times a day wherever the data are available, except in the case of the element pressure (see below). At stations shown in clarendon type the maximum and minimum temperatures are read at 9 p.m.; at the remaining stations these observations are made at I. In Table B the letters *a* and *p* indicate whether the readings of the maximum and minimum are taken at the hours of morning or evening observation.

**Barometer.**—The correction for latitude has not been applied to the readings quoted in the Tables. It is applied to the readings at sea level from which the chart showing the mean monthly distribution of pressure is prepared. The values given in the tables are for station level. The values printed are (1) for stations shown in clarendon type, the means of observations at 9 a.m. and 9 p.m.; (2) for stations shown in Capitals, the means of observations at 7 a.m., 1 p.m., 9 p.m.; (3) for stations shown in Roman type, the means of observations at 7 a.m. and 6 p.m.; (4) for stations shown in italic type, the means of observations at 9 a.m. The column headed C gives the correction for diurnal variation required to reduce the means of observations at fixed hours to true diurnal means, based on the analysis of the values obtained at the four observatories for the period 1871–1905. The difference from normal is based upon the 7 a.m. readings only, except in the cases of Kew, Greenwich, Aberdeen, Valencia and Falmouth (see below).

**Rainfall.**—The amounts are those for the 24 hours commenced at the time of morning observation.

**Weather Phenomena.**—The number of days of Rain, Snow, Hail, Thunderstorm, Fog, Ground Frost, and Gale, are counted irrespective of the hours at which the phenomena occur. Except in the cases of rainfall (see above) and ground frost the day is the civil day. A day is reckoned as a day of “clear sky,” if the mean of the estimates of the “amount of cloud” at the fixed hours of observation is less than 2, and as an “overcast” day if the mean is greater than 8. Days of Ground Frost are days on which the minimum thermometer on the grass falls to 30° or below; the “day” is taken as the 24 hours ending at 9 a.m.

**Wind Summaries.**—The results given under wind direction, and the number of observations of calms and of fresh or strong wind, are based on the observations at fixed hours. At Deerness, Aberdeen, Valencia, Falmouth, Kew, Glasgow, Stonyhurst and Armagh the wind observations are based on the records of a standard Robinson anemometer (factor 2.2). Velocities of between 13 and 38 miles in the hour have been entered as “fresh or strong winds,” velocities of 39 miles in the hour, or above, as gales. (At Brighton, Plymouth and Southport the equivalent values are obtained from a Dines Pressure Tube Anemometer.)

**Averages.**—The normal averages used for stations are—Pressure, Temperature, and Rainfall for the 35 years 1871–1905; Bright Sunshine for the 25 years 1881–1905. The values are published in Appendix III. to the Weekly Weather Report for 1906. For the Royal Observatory, Greenwich, and the Radcliffe Observatory, Oxford, averages for longer periods are used. See Notes in Monthly Weather Reports for 1908. Monthly averages of pressure at telegraphic reporting stations for the epoch 8 a.m. are published in Appendix I. to the Daily Weather Report. In order to render these averages comparable with the data for the present month, a correction, based on the results for the four observatories as published in “Hourly Readings at the Observatories under the Meteorological Council,” has been applied to each of them before the figures given in the column headed “Barometer—Difference from Normal” were computed.

**Aberdeen, Falmouth, Kew, Valencia, Oxford, Greenwich.**—The figures quoted in the second line assigned to these observatories in the columns for Barometer and Mean Temperature are the true daily means computed from the hourly tabulations of the traces of the photographic recording instruments. For Kew, Falmouth, Aberdeen and Valencia the divergences of the means of the readings at 9 a.m. and 9 p.m. from their normal averages are also given.

**Royal Observatory, Greenwich.**—The earth temperatures are taken at a depth of 3 ft. 2 ins. The daily rainfall amounts are those for the 24 hours comprising the civil day. The number of days in the month which were persistently overcast from midnight to midnight was 2, the number of persistently cloudless days was 0, the number of persistently foggy days was 0.

**¶ Mean Values for Districts.**—The stations used in the Weekly Weather Report for the computation of “district values” of rainfall and temperature are distinguished by the sign ¶, those used for the computation of “district values of bright sunshine” by the sign §. These stations are distributed between Tables A and B. The monthly mean values for districts given in this Report for maximum, minimum and mean temperature, duration of bright sunshine, number of rain days and amount of rainfall, are computed from the data for these “representative” stations. The mean temperature for districts is computed in the manner shown in the preface to this and previous volumes of the Weekly Weather Report. The monthly mean values for districts for “amount of cloud” are computed from the data for all stations included in Table A. The extreme values of the various elements in each district are printed in distinctive type. In the lines devoted to district values, the columns referring to absolute highest and absolute lowest temperature and the maximum amount of rainfall in a day contain the extreme values for the district at any station included in either table of the Report. The averages for districts with which the current values are compared are for the 25 years 1881–1905, as in the case of the corresponding values published in the Weekly Weather Report.

**Meteorological Societies.**—Information for stations marked ¶ is supplied by the Royal Meteorological Society, and that for stations marked § is supplied by the Scottish Meteorological Society. Stations marked S are in connexion with the Scottish Meteorological Society and those marked M with the Royal Meteorological Society, as well as with the Meteorological Office.







# MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

(Supplement to the Weekly Weather Report.)

SUMMARY OF OBSERVATIONS COMPILED FROM THE RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS IN THE UNITED KINGDOM, WITH A CHART OF RAINFALL CONTRIBUTED BY THE BRITISH RAINFALL ORGANISATION.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE,

AND PUBLISHED FOR H.M. STATIONERY OFFICE BY WYMAN AND SONS, LTD., FETTER LANE, E.C.; OR OLIVER AND BOYD, EDINBURGH; OR E. PONSONEY, 116, GRAFTON STREET, DUBLIN.

THIRTY-FOURTH YEAR.  
Vol. XXVI. (New Series)  
Weekly Weather Report.

No. XIII.

ANNUAL SUMMARY, 1909.

[Price 6d.]

## CONSPICUOUS METEOROLOGICAL OCCURRENCES DURING THE YEAR 1909.

The following summary of the most notable meteorological features of the year 1909 has been prepared from various official reports, daily weekly and monthly returns, and the records of numerous rainfall observers:—

1. *Gales.*—On January 7th and 8th a North-Westerly gale blew in many parts of the British Isles, attaining the force of a strong gale (force 9) in several localities. A whole gale (force 10) was reported at Skerryvore, Butt of Lewis, Wick and Flamborough Head, and a storm (force 11) at the Outer Farne. On January 11th a Westerly to North-Westerly gale on our western and northern coasts, the wind rising to a whole gale at Pladda, the Rhinns of Islay and the Outer Farne, and to a storm at Sule Skerry. A deep system which was almost stationary in the neighbourhood of the Farøe on January 13th and 14th occasioned a whole gale from West and North-West at a number of places on the western coasts, between Swansea Bay and Islay. This disturbance was still in the vicinity of the Arctic Circle on the 16th, when the Westerly wind again increased on the western coasts, to a whole gale at the Scarweather (Swansea Bay), Bahama Bank and the Rhinns of Islay, and to a storm at Pladda. From about 10 a.m. on the 13th the gale lasted 76 hours at Loop Head, and 120 hours at the Fastnet. On January 17th there was a South-Westerly gale on our western coasts generally, the force of a whole gale at Loop Head, Tearaght, Bahama Bank and the Mull of Galloway. During the next eight months, February to September, there was a marked absence of general gales, a strong or whole gale was felt locally. With October the conditions assumed a very windy type, the force of a high wind being experienced at one or more places on our coasts on 29 consecutive days, gale force on 21 days, a strong or whole gale on 12 days. Between the 5th and the 9th a whole gale between South and West blew at Caldy, Malin Head and Skerryvore, from North-West at Cape Wrath and Sule Skerry, a hurricane (force 12) at the Mull of Galloway. Between the 12th and 15th a whole South-Westerly gale. On the 23rd and 24th a whole gale from North at the Fastnet, and from South-West at Pembroke, Caldy, Scarweather and Portland Bill. Between the 26th and 29th a whole gale from East or North-East at Aran Island North, the Fastnet, Caldy, the Owers, the Casquets, and Flamborough Head, a storm at Start Point. November was a much quieter month, but on the 12th and 13th a whole gale from between West and North blew at Bahama Bank, the Outer Dowsing, Spurn Head and Flamborough Head, a storm at the Outer Farne. Very disturbed conditions prevailed during the greater part of December, nearly all the cyclonic systems being very deep, that of the 2nd and 3rd being the deepest of the year. The first five days had the wind mainly from between South-West and North-West, increasing to a whole gale at numerous points on the western, southern and eastern coasts, to storm force at Caldy, the Scarweather and the Outer Farne on the 3rd, hurricane force at the Scarweather on the 2nd. (See Weekly Weather Report, p. 388). A strong South-Easterly gale blew on many coasts on the 21st and 22nd, a whole gale at Malin Head, Bardsey, Pembroke, Spurn Head and Flamborough Head, a hurricane at Caldy. Self-registering anemometers at 25 stations recorded the following instances of mean hourly velocities of 55 or more miles of wind:—

January 16th, Scilly, 55; 18th, Edinburgh, 56.  
October 7th, Pendennis, 56; 23rd, Scilly, 70; Pendennis, 55.  
November 12th–13th, Fleetwood, 55; 18th, Pendennis, 56.  
December 1st, Scilly, 56, 2nd, Pendennis, 55; 2nd–3rd, Southport, 58, Fleetwood, 66.

The highest velocity attained in a gust was 90 miles per hour at Scilly on October 23rd. (For more detailed records, see Appendix III. of the Weekly Weather Report; and for distribution and frequency of winds see Map 1, p. cxxxiii.)

Map 2, p. cxxxiii, shows the mean paths of the classified low pressure systems which visited the British Isles or their neighbourhood within the year. As many as twelve slow-moving depressions followed such extremely irregular paths that it is not possible to combine them with the more regular ones. March and June each had three of these disturbances, May two, and January, September, October and December one each.

