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METEOROLOGICAL OFFICE.

THE
MONTHLY WEATHER REPORT
FOR THE YEAR
1929

Published by the Authority of the Meteorological Committee.



LONDON:

PRINTED AND PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE

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1930

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THE MONTHLY WEATHER REPORT, 1929

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PREFACE.

Up to 1921, the Monthly Weather Report was issued as a supplement to the Weekly Weather Report and included in the subscription to the latter. It is now treated as a separate publication. The Report gives a résumé of observations from stations in the British Isles, and takes the place of the summaries printed up to the end of 1907 in Parts II and III of the annual volumes of "Observations at Stations of the Second Order" as well as the former "Monthly Summary" to the Weekly Weather Report. The meteorological data in the Quarterly Reports of the Registrar-General for England and Wales, for Ireland, and those given in the Annual Report of the Registrar-General for Scotland, are compiled from data used in the Monthly Weather Report. Additional information as to rainfall is to be found in the annual volumes of "British Rainfall." Particulars of the methods adopted in taking the observations are given in the *Meteorological Observer's Handbook*, M.O. 191.

CHANGES IN 1929.

No changes of a general character were made in the Report for 1929.

INFORMATION FOR PREVIOUS YEARS.

Monthly summaries of observations made at stations in connexion with the Meteorological Office were first published in 1869 in the "Quarterly Weather Report," a publication issued for each of the years 1869 to 1880. The Monthly Weather Report commenced in 1884. The gap is bridged for telegraphic stations by a supplement to the Daily Weather Report and for other stations by tables in "Observations at Stations of the Second Order." A brief history of the development of the Monthly Weather Report will be found in the 1915 volume. Only the changes made in later years need be specified here.

In 1916, the absolute scale of temperature was introduced for the District Values of Table I, and in the text of the general description of the weather. For the first few months the Fahrenheit equivalents were given in brackets, subsequently a diagram to facilitate conversion was printed.

A table of sea temperatures was printed with the introduction to the Monthly Weather Report in each of the years 1916-1919.

From the beginning of 1917 the normals for the period 1881-1915 were taken into use for temperature, rainfall and sunshine. Table XVII (wind-rose data) was started in the Annual Summary for that year.

In 1918 the practice of indicating wind direction in Table II by the departure from north in degrees was adopted, and at the same time the headings of this table were changed so as to show that the wind distribution was reckoned according to speed and not according to the Beaufort equivalents, which are only relevant for an anemometer with a standard exposure.

A new table, Table V, "Rainfall at certain additional stations," was introduced at the beginning of the year 1920, but was discontinued from 1923, as the corresponding data are printed in the "Meteorological Magazine." Subsequently observations of river temperature (now Table III a) and of duration of starlight, of fog, and cloud, at Greenwich (now Table III b) were introduced. The practice of giving the terminal hours for the extremes of temperature and rainfall was also adopted in 1920.

In 1921 mean maximum and minimum temperatures at certain stations were, as from March or April, referred to intervals of less than 24 hours' duration in the day and night respectively. Particulars were indicated in Table III. During the year the definition of fog was adopted which prescribes that the horizontal range of vision is less than 1,100 yards.

In 1922 all temperatures in Table I were expressed in Fahrenheit degrees, instead of in the absolute scale.

In 1923 Table IV provided for summaries of visibility at each of the fixed hours of observation, and for separate summaries of wind at each hour of observation instead of a single summary from all the hours combined. Pressure at station level was omitted from Table IV but included in Table III (d) for stations at heights exceeding 600 feet. The summaries of cloud amount were amplified. Notes on the Tables were collected together and printed on the last page of each issue.

In 1924 the stations used for computing current district-values of earth temperature for Table I were limited to those for which normal-values were available.

In 1925 the data up to then printed in Tables III (a) and III (d) were incorporated in Tables III and IV, and summaries appeared in Table III from 20 new stations in connexion with the agricultural-meteorological scheme of the Ministry of Agriculture and Fisheries.

In 1926 the publication of maximum and minimum temperature referring to the intervals 9h-17h and 17h-9h respectively was discontinued: a symbol was introduced in the appropriate issues to indicate stations for which the possible record of sunshine was reduced by obstructions of over 3° by more than 5 per cent., the possible record being defined as the time during which the sun is at an altitude of over 3°. "Hygrometrical Tables" (M.O. Publication 265) were used for the determination of vapour pressure and relative humidity, previously these quantities were obtained from tables which were based on Glaisher's factors.

The following list gives the dates of various series in which monthly values of meteorological elements for British stations are incorporated:—

International Form B: published in "Observations at Stations of the Second Order" ..	1873—1910
and in "Daily Readings at Stations of the First and Second Orders": <i>Annual Supplement</i> ..	1911—1921
Monthly Weather Report (with Annual Summary from 1905)	1884—date
Weather Summaries: Working forms preserved in Meteorological Office	1876—1902
International Form B: Working forms preserved in Meteorological Office	1902—date
For Royal Engineers' Stations: Abstract by Col. Sir H. James, London 1865	1853—1858
For Observatories: Quarterly Weather Report 1869—1880; "Hourly Readings" or "Hourly Means"	1881—1913 1869—1913
For Observatories: Monthly Summaries of Hourly Readings published in Hourly Values from Autographic Records	1914—date
For Observatories: Hourly readings, published in "Observatories' Year Book" 1922 to 1927 ..	(1928 in the press)
For Telegraphic Stations; Q.W.R. 1876—1880; D.W.R. Supplement 1881—1888	1876—1888
For Royal Meteorological Society Stations: Meteorological Record	1881—1911
For Scottish Stations: Journal of the Scottish Meteorological Society	1856—1919
Registrar-General's Returns (England)	1849—date
Registrar-General's Returns (Scotland)	1856—date
Registrar-General's Returns (Ireland)	1864—date
British Rainfall	1860—date

GENERAL ARRANGEMENT OF THE REPORT.

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

a.—General remarks on the Weather over the British Islands, under a brief heading descriptive of the special characteristics of the month.

b.—Table I.—Summaries for the twelve Districts of the temperature of the air, of deviations from normal of earth temperature, of rainfall, and of duration of bright sunshine, based on observations at the "district value" stations (*See below.*)

The stations from which the district values of temperature and rainfall are computed are indicated in Table III by the symbol ¶ and the corresponding stations for sunshine by the symbol §. A list of these stations is printed below.

c.—Table II.—Summary of autographic records of wind.

All the records are obtained from instruments of the Dines Pressure Tube type except where otherwise stated.

d.—A plate of four maps showing :—

i. The monthly distribution of pressure and winds based on observations at telegraphic reporting stations ; also the normal distribution of pressure for the month for the period 1881–1915. Isobars are drawn for intervals of 2 millibars or 1 millibar.

ii. The movements of depressions.

iii. The distribution of mean temperature over the land and in the coastal waters.

iv. The distribution of bright sunshine in hours per day.

e.—A full page map showing by means of isohyetal lines the distribution of the month's precipitation. These maps are based on data from nearly 700 stations.

f.—Table III, giving summaries of the records of extreme and mean air temperature and of earth temperature at 1 foot and 4 feet, rainfall and sunshine, and of weather observations. In the case of air temperature, rainfall, and sunshine, differences from normal are given when available. The summaries refer to individual stations.

g.—Table III (a).—Temperature of the river Derwent at Belper, and of the river Trent at Attenborough near Nottingham.

h.—Table III (b).—Royal Observatory, Greenwich.—Observations of duration of starlight and of cloud and fog by day.

i.—Table IV, giving summaries of the observations of pressure, temperature, humidity, cloud, visibility, and wind, made at set hours. The hours, not being the same for all stations, are indicated in the Table.

j.—Notes on the Tables.

Tables III and IV together include the items comprised in the international form of monthly climatological summary, the Form B. of the Report of the International Meteorological Committee, 1874 ; and they give, in addition, information regarding the duration of bright sunshine, earth temperature at 1 foot and 4 feet (from 1906), the number of observations of winds of force 4–7 on the Beaufort Scale (from 1906), of winds of force 1–3 (from 1923), the number of days of fog (from 1906), the number of observations of different degrees of visibility (from 1923), the number of days of ground frost (minimum temperature on the grass, 30·4°F. and below (from 1908), and the pressure at mean sea level (from 1912).

DISTRICT VALUE STATIONS, 1929.

The following are the stations, summaries from which are used for the computation of the district values of temperature, rainfall, earth temperature and sunshine, Table I :—

TR, Temperature and Rainfall : E1, Earth Temperature at 1 foot : E4, Earth Temperature at 4 feet : S, Sunshine

DIST.	STATION.	ELEMENT.	DIST.	STATION.	ELEMENT.	DIST.	STATION.	ELEMENT.
0	Deerness ..	TR - - S	3	Cambridge ..	TR E1 E4 S	5	Bournemouth ..	- E1 E4 -
	Fort Augustus ..	TR - - S		Clacton ..	TR E1 E4 S		Brighton ..	- - E4 -
	Inverness ..	TR - - S		Lowestoft ..	- E1 E4 -		Camden Square ..	- E1 E4 -
	Lerwick ..	TR - - S		Rothamsted ..	TR - - S		Dover ..	- E1 E4 -
	Stornoway ..	TR - - S		Tottenham ..	TR - - S		Eastbourne ..	- E1 E4 -
1	Aberdeen ..	TR - E4 S		Yarmouth ..	TR E1 E4 S		Grayshott ..	- E1 - -
	Dundee ..	TR - - S	4	Belvoir Castle ..	- - E4 -		Margate ..	TR E1 E4 S
	Edinburgh ..	TR - - S		Birmingham ..	TR E1 E4 S		Marlborough ..	TR - - S
	Marchmont ..	TR - - S		Bradford ..	- E1 E4 -		Richmond	
	Nairn ..	TR - - S		Bromyard ..	- E1 E4 -		(Kew Obs.)	TR E1 E4 S
6	Dumfries ..	TR - E4 S		Buxton ..	- E1 E4 -		St. Leonards ..	TR E1 E4 S
	Eskdalemuir ..	TR - - S		Coventry ..	- E1 E4 -		Southampton ..	TR - - S
	Ford (Oban from			Harrogate ..	TR E1 E4 S		Tottenham ..	- - E4 -
	Dec. 1, 1929) ..	TR - - -		Huddersfield ..	- E1 E4 -		Tunbridge Wells	- E1 - -
	Kilmarnock ..	TR - - S		Meltham ..	- E1 - -		Wisley ..	- E1 E4 -
	Rothsay ..	TR - E4 S		Nottingham ..	TR E1 E4 S	7	Aspatia ..	TR E1 E4 S
2	Cockle Park ..	TR E1 E4 S		Oxford ..	TR - - S		Bolton ..	- E1 E4 -
	Cranwell ..	TR - - S		Raunds ..	- E1 - -		Burnley ..	- E1 E4 -
	Durham ..	TR - - S		Ross-on-Wye ..	TR - - S		Darwen ..	- E1 E4 -
	Hull ..	- E1 E4 -		Sheffield ..	- E1 E4 -		Holyhead ..	TR - - S
	Rounton ..	- E1 - -		Strelly ..	- E1 - -		Lancaster ..	- E1 - -
	Scarborough ..	TR - - S		Sutton Bonington	- E1 - -		Manchester (City)	- E1 E4 -
	West Witton ..	- E1 E4 -		Workshop ..	- E1 E4 -		Sealand ..	TR - - S
	York ..	TR E1 E4 S					Southport ..	TR E1 E4 S
							Stonyhurst ..	TR - - S

DIST.	STATION.	ELEMENT.	DIST.	STATION.	ELEMENT.	DIST.	STATION.	ELEMENT.
8	Bath	TR E ₁ E ₄ S	9	Armagh	TR E ₁ E ₄ S	10	Dublin (City) ..	TR - - -
	Cardiff	- E ₁ E ₄ -		Birr Castle ..	TR - - -	cont.	„ (Phoenix Pk.)	- - - S
	Cullompton ..	TR E ₁ - S		Blacksod Point..	TR - - -		„ (Trinity Coll.)	- E ₁ E ₄ -
	Falmouth ..	TR - - S		Malin Head ..	TR - - S		Roches Point ..	TR - - -
	Newquay ..	- E ₁ - -		Mallarany ..	- - - S		Waterford ..	TR - - -
	Plymouth ..	- E ₁ - -		Markree Castle ..	TR E ₁ E ₄ S			
	Rhayader ..	TR - - S	10	Ballinacurra ..	- - - S	11	Guernsey ..	TR E ₁ E ₄ S
	St. Ann's Head	TR - - S		Birr Castle ..	TR E ₁ E ₄ S		Jersey ..	TR - - S
	Swansea ..	- E ₁ E ₄ -		Cahirciveen	- - - S		Scilly ..	TR - - S
				(Valentia Obs.)	TR - - S			

LIST OF STATIONS.

A list of the climatological stations of Tables III and IV and of the anemograph stations of Table II is given below. For additional information regarding the anemograph stations, reference should be made to the Annual Summary, p.190.

In the Tables of the Monthly Weather Report the stations are arranged according to Districts and Counties. In the list printed herewith the alphabetical order is adopted. The latitude and longitude of each station are given, but not the height, as that is shown in the monthly issues.

Classification of stations.—Stations are classified as follows :—

- I. Normal Meteorological Observatory ; Station of the First Order.—Continuous records or hourly readings of pressure, temperature, wind, sunshine, and rain, with eye observations of the amount, form, and motion of the clouds, and notes on the weather. The principal “ distributive ” stations maintained on aerodromes as ancillary to the Royal Air Force or to civil aviation services are included.
- II. Normal Climatological Station.—Daily observations at least twice a day, generally at 9 h. (9 a.m.) and 21 h. (9 p.m.) local time of pressure, temperature (wet and dry-bulb), wind, amount of cloud, and weather, with the daily maximum and minimum of temperature, the daily rainfall, and remarks on the weather. Observations of the range of visibility and records of sunshine are commonly obtained at these stations also. In this category are included all the stations of the second order of the International Classification and a few stations of the third order.
- III. Auxiliary Climatological Station, at which observations similar to those of a normal climatological station are made once a day only, generally at 9 h. (9 a.m.) local time. This category includes most of the stations of the third order of the International Classification.
- T. Telegraphic Reporting Station.—Daily observations are made at 7 h. (7 a.m.), 13 h. (1 p.m.) and 18 h. (6 p.m.) G.M.T., similar in general character to those taken at Normal Climatological Stations, and reported to the Office each day by telegraph. At some telegraphic stations an additional observation is made at 1 h. (1 a.m.) G.M.T. and at a few of these stations there is an additional observation at 21 h. (9 p.m.)
- II C.W. ; III C.W. Normal Climatological Station or Auxiliary Climatological Station which is also a Crop Weather Station.—Crop Weather stations are stations which participate in the scheme for the investigation of the relationship between weather and crops inaugurated by the Ministry of Agriculture and the Board of Agriculture for Scotland in co-operation with the Meteorological Office.
- II H. ; III H. Normal Climatological Station or Auxiliary Station which is also a Health Resort Station.—These Stations make special observations at 17 h. (5 p.m.) G.M.T. which are reported to this Office by telegram for communication to the newspaper press. Summaries of these special 17 h. (5 p.m.) observations are, however, not published in this volume.
- A. ; II A. ; III A. ; T.A. Anemometer Station (which may also be a Normal Climatological Station, Auxiliary Station or Telegraphic Station) for which summaries are published in Table II (Autographic Records of Wind) of the Monthly Weather Report.

The publications for which the returns are prepared are indicated by the following letters :—

- | | |
|--|--|
| <p>D. Daily Weather Report. Full return.</p> <p>d. Daily Weather Report. Abridged return.</p> <p>W. Weekly Weather Report. Temperature, rainfall, in most cases sunshine, and in some cases ground temperature.</p> <p>w. Weekly Weather Report. Sunshine only.</p> <p>W¹. Registrar-General's Weekly Summary.</p> <p>M. Monthly Weather Report. Table III (Temperature extremes, rainfall and weather) ; and Table IV (Pressure, humidity, &c.).</p> | <p>m. Monthly Weather Report. Table III, not Table IV.</p> <p>μ. Monthly Weather Report. Wind velocity.</p> <p>m₀. Monthly Weather Report. Sunshine only.</p> <p>O. The Observatories' Year Book.—This publication contains hourly values of meteorological and magnetic elements, diurnal inequalities for magnetism and for atmospheric electricity, absolute observations of magnetism and atmospheric electricity, seismological tables, upper air data, etc.</p> |
|--|--|

Normals.—Reference is made to publications of the Office containing average values for long periods by means of the following letters :—

- a. The Book of Normals of Meteorological Elements for the British Isles for Periods ending 1915. Section I.—Monthly normals of mean maximum, mean minimum and mean temperature, of rainfall (for 190 Stations) and of bright sunshine for the 35 years 1881–1915. Section II.—Weekly, monthly, quarterly, and seasonal normals for Districts. Section III.—Maps of the normal distribution of temperature, rainfall and sunshine for the British Isles. Section IV.—Range of variation of temperature and rainfall; frequency tables for hail, thunder, snow, snow lying and ground frost. Section V.—Monthly normals of rainfall for 578 stations.
- b. Appendix I to the volume of “Meteorological Observations at Stations of the Second Order” for 1891. Monthly averages for all elements for the fifteen years 1876–1890.
- c. “Temperature Tables of the British Islands,” 1871–1900. Monthly averages of mean maximum, mean minimum and mean temperature generally for the thirty years 1871–1900, together with information on the extremes of temperature in the same period.
- d. “Rainfall tables of the British Islands,” 1866–1890. Official publications, Nos. 47 and 114. Monthly averages of rainfall.
- e. “Hourly Values from Autographic Records,” Geophysical Section. Monthly normals of pressure, temperature, humidity, rainfall and sunshine for each hour of the day.

Royal Observatory, Greenwich.—Notes with regard to the statistics supplied by this Observatory will be found at the end of this preface.

STANDARDS OF TIME.

The Summer Time Act of 1925 fixes permanently the period in each year during which Summer Time is in force. In 1929 the period adopted was from April 21 to October 5. Between these dates the public clocks were one hour in advance of Greenwich Mean Time. Observers were recommended to make their observations at the same hours by Greenwich Time throughout the year. At nearly all stations this recommendation was adopted, but in a very few cases circumstances made it necessary to adhere to the same hour by clock time. The actual hours of observation are given in Table III of the monthly issues.

The stations at which the hours of observation are referred to Local Mean Time are given in the Notes to the Tables, printed on the last page of each monthly issue. Several Irish stations are included, but when the use of Dublin Time for civil purposes was discontinued in Ireland from October 1st, 1916, other stations advanced their observations by 25 minutes and adopted Greenwich Time.

SEA-TEMPERATURE.

Returns of sea-temperatures are received by the Meteorological Office from certain lightships and coast stations. The average temperatures of the seas round the British Isles for the months of the year 1929 are shown by large figures on the maps in the monthly issues of this report.

G. C. SIMPSON,
Director.

Meteorological Office, Air Ministry, London, W.C.2.
1930.

LIST OF STATIONS.

Station.	Dist.	County.	Lat.	Long.	Classification.	Publication.	Normals.	Authority.
Aber (Bangor)	7	Carnarvon	53 14	4 1W.	III C.W	m.	—	Prof. R. G. White, College Farm.
Aberdeen	1	Aberdeen	57 10	2 6W.	I	D,W,W ¹ ,M,O, μ	a, c, d, e.	Assistant-in-Charge, The Observatory, for M.O.
Aberystwyth	8	Cardigan	52 25	4 4W.	III H.	d,m.	a.	Town Clerk.
Aberystwyth	8	Cardigan	52 25	4 3W.	III C.W.	m.	—	Prof. R. G. Stapledon, M.A., Plant Breeding Station.
Achnashellach	0	Ross and Cromarty	57 29	5 16W.	II	m.	—	A. Murray, for Forestry Commission (Scotland).
Addington	5	Surrey	51 22	0 4W.	III	m.	—	Borough Engineer, Croydon.
Aldergrove	9	Antrim	54 39	6 13W.	I	M, μ .	—	Meteorologist-in-Charge for M.O.
Aldershot	5	Hampshire	51 15	0 46W.	III	m.	—	Medical Officer of Health.
Ampleforth	2	Yorkshire (N.R.)	54 12	1 5W.	III	m.	a.	Rev. E. O. Vanheems, O.S.B.
Arbroath	1	Angus (Forfar)	56 33	2 35W.	II	m.	d.	J. W. Robertson, for the Town Council.
Ardingly	5	Sussex	51 4	0 5W.	III	m.	—	G. W. E. Loder, J.P., M.A., D.L.
Ardtornish	6	Argyll	56 34	5 45W.	III	m.	—	late G. Craig Sellar.
Arlington Court	8	Devonshire	51 8	3 58W.	III	m.	a, c, d.	Miss Chichester.
Armagh	9	Armagh	54 21	6 39W.	II	W,M.	a, c, d.	Director, Armagh Observatory, for M.O.
Ascot (Heatherwood)	5	Berkshire	51 25	0 41W.	II	m.	—	Medical Superintendent, Heatherwood Hospital.
Ashburton	8	Devonshire	50 32	3 46W.	III	m.	a.	late J. S. Amery and R. M. Windeatt.
Aspatia	7	Cumberland	54 46	3 13W.	II	W,M.	a.	Aspatia Silloth and District Joint Water Board, for M.O.
Attenborough	4	Nottingham	52 55	1 13W.	III	m.	—	Messrs. Granger.
Balbriggan	10	Dublin	53 35	6 10W.	III	m.	a.	Capt. E. R. Taylor.
Ballinacurra	10	Cork	51 52	8 10W.	III	w,m.	a.	John H. Bennett.
Balmakewan	1	Kincardine	56 48	2 33W.	A.	μ .	—	William Low, B.Sc.
Balmoral	1	Aberdeen	57 2	3 12W.	III	m.	a.	R. F. Chalmers.
Baltasound	0	Shetlands	60 44	0 48W.	III	m.	—	T. Edmonston Saxby, F.R.F.P.S. (Glas.)
Banff	1	Banff	57 40	2 31W.	II H.	m.	—	F.R.C.S., M.D., J.P.
Bangour	1	Linlithgow	55 55	3 33W.	II	m.	—	I. H. Gordon, for Town Council.
Bath	8	Somerset	51 23	2 21W.	III H.	d,W,M.	a.	The Medical Superintendent.
Belfast	9	Antrim	54 37	5 56W.	III	m.	—	Medical Officer of Health.
Bellingham	2	Northumberland	55 13	2 18W.	III	m.	—	Royal Academical Institution.
Belper (School)	4	Derby	53 1	1 29W.	III	m.	—	Sir C. Morrison Bell, Bart.
Belper (Quarry Bank)	4	Derby	53 2	1 29W.	II	m.	—	Herbert Strutt Secondary School.
Belvoir Castle	4	Leicester	52 54	0 47W.	II	m.	a.	John Hunter, A.M.I.C.E., F.R. Met. Soc.
Berwick-on-Tweed	2	Northumberland	55 46	2 0W.	III H.	d,m.	a, d.	The Duke of Rutland, K.G.
Bidston Observatory	7	Cheshire	53 24	3 4W.	T.	D,M,W ¹ μ .	—	Borough Surveyor.
Biggin Hill	5	Kent	51 19	0 2E.	T.	M.	a, c, d.	W. E. Plummer, M.A., F.R.A.S., for Mersey Docks and Harbour Board, Liverpool.
Birmingham	4	Warwick	52 28	1 53W.	T.A.	D,W,M,W ¹ μ .	—	Meteorologist-in-Charge, for M.O.
(Edgbaston)	4	Worcester	52 27	1 51W.	III	m.	a, d.	A. J. Kelley, for the Midland Institute.
(Sparkhill)	4	Offaly (King's Co.)	53 6	7 55W.	T.	D,W,M.	—	D. H. Owen.
Birr Castle	10						a, b, c, d.	The Earl of Rosse.
Blackford Hill								See Edinburgh.
Blackpool	7	Lancashire	53 49	3 3W.	III H.	d.	a, c.	Medical Officer of Health.
Blacksod Point	9	Mayo	54 6	10 4W.	T.	D,W,M.	a.	Sub-Postmistress, for M.O.
Boghall	1	Edinburgh	55 52	3 12W.	III C.W.	m.	—	Edinburgh and East of Scotland College of Agriculture.
Bognor Regis	5	Sussex	50 47	0 41W.	III H.	d.	a.	Urban District Council.
Bolton	7	Lancashire	53 35	2 27W.	III	m.	—	Thomas Midgley.
Bournemouth	5	Hampshire	50 43	1 53W.	III H.	d,m.	a.	C. Dales, F.R. Met. Soc., for the Corporation.
Bradford	4	Yorkshire (W.R.)	53 49	1 46W.	III	m,W ¹ .	a, d.	The Corporation.
Braemar	1	Aberdeen	57 0	3 24W.	II	M.	a, c, d.	G. H. Sinclair.
Brighton	5	Sussex	50 49	0 8W.	III H.	d,M,W ¹ .	a, d.	Medical Officer of Health.
Bromley	5	Kent	51 24	0 1E.	III	m.	—	Borough Engineer.
Bromyard	4	Hereford	52 11	2 30W.	III	m.	—	T. V. Philpott, M.A.
Bucklebury Place	5	Berkshire	51 26	1 14W.	III	m.	—	Dr. Carl Langer.
Bude	8	Cornwall	50 50	4 33W.	III H.	d.	c, d.	Bude Publicity Association.
Bunhill Row								See London.
Burnley	7	Lancashire	53 48	2 15W.	III	m,W ¹ .	d	Medical Officer of Health.
Buxton	4	Derby	53 16	1 55W.	III H.	m.	a, b, c, d.	Town Clerk.
Bungay (Flixton)	3	Suffolk	52 25	1 23E.	III	m.	—	Sir Shafto Adair, Bart.
Cahiriveen (Val. Obs.)	10	Kerry	51 56	10 15W.	I	D,W,M,O, μ .	a, c, e.	Superintendent of the Observatory, for M.O.
Calshot	5	Hampshire	50 49	1 19W.	I	D,M, μ .	—	Meteorologist-in-Charge, for M.O.
Cambridge	3	Cambridge	52 12	0 8E.	II	W,M.	a, d.	Curator, Botanic Gardens.
Camden Square								See London.
Cannington	8	Somerset	51 9	3 4W.	III C.W.	m.	—	The Principal, Cannington Court Farm Institute.
Canterbury	5	Kent	51 17	1 5E.	III	m.	—	A. Lander.
Cantref	8	Brecknock	51 50	3 27W.	III	m.	—	The Water Engineer, Cardiff.
Cardiff	8	Glamorgan	51 28	3 10W.	II	M,W ¹ .	a.	Medical Officer of Health.
Cardington	3	Bedford	52 07	0 25W.	II	M.	—	Meteorologist-in-Charge, for M.O.
Cardross	6	Dumbarton	55 58	4 38W.	III	m.	—	Claud A. Allan.
Cargen	6	Kirkcudbright	55 2	3 37W.	III	m.	a, c, d.	Col. R. F. Dudgeon, C.B., D.L.
Carnoustie	1	Angus (Forfar)	56 30	2 42W.	III	m.	—	Burgh Surveyor.
Castleton	2	Yorkshire (N.R.)	54 28	0 56W.	III	m.	—	Miss Muriel H. Punch.
Cattewater								See Plymouth.
Chelmsford	3	Essex	51 44	0 27E.	III	m.	—	} The Principal, East Anglian Institute of Agriculture.
„ (Good Easter)	3	Essex	51 47	0 22E.	II C.W.	m.	—	

Station.	Dist.	County.	Lat.	Long.	Classification.	Publication.	Normals.	Authority.
Cheltenham	4	Gloucester ..	51 54	2 3W.	II H.	d.M.	a, c.	Town Clerk.
Chopwellwood ..	2	Durham ..	54 55	1 47W.	III	m.	—	Office of Woods.
Clacton-on-Sea ..	3	Essex ..	51 47	1 9E.	T.	D,W,m.	a.	Urban District Council.
Cleethorpes	2	Lincolnshire ..	53 33	0 1W.	III H.	d,m.	—	The Engineer and Surveyor, U.D.C.
Cockle Park	2	Northumberland	55 13	1 41W.	II C.W.	W,M.	a.	Northumberland County Council.
Colmonell	6	Ayr ..	55 8	4 53W.	III	m.	a.	A. Ogg, for Capt. McConnell.
Colwyn Bay	7	Denbigh ..	53 16	3 44W.	III H.	d,m.	—	Borough Surveyor.
Copdock	3	Suffolk ..	52 2	1 5E.	III	m.	—	F. L. Bland.
Cork (Univ. Coll.)	10	Cork ..	51 54	8 29W.	III	m.	—	Prof. H. N. Walsh.
Coventry	4	Warwick ..	52 25	1 30W.	III	m.	a.	Medical Officer of Health.
Craibstone	1	Aberdeen ..	57 11	2 12W.	III C.W.	m.	—	Aberdeen and North of Scotland College of Agriculture.
Cranwell	2	Lincolnshire ..	53 2	0 31W.	I	D,W,M,μ.	—	Meteorologist-in-Charge, for M.O.
Crieff	1	Perth ..	56 22	3 50W.	II	M.	a.	George Reid, for Dr. Gordon Meikle.
Cromer	3	Norfolk ..	52 56	1 17E.	III H.	M.	a.	Clerk to the Urban District Council.
Croydon (Addington) ..								See Addington.
Croydon* (Aerodrome)	5	Surrey ..	51 21	0 7W.	I	D,M,μ.	—	Meteorologist-in-Charge, for M.O.
Cullompton	8	Devonshire ..	50 51	3 23W.	III	W,m.	a, c.	Murray T. Foster.
Cupar	1	Fife ..	56 19	3 1W.	III	m.	—	Medical Superintendent, The Asylum.
Darwen	7	Lancashire ..	53 41	2 28W.	II	m.	—	Medical Officer of Health.
Deal	5	Kent ..	51 13	1 24E.	III H.	d.	—	Town Clerk.
Dean Prior	8	Devonshire ..	50 27	3 47W.	II	m.	—	Rev. H. H. Breton, M.A.
Deerness	0	Orkney ..	58 56	2 45W.	II A.	W,M,μ.	a, b, c.	W. S. Moar, for M.O.
Donaghadee	9	Down ..	54 38	5 32W.	T.	D,M.	a, c, d.	Officer-in-Charge, Coastguard, for M.O.
Douglas	6	Isle of Man ..	54 10	4 28W.	III H.	d,M.	a, c, d.	Borough Surveyor.
Dover	5	Kent ..	51 7	1 19E.	III H.A.	d,m,μ.	—	Borough Engineer.
Dovercourt	3	Essex ..	51 57	1 16E.	III H.	d.	—	Borough Surveyor.
Dublin :—								
City	10	Dublin ..	53 20	6 15W.	II	W,m.	a, b, c, d.	Sir John W. Moore, M.D., D.Sc.
Glasnevin	10	Dublin ..	53 23	6 16W.	II	M.	a, c, d.	The Keeper, Botanic Gardens.
Phoenix Park	10	Dublin ..	53 22	6 21W.	II	w,m.	a, c.	Superintendent, Ordnance Survey Office.
Trin. Coll.	10	Dublin ..	53 21	6 16W.	II	m.	a.	R. W. Ditchburn.
Dumfries	6	Dumfries ..	55 4	3 36W.	II	W,m.	a.	C. C. Easterbrook, M.D., Crichton Royal Institution.
Dundee (E. Necropolis)	1	Angus (Forfar)	56 28	2 56W.	II	W ¹ ,m.	a, c, d.	Alex. Macrae, Curator of Parks.
„ (Mayfield) ..	1	Angus (Forfar)	56 28	2 56W.	III	W,m.	—	A. Davidson, for the Director of Studies.
Dunfanaghy	9	Donegal ..	55 11	7 58W.	A.	μ.	—	Londonderry and Lough Swilly and Letterkenny Railway.
Dungavel	6	Lanark ..	55 37	4 8W.	III	m.	—	A. K. Foulis, for the Duke of Hamilton and Brandon.
Dungeness	5	Kent ..	50 55	0 58E.	T.	D,M.	a, c.	Lightkeeper for M.O.
Durham	2	Durham ..	54 46	1 35W.	II	W,M.	a, b, c, d.	F. Sargent, University Observatory.
Earls Colne	3	Essex ..	51 55	0 42E.	III	m.	—	Head Master, Grammar School.
Eastbourne	5	Sussex ..	50 46	0 17E.	II H.	d,m.	a, d.	Medical Officer of Health.
East Ham								See London.
East Malling	5	Kent ..	51 17	0 24E.	III C.W.	m.	—	East Malling Research Station.
Edgbaston								See Birmingham.
Edinburgh :—								
Blackford Hill ..	1	Edinburgh ..	55 55	3 11W.	II A.	W ¹ ,W,M,μ.	a.	Astronomer Royal for Scotland.
Boghall	1	Edinburgh ..	55 52	3 12W.	III C.W.	m.	—	Edinburgh and East of Scotland College of Agriculture.
Liberton	1	Edinburgh ..	55 55	3 10W.	III	m.	—	Edinburgh and East of Scotland College of Agriculture.
The University ..	1	Edinburgh ..	55 57	3 11W.	III	m.	a.	Professor Sir T. Hudson Beare, F.R.S.E.
Enfield								See London.
Eskdalemuir	6	Dumfries ..	55 19	3 12W.	I	D,W,M,μ,O.	—	Superintendent of the Observatory, for M.O.
Falmouth (Observatory)	8	Cornwall ..	50 9	5 5W.	II	m,W.	a, c, d.	Royal Cornwall Polytechnic Society.
„ (Pendennis) ..	8	Cornwall ..	50 8	5 3W.	T.A.	D,M,μ.	—	Coastguard, for M.O.
Felixstowe (Aerodrome)	3	Suffolk ..	51 57	1 20E.	I A.	D,M,μ.	—	Meteorologist-in-Charge, for M.O.
Fleetwood	7	Lancashire ..	53 56	3 1W.	A.	μ.	—	Urban District Council, for M.O.
Folkestone	5	Kent ..	51 5	1 11E.	III H.	d,m.	—	Borough Engineer.
Ford	6	Argyll ..	56 13	5 28W.	III	W,m.	—	H. Cameron.
Fort Augustus ..	0	Inverness ..	57 8	4 40W.	III	W,m.	a, c.	The Procurator, the Abbey.
Fortrose	0	Ross and Cromarty	57 35	4 8W.	III	m.	—	Archd. Thom, M.A.
Fowey	8	Cornwall ..	50 21	4 38W.	III	m.	—	Town Clerk.
Foynes	10	Limerick ..	52 37	9 7W.	III	m.	a, c.	Lord Monteaale.
Gibraltar	—	—	36 6	5 21W.	II	M.	—	Chief Medical Officer.
Giggleswick	4	Yorkshire (W.R.)	54 4	2 17W.	III	m.	—	Head Master, Giggleswick School.
Glasgow University ..	6	Lanark ..	55 52	4 17W.	III	m.	a.	Prof. J. R. Currie, M.D., D.P.H.
Glasnevin								See Dublin.
Glenbranter	6	Argyll ..	56 8	5 3W.	III	m.	—	Forestry Commission (Scotland).
Good Easter	—	—	—	—	—	—	—	See Chelmsford.
Gordon Castle ..	1	Moray ..	57 37	3 5W.	II	m.	a, c, d.	C. Webster, for the Duke of Richmond and Gordon, K.G.
Gorleston	3	Norfolk ..	52 35	1 43E.	T.A.	D,M,W,μ.	a.	Coastguard, for M.O.
Grayshott	5	Hampshire ..	51 7	0 46W.	III	m.	a.	Mrs. Charlotte Lyndon.
Greenock	6	Renfrew ..	55 56	4 46W.	II	W ¹ ,m.	a, d.	J. MacAlister, M.Inst.C.E.
Greenwich								See London.

* The site of the anemometer was changed on May 1st, 1928 (see note at the end of the Preface).

Station.	Dist.	County.	Lat.	Long.	Classification.	Publication.	Normals.	Authority.
Guernsey (Fort George)	II	Channel Islands	49 27	2 32W.	T.	D.	—	Meteorologist-in-Charge for M.O.
Guernsey (St. Peter Port)	II	Channel Islands	49 26	2 30W.	II H.	M.W.	a.	States Meteorological Committee.
Gulval	8	Cornwall ..	50 8	5 32W.	III C.W.	m.	—	Cornwall County Council.
Halstead	3	Essex	51 57	0 38E.	III	m.	—	F. N. Adams.
Hampstead Res. ..	..	..	..	..	..	..	..	See London.
Harrogate	4	Yorkshire (W.R.)	54 0	1 36W.	T.	D,W,M.	a.	Borough Engineer.
Haverfordwest ..	8	Pembroke ..	51 48	4 58W.	III	m.	a, d.	J. W. Phillips.
Hawarden Bridge ..	7	Flint	53 12	3 1W.	III	m.	a.	John Summers and Sons, Ltd.
Hazelhatch	10	Dublin	53 19	6 28W.	III	m.	—	Dr. J. M. Murphy, Peamount Sanatorium.
Helensburgh	6	Dumbarton ..	56 0	4 45W.	III	m.	a, d.	Burgh Surveyor.
Hellingly	5	Sussex	50 55	0 14E.	II	m.	—	G. B. Hamlin.
Hereford (B'lm'ntAbb'y)	4	Hereford ..	52 5	2 45W.	III	m.	a.	The Prior, Belmont Abbey.
Hodsock .. ..	..	..	..	..	..	..	..	See Worktop.
Holton Heath	8	Dorset	50 43	2 5W.	II	M.	—	Superintendent, R.N. Cordite Factory.
Holyhead	7	Anglesey ..	53 18	4 39W.	I	D,W,M,μ.	a, c, d.	Meteorologist-in-Charge, for M.O.
Houghall	2	Durham	54 45	1 35W.	III C.W.	m.	—	County Education Committee.
Hoylake	7	Cheshire ..	53 23	3 12W.	III	m.	a.	Urban District Council.
Huddersfield	4	Yorkshire (W.R.)	53 38	1 45W.	II	m,W ¹ .	—	Dr. Woodhead, for the Corporation.
" (Oakes)	4	Yorkshire (W.R.)	53 39	1 50W.	III	m.	—	S. Morris Bower.
Hull	2	Yorkshire (E.R.)	53 45	0 16W.	II	m,W ¹ .	a, d.	The Superintendent, Pearson Park.
Hunstanton	3	Norfolk	52 57	0 29W.	III H.	m.	—	Hunstanton Advancement Association.
Hutton	7	Lancashire ..	53 44	2 40W.	III	M.	—	Director of Education, for the Lancashire County Council.
Ilfracombe	8	Devonshire ..	51 12	4 8W.	III H.	d,m.	a, d.	Urban District Council.
Ilkley	4	Yorkshire (W.R.)	53 55	1 50W.	III H.	d,m.	—	Urban District Council.
Inchkeith	1	Fife	56 2	3 8W.	T.	D.M.	—	Lightkeeper, for M.O.
Inverness	0	Inverness ..	57 26	4 13W.	II	W.M.	a.	A. Knowles, for the Town Council.
Jersey (St. Heliers) ..	II	Channel Islands	49 11	2 6W.	III H.	d,W,m.	a.	The Greffier.
Kensington .. ..	..	..	..	..	..	..	..	See London.
Kelso (Broomlands) ..	1	Roxburgh ..	55 36	2 25W.	III	m.	a.	J. C. Scott.
Keswick	7	Cumberland ..	54 36	3 9W.	III	m.	—	Urban District Council.
Kettins	1	Angus (Forfar)	56 33	3 15W.	III	m.	—	J. W. Sherrieff.
Kew Observatory .. ..	..	..	..	..	..	..	..	See London.
Kilkenny	10	Kilkenny ..	52 39	7 14W.	III	m.	a, c.	The Earl of Ossory.
Killarney	10	Kerry	52 4	9 30W.	III	m.	a, c.	E. W. Griffin, M.D.
Killerton	8	Devonshire ..	50 44	3 32W.	II	m.	—	Rt. Hon. Sir F. D. Acland, Bart., P.C.
Kilmarnock	6	Ayr	55 37	4 36W.	III	W,m.	a.	Prof. D. N. McArthur, D.Sc., Ph.D., F.I.C., for the Glasgow and West of Scotland College of Agriculture.
Kingstown Harbour ..	10	Dublin	53 17	6 8W.	A.	μ.	—	Captain A. F. Holmes, R.N., for the Office of Works.
Kingsway .. ..	..	..	..	..	..	..	..	See London.
Kirkcaldy	1	Fife	56 7	3 9W.	III	m.	—	F. Braid, for the Town Council.
Kirkwall	0	Orkney	58 59	2 57W.	III	m.	—	James Davidson.
Lancaster	7	Lancashire ..	54 3	2 47W.	III	m.	d.	Neville Holden, F.R.A.S., for the Storey [Institute.]
Larkhill	5	Wilts	51 11	1 48W.	II	M.	—	Meteorologist-in-Charge, for M.O.
Leafield	4	Oxford	51 50	1 33W.	T.	D,m.	—	Meteorologist-in-Charge, for M.O.
Leamington Spa	4	Warwick	52 18	1 30W.	III H.	d.	—	Medical Officer of Health.
Leuchars	1	Fife	56 23	2 53W.	I	D,M.	—	Meteorologist-in-Charge, for M.O.
Lerwick Observatory ..	0	Shetlands ..	60 8	1 11W.	I	μ,O.	—	Meteorologist-in-Charge, for M.O.
Lerwick (Fort Charlotte)	0	Shetlands ..	60 9	1 11W.	T.	D,W,M.	a, c.	Coastguard, for M.O.
Leyland	7	Lancashire ..	53 41	2 42W.	III	m.	—	H. Nowell flarington.
Liberton .. ..	..	..	..	..	..	..	..	See Edinburgh.
Lisburn	9	Antrim	54 31	6 3W.	III	m.	—	J. Woolman.
Littlehampton	5	Sussex	50 48	0 32W.	III H.	d.	d.	Town Clerk.
Liverpool (Bidston) ..	..	..	..	..	..	..	..	See Bidston Observatory.
Llandudno	7	Carnarvon ..	53 20	3 50W.	III H.	d,M.	a, b, c, d.	Urban District Council.
Logie Coldstone	1	Aberdeen ..	57 8	2 55W.	III	m.	a, d.	J. B. Anderson, M.A.
London :—	..	..	..	..	..	..	..	..
Bunhill Row	Lon.	London ..	51 31	0 5W.	(Sunshine only).	d,m,μ.	a.	T. De La Rue & Co., Ltd.
Camden Square	Lon.	London ..	51 33	0 8W.	III	d,m.	a, d.	Royal Meteorological Society.
East Ham	Lon.	Essex	51 32	0 4E.	III	m.	—	The Corporation.
Enfield	Lon.	Middlesex ..	51 40	0 10W.	III	m.	a, d.	Medical Officer of Health.
Greenwich Obser. ..	Lon.	London ..	51 28	0 0	I	d,M,W ¹ .	a, c, d.	Astronomer Royal.
Hampstead Reservoir ..	Lon.	London ..	51 34	0 11W.	III	d,m.	—	E. L. Hawke, M.A., for the Hampstead Scientific Society.
Kensington	Lon.	London ..	51 30	0 10W.	III	M,d.	—	H.M. Office of Works, for M.O.
Kew Observatory	Lon.	Surrey	51 28	0 19W.	I	D,W,M,O,μ.	a, c, d, e.	Superintendent of the Observatory, for M.O.
Kingsway	Lon.	London ..	51 30	0 7W.	(Sunshine only).	m,μ.	—	Air Ministry.
Regent's Park	Lon.	London ..	51 31	0 9W.	(Sunshine only).	d,m,μ.	—	Royal Botanic Society.
Stroud Green	Lon.	Middlesex ..	51 35	0 6W.	III	M.	—	L. R. Bennett.
Tottenham	Lon.	Middlesex ..	51 36	0 5W.	II	W,m.	a.	Medical Officer of Health.
Westminster :—	..	..	..	..	..	..	..	..
St. James's Park ..	Lon.	London ..	51 30	0 8W.	III	..	a.	H.M. Office of Works, for M.O.
Training College ..	Lon.	London ..	51 30	0 8W.	(Sunshine only).	d,m.	a.	The Principal, Westminster T.C.
Long Ashton	8	Somerset ..	51 26	2 40W.	III C.W.	m.	—	Agricultural and Horticultural Research Station.
Long Sutton	5	Hampshire ..	51 12	0 56W.	II C.W.	m.	—	The Lord Wandsworth Agricultural College.
Lowestoft	3	Suffolk	52 29	1 45E.	III H.	d,m.	a.	Town Clerk.
Luton	3	Bedford ..	51 54	0 25W.	III	m.	—	Borough Engineer.
Lympne	5	Kent	51 5	1 1E.	I	D,M,μ.	—	Meteorologist-in-Charge, for M.O.
Macclesfield	7	Cheshire ..	53 16	2 8W.	III	m.	a.	Borough and Waterworks Engineer.
Malin Head	9	Donegal ..	55 23	7 24W.	T.	D,W,M.	a, c.	Coastguard, for M.O.
Mallarany	9	Mayo	53 55	9 47W.	III	w,m.	—	Chief Engineer, Dublin.

Station.	Dist.	County.	Lat.	Long.	Classification.	Publication.	Normals.	Authority.
Malta	—	—	N. 35 53	14 30E.	I	M.	—	Superintendent, Meteorological Office.
Malvern	4	Worcester ..	52 8	2 18W.	III H.	m.	d.	Borough Surveyor.
Manchester (City) ..	7	Lancashire ..	53 29	2 13W.	II	m.	a.	Medical Officer of Health.
„ (Swinton) ..	7	Lancashire ..	53 30	2 20W.	III	m.	—	Medical Officer of Health.
„ (Whitworth Park)	7	Lancashire ..	53 28	2 14W.	II	M,W ¹ .	a.	University of Manchester.
Mansfield	4	Nottingham ..	53 9	1 11W.	III	m.	—	The Borough Surveyor.
Manston	5	Kent	51 21	1 22E.	I	D,M.	—	Meteorologist-in-Charge, for M.O.
Marchmont	1	Berwick	55 44	2 25W.	II	W,m.	a, c, d.	P. Ross.
Margate	5	Kent	51 24	1 24E.	III H.	d,W,m.	a, c, d.	Town Clerk.
Markree Castle	9	Sligo	54 11	8 27W.	II	W,M.	a, b, c.	Major Cooper.
Marlborough	5	Wilts	51 25	1 44W.	III	W,m.	a, c.	W. F. Harling.
Mayfield	4	Stafford	53 0	1 46W.	III	m.	—	G. C. Lawson.
Meltham	4	Yorkshire (W.R.)	53 36	1 50W.	III	m.	—	C. L. Brook.
Montrose	1	Angus (Forfar)	56 42	2 28W.	III	m.	d.	Burgh Surveyor.
Mountmellick	10	Leix (Queen's Co.)	53 7	7 20W.	III	m.	—	W. A. Robinson.
Mursley	4	Buckingham ..	51 59	0 49W.	II	m.	—	Lady Beecham.
Nairn	1	Nairn	57 36	3 52W.	T.	D,W,M.	a, c, d.	Miss Penny, for M.O.
Newcastle	10	Wicklow	53 5	6 6W.	II	m.	—	Medical Officer, National Hospital for Consumption.
Newport	5	Isle of Wight ..	50 42	1 18W.	III	m.	—	Miss Morey.
Newport (Hospital) ..	8	Monmouth	51 35	3 0W.	III	m.	—	Medical Officer of Health.
Newport	4	Shropshire	52 47	2 36W.	III C.W.	m.	—	Harper Adams Agricultural College.
Newquay	8	Cornwall	50 25	5 4W.	III H.	M.	a, d.	C. C. Vigurs, B.A., M.D., for Urban District Council.
Newton Abbot	8	Devonshire	50 33	3 38W.	III C.W.	m.	—	Seale Hayne Agricultural College.
Newton Rigg	7	Cumberland	54 40	2 49W.	II C.W.	m.	a.	The Cumberland County Council.
Newtownbarry	10	Wexford	52 39	6 39W.	III	m.	—	G. T. Lewis.
Newtownforbes	9	Longford	53 46	7 51W.	II	m.	—	James Boyle, for the Earl of Granard.
North Berwick	1	Haddington	56 3	2 43W.	II H.	m.	—	Burgh Surveyor.
Norwich (Eaton)	3	Norfolk	52 37	1 16E.	III	m,W ¹ .	a, d.	A. W. Preston.
„ (Ipswich Rd.) ..	3	Norfolk	52 37	1 17E.	III	m.	—	J. H. Willis.
Nottingham	4	Nottingham	52 56	1 9W.	III	W,M,W ¹ .	a, d.	City Engineer.
Oban	6	Argyll	56 25	5 30W.	II H.	m.	—	Burgh Surveyor.
Onich	0	Inverness	56 43	5 13W.	III	m.	—	Forestry Commission (Scotland).
Oundle	4	Northampton ..	52 29	0 28W.	III	m.	—	Oundle School.
Osgodby	2	Yorkshire (E.R.)	53 47	1 2W.	III C.W.	m.	—	The Professor of Agriculture, University of Leeds.
Oxford	4	Oxford	51 46	1 16W.	III	W,M.	a, c, d.	Radcliffe Observer.
„ (Sandford) ..	4	Oxford	51 43	1 14W.	III C.W.	m.	—	Prof. Watson.
Paignton	8	Devonshire	50 26	3 34W.	III H.	d.	—	C. Bellinger, for Town Council.
Paisley	6	Renfrew	55 51	4 26W.	II A.	W ¹ ,m,μ.	a.	D. Maclean, F.R.A.S., for Coats Observatory Committee.
Pendennis Castle	—	—	—	—	—	—	—	See Falmouth.
Penzance	8	Cornwall	50 7	5 32W.	III H.	d.	d.	Borough Council.
Perth	1	Perth	56 24	3 27W.	III	W ¹ ,m.	a.	J. Ritchie, for Town Council.
Phoenix Park	—	—	—	—	—	—	—	See Dublin.
Plymouth (The Hoe) ..	8	Devonshire	50 22	4 8W.	IIA.	m,W ¹ ,μ.	a, c, d.	H. Victor Prigg, A.M.I.C.E., for the Corporation.
„ (Mount Batten)*	8	Devonshire	50 22	4 8W.	I	D.M.	—	Meteorologist-in-Charge, for M.O.
Pontefract	4	Yorkshire (W.R.)	53 42	1 19W.	III	m.	—	Headmaster, The King's School.
Portland Bill	8	Dorset	50 32	2 27W.	T.	D,M.	a.	Lightkeeper, for M.O.
Porton	5	Wilts	51 7	1 42W.	II	m.	—	Meteorological Officer, Experimental Station.
Portsmouth	5	Hampshire	50 48	1 6W.	III H.	d,W ¹ .	a.	Medical Officer of Health.
Princetown	8	Devonshire	50 33	3 59W.	III	m.	a.	The Governor, H.M. Prison.
Quilty	10	Clare	52 50	9 28W.	A.	μ.	—	West and South Clare Railway Co.
Ramsgate	5	Kent	51 20	1 25E.	III H.	d.	a.	Borough Engineer.
Raunds	4	Northampton ..	52 20	0 31W.	III	m.	a.	The Headmaster.
Reading :—	—	—	—	—	—	—	—	—
Shinfield	5	Berkshire	51 25	0 57W.	III	m.	—	Professor J. A. Crowther.
University	5	Berkshire	51 27	0 58W.	III	m.	—	Professor J. A. Crowther.
Redruth	8	Cornwall	50 14	5 14W.	III	m.	—	A. P. Jenkin, J.P.
Regent's Park	—	—	—	—	—	—	—	See London.
Renfrew	6	Renfrew	55 52	4 24W.	I	D,M.	—	Meteorologist-in-Charge, for M.O.
Rhayader	8	Radnor	52 1	3 31W.	III	W,M.	—	E. D. Prothero, for M.O.
Rhyl	7	Flint	53 19	3 29W.	III H.	d,m.	a, d.	Medical Officer of Health.
Richmond (Kew Obs.)	—	—	—	—	—	—	—	See London.
Roads	4	Northampton ..	52 9	0 53W.	III	m.	—	R. W. Jones.
Roche's Point	10	Cork	51 47	8 15W.	T.	D,W,M.	a, c, d.	M. Fitz Mahoney, Post Office, for M.O.
Roden (Wellington) ..	4	Shropshire	52 45	2 38W.	II	m.	—	J. W. Nowell.
Ross-on-Wye	4	Hereford	51 54	2 35W.	T.	D,W,M.	a, d.	F. J. Parsons, Mus.Bac.
Rothamsted	3	Hertford	51 48	0 22W.	II C.W.	W,M.	a, c, d.	Lawes Agricultural Trust.
Rothsay	6	Bute	55 50	5 4W.	II	W,M.	a, c, d.	J. Davidson and the Town Clerk.
Rounton	2	Yorkshire (N.R.)	54 24	1 18W.	II	m.	a, c.	Sir Hugh Bell, Bart.
Rugby	4	Warwick	52 22	1 15W.	III	m.	c, d.	Rugby School.
Ruthwell	6	Dumfries	55 0	3 26W.	III	m.	—	William Brown, for the Earl of Mansfield.
Ryde	5	Isle of Wight ..	50 44	1 10W.	III	m.	—	Borough Engineer.
St. Albans	3	Hertford	51 46	0 18W.	III	m.	—	The Principal, Oaklands Institute.
St. Andrews	1	Fife	56 20	2 47W.	III H.	m.	d.	Burgh Surveyor.
St. Ann's Head	8	Pembroke	51 41	5 11W.	T.	D,W,M.	a, c, d.	Lightkeeper, for M.O.
St. Heliers	—	—	—	—	—	—	—	See Jersey.
St. Ives	8	Cornwall	50 14	5 51W.	III	d.	—	The Borough Surveyor.
St. James's Park	—	—	—	—	—	—	—	See London.
St. Leonards	5	Sussex	50 51	0 33E.	II H.	d,W,M.	a, c, d.	W. R. Butterfield, for the Corporation.

* Known as Cattewater till end of September.

Station.	Dist.	County.	Lat.	Long.	Classification.	Publication.	Normals.	Authority.
Salcombe	8	Devonshire ..	50 14	3 46W.	III	m.	a.	The Town Association.
Sandown	5	Isle of Wight ..	50 39	1 9W.	III	m.	—	Town Clerk.
Scarborough	2	Yorkshire(N.R.)	54 17	0 24W.	III H.	W.M.	a, c, d.	Medical Officer of Health.
Scilly	11	Cornwall	49 56	6 18W.	T.A.	D,W,M,μ.	a, c, d.	Coastguard for M.O.
Sealand*	7	Flint	53 13	3 0W.	I	D,W,M,μ.	—	Meteorologist-in-Charge, for M.O.
Selsey Bill	5	Sussex	50 43	0 47W.	III	m.	—	E. Heron Allen, F.R.S.
Seskin (Carrick-on-Suir)	10	Waterford ..	52 21	7 24W.	II	M.	—	L. Grubb.
Shaftesbury	8	Dorset	51 1	2 12W.	III	m.	a, d.	G. P. Barter, for M.O.
Sheffield	4	Yorkshire (W.R.)	53 23	1 29W.	III	W ¹ m.	a, c, d.	E. Howarth, F.R.A.S., for the Corporation.
Shinfield	—	—	—	—	—	—	—	See Reading.
Shoeburyness	3	Essex	51 32	0 47E.	T.A.	D,M,μ.	a, d.	Officer-in-Charge, for M.O.
Shrewsbury	4	Shropshire ..	52 43	2 43W.	III	m.	—	Medical Officer of Health.
Sidmouth (Sidmount) ..	8	Devonshire ..	50 41	3 15W.	III	m.	a.	Miss C. M. Radford.
Sidmouth	8	Devonshire ..	50 41	3 14W.	III	m.	—	The Borough Surveyor.
Skallary	0	Hebrides ..	56 57	7 28W.	III	m.	—	James Smith.
Skegness	2	Lincolnshire ..	53 9	0 21E.	III H.	d,m.	a.	Urban District Council.
Smeaton	1	Haddington ..	56 0	2 39W.	III	m.	a.	Sir John Buchan-Hepburn, Bart.
Southampton	5	Hampshire ..	50 55	1 24W.	II	W.M.	a, c, d.	Director General of Ordnance Survey.
South Farnborough ..	5	Hampshire ..	51 15	0 45W.	I	D,M,μ.	—	Meteorologist-in-Charge, for M.O.
South Kensington ..	—	—	—	—	—	—	—	See London.
Southport	7	Lancashire ..	53 39	2 59W.	II H.A.	d,W,M,μ.	a.	J. Baxendell, for the Corporation.
South Shields	2	Durham	55 0	1 26W.	A.	μ.	—	Tyne Improvement Commission.
Sparkhill	—	—	—	—	—	—	—	See Birmingham.
Sprowston	3	Norfolk	52 40	1 20E.	III C.W.	m.	—	The Director, Norfolk Agricultural Station.
Spurn Head	2	Yorkshire(E.R.)	53 34	0 7E.	T.A.	D,M,μ.	a, c, d.	Lightkeeper, for M.O.
Stirling	6	Stirling	56 7	3 56W.	III	m.	—	J. Fyfe, C.S.I., for Town Council.
Stonyhurst	7	Lancashire ..	53 51	2 28W.	II	W.M.	a, c, d.	The Director of the Observatory.
Stornoway	0	Hebrides ..	58 11	6 22W.	T.	D,W,M.	a, c, d.	W. Grant, for M.O.
Strathpeffer Spa ..	0	Ross and Cromarty	57 37	4 28W.	III	m.	a.	W. P. Hutton.
Strelley	4	Nottingham ..	52 58	1 15W.	III	m.	a.	T. L. K. Edge, M.A.
Stroud Green	—	—	—	—	—	—	—	See London.
Sutton Bonington ..	4	Nottingham ..	52 50	1 15W.	III C.W.	m.	—	The Midland Agricultural and Dairy College.
Swansea	8	Glamorgan ..	51 37	3 55W.	III H.	m.	d.	The Corporation.
Swinton	—	—	—	—	—	—	—	See Manchester.
Tavistock	8	Devonshire ..	50 33	4 10W.	III	m.	—	W. J. Monk.
Teignmouth	8	Devonshire ..	50 33	3 29W.	III H.	m.	a.	Medical Officer of Health.
Thorntonhall	6	Lanark	55 46	4 15W.	III	μ.	—	A. Henderson Bishop.
Tiree	6	Argyll	56 32	6 55W.	T.A.	D,M,μ.	—	J. R. Morrison, M.A., B.Sc., for M.O.
Torquay	8	Devonshire ..	50 28	3 31W.	III H.	d,m.	a, d.	The Corporation.
Totland Bay	5	Isle of Wight ..	50 41	1 33W.	III	m.	a.	J. Dover, M.A.
Tottenham	—	—	—	—	—	—	—	See London.
Tunbridge Wells ..	5	Kent	51 8	0 16E.	III H.	d,M.	a.	Medical Officer of Health.
Turnberry	6	Ayr	55 19	4 50W.	III	m.	—	Assist. Resident Manager, Turnberry Hotel.
Tynemouth	2	Northumberland	55 1	1 25W.	T.	D,M,W ¹ .	a, c, d.	Coastguard, for M.O.
Ushaw	2	Durham	54 47	1 39W.	III	m.	a, d.	Ushaw College.
Usk	8	Monmouth ..	51 42	2 55W.	III	m.	—	Monmouthshire Agricultural Institution.
Valentia Observatory ..	—	—	—	—	—	—	—	See Cahirciveen.
Ventnor (Hospital) ..	5	Isle of Wight ..	50 36	1 13W.	II	M.	a, c, d.	Royal National Hospital for Consumption.
Ventnor (Public Park)	5	Isle of Wight ..	50 36	1 13W.	III H.	d.	—	Urban District Council.
Wakefield	4	Yorkshire(W.R.)	53 40	1 30W.	III	m.	a.	Waterworks Engineer.
Wallasey	7	Cheshire	53 26	3 3W.	III H.	d.	—	Medical Officer of Health.
Walton-on-Naze	3	Essex	51 51	1 16E.	III H.	m.	—	Urban District Council.
Warfield	5	Berkshire ..	51 27	0 44W.	III	m.	—	Imperial Chemical Industries, Ltd.
Waterford (Gortmore) ..	10	Waterford ..	52 16	7 7W.	III	W,m.	a.	Mrs. N. H. White.
Weaver Point	10	Cork	51 48	8 17W.	A.	μ.	—	Cork Harbour Commissioners.
Wellington (Roden) ..	—	—	—	—	—	—	—	See Roden.
Welshpool	7	Montgomery ..	52 39	3 8W.	III	m.	—	County School.
West Kirby	7	Cheshire	53 23	3 11W.	III	m.	—	Rev. Eric. F. Robson.
West Linton	1	Peebles	55 45	3 21W.	III	m.	a.	W. Mackie.
Westminster:—	—	—	—	—	—	—	—	—
St. James's Park ..	—	—	—	—	—	—	—	See London.
Training College ..	—	—	—	—	—	—	—	—
West Witton	2	Yorkshire(N.R.)	54 17	1 54W.	III	m.	—	J. B. Espiner.
Weymouth	8	Dorset	50 36	2 27W.	III H.	d.	—	Borough Electrical Engineer.
Whitworth Park ..	—	—	—	—	—	—	—	See Manchester.
Wick	0	Caithness ..	58 27	3 6W.	T.	D,M.	a, c, d.	Coastguard, for M.O.
Winchester	5	Hampshire ..	51 7	1 19W.	I	D,M,μ.	—	Meteorologist-in-Charge, for M.O.
(Worthy Down)	—	—	—	—	—	—	—	—
Wisbech	3	Cambridge ..	52 39	0 8E.	III C.W.	m.	—	Director of Education.
Wisley	5	Surrey	51 17	0 26W.	III C.W.	M.	a.	Royal Horticultural Society.
Wistanstow	4	Shropshire ..	52 28	2 50W.	II	m.	a.	J. W. Clarke.
Woburn	3	Bedford	52 1	0 35W.	III C.W.	m.	a.	Lawes Agricultural Trust.
Wolfelee	1	Roxburgh ..	55 23	2 39W.	III	m.	a, c, d.	T. Lockie for Mrs. Browne.
Worcester (Perdiswell)	4	Worcester ..	52 13	2 13W.	III C.W.	m.	—	The Agricultural Organizer.
Worksop	4	Nottingham ..	53 22	1 5W.	II	m.	a, d.	Miss E. F. Mellish.
Worthing	5	Sussex	50 49	0 22W.	III H.	d.	a, c.	Medical Officer of Health.
Woolacombe	8	Devonshire ..	51 10	4 12W.	II	m.	a.	Miss Chichester.
Wye	5	Kent	51 11	0 57E.	III C.W.	m.	—	South Eastern Agricultural College.
Yarmouth	3	Norfolk	52 37	1 43E.	T.	†	a, c, d.	Medical Officer of Health.
York (Bootham) ..	2	Yorkshire (N.R.)	53 57	1 5W.	†	W,M,W ¹ .	a, c, d.	Meteorological Curator, Bootham School.
„ (Museum) ..	2	Yorkshire (N.R.)	53 57	1 5W.	II	—	—	Dr. W. E. Collinge, F.L.S., for the Yorkshire Philosophical Society.

* Formerly known as Shotwick. † With the exception of sunshine values the data published for Yarmouth in the Daily Weather Report and in the climatological summaries now refer to Gorleston. ‡ Sunshine only.

MONTH	PAGE	STATION.	Terminal Hours	Height	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature		RAINFALL.				WEATHER. Number of Days.								BRIGHT SUNSHINE.					
					Means of		Deviation from Normal.	Absolute Maximum and Minimum.				1 ft. 4 ft.		Total Fall.	Deviation from Normal.	Most in a day		Precipitation 0.2 mm. or more	Precipitation 1 mm. or more	Snow	Snow lying (morning obs.)	Hail	Thunderstorm	Fog (morning obs.)	Ground Frost	Gale (Force 8 or more)	Hours per day					
					A	B		Maximum	Date.	Minimum	Date.	mean	mean			Amount	Date										Daily Mean	Deviation from Normal	Percentage of Possible Duration			
					Max.	Min.																								Mean of A and B		
January	5	Oban	Ft.	°F.	°F.	°F.	°F.	°F.	..	°F.	°F.	°F.	°F.	in.	mm.	mm.	mm.	hr.	hr.	%
"	6	Cranwell ..	..	..	..	..	..	..	..	..	..	..	..	..	2.66	68	..	..	..	..	..	..	..	..	..	..	..	..	..	..	15
"	6	Cleethorpes ..	21	21	9	..	32.1	35.6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	6	Wisbeck ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6
"	7	Kensington ..	..	..	..	38.2	..	35.7	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	8	Bolton ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	8	Southport ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	9	Markree Castle ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	9	Birr Castle	2.69	68	..	10	29th	14	9	0	0	0	0	0	0	0	0	1.16	-0.45	14
"	9	Seskin ..	..	..	..	..	..	..	..	..	..	..	..	..	1.38	35	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
February	20	Chopwellwood ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	20	Norwich ..	..	..	..	..	..	..	..	..	13	15th	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	22	Ryde ..	..	..	..	..	..	..	..	..	12	14, 15	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	22	Southport ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	23	Blacksod Pt. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
March	33	Lerwick ..	..	..	..	47.7	..	44.7	+6.0	55	14th	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	33	Aberdeen ..	..	..	..	..	..	..	+2.8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	33	Montrose	0.05	1	..	0.4	20th	4	0	5.47	+0.26	30
"	34	Sheffield ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	35	Oxford (Sandford) ..	..	..	..	55.1	..	..	..	..	..	..	..	..	0.09	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	37	Donaghadee ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	37	Birr Castle ..	..	..	..	56.2	..	45.7	+3.8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
April	48	Yarmouth ..	..	..	..	..	37.5	42.9	-2.0	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	48	Raundo ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	50	Cantref ..	..	..	..	..	..	..	..	..	..	..	..	..	1.01	26	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
May	61	Deerness ..	..	..	..	..	..	..	..	..	..	..	..	..	1.73	44	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	62	Sheffield	60.6	44.1	52.3	+1.3	75	23rd	36	3rd	49.1	45.6	2.05	52	..	13	5th	14	11	0	0	0	2	..	1	0	6.07	+0.59	38
"	64	Ryde ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	64	Marlborough ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	64	Keswick ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	64	Cantref ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
June	75	Wick ..	..	..	..	..	..	..	..	..	..	..	..	..	6.20	157	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	75	Kelso ..	..	..	..	..	..	..	..	..	..	..	..	..	3.81	97	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"		(Broomlands)	..	..	..	..	..	..	..	..	..	..	..	..	2.10	53	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	77	Mursley ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
"	78	Keswick ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

* Pages 10 and 38. Braemar—delete cloud amount.

MONTHLY WEATHER REPORT, 1929.—TABLE IV (continued).—CORRECTIONS AND ADDITIONS.

MONTH	PAGE	STATION	Hour of Observation	Height of Barometer above Mean Sea Level	AIR PRESSURE		TEMPERATURE and HUMIDITY				CLOUD AMOUNT					VISIBILITY									WIND																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
					Mean Sea Level	Devn. from Normal	Dry Bulb	Depn. of Wet Bulb	Vapour Pressure	Rel. Humidity	Mean Amount	No. of OBSERVATIONS					NUMBER OF OBSERVATIONS									NUMBER OF OBSERVATIONS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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																	Fog			Mist or Haze			Good Vis.			8 or more	4 to 7	1 to 3	Calm	N	NE	E	SE	S	SW	W	NW																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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October	136	Wick ..	1	ft.	mb.	mb.	°F.	°F.	mb.	%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															

CORRECTIONS AND ADDITIONS, 1929.

District and Station.								Distribution of Wind.††						Extreme Velocities.												
								More than 38 m.p.h.		25 to 38 m.p.h.		13 to 24 m.p.h.	4 to 12 m.p.h.	Less than 4 m.p.h.	No record.	Highest Hourly Wind.				Highest Gust.						
								Dates of occurrence.	Duration.	No. of Days.	Duration.	Duration.	Duration.	Duration.	Duration.	Veer from N.	Speed.	Mid Time.	Speed.	Time.						
									hr.		hr.	hr.	hr.	hr.	hr.	°	m.p.h.	m/s.	day	hr.	m.p.h.	m/s.	d.	h.	m.	
1. Scotland E.																										
Aberdeen																										
Balmakewan																										
April ..																										
6a. Scotland W.																										
Eskdalemuir																										
July ..																										
August ..																										
2. England N.E.																										
Spurn Head																										
November ..																										
5. England S.E.																										
Richmond																										
March ..																										
(Kew Obs.)																										
April ..																										
May ..																										

†† Brackets () indicate that the distribution as between winds above and below 4 m.p.h. is doubtful, but the total number of hours with winds below 12 m.p.h. is reliable.
 ‡ Standard mounting.

ROYAL OBSERVATORY, GREENWICH.

The normals for Temperature, Rainfall and Sunshine are for the 35 years 1881–1915. Averages for much longer periods are available.

The summary of wind direction is based upon continuous records and the numbers given are proportional to the actual recorded duration for the whole month of wind from the different directions.

The summary of wind force is obtained from the records of a cup anemograph having 5 in. cups and 15 in. arms. The factor used is 3. Winds above 43 miles per hour are reckoned as force 8 or more and winds between 21 and 43 miles per hour are classed as "force 4–7."

Observations of duration of starlight, and of cloud and fog by day are printed in Table III (b).

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE. 29/0222.

SUMMARY OF OBSERVATIONS COMPILED FROM RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS.

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VOL. 46. No. 1.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE.

JANUARY, 1929: Very cold with a decided deficiency of precipitation. Dull in central and eastern districts of Great Britain.

The weather during the month was, on the whole, quiet, very cold and mainly dry with a conspicuous paucity of westerly and south-westerly winds. Apart from a few days of moderate temperature about the 10th in western districts and in all districts on the 19th and 20th and mild conditions during the last few days, temperature in most districts remained below 40° F. by day and by night frequently fell well below freezing point. Precipitation, often in the form of sleet or snow, occurred frequently, but apart from much rain on the 9th and in the south-west on the 22nd and during the last four days of the month, amounts were generally slight and except in the north-east and east of England totals for the month were below the normal. Sunshine aggregates were about or above the normal in western districts but in the central and eastern districts of Great Britain were markedly below the normal.

During the first five days of January, the weather was quiet and cold with little precipitation and varying amounts of cloud. Good sunshine records were obtained during the first three days. At Renfrew the temperature remained below freezing point and fog persisted continuously during the first four days. Snow and sleet occurred locally during the period 3rd to 7th, but the amounts measured were small. From the 5th to the 9th, temperature was very low in the more southerly districts of England, day temperatures not exceeding 32° F. for several days at some stations and remaining at or below freezing point at Leafeld for as many as five consecutive days. Widespread fog occurred from the 8th to the 10th. There were light falls of snow locally, but on the 9th, associated with a depression to the west of the British Isles, precipitation became general over the whole country, being mostly in the form of snow or sleet in the north and east. There was a temporary rise in temperature, moderate in the south and west and in Scotland and very slight in eastern England. On the 11th an anticyclone to the north of Scotland maintained cloudy to fair weather with wintry showers on the 11th and 12th. Meanwhile the anticyclone moved to the west of the British Isles as secondaries to a deep depression over Finland moved southwards over the North Sea and in consequence northerly winds with rain or sleet and snow prevailed widely from the 15th to 17th. Snow lying to a depth of 3 or 4 inches was reported from Marchmont on the 15th and 16th and from Durham on the 16th and in parts of the north-east of Scotland the depth of snow ranged from eight to twelve inches.

During this time conditions were much milder in the west, where the temperature rose above 50° F. On the 18th these milder conditions spread over the rest of the country and the 19th and 20th were mild, sunny days, with over 7 hours bright sunshine at many places and over 8 hours in the Channel Islands. On the 21st there was a return to cold conditions in eastern and central districts but in the south-west the weather continued mild with much rain on the 22nd. Meanwhile, from an anticyclone to the north of the British Isles a ridge of high pressure began to extend southwards and with northerly winds the fall in temperature had spread to almost all districts by the 23rd. Some wintry precipitation occurred in most districts but good sunshine records were obtained from the 24th to 27th. Fog was again widespread from the 20th to 23rd. A deep depression on the Atlantic brought warm southerly winds and a marked rise in temperature on the 29th and during the remainder of the month the weather was dull and mild with frequent rain.

Pressure and Winds.—An abnormal feature of the pressure distribution was the pronounced excess of pressure in the north of Scotland. Conditions were mainly anticyclonic from the 1st to the 29th and in all districts the mean pressure for the month was markedly above the normal; in the extreme north of Scotland the excess exceeded 16 millibars and in the extreme south of the British Isles amounted to 7 or 8 millibars. There was a conspicuous paucity of westerly and south-westerly winds. Northerly and easterly winds occurred with considerable frequency. Wind force was mostly light to moderate and there was an almost complete absence of gales. At Southport the month was the calmest and least westerly January in 58 years.

Temperature.—January, 1929 was remarkable for its persistent and pronounced coldness; in all districts the mean temperature was below the normal, notably in the north and west of Scotland and in southern England. The month was the first January since 1922 in which the mean temperature was below the normal in any district and the first really cold January since 1917.

The month was the coldest January at Richmond (Surrey) since 1895. At Eastbourne the mean maximum temperature was the lowest since 1917 and the mean minimum temperature the lowest since 1895. At Halstead (Essex) the mean minimum temperature was the lowest, with one exception, since observations commenced there in 1893. At Copdock the month was the coldest January for 27 years.

Mild conditions prevailed temporarily about the 10th in western districts and generally on the 19th and 20th and from the 28th to the

31st, the highest temperature occurring in some places on the 19th, but in most places during the last few days of the month. Apart from these brief intervals of mild weather, temperature remained at a low level and in several districts in central and eastern England failed to rise above the freezing point on the 5th, 6th, 7th and 16th. At Leafeld the temperature remained at or below 32° F. from the 5th to the 9th inclusive. Frost occurred frequently during the month, some unusually low readings in the grass being recorded on several nights. The following were amongst the lowest temperatures recorded on the morning of the given date:—7° F. in the screen on the 1st and 9° F. in the screen on the 2nd and 4th at Markree, 21° F. in the screen and 8° F. on the grass at Birr on the 1st, 17° F. in the screen and 14° F. on the grass at Renfrew on the 2nd, 23° F. in the screen and 11° F. on the grass at Birr on the 7th, 19° F. in the screen and 13° F. on the grass at South Farnborough on the 13th, 25° F. in the screen and 15° F. on the grass at Richmond (Surrey) on the 17th, 17° F. in the screen and 9° F. on the grass at Aberdeen on the 18th, 15° F. in the screen and 5° F. on the grass at Eskdalemuir on the 28th.

The extreme temperatures for the month were:—England and Wales, 63° F. at Aber (Bangor) on the 30th and 12° F. at Castleton, Yorks, on the 27th Scotland, 55° F. at Fort Augustus and Inverness on the 30th and at Achnashellach and Gordon Castle on the 31st and 3° F. at Braemar on the 4th. Ireland, 62° F. at Glasnevin (Dublin) on the 30th, and 7° F. at Markree Castle on the 1st.

Precipitation.—The general precipitation over the British Isles, expressed as a percentage of the normal for the period 1881—1915, was 63; the values for the constituent countries were:—England and Wales 71, Scotland 49, Ireland 57. Thus in contrast to January, 1928, when the general precipitation over the British Isles just exceeded twice the normal, January, 1929, was relatively dry. A smaller fall than that of 1929 has occurred only in the Januaries of 1880, 1881, 1896, 1907, and 1911 when the general falls were 37, 44, 53, 60 and 60 per cent. respectively. The outstanding feature of the distribution of the rainfall of January, 1929, as a percentage of the normal, was the gradient from east to west, associated with an unusual frequency of northerly and less frequent westerly winds. There was rather more than the normal rainfall along the east coast of England and less than 50 per cent. over most of the western half of Great Britain and of Ireland, with only about 25 per cent. in the western Highlands of Scotland and in the north-west of Ireland. The rainfall was most remarkable in Scotland where the month was the driest January since that of 1881. At Ardross Castle, in eastern Ross-shire, January, 1929, with 25 mm. was the driest January since before 1870. Elsewhere, over the British Isles, the Januaries of 1880 and 1881 were most often the driest on record.

Apart from widespread precipitation on the 9th, mostly in the form of snow or sleet in the north and east, and some heavy rain in the south-west on the 22nd, precipitation was unimportant up to the 27th after which rain fell daily, heavy falls occurring locally. Amongst the daily largest measurements were 38 mm. at Ardtornish and 37 mm. at Glenbranter on the 9th and 48 mm. at Princetown and 41 mm. at Dean Prior on the 31st.

Precipitation occurred frequently in the form of snow, particularly during the period 5th to 9th and about the 16th and 27th. Up to 6 inches of snow fell in parts of Scotland on the 9th. Further snow, with strong northerly winds and some drifting, occurred in the north-east counties of Scotland from the 15th to 17th, amounts ranging up to twelve inches. Owing to the melting of snow on high ground, flooding occurred in East Lothian and parts of southern Scotland on the 29th.

Sunshine.—Sunshine aggregates were in general above the normal in the north and west of Scotland and in the western districts of England and Wales and Ireland, and below the normal elsewhere. Representative totals for Districts, expressed as a percentage of the normal for the period 1881 to 1915, ranged from 140 in Scotland N. to 64 in the Midland Counties. The sunniest periods occurred during the first three days of the month, on the 12th, 13th, 16th, 19th, 20th and from the 24th to 27th. There were many days on which no sunshine was recorded even in those districts where the aggregates for the month exceeded the normal; Stornoway with a total of 20 hours above the normal had 14 sunless days. There were 22 sunless days at Croydon 20 at Renfrew, 19 at Gorleston, 17 at Liverpool and 15 at Birr. No sunshine was recorded on twelve consecutive days at Renfrew (1st to 12th) and at Croydon (4th to 15th).

Fog.—Much fog occurred during the month, particularly in and around most large cities and manufacturing centres. Fog was in general most widespread during the periods 8th to 10th, 20th to 23rd and 28th to 31st.

Miscellaneous Phenomena.—Aurora was observed at Baltasound on the 4th and 5th, at Gordon Castle on the 2nd, 3rd and 5th and at Fort Augustus and Stornoway on the 5th. There was an auroral glow at Eskdalemuir on the 30th.

TABLE I.—DISTRICT VALUES—JANUARY, 1929.

[1908, revised 1928.]

DISTRICTS.	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High-est.	Low-est.	Daily Mean. Deviation from Normal.	At 1 ft. Deviation from Normal.	At 4 ft. Deviation from Normal.	Per-centage of Normal.	No. of Days. Deviation from Normal.	Per-centage of Normal.	Per-centage of Possible Duration.
o. SCOTLAND, N.	°F. 55	°F. 12	°F. -2.8	°F. —	°F. —	% 35	—6	% 140	% 18
Eastern.									
1. SCOTLAND, E.	55	3	-2.6	—	—	60	-5	78	16
2. ENGLAND, N.E.	56	12	-2.5	-1.7	-0.9	99	+3	72	14
3. ENGLAND, E...	51	14	-3.3	-2.1	-1.1	82	-1	74	16
4. MIDLAND COUNTIES	58	16	-3.0	-2.5	-1.8	64	-3	64	13
5. ENGLAND, S.E.	55	18	-3.8	-3.1	-1.6	54	-2	82	16

DISTRICTS.	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High-est.	Low-est.	Daily Mean. Deviation from Normal.	At 1 ft. Deviation from Normal.	At 4 ft. Deviation from Normal.	Per-centage of Normal.	No. of Days. Deviation from Normal.	Per-centage of Normal.	Per-centage of Possible Duration.
Western.	°F.	°F.	°F.	°F.	°F.	%		%	%
6. SCOTLAND, W. (& I. of Man)	54	11	-3.5	—	-1.1	50	-9	134	18
7. ENGLAND, N.W. (& N. Wales)	63	18	-2.6	-3.2	-1.7	57	-5	106	18
8. ENGLAND, S.W. (& S. Wales)	57	16	-3.7	-3.5	-1.4	59	-5	104	20
9. IRELAND, N...	57	7	-1.8	-2.2	-1.5	50	-7	103	17
10. IRELAND, S...	62	20	-1.8	-1.5	-1.1	65	-6	71	15
11. CHANNEL I. (& Scilly)	56	27	-3.3	-4.2	-1.4	81	-7	94	22
Mean: DISTRICTS 1-10	63	3	-2.9	-2.5	-1.4	64	-4	89	16

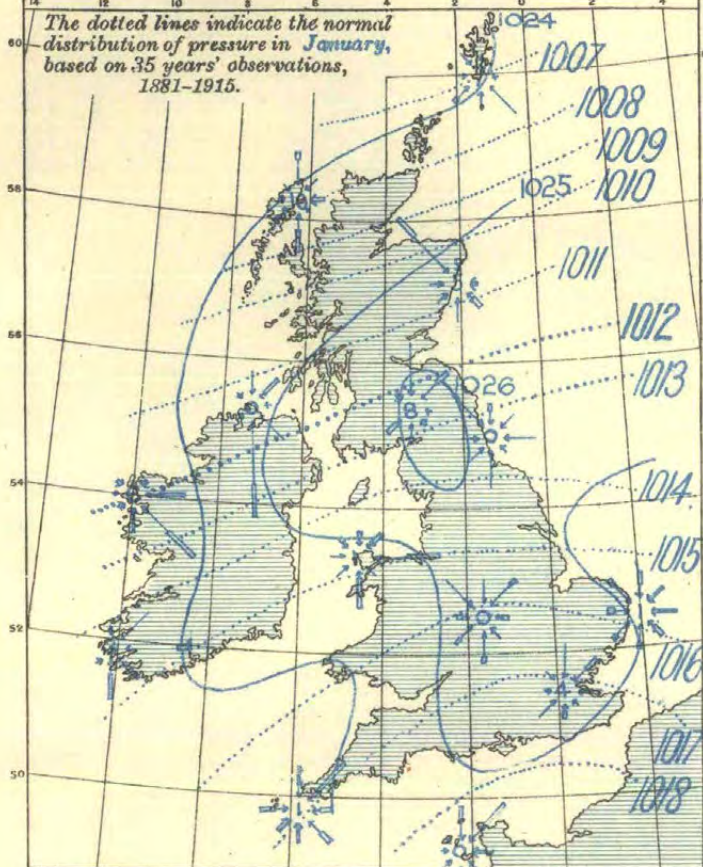
TABLE II.—SUMMARY OF AUTOGRAPHIC RECORDS OF WIND.—JANUARY, 1929.

[1914.]

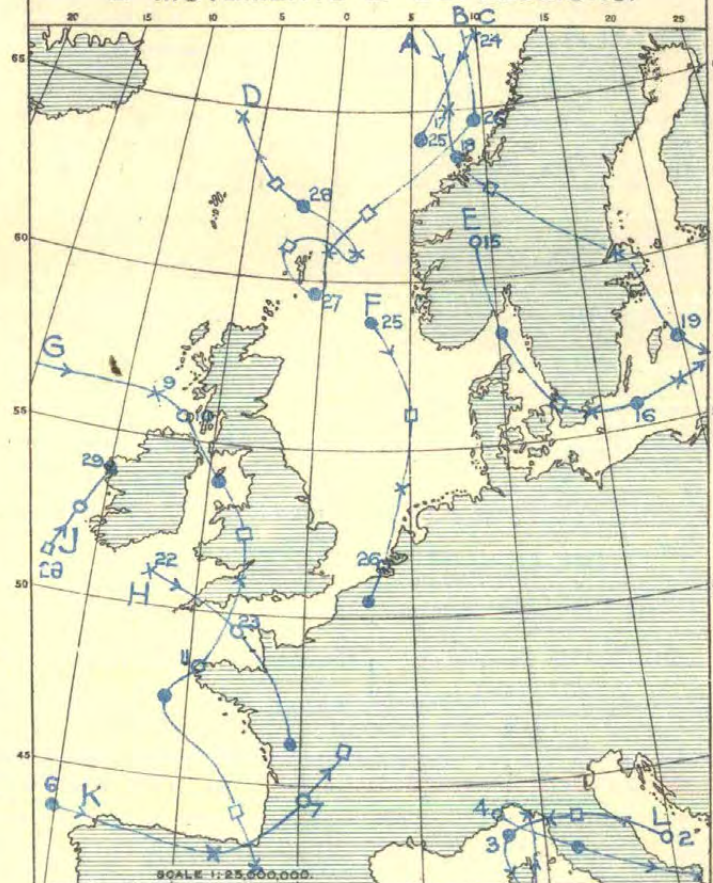
DISTRICT AND STATION.		Height.			Distribution of Wind.								Extreme Velocities.									
		Above Mean Sea Level.	Above Ground.	Above Building.	More than 38 mi/hr.		25 to 38 mi/hr.		13 to 24 mi/hr.	4 to 12 mi/hr.	Less than 4 mi/hr.	No Record.	Highest Hourly Wind.				Highest Gust.					
					Dates of Occurrence.	Duration.	No. of Days.	Duration.	Duration.	Duration.	Duration.	Duration.	Veer from N.	Speed.	Mid Time.	Speed.	Time.					
o. SCOTLAND, N.		ft.	ft.	ft.		hr.		hr.	hr.	hr.	hr.	°	mi/hr.	m/s.	day. hr.	mi/hr.	m/s.	d.	h.	m.		
Shetlands	Lerwick	310	42	33†	—	0	5	25	261	271	187	0	340	36	16	14 21	58	26	14	20	50	
Orkneys	Deerness (Cup Anr.)	188	16	5	—	0	5	32	302	362	48	0	330 160	37	16	15 11 2 23J	—	—	—	—	—	
1. SCOTLAND, E.																						
Aberdeen	Aberdeen	70	42	33†	—	0	6	1	(188)	(472)	(83)	0	110	24	11	6 17	41	19	15	2	5	
Kincardine	Balmakewan ..	140	25	18	—	0	—	0	(39)	(337)	(368)	0	350	22	10	15 6	40	18	15	6	45	
Edinburgh	Edinburgh	485	39	31†	—	0	2	10	104	444	186	0	200	33	15	30 15	52	23	30	14	40	
6a. SCOTLAND, W.																						
Argyll	Tiree	80	55	48†	9	3	6	52	350	293	46	0	200	39	17	9 5	53	24	9	3	55	
Renfrew	Paisley	188	81	15	—	0	—	0	33	376	335	0	140	19	8	30 13	37	17	30	13	0	
Dumfries	Eskdalemuir ..	825	50	22	—	0	3	7	173	325	239	0	300	33	15	15 1	43	19	15	1	15	
2. ENGLAND, N.E.																						
Durham	South Shields ..	62	46	20	—	0	2	6	201	403	134	0	320	28	13	15 20	60	27	15	18	35	
York, E.R.	Spurn Head	67	41	35†	—	0	9	63	401	239	41	0	300	36	16	16 16	45	20	16	15	15	
Lincoln	Cranwell	284	44	26†	—	0	1	1	187	433	123	0	160	26	12	29 5	38	17	29	5	35	
3. ENGLAND, E.																						
Norfolk	Gorleston	52	42	33†	16	1	10	66	279	340	49	9	20	39	17	16 8	56	25	16	8	50	
Suffolk	Felixstowe Aero. ..	55	40	25	—	0	3	23	279	(301)	(141)	0	170	33	15	29 9	39	17	29	9	30	
Essex	Shoeburyness ..	115	104	14†	—	0	5	39	262	399	44	0	170	32	14	29 10	43	19	2	17	55	
4. MIDLAND COUNTIES.																						
Warwick	Birmingham ..	643	118	18	—	0	—	0	144	518	82	0	70	21	9	11 18	39	17	11	18	35	
5. ENGLAND, S.E.																						
Surrey	Richmond (Kew Obs)	82	65	22	—	0	—	0	82	454	208	0	50	19	9	2 14	34	15	16	9	10	
Surrey	Croydon	313	105	49	—	0	1	9	276	311	148	0	170	28	13	29 8	48	21	29	5	55	
Kent	Dover	61	32	22	—	0	5	57	215	416	44	12	—	35	16	3 7	49	22	2	12	5	
Kent	Lympne	409	70	55†	—	0	5	22	319	380	23	0	340	29	13	26 7	45	20	3	0	50	
Hampshire	Calshot	55	45	31†	—	0	3	6	271	(424)	(43)	0	180	28	13	31 24	37	17	28	21	0	
Hampshire	Worthy Down ..	314	43	27†	—	0	—	0	91	478	175	0	150	23	10	31 24	40	18	31	23	50	
7a. ENGLAND, N.W.																						
Lancashire	Fleetwood	112	50	12	—	0	2	6	164	458	116	0	280	27	12	15 7	40	18	29	2	20	
Lancashire	Southport	77	59	45†	—	0	1	4	302	399	39	0	280	28	13	15 7	36	16	15	6	45	
Lancashire	Liverpool (Bidston)	253	64	35	—	0	2	5	282	384	63	10	310	29	13	15 8	49	22	15	7	50	
7b. NORTH WALES.																						
Anglesey	Holyhead	64	45	29†	—	0	11	54	355	260	75	0	330	35	16	15 12	49	22	29	0	40	
Flint	Sealand	81	65	49†	—	0	1	3	133	455	153	0	280	26	12	15 8	42	19	29	2	0	
8b. ENGLAND, S.W.																						
Devon	Plymouth	185	88	2	28	1	4	29	298	325	91	0	—	42	19	28 19	55	25	1	2	15	
Cornwall	Pendennis Castle ..	256	65	24	—	0	—	0	Instr	ument	dismo	unted.										
9. IRELAND, N.																						
Donegal	Dunfanaghy Road	180	47	39	—	0	—	0	75	321	348	0	—	24	11	8 22	38	17	30	12	40	
Antrim	Aldergrove	282	40	27†	—	0	—	0	116	338	290	0	160	22	10	30 18	41	18	30	17	15	
10. IRELAND, S.																						
Dublin	Kingstown (Cup Anr.)	49	27	16	—	0	8	45	326	330	43	0	150	32	14	28 22	—	—	—	—	—	
Clare	Quilty	100	40	32†	—	0	3	13	250	404	77	0	—	29	13	28 18	42	19	28	18	5	
Kerry	Cahirciveen (Val. O.)	98	41	34†	—	0	4	20	279	314	131	0	170	31	14	30 13	54	24	28	14	55	
Cork	Weaver Pt.	160	30	21†	—	0	3	7	313	392	32	0	—	26	12	28 16	45	20	28	15	35	
11. SCILLY ISLES.																						
	St. Mary's	230	65	17	—	0	11	45	421	242	36	0	180	36	16	28 19	55	25	28	19	5	

† Standard mounting.

