

SUMMARY of the OBSERVATIONS made at the STATIONS included in the DAILY and WEEKLY WEATHER REPORTS for the CALENDAR MONTH,

JANUARY 1898.

(Issued as a Supplement to the Weekly Weather Report, 1898.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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General Summary.—The weather of January was dull, dry, and abnormally mild, the mean temperature at many of the northern stations being the highest on record for the time of year. Aurora was seen in the north of Scotland on the 15th and 16th. Pressure and temperature were considerably above the average; the winds were mainly from the South-Westward, with a singular absence of gales in the east and south; rainfall and bright sunshine were very deficient, excepting in the north-west and extreme north.

Pressure.—*Mean at 8 a.m.* ranged from 30·35 ins. and upwards in the Channel Islands, and from 30·30 ins. and upwards over the south of England generally to 29·82 ins. and less in the Shetlands. The general distribution was fairly normal, but the actual values were above the average,* and as the excess was greatest (0·30 in. to 0·35 in.) in the more southern districts, and least (0·20 in. or less) in the extreme north, the gradient over our islands was somewhat steeper than usual. *Highest* readings occurred mostly on the 22nd or 23rd, when the barometer rose to 30·6 ins. and upwards over the south of Ireland and the central and southern parts of England, and to 30·4 ins. and upwards in all but the extreme northern parts of the Kingdom. At many stations in the south of England, however, the readings were equally high at various times between the 12th and 15th, and again on the 28th. *Lowest* readings occurred on the 1st, the barometer falling below 29·3 ins. in the northern and also in the south-western parts of the United Kingdom, and below 29·4 ins. over the more central districts. *Range* was small for the time of year.

Depressions.—No depressions of any importance were observed in the immediate neighbourhood of our islands. Throughout nearly the whole month, however, large disturbances were observed in the far north, their centres moving in a direction shown approximately by the arrow A in Map 2, Pl. I. In some cases the main systems were accompanied by secondary depressions which passed very close to our own extreme north-western and northern coasts.

Anticyclones.—On the 3rd an anticyclone spread over our islands from the Continent, but this soon passed away to the southward. After the 9th, however, a more permanent system resulted from the union of an anticyclone advancing from the Atlantic, with another area previously existing over northern Russia. The combined system remained in force until very nearly the end of the month, and embraced as a rule all but the most northern and north-western parts of Europe. Between the 18th and 20th, however, and again on the 26th, the anticyclone receded temporarily southwards from the neighbourhood of our islands.

Winds were chiefly from the South-westward or Westward, excepting on our south-west coasts, where they were more Southerly. Gales were rare, especially on the English coasts; at some stations in the east and south there were none at all.

Temperature.—*Mean at sea level* ranged from 49°·8 at Scilly, and 48° and upwards on our extreme south-west coasts generally, as well as over the St. George's Channel, to 43° and less over the east of England and the north and north-east of Scotland. The ordinary winter type of distribution over our islands was less strongly marked than usual, and the actual values were considerably above the average,* the excess ranging from five degrees or more in the east and south of England, to six degrees or more at our northern stations generally, to seven degrees at Alnwick Castle, and to more than seven and a half degrees at Gilcrux. At most places situated in the northern half of the United Kingdom the mean temperature was in excess of anything recorded in January for at least 27 years past. *Highest* readings occurred mainly on the 19th or 20th, or on the 30th or 31st. On each of these occasions the thermometer exceeded 55° in most parts of the country, the highest points recorded being 60° at Wick on the 19th, and 61° at Dublin on the 30th. *Lowest* readings occurred at various times in the different districts, the most notable feature in this respect being the absence of anything in the way of severe frost. *Range* was moderate. *Vapour Tension* ranged from 0·30 in. and upwards on our extreme south-west coasts, to 0·24 in. and less at several stations in the east of Scotland and the eastern and central parts of England, and to 0·22 in. at Aberdeen. *Relative Humidity* varied from 98 per cent. at Ardrossan and 95 per cent. at Cambridge, to 81 per cent. at Liverpool and 80 per cent. at Valencia.

Rainfall.—Over the United Kingdom generally the amount of rainfall was considerably less than the average,* the only stations showing any excess being a few in the north-west of England and the west and north of Scotland. The largest aggregates recorded were 13·6 ins. at Fort William, 13·0 ins. at Glencarron, and 7·4 ins. at Laudale; the smallest being 0·3 in. at Hereford and Dungeness, 0·5 in. at Bawtry, Oxford and Cirencester, and 0·6 in. at Scarborough, York and Southampton. Snow or sleet fell in the Scilly and Channel Islands on the 9th and 10th (the thermometer at the time being at or very little below 50°), and in the north of Scotland on the 21st.

Bright Sunshine was very deficient in most places, but exceeded the average* in the north of Scotland, as well as at Llandudno and Guernsey. Over the country generally less than 20 per cent. of the possible duration was recorded, and at many of the inland stations less than 10 per cent., the smallest values of all being 3 per cent. at Manchester (Prestwich), and 6 per cent. at Fort William, Newcastle-on-Tyne and in London.

* The averages employed are—*Pressure and Temperature* for the 25 years, 1871-95; *Rainfall* for the 30 years, 1866-95; and *Bright Sunshine* for the 15 years, 1881-95.

SUMMARY OF OBSERVATIONS, JANUARY 1898.

TABLE I.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC Observations are made at 8 a.m. daily, but the Numbers of Days of Rain, Snow, Hail, (The Stations are grouped in Districts, and then arranged in order of Latitude,

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 39° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	Difference from Average.	AIR TEMPERATURE.								TENSION OF VAPOUR.	RELATIVE HUMIDITY.	
				Means of					Absolute Extremes.					
				At 8 a.m.	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.			Date.
0. SCOTLAND, N.	Sumburgh Head	Ins. 29° 817	Ins. +0° 141	43° 5	39° 5	46° 9	43° 2	+ 4° 3	31	28th	52	19th	Ins. 0° 254	90
	Wick	29° 909	+ 1° 194	42° 9	37° 3	47° 9	42° 6	+ 5° 1	29	23rd	60	19th	250	91
	Stornoway	29° 891	+ 2° 203	43° 8	38° 3	47° 5	42° 9	+ 4° 4	30	3rd	53	30th	265	93
1. SCOTLAND, E.	Nairn	29° 960	+ 2° 116	43° 8	37° 7	49° 4	43° 6	+ 6° 5	27	6th	58	18th	240	84
	Aberdeen	30° 018	+ 2° 232	41° 8	37° 1	47° 9	42° 5	+ 5° 1	30	10th	59	19th	220	83
	Leith	30° 070	+ 2° 249	45° 0	39° 1	50° 4	44° 8	+ 6° 2	31	6th, 23rd, 24th	58	19th	253	85
2. ENGLAND, N.E.	Shields	30° 144	+ 2° 273	44° 3	39° 3	49° 8	44° 6	+ 6° 5	33	23rd	58	30th	261	90
	York	30° 218	+ 2° 296	42° 8	38° 1	48° 4	43° 3	+ 6° 2	29	17th, 23rd	58	30th	244	88
	Spurn Head	30° 217	+ 2° 306	42° 5	39° 6	46° 6	43° 1	+ 5° 5	33	17th	55	30th	244	90
3. ENGLAND, E.	Yarmouth	30° 259	+ 2° 299	42° 8	38° 0	46° 6	42° 3	+ 5° 3	30	11th, 18th	55	30th	245	89
	Cambridge	30° 302	+ 2° 323	41° 8	36° 7	48° 1	42° 4	+ 5° 6	28	29th, 30th	57	30th	249	95
4. MIDLAND COUNTIES	Loughborough	30° 268	+ 2° 310	41° 7	37° 7	48° 0	42° 9	+ 5° 8	29	11th, 16th, 23rd	59	20th	232	88
	Oxford	30° 320	+ 2° 333	42° 4	39° 2	47° 5	43° 4	+ 5° 7	30	11th, 16th	55	19th, 21st, 30th	245	91
5. ENGLAND, S.	London	30° 324	+ 2° 333	42° 7	38° 9	47° 7	43° 3	+ 5° 0	29	11th	55	30th	237	86
	North Foreland	30° 322	+ 2° 332	43° 6	40° 2	47° 2	43° 7	+ 5° 1	30	18th	54	30th	255	89
	Dungeness	30° 321	+ 2° 329	43° 8	40° 7	48° 3	44° 5	+ 5° 7	28	11th	55	22nd	265	93
	Hurst Castle	30° 326	+ 2° 335	45° 6	42° 4	48° 7	45° 6	+ 5° 6	32	11th	53	22nd	267	87
6. SCOTLAND, W.	Ardrossan	30° 093	+ 2° 259	45° 9	42° 5	48° 3	45° 4	+ 5° 7	33	6th	51	19th, 27th, 30th, 31st	302	98
7. ENGLAND, N.W.	Hawes Junction*	28° 938	?	40° 6	37° 2	43° 7	40° 5	?	31	16th	49	30th	247	97
	Liverpool	30° 233	+ 2° 315	44° 5	40° 9	49° 0	45° 0	+ 6° 1	32	17th	58	30th	239	81
	Holyhead	30° 218	+ 2° 321	47° 2	43° 6	49° 5	46° 6	+ 4° 9	38	16th	52	6th, 19th, 21st, 30th, 31st	284	89
8. ENGLAND, S.W.	Pembroke	30° 267	+ 2° 335	47° 5	44° 9	49° 3	47° 1	+ 5° 0	39	15th	52	12, 22, 30	287	89
	Prawle Point	30° 326	+ 2° 335	46° 5	43° 4	49° 5	46° 5	+ 5° 1	36	10th, 11th	53	23rd	281	90
9. IRELAND, N.	Malin Head	30° 054	+ 2° 259	45° 7	42° 7	48° 4	45° 6	+ 4° 3	38	5th, 7th	55	29th	291	95
	Donaghadee	30° 142	+ 2° 288	45° 5	41° 4	49° 7	45° 6	+ 5° 6	33	1st	58	19th	277	91
	Belmullet	30° 112	+ 2° 282	47° 2	43° 0	50° 0	46° 5	+ 3° 9	34	2nd	54	30th	280	87
10. IRELAND, S.	Parsonstown	30° 194	+ 2° 299	44° 1	40° 4	50° 0	45° 2	+ 5° 9	30	1st, 2nd	57	30th	266	92
	Valencia	30° 196	+ 2° 302	48° 6	45° 6	51° 6	48° 6	+ 4° 2	35	1st, 2nd, 3rd	55	21st, 29th, 30th	302	89
	Roche's Point	30° 238	+ 2° 329	48° 4	45° 7	51° 5	48° 6	+ 5° 5	37	1st	55	30th	312	92
CHANNEL ISLANDS—	Scilly	30° 270	+ 2° 310	50° 1	46° 5	52° 5	49° 5	+ 4° 1	42	15th	56	19th	308	85
	Jersey	30° 356	+ 2° 344	44° 6	40° 8	49° 1	45° 0	+ 3° 2	32	11th, 12th	54	6th, 20th, 31st	271	92

* Hawes Junction is 1,135 feet above Mean Sea Level, and the

BRIGHT SUNSHINE VALUES FOR THE MONTH

Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.	Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.
Deerness (Orkney Islands)	33° 7	?	16	?	Hollesley Bay (Suffolk) ..	28° 6	?	11	?
Strathpeffer Spa	45° 2	+ 15° 4	21	+ 7	Sheffield	36° 8	?	15	?
Edinburgh	22° 7	- 10° 8	10	- 5	Workshop	20° 4	- 17° 1	8	- 7
Morpeth (Cockle Park) ..	39° 0	?	16	?	Thurston	18° 5	- 21° 8	8	- 8
Newcastle-on-Tyne	15° 0	?	6	?	Plumstead Common ..	—	—	—	—
Oswaldkirk	32° 0	- 6° 3	13	- 3	Margate	32° 3	- 12° 4	13	- 4

SUMMARY OF OBSERVATIONS, JANUARY 1898.

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REPORTING STATIONS in the BRITISH ISLANDS during the Month of JANUARY 1898.

Thunderstorms, and Gales are counted irrespective of the Hours at which they occurred.

(beginning in each case with the Station lying furthest North.)

AMOUNT OF CLOUD.	RAINFALL.			Date.	WEATHER. No. of Days of							WIND. No. of Observations of									NAMES OF STATIONS.
	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.		Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calm.	
9.7	Ins. 4.32	+0.47	0.42	11th	29	0	0	0	0	28	7	2	0	0	2	3	7	12	3	2	Sumburgh Head.
6.9	0.88	-1.36	0.15	11th, 26th	19	2	0	0	4	15	7	0	0	1	0	6	4	9	11	0	Wick
9.0	4.94	-0.23	0.45	16th	30	0	1	0	0	25	7	2	0	2	0	0	12	13	2	0	Stornoway.
6.2	2.05	+0.07	0.67	21st	17	1	0	0	1	6	2	0	0	1	1	2	6	19	1	1	Nairn.
7.1	0.97	-1.41	0.49	21st	11	0	0	0	0	13	7	0	1	0	1	5	13	7	4	0	Aberdeen.
8.5	0.68	-1.10	0.21	21st	11	0	0	0	1	21	3	0	1	0	0	1	13	13	0	3	Leith.
7.8	0.96	-0.76	0.38	3rd	9	0	0	0	0	12	0	1	1	0	0	3	19	6	0	1	Shields.
6.9	0.61	-1.23	0.21	5th	10	0	0	0	6	16	0	1	0	1	0	13	10	5	1	0	York.
6.9	0.83	-0.55	0.47	4th	7	0	0	0	5	15	1	1	0	0	0	6	14	9	1	0	Spurn Head.
5.8	1.02	-0.94	0.24	4th	12	0	0	0	2	7	0	0	0	0	3	2	13	8	3	2	Yarmouth.
9.0	0.95	-0.57	0.40	5th	8	0	0	0	2	27	0	2	0	0	1	6	15	3	2	2	Cambridge.
8.4	0.85	-1.16	0.40	4th	10	0	0	0	2	21	1	0	0	1	8	3	9	8	2	0	Loughborough.
9.3	0.52	-1.64	0.24	5th	5	0	0	0	1	27	1	1	1	0	4	7	11	4	2	1	Oxford.
8.7	0.78	-1.28	0.32	5th	11	0	0	0	1	24	1	0	1	1	3	3	8	8	5	2	London.
8.5	0.72	?	0.15	5th, 19th	11	0	0	0	0	19	0	2	0	1	2	6	11	8	0	1	North Foreland.
8.0	0.33	-2.14	0.10	5th	9	0	0	0	1	17	1	2	0	1	1	5	10	7	3	2	Dungeness.
8.9	0.68	-2.18	0.33	5th	6	0	0	0	0	22	0	1	3	7	2	2	9	4	3	0	Hurst Castle.
8.3	1.62	-2.27	0.39	18th	18	0	0	0	2	23	4	1	3	0	0	11	8	7	0	1	Ardrossan.
9.2	7.08	?	0.93	3rd	19	0	0	0	0	26	0	1	0	1	0	3	14	11	1	0	Hawes Junction.*
8.5	1.53	-0.65	0.50	4th	13	0	0	0	2	22	3	0	0	1	5	8	10	5	0	2	Liverpool.
9.0	3.35	+0.09	0.75	4th	18	0	0	0	0	23	5	0	0	1	1	9	14	3	3	0	Holyhead.
8.2	2.92	-0.79	0.70	8th	16	0	0	0	1	22	3	0	0	2	6	1	12	6	4	0	Pembroke.
7.7	1.25	-1.67	0.36	20th	9	0	0	0	0	11	0	2	2	5	4	3	9	5	1	0	Prawle Point.
7.7	2.23	?	0.42	4th	18	0	0	0	0	13	3	1	2	0	1	11	9	6	1	0	Malin Head.
6.5	1.28	-1.62	0.32	4th	14	0	0	0	0	3	5	0	0	3	0	2	15	10	1	0	Donaghadee.
9.5	3.09	-2.39	0.46	29th	27	0	0	0	0	27	6	2	0	2	1	4	10	11	1	0	Belmullet.
8.1	1.83	-1.16	0.57	4th	14	0	0	0	3	21	0	0	0	0	8	2	5	1	0	15	Parsonstown.
9.0	5.54	-0.77	1.58	4th	20	0	0	0	0	24	2	1	2	2	3	17	5	1	0	0	Valencia.
8.1	3.10	-2.23	0.90	2nd	16	0	0	0	0	17	5	2	0	1	2	5	11	8	2	0	Roche's Point.
8.4	1.08	-2.55	0.48	2nd	15	1	0	0	0	16	0	2	1	2	5	9	8	1	3	0	Scilly.
7.6	0.77	-2.44	0.35	1st	15	1	0	0	3	19	0	1	0	6	7	1	7	6	2	1	Jersey.

* Barometer at this Station is not reduced for altitude.

IN ADDITION TO THOSE FOUND IN TABLE II.

Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.	Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.
Eastbourne	48.3	- 6.9	19	- 2	Colwyn Bay	41.4	?	17	?
Brighton	36.0	- 15.1	14	- 6	Tenby	26.7	- 31.7	11	- 12
Watergate (Emsworth) ..	26.7	?	10	?	Torquay	31.3	- 29.1	12	- 11
Westbourne (Emsworth) ..	37.2	- 18.8	14	- 8	Newquay	43.6	- 8.7	17	- 3
Ventnor Hospital	36.7	?	14	?	Guernsey	63.6	+ 10.6	24	+ 4
Southport	25.1	?	10	?					

TABLE II.

OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE, obtained from the VALUES supplied for use in the WEEKLY WEATHER REPORT, for the Month of JANUARY 1898.

NAMES OF STATIONS.	AIR TEMPERATURE.								RAINFALL.				BRIGHT SUNSHINE.				
	Means of				Absolute Extremes.				No. of Rainy Days.	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Hours recorded.	Difference from Average.	Per-centage of possible Duration.	Difference from Average.
	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.									
	°	°	°	°	°		°			Ins.	Ins.	Ins.		32.0	+ 2.8	15	+ 2
STORNOWAY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LAIRG	-	-	-	-	23	3rd	57	19th	25	3.19	-0.42	0.35	30th	-	-	-	-
GLENCARRON	-	-	-	-	29	3rd, 5th	54	19th	29	12.97	+2.91	1.44	26th	-	-	-	-
FORT AUGUSTUS	-	-	-	-	29	3rd, 5th	53	19th, 30th	28	6.80	+2.09	0.78	17th	17.2	+ 2.5	8	+ 1
FORT WILLIAM	-	-	-	-	32	3rd, 5th	54	31st	28	13.60	+4.08	1.51	18th	14.3	-11.6	6	- 6
ABERDEEN	-	-	-	-	-	-	-	-	-	-	-	-	-	40.2	-12.4	18	- 5
BRAEMAR	-	-	-	-	23	5th	52	29th, 30th	15	1.78	-1.35	0.54	21st, 31st	27.2	+ 5.8	12	+ 2
OCHTERTYRE	-	-	-	-	28	3rd, 4th, 5th	55	30th	19	2.27	-2.69	0.58	21st	-	-	-	-
MARCHMONT	-	-	-	-	29	9th, 22nd	55	19th, 30th	13	0.71	-1.96	0.30	5th	21.8	-19.8	9	- 9
ALNWICK CASTLE	-	-	-	-	30	23rd	56	30th	13	0.82	-1.40	0.25	5th	-	-	-	-
DURHAM	-	-	-	-	28	15th, 25th	58	30th	10	1.00	-1.00	0.40	3rd	40.8	- 4.2	17	- 2
SCARBOROUGH	-	-	-	-	†	†	†	†	6	0.62	-1.36	0.20	2nd	41.6	?	17	?
YORK	-	-	-	-	-	-	-	-	-	-	-	-	-	16.6	-13.6	7	- 5
HILLINGTON	-	-	-	-	29	8th	56	30th	10	1.53	-0.46	0.62	4th	26.9	-19.1	11	- 8
GELDESTON	-	-	-	-	29	8th, 11th	56	6th, 30th, 31st	11	0.93	-0.67	0.28	5th	30.8	-22.2	12	-
CAMBRIDGE	-	-	-	-	-	-	-	-	-	-	-	-	-	25.3	-24.5	10	-10
ROTHAMSTED	-	-	-	-	27	11th	56	30th	12	0.74	-1.75	0.30	5th	23.5	-22.7	9	- 9
BAWTRY	-	-	-	-	29	10th	57	30th	7	0.47	-1.38	0.21	4th	-	-	-	-
STAMFORD (Duddington)	-	-	-	-	28	23rd	56	30th	10	0.88	-1.01	0.42	4th	-	-	-	-
CHEADLE	-	-	-	-	31	8th, 10th	56	30th	12	1.65	-1.08	0.55	4th	-	-	-	-
SHIRLEY (nr. Solihull)	-	-	-	-	28	10th, 11th, 16th	56	20th, 30th	11	0.89	?	0.41	4th	-	-	-	-
CHURCHSTOKE	-	-	-	-	†	†	†	†	†	†	†	†	†	†	†	†	†
HEREFORD	-	-	-	-	28	10th	59	20th, 30th	5	0.32	-2.19	0.22	11th	-	-	-	-
CIRENCESTER	-	-	-	-	26	8th	56	19th	9	0.47	-2.53	0.20	4th	21.4	-28.9	9	-11
OXFORD	-	-	-	-	-	-	-	-	-	-	-	-	-	26.0	-21.1	10	- 9
LONDON	-	-	-	-	-	-	-	-	-	-	-	-	-	15.7	- 9.9	6	- 4
HASTINGS	-	-	-	-	32	11th	54	31st	11	0.80	-1.99	0.30	5th	46.8	-14.2	18	- 6
SOUTHAMPTON	-	-	-	-	30	11th	55	6, 21, 22, 31	7	0.56	-2.67	0.27	5th	22.7	-30.4	9	-12
SHAFTESBURY	-	-	-	-	34	10, 11, 16 & 17	52	30th	8	1.17	-1.95	0.53	5th	-	-	-	-
LAUDALE	-	-	-	-	31	1st	56	19th	29	7.41	-1.26	1.20	7th	-	-	-	-
GLASGOW	-	-	-	-	31	5th	53	19th	21	2.66	-1.26	0.45	21st	16.6	- 6.7	7	- 3
GLENLEE	-	-	-	-	28	23rd	54	19th, 30th	23	4.81	-2.51	0.82	18th	-	-	-	-
GILCRUX (Cumberland)	-	-	-	-	36	1st	53	30th	21	3.89	?	0.59	18th	16.3	?	7	?
DOUGLAS	-	-	-	-	32	1st, 10th	55	30th	16	2.71	-1.67	0.82	2nd	27.1	-23.1	11	-10
STONYHURST	-	-	-	-	32	9th, 10th	53	19th, 30th	19	6.31	+2.28	1.57	4th	16.6	-19.9	7	- 8
BLACKPOOL	-	-	-	-	29	10th	53	19th	17	2.82	-0.06	0.75	2nd	27.7	- 9.0	11	- 4
MANCHESTER (Prestwich)	-	-	-	-	31	16th	55	30th	16	2.71	-0.48	0.75	4th	6.5	?	3	?
LLANDUDNO	-	-	-	-	33	15th	57	30th	13	2.32	-0.43	0.61	29th	45.6	+ 1.6	19	+ 1
LLANDOVERY	-	-	-	-	25	10th, 14th	53	30th, 31st	23	4.18	-0.98	1.02	4th	-	-	-	-
PEMBROKE	-	-	-	-	-	-	-	-	-	-	-	-	-	35.5	-18.1	14	- 7
CLIFTON	-	-	-	-	32	10th, 11th	55	19th	10	1.23	-2.18	0.48	5th	-	-	-	-
ARLINGTON	-	-	-	-	30	10th	54	19th	15	2.55	-1.76	0.84	5th	-	-	-	-
CULMPTON	-	-	-	-	28	8th	55	19th, 21st, 30th	13	1.10	-2.30	0.43	5th	24.3	-20.0	9	- 8
FALMOUTH	-	-	-	-	39	2nd, 7th, 10th	54	19th, 31st	12	1.21	-4.02	0.34	1st	46.6	- 9.5	18	- 3
PLYMOUTH	-	-	-	-	35	2, 8, 10, 11	54	22nd, 31st	13	1.36	-2.55	0.40	1st	39.6	-11.4	15	- 4
SCILLY	-	-	-	-	-	-	-	-	-	-	-	-	-	41.3	?	16	?
JERSEY	-	-	-	-	-	-	-	-	-	-	-	-	-	68.7	- 2.5	26	- 1
LONDONDERRY	-	-	-	-	32	3rd	55	29th	18	2.04	-1.93	0.25	4th	-	-	-	-
EDENFEL (Omagh)	-	-	-	-	30	2nd	55	30th	20	2.64	-0.86	0.40	3rd	-	-	-	-
MARKREE CASTLE	-	-	-	-	28	1st	56	30th	19	2.64	-1.23	0.42	4th	17.8	-24.6	7	-11
ARMAGH	-	-	-	-	31	1st	56	19th, 22nd	16	1.83	-0.97	0.31	1st	29.8	-15.0	12	- 7
EDGEWORTHSTOWN	-	-	-	-	†	†	†	†	11	2.13	-0.66	0.46	4th	-	-	-	-
DUBLIN	-	-	-	-	32	1st	61	30th	14	1.79	-0.47	0.50	2nd	49.2	-10.1	20	- 4
PARSONSTOWN	-	-	-	-	-	-	-	-	-	-	-	-	-	30.3	-20.5	12	- 9
KILKENNY CASTLE	-	-	-	-	30	10th	58	30th	14	2.51	-0.92	0.78	2nd	-	-	-	-
VALENCIA (Cahirciveen)	-	-	-	-	-	-	-	-	-	-	-	-	-	16.4	-39.7	7	-15
KILLARNEY	-	-	-	-	31	9th	58	28th, 30th	16	2.91	?	0.80	4th	-	-	-	-
FOYNES	-	-	-	-	32	9th	57	29th, 30th	12	2.99	?	0.88	4th	-	-	-	-

* For this information and for additional Reports of Bright Sunshine, see Table I.

† Observations incomplete.

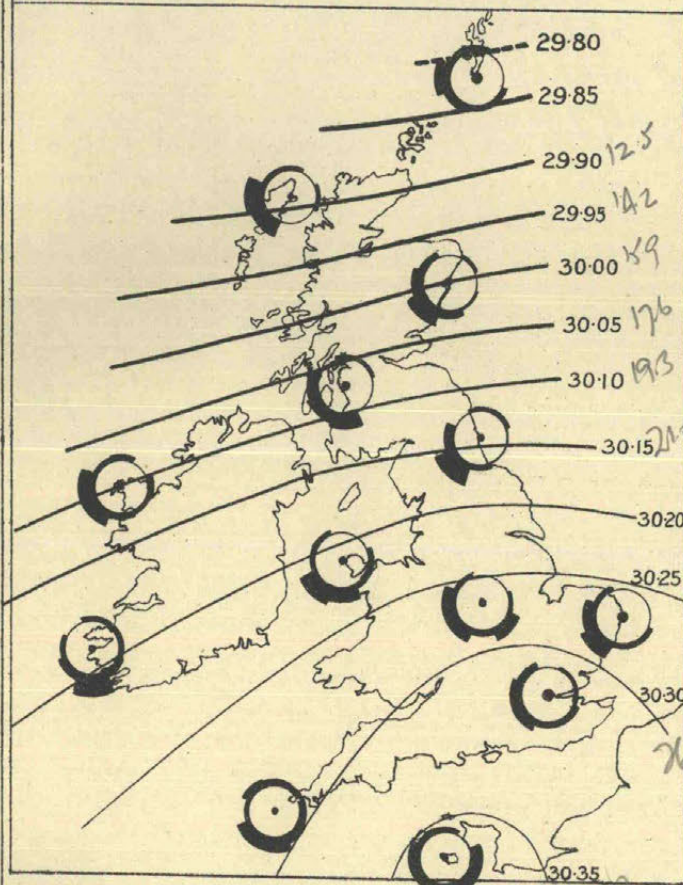
‡ Observations unreliable.

MONTHLY WEATHER CHART JANUARY 1898.

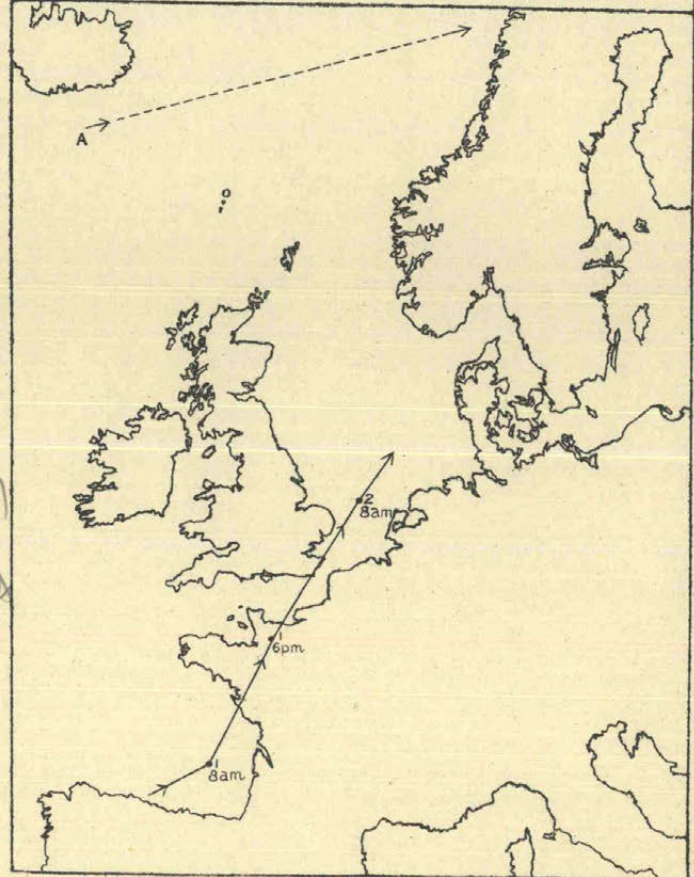
Monthly Summary.

Plate I.

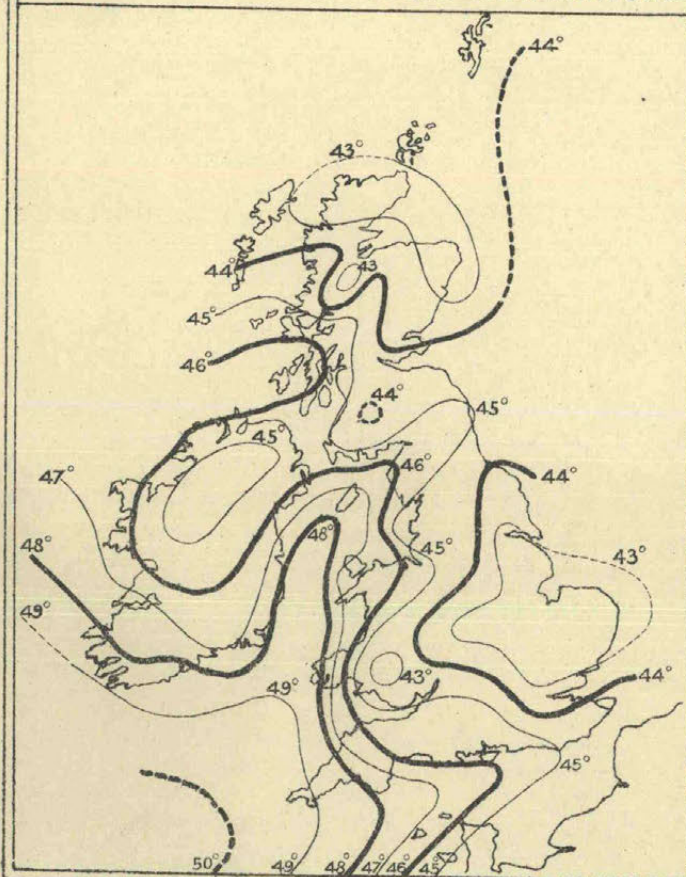
1. BAROMETER AND WIND.



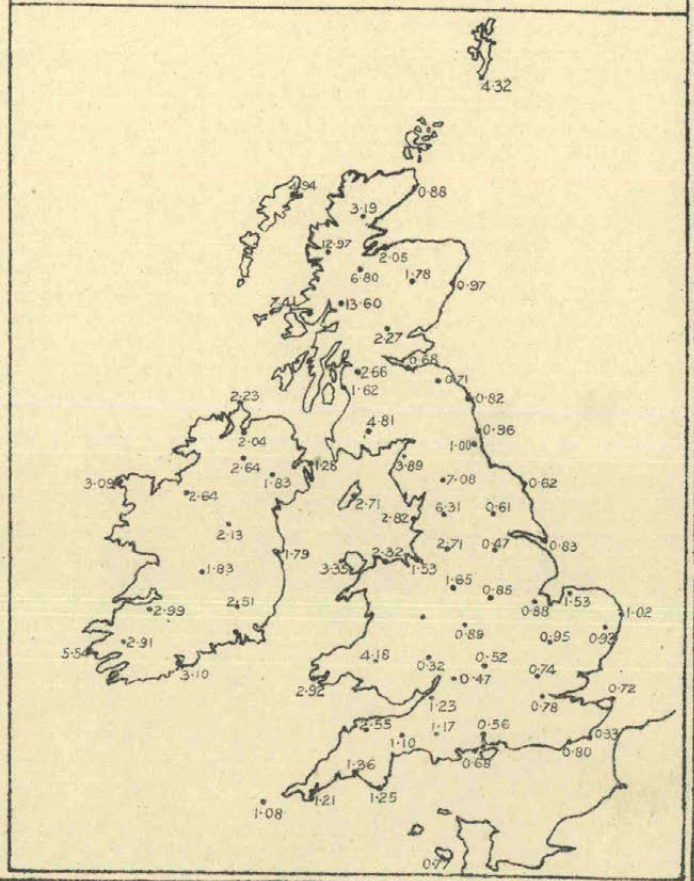
2. MOVEMENTS OF DEPRESSIONS.



3. DISTRIBUTION OF MEAN TEMPERATURE.



4. RAINFALL.



SUMMARY of the OBSERVATIONS made at the STATIONS included in the DAILY and WEEKLY WEATHER REPORTS for the CALENDAR MONTH,

FEBRUARY 1898.

(Issued as a Supplement to the Weekly Weather Report, 1898.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & CO., 12, HANOVER ST.,
EDINBURGH, and 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS, & CO., LIMITED, 104, GRAFTON STREET, DUBLIN.

General Summary.—The weather of February was extremely changeable, with frequent snow showers in most districts, and with occasional heavy falls of rain in the extreme north and north-west. Thunder and lightning occurred at times in isolated parts of the kingdom, and aurora was seen in the north-east of Scotland on the 11th and 12th. Pressure was below the average; temperature exceeded the normal in all but the most northern and north-western districts; the winds were chiefly from the Westward, with frequent gales in the west and north; rainfall was deficient, excepting in the north-west; bright sunshine was in excess of the average in most places.

Pressure.—*Mean at 8 a.m.* ranged from 30·05 ins. and upwards in the Scilly and Channel Islands, and from 30·00 ins. and upwards over the extreme south-western parts of the kingdom generally, to about 29·45 ins. in the Shetlands. In the former regions the values were above the average,* but in all other districts they were below it, the deficit being considerable in the north and north-east of Scotland. The gradient over our islands was therefore much steeper than usual, and favourable for winds from the Westward and North-westward. *Highest* readings were observed mostly on the 1st, when the barometer ranged from 30·5 ins. on our extreme south-west coasts, to 30·1 ins. or more at all but the Scotch stations. In the east and south-east of England, however, the highest readings (30·3 ins. and upwards) were recorded between the 10th and 12th, while in Scotland they occurred either on the 18th or the 24th. *Lowest* readings were observed on the 20th or 21st, when the barometer fell below 28·8 ins. in the north of Scotland, below 29·0 ins. at our northern and western stations generally, and below 29·2 ins. in all other parts of the kingdom. *Range* was moderate.

Depressions.—Several depressions appeared off our northern coasts, the centres of the larger and more important systems moving south-eastwards across Scandinavia or the eastern parts of the North Sea. Between the 20th and 23rd a well-defined system, which appeared originally off the north of Scotland, advanced in a southerly direction over our western coasts, and finally passed across the west of France, its progress being marked by heavy snowstorms in the south-west of England on the 21st, and by thunderstorms and considerable falls of rain in the south of France on the 22nd and 23rd.

Anticyclones.—On the 8th an anticyclone extended over our islands and France from the Atlantic, and afterwards became united by a "col" with a large area over northern Russia. The entire system, after moving away to the southward on the 14th, spread temporarily northwards on the 16th and 17th, but subsequently passed on to the Atlantic and apparently broke up. Another anticyclone moved steadily across our islands from the westward on the 23rd and 24th, but soon became merged in a large system of great intensity existing over Russia. At Moscow the reading of the barometer at 8 a.m. on the 25th was as high as 31·16 ins.

Winds were chiefly from the Westward, but with a tendency towards North-west on our extreme north and north-west coasts. Gales were frequent in the west and north, the number of days affected being as large as 15 at Belmullet, 13 at Aberdeen, and 11 at Ardrossan, Liverpool and Malin Head. The Westerly to North-westerly gales of the 1st–2nd and 15th–16th blew with considerable strength on our north and north-west coasts.

Temperature.—*Mean at sea level* ranged from about 47° in the Scilly Islands, and from 45° and upwards on our extreme south-west coasts generally, to 38° and less in the north of Scotland. The general distribution, though of a somewhat less wintry character than usual, differed but little from the normal, but the actual values were above the average* in all but the extreme northern and north-western parts of the kingdom, the excess amounting to two degrees or more at some of the eastern and southern stations in England. *Highest* readings were recorded mostly on the 1st, but at some of our south-western stations they occurred at various times between the 14th and 17th. In many parts of the kingdom the thermometer on the former day rose well above 55°; at Shields and Durham it reached 60°, and at Geldeston 61°. *Lowest* readings occurred between the 21st and 24th, when sharp frosts were general; at a few isolated stations in the inland parts of England the sheltered thermometer fell below 20°, while at Braemar it sank as low as 3°. *Range* was moderate as a rule, but large in a few places—at Braemar, owing to the very low reading on the 24th, it amounted to 49°. *Vapour Tension* ranged from between 0·24 in. and 0·26 in. on our extreme west and south-west coasts to 0·18 in. and less in the east of Scotland. *Relative Humidity* varied from 92 per cent. and upwards on our extreme north and north-west coasts, and 90 per cent. and upwards in the south-east of England, to 81 per cent. at Valencia and Scilly, 78 per cent. at Aberdeen and 76 per cent. at Liverpool.

Rainfall.—With a few local exceptions the rainfall was in excess of the average* over the north-western parts of the United Kingdom generally. A slight excess was reported also at some of the English Channel stations, but elsewhere there was a deficiency, the amount at many places in the eastern parts of Great Britain being less than half the normal. The largest aggregates for the month were 11·5 ins. at Glencarron, 10·7 ins. at Fort William and 9·1 ins. at Lauderdale; the smallest being 0·6 in. at Shields, Bawtry, Stamford and Cambridge, 0·7 in. at Leith, and 0·8 in. at Durham and Dungeness. Snow or sleet was very prevalent over the northern and eastern parts of Great Britain during the first week, and over the United Kingdom generally during the latter half of the month. As a rule the fall was in the form of slight passing showers, the chief exception occurring over the south-western parts of England on the 21st, when the snow as above mentioned, was sufficiently heavy to yield considerable quantities of water in the gauge.

Bright Sunshine was mostly in excess of the average,* but showed a slight deficiency at some of our extreme northern and north-western stations. The percentage of the possible amount ranged from 47 at Aberdeen, and 35 or more in several parts of the more northern districts, to 17 in London and 15 at Fort Augustus.

* The averages employed are—*Pressure and Temperature* for the 25 years 1871–95; *Rainfall* for the 30 years 1866–95; and *Bright Sunshine* for the 15 years 1881–95.

SUMMARY OF OBSERVATIONS, FEBRUARY 1898.

TABLE III.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC
Observations are made at 8 a.m. daily, but the Numbers of Days of Rain, Snow, Hail,
(The Stations are grouped in Districts, and then arranged in order of Latitude,

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	Difference from Average.	AIR TEMPERATURE.								TENSION OF VAPOUR.	RELATIVE HUMIDITY.	
				Means of					Absolute Extremes.					
				At 8 a.m.	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.			Date.
0. SCOTLAND, N.	Sumburgh Head	Ins. 29'459	Ins. -0'313	38°0	34°0	42°1	38°1	-0'2	28	4th	50	15th	Ins. 0'195	85
	Wick	29'537	-0'263	37'4	32'5	42'7	37'6	-0'3	23	6th	52	10th, 14th, 15th	206	92
	Stornoway	29'608	-0'167	38'3	32'9	42'7	37'8	-1'1	26	21st	51	14th, 15th	211	92
1. SCOTLAND, E.	Nairn	29'636	-0'179	37'4	31'6	43'8	37'7	-0'3	21	21st	53	1st, 14th	191	86
	Aberdeen	29'657	-0'196	37'3	32'8	43'6	38'2	0'0	22	24th	59	15th	173	78
	Leith	29'731	-0'142	38'7	33'7	47'0	40'4	+0'7	22	24th	57	1st	191	82
2. ENGLAND, N.E.	Shields	29'784	-0'124	38'4	33'8	45'9	39'9	+0'7	26	21st	60	1st	202	87
	York	29'841	-0'104	38'0	33'3	46'0	39'7	+0'9	24	21st, 25th	57	1st	195	85
	Spurn Head	29'822	-0'116	39'3	36'5	44'3	40'4	+1'6	29	21st	53	1st	207	87
3. ENGLAND, E.	Yarmouth	29'856	-0'111	38'6	34'1	44'5	39'3	+1'1	25	21st, 22nd	58	1st	201	86
	Cambridge	29'929	-0'058	37'3	32'2	47'6	39'9	+1'1	21	22nd	58	1st	203	91
4. MIDLAND COUNTIES	Loughborough	29'911	-0'061	36'9	33'1	46'7	39'9	+0'8	21	22nd	57	1st	190	87
	Oxford	29'963	-0'031	38'1	34'8	46'9	40'9	+1'3	23	21st	54	1st	203	88
5. ENGLAND, S.	London	29'958	-0'038	39'3	35'3	47'1	41'2	+1'2	25	21st	56	1st	206	86
	North Foreland	29'937	-0'053	40'1	36'9	46'0	41'5	+2'1	28	21st	55	1st	225	91
	Dungeness	29'945	-0'045	40'0	35'6	47'9	41'8	+1'9	22	21st, 22nd	56	1st	226	92
	Hurst Castle	29'988	-0'008	42'3	38'2	48'7	43'5	+2'6	30	19, 20, 24, 25	53	16th	234	87
6. SCOTLAND, W.	Ardrossan	29'768	-0'112	40'8	36'5	45'0	40'8	+0'6	28	21st, 22nd	52	1st	237	94
7. ENGLAND, N.W.	Hawes Junction*	28'581	?	34'0	30'5	39'7	35'1	?	22	22nd	50	1st	192	98
	Liverpool	29'888	-0'055	40'8	36'9	45'8	41'4	+1'4	26	21st	59	1st	194	76
	Holyhead	29'918	-0'005	42'7	38'5	46'3	42'4	+0'5	31	21st, 22nd	53	1st	231	84
8. ENGLAND, S.W.	Pembroke	29'983	+0'035	45'0	40'2	47'7	44'0	+1'8	32	22nd	51	1st, 3rd, 15th	243	82
	Prawle Point	30'038	+0'042	42'2	37'9	48'4	43'2	+1'0	29	19th, 22nd	53	13th, 18th	241	89
9. IRELAND, N.	Malin Head	29'775	-0'069	42'0	38'1	45'3	41'7	-0'2	30	21st	54	1st	247	93
	Donaghadee	29'857	-0'037	40'1	35'3	46'2	40'8	-0'3	25	21st	56	1st	217	88
	Belmullet	29'919	+0'049	44'0	38'6	48'0	43'3	+0'3	30	21st, 23rd	53	1st	246	85
10. IRELAND, S.	Parsonstown	29'960	+0'045	40'0	35'2	47'6	41'4	+0'4	28	19th, 21st, 22nd	55	1st	215	87
	Valencia	30'038	+0'121	46'2	40'9	49'9	45'4	+0'5	32	19th, 21st, 23rd	54	1st, 14th, 15th	250	81
	Roche's Point	30'023	+0'096	44'0	39'4	48'9	44'2	+0'4	29	24th	55	15th, 17th	252	87
CHANNEL ISLANDS	Scilly	30'053	+0'089	47'6	42'3	50'9	46'6	+1'1	36	22nd, 24th	56	11th	264	81
	Jersey	30'064	+0'048	45'0	40'7	50'3	45'5	+2'7	35	25th, 26th	55	12th	255	86

* Hawes Junction is 1,135 feet above Mean Sea Level, and the

BRIGHT SUNSHINE VALUES FOR FEBRUARY

Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.	Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.
Deerness (Orkney Islands)	48'9	?	19	?	Hollesley Bay (Suffolk)	101'2	?	37	?
Strathpeffer Spa	59'9	-2'0	23	-1	Sheffield	73'8	?	27	?
Edinburgh	90'1	+33'6	34	+13	Workshop	73'0	+12'9	27	+5
Morpeth (Cockle Park)	97'9	?	37	?	Thurcaston	85'6	+25'2	32	+10
Newcastle-on-Tyne	75'1	?	28	?	Plumstead Common	—	—	—	—
Oswaldkirk	86'1	+24'8	32	+9	Margate	71'7	+2'1	26	+1

SUMMARY OF OBSERVATIONS, FEBRUARY 1898.

vii

REPORTING STATIONS in the BRITISH ISLANDS during the Month of FEBRUARY 1898.

Thunderstorms, and Gales are counted irrespective of the Hours at which they occurred.

(beginning in each case with the Station lying furthest North.)

AMOUNT OF CLOUD.	RAINFALL.				WEATHER. No. of Days of							WIND. No. of Observations of										NAMES OF STATIONS.
	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.		
8.9	Ins. 4.62	+1.51	0.90	13th	25	3	0	0	0	20	7	4	1	0	1	1	5	9	7	0	Sumburgh Head.	
7.4	1.87	-0.29	0.30	25th	22	9	2	0	2	13	6	4	0	2	0	3	3	4	12	0	Wick	
9.9	8.03	+4.23	0.85	25th	27	7	11	1	0	27	7	5	1	0	0	1	3	11	7	0	Stornoway.	
6.6	2.68	+1.03	0.36	15th	24	9	0	0	1	9	2	1	0	0	0	0	5	13	7	2	Nairn.	
5.9	1.73	-0.53	0.46	25th	16	12	0	0	0	8	13	2	0	0	0	4	9	8	5	0	Aberdeen.	
6.4	0.70	-0.81	0.15	15th	11	3	2	1	2	9	4	3	0	0	0	1	10	10	4	0	Leith.	
6.7	0.58	-0.92	0.13	21st	14	9	2	0	0	6	3	1	0	0	0	1	15	7	4	0	Shields.	
5.3	1.04	-0.64	0.30	3rd	20	3	1	0	10	9	2	4	0	0	0	4	3	13	3	1	York.	
5.9	1.29	-0.03	0.46	3rd	14	5	1	0	2	6	4	2	1	0	0	0	8	12	5	0	Spurn Head.	
4.1	1.13	-0.60	0.50	3rd	18	4	3	0	12	3	1	1	1	0	0	0	6	15	5	0	Yarmouth.	
5.5	0.59	-0.83	0.11	3rd	12	1	1	1	8	11	2	6	0	1	0	0	13	5	2	1	Cambridge.	
5.9	1.16	-0.55	0.24	7th	17	3	3	0	4	6	5	0	1	0	4	1	5	10	6	1	Loughborough.	
6.3	1.19	-0.57	0.20	3rd, 5th	16	4	1	0	7	12	1	3	2	1	1	1	14	4	2	0	Oxford.	
5.7	1.18	-0.46	0.16	18th	14	5	2	0	8	9	1	1	1	2	1	2	9	8	4	0	London.	
6.8	1.01	?	0.15	6th, 27th	12	1	1	0	0	13	3	2	0	1	0	2	9	10	4	0	North Foreland.	
6.9	0.76	-1.05	0.12	18th	18	2	0	0	0	9	1	2	1	0	1	0	7	10	7	0	Dungeness.	
6.3	2.79	+0.69	1.60	21st	17	1	0	1	2	10	1	3	2	0	1	0	7	12	3	0	Hurst Castle.	
6.6	2.61	-0.32	0.32	25th	20	4	2	0	4	11	11	4	2	0	1	3	4	8	6	0	Ardrossan.	
7.5	6.01	?	0.77	19th	23	8	1	1	0	16	0	3	0	2	1	2	6	10	4	0	Hawes Junction.*	
5.6	1.75	+0.07	0.43	3rd	20	2	2	0	8	10	11	4	0	1	1	3	7	9	2	1	Liverpool.	
7.4	1.88	-0.54	0.30	5th	18	1	4	0	0	8	10	2	3	1	1	1	7	9	4	0	Holyhead.	
6.7	1.53	-1.09	0.30	25th	15	2	1	0	3	12	8	1	0	3	1	0	3	5	15	0	Pembroke.	
5.9	2.32	+0.38	0.68	21st	24	4	2	0	0	3	3	3	2	0	0	1	6	9	7	0	Prawle Point.	
7.8	3.98	?	0.42	26th	24	6	8	0	0	11	11	4	2	2	0	4	2	7	7	0	Malin Head.	
5.9	2.10	-0.24	0.37	2nd	22	3	0	0	0	4	9	1	3	2	0	1	5	13	3	0	Donaghadee.	
7.7	5.65	+1.45	0.70	4th	28	3	1	0	0	13	15	4	2	1	0	3	4	4	10	0	Belmullet.	
6.4	1.59	-0.57	0.30	25th	18	3	0	0	5	13	0	0	0	0	3	3	2	9	1	10	Parsonstown.	
8.4	4.01	-0.88	0.67	25th	26	1	4	1	0	19	10	2	1	1	0	3	5	9	6	1	Valencia.	
6.2	1.51	-2.68	0.55	25th	12	2	1	0	0	7	4	3	1	0	0	0	3	9	12	0	Roche's Point.	
7.5	1.63	-0.99	0.41	21st	20	0	4	0	0	7	8	3	2	1	0	1	4	11	6	0	Scilly.	
7.1	2.64	+0.23	0.56	20th	23	2	6	0	1	11	5	2	2	0	1	1	6	12	4	0	Jersey.	

Barometer at this Station is not reduced for altitude.

IN ADDITION TO THOSE FOUND IN TABLE IV.

Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.	Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.
Eastbourne	96.5	+24.2	35	+9	Colwyn Bay	88.4	?	33	?
Brighton	93.3	+16.0	34	+6	Tenby	73.7	-11.2	27	-4
Watergate (Emsworth) ..	79.7	?	29	?	Torquay	102.8	+30.9	37	+11
Westbourne (Emsworth) ..	101.6	+23.3	37	+9	Newquay	71.1	-9.2	26	-3
Ventnor Hospital	104.7	?	38	?	Guernsey	99.3	+9.9	3	+
Southport	96.0	?	36	?					

SUMMARY OF OBSERVATIONS, FEBRUARY 1898.

TABLE IV.

OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE, obtained from the VALUES supplied for use in the WEEKLY WEATHER REPORT, for the Month of FEBRUARY 1898.