2. *Rainfall.*—There was a more equable distribution of precipitation over the kingdom than is usual, the wet districts in the south-west, west and north-west, receiving less than the normal, much less in many localities, and the drier eastern districts more than the normal. Newquay returns show a deficiency of 9.7 ins., Cally 9.9 ins., Valencia 11.4 ins., Fort William 11.7 ins., Killarney 12.2 ins., Roche's Point 15 ins., and Glencarron 17.8 ins. On the other side Southampton and Ventnor had an excess of 5.2 ins., Margate 5.3 ins., Tunbridge Wells 5.5 ins., Hillington 6.1 ins., Totland Bay 6.4 ins., Salisbury 6.5 ins., and Dungeness 12.7 ins. The largest totals in the returns communicated to the Office were 71.4 ins. at Glencarron, 66.9 ins. at Fort William, 56.6 ins. at Darven, 54.2 ins. at Poltalloch, 52.9 ins. at Arlington, 50.6 ins. at Bettws-y-Coed, and 50.4 ins. at Blacksod Point—a very short list of falls exceeding 50 ins. The limit of 100 ins. was exceeded in the highlands of Western Scotland, Cumberland and North Wales. There was not a score of instances of totals less than

25 ins., the smallest being 23.1 ins. at Cambridge, and 23 ins. at Shrewsbury. The frequency of precipitation ranged from 284 days at Balta Sound, 281 at Sumburgh Head, 275 at Foyes, 274 at Stornoway, 263 at Blacksod and 261 at Wick to 153 at Tealby, 149 at Ampleforth, and 146 in the Forest of Dean (200 feet). Heavy falls of an inch and upwards in a day were exceptionally numerous. The following is a list of falls of 2 ins. and upwards in 24 hours.—January 17th, West of Scotland and North of Ireland; February 2nd, West of Scotland; 3rd, North Lancashire; April 3rd, Dublin; July 20th, Argyllshire; August 1st, Hull; 17th, South of England; September 27th, County Clare; 28th, South Wales and Devon; October 15th, North Devon; 26th to 28th, South of England, in places the rainfall amounted to nearly 6 ins. in three days; November 11th and 28th, North of Scotland; December 9th, North-west of Scotland; 10th, North Lancashire; 11th, Kincardine; 16th, Portland Bill; 21st, Gloucestershire and Monmouthshire. Some very heavy downpours in short periods were noted. April 27th, 0.14 ins. in 10 minutes at Camden Square, London; May 26th, 0.16 ins. in 15 minutes at Rochford (Worcs.); June 24th, 0.18 ins. in 5 minutes at Camden Square; July 30th, 0.13 ins. in 5 minutes at St. James's Park, London; August 17th, 2.2 ins. in 5 hours at Salisbury, and nearly all of a total of 2.6 ins. at Maidenhead fell in 2 hours; September 6th, 1.55 in. at Cromer in 55 minutes; 17th, 0.14 in. in 2 minutes at Epsom, 0.8 in. in 15 minutes at Oxford, 0.3 in. in 20 minutes at Pyton Hill, and 1.4 in. in 2 hours at Wisley; 23rd, 1.55 in. in 4 hours at Belvoir Castle; 25th, 0.24 in. in 3 minutes at Epsom; October 5th, 0.1 in. in 10 minutes at Camden Square; and 13th, 0.25 in. in 5 minutes at Norwich. (See also Rainfall Map, p. cxxxiv.)

3. *Snowstorms.*—In the middle of January, under the influence of a very deep disturbance centred near Iceland, heavy snowstorms occurred in Scotland, Ireland and the North of England, occasioning immense and widespread inconvenience, traffic by road and rail being suspended in many localities, and shipping seriously interfered with. In the first seven days of March there was snow in practically all parts of the country, but the distribution was very irregular, many observers measuring only from 1 in. to 4 ins., but on the 3rd Belvoir Castle 8½ ins., and Epsom 10 ins.; on the 3rd and 4th Tonbridge 22 ins.; on the 6th Belvoir Castle 8 ins., and Tenbury 8½ ins.; and on the 7th Huddersfield 10 ins., and Birmingham 11 ins. The melted snow yielded from an inch to nearly 2 ins. of water at a number of stations. Snow and hail squalls were experienced extensively on the last day of April, and on the opening day of May snow fell generally, down to the shores of the English Channel. As late as May 12th to 15th there were falls of snow in many districts, as far as the southern counties. No further falls occurred until October 29th, when there was a heavy storm in Northumberland. The snows of the remainder of the year were light, Crathes reporting 6 ins. on November 13th, and there were various falls of from 6 ins. to 8 ins. in the course of December, the most extensive fall being on the 20th to the 22nd.

4. *Thunderstorms.*—In January electrical disturbances were rather numerous, visiting Western Scotland on the 6th, and many parts of England and Scotland on the following day. From the 13th to the 16th there were a number of thunderstorm records distributed over the whole kingdom. There were few records during February and March, and the first half of April, but they became very frequent over many districts in the last week of April, few, however, being described as heavy, and they did not result in any great rainfalls. The May thunderstorms were limited almost entirely to the few days 23rd to 26th, nearly all in England. On June 1st South-Eastern England was affected by an electrical disturbance which produced heavy rain all over the district. From the 20th to the 24th there were numerous storms distributed all over the Kingdom, with heavy rains in many places, while the storms of the 27th to 29th were marked by comparatively little rain. The storms of July were neither so frequent nor so extensive, and resulted in no great rainfalls, the heavy rainstorm over the southern half of England and Wales on the 27th was not attended by thunderstorms. A great rainstorm over the same region on August 17th was of a similar thunderless character, while the thunderstorms of the 16th and 25th were not marked by much rain. On September 17th a singular and very violent thunderstorm occurred over the western and middle regions of the Thames watershed, with very heavy rain and terrific thunder and lightning. There appear to have been no premonitory indications of its approach, and in the immediately surrounding districts there were no signs of a storm being in progress. A thunderstorm over the Straits of Dover on the 22nd gradually worked northward across Britain, and arrived in the Orkneys on the 24th, passing from a low into a high pressure system. Again, on the 25th, South-Eastern England was visited by a sharp thunderstorm, which was coincident with a magnetic storm. The thunderstorms of October and November were of minor importance, but those of December, like those of January, were very frequent for the season, thunder or lightning or both being reported on at least nineteen days.

5. *Dry Periods.*—Although the year was marked by an unusual frequency of great rainstorms there were many long spells either of absolute



2304 71-1719 13

NOTE.—The Sunshine Values entered to Woburn are recorded at Aspley Guise.

For notes see p. cxxv.



## STATIONS and NORMAL CLIMATOLOGICAL STATIONS in the BRITISH ISLANDS during the YEAR 1909.

Earth Temperature.		BRIGHT SUNSHINE.				CLOUD (0-10.)			RAIN AND OTHER FORMS OF PRECIPITATION.				WEATHER. No. of Days of										WIND.										STATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
At 1 foot depth.	At 4 feet depth.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.	Mean Amount.			Total Fall.	Diff. from Normal.	Most in a day.		Precipitation.	Snow.	Hail.	Thunderstorm.	Clear Sky.	Overcast.	Fog.	Ground Frost.	Wind force 8 and above.	No. of Observations at 9 a.m., 3 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
						I.	II.	III.			Amount.	Date.										Force 4-7.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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TABLE A. (continued).—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC REPORTING