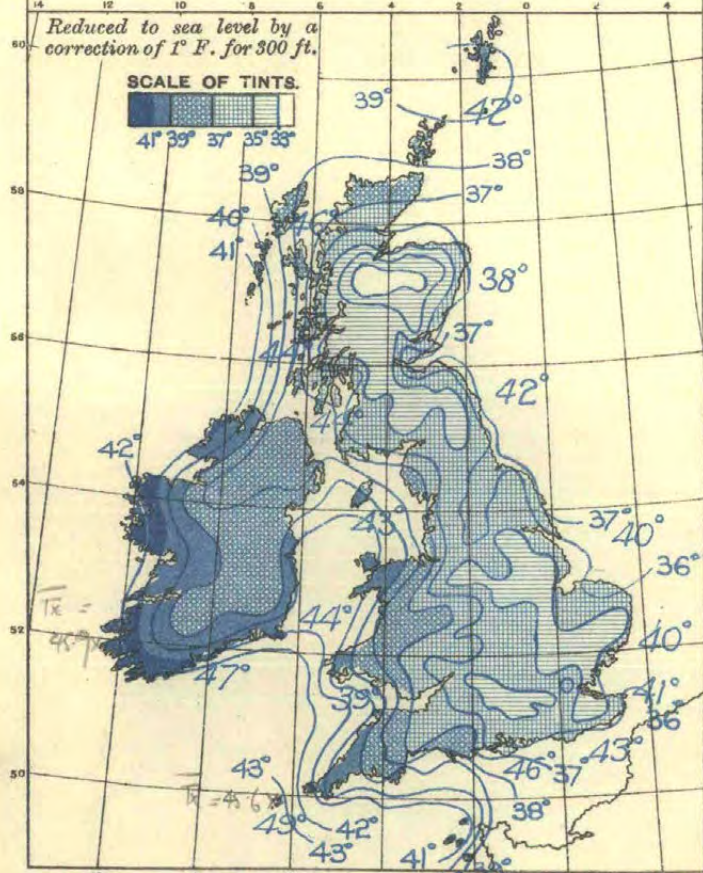
1. WIND AND MEAN PRESSURE. 7 A.M.*



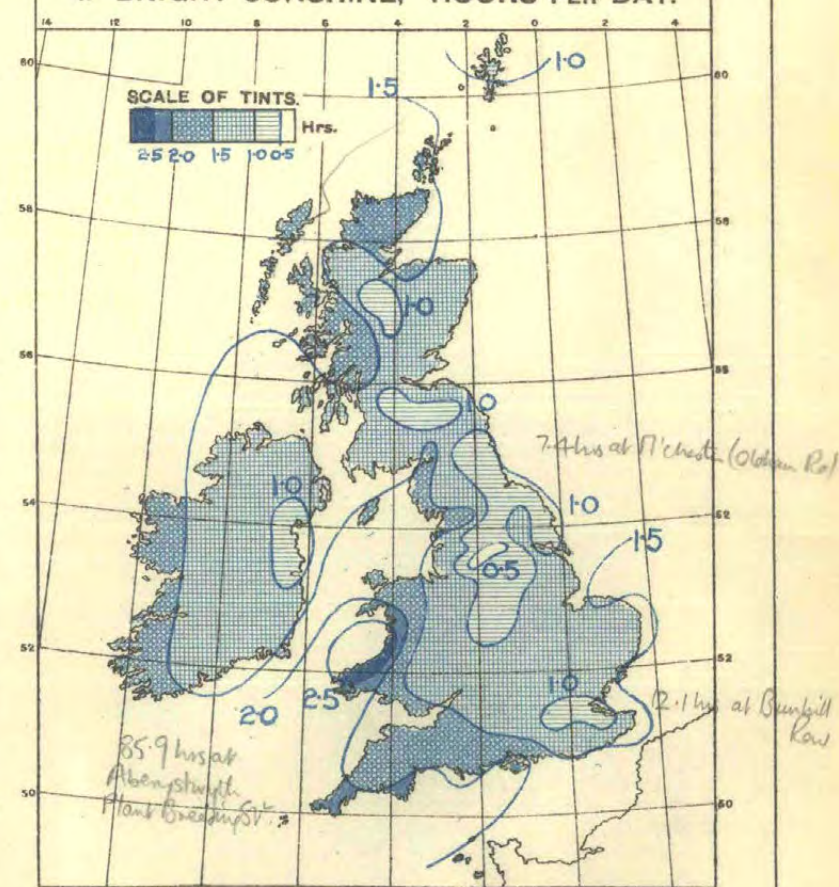
2. MOVEMENTS OF DEPRESSIONS.



3. DISTRIBUTION OF MEAN TEMPERATURE.



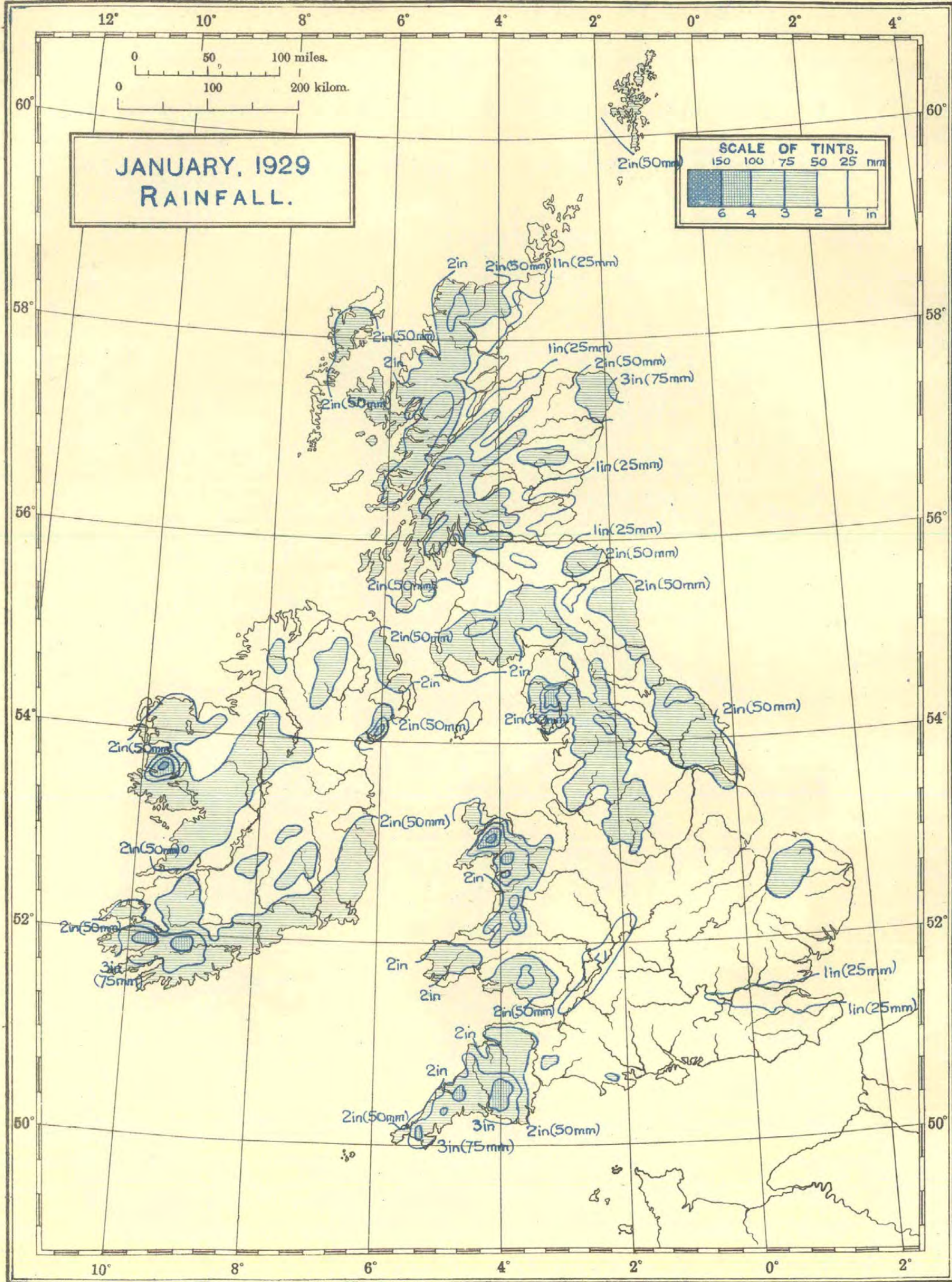
4. BRIGHT SUNSHINE, HOURS PER DAY.



* The pressure is expressed in millibars.

SCALE OF TINTS.

150	100	75	50	25	nm
[Dark Blue Patch]	[Medium Blue Patch]	[Light Blue Patch]	[Very Light Blue Patch]	[White Patch]	
6	4	3	2	1	in



The equivalent values in mm. are given in round numbers. The exact relation is 10 in. = 254 mm.

TABLE III.—SUMMARY OF THE RECORDS OF TEMPERATURE, RAINFALL AND SUNSHINE, and of WEATHER OBSERVATIONS, JANUARY, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.						
					Means of		Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.			Deviation from Normal.	Most in a day.		Precip'n.		Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.		Per Cent.							
Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	1 ft.	4 ft.	in.	mm.	mm.	mm.	0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.								
0. SCOTLAND, N.		G.M.T.	ft.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	in.	mm.	mm.	mm.										hr.	hr.	%						
Shetlands.	Baltasound	..	9 9 9	31	42.1	34.6	38.3	—	47	19.21.31	22	29th	37.8	—	—	3.07	78	—	9	30th	29	22	10	6	6	0	1	—	2	0.72	—	11			
	Lerwick	..	18-7 7	54	41.9	36.4	39.1	—	48	31st	28	17th	—	—	—	2.67	68	—	40	30th	20	16	11	5	1	0	0	—	2	1.10	+0.30	16			
Orkneys.	Deerness	..	2121 9	160	40.9	35.0	37.9	-1.1	47	31st	28	17, 28	—	—	—	1.35	34	—	54	29th	24	12	6	5	4	0	0	—	—	1.24	+0.27	18			
	Kirkwall	..	9 9 9	151	41.1	34.6	37.9	—	49	30th	28	28, 29	—	—	—	1.41	36	—	7	27th	23	10	10	4	4	0	0	14	0	1.64	—	24			
Hebrides.	Skallary	..	9 9 9	20	44.3	37.7	41.0	—	50	29, 30	29	28th	—	—	—	2.71	69	—	21	29th	18	13	3	1	0	0	0	—	—	—	—	—			
	Stornoway	..	18-7 7	30	41.5	33.6	37.5	-1.8	53	31st	22	28, 29	—	—	—	1.85	47	—	84	20th	20	13	4	2	1	0	0	—	—	0.54	+0.64	228			
Caithness.	Wick	..	18-7 7	81	40.6	33.6	37.1	-1.0	48	30, 31	20	29th	—	—	—	1.28	33	—	29	4	29th	22	12	3	4	1	0	0	—	—	—	—	—		
Ross & Cromarty.	Achnashellach	..	9 9 9	225	38.6	27.7	33.1	-4.0	55	31st	12	28th	—	—	—	2.85	72	—	184	19	19th	16	11	3	5	0	0	0	25	—	—	—	—		
	Fortrose	..	9 9 9	69	39.2	30.6	34.9	—	52	31st	20	5th	—	—	—	0.64	16	—	5	29th	14	3	4	5	0	0	1	—	—	0.98	—	27			
	Strathpeffer	..	9 9 9	125	38.0	27.7	32.9	-4.4	51	30th	15	5, 6	—	—	—	0.69	17	—	63	6	14th	10	5	3	1	0	0	—	—	—	—	—			
Inverness.	Ft. Augustus	..	9 9 9	68	39.3	25.7	32.5	-5.2	55	30th	12	29th	—	—	—	1.09	28	—	109	6	29th	12	5	2	0	0	0	2	—	—	0.90	+0.29	128		
	Inverness	..	9 9 9	442	38.5	26.5	32.5	-5.9	55	30th	18	4th	—	—	—	0.43	11	—	52	6	29th	7	4	8	9	1	0	0	23	—	—	0.79	+0.22	24	
1. SCOTLAND, E.																																			
Nairn.	Nairn	..	18-7 7	82	36.9	29.8	33.3	-3.9	52	31st	17	5th	—	—	—	0.30	8	—	43	2	9th	10	2	8	6	0	0	—	—	0.55	-0.01	21			
Elgin.	Gordon Castle	..	2121 9	104	39.7	30.3	35.0	-3.1	55	31st	19	5th	—	—	—	1.19	30	—	21	4	15, 29	14	13	8	0	3	0	—	—	0.12	—	17			
Banff.	Banff	..	9 9 9	130	39.5	32.2	35.9	—	51	30th	22	4, 5	—	—	—	1.22	31	—	5	29th	17	13	6	2	3	0	0	21	—	—	0.02	—	14		
Aberdeen.	Aberdeen	..	2424 24	37	39.4	32.0	35.7	-2.4	51	30th	23	17, 28	—	—	—	1.84	47	—	8	9	30th	15	12	11	7	4	0	0	21	—	—	0.18	-0.37	16	
	Balmoral	..	9 9 9	927	35.9	23.7	29.8	—	48	30th	7	4th	—	—	—	1.24	31	—	39	6	14th	16	10	6	30	0	0	—	—	—	—	—	—		
	Braemar	..	2121 9	1120	35.2	23.9	29.5	-4.8	47	30, 31	3	4th	—	—	—	1.12	28	—	53	8	16th	9	7	9	0	0	16	27	—	—	—	—	—		
	Craibstone	..	9 9 9	300	38.6	30.4	34.5	—	51	30th	20	29th	—	—	—	2.03	51	—	13	29th	17	12	10	8	3	0	0	—	—	—	—	—	188		
	Logie Coldstone	..	9 9 9	608	36.8	26.5	31.7	—	50	30th	10	4th	—	—	—	1.50	38	—	18	5	14, 16	19	11	26	25	0	0	10	29	—	—	—	—		
Kincardine.	Stonehaven	..	9 9 9	93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Forfar.	Arbroath	..	2121 9	93	40.7	31.0	35.9	—	48	30th	19	28th	—	—	—	1.26	32	—	11	9th	12	7	3	2	0	0	4	19	—	—	0.38	—	18		
	Carnoustie	..	9 9 9	39	40.5	30.4	35.5	—	50	30th	21	28th	—	—	—	1.31	33	—	9	9th	15	7	2	1	0	0	—	—	—	—	0.20	—	16		
	Dundee(E.Nec.)	..	2121 9	198	37.8	30.5	34.1	-3.0	48	31st	22	28th	—	—	—	1.25	32	—	8	9th	13	8	2	0	0	0	—	—	—	—	—	—	—		
	„ Mayfield	..	9 9 9	147	39.4	31.8	35.6	-2.3	50	30, 31	25	28th	—	—	—	1.12	28	—	21	7	9th	9	7	3	7	0	0	—	—	—	—	0.20	-0.51	16	
	Kettins	..	9 9 9	218	38.8	27.2	33.0	—	53	31st	18	28th	—	—	—	1.65	42	—	8	28th	12	8	4	6	0	0	2	22	—	—	—	—	—		
	Montrose	..	9 9 9	16	39.8	31.7	35.7	—	49	30th	23	21st	—	—	—	1.29	33	—	9	9th	9	7	3	3	0	0	1	—	—	—	—	0.41	—	19	
Perth.	Crieff	..	2121 9	478	38.3	29.8	34.1	-2.8	49	30th	20	28th	—	—	—	1.79	45	—	57	18	9th	13	8	5	17	0	0	—	—	—	—	—	—		
	Perth	..	9 9 9	76	38.7	27.3	33.0	-4.0	52	31st	16	2, 28	—	—	—	0.97	25	—	39	6	9th	14	6	8	4	0	0	—	—	—	—	0.15	—	15	
Fife.	Cupar	..	9 9 9	210	39.7	29.4	34.5	—	52	30th	20	28th	—	—	—	1.41	36	—	8	6th	12	8	4	3	1	0	0	—	—	—	—	—	—		
	Inchkeith	..	18-7 7	190	39.5	34.2	36.9	—	53	30th	24	28th	—	—	—	0.66	17	—	5	9th	10	3	6	1	0	0	0	18	—	—	—	—	0.23	—	16
	Kirkcaldy	..	9 9 9	66	40.9	32.7	36.8	—	52	30th	22	28th	—	—	—	1.10	28	—	10	9th	15	7	—	—	—	—	—	—	—	—	—	—	—		
	Leuchars	..	18-7 7	30	39.5	31.3	35.4	—	52	31st	22	28th	—	—	—	0.85	22	—	5	29th	9	7	7	0	1	0	1	18	—	—	—	—	0.47	—	20
	St. Andrews	..	9 9 9	20	41.0	31.4	36.2	—	52	30, 31	22	28th	—	—	—	1.09	28	—	9	9th	10	7	1	0	0	0	0	20	—	—	—	—	0.07	—	14
Linlithgow.	Bangour	..	2121 9	587	37.5	28.8	33.1	—	51	31st	16	28th	—	—	—	0.91	23	—	12	29th	12	3	5	12	1	0	5	—	—	—	—	—	—		
Edinburgh.	Blackford Hill	..	2121 9	441	39.7	32.4	36.1	-1.9	54	30, 31	23	28th	—	—	—	0.81	21	—	23	8	9th	10	4	2	1	0	0	—	—	—	—	0.24	-0.34	16	
	Boghall	..	9 9 9	645	39.9	29.5	34.3	—	52	30th	17	28th	—	—	—	1.06	27	—	13	9th	13	5	8	7	0	0	2	22	—	—	—	—	0.37	—	18
	Edin. Univ.	..	9 9 9	227	40.5	33.4	36.9	—	54	31st	25	28, 29	—	—	—	0.68	17	—	30	6	9th	9	4	—	—	—	—	—	—	—	—	—	—		
	Liberton	..	9 9 9	190	39.8	—	—	—	54	31st	—	—	—	—	—	0.91	23	—	11	9th	11	4	2	0	0	0	—	—	—	—	—	—	—		
Haddington.	N. Berwick	..	9 9 9	152	41.1	31.5	36.3																												

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, JANUARY, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.			Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.					
						Means of		Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.			Deviation from Normal.	Most in a day.		Precip'n.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.).	Ground Frost.	Gale.	Hours per day.									
									Maximum.	Date.	Minimum.	Date.														0.2 mm. or more.	1 mm. or more.	Snow.	Thunderstorm.	Fog (Morning Obs.).	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.
Max.	Min.	Rain.	Max.	Min.	Mean of A and B.	Max.	Min.	Mean of A and B.	Max.	Min.	Mean of A and B.	1 ft.	4 ft.	in.	mm.	mm.	mm.	0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.).	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.						
2. ENGLAND, N.E.																																			
Northumberland.	Berwick-on-T.	9 9 9	76	41.4	32.1	36.7	—	53	30th	22	18th	—	—	1.61	41	—	16	9th	13	10	5	5	1	0	1	14	0	1.04	—	14					
	Bellingham	9 9 9	848	36.6	26.7	31.7	—	50	30th	16	22nd	—	—	1.79	45	—	10	15th	21	12	—	—	—	—	3	—	—	—	—	—					
	Cockle Park	2121 9	324	38.8	30.4	34.6	-2.2	52	30th	21	16, 17	34.7	38.6	2.07	53	—	1	15th	21	13	7	8	0	0	5	27	0	1.09	-0.56	14					
	Tynemouth	18-7 7	67	39.8	34.7	37.3	-1.3	50	30, 31	28	16, 18	—	—	2.96	75	+ 34	12	15th	22	16	8	3	5	0	2	13	0	—	—	—					
Durham.	Chopwellwood	9 9 9	445	38.8	28.7	33.7	—	55	30th	20	18th	—	—	2.10	53	—	7	29th	22	16	7	13	0	0	2	22	0	0.93	—	12					
	Durham	2121 9	336	38.2	30.4	34.3	-2.8	51	30th	22	18th	—	—	1.57	40	- 2	9	9th	19	15	9	7	0	0	9	15	0	0.72	-0.73	9					
	Houghall	9 9 9	160	39.5	29.9	34.7	—	52	30th	15	18th	—	—	1.76	45	—	11	9th	17	16	10	6	0	0	3	13	0	0.68	—	9					
	Ushaw College	9 9 9	594	38.8	30.3	34.5	—	51	30th	23	22nd	—	—	1.99	51	- 1	11	10th	18	17	8	8	0	0	10	—	0	—	—	—					
York, N. Riding.	Ampleforth	9 9 9	350	37.7	30.3	34.0	-2.3	50	30th	21	18th	—	—	2.21	56	+ 8	8	28th	20	14	13	13	0	0	6	23	0	1.00	—	13					
	Castleton	9 9 9	425	38.5	25.1	31.8	—	46	31st	12	27th	36.2	—	3.51	89	—	21	15th	22	15	8	14	4	1	6	—	1	—	—	—					
	Rounton	2121 9	249	37.3	29.7	33.5	-3.5	51	30th	19	16th	36.2	—	1.93	49	+ 5	14	24th	23	13	8	7	1	0	2	29	0	—	—	—					
	Scarborough†	9 9 9	118	41.0	34.1	37.5	-1.2	52	30th	28	18, 22	—	—	40.1	2.30	58	+ 7	9	15th	21	13	5	1	4	0	6	4	0	0.94	-0.48	12				
York, E. Riding.	West Wotton	9 9 9	605	38.0	30.1	34.1	—	56	30th	19	22nd	34.7	39.7	1.38	35	—	7	10th	16	7	10	13	0	0	—	25	0	—	—	—					
	York	2121 9	56	38.2	31.5	34.9	-3.0	52	30th	22	16, 18	36.5	40.8	2.07	53	+ 8	10	28th	19	14	7	6	0	0	—	—	0	1.00	+0.03	13					
	Hull	2121 9	8	39.6	32.5	36.1	-1.6	52	30th	24	16th	36.8	42.2	2.08	53	+ 7	10	15th	20	11	12	4	0	0	14	29	0	0.87	—	11					
	Osgodby	2121 9	30	38.5	29.6	34.1	—	52	30th	20	16, 17, 18	—	—	1.75	44	—	8	15, 28	18	12	6	11	0	0	7	21	0	1.21	—	15					
	Spurn Head	18-7 7	29	39.2	33.8	36.5	-1.9	47	30th	28	16, 22	—	—	1.91	49	+ 7	7	31st	21	15	10	2	3	0	3	—	0	1.33	—	17					
Lincoln.	Cranwell	18-7 7	236	36.8	30.3	33.5	-3.3	52	30th	22	16th	35.6	39.4	1.20	31	- 13	7	28th	18	10	15	11	0	0	8	21	0	1.19	-0.42	20					
	Cleethorpes	9 9 9	23	39.1	31.8	35.5	—	52	30th	21	18th	—	—	2.15	55	—	8	10th	22	15	10	6	2	0	5	3	0	1.14	—	14					
	Skegness	9 9 9	12	38.1	32.1	35.1	-2.5	45	29, 30	23	17, 18	—	—	1.92	49	+ 5	7	18th	21	13	10	2	1	0	1	—	0	1.46	-0.31	18					
3. ENGLAND, E.																																			
Norfolk.	Cromer	9 9 9	150	39.0	32.9	35.9	-2.0	49	30th	26	18th	—	—	1.43	36	- 14	6	30th	20	9	8	2	2	0	3	14	0	1.37	-0.40	17					
	Hunstanton	9 9 9	105	39.0	32.8	35.9	—	51	30th	25	18th	—	—	1.65	42	—	9	31st	19	10	9	9	0	0	1	—	0	1.53	—	19					
	Norwich	9 9 9	98	39.1	31.2	35.1	-2.3	49	30th	22	18th	34.7	—	1.82	46	- 4	7	29, 30	23	13	8	8	2	0	—	26	—	1.04	—	13					
	Sproston	9 9 9	93	38.7	31.0	34.9	—	49	30th	21	18th	—	—	1.69	43	—	7	29th	19	11	7	12	2	0	8	23	0	1.21	—	15					
Suffolk.	Yarmouth	18-7 7	14	38.5	32.6	35.5	-2.3	46	19th	25	18, 27	37.7	43.5	1.35	34	- 10	9	29th	17	8	13	5	8	0	2	13	1	1.23	-0.59	15					
	Bungay (Flix'n)	9 9 9	79	38.0	29.4	33.7	—	47	30th	18	18th	—	—	1.36	35	—	8	29th	18	9	10	7	4	0	3	30	0	—	—	—					
	Copdock	9 9 9	164	37.2	29.8	33.5	—	46	30th	21	18th	35.1	40.9	1.78	45	—	14	31st	16	7	8	13	0	0	6	24	0	1.24	—	15					
	Felixstowe	18-7 7	15	37.8	31.7	34.7	—	43	19, 20	24	18th	—	—	1.03	26	—	10	31st	13	5	15	8	1	0	4	16	0	1.50	—	18					
	Lowestoft	9 9 9	83	38.5	32.0	35.3	-3.0	44	19th	24	18th	35.8	40.7	1.36	35	- 7	8	29th	19	10	10	6	1	0	8	14	2	1.32	-0.55	16					
Cambridge.	Cambridge †	2121 9	41	38.7	30.2	34.5	-3.1	49	30th	22	17th	36.7	42.2	1.25	32	- 6	7	20th	14	9	6	7	0	0	4	25	0	1.14	-0.57	14					
	(Bot. Gdns.)																																		
Bedford	Wisbech	9 9 9	10	38.0	30.8	34.4	—	49	30th	21	18th	—	—	1.55	39	—	8	28th	17	10	9	6	5	0	7	21	0	1.36	—	17					
	Cardington	18-7 7	100	38.2	30.6	34.4	—	50	30th	21	17th	—	—	1.02	26	—	5	29th	16	6	10	8	0	0	4	20	0	1.33	—	16					
	Luton	9 9 9	390	37.3	28.7	33.0	—	49	29th	14	13th	35.5	40.4	1.46	37	—	9	10th	12	9	7	4	0	0	8	27	0	1.02	—	14					
	Woburn	9 9 9	291	37.6	28.8	33.2	-4.3	50	29th	19	27th	34.2	42.7	1.16	29	- 14	5	9th	17	8	10	9	0	0	6	—	0	0.97	—	12					
Hertford.	Rothamsted	9 9 9	420	36.1	30.1	33.1	-4.1	47	29, 30, 31	22	27th	34.4	—	1.53	39	- 13	9	31st	17	7	10	14	3	0	8	24	0	1.27	-0.44	15					
	St. Albans	9 9 9	272	37.3	29.5	33.4	—	48	29, 30	20	27th	35.7	—	1.53	39	—	10	10th	13	8	8	2	0	0	3	23	0	—	—	—					
Essex.	Clacton-on-S.	18-7 7	55	37.6	32.3	34.9	-3.0	44	19th	25	17, 18	36.2	41.7	1.57	40	+ 6	9	31st	18	9	4	2	1	0	4	14	0	1.61	-0.26	19					
	Chelmsford	9 9 9	134	38.4	30.1	34.3	—	48	29, 30	23	13, 17, 27	—	—	1.39	35	- 4	8	31st	18	8	8	10	1	0	—	—	0	—	—	—					
	Chelmsford	9 9 9	185	37.5	29.5	33.5	—	48	29th	21	27th	—	—	1.24	31	—	8	10th	18	8	8	10	0	0	7	23	0	1.39	—	17					
	(Good Easter)																																		
	Earls Colne	9 9 9	168	39.4	29.8	34.6	—	47	29, 30	21	18th	—	—	1.56	40	—	11	31st	15	9	13	17	1	0	—	—	0	—	—	—					
	Halstead	9 9 9	139	37.6	29.4	33.5	—	47	29, 30	22	13, 18	—	—	1.68	43	—	11	31st	17	9	5	13	0	0	9	—	0	—	—	—					
	Shoeburyness	18-7 7	11	38.7	30.2	34.5	-3.8	47	19th	20	18th	—	—	0.94	24																				

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, JANUARY, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.		
		Max.	Min.		Rain.	Means of		Deviation from Normal.	Absolute Maximum and Minimum.						Total Fall.	Deviation from Normal.	Most in a day.		Precip'n.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.		Per Cent.		
						A	B		Maximum.	Date.	Minimum.	Date.	Amount.	Date.			0.2 mm. or more.	1 mm. or more.									Daily Mean.	Deviation from Normal.			
						Max.	Min.																							1 ft.	4 ft.
4. MID. COUNTIES—cont.																															
Warwick.	Birmingham	18-7 7	535	37.3	31.7	34.5	-3.3	55	30th	27	27th	37.6	43.4	1.26	32	19	10	31st	15	8	12	7	0	0	6	20	0.73	-0.67	11		
	B'ham, Sparkhill	713 7	424	38.3	30.1	34.2	—	54	30th	23	9. 27	—	—	1.45	37	—	11	31st	13	8	13	7	0	0	7	25	—	—	—		
	Coventry	9 9 9	270	38.8	30.7	34.7	-3.2	53	30th	23	27th	36.1	42.9	1.19	30	22	9	28th	16	6	8	5	0	0	6	23	0.89	-0.21	11		
	Rugby	2121 9	390	38.0	30.9	34.5	—	52	30th	22	27th	—	—	1.20	31	—	7	28th	13	9	—	—	—	—	—	—	—	—	—		
Oxford.	Leafield	18-7 7	612	36.3	29.8	33.1	—	53	30th	24	13th	—	—	1.14	29	—	9	31st	13	7	15	7	0	0	4	23	0.136	—	16		
	Oxford	9 9 9	208	38.6	30.1	34.3	-4.1	53	30th	23	13. 27	35.7	42.1	1.17	30	16	9	31st	14	6	11	2	1	0	9	27	0.141	-0.24	17		
	(Sandford)	9 9 9	210	39.7	30.2	34.9	—	53	30th	20	27th	—	—	1.13	29	—	9	31st	10	6	7	0	0	0	9	24	0.114	—	14		
Bucks.	Mursley	** 9 9 9	490	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Stafford.	Mayfield	9 9 9	374	37.6	29.9	33.7	—	51	30th	18	27th	—	—	2.06	52	—	13	28th	15	8	15	11	0	0	4	26	0.092	—	118		
Shropshire.	Newport	9 9 9	211	38.5	30.6	34.5	—	53	30th	22	18th	—	—	1.35	34	—	10	28th	11	9	6	8	0	0	5	18	0.123	—	15		
	Roden, Well'n	9 9 9	207	38.6	28.6	33.6	—	53	29. 30	22	27th	—	—	1.10	28	—	7	28th	13	8	6	3	0	0	—	—	—	—	—		
	Wistanstow	2121 9	481	(38.4)	30.5	(34.5)	(-3.9)	55	30th	22	29th	—	—	1.96	50	9	16	28th	15	7	7	10	0	0	3	24	—	—	—		
Worcester.	Malvern	9 9 9	377	38.3	31.3	34.8	—	55	30th	26	9th	35.1	40.2	1.42	36	20	17	31st	14	6	4	1	1	0	6	22	0.146	—	18		
	Worcester (Perdiswell)	9 9 9	95	38.8	30.0	34.4	—	56	30th	19	27th	—	—	1.14	29	—	9	31st	12	6	5	6	1	0	—	22	0.114	—	14		
Hereford.	Bromyard	9 9 9	392	38.5	29.0	33.7	—	54	30th	19	27th	35.0	40.8	1.10	28	—	8	31st	12	7	5	4	0	0	11	24	—	—	—		
	Hereford	9 9 9	291	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	Ross-on-Wye	18-7 7	223	39.0	32.1	35.5	-3.0	58	30th	22	27th	35.8	41.2	0.98	25	37	13	31st	11	4	5	0	0	0	5	20	0.120	-0.27	15		
Gloucester.	Cheltenham	2121 9	214	39.3	31.9	35.6	-2.6	58	30th	22	27th	36.2	41.2	0.92	23	30	10	31st	13	6	8	3	0	0	1	19	0.124	—	15		
5. ENGLAND, S.E.																															
London.	City, Bunhill Row	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.39	-0.09	5		
	Camden Square	9 9 9	110	38.4	31.6	35.0	-3.8	49	29.30.31	25	17. 27	37.3	43.5	0.96	24	23	8	10th	12	7	5	1	0	0	—	—	—	—	—		
	East Ham	9 9 9	15	39.0	31.9	35.5	—	50	30th	26	13th	—	—	0.80	20	—	7	10th	12	7	—	—	—	—	—	—	—	—	—		
	Enfield	9 9 9	148	38.7	30.5	34.6	—	49	30th	22	13th	—	—	1.33	34	11	10	10th	16	9	9	6	0	0	4	20	0.118	—	14		
	Greenwich	2424 9	149	38.9	31.0	34.9	-3.6	51	30th	23	13. 27	39.3	43.2	0.87	22	21	6	10th	13	7	12	3	0	0	14	24	0.098	-0.26	12		
	Greenwich	Hourly*	149	—	—	—	-4.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	Hampst'd Res.	9 9 9	450	36.5	28.9	32.7	—	48	30. 31	21	17th	—	—	1.21	31	—	7	31st	22	8	13	7	1	0	—	27	0.105	—	13		
	Kensington	18-9 9	80	41.3	33.1	37.2	—	50	30. 31	26	17. 27	35.7	40.8	1.04	26	—	6	10th	14	7	7	1	0	0	16	20	—	—	—		
	Regent's Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	Richmond	2424 24	18	38.8	31.8	35.3	-3.6	51	31st	24	17th	35.4	42.4	0.73	19	26	7	10th	10	5	11	3	1	0	7	21	0.103	-0.36	12		
	Richmond (Kew Obs.)	Hourly*	18	—	—	—	-3.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	Stroud Green	18-7 7	212	38.2	31.5	34.9	—	50	30th	25	27th	—	—	1.01	26	—	8	10th	17	6	9	5	0	0	10	18	—	—	—		
	Tottenham	2121 9	51	38.8	32.0	35.4	-3.9	50	30th	25	27th	—	—	1.02	26	20	8	10th	9	9	4	1	0	0	—	19	—	—	—		
	Westminster	9 9 9	27	40.1	32.7	36.4	-3.2	53	30th	25	17th	—	—	0.77	20	21	4	31st	9	7	—	—	—	—	—	23	0.55	-0.13	8		
Surrey.	Addington	9 9 9	472	37.8	30.1	33.9	—	49	30. 31	23	27th	—	—	1.22	31	—	11	31st	15	8	—	—	—	—	—	—	—	—	—		
	Croydon Aero.	18-7 7	244	38.3	31.9	35.1	—	50	30th	22	27th	—	—	1.15	29	—	9	31st	10	7	15	2	0	0	6	20	0.089	—	11		
	Wisley	9 9 9	150	38.4	30.4	34.4	-3.8	52	30th	22	13. 27	36.1	41.7	1.30	33	12	9	31st	15	6	5	3	0	0	4	27	0.098	-0.73	12		
Kent.	Biggin Hill	18-7 7	597	36.3	29.9	33.1	—	48	30th	22	27th	—	—	1.13	29	—	10	10th	24	7	17	9	0	0	5	27	0.114	—	14		
	Bromley	9 9 9	213	38.5	30.5	34.5	—	50	30th	22	13th	—	—	0.90	23	—	8	31st	12	7	5	3	0	0	4	23	—	—	—		
	Canterbury	9 9 9	124	38.5	30.0	34.3	—	50	29th	21	18th	38.5	42.7	1.15	29	—	7	31st	14	10	—	—	—	—	—	25	—	—	—		
	Dover	9 9 9	22	39.0	33.1	36.1	—	45	19.20.30	25	18th	36.2	42.3	1.15	29	—	5	31st	14	10	9	8	5	0	4	16	1.132	—	16		
	Dungeness	18-7 7	20	38.9	31.8	35.3	-4.0	45	19th	23	16 17.27	—	—	0.96	25	23	7	31st	14	7	19	2	0	0	4	—	—	—	—		
	East Malling	9 9 9	127	37.8	29.8	33.8	—	47	19th	22	18. 19	—	—	1.02	26	—	8	31st	11	5	2	0	0	0	7	22	0.092	—	11		
	Folkestone	9 9 9	101	38.9	31.7	35.3	—	45	19. 20	25	18th	—	—	44.3	1.14	29	—	6	31st	15	9	7	0	1	0	5	18	0.133	—	16	
	Lympne	18-7 7	347	36.5	30.3	33.4	—	44	19th	21	17th	—	—	41.8	1.18	30	—	9	31st	16	7	15	8	3	0	5	20	0.126	—	14	
	Manston	18-7 7	150	37.7	31.9	34.8	—	47	19th	23	18th	—	—	1.08	27	—	7	31st	20	12	14	8	0	0	3	17	—	—	—		
	Margate	9 9 9	51	39.5	32.7	36.1	-3.1	48	19th	27	28th	37.4	42.4	0.78	20	22	7	31st	15	7	10	4	1	0	1	10	0.132	-0.61	16		
	Tunbridge W.	9 9 9	354	38.1	30.4	34.3	-3.3	48	29th	20	28th	34.0	42.5	1.17	30	26	11	31st	13	6	13	4									

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, JANUARY, 1929.

DISTRICT, COUNTY AND PLACE.	Terminal Hours of Observation.	Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.										Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
			Means of		Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.	Deviation from Normal.	Most in a day.			Precip'n.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.		Per Cent.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
			A	B		Maximum.	Date.	Minimum.	Date.				Amount.	Date.								0.2 mm. or more.	1 mm. or more.		Snow.	Thunder.	Daily Mean.	Deviation from Normal.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
			Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
5. ENGLAND, S.E.—cont.			G.M.T.	ft.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	in.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, JANUARY, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.	Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.													
				Means of		Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.			Deviation from Normal.	Most in a day.	Precip'n.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.).	Ground Frost.	Gale.	Hours per day.		Per Cent.																
				A	B		Maximum.	Date.	Minimum.	Date.													Amount.	Date.		0.2 mm. or more.	1 mm. or more.	Snow.	Thunderstorm.	Fog (Morning Obs.).	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.							
				Max.	Min.																														Max.	Min.	Max.	Min.	Max.	Min.	Max.
8b. ENGLAND, S.W.—cont.																																									
Dorset—	Shaftesbury ..	9 9 9	722	39.8	29.7	34.7	-2.9	53	30th	24	17th	—	—	1.32	33	—	33	14	31st	12	6	5	3	2	0	5	—	0	—	—	—	—	—	—	—	—	—	—	—		
Devon.																																									
Arlington ..	9 9 9	613	40.5	31.0	35.7	-3.5	48	22nd	21	17th	—	—	2.61	66	—	56	21	31st	11	8	3	10	2	0	—	20	0	—	—	—	—	—	—	—	—	—	—	—	—		
Ashburton ..	9 9 9	583	41.8	32.3	37.1	-3.9	54	29th	24	17th	—	—	3.87	98	—	31	35	31st	13	9	3	2	0	0	—	20	0	—	—	—	—	—	—	—	—	—	—	—	—		
Cullompton †	9 9 9	202	40.8	30.5	35.7	-4.0	55	30th	19	27th	38.3	—	1.83	46	—	36	19	31st	14	7	3	2	0	0	5	22	0	1.73	+0.21	21	—	—	—	—	—	—	—	—	—		
Dean Prior ..	2121 9	331	40.8	29.4	35.1	—	53	30th	16	7th	—	—	5.62	143	—	41	31st	14	12	5	6	0	0	—	24	0	—	—	—	—	—	—	—	—	—	—	—	—	—		
Ilfracombe ..	9 9 9	74	43.9	36.7	40.3	-3.0	56	30. 31	30	6th	39.9	45.8	1.67	42	—	39	14	31st	9	7	0	0	0	0	—	0	6	0	1.73	—	21	—	—	—	—	—	—	—	—		
Killerton ..	9 9 9	159	39.9	31.9	35.9	—	54	30th	20	8. 27	—	—	1.25	32	—	12	22nd	6	6	4	0	0	0	—	22	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Newton Abbot ..	9 9 9	350	41.1	32.1	36.6	—	52	30th	23	7. 27	—	—	2.43	62	—	19	22nd	11	6	2	4	0	0	—	2	19	0	1.92	—	23	—	—	—	—	—	—	—	—	—		
Plymouth (Hoe) ..	2121 9	116	43.1	33.9	38.5	-3.7	52	30th	23	27th	39.6	45.9	3.47	88	+	4	38	28th	12	7	2	1	0	0	5	18	1	1.96	+0.25	20	—	—	—	—	—	—	—	—	—		
Plymouth (Cattewater) ..	18-7 7	82	43.0	35.5	39.3	—	54	30th	24	17th	—	—	3.43	87	—	35	28th	12	8	3	3	2	0	0	—	15	1	2.02	—	24	—	—	—	—	—	—	—	—	—		
Princetown ..	9 9 9	1359	37.5	29.5	33.5	—	53	30th	19	7th	—	—	4.99	127	—	48	31st	16	13	5	0	0	0	9	21	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Salcombe ..	9 9 9	39	42.5	35.3	38.9	—	52	27.28.29	25	8. 17	—	—	2.93	74	—	27	29th	12	10	1	0	0	0	—	0	2	0.04	+0.10	24	—	—	—	—	—	—	—	—	—	—	—	
Sidmouth †	9 9 9	23	42.4	32.9	37.7	—	51	31st	23	17. 27	—	—	1.87	47	—	16	31st	10	9	3	1	0	0	—	2	18	—	2.06	—	24	—	—	—	—	—	—	—	—	—	—	
Tavistock ..	9 9 9	458	41.9	31.7	36.8	—	54	30th	21	8. 27	—	43.3	3.00	76	—	27	31st	9	8	5	0	0	0	4	22	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Teignmouth ..	9 9 9	20	42.7	34.1	38.4	-3.8	55	29th	24	27th	—	—	2.33	59	—	15	19	31st	13	6	5	2	1	0	0	15	0	2.09	—	25	—	—	—	—	—	—	—	—	—		
Torquay ..	9 9 9	12	43.0	35.6	39.3	-3.0	54	29th	27	27th	—	—	2.10	53	—	25	19	31st	12	8	2	0	0	0	5	11	0	2.05	+0.08	24	—	—	—	—	—	—	—	—	—	—	
Woolacombe ..	2121 9	59	43.0	31.8	37.4	-5.2	55	31st	28	13th	—	—	1.51	38	—	25	10	31st	8	8	0	0	0	0	12	0	1.78	-0.03	21	—	—	—	—	—	—	—	—	—	—		
Cornwall.																																									
Falmouth Obs. †	9 9 9	167	44.3	35.3	39.8	-3.6	53	29th	27	8th	40.5	45.6	3.59	91	—	16	26	28th	17	10	3	0	1	0	3	19	0	2.02	+0.15	23	—	—	—	—	—	—	—	—	—	—	
„ (Pendennis) ..	18-7 7	200	43.9	38.0	40.9	—	52	21.29.30	28	8th	—	—	2.96	75	—	20	28th	14	8	2	0	2	0	—	—	0	2.04	—	24	—	—	—	—	—	—	—	—	—	—	—	
Fowey ..	9 9 9	51	44.4	34.6	39.5	—	53	18th	24	8th	—	—	3.10	79	—	29	28th	10	8	1	0	0	0	—	2	—	2.01	—	24	—	—	—	—	—	—	—	—	—	—	—	
Gulval ..	9 9 9	20	45.2	35.9	40.5	—	53	28. 29	27	8th	—	—	3.33	85	—	26	28th	14	11	1	1	1	0	—	13	1	2.04	—	24	—	—	—	—	—	—	—	—	—	—		
Newquay ..	9 9 9	190	43.3	34.5	38.9	-4.5	53	29. 30	25	8th	40.1	44.9	1.89	48	—	30	13	31st	14	7	0	0	2	0	—	0	2.27	+0.46	27	—	—	—	—	—	—	—	—	—	—		
Redruth ..	9 9 9	397	42.4	34.0	38.2	—	53	30th	24	8th	—	—	4.21	107	—	0	33	28th	19	11	2	5	0	0	3	24	0	—	—	—	—	—	—	—	—	—	—	—	—		
9. IRELAND, N.																																									
Sligo. Markree Cas. †	2121 9	122	43.2	30.3	36.7	-2.9	55	30. 31	7	1st	39.3	43.6	1.57	40	—	60	9	28th	14	9	0	0	0	0	0	14	0	1.47	+0.12	19	—	—	—	—	—	—	—	—	—	—	
Mayo. Blacksod Pt. †	18-7 7	10	44.5	38.6	41.5	-1.2	57	30th	29	25th	—	—	2.65	67	—	62	20	8th	17	13	0	0	0	0	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mallary ..	9 9 9	120	44.3	35.0	39.7	—	57	31st	25	25th	—	—	2.60	66	—	12	28th	14	11	—	—	—	—	—	—	0	1.98	+0.72	25	—	—	—	—	—	—	—	—	—	—	—	
Donegal. Malin Head †	18-7 7	51	42.7	36.9	39.8	-1.1	55	30. 31	27	4th	—	—	1.37	35	—	31	8	28th	13	6	2	0	3	0	—	0	1.44	+0.22	18	—	—	—	—	—	—	—	—	—	—	—	
Antrim. Aldergrove ..	18-7 7	238	40.8	32.8	36.8	—	54	30th	21	2nd	—	—	1.66	42	—	12	28th	14	6	6	1	1	0	3	20	0	1.35	—	17	—	—	—	—	—	—	—	—	—	—	—	
Belfast ..	9 9 9	13	43.0	34.3	38.7	—	54	29. 30	25	2nd	—	—	2.16	55	—	17	28th	16	8	1	0	0	0	15	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Lisburn ..	9 9 9	206	42.0	31.6	36.8	-1.5	53	29th	23	2nd	—	—	1.78	45	—	24	14	28th	14	7	3	0	0	0	—	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Down. Donaghadee ..	18-7 7	40	42.8	37.5	40.1	-0.5	51	19th	29	17th	—	—	1.98	50	—	14	15	28th	17	8	4	0	0	0	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	
Armagh. Armagh †	2121 9	204	41.8	32.9	37.3	-2.1	55	30th	22	2nd	37.5	41.9	1.30	33	—	31	13	28th	15	6	4	1	1	0	2	17	0	0.88	-0.54	11	—	—	—	—	—	—	—	—	—	—	
Longford. Newtownorbes ..	2121 9	161	42.3	32.8	37.5	—	56	30th	20	1st	38.0	42.0	2.50	63	—	17	28th	15	7	1	0	0	0	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
10. IRELAND, S.																																									
Dublin. Balbriggan ..	9 9 9	203	42.8	35.1	38.9	-1.2	53	29th	27	17.25	38.4	42.4	1.92	49	—	11	13	28th	13	9	3	1	0	0	2	16	0	—	—	—	—	—	—	—	—	—	—	—	—	—	
Dublin City †	2121 9	54	43.9	36.3	40.1	-1.7	60	30th	27	17th	—	—	1.05	27	—	31	7	28th	13	6	2	0	2	0	9	13	1	—	—	—	—	—	—	—	—	—	—	—	—	—	
„ Glasnevin †	2121 9	55	44.3	33.6	38.9	-1.7	62	30th	20	17th	—	—	1.32	34	—	25	7	29th	15	6	1	1	1	0	12	18	0	—	—	—	—	—	—	—	—	—	—	—	—	—	
„ Phoenix Pk. †	2121 9	155	43.7	33.4	38.5	-1.7	61	30th	21	17th	—	—	0.89	23	—	35	5	29th	11	7	2	0	0	0	4	13	0	0.94	-0.90	12	—	—	—	—	—	—	—	—	—	—	
„ Trin. Coll. †	2121 9	12	44.9	36.4	4																																				

TABLE IV.—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of JANUARY, 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.		VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).			DIRECTION.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Vis.	8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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0. SCOTLAND, N.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
Shetlands.	Lerwick	..	1	59	1023.9	—	39.1	1.4	7.1	87.8	5	0	2	1	18	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY, and WIND at fixed hours at certain Stations during the Month of JANUARY, 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.						VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Visibility.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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2. ENGLAND, N.E.—cont.		G.M.T.	ft.	mb.	mb.	°F.	°F.	mb.	%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY, and WIND at fixed hours at certain Stations during the Month of JANUARY, 1929.

DISTRICT, COUNTY AND PLACE.	Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.													
			At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.								
										0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Vis.	8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		
															0	1	2	3																	4	5
5. ENGLAND, S.E.—cont.																																				
Kent.	Biggin Hill H	7	596	1024.8	—	31.8	0.6	5.7	93.8	2	3	1	6	19	2	1	1	1	4	8	10	4	0	0	0	8	17	6	4	8	0	2	2	6	2	1
		13	596	1024.9	—	35.2	1.1	6.2	89.8	2	2	1	10	16	0	2	0	2	2	10	9	6	0	0	0	7	24	0	4	8	1	5	2	5	5	1
		18	596	1025.0	—	33.6	0.7	6.1	91.6	3	2	3	9	12	0	1	2	4	0	12	11	1	0	0	0	6	23	0	2	6	7	3	2	5	3	2
Kent.	Dungeness ..	1	23	1024.8	—	35.3	0.9	6.3	91.7	3	2	5	4	17	0	0	0	2	3	2	6	10	8	0	0	7	24	0	5	7	2	4	5	2	2	4
		7	23	1024.7	+ 7.9	34.3	1.0	5.9	90.7	2	0	7	7	15	0	2	0	2	1	0	4	13	9	0	0	6	25	0	6	9	3	2	4	2	0	5
		13	23	1024.8	—	37.2	1.4	6.5	8.5	1	2	1	10	17	0	2	0	0	1	1	6	10	11	0	0	5	25	0	7	6	2	5	4	3	0	3
Kent.	Lympe H	18	23	1025.0	—	36.3	1.1	6.3	89.7	2	0	8	3	18	0	1	1	2	1	0	8	11	7	0	0	7	24	0	7	5	1	5	5	2	3	3
		1	345	1024.9	—	33.2	1.1	5.7	88.7	3	6	1	3	18	1	0	3	1	3	9	6	6	2	0	0	14	17	0	9	5	2	3	3	1	2	6
		7	345	1024.6	—	32.3	0.9	5.6	89.7	3	2	5	18	0	1	4	0	1	7	11	5	2	0	0	14	17	0	12	3	3	3	3	1	2	4	
Kent.	Manston H	13	345	1024.9	—	35.3	1.5	5.9	84.8	2	1	0	12	16	0	0	0	2	3	8	10	5	3	0	0	16	15	0	11	3	4	3	4	1	3	2
		18	345	1025.1	—	33.7	1.1	5.8	87.7	4	1	2	5	19	0	1	0	3	6	9	10	0	2	0	0	14	17	0	11	0	4	4	3	1	4	4
		7	152	1025.0	—	34.1	1.2	5.9	88.7	2	2	2	9	16	0	0	2	1	2	5	13	8	0	0	0	13	18	0	8	4	3	2	5	2	2	5
Kent.	Tunbridge Wells	13	152	1025.3	—	36.5	1.6	6.3	85.0	1	3	1	14	12	0	0	1	0	1	9	10	5	5	0	0	17	14	0	4	6	3	5	3	2	2	6
		18	152	1025.5	—	34.9	1.2	6.1	88.7	5	1	4	10	11	0	1	0	0	1	6	15	5	3	0	0	12	19	0	3	7	1	7	3	2	2	6
Kent.	Tunbridge Wells	9	396	1026.2	—	33.0	0.4	6.1	96.8	2	1	1	3	24	0	5	0	2	5	17	2	0	0	0	0	2	29	0	5	9	3	7	2	2	1	2
Sussex.	Brighton H	9	48	1025.8	—	35.9	1.2	6.4	89.8	0	1	5	12	13	0	0	1	0	3	7	17	2	1	0	0	1	30	0	3	14	0	5	0	3	0	6
Sussex.	St. Leonards	9	174	1025.3	—	35.0	1.3	6.0	86.8	1	2	2	9	17	0	2	0	0	2	3	5	17	2	0	0	5	26	0	4	13	2	5	1	2	1	3
		21	174	1025.1	—	35.9	1.5	6.1	85.7	3	2	1	5	20	0	1	0	0	0	4	4	17	5	0	0	6	25	0	3	15	2	5	2	2	1	1
Hampshire.	Calshot ..	1	15	1025.4	—	35.4	1.5	5.9	85.6	8	3	1	2	17	1	0	0	1	2	2	11	13	1	0	0	9	22	0	8	6	5	3	1	3	2	3
		7	15	1025.2	—	34.6	1.2	6.0	86.7	1	7	3	4	16	0	2	0	2	0	0	15	12	0	0	0	14	17	0	6	6	7	2	2	2	2	4
		13	15	1025.2	—	38.2	2.1	6.3	80.7	1	6	2	10	12	0	2	0	1	1	19	7	0	0	0	13	17	1	7	6	6	3	2	2	2	2	
Hampshire	Southampton H	18	15	1025.4	—	36.7	1.6	6.3	84.6	5	5	0	7	14	0	1	0	2	2	0	21	5	0	0	0	10	20	1	5	7	5	0	3	2	3	
		9	84	1026.6	+ 8.8	35.4	1.4	6.1	86.8	0	5	3	0	23	0	2	3	12	7	6	1	0	0	0	3	28	0	8	10	2	2	3	3	1	2	
		21	84	1025.8	+ 8.3	36.0	1.3	6.4	86.8	0	1	3	1	26	0	3	4	6	11	7	0	0	0	0	0	31	0	7	11	1	3	1	4	2	1	
Hampshire.	S. Farnborough	7	256	1025.1	—	32.0	0.8	5.6	91.7	2	5	1	5	18	0	1	1	2	3	10	9	3	2	0	0	2	27	2	6	6	2	3	5	1	4	2
		13	256	1025.2	—	37.4	2.0	6.1	82.7	3	2	2	6	18	0	1	1	2	4	2	17	4	0	0	0	5	26	0	6	8	2	5	4	1	3	2
		18	256	1025.2	—	34.9	1.3	6.0	86.6	4	5	4	1	17	0	2	1	2	4	6	13	3	0	0	0	3	26	2	3	6	3	5	3	2	2	5
Hampshire.	Winchester (Worthy Down)	7	273	1025.2	—	32.4	0.9	5.5	89.8	2	3	2	6	18	0	0	4	3	2	2	6	9	5	0	0	4	26	1	9	4	3	4	3	0	3	4
		13	273	1025.1	—	37.1	1.9	6.1	82.8	1	2	4	7	17	0	0	1	1	3	4	9	9	4	0	0	7	24	0	10	4	5	4	3	1	1	3
		18	273	1025.2	—	34.8	1.3	5.9	86.7	5	3	1	6	16	0	1	1	1	2	2	13	8	3	0	0	0	29	2	4	5	4	4	1	2	2	7
I. of Wight.	Ventnor (Hosp.)	9	80	1025.2	—	36.5	1.5	6.4	86.7	1	6	4	7	13	—	—	—	—	—	—	—	—	—	—	0	3	28	0	8	9	5	2	0	2	4	1
		15	80	1024.9	—	39.2	2.2	6.4	79.6	2	4	2	9	14	—	—	—	—	—	—	—	—	—	—	0	5	26	0	5	8	5	4	1	2	4	2
Wilts.	Larkhill H	9	444	1025.6	—	32.8	1.0	5.7	88.7	2	4	1	9	15	0	2	0	1	4	2	6	13	3	0	0	10	21	0	7	7	4	5	3	0	2	3
		13	444	1025.1	—	36.9	1.8	6.3	82.7	2	1	5	9	14	0	1	2	2	1	4	7	4	10	0	0	13	18	0	4	10	5	4	3	2	2	1
		15	444	1024.9	—	36.7	1.7	6.3	83.7	3	2	3	6	17	0	3	1	0	3	5	8	3	8	0	0	10	21	0	6	8	4	6	2	1	1	3
7a. ENGLAND, N.W.																																				
Cumberland.	Aspatria (Mealsgate)	9	485	1026.2	—	35.2	1.0	6.2	90.7	4	0	6	2	19	—	—	—	—	—	—	—	—	—	—	0	3	16	12	4	5	0	4	3	3	0	0
		21	485	1025.6	—	35.0	1.0	6.2	90.6	9	2	3	2	15	—	—	—	—	—	—	—	—	—	—	0	2	17	12	0	3	0	12	1	3	0	0
Lancashire.	Hutton ..	9	86	1024.7	—	33.8	0.7	6.2	93.7	2	3	7	6	13	—	—	—	—	—	—	—	—	—	—	0	0	6	25	0	0	1	3	1	0	0	1
Lancashire.	Southport H	9	42	1026.0	+ 10.3	34.9	1.0	6.3	90.8	1	4	2	5	19	0	1	1	1	7	15	4	1	1	0	0	11	16	4	6	5	3	8	4	0	0	1
		13	42	1025.6	+ 10.2	38.1	1.8	6.6	83.7	1	5	1	7	17	0	0	0	0	3	18	4	0	6	0	0	13	16	2	5	4	4	6	3	0	2	5
		18	42	1025.6	+ 10.4	36.8	1.4	6.6	87.6	0	7	2	1	21	0	0	0	2	3	20	3	1	2	0	0	13	16	2	6	4	4	8	2	3	0	2
		21	42	1025.7	+ 10.1	35.8	0.9	6.6	91.7	0	6	4	0	21	0	0	0	2	6	20	1	2	0	0	0	15	15	1	6	4	6	7	4	1	1	1
Lancashire.	Stonyhurst ..	9	381	1026.5	—	34.0	1.2	5.8	87.6	6	1	2	10	12	0	1	0	1	0	6	13															

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY, and WIND at fixed hours at certain Stations during the Month of JANUARY, 1929.

DISTRICT COUNTY AND PLACE.	Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
			At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	NO. OF OBSERVATIONS.					NUMBER OF OBSERVATIONS.									FORCE (0-12).					DIRECTION.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
										0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Visibility.			8 or more.	4 to 7.	1 to 3.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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8a. SOUTH WALES—cont.	G.M.T.	ft.	mb.	mb.	°F.	°F.	mb.	%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				

TABLE I. DISTRICT VALUES.

The District Values of this Table are computed from the statistics for selected individual stations set out in Table III and Table IV.

The representative stations from which the District Values of rainfall and temperature are computed are indicated in Table III by the sign ¶ while the representative stations from which District Values of sunshine are computed are indicated by the sign §. The deviations from and percentages of normal for Air Temperature, Rainfall and Sunshine are the means of the corresponding deviations or percentages for the representative District Value stations. The deviations from normal of Earth Temperature are derived from the deviations for all the stations reporting in Table III for which normals of Earth Temperature are available. The highest and lowest temperatures for the District recorded during the month may refer to any station in Table III.

TABLE II. SUMMARY OF AUTOGRAPHIC RECORDS OF WIND.

The records used in the preparation of this Table are generally made by anemographs of the pressure-tube type. At a few stations the Robinson Cup Anemograph is utilised. The classification adopted for the "Distribution of Wind" is based on the specification of the Beaufort Scale of Wind Force (see *The Observer's Handbook*). For an anemograph complying with the specification "head 33 ft. above ground in the open" the several columns correspond with Force 8 and above (gales), Forces 6 and 7 (strong winds), Forces 4 and 5 (moderate breezes), Forces 2 and 3 (light breezes), Forces 1 and 0 (nearly calm). Some information as to the nature of the actual exposures may be gathered from the figures in the "Height" columns.

The "Highest Hourly Wind" is determined by the mean speed of the wind for a period of sixty minutes from 30 minutes before to 30 minutes after an exact hour by Greenwich Mean Time. Under the heading "Veer from N" the azimuth of the direction from which the wind was blowing is stated, the entry for an east wind being 90°, that for a south wind 180° and so on.

TABLE III. SUMMARY OF OBSERVATIONS AT TERMINAL HOURS.*

Temperature.—The terminal hours of observation are given for each station. When the terminal hours for maximum and minimum temperature are stated independently the temperatures refer to intervals of 24 hours. If the maximum thermometer is read in the morning the reading is credited to the previous day. When the terminal hours for maximum and minimum are separated by a dash, thus, 18-7, the day-maximum for the period 7h. to 18h. and the night-minimum for the period 18h. to 7h. are reported and are utilised in determining the means for the month; in such cases the extreme temperatures for successive periods of 24 hours are also read by the observers, so that the absolute maximum and minimum temperatures for the month are obtained.

Except at the Royal Observatory, Greenwich, where a Glaisher stand is in use, the air temperature is obtained from thermometers placed in louvered screens. At Kew Observatory, Richmond, and Valentia Observatory these are north wall screens a few feet from the ground. At Aberdeen Observatory the north wall screen is at 41 feet. Otherwise the screens are in the open.

Rainfall.—The daily amounts are for the 24 hours beginning at the "terminal hour." "Rainfall" includes all forms of precipitation. The number of days of precipitation is counted with reference to the limit .01 inch or 0.2 mm. and also with reference to the limit .04 inch or 1 mm. The lower limit excludes mere "traces" of precipitation, but it is frequently passed on occasions when the precipitation is only dew.

Weather.—The numbers of days of Precipitation, Snow, Hail, Thunderstorms and Gale are counted irrespective of the hour at which the phenomena occur. Except for "Precipitation" the day is the civil day.

For the purpose of this summary "Snow" includes sleet (*i.e.*, snow with rain), "Hail" includes graupel (soft hail), "Snow lying" refers to occasions when at least one-half of the country surrounding the station is covered with snow at the morning observation. The entry of "fog" implies that regular observations of the range of vision are made on the scale set out below. Days of fog are those on which the range of vision is less than 1,100 yards at the hour of morning observation. That hour is generally given by the third entry of column 2 of the table and may be 7h. or 9h. G.M.T. The variability of the observation hour may exercise an important effect upon the statistics of fog frequency. "Thunderstorm" includes any day on which thunder is heard. "Gale" is a wind of Force 8 or upwards on the Beaufort Scale. A "ground frost" is entered when the reading of a "grass minimum" thermometer set the previous evening and read at the morning observation is 30° F. or lower.

Sunshine.—The percentage of possible sunshine is in all cases calculated with reference to the maximum duration possible in the latitude on the assumption of an unobstructed horizon, due allowance being

made for refraction (see *International Meteorological Tables* (Paris) pp. A17-A20 and 42-27). The sunshine recorder is generally insensitive to sunshine when the sun is at an altitude of 3° or less. The symbol § is entered against the percentage at some stations and indicates that obstructions of altitudes greater than 3° reduce the possible record of duration for the month by more than 5 per cent.

TABLE IV. SUMMARY OF OBSERVATIONS AT FIXED HOURS.*

Mean Air Pressure is expressed in millibars. (1 millibar = 1,000 dynes per square centimetre = the pressure due to .029531 inch of mercury at 32° F. in Lat. 45°). The corrections for latitude, temperature and height have been applied to the barometer readings so as to obtain pressure at mean sea level. Barometric pressure is given at station level for a few stations at altitudes of 600 ft. or more in footnotes in Table IV.

Hygrometry.—The values given depend on the readings of the dry and wet bulb thermometers in Stevenson Screens (except at the Observatories, see above). The observations were formerly reduced by Glaisher's method; as from January, 1926 they are reduced by the new hygrometrical tables issued by the Office which are based on a formula of Regnault. In general the relative humidity and vapour pressure are derived from the monthly means of the dry and wet bulb readings. At certain stations the daily values of relative humidity and vapour pressure are found and the means are computed therefrom. These stations are indicated by the letter "H."

Cloud Amount.—The proportion of sky covered with cloud is estimated on the scale 0 to 10, the entry "0" being equivalent to clear sky "10" to overcast.

Visibility.—The observations are classified according to the following scheme—the distances, specified by international arrangement in metres, are given here in yards and miles:—

CODE.	RANGE OF VISION.	
0	Less than 55 yards.	
1	Exceeding 55 yards, less than 220 yards.	
2	" 220 "	" 550 "
3	" 550 "	" 1,100 "
4	" 1,100 "	" 1½ miles.
5	" 1½ miles	" 2½ "
6	" 2½ "	" 6½ "
7	" 6½ "	" 12½ "
8	" 12½ "	" 31 "
9	" 31 "	

Wind Summaries.—The estimates of wind force refer to the Beaufort Scale, and in general to the wind experienced at the time of observation. At Deerness, Cahirciveen, Richmond, Armagh, Eskdalemuir, Southport, Greenwich and Oxford the analysis refers to tabulations of autographic records. For Oxford the mean wind speed for half-an-hour centred at the hour of observation is used for conversion to "force" on the Beaufort Scale; for the remaining observatories the mean wind speed used for each observation refers to a period of one hour. In these cases winds equivalent to Force 1 are counted with the calms, whilst Forces 2 and 3 are taken together in the preceding column of the Table.

INTERPOLATED VALUES.

When the observations for any station for a month are incomplete and relevant data (e.g. records from neighbouring stations) which make it practicable to interpolate approximate values for the missing observations are available, such approximate values may be used for completing summaries for stations published in Tables III and IV. Parts of a summary obtained in this way are shown in brackets thus—(52.4).

STANDARD OF TIME.

As a rule observations are made in all parts of the British Islands according to Greenwich Mean Time, but at the following stations Local Mean Time is used for the observations summarised in Tables III and IV. The number of minutes after Greenwich Time is shown in brackets—Darwen (10), Rhayader (15), Ashburton (15), Tavistock (17), Plymouth (15), Douglas (20), Armagh (26), Balbriggan (25), Lisburn (30), Newcastle, Co. Wicklow (30), Ballinacurra (30), Cork (34).

"Summer Time" is not used in the Monthly Weather Report, but at certain stations the hours of observation vary in the course of the year. For such stations all time entries are converted to G.M.T. before they are printed and the winter hours are given as the terminal hours in the annual tables. For the summer hours reference should be made to the appropriate months.

NORMALS.

In Table III the normals used are those for the 35 years 1881-1915. The normals of temperature and sunshine are published in the Book of Normals, Section I, those for rainfall in the Book of Normals, Section V.

The normals for pressure with which comparison is made in Table IV also refer to the period 1881-1915.

* In addition to the frequencies published in this Report (Tables III and IV), the Meteorological Office has issued since January, 1927, in the form approved by the International Commission for Air Navigation, monthly frequency tables of height of base of low cloud, and speed and direction of surface and upper winds.

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

SUMMARY OF OBSERVATIONS COMPILED FROM RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS.

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FEBRUARY, 1929. Unusually cold. Dry in Great Britain.

The outstanding feature of the weather of February, 1929, was the intense cold which prevailed in England from the 11th to the 17th. While conditions in Scotland and Ireland during this period were unusually cold, they were generally less extreme than in England. The month was dry over Great Britain, where the general precipitation amounted to only about one-half of the normal.

The month opened with rather unsettled mild weather, with slight precipitation. On the 3rd the eastern districts of England were overrun by south-easterly winds from off the Continent where severe cold prevailed and in consequence day temperatures were moderate to rather low with severe night frosts. Much sunshine was recorded in the south-east and east of England on the 3rd and in several districts on the 4th. Following some rain in Scotland and in the west and south-west of England during the night of the 5th-6th and on the 6th, the weather continued unsettled and rather dull with much local mist or fog and night frosts. Except in the western districts where conditions were rather mild, temperatures were generally moderate to rather low. There was frequent precipitation, but amounts were not, as a rule, remarkable. In several districts the precipitation on the 9th and 10th took the form of snow or sleet.

Meanwhile, an unusually intense anticyclone over northern Europe moved south-westwards and on the 11th the greater part of Great Britain came under its influence while a trough of low pressure associated with a deep depression centred south of Iceland, extended over Ireland. South-easterly wind spread over Great Britain and by the 12th the intense cold which was being experienced on the Continent had extended to practically all districts. Snow fell in many places on the 11th and over high ground and in mountainous districts in the west of England, Wales and Scotland the falls were heavy and in exposed places were accompanied by strong south-easterly winds or gales. Over a large part of Great Britain frost continued day and night until the 17th, unusually low temperatures being recorded in the screen and on the ground on the mornings of the 13th, 14th, 15th and 16th (see Temperature Section). Bright periods occurred in several districts on the 12th, 13th and 14th. After the 14th there was a gradual rise in temperature in the south-west and following heavy snow on the 15th and 16th, day temperatures generally rose above freezing point on the 17th. Subsequently there was a rapid rise in temperature in the eastern districts on the 20th, and from the 21st to the 23rd mild conditions prevailed generally by day with considerable fine periods in the south-east. Ground frost, however, continued to occur frequently at night and was severe in many districts.

There was a renewal of east winds and a return to wintry conditions on the 24th, although the cold was less intense than it had been. Showers of sleet and snow occurred frequently, but on the 27th and 28th fine periods were enjoyed in many districts. Glazed frost on the 27th was reported from a few stations, the observer at Princetown, Dartmoor, stating that branches of trees, telegraph poles and wires, were broken with the weight of ice.

Pressure and Winds.—Over most of Great Britain, conditions were mainly anticyclonic during the month and pressure generally was above the normal. The isobars trended roughly from south to north and the prevailing winds were from between south and east. Strong winds were frequently experienced in northern and western districts. Southerly to south-easterly gales on the 11th-12th affected most of Great Britain, the wind attaining a velocity in a gust of 67 mi/hr. at Tiree and 62 mi/hr. at Liverpool on the 11th. Gales occurred in the south-west of England on the 26th-27th, a gust of 69 mi/hr. being recorded at St. Mary's, Scilly, on the 27th. At Cahirciveen a gust of 70 mi/hr. was recorded on the 19th.

Temperature.—The outstanding feature of the weather of February, 1929, was the intense cold of the second week, the severest experienced generally in Great Britain since February, 1895. The representative mean temperature for each of the eastern districts of England and for the Midland Counties of England for the week commencing February 10th, was from 13° F. to 15° F. below the normal. At Ross-on-Wye the mean temperature for the same week was 16·8° F. below the normal. Temperatures remained continuously below freezing point from the 11th to 17th over large areas of Great Britain and in some eastern districts from the 11th to the 20th. At Richmond (Surrey) the temperature remained continuously below 32° F. from 22 h. on the 10th until shortly after mid-day on the 17th, a period of just over 158 hours. At Manston (near Margate) more severe conditions prevailed, the temperature remaining below 32° F. on the 10th till 9 h. on the 20th, a period of no less than 226 hours' continuous frost. Screen minima below 10° F. were fairly numerous from the 12th to the 16th and in a few places grass minimum temperatures below zero were recorded. At Ross-on-Wye the temperature fell to -1° F. in the screen and to -8° F. on the grass on the 14th. A screen minimum temperature of -1° F. was also recorded at Usk on the 14th, and at Houghall on the 17th. Amongst the lowest grass minima recorded were -1° F. at Birmingham, -3° F. at Rhayader, 2° F. at Leafeld, 3° F. at Aberdeen on the 14th, and 2° F. at Birmingham, -1° F. at Rhayader and South Farnborough on the 15th, and 0° F. at Oxford on the 16th. At Hampstead (London) the temperature on the grass fell to -2° F. on the 15th, the lowest recorded there since March 4th, 1909, when 4° F. was recorded. At Kentchurch Rectory (Herefordshire) a minimum

temperature on the ground of -11° F. was recorded on the 14th. The thermometer in this case was freely exposed on a small box, the top of which was level with the surrounding surface which was covered with snow. The extreme temperatures for the month were:—England and Wales, 57° F. at Biggin Hill on the 22nd and at Teignmouth on the 1st, and -1° F. at Ross-on-Wye, Houghall and Usk on the 14th. Scotland, 53° F. at Achnashellach and Fort Augustus on the 3rd, Arbroath and Montrose on the 4th, and 0° F. at Wolfelee on the 16th. Ireland, 56° F. at Phoenix Park (Dublin) and Newcastle (Wicklow) on the 2nd, at Foynes on the 21st, at Killarney on the 3rd, and at Cork (University College) on the 1st and 2nd, and 21° F. at Mallarany on the 17th. In many parts of Great Britain rivers became frozen and ice breakers were used in the Thames in an endeavour to keep the water open for traffic. This was not, however, entirely successful, many of the upper reaches being frozen over for considerable stretches. Canals and lakes were also generally frozen over, and, it is reported that on Lake Windermere there were as many as 50,000 people on the ice at one time. Skating has not been so frequent since at least 1895 and at the end of the month was still in progress in many parts of the country. Thousands of homes were affected throughout the country through their domestic water supplies becoming frozen and some deaths were reported through the bursting of kitchen boilers. There was a recurrence of the cold weather during the last few days of the month, but the cold was not so intense.

Over the eastern half of England the mean temperature for the months was below 32° F. and decidedly below the normal. Westwards the mean temperature increased, the isotherms of mean temperature running roughly from north to south. The mean temperature of 45° F. at Cahirciveen on the south-west coast of Ireland contrasted with a mean temperature of 32° F. or slightly below on the coast of East Anglia. The month was not so cold in Ireland, where in the south the mean temperature was slightly above the normal.

Precipitation.—February, 1929, was the third consecutive month in which the general precipitation over England and Wales and Scotland and over the British Isles as a whole was below the normal. Monthly totals of precipitation were decidedly deficient in Great Britain, except around the estuary of the Tay, and in the extreme south-west of England where there was a slight excess. Over large areas less than one-third of the normal precipitation was recorded and in the north-west of Scotland less than one-quarter; Achnashellach had 19 per cent. of the normal, Inverness 16 per cent., and Strathpeffer 21 per cent. In central, eastern and south-eastern districts of England the number of days of precipitation was below the normal. Daily amounts of precipitation in Great Britain were not as a rule remarkable, the only outstanding daily amount being 65 mm. at Dean Prior on the 16th.

In Ireland monthly totals of precipitation exceeded the normal, except in the north-west, more than twice the normal being recorded along the east and south-east coasts. Heavy falls occurred in the south-east on the 20th. At Longraigue, Foulks Mills (Wexford), 67 mm. of rain fell during the 24 hours commencing 9 h. on the 20th, the highest amount in 24 hours on record in that district. Other large falls on the same day were 58 mm. at Waterford and 43 mm. at Seskin. At Cork the month was, with the exception of February, 1923, the wettest February in the past 46 years.

Snow fell frequently in Great Britain during the period 10th-18th and 25th-28th. The south-easterly gales on the 11th-12th were accompanied by heavy falls of snow in the south-west of England, Wales, and Scotland. Further heavy snow occurred in Scotland and the western districts of England and Wales on the 15th to 16th. The frozen state of the ground, combined with drifting, rendered many roads impassable, and in some districts they remained closed to traffic until the 23rd. In central and eastern Scotland roads were again blocked with snow around the 26th.

The general precipitation of the British Isles expressed as a percentage of the normal for the period 1881-1915 was 67; the values for the constituent countries were:—England and Wales, 49; Scotland, 54; Ireland, 129.

Sunshine.—A slight to moderate excess of bright sunshine was recorded locally, chiefly in the north of Scotland and on or near the south-east coast of England, but in general, monthly aggregates were deficient. Representative totals for Districts, excluding the Channel Isles, expressed as a percentage of the normal for the period 1881-1915 ranged from 97 per cent. in Scotland W. to 43 per cent. in England N.E. Much sunshine was recorded on the 3rd and 4th in the south-east of England, from the 12th-14th and on the 17th in many districts, on the 21st and 22nd in the south-east of England, and widely on the 27th and 28th.

Fog.—Fog during the night and in the early morning was of frequent occurrence in districts in Great Britain during the first week, from about the 14th to 19th and from about the 21st to 25th.

Miscellaneous Phenomena.—Aurora was observed in Scotland on the 8th, 9th, 10th, 17th, 18th, 26th, 27th and 28th. The display on the 27th was brilliant and widely observed, and was visible as far south as Newton Abbot (Devon). The Zodiacal Light was observed at Oxford on the 28th. A line squall accompanied by sleet and snow occurred at Armagh on the 9th.

TABLE I.—DISTRICT VALUES—FEBRUARY, 1929.

[1908, revised 1928.]

DISTRICTS.	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High-est.	Low-est.	Daily Mean. Deviation from Normal.	At 1 ft. Deviation from Normal.	At 4 ft. Deviation from Normal.	Per-cent- age of Normal.	No. of Days. Deviation from Normal.	Per-cent- age of Normal.	Per-cent- age of Possible Duration.
o. SCOTLAND, N.	°F. 53	°F. 12	°F. -1.5	°F. —	°F. —	% 32	—6	% 93	% 20
Eastern.									
1. SCOTLAND, E.	53	0	-3.8	—	—	66	-2	85	24
2. ENGLAND, N.E.	50	-1	-6.2	-2.0	-1.1	59	-2	43	11
3. ENGLAND, E...	52	9	-7.2	-4.1	-2.2	35	-7	75	21
4. MIDLAND COUNTIES	53	-1	-6.9	-3.0	-1.5	39	-7	67	17
5. ENGLAND, S.E.	57	5	-7.4	-3.6	-2.2	42	-5	94	25

DISTRICTS.	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High-est.	Low-est.	Daily Mean. Deviation from Normal.	At 1 ft. Deviation from Normal.	At 4 ft. Deviation from Normal.	Per-cent- age of Normal.	No. of Days. Deviation from Normal.	Per-cent- age of Normal.	Per-cent- age of Possible Duration.
Western.	°F. 52	°F. 8	°F. -4.3	°F. —	°F. -1.1	% 62	-4	% 97	% 19
6. SCOTLAND, W. (& I. of Man)	52	8	-4.3	—	-1.1	62	-4	97	19
7. ENGLAND, N.W. (& N. Wales)	55	1	-4.9	-2.8	-1.3	52	-5	83	21
8. ENGLAND, S.W. (& S. Wales)	57	-1	-4.7	-2.3	-1.3	64	-4	75	20
9. IRELAND, N...	55	21	-0.6	+0.1	-0.4	101	0	61	14
10. IRELAND, S...	56	24	-0.1	—	—	169	+3	55	15
11. CHANNEL I. (& Scilly)	55	19	-3.6	-3.6	-1.6	84	-5	104	31
Mean: DISTRICTS 1-10	57	-1	-4.6	-2.5	-1.4	69	-3	73	19

TABLE II.—SUMMARY OF AUTOGRAPHIC RECORDS OF WIND.—FEBRUARY, 1929.

[1914.]

DISTRICT AND STATION.		Height.			Distribution of Wind.								Extreme Velocities.									
		Above Mean Sea Level.	Above Ground.	Above Building.	More than 38 mi/hr.		25 to 38 mi/hr.		13 to 24 mi/hr.	4 to 12 mi/hr.	Less than 4 mi/hr.	No Record.	Highest Hourly Wind.				Highest Gust.					
					Dates of Occurrence.	Duration.	No. of Days.	Duration.	Duration.	Duration.	Duration.	Duration.	Veer from N.	Speed.	Mid Time.	Speed.	Time.					
o. SCOTLAND, N.		ft.	ft.	ft.		hr.		hr.	hr.	hr.	hr.	°	mi/hr.	m/s.	day. hr.	mi/hr.	m/s.	d. h. m.				
Shetlands	Lerwick	310	42	33†	11	11	14	165	231	146	119	0	180	40	18	11 18	56	25	11 22 10			
Orkneys	Deerness (Cup Anr.)	188	16	5	11, 12, 15	22	19	226	228	154	42	0	160	51	23	11 15	—	—	—			
1. SCOTLAND, E.																						
Aberdeen	Aberdeen	70	42	33†	—	0	9	74	283	256	59	0	150	33	15	11 9	53	24	11 9 5			
Kincardine	Balmakewan ..	140	25	18	—	0	—	0	(37)	(384)	(181)	70	150	20	9	11 14	42	19	11 14 30			
Edinburgh	Edinburgh	485	39	31†	—	0	2	12	176	360	121	3	200	30	13	8 7	48	21	11 9 45			
6a. SCOTLAND, W.																						
Argyll	Tiree	80	55	48†	11, 13	23	20	288	225	133	3	0	180	49	22	11 8	67	30	11 11 5			
Renfrew	Paisley	188	81	15	—	0	—	0	54	257	90	271	120	20	9	7 15	36	16	11 9 0			
Dumfries	Eskdalemuir ..	825	50	22	—	0	1	9	174	315	174	0	140	28	13	11 13	44	20	11 10 15			
2. ENGLAND, N.E.																						
Durham	South Shields ..	62	46	20	—	0	2	13	146	329	184	0	150	29	13	11 12	46	21	11 8 35			
York, E.R.	Spurn Head ..	67	41	35†	11, 12	16	8	70	187	125	10	264	130	44	20	11 13	55	25	11 12 45			
Lincoln	Cranwell	284	43	27†	—	0	1	13	191	356	112	0	130	31	14	11 16	49	22	11 14 10			
3. ENGLAND, E.																						
Norfolk	Gorleston	52	42	33†	—	0	8	108	205	294	61	4	140	37	17	11 19	49	22	11 18 30			
Suffolk	Felixstowe Aero. ..	55	40	25	—	0	7	61	213	(254)	(144)	0	100	35	16	11 18	43	19	11 18 35			
Essex	Shoeburyness ..	115	104	14†	—	0	4	36	137	160	106	233	60	36	16	27 9	44	20	27 11 40			
4. MIDLAND COUNTIES.																						
Warwick	Birmingham ..	643	118	18	—	0	—	0	147	414	111	0	110	24	11	11 22	47	21	12 1 5			
5. ENGLAND, S.E.																						
Surrey	Richmond (Kew Obs)	82	65	22	—	0	1	3	145	313	211	0	70	25	11	27 11	43	19	27 8 35			
Surrey	Croydon	313	105	49	—	0	3	18	208	299	147	0	60	29	13	27 15	54	24	27 7 0			
Kent	Dover	61	32	22	—	0	2	29	215	338	69	21	—	36	16	27 11	48	21	27 10 0			
Kent	Lympne	409	70	55†	—	0	2	18	188	316	20	130	30	35	16	27 15	48	21	27 15 45			
Hampshire	Calshot	55	45	31†	11, 12	12	8	67	297	248	48	0	110	44	20	11 23	53	24	11 23 45			
Hampshire	Worthy Down ..	314	43	27†	—	0	1	1	107	365	199	0	90	25	11	11 23	45	20	27 9 15			
7a. ENGLAND, N.W.																						
Lancashire	Fleetwood	112	50	12	—	0	1	8	147	122	27	368	120	29	13	11 17	46	21	11 20 10			
Lancashire	Southport	77	59	45†	—	0	6	39	341	274	18	0	110	31	14	11 22	48	21	11 21 40			
Lancashire	Liverpool (Bidston)	253	64	35	11	1	8	57	394	213	7	0	130	39	17	11 17	62	28	11 16 45			
7b. NORTH WALES.																						
Anglesey	Holyhead	64	45	29†	27	6	6	51	246	312	57	0	80	43	19	27 7	56	25	27 7 15			
Flint	Sealand	81	65	49†	—	0	3	23	235	345	69	0	140	35	16	11 17	53	24	11 16 40			
8b. ENGLAND, S.W.																						
Devon	Plymouth	185	88	2	—	0	11	46	339	228	59	0	—	34	15	11 13	59	26	12 5 45			
Cornwall	Pendennis Castle ..	256	65	24	—	0	—	—	Instr. dismantled.													
9. IRELAND, N.																						
Donegal	Dunfanaghy Road	180	47	39	—	0	4	8	236	335	93	0	—	29	13	15 3	49	22	13 2 10			
Antrim	Aldergrove	282	40	27†	—	0	1	10	254	347	61	0	120	29	13	11 16	53	24	11 15 50			
10. IRELAND, S.																						
Dublin	Kingstown (Cup Anr.)	49	27	16	—	0	12	80	284	263	45	0	130	37	16	11 18	—	—	—			
Clare	Quilty	100	40	32†	—	0	11	108	250	275	39	0	—	35	16	19 21	50	22	19 21 20			
Kerry	Cahirciveen (Val. O.)	98	41	34†	—	0	10	98	269	219	86	0	150	35	16	20 1	70	31	19 17 20			
Cork	Weaver Pt.	160	30	21†	—	0	12	130	201	273	68	0	—	36	16	13 1	55	25	13 1 40			
11. SCILLY ISLES.																						
	St. Mary's	230	65	17	26, 27	6	19	223	271	147	25	0	90	46	21	27 3	69	31	27 1 0			

† Standard mounting.

2. MOVEMENTS OF DEPRESSIONS.

2. MOVEMENTS OF DEPRESSIONS.

Map showing the movement of depressions (labeled with numbers and letters) across the North Atlantic region, including the British Isles, Scandinavia, and parts of North America. The map includes latitude and longitude lines. A scale bar at the bottom indicates 1:25,000,000.