NAMES OF STATIONS.	AIR TEMPERATURE.								RAINFALL.					BRIGHT SUNSHINE.			
	Means of				Absolute Extremes.				No. of Rainy Days.	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Hours recorded.	Difference from Average.	Per-centage of possible Duration.	Difference from Average.
	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.									
STORNOWAY	0	0	0	0	0		0			Ins.	Ins.	Ins.		56.0	- 7.6	22	0
LAIRG	30.9	42.4	36.7	+ 0.2	22	23rd	51	15th	25	5.69	+2.67	0.53	1st	—	—	—	—
GLENCARRON	32.4	42.1	37.3	+ 0.4	23	4th	50	1st, 10th, 15th	25	11.46	+4.41	1.22	14th	—	—	—	—
FORT AUGUSTUS	33.0	43.1	38.1	- 0.3	22	20th	53	1st	23	6.86	+2.95	1.03	1st	40.0	0.0	15	0
FORT WILLIAM	35.1	43.9	39.5	+ 0.5	26	23rd	53	1st	23	10.67	+2.92	1.48	14th	48.6	- 7.2	19	- 2
ABERDEEN	—	—	—	—	—	—	—	—	—	—	—	—	—	121.2	+47.8	47	+19
BRAEMAR	28.7	39.2	34.0	- 0.8	3	24th	52	1st	20	2.38	-0.48	0.47	21st	64.8	- 5.1	25	- 2
OCHTERTYRE	32.3	45.1	38.7	+ 0.9	21	23rd	55	1st	20	1.89	-1.76	0.32	25th	—	—	—	—
MARCHMONT	30.4	43.6	40.0	+ 2.9	30	20th, 21st	57	1st	14	1.21	-1.19	0.25	21st	93.5	+24.4	36	+10
ALNWICK CASTLE	34.1	46.7	40.4	+ 2.1	25	21st, 24th, 25th	55	1st, 2nd	22	1.02	-1.13	0.15	21st, 25th	—	—	—	—
DURHAM	32.5	45.2	38.9	+ 1.0	20	21st	60	1st	20	0.75	-0.81	0.09	3, 4, 20, 22	100.8	+34.6	38	+13
SCARBOROUGH	33.4	45.3	39.4	+ 0.2	23	21st	55	1st, 15th	9	1.24	-0.34	0.42	19th	102.3	?	38	?
YORK	—	—	—	—	—	—	—	—	—	—	—	—	—	86.4	+26.4	32	+10
HILLINGTON	33.5	46.0	39.8	+ 1.4	21	21st, 22nd	57	1st	15	1.07	-0.68	0.22	3rd	96.7	+24.9	36	+10
GELDESTON	33.7	47.2	40.5	+ 1.6	19	22nd	61	1st	14	1.01	-0.49	0.32	3rd	95.5	+21.9	35	+ 8
CAMBRIDGE	—	—	—	—	—	—	—	—	—	—	—	—	—	104.8	+34.3	38	+12
ROTHAMSTED	34.0	45.7	39.9	+ 1.6	21	21st	56	1st	19	0.99	-0.96	0.17	5th	77.3	+ 9.2	28	+ 3
BAWTRY	34.0	46.8	40.4	+ 1.5	22	21st, 25th	57	1st	11	0.59	-0.94	0.26	28th	—	—	—	—
STAMFORD (Duddington)	33.0	46.0	39.5	+ 0.8	19	21st, 22nd	56	1st	14	0.57	-1.09	0.12	3rd	—	—	—	—
CHEADLE	33.3	44.6	39.0	+ 1.3	23	21st	54	1st	19	2.19	-0.13	0.53	3rd	—	—	—	—
SHIRLEY (nr. Solihull)	33.4	45.3	39.4	+ 0.7	22	21st	57	1st	21	1.56	?	0.28	3rd	—	—	—	—
CHURCHSTOKE	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†	†
HEREFORD	34.7	47.1	40.9	+ 1.3	23	21st	58	1st	18	1.48	-0.49	0.39	18th	—	—	—	—
CIRENCESTER	33.8	46.0	39.9	+ 1.6	22	25th	54	1st	15	1.23	-1.08	0.25	18th	81.4	+ 7.3	30	+ 3
OXFORD	—	—	—	—	—	—	—	—	—	—	—	—	—	81.0	+14.7	30	+ 6
LONDON	—	—	—	—	—	—	—	—	—	—	—	—	—	47.4	+ 8.3	17	+ 3
HASTINGS	36.3	47.0	41.7	+ 1.7	28	21st	55	1st	17	1.26	-0.76	0.22	5th	91.2	+ 7.4	33	+ 3
SOUTHAMPTON	36.2	49.6	42.9	+ 2.0	27	21st	56	1st	17	2.25	-0.09	1.08	21st	88.6	+12.3	32	+ 4
SHAFTESBURY	35.1	45.0	40.1	+ 1.3	27	19th, 21st, 24th	53	1st	20	2.01	-0.55	0.32	3rd	—	—	—	—
LAUDALE	34.7	44.8	39.8	- 0.1	23	23rd	54	1st	23	9.13	+2.31	1.30	25th	—	—	—	—
GLASGOW	35.4	43.6	39.5	+ 0.6	28	21st, 24th	53	1st	18	2.66	-0.66	0.41	1st	81.5	+36.7	31	+14
GLENLEE	33.4	44.7	39.1	+ 0.9	18	24th	53	1st, 10th	21	6.48	+1.62	0.76	25th	—	—	—	—
GILCRUX (Cumberland)	34.8	44.5	39.7	+ 0.9	25	22nd	53	1st	23	3.38	?	0.32	9th	69.4	?	26	?
DOUGLAS	36.6	46.4	41.5	+ 0.8	26	24th	54	1st	22	2.56	-0.76	0.48	3rd	93.3	+22.4	35	+ 9
STONYHURST	34.8	43.9	39.4	+ 0.6	26	21st, 24th	53	1st	22	4.82	+1.24	0.48	3rd	88.4	+28.2	33	+11
BLACKPOOL	36.1	46.2	41.2	+ 1.9	25	24th	52	1st, 10th	21	1.94	-0.30	0.23	5th	100.0	+38.3	37	+14
MANCHESTER (Prestwich)	33.8	44.4	39.1	+ 0.3	17	21st	57	1st	23	3.22	+0.97	0.49	28th	63.7	?	24	?
LLANDUDNO	38.4	47.0	42.7	+ 1.0	28	21st	58	1st	21	2.27	+0.19	0.37	3rd	88.9	+19.0	33	+ 7
LLANDOVERY	32.7	47.6	40.2	+ 1.2	20	24th	54	14th	23	3.69	-0.19	0.70	5th	79.6	- 0.3	29	—
PEMBROKE	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
CLIFTON	37.3	46.7	42.0	+ 1.3	27	19th	56	1st	17	1.85	-0.67	0.24	18th	—	—	—	—
ARLINGTON	35.8	46.2	41.0	+ 0.2	26	24th	51	11th	24	3.86	-0.01	0.41	12th	—	—	—	—
CULLOMPTON	35.1	48.6	41.9	+ 0.9	18	24th	55	1st	20	2.70	-0.11	0.92	22nd	67.6	- 3.7	25	- 1
FALMOUTH	40.6	49.0	44.8	+ 1.1	32	22nd, 24th	54	12, 14, 17, 18	21	2.05	-1.79	0.25	25th	99.6	+17.5	36	+ 7
PLYMOUTH	38.2	48.7	43.5	+ 0.9	24	24th	53	1, 14, 17, 18	21	1.42	-1.45	0.36	21st	81.4	+ 1.5	29	0
SCILLY	—	—	—	—	—	—	—	—	—	—	—	—	—	88.8	?	32	?
JERSEY	—	—	—	—	—	—	—	—	—	—	—	—	—	101.2	+ 6.2	36	+ 2
LONDONDERRY	35.5	46.5	41.0	- 0.1	28	21st	54	1st	25	5.25	+2.43	0.50	12th	—	—	—	—
EDENFEL (Omagh)	34.3	45.0	39.7	+ 0.8	25	21st	54	1st	24	4.27	+1.83	0.59	17th	—	—	—	—
MARKREE CASTLE	36.2	47.7	42.0	+ 1.6	25	23rd	55	1st	24	4.96	+2.20	0.65	3rd	58.6	- 6.0	22	- 2
ARMAGH	34.2	46.0	40.1	+ 0.2	25	22nd, 23rd	55	1st	22	3.10	+0.90	0.50	17th	83.2	+20.3	31	+ 8
EDGEWORTHSTOWN	33.3	46.9	40.1	+ 0.6	25	21st, 24th	54	1st	15	2.93	+0.36	0.53	17th	—	—	—	—
DUBLIN	37.3	48.5	42.9	+ 0.6	28	24th	59	1st	18	1.74	-0.26	0.58	17th	100.8	+30.0	37	+11
PARSONSTOWN	—	—	—	—	—	—	—	—	—	—	—	—	—	80.8	+12.8	30	+ 5
KILKENNY CASTLE	34.9	47.8	41.4	- 0.4	21	24th	59	1st	16	1.37	-1.22	0.35	25th	—	—	—	—
VALENCIA (Cahiriveen)	—	—	—	—	—	—	—	—	—	—	—	—	—	73.1	+ 0.2	27	0
KILLARNEY	37.4	49.5	43.5	+ 0.1	24	19th, 23rd	57	1st, 14th	24	5.41	?	0.69	24th	—	—	—	—
FOYNES	39.0	47.6	43.3	+ 0.4	28	18th	54	14th, 15th	21	3.55	?	0.40	3rd	—	—	—	—

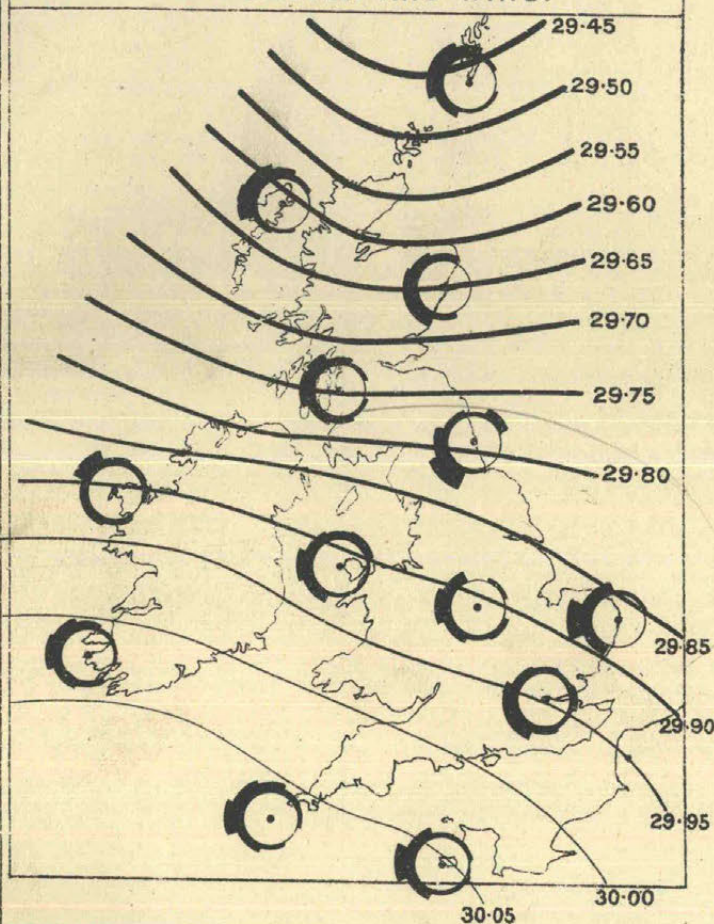
* For this information and for additional Reports of Bright Sunshine, see Table III.
† Observations incomplete.

MONTHLY WEATHER CHART FEBRUARY 1898.

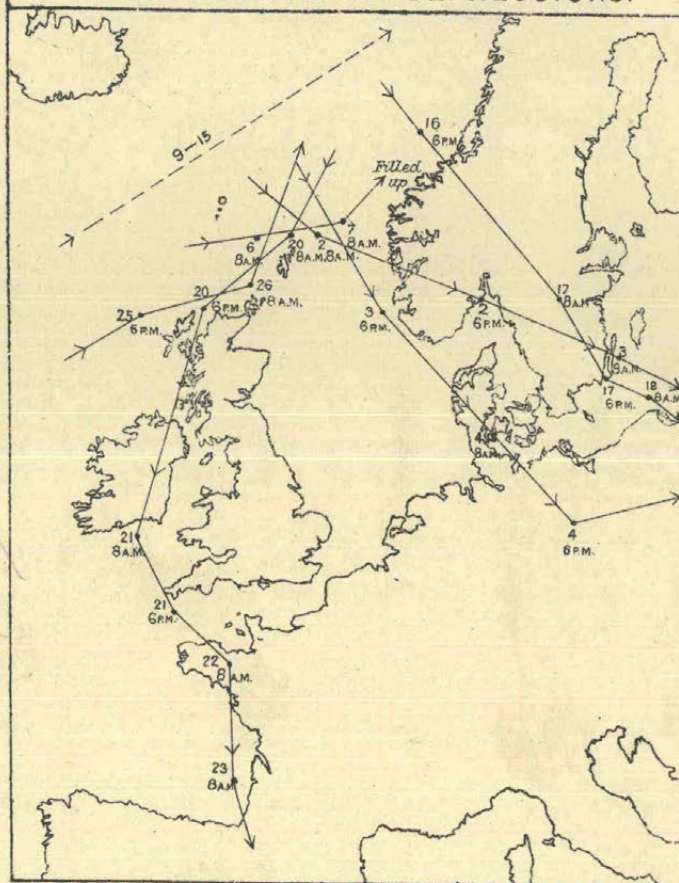
Monthly Summary.

Plate II.

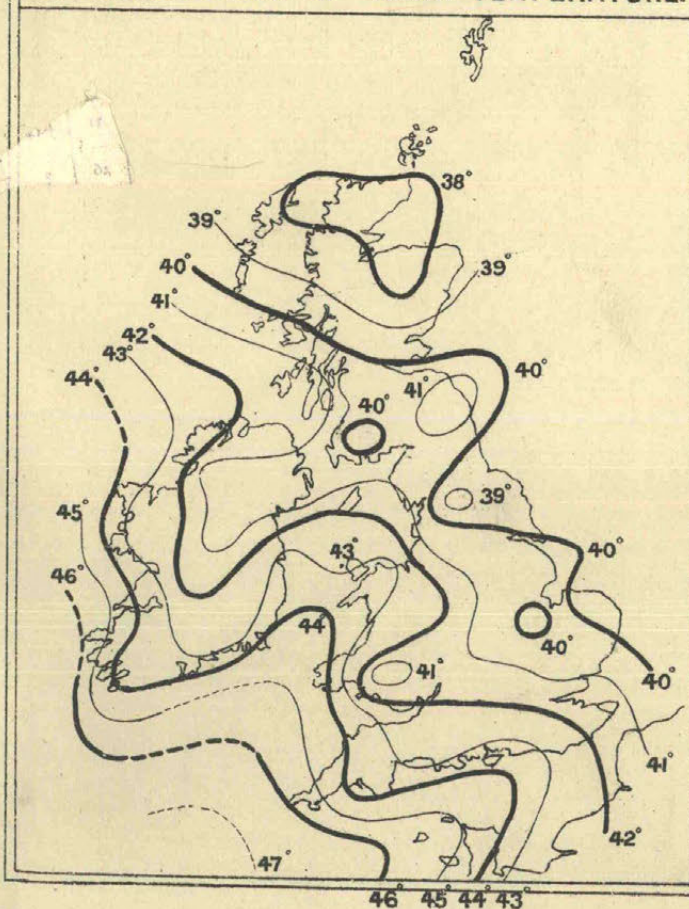
1. BAROMETER AND WIND.



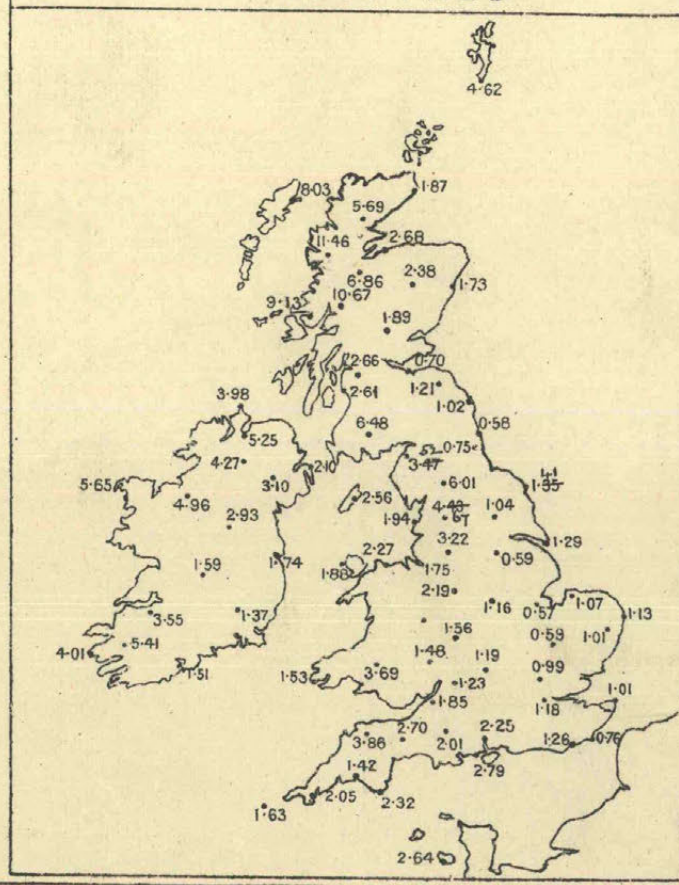
2. MOVEMENTS OF DEPRESSIONS.



3. DISTRIBUTION OF MEAN TEMPERATURE.



4 RAINFALL.

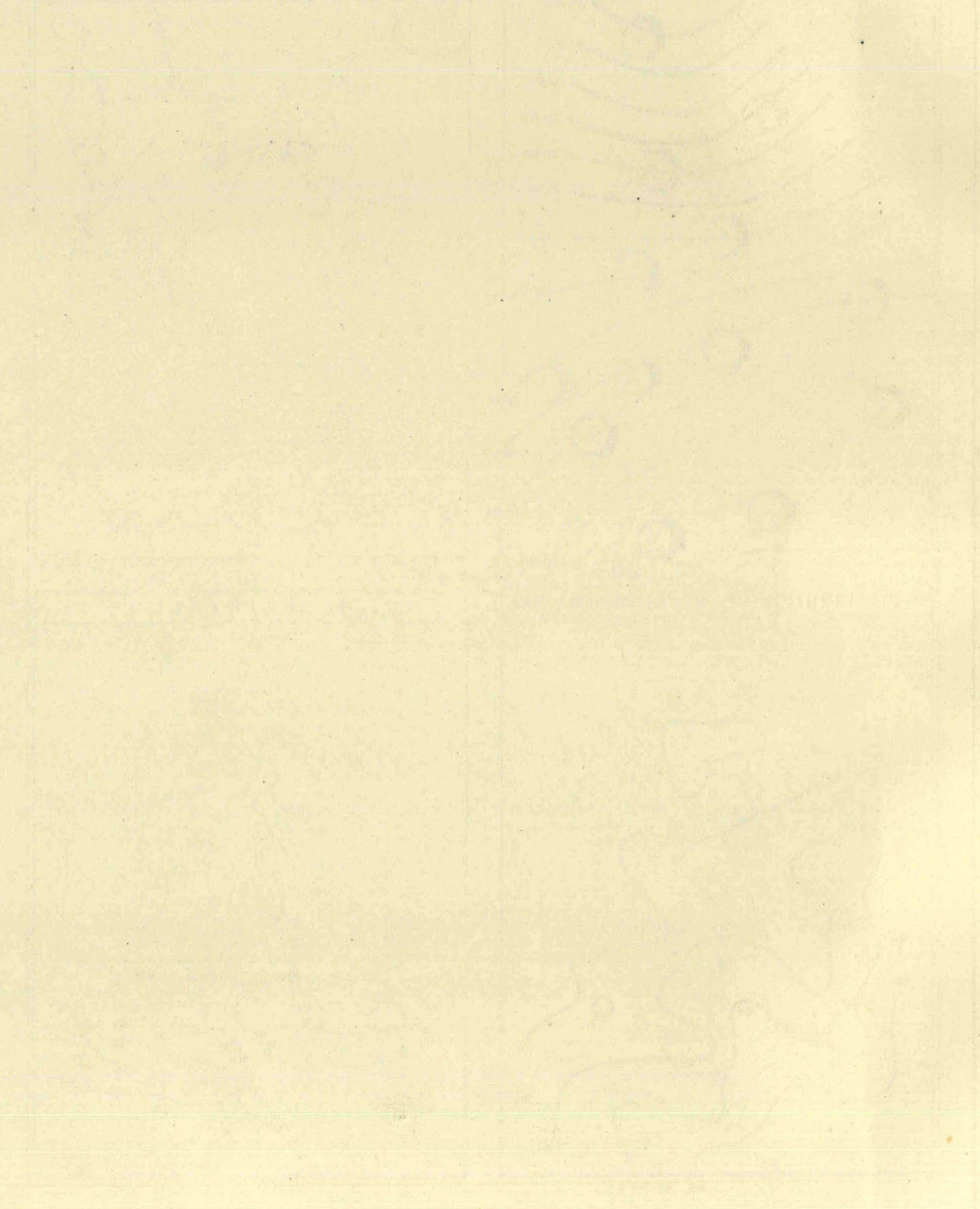


Feb. 11

W. 10.00

MOVEMENTS OF CLOUDS

BAROMETRIC



SUMMARY of the OBSERVATIONS made at the STATIONS included in the DAILY and WEEKLY WEATHER REPORTS for the CALENDAR MONTH,

MARCH 1898.

(Issued as a Supplement to the Weekly Weather Report, 1898.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & Co., 12, HANOVER ST.,
EDINBURGH, and 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS, & Co., LIMITED, 104, GRAFTON STREET, DUBLIN.

General Summary.—With the exception of a few mild days about the middle of the month the weather of March was generally cold and changeable, with frequent showers of snow or sleet. Thunder and lightning occurred at several western stations between the 1st and 3rd, and bright aurora was seen over the northern parts of the United Kingdom on the 15th. Pressure was below the average in the west and north, but above it elsewhere; temperature was below the normal excepting in the west and north of Scotland; the winds were mainly from the Westward in Scotland, but from the Northward or North-eastward in Ireland and England, a prolonged and rather severe gale from the latter quarters being experienced between the 23rd and 27th; rainfall was deficient in all districts excepting the north of Scotland and the east of England; bright sunshine exceeded the average in the west and north, but was rather deficient in most other localities.

Pressure.—*Mean at 8 a.m.* ranged from 30·00 ins. and upwards in the west and south of Ireland to 29·85 ins. and less on the east coasts of England, and to 29·80 ins. and less in the north of Scotland. In the eastern, central, and southern parts of England the mean values were below the average*, but at all the more western and northern stations they were above it, the departure from the normal being, however, as a rule, very slight. *Highest* readings occurred over Ireland and the northern parts of Great Britain on the 25th, when the barometer in the extreme north and north-west rose slightly above 30·5 ins. In the south of England the highest values (30·2 ins. and upwards) were recorded either on the 10th or the 21st. *Lowest* readings were observed in the north on the 1st or 15th, when the barometer fell to between 29·2 ins. and 29·5 ins., similarly low values being recorded in the south and east of England on the 26th. *Range* was moderate in the northern districts, but slight in the south.

Depressions.—Until the concluding week very few depressions of importance were observed in the immediate neighbourhood of our islands, the centres of the large Atlantic disturbances keeping, as a rule, well away to the northward. An exception was, however, shown in the case of a rather deep system which moved south-eastwards across the North Sea on the 1st, and which occasioned gales from the North-westward over nearly the whole of our islands. After the 22nd the weather was affected, firstly, by a well-marked depression which passed rapidly south-eastwards across Scotland and along our east coasts to the Netherlands and Germany; and, secondly, by another and more complex disturbance which advanced over Switzerland and Western Germany from the southward, and which afterwards moved in an irregular path and dispersed over France.

Anticyclones.—Three such systems were observed. The first spread over our islands from northern Europe on the 7th, but soon broke into two portions, one moving away to the North-eastward and the other to the South-westward and Southward. The second advanced from the Atlantic on the 19th and remained with us until the 22nd, when it again receded westwards. The third spread temporarily over the northern parts of our islands from the northward on the 23rd and 24th, but moved away to the eastward on the 27th.

Winds varied considerably from time to time, but were mainly from the Westward in Scotland and from the Northward or North-eastward in England and Ireland. Gales were not very frequent for the time of year, but the Northerly and North-easterly gale which prevailed on our eastern, southern, and many parts of our western coasts between the 23rd and 27th was unusually prolonged, and in many places of considerable severity.

Temperature.—*Mean at sea level* ranged from a little above 45° at Scilly, and from 44° and upwards on our extreme south-west coasts generally, to between 39° and 40° in the north of Scotland and at many stations in the north and east of England. The general distribution agreed very closely with the normal, but the actual values were below the average* excepting in the west and north of Scotland, the deficit being greatest (2° to 3°) at many stations in the central and southern parts of England and Ireland. *Highest* readings occurred, as a rule, on the 17th or 18th, when the thermometer rose to 60° and upwards in several parts of Great Britain, and to 63° at Goldeston, Cambridge, Southampton, and the North Foreland. *Lowest* readings were observed at various times, but mostly between the 6th and 8th, when sharp frosts prevailed over the United Kingdom generally. In the screen the lowest readings observed were 9° at Braemar, 16° at Lairg, and 20° at Glenlee. *Range* was moderate. *Vapour Tension* ranged from 0·25 in. at Malin Head and 0·24 in. at Ardrossan and Scilly to between 0·18 in. and 0·20 in. over the east of Scotland and the northern and central parts of England. *Relative Humidity* varied from 94 per cent. at Cambridge and 93 per cent. at Ardrossan, Malin Head, and Loughborough to 80 per cent. at Valencia, and to only 76 per cent. at Aberdeen.

Rainfall exceeded the average* at most stations in the north of Scotland and also at many places in the east and south-east of England. Elsewhere there was a deficiency, the amount at several of the western and southern stations being less than half, and in some cases less than one-fourth, of the normal. The largest aggregates reported were 10·5 ins. at Glencarron, 6·9 ins. at Fort William, and 5·4 ins. at Stornoway; the smallest being 0·4 in. at Kilkenny and Hurst Castle, 0·5 in. at Blackpool and Cirencester, and 0·6 in. at Shirley and Hereford. Snow or sleet fell in most places during the first and last weeks in the month, the amount on the 25th being large in many parts of England.

Bright Sunshine was rather deficient in the eastern, central, and southern districts, but exceeded the average* at most of the western and northern stations. The percentage of the possible duration ranged from 46 at Falmouth, 45 at Llandudno, and 44 at Douglas and Newquay, to 20 at Sheffield and 19 in London and at Plumstead Common and Watergate (Emsworth).

* The averages employed are—*Pressure and Temperature* for the 25 years 1871–95; *Rainfall* for the 30 years 1866–95; and *Bright Sunshine* for the 15 years 1881–95.

SUMMARY OF OBSERVATIONS, MARCH 1898.

TABLE V.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC
Observations are made at 8 a.m. daily, but the Numbers of Days of Rain, Snow, Hail,
(The Stations are grouped in Districts, and then arranged in order of Latitude,

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	Difference from Average.	AIR TEMPERATURE.								TENSION OF VAPOUR.	RELATIVE HUMIDITY.	
				Means of					Absolute Extremes.					
				At 8 a.m.	Minima.	Maxima.	Min and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.			Date.
0. SCOTLAND, N.	Sumburgh Head	Ins. 29.785	+0.048	38.0	34.4	43.3	38.9	+0.5	30	5th, 8th, 19th	48	11th, 16th, 17th	Ins. 0.199	86
	Wick	29.800	+0.019	39.5	33.9	45.5	39.7	+0.3	25	5th, 8th	56	17th	0.217	90
	Stornoway	29.837	+0.065	39.0	34.1	45.1	39.6	0.0	27	8th, 9th	51	17th	0.218	92
1. SCOTLAND, E.	Nairn	29.853	+0.051	38.9	32.7	46.7	39.7	0.0	24	7th, 8th	60	17th	0.206	87
	Aberdeen	29.857	+0.036	39.9	34.7	46.4	40.6	+0.6	28	5th	61	17th, 18th	0.188	76
	Leith	29.880	+0.031	39.6	34.4	48.4	41.4	+0.2	25	8th	56	11, 17, 18, 21	0.197	81
2. ENGLAND, N.E.	Shields	29.885	+0.012	38.5	33.8	46.3	40.1	-0.4	26	8th	61	18th	0.206	89
	York	29.889	-0.015	36.7	31.9	46.9	39.4	-1.7	25	7th, 9th	58	18th	0.191	88
	Spurn Head	29.850	-0.041	39.9	36.2	44.7	40.5	-0.1	29	25th	55	18th	0.208	85
3. ENGLAND, E.	Yarmouth	29.838	-0.078	39.1	34.1	44.1	39.1	-1.2	27	15th	60	18th	0.208	87
	Cambridge	29.894	-0.047	36.2	30.4	49.1	39.8	-2.0	23	7th	63	18th	0.201	94
4. MIDLAND COUNTIES	Loughborough	29.906	-0.025	35.3	31.8	47.3	39.6	-2.2	22	7th	60	18th	0.191	93
	Oxford	29.912	-0.039	37.0	32.8	47.5	40.2	-1.7	27	7th, 10th, 21st	55	18th	0.189	86
5. ENGLAND, S.	London	29.890	-0.059	38.2	33.8	47.4	40.6	-2.1	27	13th, 21st	60	18th	0.192	84
	North Foreland	29.865	-0.065	40.1	35.5	45.0	40.3	-1.4	30	6th	63	18th	0.219	89
	Dungeness	29.845	-0.091	39.9	34.5	46.1	40.3	-1.3	26	6th, 21st	52	16th, 18th, 19th	0.214	87
	Hurst Castle	29.894	-0.061	40.1	35.9	47.3	41.6	-0.9	30	6, 21, 25, 26	55	23rd	0.216	87
6. SCOTLAND, W.	Ardrossan	29.892	+0.031	41.3	36.9	46.5	41.7	+0.4	30	8th	52	17th, 18th, 23rd	0.241	93
7. ENGLAND, N.W.	Hawes Junction*	28.636	?	33.1	29.4	40.9	35.2	?	22	7th	49	11th	0.183	97
	Liverpool	29.924	+0.013	39.0	35.3	45.4	40.4	-1.6	29	8th	58	17th	0.195	83
	Holyhead	29.948	+0.042	41.9	37.8	46.2	42.0	-1.1	34	8th, 9th	52	11th, 17th	0.221	84
8. ENGLAND, S.W.	Pembroke	29.943	+0.013	41.3	37.6	45.8	41.7	-1.1	32	8th, 25th	50	12th	0.222	86
	Prawle Point	29.925	-0.035	40.4	35.7	47.2	41.5	-1.5	28	25th	54	16th	0.218	87
9. IRELAND, N.	Malin Head	29.916	+0.074	41.7	38.7	45.5	42.1	-0.4	34	1st, 6th	52	18th	0.245	93
	Donaghadee	29.938	+0.055	40.5	35.4	48.2	41.8	-0.4	28	8th	59	18th	0.225	90
	Belmullet	30.008	+0.126	43.5	37.7	48.3	43.0	-0.9	30	8th, 26th	53	18th	0.229	81
10. IRELAND, S.	Parsonstown	29.994	+0.069	38.0	33.3	47.9	40.6	-1.8	23	8th	54	11, 15, 17, 18, 23	0.201	88
	Valencia	30.024	+0.095	43.0	37.9	48.9	43.4	-2.3	29	8th	54	17th, 18th	0.223	80
	Roche's Point	30.008	+0.078	41.4	38.0	48.8	43.4	-1.2	31	26th	57	17th	0.223	86
CHANNEL ISLANDS	Seilly	29.931	-0.015	45.1	40.4	49.1	44.8	-1.1	35	4th, 26th	56	18th	0.242	81
	Jersey	29.901	-0.064	42.7	38.9	47.2	43.1	-1.7	32	6th, 25th	53	17th, 18th	0.239	87

* Hawes Junction is 1,135 feet above Mean Sea Level, and the

BRIGHT SUNSHINE VALUES FOR MARCH

Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.	Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.
Deerness (Orkney Islands)	129.7	?	36	?	Hollesley Bay (Suffolk)	133.2	?	37	?
Strathpeffer Spa	94.0	-20.1	26	-6	Sheffield	73.6	?	20	?
Edinburgh	96.2	-1.4	27	0	Workshop	78.7	-26.7	22	-7
Morpeth (Cockle Park)	135.2	?	37	?	Thurcaston	91.9	-8.6	25	-3
Newcastle-on-Tyne	94.4	?	26	?	Plumstead Common	70.1	?	19	?
Oswaldkirk	114.9	-2.6	32	0	Margate	126.0	+0.7	35	+1

SUMMARY OF OBSERVATIONS, MARCH 1898.

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REPORTING STATIONS in the BRITISH ISLANDS during the Month of MARCH 1898.

Thunderstorms, and Gales are counted irrespective of the Hours at which they occurred.

(beginning in each case with the Station lying furthest North.)

AMOUNT OF CLOUD.	RAINFALL.				WEATHER. No. of Days of							WIND. No. of Observations of										NAMES OF STATIONS.
	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calm.		
7.2	Ins. 3.66	Ins. +0.91	Ins. 0.46	16th	26	5	0	0	0	12	0	7	5	2	1	4	2	4	2	4	Sumburgh Head.	
6.4	0.89	-1.10	0.11	19th	20	4	3	0	3	8	0	2	4	2	2	2	4	5	9	1	Wick	
8.3	5.43	+1.73	0.65	13th	25	2	5	0	0	18	1	7	4	4	0	0	4	7	4	1	Stornoway.	
6.7	2.02	+0.34	0.48	28th	21	5	2	0	2	9	0	2	2	2	0	0	5	13	3	4	Nairn.	
5.9	2.32	+0.09	0.47	2nd	19	12	9	0	0	6	9	0	4	2	0	5	9	7	4	0	Aberdeen.	
7.1	1.17	-0.24	0.42	27th	14	9	2	0	3	12	2	1	3	3	0	1	9	11	1	2	Leith.	
7.3	1.28	-0.46	0.19	3rd, 23rd	12	9	1	0	2	13	3	4	3	1	0	1	12	7	3	0	Shields.	
5.5	1.16	-0.50	0.27	26th	15	6	1	0	12	12	2	11	1	1	1	3	2	5	7	0	York.	
6.7	1.39	+0.20	0.32	28th	19	3	4	0	4	12	5	4	5	3	1	1	3	8	6	0	Spurn Head.	
5.2	1.31	-0.42	0.36	26th	12	7	3	0	7	3	6	2	11	1	0	0	4	9	3	1	Yarmouth.	
7.1	1.38	+0.04	0.34	26th	11	6	2	0	7	21	1	14	2	2	0	0	8	3	2	0	Cambridge.	
7.4	1.19	-0.35	0.35	26th	15	7	0	0	3	14	4	3	5	1	4	0	3	8	6	1	Loughborough.	
6.9	0.66	-0.84	0.17	26th	12	6	1	0	9	19	0	11	4	0	1	1	7	3	1	3	Oxford.	
6.8	1.33	-0.10	0.35	3rd	12	9	4	0	8	16	6	2	7	5	1	0	8	4	1	3	London.	
6.6	1.54	?	0.31	24th	13	2	0	0	2	10	6	7	6	2	0	0	7	5	3	1	North Foreland.	
6.9	1.05	-0.69	0.25	24th	14	5	4	0	2	9	6	7	8	2	1	2	5	4	2	0	Dungeness.	
7.4	0.40	-1.38	0.10	26th	12	5	1	0	1	16	1	6	11	1	0	1	6	4	2	0	Hurst Castle.	
5.7	0.95	-1.35	0.24	28th	14	4	1	0	6	11	4	4	7	1	0	2	5	6	3	3	Ardrossan.	
7.2	2.14	?	0.46	15th	17	7	0	1	3	18	0	4	4	3	4	2	3	5	6	0	Hawes Junction.*	
6.5	0.77	-0.90	0.18	18th	14	4	2	0	7	13	4	5	3	1	2	3	3	7	3	4	Liverpool.	
7.1	1.32	-0.88	0.58	5th	11	3	5	1	0	10	8	3	9	1	1	4	4	4	5	0	Holyhead.	
6.1	1.33	-0.93	0.42	5th	14	3	1	0	6	15	4	3	8	9	2	0	0	5	4	0	Pembroke.	
6.3	1.88	0.00	0.81	6th	20	6	2	0	0	9	4	9	9	2	1	1	4	2	3	0	Prawle Point.	
6.5	1.60	?	0.29	13th	22	1	6	0	0	8	5	7	1	4	1	4	7	3	4	0	Malin Head.	
5.8	1.00	-0.97	0.19	5th	14	0	0	0	0	6	9	4	5	1	1	0	6	11	3	0	Donaghadee.	
6.9	1.57	-2.23	0.35	3rd	27	0	5	0	4	15	3	8	5	3	1	1	4	6	3	0	Belmullet.	
6.3	0.79	-1.41	0.37	18th	13	4	2	0	8	15	0	6	1	0	1	0	4	5	2	12	Parsonstown.	
7.1	1.70	-2.17	0.39	2nd	17	0	1	0	2	16	2	5	10	4	1	0	4	2	2	3	Valencia.	
5.1	1.18	-2.20	0.28	30th	8	1	1	0	0	5	1	16	6	0	0	1	1	2	5	0	Roche's Point.	
7.7	1.09	-1.19	0.28	3rd	17	4	2	1	0	8	8	6	11	3	0	0	2	4	5	0	Scilly.	
7.5	2.07	-0.17	0.42	26th	19	5	5	0	4	15	8	4	9	3	1	1	2	6	5	0	Jersey.	

Barometer at this Station is not reduced for altitude.

IN ADDITION TO THOSE FOUND IN TABLE VI.

Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.	Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.
Eastbourne	129.1	-12.5	35	-4	Colwyn Bay	150.0	?	41	?
Brighton	107.4	-26.4	29	-8	Tenby	147.0	-3.4	40	-1
Watgate (Emsworth) ..	70.9	?	19	?	Torquay	133.1	-11.9	37	-3
Westbourne (Emsworth) ..	103.5	-43.4	28	-12	Newquay	159.9	+18.2	44	+5
Ventnor Hospital	107.8	?	30	?	Guernsey	102.2	-54.2	28	-15
Southport	147.1	?	40	?					

TABLE VI.

OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE, obtained from the VALUES supplied for use in the WEEKLY WEATHER REPORT, for the Month of MARCH 1898.

NAMES OF STATIONS.	AIR TEMPERATURE.								RAINFALL.					BRIGHT SUNSHINE.			
	Means of				Absolute Extremes.				No. of Rainy Days.	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Hours recorded.	Difference from Average.	Per-centage of possible Duration.	Difference from Average.
	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.									
	°	°	°	°	°		°			Ins.	Ins.	Ins.				%	%
STORNOWAY	-	-	-	-	-	-	-	-	-	-	-	-	-	119'4	+16'1	33	+4
LAIRG	-	-	-	-	-	-	-	-	-	3'32	+0'27	0'55	16th	-	-	-	-
GLENCARRON	-	-	-	-	-	-	-	-	-	10'45	+3'94	2'02	16th	-	-	-	-
FORT AUGUSTUS	-	-	-	-	-	-	-	-	-	3'32	+0'23	0'83	18th	83'3	+5'9	23	+2
FORT WILLIAM	-	-	-	-	-	-	-	-	-	6'91	+1'03	1'51	16th	104'4	+6'4	29	+2
ABERDEEN	-	-	-	-	-	-	-	-	-	-	-	-	-	139'8	+15'8	39	+5
BRAEMAR	-	-	-	-	-	-	-	-	-	1'67	-0'69	0'34	1st	96'3	-20'3	27	-5
OCHTERTYRE	-	-	-	-	-	-	-	-	-	0'76	-1'93	0'19	28th	-	-	-	-
MARCHMONT	-	-	-	-	-	-	-	-	-	1'84	-0'61	0'41	27th	121'8	+17'3	34	+5
ALNWICK CASTLE	-	-	-	-	-	-	-	-	-	1'94	-0'35	0'30	27th	-	-	-	-
DURHAM	-	-	-	-	-	-	-	-	-	1'96	-0'08	0'61	26th	118'1	+1'9	33	+1
SCARBOROUGH	-	-	-	-	-	-	-	-	-	1'56	-0'23	0'26	31st	106'4	?	29	?
YORK	-	-	-	-	-	-	-	-	-	-	-	-	-	121'4	+12'3	33	+3
HILLINGTON	-	-	-	-	-	-	-	-	-	2'47	+0'88	0'83	26th	111'0	-4'9	30	-2
GELDESTON	-	-	-	-	-	-	-	-	-	2'03	+0'52	0'57	26th	117'6	-14'3	32	-4
CAMBRIDGE	-	-	-	-	-	-	-	-	-	-	-	-	-	112'3	-15'1	31	-4
ROTHAMSTED	-	-	-	-	-	-	-	-	-	1'00	-0'67	0'35	26th	87'0	-37'2	24	-10
BAWTRY	-	-	-	-	-	-	-	-	-	0'95	-0'62	0'25	26th	-	-	-	-
STAMFORD (Duddington)	-	-	-	-	-	-	-	-	-	1'38	0'00	0'54	26th	-	-	-	-
CHEADLE	-	-	-	-	-	-	-	-	-	1'19	-0'99	0'21	1st	-	-	-	-
SHIRLEY (nr. Solihull)	-	-	-	-	-	-	-	-	-	0'59	?	0'11	26th, 27th	-	-	-	-
CHURCHSTOKE	-	-	-	-	-	-	-	-	-	0'77	-1'14	0'21	1st	114'4	-2'7	31	-1
HEREFORD	-	-	-	-	-	-	-	-	-	0'58	-1'05	0'15	19th	-	-	-	-
CIRENCESTER	-	-	-	-	-	-	-	-	-	0'47	-1'53	0'14	19th	106'4	-12'3	29	-4
OXFORD	-	-	-	-	-	-	-	-	-	-	-	-	-	97'5	-22'2	27	-6
LONDON	-	-	-	-	-	-	-	-	-	-	-	-	-	69'3	-19'1	19	-5
CRANLEY	-	-	-	-	-	-	-	-	-	1'59	?	0'49	25th	-	-	-	-
HASTINGS	-	-	-	-	-	-	-	-	-	2'38	+0'47	1'05	25th	126'0	-17'2	35	-4
SOUTHAMPTON	-	-	-	-	-	-	-	-	-	0'68	-1'27	0'16	26th	95'3	-39'7	26	-11
SHAFTESBURY	-	-	-	-	-	-	-	-	-	1'22	-0'87	0'26	30th	-	-	-	-
LAUDALE	-	-	-	-	-	-	-	-	-	4'02	-2'15	0'57	14th	-	-	-	-
GLASGOW	-	-	-	-	-	-	-	-	-	1'32	-1'08	0'35	18th	83'0	-5'5	23	-1
GLENLEE	-	-	-	-	-	-	-	-	-	2'06	-1'76	0'37	13th	-	-	-	-
GILCRUX (Cumberland)	-	-	-	-	-	-	-	-	-	1'98	?	0'52	15th	125'3	?	35	?
DOUGLAS	-	-	-	-	-	-	-	-	-	2'09	-0'63	0'47	5th	161'7	+28'2	44	+7
STONYHURST	-	-	-	-	-	-	-	-	-	3'15	-0'15	1'54	17th	141'0	+34'6	39	+10
BLACKPOOL	-	-	-	-	-	-	-	-	-	0'47	-1'66	0'09	1st	146'7	+43'9	40	+12
MANCHESTER (Prestwich)	-	-	-	-	-	-	-	-	-	1'99	-0'40	0'71	28th	93'2	?	26	?
LLANDUDNO	-	-	-	-	-	-	-	-	-	1'05	-0'89	0'42	18th	164'0	+58'4	45	+16
LLANDOVERY	-	-	-	-	-	-	-	-	-	2'30	-1'21	0'48	2nd	-	-	-	-
PEMBROKE	-	-	-	-	-	-	-	-	-	-	-	-	-	152'3	+12'4	42	+4
CLIFTON	-	-	-	-	-	-	-	-	-	1'01	-1'24	0'49	19th	-	-	-	-
ARLINGTON	-	-	-	-	-	-	-	-	-	1'64	-1'80	0'55	19th	-	-	-	-
CULLOMPTON	-	-	-	-	-	-	-	-	-	2'13	-0'20	1'19	6th	113'2	-16'0	31	-4
FALMOUTH	-	-	-	-	-	-	-	-	-	2'08	-1'13	0'49	29th	166'5	+24'4	46	+7
PLYMOUTH	-	-	-	-	-	-	-	-	-	1'54	-0'92	0'60	5th	133'6	-5'5	37	-1
SCILLY	-	-	-	-	-	-	-	-	-	-	-	-	-	147'4	?	40	?
JERSEY	-	-	-	-	-	-	-	-	-	-	-	-	-	107'9	-52'3	30	-14
LONDONDERRY	-	-	-	-	-	-	-	-	-	2'10	-0'64	0'41	1st	-	-	-	-
EDENFEL (Omagh)	-	-	-	-	-	-	-	-	-	1'64	-0'73	0'27	18th	-	-	-	-
MARKREE CASTLE	-	-	-	-	-	-	-	-	-	2'34	-0'38	0'42	18th	132'9	+27'6	37	+8
ARMAGH	-	-	-	-	-	-	-	-	-	1'05	-0'99	0'21	1st	116'9	+13'2	32	+4
EDGEWORTHSTOWN	-	-	-	-	-	-	-	-	-	?	?	?	?	-	-	-	-
DUBLIN	-	-	-	-	-	-	-	-	-	1'04	-0'93	0'23	27th	129'6	+2'7	36	+1
PARSONSTOWN	-	-	-	-	-	-	-	-	-	-	-	-	-	125'0	+10'3	34	+2
KILKENNY CASTLE	-	-	-	-	-	-	-	-	-	0'41	-1'68	0'23	18th	-	-	-	-
VALENCIA (Cahiriveen)	-	-	-	-	-	-	-	-	-	-	-	-	-	145'3	+10'0	40	+3
KILLARNEY	-	-	-	-	-	-	-	-	-	1'44	?	0'25	5th	-	-	-	-
FOYNES	-	-	-	-	-	-	-	-	-	1'12	?	0'53	18th	-	-	-	-

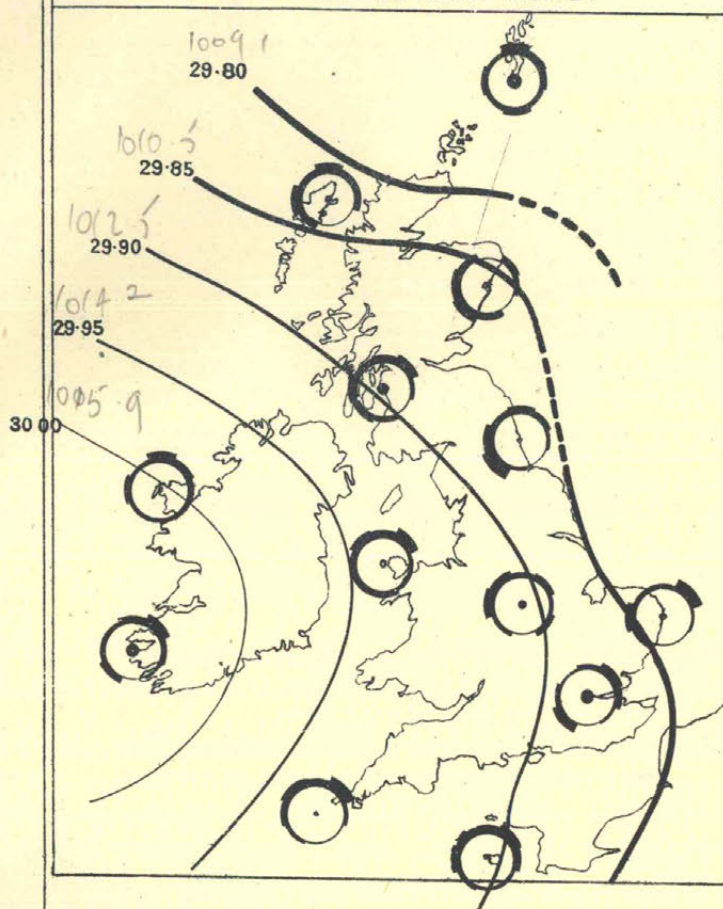
* For this information and additional Reports of Bright Sunshine, see Table V.
† Observations unreliable.

MONTHLY WEATHER CHART MARCH 1898.

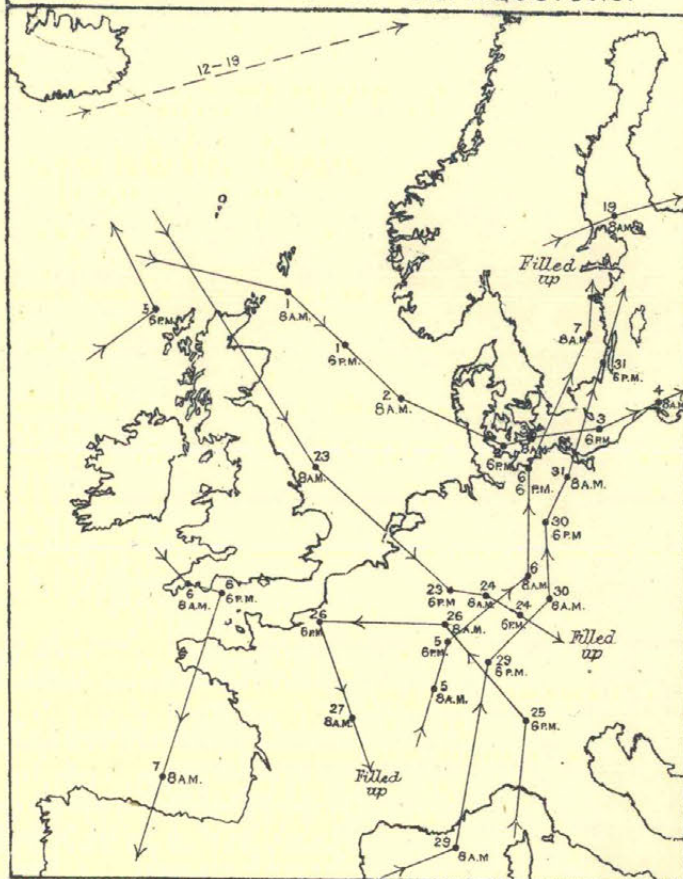
Monthly Summary.

Plate III.

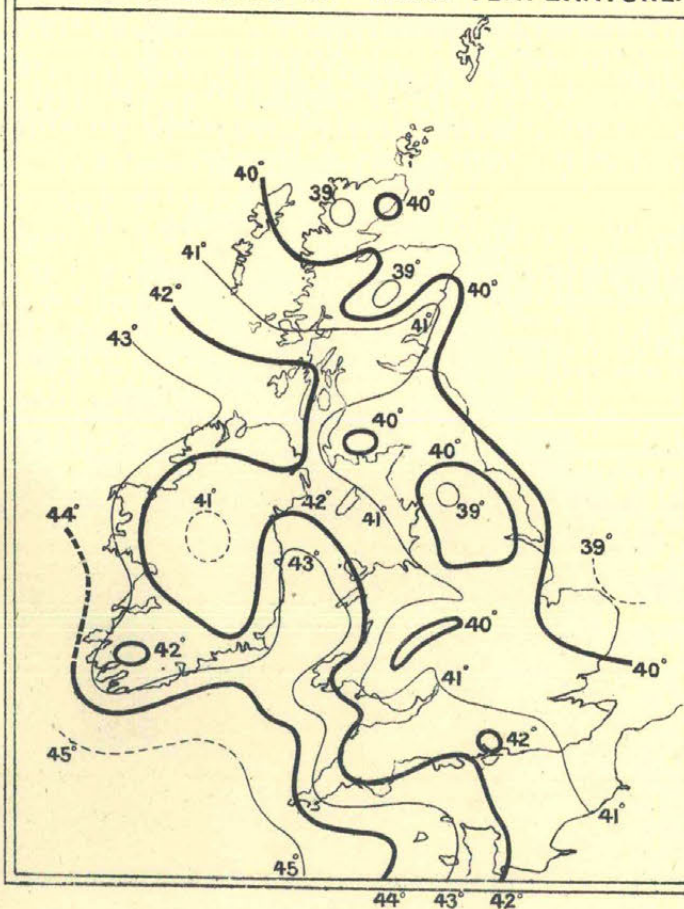
1. BAROMETER AND WIND.