DISTRICT.	STATION.	Height of Barometer at 32° F. at Level and Latitude of Station.	BAROMETER.			AIR TEMPERATURE.								HYGROMETER.											
			Mean at 32° F. at Level and Latitude of Station.	Diff. from Normal.	C. for Diurnal Range.	Mean of		Mean of A and B.	Diff. from Normal.	Absolute Maximum and Minimum.				Observations at 9 a.m., 3 p.m. and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.											
						A	B			Max.	Date.	Min.	Date.	Dry Bulb.			Dep. of Wet.			Vap. Pressure.			Humidity.		
														I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.
					Max.	Min.			Max.	Date.	Min.	Date.	I.	II.	III.	I.	II.	III.	I.	II.	III.	I.	II.	III.	
5. ENGLAND, S.E.	Reading - - -	264	29.662	—	—	55.3	40.4	47.9	—	—	—	15	Mar. 3rd	47.6	—	46.7	2.2	—	1.7	In. .289	In. .288	% 85	% —	% 88	
	Salisbury - - -	186	29.755	—	—	56.4	39.9	48.2	—0.8	86	Aug. 12th	10	Mar. 3, 5	48.4	—	46.4	2.0	—	1.3	3.04	—	2.95	86	—	91
	Brighton - - -	48	29.910	—	—	54.5	43.8	49.2	—1.2	83	Aug. 8th	21	Mar. 5th	49.7	—	—	2.9	—	—	2.99	—	—	81	—	—
	Portsmouth - - -	18	29.955	—	—	56.1	44.0	50.1	—0.2	85	Aug. 12th	20	Mar. 3rd	50.3	—	—	2.9	—	—	3.04	—	—	81	—	—
	Eastbourne - - -	36	29.921	—	—	54.6	43.7	49.2	—0.9	85	Aug. 9th	18	Mar. 5th	49.9	—	48.6	2.6	—	2.0	3.12	—	3.09	83	—	86
	Dungeness - - -	21	29.900	—0.025	—	53.7	42.3	48.0	—1.8	75	Aug. 9th	12	Mar. 5th	47.4	52.5	50.4	1.6	3.1	2.3	3.00	3.27	3.20	88	80	85
	Hastings - - -	174	29.769	—	—	54.2	43.7	49.0	—0.8	78	Aug. 8th	24	Mar. 1st	49.4	—	47.8	2.9	—	1.9	2.95	—	2.96	81	—	86
	Southampton - - -	84	29.879	—	—	56.3	42.8	49.6	—0.9	85	Aug. 12th	11	Mar. 3rd	49.9	—	48.2	3.1	—	2.0	3.02	—	3.03	81	—	86
	Ventnor - - -	80	29.863	—	—	55.4	45.2	50.3	—1.0	82	Aug. 9th	25	Mar. 3rd	50.5	—	—	3.1	—	—	3.01	—	—	80	—	—
	District Value - - -					54.9	42.0	48.3	—1.2	92		10													
LONDON -	Tottenham - - -	55	29.879	—	—	55.6	42.5	49.1	—0.7	85	Aug. 12th	13	Mar. 5th	49.5	—	48.1	2.6	—	1.6	3.07	—	3.13	83	—	88
	Camden Square - - -	123	29.822	—	—	56.7	42.0	49.4	—1.0	86	Aug. 12th	19	Mar. 5th	49.3	—	48.6	2.9	—	2.1	2.94	—	3.02	81	—	86
	Westminster - - -	54	29.880	—0.019	—	55.9	43.0	49.5	—0.6	85	Aug. 12th	18	Mar. 5th	46.3	—	52.0	1.8	—	4.2	2.81	—	2.93	87	—	74
	Greenwich - - -	159	29.776	—	—	56.5	41.3	48.9	—1.2	86	Aug. 12th	14	Mar. 5th	49.0	—	47.1	3.1	—	2.1	2.86	—	2.84	80	—	85
	Norwood - - -	235	29.721	—	—	55.9	42.0	48.9	—0.7	86	Aug. 12th	19	Mar. 2nd	49.0	—	47.3	3.2	—	2.2	2.83	—	2.85	79	—	84
	Kew - - -	34	29.922	—0.014	—	55.3	42.6	49.0	—0.5	83	Aug. 12th	17	Mar. 5th	48.5	53.9	48.4	3.1	5.5	2.7	2.79	2.89	2.86	79	68	81
	Bunhill Row - - -		29.913	—0.014	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Plumstead - - -		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Laudale - - -	25	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Poltalloch - - -	185	29.722	—	—	52.5	39.4	46.0	—1.5	71	Aug. 15th	18	Nov. 17th	45.7	—	44.0	2.5	—	2.2	2.58	—	2.46	82	—	84
6. SCOT- LAND, W.	Glasgow - - -	184	29.668	—	—	51.8	41.1	46.5	—0.6	73	Aug. 15th	20	Nov. 18, 19	45.7	—	45.6	2.8	—	2.4	2.58	—	2.63	81	—	83
	Rothsay - - -	76	29.793	—	—	53.3	41.2	47.3	—0.4	71	June 30, } Aug. 6, 10 }	23	Nov. 16th	46.7	—	45.4	2.3	—	1.9	2.74	—	2.67	84	—	86
	Colmonell - - -	150	29.743	—	—	53.8	39.5	46.7	—0.9	78	Aug. 6th	15	Dec. 8, 21	46.0	—	—	—	—	—	—	—	—	—	—	—
	Dumfries - - -	155	29.740	—	—	53.3	40.3	46.8	—1.1	78	Aug. 8, 11	15	Mar. 5th	45.8	—	46.2	2.6	—	2.4	2.59	—	2.65	82	—	83
	Cally, Gatehouse - - -	120	—	—	—	53.5	39.0	46.3	—0.7	74	Aug. 9th	13	Dec. 21st	47.5	—	44.1	1.9	—	1.9	2.96	—	2.34	86	—	86
	Douglas - - -	284	29.600	—	—	52.3	42.3	47.3	—0.9	73	Aug. 14th	24	Mar. 5th	47.6	—	46.3	2.4	—	1.8	2.85	—	2.82	84	—	87
	District Value - - -					52.9	40.1	46.3	—1.1	78		8													
	Southport - - -	42	29.880	—	—	52.9	41.9	47.4	—0.8	78	May 21st	18	Dec. 21st	47.7	—	46.8	2.6	—	2.0	2.79	—	2.81	83	—	86
	Manchester (City) - - -	195	29.712	—	—	53.8	43.0	48.4	—	79	May 21st	20	Jan. 28th	47.7	—	48.2	3.0	—	2.9	2.75	—	2.82	80	—	81
	„ (Whitworth Pk) - - -	127	29.759	—	—	53.8	41.8	47.8	—	81	Aug. 15th	16	Mar. 5th	47.3	51.6	47.3	2.3	—	1.8	2.84	—	2.93	84	75	87
7. ENG- LAND, N.W.	Darwen - - -	780	29.130	—	—	51.4	39.0	45.2	—	79	Aug. 9th	19	Mar. 4th	46.3	—	44.6	2.4	—	1.6	2.73	—	2.70	84	—	88
	Aspatria - - -	264	29.617	—	—	52.8	39.9	46.4	—0.7	75	Aug. 9th	13	Mar. 3rd	46.5	—	45.0	2.3	—	1.6	2.77	—	2.74	84	—	88
	Newton Rigg - - -	559	29.275	—	—	52.6	37.9	45.3	—0.8	80	Aug. 8th	10	Mar. 4th	44.4	—	44.5	1.7	—	1.6	2.64	—	2.67	87	—	89
	Stonyhurst - - -	303	29.524	—	—	52.1	40.6	46.4	—1.0	75	May 21, } Aug. 15 }	15	Dec. 21st	46.5	—	45.9	2.7	—	2.3	2.70	—	2.69	81	—	83
	Blackpool - - -	78	29.838	—	—	52.7	41.1	46.9	—1.4	73	Aug. 15 } May 21st }	14	Dec. 21st	48.3	—	46.4	2.4	—	1.6	2.92	—	2.86	84	—	88
	M'nch't'r (Prestwich) - - -	320	29.564	—	—	53.3	40.4	46.9	—0.8	81	Aug. 15th	15	Mar. 5th	46.5	—	46.3	1.9	—	1.7	2.84	—	2.83	87	—	88
	Liverpl., Bidston Obs. - - -	197	29.701	—	—	52.8	42.9	47.9	—1.0	76	May 21st	22	Dec. 21st	47.0	—	47.3	2.9	—	2.5	2.72	—	2.76	81	—	83
	Llandudno - - -	21	29.904	—	—	—	43.6	—	—	75	Aug. 12th	24	Mar. 4th	49.6	—	49.1	2.7	—	2.2	3.00	—	3.03	82	—	85
	HOLYHEAD - - -	48	29.858	—0.001	—	53.2	44.1	48.7	—1.0	71	May 20, } Aug. 15 }	28	Mar. 4, 5	48.1	51.8	48.5	1.6	2.8	1.7	3.02	3.19	3.04	88	81	88
	Bettws-y-Coed - - -	100	29.794	—	—	54.4	40.6	47.5	—2.2	82	Aug. 15th	17	Mar. 4, 5	48.2	—	46.1	2.5	—	1.4	2.83	—	2.85	84	—	90
8. SOUTH WALES	District Value - - -					53.2	41.0	46.9	—1.3	82		10													
	Llangamarch Wells - - -	585	29.302	—	—	53.5	37.2	45.4	—2.4	81	Aug. 12th	7	Mar. 4th	45.9	—	—	2.1	—	—	2.72	—	—	85	—	—
	PEMBROKE - - -	150	29.760	—0.007	—	53.4	44.5	49.0	—0.9	77	Aug. 7th	26	Feb. 14, } Mar. 5 }	48.0	51.0	48.6	1.8	2.9	2.1	2.98	3.07	2.99	87	80	86
	Clifton - - -	229	—	—	—	55.3	43.0	49.2	—0.7	83	Aug. 9, 15	19	Mar. 5th	—	—	—	—	—	—	—	—	—	—	—	—
	PORTLAND BILL - - -	23	29.912	—0.025	—	53.7	46.2	50.0	—1.0	76	Aug. 9th	26	Mar. 4th	49.3	52.2	50.1	1.7	2.4	1.7	3.18	3.37	3.28	88	84	89
	Plymouth - - -	116	29.849	—	—	56.5	44.3	50.4	—0.5	83	Aug. 8th	25	Mar. 5, } Dec. 20 }	50.7	53.8	49.8	2.7	4.0	2.5	3.18	3.26	3.10	83	77	84