Positions of centres are shown thus:—○ at 1h; ● at 7h; □ at 13h; X at 18h.

3. DISTRIBUTION OF MEAN TEMPERATURE.

3. DISTRIBUTION OF MEAN TEMPERATURE.

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

SCALE OF TINTS.

44°	41°	38°	35°	32°
-----	-----	-----	-----	-----

39°

The map displays the British Isles with a grid of latitude and longitude. Isotherms are drawn and labeled with values such as 32°, 35°, 38°, 39°, 41°, 42°, 44°, and 46°. A scale of tints is provided, showing five levels of shading corresponding to the temperature values. The map is titled '3. DISTRIBUTION OF MEAN TEMPERATURE.' and includes a note: 'Reduced to sea level by a correction of 1° F. for 300 ft.'

Sea temperatures are shewn in large figures, thus: 41

4. BRIGHT SUNSHINE, HOURS PER DAY.

SCALE OF TINTS.

3.0 2.5 2.0 1.5 1.0 Hrs

4. BRIGHT SUNSHINE, HOURS PER DAY.

SCALE OF TINTS.

Hrs.

30 25 20 15 10

15 20 25 10 15 10 20 25 30 35 40

Westerly 84.0 hrs

12-2 hrs Huddersfield

St. Helier 113-5 km

H.M. Stationery Office Pass, Kingsway W.C.2

The pressure is expressed in millibars.

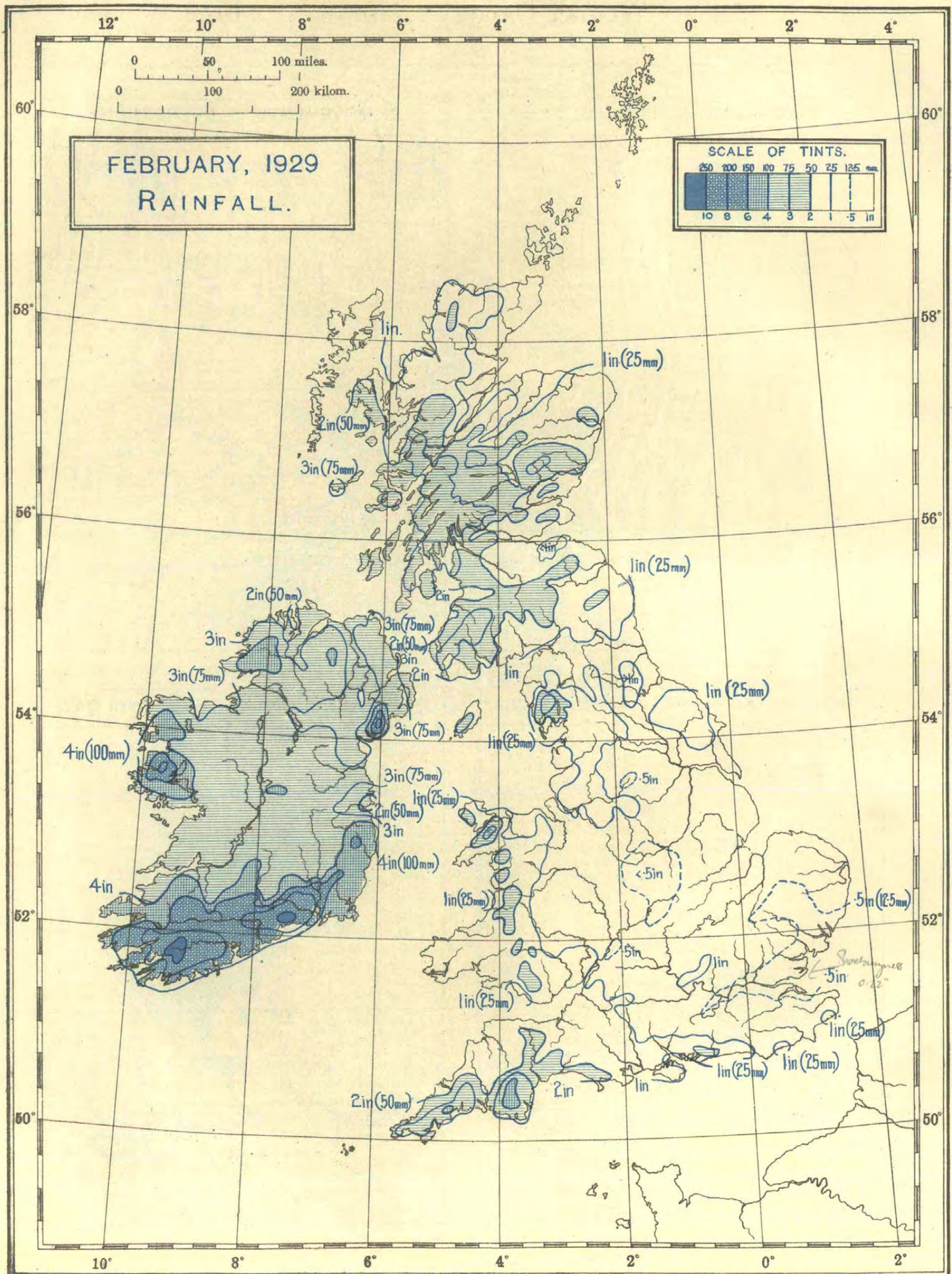


TABLE III.—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL AND SUNSHINE, and of WEATHER OBSERVATIONS, FEBRUARY, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.	Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.							
				Means of		Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.			Deviation from Normal.	Most in a day.		Precip'n.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.											
				A	B		Maximum.	Date.	Minimum.	Date.					Amount.	Date.								0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.
				Max.	Min.																														
0. SCOTLAND, N.																																			
Shetlands.	Baltasound	9 9 9	31	41.3	34.5	37.9	—	49	1st	26	26th	38.1	—	1.52	39	—	6	21st	22	13	9	7	6	0	2	—	3	1.21	—	14					
	Lerwick	18-7 7	54	40.6	35.4	38.0	-0.3	49	5th	27	14.15.16	—	—	1.96	50	-30	6	21st	17	17	9	8	2	0	0	—	7	1.21	-0.69	13					
Orkneys.	Deerness	2121 9	160	39.4	34.0	36.7	-1.8	46	2, 4	27	16th	—	—	1.07	27	-50	6	1st	20	10	8	6	4	0	1	—	3	1.04	-0.87	11					
	Kirkwall	9 9 9	151	39.1	34.1	36.6	—	46	4th	27	16, 17	—	—	2.01	51	—	18	15th	18	13	12	5	1	0	0	14	5	1.43	—	16					
Hebrides.	Skallary	9 9 9	20	42.6	37.2	39.9	—	49	2, 3, 6	26	17th	—	—	2.00	51	—	8	5th	18	15	3	5	0	0	—	—	—	—	—	—					
	Stornoway	18-7 7	30	42.0	35.0	38.5	-0.7	49	1, 3	27	16th	—	—	1.44	37	-76	7	9th	13	10	4	0	0	0	—	—	0.236	+0.30	26.8						
Caithness.	Wick	18-7 7	81	39.8	34.6	37.2	-0.7	49	4th	25	28th	—	—	0.67	17	-41	3	4th	16	7	7	2	5	0	0	—	9	—	—	—					
	Achnashellach	9 9 9	225	41.4	30.5	35.9	-1.2	53	3rd	12	28th	—	—	1.40	35	-152	10	7th	12	9	1	3	0	0	0	19	0	—	—	—					
Ross & Cromarty.	Fortrose	9 9 9	69	40.6	31.8	36.2	—	51	3rd	22	13.14.15	—	—	0.27	7	—	3	20th	6	2	1	0	0	0	—	—	0.290	—	31						
	Strathpeffer	9 9 9	125	40.0	28.3	34.1	-3.5	50	3rd	16	14.17.18	—	—	0.57	14	-54	4	21st	8	5	2	0	0	0	—	—	—	—	—	—					
Inverness.	Ft. Augustus	9 9 9	68	40.9	30.9	35.9	-1.8	53	3rd	13	28th	—	—	0.57	15	-91	3	6th	12	6	4	0	0	0	1	—	2	1.90	+0.34	20.8					
	Inverness	9 9 9	442	40.4	31.1	35.7	-3.1	51	3, 4	19	15, 17	—	—	0.35	9	-46	2	21st	7	5	3	3	1	0	0	19	1	3.00	+0.29	32					
1. SCOTLAND, E.																																			
Nairn.	Nairn	18-7 7	82	39.5	30.6	35.1	-2.5	50	3rd	16	14th	—	—	0.42	11	-35	5	20th	8	3	3	0	0	0	0	—	0	2.93	+0.27	32					
	Gordon Castle	2121 9	104	40.2	29.5	34.9	-3.7	49	4, 5	18	14, 26	—	—	0.72	18	-31	5	20th	11	7	8	5	0	0	—	—	1	2.55	—	27					
Banff.	Banff	9 9 9	130	38.2	30.7	34.5	—	48	4th	18	14th	—	—	1.50	38	—	10	15th	20	12	11	6	0	0	—	20	1	2.21	—	24					
	Aberdeen	2424 24	37	38.3	32.4	35.3	-3.2	51	4th	20	14th	—	—	1.72	44	-8	11	24th	21	14	14	12	6	0	0	15	0	1.33	-1.26	14					
	Balmoral	9 9 9	927	35.4	25.1	30.3	—	49	4th	8	14, 17	—	—	1.10	28	-38	5	23rd	17	9	7	17	0	0	—	20	1	—	—	—					
	Braemar	2121 9	1120	35.3	24.7	30.0	-4.4	47	4th	10	17th	—	—	1.09	28	-44	7	7th	13	9	12	6	0	0	18	18	0	—	—	—					
	Craibstone	9 9 9	300	37.0	30.2	33.6	—	51	4th	15	17th	35.9	37.9	2.23	57	—	13	23rd	20	13	12	16	1	0	—	16	1	1.74	—	19.8					
	Logie Coldstone	9 9 9	608	36.7	26.0	31.3	—	49	4th	7	17th	—	—	1.39	35	-18	9	15th	13	8	14	12	0	0	11	—	—	—	—	—					
Kincardine.	Stonehaven	9 9 9	93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	Arbroath	2121 9	93	38.9	30.8	34.9	—	53	4th	15	14th	—	—	1.45	37	—	8	24th	14	10	12	10	1	0	2	19	1	1.53	—	16					
Forfar.	Carnoustie	9 9 9	39	38.3	30.1	34.2	—	51	4th	18	14.15.17	—	—	1.79	45	—	9	24th	20	9	7	1	0	0	—	—	0	1.64	—	17					
	Dundee (E. Nec.)	2121 9	198	36.8	29.2	33.0	-4.5	50	4th	17	14, 6	—	—	1.92	49	+1	15	24th	14	10	3	3	0	0	—	—	2	—	—	—					
	Mayfield	9 9 9	147	38.1	31.1	34.6	-3.7	52	4th	19	14th	34.8	—	1.48	38	-9	8	24th	12	9	3	10	1	0	—	18	0	2.23	-0.48	24					
	Kettins	9 9 9	218	38.5	26.1	32.3	—	52	1st	5	16th	33.5	—	1.85	47	—	10	24th	14	12	7	11	2	0	0	22	2	—	—	—					
Perth.	Montrose	9 9 9	167	37.7	30.4	34.1	—	53	4th	13	17th	—	—	2.20	56	—	14	24th	16	13	9	11	1	0	—	—	1	1.30	—	14					
	Crieff	2121 9	478	36.9	27.4	32.1	-5.8	49	22nd	14	14th	—	—	2.81	71	-18	12	24th	19	14	7	11	2	0	—	—	—	—	—	—					
Fife.	Perth	9 9 9	76	38.0	27.1	32.5	-5.1	52	4th	11	14th	—	—	1.48	37	-21	9	24th	10	8	7	4	0	0	—	—	0	2.02	—	21					
	Cupar	9 9 9	210	38.4	27.3	32.9	—	52	4th	9	16, 17	—	—	2.11	54	—	15	15th	14	11	3	12	0	0	—	—	—	—	—	—					
	Inchkeith	18-7 7	190	38.1	32.0	35.1	—	47	4th	20	16th	—	—	1.03	26	—	6	24th	16	10	8	4	0	0	—	5	13	0.290	—	31					
	Kirkcaldy	9 9 9	66	38.6	30.6	34.6	—	50	4th	15	14th	—	—	1.45	37	—	6	8th	15	11	—	—	—	—	—	—	—	—	—	—					
	Leuchars	18-7 7	30	38.1	29.6	33.9	—	52	4th	10	16th	—	—	1.42	36	—	11	24th	12	9	10	1	0	0	—	19	0.247	—	26						
	St. Andrews	9 9 9	20	38.1	28.5	33.3	—	51	4th	10	16th	35.1	38.3	1.74	44	—	14	25th	18	10	8	0	1	0	0	20	0.201	—	21						
Linlithgow.	Bangour	2121 9	587	37.2	26.6	31.9	—	51	3rd	8	14, 16	—	—	1.17	30	—	6	6th	16	9	5	5	1	0	4	—	—	—	—	—					
	Blackford Hill	2121 9	441	38.6	29.5	34.1	-4.2	49	4th	15	16th	—	—	0.85	21	-19	5	24th	12	7	3	1	0	0	—	17	1	2.91	+0.14	31					
Edinburgh.	Boghall	9 9 9	645	36.4	28.3	32.3	—	48	4th	13	16th	34.6	37.2	0.94	24	—	6	23rd	14	9	7	6	1	0	2	17	0.286	—	30						
	Edin. Univ.	9 9 9	227	38.6	31.5	35.1	—	49	4th	18	16th	35.6	39.3	0.92	23	-19	7	24th	11	6	—	—	—	—	—	—	—	—	—	—					
	Liberton	9 9 9	190	38.3	—	—	—	49	4th	—	—	—	—	0.93	24	—	6	24th	13	8	3	1	0	0	—	—	—	—	—	—					
	N. Berwick	9 9 9	152	38.4	28.4	33.4	—	49	4th	6	16th	—	—	1.03	26	—	7	24th	16	7	8	10	0	0	1	21	0.259	—	27						
Haddington.	Smeaton	9 9 9	100	39.1	28.9	34.0	—	50	4th	14	17th	35.7	—	1.12	28	-9	9	25th	9	7	4	5	0	0	0	20	0	—	—	—					
	Marchmont	9 9 9	498	36.9	26.6	31.7	-5.5	49	4th	12	16th	—	—	1.84	47	-6	13	24th	15	10	4	7	0	0	—	—	0	1.81	-0.57	19					
Peebles.	West Linton	9 9 9	770	36.5	26.0	31.3	-4.1	46	2, 4	3	16th	—	—	1.23	31	—	8	23rd	18	10	7	7	0	0	—	20	0	—	—	—					
	Kelso (Br'ml'ds)	9 9 9	195	38.0	26.3	32.1	—	49	4th	8	16th	—	—	1.1																					

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, FEBRUARY, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.			
					Means of		Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.			Deviation from Normal.	Most in a day.		Precip'n.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.						
								Maximum.	Date.	Minimum.	Date.															Daily Mean.	Deviation from Normal.	Per Cent.				
																													A	B	Max.	Min.	Mean of A and B.
Max.	Min.	Rain.	Max.	Min.	Mean of A and B.	Max.	Min.	Max.	Min.	Max.	Min.	1 ft.	4 ft.	in.	mm.	mm.	mm.	0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.			
2. ENGLAND, N.E.																																
Northumberland.	Berwick-on-T.	G.M.T.	ft.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	in.	mm.	mm.	mm.											hr.	hr.	%		
	Bellingham	9 9 9	76	37.2	29.1	33.1	—	50	4th	15	14th	—	—	1.48	38	—	11	23rd	14	10	7	11	0	0	0	18	0	1.87	—	20		
	Cockle Park	9 9 9	848	36.0	24.2	30.1	—	48	22nd	8	16th	—	—	1.32	33	—	9	24th	15	10	—	—	0	5	—	—	—	—	—	—		
	Tynemouth	2121 9	324	36.5	26.9	31.7	-5.4	47	4. 22	6	16th	34.6	38.1	1.06	27	—	16	7	1st	12	8	6	8	0	0	5	22	0	1.28	-1.49	13	
Durham.	Chopwellwood	9 9 9	67	37.2	31.6	34.4	-4.7	49	4th	11	14th	—	—	1.20	31	—	4	5	8th	17	10	11	12	0	0	4	16	0	—	—	—	
	Durham	9 9 9	445	37.4	25.0	31.2	—	(49)	1, 4, 5	5	16th	—	—	0.54	14	—	6	15, 24	14	8	7	8	0	0	1	21	0	1.74	—	18		
	Houghall	2121 9	336	35.9	29.1	32.5	-5.4	48	4th	10	14, 28	—	—	0.97	25	—	9	1st	13	7	8	11	0	0	4	20	0	1.16	-1.22	12		
	Ushaw College	9 9 9	160	36.6	25.1	30.9	—	50	4th	—	17th	—	—	1.10	28	—	7	1st	9	7	9	11	0	0	2	23	0	1.17	—	12		
York, N. Riding.	Ampleforth	9 9 9	594	35.1	26.5	30.8	—	49	4th	12	16th	—	—	1.37	35	—	5	7	24th	15	8	7	11	1	0	16	—	—	—	—	—	
	Castleton	9 9 9	350	34.7	27.0	30.9	-6.7	48	1st	15	14th	—	—	1.11	28	—	18	6	2nd	15	9	12	15	1	0	3	22	0	1.25	—	13	
	Rounton	9 9 9	425	35.6	25.0	30.3	—	48	1, 4	1	17th	35.6	—	1.28	33	—	7	1st	16	11	9	15	0	0	3	—	—	—	—	—	—	
	Scarborough†	2121 9	249	36.9	26.3	31.6	-6.3	48	1st	10	14th	35.9	—	0.69	17	—	19	4	8th	11	6	7	9	0	0	2	26	0	—	—	—	
York, E. Riding.	West Witton	9 9 9	118	36.8	30.3	33.5	-6.1	48	5th	21	16th	—	—	39.0	1.32	33	—	10	5	2nd	18	12	7	7	0	0	1	20	1	0.49	-1.89	5
	York	9 9 9	605	35.5	25.4	30.5	—	47	1st	10	17th	34.9	38.6	0.98	25	—	5	1st	14	10	9	11	0	0	—	—	—	—	—	—	—	
	Hull	2121 9	56	37.4	27.7	32.5	-6.6	49	1, 2	14	14, 17	36.1	39.6	0.62	16	—	22	4	8th	13	5	7	9	0	0	—	—	—	—	—	—	
	Osgodby	9 9 9	8	36.8	29.0	32.9	-6.0	49	1st	16	16th	36.3	40.6	0.90	23	—	19	11	2nd	14	5	7	6	0	0	18	24	0	0.50	—	5	
Lincoln.	Spurn Head	2121 9	30	37.0	25.9	31.5	—	(49)	1, 2	11	13th	—	—	0.46	12	—	4	2nd	9	4	7	11	0	0	3	22	0	1.13	—	12		
	Cranwell	18-7 7	29	35.1	30.0	32.5	-6.6	45	1st	19	16th	—	—	0.44	11	—	27	4	9th	6	4	8	7	0	0	2	—	2	1.02	—	11	
	Cleethorpes	9 9 9	236	35.7	25.6	30.7	-7.7	50	1st	9	16th	34.5	38.9	0.57	15	—	23	5	2nd	9	5	7	8	0	0	6	22	0	1.65	-1.15	17	
	Skegness	9 9 9	23	36.0	27.8	31.9	—	48	22nd	9	16th	—	—	0.91	23	—	10	14th	10	5	7	8	1	0	6	—	1	0.83	—	8		
3. ENGLAND, E.																																
Norfolk.	Cromer	9 9 9	150	35.6	27.9	31.7	-7.2	49	22nd	14	16th	—	—	0.83	21	—	17	6	9th	11	6	8	10	3	0	2	21	0	2.04	-0.80	21	
	Hunstanton	9 9 9	105	35.9	27.5	31.7	—	50	1st	10	16th	—	—	0.53	13	—	5	9th	8	4	9	12	0	0	2	—	—	—	—	—	—	
	Norwich	9 9 9	98	36.3	26.6	31.5	-7.3	49	22nd	19	12th	33.7	—	0.88	22	—	20	6	23rd	11	7	6	16	0	0	—	25	—	1.99	—	20	
	Sprowston	9 9 9	93	35.3	25.2	30.3	—	47	1st	9	16th	—	—	0.81	21	—	7	9th	8	6	6	15	0	0	12	27	0	2.13	—	22.8		
Suffolk.	Yarmouth	18-7 7	14	35.3	28.7	32.0	-6.5	46	9th	13	15th	35.5	41.0	0.41	10	—	28	4	9th	7	3	9	—	0	0	2	19	0	1.63	-1.28	17	
	Bungay (Flix'n)	9 9 9	79	35.4	25.3	30.3	—	46	22nd	12	14th	—	—	0.52	13	—	6	9th	7	4	6	8	0	0	1	26	0	—	—	—	—	
	Copdock	9 9 9	164	35.8	26.9	31.3	—	47	1, 22	18	14, 15, 16	34.4	39.0	0.42	11	—	5	9th	10	3	7	2	0	0	4	23	0	2.10	—	21		
	Felixstowe	18-7 7	15	35.1	28.2	31.7	—	44	23rd	14	15th	—	—	0.32	8	—	5	9th	6	3	8	10	0	0	6	21	0	2.40	—	24		
Cambridge.	Lowestoft	9 9 9	83	35.5	27.9	31.7	-7.4	46	22nd	17	15, 16	34.3	39.1	0.57	14	—	21	7	9th	9	4	7	6	0	0	3	23	1	2.04	-0.76	21	
	Cambridge (Bot. Gdns.)	2121 9	41	37.6	25.1	31.3	-7.8	52	1st	13	14, 15	35.4	40.3	0.48	12	—	20	5	9th	5	4	4	4	0	0	0	24	0	1.99	-0.67	20	
	Wisbech	2121 9	10	36.7	26.6	31.7	—	50	1st	16	12, 13	—	—	0.41	10	—	5	9th	8	2	8	3	1	0	7	23	0	1.86	—	19		
	Cardington	18-7 7	100	36.6	26.1	31.3	—	52	1st	11	14th	—	—	0.62	16	—	7	2nd	6	4	7	6	0	0	1	22	0	2.20	—	22		
Bedford.	Luton	9 9 9	390	36.2	24.6	30.4	—	51	1st	8	14th	34.6	38.9	0.68	17	—	8	2nd	6	5	2	3	0	0	3	22	0	1.98	—	20		
	Woburn	9 9 9	291	36.7	24.1	30.4	-8.2	50	1st	9	14, 15	33.9	41.4	0.63	16	—	22	8	2nd	9	4	6	5	0	0	2	—	0	2.00	—	26	
	Rothamsted	9 9 9	420	35.4	25.9	30.7	-7.8	49	1st	13	14, 15	(33.8)	—	0.73	19	—	28	11	2nd	8	3	5	4	0	0	7	24	1	2.40	-0.08	24	
	St. Albans	9 9 9	272	36.9	24.9	30.9	—	50	1, 2	9	15th	35.6	—	0.65	17	—	9	2nd	5	3	—	—	—	—	5	24	0	—	—	—	—	
Essex.	Clacton-on-S.	18-7 7	55	34.9	28.9	31.9	-6.8	43	4th	18	15th	34.9	39.6	0.43	11	—	19	6	9th	11	1	7	3	0	0	2	20	0	2.17	-0.77	22	
	Chelmsford	9 9 9	134	35.9	25.8	30.9	—	50	1st	14	17th	—	—	0.45	11	—	27	4	2nd	7	4	5	3	0	0	—	—	—	—	—	—	
	Chelmsford (Good Easter)	9 9 9	185	36.6	24.8	30.7	—	51	1st	12	15th	—	—	0.57	14	—	7	2nd	6	3	7	5	0	0	3	25	0	2.29	—	23		
	Earls Colne	9 9 9	168	36.9	26.3	31.6	—	50	1st	14	17th	—	—	0.59	15	—	5	9th	9	6	8	9	0	0	—	—	—	—	—	—	—	
4. MIDLAND COUNTIES.	Halstead	9 9 9	139	36.3	26.1	31.2	—	49	1st	13	17th	—	—	0.57	14	—	6	9th	8	4	8	8	0	0	10	—	—	—	—	—	—	—
	Shoburness	18-7 7	11	36.6	26.1	31.3	-8.3	49	1st	16	15th	—	—	0.22	5	—	25	2	9th	5	2	8	4	0	0	6	22	0	2.54	—	25	
	Bradford	9 9 9	439	35.4	26.3	30.9	—	49	1st	8	14th	34.4	38.8	0.73	19	—	40	5	8th	10	7	5	2	0	0	—	22	0				

TABLE III (continued).—SUMMARY OF THE RECORDS OF TEMPERATURE, RAINFALL AND SUNSHINE, and of WEATHER OBSERVATIONS, FEBRUARY, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level.		AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.											
						Means of		Deviation from Normal.		Absolute Maximum and Minimum.						Total Fall.		Deviation from Normal.		Most in a day.		Precip'n.		Snow.		Snow lying.		Hail.		Thunderstorm.		Fog (Morning Obs.)		Ground Frost.		Gale.		Hours per day.		Per Cent.	
Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	1 ft.	4 ft.	in.	mm.	mm.	mm.	0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.												
4. MID. COUNTIES—cont.																																									
Warwick.	Birmingham	18-7 7	535	36.4	28.3	32.3	-6.6	50	1st	13	14th	36.8	42.2	0.56	14	-29	9	2nd	6	4	5	4	0	0	3	21	0	1.52	-0.58	15											
	B'ham, Sparkhill	713 7	424	37.6	26.5	32.1	-	51	1st	9	14, 15	—	—	0.79	22	—	12	2nd	6	5	8	5	0	0	5	21	0	—	—	—											
	Coventry	9 9 9	270	37.2	27.3	32.3	-7.0	48	22nd	13	14, 15	35.6	41.6	0.48	12	-33	5	2nd	7	4	2	4	0	0	4	23	0	1.35	-0.81	14.8											
	Rugby	2121 9	390	38.1	25.8	31.9	-	51	1st	8	15th	—	—	?	?	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—										
Oxford.	Leaffield	18-7 7	612	35.9	26.6	31.3	-	49	1st	10	14th	—	—	0.66	17	—	6	2nd	8	4	4	5	0	0	1	23	0	2.22	—	22											
	Oxford	9 9 9	208	38.1	26.8	32.5	-7.2	52	1st	11	14, 15	35.7	40.8	0.55	14	-28	3	2,9,25	8	5	6	5	1	0	12	22	0	2.16	-0.29	22											
	Oxford (Sandford)	9 9 9	210	37.7	26.3	32.0	-	51	1st	7	15th	—	—	0.53	13	—	4	9th	6	3	3	5	0	0	4	22	0	1.71	—	17											
Bucks.	Mursley	**	9 9 9	490	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—										
Stafford.	Mayfield	..	9 9 9	374	36.2	24.3	30.3	-	52	1st	9	14th	—	—	0.65	17	—	9	2nd	8	4	7	4	0	0	—	23	0	1.43	—	15.8										
Shropshire.	Newport	..	9 9 9	211	37.0	26.9	31.9	-	52	1st	10	15th	—	—	0.66	17	—	5	2nd	7	5	2	3	0	0	5	20	0	1.60	—	16										
	Roden, Well'n	9 9 9	207	36.0	25.6	30.8	-	51	1st	7	14th	—	—	0.57	14	—	5	2nd	8	4	2	4	0	0	—	—	—	—	—	—	—										
	Wistanstow	..	2121 9	481	37.7	25.5	31.6	-7.6	50	1st	4	14th	—	—	0.91	23	-32	(8)	2nd	8	(6)	3	15	0	0	2	20	0	—	—	—										
Worcester.	Malvern	..	9 9 9	377	36.8	27.9	32.3	-	50	1st	13	14th	35.6	39.3	0.73	19	-27	7	2nd	7	6	3	9	0	0	2	20	0	2.23	—	23										
	Worcester (Perdiswell)	9 9 9	95	38.2	25.9	32.1	-	53	1st	7	17th	—	—	0.56	14	—	7	2nd	6	4	3	1	0	0	—	21	0	1.91	—	19											
Hereford.	Bromyard	..	9 9 9	392	37.1	25.2	31.1	-	51	1st	5	14, 15	35.8	40.1	0.61	15	—	8	2nd	7	5	3	14	0	0	5	20	0	—	—	—										
	Hereford	9 9 9	291	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—										
	Ross-on-Wye	18-7 7	223	37.8	27.3	32.5	-7.4	51	1st	-1	14th	36.6	40.9	1.13	29	-22	11	2nd	7	7	3	14	0	0	2	17	0	2.24	-0.30	23											
Gloucester.	Cheltenham	..	2121 9	214	38.8	29.0	33.9	-5.6	51	1st	13	14th	36.3	40.3	0.38	10	-39	5	9th	5	4	3	4	0	0	0	21	0	2.71	—	27										
5. ENGLAND, S.E.																																									
London.	City, Bunhill Row	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—										
	Camden Square	9 9 9	110	36.7	27.2	31.9	-8.1	51	1st	15	15th	35.5	41.3	0.58	15	-27	6	2nd	7	5	4	1	0	0	—	—	—	—	—	—	—										
	East Ham	..	9 9 9	15	38.6	26.9	32.7	-	52	1st	15	18th	—	—	0.34	9	—	3	2nd	7	4	—	—	—	—	—	—	—	—	—	—										
	Enfield	..	9 9 9	148	37.2	26.1	31.7	-	51	1st	13	15th	—	—	0.61	15	-27	6	2nd	8	4	5	4	0	0	8	23	0	2.07	—	21										
	Greenwich	..	2424 9	149	37.9	26.3	32.1	-7.7	53	1, 22	12	15th	37.1	40.9	0.38	10	-30	3	2nd	7	3	8	4	0	0	12	24	0	1.90	-0.14	19										
		Hourly*	149	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—										
	Hampst'd Res.	9 9 9	450	34.9	24.9	29.9	-	50	1st	9	15th	—	—	0.72	18	—	7	2nd	12	5	9	8	0	0	—	26	0	1.88	—	19											
	Kensington	..	18-9 9	80	37.5	29.0	33.3	-	52	1st	14	15th	35.0	38.7	0.48	12	—	4	9th	6	5	3	6	0	0	13	21	0	—	—	—										
	Regent's Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—										
	Richmond	242424	18	38.1	27.5	32.8	-7.3	52	1st	13	15th	35.1	40.8	0.51	13	-26	4	1st	9	5	5	2	0	0	9	21	0	1.83	-0.30	19											
	(Kew Obs.)	Hourly*	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—										
	Stroud Green	..	18-7 7	212	37.1	27.5	32.3	-	51	1st	15	15th	—	—	0.57	14	—	7	2nd	6	3	7	7	0	0	12	22	0	—	—	—	—									
	Tottenham	††	2121 9	51	39.2	27.0	33.1	-7.2	52	1st	11	15th	—	—	0.58	15	-26	6	9th	5	4	—	—	—	—	—	—	—	—	—	—	—									
	Westminster	..	9 9 9	27	38.8	28.5	33.7	-7.0	53	1st	14	15th	—	—	0.53	13	-24	4	9th	7	4	—	—	—	—	—	—	—	—	—	—	—									
Surrey.	Addington	..	9 9 9	472	37.6	26.4	32.0	-	55	22nd	14	14, 15	—	—	0.72	18	—	6	2, 9	8	5	—	—	—	—	—	—	—	—	—	—										
	Croydon Aero.	18-7 7	244	37.9	27.8	32.9	-	51	1st	12	15th	—	—	0.69	18	—	6	10th	7	4	7	5	0	0	4	21	0	2.46	—	25											
	Wisley	..	9 9 9	150	38.5	26.5	32.5	-6.9	56	22nd	9	15th	35.9	40.0	0.49	12	-32	4	2nd	9	4	3	4	0	0	3	22	0	2.43	+0.16	24										
Kent.	Biggin Hill	..	18-7 7	597	36.1	26.8	31.5	-	57	22nd	13	13th	—	—	1.14	29	—	11	1st	7	4	6	6	0	0	4	22	0	2.61	—	26										
	Bromley	..	9 9 9	213	37.0	26.4	31.7	-	54	22nd	12	15th	—	—	0.47	12	—	4	2nd	8	4	4	5	0	0	4	22	0	—	—	—										
	Canterbury	..	9 9 9	124	37.7	25.7	31.7	-	53	22nd	13	15th	37.5	39.6	0.72	18	—	6	9th	7	6	—	—	—	—	—	—	—	—	—	—										
	Dover	..	9 9 9	22	36.7	29.3	33.0	-	47	1st	18	15th	35.2	40.2	1.00	25	—	9	13th	9	5	9	7	0	0	5	20	0	2.82	—	28										
	Dungeness	..	18-7 7	20	37.0	29.2	33.1	-6.8	47	1st	9	15th	—	—	0.73	19	-22	11	9th	7	4																				

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, FEBRUARY, 1929.

DISTRICT, COUNTY AND PLACE.	Terminal Hours of Observation.	Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.				
			Means of		Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.			Deviation from Normal.	Most in a day.	Precip'n.	Snow lying.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.		Per Cent.								
			A	B		Maximum.	Date.	Minimum.	Date.		Amount.	Date.									0.2 mm. or more.	1 mm. or more.		Snow.	Hail.	Daily Mean.	Deviation from Normal.				
			Max.	Min.	Max.	Min.	Mean of A and B.	Maximum.	Date.	Minimum.	Date.	1 ft.	4 ft.	in.	mm.	mm.	mm.	0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.		
5. ENGLAND, S.E.—cont.																															
Hampshire	Calshot	18-7 7	8	38.1	30.7	34.4	—	50	1st	19	14th	—	—	0.70	18	—	11	2nd	8	4	5	4	1	0	4	18	2	2.29	—	23	
	Grayshott	9 9 9	661	37.0	27.0	32.0	-6.5	48	1st	12	15th	34.9	—	0.82	21	—	11	2nd	9	5	5	4	0	0	3	23	0	2.99	+0.19	30	
	Long Sutton	9 9 9	479	37.2	26.1	31.7	—	51	22nd	9	14th	35.0	—	0.63	16	—	7	2nd	7	5	9	7	0	0	1	21	0	2.43	—	24	
	Southamp'n	2121 9	64	39.2	27.5	33.3	-8.0	48	2, 3	12	15th	—	—	1.20	31	—	27	13	2nd	10	5	3	5	0	0	10	21	0	2.18	-0.55	22
	S. Farnboro'	18-7 7	237	38.5	26.3	32.4	—	54	22nd	5	15th	—	—	0.55	14	—	5	2nd	8	5	7	2	0	0	7	22	0	2.43	—	25	
I. of Wight.	Winchester	18-7 7	272	37.9	26.6	32.3	—	52	1st	7	15th	—	—	0.89	23	—	12	2nd	7	4	3	3	0	0	3	21	0	2.57	—	26	
	(Worthy Down)																														
	Newport	9 9 9	48	39.8	28.5	34.1	—	52	1st	12	14, 15	—	—	1.04	26	—	13	2nd	8	5	3	4	0	0	1	22	0	—	—	—	
	Ryde	9 9 9	13	38.3	31.3	34.8	—	51	1st	20	12th	—	—	1.07	27	—	16	2nd	9	5	2	1	0	0	1	—	0	2.33	—	23	
	Sandown	9 9 9	13	39.6	30.5	35.1	—	52	1st	13	14th	—	—	1.26	32	—	16	2nd	12	5	—	—	—	—	—	—	—	2.22	—	22	
Wilts.	Totland Bay	9 9 9	140	35.2	29.6	32.4	-8.4	50	1st	16	14th	—	—	1.22	31	—	20	12	2nd	6	5	3	10	0	0	1	21	0	2.39	-0.70	24
	Ventnor	9 9 9	59	40.1	33.0	36.5	-5.6	49	1st	21	14th	—	—	1.47	37	—	16	2nd	8	5	—	—	—	—	—	—	—	2.52	-0.53	25	
	(Hospital)																														
	Larkhill	9 9 9	440	37.1	26.2	31.7	—	51	1st	10	15th	—	—	0.65	16	—	6	2nd	6	5	4	12	0	0	2	23	0	—	—	—	
	Marlboro'	9 9 9	424	36.9	24.9	30.9	-7.6	50	1, 21	7	14, 15	36.0	41.6	0.78	20	—	42	5	2nd	8	6	5	14	0	0	5	23	0	2.19	+0.06	22
7a. ENGLAND, N.W.	Porton	9 9 9	363	37.5	25.5	31.5	—	51	1st	10	13, 14, 15	35.4	—	0.87	22	—	5	11th	8	6	5	15	0	0	1	23	0	2.69	—	27	
	Aspatria	2121 9	487	38.7	30.2	34.5	-4.1	51	1st	15	16th	37.0	40.9	0.69	17	—	59	5	8th	11	5	1	0	0	—	18	0	2.58	+0.20	26	
	(Mealsgate)	9 9 9	254	39.0	30.3	34.7	—	49	2nd	15	16, 17	36.5	40.3	0.82	21	—	8	2nd	10	4	2	1	1	0	0	20	0	2.09	—	21	
	Keswick	9 9 9	254	39.0	30.3	34.7	—	49	2nd	15	16, 17	36.5	40.3	0.82	21	—	8	2nd	10	4	2	1	1	0	0	20	0	2.09	—	21	
	Newton Rigg	2121 9	559	37.3	26.9	32.1	-5.0	47	1, 4	11	16, 28	—	—	0.61	15	—	63	6	1st	8	3	3	14	0	0	0	17	0	1.95	-0.28	20
Lancashire.	Bolton	9 9 9	341	37.4	27.8	32.6	—	51	22nd	13	14, 15	35.8	38.9	1.39	35	—	16	8th	11	5	4	5	0	0	—	15	0	0.60	—	6	
	Burnley	9 9 9	458	36.6	27.6	32.1	—	49	1, 22	11	14th	35.2	39.1	0.80	20	—	9	8th	8	4	6	1	0	0	2	19	0	1.03	—	11	
	Darwen	2121 9	724	36.5	27.3	31.9	—	51	22nd	12	14th	34.9	38.3	1.51	38	—	13	2nd	10	9	2	0	0	0	8	18	0	1.42	—	15	
	Hutton	9 9 9	82	38.1	29.5	33.8	—	51	1st	13	14th	35.8	39.5	0.87	22	—	9	8th	9	4	3	0	0	0	2	17	0	1.55	—	16	
	Lancaster	9 9 9	311	39.6	29.6	34.6	—	52	1st	15	14th	34.3	37.8	1.02	26	—	9	8th	9	5	0	0	0	0	3	16	0	2.09	—	22	
Cheshire.	Leyland	9 9 9	124	38.3	29.1	33.7	—	52	1st	12	14, 15	—	—	0.96	24	—	6	2nd	8	5	2	1	0	0	3	18	0	1.78	—	18	
	Manchester																														
	(Whitworth Pk)	2121 9	125	38.8	29.2	34.0	-6.1	51	1st	15	14, 15	—	—	1.02	26	—	23	15	8th	7	5	—	—	—	12	—	1	40	-0.02	14	
	(Oldham Road)	2121 9	190	39.1	31.3	35.2	-5.2	51	1st	17	14th	35.9	41.2	1.04	26	—	30	15	8th	8	4	4	—	0	0	—	14	0	0.83	-0.45	9
	(Swinton)	9 9 9	253	38.4	28.4	33.4	—	53	2nd	14	14th	—	37.8	1.25	32	—	17	8th	8	6	6	3	0	0	6	17	0	0.91	—	9	
Montgomery.	Southport	9 9 9	37	38.1	29.5	33.8	-5.8	51	1st	14	15th	34.7	38.4	0.93	24	—	19	8	8th	10	5	4	3	0	0	0	16	0	1.81	-0.74	19
	Stonyhurst	9 9 9	377	36.7	28.4	32.5	-6.0	50	1st	13	14th	—	—	1.01	26	—	59	12	8th	9	5	5	1	3	0	2	16	0	1.45	-0.64	15
	Hoylake	9 9 9	30	39.0	29.2	34.1	-6.6	54	1st	14	15th	—	—	0.89	23	—	20	8	8th	7	6	—	—	—	—	—	—	2.05	-0.36	21	
	Liverpool	18-7 7	189	37.3	30.6	33.9	-6.0	52	1st	15	14th	—	—	0.78	20	—	23	9	8th	7	5	3	4	0	0	1	14	0	2.11	—	22
	(Bidston)																														
7b. NORTH WALES.	Macclesfield	9 9 9	500	37.7	27.3	32.5	-5.5	54	22nd	11	14, 15	—	—	1.02	26	—	29	13	10th	6	4	2	0	0	0	5	—	0	—	—	—
	West Kirby	9 9 9	25	38.3	29.1	33.7	—	52	1st	14	15th	—	—	0.91	23	—	10	8th	9	6	6	13	1	0	0	19	0	2.20	—	23	
	Hawarden B'ge	9 9 9	22	39.6	30.3	34.9	-5.7	54	1st	15	14th	—	—	0.73	19	—	17	5	9th	9	5	—	—	—	—	—	—	—	—	—	—
	Rhyl	9 9 9	30	41.0	31.4	36.2	-4.7	51	1, 2, 3	15	15th	—	—	0.91	23	—	14	7	8th	11	5	5	0	0	0	0	14	0	2.41	-0.36	25
	Sealand	18-7 7	16	38.6	29.8	34.2	-5.6	53	1st	12	14, 15	37.3	40.7	0.78	20	—	20	6	8th	10	4	5	4	0	0	3	17	1	1.86	-0.36	19
Pembroke.	Holyhead	18-7 7	26	41.8	35.4	38.6	-3.1	51	3, 24	21	14th	—	—	2.69	68	+	6	33	11th	14	8	3	12	0	0	0	11	1	2.33	-0.44	24
	Colwyn Bay	9 9 9	81	41.7	32.6	37.1	—	54	1st	18	13, 15	—	—	1.15	29	—	8	9th	13	7	2	7	0	0	—	—	—	0.2.72	—	28	
	Aber (Bangor)	9 9 9	60	42.9	31.9	37.4	—	55	3rd	19	14th	—	—	1.07	27	—	10	8th	9	8	3	9	1	0	—	14	1	2.74	—	28	
	Llandudno	9 9 9	22	41.6	32.9	37.3	-4.4	55	1st	18	14th	—	—	1.00	25	—	28	6	9th	10	8	2	2	1	0	—	—	0.2.67	+0.19	27	
	Welshpool	9 9 9	254	37.9	24.8	31.3	—	49	1st	1	14th	—	—	0.64	16	—	4	11th	8	6	4	8	0	0	11	—	0	—	—	—	—
8a. SOUTH WALES.	Aberystwyth	9 9 9	59	40.1	33.2	36.7	—	52	2nd	19																					

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, FEBRUARY, 1929.

DISTRICT, COUNTY AND PLACE.	Terminal Hours of Observation.	Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.			
			Means of		Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.			Deviation from Normal.	Most in a day.		Precip'n.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.		Per Cent.					
			A	B		Maximum.	Date.	Minimum.	Date.		Amount.	Date.		0.2 mm. or more.	1 mm. or more.								Snow.	Daily Mean.		Deviation from Normal.				
			Max.	Min.												Max.	Min.	Max.	Min.	Max.	Min.	0.2 mm. or more.			1 mm. or more.		Snow.	Daily Mean.	Deviation from Normal.	
8b. ENGLAND, S.W.—cont.																														
Dorset—	Shaftesbury ..	9 9 9	722	38.3	26.9	32.6	-6.0	51	1st	15	12,13,14	—	—	1.30	33	-26	12	15th	7	6	3	18	0	0	—	—	0	—	—	—
Devon.	Arlington ..	9 9 9	613	39.7	31.4	35.5	-4.1	53	23rd	17	13th	—	—	1.73	44	-55	8	1st	13	13	3	9	0	0	—	16	2	—	—	—
	Ashburton ..	9 9 9	583	40.8	32.4	36.6	-5.0	56	2, 23	19	28th	—	—	3.71	94	-26	23	1st	17	15	7	12	0	0	6	—	0	—	—	—
	Cullompton †	9 9 9	202	40.9	29.9	35.4	-5.2	54	23rd	12	17th	39.6	—	1.88	48	-23	13	1st	16	13	5	13	0	0	0	20	0	1.70	-0.75	17
	Dean Prior ..	2121 9	331	40.7	29.5	35.1	—	54	1st	10	17th	—	—	7.07	180	—	65	16th	19	17	9	15	2	0	—	22	1	—	—	—
	Ilfracombe ..	9 9 9	74	42.0	35.0	38.5	-4.8	52	2nd	22	28th	40.8	45.3	1.29	33	-34	5	1st	12	11	4	1	0	0	—	12	0	2.40	—	24
	Killerton ..	9 9 9	159	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Newton Abbot ..	9 9 9	350	41.1	32.6	36.9	—	55	1, 2, 23	19	17, 28	—	—	3.59	91	—	18	1st	17	14	5	10	2	0	5	18	0	1.85	—	19
	Plymouth (Hoe) ..	2121 9	116	43.5	35.0	39.3	-3.2	55	1st	23	28th	40.5	42.8	3.09	79	+3	20	1st	16	14	5	1	0	0	3	12	0	2.05	-0.75	21
	Plymouth (Cattewater) ..	18-7 7	82	42.9	36.1	39.5	—	53	1st	24	28th	—	—	2.96	75	—	19	11th	18	12	7	7	0	0	1	11	3	2.01	—	20
	Princetown ..	9 9 9	1359	37.1	29.4	33.3	—	49	2nd	15	28th	—	—	3.54	90	—	18	11th	19	16	8	10	0	0	11	19	0	—	—	—
	Salcombe ..	9 9 9	39	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Sidmouth †	9 9 9	25	41.5	32.8	37.1	—	56	1st	17	17th	—	—	2.57	65	—	17	1st	16	12	3	6	0	0	2	12	—	1.71	—	17
	Tavistock ..	9 9 9	458	42.3	33.1	37.7	—	53	23rd	19	28th	—	43.4	1.65	42	—	13	1st	15	10	6	5	1	0	1	20	—	—	—	—
	Teignmouth ..	9 9 9	20	42.3	34.8	38.5	-4.1	57	1st	21	17th	—	—	3.00	76	+10	24	1st	16	12	6	4	4	0	1	10	3	1.60	—	16
	Torquay ..	9 9 9	12	43.1	36.4	39.7	-3.0	55	1st	23	17th	—	—	3.04	77	+7	20	1st	17	13	4	4	3	0	3	10	3	1.59	-1.53	16
	Woolacombe ..	2121 9	59	42.3	33.9	38.1	-4.7	54	23, 24	20	17th	—	—	1.39	35	-22	6	1st	13	11	4	4	0	0	0	11	0	2.66	-0.14	27
Cornwall.	Falmouth Obs. †	9 9 9	167	45.6	38.8	42.2	-1.2	54	2nd	30	14, 15, 28	43.5	45.5	2.95	75	-19	25	11th	14	10	1	1	0	0	2	9	0	1.97	-1.01	20
	„ (Pendennis) ..	18-7 7	200	44.9	39.7	42.3	—	55	1, 2	30	14, 28	—	—	2.47	63	—	22	11th	13	11	2	0	0	0	1	—	1	1.83	—	19
	Fowey ..	9 9 9	51	45.4	37.0	41.2	—	55	1st	23	28th	—	—	3.14	80	—	24	11th	12	12	1	0	1	0	2	—	2	2.03	—	20
	Gulval ..	9 9 9	20	46.7	38.8	42.7	—	55	1, 2	28	28th	—	—	3.27	83	—	16	11th	18	13	1	1	0	0	—	8	—	12.30	—	23
	Newquay ..	9 9 9	190	44.0	36.7	40.3	-3.0	55	23rd	22	28th	42.1	44.6	2.21	56	-9	12	1st	14	11	2	1	2	1	0	—	0	2.70	-0.10	27
	Redruth ..	9 9 9	397	43.9	36.6	40.3	—	54	23rd	26	28th	—	—	3.33	85	-11	27	11th	15	12	3	4	0	1	4	12	2	—	—	—
9. IRELAND, N.																														
Sligo.	Markree Cas. †	2121 9	122	44.1	35.2	39.7	-0.6	55	2nd	26	17th	41.4	43.6	3.15	80	-9	18	5th	21	16	6	0	1	0	1	—	1	1.18	-1.02	128
Mayo.	Blacksod Pt. †	18-7 7	10	45.5	39.7	42.6	+0.2	52	1st	33	16th	—	—	3.96	101	-2	11	5th	21	18	1	0	2	0	0	—	1	—	—	—
	Mallary ..	9 9 9	120	45.5	38.0	41.7	—	53	1st	31	17th	—	—	4.03	102	—	23	5th	22	16	1	0	6	0	0	—	0	1.20	-0.90	12
Donegal.	Malin Head †	18-7 7	51	42.0	37.0	39.5	-1.4	50	2, 3	28	15, 28	—	—	1.72	44	-17	9	5th	16	11	5	0	2	0	0	—	0	1.96	-0.38	20
Antrim.	Aldergrove ..	18-7 7	238	40.7	35.2	37.9	—	50	2nd	25	16th	—	—	2.91	74	—	22	20th	16	11	8	0	1	0	2	12	0	1.31	—	14
	Belfast ..	9 9 9	13	42.4	37.1	39.7	—	51	1, 2	28	16th	—	—	3.82	97	—	23	20th	17	13	4	5	0	0	7	—	0	—	—	—
	Lisburn ..	9 9 9	206	41.5	34.3	37.9	-1.3	50	2, 3, 4	25	16th	—	—	2.86	73	+12	18	20th	17	11	4	0	0	0	13	—	0	—	—	—
Down.	Donaghadee ..	18-7 7	40	40.5	36.9	38.7	-2.2	49	3, 4	28	16th	—	—	2.61	66	+7	12	2nd	17	14	5	1	0	0	1	—	1	—	—	—
Armagh.	Armagh †	2121 9	204	42.2	35.1	38.7	-1.4	52	2nd	23	28th	39.9	42.0	2.26	57	+1	11	5th	17	12	6	5	0	0	1	12	0	1.33	-0.90	14
Longford.	Newtownforbes	2121 9	161	42.8	34.3	38.5	—	53	2nd	27	14, 15	40.2	42.4	3.89	99	—	20	14th	21	15	5	8	1	0	—	—	0	—	—	—
10. IRELAND, S.																														
Dublin.	Balbriggan ..	9 9 9	203	41.6	36.0	38.8	-1.9	52	2nd	28	16th	39.9	42.5	4.13	105	+57	33	20th	18	17	4	3	0	0	4	13	1	—	—	—
	Dublin City ..	2121 9	54	43.4	37.4	40.4	-1.9	54	2nd	29	17th	—	—	1.91	49	+1	9	5th	20	12	4	3	0	0	5	10	0	—	—	—
	„ Glasnevin ..	2121 9	55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	„ Phoenix Pk. †	2121 9	155	43.8	35.0	39.4	-1.2	56	2nd	26	17th	—	—	2.04	52	+7	11	5th	19	12	4	5	0	0	1	13	0	1.44	-1.18	15
	„ Trin. Coll. ..	2121 9	12	44.2	37.0	40.6	-1.9	55	2nd	29	17th	41.0	43.1	1.89	48	+4	10	5th	18	12	4	3	1	0	—	10	0	—	—	—
	Hazelhatch ..	9 9 9	366	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Wicklow.	Newcastle ..	2121 9	256	42.1	35.8	38.9	—	56	2nd	27	12th	—	—	4.11	104	—	19	1st	21	18	4	6	0	0	3	—	0	—	—	—
Offaly.	Birr Castle †	18-7 7	173	44.7	37.1	40.9	+0.3	55	2nd	28	16th	—	—	3.24	82	+24	18	5th	18	17	2	—	0	0	0	11	0	1.21	-1.20	12
(King's Co.).	Mountmellick ..	9 9 9	252	—	—	—	—	—	—	—	—	—	—	3.73	95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
(Queen's Co.).	Newtownbarry	9 9 9	153	43.4	36.5	39.9	—	54	2nd	25	12th	42.6	44.0	6.90	175	—	30	20th	21	19	4	4	0	0	0	—	0	—	—	—
Wexford.	Kilkenny ..	9 9 9	182	44.6	36.5	40.5	-0.5	55	2, 23	24	16th	—	—	3.22	82	+17	13	5th	23	15	—	—	—	—	—	—	—	—	—	—
Kilkenny.	Seskin, Carrick-on-Suir	2121 9	542	42.8	36.1																									

TABLE IV.—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of FEBRUARY, 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.														
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	NO. OF OBSERVATIONS.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.									
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Visibility.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	
																0	1	2	3				4	5	6													7
0. SCOTLAND, N.																																						
Shetlands.	Lerwick	1	59	1017.6	—	38.3	1.3	6.8	88.8	8.6	0	1	3	12	12	0	0	0	0	0	0	3	7	18	0	5	10	11	2	0	0	0	14	8	3	1	0	
		7	59	1017.5	+10.4	38.1	1.2	6.9	89.8	8.6	0	1	4	10	13	0	0	0	0	0	0	2	11	15	0	3	11	13	1	0	1	0	13	8	5	0	0	
		13	59	1018.3	—	39.5	2.0	6.6	81.8	1	0	1	4	14	9	0	0	0	0	0	0	4	11	13	0	3	11	13	1	1	0	0	11	12	2	0	1	
		18	59	1018.5	—	38.6	1.5	7.0	86.8	5	0	0	5	13	10	0	0	0	0	0	0	1	15	12	0	3	10	13	2	0	0	0	13	11	1	1	0	
Orkneys.	Deerness	9	165	1017.3	—	36.7	1.0	6.7	91.8	0	0	3	3	11	11	0	0	1	0	0	1	8	3	9	6	2	17	7	2	0	0	1	9	11	3	1	1	
		21	165	1017.6	—	37.0	1.1	6.6	89.8	4	0	1	6	5	16	0	0	0	0	4	0	2	5	17	0	1	19	6	2	1	0	2	9	12	1	0	1	
Hebrides.	Stornoway	7	41	1013.2	+5.4	37.7	1.6	6.6	85.8	4	0	3	2	10	13	0	0	0	0	0	0	9	19	0	0	13	10	5	0	0	2	8	9	3	0	1		
		13	41	1013.8	—	41.3	2.6	6.7	77.7	4	0	2	6	12	8	0	0	0	0	0	0	11	10	7	0	14	14	0	1	0	1	9	11	3	1	2		
		18	41	1013.9	—	39.3	2.1	6.5	81.7	3	0	4	7	3	14	0	0	0	0	0	0	10	14	4	0	13	14	1	1	0	1	9	11	3	1	1		
		21	41	1014.1	—	38.1	1.9	6.4	82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Caithness.	Wick	1	97	1016.3	—	37.6	0.9	7.1	91.8	0	0	0	9	5	14	0	0	0	0	0	1	2	9	16	0	3	16	9	0	0	0	0	3	15	6	2	2	
		7	97	1016.3	+8.2	36.5	0.9	6.8	91.8	2	0	1	5	6	16	0	0	0	0	0	0	1	12	15	0	6	8	14	0	0	0	0	3	13	9	2	1	
		13	97	1017.2	—	38.6	1.3	7.1	88.8	5	0	1	5	4	18	0	0	0	0	0	0	3	6	19	0	5	10	13	0	1	0	1	2	14	8	1	1	
		18	97	1017.2	—	37.7	1.0	7.0	91.8	9	0	0	4	7	17	0	0	0	0	0	0	3	9	16	0	4	14	10	0	1	0	1	4	11	8	2	1	
Inverness.	Inverness	9	250	1015.9	—	36.1	1.5	6.1	85.4	6	2	6	14	5	1	0	0	0	0	0	0	4	3	10	11	1	7	18	2	0	1	3	4	11	6	1	0	
		17	250	1016.2	—	36.0	1.5	6.1	85.4	0	3	9	9	7	0	0	0	0	0	0	0	0	8	13	7	1	10	16	1	0	1	2	7	12	4	1	0	
1. SCOTLAND, E.																																						
Nairn.	Nairn	7	82	1015.7	+6.8	32.9	1.3	5.5	86.6	4	0	3	8	17	0	0	0	0	0	0	0	2	16	10	0	0	1	11	16	0	1	5	2	3	1	0	0	
		13	82	1015.6	—	39.5	2.4	6.3	77.6	1	0	2	15	10	1	0	0	0	0	0	0	0	18	10	0	0	1	21	6	0	0	0	4	7	2	6	3	0
		18	82	1016.2	—	35.4	1.7	5.7	83.6	0	0	5	11	12	0	0	0	0	0	0	0	0	18	10	0	0	0	18	10	0	0	0	3	8	1	3	3	0
Aberdeen.	Aberdeen	7	85	1018.2	+7.7	34.2	1.6	5.6	83.8	4	0	2	2	13	11	0	0	0	0	0	5	15	7	1	0	0	15	10	3	0	0	1	8	8	3	4	1	
		13	85	1018.8	+8.3	36.8	2.2	5.8	78.7	5	0	6	2	7	13	0	0	0	0	0	7	12	4	5	0	18	8	2	1	0	2	7	12	2	1	1		
		18	85	1018.9	+8.3	36.0	2.0	5.7	80.7	8	0	5	2	7	14	0	0	0	1	1	9	10	5	2	0	14	14	0	0	0	3	8	12	3	2	0		
		21	85	1019.0	+8.3	35.5	2.0	5.7	80.7	9	1	2	3	8	14	0	0	0	0	2	7	13	6	0	0	15	12	1	0	0	1	7	12	4	3	0		
		h.*	85	1018.6	+8.0	35.6	2.0	5.9	81	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Aberdeen.	Braemar	9	1114	1019.1	—	29.1	0.7	4.9	91	—	—	—	—	—	0	0	12	6	4	4	1	0	1	0	0	2	26	0	0	3	2	5	4	10	1	3		
Perth.	Crieff	9	482	1017.8	—	31.4	—	—	8.1	0	2	6	3	17	—	—	—	—	—	—	—	—	—	—	—	0	8	20	0	0	0	14	2	2	2	8	0	
		21	482	1018.3	—	31.3	—	—	8.0	5	0	1	1	21	—	—	—	—	—	—	—	—	—	—	—	0	3	25	0	1	0	15	1	1	2	7	1	
Fife.	Inchkeith	1	184	1017.1	—	33.9	0.4	6.4	96.7	5	1	6	1	3	17	0	1	0	0	1	1	5	11	9	0	0	5	23	0	1	1	4	8	8	1	5	0	
		7	184	1016.9	—	33.5	0.6	5.9	93.7	9	0	6	1	6	15	0	1	0	1	1	1	4	9	11	0	0	4	24	0	0	1	7	5	9	2	4	0	
		13	184	1017.7	—	36.3	0.9	6.5	91.7	5	0	2	8	6	12	0	0	1	0	1	4	3	9	10	0	0	5	23	0	0	1	7	8	3	6	3	0	
		18	184	1017.7	—	35.0	0.7	6.4	93.7	7	0	6	1	8	13	0	0	1	0	1	4	4	12	6	0	0	5	23	0	1	1	5	7	5	4	4	1	
Fife.	Leuchars	7	36	1017.9	—	32.1	1.0	5.6	88.8	1	0	4	2	7	15	0	0	0	0	1	4	10	7	6	0	0	7	18	3	0	0	6	8	2	4	5	0	
		13	36	1018.3	—	37.0	2.3	6.0	77.7	6	0	5	2	8	13	0	0	0	0	5	10	7	6	0	0	10	13	5	1	0	4	10	2	3	2	1		
		18	36	1018.5	—	34.1	1.5	5.8	83.7	7	0	5	2	9	12	0	0	0	0	2	16	6	4	0	0	8	16	4	1	1	4	9	4	4	1	0		
Edinburgh.	Blackford Hill	9	441	1018.5	—	32.6	0.9	5.8	91.7	4	3	2	2	7	14	—	—	—	—	—	—	—	—	—	—	1	8	17	2	0	0	5	3	11	1	6	0	
		21	441	1019.0	—	32.7	1.0	5.7	89.7	1	2	3	6	2	15	—	—	—	—	—	—	—	—	—	—	0	7	15	6	0	1	4	10	3	2	2	0	
6a. SCOTLAND, W.																																						
Argyll.	Tiree	7	40	1013.9	—	38.2	0.9	7.1	91.8	3	1	0	4	5	18	0	0	0	0	0	0	9	10	5	4	2	21	5	0	1	1	0	6	15	1	2	2	
		13	40	1013.7	—	39.6	1.2	7.5	89.8	4	0	3	2	6	17	0	0	0	0	0	1	4	14	6	3	2	21	5	0	1	1	0	6	15	2	1	2	
		18	40	1013.9	—	38.7	1.1	7.2	90.7	7	0	2	7	6	13	0	0	0	0	0	0	6	10	9	3	2	21	5	0	0	1	1	6	17	0	2	1	
Bute.	Rothesay	9	187	1017.2	—	34.7	—	—	9.0	0	1	2	3	22	0	0	0	5	2	2	11	3	4	1	0	16	12	0	0	7	8	8	1	0	2	2		
		21	187	1017.4	—	35.4	—	—	9.1	0	0	3	4	21	0	1	1	5	1	4	8	6	2	0	0	21	7	0	0	8	10	6	1	1	0	2		
Renfrew.	Renfrew	7	40	1017.1	—	31.4	0.8	5.4	90.7	6	4	0	3	5	16	0	2	0	2	3	8	8	4	1	0	0	8											

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY, and WIND at fixed hours at certain Stations during the Month of FEBRUARY, 1929.

DISTRICT, COUNTY AND PLACE		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.		VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.																			
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.											
											0	1 to 3	4 to 6	7 to 9	10	Fog.				MIST.	POOR VIS.	MOD. VIS.	GOOD VISIBILITY.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.			
																0	1	2	3				4	5	6													7	8	9
2. ENGLAND, N.E.—cont.																																								
Durham.	Durham	G.M.T.	ft.	mb.	mb.	°F.	°F.	mb.	%																															
		9	352	1019.6	—	29.9	0.6	5.2	92	8.4	1	1	5	0	21	0	1	1	4	14	2	4	2	0	0	0	3	20	5	0	0	3	3	11	4	1	1			
		21	352	1020.0	—	30.5	0.7	5.3	91	7.9	5	0	2	0	21	0	0	1	0	3	6	11	7	0	0	0	4	19	5	0	0	3	4	12	2	2	0			
York, N. Riding.	Scarborough	9	96	1020.1	—	33.1	1.1	5.6	88	8.1	0	1	7	9	11	0	0	1	0	4	0	16	6	1	0	1	2	25	0	1	1	1	10	7	5	1	2			
	York	9	53	1019.6	—	30.8	0.9	5.3	89	9.9	0	0	0	2	26	—	—	—	—	—	—	—	—	—	—	—	0	0	28	0	3	1	3	11	7	0	0	3		
		21	53	1020.1	—	31.9	1.1	5.3	88	7.1	8	0	0	0	20	—	—	—	—	—	—	—	—	—	—	—	0	0	27	1	3	4	12	9	5	1	1	0		
York, E. Riding.	Spurn Head	1	28	1018.8	—	31.9	0.4	5.9	96	8.5	1	0	4	6	17	0	1	2	0	1	2	12	10	0	0	1	11	16	0	3	0	2	8	7	4	1	3			
		7	28	1018.8	+ 5.5	31.7	0.5	5.8	95	9.2	0	0	2	9	17	0	1	1	0	3	2	11	10	0	0	0	16	12	0	2	0	4	10	8	3	0	1			
		13	28	1019.5	—	34.0	0.8	6.0	92	9.2	0	0	1	10	17	0	1	0	2	3	1	7	13	1	0	1	15	12	0	1	1	1	11	7	4	1	2			
		18	28	1019.5	—	33.1	0.7	6.1	93	8.7	0	2	2	9	15	0	0	2	1	2	1	12	8	2	0	1	13	14	0	1	1	3	10	5	4	1	3			
Lincoln.	Cranwell	1	240	1019.7	—	28.8	0.6	5.1	91	7.7	3	2	2	5	16	0	0	1	1	5	6	14	1	0	0	0	9	17	2	1	1	6	6	4	2	3	3			
		7	240	1019.6	—	27.6	0.5	4.9	91	8.4	1	3	0	8	16	0	0	2	4	5	6	7	3	1	0	0	11	15	2	2	1	4	10	3	1	3	2			
		13	240	1020.0	—	34.6	1.9	5.6	80	8.7	0	1	2	12	13	0	0	0	1	2	7	11	4	3	0	0	13	15	0	1	1	4	13	3	1	3	2			
		18	240	1020.2	—	31.0	0.9	5.4	88	8.0	0	5	1	5	17	0	1	3	1	1	6	12	4	0	0	0	5	19	4	1	1	8	6	3	3	2	0			
3. ENGLAND, E.																																								
Norfolk.	Cromer	H	9	74	1020.2	—	30.9	1.2	5.1	84	8.2	1	2	2	9	14	0	1	1	0	3	5	9	6	3	0	0	6	22	0	1	2	7	8	4	3	2	1		
			1	26	1020.0	—	32.2	0.6	5.7	93	7.9	3	1	3	2	19	0	0	2	0	0	6	11	9	0	0	0	13	15	0	0	2	6	6	5	4	2	3		
Norfolk.	Yarmouth	..	7	26	1019.9	+ 5.5	30.7	0.5	5.5	94	8.5	1	1	4	3	19	0	1	1	0	1	5	14	6	0	0	0	14	13	1	2	3	5	7	4	4	0	2		
			13	26	1020.3	—	33.8	0.7	6.5	93	7.5	2	2	5	5	14	0	0	0	1	3	2	18	4	0	0	0	10	16	2	1	3	6	6	4	3	1	2		
			18	26	1020.5	—	32.6	0.9	5.6	90	7.3	4	0	5	4	15	0	0	1	0	0	7	15	5	0	0	0	13	15	0	0	1	9	3	8	2	1	4		
			7	20	1019.7	—	30.0	0.8	5.0	89	8.3	1	3	1	5	18	0	2	0	4	5	5	6	3	3	0	0	13	13	2	1	5	5	6	2	2	1	4		
Suffolk.	Felixstowe Aero.		13	20	1020.3	—	34.1	1.7	5.4	82	7.9	2	2	3	7	14	0	0	0	1	9	1	11	2	4	0	0	13	13	2	2	7	5	4	4	1	1	2		
			18	20	1020.3	—	32.2	1.3	5.2	86	7.0	4	3	2	5	14	0	0	1	1	3	10	7	5	1	0	0	12	13	3	2	8	4	4	4	0	1	2		
Cambridge.	Cambridge	H	9	43	1019.4	+ 4.9	31.7	0.6	5.7	91	8.2	2	1	0	10	15	—	—	—	—	—	—	—	—	—	—	0	4	24	0	0	5	4	9	5	5	0	0		
			21	43	1020.1	+ 5.7	30.3	0.8	5.5	92	6.3	10	0	0	1	17	—	—	—	—	—	—	—	—	—	—	0	4	19	5	1	6	7	7	0	2	0	0		
			7	187	1019.0	—	28.2	0.9	4.6	87	8.0	2	2	3	4	17	0	1	0	0	1	10	14	1	1	0	0	8	14	6	0	4	8	4	2	2	2	0		
			13	187	1019.3	—	35.6	2.8	5.1	72	7.7	2	3	1	10	12	0	0	0	0	0	5	16	3	4	0	0	14	14	0	1	3	8	8	1	3	3	1		
Bedford	Cardington		18	187	1019.5	—	32.0	1.7	5.0	82	6.6	2	7	1	4	14	0	0	0	0	1	2	16	6	3	0	0	7	20	1	1	6	8	5	1	5	1	0		
			21	187	1020.0	—	30.2	1.2	4.8	85	6.7	8	0	2	3	15	0	1	0	0	0	3	14	4	6	0	0	7	17	4	0	5	6	6	2	3	2	0		
Hertford.	Rothamsted		9	396	1018.7	—	30.6	0.6	5.4	92	7.2	3	2	3	8	12	1	0	1	4	1	12	9	0	0	0	0	6	12	10	0	9	4	1	2	0	1	1		
			7	14	1019.2	—	29.2	0.6	5.1	91	8.4	1	0	5	5	17	1	1	1	3	2	3	5	7	5	0	0	6	19	3	3	3	5	5	4	0	2	3		
Essex.	Shoeburyness	H	13	14	1019.6	—	35.3	1.3	6.1	86	7.1	2	2	6	7	11	0	0	0	1	1	2	12	5	7	0	0	8	20	0	2	4	5	19	2	1	2	3		
			18	14	1019.8	—	31.9	0.8	5.6	89	6.4	3	5	5	0	15	0	0	0	2	3	2	10	6	5	0	0	6	21	1	3	6	4	6	1	4	2	1		
4. MIDLAND COUNTIES.																																								
York, W. Riding.	Harrogate	..	7	478	1019.2	—	28.5	0.6	4.9	91	8.6	0	4	1	2	21	0	3	1	2	4	9	2	5	2	0	0	3	17	8	0	0	4	6	5	3	1	1		
			13	478	1019.3	—	33.6	1.5	5.6	84	7.9	0	6	0	8	14	0	0	1	2	3	9	6	6	1	0	0	3	23	2	1	0	5	9	7	4	0	0		
			18	478	1019.7	—	31.8	1.0	5.4	89	7.2	0	7	1	10	10	0	0	1	2	8	10	2	5	0	0	0	1	20	7	0	1	4	8	4	4	0	0		
Nottingham.	Nottingham		9	215	1018.8	—	30.6	1.3	5.0	85	9.2	0	1	0	7	20	0	3	10	11	4	0	0	0	0	0	8	20	0	2	5	4	7	4	0	5	1			
Warwick.	Birmingham	H	7	542	1018.5	—	29.8	1.0	5.1	86	7.5	3	2	2	9	12	0	1	1	1	5	7	10	2	1	0	0	6	21	1	0	2	6	11	5	1	1	1		
			13	542	1018.7	—	34.8	2.6	5.3	73	6.9	1	4	6	10	7	0	0	0	3	5	10	10	0	0	0	9	19	0	1	1	5	10	5	4	1	1			
			18	542	1019.2	—	33.7	2.2	5.2	74	6.7	5	3	1	8	11	0	0	0	0	8	15	4	0	1	0	0	5	22	1	0	2	8	6	5	4	1	1		
Oxford.	Oxford	..	9	212	1019.1	+ 2.9	30.0	1.2	5.0	85	7.6	2	4	1	8	13	0	0	4	8	2	5	6	2	1	0	0	4	14	10	0	3	4	4	4	1	1	1		
Hereford.	Ross-on-Wye	H	7	226	1017.7	—	28.2	0.8	5.2	90	7.6	1	5	1	7	14	0	1	0	1	7	6	8	3	2	0	0	2	24	2	1	4	8	5	3	2	2	1		

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY, and WIND at fixed hours at certain Stations during the Month of FEBRUARY, 1929.

DISTRICT, COUNTY AND PLACE.	Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.															
			At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.										
										0	1 to 3	4 to 6	7 to 9	10	0	1	2	3	4	5	6	7	8	9	8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		
5. ENGLAND, S.E.—cont.																																						
Kent.	Biggin Hill H	G.M.T.	ft.	mb.	mb.	°F.	°F.	mb.	%																													
		7	596	1018.3	—	28.8	0.5	5.1	92.7	6	2	5	1	3	17	0	2	1	1	2	10	12	0	0	0	0	6	21	1	0	5	6	7	5	1	2	1	
		13	596	1018.5	—	34.7	2.2	5.5	79.7	6	1	3	4	9	11	0	0	1	2	2	5	13	5	0	0	0	5	22	1	2	7	3	4	4	4	3	2	
Kent.	Dungeness ..	18	596	1018.9	—	31.3	1.1	5.4	86.6	6	2	3	3	14	0	0	0	4	4	10	8	2	0	0	0	6	18	4	0	8	3	5	0	5	1	5		
		1	23	1018.8	—	32.7	1.0	5.7	89.7	5	4	1	2	6	15	0	2	0	1	1	2	8	11	3	0	10	18	0	0	4	6	6	3	3	3	1		
		7	23	1018.7	+ 3.5	31.2	0.9	5.3	89.7	8	1	2	6	3	16	1	1	0	0	2	1	8	14	1	0	0	11	17	0	1	5	7	6	3	2	0	4	
Kent.	Lympe H	13	23	1019.1	—	35.6	1.7	5.9	83.7	9	0	4	3	9	12	0	0	0	3	1	1	8	10	5	0	0	9	18	1	3	5	7	4	3	3	1	1	
		18	23	1019.1	—	34.7	1.2	6.0	87.8	0	1	0	8	3	16	0	0	0	1	1	4	7	12	3	0	0	7	21	0	2	7	7	4	3	3	1	1	
		1	345	1018.8	—	30.0	1.0	5.1	86.6	9	4	4	2	2	16	1	1	2	1	4	7	6	5	1	0	0	11	16	1	5	5	3	7	2	2	0	3	
Kent.	Lympe H	7	345	1018.7	—	29.4	1.0	5.0	87.7	9	2	3	2	2	19	1	0	1	2	5	10	6	0	3	0	0	11	17	0	6	6	5	5	3	0	0	3	
		13	345	1019.0	—	33.8	2.1	5.3	76.7	1	1	4	4	7	12	0	1	0	1	3	9	9	1	4	0	0	14	14	0	4	7	7	3	4	0	1	2	
		18	345	1019.4	—	31.1	1.4	5.1	82.7	2	4	2	2	4	16	0	1	2	3	3	7	9	1	2	0	0	11	17	0	6	8	5	2	5	1	0	1	
Kent.	Manston H	7	152	1019.3	—	29.9	0.7	5.2	90.8	3	1	3	1	6	17	0	3	1	0	2	7	13	1	1	0	0	12	14	2	2	5	3	7	3	1	1	4	
		13	152	1019.6	—	34.2	1.8	5.6	80.7	1	4	5	8	10	0	1	0	0	0	3	6	11	2	5	0	0	11	17	0	3	4	5	8	3	0	1	4	
		18	152	1019.9	—	32.2	1.2	5.5	86.7	7	3	2	1	11	11	0	1	0	0	2	4	17	3	1	0	0	7	20	1	2	5	8	5	4	1	1	1	
Kent.	Tunbridge Wells	9	396	1019.5	—	30.6	0.5	5.3	93.6	8	2	5	4	5	12	0	1	0	5	11	10	0	1	0	0	0	7	21	0	3	7	6	5	3	2	1	1	
Sussex.	Brighton H	9	48	1018.7	—	32.8	1.0	5.7	89.6	4	7	2	1	6	12	0	0	0	1	3	1	19	3	1	0	0	1	26	1	2	14	1	4	3	2	0	1	
Sussex.	St. Leonards	9	174	1018.9	—	32.9	1.4	5.5	85.6	9	5	2	3	6	12	0	1	2	0	1	3	5	14	2	0	0	1	4	23	0	1	9	7	6	1	1	1	2
		21	174	1019.5	—	33.3	1.3	5.5	86.5	4	1	0	0	1	16	0	1	0	1	0	1	5	17	3	0	0	1	4	23	0	1	11	5	4	1	2	3	1
Hampshire.	Calshot ..	1	15	1017.9	—	33.7	1.2	5.9	87.6	9	4	4	2	5	13	2	0	1	3	2	2	9	7	2	0	0	1	11	16	0	2	6	13	3	2	1	1	0
		7	15	1017.8	—	32.2	1.2	5.3	86.6	6	3	6	2	2	15	1	0	0	3	4	2	11	6	1	0	0	17	11	0	4	7	10	3	1	1	0	2	
		13	15	1018.3	—	36.7	2.0	5.9	79.7	0	3	3	5	6	11	0	0	0	1	2	7	12	6	0	0	0	18	8	2	1	4	14	2	2	2	1	0	
Hampshire.	Southampton H	18	15	1018.7	—	35.6	1.8	5.7	82.5	7	5	5	4	5	9	0	1	1	0	3	5	16	2	0	0	0	12	14	1	0	5	13	4	1	2	2	0	
		9	84	1018.7	+ 2.2	33.1	1.1	5.7	86.8	0	1	2	4	3	18	0	2	2	6	11	6	1	0	0	0	0	28	0	1	7	6	7	1	2	2	2		
		21	84	1019.4	+ 3.0	34.0	1.2	6.0	85.7	4	2	1	6	5	14	0	1	2	10	7	7	1	0	0	0	0	1	27	0	2	7	6	6	1	3	1	2	
Hampshire.	S. Farnborough	7	256	1018.4	—	28.1	0.7	4.7	90.7	7	1	6	0	3	18	0	1	1	5	7	4	9	1	0	0	0	3	22	3	1	4	8	5	4	1	2	0	
		13	256	1018.6	—	37.2	3.0	5.4	70.6	5	2	4	5	12	0	0	0	1	5	6	13	3	0	0	0	0	6	19	3	0	2	7	8	2	3	2	1	
		18	256	1018.9	—	33.3	1.9	5.1	78.6	5	6	3	1	4	14	0	0	1	3	11	5	7	1	0	0	0	4	24	0	2	4	11	4	2	3	1	1	
Hampshire.	Winchester (Worthy Down)	7	273	1018.0	—	28.7	0.7	4.8	90.7	5	2	5	2	2	17	0	0	0	3	2	4	14	4	1	0	0	5	19	4	5	5	7	3	2	0	1	1	
		13	273	1018.3	—	36.8	2.7	5.4	73.7	2	4	2	1	10	11	0	0	0	1	2	7	8	7	3	0	0	7	20	1	0	8	5	8	3	1	0	2	
		18	273	1018.7	—	33.0	1.5	5.4	84.6	6	4	4	3	5	12	1	0	2	1	3	5	10	5	1	0	0	4	21	3	3	6	9	3	1	2	1	0	
I. of Wight.	Ventnor (Hosp.)	9	80	1018.1	—	35.9	1.5	6.1	85.7	5	2	2	5	7	12	—	—	—	—	—	—	—	—	—	—	—	0	6	22	0	2	6	13	3	0	2	2	0
		15	80	1017.8	—	38.3	2.3	6.1	78.6	9	2	6	1	7	12	—	—	—	—	—	—	—	—	—	—	—	0	11	16	1	1	1	16	3	1	0	4	1
Wilts.	Larkhill H	9	444	1018.0	—	31.0	1.0	5.3	90.7	6	1	3	5	6	13	0	0	2	0	1	2	14	6	3	0	0	14	14	0	0	8	9	6	2	1	0	2	
		13	444	1018.0	—	35.7	2.3	5.6	76.7	3	3	3	3	5	14	0	0	1	0	3	2	11	8	3	0	0	13	13	2	1	4	10	8	2	1	0	0	
		15	444	1017.9	—	35.9	2.4	5.7	76.6	8	3	4	4	6	11	0	2	0	0	3	3	12	7	1	0	0	0	11	14	3	1	4	8	9	1	1	0	1
7a. ENGLAND, N.W.																																						
Cumberland.	Aspatria (Mealsgate)	9	485	1019.0	—	34.8	(1.2)	6.3	92.7	0	4	2	5	2	15	—	—	—	—	—	—	—	—	—	—	—	0	5	20	3	0	2	0	13	7	3	0	0
		21	485	1019.9	—	33.1	(1.2)	5.5	87.6	3	9	0	2	1	16	—	—	—	—	—	—	—	—	—	—	—	0	4	22	2	0	1	0	11	9	3	2	0
Lancashire.	Hutton ..	9	86	1016.9	—	32.3	0.9	5.5	89.7	2	3	2	3	8	12	—	—	—	—	—	—	—	—	—	—	0	3	23	2	0	7	4	11	2	0	1	1	
Lancashire.	Southport H	9	42	1017.9	+ 3.6	32.2	1.1	5.7	85.7	7	1	5	2	2	18	0	0	0	0	6	21	0	0	1	0	0	15	13	0	1	0	8	14	3	0	1	1	
		13	42	1017.9	+ 3.8	36.8	2.4	5.9	76.7	5	1	6	2	2	17	0	0	0	0	1	21	5	0	1	0	0	17	9	2	1	0	4	12	5	2	2	0	
		18	42	1018.2	+ 4.3	34.9	1.7	5.9	81.7	1	1	4	5	5	13	0	0	0	0	10	15	3	0	0	0	0	15	12	1	1</								

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY, and WIND at fixed hours at certain Stations during the Month of FEBRUARY, 1929.

DISTRICT COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Visibility.			8 or more.	4 to 7	1 to 3	Caln.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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8a. SOUTH WALES—cont.		G.M.T.	ft.	mb.	mb.	°F.	°F.	mb.	%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	</

TABLE I. DISTRICT VALUES.

The District Values of this Table are computed from the statistics for selected individual stations set out in Table III and Table IV.

The representative stations from which the District Values of rainfall and temperature are computed are indicated in Table III by the sign ¶ while the representative stations from which District Values of sunshine are computed are indicated by the sign §. The deviations from and percentages of normal for Air Temperature, Rainfall and Sunshine are the means of the corresponding deviations or percentages for the representative District Value stations. The deviations from normal of Earth Temperature are derived from the deviations for all the stations reporting in Table III for which normals of Earth Temperature are available. The highest and lowest temperatures for the District recorded during the month may refer to any station in Table III.

TABLE II. SUMMARY OF AUTOGRAPHIC RECORDS OF WIND.

The records used in the preparation of this Table are generally made by anemographs of the pressure-tube type. At a few stations the Robinson Cup Anemograph is utilised. The classification adopted for the "Distribution of Wind" is based on the specification of the Beaufort Scale of Wind Force (see *The Observer's Handbook*). For an anemograph complying with the specification "head 33 ft. above ground in the open" the several columns correspond with Force 8 and above (gales), Forces 6 and 7 (strong winds), Forces 4 and 5 (moderate breezes), Forces 2 and 3 (light breezes), Forces 1 and 0 (nearly calm). Some information as to the nature of the actual exposures may be gathered from the figures in the "Height" columns.

The "Highest Hourly Wind" is determined by the mean speed of the wind for a period of sixty minutes from 30 minutes before to 30 minutes after an exact hour by Greenwich Mean Time. Under the heading "Veer from N" the azimuth of the direction from which the wind was blowing is stated, the entry for an east wind being 90°, that for a south wind 180° and so on.

TABLE III. SUMMARY OF OBSERVATIONS AT TERMINAL HOURS.*

Temperature.—The terminal hours of observation are given for each station. When the terminal hours for maximum and minimum temperature are stated independently the temperatures refer to intervals of 24 hours. If the maximum thermometer is read in the morning the reading is credited to the previous day. When the terminal hours for maximum and minimum are separated by a dash, thus, 18-7, the day-maximum for the period 7h. to 18h. and the night-minimum for the period 18h. to 7h. are reported and are utilised in determining the means for the month; in such cases the extreme temperatures for successive periods of 24 hours are also read by the observers, so that the absolute maximum and minimum temperatures for the month are obtained.

Except at the Royal Observatory, Greenwich, where a Glaisher stand is in use, the air temperature is obtained from thermometers placed in louvered screens. At Kew Observatory, Richmond, and Valentia Observatory these are north wall screens a few feet from the ground. At Aberdeen Observatory the north wall screen is at 41 feet. Otherwise the screens are in the open.

Rainfall.—The daily amounts are for the 24 hours beginning at the "terminal hour." "Rainfall" includes all forms of precipitation. The number of days of precipitation is counted with reference to the limit .01 inch or 0.2 mm. and also with reference to the limit .04 inch or 1 mm. The lower limit excludes mere "traces" of precipitation, but it is frequently passed on occasions when the precipitation is only dew.

Weather.—The numbers of days of Precipitation, Snow, Hail, Thunderstorms and Gale are counted irrespective of the hour at which the phenomena occur. Except for "Precipitation" the day is the civil day.

For the purpose of this summary "Snow" includes sleet (*i.e.*, snow with rain), "Hail" includes graupel (soft hail), "Snow lying" refers to occasions when at least one-half of the country surrounding the station is covered with snow at the morning observation. The entry of "fog" implies that regular observations of the range of vision are made on the scale set out below. Days of fog are those on which the range of vision is less than 1,100 yards at the hour of morning observation. That hour is generally given by the third entry of column 2 of the table and may be 7h. or 9h. G.M.T. The variability of the observation hour may exercise an important effect upon the statistics of fog frequency. "Thunderstorm" includes any day on which thunder is heard. "Gale" is a wind of Force 8 or upwards on the Beaufort Scale. A "ground frost" is entered when the reading of a "grass minimum" thermometer set the previous evening and read at the morning observation is 30° F. or lower.

Sunshine.—The percentage of possible sunshine in the last column is calculated with reference to the maximum duration theoretically possible in the latitude, allowance being made for refraction (see

International Meteorological Tables (Paris) pp. A17-A20 and 42-47) but not for the fact that the sunshine recorder is generally insensitive to sunshine when the sun is at an altitude of less than 3°. Where the symbol § occurs it indicates that obstructions of altitudes greater than 3° reduce the period during which the sun is over 3° above the horizon by more than 5 per cent.

TABLE IV. SUMMARY OF OBSERVATIONS AT FIXED HOURS.*

Mean Air Pressure is expressed in millibars. (1 millibar = 1,000 dynes per square centimetre = the pressure due to .029531 inch of mercury at 32° F. in Lat. 45°). The corrections for latitude, temperature and height have been applied to the barometer readings so as to obtain pressure at mean sea level. Barometric pressure is given at station level for a few stations at altitudes of 600 ft. or more in footnotes in Table IV.

Hygrometry.—The values given depend on the readings of the dry and wet bulb thermometers in Stevenson Screens (except at the Observatories, see above). The observations were formerly reduced by Glaisher's method; as from January, 1926 they are reduced by the new hygrometrical tables issued by the Office which are based on a formula of Regnault. In general the relative humidity and vapour pressure are derived from the monthly means of the dry and wet bulb readings. At certain stations the daily values of relative humidity and vapour pressure are found and the means are computed therefrom. These stations are indicated by the letter "H."

Cloud Amount.—The proportion of sky covered with cloud is estimated on the scale 0 to 10, the entry "0" being equivalent to clear sky "10" to overcast.

Visibility.—The observations are classified according to the following scheme—the distances, specified by international arrangement in metres, are given here in yards and miles:—

CODE.	RANGE OF VISION.
0	Less than 55 yards.
1	Exceeding 55 yards, less than 220 yards.
2	" 220 " " 550 "
3	" 550 " " 1,100 "
4	" 1,100 " " 1½ miles.
5	" 1½ miles " 2½ "
6	" 2½ " " 6½ "
7	" 6½ " " 12½ "
8	" 12½ " " 31 "
9	" 31 " "

Wind Summaries.—The estimates of wind force refer to the Beaufort Scale, and in general to the wind experienced at the time of observation. At Deerness, Cahirciveen, Richmond, Armagh, Eskdalemuir, Southport, Greenwich and Oxford the analysis refers to tabulations of autographic records. For Oxford the mean wind speed for half-an-hour centred at the hour of observation is used for conversion to "force" on the Beaufort Scale; for the remaining observatories the mean wind speed used for each observation refers to a period of one hour. In these cases winds equivalent to Force 1 are counted with the calms, whilst Forces 2 and 3 are taken together in the preceding column of the Table.

INTERPOLATED VALUES.

When the observations for any station for a month are incomplete and relevant data (e.g. records from neighbouring stations) which make it practicable to interpolate approximate values for the missing observations are available, such approximate values may be used for completing summaries for stations published in Tables III and IV. Parts of a summary obtained in this way are shown in brackets thus—(52.4).

STANDARD OF TIME.