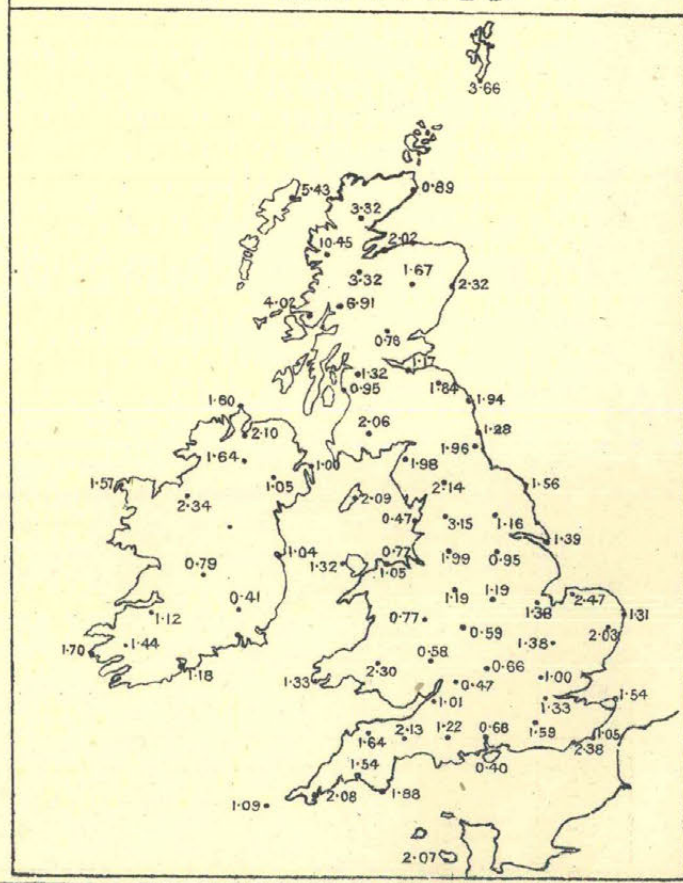
2. MOVEMENTS OF DEPRESSIONS.



3. DISTRIBUTION OF MEAN TEMPERATURE.



4. RAINFALL.



SUMMARY of the OBSERVATIONS made at the STATIONS included in the DAILY and WEEKLY WEATHER REPORTS for the CALENDAR MONTH,

APRIL 1898.

(Issued as a Supplement to the Weekly Weather Report, 1898.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & CO., 12, HANOVER ST.,
EDINBURGH, and 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS, & CO., LIMITED, 104, GRAFTON STREET, DUBLIN.

General Summary.—The weather of April was mostly fair and dry over England, especially in the south, but very changeable in Ireland and Scotland. Towards the end of the month, however, rainy weather set in over the whole kingdom. Thunderstorms occurred in many parts of England on the 9-10th, the 15-16th, and the 29th; on the 15th some of the Irish stations were also affected, while on the 29th the storms extended over the south of Scotland. Bright aurora was seen in the northern parts of Great Britain on the 12th. Pressure was high over England, but low elsewhere; temperature was above the average; the winds varied a good deal in direction; rainfall was in excess of the normal, excepting in the east and south of England; bright sunshine was fairly abundant over England, but deficient in Ireland and Scotland.

Pressure.—*Mean at 8 a.m.* ranged from 29.90 ins. and upwards in the south and east of England to 29.70 ins. and less in the Hebrides. In the former regions, and also over our midland counties, the values were above the average,* but elsewhere they were below it; and as the deficit was greatest (0.1 inch or more) in the extreme north and north-west, the gradient over our islands for South-westerly winds was unusually decided for the month of April. *Highest* readings were recorded on the 24th or 25th, when the barometer rose to 30.2 ins. and upwards in the west of Ireland and the northern, eastern, and central parts of England, and to 30.1 ins. and upwards in all other parts of the kingdom. *Lowest* readings were observed mostly on the 10th or 11th, when the mercury fell to between 29.0 ins. and 29.2 ins. in Scotland, and to between 29.3 ins. and 29.5 ins. in most parts of Ireland and England. *Range* was moderate.

Depressions.—In the course of the month several large, though somewhat shallow, depressions moved northwards or north-eastwards outside our western and northern coasts, while small secondary systems advanced in similar directions across our islands. Among the latter the most important was a well-marked disturbance which moved quickly northwards over the St. George's Channel, the Irish Sea, and the west of Scotland on the 30th, and which eventually passed away to the north-westward.

Anticyclones.—Two only were observed in our immediate neighbourhood. The first advanced from the Atlantic on the night of the 4th, but soon moved away to the south-eastward. The second spread over from Northern Europe on the 20th, and remained in existence until the 25th, when it gave way in the face of a complex low pressure system which extended over our islands from the southward.

Winds varied a good deal in direction, especially on our southern coasts. In the west and north they were mainly from some Southerly point. On the Irish and Scotch coasts gales were rather frequent for the time of year, the number of days affected being as large as 8 at Roche's Point, 7 at Wick, and 6 at Donaghadee.

Temperature.—*Mean at sea level* ranged from 50° and upwards in the Scilly and Channel Islands, and from 48° and upwards over Ireland and many of the western and southern parts of Great Britain, to a little below 46° at several of our east coast stations, and to about 43° in the Shetlands. Owing to the prevalence of Southerly winds the warm air from the Atlantic extended more completely over our western districts than is usual in April, but in other respects the distribution of temperature differed but little from the normal. The actual mean values were, however, in nearly all cases above the average,* the excess amounting to between 2° and 3° at several of our more northern stations. *Highest* readings occurred over Great Britain on the 8th, but in Ireland more commonly between the 20th or 22nd, or on the 26th. On many parts of our western and northern coasts the thermometer scarcely touched 60°, but at most of the inland stations in Great Britain it exceeded 65°, though in no case did it reach 70°. *Lowest* readings occurred very generally on the 5th, when sharp frost was experienced in most districts, the lowest readings by the sheltered thermometer being 21° at Glenlee, 22° at Cirencester, and 23° at Braemar. *Range* was moderate generally, but large at some of the inland stations,—as much as 45° at Bawtry and 44° at Loughborough. *Vapour Tension* ranged from 0.30 in. and upwards at Malin Head, Scilly, and Jersey, and 0.28 in. and upwards on many parts of our western and southern coasts to 0.25 in. and less over the east of Scotland and the central parts of England. *Relative Humidity* varied from 90 and 95 per cent. on our extreme north-west coasts, to 81 per cent. at Nairn, Aberdeen and Leith, 80 per cent. at Belmullet and Valencia, and 77 per cent. in London.

Rainfall.—With a few local exceptions the rainfall was in excess of the average* in all but the eastern and southern parts of England, where a deficiency was reported. In some of the northern districts the excess was very considerable, the amount at Aberdeen, Braemar, and Ochertyre, being more than twice as much as the normal. The largest aggregates collected were 7.2 ins. at Killarney, 6.7 ins. at Fort William, and 6.1 ins. at Valencia; the smallest being 0.9 in. in London and at Yarmouth and the North Foreland, 1.0 in. at Hastings, and 1.1 in. at Cranley, Dungeness, and Hurst Castle. Falls exceeding an inch in 24 hours were recorded in the south of Ireland on the 12th, and in some parts of Scotland on the 13th; again in the south of Ireland on the 17th, and at one or two isolated stations in the northern parts of Great Britain on the 28th. Showers of snow or sleet occurred in Scotland between the 2nd and 4th.

Bright Sunshine.—Over the greater part of England the duration was in excess of the average, but in Ireland there was a slight deficiency, while at many stations in the northern parts of Great Britain the deficiency was large. The percentage of the possible duration ranged from between 53 and 57 on the Cornish coasts and in the Channel Islands, to 25 or less at several of our northern stations, and to 22 at Edinburgh, Glasgow, and Newcastle-on-Tyne.

* The averages employed are—*Pressure and Temperature* for the 25 years 1871-95; *Rainfall* for the 30 years 1866-95; and *Bright Sunshine* for the 15 years 1881-95.

TABLE VII.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC
Observations are made at 8 a.m. daily, but the Numbers of Days of Rain, Snow, Hail,
(The Stations are grouped in Districts, and then arranged in order of Latitude,

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	Difference from Average.	AIR TEMPERATURE.										TENSION OF VAPOUR.	RELATIVE HUMIDITY.
				Means of					Absolute Extremes.						
				At 8 a.m.	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.			
0. SCOTLAND, N.	Sumburgh Head -	Ins. 29.785	Ins. -0.075	43.1	38.1	47.3	42.7	+ 1.1	30	4th, 6th	54	8th	Ins. 0.246	88	
	Wick - - -	29.756	- 1.10	45.3	40.0	50.9	45.5	+ 2.3	32	5th	58	8th, 9th	268	89	
	Stornoway - - -	29.695	- 1.50	45.1	38.9	50.7	44.8	+ 1.6	32	4th, 5th	62	22nd	267	89	
1. SCOTLAND, E.	Nairn - - -	29.757	- 1.11	47.3	38.3	54.5	46.4	+ 2.2	28	5th	62	8th	263	81	
	Aberdeen - - -	29.817	- 0.68	45.1	39.7	50.4	45.1	+ 1.3	29	5th	60	10th, 11th	244	81	
	Leith - - -	29.806	- 0.81	46.7	40.5	54.7	47.6	+ 2.5	28	5th	62	18th	257	81	
2. ENGLAND, N.E.	Shields - - -	29.859	- 0.32	45.1	40.1	51.9	46.0	+ 2.1	33	1st	65	8th	261	87	
	York - - -	29.886	- 0.15	44.2	38.4	54.4	46.4	+ 0.6	26	1st	67	8th	244	84	
	Spurn Head - - -	29.881	- 0.06	45.7	41.8	51.2	46.5	+ 2.1	34	1st, 2nd	64	8th	260	85	
3. ENGLAND, E.	Yarmouth - - -	29.911	+ 0.17	46.4	40.6	50.8	45.7	+ 1.1	29	1st	62	7th	264	84	
	Cambridge - - -	29.930	+ 0.26	45.8	36.4	58.5	47.5	+ 0.6	25	5th	68	8th	267	87	
4. MIDLAND COUNTIES	Loughborough - - -	29.908	+ 0.03	43.8	37.6	56.6	47.1	+ 0.4	24	5th	68	8th	244	85	
	Oxford - - -	29.930	+ 0.23	45.0	38.1	56.5	47.3	+ 0.3	27	5th	67	8th	249	84	
5. ENGLAND, S.	London - - -	29.932	+ 0.31	47.4	40.3	58.3	49.3	+ 1.1	30	6th	68	8th	249	77	
	North Foreland - - -	29.938	+ 0.48	47.4	42.2	52.5	47.4	+ 2.8	35	2nd	62	7th	282	87	
	Dungeness - - -	29.919	+ 0.35	47.2	41.7	52.9	47.3	+ 0.9	30	2nd, 5th	60	14th	277	86	
	Hurst Castle - - -	29.928	+ 0.35	46.6	41.1	54.0	47.6	+ 0.5	31	6th	57	8th, 17th, 26th	278	88	
6. SCOTLAND, W.	Ardrossan - - -	29.795	- 0.84	47.2	43.0	51.8	47.4	+ 1.8	30	5th	57	22nd	295	92	
7. ENGLAND, N.W.	Hawes Junction* - - -	28.619	?	39.7	35.1	48.8	42.0	?	24	5th	60	8th	230	94	
	Liverpool - - -	29.872	- 0.20	46.6	40.7	53.9	47.3	+ 0.6	31	5th	67	8th	245	78	
	Holyhead - - -	29.858	- 0.22	47.7	42.9	53.0	48.0	+ 1.1	35	5th	58	8th	287	87	
8. ENGLAND, S.W.	Pembroke - - -	29.872	- 0.03	47.7	43.9	50.7	47.3	+ 0.9	37	5th	55	27th	278	85	
	Prawle Point - - -	29.917	+ 0.27	47.7	42.5	52.1	47.3	+ 0.6	34	5th	59	27th	287	87	
9. IRELAND, N.	Malin Head - - -	29.733	- 1.22	47.2	43.3	52.2	47.8	+ 1.9	34	5th	63	21st	305	95	
	Donaghadee - - -	29.821	- 0.62	47.1	41.1	53.4	47.3	+ 1.4	29	5th	61	7th	297	92	
	Belmullet - - -	29.779	- 0.84	48.7	42.4	53.2	47.8	+ 0.3	32	5th	59	8th, 26th	277	80	
10. IRELAND, S.	Parsonstown - - -	29.821	- 0.62	46.7	40.0	55.9	48.0	+ 1.4	27	5th	66	21st	275	87	
	Valencia - - -	29.822	- 0.49	48.9	42.4	53.7	48.1	- 0.6	30	1st	58	7th, 21st, 26th	277	80	
	Roche's Point - - -	29.856	- 0.17	48.2	43.9	53.8	48.9	+ 0.8	36	1st, 14th	58	20th, 24th	293	88	
CHANNEL ISLANDS-	Seilly - - -	29.874	+ 0.02	50.8	46.2	54.9	50.6	+ 2.0	42	1st, 5th, 18th	59	7th	308	83	
	Jersey - - -	29.946	+ 0.53	50.5	44.1	56.2	50.2	+ 1.0	35	6th, 17th	64	8th	304	83	

* Hawes Junction is 1,135 feet above Mean Sea Level, and the

BRIGHT SUNSHINE VALUES FOR APRIL

Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.	Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.
Deerness (Orkney Islands)	121.0	?	28	?	Hollesley Bay (Suffolk)	192.3	?	47	?
Strathpeffer Spa	106.4	- 41.3	25	- 10	Sheffield	121.9	?	29	?
Edinburgh	93.9	- 29.2	22	- 7	Worksop	115.6	- 14.4	28	- 3
Morpeth (Cockle Park)	103.5	?	25	?	Thurcaston	145.3	+ 11.8	35	+ 3
Newcastle-on-Tyne	90.3	?	22	?	Plumstead Common	95.1	?	23	?
Oswaldkirk	95.3	- 42.7	23	- 10	Margate	195.4	+ 42.1	48	+ 11

SUMMARY OF OBSERVATIONS, APRIL 1898.

XV

REPORTING STATIONS in the BRITISH ISLANDS during the Month of APRIL 1898.
 Thunderstorms, and Gales are counted irrespective of the Hours at which they occurred.
 beginning in each case with the Station lying furthest North.)

AMOUNT OF CLOUD.	RAINFALL.				WEATHER.								WIND.										NAMES OF STATIONS.
					No. of Days of								No. of Observations of										
	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.			
8.2	Ins. 2.58	Ins. +0.63	Ins. 0.43	5th	19	1	0	0	0	19	4	2	0	2	13	8	2	2	1	0	Sumburgh Head.		
7.2	1.23	-0.40	0.30	15th	17	2	0	0	1	15	7	0	1	0	1	13	6	1	8	0	Wick		
7.6	4.67	+2.18	0.55	29th	24	2	4	0	1	16	1	1	1	0	3	4	11	5	1	4	Stornoway.		
6.3	1.40	+0.19	0.28	15th	17	0	0	0	4	10	0	0	1	4	1	4	6	7	1	6	Nairn.		
7.5	4.71	+2.75	1.04	29th	22	1	1	0	0	13	6	0	0	1	11	6	5	4	3	0	Aberdeen.		
7.8	1.67	+0.21	0.59	28th	16	0	0	0	1	19	0	1	0	5	1	4	7	5	0	7	Leith.		
7.8	2.28	+0.63	0.78	28th	15	0	1	0	0	15	0	0	1	2	6	8	8	4	1	0	Shields.		
6.9	2.55	+0.87	0.97	11th	13	0	0	2	6	15	0	1	2	5	5	6	3	7	1	0	York.		
6.5	1.51	+0.16	0.38	11th	13	0	1	1	3	9	0	0	2	5	6	4	4	6	3	0	Spurn Head.		
5.0	0.91	-0.72	0.30	12th	11	0	0	0	9	3	0	0	2	7	5	2	3	5	4	2	Yarmouth.		
6.7	1.23	-0.33	0.26	27th	12	0	0	1	5	17	0	2	3	6	3	5	5	2	3	1	Cambridge.		
6.3	1.95	+0.24	0.48	11th	14	0	1	1	6	10	1	1	1	3	11	2	5	4	2	1	Loughborough.		
6.8	1.34	-0.32	0.28	11th	11	0	0	2	7	16	0	0	4	4	6	3	4	3	2	4	Oxford.		
7.3	0.90	-0.80	0.21	27th	11	0	0	1	6	17	1	1	3	7	2	4	8	2	2	1	London.		
5.3	0.86	?	0.20	26th	9	0	0	0	4	7	3	1	7	3	3	4	6	4	2	0	North Foreland.		
6.7	1.05	-0.56	0.57	26th	10	0	0	1	1	10	2	1	8	4	0	5	4	4	3	1	Dungeness.		
6.6	1.13	-0.59	0.22	14th	11	0	0	0	3	11	0	2	10	2	1	3	6	3	2	1	Hurst Castle.		
7.4	1.39	-0.64	0.22	9th	18	0	0	1	2	14	1	0	6	3	4	7	3	1	3	3	Ardrossan.		
7.9	5.84	?	1.06	6th	18	0	0	0	3	21	0	4	1	6	5	3	4	6	1	0	Hawes Junction.*		
6.6	1.91	+0.37	0.76	11th	11	0	0	1	8	16	1	0	0	6	7	3	5	6	1	2	Liverpool.		
7.5	2.54	+0.68	0.49	11th	14	0	0	0	1	13	3	0	1	0	4	8	9	4	2	2	Holyhead.		
4.9	2.45	+0.56	0.73	13th	14	0	0	0	13	11	5	2	2	2	10	2	6	1	5	0	Pembroke.		
6.4	1.32	-0.62	0.46	29th	13	0	0	0	0	7	2	2	6	5	2	4	6	3	2	0	Prawle Point.		
6.3	2.36	?	0.35	17th	23	0	0	0	1	9	3	1	0	0	4	12	5	6	2	0	Malin Head.		
5.9	2.35	+0.49	0.47	15th	21	0	0	0	0	6	6	0	0	3	2	8	6	8	3	0	Donaghadee.		
6.5	3.23	+0.75	0.60	6th	25	0	0	1	7	15	1	3	0	1	4	6	5	9	2	0	Belmullet.		
6.2	3.54	+1.50	0.55	17th	16	0	1	2	5	13	0	0	0	0	12	2	2	5	2	7	Parsonstown.		
7.6	6.13	+2.46	1.13	17th	21	0	0	1	0	16	2	1	0	2	4	8	3	3	4	5	Valencia.		
5.7	5.14	+2.08	0.85	11th	17	0	1	1	0	10	8	7	1	0	3	6	5	4	4	0	Roche's Point.		
6.6	2.19	+0.04	0.57	29th	15	0	0	0	0	5	5	4	3	3	3	4	3	6	4	0	Scilly.		
5.2	1.45	-0.56	0.45	20th	14	0	0	0	6	8	2	1	6	5	5	4	3	2	4	0	Jersey.		

Barometer at this Station is not reduced for altitude.

IN ADDITION TO THOSE FOUND IN TABLE VIII.

Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.	Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.
Eastbourne	192.0	+17.5	47	+5	Colwyn Bay	171.6	?	41	?
Brighton	167.8	-10.3	41	-2	Tenby	185.4	-10.6	45	-3
Watergate (Emsworth) ..	152.1	?	37	?	Torquay	192.2	+11.0	47	+3
Westbourne (Emsworth) ..	195.8	+10.7	48	+3	Newquay	216.2	+38.5	53	+10
Ventnor Hospital	196.2	?	48	?	Guernsey	221.8	+24.1	54	+6
Southport	145.5	?	35	?					

TABLE VIII.

OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE, obtained from the VALUES supplied for use in the WEEKLY WEATHER REPORT, for the Month of APRIL 1898.

NAMES OF STATIONS.	AIR TEMPERATURE.								RAINFALL.					BRIGHT SUNSHINE.			
	Means of				Absolute Extremes.				No. of Rainy Days.	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Hours recorded.	Difference from Average.	Per-centage of possible Dura- tion.	Difference from Average.
	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.									
STORNOWAY	0	0	0	0	0		0		*	Ins.	Ins.	Ins.	*	142.0	-17.0	33	-4
LAIRG	37.7	52.9	45.3	+2.3	29	5th	66	22nd	19	4.33	+2.03	0.86	29th	—	—	—	—
GLENCARRON	39.0	52.3	45.7	+2.7	29	5th	66	22nd, 23rd	20	5.57	+1.47	0.90	10th	—	—	—	—
FORT AUGUSTUS	39.6	53.4	46.5	+1.8	25	5th	61	8, 21, 24, 25	20	2.67	+0.74	0.57	13th	101.7	-14.1	24	-3
FORT WILLIAM	42.0	52.5	47.3	+2.2	28	5th	61	8th	23	6.66	+3.27	1.32	13th	117.3	-26.3	28	-6
ABERDEEN	*	*	*	*	*	*	*	*	*	*	*	*	*	97.4	-56.6	23	-13
BRAEMAR	36.4	48.2	42.3	+1.4	23	5th	61	22nd	19	4.41	+2.25	1.36	13th	106.0	-30.0	25	-7
OCHTERTYRE	39.4	54.5	47.0	+2.3	25	4th	65	22nd	20	4.75	+2.56	1.41	28th	—	—	—	—
MARCHMONT	37.3	52.0	44.7	+1.7	26	5th	60	21st, 22nd	18	3.36	+1.12	0.61	28th	112.0	-29.1	27	-7
ALNWICK CASTLE	39.0	51.5	45.3	+2.3	27	5th	62	8th	23	4.03	+1.96	1.25	28th	—	—	—	—
DURHAM	37.9	53.8	45.9	+1.9	26	5th	67	8th	17	2.03	+0.07	0.51	28th	128.5	+5.1	31	+2
SCARBOROUGH	39.5	50.8	45.2	+0.5	31	2nd, 5th	66	8th	11	2.88	+1.05	1.00	11th	105.7	?	25	?
YORK	*	*	*	*	*	*	*	*	*	*	*	*	*	100.1	-39.3	24	-9
HILLINGTON	37.4	55.9	46.7	+0.7	27	1st, 5th	69	8th	12	1.42	-0.25	0.36	12th	162.6	+7.8	39	+2
GELDESTON	37.8	54.7	46.3	+0.6	26	1st	68	8th	14	1.16	-0.33	0.22	12th	155.5	-10.5	38	-2
CAMBRIDGE	*	*	*	*	*	*	*	*	*	*	*	*	*	170.4	+12.7	41	+3
ROTHAMSTED	36.9	55.4	46.2	+0.4	24	6th	65	8th	12	1.31	-0.65	0.28	26th	130.3	-18.6	32	-4
BAWTRY	36.6	56.1	46.4	+0.3	24	5th	69	8th	14	2.33	+0.69	0.93	11th	—	—	—	—
STAMFORD (Duddington)	38.3	56.0	47.2	+0.6	26	5th	67	8th	13	1.97	+0.21	0.35	26th	—	—	—	—
CHEADLE	38.3	53.3	45.8	+1.0	29	5th	64	8th	14	2.30	+0.27	0.60	11th	—	—	—	—
SHIRLEY (nr. Solihull)	36.8	54.6	45.7	0.0	24	5th	65	8th	14	2.14	?	0.50	11th	—	—	—	—
CHURCHSTOKE	36.5	55.3	45.9	+1.3	24	5th	66	8th	15	2.03	+0.23	0.38	11th	164.5	+17.9	40	+5
HEREFORD	38.5	57.8	48.2	+1.6	26	5th	67	8th	13	1.92	+0.22	0.45	29th	—	—	—	—
CIRENCESTER	35.7	55.4	45.6	+0.1	22	5th, 6th	65	8th	12	1.76	-0.24	0.35	11th	178.7	+23.5	43	+5
OXFORD	*	*	*	*	*	*	*	*	*	*	*	*	*	155.1	+3.0	38	+1
LONDON	*	*	*	*	*	*	*	*	*	*	*	*	*	122.7	-7.0	30	-1
CRANLEY	38.2	55.6	46.9	-0.2	28	5th	63	8th	11	1.05	?	0.27	11th	—	—	—	—
HASTINGS	41.1	52.8	47.0	0.0	34	5th	58	8th	10	0.97	-0.50	0.22	26th	189.9	+13.9	46	+3
SOUTHAMPTON	39.8	57.3	48.6	+0.3	29	6th	66	8th	13	1.66	-0.32	0.29	29th	168.8	-2.7	41	-1
SHAFTESBURY	39.2	53.3	46.3	+0.3	32	5th	61	8th	13	1.95	-0.53	0.47	14th	—	—	—	—
LAUDALE	41.8	53.3	47.6	+1.8	29	5th	61	21st, 22nd	22	4.68	+1.13	1.02	13th	—	—	—	—
GLASGOW	42.2	52.8	47.5	+2.6	30	5th	59	22nd, 23rd	18	2.26	+0.20	0.42	9th	93.4	-36.8	22	-9
GLENLEE	37.6	54.0	45.8	+1.3	21	5th	60	9th	19	4.58	+1.78	0.82	9th	—	—	—	—
GILCRUX (Cumberland)	41.0	53.3	47.2	+2.8	28	5th	62	8th	21	3.99	?	0.79	9th	113.6	?	27	?
DOUGLAS	41.4	52.7	47.1	+1.8	28	5th	58	9th	19	2.02	-0.28	0.60	9th	161.2	-21.5	39	-5
STONYHURST	39.6	52.1	45.9	+0.6	28	5th	63	8th	14	2.17	-0.15	0.48	11th	129.0	-15.7	31	-4
BLACKPOOL	39.1	54.7	46.9	+1.0	26	5th	67	8th	13	2.27	+0.63	0.69	11th	135.2	-12.7	32	-3
MANCHESTER (Prestwich)	39.2	53.6	46.4	+0.6	28	5th	65	8th	16	2.19	+0.26	0.82	11th	113.8	?	27	?
LLANDUDNO	42.5	54.3	48.4	+1.3	33	1st, 5th	65	8th	13	2.19	+0.44	0.65	11th	172.4	+21.4	42	+6
LLANDOVERY	37.9	56.7	47.3	+1.0	24	5th	66	8th	15	4.26	+1.68	0.68	15th	—	—	—	—
PEMBROKE	*	*	*	*	*	*	*	*	*	*	*	*	*	184.4	-1.5	45	0
CLIFTON	41.5	55.8	48.7	+2.0	31	5th	65	8th	11	2.21	+0.11	0.59	28th	—	—	—	—
ARLINGTON	38.6	54.4	46.5	+1.4	28	5th	65	8th	11	3.17	+0.47	0.68	29th	—	—	—	—
CULOMPTON	38.9	56.8	47.9	-0.1	27	5th	63	7th, 8th	12	2.07	-0.33	0.56	29th	166.4	+9.1	40	+2
FALMOUTH	43.8	53.7	48.8	+1.1	38	5th	59	27th, 28th	13	2.24	-0.62	0.65	13th	219.3	+36.5	53	+8
PLYMOUTH	41.8	54.6	48.2	-0.4	33	5th	65	15th	12	1.69	-0.60	0.50	29th	180.5	+2.8	44	+1
SCILLY	*	*	*	*	*	*	*	*	*	*	*	*	*	225.0	?	55	?
JERSEY	*	*	*	*	*	*	*	*	*	*	*	*	*	234.9	+38.6	57	+9
LONDONDERRY	41.7	56.6	49.2	+2.3	31	5th	68	21st	23	3.82	+1.64	0.54	6th	—	—	—	—
EDENFEL (Omagh)	40.1	54.2	47.2	+2.4	26	5th	65	21st	18	3.70	+1.61	0.69	17th	—	—	—	—
MARKREE CASTLE	39.7	55.4	47.6	+1.6	24	5th	65	21st	23	3.13	+0.97	0.41	9th	146.2	-3.8	35	-1
ARMAGH	39.9	55.2	47.6	+2.2	28	5th	62	21st, 22nd	20	2.90	+0.88	0.46	30th	152.2	+9.4	36	+2
EDGEWORTHSTOWN	38.6	55.6	47.1	+1.1	29	19th	64	21st, 22nd	20	4.24	+1.94	0.84	12th	—	—	—	—
DUBLIN	43.1	56.3	49.7	+2.4	33	5th	65	7th	16	2.67	+0.71	0.96	30th	150.8	-16.0	36	-4
PARSONSTOWN	*	*	*	*	*	*	*	*	*	*	*	*	*	159.5	+3.7	38	0
KILKENNY CASTLE	40.0	54.8	47.4	+0.2	25	5th	62	21st	15	3.46	+1.30	0.69	30th	—	—	—	—
VALENCIA (Cahiriveen)	*	*	*	*	*	*	*	*	*	*	*	*	*	162.1	-9.4	39	-3
KILLARNEY	40.9	56.1	48.5	+0.9	25	1st	64	7th	19	7.16	?	1.45	12th	—	—	—	—
FOYNES	41.4	54.6	48.0	+0.8	33	4th	64	8th	13	3.80	?	0.73	12th	—	—	—	—

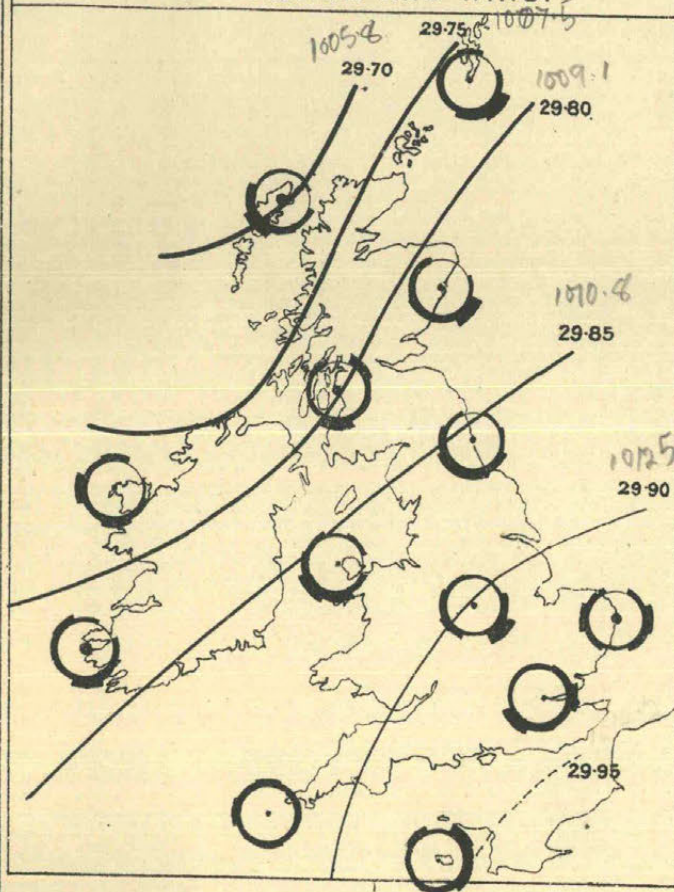
* For this information and additional Reports of Bright Sunshine, see Table VII.

MONTHLY WEATHER CHART APRIL 1898.

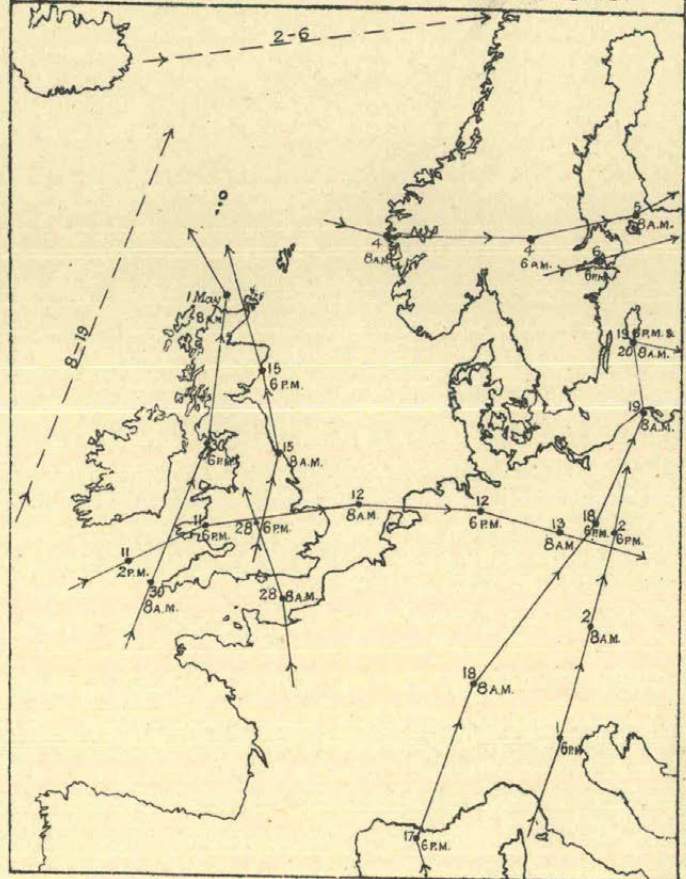
Monthly Summary.

Plate IV.

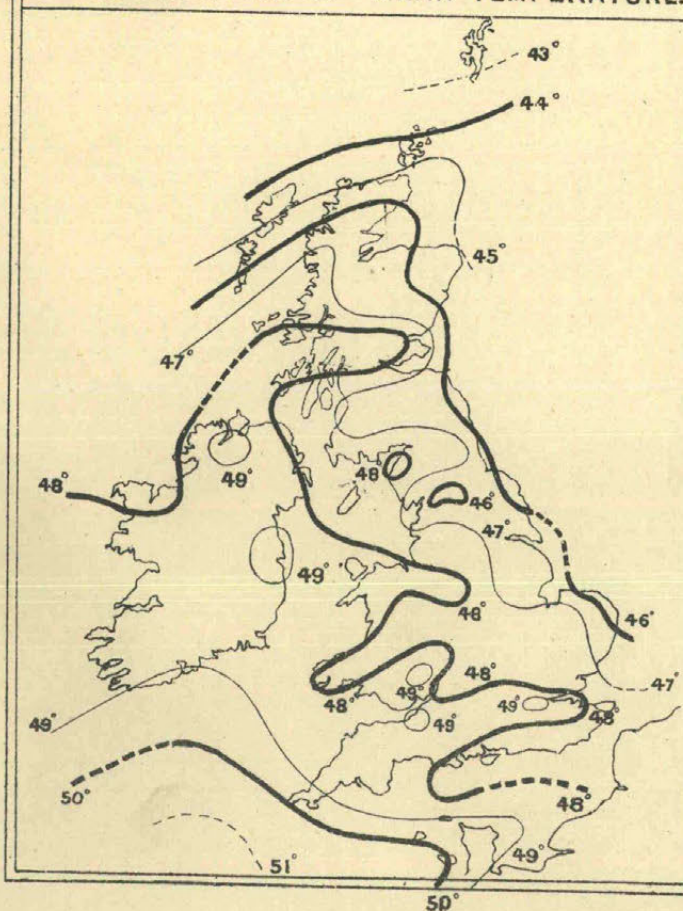
1. BAROMETER AND WIND.



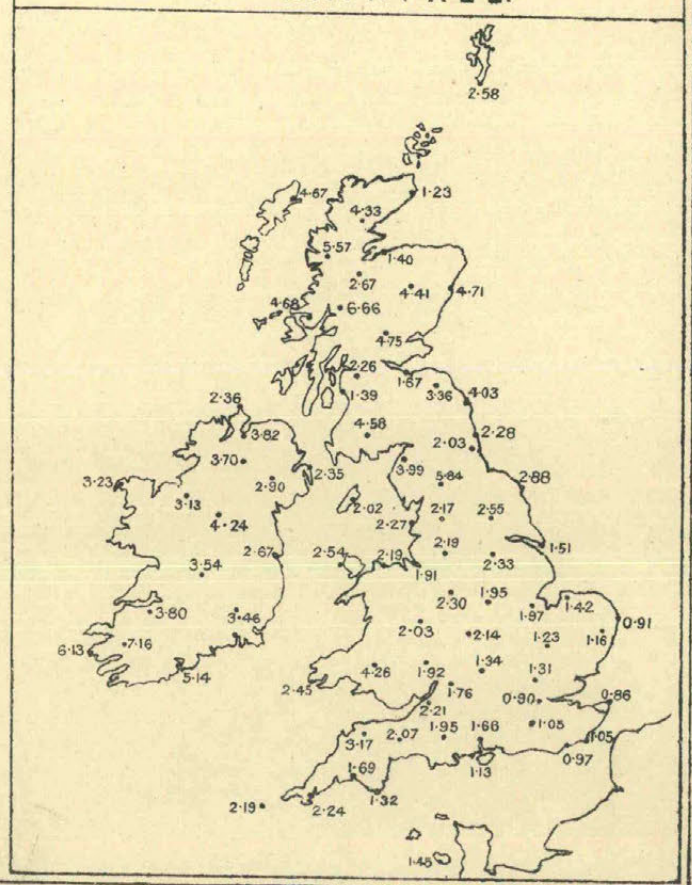
2. MOVEMENTS OF DEPRESSIONS.

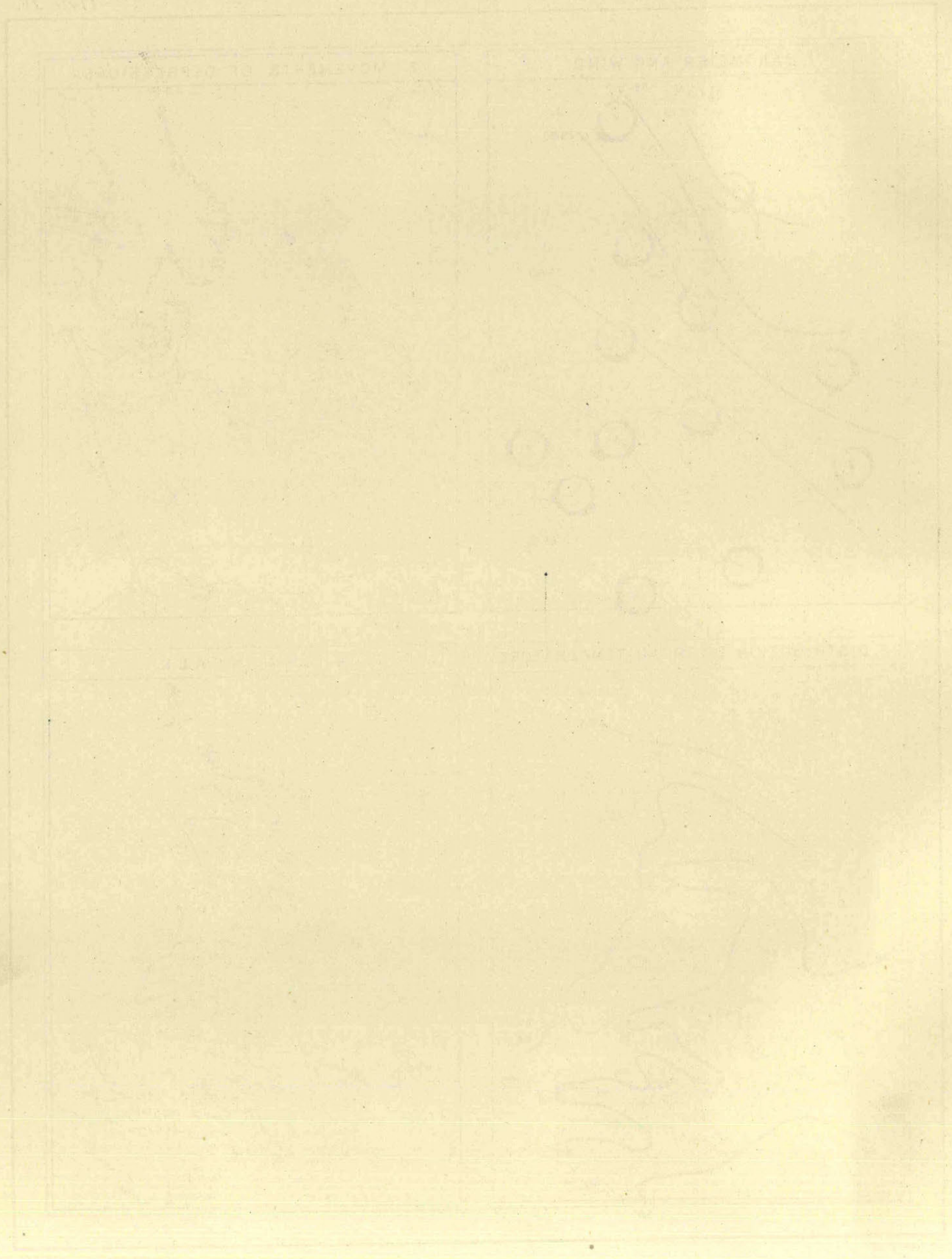


3. DISTRIBUTION OF MEAN TEMPERATURE.



4. RAINFALL.





OFFICIAL COPY.

SUMMARY of the OBSERVATIONS made at the STATIONS included
in the DAILY and WEEKLY WEATHER REPORTS for the
CALENDAR MONTH,

MAY 1898.

(Issued as a Supplement to the Weekly Weather Report, 1898.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & Co., 12, HANOVER ST.,
EDINBURGH, and 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS, & Co., LIMITED, 104, GRAFTON STREET, DUBLIN.

General Summary.—The weather of May was for the most part cool and very changeable, with frequent rain in nearly all districts, and occasional falls of hail, sleet or snow in the north. Thunder and lightning were observed (chiefly over England) between the 1st and 4th, the 11th and 13th, the 20th and 25th, and on the 31st. Pressure and temperature were each below the average; the winds, though rather variable, were mainly from some Northerly point; rainfall was largely in excess of the normal over the country generally, but rather deficient in the north of England and the southern and central parts of Scotland; bright sunshine was less than the average, excepting in the extreme north and north-west.

Pressure.—*Mean at 8 a.m.* ranged from a little below 29·90 ins. in the west of Ireland to 29·82 ins. and less on the east coasts of Great Britain, and to about 29·75 ins. in the Shetlands, the gradient over our islands being slight and favourable for winds from a more Northerly quarter than is usual in May. The mean values were in all cases below the average,* the deficit being slight in Ireland, but rather large in the eastern parts of the United Kingdom. *Highest* readings occurred on the 7th in all the more southern districts, but on the 18th in the north, the barometer in each case rising above 30·3 ins. *Lowest* readings occurred on the 11th, when the barometer fell below 28·9 ins. over nearly the whole of Scotland and the north-east of England, and below 29·3 ins. at all but a few of the English Channel stations. *Range* was large for the time of year over the northern parts of Great Britain, but moderate elsewhere.

Depressions were rather numerous, the most important being observed between the 10th and 12th, when the centre of a deep system moved eastwards across Scotland and the North Sea, and eventually in a northerly and north-westerly direction over Norway. The depressions which advanced from the southward between the 18th and 20th occasioned heavy falls of rain in many parts of England.

Anticyclones.—The anticyclones observed in our immediate neighbourhood were of a very transient character. On the 6th–7th, the 16th and the 28th, one of these systems advanced temporarily over our islands from the westward or south-westward, while on the 18th a large area spread from northern Europe over all but the extreme southern parts of the Kingdom. In each case the system soon moved away in the direction from which it had originally advanced.

Winds varied a good deal from time to time, but at most stations there was a preponderance of breezes from some Northerly quarter (North-west to North-east). Gales were rather frequent for the time of year, 3 or 4 being reported in several places, and as many as 7 at Scilly.

Temperature.—*Mean at sea level* ranged from 54° at Jersey, and 53° and upwards at several stations in the south of England, to 47° and less in the north of Scotland, and to a little below 45° in the Shetlands. The general distribution was in fair accordance with the normal, but the actual values were in nearly all cases below the average,* the deficit being slight as a rule, but rather large in the north of Scotland. *Highest* readings occurred mainly on the 23rd or 24th, when the thermometer exceeded 70° at many of the English stations, and reached 76° in London and 77° at Cambridge. *Lowest* readings occurred at various times between the 13th and 17th, when frost occurred at most of the inland stations. In the screen the lowest readings were 26° at Lairg, and 28° at Nairn, Braemar and Glenlee, but on the surface of the grass the thermometer fell on the 13th to 17° at Ochertyre, and on the 14th to 21° at Fort William. *Range* was moderate. *Vapour Tension* ranged from 0·34 in. at Jersey, and 0·32 in. or more on our south coasts generally, to 0·26 in. or less in the Shetlands, the Hebrides and the east of Scotland. *Relative Humidity* varied from 92 per cent. at Malin Head, 89 per cent. at Dungeness, and 86 per cent. at Wick, to 76 per cent. at Liverpool, 75 per cent. at Aberdeen, and 73 per cent. at Leith.

Rainfall.—Over the United Kingdom, as a whole, the rainfall was largely in excess of the average,* the only regions with any general deficiency being the extreme north of England and the central and southern parts of Scotland. At several stations in the west and south of Great Britain the amount was more than twice as much as the normal. The largest aggregates reported were 6·2 ins. at Glencarron, 5·2 ins. at Llandudno, and 4·8 ins. at Shaftesbury; the smallest being 1·2 in. at Ardrossan, 1·6 in. at Durham and Spurn Head, and 1·7 in. at Leith and Bawtry. The number of days with rain was mostly large; at Stornoway and Markree Castle there were 24, and at Alnwick Castle and Southampton 25, while at Belmullet there were as many as 27 days with a measurable quantity. Falls exceeding an inch in 24 hours were experienced in isolated places at various times during the month, the largest being 1·3 in. both at Scarborough on the 20th and at Churchstoke on the 23rd. On the 2nd a severe hailstorm occurred in Plymouth and its vicinity, while on the 11th and 12th, the 16th, and even as late as the 31st, showers of snow or sleet were reported at several stations in the northern parts of Great Britain.

Bright Sunshine was less than the average* at all but the extreme northern and north-western stations, the deficiency being large in the eastern, central, and southern parts of England. The percentage of the possible duration ranged from 44 at Douglas (Isle of Man), 43 at Southport, and 42 at Fort Augustus and Falmouth, to 26 at Newcastle-on-Tyne, Rothamsted, and in London, and to 25 at Watergate (Emsworth).

* The averages employed are—*Pressure and Temperature* for the 25 years 1871–95; *Rainfall* for the 30 years 1866–95; and *Bright Sunshine* for the 15 years 1881–95.

SUMMARY OF OBSERVATIONS, MAY 1898.

TABLE IX.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC Observations are made at 8 a.m. daily, but the Numbers of Days of Rain, Snow, Hail, (The Stations are grouped in Districts, and then arranged in order of Latitude,

(The Stations are grouped in Districts, and then arranged in order of Latitude,														
NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	Difference from Average.	AIR TEMPERATURE.								TENSION OF VAPOUR.	RELATIVE HUMIDITY.	
				Means of					Absolute Extremes.					
				At 8 a.m.	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.			Date.
0. SCOTLAND, N.	Sumburgh Head	Ins. 29°757	Ins. -0°132	45°1	39°7	49°3	44°5	-0°8	33	17th	53	7th, 8th, 28th	Ins. 0°254	85
	Wick	29°792	-1°115	47°4	39°1	53°4	46°3	-1°0	30	14th	62	17th	279	86
	Stornoway	29°802	-0°91	45°9	39°0	52°0	45°5	-1°8	32	14th	63	19th, 20th, 21st	258	84
1. SCOTLAND, E.	Nairn	29°815	-0°97	47°7	38°7	55°0	46°8	-2°5	28	10th	63	3rd	265	80
	Aberdeen	29°813	-1°113	48°3	40°7	53°1	46°9	-1°5	34	10, 16, 18, 19	65	8th	253	75
	Leith	29°820	-1°116	50°1	41°3	57°0	49°2	-0°9	30	18th	65	28th	264	73
2. ENGLAND, N.E.	Shields	29°835	-1°112	48°0	40°9	53°1	47°0	-1°6	34	12th	62	29th	270	81
	York	29°841	-1°124	49°0	41°7	56°9	49°3	-1°8	34	13th	67	22nd	272	78
	Spurn Head	29°812	-1°144	49°2	44°9	53°7	49°3	-0°4	38	13th	61	29th	289	83
3. ENGLAND, E.	Yarmouth	29°824	-1°142	49°9	44°3	54°0	49°2	-0°9	34	16th	59	23rd, 29th	296	83
	Cambridge	29°850	-1°128	50°8	42°6	60°1	51°4	-0°9	34	13th, 17th	77	23rd	313	84
4. MIDLAND COUNTIES	Loughborough	29°851	-1°125	49°5	42°6	58°2	50°4	-1°9	35	7th	70	23rd	284	80
	Oxford	29°853	-1°131	50°3	44°4	58°7	51°6	-0°7	34	13th	72	23rd	290	80
5. ENGLAND, S.	London	29°849	-1°133	51°6	45°7	60°1	52°9	-0°7	34	13th	76	23rd	297	77
	North Foreland	29°843	-1°127	50°6	46°1	55°7	50°9	-0°2	38	17th	63	3rd	313	85
	Dungeness	29°824	-1°144	51°1	46°5	56°5	51°5	-0°3	35	13th, 17th	64	23rd	335	89
	Hurst Castle	29°847	-1°136	52°4	48°3	58°0	53°2	+0°7	38	17th	70	23rd	323	82
6. SCOTLAND, W.	Ardrossan	29°824	-1°114	50°0	43°2	55°7	49°5	-0°8	35	14th	65	20th, 24th	298	83
7. ENGLAND, N.W.	Hawes Junction*	28°596	?	43°5	37°8	51°7	44°8	?	31	13th, 16th	60	22, 23, 24	248	87
	Liverpool	29°849	-1°116	49°9	43°9	55°9	49°9	-1°8	38	10th, 13th, 19th	68	24th	270	76
	Holyhead	29°851	-1°110	50°3	45°1	55°7	50°4	-0°8	41	13th, 19th	66	23rd	314	86
8. ENGLAND, S.W.	Pembroke	29°856	-1°109	50°4	46°1	53°7	49°9	-0°7	39	19th	67	23rd	298	82
	Prawle Point	29°863	-1°125	51°3	46°0	55°4	50°7	-0°5	39	13th	65	23rd	334	88
9. IRELAND, N.	Malin Head	29°827	-0°91	48°7	44°6	52°0	48°3	-1°6	38	12th	58	1st	314	92
	Donaghadee	29°853	-0°99	50°1	43°3	56°2	49°8	-0°6	35	16th	64	24th	297	82
	Belmullet	29°895	-0°46	50°7	44°5	54°8	49°7	-1°3	37	14th	67	24th	295	80
10. IRELAND, S.	Parsonstown	29°870	-0°93	50°7	43°0	57°9	50°5	-0°8	32	16th	69	24th	297	81
	Valencia	29°897	-0°70	51°7	46°1	56°2	51°2	-1°1	35	14th	64	25th	303	79
	Roche's Point	29°889	-0°75	51°8	47°0	57°4	52°2	-0°3	40	14th	67	20th	321	83
CHANNEL ISLANDS	Seilly	29°859	-1°116	52°7	48°3	56°1	52°2	-0°2	43	16th	62	24th	333	84
	Jersey	29°865	-1°127	53°6	49°0	58°7	53°9	+0°3	42	1st	71	23rd	344	83

* Hawes Junction is 1,135 feet above Mean Sea Level, and the

BRIGHT SUNSHINE VALUES FOR MAY

Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.	Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.
Deerness (Orkney Islands)	200°6	?	39	?	Hollesley Bay (Suffolk)	141°5	?	29	?
Strathpeffer Spa	162°6	-10°4	32	-2	Sheffield	144°1	-29°8	30	-6
Edinburgh	159°3	-5°3	32	-1	Workshop	142°7	-40°6	29	-9
Morpeth (Cockle Park)	147°4	?	30	?	Thurcaston	157°0	-39°4	33	-8
Newcastle-on-Tyne	127°0	?	26	?	Plumstead Common				
Oswaldkirk	155°9	-18°3	32	-3	Margate				

SUMMARY OF OBSERVATIONS, MAY 1898.

xix

REPORTING STATIONS in the BRITISH ISLANDS during the Month of MAY 1898.

Thunderstorms, and Gales are counted irrespective of the Hours at which they occurred.
(beginning in each case with the Station lying furthest North.)