## STATIONS and NORMAL CLIMATOLOGICAL STATIONS in the BRITISH ISLANDS during the YEAR 1909.

Earth Temperature.		BRIGHT SUNSHINE.				CLOUD (0-10.)			RAIN AND OTHER FORMS OF PRECIPITATION.				WEATHER. No. of Days of										WIND.								STATIONS.	
At 1 foot depth.	At 4 feet depth.	Total in Hrs.	Hrs. from Normal.	Per Cent.	Diff. from Normal.	Mean Amount.			Total Fall.	Diff. from Normal.	Most in a day.		Precipitation.	Snow.	Hail.	Thunderstorm.	Clear Sky.	Overcast.	Fog.	Ground Frost.	Wind-force 8 and above.	No. of Observations at 9 a.m., 8 p.m., and 9 p.m., or at 7 a.m., 1 p.m., 6 p.m., or 9 p.m.										
						I.	II.	III.			Amount.	Date.										Force 4-7.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.		N.W.
—	—	1629	—	37	—	6.2	—	5.5	24.9	—	1.48	June 1st	173	16	2	5	67	122	4	—	37	251	28	50	40	27	50	117	112	55	Reading.	
50.2	—	—	—	—	—	6.6	—	5.9	38.7	+ 6.5	2.18	Aug. 17th	221	18	5	4	44	127	22	133	6	159	4	99	82	39	49	40	133	113	180	Salisbury.
—	50.5	1857	+126	42	+ 3	6.6	—	—	31.0	+ 3.4	3.32	Oct. 26th	169	14	6	10	64	183	9	70	1	115	23	49	46	20	27	37	71	54	38	Brighton.
50.7	51.7	1902	—	43	—	5.6	—	—	32.6	+ 5.0	1.87	Oct. 26th	162	10	5	8	113	141	8	81	1	178	2	40	54	24	32	17	58	77	61	Portsmouth.
50.5	51.3	1904	+165	43	+ 4	5.8	—	—	35.2	+ 4.3	1.97	Oct. 26th	180	16	4	7	93	125	2	—	2	56	24	58	172	29	37	14	184	71	141	Eastbourne.
—	—	—	—	—	—	7.4	7.4	7.2	35.5	+12.7	2.43	Oct. 28th	196	22	9	19	0	137	80	—	10	582	1	109	193	89	45	87	303	164	104	Dungeneas.
50.2	50.7	1878	+ 95	43	+ 3	6.0	—	5.3	31.4	+ 2.3	1.43	Oct. 26th	191	19	10	16	64	118	39	77	25	258	14	85	94	65	45	59	147	127	94	Hastings.
—	—	1748	+ 83	40	+ 2	5.8	—	4.9	35.1	+ 5.2	1.93	Oct. 26th	182	15	3	8	93	121	24	100	4	268	0	14	189	9	90	6	227	19	176	Southampton.
—	—	1904	+181	43	+ 4	6.1	—	—	34.8	+ 5.2	1.86	Oct. 23th	185	12	7	5	66	141	5	—	6	156	37	108	63	70	38	76	130	127	81	Ventnor.
40.7	50.4	1741	+138	39	+ 3	6.3	—	5.7	32.1	+ 5.0	3.32	—	189	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	50.4	1552	—	35	—	7.3	—	6.4	24.9	—	1.12	July 27th	167	18	3	7	32	161	18	85	1	36	49	71	104	34	51	45	174	112	99	Tottenham.
48.6	49.2	1370	—	31	—	6.7	—	—	25.8	+ 1.6	1.14	July 27th	192	9	1	5	79	188	15	114	—	—	28	62	47	23	12	22	52	61	58	Camden Square.
—	—	1373	+229	31	+ 5	6.0	—	6.4	24.9	+ 0.5	0.95	June 26th	200	28	6	12	43	742	12	101	11	161	44	60	92	52	47	67	156	115	97	Westminster.
—	50.1	1642	+140	37	+ 3	6.9	—	6.2	25.7	+ 1.6	1.08	June 24th	186	25	5	11	44	153	50	122	1	87	47	88	83	59	40	72	191	96	60	Greenwich.
48.7	—	—	—	—	—	6.7	—	6.0	27.9	+ 3.0	1.02	July 27th	201	24	4	12	60	154	57	100	2	70	105	89	85	39	25	78	127	114	68	Norwood.
48.8	49.7	1539	+122	36	+ 3	6.9	7.1	5.7	23.7	+ 0.3	0.95	July 27th	184	14	7	13	38	147	32	127	0	224	185	119	110	87	32	117	220	136	89	Kew.
—	—	1289	+149	29	+ 3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Bunhill Row.
—	—	1299	—	29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Plumstead.
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Laudale.
—	—	—	—	—	—	7.2	—	6.3	54.2	+ 2.9	1.59	Dec. 9th	217	11	10	3	41	164	8	—	11	214	134	71	63	15	53	75	106	145	63	Poltalloch.
—	—	1094	—	25	0	8.4	—	7.4	39.3	+ 0.6	1.31	June 22nd	187	14	6	4	7	199	11	101	0	73	168	34	36	117	23	28	124	146	54	Glasgow.
—	47.6	—	—	—	—	6.0	—	5.4	49.7	+ 1.5	1.55	{ Dec. 9 } { Dec. 9 }	217	18	3	5	68	120	49	—	12	156	110	64	15	144	12	82	43	167	90	Rothsay.
—	—	—	—	—	—	6.8	—	—	39.7	+ 5.2	1.27	June 22nd	193	15	6	9	55	180	12	80	23	248	28	30	30	110	76	76	98	122	110	Colmonell.
—	—	—	—	—	—	6.8	—	5.9	43.2	+ 3.0	1.65	June 22nd	177	16	4	5	17	111	12	—	12	145	49	96	85	62	64	53	144	71	106	Dumfries.
—	—	—	—	—	—	—	—	—	39.4	+ 9.9	0.98	Dec. 9th	209	19	10	6	—	—	—	—	7	92	1	53	144	36	85	26	122	40	223	Cally.
—	—	1749	+149	40	+ 4	6.9	—	5.7	41.4	+ 0.9	1.62	Oct. 23rd	187	22	24	17	41	137	48	70	12	236	26	63	75	65	61	62	114	155	109	Douglas.
—	—	1422	+ 88	32	+ 1	7.0	—	6.1	4.34	+ 5.1	2.26	—	194	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
48.2	49.0	1611	+145	36	+ 3	6.7	—	6.3	35.7	+ 2.8	1.16	Oct. 23rd	168	13	32	10	26	136	13	116	18	356	40	63	64	77	93	88	87	128	50	Southport.
47.0	48.3	999	—	23	—	—	—	—	37.0	+ 1.8	1.26	July 30th	191	14	6	10	—	—	19	—	0	33	22	73	79	82	84	110	124	100	56	Manchester (City).
—	—	1008	—	23	—	7.6	—	6.7	34.2	—	1.03	July 30th	182	14	3	8	20	168	14	121	0	157	142	66	102	106	86	206	143	154	90	" (Whit. Pk.).
47.1	47.1	1178	—	27	—	7.6	—	7.2	56.6	—	1.31	Dec. 2nd	217	29	17	19	15	180	2	122	8	288	11	21	75	25	49	146	110	175	118	Darwen.
—	—	1534	—	35	—	6.4	—	5.4	43.9	+ 4.9	1.76	Oct. 12th	203	21	7	6	54	105	2	119	10	122	131	84	66	19	26	57	158	128	61	Aspatia.
46.8	46.7	1477	+ 91	33	+ 2	6.3	—	5.6	36.7	+ 0.6	0.82	July 24th	189	23	6	6	54	113	17	145	11	175	99	53	25	54	88	100	136	129	46	Newton Rigg.
—	—	1337	+ 19	30	+ 1	7.3	—	5.7	48.8	+ 2.0	2.00	Feb. 3rd	213	33	20	23	43	144	4	110	0	75	238	39	81	36	15	52	109	117	43	Stonyhurst.
47.8	48.4	1652	+243	37	+ 5	7.4	—	7.1	35.5	+ 1.7	1.24	Dec. 2nd	198	13	18	13	23	177	7	114	10	242	20	51	78	80	106	64	107	120	104	Blackpool.
—	—	1118	+ 16	25	+ 1	8.3	—	6.3	41.2	+ 4.2	1.52	Dec. 2nd	195	20	7	14	21	188	11	97	11	141	106	103	67	65	22	105	50	182	30	Manchester (Prest).
—	—	1685	—	38	—	6.3	—	6.9	28.4	+ 0.4	1.15	Dec. 2nd	202	21	18	30	128	12	—	4	167	5										



TABLE B.—ANNUAL SUMMARY of the OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE, at other STATIONS included in the MONTHLY SUMMARIES for the year 1909.