As a rule observations are made in all parts of the British Islands according to Greenwich Mean Time, but at the following stations Local Mean Time is used for the observations summarised in Tables III and IV. The number of minutes after Greenwich Time is shown in brackets—Darwen (10), Rhayader (15), Ashburton (15), Tavistock (17), Plymouth (15), Douglas (20), Armagh (26), Balbriggan (25), Lisburn (30), Newcastle, Co. Wicklow (30), Ballinacurra (30), Cork (34).

"Summer Time" is not used in the Monthly Weather Report, but at certain stations the hours of observation vary in the course of the year. For such stations all time entries are converted to G.M.T. before they are printed and the winter hours are given as the terminal hours in the annual tables. For the summer hours reference should be made to the appropriate months.

NORMALS.

In Table III the normals used are those for the 35 years 1881-1915. The normals of temperature and sunshine are published in the Book of Normals, Section I, those for rainfall in the Book of Normals, Section V.

The normals for pressure with which comparison is made in Table IV also refer to the period 1881-1915.

* In addition to the frequencies published in this Report (Tables III and IV), the Meteorological Office has issued since January, 1927, in the form approved by the International Commission for Air Navigation, monthly frequency tables of height of base of low cloud, and speed and direction of surface and upper winds.

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

SUMMARY OF OBSERVATIONS COMPILED FROM RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS.

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MARCH, 1929. Fine, quiet and exceptionally dry.

March was on the whole quiet, sunny and abnormally dry, with, however, much mist or fog at night and in the early morning. There were some very warm days and frequent cold nights, a noteworthy feature of the weather of the month being the unusually large diurnal range of temperature.

At the beginning of the month a large anticyclone over Central Europe extended over the greater part of England, while Ireland and the north-western district of Great Britain came under the influence of a deep depression to the south of Iceland. Over most of England the weather during the first two days was fine but cold, unusually low screen temperatures occurring at night with severe ground frost, while in some districts skating was still in progress. In Ireland and the north-west of Great Britain day temperatures were about or above the normal and the weather cloudy at first with some precipitation in the north of Scotland (10 mm. at Lerwick on the 1st). By the 3rd anticyclonic conditions had extended to the whole of the country and for more than two weeks these conditions remained unchanged. There was a progressive rise in temperature over England commencing on the 3rd and from about the 6th to the 11th day temperatures exceeded the normal in nearly all districts. From the 8th to the 11th, 60°F. was exceeded in many places while 70°F. was reached at Norwich and Hull on the 9th. Large daily amounts of sunshine were recorded, notably from the 8th to the 11th, while precipitation was scanty. During the night clear skies and absence of wind were favourable to the occurrence of low temperatures and during each of the days 8th-11th a daily range of temperature in excess of 35°F. was recorded at many stations. Fog was very prevalent at night and in the early morning.

After the 11th light north to north-easterly winds brought cool and cloudy weather generally and at several places morning mist or fog persisted throughout the day.

On the 16th the anticyclone moved away eastwards and winds became southerly over the British Isles. Apart from the occurrence of low day temperatures in many parts of eastern England on the 19th there was a general rise in temperature. Associated with a depression near Iceland south-westerly to westerly winds prevailed up to the 26th and mild weather with frequent sunny periods and, apart from some heavy rain locally on the 20th and 21st, slight precipitation was experienced generally. By the 26th the anticyclone centred near the Azores had spread over the British Isles and fine warm and sunny weather was experienced until the 31st when the retreat of the anticyclone towards the south-west brought north-westerly winds and cool weather.

Pressure and Winds.—Quiet anticyclonic conditions prevailed from the 3rd to the 19th and from the 27th to the 30th and for the fourth consecutive month monthly means of pressure were everywhere decidedly above the normal, the excess amounting to 16 millibars at several northern stations; at Southport the mean pressure for the month was the highest for March in 58 years' records. Winds were mostly light and there was a complete absence of gales. Winds were generally south-westerly to westerly over Scotland and southerly over Ireland; over England they were more variable in direction, northerly to easterly winds occurring with considerable frequency.

Temperature.—Apart from rather low day temperatures in the south at the beginning of the month, widely from the 12th till about the 17th, and in eastern England on the 19th, the days were warm, notably about the 9th and from the 27th to the 30th, maximum temperatures of 70°F. and above being recorded at several stations during the latter period. At Oxford the maximum temperatures of 70°F. on the 28th and 29th and 72°F. on the 30th were the highest temperatures recorded in March since observations commenced there in 1851, and at Dublin (Phoenix Park) the maximum of 72°F. on the 30th exceeded even the April record since 1881 at that station—i.e., 69°F. in 1909. The maximum temperatures of 70°F. on the 28th and 71°F. on the 29th at Meltham were the highest recorded at that station in March in 50 years. A temperature of 71°F. recorded at Gordon Castle on the 27th is the highest noted in Scotland in March since 1894 while the maximum temperature of 77°F. at Wakefield on the 28th is the highest temperature on record in March in the British Isles

since at least 1881. The nights were mostly cold, unusually low temperatures and severe ground frost occurring in several English districts in the early part of the month. Ground frost occurred with remarkable frequency and at the majority of stations was recorded on more than 20 occasions. The large mean daily range of temperature was a decided feature of the weather of the month. The diurnal range of temperature was greatest on the 8th to 11th, 18th, 20th (in south-east England) and 28th-30th. As examples of the remarkable daily range recorded were 43°F. at South Farnborough and 41°F. at Eskdalemuir on the 9th, 40°F. at South Farnborough and Croydon on the 20th and at Eskdalemuir on the 28th and 42°F. at South Farnborough on the 29th. At almost all stations the mean temperature for the month exceeded the normal. The extreme temperatures for the month were:—England and Wales, 77°F. at Wakefield on the 29th and 9°F. at Roden, Wellington on the 1st. Scotland, 71°F. at Gordon Castle on the 27th and Kelso (Broomlands) on the 30th and 10°F. at Logie Coldstone on the 1st. Ireland, 74°F. at Kilkenny on the 30th and 21°F. at Markree on the 5th.

Precipitation.—March, 1929 was remarkably dry. The general precipitation over the British Isles expressed as a percentage of the normal for the period 1881-1915 was 18, the lowest value for March since before 1870: the values for the constituent countries were:—England and Wales 13, Scotland 24, Ireland 24. Over the country as a whole March, 1929, ranks with February, 1891 and June, 1925, as the driest months in 60 years.

Monthly totals everywhere were less than half the normal amount and over the east and south-east of Scotland and along a broad coastal strip in the north-east of England and over much of central and south-eastern England were less than 10 per cent. of the normal. At several stations all previous records for dryness were eclipsed. At Edinburgh the month's total was 5 mm. So small a total has been noted in Edinburgh in March only four times in the past 150 years namely, in the years 1781, 1809, 1847 and 1850. At Ardross Castle the month was the driest March in 60 years of comparable data. The month was the driest March in records covering 48 years at Strelley, 42 years at Eastbourne (where the month's total equalled the total for the driest month of any name, viz. April, 1912, with a total of 0.8 mm.) and 37 years at Halstead (Essex), Teignmouth and Newquay. The month's total was the smallest recorded in any month at Richmond (Kew observatory) since 1866, and at Malvern since 1874.

The number of days with measurable precipitation was decidedly below the normal and over a large part of southern and eastern England did not exceed three. At a number of stations in or near London, March, 1929, was rainless. No rain fell at St. Albans during the period February 27th till March 25th (27 days) and at Newquay during the period February 25th till March 19th (23 days).

Some sleet occurred at the beginning of the month in a few northern districts. On high ground in northern districts snow continued to lie at the commencement of the month but by the 5th had disappeared. Hail was reported from a few stations in Scotland, while thunderstorms were exceedingly rare.

Sunshine.—The month was, on the whole sunny, over 10 hours' sunshine in one day being recorded widely from the 8th to the 11th and the 27th to 30th. In almost all places sunshine aggregates for the month exceeded the normal and in a few places exceeded all previous records for March. Representative totals for Districts, expressed as a percentage of the normal for the period 1881-1915, ranged from 168 in England N.W. to 129 in Scotland N. The month was the sunniest March in records covering 34 years at Southport and 48 years at Strelley. The month was the sunniest March at Aberdeen, Eastbourne and Teignmouth since 1907, and at Cahirciveen since 1880.

Fog.—Fog was very prevalent, the quiet anticyclonic conditions which prevailed during the greater part of the month being favourable to its development.

Miscellaneous Phenomena.—Aurora was observed at Deerness on the 6th, 7th, 12th and 14th, at Inverness on the 15th, at Fort Augustus on the 12th and at Aberdeen on the 12th and 14th. The Zodiacal Light was observed at Oxford on the 1st, 2nd, 4th, 8th and 9th.

TABLE I.—DISTRICT VALUES—MARCH, 1929.

[1908, revised 1928.]

DISTRICTS.	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High- est.	Low- est.	Daily Mean. Devia- tion from Normal.	At 1 ft. Devia- tion from Normal.	At 4 ft. Devia- tion from Normal.	Per- cent- age of Normal.	No. of Days. Devia- tion from Normal.	Per- cent- age of Normal.	Per- cent- age of Possible Duration.
o. SCOTLAND, N.	°F. 67	°F. 21	°F. +4.5	°F. —	°F. —	% 27	—12	% 129	% 36
Eastern.									
1. SCOTLAND, E.	71	10	+3.9	—	—	11	—12	146	45
2. ENGLAND, N.E.	73	10	+3.1	—1.4	—1.7	13	—12	133	43
3. ENGLAND, E...	70	13	+1.2	—2.2	—3.0	3	—11	134	45
4. MIDLAND COUNTIES	77	9	+2.5	—2.7	—3.0	9	—11	150	46
5. ENGLAND, S.E.	74	15	+0.9	—2.1	—3.3	8	—12	148	49

DISTRICTS.	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High- est.	Low- est.	Daily Mean. Devia- tion from Normal.	At 1 ft. Devia- tion from Normal.	At 4 ft. Devia- tion from Normal.	Per- cent- age of Normal.	No. of Days. Devia- tion from Normal.	Per- cent- age of Normal.	Per- cent- age of Possible Duration.
Western.	°F.	°F.	°F.	°F.	°F.	%	—	%	%
6. SCOTLAND, W. (& I. of Man)	68	15	+2.3	—	—2.3	36	—11	167	48
7. ENGLAND, N.W. (& N. Wales)	72	11	+2.2	—3.4	—3.3	25	—11	168	53
8. ENGLAND, S.W. (& S. Wales)	75	10	+2.0	—2.1	—2.7	12	—13	165	54
9. IRELAND, N...	71	21	+3.4	0.0	—0.9	16	—15	166	50
10. IRELAND, S...	74	22	+2.6	—0.5	—0.9	27	—13	153	51
11. CHANNEL I. (& Scilly)	67	29	+0.5	—1.5	—1.9	6	—16	141	56
Mean : DISTRICTS 1—10	77	9	+2.4	—1.8	—2.3	16	—12	153	48

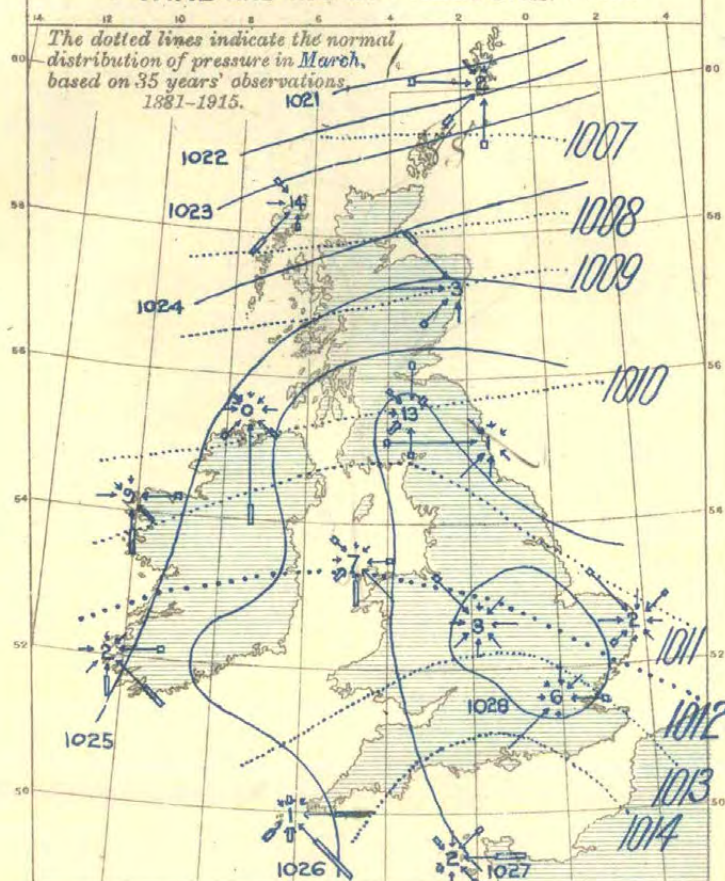
TABLE II.—SUMMARY OF AUTOGRAPHIC RECORDS OF WIND.—MARCH, 1929.

[1914.]

DISTRICT AND STATION.	Height.			Distribution of Wind.								Extreme Velocities.								
	Above Mean Sea Level.	Above Ground.	Above Build- ing.	More than 38 mi/hr.		25 to 38 mi/hr.		13 to 24 mi/hr.	4 to 12 mi/hr.	Less than 4 mi/hr.	No Record.	Highest Hourly Wind.				Highest Gust.				
				Dates of Occurrence.	Dura- tion.	No. of Days.	Dura- tion.	Dura- tion.	Dura- tion.	Dura- tion.	Dura- tion.	Veer from N.	Speed.	Mid Time.	Speed.	Time.				
o. SCOTLAND, N.	ft.	ft.	ft.		hr.		hr.	hr.	hr.	hr.	hr.	°	mi/hr.	m/s.	day. hr.	mi/hr.	m/s.	d. h. m.		
Shetlands Lerwick ..	310	42	33†	—	o	7	43	297	209	158	37	290	32	14	3I 12	48	21	3I 12 30		
Orkneys Deerness (Cup Anr.)	188	16	5	—	o	10	44	298	327	75	o	290	35	16	3I 10 11	—	—	—		
1. SCOTLAND, E.																				
Aberdeen Aberdeen ..	70	42	33†	—	o	2	6	103	464	171	o	300	29	13	3I 11	51	23	3I 11 45		
Kincardine Balmakewan ..	140	25	18	—	o	—	o	46	(324)	(370)	4	210	22	10	2 3	36	16	2 3 20		
Edinburgh Edinburgh ..	485	39	31†	—	o	2	4	170	349	221	o	210	32	14	2I 3	47	21	2I 2 40		
6a. SCOTLAND, W.																				
Argyll Tiree ..	80	55	48†	—	o	3	23	230	412	79	o	190	35	16	I 7	48	21	I 7 20		
Renfrew Paisley ..	188	81	15	—	o	—	o	39	379	326	o	250	19	9	3I 12	40	18	3I 10 45		
Dumfries Eskdalemuir ..	825	50	22	—	o	I	8	161	280	295	o	290	27	12	3I 3	45	20	3I 13 15		
2. ENGLAND, N.E.																				
Durham South Shields ..	62	46	20	—	o	I	I	53	397	293	o	290	25	11	3I 10	41	18	3I 10 35		
York, E.R. Spurn Head ..	67	41	35†	—	o	I	6	122	457	148	11	330	27	12	3I 24	36	16	3I 12 45		
Lincoln Cranwell ..	284	44	26†	—	o	I	I	90	508	145	o	290	25	11	3I 8	39	17	3I 19 10		
3. ENGLAND, E.																				
Norfolk Gorleston ..	52	42	33†	—	o	I	I	67	471	201	4	320	25	11	3I 11	38	17	3I 10 50		
Suffolk Felixstowe Aero. ..	55	40	25	—	o	—	o	68	(341)	(335)	o	310	20	9	3I 9	33	15	3I 9 30		
Essex Shoeburyness ..	115	104	14†	—	o	—	o	48	381	290	25	310	18	8	3I 9	32	15	3I 9 10		
4. MIDLAND COUNTIES.																				
Warwick Birmingham ..	643	118	18	—	o	—	o	56	543	145	o	310	23	10	3I 12	39	17	3I 13 55		
5. ENGLAND, S.E.																				
Surrey Richmond (KewObs)	82	65	22	—	o	—	o	43	369	332	o	90	16	7	I 16	26	12	15 23 30		
Surrey Croydon ..	313	105	49	—	o	—	o	136	360	248	o	320	20	9	3I 10	36	16	15 8 45		
Kent Dover ..	61	32	22	—	o	—	o	185	389	156	14	—	23	10	3I 19	36	16	3I 9 35		
Kent Lympne ..	409	70	55†	—	o	2	3	212	493	36	o	10	27	12	4 11	40	18	4 10 30		
Hampshire Calshot ..	55	45	31†	—	o	—	o	268	(419)	(57)	o	90	23	10	16 2	30	13	24 13 30		
Hampshire Worthy Down ..	314	43	27†	—	o	—	o	27	481	236	o	320	21	9	3I 10	31	14	3I 10 25		
7a. ENGLAND, N.W.																				
Lancashire Fleetwood ..	112	50	12	—	o	—	o	Instrument under repair.					o	270	26	12	3I 1	36	16	3I 8 30
Lancashire Southport ..	77	59	45†	—	o	2	7	172	479	86	o	310	30	13	3I 1	42	19	3I 1 0		
Lancashire Liverpool (Bidston)	253	64	35	—	o	I	9	237	423	61	14	—	—	—	—	—	—	—		
7b. NORTH WALES.																				
Anglesey Holyhead ..	64	45	29†	—	o	2	2	201	269	272	o	280	26	12	30 24	37	17	30 23 50		
Flint Sealand ..	81	65	49†	—	o	I	6	115	435	188	o	300	26	12	3I 11	41	18	3I 11 0		
8b. ENGLAND, S.W.																				
Devon Plymouth ..	185	88	2	—	o	I	2	148	371	223	o	—	26	12	8 10	43	19	8 11 20		
Cornwall Pendennis Castle ..	256	65	24	—	o	—	o	Instrument dismantled.					o	—	—	—	—	—		
9. IRELAND, N.																				
Donegal Dunfanaghy Road	180	47	39	—	o	4	15	123	332	274	o	—	28	13	I 14	43	19	30 16 10		
Antrim Aldergrove ..	282	40	27†	—	o	—	o	90	432	222	o	180	21	9	I 11	40	18	I 12 20		
10. IRELAND, S.																				
Dublin Kingstown (Cup Anr.)	49	27	16	—	o	3	3	143	376	222	o	170	26	11	I 10	—	—	—		
Clare Quilty ..	100	40	32†	—	o	4	27	245	331	104	37	—	31	14	7 12	42	19	7 12 15		
Kerry Cahirciveen (Val. O.)	98	41	34†	—	o	5	8	239	364	133	o	100	28	13	8 8	43	19	7 14 0		
Cork Weaver Pt. ..	160	30	21†	—	o	—	o	136	470	138	o	—	23	10	24 15	36	16	24 14 55		
11. SCILLY ISLES.																				
St. Mary's ..	230	65	17	—	o	9	66	387	262	29	o	120	32	14	7 24	49	22	8 8 20		

†† Brackets () indicate that the distribution as between winds above and below 4 m.p.h. is doubtful, but the total number of hours with winds below 12 m.p.h. is reliable.
 † Standard mounting.

1. WIND AND MEAN PRESSURE. 7 A.M. *



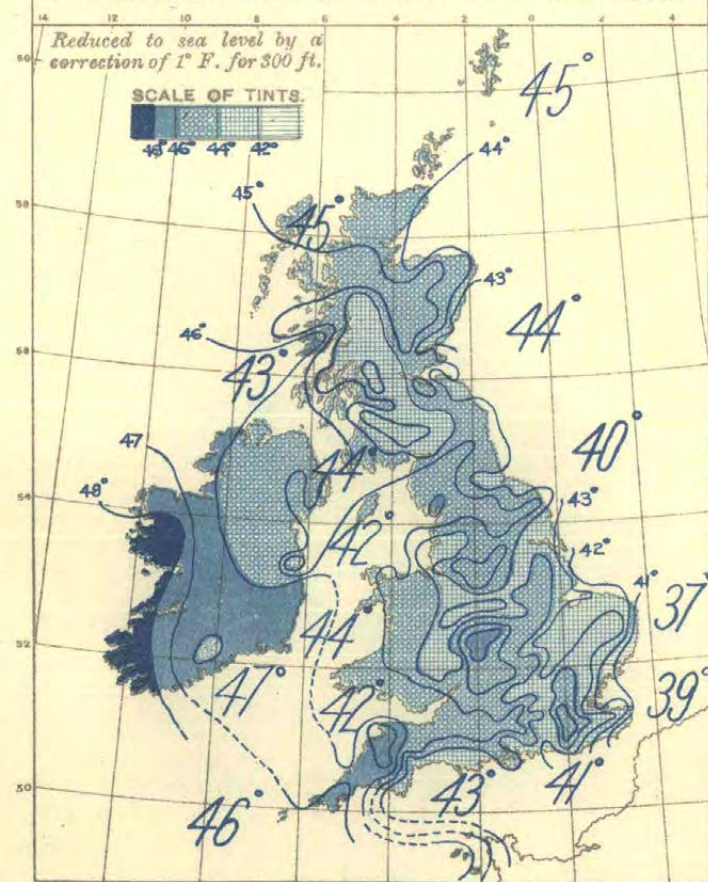
WIND ROSES. The arrows fly with the wind and indicate frequency and force, thus: LIGHT MODERATE GALE 30 Obs. = 1 inch

2. MOVEMENTS OF DEPRESSIONS.



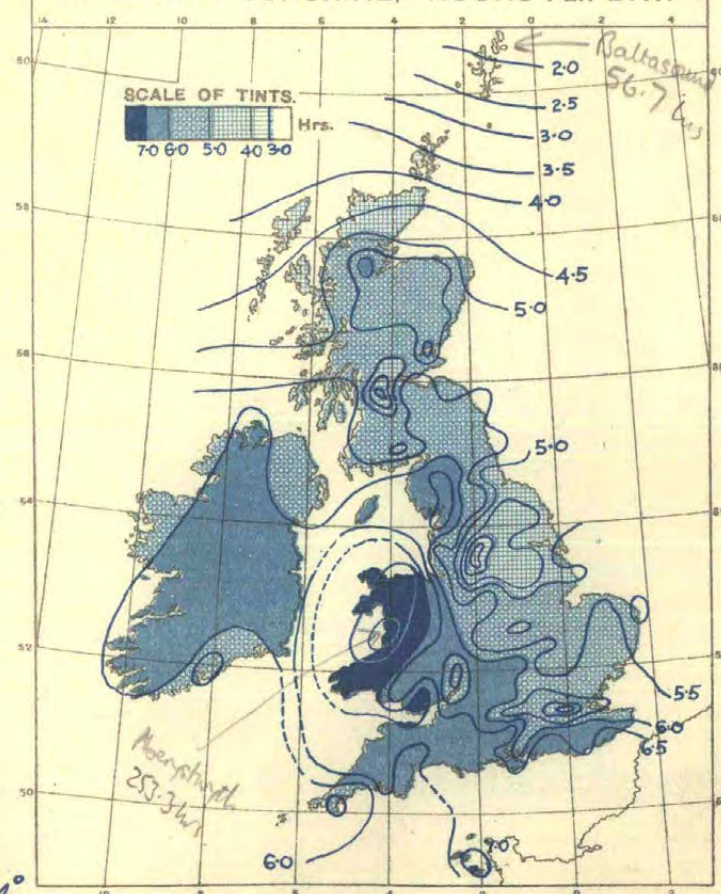
Positions of centres are shown thus: ○ at 1h; ● at 7h; □ at 13h; X at 18h.

3. DISTRIBUTION OF MEAN TEMPERATURE.

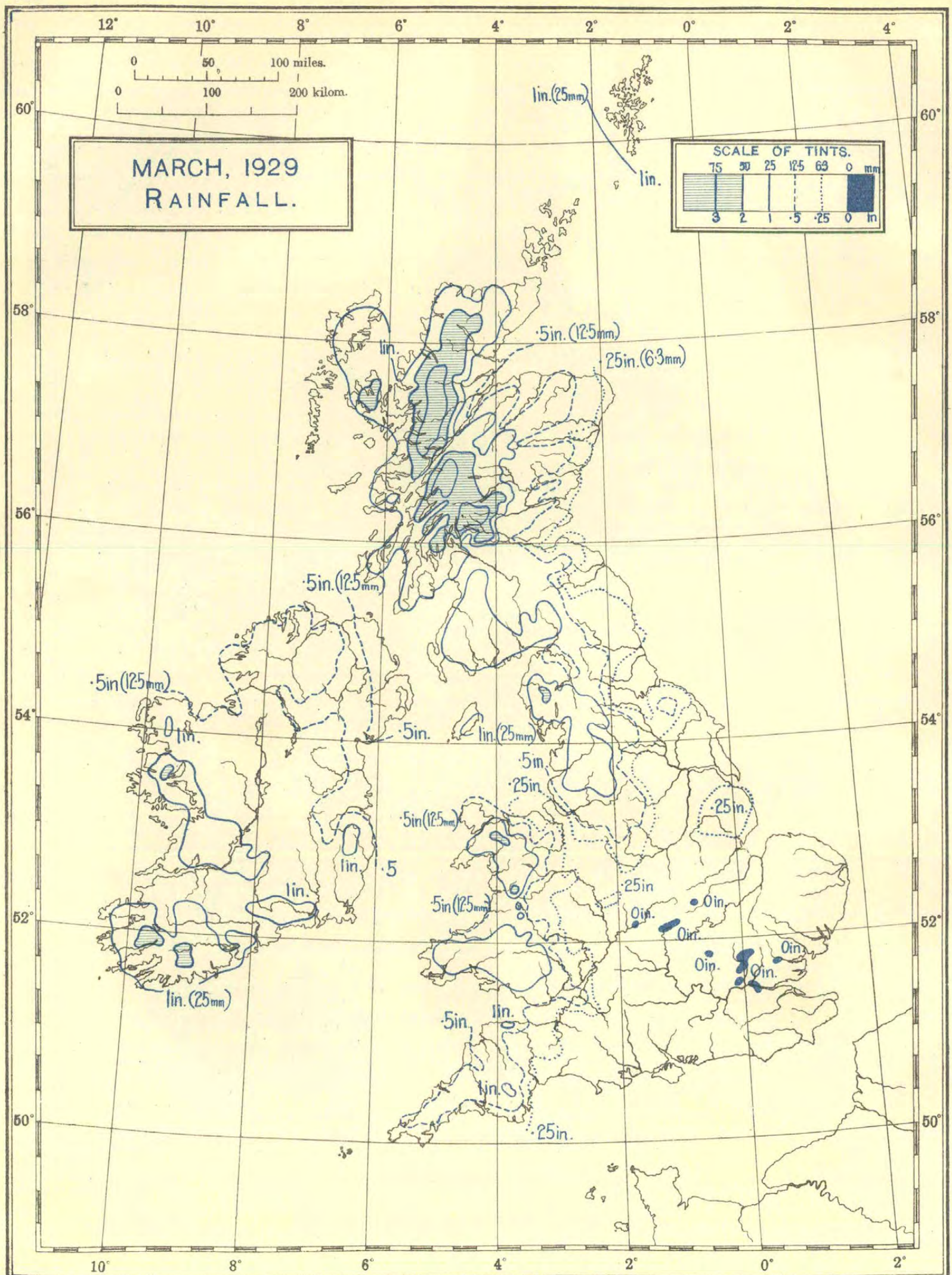


Sea temperatures are shown in large figures, thus: 44°

4. BRIGHT SUNSHINE, HOURS PER DAY.



* The pressure is expressed in millibars.



Scale 1 : 5,000,000.

OS. 1380/1883. Wt. 101A. D.25. 1125. 4/29.

The equivalent values in mm. are given in round numbers. The exact relation is 10 in. = 254 mm.

TABLE III.—SUMMARY OF the RECORDS of TEMPERATURE, RAINFALL AND SUNSHINE, and of WEATHER OBSERVATIONS, MARCH, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.														
					Means of		Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.			Deviation from Normal.	Most in a day.		Precip'n.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.																	
								A	B	Maximum.	Date.																	Minimum.	Date.	1 ft.	4 ft.	0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.
		Max.	Min.	Mean of A and B.	Deviation from Normal.	Maximum.	Date.	Minimum.	Date.	1 ft.	4 ft.	Total Fall.	Deviation from Normal.	Amount.	Date.	0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.																
0. SCOTLAND, N.																																											
Shetlands.		G.M.T.	ft.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	in.	mm.	mm.	mm.										hr.	hr.	%														
Baltasound		9 9 9	31	48.3	40.6	44.5	—	52	22, 29, 30	31	11th	42.0	—	1.04	27	—	4	23rd	20	8	0	0	0	0	0	3	—	0 1.83	—	16													
Lerwick		18-7 7	54	47.3	41.7	44.5	+5.8	55	13th	33	1st	—	—	1.20	30	—	50	1st	13	7	0	0	0	0	0	—	0 2.22	-1.45	19														
Orkneys.		2121 9	160	48.0	39.0	43.5	+4.3	56	27th	33	1st	—	—	0.89	23	—	48	7	31st	14	7	0	0	0	0	0	—	0 3.19	0.00	27													
Kirkwall		9 9 9	151	48.2	39.3	43.7	—	55	27th	31	1st	—	—	0.96	24	—	9	31st	9	7	0	0	0	0	0	4	—	1 3.55	—	30													
Hebrides.		9 9 9	20	49.6	41.5	45.5	—	54	9, 12, 30	36	7, 15	—	—	0.79	20	—	6	20th	6	6	0	0	0	0	0	—	0	—	—	—													
Skallary		9 9 9	30	51.0	37.7	44.3	+4.4	59	9th	26	16th	—	—	1.23	31	—	73	10	31st	10	7	0	0	0	0	0	—	0 4.22	+0.83	36													
Stornoway		18-7 7	81	48.3	38.3	43.3	+4.4	60	26, 29	29	8th	—	—	0.88	22	—	36	10	31st	10	5	1	0	0	0	0	—	0	—	—													
Caithness.		9 9 9	225	53.1	35.7	44.4	+6.0	64	9th	25	1st	—	—	3.20	81	—	111	35	23rd	7	7	0	0	0	0	0	15	0	—	—													
Ross & Cromarty.		9 9 9	69	52.3	36.6	44.5	—	63	30th	26	1st	—	—	0.43	11	—	7	31st	6	2	0	0	0	0	0	—	0 5.98	—	51														
Fortrose		9 9 9	125	54.3	36.0	45.1	+5.7	67	30th	28	9th	—	—	0.78	20	—	47	13	31st	7	4	0	0	0	0	—	0	—	—	—													
Strathpeffer		9 9 9	68	52.9	33.2	43.1	+3.4	65	9th	21	1st	—	—	0.76	19	—	74	8	31st	7	5	0	0	0	0	0	5	0 5.35	+2.70	46.8													
Inverness.		9 9 9	442	53.0	37.0	45.0	+4.4	65	30th	28	1st	—	—	0.25	6	—	48	5	31st	5	1	0	0	0	0	2	11	0 6.15	+2.31	52													
Inverness		9 9 9	442	53.0	37.0	45.0	+4.4	65	30th	28	1st	—	—	0.25	6	—	48	5	31st	5	1	0	0	0	0	2	11	0 6.15	+2.31	52													
1. SCOTLAND, E.																																											
Nairn.		18-7 7	82	51.5	35.5	43.5	+4.0	66	30th	27	1, 16	—	—	0.33	8	—	40	4	31st	7	2	0	0	0	0	2	—	0 5.90	+2.00	50													
Elgin.		2121 9	104	55.0	35.5	45.3	+5.2	71	27th	25	1st	—	—	0.25	6	—	53	4	31st	6	1	0	0	0	0	—	0 5.93	—	51.8														
Banff.		9 9 9	130	50.7	37.8	44.3	—	67	27th	23	1st	—	—	0.56	14	—	5	20th	9	3	0	0	0	0	0	11	0 5.19	—	44														
Aberdeen.		2424 24	37	48.7	36.3	42.5	+2.4	60	27th	28	1st	—	—	0.19	5	—	56	3	21st	5	1	0	2	0	0	3	16	0 4.68	+0.91	40													
Balmoral		9 9 9	927	54.8	29.6	42.2	—	67	28th	21	1st	—	—	0.23	6	—	66	3	31st	6	2	0	3	0	0	—	26	0	—	—													
Braemar		2121 9	1120	54.8	28.8	41.8	+5.8	65	27, 28, 30	20	10, 14, 18, 19	—	—	0.31	8	—	68	5	31st	5	2	0	0	0	0	2	21	0	—	—													
Craibstone		9 9 9	300	50.8	35.1	42.9	—	68	27th	21	1st	39.3	38.8	0.28	7	—	4	21st	4	2	0	3	0	0	—	9	2	5.30	—	45													
Logie Coldstone		9 9 9	608	55.3	29.4	42.3	—	70	27, 30	10	1st	—	—	0.19	5	—	61	2	22nd	7	1	3	3	0	0	—	3	26	0	—	—												
Stonehaven		9 9 9	93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—													
Forfar.		2121 9	93	51.8	34.4	43.1	—	68	27th	22	1st	—	—	0.33	9	—	5	31st	4	3	0	1	0	0	0	5	20	0 5.66	—	48													
Arbroath		9 9 9	39	50.5	34.0	42.3	—	67	27th	21	1st	—	—	0.44	11	—	6	31st	6	3	0	0	0	0	—	—	—	0 5.28	—	45													
Carnoustie		9 9 9	198	50.9	34.9	42.9	+3.1	66	27, 29	27	1st	—	—	0.42	11	—	41	6	31st	4	3	0	0	0	0	—	—	—	—	—													
Dundee (E. Nec.)		2121 9	147	52.1	37.2	44.7	+4.2	68	27, 28	29	1st	38.2	—	0.19	5	—	42	2	20th	3	2	0	2	0	0	—	18	0 5.30	+1.72	45													
Mayfield		9 9 9	218	51.8	33.0	42.4	—	66	31st	16	1st	38.2	—	0.56	14	—	7	31st	6	3	0	2	0	0	—	1	20	1	—	—													
Kettins		9 9 9	16	50.1	33.3	41.7	—	68	27th	22	1st	—	—	0.19	5	—	4	31st	(4) 1	0	0	0	0	0	—	2	0	(5.54)	—	(47)													
Montrose		9 9 9	478	53.5	34.8	44.1	+4.0	68	30th	25	14th	—	—	0.57	15	—	66	5	31st	7	6	1	1	0	0	—	—	—	—	—													
Crieff		2121 9	76	54.1	32.7	43.4	+3.3	68	28, 29	20	1st	—	—	0.61	15	—	48	4	20th	7	6	0	0	0	0	—	—	0 5.26	—	45													
Perth.		9 9 9	210	53.0	34.6	43.8	—	67	28, 29, 30	21	1st	—	—	0.48	12	—	5	31st	6	4	0	2	0	0	—	—	—	—	—	—													
Cupar		9 9 9	190	49.0	36.4	42.7	—	62	30th	23	1st	—	—	0.30	7	—	3	20th	5	3	0	0	0	0	—	9	8	0 5.33	—	45													
Inchkeith		18-7 7	66	52.2	36.0	44.1	—	66	27, 28, 29, 30	26	1st	—	—	0.39	10	—	5	20th	6	2	—	—	—	—	—	—	—	—	—	—													
Kirkcaldy		9 9 9	30	52.4	35.4	43.9	—	67	28th	24	1st	—	—	0.41	10	—	5	31st	4	3	0	0	0	0	—	1	17	0 6.04	—	51													
Leuchars		18-7 7	50	52.4	35.4	43.9	—	68	27, 28	22	1st	39.5	39.1	0.33	8	—	5	31st	3	3	0	0	0	0	—	1	19	0 5.44	—	46													
St. Andrews		9 9 9	20	52.4	35.0	43.7	—	64	30th	22	1st	—	—	0.52	13	—	4	22nd	9	4	0	0	0	0	—	1	6	0	—	—													
Bangour		2121 9	587	50.6	33.5	42.1	—	64	30th	22	1st	—	—	0.33	8	—	5	31st	3	3	0	0	0	0	—	1	19	0 5.44	—	46													
Edinburgh.		2121 9	441	51.6	36.8	44.2	+4.3	67	27, 30	24	1st	—	—	0.20	5	—	40	1	21st	10	2	0	0	0	0	—	16	0 5.67	+1.99	48													
Blackford Hill		9 9 9	645	51.4	34.1	42.7	—	65	27, 30	23	1st	38.2	38.1	0.24	6	—	2	31st	7	3	0	0	0	0	—	4	18	0 5.81	—	49													
Boghall		9 9 9	227	51.7	37.9	44.8	—	67	30th	24	1st	38.4	39.3	0.18	5	—	43	2	31st	6	2	—	—	—	—	—	—	—	—	—													
Edin. Univ.		9 9 9	190	52.4	—	—	—	68	27th	—</																																	

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, MARCH, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level.		AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.							
						Means of				Absolute Maximum and Minimum.						Total Fall.		Deviation from Normal.		Most in a day.		Precip'n.		Snow lying.		Hail.		Thunderstorm.		Fog (Morning Obs.).		Ground Frost.		Gale.		Hours per day.	
						Max.	Min.	Max.	Min.	Mean of A and B.	Deviation from Normal.	Maximum.	Date.			Minimum.	Date.	1 ft.	4 ft.	in.	mm.	mm.	mm.	0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.).	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.		
2. ENGLAND, N.E.																																					
Northumberland.	Berwick-on-T.	9 9 9	76	50.6	34.9	42.7	—	65	10th	19	1st	—	—	0.12	3	—	1	31st	3	2	0	0	0	2	11	0	6.04	—	51								
	Bellingham	9 9 9	848	53.3	32.2	42.7	—	69	29th	16	1st	—	—	0.26	7	—	4	31st	3	3	—	—	—	5	—	—	—	—	—								
	Cockle Park	2121 9	324	52.6	34.1	43.3	+4.3	71	27th	17	1st	39.2	39.3	0.30	8	—	51	5	21st	5	2	0	0	0	3	18	5.72	+1.66	49								
	Tynemouth	18-7 7	67	51.6	37.2	44.4	+3.7	70	27th	24	1st	—	—	0.48	12	—	34	11	21st	4	1	0	0	0	12	11	—	—	—								
Durham.	Chopwellwood	9 9 9	445	54.7	31.3	43.0	—	72	27th	16	1st	—	—	0.47	12	—	7	21st	4	3	1	3	0	0	3	24	5.59	—	47								
	Durham	2121 9	336	53.0	32.8	42.9	+2.8	70	27, 28	15	1st	—	—	0.17	4	—	43	2	21st	6	2	0	2	0	11	16	5.23	+1.58	44								
	Houghall	9 9 9	160	54.0	29.5	41.7	—	72	27, 28	10	1st	—	—	0.13	3	—	2	21st	3	1	0	3	0	0	4	22	4.87	—	41								
	Ushaw College	9 9 9	594	53.5	—	—	—	72	27th	—	—	—	—	0.13	3	—	53	2	21st	3	1	0	3	0	0	(10)	—	—	—								
York, N. Riding.	Ampleforth	9 9 9	350	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—								
	Castleton	9 9 9	425	53.8	29.1	41.5	—	70	27th	15	1st	38.1	—	0.29	7	—	2	3rd	6	4	0	3	0	0	7	—	—	—	—								
	Rounton	2121 9	249	53.9	32.8	43.3	+3.3	72	27th	21	1st	38.2	—	0.28	7	—	40	6	21st	4	1	0	0	0	5	26	—	—	—								
	Scarborough†	9 9 9	118	51.8	38.2	45.0	+3.4	64	8, 27, 29	26	1st	—	—	0.13	3	—	43	1	3, 21, 31	4	3	0	0	0	0	3	8	4.67	+0.80	40							
York, E. Riding.	West Witterton	9 9 9	605	53.9	33.4	43.7	—	73	27, 28	17	1st	36.0	37.7	0.14	4	—	1	31st	6	2	0	3	0	—	21	—	—	—	—								
	York	2121 9	56	54.0	34.2	44.1	+2.6	73	28th	22	1st	38.6	39.2	0.20	5	—	38	4	21st	4	1	0	0	0	—	—	4.22	+0.96	36								
	Hull	2121 9	8	53.5	34.0	43.7	+2.7	70	9th	20	1st	39.5	40.6	0.12	3	—	43	1	21st	4	2	0	0	0	0	17	22	4.50	—	38							
	Osgodby	2121 9	30	54.6	31.2	42.9	—	73	29th	19	1st	—	—	0.22	6	—	4	21st	4	1	1	0	0	0	11	19	4.99	—	42								
Lincoln.	Spurn Head	18-7 7	29	48.5	35.5	42.0	+1.0	61	8, 29	27	1st	—	—	0.15	4	—	39	2	24th	4	1	0	0	0	5	—	5.46	—	46								
	Cranwell	2121 9	236	53.8	33.3	43.5	+2.5	69	28th	17	2nd	39.2	39.0	0.37	9	—	27	4	25th	6	3	0	1	0	6	15	5.16	+1.22	44								
	Cleethorpes	9 9 9	23	51.2	33.3	42.3	—	64	8th	21	1, 2	—	—	0.07	2	—	2	24th	2	1	0	0	0	0	7	—	5.33	—	45								
	Skegness	9 9 9	12	48.9	33.9	41.4	+0.6	63	10th	25	1st	—	—	0.16	4	—	38	3	24th	4	1	0	0	0	6	—	4.92	+0.66	42								
3. ENGLAND, E.																																					
Norfolk.	Cromer	9 9 9	150	48.6	35.9	42.3	+1.1	63	24th	27	2nd	—	—	0.07	2	—	41	0.8	24th	2	0	0	0	0	6	12	5.46	+1.30	46								
	Hunstanton	9 9 9	105	50.4	35.5	42.9	—	64	28, 29	25	2nd	—	—	0.22	6	—	3	24th	5	1	0	0	0	0	7	—	5.21	—	44								
	Norwich	9 9 9	98	54.8	32.6	43.7	+2.0	70	9th	20	3rd	36.9	—	0.07	2	—	31	0.5	3, 5	5	0	0	2	0	0	19	—	5.63	—	47							
	Sprowston	9 9 9	93	52.5	31.9	42.2	—	66	9, 29	21	2nd	—	—	0.02	0.5	—	0.5	5th	1	0	0	1	0	0	12	23	5.57	—	46								
Suffolk.	Yarmouth	18-7 7	14	48.5	34.5	41.5	+0.9	64	10th	26	17th	40.1	41.1	0.11	3	—	41	0.9	5th	7	0	0	0	0	9	10	4.66	+0.31	39								
	Bungay (Flix'n)	9 9 9	79	54.1	31.8	42.9	—	68	27, 28	20	2nd	—	—	0.02	0.5	—	0.3	3, 5	2	0	0	0	0	0	3	27	—	—	—								
	Copdock	9 9 9	164	53.3	32.7	43.0	—	68	27th	22	2nd	39.0	39.6	0.04	1	—	0.3	5th	3	0	0	0	0	0	5	19	5.55	—	47								
	Felixstowe	18-7 7	15	47.8	32.9	40.3	—	64	10th	22	1st	—	—	0.03	0.7	—	0.2	5, 12, 25	3	0	1	0	0	0	10	20	5.67	—	48								
Cambridge.	Lowestoft	9 9 9	83	48.0	34.2	41.1	-0.1	64	10th	28	3, 5	38.7	39.5	0.03	0.7	—	40	0.6	5th	1	0	0	0	0	7	7	5.49	+1.10	46								
	Cambridge (Bot. Gdns.)	2121 9	41	54.7	30.4	42.5	+0.8	70	28th	17	1st	39.6	40.3	0.03	0.8	—	36	0.3	3, 25	3	0	0	0	0	3	22	5.30	+1.40	45								
	Wisbech	2121 9	10	53.5	31.5	42.5	—	68	29th	19	5th	—	—	0.22	6	—	4	24th	3	2	1	0	0	0	10	20	5.20	—	44								
	Bedford	Cardington	18-7 7	100	54.7	31.3	43.0	—	69	28th	16	2nd	—	—	0.04	1	—	0.3	3, 25	2	0	0	0	0	0	8	19	5.61	—	48							
Hertford.	Luton	9 9 9	390	53.5	29.6	41.5	—	68	28, 30	13	1st	38.1	40.5	0.04	1	—	0.5	3rd	3	0	1	0	0	0	3	21	5.43	—	46								
	Woburn	9 9 9	291	52.9	29.1	41.0	-0.1	69	30th	17	1st	39.2	41.1	0.10	3	—	41	0.8	3rd	5	0	0	1	0	0	6	—	5.43	—	46							
	Rothamsted	2121 9	420	53.1	32.2	42.7	+1.6	68	28th	20	2nd	37.2	—	0.04	1	—	50	0.2	3, 5, 21, 25	4	0	1	0	0	4	21	5.96	+2.25	50								
	St. Albans	9 9 9	272	54.4	30.4	42.4	—	69	28th	20	2, 5	39.5	—	0.00	0.1	—	0.1	26th	0	0	0	0	0	0	4	22	—	—	—								
Essex.	Clacton-on-S.	18-7 7	55	47.1	35.1	41.1	+0.1	63	11th	26	17th	39.9	40.5	0.10	3	—	32	1	12th	5	1	0	0	0	4	11	5.56	+1.33	47								
	Chelmsford	9 9 9	134	53.3	31.2	42.3	—	67	30th	20	5th	—	—	0.06	2	—	42	0.5	25th	3	0	0	0	0	—	—	—	—	—								
	Chelmsford (Good Easter)	9 9 9	185	54.4	29.6	42.0	—	68	28th	19	1, 5	—	—	0.03	0.8	—	0.5	25th	2	0	0	0	0	0	3	21	5.93	—	50								
	Earls Colne	9 9 9	168	53.8	32.1	42.9	—	68	27, 28	21	1st	—	—	0.04	1	—	0.5	5, 25	2	0	1	1	0	0	—	—	—	—	—								
4. MIDLAND COUNTIES.	Halstead	9 9 9	139	55.3	31.4	43.3	—	70	28, 30	19	1st	—	—	0.04	1	—	0.5	3rd	3	0	1	0	0	0	4	—	—	—	—	—							
	Shoeburyness	18-7 7	11	50.9	31.2	41.1	-1.0	64	11th	21	5th	—	—	0.02	0.4	—	33	0.3	12th	1	0	0	0	0	6	18	5.38	—	46								
	Bradford	9 9 9	439	52.2	33.2	42.7	—	71	28, 29	16	1st	35.5	37.1	0.28	7	—	55	3	21st	9	3	0	0	0	0	12	19	4.15	—	34							
	W. Riding.	Giggleswick	9 9 9	575	54.4	30.0	42.2	—	69	28th	15	1st	—	—	0.58	15	—	7	21st	5	4	0	0	0	0	5	—	5.78	—	49							
Huddersfield	Harrogate	18-7 7	478	52.3	36.4	44.3	+4.4	70	29th	22	1st	38.3	38.6	0.50	13	—	46	12	21st	4	1	0	2	0	0	8	15	5.39	+1.58	4							

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, MARCH, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.			Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
		Means of		Deviation from Normal.		Absolute Maximum and Minimum.				Total Fall.	Deviation from Normal.	Most in a day.				Precip'n.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
		A	B			Maximum.	Date.	Minimum.	Date.			Amount.	Date.	0.2 mm. or more.	1 mm. or more.								Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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4. MID. COUNTIES—cont.		G.M.T.	ft.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	in.	mm.	mm.	mm.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			</

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, MARCH, 1929.

DISTRICT, COUNTY AND PLACE.	Terminal Hours of Observation.	Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.					
			Means of		Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.			Deviation from Normal.	Most in a day.		Precip'n.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.		Per Cent.							
			A	B		Maximum.	Date.	Minimum.	Date.		Amount.	Date.		0.2 mm. or more.	1 mm. or more.								Snow.	Daily Mean.		Deviation from Normal.						
			Max.	Min.	Max.	Min.	Mean of A and B.	Maximum.	Date.	Minimum.	Date.	1 ft.	4 ft.	in.	mm.	mm.	mm.	0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.			
5. ENGLAND, S.E.—cont.																																
Hampshire	Calshot	18-7 7	8	50.1	34.7	42.4	—	70	30th	25	1st	—	—	0.19	5	—	3	21st	4	2	0	0	0	0	6	21	0	6.37	—	53		
—cont.	Grayshott	9 9 9	661	54.9	35.3	45.1	+3.7	70	30th	21	5th	40.3	—	0.09	2	—	63	1	24th	3	2	0	0	0	0	5	18	0	7.10	+3.20	60	
	Long Sutton	9 9 9	479	55.3	32.8	44.1	—	70	30th	17	2nd	38.9	—	0.08	2	—	1	24th	2	2	0	0	0	0	3	19	0	5.95	—	50		
	Southamp'n	2121 9	64	55.3	34.6	44.9	+1.3	72	30th	23	2nd	—	—	0.17	4	—	54	2	21st	5	2	0	0	0	0	4	17	0	6.03	+2.00	51	
	S. Farnboro'	18-7 7	237	56.7	30.2	43.5	—	73	30th	15	2nd	—	—	0.03	0.9	—	0.8	21st	1	0	0	0	0	0	13	22	0	5.45	—	46		
	Winchester (Worthy Down)	18-7 7	272	55.9	31.8	43.9	—	71	29, 30	20	5th	—	—	0.06	1	—	0.9	21st	2	0	0	0	0	0	7	24	0	6.63	—	56		
I. of Wight.	Newport	9 9 9	48	55.2	31.6	43.4	—	74	30th	20	5th	—	—	0.20	5	—	3	21st	3	2	0	0	0	0	6	23	0	—	—	—		
	Ryde	9 9 9	13	51.2	35.6	43.4	—	67	30th	26	17th	—	—	0.16	4	—	3	24th	2	2	0	0	0	0	2	—	0	5.96	—	51		
	Sandown	9 9 9	13	50.1	33.1	41.6	—	62	11th	24	17th	—	—	0.16	4	—	2	21st	4	2	—	—	—	—	1	—	0	6.12	—	52		
	Totland Bay	9 9 9	140	53.3	34.6	43.9	+1.2	68	29, 30	24	1, 3, 5	—	—	0.13	3	—	50	2	21st	3	2	0	0	0	0	5	17	0	6.83	+2.48	58	
	Ventnor (Hospital)	9 9 9	59	52.1	38.9	45.5	+1.6	65	28th	29	1st	—	—	0.25	6	—	46	3	24th	3	3	—	—	—	—	—	—	0	6.46	+1.85	55	
Wilts.	Larkhill	9 9 9	440	54.8	33.2	44.0	—	70	30th	20	1, 2	—	—	0.12	3	—	2	21st	3	2	0	0	0	0	3	18	0	—	—	—		
	Marlboro'	9 9 9	424	54.7	29.1	41.9	+1.1	71	30th	15	1st	40.3	41.9	0.32	8	—	56	4	21st	4	3	0	4	0	0	10	26	0	5.91	+2.59	50	
	Porton	9 9 9	363	55.6	31.3	43.5	—	72	30th	18	1st	39.3	—	0.08	2	—	0.8	—	24th	3	0	0	0	0	0	1	24	0	6.74	—	57	
7a. ENGLAND, N.W.																																
Cumberland.	Aspatria (Mealsgate)	2121 9	487	51.8	35.6	43.7	+3.3	64	28, 29	25	1st	39.5	40.4	0.45	11	—	69	5	24th	7	3	0	0	0	0	—	23	0	6.31	+2.57	53	
	Keswick	9 9 9	254	56.3	31.8	44.1	—	72	9th	24	1, 6	37.7	39.5	0.80	20	—	7	—	24th	5	5	0	0	0	0	0	24	0	6.43	—	54	
	Newton Rigg	2121 9	559	55.1	32.0	43.5	+4.0	69	9th	21	1st	—	—	0.18	5	—	66	2	24th	4	2	0	0	0	0	0	26	0	6.84	+3.32	58	
Lancashire.	Bolton	9 9 9	341	53.6	32.8	43.2	—	69	28th	21	1st	36.2	37.5	1.69	43	—	15	—	21st	6	6	0	2	0	0	—	18	0	2.08	—	18	
	Burnley	9 9 9	458	53.2	30.8	42.0	—	69	28th	17	1st	35.8	(37.6)	1.17	30	—	11	—	24th	6	6	0	0	0	0	17	23	0	4.53	—	38	
	Darwen	2121 9	724	53.6	34.7	44.1	—	69	28th	19	1st	37.3	37.4	1.99	51	—	16	—	24th	6	6	0	0	0	0	7	11	0	5.63	—	48	
	Hutton	9 9 9	82	54.3	31.8	43.1	—	67	9th	16	1st	36.3	38.3	1.10	28	—	13	—	24th	6	4	0	0	0	0	13	23	0	5.25	—	44	
	Lancaster	9 9 9	311	55.1	36.1	45.6	—	68	10th	24	1st	35.3	36.6	1.16	29	—	11	—	24th	6	4	0	0	0	0	11	23	0	6.57	—	56	
	Leyland	9 9 9	124	54.5	31.5	43.0	—	68	28th	19	1st	—	—	1.24	31	—	13	—	21st	6	6	0	0	0	0	9	25	0	5.47	—	46	
	Manchester (Whitworth Pk)	2121 9	125	53.4	34.0	43.7	+1.4	68	9th	20	1st	—	—	1.01	26	—	31	12	21st	5	5	—	—	—	—	19	—	0	4.14	+1.79	35	
	(Oldham Road)	2121 9	190	53.1	36.5	44.8	+2.3	67	9, 29	26	1st	35.7	39.5	1.19	30	—	35	15	21st	6	5	0	0	0	0	—	11	0	2.87	+0.29	24	
	(Swinton)	9 9 9	253	54.0	33.4	43.7	—	69	28th	21	1st	—	—	36.9	1.08	27	—	14	—	21st	6	5	0	0	0	0	11	18	0	3.73	—	32
	Southport	9 9 9	37	52.4	33.9	43.1	+1.6	67	9th	21	1st	37.6	38.2	0.84	21	—	36	11	21st	6	4	0	2	0	0	10	22	0	6.05	+2.08	51	
	Stonyhurst	9 9 9	377	52.3	33.4	42.9	+2.5	68	28th	20	1st	—	—	1.67	42	—	52	19	24th	6	5	0	0	0	0	3	19	0	5.77	+2.38	49	
Cheshire.	Hoylake	9 9 9	30	53.7	33.6	43.7	+0.9	67	10th	18	1st	—	—	0.17	4	—	43	2	21st	3	3	—	—	—	—	—	—	0	6.13	+2.42	52	
	Liverpool (Bidston)	18-7 7	189	50.7	37.3	44.0	+2.1	62	10, 20, 30	22	1st	—	—	0.28	7	—	41	4	21st	4	2	0	0	0	0	7	16	0	5.80	—	49	
	Macclesfield	9 9 9	500	54.1	32.9	43.5	+3.3	68	9th	20	1st	—	—	0.81	21	—	46	11	21st	4	4	0	0	0	0	4	—	0	—	—	—	
	West Kirby	9 9 9	25	52.6	33.6	43.1	—	66	20th	19	1st	—	—	0.08	2	—	1	—	21st	3	1	0	0	0	0	1	25	0	6.69	—	57	
7b. NORTH WALES.																																
Flint.	Hawarden B'ge	9 9 9	22	54.5	35.0	44.7	+2.0	65	9, 10, 20	19	1st	—	—	0.22	6	—	35	2	25th	4	4	—	—	—	—	—	—	—	—	—	—	
	Rhyl	9 9 9	30	54.5	34.7	44.6	+2.3	68	10th	21	1st	—	—	0.08	2	—	41	0.8	24th	4	0	0	0	0	0	0	17	0	7.44	+3.12	63	
	Sealand	18-7 7	16	53.6	32.1	42.9	+1.4	66	27th	17	1st	38.3	39.4	0.16	4	—	41	2	25th	3	3	0	1	0	0	15	23	0	6.15	+2.67	52	
Anglesey.	Holyhead	18-7 7	26	51.4	38.6	45.0	+2.3	65	10, 30	28	1st	—	—	0.55	14	—	53	5	24th	6	3	0	1	0	0	4	13	0	7.07	+3.00	60	
Denbigh.	Colwyn Bay	9 9 9	81	54.2	36.3	45.3	—	70	8th	24	1st	—	—	0.07	2	—	1	—	31st	3	1	0	0	0	0	0	—	0	7.61	—	64	
Carnarvon.	Aber (Bangor)	9 9 9	60	52.8	36.5	44.7	—	65	9th	22	1st	—	—	0.80	20	—	14	—	24th	6	5	0	0	0	0	—	20	0	7.43	—	63	
	Llandudno	9 9 9	22	52.3	36.8	44.5	+1.5	69	9th	24	1st	—	—	0.17	4	—	51	3	24th	4	1	0	0	0	0	0	—	0	7.56	+3.56	64	
Montgomery.	Welshpool	9 9 9	254	55.1	29.8	42.5	—	69	29th	11	1st	—	—	0.48	12	—	6	—	22nd	5	3	0	3	0	0	3	—	0	—	—	—	
8a. SOUTH WALES.																																
Cardigan.	Aberystwyth	9 9 9	59	50.7	36.8	43.7	—	67	8, 10	22	1st	—	—	0.54	14	—	7	—	20th	6	5	0	0	0	0	0	—	0	8.17	+4.40	69	
	" P.B.S.†	9 9 9	452	51.6	38.0	44.8	—	65	10th	23	1st	—	—	0.84	21	—	8	—	21st	7	4	0	0	0	0	0	15	0	8.05	—	68	
Pembroke.	Haverfordwest	2121 9	250	52.7	36.0	44.3	—	70	30th	24	1st	—	—	1.10	28	—	59	18	20th	4	4	0	0	0	0	—	—	0	7.33	+3.30	62	
	St. Ann's Hd.	18-7 7	142	50.4	38.9	44.7																										

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, MARCH, 1929.

DISTRICT, COUNTY AND PLACE.	Terminal Hours of Observation.	Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
			Means of				Deviation from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.	Total Fall.	Deviation from Normal.	Most in a day.		Precip'n.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
			A	B	Maximum.	Date.		Minimum.	Date.	Amount.	Date.					0.2 mm. or more.	1 mm. or more.									Daily Mean.	Deviation from Normal.	Per Cent.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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Dorset—			G.M.T.	ft.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	in.	mm.	mm.	mm.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					

TABLE IV.—SUMMARY OF THE OBSERVATIONS OF PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY AND WIND at fixed hours at certain Stations during the Month of MARCH, 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).			DIRECTION.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Visibility.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY, and WIND at fixed hours at certain Stations during the Month of MARCH, 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY, and WIND at fixed hours at certain Stations during the Month of MARCH, 1929.

[illegible]

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY, and WIND at fixed hours at certain Stations during the Month of MARCH, 1929.

DISTRICT COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Visibility.	8 or more.	4 to 7.	1 to 3.	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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8a. SOUTH WALES—cont.		G.M.T.	ft.	mb.	mb.	°F.	°F.	mb.	%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			

TABLE I. DISTRICT VALUES.

The District Values of this Table are computed from the statistics for selected individual stations set out in Table III and Table IV.

The representative stations from which the District Values of rainfall and temperature are computed are indicated in Table III by the sign ¶ while the representative stations from which District Values of sunshine are computed are indicated by the sign §. The deviations from and percentages of normal for Air Temperature, Rainfall and Sunshine are the means of the corresponding deviations or percentages for the representative District Value stations. The deviations from normal of Earth Temperature are derived from the deviations for all the stations reporting in Table III for which normals of Earth Temperature are available. The highest and lowest temperatures for the District recorded during the month may refer to any station in Table III.

TABLE II. SUMMARY OF AUTOGRAPHIC RECORDS OF WIND.

The records used in the preparation of this Table are generally made by anemographs of the pressure-tube type. At a few stations the Robinson Cup Anemograph is utilised. The classification adopted for the "Distribution of Wind" is based on the specification of the Beaufort Scale of Wind Force (see *The Observer's Handbook*). For an anemograph complying with the specification "head 33 ft. above ground in the open" the several columns correspond with Force 8 and above (gales), Forces 6 and 7 (strong winds), Forces 4 and 5 (moderate breezes), Forces 2 and 3 (light breezes), Forces 1 and 0 (nearly calm). Some information as to the nature of the actual exposures may be gathered from the figures in the "Height" columns.

The "Highest Hourly Wind" is determined by the mean speed of the wind for a period of sixty minutes from 30 minutes before to 30 minutes after an exact hour by Greenwich Mean Time. Under the heading "Veer from N" the azimuth of the direction from which the wind was blowing is stated, the entry for an east wind being 90°, that for a south wind 180° and so on.

TABLE III. SUMMARY OF OBSERVATIONS AT TERMINAL HOURS.*

Temperature.—The terminal hours of observation are given for each station. When the terminal hours for maximum and minimum temperature are stated independently the temperatures refer to intervals of 24 hours. If the maximum thermometer is read in the morning the reading is credited to the previous day. When the terminal hours for maximum and minimum are separated by a dash, thus, 18-7, the day-maximum for the period 7h. to 18h. and the night-minimum for the period 18h. to 7h. are reported and are utilised in determining the means for the month; in such cases the extreme temperatures for successive periods of 24 hours are also read by the observers, so that the absolute maximum and minimum temperatures for the month are obtained.

Except at the Royal Observatory, Greenwich, where a Glaisher stand is in use, the air temperature is obtained from thermometers placed in louvered screens. At Kew Observatory, Richmond, and Valentia Observatory these are north wall screens a few feet from the ground. At Aberdeen Observatory the north wall screen is at 41 feet. Otherwise the screens are in the open.

Rainfall.—The daily amounts are for the 24 hours beginning at the "terminal hour." "Rainfall" includes all forms of precipitation. The number of days of precipitation is counted with reference to the limit .01 inch or 0.2 mm. and also with reference to the limit .04 inch or 1 mm. The lower limit excludes mere "traces" of precipitation, but it is frequently passed on occasions when the precipitation is only dew.

Weather.—The numbers of days of Precipitation, Snow, Hail, Thunderstorms and Gale are counted irrespective of the hour at which the phenomena occur. Except for "Precipitation" the day is the civil day.

For the purpose of this summary "Snow" includes sleet (*i.e.*, snow with rain), "Hail" includes graupel (soft hail), "Snow lying" refers to occasions when at least one-half of the country surrounding the station is covered with snow at the morning observation. The entry of "fog" implies that regular observations of the range of vision are made on the scale set out below. Days of fog are those on which the range of vision is less than 1,100 yards at the hour of morning observation. That hour is generally given by the third entry of column 2 of the table and may be 7h. or 9h. G.M.T. The variability of the observation hour may exercise an important effect upon the statistics of fog frequency. "Thunderstorm" includes any day on which thunder is heard. "Gale" is a wind of Force 8 or upwards on the Beaufort Scale. A "ground frost" is entered when the reading of a "grass minimum" thermometer set the previous evening and read at the morning observation is 30° F. or lower.

Sunshine.—The percentage of possible sunshine in the last column is calculated with reference to the maximum duration theoretically possible in the latitude, allowance being made for refraction (see

International Meteorological Tables (Paris) pp. A17-A20 and 42-47) but not for the fact that the sunshine recorder is generally insensitive to sunshine when the sun is at an altitude of less than 3°. Where the symbol § occurs it indicates that obstructions obscure the sun during more than 5% of the period when it is over 3° above the horizon.

TABLE IV. SUMMARY OF OBSERVATIONS AT FIXED HOURS.*

Mean Air Pressure is expressed in millibars. (1 millibar = 1,000 dynes per square centimetre = the pressure due to .029531 inch of mercury at 32° F. in Lat. 45°). The corrections for latitude, temperature and height have been applied to the barometer readings so as to obtain pressure at mean sea level. Barometric pressure is given at station level for a few stations at altitudes of 600 ft. or more in footnotes in Table IV.

Hygrometry.—The values given depend on the readings of the dry and wet bulb thermometers in Stevenson Screens (except at the Observatories, see above). The observations were formerly reduced by Glaisher's method; as from January, 1926 they are reduced by the new hygrometrical tables issued by the Office which are based on a formula of Regnault. In general the relative humidity and vapour pressure are derived from the monthly means of the dry and wet bulb readings. At certain stations the daily values of relative humidity and vapour pressure are found and the means are computed therefrom. These stations are indicated by the letter "H."

Cloud Amount.—The proportion of sky covered with cloud is estimated on the scale 0 to 10, the entry "0" being equivalent to clear sky "10" to overcast.

Visibility.—The observations are classified according to the following scheme—the distances, specified by international arrangement in metres, are given here in yards and miles:—

CODE.	RANGE OF VISION.
0	Less than 55 yards.
1	Exceeding 55 yards, less than 220 yards.
2	" 220 " " 550 "
3	" 550 " " 1,100 "
4	" 1,100 " " 1½ miles.
5	" 1½ miles " 2½ "
6	" 2½ " " 3½ "
7	" 3½ " " 4½ "
8	" 4½ " " 5½ "
9	" 5½ " " 6½ "

Wind Summaries.—The estimates of wind force refer to the Beaufort Scale, and in general to the wind experienced at the time of observation. At Deerness, Cahirciveen, Richmond, Armagh, Eskdalemuir, Southport, Greenwich and Oxford the analysis refers to tabulations of autographic records. For Oxford the mean wind speed for half-an-hour centred at the hour of observation is used for conversion to "force" on the Beaufort Scale; for the remaining observatories the mean wind speed used for each observation refers to a period of one hour. In these cases winds equivalent to Force 1 are counted with the calms, whilst Forces 2 and 3 are taken together in the preceding column of the Table.

INTERPOLATED VALUES.

When the observations for any station for a month are incomplete and relevant data (e.g. records from neighbouring stations) which make it practicable to interpolate approximate values for the missing observations are available, such approximate values may be used for completing summaries for stations published in Tables III and IV. Parts of a summary obtained in this way are shown in brackets thus—(52.4).

STANDARD OF TIME.

As a rule observations are made in all parts of the British Islands according to Greenwich Mean Time, but at the following stations Local Mean Time is used for the observations summarised in Tables III and IV. The number of minutes after Greenwich Time is shown in brackets—Darwen (10), Rhayader (15), Ashburton (15), Tavistock (17), Plymouth (15), Douglas (20), Armagh (26), Balbriggan (25), Lisburn (30), Newcastle, Co. Wicklow (30), Ballinacurra (30), Cork (34).

"Summer Time" is not used in the Monthly Weather Report, but at certain stations the hours of observation vary in the course of the year. For such stations all time entries are converted to G.M.T. before they are printed and the winter hours are given as the terminal hours in the annual tables. For the summer hours reference should be made to the appropriate months.

NORMALS.

In Table III the normals used are those for the 35 years 1881-1915. The normals of temperature and sunshine are published in the Book of Normals, Section I, those for rainfall in the Book of Normals, Section V.

The normals for pressure with which comparison is made in Table IV also refer to the period 1881-1915.

* In addition to the frequencies published in this Report (Tables III and IV), the Meteorological Office has issued since January, 1927, in the form approved by the International Commission for Air Navigation, monthly frequency tables of height of base of low cloud, and speed and direction of surface and upper winds.

W.C.3.

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MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

SUMMARY OF OBSERVATIONS COMPILED FROM RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS.

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ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE.

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APRIL, 1929. Dry. Cold in Great Britain.

A decided deficiency of precipitation, a preponderance of northerly to easterly winds, and in Great Britain an absence of warmth and frequent severe ground frosts were the main features of the weather of April, 1929.

During the opening days of the month pressure was high to the westwards of the British Isles, while shallow depressions passed down the North Sea. Rain or showers of sleet, snow or hail occurred locally but most places had considerable sunny periods; 11 hours bright sunshine were recorded at Renfrew on the 1st, over 11 hours at Tiree on the 2nd and 3rd, and 10 hours at Malin Head on the 3rd. Associated with the passage of a depression down the North Sea on the 4th, rain fell over a wide area on the 4th and during the night of the 4th to 5th. By the 6th an anticyclone had moved in from the west and covered the British Isles and in all districts the day was dry and sunny. This anticyclone moved away south-eastwards and was followed by a new one which maintained fair conditions in Scotland and Ireland for some days, notably from the 9th to the 12th during which period abundant sunshine was recorded. In the west of Scotland temperature approached or exceeded 60° F. on the 9th and at Paisley attained 63° F., the highest temperature recorded in Scotland during the month. The fine weather continued locally in Scotland until the 16th, over 11 hours' sunshine being recorded daily at Stornoway during the four days 13th to 16th. Meanwhile rather cloudy weather with moderate rain from the 10th to the 12th prevailed in east and south-east England. On the 14th a depression off south-west Ireland spread in eastwards causing some moderately heavy rain in southern Ireland and the south-west of England on the 14th and during the night of the 14th-15th (Guernsey 15 mm., Scilly 12 mm., Falmouth 10 mm.).

A change in type occurred about the 16th-17th, when the weather became unsettled in the west and north while anticyclonic conditions prevailed in the south-east. Warm south-westerly winds spread over the country and by the 18th day temperature had risen above 60° F. in most places, reaching or exceeding 70° F. locally in the eastern and south-eastern districts of England on the 19th, the only really warm day of the month. On the 20th northerly winds in the rear of a depression over Norway spread southwards and occasioned a sharp fall in temperature with a return to rather unsettled conditions with moderately heavy precipitation on the 26th and 27th but considerable fine periods notably on the 21st and 22nd when over 13 hours' sunshine were recorded at Lympne.

On the 28th-29th a depression over the Bay of Biscay moved in eastwards across France and mainly dull weather prevailed generally on the 28th and 29th (except in the extreme north of Scotland) with occasional rain, which was heavy locally in the north-west of Scotland on the 28th. Except in the south-east of England, where there was much cloud, the last day of the month was fine but rather cold with some showers locally.

Pressure and Winds.—During the greater part of the month pressure was high to the north and west of the British Isles and over large areas anticyclonic conditions prevailed frequently between periods of unsettled weather associated with the passage of depressions over Northern France and down the North Sea. The mean pressure for the month exceeded the normal in all districts, the excess being greatest in the north-west and least in the south-east. There was a marked prevalence of northerly and easterly winds. Fresh to strong winds were experienced in many districts on the 1st and about the 12th, 14th, and in the north-east of Scotland about the 24th, but in only a few places was gale force attained and in general winds were light to moderate. The highest mean hourly wind velocity recorded at an anemograph station was 40 mi/hr at Southport on the 1st and the highest wind speed in a gust, 62 mi/hr at Birmingham and Liverpool (Bidston) also on the 1st.

Temperature.—Apart from two brief spells of warm weather about the 8th and from the 16th to the 18th in the north and to the 19th in the south, April, 1929, was cold in Great Britain, where day maxima and night minima were mostly below the normal. Mean temperatures for the month were below the normal except locally in the north of Scotland, the extreme south-west of England and in Ireland where they were about or slightly above the normal. Ground frost occurred frequently at night and in many districts was often severe. Amongst the low minima recorded on the grass were 9° F. at Rhayader on the 21st, 10° F. at Marlborough, 15° F. at Durham and Rothamsted and 16° F. at Cambridge on the 22nd.

Day temperatures in the neighbourhood of 60° F. were recorded in parts of England on the 7th and 8th and at Paisley on the 9th the temperature reached 63° F. Temperature again rose above 60° F. after the 15th and exceeded 70° F. in many parts of south-eastern England on the 19th, but on the 20th cold weather had again become general, day maximum temperature being generally about 50° F. or below. Screen minima below freezing point were recorded in many inland places on the 6th, 17th and 21st.

The extreme temperatures for the month were:—England and Wales, 75° F. at Wisley on the 19th and 14° F. at Castleton on the 22nd. Scotland, 63° F. at Paisley on the 9th and 19° F. at Balmoral on the 28th. Ireland, 68° F. at Kilkenny on the 19th and 23° F. at Hazelhatch (Dublin) on the 4th and 21st.

Precipitation.—The general precipitation for April over the British Isles as a whole, expressed as a percentage of the normal for the period 1881-1915, was 61; the values for the constituent countries were:—England and Wales, 57; Scotland, 76; Ireland, 51. Thus, for the sixth month in succession, the general precipitation over England and Wales and Scotland has been below the normal. Over the British Isles as a whole and over Ireland the month was the driest April since 1921, when the corresponding percentage values were 61 and 51 respectively. A few exceptions to the general deficiency occurred locally in the north and east of Scotland and in some central and eastern districts of England. In parts of the south and south-west of England the total precipitation for the month amounted to only about one-third of the normal. The deficiency relative to the normal was in general least in the eastern districts of Great Britain. Moderate falls occurred in most districts on the 4th, in eastern England on the 11th and 12th, in the south-west of England on the 14th, in Scotland from the 17th to the 19th and widely from about the 26th to the 29th. There were very few remarkable daily falls, the only outstanding daily amount being 41 mm. at Achnashealach on the 18th, on which day more than 25 mm. fell over a large area of the north-west of Scotland.

Snow and hail occurred on several occasions during the month, mostly in northern districts. Following steady rain some snow fell in London on the evening of the 11th. Slight snow fell on the Grampians and in Inverness-shire on 1st and on the Lammermoors on the 2nd; rather heavier amounts mainly in showers were experienced in East Lothian, Perthshire, Speyside and Orkney, and generally on higher ground from 24th to 28th. On 26th snow lay at Grandtully to a depth of 1½ inches and at Drumlanrig to a depth of 2 inches.

Sunshine.—Sunshine aggregates for the month were in general above the normal in the western districts of England and Wales and along the western seaboard of Ireland and below the normal elsewhere. Representative totals for Districts, expressed as a percentage of the normal for the period 1881-1915, ranged from 113 in England N.W. and the Channel Isles to 88 in England E. There were frequent bright periods during the month, abundant sunshine occurring widely on the 6th, in many parts of England on the 7th, from the 9th to the 10th or 11th in Ireland and from the 9th to the 16th in Scotland, in many districts on the 19th and from the 21st to the 23rd. More than 10 hours' sunshine was recorded daily at Cahirciveen during the period 9th to 12th and more than 11 hours daily at Stornoway during the period 13th to 16th. Over 12 hours' sunshine were recorded in many parts of southern England on the 19th. At Lympne (Kent) 13 hours' sunshine were recorded on both the 21st and 22nd.

Fog.—Little fog was experienced in most districts during the month; it occurred in many parts of the country on the 14th, 17th and 18th. In Scotland, fog was chiefly confined to the River Clyde area, occurring at Glasgow on six days and at Greenock on five days.

Miscellaneous Phenomena.—Halo phenomena were observed at a few stations on various dates. Aurora was observed in Scotland on the 1st, 2nd, 4th, 5th, 7th to 11th, 16th, 17th, 20th and 30th. The Zodiacal Light was observed at Oxford on the 7th and 8th. Remarkable transparency of the atmosphere occurring in air of polar origin was reported by the observer at Ross-on-Wye on the afternoon of the 1st and 2nd and by the observer at Armagh on the 3rd.

TABLE I.—DISTRICT VALUES—APRIL, 1929.

[1908, revised 1928.]

DISTRICTS.	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High-est.	Low-est.	Daily Mean. Deviation from Normal.	At 1 ft. Deviation from Normal.	At 4 ft. Deviation from Normal.	Per-centage of Normal.	No. of Days. Deviation from Normal.	Per-centage of Normal.	Per-centage of Possible Duration.
o. SCOTLAND, N.	°F. 62	°F. 26	°F. -1.3	°F. —	°F. —	% 67	o	% 112	% 37
Eastern.									
1. SCOTLAND, E.	62	19	-2.0	—	—	92	-1	97	34
2. ENGLAND, N.E.	70	14	-2.1	-1.1	-0.2	71	-1	99	35
3. ENGLAND, E...	72	20	-2.2	-2.2	-1.8	93	-1	88	37
4. MIDLAND COUNTIES	72	20	-2.0	-1.2	-0.7	62	-2	90	33
5. ENGLAND, S.E.	75	21	-2.9	-1.1	-0.9	62	-2	98	40

DISTRICTS.	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High-est.	Low-est.	Daily Mean. Deviation from Normal.	At 1 ft. Deviation from Normal.	At 4 ft. Deviation from Normal.	Per-centage of Normal.	No. of Days. Deviation from Normal.	Per-centage of Normal.	Per-centage of Possible Duration.
Western.	°F. 63	°F. 21	°F. -2.3	°F. —	°F. -0.7	% 51	-5	% 100	% 33
6. SCOTLAND, W. (& I. of Man)									
7. ENGLAND, N.W. (& N. Wales)	67	24	-1.6	-1.0	-0.9	54	-4	113	44
8. ENGLAND, S.W. (& S. Wales)	72	22	-0.9	-0.2	-1.2	41	-5	104	42
9. IRELAND, N...	61	23	-0.5	-0.3	+0.4	47	-5	92	34
10. IRELAND, S...	68	23	-0.6	+0.3	+0.3	54	-6	90	35
11. CHANNEL I. (& Scilly)	67	35	-1.8	+0.2	+0.2	99	-5	113	52
Mean: DISTRICTS I-10	75	14	-1.7	-0.9	-0.6	63	-3	97	37

TABLE II.—SUMMARY OF AUTOGRAPHIC RECORDS OF WIND.—APRIL, 1929.

[1914.]

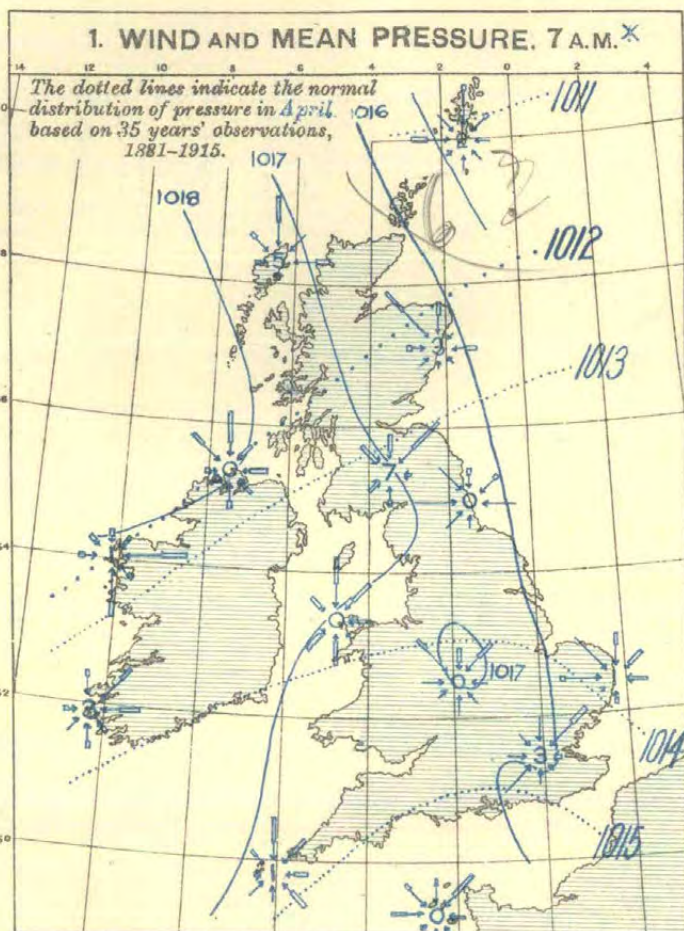
DISTRICT AND STATION.		Height.			Distribution of Wind.††								Extreme Velocities.								
		Above Mean Sea Level.	Above Ground.	Above Building.	More than 38 mi/hr.		25 to 38 mi/hr.		13 to 24 mi/hr.	4 to 12 mi/hr.	Less than 4 mi/hr.	No Record.	Highest Hourly Wind.				Highest Gust.				
					Dates of Occurrence.	Duration.	No. of Days.	Duration.	Duration.	Duration.	Duration.	Duration.	Veer from N.	Speed.	Mid Time.	Speed.	Time.				
o. SCOTLAND, N.		ft.	ft.	ft.		hr.		hr.	hr.	hr.	hr.	°	mi/hr.	m/s.	day. hr.	mi/hr.	m/s.	d.	h.	m.	
Shetlands	Lerwick ..	310	42	33†	—	o	3	18	229	319	154	o	350	30	14	22 14	47	21	22	11	50
Orkneys	Deerness (Cup Anr.)	188	16	5	—	o	8	61	288	288	44	39	320 320 330	36	16	19 16 24 8	—	—	—	—	—
1. SCOTLAND, E.																					
Aberdeen	Aberdeen ..	70	42	33†	—	o	1	1	283	397	39	o	320	25	11	24 1	46	21	24	11	25
Kincairdine	Balmakewan ..	140	25	18	—	o	1	1	119	(435)	(154)	13	350	25	11	24 12	47	21	24	12	10
Edinburgh	Edinburgh ..	485	39	31†	—	o	2	4	132	460	124	o	250	26	11	18 18	45	20	1	14	55
6a. SCOTLAND, W.																					
Argyll	Tiree ..	80	55	48†	—	o	10	55	352	273	31	9	30	33	15	19 11	55	25	1	15	10
Renfrew	Paisley ..	188	81	15	—	o	1	1	128	469	122	o	250	25	11	1 14	45	20	1	17	20
Dumfries	Eskdalemuir ..	825	50	22	—	o	5	43	343	221	113	o	220	31	14	18 22	47	21	10	13	15
2. ENGLAND, N.E.																					
Durham	South Shields ..	62	46	20	—	o	3	16	279	330	95	o	320	33	15	1 11	54	24	1	13	15
York, E.R.	Spurn Head ..	67	41	35†	1	1	17	118	369	195	30	7	10	41	18	1 12	60	27	1	11	15
Lincoln	Cranwell ..	284	44	26†	1	1	5	26	309	321	63	o	330	39	17	1 13	56	25	1	13	15
3. ENGLAND, E.																					
Norfolk	Gorleston ..	52	42	33†	—	o	8	56	288	299	74	3	50	37	17	11 18	50	22	1	14	55
Suffolk	Felixstowe Aero. ..	55	40	25	—	o	5	27	332	(246)	(115)	o	40	30	13	11 13	49	22	1	15	15
Essex	Shoeburyness ..	115	104	14†	—	o	3	19	158	385	158	o	40	31	14	11 14	51	23	1	15	0
4. MIDLAND COUNTIES.																					
Warwick	Birmingham ..	643	118	18	—	o	2	8	241	434	37	o	320	33	15	1 12	62	28	1	12	0
5. ENGLAND, S.E.																					
Surrey	Richmond (Kew Obs)	82	65	22	—	o	—	0	153	426	141	o	40	23	10	11 16	42	19	10	13	10
Surrey	Croydon ..	313	105	49	—	o	3	11	271	322	116	o	320	30	13	1 16	54	24	1	15	50
Kent	Dover ..	61	32	22	—	o	6	31	276	344	67	2	—	32	14	11 11	49	22	11	10	0
Kent	Lympne ..	409	70	55†	—	o	9	33	285	376	26	o	20	32	14	11 11	48	21	11	9	50
Hampshire	Calshot ..	55	45	31†	—	o	3	10	317	(330)	(63)	o	340	28	13	1 17	42	19	1	14	15
Hampshire	Worthy Down ..	314	43	27†	—	o	2	4	188	387	141	o	330	25	11	1 16	43	19	1	11	20
7a. ENGLAND, N.W.																					
Lancashire	Fleetwood ..	112	50	12	—	o	2	13	223	335	65	84	360	32§	14	24 15	42§	19	11	15	5
Lancashire	Southport ..	77	59	45†	1	2	8	58	399	252	9	o	250	40	18	1 8	54	24	1	8	35
Lancashire	Liverpool (Bidston)	253	64	35	—	o	4	36	384	281	17	2	300	38	17	1 9	62	28	1	8	55
7b. NORTH WALES.																					
Anglesey	Holyhead ..	64	45	29†	—	o	12	94	423	181	22	o	50	35	16	11 17	50	22	1	8	45
Flint	Sealand ..	81	65	49†	—	o	2	23	236	363	98	o	310	37	17	1 14	58	26	1	9	25
8b. ENGLAND, S.W.																					
Devon	Plymouth ..	185	88	2	—	o	1	2	225	406	87	o	—	26	12	14 14	41	18	11	14	55
Cornwall	Pendennis Castle ..	256	65	24	—	o	—	—	Instrument dismantled.												
9. IRELAND, N.																					
Donegal	Dunfanaghy Road	180	47	39	—	o	3	20	141	400	159	o	—	34	15	1 3	51	23	1	2	50
Antrim	Aldergrove ..	282	40	27†	—	o	—	0	241	402	77	o	230	24	11	18 16	49	22	1	15	5
10. IRELAND, S.																					
Dublin	Kingstown (Cup Anr.)	49	27	16	—	o	10	61	365	220	74	o	240	32	14	1 6	—	—	—	—	—
Clare	Quilty ..	100	40	32†	—	o	4	24	272	303	82	39	—	30	14	14 13	44	20	14	9	55
Kerry	Cahirciveen (Val. O.)	98	41	34†	—	o	4	22	327	291	80	o	110	31	14	14 18	48	21	14	18	10
Cork	Weaver Pt. ..	160	30	21†	—	o	2	13	178	443	86	o	—	34	15	14 16	47	21	14	16	15
11. SCILLY ISLES.																					
	St. Mary's ..	230	65	17	—	o	8	80	343	253	44	o	60	34	15	20 8	51	23	20	8	5

†† Brackets () indicate that the distribution as between winds above and below 4 m.p.h. is doubtful, but the total number of hours with winds below 12 m.p.h. is reliable.

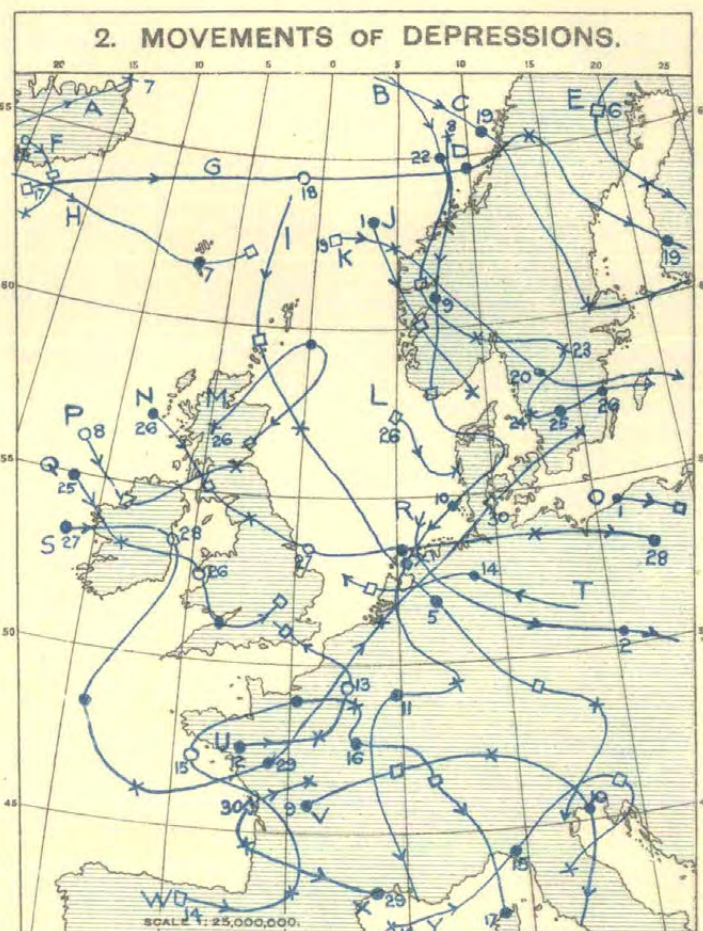
† Standard mounting.