AMOUNT OF CLOUD.	RAINFALL.				WEATHER. No. of Days of								WIND. No. of Observations of								NAMES OF STATIONS.
	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calm.	
7.9	Ins. 2.19	+0.43	0.36	28th	19	1	0	0	0	19	2	5	7	3	2	1	3	5	5	0	Sumburgh Head.
6.6	2.57	+0.80	0.70	31st	21	0	4	0	5	12	4	6	0	6	3	3	4	3	6	0	Wick
7.4	3.10	+0.57	0.55	10th	24	1	2	0	3	16	0	6	1	6	2	3	1	4	6	2	Stornoway.
6.2	2.08	+0.40	0.45	31st	17	1	1	0	1	7	0	1	1	8	1	0	2	12	2	4	Nairn.
6.8	2.96	+0.95	0.74	2nd	20	1	3	0	0	9	4	5	3	2	2	4	1	4	10	0	Aberdeen.
7.6	1.69	-0.01	0.42	2nd	15	0	1	0	1	15	1	1	2	9	1	1	4	8	3	2	Leith.
7.7	2.16	+0.52	0.76	21st	15	1	1	0	0	13	0	9	4	2	0	1	7	3	4	1	Shields.
5.4	2.22	+0.35	0.82	20th	17	0	1	2	12	10	1	8	2	2	3	4	2	5	5	0	York.
6.4	1.61	0.00	0.35	20th	16	0	0	2	3	10	2	5	3	4	1	3	3	4	7	1	Spurn Head.
5.2	2.10	+0.27	0.35	10th	17	0	0	1	7	4	3	4	4	3	1	3	3	5	7	1	Yarmouth.
6.6	2.55	+0.68	0.45	20th	19	0	0	1	6	17	0	12	2	3	1	4	4	2	3	0	Cambridge.
6.8	2.55	+0.50	0.47	20th	22	0	0	2	2	13	4	3	4	3	1	2	3	6	7	2	Loughborough.
6.7	2.33	+0.50	0.36	20th	22	0	0	1	7	14	0	5	5	2	2	4	2	6	4	1	Oxford.
7.0	2.44	+0.67	0.56	19th	20	0	0	3	5	18	1	1	5	3	3	1	6	4	8	0	London.
6.8	2.98	?	0.46	13th	20	0	0	1	0	12	3	1	4	4	1	4	4	5	7	1	North Foreland.
7.6	2.36	+0.70	0.27	2nd, 14th	19	0	0	5	1	13	4	5	5	6	1	3	6	2	3	0	Dungeness.
7.0	3.21	+1.57	0.46	20th	18	0	0	2	0	12	0	3	8	4	1	3	3	6	1	2	Hurst Castle.
5.1	1.15	-1.13	0.38	10th	15	0	2	0	12	11	3	2	6	2	1	3	2	12	3	0	Ardrossan.
6.9	3.25	?	0.95	10th	17	2	0	0	0	13	0	7	2	8	1	3	7	1	2	0	Hawes Junction.*
6.9	4.51	+2.68	1.03	22nd	17	0	1	1	6	16	4	2	3	5	3	0	5	8	4	1	Liverpool.
7.3	3.45	+1.60	0.71	13th	21	0	1	2	1	10	2	5	6	1	0	2	5	6	6	0	Holyhead.
6.2	3.78	+1.82	1.24	2nd	20	0	0	0	7	15	4	4	5	3	5	2	4	2	6	0	Pembroke.
6.8	3.94	+2.46	0.73	5th	20	0	0	0	0	11	3	6	6	4	1	2	3	7	2	0	Prawle Point.
5.7	3.37	?	0.64	10th	21	0	2	1	1	5	2	5	3	3	4	2	2	5	7	0	Malin Head.
5.9	2.63	+0.42	0.60	2nd	20	1	0	0	0	7	4	4	2	4	2	1	3	8	7	0	Donaghadee.
7.3	3.01	+0.18	0.69	2nd	27	0	0	0	3	19	0	2	5	5	1	1	2	5	10	0	Belmullet.
7.3	2.72	+0.41	0.40	2nd	20	0	0	1	2	17	0	3	0	3	7	0	1	7	5	5	Parsonstown.
7.6	1.87	-1.26	0.30	7th	22	0	1	0	3	16	3	4	6	3	2	2	2	5	4	3	Valencia.
6.5	3.39	+0.38	0.60	2nd	14	1	1	1	0	11	4	9	3	1	3	2	2	4	7	0	Roche's Point.
7.7	3.32	+1.63	0.57	11th	17	0	0	0	0	13	7	6	3	5	1	3	2	5	6	0	Scilly.
6.7	3.83	+1.97	0.58	14th	20	0	1	2	4	15	5	2	5	4	4	1	3	6	6	0	Jersey.

Barometer at this Station is not reduced for altitude.

IN ADDITION TO THOSE FOUND IN TABLE X.

Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.	Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.
Eastbourne	160.0	-66.4	34	-13	Colwyn Bay	182.2	?	37	?
Brighton	146.9	-69.4	31	-14	Tenby	156.1	-62.7	32	-13
Watgate (Emsworth) ..	120.8	?	25	?	Torquay	170.0	-49.8	36	-10
Westbourne (Emsworth) ..	162.8	-64.5	34	-14	Newquay	176.0	-36.3	37	-8
Ventnor Hospital	168.3	?	35	?	Guernsey	175.7	-89.3	38	-19
Southport	213.4	?	43	?					

TABLE X.

OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE, obtained from the VALUES supplied for use in the WEEKLY WEATHER REPORT, for the Month of MAY 1898.

NAMES OF STATIONS.	AIR TEMPERATURE.								RAINFALL.				BRIGHT SUNSHINE.				
	Means of				Absolute Extremes.				No. of Rainy Days.	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Hours recorded.	Difference from Average.	Per-centage of possible Duration.	Difference from Average.
	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.									
STORNOWAY	o	o	o	o	o		o			Ins.	Ins.	Ins.		201.7	+16.9	40	+4
LAIRG	36.4	54.7	45.6	-2.1	26	14th	67	19th	17	3.18	+0.99	0.91	4th	—	—	—	—
GLENCARRON	38.7	52.6	45.7	-2.6	30	14th	62	7th, 19th, 20th	23	6.20	+1.53	1.11	31st	—	—	—	—
FORT AUGUSTUS	39.7	54.5	47.1	-2.7	31	7, 10, 16, 18	64	7th, 18th	19	2.20	+0.11	0.37	21st	154.5	+30.0	31	+6
FORT WILLIAM	41.2	55.3	48.3	-1.9	32	14th	65	19th	19	2.64	-0.92	0.91	10th	212.4	+41.4	42	+8
ABERDEEN														198.8	+6.6	39	+1
BRAEMAR	36.0	52.2	44.1	-2.1	28	17th, 20th	62	23rd	21	2.02	-0.19	0.32	2nd	179.5	-1.8	36	o
OCHTERTYRE	38.8	59.1	49.0	-1.0	29	13th	68	21st	11	2.39	-0.02	0.88	10th	—	—	—	—
MARCHMONT	37.5	53.6	45.6	-2.5	30	14th	62	7th	14	2.28	-0.10	0.57	4th	166.5	-18.5	33	-4
ALNWICK CASTLE	39.4	54.6	47.0	-1.0	30	14th	62	29th, 30th, 31st	25	1.80	-0.35	0.55	21st	—	—	—	—
DURHAM	39.3	55.1	47.2	-1.9	30	15th	64	7th	21	1.63	-0.41	0.38	21st	148.1	-26.6	30	-5
SCARBOROUGH	41.4	53.9	47.7	-1.8	36	17th	62	29th, 30th	7	2.17	+0.21	1.31	20th	177.6	?	36	?
YORK														145.8	-42.0	30	-8
HILLINGTON	41.8	57.7	49.8	-1.5	31	17th	72	23rd	19	2.56	+0.70	0.42	31st	171.9	-38.6	35	-8
GELDESTON	42.6	57.1	49.9	-1.1	32	15th	65	22nd, 23rd	20	3.24	+1.51	1.03	20th	169.6	-56.0	35	-12
CAMBRIDGE														178.4	-21.2	37	-4
ROTHAMSTED	43.2	57.9	50.6	-0.4	35	13th, 15th, 17th	72	23rd	21	2.64	+0.53	0.50	19th	124.4	-74.2	26	-15
BAWTRY	41.4	58.9	50.2	-1.0	34	18th, 27th	69	23rd	19	1.70	-0.34	0.45	20th	—	—	—	—
STAMFORD (Duddington)	42.0	57.8	49.9	-2.1	33	17th	70	23rd	22	2.74	+0.47	0.62	20th	—	—	—	—
CHEADLE	41.7	54.9	48.3	-1.4	35	13th, 16th	67	23rd	19	3.85	+1.52	0.56	31st	—	—	—	—
SHIRLEY (nr. Solihull)	42.3	57.4	49.9	-1.9	34	15th, 17th	70	23rd	23	4.48	?	0.93	22nd	—	—	—	—
CHURCHSTOKE	40.0	56.9	48.5	-1.2	32	7th	67	23rd	21	4.63	+1.32	1.26	23rd	163.0	-25.2	34	-5
HEREFORD	43.1	58.1	50.6	-1.5	34	13th	72	23rd	19	4.32	+2.24	0.94	20th	—	—	—	—
CIRENCESTER	43.3	58.2	50.8	0.0	32	17th	69	23rd	21	3.06	+0.91	0.51	19th	148.4	-53.6	31	-11
OXFORD														140.7	-55.9	29	-12
LONDON														127.7	-55.3	26	-12
CRANLEY	43.9	58.9	51.4	-1.4	32	13th	72	23rd	23	3.78	?	0.70	20th	—	—	—	—
HASTINGS	46.1	57.1	51.6	-0.4	35	13th	70	23rd	18	4.12	+2.45	0.81	13th	154.3	-84.1	32	-18
SOUTHAMPTON	46.5	60.4	53.5	+0.1	36	13th	73	23rd	25	4.47	+2.59	1.08	24th	155.6	-62.3	33	-13
SHAFTESBURY	43.9	56.4	50.2	-0.8	36	13th, 19th	69	23rd	19	4.76	+2.63	0.93	20th	—	—	—	—
LAUDALE	41.5	55.8	48.7	-1.7	31	14th	69	23rd	21	3.85	+0.14	0.68	10th	—	—	—	—
GLASGOW	41.9	55.4	48.7	-1.3	33	14th	62	20, 21, 24, 25	14	2.33	-0.10	0.66	2nd	202.7	+43.8	41	+9
GLENLEE	39.1	57.1	48.1	-1.6	28	14th	68	24th	20	2.70	-0.29	0.79	10th	—	—	—	—
GILCRUX (Cumberland)	40.9	56.0	48.5	-0.9	32	14th	67	23rd	22	3.34	?	0.70	10th	177.0	?	36	?
DOUGLAS	43.1	56.7	49.9	0.0	33	15th	64	24th, 25th	19	3.62	+1.44	0.46	10th	217.5	-3.1	44	-1
STONYHURST	42.6	54.9	48.8	-1.7	36	16th	66	24th	19	3.57	+0.88	1.05	10th	174.8	-15.9	36	-3
BLACKPOOL	43.7	58.1	50.9	+0.1	34	15th	69	24th	19	4.35	+2.33	0.63	22nd	202.5	+10.0	41	+2
MANCHESTER (Prestwich)	42.2	55.6	48.9	-1.6	34	13th	64	22, 23, 24	18	3.47	+1.05	0.86	10th	159.7	?	33	?
LLANDUDNO	45.0	55.8	50.4	-1.3	40	2nd, 15th	67	24th	20	5.16	+3.36	0.72	22nd	179.1	-10.0	37	-2
LLANDOVERY	41.9	59.8	50.9	-0.9	29	16th	74	23rd	23	4.04	+1.27	0.65	10th	—	—	—	—
PEMBROKE														184.0	-33.3	38	-7
CLIFTON	46.1	57.7	51.9	+0.2	38	19th	72	23rd	19	3.39	+1.09	0.68	20th	—	—	—	—
ARLINGTON	43.5	56.4	50.0	-0.7	35	7th, 17th	70	23rd	20	4.67	+1.84	0.68	11th	—	—	—	—
CULLOMPTON	45.5	59.6	52.6	+0.2	33	17th	73	23rd	20	4.18	+2.05	1.13	24th	161.1	-37.6	34	-8
FALMOUTH	47.2	56.6	51.9	-0.1	40	19th	62	23rd, 24th, 26th	18	4.11	+1.55	0.77	5th	199.1	-27.4	42	-6
PLYMOUTH-	46.5	57.3	51.9	-1.6	40	13th, 17th, 19th	70	23rd	18	4.03	+2.00	1.13	2nd	169.2	-42.9	36	-9
SCILLY														187.4	?	40	?
JERSEY														176.5	-72.7	38	-15
LONDONDERRY	43.0	57.8	50.4	-1.2	34	14th	70	24th	22	3.61	+1.20	0.53	16th	—	—	—	—
EDENFEL (Omagh)	41.9	56.4	49.2	-0.4	32	13th, 16th	70	24th	20	3.26	+0.92	0.67	7th	—	—	—	—
MARKREE CASTLE	42.3	56.9	49.6	-0.2	31	14th	69	24th	24	4.35	+1.89	0.76	2nd	190.8	+7.6	39	+2
ARMAGH	40.7	57.0	48.9	-1.5	32	14th, 16th	65	24th	20	3.53	+1.46	0.57	7th	179.3	+0.7	37	+1
EDGEWORTHSTOWN	41.4	57.6	49.5	-1.0	31	16th	67	24th	17	2.55	+0.07	0.72	7th	—	—	—	—
DUBLIN	45.1	57.3	51.2	-0.8	36	16th	64	8th, 20th, 25th	20	3.33	+1.26	0.67	2nd	182.6	-25.2	38	-5
PARSONSTOWN														158.8	-21.4	33	-4
KILKENNY CASTLE	43.5	57.8	50.7	-1.0	32	16th	68	25th	23	2.43	+0.30	0.66	2nd	—	—	—	—
VALENCIA (Cahiriveen)														161.9	-44.5	34	-9
KILLARNEY	44.7	57.6	51.2	-0.9	31	14th	66	25th	19	2.99	?	0.49	21st	—	—	—	—
FOYNES	45.8	56.9	51.4	+0.3	34	14th	66	20th	16	3.64	?	1.02	3rd	—	—	—	—

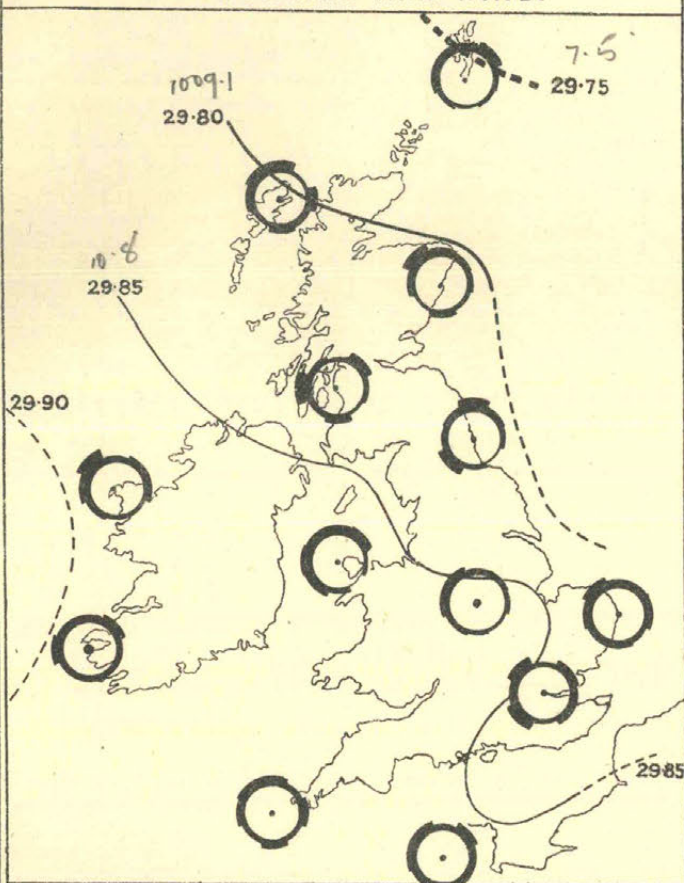
* For this information and additional Reports of Bright Sunshine, see Table IX.

MONTHLY WEATHER CHART MAY 1898.

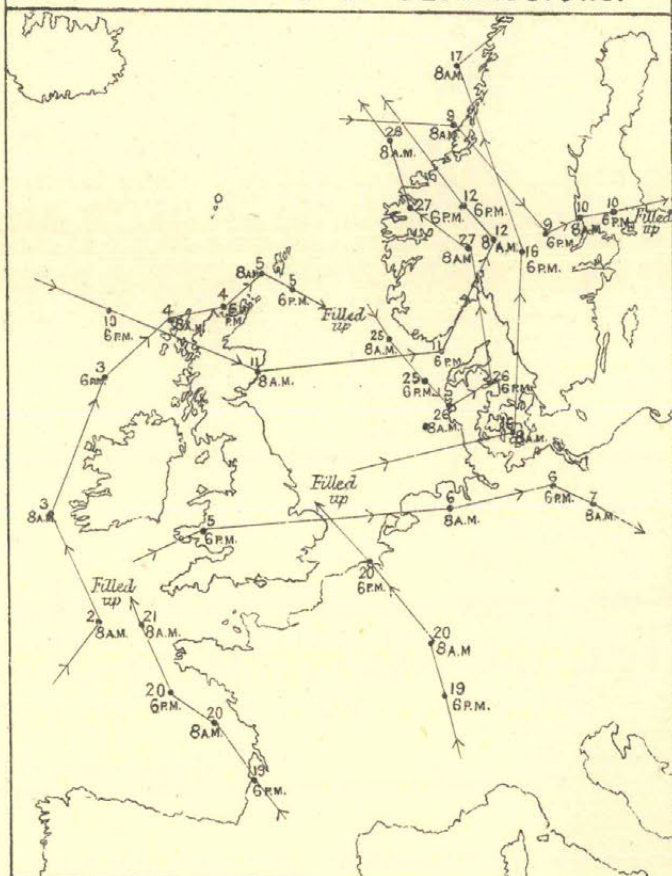
Monthly Summary.

Plate V.

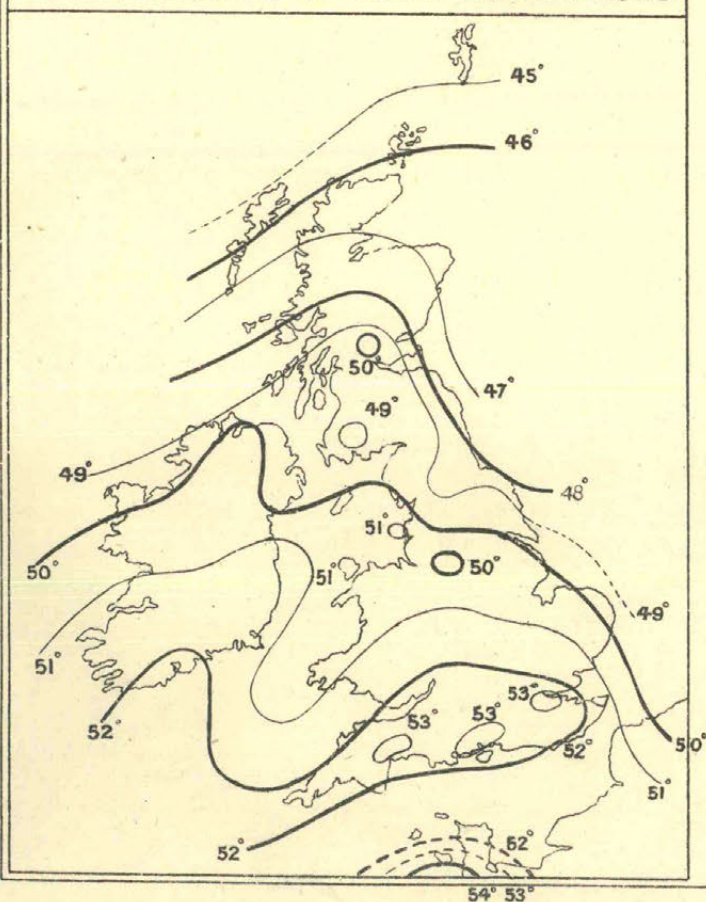
1. BAROMETER AND WIND.



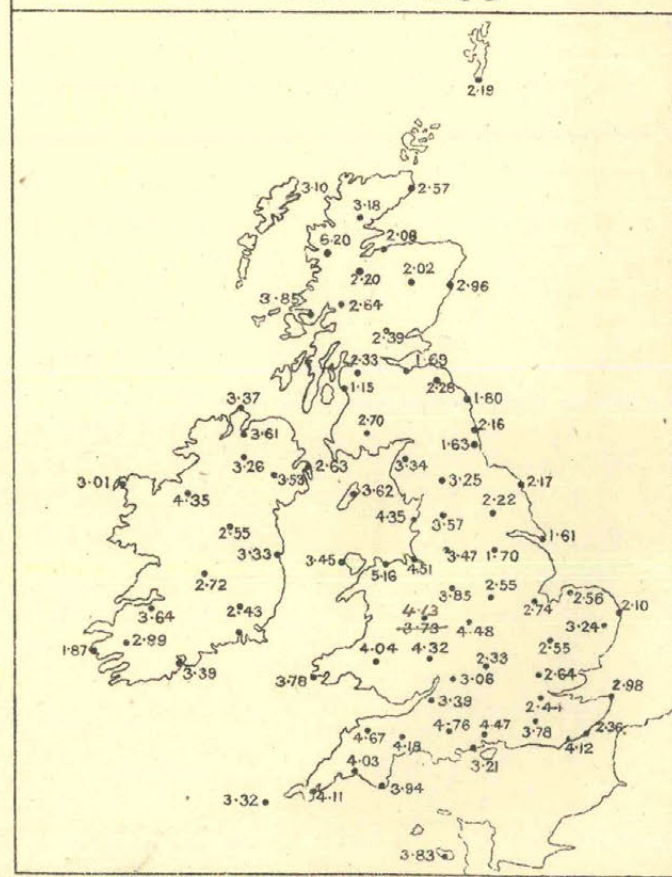
2. MOVEMENTS OF DEPRESSIONS.



3. DISTRIBUTION OF MEAN TEMPERATURE.



4. RAINFALL.



OFFICIAL COPY.

SUMMARY of the OBSERVATIONS made at the STATIONS included
in the DAILY and WEEKLY WEATHER REPORTS for the
CALENDAR MONTH,

JUNE 1898.

(Issued as a Supplement to the Weekly Weather Report, 1898.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & Co., 12, HANOVER ST.,
EDINBURGH, and 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS, & Co., LIMITED, 104, GRAFTON STREET, DUBLIN.

General Summary.—The weather of June was changeable and showery, with occasional thunderstorms in most districts. Showers of snow or sleet were experienced on the 1st in several parts of Great Britain,—as far south even as Dunstable and Oxford. Pressure differed but little from the average; temperature was rather low for the time of year excepting in Scotland; the winds were mainly from between West and North; rainfall varied greatly in different places, but was upon the whole rather deficient over Great Britain, and in excess of the average in Ireland; bright sunshine was less than the normal at all but a few of our western stations.

Pressure.—*Mean at 8 a.m.* ranged from 30.0 ins. and upwards over the southern parts of Ireland and England, to 29.9 ins. and less in the north of Scotland, and to very little above 29.85 ins. in the Shetlands and Hebrides, the gradient over our islands being more decided than usual for the time of year, and favourable for winds from the northward of West. The actual mean values differed but little from the average,* a slight excess being shown in the west, but a deficiency in most other parts of the Kingdom. *Highest* readings occurred at various times between the 11th and 15th, when the barometer rose to 30.3 ins. and upwards in all localities excepting the south-east of England. *Lowest* readings were observed on the 24th and 25th, the mercury falling to 29.3 ins. and less over the northern parts of Great Britain, and to 29.5 ins. and less in nearly all other parts of the United Kingdom. *Range* was moderate in the north, but slight in the south.

Depressions were rather numerous for the time of year, and moved in various directions. The most important systems were those which travelled respectively northward over the North Sea on the 1st and 2nd, and southward over Great Britain between the 24th and 26th. The small shallow disturbance which hung over France and Belgium on the 8th and 9th occasioned very heavy falls of rain in the neighbouring parts of England.

Anticyclones.—On the 7th a large anticyclone began to extend southward from northern Europe, its influence being felt over all the north western countries until the 17th, when the system moved southwards, and took up a position to the south-westward of our islands. Another system spread in from the Atlantic on the 27th, but this soon passed away to France and Southern Europe.

Winds, though rather variable, were chiefly from some point between West and North, the polar current being most in evidence on our east coast. At some of the southern Stations, *e.g.*, London and Jersey, there was a somewhat large admixture of breezes from the North-eastward. No gales were reported in the east and south, but at several of our western and northern stations there were 2 or 3, at Malin Head 4, and at Scilly as many as 5.

Temperature.—*Mean at sea level* ranged from 58° and upwards at most inland stations in the south of England, and also at Dublin, and 57° and upwards in some parts of central Scotland, to 53° and less in Caithness and the Hebrides, and to 49° and less in the Shetlands. The general distribution was in fair agreement with the normal, but the actual values were below the average* in most districts, a slight excess being reported, however, at some of the Scotch Stations. *Highest* readings were reported at various times in the different districts,—mainly between the 9th and 11th in the west, but on the 17th the 18th or the 29th in most other places. On one or other of these dates readings above 75° were recorded in most parts of the kingdom, but in no case did the thermometer reach 80°. *Lowest* readings occurred chiefly between the 1st and 3rd, but at some of the central English stations on the 15th, and in the north of Scotland mainly on the 27th or 28th. On each of these occasions a ground frost was experienced in many places, while on the morning of the 15th the thermometer even in the screen fell to 32° at Bawtry, Loughborough and Shirley. Owing to the low minima the extreme range of temperature was large at many of the inland stations,—as much as 44° at Loughborough and 43° at Bawtry and Llandovery. *Vapour Tension* ranged from 0.39 in. and upwards at most of the English Channel stations, and at Ardrossan, to between 0.32 in. and 0.34 in. in the east and north-east of Scotland. *Relative Humidity* varied from 92 per cent. at Sumburgh Head, and 85 per cent. at many of the coast stations, to 75 per cent. at Aberdeen, Leith and in London.

Rainfall varied greatly in amount in different localities. Over Great Britain, as a whole, it was less than the average,* and at a few of the English stations, including London, less than half the normal. In many parts of our eastern and south-western counties, however, and also over the northern and central parts of Ireland the amount was more than the average, the excess in the east of England being due entirely to a heavy fall which occurred on the 9th. The largest aggregates recorded in the month were 4.4 ins. at Hawes Junction, 4.1 ins. at Glencarron, Laudale, and Fort William, 3.9 ins. at Markree Castle, and 3.7 ins. at Edgeworthstown; the smallest being 0.7 in. at Bawtry, 0.8 in. at Loughborough, and 0.9 in. at Stamford. In addition to the heavy fall noticed in the east of England on the 9th, when 1.7 in. fell at Yarmouth and 1.6 in. at Geldeston, amounts exceeding an inch in 24 hours were reported at Plymouth on the 12th, and at Laudale, Fort William and Gilerux on the 23rd.

Bright Sunshine was slightly in excess of the average* at some of the western stations in Great Britain, but showed a deficit over the country generally, and especially in the east and south-east of England. The percentage of the possible duration ranged from between 50 and 53 on several parts of our south-west coasts, to 30 and less at many of the northern and eastern stations, to 23 at Deerness and Morpeth, and to 22 at Newcastle-on-Tyne.

* The averages employed are—*Pressure and Temperature* for the 25 years 1871–95; *Rainfall* for the 30 years 1866–95; and *Bright Sunshine* for the 15 years 1881–95.

TABLE XI.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC
Observations are made at 8 a.m. daily, but the Numbers of Days of Rain, Snow, Hail,
(The Stations are grouped in Districts, and then arranged in order of Latitude,

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	Difference from Average.	AIR TEMPERATURE.								TENSION OF VAPOUR.	RELATIVE HUMIDITY.	
				Means of					Absolute Extremes.					
				At 8 a.m.	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.			Date.
0. SCOTLAND, N.	Sumburgh Head	Ins. 29.875	-0.023	49.1	44.6	53.3	49.0	-0.8	40	1st	59	9th, 29th	Ins. 0.321	92
	Wick	29.899	-0.017	52.6	45.4	58.2	51.8	-0.4	39	1st, 3rd, 28th	64	8th, 21st, 29th	.337	85
	Stornoway	29.873	-0.021	52.5	46.7	58.1	52.4	+0.3	39	1st	67	14th	.349	89
1. SCOTLAND, E.	Nairn	29.896	-0.021	54.5	45.9	63.1	54.5	-0.3	36	28th	71	28th	.340	80
	Aberdeen	29.908	-0.025	54.9	46.7	60.8	53.8	-0.3	38	28th	70	29th	.321	75
	Leith	29.918	-0.025	56.2	48.5	64.3	56.4	+0.4	41	1st	75	17th	.342	75
2. ENGLAND, N.E.	Shields	29.939	-0.020	53.3	48.0	59.8	53.9	-0.7	37	1st	73	29th	.354	87
	York	29.960	-0.019	55.8	47.5	64.7	56.1	-1.2	34	1st	74	17th	.347	77
	Spurn Head	29.948	-0.023	55.2	50.5	60.4	55.5	-0.2	41	1st	70	29th	.373	86
3. ENGLAND, E.	Yarmouth	29.963	-0.020	56.3	50.2	61.1	55.7	-0.8	37	1st	74	18th	.366	80
	Cambridge	29.990	-0.004	56.9	47.9	66.4	57.2	-1.4	38	1st	76	18th	.378	82
4. MIDLAND COUNTIES	Loughborough	29.984	-0.007	55.9	47.6	66.8	57.2	-1.5	32	15th	76	29th	.349	78
	Oxford	30.000	+0.004	56.1	49.0	65.8	57.4	-1.1	38	15th	74	17th	.352	77
5. ENGLAND, S.	London	29.996	-0.005	57.7	50.3	67.0	58.7	-1.2	40	1st	77	11th, 18th, 21st	.358	75
	North Foreland	29.989	-0.021	56.3	51.0	62.1	56.6	0.0	40	1st	74	18th, 21st	.369	81
	Dungeness	29.973	-0.016	56.3	51.6	61.5	56.6	-1.1	41	3rd	69	11th	.390	86
	Hurst Castle	30.005	-0.002	57.6	52.1	63.8	58.0	-0.3	45	3rd	73	9th	.395	83
6. SCOTLAND, W.	Ardrossan	29.926	-0.018	56.0	49.4	61.4	55.4	-0.4	43	1st	70	10th	.394	88
7. ENGLAND, N.W.	Hawes Junction*	28.718	?	50.0	43.7	58.9	51.3	?	33	1st	67	9th	.332	92
	Liverpool	29.971	-0.005	56.3	50.6	62.4	56.5	-1.1	41	1st	72	10th, 11th	.349	76
	Holyhead	29.978	+0.002	55.7	49.9	60.6	55.3	-1.2	43	2nd	70	11th	.387	87
8. ENGLAND, S.W.	Pembroke	29.999	+0.016	55.4	51.5	59.0	55.3	-0.8	42	3rd	68	11th	.361	83
	Prawle Point	30.023	+0.013	56.0	50.6	60.4	55.5	-0.7	43	1st, 15th	72	11th	.383	85
9. IRELAND, N.	Malin Head	29.916	-0.018	54.1	50.2	58.0	54.1	-0.8	43	1st	66	17th	.370	88
	Donaghadee	29.959	0.000	55.8	48.8	62.8	55.8	+0.2	40	28th	71	10th	.380	85
	Belmullet	29.978	+0.025	56.0	49.7	59.6	54.7	-1.4	44	2nd	68	10th	.365	81
10. IRELAND, S.	Parsonstown	29.986	+0.005	56.1	49.0	64.0	56.5	-0.2	41	2nd	73	10th	.374	82
	Valencia	30.018	+0.034	56.7	51.1	60.6	55.9	-1.0	45	2nd, 11th	70	13th	.376	82
	Roche's Point	30.014	+0.031	56.9	51.5	62.0	56.8	-1.0	45	2nd, 3rd	68	12th	.381	83
CHANNEL ISLANDS-	Scilly	30.020	+0.018	57.2	52.5	61.7	57.1	-0.3	46	2nd	66	18, 20, 21, 28	.397	85
	Jersey	30.035	+0.016	57.4	52.3	62.7	57.5	-1.4	45	17th	70	10th, 11th, 21st	.395	84

* Hawes Junction is 1,135 feet above Mean Sea Level, and the

BRIGHT SUNSHINE VALUES FOR JUNE

Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.	Stations	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.
Deerness (Orkney Islands)	123.5	?	23	?	Hollesley Bay (Suffolk) ..	164.7	?	33	?
Strathpeffer Spa	128.3	-45.7	24	-9	Sheffield	158.9	?	32	?
Edinburgh	143.3	-13.5	28	-2	Workop	152.0	-5.8	30	-2
Morpeth (Cockle Park) ..	115.3	?	23	?	Thurcaston	165.3	-4.7	33	-1
Newcastle-on-Tyne	112.2	?	22	?	Plumstead Common
Oswaldkirk	141.1	-20.9	28	-4	Margate	138.9	-42.7	28	-9

SUMMARY OF OBSERVATIONS, JUNE 1898.

xxiii

REPORTING STATIONS in the BRITISH ISLANDS during the Month of JUNE 1898.

Thunderstorms, and Gales are counted irrespective of the Hours at which they occurred.
beginning in each case with the Station lying furthest North.)

AMOUNT OF CLOUD.	RAINFALL.				WEATHER. No. of Days of							WIND. No. of Observations of									NAMES OF STATIONS.
	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.	
8.9	Ins. 2.18	Ins. +0.25	Ins. 0.86	17th	16	0	0	1	0	22	0	7	5	2	4	1	2	5	3	1	Sumburgh Head.
8.4	1.37	-0.38	0.25	24th	14	0	0	1	2	22	0	4	1	4	1	9	2	0	7	2	Wick
7.5	1.97	-0.79	0.30	24th	17	0	0	0	1	13	3	1	3	5	2	3	6	5	3	2	Stornoway.
7.1	1.01	-0.72	0.30	23rd	11	0	0	0	2	8	0	0	0	7	0	1	0	12	2	8	Nairn.
6.9	1.45	-0.35	0.32	6th	15	0	1	1	0	8	2	9	1	1	5	2	6	4	2	0	Aberdeen.
8.1	1.29	-0.50	0.24	1st	12	0	0	0	3	19	0	2	5	3	0	0	3	10	1	6	Leith.
8.1	1.83	+0.12	0.35	6th	13	0	0	2	0	13	0	4	3	4	2	0	9	5	3	0	Shields.
6.0	1.87	-0.34	0.67	21st	14	0	0	2	7	9	0	8	1	0	1	2	5	8	5	0	York.
7.0	1.09	-0.55	0.28	25th	14	0	0	6	2	10	0	8	2	1	3	1	5	8	2	0	Spurn Head.
4.3	2.90	+1.04	1.67	9th	15	0	0	3	9	1	0	8	3	0	2	2	4	9	2	0	Yarmouth.
8.2	2.19	+0.05	0.36	9th, 26th	14	0	0	5	2	21	0	8	2	2	1	1	10	4	2	0	Cambridge.
7.1	0.80	-1.40	0.17	23rd	13	0	2	3	3	11	0	5	3	1	2	1	6	9	2	1	Loughborough.
6.5	1.34	-0.77	0.41	24th	13	1	2	1	8	13	0	5	5	1	0	4	7	5	2	1	Oxford.
7.6	0.95	-1.04	0.18	10th	12	0	1	2	4	18	0	4	5	1	2	1	9	5	3	0	London.
7.7	2.35	?	1.31	9th	12	0	0	2	0	16	0	7	1	0	3	1	7	7	4	0	North Foreland.
7.1	1.04	-0.48	0.27	8th	9	0	0	0	0	6	0	6	5	2	0	2	10	5	0	0	Dungeness.
6.8	1.00	-0.83	0.33	8th	10	0	0	2	0	10	0	2	9	1	0	1	9	5	2	1	Hurst Castle.
6.6	1.89	-0.43	0.43	23rd	16	0	0	0	3	12	0	0	5	2	1	6	5	6	3	2	Ardrossan.
7.5	4.38	?	0.78	23rd	18	0	0	0	1	17	0	3	2	4	6	1	5	6	3	0	Hawes Junction.*
6.6	2.33	+0.34	0.58	21st	14	0	1	0	6	14	1	4	0	3	4	2	6	8	2	1	Liverpool.
6.9	1.63	-0.34	0.41	23rd	14	0	0	3	2	13	2	4	2	1	1	3	10	3	6	0	Holyhead.
5.3	1.44	-0.44	0.38	5th	10	0	0	0	7	12	0	4	1	1	4	2	5	3	9	1	Pembroke.
6.4	1.74	+0.15	0.37	24th	17	0	1	3	0	7	1	5	4	3	0	3	7	6	2	0	Prawle Point.
6.9	1.87	?	0.27	19th	18	0	1	1	1	12	4	5	0	2	3	4	5	5	5	1	Malin Head.
5.9	3.06	+1.03	0.56	20th	15	0	0	0	2	3	0	3	2	0	3	2	3	7	10	0	Donaghadee.
8.5	1.96	-0.89	0.43	23rd	22	0	0	0	2	20	1	5	4	2	0	2	5	9	3	0	Belmullet.
7.8	3.40	+1.06	0.85	25th	16	0	1	2	1	15	0	1	0	0	3	0	4	7	7	8	Parsonstown.
7.5	2.08	-1.26	0.54	5th	17	0	0	0	1	13	2	4	0	1	1	4	6	4	6	4	Valencia.
5.6	2.06	-1.01	0.75	5th	12	0	0	1	0	5	2	10	0	1	1	2	7	3	5	1	Roche's Point.
7.6	1.98	+0.22	0.57	5th	17	0	0	1	0	8	5	5	3	1	2	2	5	5	7	0	Scilly.
7.3	2.27	+0.41	0.59	24th	15	0	1	1	2	14	1	2	6	1	1	3	5	6	6	0	Jersey.

Barometer at this Station is not reduced for altitude.

IN ADDITION TO THOSE FOUND IN TABLE XII.

Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.	Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.
Eastbourne	182.6	-34.8	37	-8	Colwyn Bay	212.4	?	43	?
Brighton	163.4	-58.4	31	-12	Tenby	259.8	+25.5	53	+5
Watergate (Emsworth) ..	140.8	?	29	?	Torquay	229.9	-5.0	48	-1
Westbourne (Emsworth) ..	170.6	-39.2	35	-8	Newquay	229.6	+0.2	47	0
Ventnor Hospital	187.5	?	38	?	Guernsey	243.9	-5.7	51	-1
Southport	191.8	?	38	?					

TABLE XII.

OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE, obtained from the VALUES supplied for use in the WEEKLY WEATHER REPORT, for the Month of JUNE 1898.

NAMES OF STATIONS.	AIR TEMPERATURE.								RAINFALL.				BRIGHT SUNSHINE.				
	Means of				Absolute Extremes.				No. of Rainy Days.	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Hours recorded.	Difference from Average.	Per-centage of possible Dura- tion.	Difference from Average.
	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.									
STORNOWAY	0	0	0	0	0	*	*	*	*	Ins.	Ins.	Ins.	*	185.6	+ 0.5	35	0
LAIRG	45.0	62.8	53.9	+ 0.4	35	16th	75	28th	15	3.06	+ 0.78	1.19	9th	—	—	—	—
GLENCARRON	46.7	60.9	53.8	0.0	39	1st	67	9, 15, 16, 17, 18	20	4.09	- 0.98	0.80	24th	—	—	—	—
FORT AUGUSTUS	47.5	61.9	54.7	- 0.3	38	28th	72	28th	15	1.76	- 0.45	0.33	24th	138.6	+ 6.1	26	+ 1
FORT WILLIAM	48.5	62.5	55.5	+ 0.6	41	9th	71	11th	15	4.06	+ 0.20	1.07	23rd	168.7	- 12.8	32	- 3
ABERDEEN	*	*	*	*	*	*	*	*	*	*	*	*	*	167.2	- 29.3	32	- 5
BRAEMAR	43.3	61.8	52.6	0.0	32	28th	73	28th	12	1.27	- 1.08	0.28	6th	177.7	- 4.2	34	- 1
OCHTERTYRE	46.8	66.6	56.7	+ 0.7	38	27th	77	9th	12	1.80	- 0.91	0.44	6th	—	—	—	—
MARCHMONT	44.5	61.3	52.9	- 1.1	36	1st	74	17th	15	1.31	- 1.19	0.22	6th	163.3	- 17.8	32	- 3
ALNWICK CASTLE	46.3	62.4	54.4	+ 0.3	35	1st	74	17th, 29th	16	1.27	- 0.64	0.32	19th	—	—	—	—
DURHAM	46.2	63.7	55.0	- 0.8	35	1st	77	17th, 29th	15	1.53	- 0.36	0.29	6th	137.2	- 31.8	27	- 6
SCARBOROUGH	47.2	60.3	53.8	- 1.9	37	1st	73	17th, 29th	13	1.85	- 0.18	0.36	21st	147.1	?	29	?
YORK	*	*	*	*	*	*	*	*	*	*	*	*	*	150.6	- 22.4	30	- 4
HILLINGTON	48.4	64.9	56.7	- 0.9	37	1st	75	8th	16	2.28	+ 0.11	0.78	9th	155.7	- 38.9	31	- 8
GELDESTON	48.8	64.0	56.4	- 0.7	37	1st	76	18th	14	3.01	+ 1.36	1.61	9th	150.0	- 60.3	30	- 13
CAMBRIDGE	*	*	*	*	*	*	*	*	*	*	*	*	*	176.5	- 18.8	36	- 4
ROTHAMSTED	48.2	64.2	56.2	- 1.3	39	1st	73	18th, 31st	15	1.48	- 0.63	0.30	24th	148.2	- 43.7	30	- 9
BAWTRY	46.8	66.9	56.9	- 0.7	32	15th	75	8th	14	0.69	- 1.56	0.21	21st	—	—	—	—
STAMFORD (Duddington)	47.3	65.5	56.4	- 1.6	37	1st, 15th	74	20th	11	0.87	- 1.02	0.20	27th	—	—	—	—
CHEADLE	47.3	62.6	55.0	- 0.6	36	1st	71	10th	17	2.15	- 0.70	0.41	21st	—	—	—	—
SHIRLEY (nr. Solihull)	47.0	64.5	55.8	- 2.0	32	15th	73	20th	15	1.24	?	0.20	26th	—	—	—	—
CHURCHSTOKE	46.0	65.0	55.5	- 0.4	35	15th	74	10th	16	1.16	- 1.05	0.22	26th	204.7	+ 16.9	41	+ 3
HEREFORD	†	†	†	†	†	†	†	†	†	†	†	†	†	—	—	—	—
CIRENCESTER	47.0	64.8	55.9	- 1.0	36	3rd	73	17th, 20th	13	1.12	- 1.10	0.28	24th	199.6	+ 6.6	40	+ 1
OXFORD	*	*	*	*	*	*	*	*	*	*	*	*	*	183.9	- 8.2	37	- 2
LONDON	*	*	*	*	*	*	*	*	*	*	*	*	*	143.1	- 36.0	29	- 7
CRANLEY	48.2	64.6	56.4	- 2.6	36	1st	74	18th	17	1.50	?	0.22	27th	—	—	—	—
HASTINGS	50.6	62.5	56.6	- 1.0	38	1st	70	8th, 11th	12	2.05	+ 0.44	0.45	1st	184.4	- 42.2	38	- 8
SOUTHAMPTON	50.7	67.2	59.0	- 0.4	42	3rd	79	11th	13	0.97	- 0.88	0.32	8th	207.5	- 2.6	43	—
SHAFTESBURY	48.2	63.7	56.0	- 0.5	40	1st	72	11th, 17th	14	1.15	- 1.07	0.35	25th	—	—	—	—
LAUDALE	48.7	62.0	55.4	- 0.1	42	28th	75	11th	17	4.11	- 0.11	1.07	23rd	—	—	—	—
GLASGOW	48.9	62.7	55.8	+ 0.2	42	2nd	70	15th	16	1.92	- 0.75	0.42	23rd	156.3	- 11.0	30	- 2
GLENLEE	46.1	64.4	55.3	+ 0.1	39	9th	74	9th	18	2.58	- 0.50	0.68	23rd	—	—	—	—
GILCRUX (Cumberland)	48.8	62.2	55.5	- 0.5	40	1st	72	10th	17	2.96	?	1.13	23rd	167.8	?	33	?
DOUGLAS	47.9	62.2	55.1	- 0.1	42	1st, 9th, 10th	72	9th, 10th	14	1.87	- 0.31	0.58	23rd	203.1	- 18.0	40	- 4
STONYHURST	48.2	61.9	55.1	- 1.4	37	1st	71	9th, 10th	16	2.80	- 0.42	0.68	18th	165.9	- 26.1	33	- 5
BLACKPOOL	48.8	64.0	56.4	- 0.2	40	1st, 14th	76	10th	12	2.02	- 0.07	0.38	23rd, 24th	164.8	- 27.8	33	- 5
MANCHESTER (Prestwich)	47.7	63.4	55.6	- 1.0	36	1st	72	10th	15	2.53	- 0.41	0.60	21st	144.0	?	29	?
LLANDUDNO	51.1	62.9	57.0	- 0.5	44	2nd	70	11th, 17th	15	1.91	+ 0.03	0.43	24th	204.4	+ 10.9	41	+ 2
LLANDOVERY	46.3	66.9	56.6	- 0.5	35	15th	78	10th, 11th	18	3.15	+ 0.33	0.56	1st	—	—	—	—
PEMBROKE	*	*	*	*	*	*	*	*	*	*	*	*	*	259.6	+ 24.9	53	+ 5
CLIFTON	50.5	64.7	57.6	- 0.4	43	15th, 26th	75	11th	14	1.31	- 0.88	0.45	24th	—	—	—	—
ARLINGTON	47.9	63.4	55.7	- 0.3	38	15th, 16th	74	11th	16	3.58	+ 0.61	0.97	12th	—	—	—	—
CULLOMPTON	48.9	67.0	58.0	0.0	35	15th	76	17th	9	1.75	- 0.44	0.43	23rd	185.3	- 15.2	38	- 3
FALMOUTH	51.3	62.7	57.0	- 0.5	44	15th	71	11th	12	1.97	- 0.51	0.47	23rd	256.3	+ 26.6	53	+ 6
PLYMOUTH	50.6	63.2	56.9	- 2.1	41	3rd	75	10th, 11th	10	2.91	+ 0.94	1.22	12th	233.5	+ 25.5	48	+ 5
SCILLY	*	*	*	*	*	*	*	*	*	*	*	*	*	249.4	?	52	?
JERSEY	*	*	*	*	*	*	*	*	*	*	*	*	*	238.6	- 4.5	50	- 1
LONDONDERRY	48.7	63.5	56.1	- 0.9	42	1st	76	17th	21	2.75	+ 0.25	0.45	5th	—	—	—	—
EDENFEL (Omagh)	48.1	61.9	55.0	- 0.2	40	28th	73	10th	16	3.37	+ 0.84	0.92	5th	—	—	—	—
MARKREE CASTL.	47.7	61.7	54.7	- 0.4	39	9th	72	17th	22	3.85	+ 0.91	0.63	23rd	147.9	- 24.3	29	- 5
ARMAGH	47.0	63.1	55.1	- 1.0	39	28th	72	17th	20	2.81	+ 0.64	0.46	5th	131.1	- 47.0	26	- 9
EDGEWORTHSTOWN	47.4	64.3	55.9	- 0.9	38	2nd	74	11th	20	3.65	+ 0.87	0.80	5th	—	—	—	—
DUBLIN	51.4	64.6	58.0	+ 0.4	42	2nd	75	17th	14	1.55	- 0.31	0.43	5th	193.8	- 1.9	39	0
PARSONSTOWN	*	*	*	*	*	*	*	*	*	*	*	*	*	159.7	- 14.0	32	- 3
KILKENNY CASTLE	49.5	64.8	57.2	+ 0.1	40	3rd, 28th	74	17th	14	2.69	+ 0.47	0.70	5th, 25th	—	—	—	—
VALENCIA (Cahiriveen)	*	*	*	*	*	*	*	*	*	*	*	*	*	194.9	- 8.5	40	- 1
KILLARNEY	50.0	63.7	56.9	+ 0.3	40	3rd	73	16th	16	2.73	?	0.56	4th	—	—	—	—
FOYNES	50.6	62.5	56.6	- 0.1	43	2nd, 9th	72	10th, 16th	18	3.07	?	0.52	24th	—	—	—	—

* For this information and additional Reports of Bright Sunshine, see Table XI.

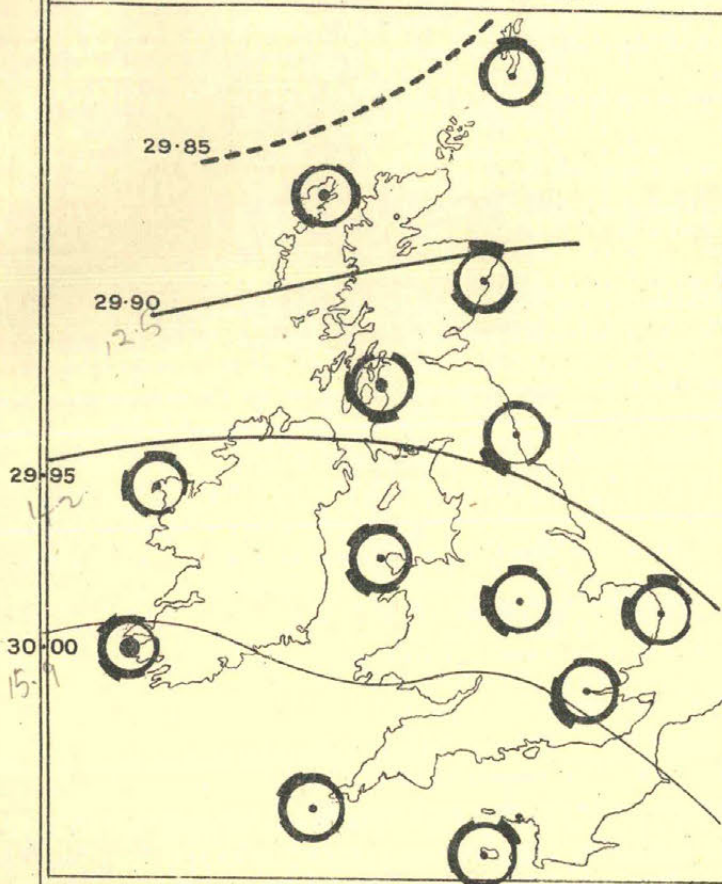
† Observations incomplete.

MONTHLY WEATHER CHART JUNE 1898.

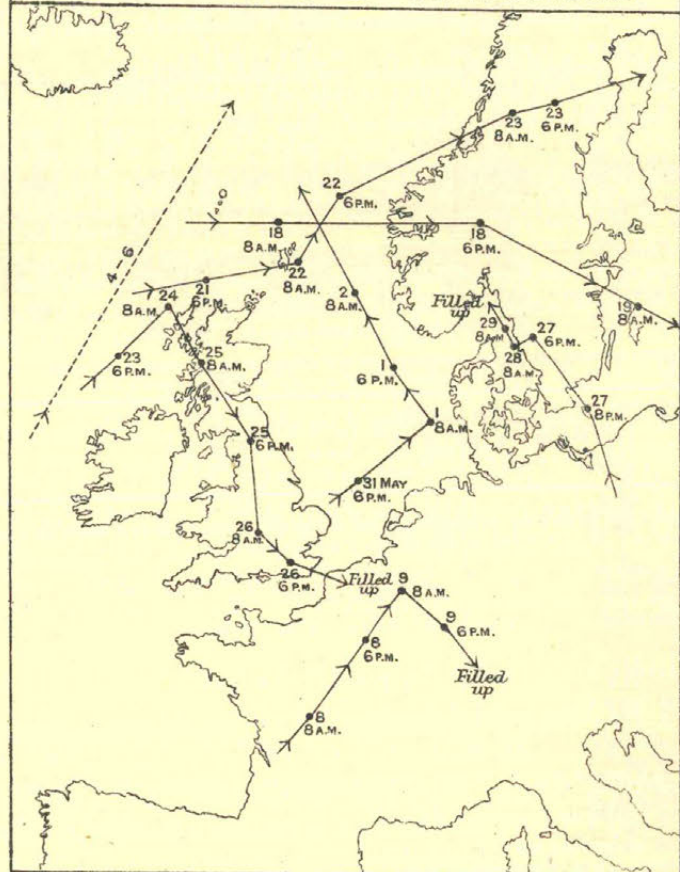
Monthly Summary.

Plate VI.

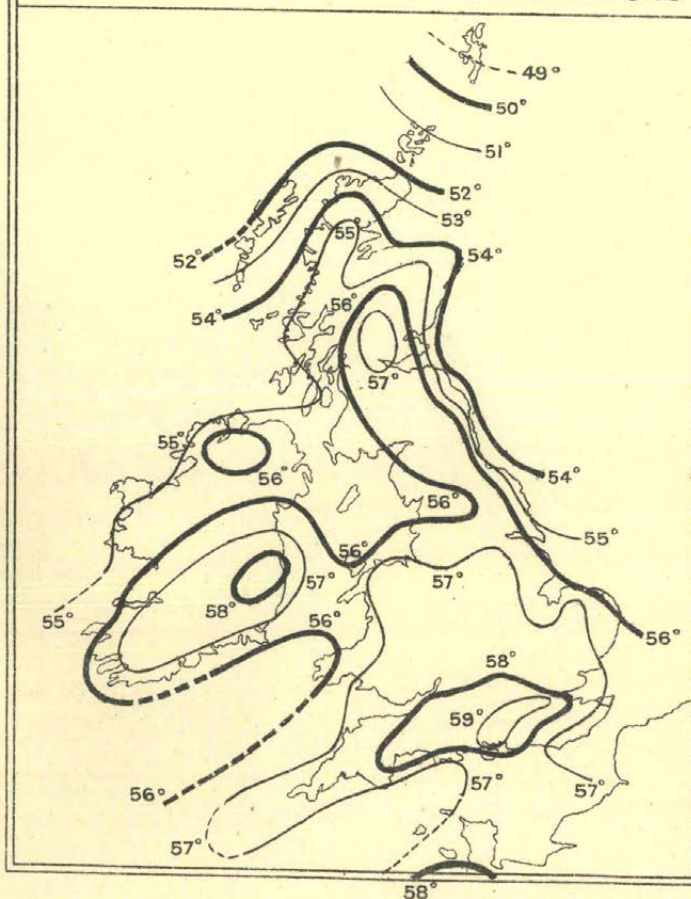
1. BAROMETER AND WIND.