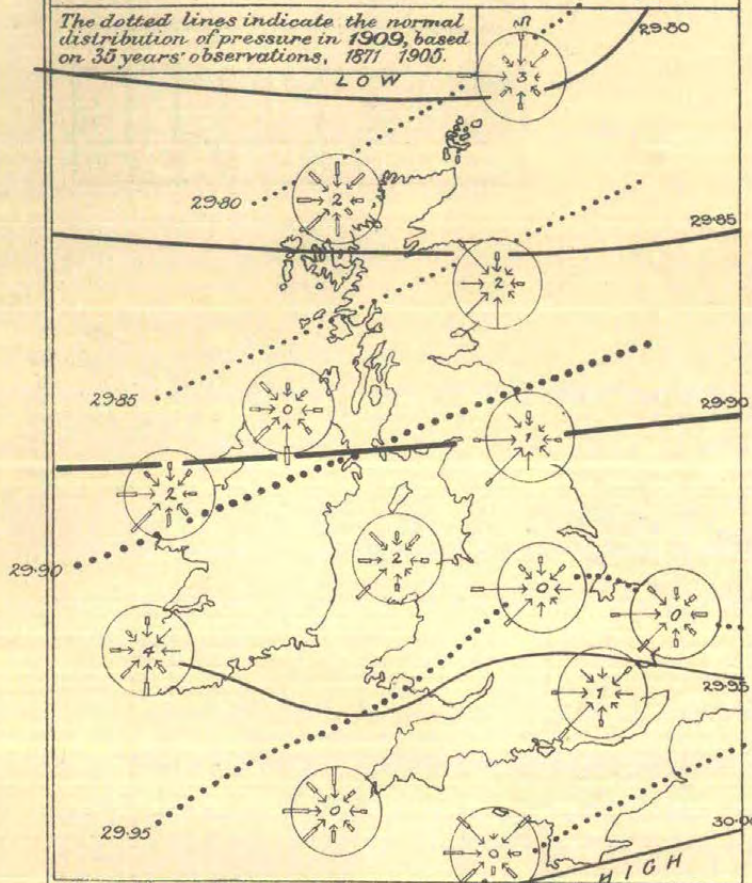
DISTRICT.	STATION.	Height of Gauge above M.S.L.	AIR TEMPERATURE.								Earth Temperature		Gr'd Frost.	RAIN AND OTHER FORMS OF PRECIPITATION.					BRIGHT SUNSHINE.				
			Mean of		Mean of A and B.	Diff. of Mean from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.		No. of Days.	Total Fall.	Diff. from Normal.	Most in a day.		Number of Days.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.
			A	B			Max.	Date.	Min.	Date.							Amt.	Date.					
			Max.	Min.			Max.	Date.	Min.	Date.							Ins.	Ins.					
		Ft.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	Hrs.	Hrs.	%	%	
O. SCOTLAND, N.	p Balta Sound	S	31	47.9	39.7	43.8	—	61	Aug. 4, 6	16	Mar. 16th	—	—	—	36.0	—	0.84	July 22nd	284	1104	—	25	—
	p Crathes	S	140	50.2	36.9	44.5	—	78	Aug. 6, 12, 15	4	Nov. 17th	45.6	45.8	153	33.5	—	1.65	July 25th	185	1171	—	26	—
	Stonehaven	—	86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1375	—	31	—
1. SCOTLAND, E.	p Balruddery	S	276	53.0	37.3	45.2	—	80	Aug. 9th	17	Nov. 17th	—	—	—	28.9	—	1.45	May 25th	193	1441	—	33	—
	Edinburgh	—	258	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1313	+ 157	30	+
	a West Linton	S	800	49.3	35.5	42.4	- 2.8	75	Aug. 10th	1	Mar. 5th	—	—	169	41.1	—	1.00	Mar. 24th	223	1266	—	29	—
2. ENGLAND, N.E.	a Alnwick Castle	—	210	52.1	39.5	45.8	- 0.8	76	Aug. 6, 15	14	Mar. 6th	—	—	—	33.6	+ 2.0	1.35	May 25th	180	—	—	—	—
	p Newcastle-on-Tyne	—	162	53.1	41.7	47.4	—	80	Aug. 15th	22	Jan. 28th	—	—	—	26.8	- 0.6	1.23	Dec. 6th	196	1075	+ 9	24	0
	p Ampleforth	—	349	52.5	39.2	45.9	—	82	Aug. 9th	16	Dec. 21st	—	—	—	27.9	—	1.50	Aug. 1st	149	—	—	—	—
3. ENGLAND, E.	p Tealby	—	251	53.2	40.5	46.9	- 0.7	82	Aug. 12th	16	Dec. 20th	—	—	—	31.6	+ 4.2	1.65	Aug. 17th	153	—	—	—	—
	a Fulbeck	—	180	54.5	40.2	47.4	- 0.6	84	Aug. 7, 12	18	Jan. 27th	—	—	?	25.7	+ 2.0	1.25	Mar. 6th	194	—	—	—	—
	a Rauceby	—	124	54.9	39.9	47.4	—	84	Aug. 12th	18	Mar. 6th	48.8	49.0	122	28.2	+ 2.5	1.63	Aug. 17th	191	1531	—	35	—
4. MIDLAND COUNTIES	a Felixstowe	—	10	53.2	42.5	47.9	- 1.3	80	Aug. 12th	20	Mar. 5, 17	—	—	—	28.3	—	1.25	Oct. 26th	185	1838	—	42	—
	a Rothamsted	—	424	54.4	39.9	47.2	- 0.8	82	Aug. 12th	16	Mar. 5th	—	—	—	26.8	- 1.1	1.17	June 1st	212	1653	+ 120	37	+ 2
	a Shoburyness	—	13	54.5	42.8	48.7	- 1.3	86	Aug. 12th	22	Jan. 28th	—	—	—	24.5	+ 4.9	2.50	Oct. 26th	187	—	—	—	—
5. ENGLAND, S.E.	a Southend-on-Sea	—	100	54.9	42.5	48.7	—	86	Aug. 12th	21	Mar. 4th	49.9	—	111	25.8	+ 4.5	2.00	Oct. 26th	158	1762	—	40	—
	a Harrogate	—	476	52.2	39.3	45.8	- 0.9	81	Aug. 9th	13	Jan. 27th	45.9	46.4	116	31.8	+ 2.3	1.25	Mar. 6th	207	1399	—	32	—
	a Bradford	—	439	52.1	40.1	46.1	—	80	Aug. 9th	18	Dec. 20th	46.2	47.4	?	34.9	—	1.60	Dec. 21st	196	1279	—	29	—
6. SCOTLAND, W.	a Cheadle	—	646	52.5	39.1	45.3	- 1.0	80	Aug. 12th	16	Dec. 21st	—	—	140	37.7	+ 4.9	1.30	Mar. 6th	204	—	—	—	—
	a Bawtry	—	65	55.3	39.5	47.4	- 0.7	84	Aug. 9, 15	8	Dec. 22nd	—	—	—	24.3	+ 0.4	1.48	Aug. 17th	175	—	—	—	—
	a Worksop	—	56	55.4	39.3	47.4	- 0.6	84	Aug. 12th	3	Dec. 22nd	47.4	47.9	145	27.8	+ 2.3	1.49	Aug. 17th	189	1295	+ 43	30	+ 2
7. ENGLAND, N.W.	a Mayfield (Staffs.)	—	374	53.0	37.8	45.4	—	83	Aug. 12th	4	Dec. 21st	—	—	131	37.0	—	1.34	Dec. 2nd	189	—	—	—	—
	a Kingston-on-Soar	—	125	54.4	38.7	46.6	—	84	Aug. 12th	3	Mar. 5th	48.1	—	—	25.5	—	1.20	Aug. 17th	215	—	—	—	—
	p Rugby	—	379	54.7	38.9	46.8	- 1.1	84	Aug. 12th	8	Mar. 5th	—	—	134	26.1	—	1.14	July 27th	187	—	—	—	—
8. ENGLAND, S.W.	a Raunds	—	210	55.8	38.9	47.4	- 1.3	86	Aug. 12th	11	Feb. 23rd	—	—	129	24.6	—	0.89	Aug. 17th	180	—	—	—	—
	a Winslow	—	379	54.1	40.1	47.1	—	83	Aug. 12th	17	Jan. 28th	—	—	—	28.3	—	1.42	Aug. 17th	198	—	—	—	—
	a Hereford	—	291	55.6	39.7	47.7	- 1.0	86	Aug. 12th	9	Mar. 4th	—	—	172	24.0	- 3.0	1.56	Sept. 28th	192	—	—	—	—
9. ENGLAND, S.W.	a Cirencester	—	446	54.2	38.9	46.6	- 1.0	85	Aug. 12th	8	Mar. 3rd	—	—	?	32.1	+ 1.4	1.06	Aug. 17th	192	1514	+ 6	34	0
	a Epsom	—	160	55.4	40.3	47.9	—	92	Aug. 15th	9	Mar. 5th	—	—	136	32.5	—	1.12	Oct. 28th	214	—	—	—	—
	a Wokingham	—	216	55.7	37.0	46.4	—	85	Aug. 12th	7	Feb. 23	—	—	—	29.8	—	1.37	Oct. 28th	182	—	—	—	—
10. ENGLAND, S.W.	a Maidenhead	—	99	57.6	40.0	48.8	—	90	Aug. 12th	13	Mar. 5th	—	—	147	29.9	+ 3.8	2.63	Aug. 17th	187	—	—	—	—
	a Marlborough	—	424	54.5	38.3	46.4	- 1.4	85	Aug. 12th	0	Mar. 3rd	—	—	147	33.4	+ 1.5	1.92	Aug. 17th	204	1481	+ 85	34	+ 2
	a Bucklebury	—	409	54.1	39.9	47.0	—	85	Aug. 12th	11	Mar. 3rd	—	—	161	28.2	—	1.05	Aug. 17th	184	—	—	—	—
11. ENGLAND, S.W.	a Swaraton	—	310	54.6	39.3	47.0	- 0.9	85	Aug. 12th	3	Mar. 3rd	—	—	—	35.6	+ 4.2	1.56	June 1st	197	—	—	—	—
	a Margate	—	35	55.0	44.1	49.6	- 0.3	83	Aug. 12th	21	Mar. 5th	49.1	49.2	44	28.5	+ 5.3	2.93	Oct. 28th	165	1671	+ 131	38	+ 3
	Broadstairs	—	140	—	—	—	—	—	—	—	—	—	—	—	—	31.9	—	2.73	Oct. 28th	168	1840	—	42
12. ENGLAND, S.W.	Ramsgate	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1877	—	43	—
	a Wisley	—	150	55.2	41.1	48.2	- 1.4	86	Aug. 12th	14	Mar. 2nd	48.8	49.8	116	27.3	—	1.41	Sept. 17th	185	1651	—	37	—
	a Dover	—	231	53.7	42.5	48.1	—	83	Aug. 12th	17	Mar. 5th	48.8	49.5	91	29.5	—	2.18	Oct. 28th	182	1927	—	44	—
13. ENGLAND, S.W.	a Tunbridge Wells	—	421	54.3	40.5	47.4	- 1.1	84	Aug. 12th	17	Mar. 5th	49.0	—	125	35.1	+ 5.5	1.73	Oct. 26th	197	1753	+ 165	40	+ 4
	a Matfield	—	320	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	p Folkestone	—	121	53.7	42.7	48.2	—	80	Aug. 13th	12	Mar. 5th	—	49.0	—	25.8	- 2.2	2.40	Oct. 28th	170	1859	—	42	—
14. ENGLAND, S.W.	Littlestone	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	a Bexhill	—	27	54.3	44.4	49.4	—	79	Aug. 8th	21	Mar. 5th	51.2	—	73	30.4	—	1.71	Oct. 26th	175	1860	—	42	—
	Hove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1867	—	42	—
15. ENGLAND, S.W.	p Lewes	—	58	54.6	41.6	48.2	—	82	Aug. 12, 13	8	Mar. 5th	—	—	—	35.6	—	2.07	Oct. 26th	247	—	—	—	—
	a Worthing	—	36	54.7	42.9	48.8	- 0.8	81	Aug. 8, 9	20	Mar. 5th	49.9	50.7	84	32.1	+ 5.1	2.34	Oct. 26th	178	1958	—	44	—
	a Bognor	—	20	54.4	43.6	49.0	—	81	Aug. 9th	21	Mar. 3rd	—	—	89	29.0	—	1.68	Oct. 26th	201	1981	—	45	—
16. ENGLAND, S.W.	Westbourne	—	30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1853	—	42	—
	a Totland Bay	—	140	54.5	43.9	49.2	- 0.6	80	Aug. 9th	20	Mar. 3rd	—	—	86	34.5	+ 6.4	2.11	Oct. 26th	179	1897	—	43	—
	a Sandown	—	20	56.8	44.5	50.7	—	83	Aug. 12th	21	Mar. 3rd	—	—	—	35.7	—	1.82	Oct. 26th	188	1908	—	43	—
17. ENGLAND, S.W.	p Bournemouth	—	145	55.7	42.4	49.1	—	84	Aug. 8, 9, 12	16	Mar. 3rd	49.4	50.3	—	33.4	—	1.88	Oct. 26th	174	1906	—	43	—
	p Oban	—	20	54.1	41.3	47.7	—	76	Aug. 15th	17	Dec. 7th	—	—	74	48.8	—	2.26	Dec. 9th	203	1444	—	33	—
	a Thorntonhall (Lanarkshire)	—	440	51.1	37.8	44.5	—	73	Aug. 10th	3	Dec. 7, 8	—	—	125	40.1	—	1.31	{ Feb. 2 } July 25	186	1218	—	28	—
18. ENGLAND, S.W.	a Kilmarnock	—	90	52.8	38.2	45.5	- 2.0	72	Aug. 15th { May 20 }	11	Mar. 3rd	—	—	—	40.5	—	1.75	Feb. 2nd	166	1149	—	26	—
	a Carnforth	—	174	52.9	40.1	46.5	—	75	{ Aug. 9 }	14	Dec. 21st	—	—	191	43.1	—	1.80	Dec. 10th	207	1398	—	32	—
	a Lancaster	—	311	52.7	41.4	47.1	—	76	May 21st	21	Mar. 4th	48.1	50.3	116	46.0	—	1.92	Dec. 10th	210	1289	—	29	—
19. ENGLAND, S.W.	a Burnley	—	469	52.0	38.9	45.5	—	78	Aug. 15th { May 21 }	10	Dec. 20th	45.6	46.4	149	40.2	—	1.11	Dec. 2nd	192	1144	—	26	—
	a Hoylake	—	30?	54.3	43.0	48.7	—	76	{ Aug. 15 }	21	Mar. 4th	—	—	85	28.6	—	1.33	Dec. 2nd	186	1585	—	36	—
	p Rhyl	—	30	54.6	42.1	48.4	—	77	Aug. 12th	18	Mar. 4th	—	—	62	27.6	+ 1.6	0.92	Sept. 27th	191	1678	—	38	—
20. ENGLAND, S.W.	a Colwyn Bay	—	82	54.6	43.9	49.3	—	77	Aug. 12th	25	{ Dec. 21, 22 }	—	—	—	30.0	—	0.91	Sept. 27th	160	1630	—	37	—
	a Hawarden Bridge	—	22	54.6	41.9	48.3	- 1.2	81	Aug. 15th	13	Mar. 4th	—	—	—	23.9	- 0.7	0.63	Aug. 17th	188	—	—	—	—
	a St. Asaph (St. Beuno's Coll.)	—	479	53.0	42.0	47.5	—	78	Aug. 15th	21	Mar. 4th	—	—	79	30.0	—	1.10	Sept. 27th	199	—	—	—	—
21. ENGLAND, S.W.	a Towyn	—	10	55.2	4																		

\* The gauge at Folkestone is not of standard type.