§ No record 1st-3rd.

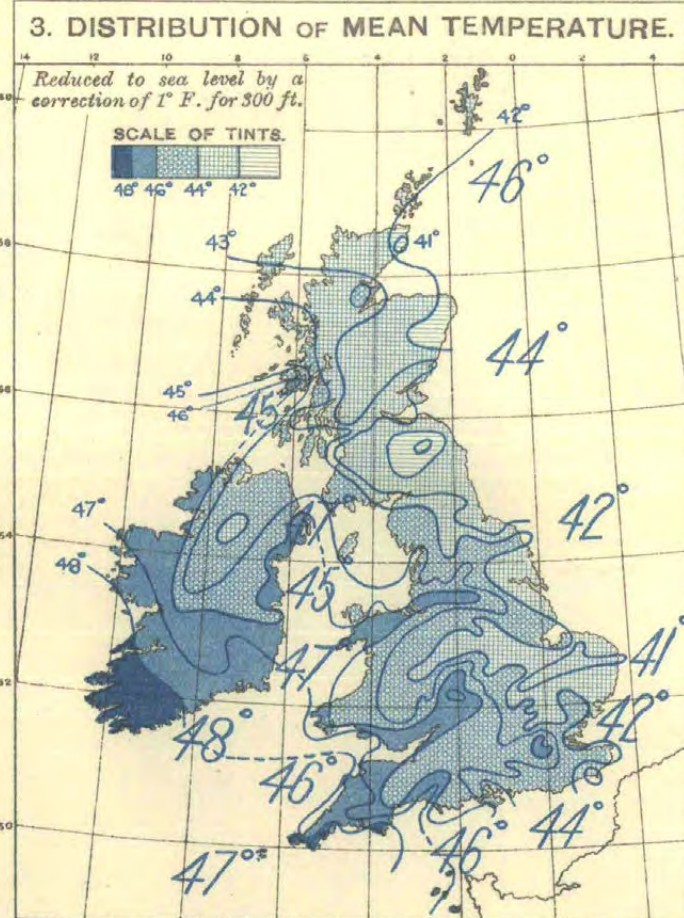
→ wind after MAY.



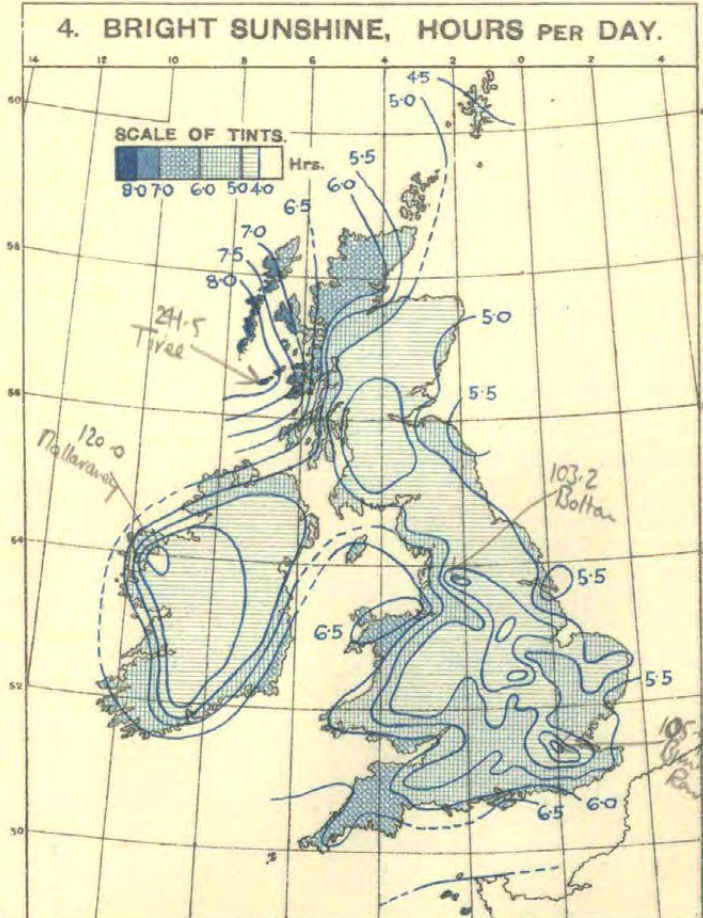
WIND ROSES. The arrows fly with the wind and indicate frequency and force, thus:
 LIGHT TO STRONG GALE
 30 Obs = 1 Inch



Positions of centres are shown thus: ○ at 1h; ● at 7h; □ at 13h; × at 18h.



Sea temperatures are shown in large figures, thus: 44°



* The pressure is expressed in millibars.

APRIL, 1929
RAINFALL.

SCALE OF TINTS.

100 75 50 25 mm.

--	--	--	--	--

Stegness
10.5 mm

Scale 1 : 5,000,000.

Pd. 1537/1901. Wt. 91 A. D. 16. 1125. 5/29.

The equivalent values in mm. are given in round numbers. The exact relation is 10 in. = 254 mm.

TABLE III.—SUMMARY OF THE RECORDS OF TEMPERATURE, RAINFALL AND SUNSHINE, and of WEATHER OBSERVATIONS, APRIL, 1929.

[illegible]

*Mean of hourly readings. § See paragraph headed "Sunshine" in Notes on Tables on last page of this issue.

†On and from April 21st, observations were taken one hour earlier than the times shown.

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, APRIL, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
					Means of		Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.			Deviation from Normal.	Most in a day.		Precip'n.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
								Maximum.	Date.	Minimum.	Date.														Amount.	Date.	0.2 mm. or more.	1 mm. or more.	Snow.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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		Max.	Min.		Max.	Min.	Mean of A and B.	Deviation from Normal.	Maximum.	Date.	Minimum.	Date.	1 ft.	4 ft.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, APRIL, 1929.

DISTRICT, COUNTY AND PLACE.	Terminal Hours of Observation.	Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.										Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.						
			Means of		Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.	Deviation from Normal.	Most in a day.			Precip'n.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.													
			A	B		Maximum.	Date.	Minimum.	Date.				in.	mm.								mm.	mm.	0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.
			Max.	Min.																															
4. MID. COUNTIES—cont.																																			
Warwick.	Birmingham	18-7 7	535	50.8	36.9	43.9	-1.9	69	19th	28	6th	43.3	44.3	0.78	20	24	4	28th	14	7	2	0	1	1	2	9	1	4.14	-0.36	30					
	B'ham, Sparkhill	713 7	424	52.7	36.2	44.5	—	71	19th	25	6, 21, 22	—	—	0.80	20	—	6	28th	12	7	2	0	2	1	1	10	1	—	—	—					
	Coventry	9 9 9	270	52.2	37.0	44.6	-2.1	69	19th	28	6, 21	44.5	43.9	1.07	27	16	8	27th	15	9	1	0	0	0	0	12	0	4.18	-0.82	30					
	Rugby	2121 9	390	52.0	36.9	44.5	—	69	19th	27	22nd	—	—	1.20	31	—	9	27th	10	8	0	0	0	0	—	0	—	—	—	—					
Oxford.	Leafield	18-7 7	612	51.3	35.0	43.1	—	69	19th	25	22nd	—	—	1.33	34	—	10	27th	14	9	2	2	1	0	1	12	0	5.12	—	37					
	Oxford	9 9 9	208	53.2	36.5	44.9	-2.1	72	19th	26	6th	46.8	45.4	1.34	34	—	7	27th	11	10	3	0	4	0	0	9	0	4.82	-0.41	35					
	Oxford (Sandford)	9 9 9	210	53.0	35.1	44.1	—	72	19th	24	6th	—	—	1.40	36	—	13	27th	11	9	0	0	0	0	0	20	0	4.83	—	35					
Bucks.	Mursley	9 9 9	490	51.5	35.0	43.3	—	70	19th	26	6, 21, 22	42.7	—	1.24	31	—	9	12th	10	7	1	0	0	1	0	—	0	—	—	—					
Stafford.	Mayfield	9 9 9	374	50.8	34.2	42.5	—	68	19th	22	6, 21, 22	—	—	0.98	25	—	7	27th	16	7	3	0	0	0	—	12	0	4.56	—	32.8					
Shropshire.	Newport	9 9 9	211	53.4	34.8	44.1	—	68	19th	23	21st	—	—	0.60	15	—	4	4th	13	6	0	0	0	0	0	15	0	4.75	—	34					
	Roden, Well'n	9 9 9	207	53.0	33.7	43.3	—	70	19th	23	21st	—	—	0.51	13	—	5	4th	9	5	0	0	0	0	—	0	—	—	—	—					
	Wistanstow	2121 9	481	51.9	35.0	43.5	-2.2	70	19th	24	21st	—	—	0.96	24	26	6	28th	8	7	2	0	0	0	0	16	0	—	—	—					
Worcester.	Malvern	9 9 9	377	52.0	37.7	44.9	—	70	19th	29	6th	45.7	44.4	0.91	23	23	6	12th	12	6	2	0	0	0	0	10	0	5.10	—	37					
	Worcester (Perdiswell)	9 9 9	95	53.5	34.9	44.2	—	71	19th	21	21st	—	—	0.56	14	—	4	28th	9	6	1	0	0	0	—	16	0	4.89	—	35					
Hereford.	Bromyard	9 9 9	392	52.5	34.5	43.5	—	69	19th	22	21st	45.2	44.1	0.72	18	—	6	12th	12	5	1	0	1	0	0	11	0	—	—	—					
	Hereford	9 9 9	291	53.1	36.0	44.5	-2.3	70	19th	23	22nd	—	—	1.00	25	21	8	28th	11	8	0	0	0	0	0	13	0	—	—	—					
	Ross-on-Wye	18-7 7	223	52.8	36.7	44.7	-2.8	70	19th	28	4, 6, 22	45.5	45.2	0.78	20	28	5	28th	12	6	1	0	0	0	0	16	0	5.01	+0.01	36					
Gloucester.	Cheltenham	2121 9	214	53.4	37.1	45.3	-1.2	71	19th	29	21st	46.2	45.7	0.83	21	22	5	12th	11	8	1	0	1	0	0	10	0	5.07	—	36					
5. ENGLAND, S.E.																																			
London.	City, Bunhill Row	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3.53	-0.74	26					
	Camden Square	9 9 9	110	54.1	38.2	46.1	-2.3	74	19th	29	6th	44.3	43.1	1.33	34	—	5	8	29th	11	8	1	0	0	0	—	—	—	—	—					
	East Ham	9 9 9	15	53.0	38.2	45.6	—	73	19th	28	6th	—	—	1.21	31	—	11	29th	10	8	—	—	—	—	—	—	—	—	—	—					
	Enfield	9 9 9	148	53.9	36.8	45.3	—	73	19th	26	6th	—	44.1	1.33	34	—	3	8	29th	11	8	4	0	0	0	1	8	1	5.22	—	38				
	Greenwich	2424 9	149	54.7	36.2	45.5	-2.1	74	19th	25	6th	43.3	43.2	1.16	29	—	8	12	29th	11	5	2	0	0	0	4	18	0	4.38	-0.64	32				
	Hampst'd Res.	9 9 9	450	51.7	34.4	43.1	—	71	19th	26	6th	—	—	1.32	33	—	9	29th	12	9	2	0	1	0	—	19	0	5.14	—	37					
	Kensington	18-9 9	80	53.3	38.8	46.1	—	74	19th	29	6th	45.2	45.2	1.22	31	—	7	29th	12	7	2	0	0	0	4	14	0	—	—	—					
	Regent's Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—					
	Richmond	2424 24	18	52.3	36.9	44.6	-2.7	69	19th	29	6th	45.1	45.0	1.07	27	10	5	11, 29	12	7	1	0	1	0	2	16	0	4.87	-0.36	35					
	(Kew Obs.)	Hourly*	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
	Stroud Green	18-7 7	212	53.9	37.1	45.5	—	74	19th	27	6th	—	—	1.27	32	—	7	29th	12	8	2	0	1	0	1	6	0	—	—	—	—				
	Tottenham	2121 9	51	53.8	38.3	46.1	-1.8	73	19th	30	6th	—	45.6	1.25	32	—	5	8	29th	10	7	3	0	0	0	—	5	0	—	—	—				
	Westminster	9 9 9	27	54.0	39.1	46.5	-1.7	72	19th	32	6th	—	—	1.24	32	—	3	8	29th	12	7	—	—	—	—	—	—	4.48	+0.18	32					
Surrey.	Addington	9 9 9	472	51.7	35.7	43.7	—	70	19th	26	6th	—	—	1.17	30	—	9	29th	11	6	—	—	—	—	—	—	—	—	—	—	—				
	Croydon Aero.	18-7 7	244	52.5	36.8	44.7	—	71	19th	26	6th	—	—	1.06	27	—	8	29th	9	6	1	0	0	0	1	15	0	4.36	—	32					
	Wisley	9 9 9	150	54.0	35.3	44.7	-2.1	75	19th	25	6th	45.2	44.3	0.77	20	17	8	29th	11	5	1	0	0	0	2	21	0	4.48	-0.85	32					
Kent.	Biggin Hill	18-7 7	597	50.8	34.8	42.8	—	70	19th	25	6, 21, 22	—	—	1.09	28	—	8	29th	12	6	1	0	0	0	3	13	0	4.76	—	35					
	Bromley	9 9 9	213	53.0	36.2	44.6	—	72	19th	25	6th	—	—	1.23	31	—	12	29th	9	5	1	0	0	0	1	14	0	—	—	—					
	Canterbury	9 9 9	124	52.0	36.0	44.0	—	70	19th	25	6th	47.1	46.6	1.32	33	—	6	29th	11	10	—	—	—	—	—	—	—	—	—	—					
	Dover	9 9 9	22	49.2	38.8	44.0	—	62	19th	34	23rd	45.9	45.5	1.04	26	—	5	11th	9	8	0	0	1	0	0	0	0	5.47	—	40					
	Dungeness	18-7 7	20	48.5	36.7	42.6	-3.5	57	19th	30	24th	—	—	1.01	26	—	9	6	29th	11	8	0	0	1	0	1	0	—	—	—					
	East Malling	9 9 9	127	52.1	35.3	43.7	—	71	19th	25	6th	—	—	1.17	30	—	8	11th	12	7	1	0	2	0	2	17	0	4.96	—	36					
	Folkestone	9 9 9	101	49.9	37.4	43.7	—	64	19th	32	6th	—	46.1	1.14	29	—	7	11th	11	8	0	0	0	0	0	8	0	5.47	—	40					
	Lympe	18-7 7	347	49.3	35.0	42.1	—	63	19th	27	6th	—	—	1.02	26	—	6	10th	10	7	2	0	1	0	2	15	0	5.63	—	41					
	Manston	18-7 7	150	50.0	36.7	43.3	—	70	19th	30	6, 7, 23	—	—	1.02	26	—	5	11th	10	7	1	0	0	0	2	9	0	5.28	—	38					
	Margate	9 9 9	51	49.1	38.9	44.0	-2.9	70	19th	32	6th	46.0	46.0	0.63	16	18	3	29th	10	7	0	0	1	0	1	5	0	5.56	-0.67	40					
	Tunbridge W.	9 9 9	354	53.0	35.4	44.2	-2.5	70	19th	25	6th	45.8	45.2	1.14	29	11	10	11th	8	5	3	0	0	0	1	20	0	5.17	-0.50	38					
Wye	9 9 9	164	51.7	34.8	43.3	—	69	19th	26	6th</																									

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, APRIL, 1929.

DISTRICT, COUNTY AND PLACE.	Terminal Hours of Observation.	Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
			Means of		Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.			Deviation from Normal.	Most in a day.		Precip'n.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
			A	B		Maximum.	Date.	Minimum.	Date.		Amount.	Date.		0.2 mm. or more.	1 mm. or more.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
			Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	1 ft.	4 ft.	in.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, APRIL, 1929.

DISTRICT, COUNTY AND PLACE.			Terminal Hours of Observation.		Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.			
			Means of			Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.	Deviation from Normal.	Most in a day.			Precip'n. 0.2 mm. or more.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.								
			A	B			Maximum.	Date.	Minimum.	Date.			Amount.	Date.	0.2 mm. or more.											1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.
Max.	Min.	Rain.	Max.	Min.	Mean of A and B.	Deviation from Normal.	Maximum.	Date.	Minimum.	Date.	1 ft.	4 ft.	Total Fall.	Deviation from Normal.	Amount.	Date.	0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.					
8b. ENGLAND, S.W.—cont.																																	
Devon.			G.M.T.	ft.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	in.	mm.	mm.	mm.										hr.	hr.	%			
		Arlington	9 9 9	613	52.2	37.3	44.7	-0.9	69	19th	29	22nd	—	—	1.10	28	—	50	10	27th	9	8	0	0	0	0	—	11	0	—	—		
		Ashburton	9 9 9	583	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
		Cullompton	9 9 9	202	55.6	36.5	46.1	-1.2	71	19th	25	7th	49.0	—	1.03	26	—	32	7	25th	10	7	0	0	0	0	0	15	0	5.43	+0.20	40	
		Dean Prior	2121 9	331	53.4	35.2	44.3	—	67	19th	26	7th	—	—	0.93	24	—	7	14th	12	9	2	0	0	0	0	—	17	2	—	—		
		Ilfracombe	9 9 9	74	51.6	41.6	46.6	-1.6	63	19th	35	21st	50.0	49.6	0.80	20	—	31	8	27th	9	6	0	0	0	0	0	0	6.06	—	44		
		Killerton	9 9 9	159	54.1	36.7	45.4	—	67	19th	28	4, 7	—	—	0.95	24	—	8	25th	10	5	0	0	0	0	—	—	—	—	—			
		Newton Abbot	9 9 9	350	53.4	38.0	45.7	—	66	18th	29	7th	—	—	0.64	16	—	5	25th	10	4	0	0	1	0	0	10	0	6.21	—	45		
		Plymouth (Hoe)	2121 9	116	53.7	40.4	47.1	-1.1	66	19th	32	7th	49.4	48.1	0.87	22	—	36	6	14th	9	5	1	0	0	0	1	3	0	6.70	+0.87	49	
		Plymouth (Cattewater)	18-7 7	82	52.1	40.8	46.5	—	65	19th	34	7, 25	—	—	0.80	20	—	7	14th	10	5	1	0	0	0	1	5	0	6.55	—	48		
		Princetown	9 9 9	1359	49.3	35.7	42.5	—	66	19th	29	21st	—	—	1.46	37	—	11	4th	13	8	0	0	1	0	0	5	0	—	—	—		
		Salcombe	9 9 9	39	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
		Sidmouth (Sidmount)	9 9 9	147	52.3	38.3	45.3	-1.7	60	19th	31	22, 25	—	—	0.64	16	—	38	5	25th	9	6	0	0	1	0	1	7	0	—	—	—	
		Sidmouth †	9 9 9	25	52.4	38.4	45.4	—	59	9th	29	7th	—	—	0.48	12	—	4	25th	7	5	0	0	1	0	1	(5)	—	5.64	—	41		
		Tavistock	9 9 9	458	53.6	37.8	45.7	—	69	19th	29	25th	—	48.9	0.96	24	—	6	4th	9	6	0	0	1	0	0	16	0	—	—	—		
		Teignmouth	9 9 9	20	52.3	40.6	46.5	-1.9	58	5, 9, 27	31	7th	—	—	1.06	27	—	24	11	29th	10	5	1	0	0	0	0	2	0	6.15	—	45	
		Torquay	9 9 9	12	53.9	41.3	47.6	-0.5	61	18th	35	7th	—	47.4	0.54	14	—	37	5	14th	9	3	1	0	0	0	0	1	0	6.27	+0.20	46	
		Woolacombe	9 9 9	59	52.4	41.3	46.9	-0.9	69	19th	34	21st	—	—	0.80	20	—	24	8	27th	8	5	0	0	1	0	0	2	0	6.17	+0.24	44	
		Falmouth Obs. †	9 9 9	167	52.9	41.2	47.1	-0.7	59	8th	33	13th	50.7	50.3	1.28	32	—	35	10	14th	8	8	0	0	0	0	2	12	0	6.34	+0.21	46	
		„ (Pendennis)	18-7 7	200	51.1	42.4	46.7	—	56	8, 19, 29	35	13th	—	—	1.37	35	—	9	14th	9	7	0	0	1	0	2	—	—	6.53	—	48		
		Fowey	9 9 9	51	55.2	40.6	47.9	—	62	8, 19	34	4, 7, 13, 22	—	—	1.04	26	—	7	27th	8	6	0	0	0	0	1	—	—	6.42	—	47		
		Gulval	9 9 9	20	54.5	41.5	48.0	—	61	19th	35	13, 14	—	—	1.35	34	—	10	27th	9	7	0	0	0	0	—	2	0	6.93	—	51		
		Newquay	9 9 9	190	51.8	41.6	46.7	-1.0	66	19th	33	22nd	48.6	47.8	1.02	26	—	25	10	27th	7	4	0	0	0	0	—	—	6.53	+0.66	48		
		Redruth	9 9 9	397	51.7	39.9	45.8	—	65	19th	31	13th	—	—	1.33	34	—	39	9	27th	8	5	0	0	0	0	1	17	0	—	—	—	
9. IRELAND, N.																																	
		Sligo.	2121 9	122	53.0	37.0	45.0	-0.7	59	18th	26	21st	47.6	46.5	1.32	33	—	35	10	7th	13	8	0	0	1	0	0	—	0	4.30	-0.67	30	
		Mayo.	18-7 7	10	51.9	43.2	47.5	+0.8	57	18th	37	21st	—	—	1.20	31	—	43	17	7th	13	7	0	0	1	0	0	—	—	—	—	—	
		Mallarany	9 9 9	120	52.7	40.1	46.4	—	60	16th	34	21st	—	—	1.45	37	—	22	7th	11	8	0	0	0	0	0	—	—	0	4.00	-0.77	29	
		Donegal.	18-7 7	51	48.5	41.3	44.9	-0.4	59	7th	37	6, 25, 27	—	—	1.21	31	—	19	7	25th	15	8	0	0	3	0	0	—	—	0	6.28	+0.50	45
		Antrim.	18-7 7	238	50.5	36.3	43.4	—	58	17th	26	21st	—	—	1.19	30	—	9	27th	12	7	1	0	1	0	0	17	0	5.09	—	36		
		Belfast	9 9 9	13	52.6	40.1	46.3	—	61	17, 18	34	22nd	—	—	1.17	30	—	6	25th	12	9	0	0	0	0	0	—	—	—	—	—	—	
		Lisburn	9 9 9	206	52.8	36.5	44.7	-0.3	61	17th	28	21st	—	—	1.03	26	—	30	5	25th	16	6	0	0	0	0	0	—	—	—	—	—	
		Down.	18-7 7	40	49.7	39.7	44.7	-1.0	61	18th	33	27th	—	—	1.21	31	—	20	8	27th	14	8	0	0	0	0	0	—	—	—	—	—	
		Armagh.	2121 9	204	51.6	36.4	44.0	-1.6	60	17th	28	21st	46.3	45.7	0.85	22	—	31	6	25th	11	6	0	0	0	0	0	15	0	4.81	-0.09	34	
		Longford.	2121 9	161	52.0	35.7	43.9	—	59	1st	27	21st	46.3	46.0	1.11	28	—	12	8th	11	8	0	0	2	0	—	—	—	—	—	—	—	
10. IRELAND, S.																																	
		Dublin.	9 9 9	203	52.2	38.6	45.4	-0.3	64	19th	30	21st	46.8	47.1	1.32	33	—	15	10	28th	11	5	0	0	0	0	0	10	0	—	—	—	
		Dublin City	2121 9	54	52.9	40.3	46.6	-1.0	65	19th	33	21st	—	—	1.44	37	—	11	14	27th	10	5	0	0	1	0	0	5	0	—	—	—	
		„ Glasnevin	2121 9	55	52.7	36.9	44.8	-1.1	66	19th	29	21st	—	—	1.23	31	—	17	11	27th	9	5	0	0	1	0	2	12	0	—	—	—	
		„ Phoenix Pk.	2121 9	155	52.5	35.7	44.1	-1.1	66	19th	25	21st	—	—	1.28	33	—	13	11	27th	8	6	0	0	0	0	0	7	0	4.83	-0.67	35	
		„ Trin. Coll.	2121 9	12	53.1	40.0	46.5	-0.5	64	17th	33	21st	47.4	46.6	1.49	38	—	9	15	27th	10	6	0	0	0	0	—	—	—	—	—	—	
		Hazelhatch	9 9 9	366	53.6	32.4	43.0	—	65	19th	23	4, 21	47.5	46.7	1.41	36	—	15	27th	10	7	—	—	—	—	—	0	20	—	4.39	—	32	
		Wicklow.	2121 9	256	50.7	38.6	44.7	—	62	18th	34	10, 21, 24	—	—	1.45	37	—	16	28th	10	4	0	0	0	0	0	—	—	—	—	—	—	
		Offaly.	18-7 7	173	52.9	37.8	45.3	-0.8	62	17, 19	26	21st	47.1	46.7	0.91	23	—	31	9	27th	11	5	0	0	1	0	0	17	0	4.37	-0.76	31	
		(King's Co.).																															

during the Month of APRIL, 1929.

† The mean values at Station level are 987.8mb. at 7h., 987.7mb. at 13h., 987.6mb. at 18h., and 988.4mb. at 21h.

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of APRIL, 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.		VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Visibility.			8 or more.	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of APRIL, 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.														
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.									
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Visibility.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	
																0	1	2	3				4	5	6													7
5. ENGLAND, S.E.—cont.																																						
Kent.	Biggin Hill H	7	596	1015.1	—	38.6	1.0	7.2	91	7.5	3	3	1	8	15	0	2	0	1	2	4	13	6	2	0	0	6	22	2	4	8	1	2	1	6	5	1	
		13	596	1014.9	—	48.0	4.5	7.7	69	7.4	1	5	2	12	10	0	0	0	0	2	2	13	8	5	0	0	12	18	0	9	9	0	1	0	4	6	1	
		18	596	1014.8	—	46.3	4.0	7.5	71	6.7	3	4	3	13	7	0	0	0	1	0	2	15	8	4	0	0	8	22	0	6	9	1	2	0	7	2	3	
Kent.	Dungeness ..	1	23	1015.3	—	39.7	1.2	7.5	89	6.1	5	4	5	7	9	1	0	0	0	0	1	2	16	10	0	0	7	22	1	4	6	2	1	1	3	5	7	
		7	23	1015.2	+1.5	41.0	1.6	7.5	86	7.6	1	1	8	9	11	1	0	0	0	1	0	9	12	6	1	0	8	22	0	4	6	2	2	1	3	5	0	
		13	23	1015.1	—	47.0	3.2	8.3	75	7.3	2	3	5	9	11	0	0	0	0	0	4	13	12	1	0	13	17	0	3	8	4	1	3	8	3	0		
Kent.	Lympe H	18	23	1014.5	—	44.4	2.9	7.5	76	7.1	2	2	7	7	12	1	0	0	0	0	6	12	11	0	0	9	21	0	5	8	2	2	7	3	1			
		1	345	1015.4	—	38.0	1.5	6.7	86	5.8	5	6	2	9	8	0	1	0	1	2	2	10	11	3	0	0	10	20	0	10	5	1	2	0	3	4	5	
		7	345	1015.2	—	39.0	1.5	7.0	87	6.4	3	7	2	7	11	0	1	0	1	0	8	12	5	1	2	0	10	20	0	10	6	4	0	2	1	4	3	
Kent.	Manston H	13	345	1014.8	—	47.4	4.9	7.2	65	6.5	4	4	3	12	7	0	0	0	0	6	7	8	6	3	0	16	14	0	9	5	0	5	3	3	2			
		18	345	1014.6	—	43.9	3.5	7.0	72	6.3	4	5	2	11	8	0	0	0	1	1	6	8	6	7	1	0	12	18	0	9	6	2	1	3	6	1	2	
		7	152	1015.4	—	41.2	1.8	7.4	84	6.7	3	5	2	11	9	0	0	1	1	1	2	7	9	9	0	0	16	14	0	7	5	1	2	1	3	5	6	
Kent.	Tunbridge Wells	13	152	1015.3	—	47.6	4.6	7.5	68	6.9	0	8	2	11	9	0	0	0	0	1	11	8	10	0	0	19	10	1	5	8	1	4	1	1	3	6		
		18	152	1015.0	—	44.0	3.0	7.6	76	6.6	2	6	2	13	7	0	0	0	0	1	8	9	11	1	0	15	15	0	6	8	2	4	2	4	1	3		
		9	396	1016.0	—	45.1	2.9	7.8	77	6.4	3	5	5	6	11	0	0	0	1	1	7	8	10	3	0	0	8	22	0	7	8	2	1	0	5	3	4	
Sussex.	Brighton H	9	48	1016.2	—	45.5	2.8	8.0	76	6.0	5	3	8	6	8	0	0	0	0	2	16	10	2	0	0	6	21	3	2	9	2	1	0	4	5	4		
Sussex.	St. Leonards	9	174	1015.3	—	45.1	3.8	7.1	69	6.2	5	3	4	10	8	0	0	0	0	2	2	20	6	0	1	7	22	0	1	12	1	4	2	2	3	5		
		21	174	1015.3	—	42.4	3.0	6.7	74	4.9	11	0	7	4	8	0	0	0	0	2	4	16	8	0	0	3	27	0	1	10	5	2	0	1	6	5		
Hampshire.	Calshot ..	1	15	1016.3	—	40.9	1.9	7.3	83	5.4	6	6	4	7	7	0	0	0	0	1	4	18	7	0	0	8	21	1	7	4	4	2	0	2	4	6		
		7	15	1016.2	—	40.8	1.8	7.3	83	6.4	3	5	3	10	9	0	1	0	2	1	1	14	8	3	0	0	12	15	3	5	9	2	0	1	0	3	7	
		13	15	1015.9	—	50.3	5.7	7.5	61	6.2	3	5	4	10	8	0	0	0	0	0	1	7	10	12	0	0	18	11	1	6	6	3	4	2	7	0	1	
Hampshire.	Southampton H	18	15	1015.3	—	48.1	4.7	7.4	66	6.0	2	8	3	12	5	0	0	0	0	1	0	8	7	14	0	0	17	12	1	4	6	2	2	1	7	4	3	
		9	84	1016.5	+1.6	46.1	3.8	7.5	71	6.1	4	3	5	10	8	0	0	0	0	3	20	7	0	0	0	0	8	22	0	5	7	3	1	2	4	5	3	
		21	84	1016.2	+1.5	46.0	3.6	7.7	73	5.8	5	5	3	7	10	0	0	0	6	4	17	3	0	0	0	0	6	24	0	3	6	4	1	0	7	7	2	
Hampshire.	S. Farnborough	7	256	1015.9	—	39.1	1.3	7.1	88	7.2	3	3	5	6	13	0	2	0	0	3	2	10	7	6	0	0	2	24	4	4	7	2	1	1	1	7	3	
		13	256	1015.3	—	52.1	7.4	6.7	53	6.8	1	5	5	12	7	0	0	0	1	0	5	8	16	0	0	12	18	0	6	8	2	2	1	2	5	4		
		18	256	1014.9	—	48.4	5.6	6.9	59	6.5	1	6	5	13	5	0	0	0	0	1	2	5	10	12	0	0	6	24	0	6	7	3	1	0	6	4	3	
Hampshire.	Winchester (Worthy Down)	7	273	1016.3	—	38.5	1.3	7.0	88	6.5	6	3	0	9	12	0	1	0	0	2	4	3	9	11	0	0	5	17	8	9	2	0	1	1	2	3	4	
		13	273	1015.5	—	51.0	7.1	6.7	52	6.7	2	6	1	14	7	0	0	0	0	0	4	6	20	0	0	11	19	0	10	4	2	1	3	1	9	0		
		18	273	1015.1	—	48.0	5.8	6.6	58	6.0	4	4	6	10	6	0	0	0	0	0	1	4	7	16	2	0	8	22	0	10	4	0	1	6	3	2	4	
I. of Wight.	Ventnor (Hosp.)	9	80	1015.9	—	46.7	3.5	8.1	73	5.7	0	12	5	4	9	—	—	—	—	—	—	—	—	—	—	0	9	21	0	6	5	5	4	1	3	5	1	
		15	80	1015.2	—	50.0	4.7	8.2	67	5.1	3	9	6	5	7	—	—	—	—	—	—	—	—	—	—	0	7	23	0	6	2	5	2	2	2	11	0	
Wilts.	Larkhill H	9	444	1016.2	—	44.8	3.6	7.3	73	6.9	3	4	3	7	13	0	0	0	0	0	4	10	16	0	0	15	15	0	7	7	1	3	2	2	3	5		
		13	444	1015.6	—	50.1	6.5	6.9	57	7.1	1	5	2	14	8	0	0	0	0	0	3	6	21	0	0	15	15	0	6	8	1	2	3	2	5	3		
		15	444	1015.1	—	50.9	7.0	6.8	54	6.7	1	6	3	15	5	0	0	0	0	0	3	7	20	0	0	18	12	0	7	9	1	1	3	3	4	2		
7a. ENGLAND, N.W.																																						
Cumberland.	Aspatria (Mealsgate)	9	485	1017.1	—	43.4	2.7	7.3	78	7.0	2	2	10	3	13	—	—	—	—	—	—	—	—	—	—	—	0	6	22	2	6	7	0	3	1	7	1	3
		21	485	1017.3	—	39.7	1.5	7.3	87	6.0	9	2	3	0	16	—	—	—	—	—	—	—	—	—	—	—	0	5	15	10	4	4	2	3	1	4	2	0
Lancashire.	Hutton ..	9	86	1015.0	—	45.1	3.3	7.5	74	6.4	1	9	2	10	8	—	—	—	—	—	—	—	—	—	—	0	3	26	1	3	4	3	6	3	1	4	5	
Lancashire.	Southport H	9	42	1016.9	+2.6	45.3	3.8	7.4	71	5.1	2	9	9	2	8	0	0	0	0	8	5	3	14	0	1	18	10	1	3	3	6	3	3	2	5	4		
		13	42	1016.7	+2.5	49.3	5.2	7.6	63	5.0	1	12	6	5	6	0	0	0	0	4	2	2	22	0	0	24	5	1	3	2	4	2	2	2	7	7		
		18	42	1016.3	+2.7	47.0	3.9	7.8	70	6.0	1	9	4	9	7	0	0	0	0	5	5	6	14	0	0	23	6	1	6	3	6	1	1	3	4	5		
		21	42	1016.8	+2.6	43.3	2.7	7.5	77	5.5	3	12	1	0	14	0	0	0	0	13	5	6	6	0														

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of APRIL, 1929.

DISTRICT COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).			DIRECTION.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Visibility.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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8a. SOUTH WALES—cont.		G.M.T.	ft.	mb.	mb.	°F.	°F.	mb	%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				

TABLE I. DISTRICT VALUES.

The District Values of this Table are computed from the statistics for selected individual stations set out in Table III and Table IV.

The representative stations from which the District Values of rainfall and temperature are computed are indicated in Table III by the sign ¶ while the representative stations from which District Values of sunshine are computed are indicated by the sign §. The deviations from and percentages of normal for Air Temperature, Rainfall and Sunshine are the means of the corresponding deviations or percentages for the representative District Value stations. The deviations from normal of Earth Temperature are derived from the deviations for all the stations reporting in Table III for which normals of Earth Temperature are available. The highest and lowest temperatures for the District recorded during the month may refer to any station in Table III.

TABLE II. SUMMARY OF AUTOGRAPHIC RECORDS OF WIND.

The records used in the preparation of this Table are generally made by anemographs of the pressure-tube type. At a few stations the Robinson Cup Anemograph is utilised. The classification adopted for the "Distribution of Wind" is based on the specification of the Beaufort Scale of Wind Force (see *The Observer's Handbook*). For an anemograph complying with the specification "head 33 ft. above ground in the open" the several columns correspond with Force 8 and above (gales), Forces 6 and 7 (strong winds), Forces 4 and 5 (moderate breezes), Forces 2 and 3 (light breezes), Forces 1 and 0 (nearly calm). Some information as to the nature of the actual exposures may be gathered from the figures in the "Height" columns.

The "Highest Hourly Wind" is determined by the mean speed of the wind for a period of sixty minutes from 30 minutes before to 30 minutes after an exact hour by Greenwich Mean Time. Under the heading "Veer from N" the azimuth of the direction from which the wind was blowing is stated, the entry for an east wind being 90°, that for a south wind 180° and so on.

TABLE III. SUMMARY OF OBSERVATIONS AT TERMINAL HOURS.*

Temperature.—The terminal hours of observation are given for each station. When the terminal hours for maximum and minimum temperature are stated independently the temperatures refer to intervals of 24 hours. If the maximum thermometer is read in the morning the reading is credited to the previous day. When the terminal hours for maximum and minimum are separated by a dash, thus, 18-7, the day-maximum for the period 7h. to 18h. and the night-minimum for the period 18h. to 7h. are reported and are utilised in determining the means for the month; in such cases the extreme temperatures for successive periods of 24 hours are also read by the observers, so that the absolute maximum and minimum temperatures for the month are obtained.

Except at the Royal Observatory, Greenwich, where a Glaisher stand is in use, the air temperature is obtained from thermometers placed in louvred screens. At Kew Observatory, Richmond, and Valentia Observatory these are north wall screens a few feet from the ground. At Aberdeen Observatory the north wall screen is at 41 feet. Otherwise the screens are in the open.

Rainfall.—The daily amounts are for the 24 hours beginning at the "terminal hour." "Rainfall" includes all forms of precipitation. The number of days of precipitation is counted with reference to the limit .01 inch or 0.2 mm. and also with reference to the limit .04 inch or 1 mm. The lower limit excludes mere "traces" of precipitation, but it is frequently passed on occasions when the precipitation is only dew.

Weather.—The numbers of days of Precipitation, Snow, Hail, Thunderstorms and Gale are counted irrespective of the hour at which the phenomena occur. Except for "Precipitation" the day is the civil day.

For the purpose of this summary "Snow" includes sleet (*i.e.*, snow with rain), "Hail" includes graupel (soft hail), "Snow lying" refers to occasions when at least one-half of the country surrounding the station is covered with snow at the morning observation. The entry of "fog" implies that regular observations of the range of vision are made on the scale set out below. Days of fog are those on which the range of vision is less than 1,100 yards at the hour of morning observation. That hour is generally given by the third entry of column 2 of the table and may be 7h. or 9h. G.M.T. The variability of the observation hour may exercise an important effect upon the statistics of fog frequency. "Thunderstorm" includes any day on which thunder is heard. "Gale" is a wind of Force 8 or upwards on the Beaufort Scale. A "ground frost" is entered when the reading of a "grass minimum" thermometer set the previous evening and read at the morning observation is 30° F. or lower.

Sunshine.—The percentage of possible sunshine in the last column is calculated with reference to the maximum duration theoretically possible in the latitude, allowance being made for refraction (see

International Meteorological Tables (Paris) pp. A17-A20 and 42-47) but not for the fact that the sunshine recorder is generally insensitive to sunshine when the sun is at an altitude of less than 3°. Where the symbol § occurs it indicates that obstructions obscure the sun during more than 5% of the period when it is over 3° above the horizon.

TABLE IV. SUMMARY OF OBSERVATIONS AT FIXED HOURS.*

Mean Air Pressure is expressed in millibars. (1 millibar = 1,000 dynes per square centimetre = the pressure due to .029531 inch of mercury at 32° F. in Lat. 45°). The corrections for latitude, temperature and height have been applied to the barometer readings so as to obtain pressure at mean sea level. Barometric pressure is given at station level for a few stations at altitudes of 600 ft. or more in footnotes in Table IV.

Hygrometry.—The values given depend on the readings of the dry and wet bulb thermometers in Stevenson Screens (except at the Observatories, see above). The observations were formerly reduced by Glaisher's method; as from January, 1926 they are reduced by the new hygrometrical tables issued by the Office which are based on a formula of Regnault. In general the relative humidity and vapour pressure are derived from the monthly means of the dry and wet bulb readings. At certain stations the daily values of relative humidity and vapour pressure are found and the means are computed therefrom. These stations are indicated by the letter "H."

Cloud Amount.—The proportion of sky covered with cloud is estimated on the scale 0 to 10, the entry "0" being equivalent to clear sky "10" to overcast.

Visibility.—The observations are classified according to the following scheme—the distances, specified by international arrangement in metres, are given here in yards and miles:—

CODE.	RANGE OF VISION.
0	Less than 55 yards.
1	Exceeding 55 yards, less than 220 yards.
2	" 220 " " 550 "
3	" 550 " " 1,100 "
4	" 1,100 " " 1½ miles.
5	" 1½ miles " 2½ "
6	" 2½ " " 6½ "
7	" 6½ " " 12½ "
8	" 12½ " " 31 "
9	" 31 " "

Wind Summaries.—The estimates of wind force refer to the Beaufort Scale, and in general to the wind experienced at the time of observation. At Deerness, Cahirciveen, Richmond, Armagh, Eskdalemuir, Southport, Greenwich and Oxford the analysis refers to tabulations of autographic records. For Oxford the mean wind speed for half-an-hour centred at the hour of observation is used for conversion to "force" on the Beaufort Scale; for the remaining observatories the mean wind speed used for each observation refers to a period of one hour. In these cases winds equivalent to Force 1 are counted with the calms, whilst Forces 2 and 3 are taken together in the preceding column of the Table.

INTERPOLATED VALUES.

When the observations for any station for a month are incomplete and relevant data (e.g. records from neighbouring stations) which make it practicable to interpolate approximate values for the missing observations are available, such approximate values may be used for completing summaries for stations published in Tables III and IV. Parts of a summary obtained in this way are shown in brackets thus—(52.4).

STANDARD OF TIME.

As a rule observations are made in all parts of the British Islands according to Greenwich Mean Time, but at the following stations Local Mean Time is used for the observations summarised in Tables III and IV. The number of minutes after Greenwich Time is shown in brackets—Darwen (10), Rhayader (15), Ashburton (15), Tavistock (17), Plymouth (15), Douglas (20), Armagh (26), Balbriggan (25), Lisburn (30), Newcastle, Co. Wicklow (30), Ballinacurra (30), Cork (34).

"Summer Time" is not used in the Monthly Weather Report, but at certain stations the hours of observation vary in the course of the year. For such stations all time entries are converted to G.M.T. before they are printed and the winter hours are given as the terminal hours in the annual tables. For the summer hours reference should be made to the appropriate months.

NORMALS.

In Table III the normals used are those for the 35 years 1881-1915. The normals of temperature and sunshine are published in the Book of Normals, Section I, those for rainfall in the Book of Normals, Section V.

The normals for pressure with which comparison is made in Table IV also refer to the period 1881-1915.

* In addition to the frequencies published in this Report (Tables III and IV), the Meteorological Office has issued since January, 1927, in the form approved by the International Commission for Air Navigation, monthly frequency tables of height of base of low cloud, and speed and direction of surface and upper winds.

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

SUMMARY OF OBSERVATIONS COMPILED FROM RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS.

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MAY, 1929. Considerable bright periods. First half of the month cool and unsettled, second half mainly dry with warm spell 22nd to 28th.

The weather during the first half of May was mainly cool and unsettled, with heavy rain from the 4th to the 8th and occasional thunderstorms but with considerable sunny periods. After the 15th most days were rainless over the greater part of the country, with much sunshine and warm weather from the 22nd to the 28th. Thunderstorms accompanied locally by heavy rain and hail occurred over wide areas on the 24th, 26th and 27th.

The weather during the first three days of the month was quiet and generally fair with low temperatures both by day and night. Sleet showers fell at Kirkwall on the 1st, at Glenbranter on the 2nd and at West Linton on the 2nd and 4th. The morning of May 1st was decidedly cold, amongst the lowest minimum temperatures in the screen recorded on that morning being 20° F. at Braemar, 21° F. at West Witton, 22° F. at Eskdalemuir and Houghall, 24° F. at Durham, 26° F. at Cambridge and 27° F. at Rothamsted. From the 4th to the 15th, cool unsettled weather with frequent rain at times and considerable bright periods prevailed generally. Strong winds were recorded in exposed places on the 5th, 6th, 13th and 14th and in a few places attained gale force on the 6th and 13th. Thunderstorms occurred over wide areas on the 4th, 7th, 8th, 14th and 15th.

On the 16th anticyclonic conditions became established and practically no rain fell throughout the country until the 21st when a depression on the Atlantic spread eastwards causing heavy rain in the west and north on the 22nd and 23rd. In the central and eastern districts of England, fine and sunny weather continued to prevail and day temperatures rose well above the normal and on the 23rd exceeded 80° F. in several districts, a day maximum of 81° F. being recorded as far north as York on that date. In the west and north the highest temperatures were attained later, generally on the 27th and 28th. Thunderstorms accompanied locally by heavy rain or hail occurred in several districts on the 24th, 26th and 27th.

During the last few days of the month an anticyclone off the north-west coasts gave north-easterly winds over most of the country and dry cool weather. In the extreme south-west of England, however, much rain was experienced from the 27th to the 30th.

Pressure and Winds.—Apart from anticyclonic conditions from the 16th to about the 20th and again during the last few days of the month, pressure was relatively low during the greater part of the month, several depressions passing north-eastwards across Ireland and Scotland. Monthly means of atmospheric pressure were below the normal except in the east and south-east where they were about normal. Winds were most frequently from the south-western quadrant, but during the first three days, and from the 17th to the 21st, and during the last four days, the wind in most districts had an easterly component. Strong winds were experienced in exposed places on the 5th, 6th, 13th, 14th, 29th and 30th and in some places gale force was attained. Gusts of 60 mi/hr and over were recorded at a few places in the east and south-east of England on the 6th and in the south of Ireland on the 13th; the highest recorded gust was 68 mi/hr at St. Mary's (Scilly) on the 6th.

Temperature.—The mean temperature for the month was above the normal in Ireland and the northern districts of Great Britain, and about normal in the southern districts. On most days during the first half of the month and on the last few days, day temperatures were below the normal in most districts, while at the beginning of the month the nights were decidedly cold. The warmest period of the month extended from about the 22nd to the 28th; in the eastern and south-eastern districts of England the temperature on the 23rd reached or exceeded 80° F. locally. In western and northern districts the highest temperatures were recorded about the 27th. Ground frost occurred fairly frequently, mostly during the first half of the month. Severe ground frost occurred in many districts on the morning of the 1st, amongst the lowest temperatures recorded on the grass being 17° F. at Durham, 18° F. at Richmond (Kew Observatory) and 19° F. at Cambridge and Rothamsted.

The extreme temperatures of the month were:—(England and Wales) 84° F. at Wisbech, London (Camden Square) and Canterbury on the 23rd and 21° F. at West Witton on the 1st. (Scotland) 77° F. at Ruthwell on the 26th and 27th, and 20° F. at Braemar on the 1st. (Ireland) 75° F. at Markree Castle (Co. Sligo), Kilkenny, Cahirciveen and Cork on the 28th and 25° F. at Hazelhatch (Co. Dublin) on the 1st.

Precipitation.—Apart from an excess of precipitation around the Firths of Forth and Tay and locally in the east of England, monthly totals of precipitation were below the normal in the north and east of Scotland, the eastern, central and parts of the north-western districts of England and in the west of Ireland. In the south and south-west of England, the greater part of Wales, the west of Scotland and in north-eastern, south-eastern and southern Ireland there was a considerable excess. Precipitation occurred most frequently during the first half of the month and was both widespread and heavy during the period 4th to 8th. Apart from heavy local falls associated with thunderstorms around the 24th and 26th the weather after the 15th was almost rainless except in the south-west of England, southern Ireland and western Scotland. Heavy falls were recorded widely on the 5th and 6th, in western districts on the 22nd and 23rd and in several places in association with thunderstorms on the 24th and 26th. Amongst the largest daily measurements were 37 mm. at Eskdalemuir on the 4th, 56 mm. at Dean Prior (Devonshire) and 52 mm. at Princetown (Devonshire) on the 5th, 56 mm. at Glencroe, 41 mm. at Ardtornish, 30 mm. at Colmonell and 39 mm. at Newtownbarry on the 22nd, and 44 mm. at Cambridge on the 24th. At Cambridge and Rothamsted where the month's rainfall exceeded the normal, the fall on the 24th contributed 62 per cent. and 35 per cent. respectively of the month's total.

Thunderstorms, accompanied by heavy rain or hail showers locally, occurred in many districts on the 7th, 8th, 14th, 15th, 24th, 26th and 27th.

Hail showers of unusual severity accompanied the thunderstorms in many places. At Ross-on-Wye heavy hail accompanied a thunderstorm on the 7th, some of the stones measuring three-eighths to half an inch in length. A heavy fall of hail associated with a severe thunderstorm occurred at Lewisham in the south-east of London on the 24th.

In many parts of the country the total precipitation for the first five months of the year is without parallel for its smallness. At Belper (Derbyshire) where observations of rainfall have been made continuously since 1877, the total rainfall for the first five months of 1929 is the lowest on record and only 53 per cent. of the normal amount for those five months. At Richmond (Kew Observatory) the total for the first five months of 1929, viz., 92 mm. is 19 per cent. less than the total for the corresponding period since 1874. At Greenwich the total for the first five months of 1929 was slightly greater than in 1874 but with this exception is the lowest total for a corresponding period since 1815.

The general precipitation of the British Isles expressed as a percentage of the normal for the period 1881–1915 was 105: the values for the constituent countries were:—England and Wales 103, Scotland 107, Ireland 109.

Sunshine.—Monthly totals of bright sunshine were in general above the normal, notably in the north-western, central and eastern districts of England and in the west of Scotland. Representative totals for districts, expressed as a percentage of the normal for the period 1881–1915, varied from 97 in the Channel Isles to 126 in England N.W. and N. Wales. Good sunshine records were obtained in many districts during the first three days of the month, from the 7th to the 10th in England and Wales, in the north and west on the 12th, widely on the 16th and 17th and from the 19th to the 21st, on the 22nd and 23rd in eastern England, on the 24th in Ireland and south-west England, and in several districts from the 25th to the 28th and on the 30th and 31st. During the week 19th to 25th, Gorleston recorded 93 hours, an average of 13.3 hours per day.

Fog.—Fog occurred locally in several districts on the 2nd and 3rd, in southern districts on the 10th and 11th and in many districts on the 21st, and between the 25th and 28th.

Miscellaneous Phenomena.—Solar halo phenomena were observed at a few stations on various dates.

TABLE I.—DISTRICT VALUES—MAY, 1929.

[1908, revised 1928.]

DISTRICTS.	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High-est.	Low-est.	Daily Mean. Deviation from Normal.	At 1 ft. Deviation from Normal.	At 4 ft. Deviation from Normal.	Per-cent- age of Normal.	No. of Days. Deviation from Normal.	Per-cent- age of Normal.	Per-cent- age of Possible Duration.
o. SCOTLAND, N.	°F. 73	°F. 26	°F. +1.5	°F. —	°F. —	% 95	—2	% 105	% 36
Eastern.									
1. SCOTLAND, E.	74	20	+1.0	—	—	101	—2	103	36
2. ENGLAND, N.E.	81	21	+1.0	—1.0	—1.1	62	—2	109	40
3. ENGLAND, E...	84	26	0.0	—2.0	—2.5	112	—3	116	51
4. MIDLAND COUNTIES	81	24	+0.7	—0.9	—1.1	77	—2	118	46
5. ENGLAND, S.E.	84	25	0.0	—0.7	—1.0	95	—3	119	53

DISTRICTS.	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High-est.	Low-est.	Daily Mean. Deviation from Normal.	At 1 ft. Deviation from Normal.	At 4 ft. Deviation from Normal.	Per-cent- age of Normal.	No. of Days. Deviation from Normal.	Per-cent- age of Normal.	Per-cent- age of Possible Duration.
Western.	°F.	°F.	°F.	°F.	°F.	%		%	%
6. SCOTLAND, W. (& I. of Man)	77	22	+0.4	—	—1.9	134	0	116	43
7. ENGLAND, N.W. (& N. Wales)	79	28	+1.1	—0.6	—0.8	98	—2	126	51
8. ENGLAND, S.W. (& S. Wales)	77	27	0.0	—1.2	—1.7	141	0	106	46
9. IRELAND, N...	75	28	+0.8	—0.7	—0.7	109	—2	111	42
10. IRELAND, S...	75	25	+0.2	—0.1	—0.7	132	+2	103	42
11. CHANNEL I. (& Scilly)	78	35	—1.0	—0.1	—0.1	181	+2	97	50
Mean: DISTRICTS 1—10	84	20	+0.5	—0.9	—1.3	106	—1	113	45

TABLE II.—SUMMARY OF AUTOGRAPHIC RECORDS OF WIND.—MAY, 1929.

[1914.]

DISTRICT AND STATION.	Height.			Distribution of Wind.††								Extreme Velocities.							
	Above Mean Sea Level.	Above Ground.	Above Building.	More than 38 mi/hr.		25 to 38 mi/hr.		13 to 24 mi/hr.	4 to 12 mi/hr.	Less than 4 mi/hr.	No Record.	Highest Hourly Wind.				Highest Gust.			
				Dates of Occurrence.	Duration.	No. of Days.	Duration.	Duration.	Duration.	Duration.	Duration.	Veer from N.	Speed.	Mid Time.		Speed.	Time.		
o. SCOTLAND, N.	ft.	ft.	ft.		hr.		hr.	hr.	hr.	hr.	hr.	°	mi/hr.	m/s.	day. hr.	mi/hr.	m/s.	d. h. m.	
Shetlands Lerwick ..	310	42	33†	—	0	5	18	189	322	215	0	250	33	15	7 16	48	21	7 15 15	
Orkneys Deerness (Cup Anr.)	188	16	5	—	0	6	20	250	411	49	14	250	34	15	7 11	—	—	—	—
1. SCOTLAND, E.																			
Aberdeen Aberdeen ..	70	42	33†	—	0	—	0	186	474	84	0	150	21	9	4 7	37	16	4 6 50	
Kincardine Balmakewan ..	140	25	18	—	0	—	0	60	(435)	(249)	0	250	24	11	10 17	44	20	10 16 35	
Edinburgh Edinburgh ..	485	39	31†	—	0	3	9	142	338	255	0	210	29	13	10 9	45	20	10 21 50	
6a. SCOTLAND, W.																			
Argyll Tiree ..	80	55	48†	—	0	6	28	229	336	127	24	180	32	14	13 13	43	19	13 13 10	
Renfrew Paisley ..	188	81	15	—	0	—	0	138	456	150	0	120	23	10	22 24	43	19	4 2 35	
Dumfries Eskdalemuir ..	825	50	22	—	0	9	46	286	278	132	2	210	33	15	10 10	48	21	14 10 45	
2. ENGLAND, N.E.																			
Durham South Shields ..	62	46	20	—	0	1	2	107	355	276	4	350	26	12	29 12	39	17	14 14 50	
York, E.R. Spurn Head ..	67	41	35†	—	0	7	37	342	329	27	9	200	37	17	6 13	49	22	6 13 25	
Lincoln Cranwell ..	284	44	26†	—	0	2	13	253	416	62	0	180	31	14	6 11	53	24	14 15 10	
3. ENGLAND, E.																			
Norfolk Gorleston ..	52	42	33†	6	2	6	23	357	300	62	0	200	40	18	6 13	64	29	6 13 15	
Suffolk Felixstowe Aero. ..	55	40	25	—	0	3	21	356	(289)	(78)	0	210	37	17	6 15	49	22	6 14 45	
Essex Shoeburyness ..	115	104	14†	—	0	5	31	329	307	65	12	220	36	16	6 15	57	25	6 13 55	
4. MIDLAND COUNTIES.																			
Warwick Birmingham ..	643	118	18	—	0	1	1	240	463	40	0	250	27	12	6 16	49	22	6 9 0	
5. ENGLAND, S.E.																			
Surrey Richmond (KewObs)	82	65	22	—	0	2	10	289	366	149	0	190	33	15	6 11	57	25	6 11 5	
Surrey Croydon ..	313	105	49	6	5	5	26	286	291	136	0	200	44	20	6 11	67	30	6 9 40	
Kent Dover ..	61	32	22	—	0	10	47	301	323	73	0	—	38	17	27 22	50	22	27 22 5	
Kent Lympne ..	409	70	55†	6	1	10	52	340	317	34	0	200	39	17	6 14	56	25	6 10 40	
Hampshire Calshot ..	55	50	32†	6	3	7	50	295	316	80	0	240	43	19	6 10	64	29	6 9 45	
Hampshire Worthy Down ..	314	43	27†	—	0	4	15	230	387	112	0	160	34	15	6 9	58	26	6 9 55	
7a. ENGLAND, N.W.																			
Lancashire Fleetwood ..	112	50	12	—	0	2	5	207	427	105	0	310	32	14	6 16	44	20	14 16 15	
Lancashire Southport ..	77	59	45†	6	1	6	33	368	335	7	0	280	39	17	6 16	49	22	6 16 40	
Lancashire Liverpool (Bidston)	253	64	35	—	0	3	25	338	347	34	0	290	36	16	6 16	53	24	6 16 10	
7b. NORTH WALES.																			
Anglesey Holyhead ..	64	45	29†	29	1	11	79	318	280	66	0	70	41	18	29 10	51	23	29 9 50	
Flint Sealand ..	81	65	49†	—	0	2	2	172	449	121	0	290	27	12	15 12	48	21	14 13 30	
8b. ENGLAND, S.W.																			
Devon Plymouth ..	185	88	2	—	0	7	41	253	284	166	0	—	36	16	6 2	57	25	30 16 5	
Cornwall Pendennis Castle ..	256	65	24	—	0	—	—	Instrument dismantled.											
9. IRELAND, N.																			
Donegal Dunfanaghy Road	180	47	39	—	0	3	8	204	330	199	3	—	32	14	10 20	48	21	10 20 10	
Antrim Aldergrove ..	282	40	27†	—	0	2	2	210	395	137	0	160	25	11	13 12	49	22	22 16 55	
10. IRELAND, S.																			
Dublin Kingstown (CupAnr.)	49	27	16	14	3	9	41	236	363	101	0	250	43	19	14 11	—	—	—	—
Clare Quilty ..	100	40	32†	13, 14	4	6	31	287	324	49	49	—	40	18	13 23	60	27	13 23 5	
Kerry Cahirciveen (Val. O.)	98	41	34†	—	0	6	39	349	298	58	0	220	38	17	13 19	58	26	13 18 50	
Cork Weaver Pt. ..	160	30	21†	—	0	5	21	208	387	128	0	—	34	15	13 19	60	27	13 21 30	
11. SCILLY ISLES.																			
St. Mary's..	230	65	17	6	2	11	104	320	217	101	0	320	46	21	6 6	68	30	6 6 0	

†† Brackets () indicate that the distribution as between winds above and below 4 m.p.h. is doubtful, but the total number of hours with winds below 12 m.p.h. is reliable.

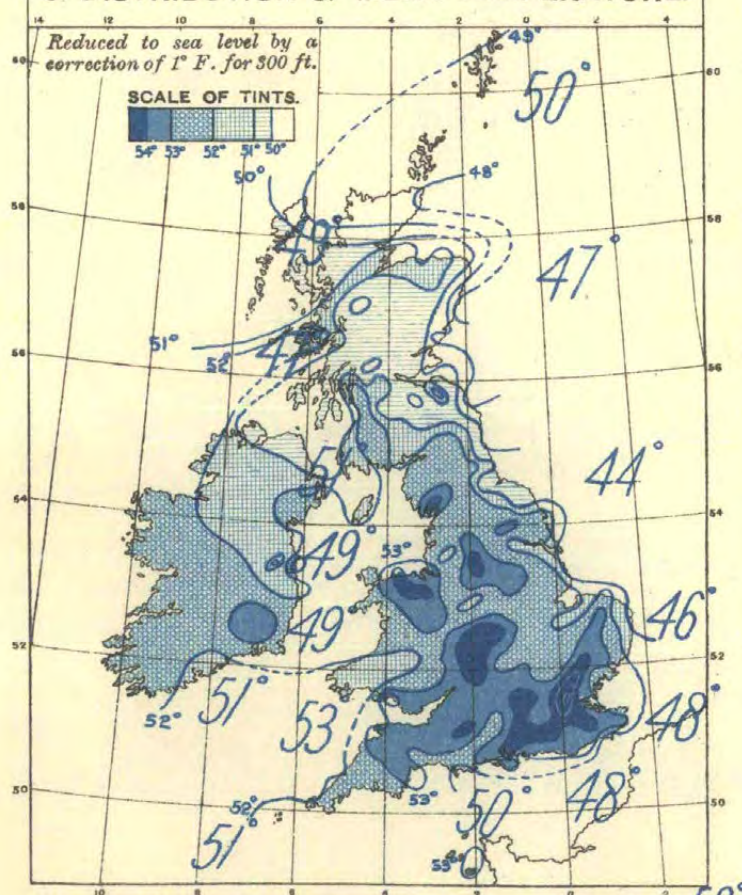
† Standard mounting.

The dotted lines indicate the normal distribution of pressure in *May*, based on 35 years' observations, 1881-1915.

3. DISTRIBUTION OF MEAN TEMPERATURE.

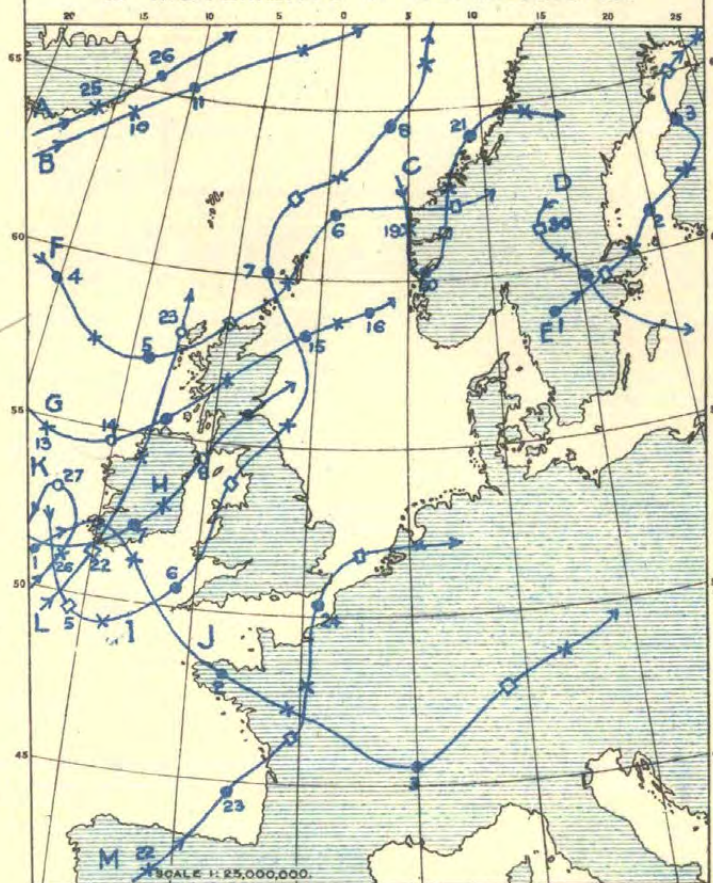
3. DISTRIBUTION OF MEAN TEMPERATURE.

SCALE OF TINTS.



Sea temperatures are shown in large figures, thus: 50°

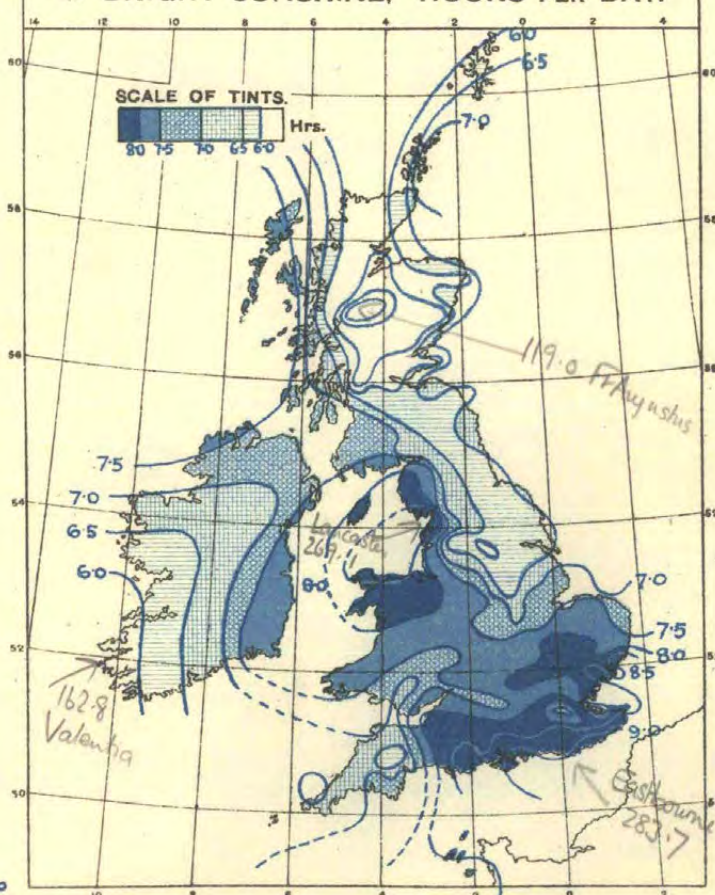
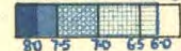
2. MOVEMENTS OF DEPRESSIONS.



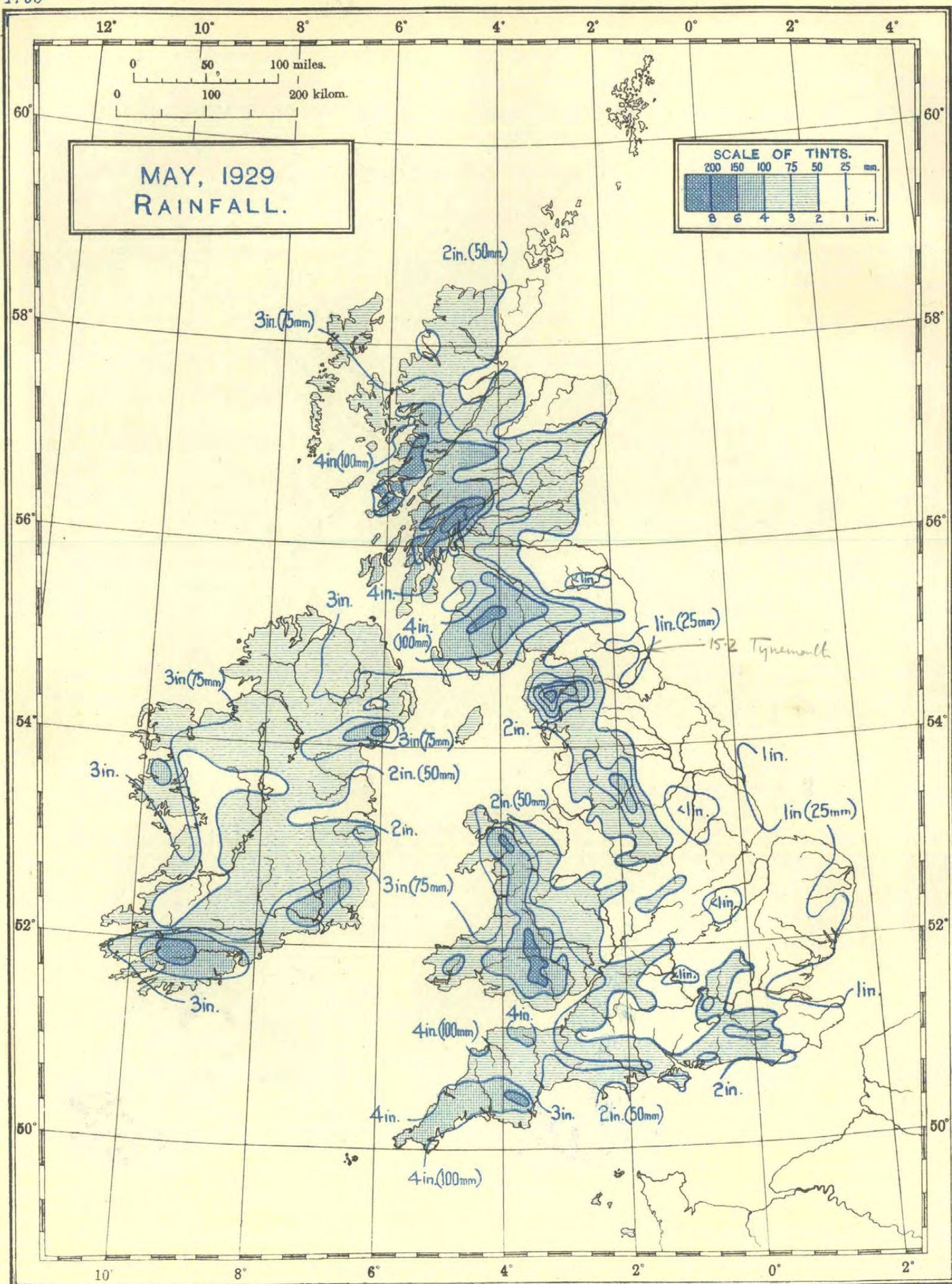
Positions of centres are shown thus:- \bigcirc at 1h; \bullet at 7h; \square at 13h; \times at 18h.

4. BRIGHT SUNSHINE, HOURS PER DAY.

SCALE OF TINTS



H.M. Stationery Office Press, Kingsway W.C.2.



Scale 1 : 5,000,000.

Pd. 1538/1913. Pb. 9/A D. 16. 1/23. 6/29.

The equivalent values in mm. are given in round numbers. The exact relation is 10 in. = 254 mm.

TABLE III.—SUMMARY OF THE RECORDS OF TEMPERATURE, RAINFALL AND SUNSHINE, and of WEATHER OBSERVATIONS, MAY, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.										
					Means of		Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.			Deviation from Normal.	Most in a day.		Precip'n.		Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.		Per Cent.										
								Maximum.	Date.	Minimum.	Date.																			Amount.	Date.	0.2 mm. or more.	1 mm. or more.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.
Max.	Min.	Rain.	Max.	Min.	Mean of A and B.	Deviation from Normal.	Maximum.	Date.	Minimum.	Date.	1 ft.	4 ft.	Total Fall.	Deviation from Normal.	Amount.	Date.	0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.											
0. SCOTLAND, N.																																							
Shetlands.	Baltasound	9 9 9	31	52.9	43.0	47.9	—	63	26th	34	3rd	47.9	—	2.14	54	—	13	8th	16	10	2	0	2	1	2	—	0 5.64	—	32										
	Lerwick	18-7 7	54	51.7	44.3	48.0	+2.8	63	27th	36	3rd	—	—	1.88	48	—	11	4th	12	10	0	0	2	0	2	—	0 6.04	-0.46	35										
Orkneys.	Deerness	2121 9	160	53.0	43.0	48.0	+1.7	64	26th	35	2nd	—	—	1.69	43	—	8	7	15	10	0	0	1	1	2	—	0 7.18	+1.44	43										
	Kirkwall	9 9 9	151	53.5	42.7	48.1	—	65	26th	33	3rd	—	—	1.66	42	—	12	6th	13	10	1	0	0	0	0	4	1 7.26	—	43										
Hebrides.	Skallary	9 9 9	20	55.0	45.2	50.1	—	66	27th	35	1st	—	—	2.56	65	—	14	23rd	15	12	0	0	0	0	—	0 —	—	—	—										
	Stornoway	18-7 7	30	54.9	42.1	48.5	+1.0	64	19th	26	1st	—	—	2.22	57	—	8	7	18	17	0	0	0	0	—	0 7.63	+1.47	46											
Caithness.	Wick	18-7 7	81	51.6	42.4	47.0	+1.1	63	26th	30	2nd	—	—	1.94	49	—	4	9	14th	16	12	0	0	1	0	1	—	—	—										
Ross & Cromarty.	Achnashellach	9 9 9	225	58.7	42.2	50.5	+2.5	73	27th	29	1st	—	—	3.52	89	—	26	21	26th	16	13	0	0	0	0	8	0 —	—	—										
	Fortrose	9 9 9	69	58.0	43.8	50.9	—	70	26th	32	1st	—	—	1.76	45	—	26	6th	15	7	0	0	0	0	—	0 5.55	—	34											
	Strathpeffer	9 9 9	125	59.5	42.1	50.8	+1.7	73	26th	32	1, 5, 9	—	—	1.74	44	—	3	12	6th	17	10	0	0	0	0	—	—	—	—										
Inverness.	Ft. Augustus	9 9 9	68	57.7	41.4	49.5	+0.8	73	26th	27	1, 2	—	—	2.48	63	—	2	20	6th	19	13	0	0	0	0	—	0 3.84	-0.51	23.5										
	Inverness	9 9 9	242	57.7	43.4	50.5	+1.3	72	26th	31	1st	—	—	1.99	51	—	5	31	6th	9	6	0	0	1	0	2	0 5.60	-0.28	34										
1. SCOTLAND, E.																																							
Nairn.	Nairn	18-7 7	82	57.9	42.2	50.1	+1.3	69	26th	27	1st	—	—	2.62	67	—	21	35	6th	15	6	0	0	0	1	0	—	0 5.55	-0.14	34									
Elgin.	Gordon Castle	2121 9	104	59.6	42.9	51.3	+2.3	73	26th	32	1st	—	—	1.34	34	—	20	12	6th	14	9	0	0	0	1	—	0 6.30	—	38.8										
Banff.	Banff	9 9 9	130	56.8	43.5	50.1	—	71	26th	32	3rd	—	—	0.98	25	—	9	6th	12	5	0	0	0	1	0	3	0 6.80	—	41										
Aberdeen.	Aberdeen	2424 24	37	54.3	43.5	48.9	+1.2	65	26th	31	1st	—	—	2.28	58	—	1	18	6th	16	11	0	0	2	2	5	0 5.78	-0.25	35										
	Balmoral	9 9 9	927	56.2	37.6	46.9	—	72	27th	23	1st	—	—	2.02	51	—	8	17	6th	18	11	0	0	0	1	—	0 —	—	—										
	Braemar	2121 9	1120	56.5	37.9	47.2	+1.0	72	27th	20	1st	—	—	2.82	72	—	12	19	5th	16	13	0	0	0	3	2	8	0 —	—	—									
	Craibstone	9 9 9	300	55.2	41.5	48.3	—	67	26th	30	3rd	—	—	2.33	59	—	16	6th	17	12	0	0	1	2	—	3	0 6.23	—	38.8										
	Logie Coldstone	9 9 9	608	58.7	40.0	49.3	—	72	26, 27	25	1st	—	—	1.49	38	—	25	13	6th	17	12	0	0	0	2	1	11	0 —	—	—									
Kincardine.	Stonehaven	9 9 9	93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—										
Angus	Arbroath	2121 9	93	56.0	41.8	48.9	—	65	20, 27	29	1st	—	—	2.67	68	—	14	6th	13	12	0	0	2	4	1	9	0 6.57	—	40										
(Forfar)	Carnoustie	9 9 9	39	55.1	40.9	48.0	—	62	25, 28	29	1st	—	—	2.57	65	—	13	6th	13	12	0	0	1	3	—	—	0 6.17	—	38										
	Dundee (E. Nec.)	2121 9	198	56.7	42.7	49.7	+0.3	67	25th	28	1st	—	—	2.39	61	—	8	12	6th	13	12	0	0	0	3	—	—	0 —	—	—									
	Mayfield	9 9 9	147	57.2	43.1	50.1	0.0	67	25th	30	1st	—	—	2.46	63	—	12	13	6th	12	12	0	0	0	8	—	3	0 5.49	-0.40	34									
	Kettins	9 9 9	218	58.5	41.0	49.7	—	71	27th	25	1st	—	—	2.82	72	—	13	6th	13	11	0	0	1	1	0	6	0 —	—	—										
	Montrose	9 9 9	16	54.0	41.0	47.5	—	64	26th	29	1st	—	—	2.03	51	—	13	6th	12	10	0	0	0	3	1	—	0 5.38	—	33										
Perth.	Crieff	2121 9	478	57.8	40.8	49.3	-0.8	74	27th	29	1st	—	—	2.70	69	—	6	17	6th	14	11	0	0	0	0	—	—	0 —	—	—									
	Perth	9 9 9	76	59.9	42.1	51.0	+1.2	74	27th	25	1st	—	—	2.35	60	—	4	15	6th	15	12	0	0	2	2	—	—	0 5.30	—	33									
Fife.	Cupar	9 9 9	210	57.9	42.3	50.1	—	68	27th	29	1st	—	—	2.41	61	—	15	6th	13	13	0	0	0	3	—	—	0 —	—	—										
	Inchkeith	18-7 7	190	54.5	43.9	49.2	—	63	25th	35	1st	—	—	1.43	36	—	12	4th	10	8	0	0	0	5	1	2	0 6.26	—	39										
	Kirkcaldy	9 9 9	66	57.9	43.3	50.6	—	68	25th	29	1st	—	—	2.38	61	—	17	4th	13	11	—	—	—	—	—	—	—	—	—										
	Leuchars	18-7 7	30	56.0	41.9	48.9	—	65	25th	28	1st	—	—	2.83	72	—	14	6th	14	12	0	0	4	4	1	4	0 6.21	—	38										
	St. Andrews	9 9 9	20	56.6	42.8	49.7	—	66	25th	29	1st	—	—	2.49	63	—	13	6th	14	13	0	0	0	3	0	2	—	0 5.97	—	37									
Linlithgow.	Bangour	2121 9	587	56.2	40.4	48.3	—	68	21st	26	1st	—	—	1.79	45	—	13	4th	14	10	0	0	2	4	0	—	—	0 —	—	—									
Edinburgh.	Blackford Hill	2121 9	441	56.0	43.2	49.6	+1.1	66	21st	33	1, 3	—	—	1.34	34	—	14	8	8th	12	8	0	0	0	1	—	4	0 6.36	+0.78	39									
	Boghall	9 9 9	645	55.9	40.9	48.4	—	67	21st	28	1st	—	—	1.61	41	—	11	4th	12	9	0	0	3	2	0	3	1 5.94	—	37										
	Edin. Univ.	9 9 9	227	57.9	44.6	51.3	—	68	21st	33	1st	—	—	1.56	40	—	11	16	8th	12	7	—	—	—	—	—	—	—	—	—									
	Liberton	9 9 9	190	58.5	—	—	—	68	21, 25	—	—	—	—	1.54	39	—	11	8th	11	9	0	0	2	2	—	—	0 —	—	—										
Haddington.	N. Berwick	9 9 9	152	58.5	42.3	50.4	—	69	21st	30	1st	—	—	1.74	44	—	11	4th	10	9	0	0	1	4	0	2	0 6.74	—	41										
	Smeaton	9 9 9	100	59.7	40.9	50.3	—	70	24th	27	1st	—	—	1.59	40	—	12	12	4th	11	9	0	0	2	4	0	7	0 —	—	—									
Berwick.	Marchmont	9 9 9	498	58.6	40.5	49.5	+1.2	72	24th	30	1, 3	—	—	1.71	43	—	20	16	8th	13	9	0	0	0	3	—	—	0 6.51	+0.86	40									
Peebles.	West Linton	9 9 9	770	56.5	37.6	47.1	+0.4	68	27th	24	1st	—	—	1.58	40	—	13	4th	15	8	2	0	1	3	—	12													

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, MAY, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.				
					Means of		Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.			Deviation from Normal.	Most in a day.	Precip'n.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.								
								Maximum.	Date.	Minimum.	Date.														Amount.	Date.	0.2 mm. or more.	1 mm. or more.	Daily Mean.	Deviation from Normal.	Per Cent.		
																																A	B
		Max.	Min.	Rain.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	1 ft.	4 ft.	in.	mm.	mm.	mm.	8th	7	4	0	0	0	2	1	1	0	6.20	hr.	hr.	%
2. ENGLAND, N.E.		G.M.T.	ft.																														
Northumberland.	Berwick-on-T.	9 9 9	76		54.5	42.3	48.4	—	65	25th	32	1, 4	—	—	1.07	27	—	8	8th	7	4	0	0	0	2	1	1	0	6.20	—	—	38	
	Bellingham	9 9 9	848		59.7	39.5	49.6	—	73	27th	26	1st	—	—	1.60	41	—	8	4th	14	13	—	—	—	—	—	—	—	—	—	—		
	Cockle Park	2121 9	325		57.7	39.9	48.8	+1.4	70	23rd	28	1st	48.9	46.4	1.45	37	19	14	6th	12	9	0	0	0	1	0	5	0	6.63	+0.76	41		
	Tynemouth	18-7 7	67		55.2	44.5	49.7	+1.0	68	25th	32	1st	—	—	0.60	15	36	4	6th	11	6	0	0	0	1	1	3	0	—	—	—	—	
Durham.	Chopwellwood	9 9 9	445		60.5	39.2	49.9	—	73	23, 24	25	1st	—	—	1.23	31	—	8	6th	12	10	0	0	0	0	0	12	0	6.66	—	—	42	
	Durham	2121 9	336		58.6	40.5	49.5	+0.4	72	23, 24	24	1st	—	—	0.89	23	26	4	6th	11	10	0	0	1	1	0	3	0	6.29	+0.94	39		
	Houghall	9 9 9	160		59.9	39.8	49.9	—	74	23rd	22	1st	—	—	0.98	25	—	4	6, 10	11	10	0	0	1	1	0	11	0	6.37	—	—	40	
	Ushaw College	9 9 9	594		59.0	42.0	50.5	—	73	24th	29	1st	—	—	1.21	31	24	6	6th	11	10	0	0	2	1	5	—	—	—	—	—	—	
York, N. Riding.	Ampleforth	9 9 9	—		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Castleton	9 9 9	425		59.3	39.0	49.1	—	76	23rd	23	1st	48.1	—	1.29	33	—	5	11th	15	11	0	0	0	1	0	—	—	—	—	—	—	
	Rounton	2121 9	249		60.3	41.0	50.7	+1.8	76	23, 24	27	1st	48.5	—	1.93	49	2	11	15th	14	13	0	0	0	2	0	13	0	—	—	—	—	
	Scarborough	9 9 9	118		58.9	44.3	51.6	+1.9	77	23rd	33	1st	—	49.7	1.42	36	12	10	12th	12	8	0	0	2	1	0	1	0	6.55	+0.36	41		
York, E. Riding.	West Witton	9 9 9	605		59.9	41.8	50.9	—	74	23rd	21	1st	50.2	44.6	1.47	37	—	7	4th	14	11	0	0	0	1	—	5	1	—	—	—	—	
	York	2121 9	56		62.3	43.3	52.8	+1.1	81	23rd	30	1st	50.2	46.8	1.35	34	17	8	15th	14	9	0	0	1	2	—	—	0.531	-0.17	33			
	Hull	2121 9	8		60.8	43.2	52.0	+1.4	79	23rd	30	1st	50.8	46.2	1.26	32	17	7	5th	11	8	0	0	1	2	4	9	0	6.30	—	—	40	
	Osgodby	2121 9	30		62.5	40.3	51.4	—	81	23rd	28	1st	—	—	1.14	29	—	6	5th	11	8	0	0	1	2	0	7	1	6.10	—	—	38	
Lincoln.	Spurn Head	18-7 7	29		55.8	44.2	50.0	-0.1	69	22nd	36	1st	—	—	0.94	24	24	5	5th	12	8	0	0	0	2	1	—	1	6.57	—	—	42	
	Cranwell	9 9 9	236		61.7	41.0	51.3	0.0	81	23rd	28	3rd	51.9	47.6	1.00	25	21	7	5th	9	6	0	0	0	1	1	7	0	7.28	+0.73	46		
	Cleethorpes	9 9 9	23		58.5	43.3	50.9	—	78	23rd	32	1st	—	—	1.04	26	—	7	15th	10	8	0	0	2	2	0	—	0	6.25	—	—	40	
	Skegness	9 9 9	12		57.2	43.9	50.5	+0.4	72	23rd	28	1st	—	—	0.89	23	20	10	5th	10	5	0	0	0	2	0	—	0	7.00	+0.23	44		
3. ENGLAND, E.																																	
Norfolk.	Cromer	9 9 9	150		58.4	44.5	51.5	+0.6	82	23rd	34	4th	—	—	1.08	27	15	7	6th	9	6	0	0	2	2	3	3	0	6.89	+0.28	44		
	Hunstanton	9 9 9	105		59.2	44.5	51.9	—	81	23rd	36	3, 4	—	—	1.13	29	—	13	5th	8	6	0	0	0	1	0	—	0	7.02	—	—	45	
	Norwich	9 9 9	98		62.9	43.1	53.0	+0.6	83	23rd	30	1st	52.5	—	0.94	24	25	6	5th	7	6	0	0	0	1	—	5	—	8.17	—	—	52	
	Sprowston	9 9 9	93		60.0	41.9	50.9	—	79	23, 24	29	4th	—	—	1.00	25	—	6	5th	8	6	0	0	0	2	1	10	0	7.85	—	—	50	
Suffolk.	Yarmouth	18-7 7	14		55.5	44.6	50.1	-0.5	64	24, 25	32	1st	52.9	48.2	0.83	21	23	5	12th	11	5	0	0	1	1	2	1	1	7.18	-0.09	46		
	Bungay (Flix'n)	9 9 9	79		62.1	41.8	51.9	—	79	23rd	29	1st	—	—	0.89	23	—	7	5th	8	6	0	0	0	3	0	11	0	—	—	—	—	
	Copdock	9 9 9	164		61.7	42.6	52.1	—	78	23rd	30	1st	51.8	48.1	1.55	39	—	11	4th	8	8	0	0	1	2	0	4	0	7.89	—	—	50	
	Felixstowe	18-7 7	15		57.8	44.3	51.1	—	71	25th	30	1st	—	—	0.94	24	—	9	5th	7	6	0	0	0	2	1	3	1	8.64	—	—	55	
Cambridge.	Lowestoft	9 9 9	83		55.2	44.3	49.7	-0.7	66	23rd	32	1st	51.9	48.2	0.74	19	22	8	4th	7	3	0	0	0	1	2	2	0	7.26	-0.13	46		
	Cambridge (Bot. Gdns.)	2121 9	41		62.9	41.7	52.3	-0.5	80	23rd	26	1st	52.4	48.9	2.81	71	26	44	24th	9	9	0	0	0	3	0	9	0	8.02	+1.50	51		
	Wisbech	2121 9	10		61.4	41.9	51.7	—	84	23rd	26	1st	—	—	1.19	30	—	13	24th	9	6	0	0	1	3	0	7	2	7.50	—	—	48	
	Cardington	18-7 7	100		62.5	42.7	52.6	—	81	23rd	26	1st	—	—	1.13	29	—	6	24th	11	6	0	0	0	2	1	3	1	8.45	—	—	54	
Bedford.	Luton	9 9 9	390		61.6	40.2	50.9	—	79	23rd	26	1st	49.3	47.7	1.35	34	—	11	24th	10	8	0	0	0	2	0	10	0	8.89	—	—	57	
	Woburn	9 9 9	291		61.0	42.1	51.5	+0.2	78	23rd	26	1, 9	54.3	48.9	1.68	43	6	15	24th	10	7	0	0	1	2	0	—	0	7.84	—	—	50	
	Rothamsted	9 9 9	420		60.3	42.7	51.5	-0.3	78	23rd	27	1st	50.8	—	2.85	72	23	25	24th	13	10	0	0	3	2	0	7	1	8.42	+2.03	54		
	St. Albans	9 9 9	272		61.8	41.5	51.7	—	78	23rd	26	1st	53.0	—	2.06	52	—	10	24th	12	11	—	—	—	—	0	9	—	—	—	—	—	
Essex.	Clacton-on-S.	18-7 7	55		57.6	46.1	51.9	+0.4	71	25th	32	1st	52.6	49.6	1.51	38	3	15	26th	8	6	0	0	0	1	1	1	0	8.38	+0.86	54		
	Chelmsford	9 9 9	134		62.0	42.6	52.3	—	79	23rd	28	1st	—	—	1.78	45	8	13	5th	10	7	0	0	0	2	—	—	0	—	—	—	—	
	Chelmsford (Good Easter)	9 9 9	185		62.4	41.1	51.7	—	78	23rd	27	1st	—	—	1.50	38	—	10	5th	10	7	0	0	0	2	0	15	0	8.58	—	—	55	
	Earls Colne	9 9 9	168		62.9	42.6	52.7	—	79	23rd	29	2nd	—	—	1.29	33	—	10	5th	8	7	0	0	0	4	—	2	1	—	—	—	—	
4. MIDLAND COUNTIES.	Halstead	9 9 9	139		63.8	42.3	53.1	—	81	23rd	27	1st	—	—	1.45	37	—	10	5th	8	7	0	0	0	3	0	—	1	—	—	—	—	
	Shoeburyness	18-																															

TABLE III (continued).—SUMMARY OF THE RECORDS OF TEMPERATURE, RAINFALL AND SUNSHINE, and of WEATHER OBSERVATIONS, MAY, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.										Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
					Means of				Absolute Maximum and Minimum.				Total Fall.				Deviation from Normal.	Most in a day.		Precip'n.		Snow lying.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.		Per Cent.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
					A	B	Mean of A and B.	Deviation from Normal.	Maximum.	Date.	Minimum.	Date.	1 ft.	4 ft.				Amount.	Date.	0.2 mm. or more.	1 mm. or more.						Snow.	Hail.		Daily Mean.	Deviation from Normal.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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		Max.	Min.	Rain.	°F	°F	°F	°F	°F	°F	°F	°F	°F	°F	in.	mm.	mm.	mm.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, MAY, 1929.