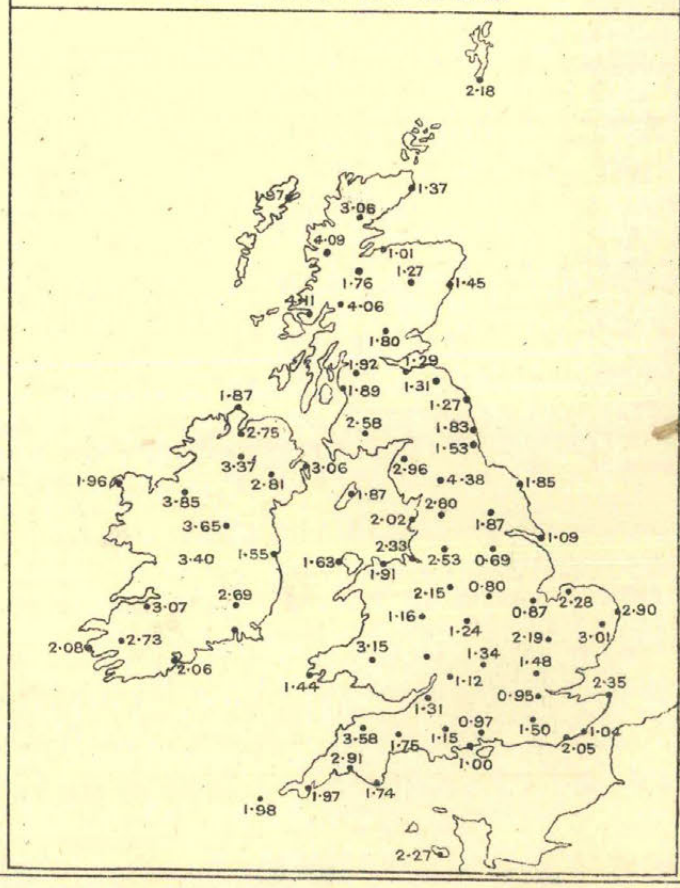
2. MOVEMENTS OF DEPRESSIONS.



3. DISTRIBUTION OF MEAN TEMPERATURE.



4 RAINFALL.



To face p. XXIV.



SUMMARY of the OBSERVATIONS made at the STATIONS included in the DAILY and WEEKLY WEATHER REPORTS for the CALENDAR MONTH,

JULY 1898.

(Issued as a Supplement to the Weekly Weather Report, 1898.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & CO., 12, HANOVER ST., EDINBURGH, and 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS, & CO., LIMITED, 104, GRAFTON STREET, DUBLIN.

General Summary.—The weather of July was mostly fair and dry until the close of the month, when it became much less settled, with thunderstorms and heavy rain in several places. Pressure was above the average; temperature was slightly above the normal in the west and south, but below it elsewhere; the winds were chiefly from the Westward or North-westward; rainfall was very deficient, especially in the west and south; bright sunshine was mostly in excess of the average.

Pressure.—*Mean* at 8 a.m. ranged from 30.15 ins. and upwards over the south western parts of the United Kingdom generally, to very little above 30.0 ins. in the north and north-east of Scotland, and to about 29.9 ins. in the Shetlands. The gradients were, therefore, in favour of North-westerly winds, and were rather steeper than usual, the actual readings being above the average* in all districts, and especially in the west and south of Ireland, where the excess amounted to 0.25 in. or more. *Highest* readings occurred on the 10th or 11th, when the barometer rose to 30.4 ins. and upwards in all districts excepting the east and south-east of England, where it exceeded 30.3 ins. *Lowest* readings were observed on the 22nd and 23rd, the mercury falling to between 29.3 ins. and 29.5 ins. in the north and north-east of England, to 29.6 ins. and less in the northern and eastern parts of Great Britain generally, and to 29.8 ins. and less in the south-western districts. *Range* was somewhat small for the time of year in the south-west, but moderate elsewhere.

Depressions.—The only depression of any importance observed in the immediate neighbourhood of our islands was a rather well marked system which advanced over Scotland from the north westward on the night of the 27th, and which afterwards moved south-eastwards across the North Sea to the Netherlands and Germany, where it gradually dispersed. In the course of the month, however, several disturbances travelled across the southern parts of Scandinavia—mostly in an easterly or east south-easterly direction.

Anticyclones.—At the close of June a large anticyclone spread over our islands from the southward, and, after a temporary recession to the south-westward on the 3rd, remained with us until about the 12th, when it passed away over the Atlantic. A second system advanced from the north-westward on the 19th, but soon travelled across our islands to the Continent. The third spread in from the Atlantic on the 24th, and, with the exception of a temporary withdrawal on the 27th and 28th, continued in force until quite the end of the month.

Winds, though rather variable on our south-west coasts, were mostly from the Westward or North-westward. Over the country generally there was an almost entire absence of gales, but at Wick and Donaghadee the wind reached force 7 from the North-westward on two days,—at the former station on the 7th and 8th, and at the latter on the 28th and 29th.

Temperature.—*Mean at sea level* ranged from 63° and upwards at several stations in the south of England, 62° and upwards over the western parts of the Channel, and 60° and upwards over the south of Ireland and a small portion of central Scotland, to 58° or less along our east coasts, 55° and less in the extreme north and north-west of Scotland, and to rather below 52° in the Shetlands. Over the British Islands generally the distribution was in fair accordance with the normal, the only feature of any real importance being the prevalence over the western parts of the English Channel of an area of relative warmth in the region usually affected in July by the cool current from the Atlantic. Over Ireland and on the west and south coasts of Great Britain the mean readings were as a rule a little above the average,* but in most other districts they were below it, the deficiency varying greatly in amount in different places. *Highest* readings occurred at various times in Scotland, but mostly between the 9th and 11th in Ireland, and on the 15th or 16th over England. As a rule the thermometer scarcely touched 80°, but in London it rose to 82°, while at Southampton it reached 85°. *Lowest* readings occurred at very irregular times in Scotland, but mostly on the 4th or 5th in Ireland, and on the 30th or 31st in England. At several of our northern stations the thermometer on one or other of these dates fell below 40°, at Llandovery to 34°, and at Braemar to 33°. *Range* was somewhat large for the time of year, especially over the inland parts of Great Britain; at Hillington and Southampton it amounted to 42°, at Churchstoke to 43° and at Llandovery to 45°. *Vapour Tension* ranged from 0.47 in. at Scilly, and 0.42 in. and upwards on our southern coasts generally, to 0.34 in. and less in the east of Scotland. *Relative Humidity* varied from 90 per cent. at Malin Head, 86 per cent. at Ardrossan, and 85 per cent. at Scilly to 73 per cent. in London and at Leith, and to 69 per cent. at Aberdeen.

Rainfall was considerably less than the average,* in nearly all parts of the Kingdom, and especially in the west and south. Over Ireland and the Irish Sea, as well as in the south of England, the amount was, as a rule, less than one fourth of the normal, while in some parts of Cornwall and Devonshire it was less than one eighth, the month being, in several instances, the driest recorded for at least 25 years past. The highest aggregates recorded were 6.7 ins. at Glencarron, 2.8 ins. at Fort William, and 2.5 ins. at Stornoway and Bawtry; the smallest being 0.2 in. at Cullompton, 0.3 in. at Scilly, Plymouth and Douglas (Isle of Man) and 0.4 in. at Donaghadee, Prawle Point and Dungeness. In so dry a month individual heavy falls were naturally rare; on the 17th, however, 1.7 in. fell at Glencarron, and 1.0 in. at Fort William, while on the 22nd as much as 2.2 ins. were recorded at Bawtry and 1.6 in. at York.

Bright Sunshine was largely in excess of the average* in most places, but was rather deficient at one or two stations in the east and south-east of England. The percentage of the possible amount ranged from 63 at Jersey, and 50 or more on several parts of our south-west coasts and at Churchstoke and Douglas (Isle of Man) to 40 or less at many of our northern and eastern stations, and to only 21 at Stornoway.

* The averages employed are—*Pressure and Temperature* for the 25 years 1871–95; *Rainfall* for the 30 years 1866–95; and *Bright Sunshine* for the 15 years 1881–95.

TABLE XIII.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC
Observations are made at 8 a.m. daily, but the Numbers of Days of Rain, Snow, Hail,
(The Stations are grouped in Districts, and then arranged in order of Latitude,

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	Difference from Average.	AIR TEMPERATURE.										TENSION OF VAPOUR.	RELATIVE HUMIDITY.
				Means of					Absolute Extremes.						
				At 8 a.m.	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.			
0. SCOTLAND, N.	Sumburgh Head	Ins. 29.923	Ins. +.134	51.3	46.7	55.4	51.1	- 1.8	42	3rd	61	22nd	Ins. 0.337	89	
	Wick	30.006	+.193	54.8	47.1	61.2	54.2	- 1.1	39	3rd	70	15th	.354	83	
	Stornoway	30.013	+.213	54.2	47.5	58.6	53.1	- 1.5	43	19th	66	22nd	.353	84	
1. SCOTLAND, E.	Nairn	30.024	+.207	56.0	47.0	65.4	56.2	- 1.3	37	9th	75	22nd	.360	80	
	Aberdeen	30.019	+.188	57.2	49.5	63.7	56.6	- 0.6	38	20th	73	6th	.322	69	
	Leith	30.047	+.201	58.9	49.9	68.2	59.1	+ 0.3	42	25th	77	15th	.358	73	
2. ENGLAND, N.E.	Shields	30.064	+.198	56.2	49.5	64.4	57.0	- 0.9	42	30th	75	21st	.367	81	
	York	30.091	+.192	57.9	49.4	68.4	58.9	- 1.3	40	30th	78	15th	.363	76	
	Spurn Head	30.065	+.169	58.3	53.6	63.8	58.7	- 1.2	50	4, 20, 25, 30	72	16th	.392	80	
3. ENGLAND, E.	Yarmouth	30.065	+.142	59.4	53.0	63.8	58.4	- 2.1	43	14th	75	18th	.389	77	
	Cambridge	30.113	+.179	59.4	50.6	70.3	60.5	- 1.4	43	5th, 21st	81	16th	.402	80	
4. MIDLAND COUNTIES	Loughborough	30.121	+.194	59.1	50.8	70.7	60.8	- 1.0	40	30th	80	15th	.376	75	
	Oxford	30.135	+.192	59.1	51.9	70.4	61.2	- 0.2	43	30th	80	15th, 16th	.376	75	
5. ENGLAND, S.	London	30.122	+.169	60.9	53.5	72.5	63.0	0.0	44	11th	82	15th	.389	73	
	North Foreland	30.105	+.155	59.9	54.2	66.6	60.4	- 0.2	47	5th	79	18th	.399	78	
	Dungeness	30.099	+.149	60.2	53.4	66.6	60.0	- 1.4	43	14th, 31st	74	2nd	.423	82	
	Hurst Castle	30.137	+.174	63.0	55.0	70.2	62.6	+ 1.0	44	30th	77	16th	.452	79	
6. SCOTLAND, W.	Ardrossan	30.074	+.218	57.4	51.5	63.0	57.3	- 0.8	44	25th	68	11th	.403	86	
7. ENGLAND, N.W.	Hawes Junction*	28.856	?	52.4	45.2	61.8	53.5	?	37	20th	68	26th	.338	86	
	Liverpool	30.122	+.217	58.5	53.5	64.0	58.8	- 1.2	49	10th	70	21st	.369	76	
	Holyhead	30.147	+.238	59.2	53.0	64.1	58.6	- 0.4	47	5th	72	16th	.405	81	
8. ENGLAND, S.W.	Pembroke	30.158	+.225	59.1	54.7	63.5	59.1	+ 0.5	47	5th	70	16th	.409	82	
	Prawle Point	30.166	+.189	62.0	53.7	67.4	60.6	+ 1.5	48	4th	79	16th	.430	78	
9. IRELAND, N.	Malin Head	30.096	+.245	56.5	53.3	59.5	56.4	- 0.8	50	4, 8, 25, 26, 29	66	21st	.412	90	
	Donaghadee	30.121	+.241	58.7	50.4	65.2	57.8	+ 0.1	42	5th	72	6th, 16th	.404	82	
	Belmullet	30.172	+.283	59.1	52.8	63.4	58.1	+ 0.1	42	4th	72	10th	.415	83	
10. IRELAND, S.	Parsonstown	30.165	+.251	59.3	51.9	67.5	59.7	+ 0.9	39	4th	76	11th	.412	82	
	Valencia	30.190	+.253	60.5	54.1	64.9	59.5	+ 0.7	42	5th	73	10th	.434	83	
	Roche's Point	30.183	+.250	60.2	54.9	66.6	60.8	+ 1.2	47	4th	72	11th, 17th, 18th	.426	82	
CHANNEL ISLANDS-	Scilly	30.163	+.194	62.2	57.7	67.1	62.4	+ 2.1	54	4th, 5th, 29th	73	19th	.472	85	
	Jersey	30.171	+.173	63.0	56.5	68.6	62.6	+ 0.3	49	6th, 31st	77	17th	.449	78	

* Hawes Junction is 1,135 feet above Mean Sea Level, and the

BRIGHT SUNSHINE VALUES FOR JULY

Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.	Stations	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.
Deerness (Orkney Islands)	137.9	?	26	?	Hollesley Bay (Suffolk)	209.0	?	42	?
Strathpeffer Spa	156.7	+ 30.8	29	+ 5	Sheffield	205.9	?	41	?
Edinburgh	191.6	+ 53.9	37	+ 10	Workshop	185.3	+ 29.5	37	+ 6
Morpeth (Cockle Park)	207.3	?	40	?	Thurcaston	214.2	+ 52.1	43	+ 11
Newcastle-on-Tyne	186.2	?	36	?	Plumstead Common	144.3	?	29	?
Oswaldkirk	172.9	+ 20.5	34	+ 4	Margate	174.6	- 16.9	36	- 3

SUMMARY OF OBSERVATIONS, JULY 1898.

Lxxvii

REPORTING STATIONS in the BRITISH ISLANDS during the Month of JULY 1898.

Thunderstorms, and Gales are counted irrespective of the Hours at which they occurred.

beginning in each case with the Station lying furthest North.)

AMOUNT OF CLOUD.	RAINFALL.				WEATHER.								WIND.										NAMES OF STATIONS.
	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Days of								No. of Observations of										
					Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.			
8.1	Ins. 1.09	Ins. -1.27	Ins. 0.15	24th	18	0	0	0	0	19	0	5	2	1	0	1	2	11	9	0	Sumburgh Head.		
7.9	1.60	-0.92	0.62	17th	15	0	0	1	2	20	2	4	2	0	0	2	1	4	15	3	Wick		
8.6	2.54	-0.54	0.50	5th	21	0	0	0	0	18	0	6	2	1	0	1	4	12	4	1	Stornoway.		
6.4	2.07	-0.66	0.55	28th	13	0	0	0	2	6	0	1	0	1	0	0	1	20	2	6	Nairn.		
7.8	0.81	-2.03	0.20	17th	15	0	1	1	0	15	0	2	0	0	1	4	6	6	12	0	Aberdeen.		
7.1	1.27	-1.53	0.27	17th	9	0	0	1	3	16	0	0	2	4	2	1	6	14	1	1	Leith.		
7.8	0.81	-1.88	0.54	28th	8	0	1	1	0	11	0	6	1	0	0	0	8	12	4	0	Shields.		
5.7	1.76	-1.02	1.57	22nd	6	0	0	1	9	9	0	5	0	1	1	3	1	12	7	1	York.		
6.1	0.70	-1.08	0.38	1st	8	0	0	2	4	9	1	9	1	1	3	0	2	7	8	0	Spurn Head.		
4.3	2.09	-0.80	0.99	28th	9	0	0	1	11	1	0	7	0	1	2	1	0	9	11	0	Yarmouth.		
7.4	1.33	-1.29	0.56	28th	9	0	0	1	4	21	0	10	1	1	3	1	4	6	5	0	Cambridge.		
6.7	1.10	-1.25	0.43	1st	6	0	0	1	2	9	0	4	2	1	1	0	2	12	8	1	Loughborough.		
6.7	0.53	-2.15	0.22	1st	6	0	0	1	6	14	0	7	3	0	0	2	4	5	7	3	Oxford.		
6.7	0.72	-1.76	0.24	22nd	7	0	0	2	6	13	0	3	4	0	1	1	4	8	8	2	London.		
6.7	1.02	?	0.60	28th	6	0	0	0	3	12	0	1	1	2	2	2	1	14	7	1	North Foreland.		
6.8	0.38	-1.67	0.17	28th	3	0	0	0	0	7	0	8	1	1	0	1	7	6	6	1	Dungeness.		
5.8	0.71	-1.68	0.49	27th	5	0	0	1	1	9	0	2	6	3	0	0	6	7	4	3	Hurst Castle.		
6.4	0.79	-2.07	0.30	5th	9	0	0	0	7	13	0	0	2	2	1	2	6	11	6	1	Ardrossan.		
6.4	1.86	?	0.82	17th	10	0	0	1	3	13	0	6	1	3	2	2	4	8	5	0	Hawes Junction.*		
6.7	0.47	-2.52	0.35	1st	6	0	0	1	6	14	0	2	0	2	3	0	3	18	2	1	Liverpool.		
6.1	0.56	-1.81	0.27	1st	8	0	0	0	1	8	0	7	2	1	0	1	4	13	2	1	Holyhead.		
5.6	0.70	-1.83	0.25	1st, 21st	4	0	0	0	7	12	0	4	3	6	1	1	2	5	8	1	Pembroke.		
5.0	0.39	-2.00	0.13	19th	7	0	0	0	0	4	0	2	4	3	2	3	7	5	5	0	Prawle Point.		
7.2	0.93	?	0.27	27th	16	0	0	0	1	12	1	8	0	1	2	1	3	9	7	0	Malin Head.		
5.5	0.41	-2.41	0.25	21st	8	0	0	0	0	5	2	3	0	1	1	0	3	8	15	0	Donaghadee.		
8.2	0.73	-2.86	0.30	21st	15	0	0	0	4	24	0	5	5	4	0	0	2	11	4	0	Belmullet.		
6.9	1.12	-1.86	0.62	1st	6	0	0	1	4	16	0	2	0	4	0	1	0	7	8	9	Parsonstown.		
7.6	0.86	-3.37	0.34	1st	13	0	0	0	1	19	0	6	2	0	1	1	1	5	7	8	Valencia.		
6.6	1.36	-1.82	0.50	21st	7	0	0	1	0	13	0	9	1	1	7	2	0	2	9	0	Roche's Point.		
6.3	0.25	-2.22	0.13	21st	6	0	0	0	0	7	0	7	5	3	1	2	3	5	5	0	Scilly.		
5.1	0.83	-1.71	0.29	19th	9	0	0	1	9	7	0	2	5	4	1	0	3	11	4	1	Jersey.		

Barometer at this Station is not reduced for altitude.

IN ADDITION TO THOSE FOUND IN TABLE XIV.

Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.	Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.
Eastbourne	235.1	+15.7	48	+3	Colwyn Bay	239.5	?	48	?
Brighton	208.3	-9.8	43	-2	Tenby	256.5	+59.1	52	+12
Watergate (Emsworth) ..	179.5	?	37	?	Torquay	255.7	+53.5	53	+11
Westbourne (Emsworth) ..	230.2	+21.4	47	+4	Newquay	238.2	+30.1	49	+6
Ventnor Hospital	273.6	?	56	?	Guernsey	322.3	+87.7	67	+18
Southport	234.0	?	46	?					

TABLE XIV.

OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE, obtained from the VALUES supplied for use in the WEEKLY WEATHER REPORT, for the Month of JULY 1898.

NAMES OF STATIONS.	AIR TEMPERATURE.								RAINFALL.				BRIGHT SUNSHINE.				
	Means of				Absolute Extremes.				No. of Rainy Days.	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Hours recorded.	Difference from Average.	Per-centage of possible Duration.	Difference from Average.
	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.									
STORNOWAY	0	0	0	0	0		0			Ins.	Ins.	Ins.		110.1	-33.5	21	-6
LAIRG	45.9	64.3	55.1	+0.3	37	25th	75	26th	14	1.51	-1.62	0.50	17th	—	—	—	—
GLENCARRON	46.5	60.1	53.3	-1.9	38	25th	71	9th	19	6.66	+0.60	1.72	17th	—	—	—	—
FORT AUGUSTUS	47.7	65.2	56.5	-0.4	38	21st, 25th	72	10, 22, 27	13	1.66	-1.53	0.46	17th	172.8	+84.8	33	+16
FORT WILLIAM	49.2	63.9	56.6	-0.4	42	20th	74	9th	16	2.82	-2.47	1.03	17th	198.4	+73.9	38	+14
ABERDEEN														195.3	+34.5	37	+6
BRAEMAR	45.4	64.3	54.9	0.0	33	21st	74	11th	12	0.87	-2.04	0.29	5th	203.3	+62.6	39	+12
OCHTERTYRE	47.8	70.9	59.4	+0.9	39	24th	80	11th	9	0.75	-2.52	0.35	17th	—	—	—	—
MARCHMONT	45.4	65.7	55.6	-1.4	40	31st	76	15th	9	1.24	-2.26	0.27	22nd	223.5	+59.0	43	+11
ALNWICK CASTLE	48.1	66.9	57.5	-0.1	40	14th, 30th	75	21st	12	0.90	-1.99	0.40	28th	—	—	—	—
DURHAM	48.0	67.9	58.0	-1.3	36	20th	75	15th, 16th, 21st	9	0.65	-2.39	0.22	22nd	208.9	+51.6	41	+10
SCARBOROUGH	49.2	64.4	56.8	-2.5	41	20th	73	12th, 16th	8	1.19	-1.65	0.62	28th	202.2	?	40	?
YORK														209.9	+46.6	42	+10
HILLINGTON	49.4	68.2	58.8	-2.2	37	14th	79	16th	6	0.87	-2.17	0.52	1st	186.8	-0.3	37	0
GELDESTON	50.4	67.4	58.9	-2.0	39	21st	79	16th	8	1.54	-1.15	0.63	28th	187.0	-14.0	38	-3
CAMBRIDGE														204.3	+14.7	41	+3
ROTHAMSTED	50.5	68.9	59.7	-0.9	42	21st	78	15th	9	1.37	-1.46	0.78	28th	215.0	+14.3	44	+3
BAWTRY	48.7	69.9	59.3	-1.2	39	20th	79	15th	7	2.45	-0.33	2.15	22nd	—	—	—	—
STAMFORD (Duddington)	49.8	69.5	59.7	-2.0	41	5th	80	15th	5	0.91	-1.80	0.41	1st	—	—	—	—
CHEADLE	49.7	65.6	57.7	-0.6	39	30th	73	15th	8	1.32	-1.90	0.46	22nd	—	—	—	—
SHIRLEY (nr. Solihull)	49.6	68.3	59.0	-1.6	39	30th	79	15th	6	0.92	?	0.45	1st	—	—	—	—
CHURCHSTOKE	47.9	68.5	58.2	-0.2	36	30th	79	15th	6	1.08	-1.45	0.73	1st	263.9	+94.4	53	+19
HEREFORD	50.2	71.4	60.8	0.0	40	14th, 31st	80	15th, 16th	6	0.93	-1.43	0.39	1st	—	—	—	—
CIRENCESTER	50.0	70.2	60.1	+0.4	40	31st	79	15th, 16th	5	0.75	-2.33	0.48	1st	227.9	+46.4	46	+9
OXFORD														227.5	+42.0	46	+8
LONDON														186.6	+14.9	38	+3
CRANLEY	51.0	71.9	61.5	-0.8	41	14th	81	16th	9	0.45	?	0.15	1st, 22nd	—	—	—	—
HASTINGS	53.7	67.3	60.5	-0.4	45	11th	74	6th, 17th	4	0.47	-1.92	0.23	22nd	214.5	-6.0	44	-1
SOUTHAMPTON	53.4	73.9	63.7	+1.4	43	30th	85	16th	6	0.58	-2.23	0.19	27th	241.2	+36.7	49	+7
SHAFTESBURY	51.8	69.4	60.6	+1.5	43	30th, 31st	78	16th, 27th	6	0.80	-2.30	0.35	27th	—	—	—	—
LAUDALE	48.7	62.9	55.8	-1.6	43	25th, 30th	69	10th	12	2.35	-3.01	0.82	17th	—	—	—	—
GLASGOW	50.9	65.2	58.1	+0.4	44	24th, 30th	74	10th	13	1.34	-2.06	0.43	17th	211.5	+72.0	41	+14
GLENLEE	46.2	66.3	56.3	-1.7	36	25th	73	9th	8	0.85	-3.30	0.26	18th	—	—	—	—
GILORUX (Cumberland)	49.8	64.2	57.0	-1.1	41	20th	71	11th	9	1.11	?	0.22	17th	208.4	?	41	?
DOUGLAS	50.1	66.2	58.2	+0.7	43	26th, 30th	72	11th	7	0.29	-2.70	0.12	21st	256.3	+59.3	51	+12
STONYHURST	50.4	64.1	57.3	-1.6	45	30th	70	9th	12	1.18	-3.26	0.41	18th	235.8	+67.5	47	+14
BLACKPOOL	51.8	66.2	59.0	-0.7	43	25th	71	22nd	8	0.52	-2.63	0.12	1st, 3rd	240.9	+64.3	48	+13
MANCHESTER (Prestwich)	50.1	66.4	58.3	-0.8	42	30th	73	15th, 21st	9	0.64	-3.22	0.19	18th	208.4	?	41	?
LLANDUDNO	53.8	65.3	59.6	-0.5	48	9th, 26th	71	16th, 22nd	9	0.83	-1.83	0.35	1st	246.7	+78.2	49	+15
LLANDOVERY	48.7	71.7	60.2	+0.9	34	31st	79	16th	6	1.10	-3.02	0.58	1st	—	—	—	—
PEMBROKE														255.1	+55.4	52	+12
CLIFTON	55.0	69.7	62.4	+1.4	45	30th	79	16th	3	0.67	-2.63	0.32	1st	—	—	—	—
ARLINGTON	50.8	66.8	58.8	-0.2	40	31st	73	16th	7	1.87	-2.99	0.19	22nd	—	—	—	—
CULLOMPTON	50.9	71.6	61.3	0.0	40	14th, 30th	80	16th, 27th	5	0.23	-2.92	0.13	22nd	218.8	+44.7	45	+9
FALMOUTH	55.9	67.6	61.8	+1.6	50	4th	74	26th	7	0.53	-2.79	0.23	21st	267.7	+53.6	55	+11
PLYMOUTH	54.0	68.8	61.4	0.0	45	31st	77	16th, 17th, 27th	5	0.25	-2.72	0.08	22nd	262.2	+69.3	54	+14
SCILLY														258.7	?	53	?
JERSEY														300.8	+70.8	63	+15
LONDONDERRY	50.6	66.8	58.7	+0.1	44	4, 5, 20, 30	79	21st	13	0.61	-2.90	0.15	27th	—	—	—	—
EDENFEL (Omagh)	49.2	64.5	56.9	-0.2	37	30th	74	9th, 10th	7	0.61	-2.80	0.30	21st	—	—	—	—
MARKREE CASTLE	49.8	65.0	57.4	+0.2	36	30th	72	10th	12	1.45	-2.31	0.98	21st	169.6	+41.3	34	+9
ARMAGH	47.8	66.2	57.0	-1.2	38	4th, 5th	73	10th	7	0.56	-2.62	0.37	21st	170.7	+30.1	34	+6
EDGEWORTHSTOWN	49.8	67.4	58.6	+0.8	40	4th, 30th	76	9th, 10th	10	0.81	-2.84	0.38	21st	—	—	—	—
DUBLIN	54.1	68.0	61.1	+1.1	45	4th	75	11th	8	0.95	-1.51	0.34	22nd	235.0	+73.7	47	+15
PARSONSTOWN														185.3	+48.8	37	+10
KILKENNY CASTLE	52.0	68.3	60.2	+0.8	40	30th	76	11th	7	0.86	-1.75	0.47	1st	—	—	—	—
VALENCIA (Cahiriveen)														192.8	+39.0	39	+8
KILLARNEY	52.4	67.6	60.0	+1.3	41	5th	77	9th, 10th	9	1.30	?	0.43	22nd	—	—	—	—
FOYNES	54.2	66.0	60.1	+2.1	45	4th	77	10th	8	1.21	?	0.46	1st	—	—	—	—

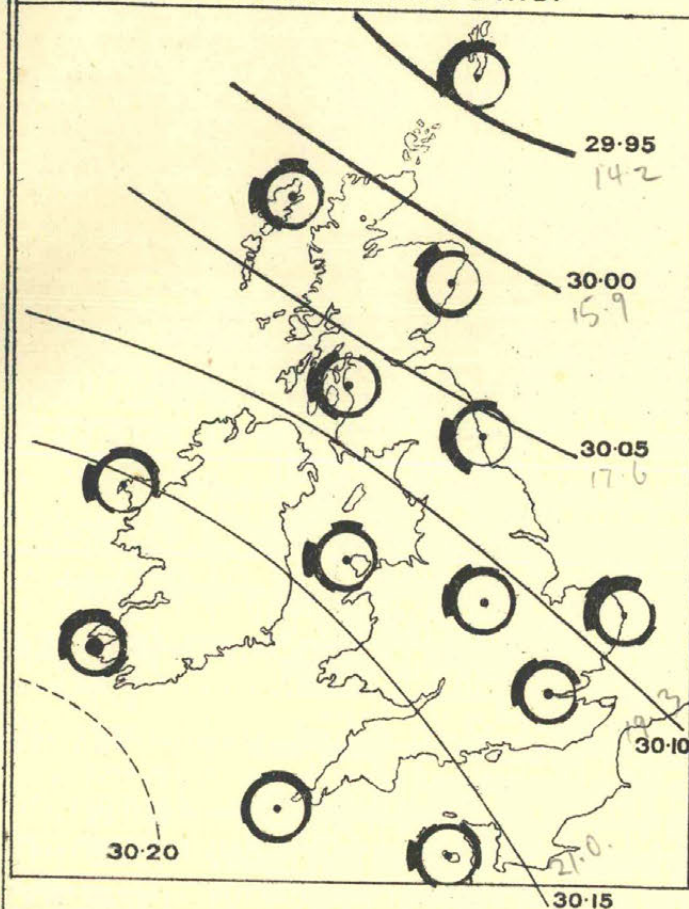
* For this information and additional Reports of Bright Sunshine, see Table XIII.

MONTHLY WEATHER CHART JULY 1898.

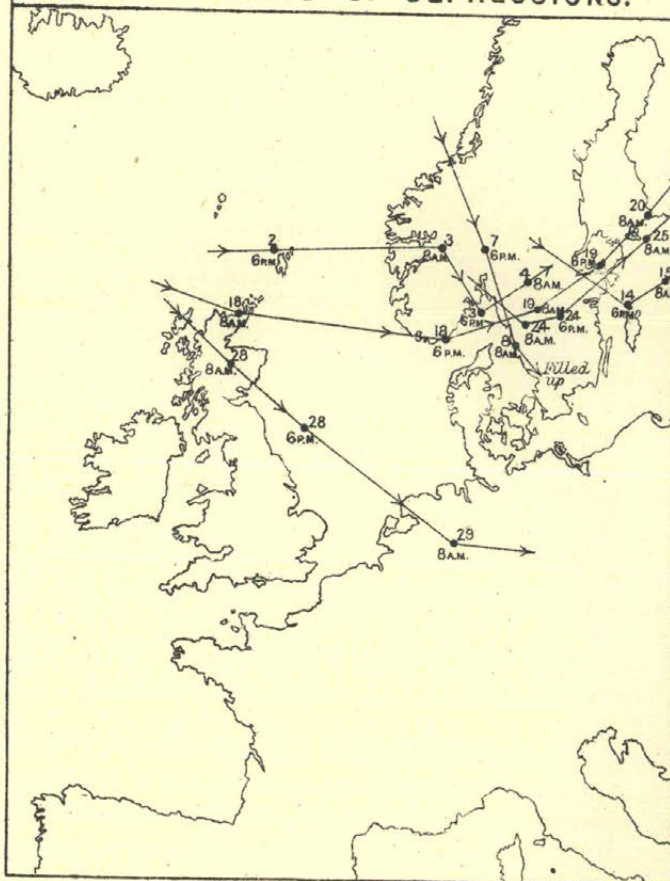
Monthly Summary.

Plate VII.

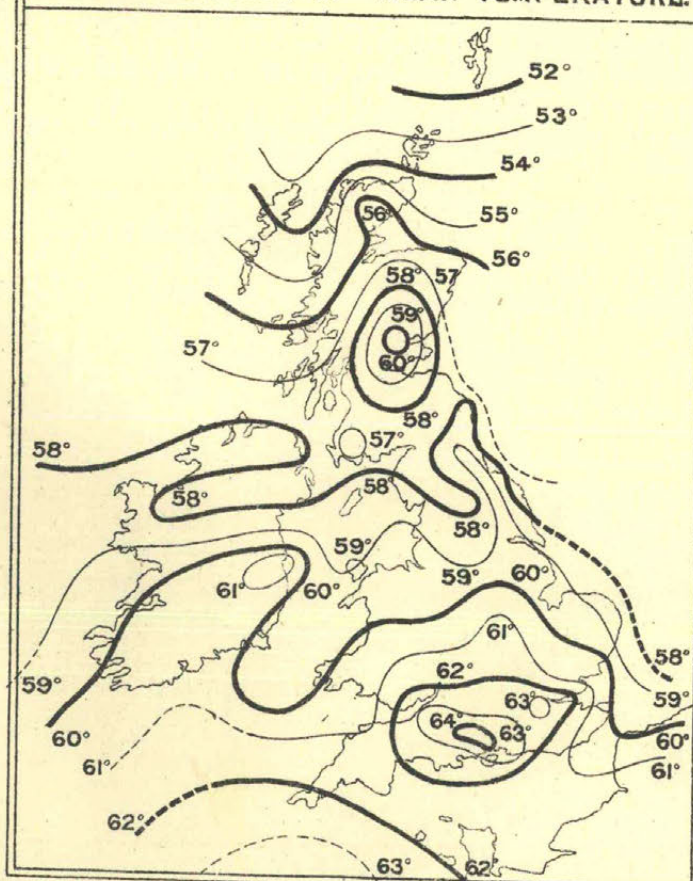
1. BAROMETER AND WIND.



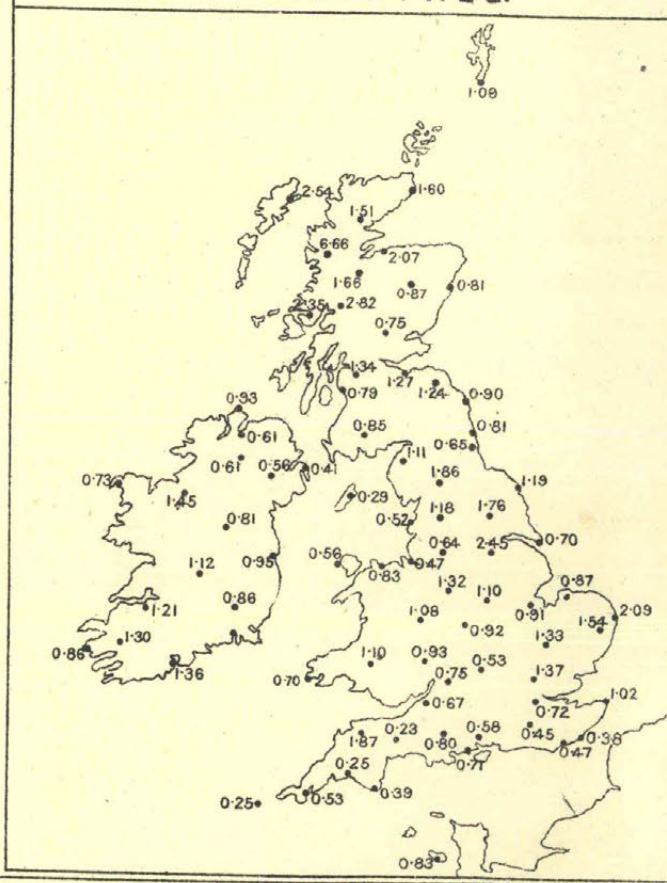
2. MOVEMENTS OF DEPRESSIONS.



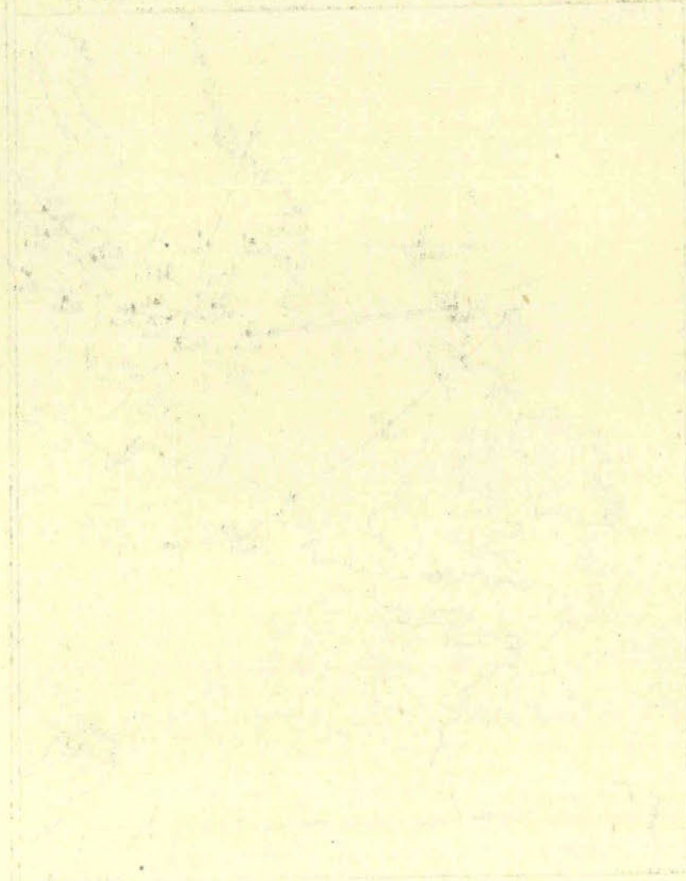
3. DISTRIBUTION OF MEAN TEMPERATURE.



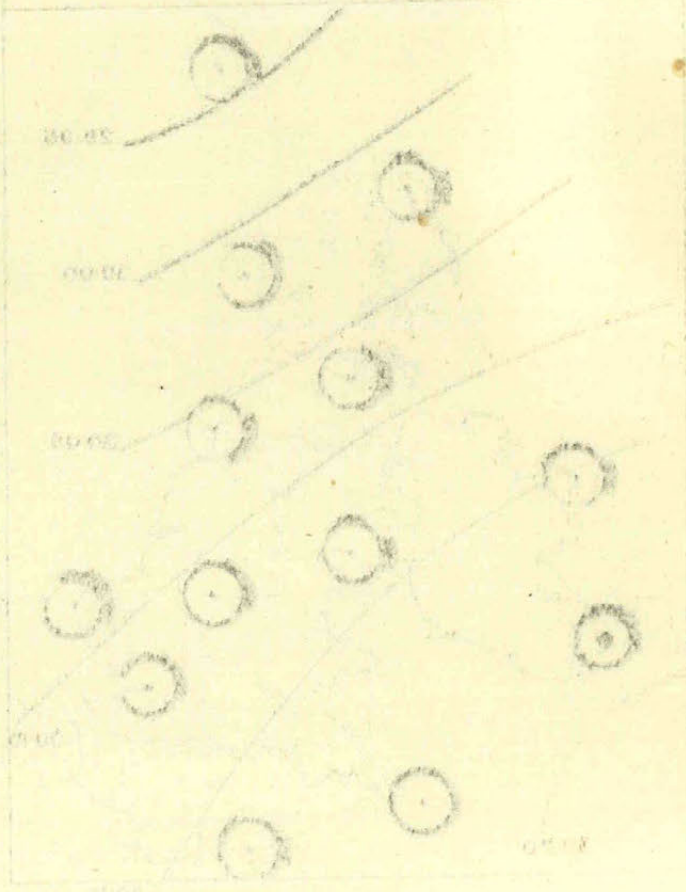
4 RAINFALL.



2. MOVEMENTS OF DEPRESSIONS



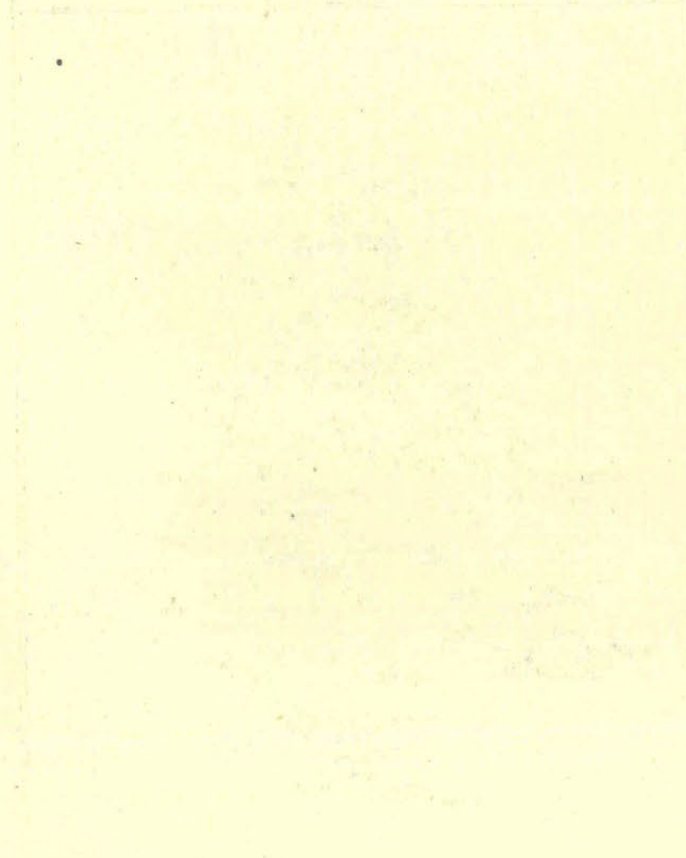
1. BAROMETER AND WIND



3. DISTRIBUTION OF MEAN TEMPERATURE



4. RAINFALL



SUMMARY of the OBSERVATIONS made at the STATIONS included in the DAILY and WEEKLY WEATHER REPORTS for the CALENDAR MONTH,

AUGUST 1898.

(Issued as a Supplement to the Weekly Weather Report, 1898.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & CO., 12, HANOVER ST., EDINBURGH, and 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS, & CO., LIMITED, 104, GRAFTON STREET, DUBLIN.

General Summary.—In the southern and south-eastern districts the weather of August, though changeable at times, was mostly fair, warm, and dry. In the west and north, however, it was far less settled, with occasional heavy falls of rain in most places. Thunderstorms were rather frequent, the most important of these occurring on the night of the 17th or on the 18th, when the whole of the south-western districts were visited by a storm of unusual severity, accompanied in many places by very heavy falls of rain and hail. Pressure and temperature were in excess of the average; the winds were chiefly Westerly or South-westerly; rainfall was deficient in the eastern and southern parts of the country generally, but exceeded the normal elsewhere; bright sunshine was abundant in all but the western parts of Great Britain and in the west of Ireland, where there was a slight deficiency.

Pressure.—*Mean* at 8 a.m. ranged from 30·06 ins. at Jersey, and 30·0 ins. and upwards over the entire southern half of England and the extreme south of Ireland, to 29·8 ins. and less in the Shetlands and Hebrides. The mean distribution over our islands agreed very closely with the normal, but the actual values were in all cases above the average,* the excess being greatest over England, where it amounted to between 0·08 in. and 0·10 in. *Highest* readings were observed over the country generally on the 24th or 25th, when the barometer rose to between 30·2 ins. and 30·3 ins. in all but the extreme northern districts, where readings of equal height were recorded on the 18th or 19th. *Lowest* readings were observed as a rule either on the 27th or 30th, when the barometer fell to between 29·3 ins. and 29·7 ins. at all but the southern stations. In the south of England the lowest readings (29·7 ins. or rather less) were registered on the 6th or 7th. *Range* was moderate.

Depressions were rather numerous for the time of year, their centres advancing as a rule in a north-easterly direction over various parts of north-western Europe. The most important disturbances were those which passed across Scotland respectively on the 5th and the 30th, the former system occasioning a slight South-westerly gale in the English Channel, and the latter a somewhat general gale from points between South-west and North-west. On the 17th and 18th a shallow and rather complex depression advanced over our south-west coasts from the southward, and produced the severe thunderstorms already noticed. The movements of this system were too irregular to be shown on map 2, pl. VIII.

Anticyclones.—In the course of the month several high pressure areas spread over western Europe from the westward, but in no case did the system remain long in our neighbourhood, its departure being usually in a southerly direction. On the 16th a large anticyclone extended over our islands from the northward, and after a temporary interruption on the 18th, remained with us until the 21st, when it moved away to the eastward.

Winds were chiefly from the Westward or South-westward, and frequently strong in force, especially on our western coasts. At Ardrossan a gale was reported on 6 days, and at Malin Head, Holyhead and Pembroke on as many as 8.

Temperature.—*Mean* at sea level ranged from very little below 66° in London, from 65° and upwards in the Channel Islands, and from 64° and upwards over a considerable portion of the south and south-east of England to 56° and less in the extreme north of Scotland, and to 53° and less in the Shetlands. The general distribution over our islands was in fair agreement with the normal, but the values were in nearly all cases above the average,* the excess being greatest (2° to 3°) over the central and southern parts of England. *Highest* readings were recorded as a rule either on the 12th or on the 21st or 22nd, when the thermometer rose to between 80° and 85° in many parts of Great Britain; on the 22nd it reached 87° at Hillington and Cambridge and 89° in London. *Lowest* readings were recorded on various dates in the different districts, but mostly either between the 7th and 9th, on the 24th or 25th, or on the 29th. On one or other of these occasions the sheltered thermometer fell below 45° in nearly all parts of the kingdom, and below 40° at some of the northern stations, the lowest readings of all being 32° at Braemar and 35° at Glenlee. *Range* was rather large for the time of year, especially over the inland parts of Great Britain; in London it amounted to 44°, and at Hillington and Cambridge to 45°. *Vapour Tension* ranged from between 0·47 in. and 0·50 in. at the English Channel stations to 0·38 in. and less over the northern, eastern, and central parts of Scotland generally, and to 0·36 in. at Aberdeen. *Relative Humidity* ranged from 91 per cent. at Holyhead and 90 per cent. at Sumburgh Head and Malin Head to 78 per cent. in London, and to 70 per cent. at Aberdeen.

Rainfall was in excess of the average* at the western and extreme northern stations generally, and also over the northern parts of England. In the eastern and southern parts of Great Britain, however, the amount was mostly deficient, and at some stations in the south of England was less than half the normal. The largest aggregates recorded were 9·3 ins. at Glencarron, 8·8 ins. at Hawes Junction, and 7·5 ins. at Laudale; the smallest being 1·0 in. in London and at Cranley, 1·1 in. at Rothamsted and the North Foreland, and 1·2 in. at Hereford and Southampton. In the extreme north-western parts of the kingdom the number of rainy days was large, as many as 28 being reported at Laudale and 25 at Belmullet, 26 at Stornoway, Londonderry, and Markree Castle. Amounts exceeding an inch in 24 hours were experienced at many of the western and northern stations, the largest of all being 2·8 ins. at Hawes Junction on the 5th, 2·4 ins. at Glencarron on the 1st, and 1·6 in. at Stonyhurst on the 9th.

Bright Sunshine was rather deficient in the western districts generally, though not in the eastern and central parts of Ireland: elsewhere the duration was in excess of the average.* The percentage of the possible amount ranged from 61 at Jersey, 57 at Hastings, and 45 or more at several stations in the south and east of England to 26 at Fort Augustus and Fort William and to 25 at Markree Castle.

* The averages employed are—*Pressure* and *Temperature* for the 25 years 1871–95; *Rainfall* for the 30 years 1866–95; and *Bright Sunshine* for the 15 years 1881–95.

TABLE XV.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC
Observations are made at 8 a.m. daily, but the Numbers of Days of Rain, Snow, Hail,
(The Stations are grouped in Districts, and then arranged in order of Latitude,

NAMES OF DISTRICTS.	NAMES OF STATIONS.		Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	Difference from Average.	AIR TEMPERATURE.								TENSION OF VAPOUR.	RELATIVE HUMIDITY.	
					Means of					Absolute Extremes.					
					At 8 a.m.	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.			Date.
0. SCOTLAND, N.	Sumburgh Head	-	Ins. 29.796	+0.029	53.1	47.4	57.9	52.7	-0.4	42	10th	66	14th	Ins. 0.365	90
	Wick	-	29.852	+0.054	55.5	48.2	63.0	55.6	+0.7	40	10th	70	1st, 13th, 14th	0.378	86
	Stornoway	-	29.799	+0.017	54.7	48.7	60.5	54.6	+0.1	42	9th, 28th, 31st	67	22nd	0.379	89
1. SCOTLAND, E.	Nairn	-	29.856	+0.053	57.1	48.5	66.5	57.5	+0.6	39	9th	82	22nd	0.379	81
	Aberdeen	-	29.884	+0.065	57.6	50.1	64.5	57.3	+0.6	42	25th	75	11th	0.356	75
	Leith	-	29.894	+0.059	59.0	51.6	67.2	59.4	+0.8	44	25th	78	12th, 22nd	0.394	79
2. ENGLAND, N.E.	Shields	-	29.940	+0.082	57.4	51.7	66.0	58.9	+1.1	45	7th, 24th	77	13th, 22nd	0.403	86
	York	-	29.980	+0.085	59.0	51.9	69.5	60.7	+1.1	44	9th, 24th, 29th	83	12th	0.416	84
	Spurn Head	-	29.974	+0.080	60.0	55.2	66.5	60.9	+1.2	50	5, 7, 9, 29	77	11th	0.432	84
3. ENGLAND, E.	Yarmouth	-	30.004	+0.084	61.4	55.4	67.5	61.5	+1.0	45	29th	76	2nd	0.450	83
	Cambridge	-	30.030	+0.097	61.2	52.9	74.2	63.6	+2.1	42	8th	87	22nd	0.455	85
4. MIDLAND COUNTIES	Loughborough	-	30.018	+0.095	58.9	53.1	71.7	62.4	+1.2	46	7th, 8th, 24th	84	22nd	0.420	85
	Oxford	-	30.034	+0.090	60.5	54.2	72.5	63.4	+2.3	46	8th	83	22nd	0.432	83
5. ENGLAND, S.	London	-	30.043	+0.092	62.5	55.7	75.5	65.6	+3.0	45	8th	89	22nd	0.436	78
	North Foreland	-	30.042	+0.090	62.6	56.9	69.5	63.2	+2.4	49	29th	80	13th	0.457	81
	Dungeness	-	30.032	+0.087	63.5	57.0	68.8	62.9	+0.9	48	1, 8, 9, 29	76	14th	0.471	80
	Hurst Castle	-	30.046	+0.084	63.9	58.4	70.4	64.4	+2.3	48	1st	81	15th	0.500	84
6. SCOTLAND, W.	Ardrossan	-	29.897	+0.054	58.3	53.1	64.1	58.6	+0.5	45	7th	72	21st, 22nd	0.417	85
7. ENGLAND, N.W.	Hawes Junction*	-	28.734	?	53.9	48.6	62.7	55.7	?	39	7th, 25th	78	12th	0.376	91
	Liverpool	-	29.974	+0.076	60.6	55.0	67.4	61.2	+1.2	51	{ 4, 5, 7, 8 } 10th, 29th	80	12th	0.402	77
	Holyhead	-	29.976	+0.078	59.2	54.7	64.4	59.6	+0.2	49	25th	75	12th	0.452	91
8. ENGLAND, S.W.	Pembroke	-	30.000	+0.077	60.5	57.1	64.1	60.6	+1.3	51	25th	72	17th, 21st	0.452	86
	Prawle Point	-	30.041	+0.073	62.0	56.1	66.9	61.5	+1.7	47	10th	79	15th	0.472	85
9. IRELAND, N.	Malin Head	-	29.861	+0.031	58.3	54.3	62.1	58.2	+0.3	49	28th	72	22nd	0.443	90
	Donaghadee	-	29.935	+0.066	58.6	52.7	65.0	58.9	+1.3	41	7th	74	10th	0.439	89
	Belmullet	-	29.917	+0.050	59.3	53.9	62.9	58.4	+0.1	43	9th	69	19th, 20th, 21st	0.435	87
10. IRELAND, S.	Parsonstown	-	29.968	+0.060	59.0	52.6	66.6	59.6	+1.0	43	9th	72	13th, 20th, 21st	0.422	85
	Valencia	-	29.978	+0.057	61.5	56.2	65.6	60.9	+1.6	48	17th	73	18th	0.449	83
	Roche's Point	-	30.003	+0.082	60.5	56.3	65.2	60.8	+1.0	49	9th	70	2nd, 21st	0.459	87
CHANNEL ISLANDS-	Scilly	-	30.017	+0.059	62.8	58.7	68.0	63.4	+2.5	54	8th	72	21st	0.493	86
	Jersey	-	30.063	+0.076	64.9	58.4	72.1	65.3	+2.3	51	1st, 11th	83	18th	0.489	80

* Hawes Junction is 1,135 feet above Mean Sea Level, and the

BRIGHT SUNSHINE VALUES FOR AUGUST

Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.	Stations	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.
Deerness (Orkney Islands)	169.5	?	36	?	Hollwley Bay (Suffolk)	236.2	?	53	?
Strathpeffer Spa	145.4	+30.5	31	+6	Sheffield	137.7	?	31	?
Edinburgh	143.2	-2.1	31	-1	Workop	136.8	-7.2	30	-2
Morpeth (Cockle Park)	152.3	?	33	?	Thurcaston	155.4	-3.4	35	0
Newcastle-on-Tyne	134.3	?	29	?	Plumstead Common	193.7	?	44	?
Oswaldkirk	139.6	+5.9	31	+2	Margate	206.4	+22.5	46	+5

SUMMARY OF OBSERVATIONS, AUGUST 1898.