## 1. BAROMETER AND WIND AT 7 A.M.

The dotted lines indicate the normal distribution of pressure in 1909, based on 35 years' observations, 1871-1905.

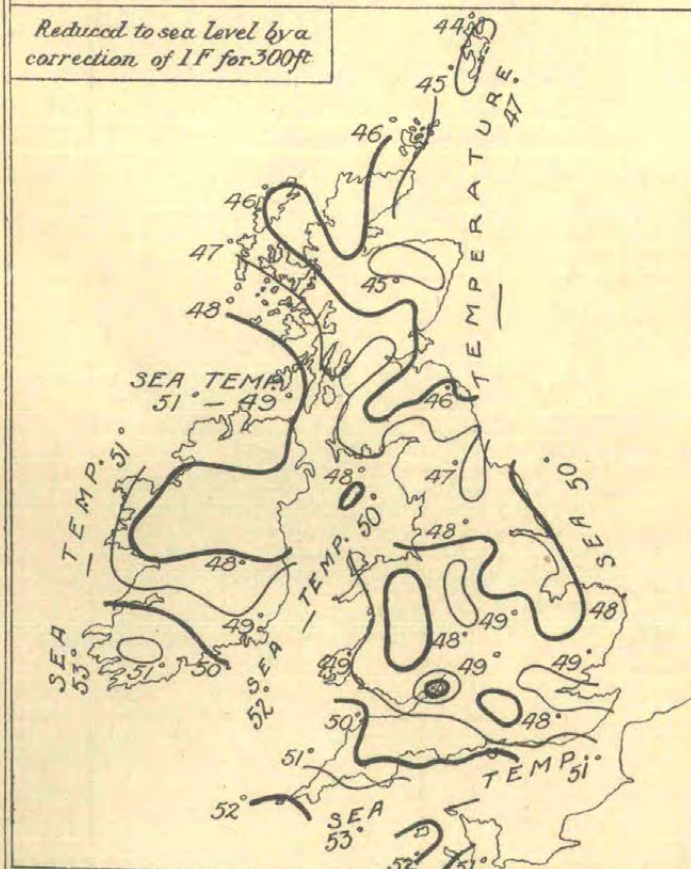


WIND ROSES. The arrows fly with the wind and indicate frequency and force, thus:

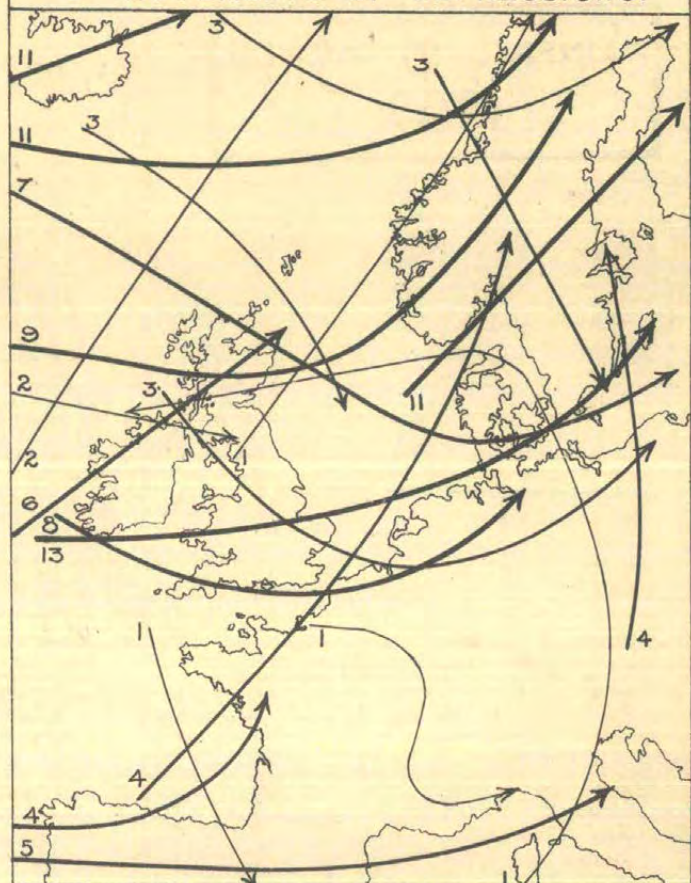
Light moderate strong  
360 Obs. = 1 inch

## 3. DISTRIBUTION OF MEAN TEMPERATURE.

Reduced to sea level by a correction of 1 F for 300 ft.



## 2. MOVEMENTS OF DEPRESSIONS.



The figures indicate the number of depressions following each path. 12 very irregular paths are omitted.

## 4. BRIGHT SUNSHINE, IN HOURS.

Isohels are shown for 1000, 1300, 1600 and 1900 hours. The unit for the values at stations is one thousand hours.





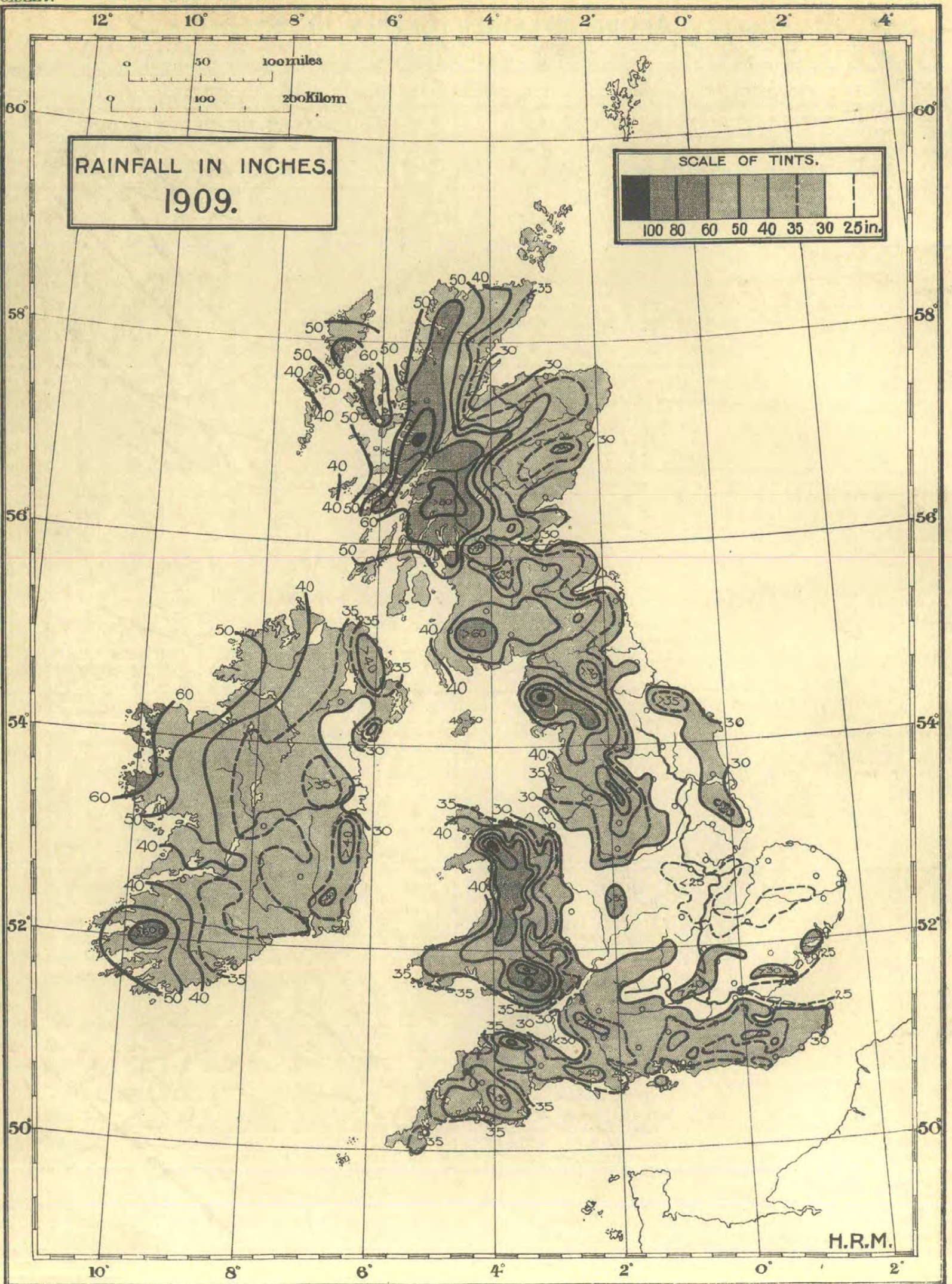




TABLE B—continued.—ANNUAL SUMMARY of the OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE at other STATIONS included in the MONTHLY SUMMARIES for the year 1909.