DISTRICT, COUNTY AND PLACE.			Terminal Hours of Observation.			Height of Station above Mean Sea Level.			AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.																												
									Means of A and B.				Absolute Maximum and Minimum.						Total Fall.		Deviation from Normal.		Most in a day.		Precip'n.		Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Mcurring Obs.)	Ground Frost.	Gale.	Hours per day.		Per Cent.																									
																																		Max.	Min.		Mean of A and B.	Deviation from Normal.	Maximum.	Date.	Minimum.	Date.	1 ft.	4 ft.	Amount.	Date.	0.2 mm. or more.	1 mm. or more.	Daily Mean.	Deviation from Normal.											
																														Max.	Min.	Mean of A and B.	Deviation from Normal.	Maximum.	Date.	Minimum.	Date.	1 ft.	4 ft.	Total Fall.	Deviation from Normal.	Amount.	Date.	0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Mcurring Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.						
8b. ENGLAND, S.W.—cont.																														G.M.T.	ft.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	in.	mm.	mm.	mm.												hr.	hr.	%
Devon.			Arlington ..	9 9 9	613	59.5	43.4	51.5	+0.6	72	20th	33	9th	—	—	4.68	119	+ 46	30	4th	12	11	0	0	2	3	—	2	0	—	—	—	—	—	—																										
			Ashburton ..	9 9 9	583	59.2	44.0	51.6	-1.5	72	28th	37	3rd	—	—	4.76	121	+ 53	37	5th	15	11	0	0	0	1	0	—	—	—	—	—	—	—	—																										
			Cullompton †	9 9 9	202	63.3	42.8	53.1	+0.2	74	28th	31	9th	54.4	—	2.67	68	+ 13	21	5th	14	14	0	0	1	2	0	8	06.02	-0.33	39	—	—	—																											
			Dean Prior ..	2121 9	331	59.6	42.8	51.2	—	72	28th	32	3rd	—	—	6.80	173	—	56	5th	15	13	0	0	2	1	—	7	3	—	—	—	—	—																											
			Ilfracombe ..	9 9 9	74	57.3	47.1	52.2	-0.8	69	28th	39	3rd	55.0	52.3	3.73	95	+ 45	23	4th	12	10	0	0	2	3	0	0	7.26	—	—	—	—	—																											
			Killerton ..	9 9 9	159	(61.1)	42.6	51.9	—	75	28th	32	9th	—	—	2.35	60	—	14	5th	15	12	0	0	1	0	—	—	—	—	—	—	—	—																											
			Newton Abbot ..	9 9 9	350	60.0	43.8	51.9	—	71	28th	35	9th	—	—	2.88	73	—	20	5th	13	10	0	0	0	1	0	3	06.47	—	—	—	—	—																											
			Plymouth (Hoe) ..	2121 9	116	58.6	46.5	52.5	-0.8	70	28th	37	1, 9	54.6	51.4	3.18	81	+ 28	23	5th	14	12	0	0	0	0	1	0	07.13	+0.13	46	—	—	—																											
			Plymouth (Cattewater) ..	18-7 7	82	57.2	46.2	51.7	—	70	28th	36	1st	—	—	3.02	77	—	22	5th	14	10	0	0	0	1	1	3	27.06	—	—	—	—	—																											
			Princetown ..	9 9 9	1359	54.8	42.4	48.6	—	67	28th	31	1st	—	—	7.90	201	—	52	5th	14	13	0	0	1	0	4	0	0	—	—	—	—	—	—																										
			Salcombe ..	9 9 9	39	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—																										
			Sidmouth ..	9 9 9	147	58.8	44.8	51.8	-0.3	73	28th	37	3rd	—	—	2.48	63	+ 13	21	5th	13	10	0	0	1	0	0	1	0	—	—	—	—	—	—																										
			(Sidmouth)																																																										
			Sidmouth †	9 9 9	25	59.2	44.7	51.9	—	76	28th	36	9th	—	—	2.34	59	—	19	5th	13	11	0	0	1	0	0	0	—	6.92	—	—	—	—	—																										
			Tavistock ..	9 9 9	458	59.4	43.8	51.6	—	70	28th	32	9th	—	51.3	5.11	130	—	29	5th	14	11	0	0	1	2	1	10	4	—	—	—	—	—	—																										
			Teignmouth ..	9 9 9	20	59.4	46.6	53.0	-0.5	70	28th	38	9th	—	—	2.59	66	+ 19	19	5th	14	10	0	0	1	2	0	0	2	7.02	—	—	—	—	—																										
			Torquay ..	9 9 9	12	60.2	47.7	53.9	+0.7	70	28th	39	3rd	—	52.0	2.27	58	+ 10	14	14th	12	11	0	0	3	1	0	0	2	7.35	-0.07	48	—	—	—																										
			Woolacombe ..	9 9 9	59	58.6	47.0	52.8	0.0	71	28th	39	2nd	—	—	2.93	74	+ 33	18	5th	10	10	0	0	2	1	0	0	0	7.30	+0.33	47	—	—	—																										
Cornwall.			Falmouth Obs. †	9 9 9	167	57.1	46.6	51.9	-0.5	62	16, 17	38	3rd	55.4	53.7	4.49	114	+ 58	27	4th	15	15	0	0	2	2	1	4	06.69	-0.76	44	—	—	—																											
			(Pendennis) ..	18-7 7	200	55.5	47.4	51.5	—	61	16th	40	9th	—	—	3.70	94	—	24	5th	16	13	0	0	0	0	0	—	06.88	—	—	—	—	—																											
			Fowey ..	9 9 9	51	59.7	45.7	52.7	—	67	17th	36	1, 9	—	—	3.06	78	—	23	5th	14	12	0	0	0	1	1	—	16.68	—	—	—	—	—																											
			Gulval ..	9 9 9	20	57.6	45.7	51.7	—	64	19th	37	9th	—	—	4.29	109	—	23	4th	17	15	0	0	0	1	—	0	06.49	—	—	—	—	—																											
			Newquay ..	9 9 9	190	57.2	45.1	51.1	-1.0	64	21, 28	37	1st	53.5	50.6	3.29	83	+ 41	23	5th	15	14	0	0	1	2	0	—	16.75	-0.35	44	—	—	—																											
			Redruth ..	9 9 9	397	57.7	45.2	51.5	—	65	21st	37	3rd	—	—	5.46	139	+ 80	26	4th	16	14	0	0	2	0	1	3	5	—	—	—	—	—																											
9. IRELAND, N.																																																													
Sligo.			Markree Cas. †	2121 9	122	60.1	42.1	51.1	+0.8	75	28th	28	7th	52.5	48.7	2.71	69	— 2	24	13th	18	11	0	0	1	0	0	—	06.72	+0.85	42	—	—	—																											
Mayo.			Blacksod Pt. †	18-7 7	10	57.2	46.6	51.9	+1.0	69	27, 31	38	9th	—	—	3.35	85	+ 13	14	3rd	15	14	0	0	1	1	0	—	1	—	—	—	—	—																											
			Mallary ..	9 9 9	120	58.9	45.3	52.1	—	74	28th	35	6, 7	—	—	3.32	84	—	15	9th	14	14	0	0	0	1	0	—	06.68	+0.57	42	—	—	—																											
Donegal.			Malin Head †	18-7 7	51	55.3	45.2	50.3	+0.7	65	25th	38	1, 2, 6	—	—	1.92	49	— 1	13	10th	15	10	0	0	0	0	0	—	07.66	+0.96	48	—	—	—																											
Antrim.			Aldergrove ..	18-7 7	238	58.8	42.1	50.5	—	71	27th	32	1st	—	—	2.69	68	—	13	22nd	15	9	0	0	1	0	0	8	07.48	—	—	—	—	—																											
			Belfast ..	9 9 9	13	60.5	45.4	52.9	—	71	27th	33	1st	—	—	2.58	65	—	10	22nd	12	11	0	0	0	0	1	0	—	—	—	—	—	—																											
			Lisburn ..	9 9 9	206	61.3	41.8	51.5	+0.7	73	27th	30	1st	—	—	2.25	57	— 4	13	22nd	11	8	0	0	0	0	0	—	—	—	—	—	—	—																											
Down.			Donaghadee ..	18-7 7	40	55.8	43.9	49.9	-0.2	65	28th	32	1st	—	—	2.95	75	+ 17	14	4th	14	11	0	0	2	0	0	—	—	—	—	—	—	—																											
Armagh.			Armagh †	2121 9	204	59.6	43.7	51.7	+1.0	70	27th	32	2nd	52.2	48.6	2.74	70	+ 9	10	22nd	12	10	0	0	0	0	0	8	06.21	+0.37	39	—	—	—																											
Longford.			Newtownforbes ..	2121 9	161	59.7	41.3	50.5	—	73	27, 28	31	9th	51.5	48.4	2.08	53	—	17	22nd	14	9	0	0	3	0	—	—	—	—	—	—	—	—																											
10. IRELAND, S.																																																													
Dublin.			Balbriggan ..	9 9 9	203	58.2	43.5	50.9	+0.6	64	20, 21	33	1st	52.7	50.1	1.76	45	— 9	7	22nd	14	13	0	0	1	0	2	1	—	—	—	—	—	—																											
			Dublin City ..	2121 9	54	60.5	46.2	53.3	+0.7	69	21st	35	1st	—	—	1.26	32	— 20	7	5th	15	8	0	0	2	0	0	2	0	—	—	—	—	—																											
			Glasnevin ..	2121 9	55	56.7	41.7	49.2	-1.4	68	21, 27	27	1st	—	—	1.35	34	— 19	10	5th	15	7	0	0	0	0	2	3	1	—	—	—	—	—																											
			Phoenix Pk. †	2121 9	155	60.2	40.8	50.5	+0.6	68	21st	26	1st	—	—	1.52	39	— 14	7	23rd	14	10	0	0	0	0	0	3	07.63	+1.02	48	—	—	—																											
			Trin. Coll. ..	2121 9	12	60.5	45.5	53.0	+1.2	69	21st	33	1st	53.1	49.9	1.22	31	— 18	8	5th	15	7	0	0	0	0	—	2	0	—	—	—	—	—																											
			Hazelhatch ..	9 9 9	366	60.8	36.1	48.5	—	68	28th	25	1, 2	52.8	49.4	1.87	47	— 8	8	7th	15	12	—	—	—	—	0	19	7.70	—	—	—	—	—																											
Wicklow.			Newcastle ..	2121 9	256	59.2	42.7	50.9	—	71	20th	33	1st	—	—	2.71	69	—	24	22nd	14	11	0	0	1	0	1	—	—	—	—	—	—	—																											
Offaly.			Birr Castle †	18-7 7	173	60.5	43.0	51.7	+0.4	71	27, 28, 31	33	3rd	52.8	49.6	2.57	65	+ 9	15	22nd	14	8	0	0	2	0	1	7	16.51	+0.64	41	—	—	—																											
(King's Co.).																																																													
Leix.			Mountmellick ..	9 9 9	252	60.6	41.8	51.2	—	70	20, 27	30	2nd	—	—	2.43	62	—	22	22nd	13	9	—	—	—	—	—	—	—	—	—	—	—	—																											
(Queen's Co.).																																																													
Wexford.			Newtownbarry ..	9 9 9	153	61.2	42.5	51.9	—	74	27th	27	1st																																																

during the Month of MAY, 1929.

* Mean of hourly readings. † Mean at Station level.
‡ The mean values at Station level are 985.2mb. at 7h., 985.0mb. at 13h., 984.9mb. at 18h., and 985.7mb. at 21h.

† Mean at Station level.

† The mean values at Station level are 985.2mb. at 7h., 985.0mb. at 13h., 984.9mb. at 18h., and 985.7mb. at 21h.

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of MAY, 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.															
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.										
											0	1 to 3	4 to 6	7 to 9	10	0	1	2	3	4	5	6	7	8	9	8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		
2. ENGLAND, N.E.—cont.																																							
Durham.	Durham	..	9	352	1014.5	—	52.6	4.7	9.4	69.6	7	3	4	6	3	15	0	0	0	0	2	6	8	13	2	0	0	5	23	3	2	2	5	1	9	3	4	2	
			21	352	1015.0	—	47.9	2.8	9.0	79.7	2	3	6	1	3	18	0	1	0	0	0	4	10	15	1	0	0	3	23	5	2	4	3	1	9	3	4	0	
York, N. Riding.	Scarborough	..	9	96	1015.4	—	52.5	3.9	10.2	74.3	9	8	7	8	4	4	0	0	0	0	0	0	7	18	6	0	0	1	30	0	7	1	0	4	4	8	3	4	
			21	53	1015.7	—	51.7	4.1	9.5	72.5	5	11	2	2	1	15	—	—	—	—	—	—	—	—	—	—	—	0	0	31	0	6	5	2	5	9	2	1	1
York, E. Riding.	Spurn Head	..	1	28	1014.6	—	46.8	0.6	10.4	95.5	9	3	6	6	8	8	0	0	0	1	0	0	4	26	0	0	0	16	15	0	4	5	4	1	5	6	4	2	
			7	28	1014.9	—0.2	48.0	1.1	10.4	91.7	5	0	4	7	8	12	0	0	0	1	1	0	12	16	1	0	0	15	15	1	4	4	3	5	2	8	3	1	
			13	28	1014.9	—	53.3	2.7	11.2	82.7	2	1	4	6	9	11	0	0	1	0	1	0	4	25	0	0	1	14	16	0	1	5	4	7	3	5	3	3	
			18	28	1014.8	—	50.4	1.6	10.8	88.7	6	0	3	6	12	10	0	0	1	0	0	0	7	22	1	0	0	14	17	0	1	4	5	7	4	3	5	2	
Lincoln.	Cranwell	H	1	240	1015.9	—	44.0	1.1	9.0	91.4	8	7	8	3	4	9	0	0	0	0	1	2	18	10	0	0	0	8	21	2	3	6	1	3	5	6	5	0	
			7	240	1015.9	—	48.4	2.3	9.7	83.6	3	5	3	5	10	8	0	0	1	0	0	0	17	9	4	0	0	9	21	1	6	4	2	2	6	6	3	1	
			13	240	1015.4	—	59.1	7.0	10.4	62.7	0	2	4	4	14	7	0	0	0	0	0	0	4	18	9	0	0	15	16	0	4	5	3	3	4	4	7	1	
			18	240	1015.4	—	56.0	5.5	10.3	68.5	8	4	7	3	9	8	0	0	0	0	0	0	3	13	14	1	0	16	14	1	1	5	8	2	3	7	3	1	
3. ENGLAND, E.																																							
Norfolk.	Cromer	H	9	74	1015.9	—	52.5	4.1	10.0	75.6	3	3	6	5	7	10	0	0	1	2	0	0	8	11	9	0	0	4	27	0	5	4	4	1	7	5	1	4	
			1	26	1015.8	—	47.3	1.7	9.5	87.3	9	13	5	3	1	9	0	0	2	0	0	0	9	20	0	0	0	14	16	1	4	4	2	1	8	5	4	2	
Norfolk.	Yarmouth	..	7	26	1016.0	+0.8	47.9	2.0	9.7	85.6	2	4	6	5	5	11	0	0	1	1	0	1	21	7	0	0	0	16	14	1	6	6	1	0	6	6	2	3	
			13	26	1016.0	—	53.0	2.9	11.0	80.5	4	4	8	6	6	7	0	0	0	1	0	0	1	0	23	7	0	0	21	10	0	7	7	3	2	8	3	1	0
			18	26	1016.0	—	52.3	3.6	10.0	75.6	0	5	2	10	6	8	0	0	1	0	0	0	20	10	0	0	0	17	13	1	7	6	3	2	7	5	0	0	
Suffolk.	Felixstowe Aero.	..	7	20	1016.3	—	49.8	2.3	10.3	83.5	4	4	7	7	6	7	0	0	1	0	0	0	13	8	9	0	0	15	16	0	5	8	2	1	3	7	1	4	
			13	20	1016.2	—	55.5	4.5	10.5	71.5	5	3	8	5	11	4	0	0	0	1	0	0	2	11	12	5	0	20	11	0	2	7	6	2	10	3	1	0	
Cambridge.	Cambridge	H	18	20	1016.0	—	53.2	3.6	10.4	75.6	1	3	7	3	11	7	0	0	0	0	0	0	6	5	17	3	0	17	14	0	5	9	4	1	5	4	1	2	
			9	43	1015.3	—0.5	55.4	3.8	11.5	76.5	5	5	5	7	7	7	—	—	—	—	—	—	—	—	—	—	—	0	9	22	0	6	5	2	3	3	9	1	2
Bedford.	Cardington	..	21	43	1015.8	0.0	51.6	2.6	10.8	81.4	0	15	4	1	1	10	—	—	—	—	—	—	—	—	—	—	0	5	24	2	5	5	3	3	0	9	3	1	
			7	187	1015.6	—	49.1	2.9	9.3	79.5	7	4	7	4	6	10	0	0	0	1	0	1	12	12	5	0	0	11	20	0	12	1	0	5	8	2	3	3	
Hertford.	Rothamsted	..	13	187	1015.2	—	60.0	8.3	9.4	53.6	5	0	7	4	16	4	0	0	0	0	0	0	5	9	16	1	0	20	11	0	1	7	4	2	3	8	3	3	
			18	187	1014.9	—	57.7	7.1	9.5	59.5	5	1	10	6	6	8	0	0	0	0	0	0	1	12	15	3	0	21	10	0	1	7	6	1	4	5	5	2	
Essex.	Shoeburyness	H	21	187	1015.9	—	50.9	3.4	9.7	77.5	0	14	2	4	11	0	0	0	0	0	0	4	15	11	1	0	14	15	2	1	8	3	4	4	7	2	0		
			9	396	1015.5	—	53.2	4.7	9.4	69.5	5	3	5	10	8	5	0	0	0	0	0	4	27	0	0	0	8	17	6	6	4	1	2	9	1	2	0		
Essex.	Shoeburyness	H	7	14	1016.3	—	50.8	1.7	11.2	88.6	0	2	8	5	8	8	0	0	1	0	0	0	10	15	5	0	0	9	21	1	5	7	2	1	5	6	2	0	
			13	14	1016.3	—	58.2	4.2	12.6	75.4	6	2	15	5	6	3	0	0	0	0	0	0	4	9	18	0	0	14	17	0	2	6	8	2	3	7	1	2	
Essex.	Shoeburyness	H	18	14	1015.8	—	55.4	2.9	12.4	82.5	3	4	9	3	10	5	0	0	0	0	0	0	5	9	17	0	0	8	23	0	1	9	5	2	3	7	2	2	
4. MIDLAND COUNTIES.																																							
York, W. Riding.	Harrogate	..	7	478	1014.7	—	47.7	2.8	9.0	79.6	7	1	9	2	6	13	0	0	1	1	0	10	9	7	3	0	0	7	24	0	8	0	1	1	11	8	2	0	
			13	478	1014.2	—	57.5	7.8	8.4	53.5	9	1	10	4	12	4	0	0	0	0	0	1	5	14	9	2	0	10	21	0	2	1	3	7	10	5	3	0	
			18	478	1014.3	—	54.6	6.1	9.1	61.6	2	1	9	1	13	7	0	0	0	0	0	2	4	16	8	1	0	8	23	0	3	0	2	7	7	11	1	0	
Nottingham.	Nottingham	..	9	215	1014.5	—	53.2	5.3	8.9	65.7	3	0	7	2	11	11	0	0	0	1	4	4	6	12	4	0	0	10	21	0	4	6	2	1	5	5	8	0	
Warwick.	Birmingham	H	7	542	1015.4	—	48.4	2.9	9.2	79.6	2	5	2	6	12	6	0	0	0	2	2	5	8	3	11	0	0	8	23	0	1	6	4	4	8	3	3	2	
			13	542	1014.7	—	58.0	7.5	9.3	57.4	9	4	7	6	13	1	0	0	0	0	0	0	9	5	17	0	0	15	16	0	2	5	5	1	6	7	3	2	
			18	542	1014.7	—	57.4	7.2	9.4	59.4	9	4	8	4	12	3	0	0	0	0	0	2	3	5	21	0	0	10	21	0	1	6	5	3	6	6	1	3	
Oxford.	Oxford	..	9	212	1015.7	—0.6	53.8	5.1	9.5	67.5	2	4	9	5	3	10	0	0	0	0	0	0	9	9	12	1	0	9	22	0	2	10	1	2	9	4	2	1	
Hereford.	Ross-on-Wye	H	7	226	1014.9	—	48.4	2.5	9.6	82.6	2	4	7	1	9	10	0	1	0	0	1	1	12	9	6	1	0	7	22	2	3	3	5	0	4	9	4	1	
			13	226	1014.3	—	59.7	7.8	9.9	56.5	3	2	9	8	7	5	0	0	0	0	0	0	4	8	18	1	0	13	18	0	1	3	7	2	3	7	4	4	
			18	226	1014.3	—	58.3	7.1	9.9	60.5	0	3	11	6	6	5	0	0	0	0	0	0	3	8	15	5	0	10	21	0	1	3	9	0	4	8	4	2	
			21	226	1015.1	—	52.2	3.9	9.9	73.4	6	4	13	1	6	7	0	0	0	0	0	2	9	11	5	4	0	5	26	0	0	3	9	1	4	5	8	1	
Gloucester.	Cheltenham	H	9	230	1015.2	—	54.9	5.6	9.6	65.5	4	5	8	3	8	7	0	0	0	0	0	0	5	12															

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of MAY, 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.													
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	NO. OF OBSERVATIONS.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.								
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Visibility.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
																0	1	2	3				4	5	6												
5. ENGLAND, S.E.—cont.																																					
Kent.	Biggin Hill H	7	596	1015.5	—	48.3	1.6	10.3	89.6.4	4	3	8	5	11	0	0	0	0	0	6	12	12	1	0	0	6	24	1	0	10	1	1	5	8	3	2	
		13	596	1015.0	—	58.0	6.1	10.7	65.6.2	2	5	6	14	4	0	0	0	0	0	0	11	13	7	0	0	13	18	0	1	10	1	3	1	12	2	1	
		18	596	1015.0	—	55.9	5.4	10.4	69.4.8	4	9	6	7	5	0	0	0	0	0	1	7	17	6	0	0	6	24	1	1	8	3	2	0	13	2	0	
Kent.	Dungeness ..	1	23	1015.7	—	47.6	1.2	10.3	91.4.9	12	1	5	3	10	1	0	0	0	0	0	2	11	17	0	0	7	23	1	1	12	4	2	2	0	3	0	
		7	23	1015.9	+0.5	50.1	2.1	10.4	85.6.6	3	1	10	8	9	1	0	0	0	0	1	3	13	13	0	0	9	22	0	3	10	3	1	4	7	1	2	
		13	23	1016.3	—	54.8	3.9	11.1	75.6.2	2	3	10	10	6	0	0	0	0	0	0	3	12	16	0	0	12	19	0	1	9	3	2	1	12	3	1	
Kent.	Lympe H	18	23	1015.7	—	52.0	2.7	10.7	81.6.5	4	2	8	9	8	0	1	0	0	0	0	1	13	16	0	0	12	19	0	0	9	4	2	2	10	3	1	
		1	345	1015.9	—	46.1	1.4	9.6	90.4.5	10	6	3	4	8	0	0	1	0	1	0	11	15	3	0	0	13	18	0	5	7	5	2	5	4	0	3	
		7	345	1016.0	—	48.8	1.8	10.3	87.6.2	4	4	5	8	10	0	0	1	0	1	6	15	7	1	0	0	16	14	1	9	5	2	3	6	3	0	2	
Kent.	Manston H	13	345	1016.0	—	56.3	5.1	10.8	70.5.3	2	11	3	10	5	0	0	0	2	0	1	9	4	15	0	0	19	12	0	5	7	1	3	3	7	5	1	0
		18	345	1015.7	—	53.9	4.4	10.3	73.5.1	4	10	2	10	5	0	1	0	0	0	1	10	4	14	1	0	19	10	2	5	7	1	3	3	7	3	0	
		7	152	1016.3	—	50.2	2.2	10.5	84.6.4	4	2	9	9	7	0	0	1	2	0	1	10	7	10	0	0	18	13	0	3	8	1	4	5	6	0	4	
Kent.	Tunbridge Wells	13	152	1016.5	—	57.4	6.0	10.5	65.5.6	2	9	4	12	4	0	0	0	0	0	9	10	12	0	0	18	12	1	4	9	3	1	8	3	0	2		
		18	152	1016.2	—	53.6	4.1	10.4	74.6.2	2	7	5	10	7	0	0	0	0	1	6	10	14	0	0	19	12	0	3	9	2	5	4	6	1	1		
Sussex.	Brighton H	9	396	1015.9	—	54.7	3.4	11.5	78.5.9	2	7	9	4	9	0	0	0	0	0	4	14	8	5	0	0	9	22	0	4	9	1	2	5	8	0	2	
Sussex.	St. Leonards	9	174	1015.7	—	54.5	4.1	10.9	74.4.9	6	7	4	10	4	0	0	0	0	0	0	5	19	7	0	0	9	22	0	2	10	1	6	1	9	1	1	
		21	174	1016.1	—	50.9	2.9	10.2	80.5.4	8	3	4	8	8	0	0	0	0	0	0	1	22	8	0	1	8	22	0	1	9	4	3	0	8	5	2	
Hampshire.	Calshot ..	1	15	1015.7	—	48.9	2.0	10.1	86.4.4	12	3	5	3	8	0	0	0	0	0	0	1	18	12	0	0	9	22	0	4	5	4	1	2	5	5	5	
		7	15	1015.7	—	50.4	2.3	10.5	84.5.3	5	8	2	9	7	0	0	0	0	0	1	16	8	6	0	0	12	18	1	5	7	3	2	1	7	4	1	
		13	15	1015.7	—	58.6	5.5	11.3	69.5.4	3	8	7	9	4	0	0	0	0	0	1	7	7	16	0	0	16	14	1	0	4	2	5	2	11	5	1	
Hampshire.	Southampton H	18	15	1015.4	—	56.7	4.8	11.0	71.4.0	6	11	5	5	4	0	0	0	0	1	0	5	12	13	0	0	18	13	0	1	3	2	5	2	7	10	1	
		9	84	1015.7	-0.5	54.2	4.3	10.5	72.4.4	10	3	7	4	7	0	0	0	0	3	9	19	0	0	0	0	4	27	0	1	5	4	2	1	12	3	3	
		21	84	1015.7	-0.5	56.7	5.7	10.5	67.4.3	9	6	4	8	4	0	0	0	0	2	10	19	0	0	0	0	6	25	0	1	6	1	3	1	12	6	1	
Hampshire.	S. Farnborough	7	256	1015.5	—	49.0	2.4	9.7	83.6.2	2	8	2	10	9	0	0	0	0	1	3	14	8	5	0	0	9	19	3	1	7	3	1	6	6	2	2	
		13	256	1015.0	—	61.2	8.6	9.7	54.5.8	3	7	4	13	4	0	0	0	0	0	10	13	6	2	0	17	14	0	2	6	3	2	4	8	5	1		
		18	256	1014.8	—	59.1	7.5	9.7	58.4.8	3	11	3	10	4	0	0	0	0	0	0	6	15	10	0	0	10	20	1	2	6	4	1	4	8	4	1	
Hampshire.	Winchester (Worthy Down)	7	273	1015.3	—	48.3	2.1	9.7	84.6.0	4	7	1	11	8	0	0	0	0	1	1	3	16	10	0	0	9	18	4	5	6	0	3	7	2	1	3	
		13	273	1014.9	—	59.6	7.9	9.6	55.6.3	4	3	5	14	5	0	0	0	0	0	2	9	20	0	0	18	13	0	5	5	1	2	10	3	2	3		
		18	273	1014.5	—	57.8	7.2	9.3	58.5.5	4	6	7	8	6	0	0	0	0	0	3	4	22	2	0	14	17	0	5	4	2	0	10	5	4	1		
I. of Wight.	Ventnor (Hosp.)	9	80	1015.6	—	54.7	4.0	11.0	75.5.0	0	16	3	3	9	—	—	—	—	—	—	—	—	—	—	0	13	18	0	4	1	7	4	2	6	7	0	
		15	80	1015.4	—	57.8	5.2	11.3	69.3.5	4	16	6	1	4	—	—	—	—	—	—	—	—	—	—	0	15	16	0	0	1	4	3	6	2	14	1	
Wilts.	Larkhill H	9	444	1015.1	—	53.8	4.1	10.5	74.5.2	4	8	6	5	8	0	0	0	0	0	1	2	10	18	0	0	21	10	0	3	7	4	3	8	3	1	2	
		13	444	1014.8	—	58.6	6.7	10.4	62.6.3	2	7	5	8	9	0	0	0	0	0	0	1	5	25	0	0	18	13	0	2	6	6	2	6	3	3	3	
		15	444	1014.7	—	59.6	7.7	10.1	60.6.0	2	6	7	11	5	0	0	0	0	0	0	0	5	25	1	0	20	11	0	1	8	5	2	6	5	2	2	
7a. ENGLAND, N.W.																																					
Cumberland.	Aspatria (Mealsgate)	9	485	1014.2	—	50.8	2.9	10.2	80.6.1	4	2	11	5	9	—	—	—	—	—	—	—	—	—	—	0	5	22	4	4	5	0	2	4	8	2	1	
		21	485	1014.6	—	48.6	2.6	9.6	81.6.2	6	2	7	4	12	—	—	—	—	—	—	—	—	—	—	0	2	24	5	4	2	0	4	6	8	1	1	
Lancashire.	Hutton ..	9	86	1013.5	—	54.0	3.7	10.8	75.4.9	6	8	5	7	5	—	—	—	—	—	—	—	—	—	0	3	23	5	0	4	3	5	3	6	3	2		
Lancashire.	Southport H	9	42	1014.4	-1.6	54.2	4.6	10.2	71.4.7	2	13	4	5	7	0	0	0	0	0	13	5	3	10	0	0	18	13	0	0	1	4	8	7	2	6	3	
		13	42	1014.2	-1.6	58.5	5.6	7.0	62.5.0	2	10	6	6	7	0	0	0	0	0	7	6	2	16	0	0	22	9	0	0	1	2	5	7	2	10	2	
		18	42	1014.1	-1.3	56.5	5.5	10.5	68.4.8	6	8	5	4	8	0	0	0	0	0	7	2	3	19	0	0	20	10	1	2	2	5	3	5	2	8	3	
		21	42	1014.7	-1.3	51.1	1.3	10.2	79.5.1	2	13	4	2	10	0	0	0	0	0	11	5	6	9	0	0	15	14	2	2	1	9	4	4	4	5	0	
Lancashire.	Stonyhurst ..	9	381	1014.8	—	52.4	4.2	9.4	71.5.6	7	2	4	12	6	0	0	0	0	0																		

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of MAY, 1929.

DISTRICT COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	NO. OF OBSERVATIONS.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Visibility.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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8a. SOUTH WALES—cont.		G.M.T.	ft.	mb.	mb.	°F.	°F.	mb	%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		

TABLE I. DISTRICT VALUES.

The District Values of this Table are computed from the statistics for selected individual stations set out in Table III and Table IV.

The representative stations from which the District Values of rainfall and temperature are computed are indicated in Table III by the sign ¶ while the representative stations from which District Values of sunshine are computed are indicated by the sign §. The deviations from and percentages of normal for Air Temperature, Rainfall and Sunshine are the means of the corresponding deviations or percentages for the representative District Value stations. The deviations from normal of Earth Temperature are derived from the deviations for all the stations reporting in Table III for which normals of Earth Temperature are available. The highest and lowest temperatures for the District recorded during the month may refer to any station in Table III.

TABLE II. SUMMARY OF AUTOGRAPHIC RECORDS OF WIND.

The records used in the preparation of this Table are generally made by anemographs of the pressure-tube type. At a few stations the Robinson Cup Anemograph is utilised. The classification adopted for the "Distribution of Wind" is based on the specification of the Beaufort Scale of Wind Force (see *The Observer's Handbook*). For an anemograph complying with the specification "head 33 ft. above ground in the open" the several columns correspond with Force 8 and above (gales), Forces 6 and 7 (strong winds), Forces 4 and 5 (moderate breezes), Forces 2 and 3 (light breezes), Forces 1 and 0 (nearly calm). Some information as to the nature of the actual exposures may be gathered from the figures in the "Height" columns.

The "Highest Hourly Wind" is determined by the mean speed of the wind for a period of sixty minutes from 30 minutes before to 30 minutes after an exact hour by Greenwich Mean Time. Under the heading "Veer from N" the azimuth of the direction from which the wind was blowing is stated, the entry for an east wind being 90°, that for a south wind 180° and so on.

TABLE III. SUMMARY OF OBSERVATIONS AT TERMINAL HOURS.*

Temperature.—The terminal hours of observation are given for each station. When the terminal hours for maximum and minimum temperature are stated independently the temperatures refer to intervals of 24 hours. If the maximum thermometer is read in the morning the reading is credited to the previous day. When the terminal hours for maximum and minimum are separated by a dash, thus, 18-7, the day-maximum for the period 7h. to 18h. and the night-minimum for the period 18h. to 7h. are reported and are utilised in determining the means for the month; in such cases the extreme temperatures for successive periods of 24 hours are also read by the observers, so that the absolute maximum and minimum temperatures for the month are obtained.

Except at the Royal Observatory, Greenwich, where a Glaisher stand is in use, the air temperature is obtained from thermometers placed in louvered screens. At Kew Observatory, Richmond, and Valentia Observatory these are north wall screens a few feet from the ground. At Aberdeen Observatory the north wall screen is at 41 feet. Otherwise the screens are in the open.

Rainfall.—The daily amounts are for the 24 hours beginning at the "terminal hour." "Rainfall" includes all forms of precipitation. The number of days of precipitation is counted with reference to the limit .01 inch or 0.2 mm. and also with reference to the limit .04 inch or 1 mm. The lower limit excludes mere "traces" of precipitation, but it is frequently passed on occasions when the precipitation is only dew.

Weather.—The numbers of days of Precipitation, Snow, Hail, Thunderstorms and Gale are counted irrespective of the hour at which the phenomena occur. Except for "Precipitation" the day is the civil day.

For the purpose of this summary "Snow" includes sleet (*i.e.*, snow with rain), "Hail" includes graupel (soft hail), "Snow lying" refers to occasions when at least one-half of the country surrounding the station is covered with snow at the morning observation. The entry of "fog" implies that regular observations of the range of vision are made on the scale set out below. Days of fog are those on which the range of vision is less than 1,100 yards at the hour of morning observation. That hour is generally given by the third entry of column 2 of the table and may be 7h. or 9h. G.M.T. The variability of the observation hour may exercise an important effect upon the statistics of fog frequency. "Thunderstorm" includes any day on which thunder is heard. "Gale" is a wind of Force 8 or upwards on the Beaufort Scale. A "ground frost" is entered when the reading of a "grass minimum" thermometer set the previous evening and read at the morning observation is 30° F. or lower.

Sunshine.—The percentage of possible sunshine in the last column is calculated with reference to the maximum duration theoretically possible in the latitude, allowance being made for refraction (see

International Meteorological Tables (Paris) pp. A17-A20 and 42-47) but not for the fact that the sunshine recorder is generally insensitive to sunshine when the sun is at an altitude of less than 3°. Where the symbol § occurs it indicates that obstructions obscure the sun during more than 5% of the period when it is over 3° above the horizon.

TABLE IV. SUMMARY OF OBSERVATIONS AT FIXED HOURS.*

Mean Air Pressure is expressed in millibars. (1 millibar = 1,000 dynes per square centimetre = the pressure due to .029531 inch of mercury at 32° F. in Lat. 45°). The corrections for latitude, temperature and height have been applied to the barometer readings so as to obtain pressure at mean sea level. Barometric pressure is given at station level for a few stations at altitudes of 600 ft. or more in footnotes in Table IV.

Hygrometry.—The values given depend on the readings of the dry and wet bulb thermometers in Stevenson Screens (except at the Observatories, see above). The observations were formerly reduced by Glaisher's method; as from January, 1926 they are reduced by the new hygrometrical tables issued by the Office which are based on a formula of Regnault. In general the relative humidity and vapour pressure are derived from the monthly means of the dry and wet bulb readings. At certain stations the daily values of relative humidity and vapour pressure are found and the means are computed therefrom. These stations are indicated by the letter "H."

Cloud Amount.—The proportion of sky covered with cloud is estimated on the scale 0 to 10, the entry "0" being equivalent to clear sky "10" to overcast.

Visibility.—The observations are classified according to the following scheme—the distances, specified by international arrangement in metres, are given here in yards and miles:—

CODE.	RANGE OF VISION.
0	Less than 55 yards.
1	Exceeding 55 yards, less than 220 yards.
2	" 220 " " 550 "
3	" 550 " " 1,100 "
4	" 1,100 " " 1½ miles.
5	" 1½ miles " 2½ "
6	" 2½ " " 3½ "
7	" 3½ " " 12 "
8	" 12 " " 31 "
9	" 31 " "

Wind Summaries.—The estimates of wind force refer to the Beaufort Scale, and in general to the wind experienced at the time of observation. At Deerness, Cahirciveen, Richmond, Armagh, Eskdalemuir, Southport, Greenwich and Oxford the analysis refers to tabulations of autographic records. For Oxford the mean wind speed for half-an-hour centred at the hour of observation is used for conversion to "force" on the Beaufort Scale; for the remaining observatories the mean wind speed used for each observation refers to a period of one hour. In these cases winds equivalent to Force 1 are counted with the calms, whilst Forces 2 and 3 are taken together in the preceding column of the Table.

INTERPOLATED VALUES.

When the observations for any station for a month are incomplete and relevant data (e.g. records from neighbouring stations) which make it practicable to interpolate approximate values for the missing observations are available, such approximate values may be used for completing summaries for stations published in Tables III and IV. Parts of a summary obtained in this way are shown in brackets thus—(52.4).

STANDARD OF TIME.

As a rule observations are made in all parts of the British Islands according to Greenwich Mean Time, but at the following stations Local Mean Time is used for the observations summarised in Tables III and IV. The number of minutes after Greenwich Time is shown in brackets—Darwen (10), Rhayader (15), Ashburton (15), Tavistock (17), Plymouth (15), Douglas (20), Armagh (26), Balbriggan (25), Lisburn (30), Newcastle, Co. Wicklow (30), Ballinacurra (30), Cork (34).

"Summer Time" is not used in the Monthly Weather Report, but at certain stations the hours of observation vary in the course of the year. For such stations all time entries are converted to G.M.T. before they are printed and the winter hours are given as the terminal hours in the annual tables. For the summer hours reference should be made to the appropriate months.

NORMALS.

In Table III the normals used are those for the 35 years 1881-1915. The normals of temperature and sunshine are published in the Book of Normals, Section I, those for rainfall in the Book of Normals, Section V.

The normals for pressure with which comparison is made in Table IV also refer to the period 1881-1915.

* In addition to the frequencies published in this Report (Tables III and IV), the Meteorological Office has issued since January, 1927, in the form approved by the International Commission for Air Navigation, monthly frequency tables of height of base of low cloud, and speed and direction of surface and upper winds.

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

SUMMARY OF OBSERVATIONS COMPILED FROM RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS.

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JUNE, 1929. Cool, with a considerable excess of bright sunshine in western districts. Relatively dry in England and Ireland.

Notwithstanding an excess of sunshine in most districts, notably in the west, June 1929 was on the whole a cool month, the only outstanding warm days, when temperature rose above 70° F., occurring on the 11th and 12th, about the 18th and, except in eastern districts, about the 26th. Although unsettled weather during the first two weeks brought welcome rain, the second half of the month was relatively dry in most districts. There was an excess of precipitation over Scotland as a whole and a deficiency over England and Ireland, the general precipitation over the British Isles being below the normal.

The first day of the month was generally cloudy and rather warm over most of Great Britain but by evening rain was spreading in from the west. Heavy falls occurred during the night in the north-western districts but elsewhere amounts were generally slight. Dungeon Ghyll (Westmorland) had as much as 36mm., Ford (Argyll) 30mm., and Renfrew 20 mm. during the night. The weather continued unsettled up to the 9th and rain fell on most days, although there were many bright periods, excellent sunshine records being obtained in parts of Scotland on the 4th and 5th and in several districts on the 7th and in the north-west and west on the 8th (15.7 hrs. at Tiree and 14.8 hrs. at Pendennis on the 7th). The heaviest rain occurred on the 4th, 5th and 6th. Thunderstorms were experienced in the south on the 4th and in the north between the 5th and the 8th.

On the 9th an anticyclone to the south-west of the British Isles extended its influence over the greater part of the country giving an interval of mainly sunny warm weather. More than 15 hrs. sunshine were recorded at a few stations on the 9th, 10th and 11th and day temperatures rose above the normal, 76° F. being recorded at Renfrew, Hull and Lympne on the 12th. Showers occurred in Scotland and Ireland, and on the 11th heavy rain fell locally in coastal regions in the north-west of the British Isles; 36 mm. fell at Blacksod and 14 mm. at Tiree. On the 12th a depression moved northwards from the Bay of Biscay over the British Isles and gave general rain. This was followed by a period of showery and cool weather with considerable sunny periods and frequent thunderstorms in the north between the 12th and 14th. After the 15th there was very little precipitation until the end of the month except in Ireland and in the north, where rain or showers prevailed up to the 25th.

After the 14th temperature rose quickly, maxima of over 70° F. were reported at most places on the 18th and 19th, while 83° F. occurred at Greenwich and 82° F. at Norwich on the 19th. On these two days over 15 hrs. sunshine were reported locally. Temperature again rose over 70° F. in the south-east on the 23rd. After this the winds veered to north with a corresponding drop in temperature, ground frosts occurring at a few places round the 26th. The weather remained cool in the east until the 30th, but in the west it turned warm; 72° F. was recorded at Kilmarnock on the 27th and 75° F. at Mallarany on the 28th. Rothsay had 16.1 hrs. sunshine on the 25th and many other places over 15 hrs. between the 25th and 29th.

During the night of the 29th to the 30th rain fell in the south-west of England and on the 30th spread to most southern districts; in Ireland and in the north-west of Great Britain the weather on the 30th continued dry and warm, abundant sunshine being recorded in several places (12.7 hrs. at Cahirciveen, 13.0 hrs. at Tiree and 11.9 hrs. at Holyhead).

Pressure and Winds.—Anticyclonic conditions prevailed about the 11th, from the 17th to the 19th except in northern districts, and widely during the last few days of the month, but during the greater part of the month conditions were cyclonic. Monthly means of pressure were below the normal over most of the country, the deficit from the normal being greatest in the extreme north, whilst in the extreme south there was a slight excess. There was a prevalence of winds from between west and north. Strong winds occurred fairly frequently, generally about the 15th and on the 23rd. Gales were recorded at Scilly on the 14th and at Fleetwood and Southport on the 23rd. The highest wind speed recorded was 59 mi/hr. in a gust at Eskdalemuir on the 16th.

Temperature.—Except at a few coastal stations, monthly mean temperatures were everywhere below the normal. Day temperatures were often below the normal owing to the prevalence of cool winds from between west and north, and rather cold nights were experienced

widely from about the 5th to the 9th and from the 25th to the 29th, the temperature in the screen falling below freezing-point at some places, mostly in Scotland, during this period. At West Linton the temperature in the screen fell to 29° F. on the morning of the 9th, while on the morning of the 5th at Drumochter (Inverness), ice, an eighth of an inch thick, was reported. Ground frosts were rather more widespread during these periods. The highest temperatures were recorded about the 11th, 18th and in the west and north about the 26th when day temperatures exceeded 70° F. over wide areas. On the 19th the temperature attained or exceeded 80° F. locally in the south-east and east of England.

The extreme temperatures for the month were:—(England and Wales) 82° F. at Norwich and Camden Square (London) on the 19th, and 31° F. at Roden (Shropshire) on the 5th. (Scotland) 77° F. at Ruthwell on the 12th, and 29° F. at West Linton on the 9th. (Ireland) 75° F. at Mallarany on the 28th, and 33° F. at Markee Castle on the 26th and 27th.

Precipitation.—The general precipitation over the British Isles expressed as a percentage of the normal for the 35 years, 1881–1915, was 91; the values for the constituent countries were:—England and Wales 78, Scotland, 124, Ireland 83. During the first eight days, precipitation occurred over most of the country, heavy falls occurring on the 1st, 2nd and from the 4th to the 6th. From the 9th to the 11th there was, in general, only trifling falls except in northern districts. Heavy rain was generally experienced on the 12th followed by a period of showery weather lasting until the 17th. After the 17th little or no rain fell over the greater part of England until the 30th when some large falls were recorded in the south and south-west. In many districts of England there was no measurable precipitation during the period 16th to 29th inclusive. In Scotland and Ireland moderate falls occurred on the 18th and 19th and in the north and west about the 21st. After the 24th almost rainless conditions prevailed until the end of the month in both Scotland and Ireland.

Monthly totals of precipitation exceeded the normal in parts of Wales and in Devon and Cornwall, but in almost all other districts in England there was a decided deficiency which was most pronounced in the east and south-east. Shoburyness had only 30 per cent. of the normal total for the month, Chelmsford and Raunds 31 per cent., Meltham (Yorkshire, W. Riding) 35 per cent., and Manchester 38 per cent. In Scotland precipitation exceeded the normal in the west and north, but over most of the eastern counties, particularly those in the Border districts, it was much below the normal. At Wolfelee and Arbroath there was less than 70 per cent. of the normal, while at Melvich (Sutherland) there was almost 270 per cent. In Ireland precipitation exceeded the normal in coastal districts in the west and north, but over most of the country there was a deficiency.

Thunderstorms occurred between the 4th and 8th and between the 12th and 14th. Hail showers were rather widespread in northern districts during the first ten days of the month.

Sunshine.—There was a pronounced excess of sunshine in western districts. Representative sunshine aggregates for Districts, expressed as a percentage of the normal for the period 1881–1915, varied from 121 in England N.W. to 96 in Scotland W. At Hoylake and Rhyl the mean daily excess of sunshine amounted to 2.50 hours and 2.14 hours respectively. Abundant sunshine was recorded in Scotland on the 1st, in northern districts of Ireland and Scotland on the 4th, in northern Scotland on the 5th, in many districts from the 7th to the 11th, in England and Wales from the 17th to the 19th, in the north and west on the 20th, over most of Ireland and England and Wales on the 21st, in many districts on the 25th and 26th, and in the west during the period 23rd to 30th.

Fog.—Some fog was reported mostly from places on or near the coast and occurred most frequently during the first week of the month.

Miscellaneous Phenomena.—A line squall occurred at Clacton on the evening of the 6th. At Oxford a sun pillar was observed on the 17th and a solar halo with parhelia on the 21st.

TABLE I.—DISTRICT VALUES—JUNE, 1929.

[1908, revised 1923.]

DISTRICTS.	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High-est.	Low-est.	Daily Mean. Deviation from Normal.	At 1 ft. Deviation from Normal.	At 4 ft. Deviation from Normal.	Per-cent- age of Normal.	No. of Days. Deviation from Normal.	Per-cent- age of Normal.	Per-cent- age of Possible Duration.
o. SCOTLAND, N.	°F. 73	°F. 31	°F. -1.1	°F. —	°F. —	% 131	+3	% 96	% 29
Eastern.									
1. SCOTLAND, E.	75	29	-0.8	—	—	109	+2	101	36
2. ENGLAND, N.E.	78	34	-0.7	-1.1	-0.4	73	+1	101	35
3. ENGLAND, E...	82	35	-0.8	-1.5	-1.9	48	-2	99	41
4. MIDLAND COUNTIES	79	31	-1.6	-1.0	-0.4	59	0	107	40
5. ENGLAND, S.E.	82	35	-1.2	-0.2	+0.1	71	0	106	45

DISTRICTS.	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High-est.	Low-est.	Daily Mean. Deviation from Normal.	At 1 ft. Deviation from Normal.	At 4 ft. Deviation from Normal.	Per-cent- age of Normal.	No. of Days. Deviation from Normal.	Per-cent- age of Normal.	Per-cent- age of Possible Duration.
Western.	°F. 77	°F. 30	°F. -1.8	°F. —	°F. +1.1	% 130	+2	% 119	% 41
6. SCOTLAND, W. (& I. of Man)									
7. ENGLAND, N.W. (& N. Wales)	75	32	-1.6	-0.2	+0.1	60	0	121	48
8. ENGLAND, S.W. (& S. Wales)	76	32	-1.1	-0.5	-0.7	100	-1	117	49
9. IRELAND, N...	75	33	-1.3	+0.1	+0.1	106	0	107	36
10. IRELAND, S...	73	35	-1.2	0.0	-0.1	90	-1	116	43
11. CHANNEL I. (& Scilly)	74	46	-1.4	+0.7	-0.1	129	+1	100	49
Mean: DISTRICTS 1-10	82	29	-1.2	-0.5	-0.2	85	0	109	41

TABLE II.—SUMMARY OF AUTOGRAPHIC RECORDS OF WIND.—JUNE, 1929.

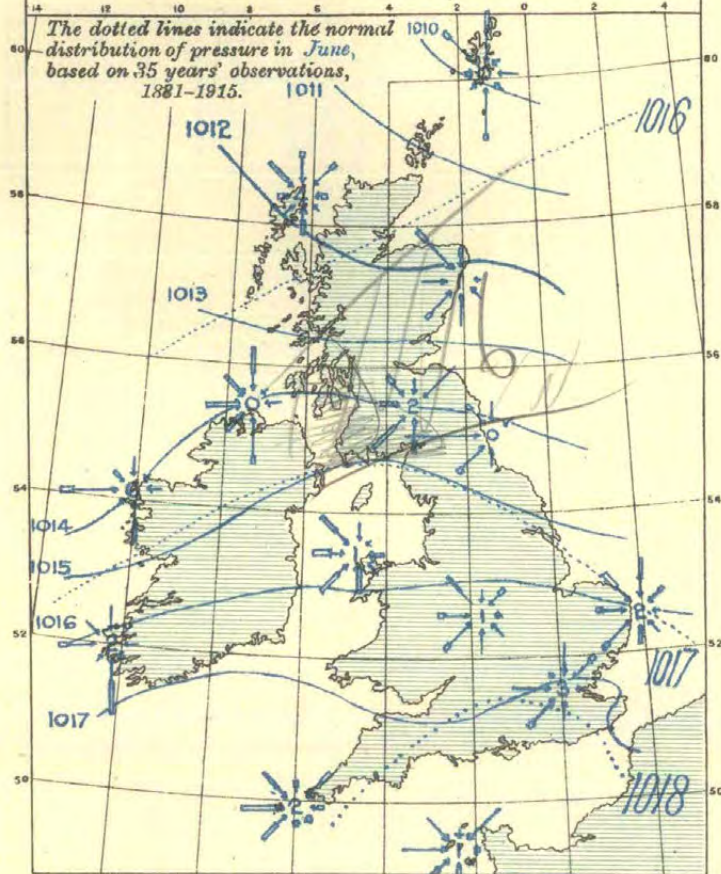
[1914.]

DISTRICT AND STATION.	Height.			Distribution of Wind.††								Extreme Velocities.									
	Above Mean Sea Level.	Above Ground.	Above Building.	More than 38 mi/hr.		25 to 38 mi/hr.		13 to 24 mi/hr.	4 to 12 mi/hr.	Less than 4 mi/hr.	No Record.	Highest Hourly Wind.				Highest Gust.					
				Dates of Occurrence.	Duration.	No. of Days.	Duration.	Duration.	Duration.	Duration.	Duration.	Veer from N.	Speed.	Mid Time.	Speed.	Time.					
o. SCOTLAND, N.																					
Shetlands Lerwick	310	42	33†	—	0	4	12	218	316	174	0	{ 240 250 300	34	15	20	7	49	22	20	7	10
Orkneys Deerness (Cup Anr.)	188	16	5	—	0	8	32	309	327	48	4		31	16	20	7	—	—	—	—	—
													23	3	23	3					
1. SCOTLAND, E.																					
Aberdeen Aberdeen	70	42	33†	—	0	3	5	202	454	59	0	300	28	12	23	6	49	22	23	6	45
Kincardine Balmakewan ..	140	25	18	—	0	—	0	91	(428)	(183)	18	350	19	8	23	8	38	17	23	5	20
Edinburgh Edinburgh ..	485	39	31†	—	0	2	3	240	280	197	0	270	26	12	16	14	42	19	20	11	10
6a. SCOTLAND, W.																					
Argyll Tiree	80	55	48†	—	0	7	(27)	(393)	(234)	(41)	25	210	30?	13	18	2	48?	21	18	1	55
Renfrew Paisley	188	81	15	—	0	—	0	137	492	91	0	270	22	10	23	8	48	21	23	8	15
Dumfries Eskdalemuir ..	825	50	22	—	0	6	44	262	314	100	0	270	34	15	16	14	59	26	16	14	55
2. ENGLAND, N.E.																					
Durham South Shields ..	62	46	20	—	0	4	8	184	370	158	0	280	31	14	23	9	49	22	23	6	10
York, E.R. Spurn Head ..	67	41	35†	—	0	9	46	296	327	42	9	350	34	15	23	8	49	22	14	11	45
Lincoln Cranwell	284	44	26†	—	0	2	7	223	414	76	0	290	29	13	23	8	46	21	23	8	10
3. ENGLAND, E.																					
Norfolk Gorleston	52	42	33†	—	0	1	6	282	372	52	8	170	28	13	14	11	42	19	23	9	40
Suffolk Felixstowe Aero. .	55	40	25	—	0	2	4	320	(297)	(99)	0	200	26	12	16	2	36	16	16	1	35
Essex Shoeburyness ..	115	104	14†	—	0	4	24	304	273	32	87	210	31	14	14	8	44	20	6	19	35
4. MIDLAND COUNTIES.																					
Warwick Birmingham ..	643	118	18	—	0	—	0	185	491	44	0	320	22	10	23	11	39	17	23	11	10
5. ENGLAND, S.E.																					
Surrey Richmond (KewObs)	82	65	22	—	0	—	0	137	427	156	0	215	21	9	15	16	37	17	14	14	45
Surrey Croydon	313	105	49	—	0	5	15	283	328	94	0	260	28	13	6	19	49	22	14	11	5
Kent Dover	61	32	22	—	0	4	9	302	338	71	0	—	27	12	30	8	39	17	14	22	50
Kent Lympne	409	70	55†	—	0	4	8	293	371	48	0	200	28	13	14	13	40	18	2	14	50
Hampshire Calshot	55	45	31†	—	0	5	22	290	348	60	0	240	33	15	14	18	48	21	23	9	15
Hampshire Worthy Down ..	314	43	27†	—	0	—	0	149	426	134	11	180	24	11	14	14	44	20	14	11	55
7a. ENGLAND, N.W.																					
Lancashire Fleetwood ..	112	50	12	23	7	6	35	276	325	77	0	340	43	19	23	8	52	23	23	8	0
Lancashire Southport ..	77	59	45†	23	1	11	114	327	272	6	0	320	39	17	23	9	50	22	23	9	25
Lancashire Liverpool (Bidston)	253	64	35	—	0	8	52	319	329	20	0	310	33	15	23	5	54	24	23	9	10
7b. NORTH WALES.																					
Anglesey Holyhead	64	45	29†	—	0	8	27	393	277	23	0	80	31	14	30	8	47	21	16	11	15
Flint Sealand	81	65	49†	—	0	3	14	191	384	131	0	320	34	15	23	11	55	25	2	11	0
8b. ENGLAND, S.W.																					
Devon Plymouth	185	88	2	—	0	3	21	207	381	111	0	—	37	17	14	7	45	20	14	6	35
Cornwall Pendennis Castle ..	256	65	24	—	0	—	—	Instr	ument	dismantled.											
9. IRELAND, N.																					
Donegal Dunfanaghy Road	180	47	39	—	0	5	28	250	257	185	0	—	32	14	16	12	51	23	16	8	5
Antrim Aldergrove	282	40	27†	—	0	—	0	160	431	129	0	280	22	10	16	14	42	19	16	13	25
10. IRELAND, S.																					
Dublin Kingstown (CupAnr.)	49	27	16	—	0	10	44	300	304	72	0	260	35	16	22	9	—	—	—	—	—
Clare Quilty	100	40	32†	—	0	3	19	323	304	58	16	—	29	13	15	21	40	18	15	20	20
Kerry Cahirciveen (Val. O.)	98	41	34†	—	0	3	8	278	360	74	0	180	26	12	11	13	41	18	2	2	0
Cork Weaver Pt.	160	30	21†	—	0	—	0	159	452	109	0	—	21	9	15	11	35	16	2	1	15
11. SCILLY ISLES																					
St. Mary's.. ..	230	65	17	14	1	8	54	349	294	22	0	270	39	17	14	12	56	25	14	11	30

†† Brackets () indicate that the distribution as between winds above and below 4 m.p.h. is doubtful, but the total number of hours with winds below 12 m.p.h. is reliable.

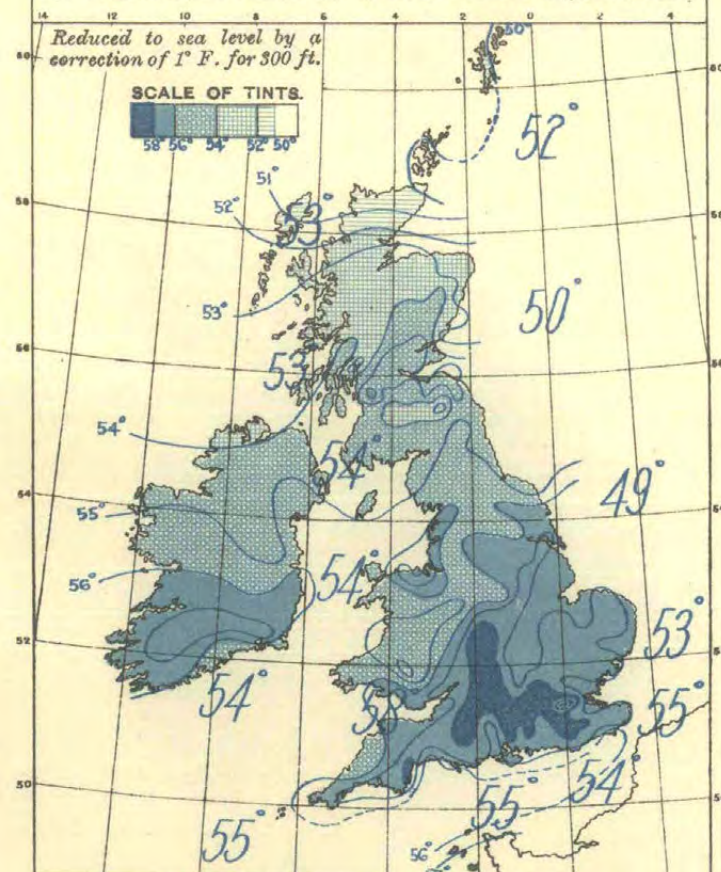
† Standard mounting.

1. WIND AND MEAN PRESSURE. 7 A.M.



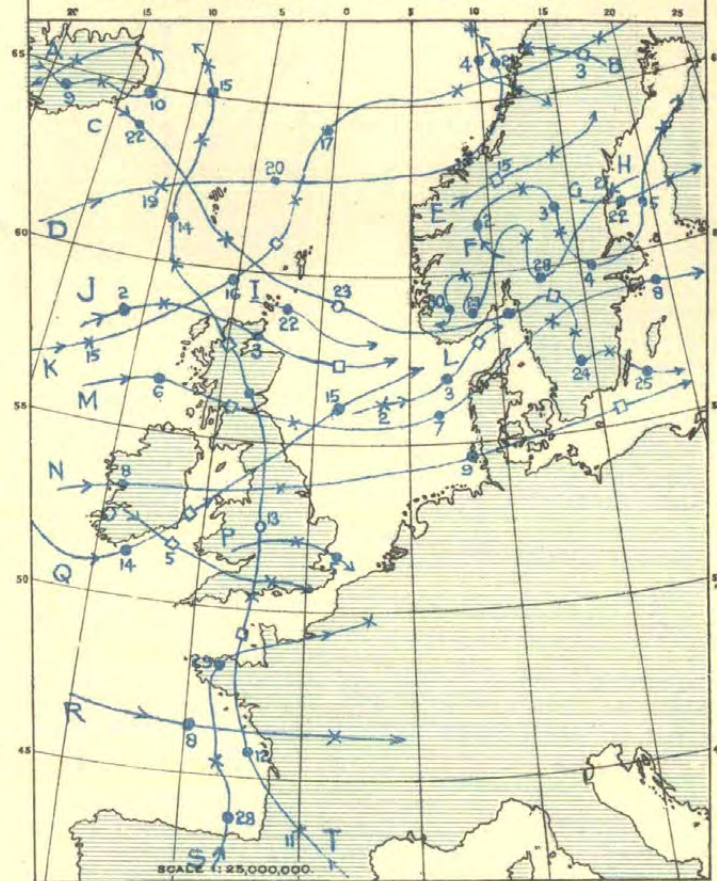
WIND ROSES. The arrows fly with the wind and indicate frequency and force, thus: LIGHT TO STRONG GALE 30 OBS. = 1 inch

3. DISTRIBUTION OF MEAN TEMPERATURE.



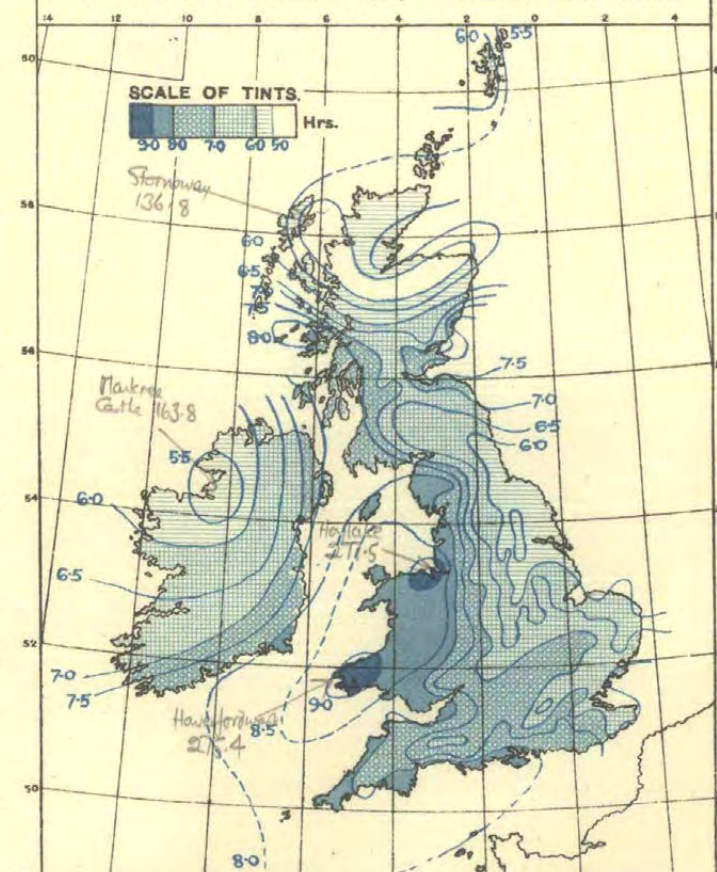
Sea temperatures are shown in large figures, thus: 55°

2. MOVEMENTS OF DEPRESSIONS.

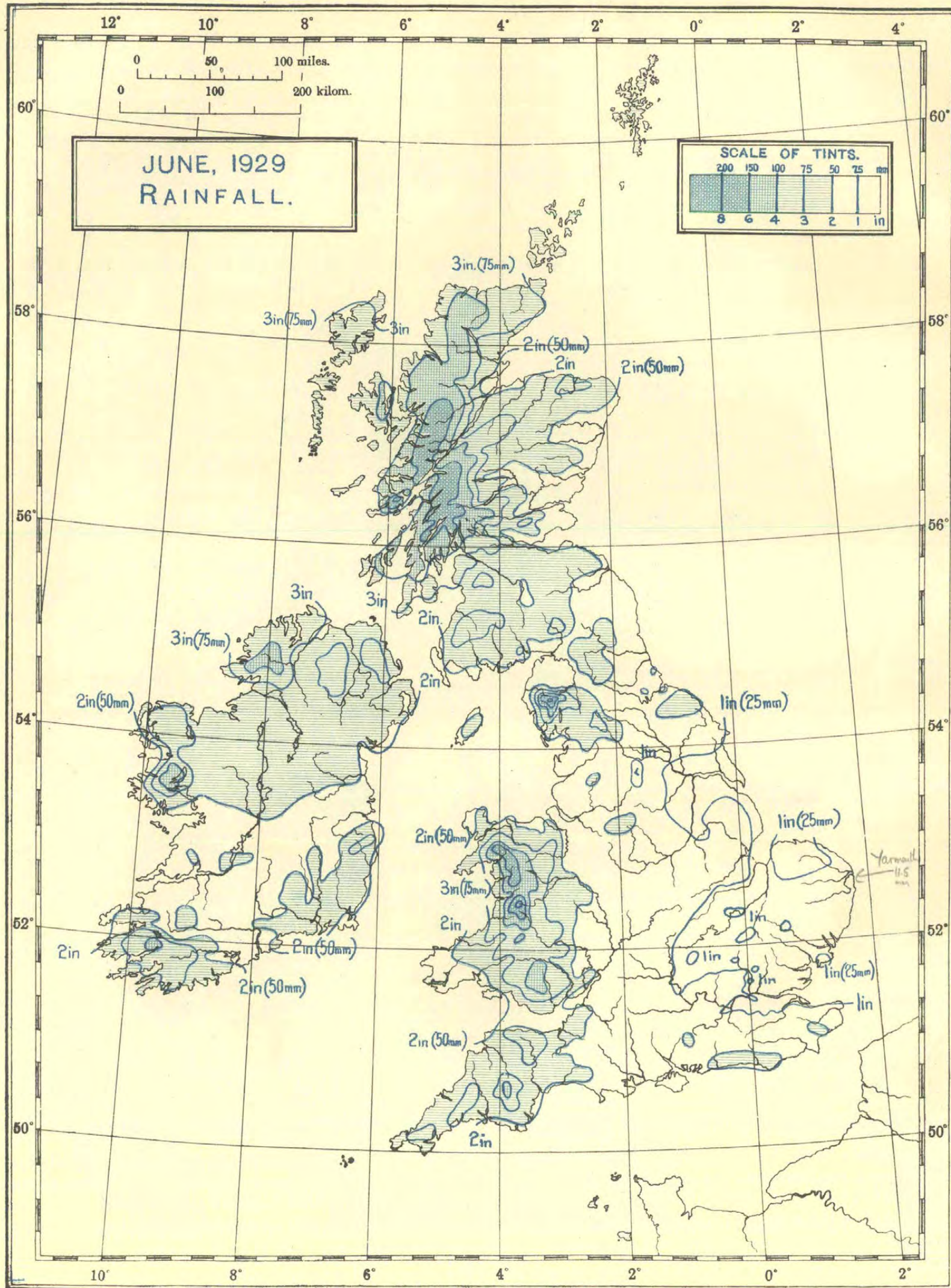


Positions of centres are shown thus: ○ at 1h; ● at 7h; □ at 13h; X at 18h.

4. BRIGHT SUNSHINE, HOURS PER DAY.



* The pressure is expressed in millibars.



Scale 1 : 5,000,000.

The equivalent values in mm. are given in round numbers. The exact relation is 10 in. = 254 mm.

TABLE III.—SUMMARY OF the RECORDS of TEMPERATURE, RAINFALL AND SUNSHINE, and of WEATHER OBSERVATIONS, JUNE, 1929.

DISTRICT, COUNTY AND PLACE.	Terminal Hours of Observation.	Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.							Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
			Means of		Deviation from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.	Total Fall.	Deviation from Normal.	Most in a day.		Precip'n.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, JUNE, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.		
					Means of		Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.			Deviation from Normal.	Most in a day.		Precip'n.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.					
								Maximum.	Date.	Minimum.	Date.															Daily Mean.	Deviation from Normal.	Per Cent.			
																													A	B	Max.	Min.	Mean of A and B.
Max.	Min.	Rain.	ft.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	1 ft.	4 ft.	in.	mm.	mm.	mm.	0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.		
2. ENGLAND, N.E.																															
Northumberland.	Berwick-on-T.	9 9 9	76	59.6	47.3	53.5	—	68	11th	40	8th	—	—	1.82	46	—	17	6th	16	6	0	0	0	1	0	0	0	7.15	—	41	
	Bellingham	9 9 9	848	61.4	42.8	52.1	—	71	12th	35	6th	—	—	3.06	78	—	22	8th	17	15	—	—	—	1	0	0	—	—	—		
	Cockle Park	2121 9	325	61.9	44.6	53.3	+0.3	70	1, 11	36	5, 8	55.0	52.2	1.53	39	17	9	1, 12	12	8	0	0	0	1	0	0	6.58	+0.71	38		
	Tynemouth	18-7 7	67	60.1	49.4	54.7	+0.4	72	11th	44	4, 9	—	—	1.58	40	10	8	1st	12	8	0	0	0	1	1	0	—	—	—		
Durham.	Chopwellwood	9 9 9	445	62.7	43.5	53.1	—	73	12th	34	5th	—	—	1.48	38	—	8	5th	14	11	0	0	0	0	0	4	5.94	—	35		
	Durham	2121 9	336	61.6	45.3	53.5	-1.8	71	11th	36	5th	—	—	1.59	41	7	9	12th	14	9	0	0	0	1	0	1	5.75	+0.05	34		
	Houghall	9 9 9	160	63.5	46.1	54.8	—	75	11th	36	26, 29	—	—	1.51	38	—	9	12th	13	8	0	0	0	2	0	3	5.98	—	35		
	Ushaw College	9 9 9	594	61.7	45.8	53.7	—	72	11th	36	5th	—	—	1.60	41	14	8	12th	15	9	0	0	0	2	1	—	—	—	—		
York, N. Riding.	Castleton	9 9 9	425	61.6	44.3	52.9	—	72	18th	35	26th	53.1	—	2.59	66	—	29	8th	14	10	0	0	1	2	0	—	—	—	—		
	Rounton	2121 9	249	62.8	45.2	54.0	-0.9	74	11th	37	5th	53.6	—	1.57	40	16	11	12th	11	8	0	0	0	2	0	7	—	—	—		
	Scarborough†	9 9 9	118	63.0	49.0	56.0	+0.4	76	19th	42	9th	—	55.1	1.30	33	14	8	8th	13	10	0	0	0	1	0	0	5.70	-0.07	34		
	West Witton	9 9 9	605	62.4	46.4	54.4	—	72	12th	35	5th	56.4	54.7	1.49	38	—	14	8th	12	8	0	0	1	3	—	1	—	—	—		
York, E. Riding.	York	2121 9	56	64.5	48.2	56.3	-1.3	77	19th	39	5th	55.8	52.0	1.56	40	13	9	7, 12	14	8	0	0	0	1	—	—	5.19	-0.64	31		
	Hull	2121 9	8	65.6	48.3	56.9	+0.4	78	19th	36	5th	57.1	51.3	1.45	37	15	8	8th	14	9	0	0	0	2	1	1	5.98	—	35		
	Osgodby	2121 9	30	65.6	44.7	55.1	—	76	19th	35	6th	—	—	0.95	24	—	8	12th	11	6	0	0	0	2	0	1	6.04	—	36		
	Spurn Head	18-7 7	29	62.1	49.9	56.0	+0.2	78	19th	43	5th	—	—	0.89	23	25	6	24th	14	8	0	0	0	2	0	—	5.64	—	33		
Lincoln.	Cranwell	18-7 7	236	65.0	46.7	55.9	-1.2	77	19th	38	5th	58.3	53.9	1.15	29	14	6	6th	13	9	0	0	0	1	0	0	6.60	+0.10	39		
	Cleethorpes	9 9 9	23	63.9	48.1	56.0	—	78	19th	37	5th	—	—	0.93	24	—	7	12th	10	8	0	0	0	1	0	—	5.96	—	35		
	Skegness	9 9 9	12	63.1	49.2	56.1	+0.5	74	19th	41	5th	—	—	0.70	18	28	8	6th	9	4	0	0	0	0	0	—	5.85	-1.15	35		
3. ENGLAND, E.																															
Norfolk.	Cromer	9 9 9	150	64.0	50.0	57.0	+0.8	79	19th	44	5th	—	—	0.81	21	22	9	6th	9	5	0	0	0	0	0	0	6.06	-0.41	36		
	Hunstanton	9 9 9	105	63.5	50.1	56.8	—	79	19th	42	5th	—	—	1.07	27	—	15	6th	10	7	0	0	0	0	0	—	5.74	—	34		
	Norwich	9 9 9	98	66.1	48.5	57.3	-0.4	82	19th	41	5th	59.1	—	0.79	20	29	7	6th	14	3	0	0	0	0	—	—	6.11	—	37		
	Sprowston	9 9 9	93	64.4	47.2	55.8	—	79	19th	40	5, 10	—	—	0.86	22	—	8	3rd	13	5	0	0	0	0	0	1	0	6.25	—	37	
	Yarmouth	18-7 7	14	62.0	50.4	56.2	-0.4	71	15th	42	5th	59.2	53.2	0.45	11	34	4	4th	11	3	0	0	0	0	0	0	5.76	-1.24	34		
Suffolk.	Bungay (Flix'n)	9 9 9	79	66.3	47.6	56.9	—	80	19th	39	29th	—	—	0.64	16	—	8	2nd	8	4	0	0	0	2	0	1	—	—	—		
	Copdock	9 9 9	164	65.4	47.7	56.5	—	77	19th	38	29th	58.4	54.5	0.87	22	—	11	4th	12	7	0	0	0	2	0	0	6.35	—	38		
	Felixstowe	18-7 7	15	63.5	50.4	56.9	—	72	20th	40	29th	—	—	0.62	16	—	3	4th	10	5	0	0	0	1	0	0	7.05	—	42		
	Lowestoft	9 9 9	83	62.4	50.3	56.3	+0.1	73	19th	44	5th	58.4	53.8	0.59	15	31	4	3rd	11	6	0	0	0	0	0	—	6.19	-1.04	37		
Cambridge.	Cambridge † (Bot. Gdns.)	2121 9	41	66.1	47.4	56.7	-1.8	79	19th	38	26th	58.4	54.6	0.84	21	33	7	6th	8	4	0	0	0	1	0	0	7.06	+0.36	43		
	Wisbech	2121 9	10	65.4	46.1	55.7	—	79	19th	38	10th	—	—	0.96	24	—	10	6th	9	5	0	0	0	1	0	0	6.18	—	37		
Bedford	Cardington	18-7 7	100	66.0	47.4	56.7	—	79	19th	35	28th	—	—	0.76	19	—	5	6th	12	7	0	0	0	1	0	0	7.10	—	43		
	Luton	9 9 9	390	64.8	45.9	55.3	—	77	19th	37	26th	59.9	53.0	0.62	16	—	4	5th	10	6	0	0	0	1	0	5	7.33	—	44		
Hertford.	Woburn	9 9 9	291	64.2	46.2	55.2	-1.9	76	19th	35	29th	61.2	53.9	0.87	22	28	5	6th	13	7	0	0	1	1	0	1	7.05	—	43		
	Rothamsted	9 9 9	420	63.8	48.2	56.0	-1.4	76	19th	41	26, 29	57.4	—	0.97	25	31	5	4th	12	7	0	0	0	0	0	—	7.55	+0.95	46		
Essex.	St. Albans	9 9 9	272	65.7	46.1	55.9	—	77	19th	38	26th	59.4	—	0.99	25	—	6	12th	14	8	0	0	0	1	0	0	—	—	—		
	Clacton-on-S.	18-7 7	55	63.0	51.0	57.0	-0.2	72	20th	43	29th	58.3	55.3	1.31	33	9	17	4th	11	7	0	0	1	1	0	0	7.08	-0.25	43		
	Chelmsford	9 9 9	134	66.5	47.1	56.8	—	79	19th	37	29th	—	—	0.58	15	34	4	7th	12	6	0	0	0	2	—	—	—	—	—		
	Chelmsford (Good Easter)	9 9 9	185	65.4	44.9	55.1	—	78	19th	37	11, 25	—	—	0.51	13	—	3	8th	11	5	0	0	0	0	0	4	6.99	—	42		
	Earls Colne	9 9 9	168	66.7	47.9	57.3	—	79	19th	39	29th	—	—	0.64	16	—	5	4th	10	6	0	0	0	1	—	—	—	—	—		
	Halstead	9 9 9	139	67.3	47.5	57.4	—	80	19th	36	29th	—	—	0.57	14	—	6	4th	10	5	0	0	0	2	0	—	—	—	—		
	Shoeburyness	18-7 7	11	65.3	48.6	56.9	-2.2	74	19th	41	11, 29	—	—	0.50	13	30	3	4th	8	4	0	0	0	2	0	0	7.22	—	44		
4. MIDLAND COUNTIES.																															
York, W. Riding.	Bradford	9 9 9	439	61.9	47.4	54.7	—	76	13th	39	5th	54.9	49.8	0.90	23	37	8	12th	12	9	0	0	0	0	0	0	6.49	—	38		
	Giggleswick	9 9 9	575	61.1	45.1	53.1	—	73	2nd	33	8th	—	—	1.34	34	—	7	8th	14	10	0	0	1	2	0	—	6.39	—	37		
	Harrogate	18-7 7	478	61.3	46.8	54.1	-1.4	72	11, 18, 19	37	5th	53.9	52.3	1.10	28	34	7	4th	11	8	0	0	2	1	2	1	6.43	-0.10	38		
	Huddersfield	2121 9	325	63.8	47.0	55.4	—	75	11, 19	38	5, 26	57.3	52.3	0.92	23	—	9	12th	9	6	0	0	0	2	0	1	5.78	—	34		
	(Oakes)	2121 9	761	60.7	45.6	53.1	—	71	19th	40	5, 26	53.4	47.6	0.87	22	—	7	12th	12	7	0	0									

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, JUNE, 1929.