XXXI

REPORTING STATIONS in the BRITISH ISLANDS during the Month of AUGUST 1898.
Thunderstorms, and Gales are counted irrespective of the Hours at which they occurred.
(beginning in each case with the Station lying furthest North.)

AMOUNT OF CLOUD.	RAINFALL.				WEATHER. No. of Days of								WIND. No. of Observations of								NAMES OF STATIONS.
	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calm.	
7.6	Ins. 3.37	Ins. +0.03	Ins. 0.97	8th	18	0	0	1	0	10	2	1	1	2	4	4	4	9	2	4	Sumburgh Head.
7.0	2.94	+0.26	0.50	27th	20	0	0	2	3	14	2	1	1	0	4	9	2	6	7	1	Wick
7.3	5.46	+1.69	0.80	7th	25	0	2	1	0	9	1	1	0	0	4	2	6	11	4	3	Stornoway.
6.5	2.30	-0.50	0.60	30th	17	0	0	1	2	7	0	0	0	2	1	0	7	9	1	11	Nairn.
6.6	2.67	-0.48	0.68	30th	17	0	0	3	0	10	1	1	2	2	2	7	7	6	4	0	Aberdeen.
7.2	3.05	+0.31	1.33	30th	15	0	1	2	3	16	1	1	5	4	0	2	8	11	0	0	Leith.
7.7	2.08	-0.78	0.45	27th	15	0	0	0	2	14	0	3	0	3	1	4	10	9	0	1	Shields.
6.4	3.22	+0.60	0.71	3rd	13	0	0	2	7	12	1	4	0	2	3	4	4	9	4	1	York.
6.6	2.95	+1.12	0.77	3rd	15	0	0	4	5	10	2	3	3	2	2	4	6	7	4	0	Spurn Head.
3.8	1.30	-1.06	0.53	7th	10	0	0	1	14	3	0	4	4	2	2	1	4	9	4	1	Yarmouth.
6.5	2.03	-0.36	0.63	6th	13	0	0	4	9	16	1	7	1	2	1	4	11	2	2	1	Cambridge.
7.1	2.96	+0.46	0.79	6th	16	0	0	4	0	12	3	0	3	1	4	2	7	7	3	4	Loughborough.
7.5	1.66	-0.66	0.88	6th	9	0	0	3	6	20	0	3	5	1	1	5	7	6	2	1	Oxford.
5.8	1.00	-1.36	0.63	7th	9	0	0	2	8	12	1	3	3	4	3	1	9	6	2	0	London.
5.6	1.07	?	0.79	7th	5	0	0	1	1	6	1	1	4	1	3	3	4	12	3	0	North Foreland.
5.7	1.62	-0.45	0.82	7th	9	0	0	2	1	6	0	2	6	2	1	1	7	7	5	0	Dungeness.
5.9	1.36	-1.01	0.65	7th	10	0	0	1	2	11	1	1	5	4	2	1	11	5	2	0	Hurst Castle.
7.7	3.36	-0.55	0.52	9th	20	0	0	0	3	17	6	2	6	1	2	4	5	7	2	2	Ardrossan.
7.1	8.76	?	2.79	5th	22	0	0	2	3	16	0	4	1	4	5	3	7	4	3	0	Hawes Junction.*
6.4	3.80	+0.93	0.56	3rd	21	0	0	2	8	14	3	0	0	3	7	1	7	7	2	4	Liverpool.
8.1	4.75	+1.77	0.79	3rd	17	0	0	4	0	16	8	4	1	3	3	2	8	5	4	1	Holyhead.
7.7	4.01	+1.13	0.88	18th	15	0	0	3	2	19	8	2	3	3	4	2	7	4	5	1	Pembroke.
6.0	2.28	+0.04	1.05	18th	15	0	0	1	0	8	1	2	5	4	1	3	8	6	2	0	Prawle Point.
6.5	3.07	?	0.50	30th	20	0	1	0	0	8	8	1	0	2	3	6	8	6	5	0	Malin Head.
6.1	4.31	+1.04	1.01	12th	23	0	0	0	0	7	1	1	0	2	2	4	7	6	9	0	Donaghadee.
8.0	6.02	+1.40	1.03	9th	28	0	0	0	1	21	1	1	1	0	2	7	7	8	5	0	Belmullet.
7.8	6.36	+2.69	1.06	25th	23	0	0	2	2	18	0	0	1	0	5	4	0	9	3	9	Parsonstown.
8.2	6.00	+1.15	1.09	11th	23	0	0	2	0	17	2	3	1	3	3	6	7	4	0	4	Valencia.
7.2	4.87	+0.84	0.75	17th	18	0	0	2	0	11	0	8	0	1	4	2	7	7	2	0	Roche's Point.
8.0	1.65	-0.89	0.62	7th	15	0	0	3	0	13	0	3	3	3	1	6	7	6	2	0	Scilly.
5.0	2.65	+0.21	0.56	7th	15	0	0	4	9	8	0	2	6	3	1	0	6	7	5	1	Jersey.

Barometer at this Station is not reduced for altitude.

IN ADDITION TO THOSE FOUND IN TABLE XVI.

Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.	Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.
Eastbourne	263.2	+ 67.3	59	+ 15	Colwyn Bay	164.0	?	36	?
Brighton	216.5	+ 5.1	49	+ 1	Tenby	152.7	- 34.1	34	- 8
Watgate (Emsworth) ..	183.5	?	41	?	Torquay	194.3	- 7.5	44	- 2
Westbourne (Emsworth) ..	228.7	+ 26.6	52	+ 6	Newquay	177.2	- 22.8	40	- 5
Ventnor Hospital	213.7	?	48	?	Guernsey	264.5	+ 27.3	60	+ 6
Southport	135.3	?	30	?					

TABLE XVI.

OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE, obtained from the VALUES supplied for use in the WEEKLY WEATHER REPORT, for the Month of AUGUST 1898.

NAMES OF STATIONS.	AIR TEMPERATURE.								RAINFALL.				BRIGHT SUNSHINE.				
	Means of				Absolute Extremes.				No. of Rainy Days.	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Hours recorded.	Difference from Average.	Per-centage of possible Duration.	Difference from Average.
	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.									
STORNOWAY	°	°	°	°	°	°	°	°	°	Ins.	Ins.	Ins.	°	157.7	+40.3	34	+0
LAIRG	48.6	66.1	57.4	+1.9	41	31st	79	22nd	20	3.46	+0.56	0.55	7th	—	—	—	—
GLENCARRON	49.0	62.2	55.6	+0.5	40	9th	78	22nd	23	9.33	+2.54	2.41	1st	—	—	—	—
FORT AUGUSTUS	49.7	64.7	57.2	+0.2	40	7th, 9th	78	22nd	21	3.74	+0.40	0.60	2nd	120.0	+45.1	26	+10
FORT WILLIAM	51.2	63.3	57.3	-0.1	43	7th	76	12th	24	7.04	+0.97	1.27	1st	118.7	+32.6	26	+7
ABERDEEN	°	°	°	°	°	°	°	°	°	°	°	°	°	170.5	+19.4	37	+4
BRAEMAR	46.4	61.7	54.1	+0.1	32	25th	74	12th	21	3.33	-0.53	0.78	12th	152.5	+38.9	33	+8
OCHTERTYRE	48.9	66.8	57.9	+0.3	37	24th	79	12th	20	3.81	-0.03	0.77	9th	—	—	—	—
MARCHMONT	48.8	65.8	57.3	+0.8	42	7th, 8th, 25th	80	12th	17	3.03	-0.52	0.64	30th	169.3	+17.3	37	+4
ALNWICK CASTLE	50.3	66.5	58.4	+1.3	41	25th	76	13th, 22nd	20	1.88	-1.27	0.31	4th	—	—	—	—
DURHAM	50.8	68.9	59.9	+1.4	41	25th	81	12th	15	1.78	-1.06	0.52	5th	157.1	+10.9	34	+2
SCARBOROUGH	52.1	65.9	59.0	+0.2	44	29th	80	22nd	12	2.85	+0.18	0.54	3rd	154.7	?	34	?
YORK	°	°	°	°	°	°	°	°	°	°	°	°	°	141.2	-3.9	31	-1
HILLINGTON	51.6	72.0	61.8	+1.3	42	8th, 29th	87	22nd	16	2.36	-0.37	0.62	15th	179.6	+6.1	40	+1
GELDESTON	52.5	72.0	62.3	+1.6	44	26th, 29th	85	13th	9	1.35	-0.69	0.59	7th	210.2	+21.8	47	+5
CAMBRIDGE	°	°	°	°	°	°	°	°	°	°	°	°	°	211.9	+31.4	48	+8
ROTHAMSTED	52.5	71.9	62.2	+2.0	42	8th, 29th, 31st	84	22nd	12	1.05	-1.54	0.36	7th	214.2	+28.5	48	+6
BAWTRY	52.6	71.6	62.1	+2.3	44	24th	85	12th	14	3.55	+1.21	1.47	3rd	—	—	—	—
STAMFORD (Duddington)	52.8	72.2	62.5	+1.3	43	8th	83	12th, 22nd	14	2.97	+0.73	1.22	6th	—	—	—	—
CHEADLE	51.9	67.2	59.6	+1.7	45	7th, 29th	79	12th	14	4.36	+0.84	1.46	3rd	—	—	—	—
SHIRLEY (nr. Solihull)	52.3	69.6	61.0	+0.5	43	28th	80	12th, 21st	21	3.37	?	0.98	6th	—	—	—	—
CHURCHSTOKE	50.1	69.4	59.8	+1.6	40	25th	80	21st	17	2.59	-0.15	0.99	21st	165.3	+0.9	37	0
HEREFORD	53.0	71.7	62.4	+1.9	44	7th	83	21st	17	1.15	-1.29	0.44	6th	—	—	—	—
GLOUCESTER	52.5	71.0	61.8	+2.9	43	29th	81	12th, 22nd	17	2.91	-0.17	1.23	6th	184.1	+5.5	41	+1
OXFORD	°	°	°	°	°	°	°	°	°	°	°	°	°	186.9	+4.0	42	+1
LONDON	°	°	°	°	°	°	°	°	°	°	°	°	°	197.5	+30.5	44	+7
CRANLEY	53.2	73.1	63.2	+0.9	45	8th, 26th, 29th	84	15th, 22nd	9	1.00	?	0.56	7th	—	—	—	—
HASTINGS	56.4	70.5	63.5	+2.0	48	9th	83	15th	11	1.57	-0.88	0.64	7th	254.9	+51.2	57	+11
SOUTHAMPTON	55.5	73.5	64.5	+2.3	49	1st, 9th, 29th	84	14th, 15th, 21st	13	1.23	-1.45	0.47	7th	205.4	+2.4	46	0
SHAFTESBURY	53.7	69.5	61.6	+1.5	46	9th	80	21st	14	1.72	-1.14	0.49	18th	—	—	—	—
LAUDALE	51.8	63.7	57.8	+0.7	45	7th	75	22nd	26	7.53	+2.07	0.96	2nd	—	—	—	—
GLASGOW	52.1	63.8	58.0	+0.9	44	25th	76	12th	22	5.22	+1.17	1.17	30th	121.9	-7.2	27	-1
GLENLEE	49.6	65.8	57.7	+0.6	35	7th	75	12th	22	6.60	+1.87	0.91	30th	—	—	—	—
GILCRUX (Cumberland)	52.1	65.7	58.9	+1.9	45	7th, 25th	80	12th	21	5.95	?	1.43	26th	135.9	?	30	?
DOUGLAS	52.4	64.8	58.6	+1.4	42	7th	72	16th	15	5.95	+2.10	1.46	9th	150.2	-13.8	33	-3
STONYHURST	53.2	65.9	59.6	+1.1	45	7th	77	12th	19	7.07	+1.92	1.56	9th	145.0	+2.7	32	+1
BLACKPOOL	54.0	68.3	61.2	+1.7	43	25th	80	12th	21	5.32	+1.94	1.08	9th	122.8	-27.9	27	-6
MANCHESTER (Prestwich)	53.0	68.5	60.8	+1.9	45	25th, 29th	81	12th	19	5.24	+1.51	0.76	3rd	125.6	?	28	?
LLANDUDNO	54.7	67.9	61.3	+1.1	46	25th	80	21st	17	4.92	+2.25	0.83	8th	152.4	+0.8	34	0
LLANDOVERY	52.4	70.6	61.5	+1.9	40	9th, 24th	83	12th	21	7.10	+2.41	1.11	8th	—	—	—	—
PEMBROKE	°	°	°	°	°	°	°	°	°	°	°	°	°	143.5	-45.3	32	-10
CLIFTON	56.5	69.8	63.2	+2.5	50	7th, 8th, 9th	82	21st	15	3.69	+0.22	1.20	6th	—	—	—	—
ARLINGTON	53.4	67.7	60.6	+1.7	47	7th	78	21st	17	4.06	-1.19	0.67	5th	—	—	—	—
CULLOMPTON	53.8	72.0	62.9	+2.4	45	1st	82	21st	12	1.91	-0.99	0.47	18th	172.3	-5.9	39	-1
FALMOUTH	56.8	68.0	62.4	+2.0	51	31st	74	16th	13	2.08	-1.57	0.77	6th	194.6	-8.1	44	-2
PLYMOUTH	54.8	68.6	61.7	+0.4	45	9th	78	15th	15	2.76	-0.17	1.43	18th	176.9	-9.9	40	-2
SCILLY	°	°	°	°	°	°	°	°	°	°	°	°	°	189.9	?	43	?
JERSEY	°	°	°	°	°	°	°	°	°	°	°	°	°	267.6	+26.4	61	+6
LONDONDERRY	52.1	67.4	59.8	+1.5	43	7th	78	21st	25	4.53	+0.63	0.70	30th	—	—	—	—
EDENFEL (Omagh)	51.2	64.4	57.8	+1.1	40	7th	72	21st	21	5.28	+1.45	0.90	9th	—	—	—	—
MARKREE CASTLE	50.5	65.8	58.2	+1.0	38	17th	72	10th, 20th, 21st	25	4.15	+0.05	0.82	9th	114.5	-8.0	25	-2
ARMAGH	51.6	66.0	58.8	+0.9	40	9th	73	10th	20	3.49	+0.28	0.73	5th	145.6	+31.0	32	+7
EDGEWORTHSTOWN	†	†	†	†	†	†	†	†	†	4.52	+0.45	1.09	9th	—	—	—	—
DUBLIN	54.9	67.8	61.4	+1.9	47	9th	75	2nd, 5th	18	3.46	-0.52	0.99	25th	163.4	+8.5	36	+2
PARSONSTOWN	°	°	°	°	°	°	°	°	°	°	°	°	°	134.4	+3.4	30	+1
KILKENNY CASTLE	53.3	67.1	60.2	+0.7	43	25th	75	10th	18	4.80	-1.32	0.95	25th	—	—	—	—
VALENCIA (Cahiriveen)	°	°	°	°	°	°	°	°	°	°	°	°	°	143.8	-2.2	32	-1
KILLARNEY	54.2	66.6	60.4	+1.0	43	17th	72	21st	20	5.23	?	0.92	7th	—	—	—	—
FOYNES	54.7	66.5	60.6	+1.9	46	9th, 17th	72	21st	20	5.45	?	0.74	9th	—	—	—	—

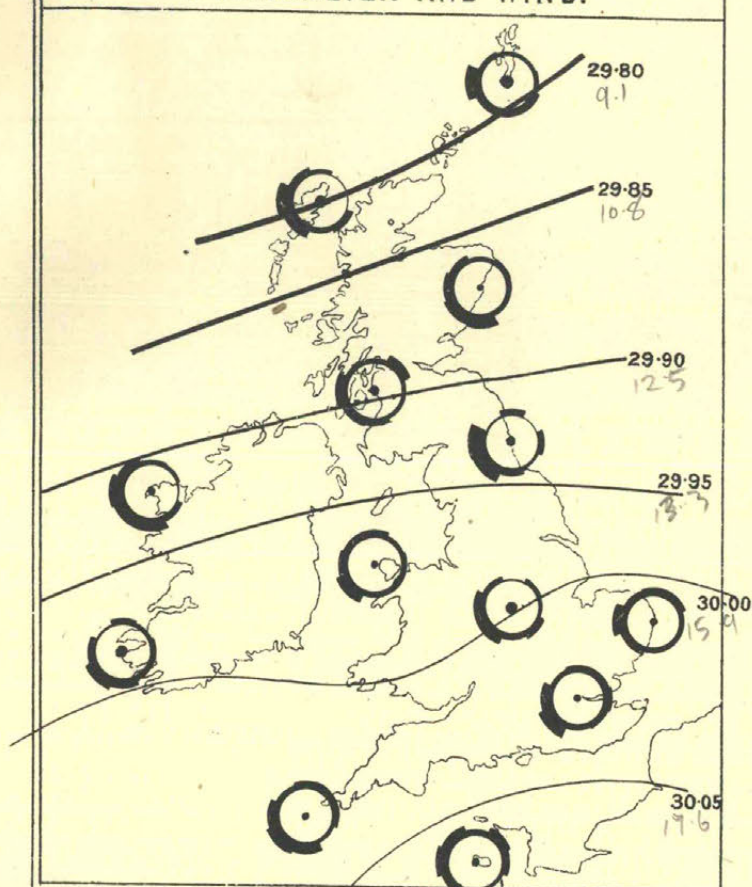
* For this information and additional Reports of Bright Sunshine see Table XV.
† Observations incomplete.

MONTHLY WEATHER CHART AUGUST 1898.

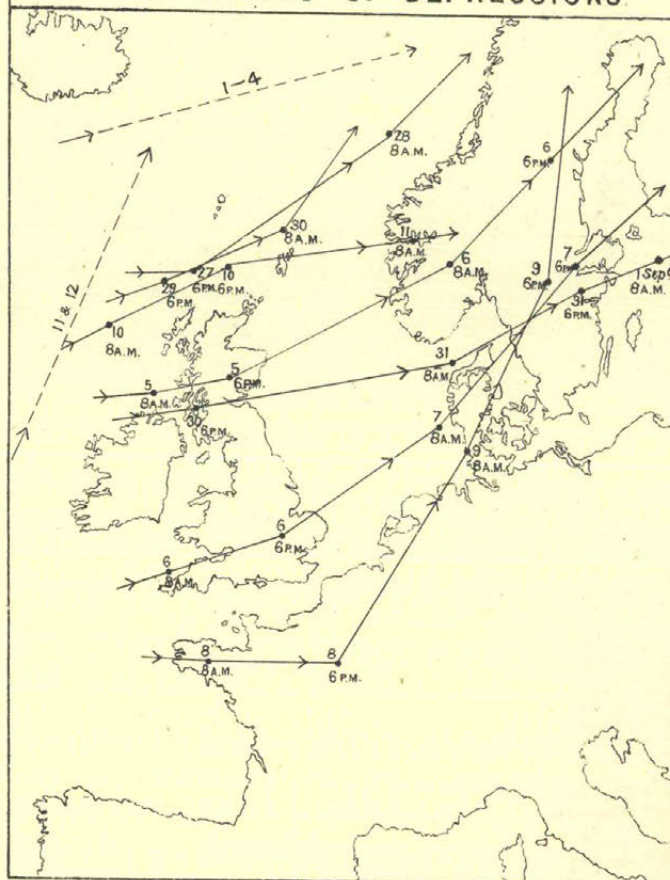
Monthly Summary.

Plate VIII.

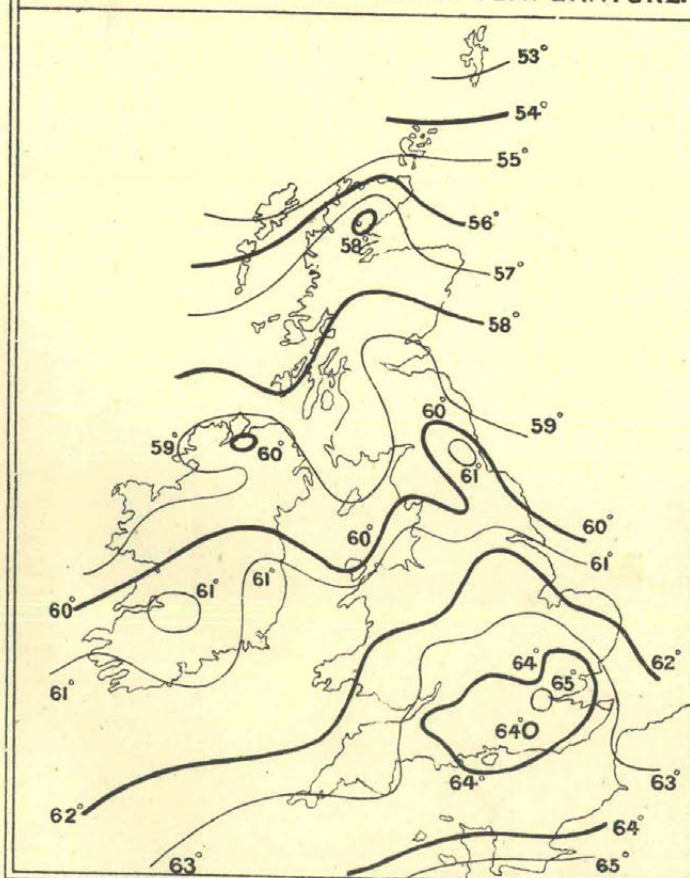
1. BAROMETER AND WIND.



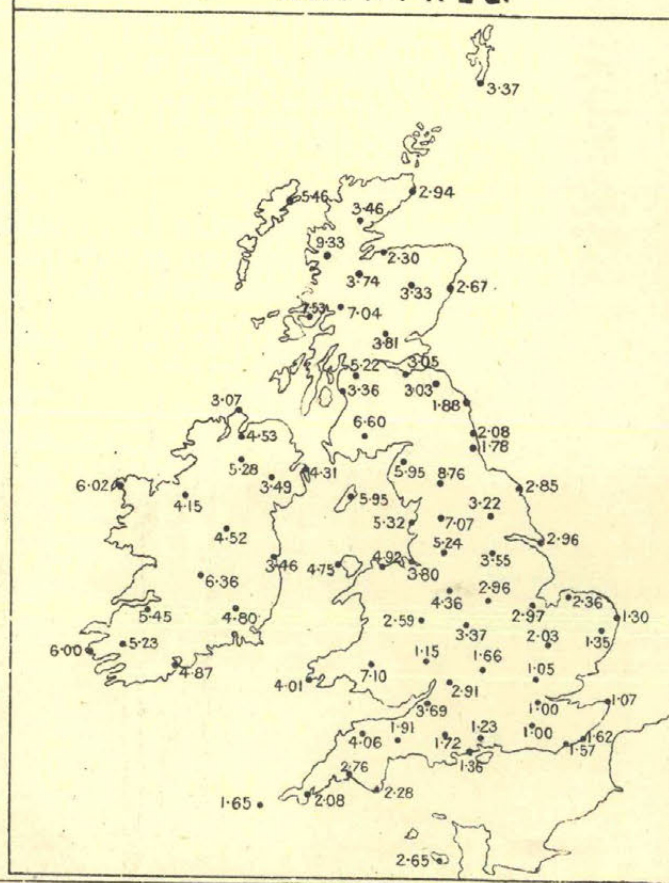
2. MOVEMENTS OF DEPRESSIONS.



3. DISTRIBUTION OF MEAN TEMPERATURE.

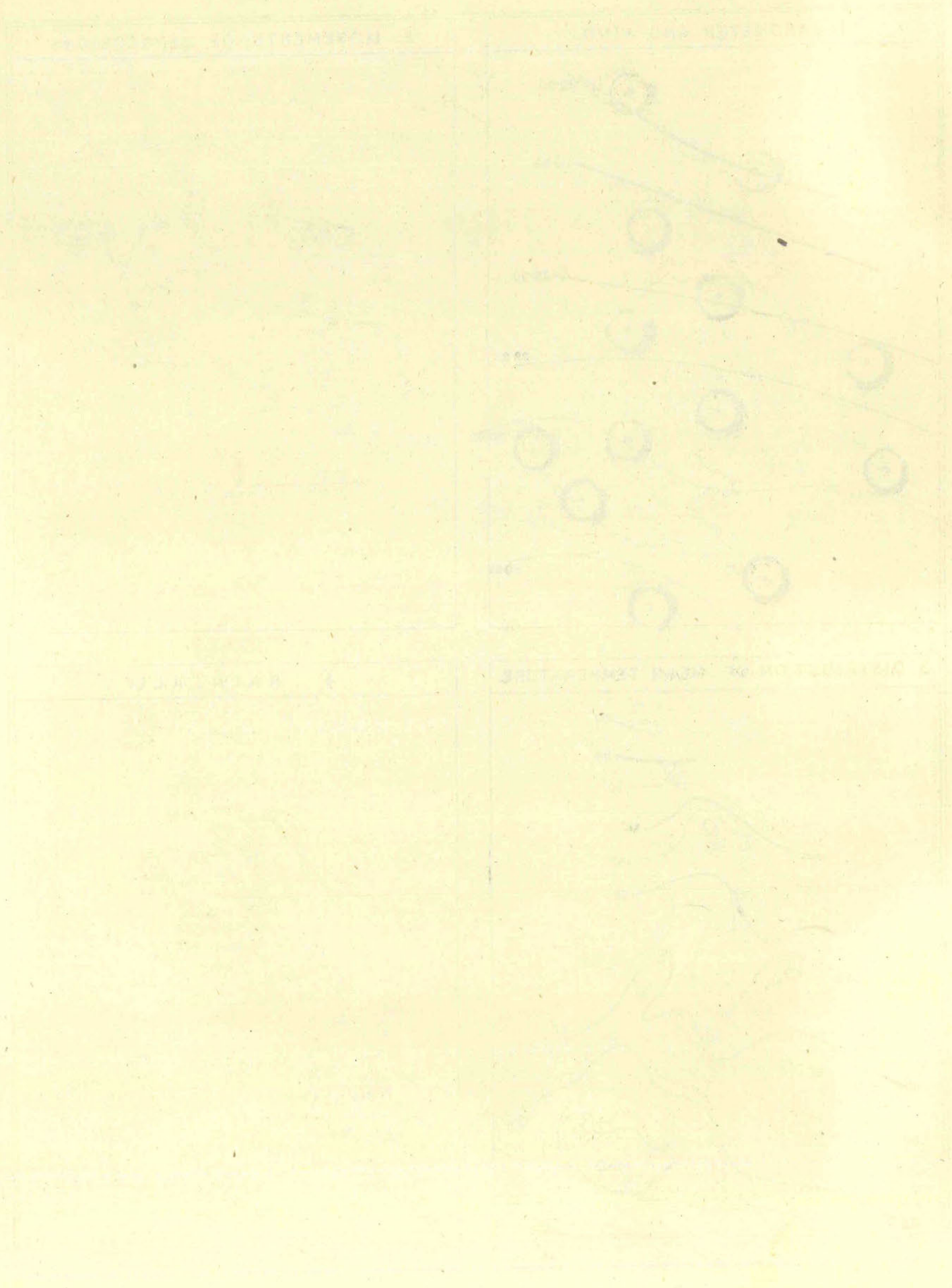


4 RAINFALL.



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SUMMARY of the OBSERVATIONS made at the STATIONS included in the DAILY and WEEKLY WEATHER REPORTS for the CALENDAR MONTH,

SEPTEMBER 1898.

(Issued as a Supplement to the Weekly Weather Report, 1898.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.

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General Summary.—In some of the western and extreme northern districts the weather of September was rather changeable with occasional falls of heavy rain. Elsewhere, however, it was mostly fair and very dry, the latter characteristic being especially marked over the eastern half of England. During the early part of the month thunderstorms were experienced in many places, while on the 9th a brilliant aurora was seen over nearly the whole kingdom. Pressure was above the average; temperature was also high, especially in Ireland; the winds were variable in the south, but Westerly in the north; rainfall was very deficient over England, but exceeded the normal in the north of Ireland and the west and north of Scotland; bright sunshine was, as a rule, far in excess of the average.

Pressure.—*Mean at 8 a.m.* ranged from 30.1 ins. and upwards over the central and southern parts of England to 29.9 ins. or a little less in the north of Scotland, the general distribution being of an anticyclonic type. The mean values were everywhere above the average,* the excess being slight (0.06 in. to 0.07 in.) on our extreme western and northern coasts, but much larger (0.12 in. to 0.14 in.) over the eastern and central parts of England. *Highest* readings were observed very generally on the 3rd or 4th, when the barometer rose to 30.4 ins. and upwards over England, and to 30.3 ins. and upwards in Ireland and Scotland. *Lowest* readings occurred mostly on the 29th or 30th, when the barometer fell to between 29.4 ins. and 29.5 ins. over Ireland and Wales, to about 29.6 ins. in the south of England, and to 29.8 ins. and less on our north and east coasts. In the north of Scotland lower readings occurred at several other times during the month, the lowest of all (29.5 ins. and less) being observed on the 10th. *Range* was moderate for the time of year.

Depressions.—The depressions observed in our immediate neighbourhood were few in number and, as a rule, of very little importance. On the 29th, however, a rather deep disturbance advanced over Ireland, the system ultimately moving south-eastwards across Wales and the south of England to France, where it quickly dispersed.

Anticyclones.—During the first six or seven days of the month, and again between the 12th and 17th, an anticyclone advanced from the Atlantic and gradually spread over a considerable portion of Europe, the system in each case breaking up over the more central countries. On the 19th and 20th our southern districts were affected by an area of moderate size and height which moved eastwards across the Bay of Biscay and France; while on the 21st another anticyclone spread over our islands from the north-westward, the system remaining over North-western Europe until the 25th, when it moved away to the north-eastward and dispersed.

Winds varied greatly in direction in the south, but were mostly from the Westward or South-westward in the north. At the majority of our eastern and southern stations the wind never reached the force of a gale, but on most parts of our western and northern coasts this occurred on one or two days, at Aberdeen on four days, and at Scilly on five.

Temperature.—*Mean at sea level* ranged from a little below 64° in the Channel Islands, and from 62° and upwards over a considerable portion of the south of England, to 56° and less in the north-west and north-east of Scotland, and to 53° and less in the Shetlands. Over Great Britain the general distribution was in fair agreement with the normal, but in Ireland there was an absence of the cold area which usually appears over the more northern parts of that country in September. The mean values were in nearly all places considerably above the average,* the excess being upon the whole greatest over the inland parts of Ireland, where it amounted to between four and a half and five degrees. *Highest* readings were observed at the western and northern stations between the 4th and 6th, but in the eastern, central and southern districts on the 8th or 9th. The readings about this time were unusually high for the time of year, the thermometer rising to between 80° and 85° in nearly all parts of Great Britain, as well as at some of the Irish stations, and reaching 90° in several parts of England. On the 8th a maximum of 91° was recorded in London, and 92° at Cambridge and Hillington. *Lowest* readings occurred on various dates between the 24th and 29th, when frost occurred in many parts of Great Britain, the lowest reading in the screen being 29° at Loughborough, Shirley, Churchstoke, and Hereford. *Vapour Tension* ranged from 0.48 in. in the Scilly Islands and 0.44 in. and upwards on our south and south-west coasts generally, to between 0.36 in. and 0.38 in. in the north and east of Scotland and the north-western and central parts of England. *Relative Humidity* varied from 93 per cent. at Sumburgh Head and 92 per cent. at Malin Head, to 79 per cent. at Liverpool and the North Foreland, and to 78 per cent. at Aberdeen and Jersey.

Rainfall was in excess of the average,* in the north of Ireland and the west and north of Scotland, but was very deficient elsewhere, and especially in the eastern parts of England, where the amount was, as a rule, the smallest recorded in September for more than 30 years past. The largest aggregates reported were 10.2 ins. at Fort William, 9.4 ins. at Glencarron, and 8.8 ins. at Laudale; the smallest were 0.12 in. at Spurn Head, 0.13 in. at Shields, and 0.16 in. at Scarborough, less than half-an-inch being collected at many other stations in the eastern and central parts of England. At many of the English stations there were less than five days with rain, and at Stamford and Cambridge only two. The largest falls in 24 hours occurred mainly on the 29th, when 1.7 in. fell at Ochertyre, and 1.6 in. at Donaghadee and Shaftesbury.

Bright Sunshine was considerably in excess of the average* over the country generally, but was rather deficient in the north of England and the south of Scotland. The percentage of the possible duration exceeded 55 at most of our south coast stations, and was as high as 71 at Guernsey, and 68 at Jersey. The lowest percentages were 19 at Glasgow, 24 at Newcastle-on-Tyne and 27 at Edinburgh and Morpeth.

* The averages employed are—*Pressure* and *Temperature* for the 25 years, 1871–95; *Rainfall* for the 30 years, 1866–95; and *Bright Sunshine* for the 15 years, 1881–95.

TABLE XVII.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC
Observations are made at 8 a.m. daily, but the Numbers of Days of Rain, Snow, Hail,
(The Stations are grouped in Districts, and then arranged in order of Latitude,

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	Difference from Average.	AIR TEMPERATURE.										TENSION OF VAPOUR.	RELATIVE HUMIDITY.
				Means of					Absolute Extremes.						
				At 8 a.m.	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.			
0. SCOTLAND, N.	Sumburgh Head	Ins. 29.862	Ins. +0.069	51.9	47.5	56.7	52.1	+1.5	40	20th	69	5th	Ins. 0.359	% 93	
	Wick	29.894	+0.063	55.8	48.3	62.6	55.5	+3.7	40	19th	78	5th	380	85	
	Stornoway	29.872	+0.058	52.9	46.8	60.1	53.5	+2.3	36	23rd, 25th	72	4th	356	89	
1. SCOTLAND, E.	Nairn	29.914	+0.071	55.7	47.0	65.5	56.3	+3.4	31	24th	83	4th, 5th, 17th	378	85	
	Aberdeen	29.952	+0.089	57.0	49.0	63.6	56.3	+3.3	37	29th	81	3rd	364	78	
	Leith	29.971	+0.084	56.6	50.0	66.2	58.1	+3.3	38	23rd, 26th	83	6th	378	82	
2. ENGLAND, N.E.	Shields	30.027	+0.117	55.9	51.2	65.5	58.4	+4.2	41	29th	81	17th	384	86	
	York	30.073	+0.125	56.4	49.7	67.9	58.8	+3.4	36	29th	84	17th	388	86	
	Spurn Head	30.070	+0.123	58.8	54.5	64.8	59.7	+3.1	45	29th	75	9th	407	82	
3. ENGLAND E.	Yarmouth	30.099	+0.140	59.9	53.8	66.1	60.0	+3.2	42	29th	78	9th	416	81	
	Cambridge	30.125	+0.146	57.5	49.2	74.3	61.8	+4.8	33	29th	92	8th	402	85	
4. MIDLAND COUNTIES	Loughborough	30.109	+0.138	54.9	48.7	71.8	60.3	+3.8	29	26th	50	8th	371	87	
	Oxford	30.123	+0.138	56.0	49.6	71.8	60.7	+4.1	35	26th	90	8th	381	85	
5. ENGLAND, S.	London	30.131	+0.140	58.1	51.1	74.4	62.8	+4.7	36	29th	91	8th	395	81	
	North Foreland	30.130	+0.140	61.8	56.0	68.2	62.1	+4.2	44	29th	84	9th	435	79	
	Dungeness	30.116	+0.135	60.9	53.1	68.4	60.8	+2.3	38	29th	78	8th	428	81	
	Hurst Castle	30.115	+0.113	61.4	54.7	70.1	62.4	+3.9	43	25th	78	7th, 8th	443	82	
6. SCOTLAND, W.	Ardrossan	29.977	+0.085	56.7	52.1	62.3	57.2	+2.6	40	22nd	77	6th	409	89	
7. ENGLAND, N.W.	Hawes Junction*	28.824	?	51.4	46.5	60.8	53.7	?	32	22nd	78	4th	361	95	
	Liverpool	30.061	+0.114	57.8	52.1	65.4	58.8	+2.6	41	25th, 26th, 27th	79	7th	377	79	
	Holyhead	30.048	+0.107	57.7	52.6	63.9	58.3	+1.6	44	26th	77	5th, 6th	431	90	
8. ENGLAND, S.W.	Pembroke	30.071	+0.109	58.6	55.8	63.0	59.4	+2.7	48	25th, 30th	71	5th, 14th	442	90	
	Prawle Point	30.106	+0.102	61.1	54.8	67.0	60.9	+3.5	46	28th	75	7th	438	81	
9. IRELAND, N.	Malin Head	29.938	+0.069	56.8	53.5	62.6	58.1	+3.3	44	29th	78	4th, 6th	428	92	
	Donaghadee	30.008	+0.092	57.5	51.9	63.6	57.8	+3.1	39	29th	74	3rd	428	90	
	Belmullet	29.978	+0.074	58.9	53.3	63.6	58.5	+2.9	45	22nd	78	4th	405	82	
10. IRELAND, S.	Parsonstown	30.022	+0.074	57.8	52.0	66.6	59.3	+4.8	38	23rd	79	4th	415	86	
	Valencia	30.027	+0.066	61.0	55.8	65.9	60.9	+4.3	46	23rd	79	5th	436	82	
	Roche's Point	30.056	+0.093	60.0	55.4	64.4	59.9	+3.5	48	28th	70	5th	444	86	
CHANNEL ISLANDS-	Seilly	30.064	+0.082	62.2	56.8	67.0	61.9	+3.5	49	24th	71	4th, 6th, 11th	475	85	
	Jersey	30.111	+0.108	62.6	55.9	71.2	63.6	+3.2	46	2nd	84	8th	442	78	

* Hawes Junction is 1,135 feet above Mean Sea Level, and the

BRIGHT SUNSHINE VALUES FOR SEPTEMBER IN

Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.	Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.
Deerness (Orkney Islands)	106.9	?	28	?	Hollesley Bay (Suffolk)	196.1	?	52	?
Strathpeffer Spa	133.1	+13.0	35	+3	Sheffield	144.0	?	38	?
Edinburgh	101.5	-2.9	27	-1	Workshop	138.6	+19.7	37	+5
Morpeth (Cockle Park)	100.6	?	27	?	Thureaston	185.7	+64.8	50	+18
Newcastle-on-Tyne	90.6	?	24	?	Plumstead Common	189.5	?	51	?
Oswaldkirk	124.9	+9.3	33	+2	Margate	196.3	+53.4	52	+14

REPORTING STATIONS in the BRITISH ISLANDS during the Month of SEPTEMBER 1898.

Thunderstorms, and Gales are counted irrespective of the Hours at which they occurred.

beginning in each case with the Station lying furthest North.)

AMOUNT OF CLOUD.	RAINFALL.				WEATHER.								WIND.										NAMES OF STATIONS.
	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Days of								No. of Observations of										
					Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.			
9.3	Ins. 3.09	Ins. -0.29	Ins. 0.80	30th	19	0	0	0	0	25	1	2	3	1	4	4	4	6	1	5	Sumburgh Head.		
7.5	3.36	+0.85	0.65	28th	18	0	0	1	4	17	1	2	0	1	1	11	4	3	7	1	Wick.		
8.2	5.18	+1.09	0.85	28th	19	0	0	0	0	16	1	1	0	2	1	1	7	11	5	2	Stornoway.		
6.2	2.84	+0.36	0.53	29th	14	0	0	0	5	10	0	0	0	0	0	2	4	13	1	10	Nairn.		
6.9	1.70	-1.19	0.72	1st	14	0	0	0	0	13	4	0	2	0	2	9	12	2	3	0	Aberdeen.		
7.1	1.85	-0.34	0.70	29th	13	0	0	0	2	14	0	0	0	3	2	2	6	12	0	5	Leith.		
7.9	0.13	-2.17	0.07	29th	3	0	0	2	0	13	0	0	1	1	1	5	15	4	3	0	Shields.		
5.7	1.34	-1.11	0.88	29th	7	0	1	1	12	13	0	4	0	3	3	10	4	4	2	0	York.		
6.1	0.12	-1.71	0.05	27th	4	0	0	0	3	9	0	4	0	1	6	4	6	8	1	0	Spurn Head.		
2.7	0.17	-2.47	0.12	18th	3	0	0	0	20	1	0	3	1	2	5	2	5	8	4	0	Yarmouth.		
5.1	0.17	-1.96	0.16	29th	2	0	0	0	11	13	0	3	0	0	3	2	8	3	3	8	Cambridge.		
5.2	0.54	-1.96	0.46	29th	6	0	0	0	5	5	0	1	0	2	7	2	6	8	3	1	Loughborough.		
6.5	0.38	-2.05	0.30	29th	6	0	0	0	8	13	0	6	2	2	6	3	7	3	0	1	Oxford.		
5.6	0.31	-1.86	0.14	18th	4	0	0	0	11	10	0	0	3	6	3	2	6	6	1	3	London.		
4.6	0.41	?	0.17	18th	4	0	0	0	4	2	1	4	0	7	2	5	4	3	5	0	North Foreland.		
5.6	0.46	-2.07	0.20	18th	5	0	0	0	2	6	0	4	3	3	4	1	4	5	4	2	Dungeness.		
4.4	1.27	-1.49	1.13	29th	5	0	0	1	6	3	1	3	9	5	1	0	5	5	1	1	Hurst Castle.		
8.1	2.41	-0.97	0.73	29th	12	0	0	0	3	22	3	2	7	1	0	3	7	4	1	5	Ardrossan.		
8.0	3.35	?	0.58	11th	18	0	0	1	0	18	0	5	1	5	3	5	10	1	0	0	Hawes Junction.*		
6.8	1.39	-1.78	0.50	29th	11	0	0	1	7	14	1	0	1	3	11	2	7	4	1	1	Liverpool.		
7.1	2.25	-0.85	0.49	29th	15	0	0	2	2	13	2	2	0	1	6	4	10	3	2	2	Holyhead.		
6.4	1.55	-1.77	0.55	29th	9	0	0	0	7	16	1	1	1	4	7	3	5	5	3	1	Pembroke.		
5.3	0.72	-1.69	0.51	29th	6	0	0	2	1	5	1	2	7	5	1	3	5	4	3	0	Prawle Point.		
6.5	2.80	?	0.90	29th	18	0	1	0	2	9	1	4	0	0	7	7	4	6	2	0	Malin Head.		
6.6	3.95	+1.21	1.64	29th	19	0	0	0	0	6	1	1	1	1	5	5	8	7	2	0	Donaghadee.		
5.7	3.26	-1.00	1.05	28th	21	0	0	0	8	14	1	1	0	2	6	4	4	8	5	0	Belmullet.		
7.2	3.00	+0.08	0.93	8th	14	0	0	0	4	16	0	0	0	0	8	0	6	4	3	9	Parsonstown.		
7.8	4.30	-0.08	0.93	8th	15	0	0	1	0	16	1	2	0	4	6	6	3	4	3	2	Valencia.		
6.7	3.30	-0.44	0.98	8th	10	0	0	1	0	8	2	3	0	1	5	6	6	4	5	0	Roche's Point.		
6.0	0.97	-2.31	0.61	17th	8	0	0	0	2	5	5	1	0	9	3	7	5	2	3	0	Scilly.		
4.2	1.08	-1.88	0.36	29th	10	0	0	1	9	6	1	1	4	12	2	0	2	4	4	1	Jersey.		

Barometer at this Station is not reduced for altitude.

ADDITION TO THOSE FOUND IN TABLE XVIII.

Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.	Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.
Eastbourne	247.1	+ 84.2	66	+ 22	Colwyn Bay	181.3	?	49	?
Brighton	218.6	+ 56.4	58	+ 15	Tenby	196.5	+ 44.4	53	+ 12
Watgate (Emsworth) ..	208.9	?	56	?	Torquay	213.6	+ 54.5	57	+ 14
Westbourne (Emsworth) ..	234.6	+ 76.9	63	+ 21	Newquay	210.3	+ 57.8	56	+ 15
Ventnor Hospital	220.3	?	59	?	Guernsey	264.4	+ 90.3	71	+ 24
Southport	129.8	?	35	?					

TABLE XVIII.

OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE, obtained from the VALUES supplied for use in the WEEKLY WEATHER REPORT, for the Month of SEPTEMBER 1898.

NAMES OF STATIONS.	AIR TEMPERATURE.								RAINFALL.				BRIGHT SUNSHINE.				
	Means of				Absolute Extremes.				No. of Rainy Days.	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Hours recorded.	Difference from Average.	Per-centage of possible Duration.	Difference from Average.
	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.									
	°	°	°	°	°		°			Ins.	Ins.	Ins.		130°8	+27°5	35	+8
STORNOWAY - - -	*	*	*	*	*	*	*	*	*	*	*	*	*	—	—	—	—
LAIRG - - -	45°8	65°7	55°8	+4°6	34	27th	86	5th	18	4°01	+0°99	0°70	11th	—	—	—	—
GLENCARRON - - -	47°3	60°8	54°1	+2°8	34	25th	81	6th	21	9°43	+2°18	1°22	1st	—	—	—	—
FORT AUGUSTUS - -	47°6	63°7	55°7	+2°3	31	25th	81	6th	16	4°38	+0°47	0°79	29th	128°2	+53°5	34	+14
FORT WILLIAM - - -	49°2	61°9	55°6	+1°9	36	25th	80	6th	19	10°21	+3°23	1°43	1st	124°6	+28°6	33	+8
ABERDEEN - - -	*	*	*	*	*	*	*	*	*	*	*	*	*	144°5	+20°3	38	+5
BRAEMAR - - -	44°9	61°8	53°4	+3°6	30	23rd	80	4th	15	2°53	-0°80	0°49	8th	160°7	+53°4	43	+15
OCHTERTYRE - - -	48°3	65°7	57°0	+3°7	35	21st, 28th	83	4th	14	3°97	+0°61	1°68	29th	—	—	—	—
MARCHMONT - - -	47°7	65°0	56°4	+3°9	34	29th	82	5th	14	1°69	-1°46	0°55	29th	105°5	-7°4	28	-2
ALNWICK CASTLE - -	48°7	65°3	57°0	+3°8	34	24th	81	4th	14	0°75	-2°02	0°31	7th	—	—	—	—
DURHAM - - -	49°7	66°9	58°3	+4°2	36	24th	85	4th	6	0°32	-1°98	0°25	29th	106°6	-9°5	28	-3
SCARBOROUGH - - -	51°1	66°2	58°7	+3°6	40	29th	82	17th	3	0°16	-2°42	0°11	9th	141°0	?	38	?
YORK - - -	*	*	*	*	*	*	*	*	*	*	*	*	*	125°0	+6°6	33	+1
HILLINGTON - - -	48°4	72°3	60°4	+4°4	33	29th	92	8th	3	0°19	-2°34	0°13	29th	191°2	+58°2	51	+15
GELDESTON - - -	49°9	70°7	60°3	+3°5	33	29th	90	9th	3	0°28	-2°10	0°19	18th	195°6	+39°9	52	+10
CAMBRIDGE - - -	*	*	*	*	*	*	*	*	*	*	*	*	*	207°0	+62°8	55	+16
ROTHAMSTED - - -	48°3	70°6	59°5	+3°8	31	29th	89	8th	4	0°51	-2°04	0°38	29th	207°1	+66°2	55	+17
BAWTRY - - -	48°0	69°9	59°0	+3°6	34	29th	87	17th	5	0°51	-1°71	0°41	29th	—	—	—	—
STAMFORD (Duddington) -	48°3	71°3	59°8	+3°4	33	27th, 29th	90	8th	2	0°36	-2°37	0°35	29th	—	—	—	—
CHEADLE - - -	49°8	66°3	58°1	+4°0	39	29th	79	7th, 17th	9	1°00	-2°08	0°61	29th	—	—	—	—
SHIRLEY (nr. Solihull) -	47°6	69°1	58°4	+2°8	29	26th	84	8th	5	0°85	?	0°75	29th	—	—	—	—
CHURCHSTOKE - - -	47°1	68°3	57°7	+3°6	29	25th	81	5th, 7th	7	0°96	-1°68	0°60	29th	195°7	+64°2	52	+17
HEREFORD - - -	47°7	69°8	58°8	+2°9	29	25th	85	8th	4	0°61	-1°98	0°50	29th	—	—	—	—
CIRENCESTER - - -	48°8	70°0	59°4	+4°4	35	29th	87	8th	5	0°90	-2°07	0°68	29th	197°7	+67°8	53	+18
OXFORD - - -	*	*	*	*	*	*	*	*	*	*	*	*	*	205°3	+64°3	55	+17
LONDON - - -	*	*	*	*	*	*	*	*	*	*	*	*	*	186°8	+64°4	50	+17
CRANLEY - - -	48°6	72°9	60°8	+3°1	33	29th	86	8th	5	1°13	?	0°98	29th	—	—	—	—
HASTINGS - - -	54°5	69°0	61°8	+3°6	42	28th	80	8th	4	0°71	-1°99	0°35	18th	237°7	+74°3	64	+20
SOUTHAMPTON - - -	50°9	73°0	62°0	+3°9	38	29th	85	8th	4	0°98	-1°83	0°92	29th	220°0	+65°0	59	+18
SHAFTESBURY - - -	51°5	69°9	60°7	+4°9	42	25th, 28th	84	7th	7	1°96	-1°33	1°58	29th	—	—	—	—
LAUDALE - - -	51°4	63°2	57°3	+3°8	41	23rd, 25th	78	6th, 7th	23	8°83	+2°00	1°84	27th	—	—	—	—
GLASGOW - - -	50°8	62°0	56°4	+3°3	37	24th	78	6th	17	3°91	+0°18	1°26	29th	72°4	-27°9	19	-8
GLENLEE - - -	47°0	63°6	55°3	+2°0	32	25th	76	5th	17	4°13	-0°68	0°72	29th	—	—	—	—
GILCRUX (Cumberland) -	51°8	64°1	58°0	+4°4	38	23rd	81	6th	18	2°72	?	0°65	17th	117°1	?	31	?
DOUGLAS - - -	51°2	62°8	57°0	+2°9	41	28th, 29th	74	5th	14	2°94	-0°65	0°82	29th	124°0	-20°3	33	-6
STONYHURST - - -	51°3	64°0	57°7	+3°1	37	24th	77	4th, 5th	15	1°75	-3°09	0°34	19th, 29th	115°9	-10°3	31	-3
BLACKPOOL - - -	51°0	65°6	58°3	+3°4	37	23rd, 24th, 26th	80	5th	10	1°58	-2°04	0°56	29th	112°5	-9°8	30	-3
MANCHESTER (Prestwich) -	50°1	66°4	58°3	+3°4	35	24th	81	7th	12	0°87	-2°94	0°26	29th	118°5	?	32	?
LLANDUDNO - - -	53°0	66°5	59°8	+2°9	43	25th	81	5th, 6th, 16th	9	1°56	-1°43	0°51	29th	156°9	+37°7	42	+10
LLANDOVERY - - -	47°9	70°4	59°2	+3°9	33	28th, 29th	84	6th	11	1°63	-2°83	0°59	17th	—	—	—	—
PEMBROKE - - -	*	*	*	*	*	*	*	*	*	*	*	*	*	174°7	+28°2	47	+8
CLIFTON - - -	53°9	69°4	61°7	+5°2	41	25th	87	7th	7	1°33	-1°98	0°73	29th	—	—	—	—
ARLINGTON - - -	50°4	67°0	58°7	+3°2	41	1st, 25th	78	4th, 6th, 7th	11	3°50	-1°14	1°27	29th	—	—	—	—
CULLOMPTON - - -	48°4	70°7	59°6	+2°4	36	28th	83	7th, 8th	8	1°39	-1°83	0°73	29th	196°7	+56°7	53	+16
FALMOUTH - - -	55°2	65°4	60°3	+3°0	47	29th	71	8th	11	0°95	-3°34	0°32	29th	207°2	+52°5	56	+15
PLYMOUTH - - -	53°8	67°5	60°7	+3°0	45	28th, 29th	77	6th	8	0°97	-2°54	0°58	29th	212°9	+60°9	57	+16
SCILLY - - -	*	*	*	*	*	*	*	*	*	*	*	*	*	219°6	?	59	?
JERSEY - - -	*	*	*	*	*	*	*	*	*	*	*	*	*	254°2	+70°8	68	+19
LONDONDERRY - - -	51°7	66°8	59°3	+4°8	41	29th	86	4th	20	4°31	+0°70	1°44	29th	—	—	—	—
EDENFEL (Omagh) - - -	50°3	64°5	57°4	+4°6	35	22nd	80	4th	16	4°12	+0°70	0°94	27th	—	—	—	—
MARKREE CASTLE - - -	50°5	65°4	58°0	+4°5	35	23rd	77	4th, 5th	17	3°23	-0°60	0°92	26th	135°7	+32°6	36	+8
ARMAGH - - -	50°9	64°9	57°9	+4°1	35	24th	78	5th	14	4°40	+1°63	1°01	17th	136°6	+23°1	37	+7
DUBLIN - - -	53°3	67°0	60°2	+4°6	43	25th	78	6th	13	1°45	-0°72	0°52	8th	179°1	+40°8	48	+11
PARSONSTOWN - - -	*	*	*	*	*	*	*	*	*	*	*	*	*	172°7	+48°0	46	+13
KILKENNY CASTLE - - -	49°8	66°5	58°2	+3°0	35	28th	75	4th	10	2°04	-0°71	0°84	8th	—	—	—	—
VALENCIA (Cahiriveen) -	*	*	*	*	*	*	*	*	*	*	*	*	*	150°3	+19°9	40	+5
KILLARNEY - - -	53°8	67°0	60°4	+4°6	41	28th	80	5th	15	4°71	?	1°67	7th	—	—	—	—
FOYNES - - -	53°4	67°0	60°2	+5°0	45	28th	78	5th	15	2°80	?	0°58	7th	—	—	—	—

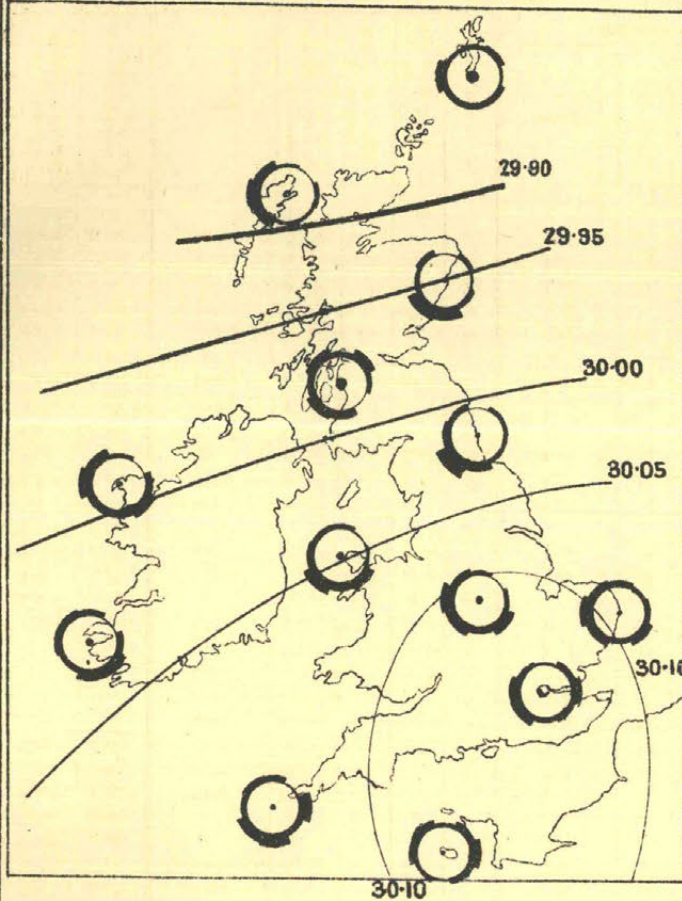
* For this information and additional reports of bright sunshine, see Table XVII.