DISTRICT.	STATION.	Height of Gauge above. M.S.L.	AIR TEMPERATURE.								Earth Temperature		Grnd Frost.	RAIN AND OTHER FORMS OF PRECIPITATION.					BRIGHT SUNSHINE.				
			Mean of		Mean of A and B.	Diff. of Mean from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.		No. of Days.	Total Fall.	Diff. from Normal.	Most in a day.		Number of Days.	Total in Hours.	Diff. from Normal.	Per Cent.	Diff. from Normal.
			A	B			Max.	Date.	Min.	Date.							Amt.	Date.					
			Max.	Min.																			
		Ft.	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	Hrs.	Hrs.	%	%	
3. ENGLAND, S.W. (continued)	a Swansea - - - -	24	55'9	43'9	49'9	—	80	Aug. 10th, 12th	24	Mar. 4th	—	—	?	43'8	—	2'16	Sept. 28th	215	—	—	—	—	
	a Shaftesbury - - -	722	53'4	41'3	47'4	- 0'5	83	Aug. 12th	20	Mar. 3rd	48'9	—	—	33'6	+ 0'1	2'10	Oct. 26th	183	—	—	—	—	
	a Arlington - - - -	613	53'6	41'4	47'5	- 0'9	81	Aug. 12th	17	Mar. 5th	—	—	—	52'9	- 0'1	2'34	Sept. 28th	241	—	—	—	—	
	a Cullompton - - -	202	56'9	40'9	48'9	- 0'6	89	Aug. 12th	17	Mar. 4th	—	—	103	34'4	- 1'3	1'30	Dec. 21st	208	1544	+ 56	35	+ 1	
	Torquay - - - -	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1939	+ 208	44	+ 5	
	a Weymouth - - - -	21	55'9	44'5	50'2	—	86	Aug. 9th	23	Mar. 4th	—	—	—	27'7	—	1'21	Oct. 26th	160	1941	—	44	—	
	a Newquay - - - -	100	54'6	45'9	50'3	- 0'8	75	Aug. 15th	25	Mar. 4th	51'5	—	—	25'3	- 9'7	1'58	June 3rd	176	1886	+ 199	43	+ 5	
	Salcombe - - - -	800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1992	—	45	—	
	a Penzance - - - -	54	57'1	47'0	52'1	—	80	Aug. 7th	28	Mar. 4th	—	—	—	35'5	—	1'29	Dec. 21st	196	1971	—	45	—	
9. IRELAND, N.	- - - - -	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
10. IRELAND, S.	p Dublin (Glasnevin) - -	67	54'9	41'2	48'1	- 0'4	78	Aug. 12th, 14th	12	Dec. 21st	—	—	143	28'4	- 0'4	2'08	April 3rd	198	—	—	—	—	
	a Kingstown - - - -	42	54'9	44'2	49'6	—	78	Aug. 14th	22	Dec. 21st	—	—	—	24'0	—	1'42	June 23rd	174	1596	—	36	—	
	p Clongowes Wood College	245	54'5	38'7	46'6	—	—	—	7	Dec. 21st	—	—	?	29'6	—	1'02	Sept. 27th	211	1489	—	34	—	
	a Mountmellick - - -	253	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	p Newcastle (Co. Wicklow)	256	54'2	42'1	48'2	—	77	Aug. 12th	23	Dec. 21st	—	—	—	33'8	—	1'25	Dec. 5th	173	—	—	—	—	
	a Kilkenny - - - -	212	55'3	40'9	48'1	- 1'0	80	Aug. 11th	8	Dec. 21st	—	—	—	30'1	- 3'2	1'45	Sept. 27th	193	—	—	—	—	
	a Cahir - - - -	199	55'3	41'7	48'5	- 0'7	78	Aug. 6th	15	Mar. 5th	—	—	—	36'6	—	1'51	April 2nd	225	—	—	—	—	
	a Foynes - - - -	108	55'0	43'6	49'3	- 0'1	76	Aug. 15th	19	Dec. 22nd	—	—	—	34'1	- 4'8	1'10	Oct. 22nd	275	—	—	—	—	
	a Ballinacurra - - -	34	56'5	42'8	49'7	—	82	Aug. 12th	21	Dec. 21st	—	—	—	30'2	—	1'60	April 3rd	166	1633	—	37	—	
11. ENGLISH CHANNEL	a Guernsey (Villa Carey) -	180	57'0	46'7	51'9	+ 0'1	84	Aug. 15th	31	{ Jan. 28th Mar. 5th }	—	—	—	32'4	- 5'2	1'32	June 3rd	182	1990	+ 110	45	+ 2	

## NOTES ON THE STATISTICAL TABLES.

**Hours of Observation.**—The following types are used to indicate the hours of observation at Stations included in Table A:—Clarendon, Normal Climatological Stations—I, 9 a.m. [II, 3 p.m.], III, 9 p.m. Black Capitals, telegraphic reporting normal climatological stations—I, 7 a.m., II, 1 p.m., III, 9 p.m. Roman, telegraphic reporting stations—I, 7 a.m., [II, 1 p.m.], III, 6 p.m. Italic, auxiliary climatological stations—I, 9 a.m. only, at Colmonell 3 p.m., Ventnor 6 p.m. The summaries are based on observations made three times a day wherever the data are available, except in the case of the element pressure (see below). At stations shown in clarendon type the maximum and minimum temperatures are read at 9 p.m.; at the remaining stations these observations are made at I. In Table B the letters *a* and *p* indicate whether the readings of the maximum and minimum are taken at the hours of morning or evening observation.

**Barometer.**—The correction for latitude has not been applied to the readings quoted in the Tables. It is applied to the readings at sea level from which the chart showing the mean monthly distribution of pressure is prepared. The values given in the tables are for station level. The values printed are (1) for stations shown in clarendon type, the means of observations at 9 a.m. and 9 p.m.; (2) for stations shown in Capitals, the means of observations at 7 a.m., 1 p.m., 9 p.m.; (3) for stations shown in Roman type, the means of observations at 7 a.m. and 6 p.m.; (4) for stations shown in italic type, the means of observations at 9 a.m. The column headed C gives the correction for diurnal variation required to reduce the means of observations at fixed hours to true diurnal means, based on the analysis of the values obtained at the four observatories for the period 1871-1905. The difference from normal is based upon the 7 a.m. readings only, except in the cases of Kew, Greenwich, Aberdeen, Valencia and Falmouth (see below).

**Rainfall.**—The amounts are those for the 24 hours commenced at the time of morning observation.

**Weather Phenomena.**—The number of days of Rain, Snow, Hail, Thunderstorm, Fog, Ground Frost, and Gale, are counted irrespective of the hours at which the phenomena occur. Except in the cases of rainfall (see above) and ground frost the day is the civil day. A day is reckoned as a day of "clear sky," if the mean of the estimates of the "amount of cloud" at the fixed hours of observation is less than 2, and as an "overcast" day if the mean is greater than 8. Days of Ground Frost are days on which the minimum thermometer on the grass falls to 30° or below; the "day" is taken as the 24 hours ending at 9 a.m.

**Wind Summaries.**—The results given under wind direction, and the number of observations of calms and of fresh or strong wind, are based on the observations at fixed hours. At Deerness, Aberdeen, Valencia, Falmouth, Kew, Glasgow, Stonyhurst and Armagh the wind observations are based on the records of a standard Robinson anemometer (factor 2.2). Velocities of between 13 and 38 miles in the hour have been entered as "fresh or strong winds," velocities of 39 miles in the hour, or above, as gales. At Brighton, Plymouth and Southport the equivalent values are obtained from a Dines Pressure Tube Anemometer.)

**Averages.**—The normal averages used for stations are—Pressure, Temperature, and Rainfall for the 35 years 1871-1905; Bright Sunshine for the 25 years 1881-1905. The values are published in Appendix III. to the Weekly Weather Report for 1906. For the Royal Observatory, Greenwich, and the Radcliffe Observatory, Oxford, averages for longer periods are used. See Notes in Monthly Weather Reports for 1908. Monthly averages of pressure at telegraphic reporting stations for the epoch 8 a.m. are published in Appendix I. to the Daily Weather Report. In order to render these averages comparable with the data for the present month, a correction, based on the results for the four observatories as published in "Hourly Readings at the Observatories under the Meteorological Council," has been applied to each of them before the figures given in the column headed "Barometer—Difference from Normal" were computed.

**Aberdeen, Falmouth, Kew, Valencia, Oxford, Greenwich.**—The figures quoted in the second line assigned to these observatories in the columns for Barometer and Mean Temperature are the true daily means computed from the hourly tabulations of the traces of the photographic recording instruments. For Kew, Falmouth, Aberdeen and Valencia the divergences of the means of the readings at 9 a.m. and 9 p.m. from their normal averages are also given.

**Royal Observatory, Greenwich.**—The earth temperatures are taken at a depth of 3 ft. 2 ins. The daily rainfall amounts are those for the 24 hours comprising the civil day. The number of days in the month which were persistently overcast from midnight to midnight was 13, the number of persistently cloudless days was 7, the number of persistently foggy days was 2.

**Mean Values for Districts.**—The stations used in the Weekly Weather Report for the computation of "district values" of rainfall and temperature are distinguished by the sign †, those used for the computation of "district values of bright sunshine" by the sign §. These stations are distributed between Tables A and B. The monthly mean values for districts given in this Report for maximum, minimum and mean temperature, duration of bright sunshine, number of rain days and amount of rainfall, are computed from the data for these "representative" stations. The mean temperature for districts is computed in the manner shown in the preface to this and previous volumes of the Weekly Weather Report. The monthly mean values for districts for "amount of cloud" are computed from the data for all stations included in Table A. The extreme values of the various elements in each district are printed in distinctive type. In the lines devoted to district values, the columns referring to absolute highest and absolute lowest temperature and the maximum amount of rainfall in a day contain the extreme values for the district at any station included in either table of the report. The averages for districts with which the current values are compared are for the 25 years 1881-1905, as in the case of the corresponding values published in the Weekly Weather Report.