DISTRICT, COUNTY AND PLACE.	Terminal Hours of Observation.	Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.										Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.		
			Means of				Deviation from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.	Total Fall.	Deviation from Normal.	Most in a day.		Precip'n. 0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.		Per Cent.		
			A	B	Mean of A and B.	Maximum.		Date.	Minimum.	Date.	Amount.					Date.	Daily Mean.										Deviation from Normal.				
			Max.	Min.																								Max.	Min.		
4. MID. COUNTIES—cont.			G.M.T.	ft.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	in.	mm.	mm.	mm.											hr.	hr.	%	
Warwick.	Birmingham ¶§	18-7 7	535	63.1	48.1	55.6	-1.9	74	19th	40	5th	52.2	49.6	1.06	50	—	9	13	14th	16	11	0	0	1	1	0	2	0	6.84	+1.34	41
	B'ham, Sparkhill	713 7	424	66.5	47.2	56.9	—	78	19th	39	5th	—	—	1.51	38	—	9	6th	14	9	0	0	0	1	0	2	0	—	—	—	
	Coventry ..	9 9 9	270	65.6	48.1	56.9	-1.5	75	19th	42	5, 10	57.6	52.7	1.52	39	—	15	11	6th	12	11	0	0	1	1	0	0	6.14	-0.13	37	
	Rugby ..	2121 9	390	64.1	46.3	55.2	—	74	19th	36	26th	—	—	1.11	28	—	9	6th	12	8	0	0	0	0	0	1	0	—	—	—	
Oxford.	Leafield ..	18-7 7	612	62.9	45.3	54.1	—	73	19th	37	5th	—	—	1.42	36	—	11	14th	13	9	0	0	0	1	1	3	0	7.15	—	43	
	Oxford ¶§	9 9 9	208	66.1	48.0	57.1	-1.4	77	19th	39	5th	60.1	54.8	0.96	24	—	33	8	5th	12	7	0	0	1	1	0	0	7.01	+0.51	43	
	Oxford (Sandford)	9 9 9	210	66.3	46.0	56.1	—	78	19th	36	5th	—	—	1.21	31	—	11	5th	12	7	0	0	0	0	0	8	0	7.16	—	43	
	Mursley	9 9 9	490	64.1	46.3	55.2	—	75	19th	39	29th	—	—	0.81	21	—	6	5th	10	8	0	0	0	1	0	0	0	—	—	—	
Stafford.	Mayfield ..	9 9 9	374	63.2	44.7	53.9	—	75	19th	34	10th	—	—	1.37	35	—	8	12th	13	10	0	0	0	1	—	0	0	6.87	—	41	
Shropshire.	Newport ..	9 9 9	211	64.0	45.2	54.6	—	74	19th	32	5th	—	—	1.62	41	—	12	12th	13	8	0	0	1	1	0	5	0	7.41	—	44	
	Roden, Well'n	9 9 9	207	65.1	43.0	54.1	—	74	18th	31	5th	—	—	1.93	49	—	19	12th	12	9	0	0	0	1	—	—	—	—	—	—	
	Wistanstow ..	2121 9	481	64.2	44.4	54.3	-3.0	74	19th	35	5th	—	—	2.50	64	+	6	28	12th	10	9	0	0	1	0	0	0	—	—	—	
Worcester.	Malvern ..	9 9 9	377	64.8	49.4	57.1	—	73	11, 19	44	5, 29	58.9	55.0	1.69	43	—	16	10	12th	11	8	0	0	0	0	0	0	7.47	—	45	
	Worcester (Perdiswell)	9 9 9	95	65.9	45.8	55.9	—	75	11, 19	34	5th	—	—	1.70	43	—	10	12th	11	10	0	0	0	1	—	6	0	7.36	—	44	
Hereford.	Bromyard ..	9 9 9	392	65.0	45.4	55.2	—	74	19th	33	5th	58.1	53.2	1.46	37	—	11	12th	14	8	0	0	0	1	1	1	0	—	—	—	
	Hereford ..	9 9 9	291	66.2	45.8	56.0	-2.0	75	19th	38	5, 25, 26	—	—	1.09	28	—	26	7	14th	9	7	0	0	0	1	0	0	—	—	—	
	Ross-on-Wye ¶§	18-7 7	223	65.1	47.1	56.1	-2.8	74	19th	38	5th	58.4	54.5	1.33	34	—	21	16	12th	11	6	0	0	0	1	0	2	0	7.47	+0.92	45
Gloucester.	Cheltenham ..	2121 9	214	66.5	48.6	57.5	-0.7	75	19th	39	5th	60.2	56.8	1.29	33	—	24	6	5th	12	9	0	0	0	0	0	0	6.89	—	42	
5. ENGLAND, S.E.																															
London.	City, Bunhill Row	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.31	+0.31	38	
	Camden Square	9 9 9	110	68.4	51.1	59.7	-1.3	82	19th	44	5th	59.3	53.6	1.29	33	—	18	10	4th	12	8	0	0	1	1	—	—	—	—	—	
	East Ham ..	9 9 9	15	67.0	51.0	59.0	—	80	19th	44	5, 29	—	—	1.05	27	—	8	4th	11	7	—	—	—	—	—	—	—	—	—	—	
	Enfield ..	9 9 9	148	67.8	49.5	58.7	—	81	19th	42	29th	—	54.5	0.93	24	—	30	5	12th	12	8	0	0	0	1	0	0	6.67	—	40	
	Greenwich ..	2424 9	149	68.7	48.9	58.8	-1.1	83	19th	43	5th	54.6	51.6	1.23	31	—	20	14	4th	11	6	0	0	0	1	0	1	0	6.68	-0.02	41
	Hampst'd Res.	9 9 9	450	65.3	47.1	56.2	—	78	19th	40	5, 29	—	—	1.55	39	—	10	14th	15	8	0	0	1	1	—	0	0	7.12	—	43	
	Kensington ..	18-9 9	80	67.0	51.0	59.0	—	80	19th	44	5th	59.6	55.7	1.02	26	—	10	4th	12	6	0	0	0	0	0	0	0	—	—	—	
	Regent's Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6.92	—	42	
	Richmond (Kew Obs.) ¶§	2424 24	18	66.7	49.8	58.3	-0.9	79	19th	43	5th	59.2	54.3	0.88	22	—	33	5	13, 14	11	7	0	0	0	1	0	0	7.00	+0.43	42	
	Stroud Green ..	18-7 7	212	67.2	49.7	58.5	—	80	19th	42	29th	—	—	1.23	31	—	10	4th	11	7	0	0	1	1	0	0	0	—	—	—	—
	Tottenham ††	2121 9	51	68.2	51.0	59.6	0.0	81	19th	44	29th	—	55.9	1.08	27	—	24	7	4th	9	8	0	0	0	0	—	0	6.71	-0.12	41	
	Westminster ..	9 9 9	27	67.1	51.7	59.4	-0.3	79	19th	44	5th	—	—	1.09	28	—	20	12	4th	8	6	—	—	—	—	—	0	—	6.94	+1.14	42
Surrey.	Addington ..	9 9 9	472	65.3	(48.2)	(56.7)	—	77	19th	41	29th	—	—	1.21	31	—	6	4th	13	9	—	—	—	—	—	—	—	—	—	—	
	Croydon Aero.	18-7 7	244	65.8	49.3	57.5	—	78	19th	43	5, 25, 29	—	—	0.97	25	—	6	4th	10	7	0	0	0	1	1	0	0	7.10	—	43	
	Wisley ..	9 9 9	150	68.0	47.5	57.7	-0.5	81	19th	38	25th	59.5	54.5	1.34	34	—	12	7	14th	13	8	0	0	0	1	1	4	0	6.86	-0.07	42
Kent.	Biggin Hill	18-7 7	597	63.5	47.3	55.4	—	75	19th	40	29th	—	—	0.98	25	—	8	12th	13	7	0	0	0	1	1	0	0	7.25	—	44	
	Bromley ..	9 9 9	213	66.6	48.6	57.6	—	78	19th	43	5, 11, 25, 26, 29	—	—	0.77	20	—	5	12th	11	8	0	0	0	0	0	0	0	—	—	—	
	Canterbury ..	9 9 9	124	65.5	48.0	56.7	—	79	19th	39	11th	57.6	54.1	1.71	43	—	22	4th	10	7	—	—	—	—	—	—	—	—	—	—	
	Dover ..	9 9 9	22	61.7	51.5	56.6	—	71	23rd	44	11th	59.6	55.9	1.83	47	—	21	4th	13	8	0	0	1	1	0	1	0	6.86	—	42	
	Dungeness ..	18-7 7	20	61.4	49.5	55.5	-1.8	74	23rd	43	10, 11, 25	—	—	1.60	41	+	1	11	4th	10	9	0	0	0	0	1	—	—	—	—	
	East Malling ..	9 9 9	127	66.2	46.5	56.3	—	78	19th	36	11th	—	—	0.98	25	—	8	4th	10	6	0	0	0	1	0	2	0	6.82	—	42	
	Folkestone ..	9 9 9	101	63.7	50.3	57.0	—	73	12th	46	25th	—	—	54.9	1.58	40	—	12	4th	15	10	0	0	0	1	1	0	0	7.01	—	43
	Lympne ..	18-7 7	347	62.1	47.9	55.0	—	76	12th	43	5, 9, 25	—	53.4	1.38	35	—	9	4th	11	8	0	0	0	1	2	0	0	6.98	—	43	
	Manston ..	18-7 7	150	63.6	49.6	56.6	—	73	12, 19	45	8, 9, 21, 25	—	—	1.12	29	—	8	4th	11	8	0	0	0	2	0	0	0	6.84	—	41	
	Margate ¶§	9 9 9	51	63.1	52.3	57.7	-0.4	72	19th	47	1st	61.2</																			

TABLE III (continued).—SUMMARY OF THE RECORDS OF TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, JUNE, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.										Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.		
					Means of		Deviation from Normal.		Absolute Maximum and Minimum.								Total Fall.	Deviation from Normal.	Most in a day.		Precip'n.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.					
									Max.	Min.	Maximum.	Date.	Minimum.	Date.														0.2 mm. or more.	1 mm. or more.	Snow.	Daily Mean.	Deviation from Normal.	Per Cent.
Max.	Min.	Max.	Min.	Mean of A and B.	Deviation from Normal.	Maximum.	Date.	Minimum.	Date.	1 ft.	4 ft.	in.	mm.	mm.	mm.	0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.						
5. ENGLAND, S.E.—cont.																																	
Hampshire	Calshot	18-7	7	8	64.3	50.7	57.5	—	72	19, 20	45	17th	—	—	1.08	27	—	7	5th	10	8	0	0	0	1	1	0	1	8.07	—	49		
	Grayshott	9 9 9	661	63.8	47.1	55.5	-1.0	74	19th	41	5, 25	57.8	—	1.66	42	—	15	9	5th	12	8	0	0	0	0	0	0	6.74	-0.39	41			
	Long Sutton	9 9 9	479	66.0	46.9	56.5	—	75	19th	39	5, 25	60.1	—	1.21	31	—	7	30th	8	6	0	0	0	0	0	1	0	7.00	—	43			
	Southamp'n	¶§ 2121	9	64	67.1	49.6	58.3	-1.5	74	20, 23	44	25th	—	—	1.40	35	—	16	9	5th	12	9	0	0	0	0	0	0	7.67	+0.60	47		
	S. Farnboro'	18-7	7	237	67.0	46.4	56.7	—	78	19th	38	25th	—	—	1.15	29	—	6	30th	12	6	0	0	0	1	0	10	0	7.00	—	43		
	Winchester	18-7	7	272	65.9	46.4	56.1	—	75	19th	40	5, 25	—	—	1.83	46	—	11	4th	12	8	0	0	0	1	2	0	0	6.78	—	41		
(Worthy Down)																																	
I. of Wight.	Newport	9 9 9	48	67.8	47.7	57.7	—	79	20th	41	9, 11, 25	—	—	1.53	39	—	9	5th	12	8	0	0	0	1	0	0	0	—	—	—	—		
	Ryde	9 9 9	13	64.4	51.3	57.9	—	73	20th	46	11th	—	—	1.29	33	—	7	5th	12	9	0	0	0	0	0	—	—	2 8.04	—	49			
	Sandown	9 9 9	13	64.1	49.7	56.9	—	74	23rd	40	11th	—	—	1.47	37	—	8	5th	15	8	0	0	0	0	0	—	—	0 8.42	—	52			
	Totland Bay	9 9 9	140	63.0	49.3	56.1	-1.7	71	20th	44	25th	—	—	1.39	35	—	12	11	5th	12	7	0	0	0	0	1	0	0	8.15	+0.62	50		
	Ventnor	9 9 9	59	62.8	51.4	57.1	-1.5	71	20, 23	47	25th	—	—	1.57	40	—	7	14	5th	12	9	0	0	0	0	—	—	0 8.32	+1.22	51			
(Hospital)																																	
Wilts.	Larkhill	9 9 9	440	64.7	46.4	55.5	—	74	19th	40	5, 25	—	—	1.36	35	—	9	5th	10	9	0	0	0	0	0	1	0	—	—	—	—		
	Marlboro'	¶§ 9 9 9	424	64.9	43.9	54.4	-2.4	75	19th	35	5, 26	57.2	52.9	1.74	44	—	17	9	30th	9	9	0	0	0	1	1	5	0	6.95	+0.82	42		
	Porton	9 9 9	363	66.0	44.8	55.4	—	76	19th	37	25th	58.9	—	1.17	30	—	8	5th	13	9	0	0	0	0	0	3	0	7.56	—	46			
7a. ENGLAND, N.W.																																	
Cumberland.	Aspatria	2121	9	487	59.9	46.5	53.2	-2.8	72	12th	38	5th	54.7	50.6	1.36	35	—	30	10	20th	14	9	0	0	0	0	—	0	0	7.93	+1.10	46	
	(Mealsgate) ¶§	9 9 9	254	61.7	46.5	54.1	—	74	12th	34	28th	56.3	51.3	1.60	41	—	7	15th	15	11	0	0	1	2	0	4	0	7.64	—	45			
	Newton Rigg	2121	9	559	62.3	44.9	53.6	-2.1	74	12th	32	28th	—	—	1.57	40	—	16	9	12th	15	9	0	0	0	0	0	3	0	8.00	+1.13	47	
Lancashire.	Bolton	9 9 9	341	63.4	47.5	55.5	—	73	19th	38	5th	56.3	52.3	1.93	49	—	11	3rd	16	9	0	0	0	2	—	0	0	7.31	—	43			
	Burnley	9 9 9	458	61.7	45.8	53.7	—	72	11th	36	25th	56.6	52.1	1.52	39	—	6	12th	14	12	0	0	0	2	0	6	0	6.68	—	39			
	Darwen	2121	9	724	62.5	45.9	54.2	—	73	18th	38	28th	57.5	51.5	2.28	58	—	9	12th	14	11	0	0	0	3	0	0	0	7.45	—	44		
	Hutton	9 9 9	82	63.7	46.4	55.1	—	73	12th	35	5th	57.1	52.6	1.31	33	—	7	12th	12	8	0	0	0	2	0	1	0	8.25	—	49			
	Lancaster	9 9 9	311	63.1	48.7	55.9	—	74	12th	41	5th	58.3	53.9	2.30	58	—	13	12th	11	9	0	0	0	3	0	0	0	7.83	—	46			
	Leyland	9 9 9	124	63.2	46.4	54.8	—	73	12, 19	37	5, 25	—	—	1.43	36	—	8	12th	13	9	0	0	0	2	0	1	0	8.17	—	48			
	Manchester	2121	9	125	63.4	48.5	55.9	-2.5	73	11, 18, 19	43	5, 25, 26	—	—	1.01	26	—	41	9	12th	11	8	—	—	—	1	—	—	6.98	+1.55	41		
	(Whitworth Pk)	2121	9	190	65.0	50.8	57.9	-1.2	75	11, 18, 19	45	5th	58.6	54.7	1.04	26	—	42	10	12th	11	8	0	0	0	0	—	0	6.62	+0.92	39		
	(Oldham Road)	2121	9	190	65.0	50.8	57.9	-1.2	75	11, 18, 19	45	5th	58.6	54.7	1.04	26	—	42	10	12th	11	8	0	0	0	0	—	0	6.62	+0.92	39		
	(Swinton)	9 9 9	253	63.6	47.1	55.3	—	74	12th	39	5th	—	—	53.7	1.22	31	—	6	12th	13	9	0	0	0	2	0	0	0	0	7.02	—	42	
Southport	¶§ 9 9 9	37	62.6	49.4	56.0	-0.8	73	12th	42	28th	61.6	57.7	1.22	31	—	24	8	12th	12	7	0	0	0	2	0	0	0	1 8.85	+1.62	52			
Stonyhurst	¶§ 9 9 9	377	61.1	47.4	54.3	-2.0	71	13th	38	5th	—	—	1.77	45	—	33	7	1st	14	12	0	0	0	5	0	0	0	0	7.28	+1.11	43		
Cheshire.	Hoylake	9 9 9	30	64.2	49.0	56.6	-1.2	75	11th	40	28th	—	—	1.79	45	—	8	14	8th	14	10	—	—	—	—	—	—	—	9.25	+2.52	55		
	Liverpool	18-7	7	189	61.5	49.7	55.6	-1.7	73	11th	43	5th	—	—	1.12	29	—	27	6	12th	13	9	0	0	0	2	0	0	0	8.48	—	50	
	(Bidston)	9 9 9	500	63.1	46.6	54.9	-1.4	73	11, 19	39	26th	—	—	2.14	54	—	16	12	3rd	15	11	0	0	0	1	0	—	0	—	—	—		
	Macclesfield	9 9 9	500	63.1	46.6	54.9	-1.4	73	11, 19	39	26th	—	—	2.14	54	—	16	12	3rd	15	11	0	0	0	1	0	—	0	—	—	—		
West Kirby	9 9 9	25	65.3	49.5	57.4	—	74	11th	42	25th	—	—	1.41	36	—	8	12th	14	8	0	0	0	1	1	0	0	1 9.24	—	55				
7b. NORTH WALES.																																	
Flint.	Hawarden B'ge	9 9 9	22	64.1	49.2	56.7	-1.3	74	11th	42	11, 28	—	—	1.72	44	—	6	7	12th	15	10	—	—	—	—	—	—	—	—	—	—		
	Rhyl	9 9 9	30	63.4	48.9	56.1	-0.9	73	11, 12	40	26th	—	—	1.29	33	—	16	8	12th	12	8	0	0	1	0	2	0	0	9.21	+2.14	55		
	Sealand	¶§ 18-7	7	16	63.5	46.6	55.1	-1.6	73	12th	37	28th	57.2	53.7	1.49	38	—	16	7	8th	15	9	0	0	0	2	0	0	0	7.79	+1.60	46	
Anglesey.	Holyhead	¶§ 18-7	7	26	59.2	50.9	55.1	-0.7	63	11, 12, 28	45	5th	—	—	1.36	35	—	20	7	12th	11	8	0	0	0	0	2	0	0	8.90	+1.75	53	
Denbigh.	Colwyn Bay	9 9 9	81	63.1	50.5	56.8	—	74	11th	43	5th	—	—	1.71	43	—	8	8	12th	14	10	0	0	0	0	0	—	0	8.55	—	51		
Carnarvon.	Aber (Bangor)	9 9 9	60	61.6	48.7	55.1	—	70	11th	40	5th	—	—	1.80	46	—	8	8	21st	14	14	0	0	0	0	—	0	0	5.83	—	35		
	Llandudno	9 9 9	22	61.8	50.1	55.9	-1.4	71	11th	42	4, 5	—	—	2.04	52	—	0	9	5th	13	11	0	0	0	0	0	—	0	8.60	+1.40	51		
Montgomery.	Welshpool	9 9 9	254	65.8	42.2	54.0	—	74	19th	33	5, 25, 26	—	—	2.28	58	—	15	15	12th	13	12	0	0	0	0	0	—	0	—	—	—		
8a. SOUTH WALES.																																	
Cardigan.	Aberystwyth	9 9 9	59	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	„ P.B.S.†	9 9 9	452	59.4	47.0	53.2	—	69	11th	39	25th	—	—	3.8																			

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, JUNE, 1929.

DISTRICT, COUNTY AND PLACE.	Terminal Hours of Observation.	Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.										Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.							
			Means of		Deviation from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.	Total Fall.	Deviation from Normal.	Most in a day.		Precip'n. 0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.											
			A	B		Maximum.	Date.	Minimum.	Date.					Amount.	Date.										Daily Mean.	Deviation from Normal.	Per Cent.									
			Max.	Min.																																
8b. ENGLAND, S.W.—cont.																																				
Devon.	Arlington	9 9 9	613	62.4	47.5	54.9	—1.2	72	18, 25	39	10th	—	—	3.35	85	+	1	15	12th	12	12	0	0	0	0	0	0	0	0	0	0	0	hr.	hr.	%	
	Ashburton	9 9 9	583	64.9	48.5	56.7	—1.4	73	19th	45	8, 10	—	—	2.05	52	—	13	11	13th	9	7	0	0	0	0	0	0	0	0	0	0	—	—	—		
	Cullompton	9 9 9	202	67.1	47.0	57.1	—1.1	76	19th	37	18, 25	—	—	2.40	61	+	7	21	12th	14	9	0	0	0	0	0	0	0	0	0	0	6.98	+0.51	43		
	Dean Prior	2121 9	331	64.1	46.5	55.3	—	70	11, 19, 20, 22	39	11, 18	—	—	3.73	95	—	—	21	15th	11	9	0	0	0	0	0	0	0	0	0	3	—	—	—		
	Ilfracombe	9 9 9	74	60.8	51.4	56.1	—2.0	71	11th	45	11th	60.2	56.3	2.56	65	+	12	16	14th	11	10	0	0	0	0	0	0	0	0	0	0	7.94	—	48		
	Killerton	9 9 9	159	—	—	—	—	—	—	—	—	—	—	1.97	50	—	—	26	12th	7	5	0	0	0	0	0	0	0	0	0	0	—	—	—		
	Newton Abbot	9 9 9	350	64.6	49.5	57.1	—	73	19, 22	42	10, 25	—	—	2.20	56	—	—	20	12th	10	8	0	0	0	0	0	0	0	0	0	0	7.85	—	48		
	Plymouth (Hoe)	2121 9	116	63.2	50.3	56.7	—1.6	71	11th	44	18th	59.8	55.4	2.64	67	+	12	16	29th	9	9	0	0	0	0	0	0	0	0	0	1	8.10	+1.07	50		
	Plymouth (Cattewater)	18-7 7	82	61.8	50.5	56.1	—	70	11th	45	11, 17, 18, 27	—	—	2.42	61	—	—	11	12th	10	9	0	0	0	0	0	0	0	0	2	0	0	8.04	—	49	
	Princetown	9 9 9	1359	58.7	46.6	52.7	—	66	11, 27	41	28th	—	—	4.48	114	—	—	23	5th	15	9	0	0	0	0	0	0	0	0	4	0	0	—	—	—	
	Salcombe	9 9 9	39	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	Sidmouth	9 9 9	147	63.2	49.1	56.1	—1.0	70	20th	43	17th	—	—	2.57	65	+	12	20	12th	11	10	0	0	0	0	0	0	0	0	0	0	0	—	—	—	
	Sidmouth †	9 9 9	25	63.2	46.5	54.9	—	70	20th	43	9th	—	—	2.31	59	—	—	20	12th	10	9	0	0	0	0	0	0	0	0	0	0	0	7.98	—	49	
	Tavistock	9 9 9	458	63.2	47.3	55.3	—	71	18, 19	41	17, 18	—	—	55.6	82	—	—	15	13th	13	9	0	0	0	0	0	0	0	0	0	0	0	—	—	—	
	Teignmouth	9 9 9	20	63.6	50.4	57.0	—1.6	72	22nd	45	11, 18	—	—	2.21	56	+	6	22	12th	12	8	0	0	0	0	0	0	0	0	0	0	0	8.33	—	51	
	Torquay	9 9 9	12	64.7	51.3	58.0	—0.2	72	22, 23	48	10, 11, 17, 18, 25	—	—	2.06	52	+	4	20	12th	9	9	0	0	0	0	0	0	0	0	0	0	1	8.57	+1.14	53	
Cornwall.	Woolacombe	9 9 9	59	60.5	51.5	56.0	—1.7	70	11th	46	11th	—	—	1.82	46	+	1	12	12th	11	8	0	0	0	0	0	0	0	0	0	0	0	8.17	+0.74	50	
	Falmouth Obs.	9 9 9	167	62.9	50.9	56.9	—0.5	69	27th	45	18th	61.9	58.3	2.70	69	+	10	14	29th	11	9	0	0	0	0	0	0	0	0	0	0	0	8.35	+0.98	52	
	" (Pendennis)	18-7 7	200	61.2	51.2	56.2	—	66	22, 27	47	11, 18, 25	—	—	2.37	60	—	—	11	30th	9	9	0	0	0	0	0	0	0	0	0	0	0	0	8.31	—	51
	Fowey	9 9 9	51	64.4	49.6	57.0	—	71	27th	44	11th	—	—	2.91	74	—	—	17	29th	10	10	0	0	0	0	0	0	0	0	0	0	0	1	7.98	—	49
	Gulval	9 9 9	20	63.0	50.2	56.6	—	70	27th	43	18th	—	—	3.03	77	—	—	15	29th	11	10	0	0	0	0	0	0	0	0	0	0	0	0	8.33	—	51
9. IRELAND, N.	Newquay	9 9 9	190	59.8	49.7	54.7	—2.1	68	11th	42	11, 18, 26	59.1	54.7	2.74	69	+	18	13	29th	12	10	0	0	0	0	0	0	0	0	0	0	0	0	8.14	+0.97	50
	Redruth	9 9 9	397	60.4	49.0	54.7	—	65	11th	44	1, 18	—	—	3.05	78	+	15	15	29th	14	11	0	0	0	0	0	0	0	0	0	0	0	—	—	—	
Sligo.	Markree Cas.	2121 9	122	62.0	45.5	53.7	—1.6	73	28th	33	26, 27	58.0	53.1	2.89	73	—	4	15	6th	15	13	0	0	0	0	0	0	0	0	0	0	0	5.46	—0.07	32	
Mayo.	Blackod Pt.	18-7 7	10	58.7	50.6	54.7	—1.0	68	28th	45	14th	—	—	3.51	89	+	18	36	11th	17	11	0	0	0	0	0	0	0	0	0	0	0	0	—	—	
	Mallary	9 9 9	120	61.0	49.1	55.1	—	75	28th	43	26, 27	—	—	3.44	87	—	—	20	19th	17	14	0	0	0	0	0	0	0	0	0	0	0	5.97	+0.31	35	
Donegal.	Malin Head	18-7 7	51	56.8	48.9	52.9	—1.3	68	1st	39	5, 8	—	—	3.44	87	+	33	18	1st	18	13	0	0	0	0	0	0	0	0	0	0	0	0	6.13	+0.31	36
	Aldergrove	18-7 7	238	61.3	46.3	53.8	—	70	27th	34	5th	—	—	2.90	74	—	—	11	1st	18	14	0	0	0	0	0	0	0	0	0	0	0	0	6.54	—	38
Down.	Belfast	9 9 9	13	63.5	49.5	56.5	—	69	11, 17	39	5th	—	—	(2.44)	(62)	—	—	10	8th	17	13	0	0	0	0	0	0	0	0	0	0	0	—	—	—	
	Lisburn	9 9 9	206	64.0	45.9	54.9	—1.6	71	1, 27	35	5th	—	—	2.86	73	+	5	14	21st	18	11	0	0	0	0	0	0	0	0	0	0	0	—	—	—	
Armagh.	Donaghadee	18-7 7	40	60.0	48.1	54.1	—0.9	66	2, 19	37	5th	—	—	2.61	66	+	7	13	6th	17	10	0	0	0	0	0	0	0	0	0	0	0	0	—	—	
	Armagh	2121 9	204	63.6	46.2	54.9	—1.1	71	27th	37	28th	58.4	54.1	1.85	47	—	—	17	14	8th	19	10	0	0	0	0	0	0	0	0	0	0	0	6.13	+0.53	36
Longford.	Newtownforbes	2121 9	161	62.5	44.9	53.7	—	71	28th	36	26th	56.9	53.4	1.97	50	—	—	9	13th	15	12	0	0	0	0	0	0	0	0	0	0	0	0	—	—	
10. IRELAND, S.																																				
Dublin.	Balbriggan	9 9 9	203	62.0	47.2	54.6	—0.9	70	2nd	40	25, 26	58.2	55.2	1.31	33	—	20	6	1st	15	11	0	0	0	0	0	0	0	0	0	0	0	0	—	—	
	Dublin City	2121 9	54	63.6	50.0	56.8	—1.1	71	11th	42	26th	—	—	1.52	39	—	11	9	8th	15	8	0	0	0	0	0	0	0	0	0	0	0	0	—	—	
	" Glasnevin	2121 9	55	63.8	46.4	55.1	—1.1	71	11th	36	26th	—	—	1.28	32	—	19	7	1st	14	9	0	0	0	0	0	0	0	0	0	0	0	0	—	—	
	" Phoenix Pk.	2121 9	155	63.2	45.1	54.1	—1.3	69	2nd	35	26th	—	—	1.38	35	—	15	7	8th	12	11	0	0	0	0	0	0	0	0	0	0	0	0	7.00	+0.70	42
	" Trin. Coll.	2121 9	12	63.2	50.1	56.7	—0.4	71	11th	43	25, 26	57.9	54.3	1.50	38	—	9	9	8th	14	8	0	0	0	0	0	0	0	0	0	0	0	0	—	—	
Wicklow.	Hazelhatch	9 9 9	366	63.6	42.9	53.3	—	69	27th	36	1, 9	57.4	54.7	1.41	36	—	—	10	8th	16	10	0	0	0	0	0	0	0	0	0	0	0	0	6.10	—	37
	Newcastle	2121 9	256	62.9	47.6	55.3	—	69	19, 26	42	25th	—	—	1.61	41	—	—	7	8th	14	11	0	0	0	0	0	0	0	0	0	0	0	0	—	—	
Offaly.	Birr Castle	18-7 7	173	63.7	46.6	55.1	—1.6	72	28, 29	35	25th	57.9	54.5	1.69	43	—	16	8	7th	14	8	0	0	0	0	0	0	0	0	0	0	0>6.				

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of JUNE, 1929.

DISTRICT, COUNTY AND PLACE		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Visibility.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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Durham.	Durham	..	G.M.T.	ft.	mb.	mb.	°F.	°F.	mb.	%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of JUNE, 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.														
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.									
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Visibility.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	
																0	1	2	3				4	5	6													7
5. ENGLAND, S.E.—cont.																																						
Kent.	Biggin Hill H	G.M.T.	ft.	mb.	mb.	°F.	°F.	mb.	%																													
		7	596	1016.7	—	52.8	2.1	11.8	86.7	1.1	3	4	3	7	13	0	0	1	0	0	2	12	15	0	0	0	10	19	1	2	7	1	1	2	11	5	0	
		13	596	1016.0	—	61.0	5.7	12.5	69.7	4	1	3	4	15	7	0	0	0	0	0	0	9	17	4	0	0	10	20	0	1	5	1	2	1	10	6	4	
Kent.	Dungeness ..	18	596	1015.3	—	59.6	4.8	12.7	73.6	3	0	9	5	10	6	0	0	0	0	0	1	2	20	7	0	0	8	22	0	1	5	1	1	0	13	4	5	
		1	23	1016.9	—	52.3	0.9	12.4	93.4	7	4	8	10	3	5	0	0	0	0	0	0	2	12	16	0	0	8	22	0	5	4	2	0	1	6	8	4	
		7	23	1017.0	+0.8	55.2	2.3	12.6	85.6	7	2	5	5	9	9	0	1	0	0	0	1	3	13	12	0	0	10	20	0	4	7	3	0	1	6	6	3	
Kent.	Lympe H	13	23	1016.9	—	59.2	3.6	13.4	79.6	6	2	3	9	9	7	0	1	0	0	0	0	2	13	14	0	0	12	18	0	3	5	4	0	3	10	4	1	
		18	23	1016.2	—	57.6	2.7	13.7	83.6	4	3	2	8	11	6	0	1	0	0	0	1	13	15	0	0	9	21	0	0	6	4	1	1	12	4	2		
		1	345	1016.9	—	50.5	1.3	11.4	91.4	8	3	10	6	4	7	0	0	0	1	0	2	11	11	5	0	0	9	20	1	5	4	3	1	1	4	7	4	
Kent.	Manston H	7	345	1016.9	—	53.7	2.5	11.8	84.6	8	3	5	2	9	11	0	0	1	1	1	1	13	10	3	0	0	14	16	0	5	4	2	1	2	9	3	4	
		13	345	1016.5	—	60.1	5.0	12.7	72.7	2	3	2	2	15	8	0	0	0	0	0	1	6	9	14	0	0	18	12	0	4	4	3	4	1	9	2	3	
		18	345	1015.8	—	57.8	3.9	12.6	78.6	4	4	3	3	13	7	0	0	0	0	0	3	7	9	11	0	0	12	18	0	5	4	3	1	3	11	3	0	
Kent.	Manston H	7	152	1017.1	—	55.6	3.1	12.2	80.7	4	3	3	1	12	11	0	0	0	0	0	0	9	7	14	0	0	17	13	0	6	3	1	3	1	8	4	4	
		13	152	1016.8	—	60.9	6.1	12.0	67.7	2	4	2	3	16	7	0	0	0	0	0	1	3	9	17	0	0	17	12	1	3	5	3	4	1	5	4	4	
		18	152	1016.4	—	58.3	4.1	12.5	76.6	4	5	2	3	16	4	0	0	0	0	0	4	10	16	0	0	15	15	0	3	3	3	5	3	7	3	3		
Kent.	Tunbridge Wells	9	396	1017.2	—	58.1	4.3	12.2	74.6	5	2	6	8	4	10	0	0	0	0	0	5	3	9	13	0	0	6	24	0	2	7	0	2	2	12	3	2	
Sussex.	Brighton H	9	48	1017.5	—	57.9	3.7	12.9	78.6	6	1	4	10	4	11	0	0	0	0	0	4	14	11	1	0	0	4	25	1	0	6	2	3	0	12	4	2	
Sussex.	St. Leonards	9	174	1017.5	—	58.9	4.5	12.5	73.6	0	2	8	3	8	9	0	0	1	0	0	1	3	15	10	0	0	10	20	0	3	6	3	3	0	8	5	2	
		21	174	1016.7	—	55.1	3.1	11.8	80.5	5	7	4	5	5	9	0	0	0	0	0	0	2	20	8	0	0	1	6	23	0	0	6	4	3	1	6	6	4
		1	174	1016.7	—	55.1	3.1	11.8	80.5	5	7	4	5	5	9	0	0	0	0	0	0	2	20	8	0	0	1	6	23	0	0	6	4	3	1	6	6	4
Hampshire.	Calshot ..	1	15	1017.5	—	53.4	1.7	12.3	89.3	8	11	7	3	5	4	0	0	0	0	0	0	3	10	17	0	0	8	22	0	2	0	6	1	1	4	10	6	
		7	15	1017.6	—	55.6	2.4	12.7	85.6	2	5	4	7	10	0	0	1	0	0	0	0	14	6	9	0	0	12	17	1	6	3	5	0	2	2	7	4	
		13	15	1017.1	—	62.1	5.0	13.7	73.6	2	0	8	5	11	6	0	0	0	0	0	0	6	4	19	1	0	20	10	0	4	2	2	2	4	9	6	1	
Hampshire.	Southampton H	18	15	1016.4	—	61.0	4.7	13.4	74.5	3	4	8	3	11	4	0	0	0	0	0	0	4	6	20	0	1	16	13	0	4	2	1	4	0	9	7	3	
		9	84	1017.3	+0.2	58.4	4.7	12.1	73.6	2	5	4	4	6	11	0	0	0	0	2	11	16	1	0	0	0	4	26	0	2	4	1	1	2	9	6	5	
		21	84	1016.8	-0.2	60.5	5.8	12.1	68.5	1	5	6	6	5	8	0	0	0	0	2	2	26	0	0	0	0	3	27	0	1	4	2	1	1	10	7	4	
Hampshire.	S. Farnborough	7	256	1017.0	—	54.1	2.6	11.8	83.6	9	4	3	2	11	10	0	0	0	0	1	1	10	10	8	0	0	7	18	5	1	3	1	1	3	4	7	5	
		13	256	1016.2	—	64.6	8.2	11.9	59.7	2	1	2	5	14	8	0	0	0	0	0	1	5	8	16	0	0	13	17	0	4	2	2	1	3	7	6	5	
		18	256	1015.6	—	62.2	6.9	11.8	63.6	4	0	8	6	9	7	0	0	0	0	0	0	3	12	14	1	0	9	20	1	3	2	2	1	4	8	7	2	
Hampshire.	Winchester (Worthy Down)	7	273	1017.2	—	53.0	2.2	11.7	85.7	6	2	4	1	11	12	0	0	1	1	1	1	4	12	10	0	0	6	20	4	4	3	1	1	3	6	5	3	
		13	273	1016.3	—	62.5	7.4	11.5	59.7	2	1	3	5	12	9	0	0	0	0	0	1	1	7	21	0	0	11	19	0	4	1	2	1	5	6	7	4	
		18	273	1015.7	—	60.7	6.4	11.5	64.6	8	1	5	5	13	6	0	0	0	0	0	0	3	4	21	2	0	11	19	0	6	2	0	3	9	3	4	3	
I. of Wight.	Ventnor (Hosp.)	9	80	1017.4	—	58.1	3.8	12.7	77.6	3	1	8	5	6	10	—	—	—	—	—	—	—	—	—	—	0	13	17	0	2	2	4	3	2	2	15	0	
		15	80	1016.6	—	60.7	4.6	13.5	73.5	4	4	8	5	4	9	—	—	—	—	—	—	—	—	—	—	0	17	13	0	0	0	6	2	1	3	16	2	
		1	80	1016.6	—	60.7	4.6	13.5	73.5	4	4	8	5	4	9	—	—	—	—	—	—	—	—	—	—	0	17	13	0	0	0	6	2	1	3	16	2	
Wilts.	Larkhill H	9	444	1017.1	—	57.1	4.4	11.7	74.6	6	1	8	3	4	14	0	0	0	0	0	0	3	4	22	1	0	17	13	0	3	4	1	2	6	7	3	4	
		13	444	1016.3	—	62.3	7.3	11.6	62.7	0	0	5	4	13	8	0	0	0	0	1	0	1	3	25	0	0	19	10	1	3	4	1	1	4	6	5	5	
		15	444	1016.0	—	62.9	7.9	11.4	59.7	0	0	4	7	11	8	0	0	0	0	0	1	1	2	26	0	0	19	11	0	2	3	2	1	6	4	6	6	
7a. ENGLAND, N.W.																																						
Cumberland.	Aspatria (Mealsgate)	9	485	1015.3	—	53.3	3.4	10.6	77.6	8	3	4	5	6	12	—	—	—	—	—	—	—	—	—	—	0	3	23	4	4	1	0	0	1	11	5	4	
		21	485	1015.4	—	51.9	2.4	11.0	83.6	1	9	1	2	5	13	—	—	—	—	—	—	—	—	—	—	0	1	25	4	3	2	0	2	2	10	5	2	
		1	485	1015.4	—	51.9	2.4	11.0	83.6	1	9	1	2	5	13	—	—	—	—																			

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of JUNE, 1929.

DISTRICT COUNTY AND PLACE.	Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
			At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
										0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Visibility.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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TABLE I. DISTRICT VALUES.

The District Values of this Table are computed from the statistics for selected individual stations set out in Table III and Table IV.

The representative stations from which the District Values of rainfall and temperature are computed are indicated in Table III by the sign ¶ while the representative stations from which District Values of sunshine are computed are indicated by the sign §. The deviations from and percentages of normal for Air Temperature, Rainfall and Sunshine are the means of the corresponding deviations or percentages for the representative District Value stations. The deviations from normal of Earth Temperature are derived from the deviations for all the stations reporting in Table III for which normals of Earth Temperature are available. The highest and lowest temperatures for the District recorded during the month may refer to any station in Table III.

TABLE II. SUMMARY OF AUTOGRAPHIC RECORDS OF WIND.

The records used in the preparation of this Table are generally made by anemographs of the pressure-tube type. At a few stations the Robinson Cup Anemograph is utilised. The classification adopted for the "Distribution of Wind" is based on the specification of the Beaufort Scale of Wind Force (see *The Observer's Handbook*). For an anemograph complying with the specification "head 33 ft. above ground in the open" the several columns correspond with Force 8 and above (gales), Forces 6 and 7 (strong winds), Forces 4 and 5 (moderate breezes), Forces 2 and 3 (light breezes), Forces 1 and 0 (nearly calm). Some information as to the nature of the actual exposures may be gathered from the figures in the "Height" columns.

The "Highest Hourly Wind" is determined by the mean speed of the wind for a period of sixty minutes from 30 minutes before to 30 minutes after an exact hour by Greenwich Mean Time. Under the heading "Veer from N" the azimuth of the direction from which the wind was blowing is stated, the entry for an east wind being 90°, that for a south wind 180° and so on.

TABLE III. SUMMARY OF OBSERVATIONS AT TERMINAL HOURS.*

Temperature.—The terminal hours of observation are given for each station. When the terminal hours for maximum and minimum temperature are stated independently the temperatures refer to intervals of 24 hours. If the maximum thermometer is read in the morning the reading is credited to the previous day. When the terminal hours for maximum and minimum are separated by a dash, thus, 18-7, the day-maximum for the period 7h. to 18h. and the night-minimum for the period 18h. to 7h. are reported and are utilised in determining the means for the month; in such cases the extreme temperatures for successive periods of 24 hours are also read by the observers, so that the absolute maximum and minimum temperatures for the month are obtained.

Except at the Royal Observatory, Greenwich, where a Glaisher stand is in use, the air temperature is obtained from thermometers placed in louvered screens. At Kew Observatory, Richmond, and Valentia Observatory these are north wall screens a few feet from the ground. At Aberdeen Observatory the north wall screen is at 41 feet. Otherwise the screens are in the open.

Rainfall.—The daily amounts are for the 24 hours beginning at the "terminal hour." "Rainfall" includes all forms of precipitation. The number of days of precipitation is counted with reference to the limit .01 inch or 0.2 mm. and also with reference to the limit .04 inch or 1 mm. The lower limit excludes mere "traces" of precipitation, but it is frequently passed on occasions when the precipitation is only dew.

Weather.—The numbers of days of Precipitation, Snow, Hail, Thunderstorms and Gale are counted irrespective of the hour at which the phenomena occur. Except for "Precipitation" the day is the civil day.

For the purpose of this summary "Snow" includes sleet (*i.e.*, snow with rain), "Hail" includes graupel (soft hail), "Snow lying" refers to occasions when at least one-half of the country surrounding the station is covered with snow at the morning observation. The entry of "fog" implies that regular observations of the range of vision are made on the scale set out below. Days of fog are those on which the range of vision is less than 1,100 yards at the hour of morning observation. That hour is generally given by the third entry of column 2 of the table and may be 7h. or 9h. G.M.T. The variability of the observation hour may exercise an important effect upon the statistics of fog frequency. "Thunderstorm" includes any day on which thunder is heard. "Gale" is a wind of Force 8 or upwards on the Beaufort Scale. A "ground frost" is entered when the reading of a "grass minimum" thermometer set the previous evening and read at the morning observation is 30° F. or lower.

Sunshine.—The percentage of possible sunshine in the last column is calculated with reference to the maximum duration theoretically possible in the latitude, allowance being made for refraction (see

International Meteorological Tables (Paris) pp. A17-A20 and 42-47) but not for the fact that the sunshine recorder is generally insensitive to sunshine when the sun is at an altitude of less than 3°. Where the symbol § occurs it indicates that obstructions obscure the sun during more than 5% of the period when it is over 3° above the horizon.

TABLE IV. SUMMARY OF OBSERVATIONS AT FIXED HOURS.*

Mean Air Pressure is expressed in millibars. (1 millibar = 1,000 dynes per square centimetre = the pressure due to .029531 inch of mercury at 32° F. in Lat. 45°). The corrections for latitude, temperature and height have been applied to the barometer readings so as to obtain pressure at mean sea level. Barometric pressure is given at station level for a few stations at altitudes of 600 ft. or more in footnotes in Table IV.

Hygrometry.—The values given depend on the readings of the dry and wet bulb thermometers in Stevenson Screens (except at the Observatories, see above). The observations were formerly reduced by Glaisher's method; as from January, 1926 they are reduced by the new hygrometrical tables issued by the Office which are based on a formula of Regnault. In general the relative humidity and vapour pressure are derived from the monthly means of the dry and wet bulb readings. At certain stations the daily values of relative humidity and vapour pressure are found and the means are computed therefrom. These stations are indicated by the letter "H."

Cloud Amount.—The proportion of sky covered with cloud is estimated on the scale 0 to 10, the entry "0" being equivalent to clear sky "10" to overcast.

Visibility.—The observations are classified according to the following scheme—the distances, specified by international arrangement in metres, are given here in yards and miles:—

Code.	RANGE OF VISION.
0	Less than 55 yards.
1	Exceeding 55 yards, less than 220 yards.
2	" 220 " " 550 "
3	" 550 " " 1,100 "
4	" 1,100 " " 1½ miles.
5	" 1½ miles " 2½ "
6	" 2½ " " 6½ "
7	" 6½ " " 12½ "
8	" 12½ " " 31 "
9	" 31 " "

Wind Summaries.—The estimates of wind force refer to the Beaufort Scale, and in general to the wind experienced at the time of observation. At Deerness, Cahirciveen, Richmond, Armagh, Eskdalemuir, Southport, Greenwich and Oxford the analysis refers to tabulations of autographic records. For Oxford the mean wind speed for half-an-hour centred at the hour of observation is used for conversion to "force" on the Beaufort Scale; for the remaining observatories the mean wind speed used for each observation refers to a period of one hour. In these cases winds equivalent to Force 1 are counted with the calms, whilst Forces 2 and 3 are taken together in the preceding column of the Table.

INTERPOLATED VALUES.

When the observations for any station for a month are incomplete and relevant data (e.g. records from neighbouring stations) which make it practicable to interpolate approximate values for the missing observations are available, such approximate values may be used for completing summaries for stations published in Tables III and IV. Parts of a summary obtained in this way are shown in brackets thus—(52.4).

STANDARD OF TIME.

As a rule observations are made in all parts of the British Islands according to Greenwich Mean Time, but at the following stations Local Mean Time is used for the observations summarised in Tables III and IV. The number of minutes after Greenwich Time is shown in brackets—Darwen (10), Rhayader (15), Ashburton (15), Tavistock (17), Plymouth (15), Douglas (20), Armagh (26), Balbriggan (25), Lisburn (30), Newcastle, Co. Wicklow (30), Ballinacurra (30), Cork (34).

"Summer Time" is not used in the Monthly Weather Report, but at certain stations the hours of observation vary in the course of the year. For such stations all time entries are converted to G.M.T. before they are printed and the winter hours are given as the terminal hours in the annual tables. For the summer hours reference should be made to the appropriate months.

NORMALS.

In Table III the normals used are those for the 35 years 1881-1915. The normals of temperature and sunshine are published in the Book of Normals, Section I, those for rainfall in the Book of Normals, Section V.

The normals for pressure with which comparison is made in Table IV also refer to the period 1881-1915.

* In addition to the frequencies published in this Report (Tables III and IV), the Meteorological Office has issued since January, 1927, in the form approved by the International Commission for Air Navigation, monthly frequency tables of height of base of low cloud, and speed and direction of surface and upper winds.

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

SUMMARY OF OBSERVATIONS COMPILED FROM RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS.

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VOL. 46. No. 7.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE.

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JULY, 1929. Dry over most of England with much sunshine in the south and east; Wet in Western Ireland and most of Scotland

Although the mean temperature for the month was generally within a degree of the normal, and the means for rainfall and sunshine were not remarkable, the weather was not lacking in interest and variety when considered in greater detail. During the first few days there was a complex system of low pressure which gradually developed into a simple circular depression by the 5th. This period gave rise to some very heavy falls of rain, especially on the East Coast. On the 6th the depression moved eastwards, across the North Sea and a wedge of high pressure advanced to take its place. The lowest night temperatures generally occurred early on the 8th, when the country was experiencing to the fullest extent the fine weather and light winds associated with this wedge, but a general drift of wind from very high latitudes had taken place during the last few days of June and in many places where the night sky was sufficiently clear in the early hours of the 1st and 2nd, the lowest temperature of the month occurred on one or other of those days. Another spell of unsettled weather began in the west soon afterwards, with the approach of a new system of depressions from the Atlantic, but these had not affected the eastern districts much by the time that a large anticyclone had begun to spread over the whole country in their rear on the 12th. The change from the sultry, oppressive conditions that prevailed at first over Eastern and Central England on that day, to the comparatively cool but sunny weather with northerly breezes which set in on the near approach of this anticyclone, was surprisingly abrupt. The cooler winds arrived as a violent squall, of the line-squall type but seldom accompanied by thunder, and in the majority of cases without rain. A mild form of dust-storm occurred in London at the time, and was reported from many country districts.

The period following the 12th was one of anxiety for those responsible for maintaining water-supply in the large proportion of England still suffering from the six to seven months spell of deficient rainfall. A large anticyclone became established centrally over the British Isles and caused in most places a succession of days of unbroken sunshine, with high maximum temperatures. As the anticyclone drifted slowly away to the east, winds from between south and east gradually extended over the whole country, and on the near approach of a depression to Ireland, on the 16th, brought thunderstorms to many places in Eastern England and Northern Ireland. Temperature reached 87° at Kew on that day. Following these thunderstorms the weather became generally fine again over England, but rain fell locally in Ireland and Scotland. On the 20th, however, a line squall brought thunderstorms with exceptionally heavy rain to many places in the South of England. During the next few days conditions became cyclonic; considerable falls of rain occurred in Scotland and Ireland, and occasionally in Western England. From the 24th to the 27th winds were mainly from N.W. and N. with a general return to finer weather. In the course of the 28th and the early hours of the 29th a depression passed eastwards directly across England and rain was practically universal. The amount was often large and in many places, especially in the south-west, the 28th was the wettest day of the month. After a brief improvement a new depression of considerable depth advanced from the west to cover Northern Ireland, the month closing with generally showery weather and strong winds.

Pressure and Winds.—Pressure was generally a little above the normal, the effects of the cyclonic periods near the beginning and end of the month being outweighed by the influence of the large anticyclone that covered the whole country during the middle of the month. Apart from squalls, the windiest periods were in general around the 5th and the 31st, during the passage of depressions across the northern districts. On the 31st a gale was experienced for some hours at Scilly. On the 10th, with an anticyclone over Central Europe and a depression south of Iceland, strong winds from between south and south-west were general.

Notable squalls occurred in the south of England on the 12th and on the 20th. Both were of the line-squall type, that of the 20th being associated with severe thunderstorms, and giving rise to speeds of over 50 miles per hour. Its arrival was at many seaside places in south-east England coincident with a tidal wave, and many holiday makers on the shore found themselves unexpectedly in deep water, while tents and awnings suffered damage from the strength of the wind.

Temperature.—The hot spell during the middle of the month did not last long enough to imprint its character in very marked degree upon the whole month, and the means for districts were nowhere more than a degree above the normal, even in the eastern parts of England, where the warmth was most pronounced. In western Scotland the long spells of unsettled weather with south-westerly winds, and a cold period at the beginning of the month, brought the mean a little below the normal. On the morning of the 8th the

temperature in the screen fell to 30° at Ford (Argyll) and ground frosts were reported from various places in Scotland on the 7th, 8th, 15th, 23rd and 25th.

For the British Isles as a whole the hottest period was from the 14th to the 16th, but in the south-east of England most places recorded their extreme for the month on the 20th.

The extreme temperatures for the month were:—(England and Wales) 89° F. at Camden Square (London), Wisley and Newport (I. of Wight) on the 20th, and 32° F. at Houghall on the 1st. (Scotland) 83° F. at Ruthwell on the 15th and 16th and at Nairn and Paisley on the 16th, and 30° F. at Ford on the 8th. (Ireland) 81° F. at Mountmellick and Kilkenny on the 14th, and at Foynes on the 14th and 15th, and 36° F. at Aldergrove on the 8th.

Precipitation.—In spite of some very heavy local falls of rain, mostly associated with thunderstorms, rainfall was generally decidedly below the normal over England, except over a part of north and north-west England and parts of North Wales and East Anglia. The wet area in the north-west of England extended far over the Scottish border, the only extensive areas in Scotland having a deficiency being the Lothian district and the regions north of Inverness. In the extreme north of Scotland several places had less than 60 per cent. of the normal. In Ireland only the eastern counties showed a general deficiency.

In England the most notable falls in a single day were 81 mm. at Bungay (Suffolk) on the 3rd and 76 mm. at Felixstowe on the same day; 47 mm. at Long Sutton, 45 mm. at Rickmansworth and 40 mm. at Hampstead, on the 20th. These last two falls came in the space of one hour during a thunderstorm late in the evening. The 28th was the wettest day of the month at many places, especially in the south-west, 60 mm. falling at Princetown, 35 mm. at Tavistock and 33 mm. at Swansea.

In Scotland most of the large falls were on the 4th, 10th or 31st. On the 4th Greenock had 77 mm., heavy rain being continuous for twelve hours, and Arrochar (Glen Loin) 61 mm. Ardgour had 47 mm. on the 10th and Eskdalemuir 40 mm. On the 31st the measurement was 54 mm. at Craibstone, 49 mm. at Aberdeen and 44 mm. at Stonehaven.

In Ireland the largest fall was nearly everywhere on the 21st or 22nd, when a small depression was nearly stationary between the Scillies and the southern coast of Ireland, the outstanding amounts being 51 mm. at Newtownbarry and 42 mm. at Seskin. The number of days with thunder was rather greater than the average over most of England and over Northern and Central Ireland and parts of Eastern Scotland, but there appears to have been little thunder in Wales and south-west England. As many as 5 days with thunder were noted at several places in Suffolk and Essex, at West Kirby (Cheshire) and Newtownforbes (Co. Longford).

The general precipitation of the British Isles expressed as a percentage of the normal for the period 1881–1915 was 96: the values for the constituent countries were: England and Wales 79, Scotland 108 and Ireland 119.

Sunshine.—The only districts with an appreciable shortage were northern Scotland and southern Ireland, with 88 per cent. and 86 per cent. of the normal for 1881–1915 respectively. In the south-east of England there was an excess amounting to 24 per cent. of the normal, and in eastern and south-western England there was also a substantial though smaller excess. The anticyclonic period about the middle of the month contributed most of the sunshine, but during the less settled parts of the month there were, as a rule, fairly frequent days with long sunny periods.

Fog.—There was very little fog, probably owing to the fact that exceptionally dry conditions prevailed over a large part of England during the anticyclonic period. Humidity well below 40 per cent. began to be experienced in the early afternoon as early as the 10th in the south of England. On the 15th especially low measurements were obtained; at 9h.: 36 per cent. at Bolton, 39 per cent. at Perdiswell (Worcester) and 43 per cent. at Luton and Cambridge; at 15h.: 25 per cent. at Sandford (Oxford) and 28 per cent. at Aber (Carnarvonshire). The difference between the readings of the dry and wet bulbs amounted to twenty degrees in more than one instance. Even so far on in the month as the 25th, humidity fell to 38 per cent. at Rothamsted. Such fog as occurred was mostly in Scotland, north-east England and the English Channel—in Scotland principally in the second half of the month. The cold nights early in the month caused a few radiation fogs locally inland.

Miscellaneous Phenomena.—The systematic search for optical phenomena at the Radcliffe Observatory at Oxford, revealed the presence of solar halos on the 2nd, 5th, 9th, 10th, 16th, 17th, 20th, 23rd, 25th, 28th, 30th and 31st, with parhelia on the 30th.

TABLE I.—DISTRICT VALUES—JULY, 1929.

[1908, revised 1928.]

DISTRICTS.	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High-est.	Low-est.	Daily Mean. Deviation from Normal.	At 1 ft. Deviation from Normal.	At 4 ft. Deviation from Normal.	Per-cent- age of Normal.	No. of Days. Deviation from Normal.	Per-cent- age of Normal.	Per-cent- age of Possible Duration.
o. SCOTLAND, N.	°F. 81	°F. 34	°F. +0.5	°F. —	°F. —	% 82	—2	% 88	% 23
Eastern.									
1. SCOTLAND, E.	83	31	+0.3	—	—	107	—2	99	31
2. ENGLAND, N.E.	86	32	+0.9	—0.2	—0.5	94	—3	106	36
3. ENGLAND, E...	87	36	+0.7	+0.3	—1.3	107	—3	115	49
4. MIDLAND COUNTIES	88	34	+0.6	+0.3	—0.5	74	—6	106	40
5. ENGLAND, S.E.	89	38	+0.5	+1.8	+0.7	75	—3	124	53

DISTRICTS.	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High-est.	Low-est.	Daily Mean. Deviation from Normal.	At 1 ft. Deviation from Normal.	At 4 ft. Deviation from Normal.	Per-cent- age of Normal.	No. of Days. Deviation from Normal.	Per-cent- age of Normal.	Per-cent- age of Possible Duration.
Western.	°F. 83	°F. 30	°F. —0.3	°F. —	°F. —1.4	% 142	—2	% 101	% 31
6. SCOTLAND, W. (& I. of Man)	87	35	+0.1	+0.2	+0.1	105	—1	101	37
7. ENGLAND, N.W. (& N. Wales)	84	35	+0.6	+0.1	—0.5	72	—3	112	45
8. ENGLAND, S.W. (& S. Wales)	79	36	+0.1	—0.1	+0.1	140	—3	99	28
9. IRELAND, N...	81	40	0.0	—0.5	—0.5	117	—1	86	28
10. IRELAND, S...	84	50	+0.2			70	—4	105	51
11. CHANNEL I. (& Scilly)	89	30	+0.3	+0.2	—0.4	103	—3	105	38
Mean : DISTRICTS 1—10									

TABLE II.—SUMMARY OF AUTOGRAPHIC RECORDS OF WIND.—JULY, 1929.

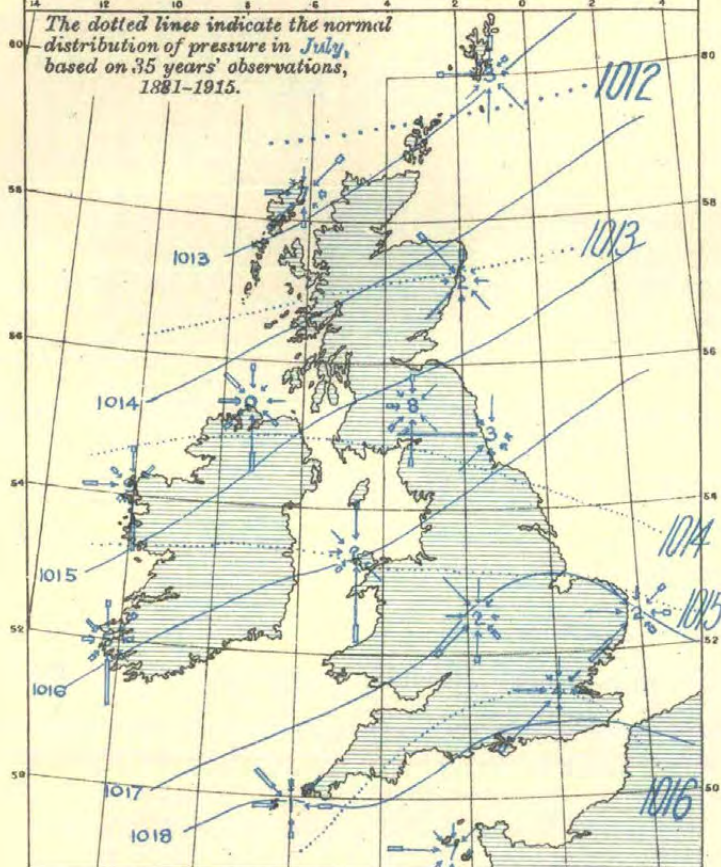
[1914.]

DISTRICT AND STATION.	Height.			Distribution of Wind.††								Extreme Velocities.							
	Above Mean Sea Level.	Above Ground.	Above Building.	More than 38 mi/hr.		25 to 38 mi/hr.		13 to 24 mi/hr.	4 to 12 mi/hr.	Less than 4 mi/hr.	No Record.	Highest Hourly Wind.				Highest Gust.			
				Dates of Occurrence.	Duration.	No. of Days.	Duration.	Duration.	Duration.	Duration.	Duration.	Veer from N.	Speed.	Mid Time.		Speed.	Time.		
o. SCOTLAND, N.	ft.	ft.	ft.		hr.		hr.	hr.	hr.	hr.	hr.	°	mi/hr.	m/s.	day. hr.	mi/hr.	m/s.	d. h. m.	
Shetlands Lerwick ..	310	42	33†	—	0	6	38	214	293	199	0	260	29	13	10 22	46	21	10 21	35
Orkneys Deerness (Cup Anr.)	188	16	5	—	0	3	13	276	402	53	0	280	32	14	23 19	—	—	—	—
1. SCOTLAND, E.																			
Aberdeen Aberdeen ..	70	42	33†	—	0	—	0	117	504	123	0	80	21	9	31 16	37	16	10 16	25
Kincardine Balmakewan ..	140	25	18	—	0	—	0	32	(409)	(303)	0	360	17	8	6 7	32	14	6 11	15
Edinburgh Edinburgh ..	485	39	31†	—	0	4	15	211	431	87	0	200	37	16	10 14	58	26	10 15	45
6a. SCOTLAND, W.																			
Argyll Tiree ..	80	55	48†	—	0	3	(15)	(315)	(348)	(66)	0	10	32	14	31 24	45	20	10 17	25
Renfrew Paisley ..	188	81	15	—	0	—	0	85	585	74	0	140	23	10	10 13	47	21	10 14	20
Dumfries Eskdalemuir ..	825	50	22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. ENGLAND, N.E.																			
Durham South Shields ..	62	46	20	—	0	2	6	83	380	275	0	320	26	12	6 7	39	17	6 8	5
York, E.R. Spurn Head ..	67	41	35†	—	0	6	30	272	380	62	0	350	29	13	6 18	41	18	6 17	55
Lincoln Cranwell ..	284	43	31†	—	0	1	1	158	457	128	0	220	26	12	5 13	47	21	5 15	15
3. ENGLAND, E.																			
Norfolk Gorleston ..	52	42	33†	—	0	2	10	187	418	127	2	210	29	13	31 15	41	18	31 15	5
Suffolk Felixstowe Aero. ..	55	40	25	—	0	2	22	234	315	173	0	210	30	13	31 15	41	18	31 14	45
Essex Shoeburyness ..	115	104	14†	—	0	2	24	197	382	45	96	220	33	15	31 15	55	24	31 15	40
4. MIDLAND COUNTIES.																			
Warwick Birmingham ..	643	118	18	—	0	—	0	91	505	148	0	210	21	9	5 17	44	20	5 16	0
5. ENGLAND, S.E.																			
Surrey Richmond (Kew Obs)	82	65	22	—	0	2	6	112	436	190	0	220	26	12	5 14	49	22	20 19	10
Surrey Croydon ..	313	105	49	—	0	3	20	227	372	125	0	220	31	14	5 13	51	23	5 13	55
Kent Dover ..	61	32	22	—	0	3	14	243	393	86	8	—	30	13	31 24	48	21	31 17	5
Kent Lympne ..	409	70	55†	—	0	2	17	213	456	35	23	220	30	13	31 13	46	21	31 12	50
Hampshire Calshot ..	55	45	31†	—	0	4	36	210	378	120	0	230	33	15	31 12	53	24	31 21	45
Hampshire Worthy Down ..	314	43	27	—	0	1	1	111	399	233	0	190	25	11	5 12	46	21	31 12	5
7a. ENGLAND, N.W.																			
Lancashire Fleetwood ..	112	50	12	—	0	1	1	208	378	157	0	310	25	11	30 5	40	18	22 18	20
Lancashire Southport ..	77	59	45†	—	0	3	17	257	417	53	0	230	27	12	22 16	41	18	22 15	0
Lancashire Liverpool (Bidston)	253	64	35	—	0	2	4	256	406	78	0	270	28	13	22 17	49	22	31 11	10
7b. NORTH WALES.																			
Anglesey Holyhead ..	64	45	29†	—	0	4	20	306	330	88	0	300	35	16	31 24	45	20	10 13	50
Flint Sealand ..	81	65	49†	—	0	—	0	147	431	166	0	320	24	11	6 13	39	17	22 15	30
8b. ENGLAND, S.W.																			
Devon Plymouth ..	185	88	2	—	0	2	17	156	362	209	0	—	29	13	5 14	42	19	5 14	35
Cornwall Pendennis Castle ..	256	65	24	—	—	—	—	Instr	ument	dismantled.	—	—	—	—	—	—	—	—	—
9. IRELAND, N.																			
Donegal Dunfanaghy Road	180	47	39	—	0	1	2	152	391	198	1	—	32	14	10 17	49	22	10 16	45
Antrim Aldergrove ..	282	40	27†	—	0	—	0	121	451	172	0	200	21	10	10 14	40	18	10 16	55
10. IRELAND, S.																			
Dublin Kingstown (Cup Anr.)	49	27	16	—	0	4	16	226	402	100	0	{ 250 280	33	15	31 19 22 }	—	—	—	—
Clare Quilty ..	100	40	32†	—	0	7	40	278	353	71	2	—	36	16	31 21	53	23	31 20	35
Kerry Cahirciveen (Val. O.)	98	41	34†	—	0	6	28	338	285	93	0	290	30	13	31 18	51	23	31 17	30
Cork Weaver Pt. ..	160	30	21†	—	—	—	—	Instr	ment	under repair.	—	—	—	—	—	—	—	—	—
11. SCILLY ISLES.																			
St. Mary's ..	230	65	17†	31	5	8	86	347	273	33	0	310	42	19	31 23	60	27	31 22	45

†† Brackets () indicate that the distribution as between winds above and below 4 m.p.h. is doubtful, but the total number of hours with winds below 12 m.p.h. is reliable.

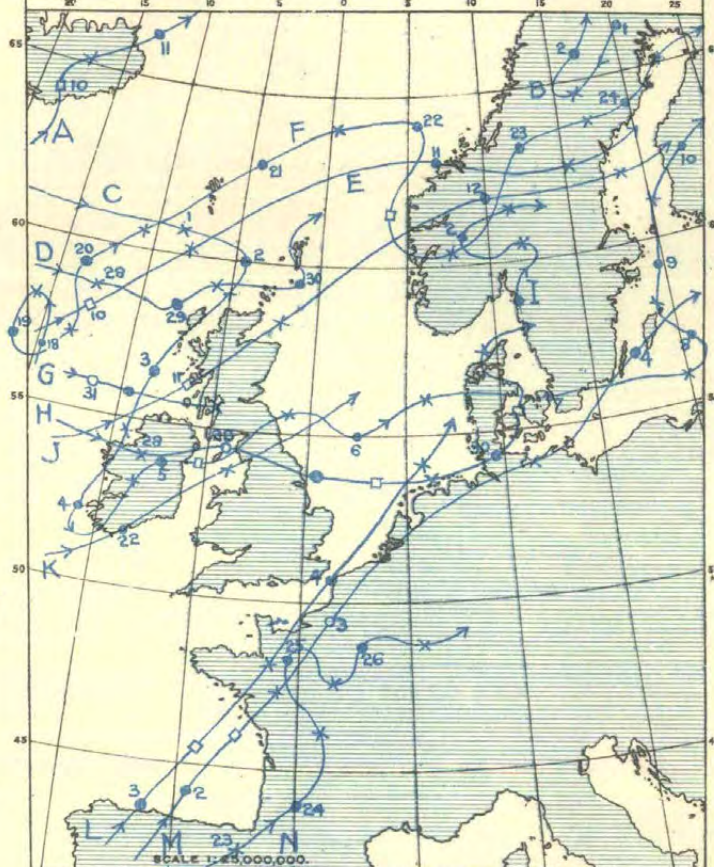
† Standard mounting.

1. WIND AND MEAN PRESSURE. 7 A.M.*



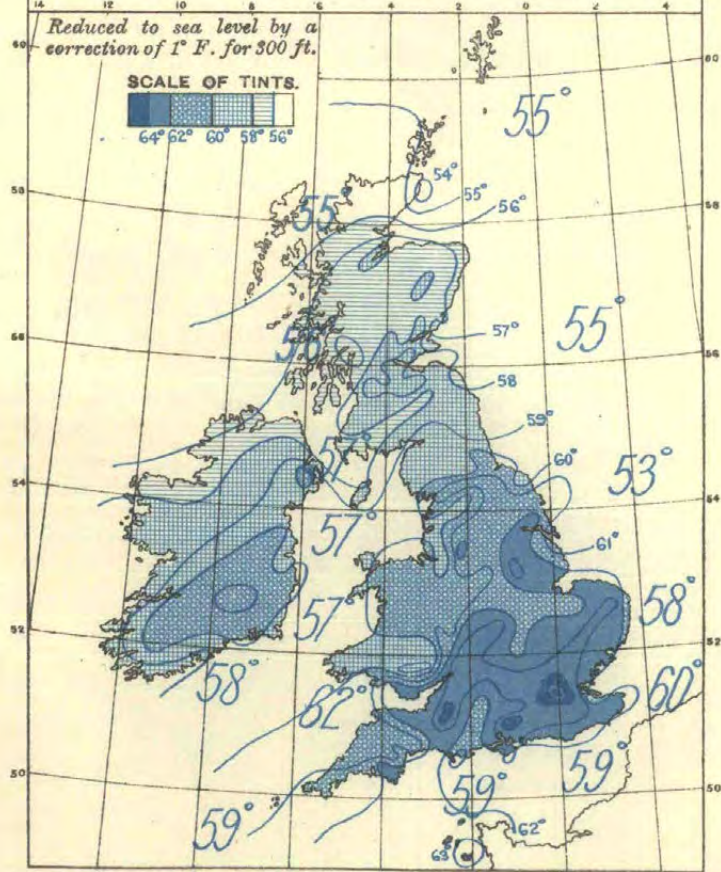
WIND ROSES. The arrows fly with the wind and indicate frequency and force, thus: LIGHT TO STRONG SCALE 30 OBS = 1 inch

2. MOVEMENTS OF DEPRESSIONS.



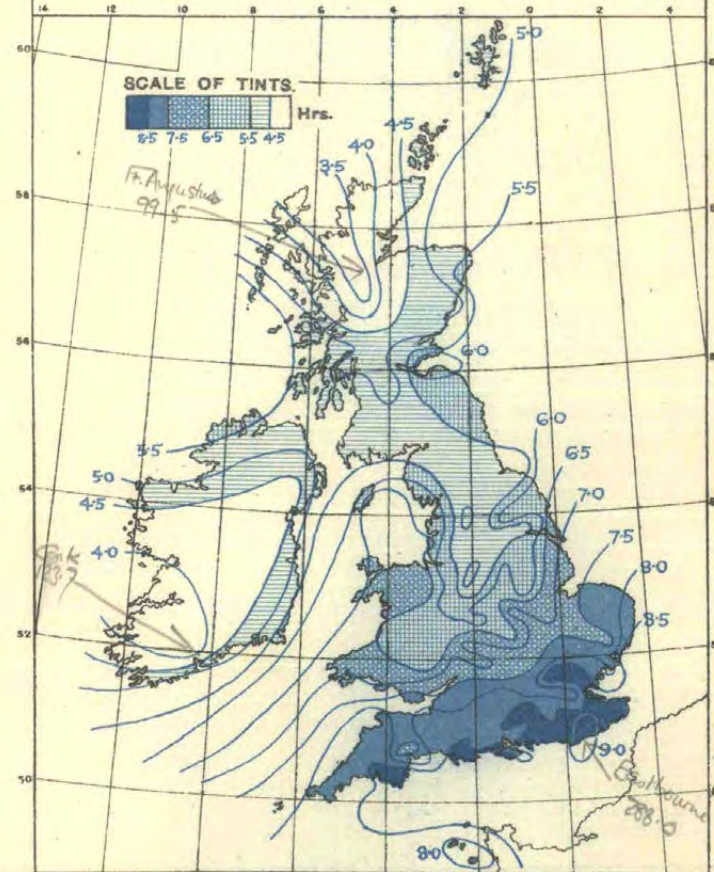
Positions of centres are shown thus: ○ at 1h; ● at 7h; □ at 13h; X at 18h.

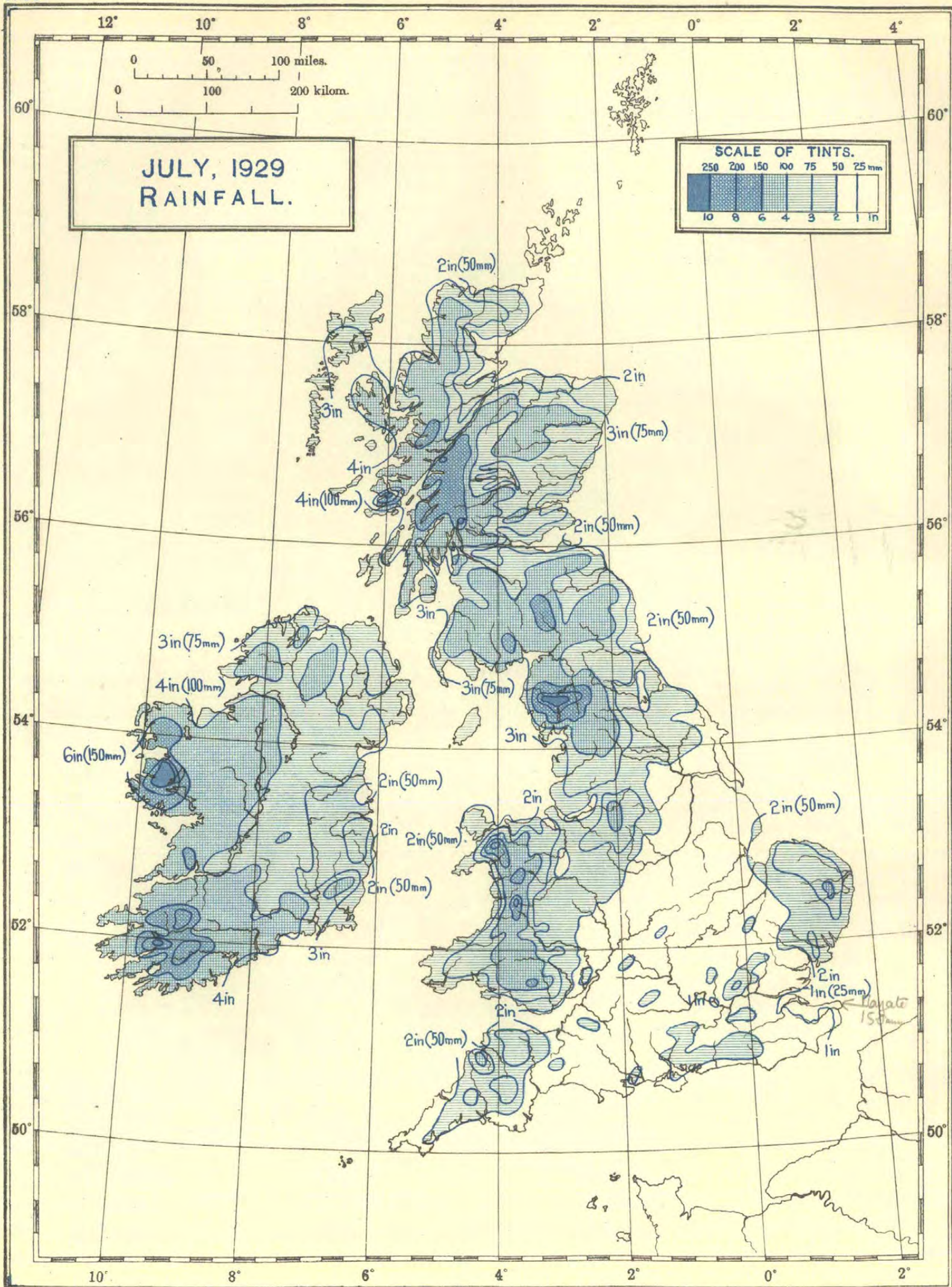
3. DISTRIBUTION OF MEAN TEMPERATURE.



Sea temperatures are shown in large figures, thus: 59°

4. BRIGHT SUNSHINE, HOURS PER DAY.





Scale 1 : 5,000,000.

Pd. 1540/1954. Wt. 91A. D. 16. 1100. 8/29.

The equivalent values in mm. are given in round numbers. The exact relation is 10 in. = 254 mm.

TABLE III.—SUMMARY OF THE RECORDS OF TEMPERATURE, RAINFALL AND SUNSHINE, and of WEATHER OBSERVATIONS, JULY, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.		
		Means of				Absolute Maximum and Minimum.				1 ft. 4 ft.		Total Fall.	Deviation from Normal.	Most in a day.		Precip'n.		Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.							
		A			B		Mean of A and B.	Deviation from Normal.	Maximum.					Date.	Minimum.	Date.	Amount.							Date.	0.2 mm. or more.	1 mm. or more.	Snow.	Daily Mean.	Deviation from Normal.	Per Cent.	
		Max.	Min.		Max.	Min.																									Max.	Min.	Max.	Min.	0.2 mm. or more.	1 mm. or more.
0. SCOTLAND, N.																															
Shetlands.	Baltasound	9 9 9	31	57.8	49.0	53.4	—	67	19th	40	9th	54.1	—	1.02	26	—	5	29th	14	8	0	0	0	0	2	0	—	0	4.88	—	27
	Lerwick	18-7 7	54	57.9	49.9	53.9	+1.3	66	19th	44	26th	—	—	1.13	29	—	8	29th	14	10	0	0	0	0	0	0	—	0	4.63	—	26
Orkneys.	Deerness	2121 9	160	58.2	49.6	53.9	—0.4	64	18, 19, 20	43	26th	—	—	1.48	38	—	12	29th	12	9	0	0	0	1	2	—	0	4.54	+0.09	26	
	Kirkwall	9 9 9	151	58.9	50.0	54.5	—	68	18, 20	42	26th	—	—	1.15	29	—	7	29th	15	9	0	0	0	1	0	0	0	4.70	—	27	
Hebrides.	Skallary	9 9 9	20	60.0	51.5	55.7	—	68	15th	42	8th	—	—	2.93	74	—	22	30th	22	12	0	0	0	1	—	—	0	—	—	—	
	Stornoway	18-7 7	30	60.5	50.0	55.3	+0.7	76	16th	39	23rd	—	—	2.63	67	—	10	17	23	11	0	0	0	0	0	0	0	3.31	—	19	
Caithness.	Wick	18-7 7	81	57.9	48.2	53.1	0.0	69	20th	34	25th	—	—	1.31	33	—	34	8	20	5	0	0	0	1	2	—	0	—	—	—	
	Achnashellach	9 9 9	225	62.5	50.0	56.3	+1.5	80	15, 16	36	23rd	—	—	4.67	119	—	17	21	19	17	0	0	0	0	0	2	1	—	—	—	
Ross & Cromarty.	Fortrose	9 9 9	69	65.4	51.1	58.3	—	80	16th	42	23rd	—	—	1.96	50	—	10	29th	14	9	0	0	0	0	0	0	0	—	—	—	
	Strathpeffer	9 9 9	125	65.8	50.7	58.3	+1.4	81	16th	39	25th	—	—	1.89	48	—	18	12	17	11	0	0	0	0	0	—	—	—	—	—	
Inverness.	Ft. Augustus	9 9 9	68	63.5	50.2	56.9	+0.2	79	16th	39	23, 25	—	—	2.93	74	—	3	30	15	12	0	0	0	0	0	—	1	3.21	—	19	
	Inverness	9 9 9	242	63.5	50.8	57.1	0.0	79	16th	43	23rd	—	—	2.86	73	—	8	17	15	11	0	0	0	0	0	0	0	4.48	—	26	
1. SCOTLAND, E.																															
Nairn.	Nairn	18-7 7	82	64.8	50.2	57.5	+0.8	83	16th	37	25th	—	—	2.15	55	—	13	11	14	10	0	0	0	0	1	—	0	4.40	—	26	
	Gordon Castle	2121 9	104	65.5	49.6	57.5	+0.7	77	15th	37	8th	—	—	1.96	50	—	31	9	14	10	0	0	0	0	—	0	5.05	—	29		
Banff.	Banff	9 9 9	130	62.2	50.6	56.4	—	74	20th	43	8, 23, 25	—	—	1.64	42	—	13	5th	15	8	0	0	0	0	0	0	0	5.36	—	31	
	Aberdeen	2424 24	37	62.0	50.8	56.4	+0.3	70	18, 20	41	8th	—	—	51.5	3.73	95	—	24	13	10	0	0	0	0	0	1	0	5.59	+0.46	33	
Balmoral.	Balmoral	9 9 9	927	62.8	46.2	54.5	—	78	15th	32	8th	—	—	4.58	116	—	51	36	14	11	0	0	0	0	—	1	0	—	—	—	
	Braemar	2121 9	1120	62.8	46.5	54.7	—0.1	77	15th	31	8th	—	—	3.91	99	—	34	36	10	10	0	0	0	0	2	1	0	—	—	—	
Craibstone.	Craibstone	9 9 9	300	62.0	48.4	55.2	—	71	18th	39	25th	56.3	52.7	4.27	108	—	54	31st	13	8	0	0	0	1	—	0	5.60	—	33		
	Logie Coldstone	9 9 9	608	65.9	47.5	56.7	—	76	24th	36	8th	—	—	3.74	95	—	20	32	13	8	0	0	0	0	5	2	0	—	—	—	
Stonehaven.	Stonehaven	9 9 9	93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Arbroath	2121 9	93	64.0	49.4	56.7	—	73	14th	39	8th	—	—	3.62	92	—	28	4th	11	7	0	0	0	3	0	1	0	5.38	—	32	
Angus.	Carnoustie	9 9 9	39	63.3	49.3	56.3	—	74	14th	41	8th	—	—	3.42	87	—	31	4th	13	8	0	0	0	2	—	0	5.06	—	30		
	Dundee (E. Nec.)	2121 9	198	64.7	51.3	58.0	—0.4	76	14th	41	7th	—	—	3.49	89	—	20	37	11	10	0	0	0	1	—	0	—	—	—	—	
Mayfield.	Mayfield	9 9 9	147	64.9	50.1	57.5	—1.3	78	14th	42	7th	58.3	—	2.81	71	—	6	37	10	8	0	0	0	2	—	0	4.98	—	0.87	29	
	Kettins	9 9 9	218	64.8	48.9	56.9	—	76	14th	37	7th	60.2	—	3.25	83	—	30	4th	15	8	0	0	0	0	0	0	0	—	—	—	
Montrose.	Montrose	9 9 9	16	63.3	49.0	56.1	—	72	12th	39	8th	—	—	2.93	75	—	19	31st	12	8	0	0	0	0	0	0	0	4.91	—	29	
	Crieff	2121 9	478	64.8	49.0	56.9	—1.5	76	14, 15	40	7th	—	—	3.47	88	—	13	26	13	11	0	0	0	1	—	0	—	—	—	—	
Perth.	Perth	9 9 9	76	67.3	50.7	59.0	+0.6	78	15th	41	14, 25	—	—	3.54	90	—	17	29	14	9	0	0	0	0	—	0	5.41	—	32		
	Cupar	9 9 9	210	63.6	50.2	56.9	—	75	14th	41	7th	—	—	2.71	69	—	29	4th	14	11	0	0	0	1	—	0	—	—	—	—	
Fife.	Inchkeith	18-7 7	190	63.1	52.2	57.7	—	70	14th	46	7th	—	—	2.42	61	—	27	4th	11	8	0	0	0	1	0	0	0	6.05	—	36	
	Kirkcaldy	9 9 9	66	65.7	51.8	58.7	—	76	14th	44	7.8	—	—	2.53	64	—	31	4th	11	8	—	—	—	—	—	—	—	—	—	—	
Leuchars.	Leuchars	18-7 7	30	64.4	50.1	57.3	—	75	14th	41	25th	—	—	2.81	71	—	39	4th	12	10	0	0	0	1	0	0	0	5.37	—	32	
	St. Andrews	9 9 9	20	64.3	50.4	57.3	—	75	14th	42	7.8	58.6	54.1	3.04	77	—	38	4th	13	8	0	0	0	0	0	0	0	5.19	—	31	
Linlithgow.	Bangour	2121 9	587	64.3	47.8	56.1	—	73	16th	39	8th	—	—	2.58	65	—	25	4th	17	10	0	0	0	0	0	0	0	—	—	—	
	Blackford Hill	2121 9	441	64.9	51.2	58.1	+1.2	78	16th	45	7.8	—	—	2.22	56	—	11	17	15	10	0	0	0	1	—	0	5.74	+0.35	34		
Edinburgh.	Boghall	9 9 9	645	63.1	52.4	57.7	—	76	16th	41	8, 14	58.1	55.0	2.97	75	—	22	4th	13	10	0	0	0	1	0	0	0	5.53	—	33	
	Edin. Univ.	9 9 9	227	66.0	53.5	59.7	—	78	16th	47	8th	59.2	55.7	2.12	54	—	17	18	12	9	—	—	—	—	—	—	—	—	—	—	
Liberton.	Liberton	9 9 9	190	66.9	—	—	—	79	16th	—	—	—	—	1.80	46	—	7	31st	12	9	0	0	0	0	—	0	—	—	—	—	
	N. Berwick	9 9 9	152	65.8	49.8	57.8	—	75	14th	40	8th	—	—	2.20	56	—	25	4th	12	9	0	0	0	1	0	0	0	6.15	—	36	
Smeaton.	Smeaton	9 9 9	100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Marchmont	9 9 9	498	64.9	49.1	57.0	+0.3	78	14, 15	42	3rd	—	—	3.88	99	—	21	33	15	9	0	0	0	1	1	—	0	5.78	+0.36	34	
Peebles.	West Linton	9 9 9	770	64.0	45.4	54.7	—0.3	79	16th	36	7th	—	—	4.11	104	—	33	31st	17	12											

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, JULY, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
		Means of			Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.	Deviation from Normal.	Most in a day.			Precip'n.		Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.		Per Cent.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		A	B			Maximum.	Date.	Minimum.	Date.			Amount.	Date.	0.2 mm. or more.	1 mm. or more.	Snow.							Daily Mean.	Deviation from Normal.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
		Max.	Min.																							1 ft.	4 ft.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, JULY, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.			Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER.										BRIGHT SUNSHINE.		
		Means of				Absolute Maximum and Minimum.				Precip'n.		Most in a day.				Number of days.										Hours per day.						
		Max.	Min.	Ran.		Max.	Min.	Mean of A and B.	Deviation from Normal.	Maximum.	Date.	Minimum.	Date.	1 ft.	4 ft.	Total Fall.	Deviation from Normal.	Amount.	Date.	0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.	
4. MID. COUNTIES—cont.		G.M.T.	ft.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	in.	mm.	mm.	mm.												hr.	hr.	%	
Warwick.	Birmingham	18-7 7	535	69.4	52.9	61.1	+0.5	86	16th	46	8th	56.3	52.1	1.55	39	20	12	31st	9	7	0	0	0	1	0	0	0	5.69	+0.29	35		
	B'ham, Sparkhill	713 7	424	72.3	51.5	61.9	—	87	16th	42	8th	—	—	1.41	36	—	9	31st	9	8	0	0	0	1	0	1	1	—	—	—		
	Coventry	9 9 9	270	71.9	53.2	62.5	+1.0	86	16th	48	13th	61.6	55.5	1.44	37	23	9	12th	9	6	0	0	0	0	0	0	6.26	+0.26	39			
	Rugby	2121 9	390	70.9	51.3	61.1	—	86	16th	42	8th	—	—	1.86	47	—	15	5th	8	6	0	0	0	2	—	0	0	—	—	—		
Oxford.	Leafeld	18-7 7	612	70.3	49.8	60.1	—	85	16th	40	7, 8	—	—	1.54	39	—	13	28th	9	7	0	0	0	1	0	2	0	7.47	—	46		
	Oxford	9 9 9	208	72.9	52.2	62.5	+0.6	87	16th	43	8th	63.9	57.9	1.36	35	25	10	28th	10	8	0	0	0	2	0	0	7.09	+0.74	44			
	Oxford	9 9 9	210	73.4	50.1	61.7	—	87	16th	41	9, 27	—	—	1.19	30	—	13	28th	8	6	0	0	0	2	0	3	2	7.65	—	48		
	(Sandford)																															
Bucks.	Mursley	9 9 9	490	70.7	51.0	60.9	—	83	20th	41	8th	58.8	—	1.00	25	—	10	20th	6	5	0	0	0	2	0	0	1	—	—	—		
Stafford.	Mayfield	9 9 9	374	69.3	48.6	58.9	—	82	16th	34	8th	—	—	2.48	63	—	21	31st	12	8	0	0	0	4	—	0	0	6.08	—	37		
Shropshire.	Newport	9 9 9	211	69.2	50.1	59.7	—	86	16th	41	13, 26	—	—	1.81	46	—	12	31st	13	8	0	0	0	1	0	0	0	5.62	—	34		
	Roden, Well'n	9 9 9	207	70.7	47.9	59.3	—	87	16th	39	13, 26	—	—	1.65	42	—	11	5th	13	7	0	0	0	0	—	—	0	—	—	—		
	Shrewsbury	9 9 9	184	70.0	50.7	60.3	—	86	16th	41	13th	—	—	1.85	47	—	10	5th	14	10	0	0	0	1	—	0	0	5.50	—	34		
	Wistanstow	2121 9	481	68.9	48.5	58.7	-1.3	85	16th	38	13th	—	—	1.61	41	19	13	5th	9	6	0	0	0	1	0	0	0	—	—	—		
Worcester.	Malvern	9 9 9	377	70.6	53.9	62.3	—	88	16th	45	8th	61.9	58.1	2.08	53	5	13	4th	9	8	0	0	0	1	0	0	0	7.00	—	43		
	Worcester	9 9 9	95	72.2	49.3	60.7	—	88	16th	39	7th	—	—	1.35	34	—	8	4th	9	8	0	0	0	1	—	0	0	6.80	—	42		
(Perdiswell)																																
	Bromyard	9 9 9	392	70.1	48.4	59.3	—	85	16th	38	7, 8	60.7	56.0	1.70	43	—	11	12th	9	8	0	0	0	0	0	0	0	—	—	—		
	Hereford	9 9 9	291	71.5	49.5	60.5	-0.5	86	16th	39	8th	—	—	1.58	40	16	11	28th	8	6	0	0	0	1	0	0	0	—	—	—		
	Ross-on-Wye	18-7 7	223	70.5	51.1	60.8	-1.2	85	16th	40	8th	62.7	58.1	1.76	45	13	16	5th	9	6	0	0	0	0	0	0	0	7.36	+0.95	46		
Gloucester.	Cheltenham	2121 9	214	72.0	53.1	62.5	+1.1	86	16th	43	8th	63.5	60.3	1.84	47	13	10	28th	9	7	0	0	0	1	0	0	0	6.77	—	42		
5. ENGLAND, S.E.																																
London.	City, Bunhill Row	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.27	+1.46	45		
	Camden Square	9 9 9	110	74.9	55.5	65.2	+0.9	89	20th	46	8th	63.3	57.1	2.20	56	5	14	3rd	10	7	0	0	0	1	—	—	—	—	—	—		
	East Ham	9 9 9	15	74.0	55.3	64.7	—	86	20th	45	8th	—	—	1.71	43	—	19	3rd	8	6	—	—	—	—	—	—	—	—	—	—		
	Enfield	9 9 9	148	71.7	54.0	62.9	—	87	20th	43	8th	—	57.1	1.93	49	9	17	20th	7	6	0	0	0	2	0	0	1	8.04	—	50		
	g Greenwich	2424 9	149	76.3	53.1	64.7	+1.2	90	20th	46	8, 14	57.7	54.4	1.78	45	12	19	3rd	11	6	0	0	0	2	0	0	0	8.12	+1.62	50		
		Hourly*	149																													
	Hampst'd Res.	9 9 9	450	71.8	51.5	61.7	—	87	20th	41	8th	—	—	3.22	82	—	40	20th	11	7	0	0	1	2	—	0	1	8.34	—	52		
	Kensington	18-9 9	80	73.9	55.3	64.6	—	88	16th	46	8th	63.6	59.4	1.55	39	—	14	3rd	9	7	0	0	0	2	0	0	0	—	—	—		
	Regent's Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8.03	—	50		
	Richmond	2424 24	18	73.6	54.5	64.1	+1.4	87	16th	47	8th	63.7	57.6	2.59	66	11	36	20th	10	5	0	0	1	2	0	0	0	8.28	+1.80	51		
	(Kew Obs.)	Hourly*	18																													
	Stroud Green	18-7 7	212	73.9	54.1	64.0	—	87	20th	45	8th	—	—	1.66	42	—	12	3rd	8	6	0	0	0	2	0	0	0	—	—	—		
	Tottenham	2121 9	51	74.4	56.0	65.2	+1.8	87	20th	46	8th	—	59.2	2.04	52	5	15	3rd	7	7	0	0	0	1	—	0	0	7.89	+1.27	49		
	Westminster	9 9 9	27	73.4	56.2	64.8	+1.6	88	20th	47	8th	—	—	1.65	42	14	15	3rd	10	6	—	—	—	—	—	0	—	8.06	+2.22	50		
Surrey.	Addington	9 9 9	472	72.1	52.7	62.4	—	86	20th	43	8th	—	—	2.35	60	—	29	3rd	10	7	—	—	—	—	—	—	—	—	—	—		
	Croydon Aero.	18-7 7	244	72.5	53.6	63.1	—	87	20th	45	8th	—	—	1.77	45	—	19	3rd	10	6	0	0	0	3	1	0	0	8.59	—	54		
	Wisley	9 9 9	150	75.1	51.4	63.3	+1.6	89	20th	42	26th	63.9	58.1	1.08	27	21	12	3rd	10	6	0	0	0	3	0	0	0	8.45	+1.71	53		
Kent.	Biggin Hill	18-7 7	597	70.6	52.4	61.5	—	88	20th	41	8th	—	—	2.53	64	—	37	3rd	9	7	0	0	0	1	1	0	0	9.02	—	56		
	Bromley	9 9 9	213	72.7	53.0	62.9	—	86	16, 20	42	8th	—	—	1.97	50	—	31	3rd	7	5	0	0	0	2	1	0	0	—	—	—		
	Canterbury	9 9 9	124	72.7	51.8	62.3	—	88	20th	41	14, 15	62.4	57.8	0.93	24	—	5	2nd	9	6	—	—	—	—	0	—	—	—	—	—		
	Dover	9 9 9	22	72.6	56.6	62.1	—	78	20th	47	8th	65.8	60.2	0.81	21	—	9	28th	7	6	0	0	0	1	0	0	0	8.70	—	54		
	Dungeness	18-7 7	20	67.1	54.7	60.9	0.0	73	19th	43	8th	—	—	1.07	27	19	6	6th	9	7	0	0	0	1	1	—	0	—	—	—		
	East Malling	9 9 9	127	72.6	50.0	61.3	—	88	20th	41	8, 15	—	—	1.04	26	—	7	3rd	8	7	0	0	0	1	0	0	0	8.76	—	55		
	Folkestone	9 9 9	101	70.2	55.3	62.7	—	86	20th	46	8th	—	58.3	1.11	28	—	8	28th	7	6	0	0	0	1	0	0	0	18.52	—	53		
	Lympne	18-7 7	347	69.2	52.4	60.8	—	83	20th	43	7, 8	—	57.3	1.31	33	—	7	5th	8	7	0	0	0	3	2	0	0	8.92	—	56		
	Manston	18-7 7	150	71.5	53.6	62.5	—	86	20th	46	14th	—	—	0.98	25	—	13	3rd	9	5	0	0	0	2	0	0	0	8.61	—	54		
	Margate	9 9 9	51	70.1	56.5	63.3	+1.2	86	20th	50	8th	66.8	62.4	0.59	15	35	4	3rd	8	4	0	0	0	0	0	0	0	8.87	+1.61	55		
	Tunbridge W.	9 9 9	354	71.7	52.7	62.2	+0.7	86	20th	44	1st	62.8	58.4	1.77	45	5	17	3rd	9	8	0	0	1	2	0	0	0	9.15	+2.28	57		
	Wye	9 9 9	164	72.2	51.5	61.9	—	87	20th	42	14th	—	—	0.90	23	—	5	2nd	8	7	0	0	0	1	—	0	0	8.33	—	52		
Sussex.	Ardingly	9 9 9	437	71.9	52.5	62.2	—	88	20th	44	8, 9	—	—	2.56	65	—	36	3rd	10	9	0	0	0	3	—	0	2	—	—	—		
	Brighton	9 9 9	31	68.5	55.3	61.9	-0.3	81	16th	48	9th	—	60.7	1.70	43	12	14	3rd	10	9	0	0	0	1	0	0	0	8.89	+1.44	56		
	Eastbourne	2121 9	35	68.1	55.2	61.7	+0.5	78	12th	49	1, 8, 9	63.6	59.4	1.16	29	27	11	28th	9	6	0	0	0	2	0	0	1	9.29	+1.61	58		
	Hellingly	18-7 7	209	72.2	51.9	62.1	—	86	20th	43	7th	63.4	57.8	1.09	28	—	8	28th	10	6	0	0	0	4	5	0	2	—	—	—		
	St. Leonards	2121 9	178	69.0	54.4	61.7	+0.5	81	16th	47	7, 8	65.4																				