MONTHLY WEATHER CHART. SEPTEMBER 1898.

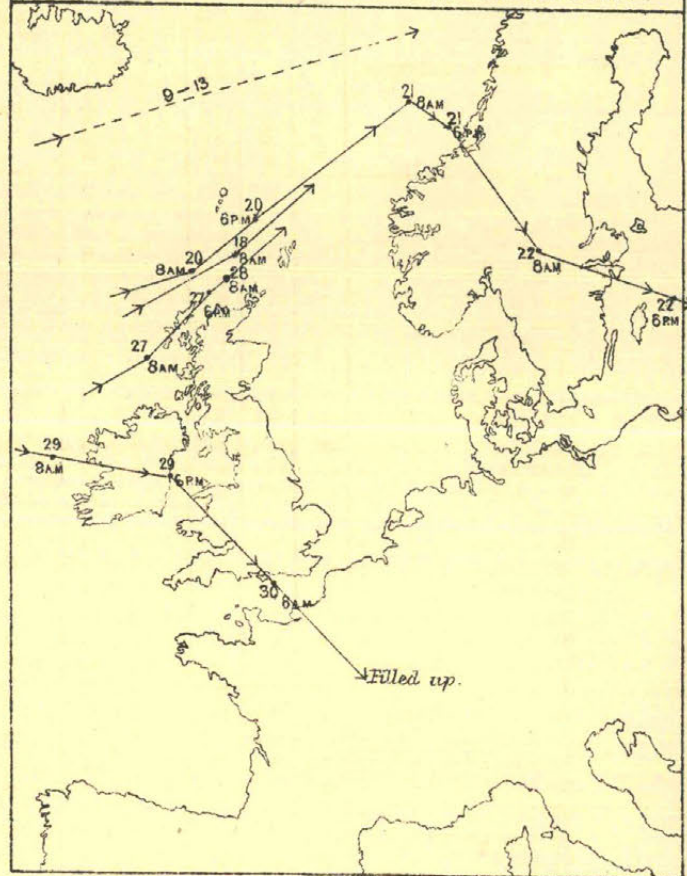
Monthly Summary.

Plate IX.

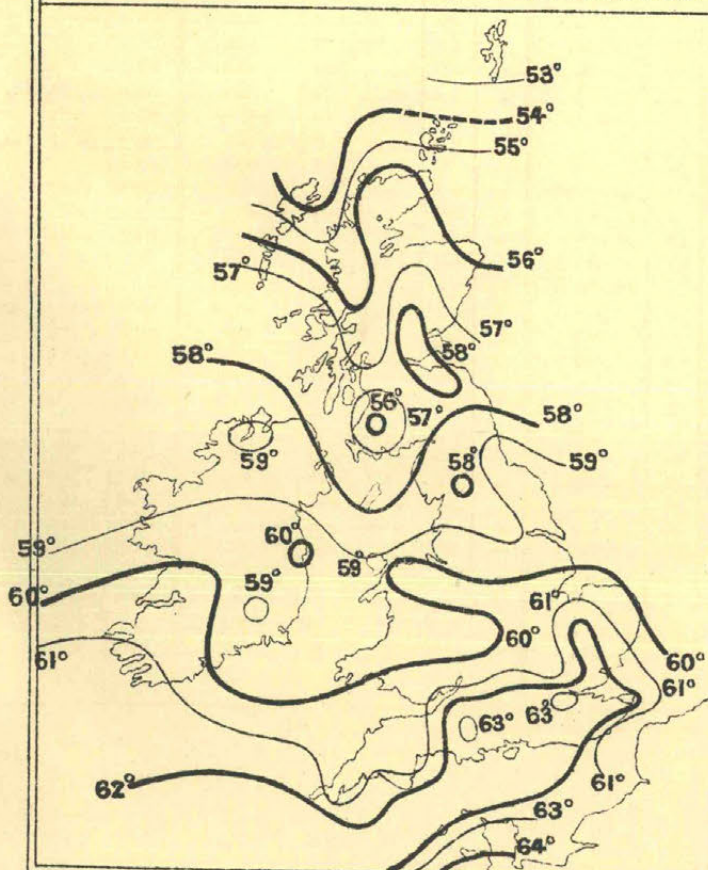
1. BAROMETER AND WIND.



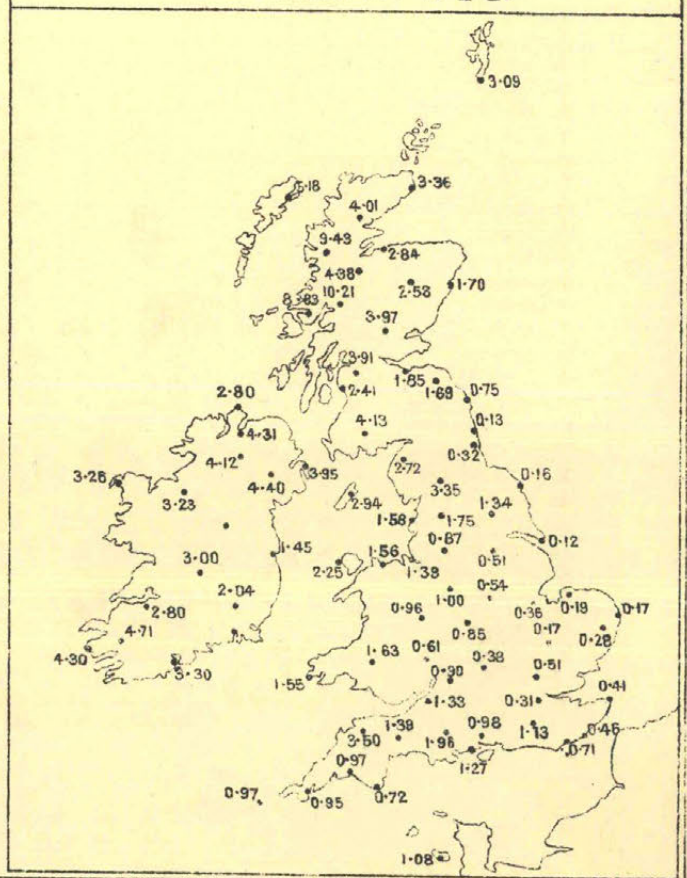
2. MOVEMENTS OF DEPRESSIONS.



3. DISTRIBUTION OF MEAN TEMPERATURE.



4. RAINFALL.



SUMMARY of the OBSERVATIONS made at the STATIONS included in the DAILY and WEEKLY WEATHER REPORTS for the CALENDAR MONTH,

OCTOBER 1898.

(Issued as a Supplement to the Weekly Weather Report, 1898.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & Co., 12, HANOVER ST., EDINBURGH, and 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS, & Co., LIMITED, 104, GRAFTON STREET, DUBLIN.

General Summary.—During the early part of the month the weather was mostly fair and dry, with extremely high temperatures in Scotland between the 2nd and the 6th. Towards the middle of the period, however, it broke up entirely, gales and very heavy rains being experienced in most districts between the 14th and 19th, with thunder and lightning in many parts of England. On the 28th and 29th further heavy falls of rain occurred over England and Wales, with thunderstorms in the south-east, and on the evening of the latter day a destructive squall of a tornado-like character passed over Camberwell (South London). Pressure was below the average; temperature was very high; the winds varied a good deal both in direction and force; rainfall was mostly in excess of the average; bright sunshine was as a rule very deficient.

Pressure.—*Mean at 8 a.m.* ranged from 29.85 ins. and upwards over the south-east of England and the eastern parts of the Channel to 29.75 ins. and less on the west coasts of Ireland and Scotland, the general distribution being favourable for winds from the Southward or South-eastward. In the north of Scotland the mean values were slightly above the average,* but in all other districts they were below it, the deficit being greatest (0.10 in. to 0.14 in.) on our extreme west and south-west coasts. *Highest* readings were registered mostly on the 4th, when the barometer rose to 30.4 ins. and upwards in the north-east of Great Britain, and to 30.3 ins. and upwards in all but the extreme western and southern parts of our islands. In the south of England the mercury rose a little above 30.3 ins. on the 1st or 2nd. *Lowest* readings occurred over England and Ireland on the 17th, when the barometer fell below 29.0 ins. very generally, and below 28.7 ins. in Cornwall. Over Scotland the lowest values were recorded on the 22nd, and ranged between 29.0 ins. and 29.3 ins. *Range* was moderate.

Depressions.—In the latter half of the month these were rather numerous. The most important case occurred between the 14th and the 19th, when the centre of a deep disturbance advanced very slowly eastwards to our south-west coasts, the system afterwards moving north-eastwards to our south-midland counties and north-westwards to the Irish Sea, where it apparently dispersed. The movements of the depression were attended by a prolonged gale from the Eastward and South-eastward over all the more northern parts of the kingdom, with an extremely high sea off the north and east of Scotland.

Anticyclones.—The only well-defined anticyclone observed in our immediate neighbourhood spread over western Europe from the Atlantic at the beginning of the month, but moved away gradually to the northward after the 5th. On the 10th and again between the 23rd and 25th an anticyclone spread over our southern coasts from the southward or south-westward, but in each case the system soon receded, either to the southward or eastward.

Winds varied considerably in direction; at the English stations they were as a rule either from the Eastward or the South-westward. Gales were not especially numerous for the time of year, but the South-easterly storm which sprang up on our northern coasts about the middle of the month was unusually prolonged, a wind force of seven or more being reported in some places on as many as five or six consecutive days.

Temperature.—*Mean at sea level* ranged from between 57° and 58° in the Scilly and Channel islands, and from 55° and upwards in the extreme south and south-east of England generally, to 51° and less at inland stations in the north of Ireland, and to 50° and less in the north of Scotland. The general distribution over our islands was in fair agreement with the normal, but the actual values were considerably above the average*, the excess amounting to between four and four-and-a-half degrees in many parts of Great Britain, and to more than five degrees in one or two isolated places. *Highest* readings were observed, as a rule, between the 2nd and 4th, when the thermometer rose to between 70° and 75° at most of our northern stations, and to 80° at Lairg. At some stations in the north of Scotland the readings on three or four consecutive days were several degrees higher than anything previously recorded in October since at least the year 1871. *Lowest* readings occurred, as a rule, between the 11th and 13th, when frost occurred at many of our northern and central stations. In the north of Scotland, however, the lowest readings were observed either on the 17th or 18th, or on the 29th or 30th. *Range* was moderate over the country generally, but large in the north of Scotland; at Nairn and Braemar it amounted to 45°, and at Lairg to as many as 50°. *Vapour Tension* ranged from 0.40 in. or rather more in the Scilly and Channel islands to 0.32 in. or less over Central Ireland, and at some stations in the north-west of England, and to 0.30 in. or less in the north-west of Scotland. *Relative Humidity* varied from 93 per cent. at Ardrrossan, Oxford and Cambridge, to 85 per cent. at Aberdeen, Liverpool and Valencia, and to 84 per cent. at Belmullet.

Rainfall varied greatly in amount in different parts of the kingdom. Over the southern and north-eastern parts of Great Britain and in the south and east of Ireland it was mostly in excess of the average. In nearly all other localities there was a deficiency, a slight excess being reported, however, at some stations in the north of Scotland. The largest aggregates for the month were 8.4 ins. at Arlington, 7.4 ins. at Glencarron and Roches Point, and 7.2 ins. at Killarney and Valencia; the smallest being 1.4 in. at Ardrrossan, 1.7 in. at Dungeness and the North Foreland, and 1.8 in. at Nairn. On the 12th and 13th a very heavy fall occurred in the south of Ireland, the total amount for the two days being as much as 2.5 ins. at Valencia and 2.4 ins. at Killarney. Between the 16th and 18th daily falls of considerably more than an inch were reported at many stations in the south-western and north-eastern parts of Great Britain, the largest of all being 2.4 ins. at Marchmont on the 17th, and 2.1 ins. at Clifton on the 18th. On the 29th another heavy fall occurred in the south of England, the amount at Oxford being as much as 1.5 ins.

Bright Sunshine.—Over the country generally the amount was very deficient, but in the south of Ireland there was a slight excess, and in the extreme north of Scotland a very large one. The percentage of the possible duration ranged from 43 at Stornoway, 40 at Scilly, and 39 at Jersey, to 17 at Churchstoke and Cirencester, 15 at Manchester, and 14 at Glasgow.

* The averages employed are—*Pressure* and *Temperature* for the 25 years, 1871–95; *Rainfall* for the 30 years, 1866–95; and *Bright Sunshine* for the 15 years, 1881–95.

TABLE XIX.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC
Observations are made at 8 a.m. daily, but the Numbers of Days of Rain, Snow, Hail,
(The Stations are grouped in Districts, and then arranged in order of Latitude,

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 39° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	Difference from Average.	AIR TEMPERATURE.										TENSION OF VAPOUR.	RELATIVE HUMIDITY.
				Means of					Absolute Extremes.						
				At 8 a.m.	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.			
0. SCOTLAND, N.	Sumburgh Head	Ins. 29.802	+0.090	48.2	44.5	52.2	48.4	+2.7	35	18th	61	4th	Ins. 30.5	91	
	Wick	29.789	+0.042	49.9	44.1	57.1	50.6	+4.6	32	30th	73	3rd	313	88	
	Stornoway	29.731	-0.012	48.6	42.8	56.5	49.7	+4.1	34	29th	70	5th	300	88	
1. SCOTLAND, E.	Nairn	29.784	+0.021	47.5	40.7	57.1	48.9	+2.9	27	17th	72	4th	292	90	
	Aberdeen	29.817	+0.038	49.8	45.0	55.9	50.5	+3.8	39	18th	71	2nd	305	85	
	Leith	29.790	-0.015	50.7	46.2	56.8	51.5	+3.5	40	12th	70	4th	319	86	
2. ENGLAND, N.E.	Shields	29.810	-0.016	51.2	47.5	57.5	52.5	+4.8	40	11th	69	2nd	343	91	
	York	29.824	-0.038	50.2	46.3	58.6	52.5	+4.8	36	13th	71	2nd	322	89	
	Spurn Head	29.810	-0.037	53.5	50.5	57.9	54.2	+4.8	45	25th	65	1st, 2nd, 22nd	373	91	
3. ENGLAND E.	Yarmouth	29.836	-0.038	54.0	49.7	58.2	54.0	+4.5	43	25th	65	22nd	360	86	
	Cumbridge	29.848	-0.047	50.6	45.7	61.2	53.5	+4.8	35	1st	71	3rd	343	93	
4. MIDLAND COUNTIES	Loughborough	29.836	-0.050	49.7	45.9	59.5	52.7	+4.4	31	9th	72	2nd	328	92	
	Oxford	29.841	-0.065	50.5	46.9	58.4	52.7	+4.0	34	13th	69	3rd	339	93	
5. ENGLAND, S.	London	29.850	-0.057	52.1	48.0	60.3	54.2	+4.5	39	1st, 13th	71	3rd	342	87	
	North Foreland	29.855	-0.050	54.9	51.2	59.5	55.4	+5.3	43	11th	65	21st, 22nd	366	86	
	Dungeness	29.841	-0.057	54.4	50.5	60.4	55.5	+4.3	38	13th	65	23rd	375	89	
	Hurst Castle	29.837	-0.069	55.1	51.5	60.4	56.0	+4.5	41	13th	67	3rd	396	91	
6. SCOTLAND, W.	Ardrossan	29.780	-0.033	51.3	47.1	55.9	51.5	+3.0	39	12th	65	4th, 5th	352	93	
7. ENGLAND, N.W.	Hawes Junction*	28.582	?	47.0	43.8	52.7	48.3	?	38	11th, 13th, 25th	68	3rd	318	99	
	Liverpool	29.806	-0.056	51.0	47.9	56.7	52.3	+3.2	39	13th	67	3rd	318	85	
	Holyhead	29.782	-0.072	52.9	49.2	57.9	53.6	+2.8	43	13th	67	4th	353	88	
8. ENGLAND, S.W.	Pembroke	29.778	-0.093	54.4	51.7	57.7	54.7	+3.4	47	13th	64	3rd	380	90	
	Prawle Point	29.818	-0.092	55.5	51.6	59.3	55.5	+4.2	44	11th, 12th	66	9th	392	89	
9. IRELAND, N.	Malin Head	29.716	-0.082	51.3	47.7	55.7	51.7	+2.7	38	19th	69	4th	332	88	
	Donaghadee	29.779	-0.055	51.4	47.0	56.6	51.8	+3.3	37	10th	66	4th	346	91	
	Belmullet	29.746	-0.100	52.2	46.9	57.9	52.4	+2.4	40	11th, 29th, 30th	70	4th	327	84	
10. IRELAND, S.	Parsonstown	29.766	-0.111	49.0	45.2	57.5	51.4	+3.9	32	12th	69	4th	315	91	
	Valencia	29.739	-0.140	53.9	49.4	59.3	54.4	+3.1	40	11th	69	4th	351	85	
	Roche's Point	29.765	-0.111	54.0	50.0	58.3	54.2	+3.4	40	12th	64	9th	374	90	
CHANNEL ISLANDS	Scilly	29.776	-0.116	56.9	53.3	60.7	57.0	+3.7	46	18th	67	8th	409	89	
	Jersey	29.849	-0.064	57.9	53.3	62.6	58.0	+4.5	42	13th	73	6th	400	83	

* Hawes Junction is 1,135 feet above Mean Sea Level, and the Barometer at this Station is not reduced for altitude.

BRIGHT SUNSHINE VALUES FOR OCTOBER IN

Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.	Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.
Deerness (Orkney Islands)	98.5	?	32	?	Hollesley Bay (Suffolk)	124.3	?	38	?
Strathpeffer Spa	127.1	+34.7	41	+11	Sheffield	55.8	?	17	?
Edinburgh	65.1	-17.6	21	-5	Workop	64.0	-20.9	20	-6
Morpeth (Cockle Park)	68.5	?	22	?	Thurcaston	67.3	-20.1	21	-6
Newcastle-on-Tyne	50.2	?	16	?	Plumstead Common	74.9	?	23	?
Oswaldkirk	78.0	-5.5	24	-2	Margate	101.0	-4.5	31	-1

REPORTING STATIONS in the BRITISH ISLANDS during the Month of OCTOBER 1898.

Thunderstorms, and Gales are counted irrespective of the Hours at which they occurred.

beginning in each case with the Station lying furthest North.)

AMOUNT OF CLOUD.	RAINFALL.				WEATHER.								WIND.										NAMES OF STATIONS.
	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorm.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calms.			
8.5	Ins. 4.58	Ins. +0.27	Ins. 0.55	30th	27	1	0	0	0	22	6	0	5	6	8	2	1	6	0	3	Sumburgh Head.		
6.7	3.12	-0.02	0.80	30th	19	1	3	0	6	15	8	1	0	2	9	7	2	4	5	1	Wick.		
6.6	5.58	+0.43	1.00	25th	19	0	0	0	5	14	4	0	0	4	4	3	5	7	1	7	Stornoway.		
6.0	1.77	-0.74	0.80	30th	18	0	0	0	3	9	0	0	0	4	3	0	3	10	0	11	Nairn.		
7.4	2.86	-0.19	0.60	30th	22	0	1	0	0	16	12	0	1	4	6	5	7	4	4	0	Aberdeen.		
8.0	2.95	+0.92	0.99	17th	14	0	1	0	0	18	1	2	2	7	1	1	6	6	2	4	Leith.		
8.5	3.97	+1.39	1.20	17th	18	0	0	0	0	20	2	2	1	8	3	3	12	2	0	0	Shields.		
7.7	3.02	+0.28	0.76	18th	18	0	0	0	6	20	0	2	3	6	4	3	7	3	1	2	York.		
7.3	2.25	-0.08	0.50	29th	16	0	0	0	2	15	2	0	3	6	3	5	8	2	3	1	Spurn Head.		
5.2	2.89	-0.22	0.79	11th	13	0	0	0	7	2	4	1	2	8	3	2	8	4	3	0	Yarmouth.		
7.5	1.96	-0.45	0.57	29th	14	0	0	0	6	23	0	2	2	6	1	5	10	0	1	4	Cambridge.		
7.9	2.78	-0.05	0.67	18th	19	0	0	0	2	17	1	1	5	6	4	2	9	2	2	0	Loughborough.		
7.6	4.86	+2.11	1.46	29th	16	0	0	0	6	21	0	3	5	5	2	6	6	1	2	1	Oxford.		
7.7	3.01	+0.19	0.81	29th	15	0	0	0	3	19	0	1	2	9	2	4	8	2	0	3	London.		
6.8	1.65	?	0.41	29th	13	0	0	0	0	11	1	0	6	5	2	5	7	3	3	0	North Foreland.		
7.4	1.68	-1.75	0.48	29th	14	0	0	1	0	10	5	5	4	4	1	4	7	4	2	0	Dungeness.		
7.7	4.75	+1.15	1.08	29th	18	0	0	2	2	17	2	1	8	5	1	3	6	6	0	1	Hurst Castle.		
7.5	1.42	-2.40	0.22	21st, 30th	19	0	0	0	4	17	6	3	11	2	2	5	3	1	0	4	Ardrossan.		
8.9	6.68	?	0.98	22nd	22	0	0	0	0	23	0	2	3	8	4	4	5	5	0	0	Hawes Junction.*		
7.7	3.49	-0.09	0.91	16th	20	0	0	0	2	17	1	0	2	10	5	3	6	3	0	2	Liverpool.		
6.5	3.48	-0.96	0.82	28th	20	0	0	0	3	11	6	0	6	7	3	2	5	5	0	3	Holyhead.		
7.7	6.64	+2.53	1.26†	29th	23	0	0	0	3	19	10	2	2	8	5	1	5	3	5	0	Pembroke.		
7.1	4.10	+0.32	1.04	16th	24	0	0	0	0	9	3	3	2	5	4	3	7	5	2	0	Prawle Point.		
6.4	2.83	?	0.90	17th	17	0	1	0	2	9	7	1	1	3	7	9	7	2	1	0	Malin Head.		
6.8	3.28	+0.06	1.10	17th	19	0	0	0	0	5	10	0	2	4	5	1	10	6	3	0	Donaghadee.		
6.1	3.75	-1.43	0.74	13th	25	0	0	0	9	15	2	1	2	4	8	2	6	6	2	0	Belmullet.		
6.8	2.11	-1.01	0.64	8th	20	0	0	0	7	19	0	0	0	1	8	1	1	1	1	18	Parsonstown.		
7.4	7.16	+1.59	2.08	13th	24	0	0	0	2	14	5	2	3	4	6	4	5	2	1	4	Valencia.		
6.5	7.36	+3.20	1.85	15th	21	0	0	1	0	13	9	2	2	2	7	5	2	5	6	0	Roche's Point.		
7.5	5.41	+1.64	1.05	28th	21	0	0	2	0	9	5	2	2	5	4	4	5	5	4	0	Scilly.		
7.3	4.28	-0.42	1.01	17th	23	0	1	2	0	11	2	1	3	5	5	3	6	5	3	0	Jersey.		

† Also 1.24 in. on the previous day.

ADDITION TO THOSE FOUND IN TABLE XX.

Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.	Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.
Eastbourne	83.6	- 34.2	26	- 10	Colwyn Bay	91.7	?	28	?
Brighton	80.3	- 42.0	25	- 13	Tenby	75.2	- 33.0	23	- 10
Watergate (Emsworth) ..	69.2	?	21	?	Torquay	89.8	- 18.0	27	- 6
Westbourne (Emsworth) ..	89.4	- 22.1	27	- 7	Newquay	97.0	- 16.8	30	- 5
Ventnor Hospital	83.1	?	25	?	Guernsey	134.2	+ 20.4	41	+ 6
Southport	67.8	?	21	?					

SUMMARY OF OBSERVATIONS, OCTOBER 1898.

TABLE XX.

OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE, obtained from the VALUES supplied for use in the WEEKLY WEATHER REPORT, for the Month of OCTOBER 1898.

NAMES OF STATIONS.	AIR TEMPERATURE.								RAINFALL.					BRIGHT SUNSHINE.			
	Means of				Absolute Extremes.				No. of Rainy Days.	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Hours recorded.	Difference from Average.	Per-centage of possible Duration.	Difference from Average.
	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.									
STORNOWAY	°	°	°	°	°	°	°	°	Ins.	Ins.	Ins.	°	134.7	+50.6	43	°/°	
LAIRG	40.9	56.1	48.5	+ 4.0	30	29th, 30th	80	3rd	20	4.16	+0.27	0.80	25th	—	—	—	+16
GLENCARRON	43.3	55.5	49.4	+ 4.3	33	29th	75	5th	18	7.41	-1.51	1.17	17th	—	—	—	—
FORT AUGUSTUS	44.6	56.3	50.5	+ 3.8	33	29th, 30th	69	4th	18	4.02	-0.12	0.78	24th	103.7	+47.6	33	+15
FORT WILLIAM	45.8	56.1	51.0	+ 3.7	36	12th, 30th	74	5th, 6th	19	6.90	-0.80	1.43	22nd	89.5	+12.8	29	+5
ABERDEEN	°	°	°	°	°	°	°	°	°	°	°	°	°	85.0	-12.5	27	-4
BRAEMAR	39.8	52.9	46.4	+ 3.3	29	11th, 12th	74	3rd	20	6.43	+2.47	1.52	17th	85.2	+16.4	27	+5
OCHTERTYRE	43.4	56.2	49.8	+ 3.5	32	11th	74	4th	21	5.41	+1.24	1.88	17th	—	—	—	—
MARCHMONT	44.9	55.3	50.1	+ 4.4	36	10th	70	4th	23	6.09	+2.63	2.38	17th	64.8	-21.2	20	-7
ALNWICK CASTLE	45.9	56.8	51.4	+ 4.5	33	11th	72	4th	28	4.18	+1.05	1.56	17th	—	—	—	—
DURHAM	45.6	57.5	51.6	+ 4.7	40	9th, 24th, 25th	70	3rd	21	4.86	+1.83	1.18	17th	75.9	-10.9	24	-3
SCARBOROUGH	48.3	56.9	52.6	+ 4.2	41	11th	65	2nd	21	3.87	+0.62	0.80	19th	88.7	?	28	?
YORK	°	°	°	°	°	°	°	°	°	°	°	°	°	66.2	-21.1	21	-6
HILLINGTON	46.3	59.9	53.1	+ 4.7	35	9th, 11th	71	3rd	18	2.62	-0.19	0.71	29th	92.9	-2.1	29	-1
GELDESTON	47.6	60.2	53.9	+ 4.6	35	2nd	67	2nd, 3rd, 22nd	12	2.48	-0.35	0.53	16th	115.6	+ 6.2	36	+2
CAMBRIDGE	°	°	°	°	°	°	°	°	°	°	°	°	°	90.7	-13.7	28	-4
ROTHAMSTED	46.4	58.2	52.3	+ 4.5	35	9th, 11th	68	3rd	19	2.66	-0.47	0.43	29th	82.6	-25.6	25	-8
BAWTRY	44.6	58.7	51.7	+ 4.2	32	14th	68	3rd	19	2.45	-0.36	0.49	16th	—	—	—	—
STAMFORD (Duddington)	45.9	59.3	52.6	+ 4.1	34	1st	68	2nd, 3rd	15	2.63	-0.35	0.54	16th	—	—	—	—
CHEADLE	46.3	55.8	51.1	+ 4.5	39	13th	69	2nd	20	2.76	-0.74	0.68	18th	—	—	—	—
SHIRLEY (nr. Solihull)	45.9	57.2	51.6	+ 4.3	35	1st	69	2nd, 3rd	24	2.94	?	0.83	18th	—	—	—	—
CHURCHSTOKE	45.6	56.5	51.1	+ 4.2	33	13th	69	2nd	20	5.86	+2.38	1.67	17th	54.5	-36.1	17	-11
HEREFORD	45.5	56.9	51.2	+ 3.0	32	13th	67	3rd	20	4.22	+1.43	1.13†	17th	—	—	—	—
CIRENCESTER	45.3	57.0	51.2	+ 3.8	33	13th	67	3rd	18	3.64	+0.39	1.05	18th	56.1	-43.9	17	-14
OXFORD	°	°	°	°	°	°	°	°	°	°	°	°	°	64.2	-37.5	20	-11
LONDON	°	°	°	°	°	°	°	°	°	°	°	°	°	59.6	-18.2	18	-6
CRANLEY	47.6	59.5	53.6	+ 4.3	37	13th	69	3rd	18	3.48	?	1.04	17th	—	—	—	—
HASTINGS	50.7	60.0	55.4	+ 4.5	43	11th, 12th, 13th	66	3rd	14	2.52	-1.38	0.80	29th	92.0	-27.4	28	-9
SOUTHAMPTON	49.3	61.3	55.3	+ 4.8	37	13th	71	3rd	18	4.99	+1.43	1.23	17th	77.5	-35.0	24	-11
SHAFESBURY	48.1	57.5	52.8	+ 5.2	42	10th, 13th	66	22nd	15	3.42	-0.48	0.95	18th	—	—	—	—
LAUDALE	46.2	57.6	51.9	+ 4.3	35	29th	75	5th	16	3.91	-3.79	0.75	23rd	—	—	—	—
GLASGOW	46.6	54.5	50.6	+ 4.0	38	12th	65	4th	14	3.80	-0.01	1.10	17th	45.2	-23.9	14	-8
GLENLEE	43.2	56.5	49.9	+ 3.1	30	13th	74	4th	19	4.26	-1.50	0.93	25th	—	—	—	—
GILCRUX (Cumberland)	46.2	57.0	51.6	+ 4.3	38	12th	74	4th	20	3.97	?	0.82	17th	92.5	?	29	?
DOUGLAS	47.7	57.4	52.6	+ 4.3	37	12th	66	4th	17	4.85	+0.37	1.34	17th	78.9	-26.3	25	-8
STONYHURST	47.2	55.7	51.5	+ 4.2	36	12th	67	3rd	17	4.13	-1.04	0.67	24th, 30th	72.6	-13.4	23	-4
BLACKPOOL	47.6	58.2	52.9	+ 4.1	36	13th	68	3rd	19	4.04	-0.15	0.70	16th	78.3	-9.2	24	-3
MANCHESTER (Prestwich)	46.9	56.9	51.9	+ 4.1	35	12th, 13th	65	2nd	19	3.57	-0.55	0.64	28th	48.0	?	15	?
LLANDUDNO	48.9	57.8	53.4	+ 3.1	41	13th	67	3rd	19	4.28	+0.24	0.83	28th	90.7	+11.3	28	+3
LLANDOVERY	45.6	59.8	52.7	+ 5.1	29	12th	73	2nd	22	5.85	+0.19	1.42	28th	—	—	—	—
PEMBROKE	°	°	°	°	°	°	°	°	°	°	°	°	°	87.1	-16.3	27	-5
CLIFTON	48.2	58.0	53.1	+ 3.9	39	13th	76.5	1st	19	6.17	+2.41	2.08	18th	—	—	—	—
ARLINGTON	46.9	57.4	52.2	+ 3.2	39	12th, 13th	66	2nd	24	8.38	+2.15	1.82	18th	—	—	—	—
CULLOMPTON	46.7	60.1	53.4	+ 5.2	34	11th, 12th	67	3rd	18	5.32	+1.27	1.47	16th	68.4	-26.1	21	-8
FALMOUTH	51.8	59.2	55.5	+ 3.9	45	31st	65	7th	23	6.31	+0.86	1.20	16th	99.2	-19.6	30	-6
PLYMOUTH	50.0	60.6	55.3	+ 4.2	40	12th	67	6th	23	5.32	+1.36	0.99	16th	92.6	-13.9	28	-5
SCILLY	°	°	°	°	°	°	°	°	°	°	°	°	°	131.2	?	40	?
JERSEY	°	°	°	°	°	°	°	°	°	°	°	°	°	127.1	-0.3	39	0
LONDONDERRY	45.6	56.4	51.0	+ 3.1	35	30th	71	3rd	19	3.30	-0.99	1.12	17th	—	—	—	—
EDENFEL (Omagh)	44.0	55.0	49.5	+ 3.6	34	11, 12, 13, 20, 28	68	4th	21	3.81	+0.05	1.30	17th	—	—	—	—
MARKREE CASTLE	43.7	56.9	50.3	+ 3.0	29	12th	69	4th	16	2.55	-1.90	0.80	30th	89.2	-1.1	28	0
ARMAGH	45.3	56.1	50.7	+ 3.7	35	12th	69	3rd	21	3.05	+0.01	0.76	8th	75.6	-12.9	24	-4
DUBLIN	48.2	57.4	52.8	+ 3.6	40	12th, 20th	65	3rd, 4th	19	3.58	+0.59	0.81	17th	95.3	-13.2	30	-4
PARSONSTOWN	°	°	°	°	°	°	°	°	°	°	°	°	°	108.1	+11.0	34	+4
KILKENNY CASTLE	45.2	57.4	51.3	+ 2.9	30	12th	68	4th	18	3.25	+0.11	0.64	8th	—	—	—	—
VALENCIA (Cahiriveen)	°	°	°	°	°	°	°	°	°	°	°	°	°	111.7	+ 7.5	34	+2
KILLARNEY	47.1	58.6	52.9	+ 2.9	36	12th	67	3rd	23	7.24	?	2.12	13th	—	—	—	—
FOYNES	46.0	58.0	52.0	+ 3.2	38	11th	69	2nd	22	4.35	?	0.78	7th	—	—	—	—

* For this information and additional reports of bright sunshine, see Table XIX.

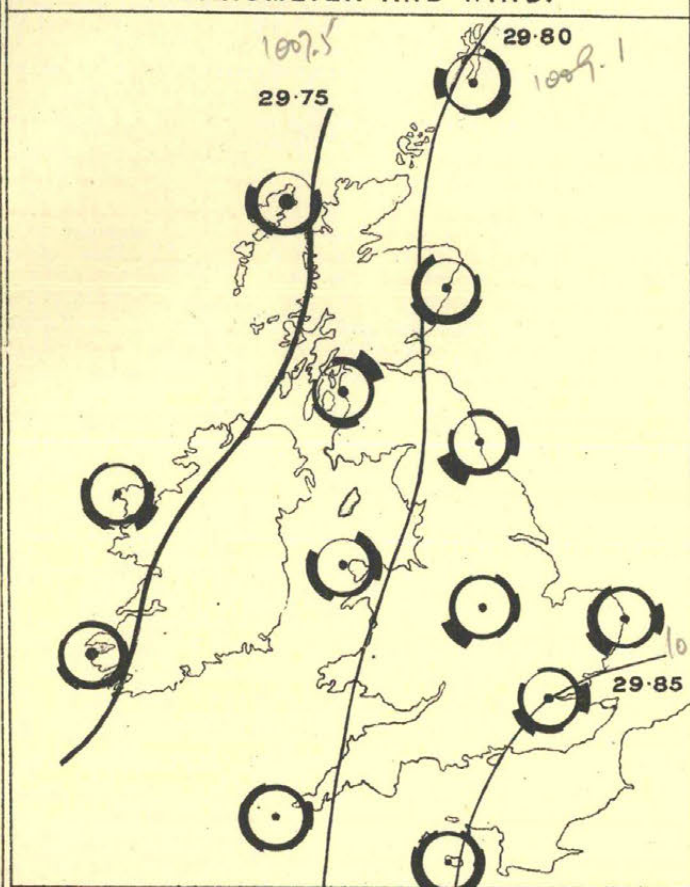
† Also 1.10 in. on the previous day

MONTHLY WEATHER CHART OCTOBER 1898.

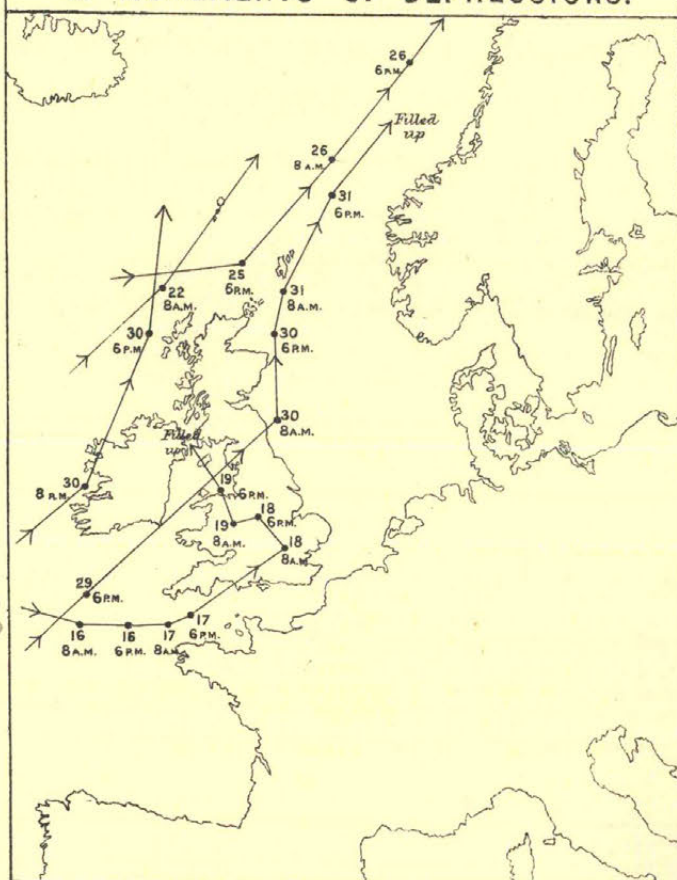
Monthly Summary.

Plate X.

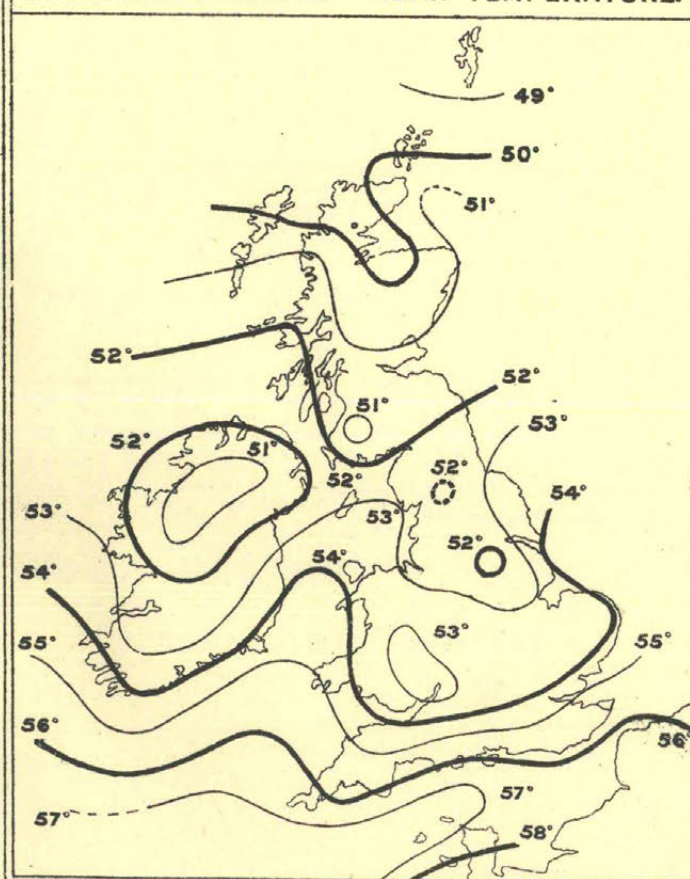
1. BAROMETER AND WIND.



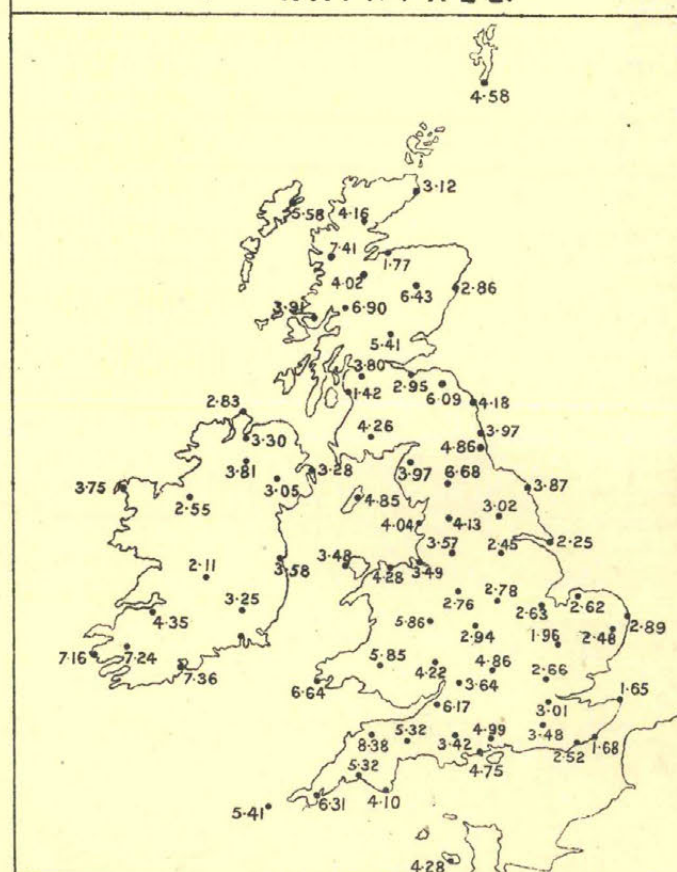
2. MOVEMENTS OF DEPRESSIONS.



3. DISTRIBUTION OF MEAN TEMPERATURE.



4 RAINFALL.



To face p. XL.

Wyman & Sons, Ltd., Lith., 3479. 11. 98.

Barometer, 30 in. Hg. 1000 mb. 1013.2



Direction of Mean Temperature



SUMMARY of the OBSERVATIONS made at the STATIONS included in the DAILY and WEEKLY WEATHER REPORTS for the CALENDAR MONTH,

NOVEMBER 1898.

(Issued as a Supplement to the Weekly Weather Report, 1898.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & Co., 12, HANOVER ST., EDINBURGH, and 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS, & Co., LIMITED, 104, GRAFTON STREET, DUBLIN.

General Summary.—At the commencement of the month the weather was very rough and unsettled, especially in the north and north-west, where extremely heavy rain fell, resulting in serious floods in the English lake Districts. After the first few days, however, the conditions became much quieter, and for more than a fortnight the weather was cloudy and mild, with very little rain, but with a good deal of wet mist or fog. Towards the end of the month another spell of rough wet weather set in, the rains being preceded and followed by snow in all the northern and central districts. Thunder and lightning occurred in South Wales and the South West of England on the 24th or 25th, and at several of the English Channel stations on the 27th. Pressure was rather low; temperature was above the average; the winds were variable in the south, but chiefly Westerly or South-westerly in the north; rainfall was deficient in all the central districts, but more than the average elsewhere; bright sunshine was mostly in excess of the normal.

Pressure.—*Mean* at 8 a.m. ranged from 29.85 ins. and upwards over the south-eastern parts of England to 29.70 ins. and less in the north of Scotland generally, and to 29.65 ins. and less in the Shetlands—the actual values being in all cases a trifle below the average.* The general distribution over our islands agreed very closely with the normal, the principal feature of interest in map 1, plate XI. being the peculiar manner in which the isobar of 29.8 ins. dips southwards over the Bristol Channel and the Scilly islands. The relatively low mean pressures in this region were due to the influence of a cyclonic disturbance which hung persistently over our south-west coasts between the 23rd and 26th. *Highest* readings occurred on the 18th or 19th, when the barometer rose to 30.4 ins. and upwards in the north-east of England, and to 30.2 ins. and upwards in all other parts of the kingdom. *Lowest* readings occurred as a rule on the 24th and 25th, the barometer falling to 28.7 ins. and less in the south-west of England, and to 29.2 ins. and less in all but the extreme northern parts of the kingdom. In the latter region the lowest readings (28.8 ins. to 29.0 ins.) were observed either on the 2nd or the 4th. *Range* was moderate for the time of year.

Depressions.—Until very nearly the end of the month no important depressions were observed in our own immediate neighbourhood, the large Atlantic disturbances moving in a track lying far to the northward of our islands, and passing across the north of Scandinavia. Towards the close of the month, however, the low pressure systems came more directly over us, the most important case being observed between the 23rd and 26th, when the centre of a deep depression advanced over Ireland from the north-westward and afterwards moved slowly, and in a very erratic course, over our south-west coasts. The influence of this disturbance upon the mean pressure in the south-west of England has already been noticed.

Anticyclones.—On the 6th an anticyclone spread temporarily from the Continent over the south-east of England, while on the 8th and 9th it again extended over all the more eastern parts of Great Britain, the system soon receding, however, in the direction from which it had originally advanced. On the 13th a new high pressure area spread over our islands from the westward and ultimately joined the European anticyclone, the combined system remaining in force until the 21st, when it broke into two portions—one moving away to the eastward, and the other to the westward.

Winds.—Over our southern districts the winds varied considerably in direction, but in the north they were mainly from the South-westward or Westward. Gales were somewhat frequent in the west and north, the number of days affected being as large as 12 at Donaghadee, 11 at Scilly and 10 at Aberdeen and Valencia. The Easterly and South-easterly gale which prevailed on our northern coasts between the 23rd and 26th was severe and prolonged, and occasioned a very high sea off the north and east of Scotland.

Temperature.—*Mean at sea level* ranged from 52° at Scilly, and 49° and upwards on the south-west coasts of England generally, to 45° and less over the central parts of Ireland, and to 42° and less over the northern and central parts of Scotland. The general distribution over our islands agreed very closely with the normal, but the actual values were in nearly all places above the average*, the excess being greatest in the south of England. *Highest* readings occurred mostly on the 2nd or 3rd, when the thermometer rose to 60° or more in nearly all parts of the kingdom, and to 66° at Killarney. *Lowest* readings were observed in the central and southern districts on the 22nd or 23rd, but in the more northern districts between the 28th and 30th. Sharp frost occurred at these times in most parts of the United Kingdom, the lowest temperatures reported being 9° at Braemar, 10° at Lairg, and 11° at Fort Augustus. *Range* was moderate generally, but large at some of the northern stations; at Fort Augustus and Braemar it amounted to 46°, and at Lairg to as many as 50°. *Vapour Tension* ranged from 0.30 in. and upwards on most parts of our south and south-west coasts to 0.22 in. and less in the eastern and central parts of Scotland. *Relative Humidity* exceeded 90 per cent. at several of the more central stations, and was as high as 97 per cent. at Spurn Head and Ardrossan; the lowest values were 84 per cent. at Valencia, and 86 per cent. at Aberdeen, Liverpool, Pembroke and Scilly.

Rainfall was rather deficient over all the more central parts of England, as well as at a few stations in the north of Ireland and west of Scotland, but exceeded the average* in almost all other localities. The largest aggregates reported were 9.9 ins. at Stornoway, 9.1 ins. at Glencarron, and 8.0 ins. at Belmullet; the smallest being 1.5 in. at Dungeness, 1.7 in. at Cambridge and Liverpool, and 1.8 in. at Stamford and Hereford. Heavy falls occurred over the north-western and extreme northern parts of the kingdom between the 1st and 3rd, the amount on the 1st being as large as 3.1 ins. at Fort William, and 3.0 ins. at Laudale. Snow occurred at most of the northern and central stations between the 22nd and 23rd, followed by heavy and protracted rains in nearly all districts, and especially in Ireland; during the four days 22nd–25th the aggregate amount was as large as 4.7 ins. at Bray, 4.2 ins. at Phoenix Park, Dublin, and 3.6 ins. at Killiney.