**Meteorological Societies.**—Information for stations marked ‡ is supplied by the Royal Meteorological Society, and that for stations marked § is supplied by the Scottish Meteorological Society. Stations marked S are in connexion with the Scottish Meteorological Society and those marked M with the Royal Meteorological Society, as well as with the Meteorological Office.



drought or with no rainfall worth mentioning. One of these dry intervals set in about January 19th over a great part of Britain, and was maintained generally until about February 8th, Portland Bill returning 21 successive rainless days. The break lasted only a couple of days, and between the 10th and 26th many localities had from 15 to 17 rainless days. February may thus be regarded as a very dry month, the total rainfall in several instances being less than  $\frac{1}{4}$  in., at Cuckfield only 0.1 in. Western Scotland experienced a very remarkable drought during March, the district along the Caledonian Canal receiving less than an inch of rain in the whole month, or from 3 ins. to  $6\frac{1}{2}$  ins. less than the normal. Fort Augustus totalled less than 0.8 in., and Fort William only 0.3 in. Over England generally there was little or no rain from March 31st to April 12th. From May 1st to 23rd, and June 1st to 24th were droughty periods over extensive areas, in the West as well as in the East. In the first eighteen days of August there was a rainless fortnight over southern England, while in southern Ireland the month as a whole was dry, Ballinacurra, Cork, receiving 0.3 in. distributed over 6 days, as many as 17 successive days being rainless. September 7th to 29th was another dry spell over a large extent of country, with from 14 to 17 successive rainless days in many places, and only very trifling showers on one or two other days. Southern Ireland continued remarkably dry, the total rainfall at Ballinacurra in the 58 days, August 1st to September 27th being only  $\frac{1}{4}$  in. November, generally, was a dry month, with twelve to fourteen consecutive rainless days in many places between the 13th and 27th. At Ampleforth rain fell on three days only, and the total fall at Bawtry and Lincoln throughout the month was less than  $\frac{1}{4}$  in.

6. *Temperature*.—At nearly every station the *highest* temperature of the year was attained in the spell of hot weather experienced from the 6th to the 15th of August, 92° at Epsom on the 15th, 90° at Maidenhead on the 12th, 89° at Cullompton on the 9th, and 85° or 86° at a number of places on the 12th, 86° at Weymouth on the 9th. With this exception the only other maxima of 80° and upwards occurred on May 21st and 22nd, 83° at Epsom, 84° at London and Maidenhead. A very striking feature of the summer was the persistent cold, June providing few instances of maximum temperatures above 70°, many of these were below 55°, even as low as 50° at Totland Bay, 49° at Salisbury, Buxton and Woburn early in the month. July was only a little less cold than June, the maxima on many days being below 60°. There was some compensation for this in the many warm days in the winter months, the thermometer rising on February 4th to 58° at Cambridge and Epsom, and 59° at Killarney; passing 65° rather frequently in October, and touching 70° in some instances; 60° to 62° in Ireland and north Britain on November 3rd; and in December passing 55° in many cases, 58° at Torquay on the 3rd, and Kingstown on the 27th, and 59° at Kingstown on the 10th.

The *lowest* night temperatures were registered at various periods in February, March, November and December. Shade values below 20° were numerous, down to 9° at Hereford and Epsom in March, Phoenix Park in December, 8° at Rugby, Lewes, and Cirencester in March, Bawtry, Killarney and Thorntonhall in December; 7° at Wokingham in February, Wokingham, Llangammarch Wells and Nairn in March, Clongowes Wood in December; 6° at Stokesay in March; 4° at Crathes in November; Mayfield (Staffs) in December; 3° at Kingston-on-Soar and Swaraton in March, Worksop in December; 1° at West Linton in March, Garforth in December; and 0° at Marlborough in March, Balmoral in December. Even in June there were some records of frost, the thermometer sinking to 29° at Llangammarch Wells, 30° at Garforth, and 31° at Burnley. There were, however, several very high night minima in the winter months, temperature at various southern stations, including London, not descending below 60° on October 4th and 17th. In December there were many minima as high as 50° to 52°. At Guernsey (Brooklyn) the thermometer did not descend below 32° all through the year, and at Scilly a minimum of 30° was registered on February 28th.

The range of temperature for the year amounted to 85° at Marlborough, 83° at Epsom, 82° at Swaraton, 81° at Worksop and Kingston-on-Soar, 80° at Garforth, and 75° and upwards at a number of other stations, all inland ones, while it was 50° or less at several places along the southern, western and northern coasts, 45° at Balta Sound, 43° at Holyhead, 43° at Scilly and Blacksod Point, 41° at Deerness, and only 36° (63° to 27°) at Castlebay. For the country as a whole the mean temperature for the year was about 1° below the normal, all districts showing a deficiency. (For distribution of Mean Temperature, see Map 3, p. cxxxiii.)

7. *Bright Sunshine*.—In the north-east of England the duration of bright sunshine was less than usual, York returning a deficiency of 131 hours for the year. Eastern Scotland was more variable, Aberdeen showing a deficit of 96 hours, Edinburgh an excess of 157 hours. All other districts returned a general excess, in many localities more than 100 hours, the largest excesses being 203 hours at Pembroke, 208 at Torquay, 209 at Falmouth, 214 at Plymouth, 229 at Westminster, and 243 at Blackpool. The largest aggregates for the year were along the English Channel, where nearly all the stations had more than 1,900 hours, ranging up to 1981 at Bognor, 1,990 at Guernsey (Villa Carey), 1,992 at Salcombe, and 1,999 at Jersey. In Scotland the largest total was 1,441 hours at Balruddery, and in Ireland 1,633 hours at Ballinacurra. The only cases of less than 1,000 hours were 999 at Manchester (City), 986 at Hull, and 966 at Fort Augustus, this last-mentioned being, however, 77 hours more than the normal. The percentage of the possible duration ranged from 45 at Jersey and other southern stations to 22 at Hull and Fort Augustus.

The months of June and July were notable for their deficiency of sunshine, June in particular being an exceptionally dull summer month, London's total sunshine of 91 hours being the lowest on record, and 76 hours less than the normal. March also was very dull. Generally speaking, the other nine months were more than usually sunny, the excess in April ranging up to between 50 and 95 hours, and in May to between 100 and 130 hours. January, November and December were marked by several brilliant days, the excess of sunshine being exceptionally large for the winter season. (For distribution of Bright Sunshine, see Map 4, p. cxxxiii.)

8. *Fog*.—As in the previous year there was again a general absence of great fogs over the inland districts. On January 27th and 28th there was a good deal of fog over England, the latter date was unusually dark in London, yet there was brilliant sunshine in the suburbs. There were fairly frequent fogs in March, and for brief periods they were very dark in London on the 3rd, Tottenham on the 22nd, and Ampleforth on the 30th. November was a month of sunshine and of remarkable freedom from fog.

With the exception of October there were well-marked periods of fog on our western and eastern coasts in all months, but the south coast of England was not much affected, except in January and May. The longest spells were from July 27th to August 15th on the western coasts, and from September 17th to October 3rd on the western and eastern coasts.

9. *Barometer*.—The mean distribution of pressure for the whole year was in very close agreement with the normal, the greatest differences being an excess of 0.025 in. at Stornoway, and a deficiency of 0.025 in. at Dungeness. From a mean of 30.01 ins. at Brest and Paris the values diminished to 29.95 ins. along the south coast of England, 29.8 ins. in Shetland, and 29.71 ins. at Reykjavik (Iceland) (see Map 1, p. cxxxiii.). The highest pressures recorded were confined to January, February and December, the barometer rising to 30.78 ins. at Jersey on January 2nd, to 30.69 ins. at Roche's Point on February 14th, and to 30.73 ins. at Aberdeen on December 14th. In other months there were few instances as high as 30.5 ins. There were very numerous depressions in which pressure was below 29 ins., and on January 4th the barometer fell to 28.35 ins. at Wick, and on December 3rd to 28.03 ins. at Spurn Head, and 28.09 ins. at Shields. The range of pressure exceeded 2 ins., excepting in the extreme south-west of England. At Spurn Head it amounted to 2.66 ins., at Scilly 1.87 ins. Over Scotland and the north-east of England both the extreme readings occurred in December.

There was a reversal of the normal distribution during March, the lowest pressure being on the Bristol Channel, the highest over Iceland, in June the lowest pressure was over the North Sea and to the eastward, the highest out on the Atlantic and up to Iceland.

10. *High Tides*.—March 25th, exceptionally high on the north-east coast, but causing comparatively little damage.

11. *Floods*.—January 17th and 18th in Scotland and Ireland, following heavy snow and rainstorms. A bog slide in Galway caused loss of life, and much destruction of property. February 4th to 6th serious floods in the north of Ireland after very heavy rain. The great rainstorms of the autumn caused destructive floods in South Wales (twice) and in the south-east of England.

12. *Earthquakes*.—On July 28th and 29th earthquake shocks were felt at Laudale.

13. *Aurora Borealis*.—There were very numerous records of auroræ, but seldom noted as presenting any unusual features. On December 14th a brilliant display was seen in many parts of Scotland.

14. *Magnetic Storm*.—A very severe magnetic disturbance occurred on September 25th, interfering seriously with the telegraphic services. The storm appears to have been general throughout the world. Aurora was seen in various countries the same evening, but it was not of an exceptional character.

15. *Observations in the Upper Air*.—In the Weekly Weather Report details have been published of 473 ascents of kites or captive balloons, 101 pilot balloons, and 74 registering balloons. Of the latter 68 reached the stratosphere. The greatest heights attained were, with kites 3,300 metres from the Howard Estate Observatory, Glossop, on May 5th; with pilot balloons 19 kilometres from Pyrtan Hill on February 22nd, and with registering balloons 23 kilometres from Manchester on January 13th. The lowest temperature observed was 206° 5 A. or — 66° 5 C. at 13 kilometres on November 4th, in an ascent from Pyrtan Hill.

Corrections for Monthly Weather Report for 1909, in addition to those already published (see p. vi).

- Aug. p. lxxix.—Yarmouth—Calms, 5.
- " p. lxxxv.—Newquay—Earth, at 1 ft. 62.3.
- Sept. p. lxxxix.—Oxford—Fog, 4.
- Oct. p. c.—Dist. value, England, S.E., Extreme Max. 69.
- " p. cii.—Tunbridge Wells—No. of Ground Frost days 4.
- " p. ciii.—No. 1. Bar. and Wind Chart at 7 a.m., not 8 a.m.
- Nov. p. cxi.—Dist. value England S.E., Earth at 4 ft. 49° 7.
- " p. cxi.—Tottenham—No. of Rain-days, 6.
- " p. cxiii.—No. 1 Bar. and Wind Chart at 7 a.m., not 8 a.m.
- Dec. p. cxix.—Norwich—Total Rain 4.91 ins.
- " p. cix.—Yarmouth—Total Rain 4.01 ins.
- " p. cxxi.—Guernsey—Sunshine Hrs. Diff., 10.