Bright Sunshine was mostly in excess of the average*, a slight deficiency being, however, reported at some stations in the south of Scotland and the northern parts of England and Ireland. The percentage of the possible duration ranged from 34 at Jersey, and 30 or more at several stations in the south and east of England to 20 or less in many of the northern and central districts, and to only 7 at Glasgow.

* The averages employed are—*Pressure* and *Temperature* for the 25 years, 1871–95; *Rainfall* for the 30 years, 1866–95; and *Bright Sunshine* for the 15 years, 1881–95.

TABLE XXI.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC

Observations are made at 8 a.m. daily, but the Numbers of Days of Rain, Snow, Hail,

(The Stations are grouped in Districts, and then arranged in order of Latitude,

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	Difference from Average.	AIR TEMPERATURE.										TENSION OF VAPOUR.	RELATIVE HUMIDITY.
				Means of					Absolute Extremes.						
				At 8 a.m.	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.			
0. SCOTLAND, N.	Sumburgh Head	Ins. 29.647	Ins. -0.046	42.7	38.7	46.8	42.8	+ 0.8	25	23rd, 30th	53	7th, 9th	Ins. 0.241	88	
	Wick	29.686	-0.042	42.6	36.5	48.0	42.3	+ 1.0	20	29th, 30th	55	18th	0.240	88	
	Stornoway	29.660	-0.043	43.2	37.3	47.8	42.6	+ 0.8	27	22nd, 23rd, 29th	57	9th	0.251	89	
1. SCOTLAND, E.	Nairn	29.706	-0.037	40.5	33.6	48.4	41.0	+ 0.4	18	29th, 30th	58	2nd, 18th	0.217	87	
	Aberdeen	29.743	-0.029	41.0	36.8	47.0	41.9	+ 0.4	23	29th, 30th	60	2nd	0.219	86	
	Leith	29.754	-0.044	42.6	37.1	49.0	43.1	+ 0.4	23	29th, 30th	60	2nd	0.238	87	
2. ENGLAND, N.E.	Shields	29.790	-0.034	43.6	39.2	49.7	44.5	+ 1.7	26	29th, 30th	61	2nd	0.263	93	
	York	29.823	-0.036	43.0	39.3	49.3	44.3	+ 2.1	28	23rd, 29th	61	2nd	0.253	91	
	Spurn Head	29.809	-0.045	46.2	43.4	50.0	46.7	+ 2.9	33	23rd	60	2nd	0.301	97	
3. ENGLAND E.	Yarmouth	29.834	-0.045	46.8	42.1	50.6	46.4	+ 2.9	30	30th	60	1st	0.284	89	
	Cambridge	29.862	-0.039	43.8	38.4	52.5	45.5	+ 3.0	25	23rd	61	2nd, 3rd	0.271	96	
4. MIDLAND COUNTIES	Loughborough	29.843	-0.045	42.0	38.0	50.3	44.2	+ 1.6	25	23rd	61	2nd	0.245	92	
	Oxford	29.857	-0.051	43.5	39.8	50.9	45.4	+ 2.3	27	23rd	61	2nd	0.263	93	
5. ENGLAND, S.	London	29.869	-0.041	44.8	40.6	52.4	46.5	+ 2.5	29	23rd, 30th	61	3rd	0.264	89	
	North Foreland	29.861	-0.047	47.0	43.3	51.5	47.4	+ 2.6	32	23rd, 30th	60	3rd	0.296	92	
	Dungeness	29.850	-0.054	46.8	41.9	54.1	48.0	+ 2.7	28	23rd, 30th	60	10th, 11th, 14th	0.301	94	
	Hurst Castle	29.838	-0.074	47.9	43.8	53.9	48.9	+ 3.0	29	23rd	61	12th	0.293	89	
6. SCOTLAND, W.	Ardrossan	29.754	-0.045	43.6	39.6	48.7	44.2	+ 0.6	23	29th	58	8th	0.274	97	
7. ENGLAND, N.W.	Hawes Junction*	28.565	?	39.1	35.7	44.4	40.1	?	20	23rd, 30th	55	2nd	0.237	99	
	Liverpool	29.810	-0.052	44.6	41.3	49.7	45.5	+ 1.6	28	24th	60	2nd	0.252	86	
	Holyhead	29.784	-0.061	48.1	43.7	52.2	48.0	+ 1.6	35	23rd	59	10th	0.294	88	
8. ENGLAND, S.W.	Pembroke	29.796	-0.075	49.7	46.1	52.4	49.3	+ 2.3	35	29th	57	2nd, 16th	0.306	86	
	Prawle Point	29.830	-0.087	48.4	44.0	53.6	48.8	+ 2.1	30	23rd	60	11th	0.307	91	
9. IRELAND, N.	Malin Head	29.699	-0.056	45.8	41.5	49.6	45.6	+ 1.1	33	22nd, 23rd, 28th	56	16th	0.282	92	
	Donaghadee	29.773	-0.046	45.7	40.9	50.5	45.7	+ 1.7	32	29th, 30th	59	2nd	0.286	94	
	Belmullet	29.771	-0.028	47.3	41.9	51.7	46.8	+ 1.3	35	20th, 21st, 22nd, 27th, 28th	58	2nd, 9th	0.285	88	
10. IRELAND, S.	Parsonstown	29.789	-0.063	43.3	38.1	50.3	44.2	+ 1.1	27	22nd, 23rd	60	2nd	0.260	93	
	Valencia	29.797	-0.070	48.9	43.2	53.4	48.3	+ 0.7	33	22nd	61	10th	0.288	84	
	Roche's Point	29.805	-0.064	48.1	43.3	52.4	47.9	+ 1.3	35	22nd, 28th	60	2nd	0.303	91	
CHANNEL ISLANDS	Scilly	29.783	-0.115	52.0	47.2	56.1	51.7	+ 2.1	38	30th	61	2nd	0.335	86	
	Jersey	29.840	-0.097	49.6	44.8	56.2	50.5	+ 2.2	33	30th	63	9th	0.309	88	

* Hawes Junction is 1,135 feet above Mean Sea Level, and the Barometer at this Station is not reduced for altitude.

BRIGHT SUNSHINE VALUES FOR NOVEMBER IN

Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.	Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.
Deerness (Orkney Islands)	52.5	?	23	?	Hollesley Bay (Suffolk)	88.2	?	34	?
Strathpeffer Spa	52.0	+ 11.0	23	+ 5	Sheffield	44.2	?	17	?
Edinburgh	27.6	- 21.7	12	- 9	Workop	38.1	- 8.3	15	- 3
Morpeth (Cockle Park)	45.7	?	19	?	Thurcaston	48.3	- 3.1	19	- 1
Newcastle-on-Tyne	34.4	?	14	?	Plumstead Common	54.3	?	21	?
Oswaldkirk	39.1	- 7.0	16	- 3	Margate	73.7	+ 12.9	28	+ 5

REPORTING STATIONS in the BRITISH ISLANDS during the Month of NOVEMBER 1898.

Thunderstorms, and Gales are counted irrespective of the Hours at which they occurred.

beginning in each case with the Station lying furthest North.)

AMOUNT OF CLOUD.	RAINFALL.				WEATHER.							WIND.										NAMES OF STATIONS.
	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calm.		
9.0	Ins. 3.87	Ins. -0.27	Ins. 0.83	3rd	23	3	0	0	0	22	1	4	3	1	1	9	3	5	1	3	Sumburgh Head.	
5.9	3.80	+0.87	0.90	23rd	19	3	1	0	2	6	6	5	1	0	2	9	5	1	7	0	Wick.	
8.4	9.85	+5.05	1.60	2nd	27	3	3	1	2	23	5	2	3	2	1	2	6	9	5	0	Stornoway.	
6.3	2.37	+0.23	0.51	12th	17	3	0	0	2	10	0	1	0	5	0	0	1	14	2	7	Nairn.	
6.2	3.28	+0.12	0.69	25th	15	3	2	0	0	11	10	1	1	0	4	5	13	3	3	0	Aberdeen.	
8.2	2.40	+0.35	0.73	25th	14	4	2	1	0	18	1	1	2	2	1	2	6	8	2	6	Leith.	
7.9	3.44	+1.05	0.92	23rd	16	3	3	0	0	13	1	1	1	1	1	7	11	4	3	1	Shields.	
6.7	2.98	+0.77	0.76	23rd	21	4	0	0	9	16	2	3	0	5	3	8	4	2	4	1	York.	
7.6	1.88	-0.40	0.42	26th	15	1	3	0	2	16	4	2	1	2	3	6	9	5	2	0	Spurn Head.	
5.9	3.03	+0.11	1.02	26th	19	0	1	0	5	6	3	1	2	4	3	3	6	9	1	1	Yarmouth.	
7.2	1.69	-0.38	0.46	25th	14	2	0	0	7	21	1	2	2	3	2	4	9	0	3	5	Cambridge.	
7.7	2.10	-0.11	0.62	23rd	15	2	0	0	3	20	3	4	1	5	6	1	6	3	2	2	Loughborough.	
8.5	1.86	-0.56	0.52	23rd	12	3	0	0	5	25	0	3	4	3	5	3	5	3	1	3	Oxford.	
7.9	2.58	+0.27	0.66	25th	13	1	0	0	4	20	2	2	2	4	5	3	6	2	1	5	London.	
6.9	2.40	?	0.74	28th	16	0	1	1	3	13	5	2	1	7	4	3	5	8	0	0	North Foreland.	
7.6	1.47	-1.83	0.34	28th	15	0	0	0	0	11	5	3	2	2	5	5	3	4	5	1	Dungeness.	
8.1	4.36	+1.25	1.33	23rd	17	1	0	1	1	16	2	2	10	4	3	1	3	5	2	0	Hurst Castle.	
7.1	4.35	+0.57	1.24	1st	17	3	0	0	3	15	5	4	8	4	1	4	4	2	1	2	Ardrossan.	
8.1	4.87	?	1.71	2nd	21	5	0	0	0	19	2	3	4	7	1	4	6	3	2	0	Hawes Junction.*	
6.1	1.69	-1.12	0.39	12th	16	2	0	0	6	10	3	3	0	4	9	4	2	4	2	2	Liverpool.	
7.5	4.04	+0.08	0.75	22nd	24	3	4	0	1	11	8	2	6	3	1	4	6	5	2	1	Holyhead.	
8.0	4.41	+0.37	0.88	22nd	21	0	0	1	1	19	4	2	3	6	3	2	3	8	2	1	Pembroke.	
7.1	3.90	+0.64	0.88	23rd	19	0	0	1	0	12	4	5	6	4	1	3	6	2	3	0	Prawle Point.	
7.3	4.09	?	0.49	12th, 24th	20	4	3	0	0	14	6	3	2	1	3	10	7	3	1	0	Malin Head.	
7.0	4.17	+1.07	0.92	24th	21	0	0	0	0	11	12	1	3	2	5	2	8	8	1	0	Donaghadee.	
8.1	7.95	+2.03	1.00	22nd, 24th	30	0	2	1	0	19	9	5	4	1	4	3	5	7	1	0	Belmullet.	
7.8	5.27	+2.41	1.42	23rd	19	1	0	0	3	19	0	0	0	0	3	1	3	1	3	19	Parsonstown.	
8.0	6.80	+1.17	1.11	24th	26	0	1	0	0	18	10	3	4	4	1	8	2	4	3	1	Valencia.	
6.3	3.83	-0.96	0.80	22nd	21	1	0	0	1	9	7	6	2	0	4	3	3	8	4	0	Roche's Point.	
8.1	4.32	+0.52	0.77	27th	23	0	1	1	0	12	11	5	3	6	2	3	4	3	4	0	Scilly.	
6.6	3.19	-1.00	0.66	26th	21	0	5	2	1	8	4	1	3	6	5	2	4	5	4	0	Jersey.	

ADDITION TO THOSE FOUND IN TABLE XXII.

Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.	Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.
Eastbourne	82.8	+ 23.7	32	+ 9	Colwyn Bay	70.3	?	28	?
Brighton	84.6	+ 21.2	32	+ 8	Tenby	65.8	+ 6.5	26	+ 3
Watergate (Emsworth) ..	74.5	?	28	?	Torquay	56.7	- 3.8	21	- 2
Westbourne (Emsworth) ..	81.1	+ 26.5	31	+ 10	Newquay	79.7	+ 6.6	30	+ 3
Ventnor Hospital	83.7	?	32	?	Guernsey	87.1	+ 28.9	32	+ 11
Southport	59.1	?	24	?					

TABLE XXII.

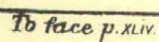
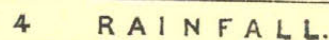
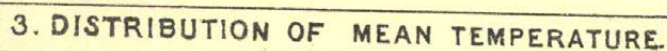
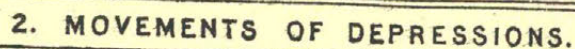
OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE, obtained from the VALUES supplied for use in the WEEKLY WEATHER REPORT, for the Month of NOVEMBER 1898.

NAMES OF STATIONS.	AIR TEMPERATURE.								RAINFALL.					BRIGHT SUNSHINE.			
	Means of				Absolute Extremes.				No. of Rainy Days.	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Hours recorded.	Difference from Average.	Per-centage of possible Duration.	Difference from Average.
	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.									
STORNOWAY	°	°	°	°	°	°	°	°	°	Ins.	Ins.	Ins.	°	41.2	- 0.9	18	°
LAIRG	32.4	46.5	39.5	- 0.5	10	29th	60	18th	22	5.79	+2.26	?	?	—	—	—	—
GLENCARRON	35.2	46.6	40.9	+ 0.7	18	29th	61	12th	20	9.06	- 0.57	2.67	1st	—	—	—	—
FORT AUGUSTUS	34.4	47.8	41.1	- 0.4	11	29th	57	12th	21	4.57	+0.21	2.38	1st	33.9	+17.6	14	+ 7
FORT WILLIAM	37.9	47.5	42.7	+ 0.4	21	29th	56	2nd, 12th	23	7.76	- 0.15	3.09	1st	31.6	+ 4.0	13	+ 1
ABERDEEN	°	°	°	°	°	°	°	°	°	°	°	°	°	55.8	+ 1.1	24	+ 1
BRAEMAR	31.5	44.2	37.9	0.0	9	29th	55	2nd, 17th	18	4.64	+0.88	1.23	25th	46.0	+17.8	20	+ 8
OCHTERTYRE	34.9	47.4	41.2	+ 0.6	20	28th	56	2nd	19	5.71	+1.34	1.42	1st	—	—	—	—
MARCHMONT	35.8	47.1	41.5	+ 1.4	19	29th	58	2nd	18	3.75	+0.36	0.87	25th	43.5	-10.3	18	- 5
ALNWICK CASTLE	36.9	50.1	43.5	+ 1.6	24	30th	61	2nd	18	4.38	+1.19	1.43	23rd	—	—	—	—
DURHAM	37.2	48.9	43.1	+ 1.8	24	29th	60	2nd, 3rd	18	3.05	+0.28	0.77	28th	55.2	+ 2.8	23	+ 2
SCARBOROUGH	39.4	50.5	45.0	+ 1.8	28	22nd, 23rd	60	3rd	18	3.25	+0.32	0.75	23rd	39.8	?	16	?
YORK	°	°	°	°	°	°	°	°	°	°	°	°	°	30.7	- 9.0	12	- 4
HILLINGTON	38.6	50.6	44.6	+ 2.4	27	23rd	63	3rd	18	2.50	- 0.23	0.96	26th	73.3	+20.9	29	+ 8
GELDESTON	39.1	51.8	45.5	+ 2.1	28	23rd	61	3rd	18	2.89	+0.24	0.67	26th	81.2	+20.0	32	+ 8
CAMBRIDGE	°	°	°	°	°	°	°	°	°	°	°	°	°	67.1	+ 5.4	26	+ 2
ROTHAMSTED	38.4	50.4	44.4	+ 2.3	25	23rd	60	2nd	19	2.20	- 0.59	0.40	23rd	69.1	+10.4	27	+ 4
BAWTRY	38.1	49.1	43.6	+ 1.5	25	23rd	61	2nd	16	2.06	- 0.03	0.75	23rd	—	—	—	—
STAMFORD (Duddington)	38.4	49.6	44.0	+ 1.6	24	23rd	61	2nd	13	1.83	- 0.81	0.60	23rd	—	—	—	—
CHEADLE	38.3	47.9	43.1	+ 1.8	26	22nd, 23rd	58	2nd, 3rd, 16th	16	2.57	- 0.50	0.77	23rd	—	—	—	—
SHIRLEY (nr. Solihull)	39.0	49.1	44.1	+ 2.1	24	23rd	59	2nd, 16th	16	2.97	?	0.77	23rd	—	—	—	—
CHURCHSTOKE	38.8	49.5	44.2	+ 2.3	24	22nd	60	3rd, 16th	15	2.59	- 0.82	0.63	23rd	49.6	+ 1.0	20	+ 1
HEREFORD	39.6	49.6	44.6	+ 1.4	25	23rd	61	2nd	17	1.81	- 0.79	0.35	12th	—	—	—	—
CIRENCESTER	38.0	49.6	43.8	+ 2.0	23	23rd	59	2nd	15	2.68	- 0.41	0.55	23rd	47.5	- 6.2	18	- 3
OXFORD	°	°	°	°	°	°	°	°	°	°	°	°	°	58.7	+ 3.3	23	+ 1
LONDON	°	°	°	°	°	°	°	°	°	°	°	°	°	36.5	+ 0.3	14	0
CRANLEY	39.2	52.2	45.7	+ 1.9	26	23rd	61	9th	11	3.82	?	1.38	23rd	—	—	—	—
HASTINGS	43.3	53.0	48.2	+ 3.1	31	23rd, 30th	60	9th	17	3.76	+0.43	0.81	28th	85.2	+18.0	33	+ 7
SOUTHAMPTON	40.7	53.0	46.9	+ 2.1	28	23rd	60	5th, 9th	16	4.63	+1.54	1.69	23rd	61.8	+ 3.0	24	+ 2
SHAFTESBURY	41.8	49.9	45.9	+ 3.8	27	23rd	58	9th	18	4.14	+0.57	1.27	23rd	—	—	—	—
LAUDALE	38.3	49.3	43.8	+ 0.6	25	29th	57	11, 12, 16, 18	21	7.26	-1.45	3.03	1st	—	—	—	—
GLASGOW	38.8	46.7	42.8	+ 1.1	25	29th	56	2nd	17	5.04	+1.27	1.39	1st	17.5	-10.1	7	- 5
GLENLEE	35.7	47.5	41.6	+ 0.5	17	29th	58	2nd, 9th	18	6.66	+0.34	2.71	1st	—	—	—	—
DOUGLAS	41.8	50.9	46.4	+ 2.0	26	29th	58	2nd, 3rd	20	4.44	- 0.18	0.82	1st	57.1	- 4.5	23	- 2
STONYHURST	40.2	47.9	44.1	+ 1.7	26	29th	58	2nd, 3rd	17	5.05	+0.53	1.16	4th	48.2	+ 5.4	19	+ 2
BLACKPOOL	40.2	50.5	45.4	+ 2.2	24	29th	59	2nd	20	3.43	+0.02	0.80	1st	41.1	- 1.9	16	- 1
MANCHESTER (Prestwich)	39.3	48.9	44.1	+ 1.7	27	22nd	60	3rd	16	2.54	- 0.95	0.47	12th	37.6	?	15	?
LLANDUDNO	42.5	52.4	47.5	+ 2.0	29	23rd	63	2nd	20	1.87	- 1.58	0.38	12th	65.3	+18.2	26	+ 7
LLANDOVERY	37.9	51.2	44.6	+ 1.5	25	23rd	59	2nd	21	4.28	- 0.87	0.85	23rd	—	—	—	—
PEMBROKE	°	°	°	°	°	°	°	°	°	°	°	°	°	61.1	+ 2.3	24	+ 1
OLIFTON	42.4	51.3	46.9	+ 3.4	32	28th, 30th	61	2nd	15	3.33	- 0.13	0.83	23rd, 24th	—	—	—	—
ARLINGTON	40.2	51.2	45.7	+ 1.9	28	23rd	58	2nd, 11th	20	4.68	- 1.50	0.91	24th	—	—	—	—
CULLOMPTON	39.6	52.4	46.0	+ 2.3	26	30th	60	2nd	15	4.11	+0.41	1.26	23rd	58.1	+ 7.1	22	+ 3
FALMOUTH	45.5	53.1	49.3	+ 1.6	35	22nd, 29th	59	9th, 10th	22	4.67	- 0.78	1.73	27th	76.7	+ 8.0	29	+ 3
PLYMOUTH	42.8	53.8	48.3	+ 1.7	30	22nd, 30th	61	11th	17	3.16	- 0.61	0.69	23rd, 24th	75.8	+16.0	29	+ 7
SCILLY	°	°	°	°	°	°	°	°	°	°	°	°	°	62.2	?	23	?
JERSEY	°	°	°	°	°	°	°	°	°	°	°	°	°	93.3	+22.4	34	+ 8
LONDONDERRY	39.2	49.9	44.6	+ 1.6	31	22nd	59	9th	21	4.48	+0.29	0.81	24th	—	—	—	—
EDENFEL (Omagh)	38.6	48.8	43.7	+ 2.4	27	22nd	58	2nd	16	3.85	+0.22	0.56	3rd	—	—	—	—
MARKREE CASTLE	41.9	50.1	46.0	+ 3.3	29	22nd	58	2nd, 16th	23	3.59	- 0.46	0.66	22nd	45.0	-12.7	18	- 5
ARMAGH	38.8	49.2	44.0	+ 1.8	28	22nd	59	2nd	18	2.56	- 0.27	0.40	23rd, 24th	52.9	- 6.3	21	- 3
DUBLIN	40.9	51.5	46.2	+ 1.2	29	22nd	63	2nd	16	4.44	+1.96	1.73	23rd	65.5	- 6.3	26	- 2
PARSONSTOWN	°	°	°	°	°	°	°	°	°	°	°	°	°	62.5	- 0.6	25	0
KILKENNY CASTLE	37.4	50.8	44.1	- 0.1	26	22nd	61	2nd	17	3.09	+0.28	0.65	25th	—	—	—	—
VALENCIA (Cahiriveen)	°	°	°	°	°	°	°	°	°	°	°	°	°	66.8	+ 3.0	26	+ 1
KILLARNEY	40.0	52.8	46.4	+ 0.9	25	22nd	66	2nd	22	5.83	?	1.05	22nd	—	—	—	—
FOYNES	41.3	51.4	46.4	+ 1.6	30	21st	62	2nd	21	4.06	?	0.90	22nd	—	—	—	—

* For this information and additional reports of bright sunshine, see Table XXI.

Monthly Summary.

I. BAROMETER AND WIND.



SUMMARY of the OBSERVATIONS made at the STATIONS included in the DAILY and WEEKLY WEATHER REPORTS for the CALENDAR MONTH,

DECEMBER 1898.

(Issued as a Supplement to the Weekly Weather Report, 1898.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & CO., 12, HANOVER ST.,
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General Summary.—The weather of December was unusually mild, with heavy rains in most districts in the first and last weeks, and occasional thunder and lightning at some of the northern stations. Pressure was low in the north, but high in the south; temperature was greatly above the average; the winds were Westerly or South-westerly, with frequent gales in the west and north; rainfall varied in amount in different districts, but was slightly in excess of the normal in the south of England, and very considerably in excess in the north-west of Scotland; bright sunshine was rather deficient at several of the western and southern stations, but fully equal to the average in most other places.

Pressure.—*Mean at 8 a.m.* ranged from 30·18 ins. at Jersey, and 30·1 ins. and upwards over the English Channel generally, to 29·5 ins. and less in the Shetlands, the general distribution over our islands being in close agreement with the normal. As, however, the mean readings in the south were considerably above the average* while those in the north were as much below it, the gradient over our islands was unusually steep, the difference in pressure between the north of Scotland and the English Channel stations being about twice as great as that shown by the chart of normal values. *Highest* readings were recorded between the 20th and 22nd, when the barometer rose to 30·62 ins. at Valencia, to 30·5 ins. and upwards, at many of the English and Irish stations, and to 30·3 ins. and upwards on all but our extreme northern coasts. *Lowest* readings occurred in the north on the 27th, when the barometer fell to 28·2 ins. and less in the Hebrides, to 28·5 ins. and less on all our extreme north and north-west coasts, and to 29·0 ins. and less over the northern parts of the United Kingdom generally. In the southern districts the lowest readings (29·0 ins. to 29·2 ins.) were recorded on the 29th. *Range* was moderate for the time of year.

Depressions.—The centres of the large Atlantic depressions passed, as a rule, in a track lying to the northward of our islands, the most important systems observed being those of the 9th, 10th and the 27th. On the 29th, however, a well-defined, though somewhat shallow, disturbance travelled eastwards directly across Ireland and England, and eventually passed on to the Baltic and western Russia.

Anticyclones.—After the 10th a large anticyclone previously existing over the central and southern parts of Europe extended over our islands and remained with us until the 17th, when it again receded southwards. Two days later a new system spread in from the Atlantic, and moved very slowly eastwards across the whole of Europe, its influence disappearing from our own islands after the 24th.

Winds were mainly from the Westward or South-westward, but on our south-west coasts there was a fairly large proportion of breezes from the Southward. Gales were unusually prevalent in the west and north, the number of days affected being as large as 20 at Aberdeen and Pembroke, 18 at Holyhead, and 16 at Ardrossan.

Temperature.—*Mean at sea level* ranged from 50·5° at Scilly, and 49° and upwards on most other parts of our south-west coasts, to 45° and less in inland parts of the north of Ireland, to 44° and less at some stations in the north of England, and to between 40° and 42° in the north of Scotland. Over England and Ireland the general distribution was in fair agreement with the normal, but in Scotland there was an absence of the cold area which usually appears over the central parts of the country at this time of the year. Compared with the average* the mean values showed a very large excess of warmth over the entire kingdom, the excess amounting to 6° or more in many districts, to 7° or more at several stations in the central and south-western parts of England, and to as much as 7·7° at Clifton. Over the kingdom generally the mean values were the highest recorded in December since at least the year 1871. *Highest* readings were registered mostly between the 4th and 6th, when the thermometer rose to 55° and upwards at nearly all stations, to 60° at York and to 61° at Llandudno. *Lowest* readings occurred in Ireland on the 20th or 21st, but over Great Britain on the 30th or 31st. In the western and southern districts the thermometer fell very little below the freezing point, but in the north the frost of the 30th–31st was rather severe, the sheltered thermometer falling as low as to 16° at Braemar, 19° at Hawes Junction, 21° at Lairg and Nairn, and 22° at Fort Augustus, Ochertyre, and Alnwick Castle. *Range* was somewhat small for the time of year. *Vapour Tension* ranged from between 0·30 in. and 0·33 in. on most parts of our south and south-west coasts to 0·25 in. or less over northern and central England, and to 0·22 in. or less in the east of Scotland. *Relative Humidity* varied from between 95 and 97 per cent. at some of our north-western stations, and 93 per cent. at Dungeness, to 82 per cent. at Liverpool, and 81 per cent. at Nairn and Aberdeen.

Rainfall varied greatly in amount in different parts of England, but was mostly in excess of the average* in the south. In Ireland the fall was, as a rule, somewhat deficient, while in Scotland there was a fairly general excess, the amount in the north-western districts being considerably more than twice as much as the normal. The largest aggregates reported were 23·1 ins. at Fort William, 21·7 ins. at Glencarron, and 14·9 ins. at Stornoway; the smallest being 0·9 in. at Shields, 1·1 in. at Leith and Durham, and 1·4 in. at Dungeness. Over the greater part of England the heaviest falls occurred on the 6th, when amounts varying between 1·0 in. and 1·3 in. were measured at several of the south-western stations. In the north-west of Scotland falls exceeding an inch in 24 hours were very frequent, no fewer than 8 being reported at Glencarron. Snow or sleet fell in many of the northern districts between the 18th and 20th, and again in the north and east at the close of the month.

Bright Sunshine was slightly deficient at many of the western and southern stations, but was mostly in excess of the average* elsewhere. The percentage of the possible duration ranged from 28 at Geldeston, 27 at Hollesley Bay (Suffolk), and 25 at Falmouth, to 10 or less at several of the northern stations, and to 5 at Fort Augustus.

* The averages employed are—*Pressure and Temperature* for the 25 years 1871–95; *Rainfall* for the 30 years 1866–95; and *Bright Sunshine* for the 15 years 1881–95.

TABLE XXIII.—Giving a SUMMARY of the METEOROLOGICAL OBSERVATIONS made at TELEGRAPHIC Observations are made at 8 a.m. daily, but the Numbers of Days of Rain, Snow, Hail, (The Stations are grouped in Districts, and then arranged in order of Latitude,

NAMES OF DISTRICTS.	NAMES OF STATIONS.	Mean Height of Barometer (at 32° Fahrenheit and Mean Sea Level) from Observations made at 8 a.m.	Difference from Average.	AIR TEMPERATURE.										TENSION OF VAPOUR.	RELATIVE HUMIDITY.
				Means of					Absolute Extremes.						
				At 8 a.m.	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.			
0. SCOTLAND, N.	Sumburgh Head	Ins. 29.473	Ins. -0.183	42.5	38.3	46.0	42.2	+ 3.0	30	31st	52	11th	Ins. 0.230	% 85	
	Wick	29.583	- .116	41.3	35.7	47.2	41.5	+ 3.8	24	31st	56	11th	.230	89	
	Stornoway	29.569	- .119	41.9	35.6	46.5	41.1	+ 2.2	27	29th, 30th	55	11th	.244	92	
1. SCOTLAND, E.	Nairn	29.626	- .101	43.0	36.2	47.9	42.1	+ 4.8	21	31st	57	25th	.225	81	
	Aberdeen	29.670	- .088	42.5	37.2	47.8	42.5	+ 5.1	24	31st	57	4th, 11th	.218	81	
	Leith	29.731	- .066	45.9	39.4	50.6	45.0	+ 6.1	28	31st	59	5th	.260	85	
2. ENGLAND, N.E.	Shields	29.814	- .022	44.9	39.2	50.0	44.6	+ 6.1	28	31st	59	5th	.256	87	
	York	29.918	+ .032	44.3	38.9	49.8	44.4	+ 6.9	27	31st	60	5th	.243	83	
	Spurn Head	29.917	+ .047	44.3	40.7	48.1	44.4	+ 5.4	31	31st	56	5th, 6th	.261	90	
3. ENGLAND, E.	Yarmouth	30.009	+ .094	43.6	38.6	48.3	43.5	+ 5.5	27	31st	55	2, 4, 5, 6	.250	88	
	Cambridge	30.044	+ .103	43.2	37.8	50.5	44.2	+ 6.8	25	22nd, 31st	58	11th	.251	89	
4. MIDLAND COUNTIES	Loughborough	29.996	+ .074	43.9	39.7	50.5	45.1	+ 7.4	25	31st	58	4th, 5th, 18th	.243	84	
	Oxford	30.062	+ .106	44.9	40.5	50.0	45.3	+ 6.9	30	22, 23, 24	56	4th, 5th, 26th	.258	87	
5. ENGLAND, S.	London	30.087	+ .131	45.0	40.4	50.4	45.4	+ 6.2	27	31st	58	4th	.255	86	
	North Foreland	30.092	+ .137	45.4	40.7	49.2	45.0	+ 5.2	30	31st	57	4th	.260	87	
	Dungeness	30.090	+ .136	47.2	42.1	50.8	46.5	+ 6.2	27	31st	56	6th	.300	93	
	Hurst Castle	30.102	+ .140	48.6	44.4	51.5	48.0	+ 6.7	31	31st	56	5th, 6th	.287	84	
6. SCOTLAND, W.	Ardrossan	29.759	- .050	46.8	43.2	49.7	46.5	+ 6.0	31	31st	54	1st	.311	97	
7. ENGLAND, N.W.	Hawes Junction*	28.658	?	40.9	35.3	44.9	40.1	?	19	31st	53	4th, 5th	.245	96	
	Liverpool	29.935	+ .044	46.5	42.4	50.8	46.6	+ 6.8	31	31st	59	5th	.257	82	
	Holyhead	29.923	+ .047	49.1	44.7	51.3	48.0	+ 5.1	39	20th, 21st	55	5th	.299	86	
8. ENGLAND, S.W.	Pembroke	30.007	+ .093	50.4	46.3	52.5	49.4	+ 5.6	40	20, 21, 29, 30, 31	57	5th	.310	85	
	Prawle Point	30.111	+ .141	48.0	42.9	51.8	47.4	+ 4.5	34	20th	57	15th	.299	90	
9. IRELAND, N.	Malin Head	29.715	- .053	46.2	42.1	49.1	45.6	+ 3.9	35	28th	53	4th, 10th, 11th	.281	91	
	Donaghadee	29.820	- .020	46.3	41.2	50.5	45.9	+ 4.8	32	9th	55	4, 5, 11, 12, 16	.295	95	
	Belmullet	29.827	+ .005	47.9	43.5	50.8	47.2	+ 4.2	37	31st	55	4th	.286	87	
10. IRELAND, S.	Parsonstown	29.915	+ .024	45.4	40.6	50.7	45.7	+ 6.4	29	20th, 30th, 31st	57	4th	.269	89	
	Valencia	29.955	+ .055	49.1	45.4	52.6	49.0	+ 3.8	34	21st	56	1st, 4th, 5th	.297	85	
	Roche's Point	29.997	+ .089	48.4	44.8	52.2	48.5	+ 4.7	33	21st	56	2nd	.307	91	
CHANNEL ISLANDS	Scilly	30.079	+ .129	51.1	46.5	53.8	50.2	+ 3.5	41	21st, 30th, 31st	56	{ 3, 4, 5, 6, 9, } { 10, 12, 16, } { 17, 18, 26 }	.325	86	
	Jersey	30.177	+ .184	49.7	45.2	52.8	49.0	+ 5.3	33	31st	59	4th	.308	87	

* Hawes Junction is 1,135 feet above Mean Sea Level, and the

BRIGHT SUNSHINE VALUES FOR DECEMBER

Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.	Stations	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.
Deerness (Orkney Islands)	12.4	?	7	?	Hollesley Bay (Suffolk)	64.1	?	27	?
Strathpeffer Spa	11.8	Instrument out of adjustment.	6	?	Sheffield	45.9	?	20	?
Edinburgh	47.6	- 12.2	22	- 5	Workshop	44.8	- 8.0	11	- 3
Morpeth (Cockle Park)	32.9	?	15	?	Thurcaston	44.8	+ 14.6	20	+ 7
Newcastle-on-Tyne	37.0	+ 0.6	17	+ 1	Plumstead Common	30.9	?	13	?
Oswaldkirk					Margate	42.5	- 5.2	18	- 2

SUMMARY OF OBSERVATIONS, DECEMBER 1898.

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REPORTING STATIONS in the BRITISH ISLANDS during the Month of DECEMBER 1898.
Thunderstorms, and Gales are counted irrespective of the Hours at which they occurred.
(beginning in each case with the Station lying furthest North.)

AMOUNT OF CLOUD.	RAINFALL.				WEATHER.								WIND.								NAMES OF STATIONS.
	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	Rain.	Snow.	Hail.	Thunderstorms.	Clear Sky.	Overcast.	Gales.	North.	N.E.	East.	S.E.	South.	S.W.	West.	N.W.	Calm.	
8.8	Ins. 6.96	Ins. +2.69	Ins. 0.83	11th	29	0	1	1	0	21	8	6	1	0	0	5	5	11	3	0	Sumburgh Head.
6.8	3.75	+0.58	0.40	1st, 9th	28	3	1	0	2	9	12	2	0	0	0	5	4	11	9	0	Wick
8.0	14.87	+9.23	1.50	25th	31	2	3	0	1	17	11	1	0	0	2	0	6	9	13	0	Stornoway.
6.8	4.25	+2.31	0.59	4th	24	1	0	0	3	14	2	0	0	0	1	1	2	24	2	1	Nairn.
6.4	2.07	-1.04	0.32	31st	24	3	1	0	0	5	20	0	0	0	0	4	14	9	4	0	Aberdeen.
7.0	1.14	-0.75	0.18	5th	15	0	0	0	1	14	6	0	0	0	1	2	9	15	2	2	Leith.
8.0	0.93	-1.39	0.36	29th	12	2	0	0	0	17	6	0	0	0	0	5	16	9	1	0	Shields.
6.4	1.89	-0.32	0.36	29th	15	1	1	0	9	14	1	1	0	1	2	9	9	7	2	0	York.
7.0	1.77	-0.28	0.49	26th	13	1	0	0	3	12	5	1	0	0	0	8	13	5	4	0	Spurn Head.
5.0	2.08	-0.45	0.41	6th	15	1	2	0	7	3	1	0	0	0	0	5	14	7	5	0	Yarmouth.
6.0	1.87	+0.05	0.47	6th	11	0	0	0	8	15	2	1	0	1	0	8	15	1	4	1	Cambridge.
7.3	2.03	-0.21	0.39	8th	13	1	0	0	1	15	10	0	0	0	4	4	11	11	1	0	Loughborough.
7.3	2.47	+0.37	0.84	6th	13	0	0	0	5	17	0	2	0	0	2	9	11	2	5	0	Oxford.
7.6	2.62	+0.51	0.89	6th	11	0	0	0	4	18	5	1	1	0	1	4	12	7	4	1	London.
7.6	? 1.45	?	0.40	7th	13	0	0	0	0	12	3	2	0	0	1	8	10	7	3	0	North Foreland.
7.6	1.39	-1.40	0.35	31st	14	0	0	0	0	14	5	3	0	0	0	5	12	9	2	0	Dungeness.
7.8	3.07	+0.30	0.74	31st	13	0	0	0	0	14	3	2	2	0	0	4	12	8	3	0	Hurst Castle.
8.8	2.05	-1.61	0.24	26th	26	0	3	0	2	24	16	2	1	1	0	9	9	6	2	1	Ardrossan.
8.3	8.10	?	0.88	26th	24	4	0	0	2	24	1	0	1	2	0	2	18	6	2	0	Hawes Junction.*
7.6	1.96	-0.66	0.55	26th	19	0	0	0	4	18	6	1	0	2	3	6	10	6	3	0	Liverpool.
8.5	2.46	-1.37	0.48	26th	25	0	1	0	0	17	18	0	1	0	1	5	11	8	5	0	Holyhead.
8.2	4.75	+0.79	1.35	26th	23	0	0	0	1	21	20	4	1	0	0	2	9	11	4	0	Pembroke.
8.2	3.53	-0.24	0.90	6th	23	0	0	0	0	16	5	2	0	0	2	2	10	10	5	0	Prawle Point.
8.4	4.74	?	1.01	4th	28	0	2	0	0	17	13	2	0	0	2	9	6	6	6	0	Malin Head.
6.3	2.00	-0.85	0.31	26th	24	0	0	0	0	6	10	0	0	1	0	2	11	15	2	0	Donaghadee.
9.4	6.18	+0.82	1.20	4th	30	0	0	0	0	26	15	1	0	1	1	2	8	14	4	0	Belmullet.
8.3	2.49	-0.60	0.63	26th	26	0	0	0	2	23	0	0	0	0	3	3	6	6	1	12	Parsonstown.
9.1	5.33	-0.60	0.74	30th	27	0	1	0	0	24	8	2	2	0	0	11	11	3	1	1	Valencia.
7.0	4.80	-0.36	1.40	26th	23	0	1	0	0	11	8	1	0	0	0	1	10	12	7	0	Roche's Point.
8.5	3.24	-0.76	0.91	6th	24	0	0	0	0	16	11	3	1	0	0	9	8	7	3	0	Scilly.
7.7	4.96	+1.20	1.22	27th	20	0	2	0	2	16	7	1	0	0	5	5	7	7	6	0	Jersey.

Barometer at this Station is not reduced for altitude.

IN ADDITION TO THOSE FOUND IN TABLE XXIV.

Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.	Stations.	No. of Hours Recorded.	Diff. from Average.	Percentage of Possible Duration.	Diff. from Average.
Eastbourne	47.3	- 8.5	20	- 3	Colwyn Bay	44.9	?	20	?
Brighton	51.4	+ 0.4	22	+ 1	Tenby	50.9	+ 3.7	22	+ 2
Watergate (Emsworth) ..		Instrument	dismounted.		Torquay	59.1	+ 6.7	24	+ 2
Westbourne (Emsworth) ..	47.2	- 2.9	20	- 1	Newquay	42.8	- 7.3	18	- 3
Ventnor Hospital	50.8	?	21	?	Guernsey	41.9	- 3.9	17	- 1
Southport	33.7	?	15	?					

TABLE XXIV.

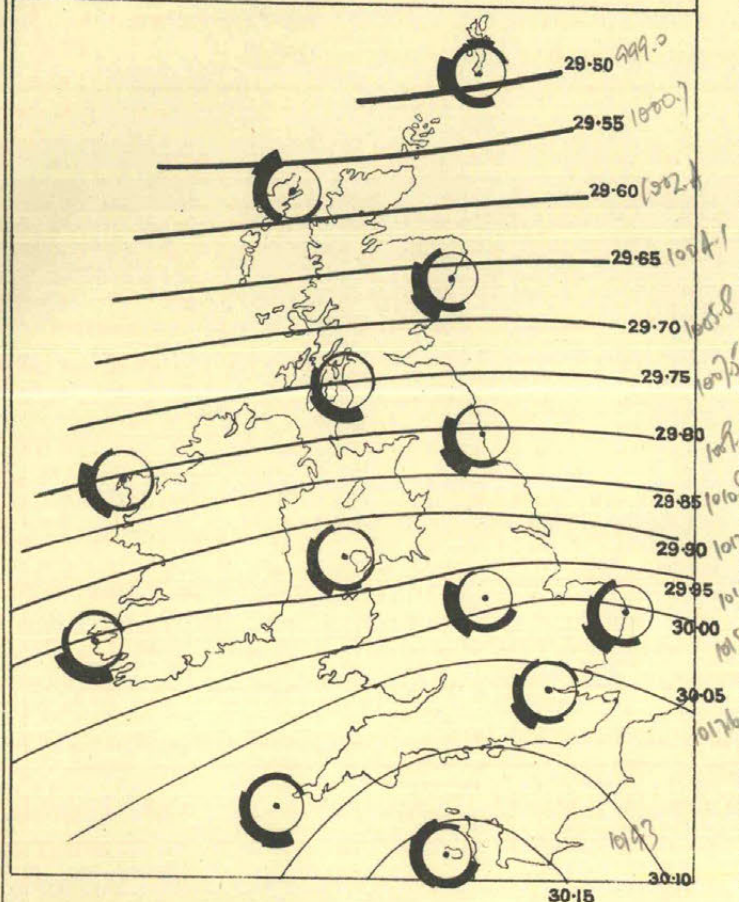
OBSERVATIONS of TEMPERATURE, RAINFALL, and BRIGHT SUNSHINE, obtained from the VALUES supplied for use in the WEEKLY WEATHER REPORT, for the Month of DECEMBER 1898.

NAMES OF STATIONS.	AIR TEMPERATURE.								RAINFALL.				BRIGHT SUNSHINE.				
	Means of				Absolute Extremes.				No. of Rainy Days.	Total Fall in the Month.	Difference from Average.	Maximum Fall in One Day.	Date.	No. of Hours recorded.	Difference from Average.	Per-centage of possible Duration.	Difference from Average.
	Minima.	Maxima.	Min. and Max. combined.	Difference from Average.	Minimum.	Date.	Maximum.	Date.									
STORNOWAY	0	0	0	0	0		0			Ins.	Ins.	Ins.		16.1	- 9.3	8	- 5
LAIRG	33.7	44.3	39.0	+ 2.7	21	30th	54	12th	29	7.03	+ 3.10	0.89	1st	—	—	—	—
GLENCARRON	37.3	46.7	42.0	+ 5.6	26	30th	53	26th	28	21.65	+11.83	1.76	1st	—	—	—	—
FORT AUGUSTUS	36.1	47.9	42.0	+ 4.3	22	31st	55	11th	30	12.23	+ 7.24	1.94	4th	11.0	+ 3.9	5	+ 1
FORT WILLIAM	39.4	48.7	44.1	+ 5.1	27	30th	54	6th	30	23.14	+13.86	3.66	4th	11.4	+ 0.1	6	0
ABERDEEN														40.4	+ 0.5	20	0
BRAEMAR	33.2	44.4	38.8	+ 4.6	16	31st	52	5, 11, 12, 25	25	5.22	+ 2.15	1.37	27th	13.0	- 8.2	6	- 4
OCHTERTYRE	36.6	48.1	42.4	+ 5.8	22	30th	55	11th	25	6.19	+ 2.04	0.82	4th	—	—	—	—
MARCHMONT	36.8	47.7	42.3	+ 6.2	25	31st	56	11th	20	1.80	- 1.23	0.30	1st	40.3	+ 6.7	19	+ 3
ALNWICK CASTLE	38.9	49.6	44.3	+ 6.5	22	31st	58	4th, 5th, 6th	19	1.95	- 1.07	0.25	2nd	—	—	—	—
DURHAM	37.7	49.2	43.5	+ 6.6	23	31st	58	5th	17	1.20	- 1.51	0.40	29th	51.0	+ 7.1	24	+ 4
SCARBOROUGH	38.2	48.8	43.5	+ 4.9	28	25th, 31st	59	5th	16	2.06	- 0.62	0.28	26th	35.3	?	16	?
YORK														18.1	- 8.4	8	- 4
HILLINGTON	37.8	48.4	43.1	+ 6.2	24	31st	56	2nd, 4th, 5th	13	2.28	- 0.14	0.59	6th	49.8	+ 8.7	22	+ 4
GELDESTON	38.5	49.8	44.2	+ 6.1	25	22nd	57	4th	12	2.16	+ 0.01	0.44	6th	64.9	+16.4	28	+ 7
CAMBRIDGE														52.5	+11.3	22	+ 4
ROTHAMSTED	38.2	49.2	43.7	+ 6.2	24	23rd, 24th, 31st	56	4th, 18th	18	2.78	+ 0.35	0.82	6th	53.1	+10.2	23	+ 5
BAWTRY	37.5	49.7	43.6	+ 6.4	25	31st	59	5th	10	1.45	- 0.74	0.42	26th	—	—	—	—
STAMFORD (Duddington)	38.4	49.0	43.7	+ 6.8	23	31st	57	5th	18	1.96	- 0.27	0.51	6th	—	—	—	—
CHEADLE	38.6	47.8	43.2	+ 6.5	28	23rd, 31st	56	5th	20	2.45	- 0.69	0.77	26th	—	—	—	—
SHIRLEY (nr. Solihull)	38.9	49.3	44.1	+ 7.1	26	31st	56	2nd, 5th	21	2.47	?	0.57	6th	—	—	—	—
CHURCHSTOKE	40.0	50.6	45.3	+ 7.4	28	30th	58	16th	20	3.08	- 0.03	1.20	26th	49.4	+11.1	22	+ 5
HEREFORD	41.0	50.5	45.8	+ 7.3	30	24th	59	2nd	16	2.45	+ 0.09	0.71	26th	—	—	—	—
CIRENCESTER	37.8	49.0	43.4	+ 6.0	25	23rd, 31st	56	5th	18	3.12	+ 0.36	0.93	6th	51.4	+ 9.6	22	+ 4
OXFORD														53.3	+11.5	23	+ 5
LONDON														29.1	+ 9.0	12	+ 3
CRANLEY	38.9	49.8	44.4	+ 5.1	25	31st	56	4th, 27th	20	2.96	?	0.68	7th	—	—	—	—
HASTINGS	42.1	50.5	46.3	+ 6.0	29	31st	55	2, 3, 4, 6, 10, 11	16	2.42	- 0.48	0.54	31st	50.3	- 7.6	21	- 3
SOUTHAMPTON	41.9	51.9	46.9	+ 6.8	29	31st	57	18th	14	3.61	+ 0.52	0.85	27th	48.1	- 2.0	20	- 1
SHAFTESBURY	40.6	48.9	44.8	+ 8.2	31	20th, 23rd	54	26th, 27th	23	2.99	- 0.07	0.95	6th	—	—	—	—
LAUDALE	39.7	50.8	45.3	+ 5.0	27	30th	56	5th	31	14.38	+ 5.20	1.47	4th	—	—	—	—
GLASGOW	40.5	48.4	44.5	+ 6.3	30	31st	56	5th	27	4.94	+ 0.89	0.44	27th	14.9	- 2.3	7	- 1
GLENLEE	39.0	48.7	43.9	+ 6.4	23	30th, 31st	57	5th	28	8.34	+ 1.98	1.07	26th	—	—	—	—
DOUGLAS	43.5	50.7	47.1	+ 5.7	30	30th	55	5th, 11th	27	4.64	0.00	0.84	26th	38.3	- 2.7	17	- 1
STONYHURST	40.3	47.6	44.0	+ 6.2	27	31st	59	6th	27	6.01	+ 1.23	0.98	26th	29.3	+ 1.6	13	+ 1
BLACKPOOL	40.9	50.1	45.5	+ 6.5	28	31st	58	4th, 5th	27	3.86	+ 0.72	0.88	26th	20.9	- 4.5	9	- 2
MANCHESTER (Prestwich)	39.6	48.8	44.2	+ 6.5	26	31st	59	2nd	26	4.20	+ 0.52	0.85	26th	18.6	?	8	?
LLANDUDNO	43.4	52.3	47.9	+ 6.1	34	30th, 31st	61	5th	23	2.90	- 0.23	0.86	26th	43.6	+12.9	19	+ 6
LLANDOVERY	39.2	51.2	45.2	+ 7.0	26	20th	57	4th, 5th	26	6.94	+ 1.55	2.09	26th	—	—	—	—
PEMBROKE														46.3	+ 0.3	20	0
CLIFTON	42.4	51.6	47.0	+ 7.7	29	23rd	58	5th	19	4.75	+ 1.61	1.15	6th	—	—	—	—
ARLINGTON	41.3	49.9	45.6	+ 5.8	32	31st	56	5th	25	8.64	+ 2.70	1.33	6th	—	—	—	—
CULLOMPTON	41.0	51.6	46.3	+ 7.6	27	23rd, 31st	58	5th	21	3.00	- 0.52	1.00	6th	39.6	+ 1.0	17	+ 1
FALMOUTH	45.0	51.9	48.5	+ 4.2	37	21st, 30th	56	5th, 27th	25	5.87	+ 0.52	1.00	6th	61.0	+ 4.9	25	+ 2
PLYMOUTH	44.3	51.8	48.1	+ 5.5	33	21st	56	5th, 27th	24	4.23	+ 0.34	0.97	6th	46.6	- 5.1	19	- 2
SCILLY														37.4	?	15	?
JERSEY														56.0	- 6.6	23	- 2
LONDONDERRY	40.3	49.7	45.0	+ 5.4	32	8th, 30th	55	4th, 5th	26	4.46	+ 0.47	0.78	4th	—	—	—	—
EDENFEL (Omagh)	38.5	48.9	43.7	+ 6.4	27	30th	55	4th, 5th	25	3.90	+ 0.21	0.37	28th	—	—	—	—
MARKREE CASTLE	40.5	50.1	45.3	+ 6.4	28	30th	56	5th	26	4.14	- 0.02	0.53	23rd	23.6	-10.7	11	- 4
ARMAGH	40.3	49.7	45.0	+ 6.7	29	20th	57	5th	23	2.51	- 0.33	0.37	3rd	40.3	+ 4.7	18	+ 2
DUBLIN	43.0	52.1	47.6	+ 6.5	32	20th	59	5th	21	1.07	- 1.32	0.26	26th	53.4	+ 1.2	23	0
PARSONSTOWN														36.0	- 9.0	16	- 4
KILKENNY CASTLE	41.3	51.2	46.3	+ 6.0	28	20th	56	4th, 5th	20	2.20	- 1.04	0.54	26th	—	—	—	—
VALENCIA (Cahiriveen)														22.4	-21.5	10	- 9
KILLARNEY	44.1	52.8	48.5	+ 5.6	29	21st	58	1st	27	7.66	?	1.26	4th	—	—	—	—
FOYNES	42.7	51.3	47.0	+ 5.4	35	19, 20, 21, 29, 31	56	4th, 5th	24	4.18	?	0.66	26th	—	—	—	—

* For this information and additional Reports of Bright Sunshine see Table XXIII.

Monthly Summary.

1. BAROMETER AND WIND.

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This map illustrates the North Atlantic Ocean with isotherms (solid lines) and isohalines (dashed lines). Isotherms are labeled with temperatures ranging from 41° to 49°. Isohalines are labeled with salinity values from 45 to 48. The map shows the coastlines of North America, Europe, and Greenland.