A° 2

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, JULY, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.					
					Means of				Absolute Maximum and Minimum.						Total Fall.		Most in a day.		Precip'n.		Snow.	Snow lying.	Hall.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.		Per Cent.				
					A	B	Mean of A and B.	Deviation from Normal.	Maximum.	Date.	Minimum.	Date.			in.	mm.	mm.	mm.	0.2 mm. or more.	1 mm. or more.								Daily Mean.	Deviation from Normal.					
																															Max.	Min.	Max.	Min.
5. ENGLAND, S.E.—cont.																																		
Hampshire		Calshot	18-7	7	8	69.6	54.9	62.3	—	81	12th	47	7th	—	—	1.21	31	—	9	28th	8	7	0	0	0	1	0	0	0	8.30	—	52		
—cont.		Grayshott	9	9	661	70.3	51.7	61.0	+0.8	83	15,16,20	44	1, 8, 9	62.0	—	1.69	43	—	14	3rd	10	9	0	0	0	3	1	0	0	1	8.35	+1.41	52	
		Long Sutton	9	9	479	73.0	51.5	62.3	—	86	20th	44	8th	65.3	—	2.55	65	—	47	20th	8	7	0	0	0	2	0	0	0	8.71	—	54		
		Southamp'n	2121	9	64	71.0	53.7	62.3	-0.8	85	20th	47	7, 9	—	—	2.03	52	—	21	20th	10	8	0	0	0	1	0	0	0	8.41	+1.35	53		
		S. Farnboro'	18-7	7	237	74.0	50.5	62.3	—	87	20th	42	7, 9, 13	—	—	2.37	60	—	37	20th	9	7	0	0	0	3	0	1	0	8.69	—	54		
		Winchester	18-7	7	272	72.4	50.5	61.5	—	85	20th	40	9th	—	—	1.74	44	—	14	4th	9	8	0	0	1	2	0	0	0	8.06	—	50		
		(Worthy Down)																																
I. of Wight.		Newport	9	9	9	48	73.9	52.0	62.9	—	89	20th	43	9th	—	—	1.68	43	—	21	3rd	8	6	0	0	0	2	0	0	1	—	—	—	
		Ryde	9	9	9	13	70.3	55.8	63.1	—	83	12th	51	1, 7	—	—	2.49	63	—	49	3rd	7	5	0	0	0	1	0	0	0	8.55	—	54	
		Sandown	9	9	9	13	69.3	53.3	61.3	—	79	12th	44	9, 26	—	—	1.54	39	—	21	3rd	9	5	0	0	0	0	0	0	0	8.34	—	52	
		Totland Bay	9	9	9	140	68.4	53.6	61.0	0.0	81	12th	42	31st	—	—	1.15	29	—	14	28th	8	5	0	0	0	1	2	0	0	8.67	+0.99	55	
		Ventnor	9	9	9	59	67.9	56.1	62.0	+0.2	78	12th	50	1st	—	—	1.49	38	—	13	16	28th	6	4	0	0	0	0	0	0	8.71	+1.39	55	
		(Hospital)																																
Wilts.		Larkhill	9	9	9	440	71.3	50.9	61.1	—	84	20th	45	8, 9, 13	—	—	1.31	33	—	10	28th	9	5	0	0	0	1	0	0	0	—	—	—	
		Marlboro'	9	9	9	424	71.7	48.1	59.9	+0.2	83	16, 20	38	9th	60.3	55.4	1.91	49	—	13	14	31st	10	9	0	0	0	1	0	0	1	8.04	+2.01	50
		Porton	9	9	9	363	72.1	50.0	61.1	—	83	16, 20	42	7th	63.3	—	1.33	34	—	9	28th	10	6	0	0	0	1	0	0	0	8.39	—	52	
7a. ENGLAND, N.W.																																		
Cumberland.		Aspatria	2121	9	487	63.7	51.3	57.5	-0.6	81	16th	43	7th	57.4	53.2	4.52	115	+ 23	20	4th	16	12	0	0	0	0	—	0	0	5.24	-0.57	32		
		(Mealsgate)	9	9	9	254	65.9	51.9	58.9	—	83	15th	41	13th	59.5	54.3	5.68	144	—	36	31st	13	11	0	0	0	1	0	0	0	5.31	—	32	
		Keswick	9	9	9	254	65.9	51.9	58.9	—	83	15th	41	13th	59.5	54.3	5.68	144	—	36	31st	13	11	0	0	0	1	0	0	0	5.31	—	32	
		Newton Rigg	2121	9	559	66.5	49.5	58.0	-0.4	82	15th	39	7th	—	—	4.90	124	+ 46	29	4th	12	11	0	0	0	0	0	0	0	5.45	-0.39	33		
Lancashire.		Bolton	9	9	9	341	68.3	51.7	60.0	—	83	16th	41	8th	59.3	55.2	3.40	86	—	20	5th	15	9	0	0	0	3	—	0	5.59	—	34		
		Burnley	9	9	9	458	67.3	49.5	58.4	—	82	15, 16	35	8th	59.5	55.1	2.56	65	—	12	5, 28	10	10	—	—	—	—	0	2	—	4.86	—	30	
		Darwen	2121	9	724	67.4	51.0	59.2	—	82	16th	39	8th	60.6	54.7	3.81	97	—	22	5th	14	11	0	0	0	3	1	0	0	5.51	—	34		
		Hutton	9	9	9	82	68.1	50.6	59.3	—	84	16th	40	8th	59.9	55.6	3.37	85	—	21	31st	13	10	0	0	0	3	—	0	5.88	—	36		
		Lancaster	9	9	9	311	66.7	53.4	60.1	—	87	15th	44	8th	60.8	56.5	4.12	105	—	25	4th	13	10	0	0	0	2	0	0	0	6.12	—	37	
		Leyland	9	9	9	124	67.7	50.3	59.0	—	85	15th	39	8th	—	—	3.33	85	—	27	31st	13	10	0	0	0	3	0	0	5.88	—	36		
		Manchester																																
		(Whitworth Pk)	2121	9	125	68.2	53.2	60.7	-0.1	85	16th	40	8th	—	—	3.30	84	0	22	5th	12	8	—	—	—	—	2	—	—	5.33	+0.30	33		
		(Oldham Road)	2121	9	190	69.8	55.6	62.7	+1.2	86	16th	45	8th	62.8	59.0	3.58	91	+ 9	33	5th	12	10	0	0	0	2	—	0	0	4.80	+0.15	29		
		(Swinton)	9	9	9	253	68.7	51.6	60.1	—	84	16th	41	8th	—	—	53.9	1.90	48	—	17	4th	12	9	0	0	0	4	0	0	5.22	—	32	
		Southport	9	9	9	37	66.7	54.2	60.5	+1.1	85	15th	46	14th	64.4	60.6	2.54	65	—	8	23	31st	13	9	0	0	0	2	0	0	6.72	+0.17	41	
		Stonyhurst	9	9	9	377	66.1	51.6	58.7	+0.2	82	15th	40	8th	—	—	3.93	100	+ 2	22	28th	13	11	0	0	0	3	0	0	5.89	+0.24	36		
Cheshire.		Hoylake	9	9	9	30	67.8	53.0	60.4	+0.3	83	15, 16	43	14th	—	—	2.97	75	+ 13	12	22nd	13	13	—	—	—	—	—	—	6.73	+0.50	41		
		Liverpool	18-7	7	189	65.3	54.8	60.1	+0.1	82	16th	49	7th	—	—	3.03	77	+ 11	15	22nd	15	12	0	0	0	1	0	0	0	6.42	—	38		
		(Bidston)																																
		Macclesfield	9	9	9	500	68.3	51.1	59.7	+0.6	83	16th	39	8th	—	—	4.55	116	+ 33	30	31st	12	10	0	0	0	2	0	0	0	—	—	—	
		West Kirby	9	9	9	25	68.7	54.3	61.5	—	85	16th	47	14th	—	—	2.63	67	—	13	31st	14	12	0	0	0	5	0	0	1	6.79	—	41	
7b. NORTH WALES.																																		
Flint.		Hawarden B'ge	9	9	9	22	68.1	54.0	61.1	+0.4	86	16th	46	14th	—	—	3.59	91	+ 34	32	4th	14	12	—	—	—	—	—	—	—	—	—	—	
		Rhyl	9	9	9	30	66.6	53.5	60.1	+0.6	85	15th	45	14th	—	—	1.88	48	—	8	11	22nd	11	6	—	—	—	—	0	0	6.89	+0.37	42	
		Sealand	18-7	7	16	67.7	51.2	59.5	-0.6	84	16th	40	14th	60.4	56.4	2.81	71	+ 11	20	31st	14	11	0	0	0	3	0	0	0	6.14	+0.47	38		
Anglesey.		Holyhead	18-7	7	26	63.0	54.8	58.9	+0.4	76	15th	49	2nd	—	—	2.32	59	—	7	23	22nd	13	9	0	0	0	1	1	0	0	6.44	-0.07	39	
Denbigh.		Colwyn Bay	9	9	9	81	66.8	55.1	60.9	—	85	15th	48	13th	—	—	1.92	49	—	9	22nd	11	7	0	0	0	0	0	—	0	6.52	—	40	
Carnarvon.		Aber (Bangor)	9	9	9	60	66.5	53.3	59.9	—	83	15th	47	8th	—	—	1.39	35	—	16	31st	13	9	0	0	0	0	—	0	4.56	—	28		
		Llandudno	9	9	9	22	66.7	54.0	60.3	+0.2	85	15th	46	13th	—	—	2.07	53	—	8	13	22nd	11	11	0	0	0	0	0	0	6.52	+0.13	40	
Mont-gomery.		Welshpool	9	9	9	254	70.7	48.1	59.4	—	84	16th	37	7th	—	—	2.21	56	—	11	5th	13	10	0	0	0	0	0	—	0	—	—	—	
8a. SOUTH WALES.																																		
Cardigan.		Aberystwyth	9	9	9	59	67.0	54.2	60.6	—	82	15th	46	1, 13	—	—	2.40	61	—	17	28th	11	11	0	0	1	0	0	—	0	6.40	+0.46	40	
		„ P.B.S.	9	9	9	452	64.1	52.1	58.1	—	79	15th	41	8th	—	—	2.95	75	—	24	28th	17	12	0	0	0	0	0	0	0	6.41	—	40	
Pembroke.		Haverfordwest	2121	9	250	65.1	51.7	58.4	—	77	15th	42	8th	—	—	3.21	81	0	27	28th	14	11	0	0	0	0	—	—	1	6.73	-0.11	42		
		St. Ann's Hd.	18-7	7	142	63.3	54.0	58.7	+0.3	74	14, 15	47	1, 8	—	—	2.50	64	+ 1	27	28th	12	9	0	0	0	0	1	—	0	7.25	+0.57	45		
Radnor.		Rhayader	9	9	9	757	66.1	48.4	57.3	-0.4	79	16th	35	8th	—	—	2.71	69	—	21	15	31st	17	12	0	0	0	0	5	0	6.38	+0.58	39	
Brecknock		Cantref	9	9	9	1080	64.9	47.2	56.1	—	77	16th	39	8th	—	—	5.86	149	—	29	5th	14	13	0	0	0	0	0	—	0	6.51	—	40	
Glamorgan.		Cardiff	2121	9	202	69.5																												

† Plant breeding station, established 1924.

§ See paragraph headed "Sunshine" in Notes on Tables on last page of this issue.

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, JULY, 1929.

[illegible]

† New station from Nov. 1928.

TABLE III (b).—ROYAL OBSERVATORY, GREENWICH.—SKY OBSERVATIONS, JULY, 1929.

WEATHER DIARY.					NIGHT SKY RECORDER.†	
			Number.		Recorder in operation on 31 nights	
Persistently overcast days	..	..	0		Average exposure (hours) 5.10	
" cloudless "	..	..	0		Polaris unobscured (per cent.) 62	
" foggy "	..	..	0		δ Ursæ Minoris (ditto) 60	

† See Meteorological Magazine, May, 1920, p. 70.

TABLE IV.—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of JULY, 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.														
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.									
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	GOOD VISIBILITY.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	
																0	1	2	3				4	5	6													7
0. SCOTLAND, N.																																						
Shetlands.	Lerwick	1	59	1012.5	—	51.5	1.9	11.0	87.8	4.0	0	2	4	8	17	0	0	0	0	0	0	0	14	17	0	0	4	22	5	3	2	1	4	5	4	4	3	
		7	59	1012.6	+1.1	52.4	2.5	10.9	83.8	0.0	0	1	7	11	12	0	0	0	0	0	0	0	2	12	17	0	0	4	24	3	4	2	1	5	5	4	5	2
		13	59	1012.4	—	55.8	3.9	11.5	75.7	6.0	0	2	7	13	9	0	0	0	0	0	0	0	3	13	15	0	0	5	26	0	3	3	2	5	5	6	5	2
		18	59	1012.1	—	54.2	3.0	11.4	80.8	1.0	0	2	5	11	13	0	0	0	0	0	0	0	1	16	14	0	0	4	26	1	1	3	3	3	8	2	8	2
Orkneys.	Deerness	9	165	1013.7	—	54.5	2.4	12.5	85.8	0.0	0	2	5	13	11	0	0	1	1	0	1	3	5	15	5	0	13	17	1	3	1	3	5	4	5	7	4	
		21	165	1013.7	—	52.4	2.1	11.3	85.8	3.0	0	1	4	12	14	0	1	0	1	0	0	4	4	13	8	0	12	15	4	2	2	2	5	4	1	5	5	
Hebrides.	Stornoway	7	41	1012.9	+0.7	54.9	1.8	13.0	88.8	8.8	0	1	0	17	13	0	0	0	0	0	3	2	15	11	0	0	9	15	7	2	6	1	1	3	6	4	1	
		13	41	1012.8	—	58.8	3.4	13.6	79.8	5.0	0	2	2	16	11	0	0	0	0	0	0	4	10	17	0	0	12	16	3	1	6	1	1	6	7	4	2	
		18	41	1012.7	—	57.0	2.4	13.5	85.8	6.0	0	2	2	12	15	0	0	0	1	0	0	3	9	16	2	0	12	11	8	1	4	1	0	4	6	4	3	
		21	41	1012.7	—	53.8	1.4	12.9	91	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Caithness.	Wick	1	97	1013.7	—	51.3	0.7	12.1	95.8	2.2	0	2	4	13	12	0	0	0	0	0	0	6	25	0	0	0	28	3	3	3	0	3	6	10	2	1		
		7	97	1013.6	+1.2	52.9	1.2	12.6	91.8	0.0	0	0	6	16	9	0	2	0	0	1	0	0	2	25	1	0	1	29	1	1	5	0	5	4	10	2	3	
		13	97	1013.3	—	56.3	2.2	13.2	86.8	1.0	0	0	7	13	11	0	0	0	0	0	0	2	3	26	0	0	1	30	0	2	3	1	6	9	5	3	2	
		18	97	1012.8	—	55.9	2.0	13.4	87.8	5.0	0	0	4	16	11	0	0	0	0	0	0	1	2	28	0	0	2	29	0	2	4	1	6	4	7	4	3	
Inverness.	Inverness	9	250	1013.5	—	56.9	3.4	12.5	79.6	1.0	1	3	8	16	3	0	0	0	0	0	0	6	7	18	0	10	17	4	8	1	0	0	2	12	3	1		
		17	250	1012.4	—	60.0	4.3	13.2	75.5	6.0	0	7	11	10	3	0	0	0	0	0	1	0	2	12	16	0	13	16	2	8	4	0	1	2	9	4	1	
1. SCOTLAND, E.																																						
Nairn.	Nairn	7	82	1013.6	+1.2	55.2	2.8	12.1	81.6	5.0	0	2	9	20	0	0	0	0	1	0	0	0	6	24	0	0	0	12	19	0	0	4	1	0	1	6	0	
		13	82	1012.8	—	63.5	6.2	13.0	67.6	5.0	0	2	12	16	1	0	0	0	0	0	0	0	4	27	0	0	3	27	1	0	2	9	1	1	3	14	0	
		18	82	1012.4	—	60.3	4.8	12.7	72.6	6.0	0	1	11	18	1	0	0	0	0	0	0	1	4	25	1	0	5	22	4	0	2	7	2	0	3	12	1	
Aberdeen.	Aberdeen	7	85	1014.5	+1.5	55.5	3.2	11.9	80.7	0.0	0	8	2	13	8	0	0	0	0	2	0	5	9	15	0	0	3	24	4	2	2	1	4	5	5	1	7	
		13	85	1014.1	+1.1	59.8	5.2	12.2	70.7	2.0	0	5	3	13	10	0	0	0	0	0	0	7	8	16	0	0	10	21	0	3	2	6	7	9	1	2	1	
		18	85	1013.5	+0.6	58.8	4.6	12.3	74.6	2.0	0	10	2	13	6	0	0	0	0	0	1	4	16	10	0	0	5	24	2	4	2	3	9	6	4	1	0	
		21	85	1013.9	+0.6	56.0	3.1	12.3	81.6	8.0	0	6	3	17	5	0	0	0	0	0	0	3	4	14	10	0	0	4	20	7	2	1	1	3	8	5	1	3
		h.*	85	1014.1	+1.1	56.5	3.6	12.2	78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Aberdeen.	Braemar	9	1114	1014.1	—	56.2	4.9	10.6	69	—	—	—	—	—	0	0	0	2	3	4	10	4	8	0	0	1	30	0	3	4	4	5	2	8	5	0		
Perth.	Crieff	9	482	1014.5	—	57.8	4.1	12.4	75.7	6.0	2	2	2	12	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
		21	482	1013.6	—	55.3	3.0	11.9	81.7	5.0	1	2	4	18	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Fife.	Inchkeith	1	184	1014.7	—	54.2	2.0	12.3	87.6	8.0	0	7	7	5	12	0	0	0	0	0	0	11	20	0	0	2	29	0	2	3	6	1	2	11	6	0		
		7	184	1014.3	—	54.3	1.9	12.4	87.7	5.0	0	2	10	8	11	0	0	0	0	2	0	7	10	12	0	0	3	28	0	2	3	1	1	3	11	9	1	
		13	184	1013.8	—	60.0	4.8	12.7	72.7	3.0	0	4	5	16	6	0	0	0	0	0	0	4	6	20	1	0	4	27	0	3	3	4	0	4	11	6	0	
		18	184	1013.1	—	59.2	4.3	12.7	74.7	0.0	0	5	8	9	9	0	0	0	0	0	0	2	2	27	0	0	8	23	0	2	5	4	1	4	9	6	0	
Fife.	Leuchars	7	36	1014.6	—	56.1	2.4	13.1	85.7	7.0	0	5	1	15	10	0	0	0	0	1	1	1	13	15	0	0	1	26	4	2	1	4	1	1	8	5	5	
		13	36	1014.1	—	61.7	4.7	13.9	74.7	8.0	0	3	3	17	8	0	0	0	0	0	1	3	6	21	0	0	6	25	0	2	1	9	4	3	7	5	0	
		18	36	1013.4	—	60.5	4.2	13.8	77.7	0.0	0	6	5	14	6	0	0	0	0	0	1	2	7	16	5	0	7	24	0	1	2	7	4	3	7	6	1	
Edinburgh.	Blackford Hill	9	441	1015.5	—	58.1	4.0	12.5	76.8	0.0	1	2	5	5	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
		21	441	1014.7	—	56.0	3.1	12.3	81.6	8.0	1	5	4	12	9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
6a. SCOTLAND, W.																																						
Argyll.	Tiree	7	40	1013.8	—	55.4	1.9	12.9	87.6	7.0	0	4	8	15	4	0	0	0	0	0	0	2	6	21	2	0	15	16	0	8	2	1	2	7	5	4		
		13	40	1013.7	—	59.2	3.3	13.7	80.6	3.0	0	5	8	13	5	0	0	0	0	0	1	4	6	12	8	0	23	8	0	7	1	2	2	6	5	5		
		18	40	1013.6	—	57.9	2.8	13.6	83.6	9.0	0	3	6	17	5	0	0	0	0	0	0	4	3	18	6	0	16	15	0	4	2	0	1	4	4	9		
Bute.	Rothesay	9	187	1015.1	—	57.5	3.2	12.7	80.8	0.0	0	3	6	7	15	0	1	0	0	2	1	5	5	13	4	0	10	21	0	2	3	0	3	3	4	8		
		21	187	1014.9	—	55.4																																

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of JULY, 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.														
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.									
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Vis.	8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.			
																0	1	2	3																	4	5	6
2. ENGLAND, N.E.—cont.																																						
Durham.	Durham	9	352	1015.7	—	60.8	4.5	13.6	74	6.5	4	6	9	1	11	0	0	0	1	2	3	7	10	8	0	0	4	20	7	1	0	1	2	7	5	5	3	
		21	352	1015.3	—	57.0	2.7	13.2	83	6.0	5	6	4	6	10	0	0	0	0	1	2	13	15	0	0	0	2	21	8	2	0	2	0	2	6	9	2	
York, N. Riding.	Scarborough	9	96	1015.8	—	61.4	5.0	13.1	71	—	—	—	—	—	—	0	0	0	0	1	0	3	12	15	0	0	0	31	0	5	0	0	7	4	4	7	4	
		21	53	1017.9	—	62.2	5.5	13.1	69	6.2	9	2	1	5	14	—	—	—	—	—	—	—	—	—	—	—	0	0	30	1	7	1	0	5	8	1	4	4
York, N. Riding.	York	9	53	1016.5	—	61.0	5.0	13.1	71	6.0	9	4	0	0	18	—	—	—	—	—	—	—	—	—	—	—	0	0	31	0	1	1	2	4	8	4	7	4
		21	53	1016.5	—	61.0	5.0	13.1	71	6.0	9	4	0	0	18	—	—	—	—	—	—	—	—	—	—	—	0	0	31	0	1	1	2	4	8	4	7	4
York, E. Riding.	Spurn Head	1	28	1015.9	—	56.8	1.0	14.9	94	6.7	1	5	9	6	10	0	0	0	0	0	0	10	21	0	0	0	8	20	3	3	1	2	4	3	5	6	4	
		7	28	1016.2	+1.8	58.3	1.9	14.5	89	7.0	0	3	11	10	7	0	0	0	0	0	0	18	12	1	0	0	12	19	0	7	2	3	2	3	8	5	1	
		13	28	1015.8	—	63.1	3.5	15.8	81	6.7	0	5	7	14	5	0	0	0	0	0	0	10	21	0	0	0	14	17	0	4	2	4	9	3	4	3	2	
		18	28	1015.2	—	61.1	2.8	15.3	83	7.2	0	2	10	13	6	0	0	0	0	0	0	6	20	5	0	0	13	18	0	2	1	2	11	5	2	5	3	
Lincoln.	Cranwell	1	240	1017.2	—	54.5	1.8	13.0	88	4.9	5	10	3	5	8	0	0	1	0	0	0	11	19	0	0	0	3	27	1	1	2	1	3	4	9	8	2	
		7	240	1017.1	—	57.5	2.8	13.6	85	6.3	5	4	3	11	8	0	0	0	0	1	3	14	10	3	0	0	7	24	0	0	0	2	4	3	4	11	7	
		13	240	1016.5	—	68.2	8.4	14.2	61	7.2	1	6	0	16	8	0	0	0	0	0	0	11	12	8	0	0	13	18	0	2	1	2	3	1	11	6	5	
Lincoln.	Cranwell	18	240	1016.0	—	66.7	7.8	13.3	62	6.3	0	9	6	11	5	0	0	0	0	0	0	3	14	13	1	0	12	18	1	2	0	1	6	3	7	7	4	
		3. ENGLAND, E.																																				
		Norfolk.	Cromer	9	74	1016.8	—	63.5	6.0	13.7	68	5.3	1	10	7	7	6	0	0	0	0	1	0	6	10	14	0	0	5	26	0	4	2	2	3	4	6	2	8
1	26			1017.2	—	58.1	2.0	14.4	88	4.4	8	9	3	4	7	0	0	0	0	0	0	0	10	21	0	0	0	4	23	4	1	3	1	4	3	7	5	3
Norfolk.	Yarmouth	7	26	1016.9	+1.8	57.8	2.5	13.9	85	6.2	4	4	7	7	9	0	0	0	0	0	0	3	20	8	0	0	0	7	22	2	2	4	3	2	0	8	6	4
		13	26	1016.9	—	64.5	4.6	15.9	75	5.2	4	7	8	8	4	0	0	0	0	0	0	2	16	13	0	0	12	18	1	2	3	2	8	5	2	2	6	
Norfolk.	Yarmouth	18	26	1016.4	—	64.1	5.3	14.5	71	5.9	4	4	9	6	8	0	0	0	0	0	0	1	17	13	0	0	9	20	2	3	2	4	3	6	6	1	4	
		7	20	1017.5	—	59.8	3.1	14.4	81	5.9	6	3	4	12	6	0	0	0	0	1	2	6	13	9	0	0	8	20	3	3	4	2	0	2	7	4	6	
Suffolk.	Felixstowe Aero.	13	20	1017.4	—	66.0	6.2	14.8	68	5.4	3	8	6	9	5	0	0	0	0	0	0	1	11	12	7	0	15	16	0	1	6	3	4	9	4	2	2	
		18	20	1016.8	—	63.9	5.1	14.6	73	5.8	3	5	8	10	5	0	0	0	0	0	0	2	5	16	8	0	11	19	1	1	7	4	3	6	6	2	1	
Cambridge.	Cambridge	9	43	1017.1	+1.7	65.2	4.3	15.8	73	4.9	8	4	5	8	6	—	—	—	—	—	—	—	—	—	—	—	0	6	25	0	4	3	1	3	4	8	4	4
		21	43	1016.6	+1.3	61.5	3.6	15.0	78	4.4	8	7	5	7	4	—	—	—	—	—	—	—	—	—	—	—	0	4	19	8	5	1	2	1	2	7	4	1
Bedford.	Cardington	7	187	1017.3	—	58.8	3.6	13.4	79	5.4	5	6	4	11	5	0	0	0	0	1	9	9	12	0	0	5	26	0	4	4	3	0	1	7	11	1	1	
		13	187	1016.5	—	70.3	9.3	14.0	55	7.2	1	4	3	17	6	0	0	0	0	0	0	1	15	14	1	0	15	16	0	2	3	1	5	1	7	9	3	
Bedford.	Cardington	18	187	1015.9	—	68.6	8.9	13.8	57	6.7	1	4	6	15	5	0	0	0	0	0	0	1	13	15	2	0	14	15	2	2	1	4	2	3	6	8	3	
		21	187	1016.7	—	61.4	4.5	13.6	73	6.0	0	8	6	12	5	0	0	0	0	0	0	1	16	12	2	0	6	24	1	1	2	4	3	2	11	4	3	
Hertford.	Rothamsted	9	396	1017.0	—	63.9	6.3	13.4	67	5.1	4	7	8	9	3	0	0	0	0	0	2	29	0	0	0	2	20	9	2	2	2	1	5	2	5	3		
		7	14	1017.9	—	60.4	2.2	15.7	87	5.5	7	3	5	11	5	0	0	0	0	1	2	3	12	13	0	0	4	24	3	4	4	2	1	1	5	6	5	
Essex.	Shoeburyness	13	14	1017.6	—	68.3	4.8	18.0	77	5.3	4	7	6	12	2	0	0	0	0	0	0	1	8	21	1	0	9	22	0	2	2	6	6	2	10	1	2	
		18	14	1016.9	—	65.5	3.6	17.5	82	5.8	1	10	5	8	7	0	0	0	0	0	0	2	4	25	0	0	5	26	0	2	2	6	5	3	8	3	2	
4. MIDLAND COUNTIES.																																						
York, W. Riding.	Harrogate	7	478	1016.2	—	56.5	2.9	13.0	82	6.1	1	12	0	8	10	0	0	0	0	0	5	2	15	9	0	0	2	26	3	4	0	0	1	8	14	0	1	
		13	478	1015.0	—	65.3	7.7	12.6	60	6.7	1	7	3	13	7	0	0	0	0	0	3	4	15	5	4	0	4	27	0	2	1	0	2	10	14	1	1	
		18	478	1014.9	—	63.7	6.1	13.7	67	6.0	0	11	3	11	6	0	0	0	0	0	0	5	1	15	10	0	0	6	25	0	2	1	0	4	6	16	2	0
Nottingham.	Nottingham	9	215	1016.1	—	62.7	5.7	13.5	69	6.5	0	8	7	6	10	0	0	0	0	2	2	14	9	4	0	0	10	21	0	3	2	2	1	1	6	12	4	
Warwick.	Birmingham	7	542	1017.4	—	57.5	3.4	12.9	80	6.5	3	5	2	15	6	0	0	0	0	3	6	6	4	12	0	0	3	26	2	4	1	2	1	6	6	3	6	
		13	542	1016.7	—	65.8	8.4	12.6	59	7.0	1	5	3	19	3	0	0	0	0	0	1	6	1	23	0	0	8	22	1	3	0	1	2	3	12	4	5	
		18	542	1015.8	—	66.2	8.9	12.3	57	5.3	1	11	5	12	2	0	0	0	0	0	0	3	0	28	0	0	6	24	1	4	0	1	2	4	9	5	5	
Oxford.	Oxford	9	212	1017.8	+1.7	63.7	6.2	13.4	67	5.5	3	9	3	10	6	0	0	0	0	0	0	7	6	17	1	0	2	22	7	3	2	0	3	4	6	4	4	
Hereford.	Ross-on-Wye	7	226	1017.1	—	57.4	3.2	13.4	82	6.1	1	11	2	9	8	0	0	0	0	1	2	7	11	10	0	0	3	28	0	3	2	1	1	1				

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of JULY, 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.													
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.								
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Visibility.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
																0	1	2	3				4	5	6												
5. ENGLAND, S.E.—cont.																																					
Kent.	Biggin Hill H	7	596	1017.5	—	57.9	2.5	14.1	85	5.5	3	8	8	5	7	0	1	0	0	0	2	11	15	2	0	0	3	26	2	3	2	3	2	2	12	4	1
		13	596	1016.8	—	67.9	7.4	15.0	64	6.6	3	4	3	13	8	0	0	0	0	0	0	5	21	5	0	0	6	25	0	2	4	2	2	0	13	6	2
		18	596	1016.4	—	65.1	5.9	14.8	70	5.2	2	11	5	7	6	0	0	0	0	0	0	4	15	12	0	0	5	25	1	1	3	6	1	1	14	3	1
Kent.	Dungeness ..	1	23	1018.0	—	57.9	1.4	15.0	91	5.6	6	2	9	6	8	0	0	0	0	0	0	3	7	21	0	0	5	25	1	2	10	2	0	1	11	4	0
		7	23	1018.1	+2.5	59.1	2.3	14.7	86	5.8	3	5	7	11	5	0	1	0	0	1	0	1	19	9	0	0	3	28	0	1	7	4	0	1	9	4	5
		13	23	1018.1	—	65.2	4.9	15.6	74	6.2	3	4	7	11	6	0	0	0	0	0	1	17	10	2	0	8	23	0	1	3	5	1	2	14	5	0	
Kent.	Lympe H	18	23	1017.2	—	62.5	3.7	15.6	79	6.3	1	3	13	8	6	0	0	0	0	0	2	15	13	1	0	5	25	1	1	5	5	1	1	13	4	0	
		1	345	1018.0	—	55.3	1.7	13.5	89	5.1	9	6	0	13	3	0	0	0	1	0	3	7	14	6	0	0	9	22	0	4	5	5	1	0	10	5	1
		7	345	1017.7	—	58.1	2.4	14.2	86	5.6	6	5	4	9	7	0	0	1	1	1	6	8	10	4	0	0	7	23	1	7	2	3	0	2	9	2	5
Kent.	Manston H	13	345	1017.6	—	66.9	7.7	14.0	63	5.8	4	6	5	10	6	0	0	0	0	0	10	9	9	3	0	16	15	0	3	4	3	4	3	10	3	1	
		18	345	1017.2	—	63.8	5.9	14.1	69	4.8	4	9	7	6	5	0	0	0	0	0	10	9	9	3	0	14	16	1	3	7	3	1	3	10	2	1	
		7	152	1017.9	—	60.4	3.3	14.6	81	6.4	6	2	3	12	8	0	0	0	0	1	11	8	11	0	0	12	19	0	1	4	2	2	5	6	5	6	
Kent.	Tunbridge Wells	13	152	1017.8	—	68.8	8.6	14.2	60	6.0	3	7	4	14	3	0	0	0	0	0	4	10	17	0	0	18	11	2	4	3	5	2	5	6	2	2	
		18	152	1017.4	—	64.4	5.9	14.4	69	6.2	1	9	5	8	8	0	0	0	0	0	2	10	16	3	0	16	15	0	2	6	2	5	4	9	1	2	
		9	396	1018.1	—	63.9	4.6	15.3	75	4.3	4	9	9	5	4	0	0	0	0	1	2	5	14	9	0	0	8	23	0	0	6	1	2	3	12	2	5
Sussex.	Brighton H	9	48	1017.9	—	63.0	4.2	15.2	78	4.4	14	0	6	3	8	0	0	0	0	2	13	7	9	0	0	0	27	4	2	4	0	4	4	11	0	2	
Sussex.	St. Leonards	9	174	1018.0	—	64.4	5.4	14.4	71	4.3	7	7	7	5	5	0	0	0	0	2	0	19	10	0	0	4	27	0	2	5	3	3	0	14	2	2	
		21	174	1017.8	—	59.6	3.3	14.2	81	4.2	13	1	5	7	5	0	0	0	0	0	2	17	12	0	0	3	25	3	2	5	1	1	0	7	8	4	
Hampshire.	Calshot ..	1	15	1018.2	—	57.7	2.4	13.5	86	4.5	11	3	4	7	6	0	0	0	0	0	2	6	23	0	0	4	24	3	3	4	2	1	1	5	7	5	
		7	15	1018.2	—	59.0	2.7	14.3	84	6.1	3	7	1	13	7	0	0	0	0	1	1	7	10	12	0	0	7	21	3	9	2	3	1	2	4	4	3
		13	15	1018.1	—	67.9	7.1	16.4	65	6.0	2	5	8	11	5	0	0	0	0	0	3	10	16	2	0	16	15	0	0	1	0	6	1	15	5	3	
Hampshire.	Southampton H	18	15	1017.5	—	65.0	5.7	14.5	70	4.4	5	11	4	8	3	0	0	0	0	1	2	11	17	0	0	14	17	0	3	0	1	3	1	13	9	1	
		9	84	1018.2	+1.8	63.0	5.2	14.3	72	4.7	7	5	6	8	5	0	0	0	2	3	22	4	0	0	0	1	29	1	1	3	5	1	0	10	8	2	
		21	84	1017.2	+0.9	64.3	5.5	14.5	70	5.0	3	7	9	8	4	0	0	0	0	4	26	1	0	0	0	2	29	0	0	0	1	1	2	16	6	5	
Hampshire.	S. Farnborough	7	256	1017.5	—	58.4	3.0	13.6	82	5.3	2	10	3	12	4	0	0	0	0	2	10	5	14	0	0	2	23	6	2	2	2	2	4	6	5	2	
		13	256	1016.9	—	71.5	11.0	13.1	52	6.8	2	4	2	19	4	0	0	0	0	0	3	11	17	0	0	9	22	0	2	2	3	2	0	16	5	1	
		18	256	1016.5	—	68.5	9.2	13.2	57	4.8	2	12	4	8	5	0	0	0	0	0	3	9	19	0	0	7	23	1	1	4	4	1	3	11	4	2	
Hampshire.	Winchester (Worthy Down)	7	273	1017.6	—	57.5	2.8	13.3	83	6.5	3	3	5	16	4	0	0	0	0	2	6	12	11	0	0	2	21	8	5	1	1	2	5	1	5	3	
		13	273	1017.0	—	69.1	9.8	12.9	53	6.8	2	3	5	17	4	0	0	0	0	0	1	7	23	0	0	9	21	1	0	4	2	2	8	7	3	4	
		18	273	1016.5	—	67.3	8.8	12.9	56	5.2	1	10	6	11	3	0	0	0	0	0	0	6	23	2	0	7	24	0	4	2	1	2	10	7	3	2	
I. of Wight.	Ventnor (Hosp.)	9	80	1018.1	—	63.3	4.2	15.1	77	6.1	2	7	5	8	9	—	—	—	—	—	—	—	—	—	0	7	24	0	2	1	6	3	1	8	10	0	
		15	80	1017.8	—	66.1	5.4	15.6	72	6.1	6	8	4	7	6	—	—	—	—	—	—	—	—	—	0	8	23	0	0	0	4	1	1	6	19	0	
Wilts.	Larkhill H	9	444	1017.5	—	63.4	6.0	13.6	68	6.2	2	6	7	8	8	0	0	0	0	0	8	20	1	0	13	16	2	2	3	3	3	6	5	4	3		
		13	444	1017.0	—	68.4	8.8	13.7	58	7.1	2	2	4	18	5	0	0	0	0	0	0	5	24	2	0	15	16	0	4	2	2	3	5	8	3	4	
		15	444	1016.9	—	69.0	9.2	13.6	57	6.5	3	4	4	17	3	0	0	0	0	0	0	4	26	1	0	17	13	1	4	3	2	2	6	7	3	3	
7a. ENGLAND, N.W.																																					
Cumberland.	Aspatria (Mealsgate)	9	485	1016.0	—	57.5	2.3	13.6	85	7.9	2	3	3	4	19	—	—	—	—	—	—	—	—	—	—	0	2	27	2	3	0	0	1	4	11	9	1
		21	485	1015.6	—	55.8	2.3	13.1	85	6.4	8	0	4	3	16	—	—	—	—	—	—	—	—	—	—	0	3	17	11	1	0	0	5	3	7	3	1
Lancashire.	Hutton ..	9	86	1015.5	—	62.0	4.8	13.8	73	6.2	2	4	11	6	8	—	—	—	—	—	—	—	—	—	0	1	29	1	1	1	0	4	8	6	7	3	
Lancashire.	Southport H	9	42	1016.4	+1.1	61.7	4.9	13.7	73	6.4	0	9	7	5	10	0	0	0	0	0	5	2	4	20	0	0	12	17	2	2	0	1	2	5	4	8	7
		13	42	1016.2	+0.9	64.6	6.3	14.0	68	6.1	0	11	4	7	9	0	0	0	0	4	4	0	20	3	0	13	18	0	1	0	0	1	5	4	10	10	
		18	42	1015.6	+0.7	63.1	5.5	13.9	71	5.9	2	9	5	7	8	0	0	0	0	0	2	2	2	21	4	0	16	15	0	3	0	1	1	2	4	9	11
		21	42	1015.9	+0.6	59.2	3.0	14.2	82	7.1	1	4	6	5	15	0	1	0	0	0	4	1															

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of JULY, 1929.

DISTRICT COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Visibility.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
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8a. SOUTH WALES—cont.		G.M.T.	ft.	mb.	mb.	°F.	°F.	mb.	%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									

TABLE I. DISTRICT VALUES.

The District Values of this Table are computed from the statistics for selected individual stations set out in Table III and Table IV.

The representative stations from which the District Values of rainfall and temperature are computed are indicated in Table III by the sign ¶ while the representative stations from which District Values of sunshine are computed are indicated by the sign §. The deviations from and percentages of normal for Air Temperature, Rainfall and Sunshine are the means of the corresponding deviations or percentages for the representative District Value stations. The deviations from normal of Earth Temperature are derived from the deviations for all the stations reporting in Table III for which normals of Earth Temperature are available. The highest and lowest temperatures for the District recorded during the month may refer to any station in Table III.

TABLE II. SUMMARY OF AUTOGRAPHIC RECORDS OF WIND.

The records used in the preparation of this Table are generally made by anemographs of the pressure-tube type. At a few stations the Robinson Cup Anemograph is utilised. The classification adopted for the "Distribution of Wind" is based on the specification of the Beaufort Scale of Wind Force (see *The Observer's Handbook*). For an anemograph complying with the specification "head 33 ft. above ground in the open" the several columns correspond with Force 8 and above (gales), Forces 6 and 7 (strong winds), Forces 4 and 5 (moderate breezes), Forces 2 and 3 (light breezes), Forces 1 and 0 (nearly calm). Some information as to the nature of the actual exposures may be gathered from the figures in the "Height" columns.

The "Highest Hourly Wind" is determined by the mean speed of the wind for a period of sixty minutes from 30 minutes before to 30 minutes after an exact hour by Greenwich Mean Time. Under the heading "Veer from N" the azimuth of the direction from which the wind was blowing is stated, the entry for an east wind being 90°, that for a south wind 180° and so on.

TABLE III. SUMMARY OF OBSERVATIONS AT TERMINAL HOURS.*

Temperature.—The terminal hours of observation are given for each station. When the terminal hours for maximum and minimum temperature are stated independently the temperatures refer to intervals of 24 hours. If the maximum thermometer is read in the morning the reading is credited to the previous day. When the terminal hours for maximum and minimum are separated by a dash, thus, 18-7, the day-maximum for the period 7h. to 18h. and the night-minimum for the period 18h. to 7h. are reported and are utilised in determining the means for the month; in such cases the extreme temperatures for successive periods of 24 hours are also read by the observers, so that the absolute maximum and minimum temperatures for the month are obtained.

Except at the Royal Observatory, Greenwich, where a Glaisher stand is in use, the air temperature is obtained from thermometers placed in louvred screens. At Kew Observatory, Richmond, and Valentia Observatory these are north wall screens a few feet from the ground. At Aberdeen Observatory the north wall screen is at 41 feet. Otherwise the screens are in the open.

Rainfall.—The daily amounts are for the 24 hours beginning at the "terminal hour." "Rainfall" includes all forms of precipitation. The number of days of precipitation is counted with reference to the limit .01 inch or 0.2 mm. and also with reference to the limit .04 inch or 1 mm. The lower limit excludes mere "traces" of precipitation, but it is frequently passed on occasions when the precipitation is only dew.

Weather.—The numbers of days of Precipitation, Snow, Hail, Thunderstorms and Gale are counted irrespective of the hour at which the phenomena occur. Except for "Precipitation" the day is the civil day.

For the purpose of this summary "Snow" includes sleet (*i.e.*, snow with rain), "Hail" includes graupel (soft hail), "Snow lying" refers to occasions when at least one-half of the country surrounding the station is covered with snow at the morning observation. The entry of "fog" implies that regular observations of the range of vision are made on the scale set out below. Days of fog are those on which the range of vision is less than 1,100 yards at the hour of morning observation. That hour is generally given by the third entry of column 2 of the table and may be 7h. or 9h. G.M.T. The variability of the observation hour may exercise an important effect upon the statistics of fog frequency. "Thunderstorm" includes any day on which thunder is heard. "Gale" is a wind of Force 8 or upwards on the Beaufort Scale. A "ground frost" is entered when the reading of a "grass minimum" thermometer set the previous evening and read at the morning observation is 30° F. or lower.

Sunshine.—The percentage of possible sunshine in the last column is calculated with reference to the maximum duration theoretically possible in the latitude, allowance being made for refraction (see

International Meteorological Tables (Paris) pp. A17-A20 and 42-47) but not for the fact that the sunshine recorder is generally insensitive to sunshine when the sun is at an altitude of less than 3°. Where the symbol § occurs it indicates that obstructions obscure the sun during more than 5% of the period when it is over 3° above the horizon.

TABLE IV. SUMMARY OF OBSERVATIONS AT FIXED HOURS.*

Mean Air Pressure is expressed in millibars. (1 millibar = 1,000 dynes per square centimetre = the pressure due to .029531 inch of mercury at 32° F. in Lat. 45°). The corrections for latitude, temperature and height have been applied to the barometer readings so as to obtain pressure at mean sea level. Barometric pressure is given at station level for a few stations at altitudes of 600 ft. or more in footnotes in Table IV.

Hygrometry.—The values given depend on the readings of the dry and wet bulb thermometers in Stevenson Screens (except at the Observatories, see above). The observations were formerly reduced by Glaisher's method; as from January, 1926 they are reduced by the new hygrometrical tables issued by the Office which are based on a formula of Regnault. In general the relative humidity and vapour pressure are derived from the monthly means of the dry and wet bulb readings. At certain stations the daily values of relative humidity and vapour pressure are found and the means are computed therefrom. These stations are indicated by the letter "H."

Cloud Amount.—The proportion of sky covered with cloud is estimated on the scale 0 to 10, the entry "0" being equivalent to clear sky "10" to overcast.

Visibility.—The observations are classified according to the following scheme—the distances, specified by international arrangement in metres, are given here in yards and miles:—

CODE.	RANGE OF VISION.
0	Less than 55 yards.
1	Exceeding 55 yards, less than 220 yards.
2	" 220 " " 550 "
3	" 550 " " 1,100 "
4	" 1,100 " " 1½ miles.
5	" 1½ miles " 2½ "
6	" 2½ " " 6½ "
7	" 6½ " " 12½ "
8	" 12½ " " 31 "
9	" 31 " "

Wind Summaries.—The estimates of wind force refer to the Beaufort Scale, and in general to the wind experienced at the time of observation. At Deerness, Cahirciveen, Richmond, Armagh, Eskdalemuir, Southport, Greenwich and Oxford the analysis refers to tabulations of autographic records. For Oxford the mean wind speed for half-an-hour centred at the hour of observation is used for conversion to "force" on the Beaufort Scale; for the remaining observatories the mean wind speed used for each observation refers to a period of one hour. In these cases winds equivalent to Force 1 are counted with the calms, whilst Forces 2 and 3 are taken together in the preceding column of the Table.

INTERPOLATED VALUES.

When the observations for any station for a month are incomplete and relevant data (*e.g.*, records from neighbouring stations) which make it practicable to interpolate approximate values for the missing observations are available, such approximate values may be used for completing summaries for stations published in Tables III and IV. Parts of a summary obtained in this way are shown in brackets thus—(52.4).

STANDARD OF TIME.

As a rule observations are made in all parts of the British Islands according to Greenwich Mean Time, but at the following stations Local Mean Time is used for the observations summarised in Tables III and IV. The number of minutes after Greenwich Time is shown in brackets—Darwen (10), Rhayader (15), Ashburton (15), Tavistock (17), Plymouth (15), Douglas (20), Armagh (26), Balbriggan (25), Lisburn (30), Newcastle, Co. Wicklow (30), Ballinacurra (30), Cork (34).

"Summer Time" is not used in the Monthly Weather Report, but at certain stations the hours of observation vary in the course of the year. For such stations all time entries are converted to G.M.T. before they are printed and the winter hours are given as the terminal hours in the annual tables. For the summer hours reference should be made to the appropriate months.

NORMALS.

In Table III the normals used are those for the 35 years 1881-1915. The normals of temperature and sunshine are published in the Book of Normals, Section I, those for rainfall in the Book of Normals, Section V.

The normals for pressure with which comparison is made in Table IV also refer to the period 1881-1915.

* In addition to the frequencies published in this Report (Tables III and IV), the Meteorological Office has issued since January, 1927, in the form approved by the International Commission for Air Navigation, monthly frequency tables of height of base of low cloud, and speed and direction of surface and upper winds.

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

SUMMARY OF OBSERVATIONS COMPILED FROM RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS.

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AUGUST, 1929. Dry in England and Wales. Wet in Scotland and Ireland.

August, 1929 was mainly fair and dry over most of England and Wales, and unsettled and wet over Scotland and Ireland. In most parts of the British Isles the mean temperature was within a degree of the normal. Sunshine aggregates exceeded the normal in the south-east of England but elsewhere there was in general a deficiency, particularly in Ireland and Scotland.

Conditions were very unsettled during the first week, depressions moving eastwards or north-eastwards across the British Isles. Temperature was generally low and rain fell frequently, heavy falls occurring on the night of the 2nd to 3rd and on the 3rd, 4th, 5th, 6th and 7th. By the 7th an anticyclone to the south-west of the British Isles had begun to spread north-eastwards and the tracks of the depressions were displaced farther north; the weather became much more settled in England especially in the east and south-east, practically no rain falling in the latter districts from the 8th to the 15th. By the 10th, day temperature had risen above the normal, and from the 12th to the 15th abundant sunshine was recorded. Meanwhile, in the north, unsettled conditions persisted with intervening bright periods; Stornoway recorded 13.5 hours sunshine on the 6th and 9.3 hours on the 7th, and Tiree 10.0 hours on the 6th and 9.0 hours on the 7th. At Stornoway, the 6th and 7th were the only rainless days of the month.

On the 16th a break occurred in the fair weather in the south-east. Rain was widespread on this date, heavy falls with thunder occurring locally. In Scotland heavy falls with some thunder continued to be experienced on the 17th. Subsequently for some days depressions were centred over or near Iceland and mainly westerly winds prevailed. Small secondary disturbances in this westerly current caused intermittent rain or showers, chiefly in northern and western districts. An anticyclone to the south-west of the British Isles brought fine, warm and dry weather to most districts on the 25th, over 12 hours' sunshine being recorded in several places (13.1 hours at Cahirciveen, 12.6 hours at Clacton and Felixstowe, and 12.2 hours at Holyhead). On the 27th an anticyclone over the Continent extended to England and Wales and, apart from rain and thunder in a few places on the 31st, fine, warm and dry weather prevailed over most of England until the end of the month. Over Scotland and Ireland, however, the weather remained unsettled, with heavy rain on the 27th, the night of the 27th to 28th, and on the 30th and 31st, and bright intervals on the 28th and 29th.

Pressure and Winds.—Over Scotland and Northern Ireland and the northern districts of England the pressure distribution was of a cyclonic type during the greater part of the month and in these districts the mean pressure for the month was below the normal. In the southern districts, where anticyclonic conditions often prevailed, the mean pressure exceeded the normal. Winds were mostly south-westerly to westerly and light to moderate in force. Strong winds occurred on a few days generally during the first week and about the 13th, 17th and 23rd, but seldom attained gale force. The highest recorded wind velocity was 54 mi/hr. in a gust at South Shields and Spurn Head on the 1st and at Holyhead on the 3rd.

Temperature.—The mean temperature for the month differed little from the normal in most districts. The first 8 days were rather cool, and night temperatures were sometimes low, 34° F. being reported from Braemar and Balmoral on the morning of the 6th and 35° F. at West Linton on the 2nd and 8th and at Castleton (Yorks) on the 8th. Subsequently day temperatures approximated to the normal and during the last five or six days exceeded the normal. The highest day temperatures were recorded in most districts during the latter period, temperature rising above 70° F. in many parts of England; in the east and south-east maximum temperatures of 80° F. and over were recorded locally on the 27th and again on the 31st when 90° F. was recorded in London and at Margate. The extreme temperatures for the month were:—(England and Wales): 90° F. at Camden Square (London) and Margate on the 31st and 35° F. at Castleton (Yorks W.R.) on the 8th and at Mayfield (Staffs) on the 16th. (Scotland): 73° F. at Kelso (Broomlands) on the 27th, and 34° F. at Balmoral and Braemar on the 6th. (Ireland): 75° F. at New Castle (Wicklow) on the 10th and 40° F. at Markree Castle on the 2nd, Newtownbarry on the 8th and at Kilkenny Castle on the 25th.

Precipitation.—Apart from a well-defined excess of rainfall in the north-west and extreme north of England, rainfall totals in England and Wales were almost everywhere below the normal. Over a broad area, including Norfolk and the greater part of Lincolnshire, and extending south-westwards to include parts of Berkshire and Hampshire, less than half the normal rainfall was recorded; Cambridge (Botanic Gardens) with 9 mm. had only 15 per cent. of the normal and Woburn with 11 mm. only 19 per cent. of the normal. In the south-east and east, apart from heavy falls associated with thunderstorms on the 16th, little rain fell after the first week. In a few places in the extreme south-east of England, rainfall totals exceeded the normal, largely due to the heavy falls on the 16th. At Tunbridge Wells where the month's total, 73 mm., amounted to 130 per cent. of the normal, as much as 38 mm., or rather more than half the total, fell on the 16th. Very heavy rain occurred over most of the south-west of England on the 3rd and during the night of the 3rd to 4th, amongst the largest measurements in 24 hours being 107 mm. at Princetown, 89 mm. at Winscombe (Somerset), 68 mm. at Arlington, 60 mm. at Dean Prior, 58 mm. at Newport and 57 mm. at Cardiff. In parts of the south-west of England totals exceeded the normal, mainly in consequence of the heavy falls on the 3rd and on the 5th. Heavy falls occurred in the north-west on the 23rd, e.g., 60 mm. at Stonyhurst.

The rainfall throughout Scotland was mainly above the average, the excess being greatest in northern, western and southern districts. Between the eastern slopes of the Grampians and the east coast from the Moray Firth to the Firth of Tay the rainfall was generally deficient, particularly in the valleys of the Dee and Don where the totals locally failed to reach 80 per cent. of the normal August figure. The heaviest individual daily falls were mostly confined to the second half of the month. At Crieff 50 mm. fell on the 17th, most of this within 1½ hours. Other heavy daily falls were 71 mm. at Roseneath on 4th, 54 mm. at Glasdrum on 28th, 53 mm. at Forsinard on 18th, 51 mm. at Corrie on 16th and 51 mm. at Ardgour on the 28th. At Portree it was the wettest August for at least 19 years, the month's total being 193 mm.

In Ireland, rainfall totals were below the normal in the south-east, but over the greater part of the country there was an excess, and over most northern and western districts totals reached or exceeded one and a half times the normal. Heavy falls were recorded on the 3rd, 5th, 6th, 16th, 23rd and 30th; in Dublin almost two-thirds of the month's total was accounted for by falls of 25 mm. on the 3rd, 14 mm. on the 5th and 21 mm. on the 6th.

The general precipitation of the British Isles expressed as a percentage of the normal for the period 1881–1915 was 104; the values for the constituent countries were: England and Wales 79, Scotland 139 and Ireland 119.

Thunderstorms occurred on several days in some parts of the country, notably on the 6th, 16th and 31st. There were remarkably few occurrences of hail.

Sunshine.—Sunshine aggregates exceeded the normal in coastal districts in the south-east of England, but in most places there was a deficiency. Representative totals for districts expressed as a percentage of the normal for the period 1881–1915 ranged from 105 per cent. in England S.E. to 74 per cent. in Ireland N. Excellent sunshine records, however, were obtained on many days, notably in the north and west on the 2nd, in several districts on the 7th, 8th and from the 12th to the 15th, in the south on the 17th, widely on the 18th and 25th and in many parts of England, particularly in the east and south-east, during the last five days of the month.

Fog.—Fog occurred locally in several districts during the last week of the month.

Miscellaneous Phenomena.—Aurora was observed at Kirkwall (Orkneys) on the 2nd, and at Lerwick, Aberdeen, Braemar, Edinburgh and Inchkeith on the 14th. At Oxford, observations were made of a sun pillar and moon pillar on the 15th and of a solar halo with parheliion on the 31st.

TABLE I.—DISTRICT VALUES—AUGUST, 1929.

[1908, revised 1928.]

DISTRICTS.	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High-est.	Low-est.	Daily Mean. Deviation from Normal.	At 1 ft. Deviation from Normal.	At 4 ft. Deviation from Normal.	Per-centage of Normal.	No. of Days. Deviation from Normal.	Per-centage of Normal.	Per-centage of Possible Duration.
o. SCOTLAND, N.	°F. 68	°F. 37	°F. -0.4	°F. —	°F. —	% 146	+4	% 84	% 22
Eastern.									
1. SCOTLAND, E.	73	34	-0.2	—	—	126	+3	89	29
2. ENGLAND, N.E.	83	35	+0.2	-1.0	-0.7	87	+1	96	34
3. ENGLAND, E...	87	38	+0.8	-0.7	-1.2	50	-4	98	42
4. MIDLAND COUNTIES	86	35	+0.1	-0.7	-0.4	66	-1	97	37
5. ENGLAND, S.E.	90	38	+0.2	+0.5	+0.8	85	-4	105	46

DISTRICTS	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High-est.	Low-est.	Daily Mean. Deviation from Normal.	At 1 ft. Deviation from Normal.	At 4 ft. Deviation from Normal.	Per-centage of Normal.	No. of Days. Deviation from Normal.	Per-centage of Normal.	Per-centage of Possible Duration.
Western.	°F.	°F.	°F.	°F.	°F.	%		%	%
6. SCOTLAND, W. (& I. of Man)	71	35	-0.9	—	-1.4	148	+6	79	23
7. ENGLAND, N.W. (& N. Wales)	76	39	-0.3	-0.9	-0.1	122	+5	89	31
8. ENGLAND, S.W. (& S. Wales)	79	36	-0.1	-0.9	-0.8	76	0	92	38
9. IRELAND, N...	70	40	-0.1	-1.3	-0.7	145	+5	74	23
10. IRELAND, S...	75	40	0.0	-0.5	-0.6	104	+4	81	27
11. CHANNEL I. (& Scilly)	77	50	-0.5	+1.0	+0.5	61	-3	100	52
Mean: DISTRICTS I-10	90	34	0.0	-0.7	-0.6	101	+1	90	33

TABLE II.—SUMMARY OF AUTOGRAPHIC RECORDS OF WIND.—AUGUST, 1929.

[1914.]

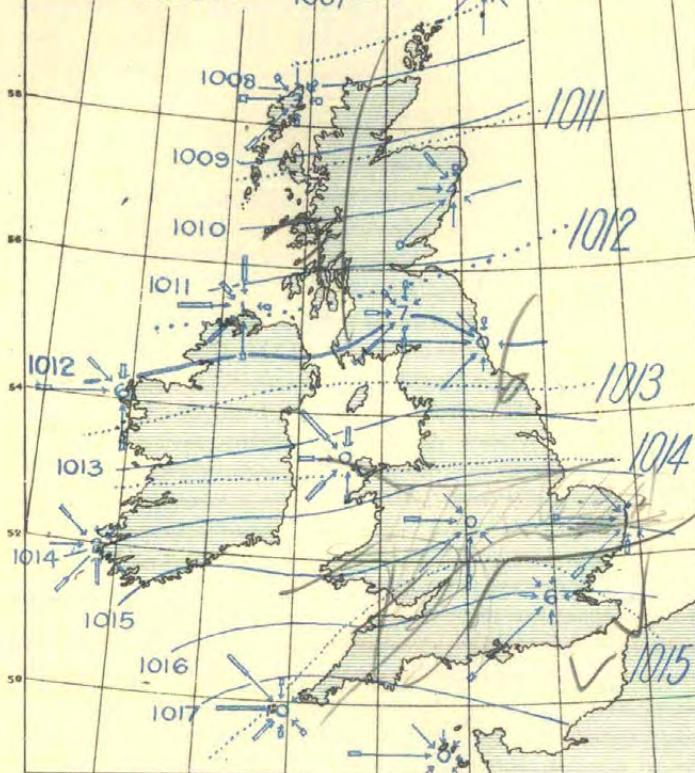
DISTRICT AND STATION.		Height.			Distribution of Wind.††								Extreme Velocities.									
		Above Mean Sea Level.	Above Ground.	Above Building.	More than 38 mi/hr.		25 to 38 mi/hr.		13 to 24 mi/hr.	4 to 12 mi/hr.	Less than 4 mi/hr.	No Record.	Highest Hourly Wind.				Highest Gust.					
					Dates of Occurrence.	Duration.	No. of Days.	Duration.	Duration.	Duration.	Duration.	Duration.	Veer from N.	Speed.	Mid Time.	Speed.	Time.					
o. SCOTLAND, N.		ft.	ft.	ft.		hr.		hr.	hr.	hr.	hr.	°	mi/hr.	m/s.	day. hr.	mi/hr.	m/s.	d.	h.	m.		
Shetlands	Lerwick ..	310	42	33‡	—	0	3	7	209	314	214	0	270	25	11	30 1	40	18	23	6	0	
Orkneys	Deerness (Cup Anr.)	188	16	5	—	0	3	16	292	378	58	0	360 (270)	28	13	1 13 (25 1	—	—	—	—	—	
1. SCOTLAND, E.																						
Aberdeen	Aberdeen ..	70	42	33‡	—	0	—	0	124	478	142	0	340	22	10	1 13	39	17	1	14	25	
Kincardine	Balmakewan ..	140	25	18	—	0	—	0	29	(460)	(255)	0	360	19	9	1 15	35	16	1	13	35	
Edinburgh	Edinburgh ..	485	39	31‡	—	0	2	3	304	356	81	0	200	36	16	3 10	52	23	3	10	20	
6a. SCOTLAND, W.																						
Argyll	Tiree ..	80	55	48‡	—	0	9	76	456	198	4	10	360	36	16	17 18	49	22	17	17	50	
Renfrew	Paisley ..	188	81	15	—	0	—	0	94	594	56	0	140	24	11	3 8	50	22	24	21	0	
Dumfries	Eskdalemuir ..	825	50	22	—	0	5	22	298	312	111	1	(220)	28	13	29 12	48	21	24	20	50	
2. ENGLAND, N.E.																						
Durham	South Shields ..	62	46	20	—	0	3	12	99	409	224	0	310	34	15	1 8	54	24	1	8	35	
York, E.R.	Spurn Head ..	67	41	35‡	1	1	8	37	387	290	11	18	320	41	18	1 11	54	24	1	10	50	
Lincoln	Cranwell ..	284	43	31‡	—	0	—	0	200	465	79	0	300	23	10	1 13	43	19	1	13	50	
3. ENGLAND, E.																						
Norfolk	Gorleston ..	52	42	33‡	—	0	2	5	165	501	59	14	190	27	12	6 8	40	18	1	13	55	
Suffolk	Felixstowe Aero. ..	55	40	25	—	0	3	6	223	336	179	0	190	28	13	6 8	38	17	1	12	20	
Essex	Shoeburyness ..	115	104	14‡	—	0	4	10	173	372	119	70	190	30	14	6 7	48	21	1	10	40	
4. MIDLAND COUNTIES.																						
Warwick	Birmingham ..	643	118	18	—	0	—	0	147	550	47	0	250	22	10	23 12	42	19	23	12	40	
5. ENGLAND, S.E.																						
Surrey	Richmond (Kew Obs)	82	65	22	—	0	—	0	78	391	275	0	210	19	9	{ 17 13 } 28 16	37	16	17	14	5	
Surrey	Croydon ..	313	105	49	—	0	3	10	221	394	119	0	240	29	13	1 3	48	21	1	4	10	
Kent	Dover ..	61	32	22	—	0	5	17	273	340	98	16	—	31	14	1 2	50	22	1	1	55	
Kent	Lympne ..	409	70	55‡	—	0	2	7	213	467	45	12	200	27	12	6 16	41	18	1	11	20	
Hampshire	Calshot ..	55	45	31‡	—	0	6	18	279	376	71	0	220	29	13	6 8	43	19	6	8	5	
Hampshire	Worthy Down ..	314	43	27	—	0	—	0	99	491	154	0	270	21	9	1 11	39	17	1	10	0	
7a. ENGLAND, N.W.																						
Lancashire	Fleetwood ..	112	50	12	—	0	6	18	310	371	45	0	340	34	15	4 15	46	21	4	15	10	
Lancashire	Southport ..	77	59	45‡	—	0	7	40	377	304	23	0	300	32	14	4 15	43	19	24	11	50	
Lancashire	Liverpool (Bidston)	253	64	35	—	0	6	25	334	352	30	3	290	32	14	1 3	48	21	1	7	20	
7b. NORTH WALES.																						
Anglesey	Holyhead ..	64	45	29‡	—	0	10	45	411	261	27	0	290	36	16	18 3	54	24	3	8	15	
Flint	Sealand ..	81	65	49‡	—	0	1	9	189	439	107	0	310	28	13	1 11	43	19	1	11	30	
8b. ENGLAND, S.W.																						
Devon	Plymouth ..	185	88	2	—	0	3	7	150	418	169	0	—	31	14	3 23	40	18	3	22	45	
9. IRELAND, N.																						
Donegal	Dunfanaghy Road	180	47	39	—	0	2	3	137	269	63	272	—	30	13	22 23	40	18	22	23	10	
Antrim	Aldergrove ..	282	40	27‡	—	0	—	0	124	546	74	0	330	21	9	1 15	40	18	1	15	50	
10. IRELAND, S.																						
Dublin	Kingstown (Cup Anr.)	49	27	16	—	0	8	25	343	337	39	0	{ 270 } 280	30	13	{ 1 2 } 18 1	—	—	—	—	—	
Clare	Quilty ..	100	40	32‡	—	0	9	57	442	235	10	0	—	30	13	17 3	41	18	{ 1 2 } 17 2	40	0	
Kerry	Cahirciveen (Val. O.)	98	41	34‡	—	0	6	12	391	300	41	0	190	29	13	3 1	47	21	3	1	25	
Cork	Weaver Pt. ..	160	30	21‡	—	0	1	1	207	368	31	137	—	(26)	12	28 12	(42)	19	28	14	35	
11. SCILLY ISLES.																						
	St. Mary's ..	230	65	17‡	1	2	7	53	475	194	20	0	310	40	18	1 2	53	24	1	0	10	

†† Brackets () indicate that the distribution as between winds above and below 4 m.p.h. is doubtful, but the total number of hours with winds below 12 m.p.h. is reliable.

† Standard mounting.

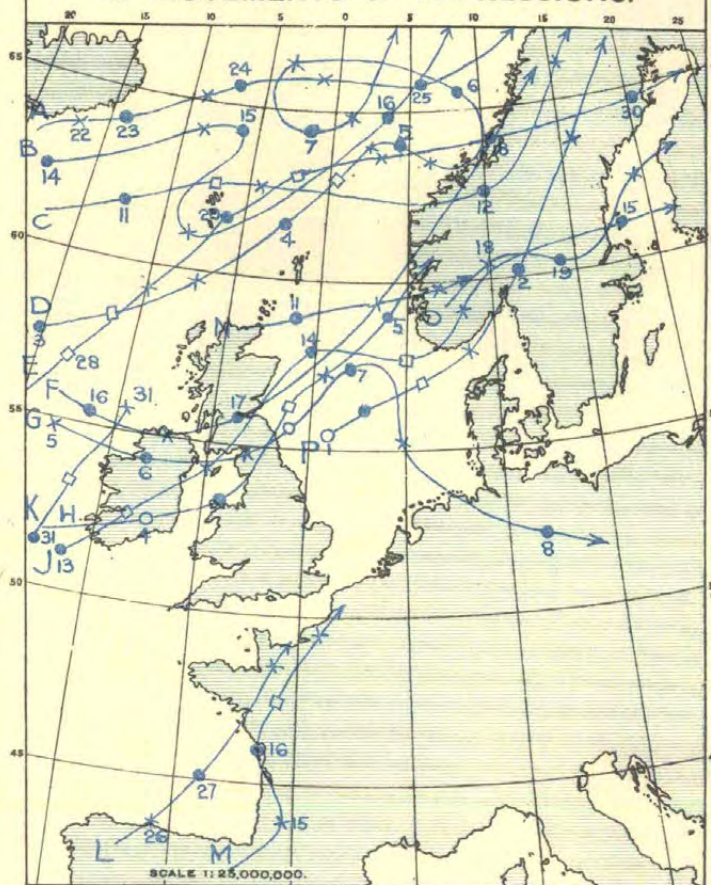
1. WIND AND MEAN PRESSURE. 7 A.M. *

The dotted lines indicate the normal distribution of pressure in August, based on 35 years' observations, 1881-1915.



WIND ROSES. The arrows fly with the wind and indicate frequency and force, thus:
 LIGHT TO STRONG GALE
 30 OBS. 1 INCH

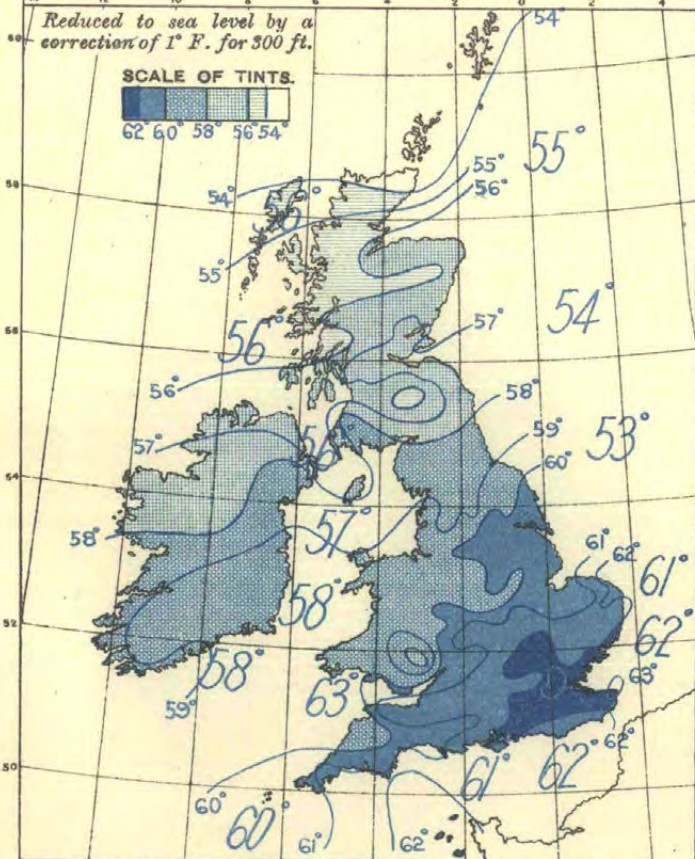
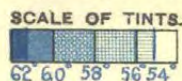
2. MOVEMENTS OF DEPRESSIONS.



Positions of centres are shown thus: - O at 1h; ● at 7h; □ at 13h; X at 18h.

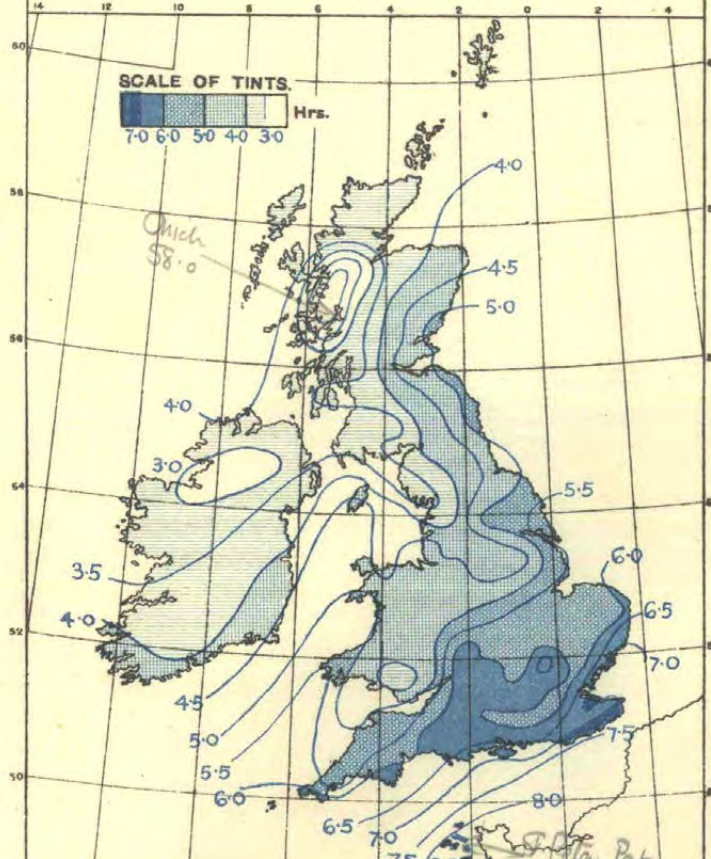
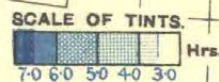
3. DISTRIBUTION OF MEAN TEMPERATURE.

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

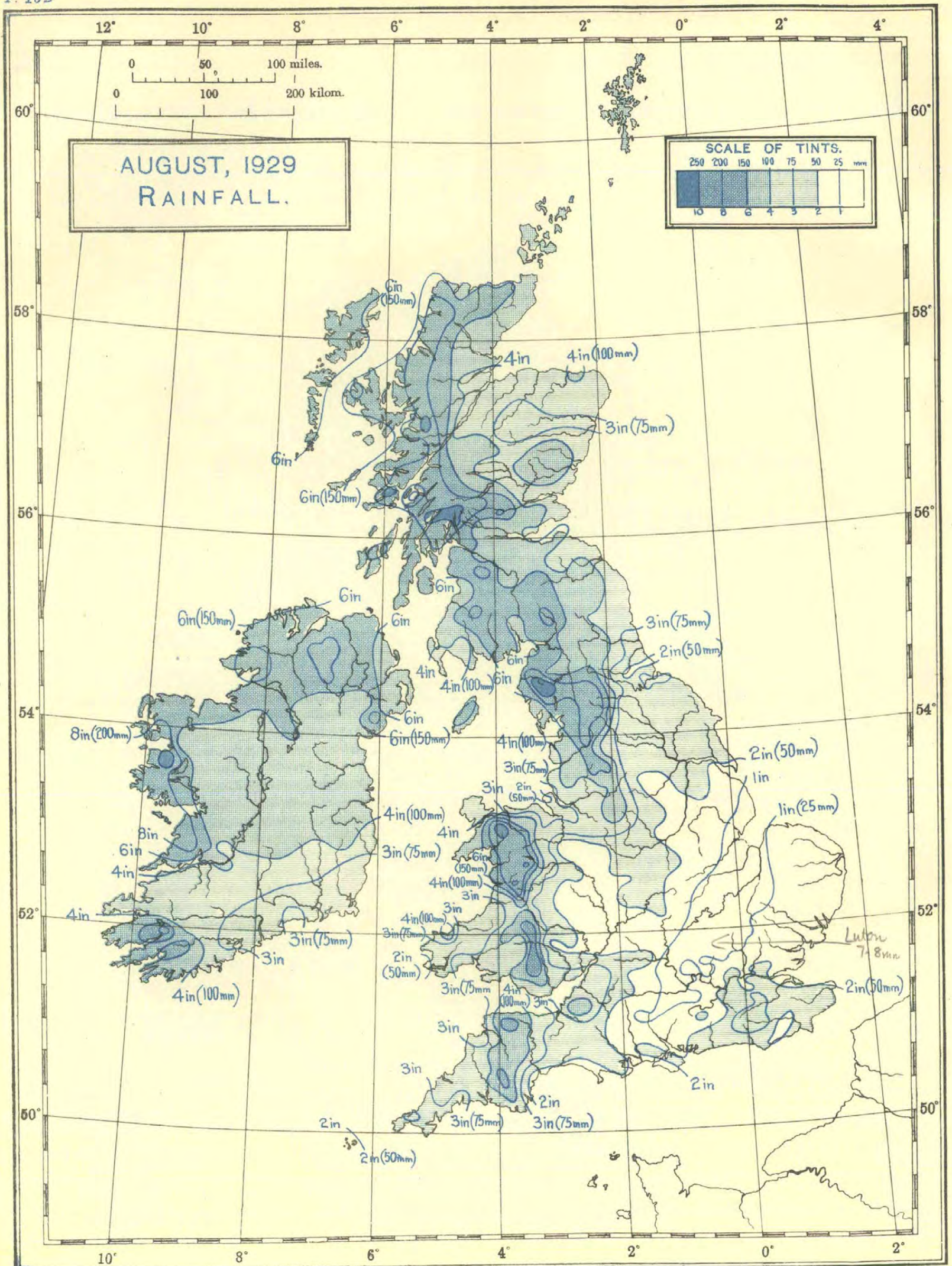


Sea temperatures are shown in large figures, thus: 60°

4. BRIGHT SUNSHINE, HOURS PER DAY.



* The pressure is expressed in millibars.



Scale 1:5,000,000.

The equivalent values in mm. are given in round numbers. The exact relation is 10 in. = 254 mm.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation. Max. Min. Rain.		Height of Station above Mean Sea Level. ft.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature. 1 ft. 4 ft.		RAINFALL.				WEATHER. Number of days.							BRIGHT SUNSHINE.			
					Means of		Deviation from Normal.	Absolute Maximum and Minimum.			Total Fall.	Deviation from Normal.			Most in a day.		Precip'n. 0·2 mm. or more, 1 mm. or more.	Snow lying.	Hall.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.		Per Cent.			
					A	B		Maximum.	Date.	Minimum.					Date.	Amount.								Date.	Daily Mean.		Deviation from Normal.		
					Max.	Min.																						Mean of A and B.	
		G.M.T.	ft.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	in.	mm.	mm.	mm.									hr.	hr.	%			
0. SCOTLAND, N.																													
Shetlands.	Baltasound ..	9 9 9	31	57·1	48·5	52·8	—	61	22nd	41	7th	53·8	—	3·83	97	—	26	31st	29	20	0	0	1	2	0	—	0 4·18	—	26
	Lerwick ..	18-7 7	54	57·1	50·0	53·5	+0·7	61	16th	46	2, 3, 7	—	—	4·51	114	+ 38	25	31st	26	21	0	0	0	0	—	0 3·66	-0·56	23	
Orkneys.	Deerness ..	2121 9	160	57·8	48·7	53·3	-0·1	61	10, 11, 21	43	7th	—	—	4·80	122	+ 49	18	16th	26	19	0	0	0	0	1	—	0 3·79	-0·08	25
	Kirkwall ..	9 9 9	151	57·4	49·6	53·5	—	62	22nd	43	6th	—	—	5·05	128	—	21	16th	29	19	0	0	0	0	1	0	0 3·91	—	25
Hebrides.	Skallary ..	9 9 9	20	58·8	51·8	55·3	—	61	29th	46	7th	—	—	5·43	138	—	33	16th	27	24	0	0	0	0	—	0 —	—	—	—
	Stornoway ..	18-7 7	30	59·4	48·7	54·1	-0·4	65	29th	37	6th	—	—	5·84	148	+ 47	17	13th	29	26	0	0	0	0	—	0 3·91	-0·38	26	
Caitness.	Wick ..	18-7 7	81	57·8	48·9	53·3	+0·2	63	28th	41	7th	—	—	4·79	122	+ 52	22	17th	26	20	0	0	0	1	1	—	0 —	—	—
Ross & Cromarty.	Achnashellach †	9 9 9	225	59·4	49·6	54·5	0·0	67	27th	42	5th	—	—	8·83	224	+ 48	21	28th	27	26	0	0	0	0	0	—	0 —	—	—
	Fortrose ..	9 9 9	69	62·4	50·3	56·3	—	67	10, 28, 29	44	2nd	—	—	3·36	85	—	24	16th	21	16	0	0	0	0	—	0 3·70	—	24	
	Strathpeffer ..	9 9 9	125	62·5	49·2	55·9	-0·3	68	10, 28	41	16th	—	—	3·31	84	+ 18	22	16th	22	14	0	0	0	—	—	—	—	—	—
Inverness.	Ft. Augustus†	9 9 9	68	60·7	50·1	55·4	-0·8	65	28th	42	6, 8	—	—	4·05	103	+ 15	19	16th	22	15	0	0	0	0	—	1 1·97	-1·26	13S	
	Inverness ..	9 9 9	242	60·9	50·1	55·5	-1·4	66	10th	44	6th	—	—	3·62	92	+ 29	36	17th	16	9	0	0	0	1	0	—	0 3·82	-0·70	25
	Onich ..	9 9 9	48	60·1	50·9	55·5	—	66	27th	44	2, 6	—	—	8·66	220	—	31	28th	27	23	0	0	0	1	2	0	0 1·87	—	12
1. SCOTLAND, E.																													
Nairn.	Nairn ..	18-7 7	82	62·3	49·5	55·9	-0·3	68	3, 10	43	5, 6	—	—	3·98	101	+ 40	23	16th	23	19	0	0	0	0	—	0 3·71	-0·83	24	
Elgin.	Gordon Castle ..	2121 9	104	63·8	49·4	56·6	+0·2	71	27th	42																			

†On and after April 21st, observations were taken one hour earlier than the times shown.

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, AUGUST, 1929.

[illegible]

** At Meltham the earth thermometers are at depths of 1 ft. and 2 ft.

|| On and after April 21st. observations were taken one hour earlier than the times shown.

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, AUGUST, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level	AIR TEMPERATURE IN DEGREES FAHRENHEIT.										Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
					Means of				Absolute Maximum and Minimum.								Total Fall.		Most in a day.		Precip'n.		Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
					A	B	Mean of A and B.	Deviation from Normal.	Maximum.	Date.	Minimum.	Date.	1 ft.	4 ft.			Amount.	Date.	0.2 mm. or more.	1 mm. or more.	Snow.	Daily Mean.							Deviation from Normal.	Per Cent.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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4. MID. COUNTIES—cont.		G.M.T.	ft.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	in.	mm.	mm.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, AUGUST, 1929.

DISTRICT, COUNTY AND PLACE.	Terminal Hours of Observation.	Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.			
			Means of		Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.			Deviation from Normal.	Most in a day.		Precip'n.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.		Per Cent.					
			A	B		Maximum.	Date.	Minimum.	Date.		Amount.	Date.		0.2 mm. or more.	1 mm. or more.								Snow.	Daily Mean.		Deviation from Normal.				
			Max.	Min.	Max.	Min.	Mean of A and B.	Maximum.	Date.	Minimum.	Date.	1 ft.	4 ft.	in.	mm.	mm.	mm.	0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.	
5. ENGLAND, S.E.—cont.																														
Hampshire	Calshot	18-7 7	8	67.9	55.3	61.6	—	74	31st	48	3rd	—	1.61	41	—	16	5th	12	6	0	0	0	1	1	0	0	6.44	—	44	
	Grayshott	9 9 9	661	67.4	51.8	59.6	0.0	79	31st	45	3rd	60.6	—	2.51	64	—	7	7th	11	8	0	0	0	2	1	0	5.94	-0.38	41	
	Long Sutton	9 9 9	479	69.5	52.0	60.7	—	80	31st	44	8th	63.1	—	1.34	34	—	9	7th	9	9	0	0	0	0	0	0	5.92	—	41	
	Southamp'n	2121 9	64	68.4	54.2	61.3	-1.1	75	24.25.31	48	3rd	—	—	1.77	45	—	22	16	11	8	0	0	0	0	0	0	6.47	-0.14	45	
	S. Farnboro'	18-7 7	237	71.6	50.9	61.3	—	83	31st	42	8, 13	—	—	1.33	34	—	9	7th	11	7	0	0	0	1	3	0	6.30	—	43	
I. of Wight.	Winchester	18-7 7	272	69.4	51.2	60.3	—	78	27, 31	41	3rd	—	—	1.61	41	—	14	7th	11	7	0	0	0	0	2	0	5.92	—	41	
	(Worthy Down)																													
	Newport	9 9 9	48	71.3	53.0	62.1	—	78	25, 31	43	3rd	—	—	2.18	55	—	28	5th	13	8	0	0	0	2	0	0	—	—	—	
	Ryde	9 9 9	13	68.4	56.3	62.3	—	77	31st	52	13th	—	—	1.86	47	—	19	5th	13	7	0	0	0	1	0	—	17.49	—	52	
	Sandown	9 9 9	13	68.2	54.7	61.5	—	73	31st	41	3rd	—	—	2.09	53	—	22	5th	14	9	0	0	0	2	0	—	6.99	—	48	
Wilts.	Totland Bay	9 9 9	140	66.9	54.4	60.7	-1.0	74	27th	46	3rd	—	—	1.75	45	—	12	25	9	5	0	0	0	2	0	0	17.26	+0.52	50	
	Ventnor	9 9 9	59	67.1	56.9	62.0	-0.2	73	31st	52	5th	—	—	1.82	46	—	5	22	14	7	0	0	0	3	—	—	6.98	+0.30	48	
	(Hospital)																													
	Larkhill	9 9 9	440	67.9	51.1	59.5	—	79	27th	43	3, 12	—	—	1.32	33	—	10	5th	12	9	0	0	0	1	0	0	—	—	—	
	Marlboro'	9 9 9	424	68.4	49.6	59.0	+0.2	79	27th	38	15th	59.3	56.5	1.69	43	—	24	10	5th	13	8	0	0	0	1	0	0	6.29	+0.71	43
7a. ENGLAND, N.W.	Porton	9 9 9	363	69.1	50.3	59.7	—	78	31st	43	3rd	60.8	—	0.95	24	—	10	5th	11	8	0	0	0	1	0	0	5.96	—	41	
	Aspatria	2121 9	487	61.6	51.3	56.5	-1.2	71	31st	41	2nd	57.0	54.7	6.42	163	+	47	20	3rd	26	20	0	0	0	0	—	0	3.43	-1.57	23
	(Mealsgate)																													
	Keswick	9 9 9	254	63.6	52.2	57.9	—	71	27, 31	42	2nd	58.9	56.0	5.29	134	—	17	4th	26	24	0	0	0	2	0	0	3.26	—	22	
	Newton Rigg	2121 9	559	62.9	50.0	56.5	-0.5	69	27, 31	41	2nd	—	—	4.11	104	+	13	18	4th	24	20	0	0	0	2	0	0	4.18	-0.79	28
Lancashire.	Bolton	9 9 9	341	65.2	51.4	58.3	—	73	26th	43	8th	58.8	56.5	6.53	166	—	34	6th	20	18	0	0	0	2	—	0	4.01	—	27	
	Burnley	9 9 9	458	64.2	51.1	57.7	—	74	27, 31	40	26th	58.6	56.3	3.56	90	—	16	23rd	23	16	—	—	—	—	0	—	3.68	—	25	
	Darwen	2121 9	724	63.9	50.3	57.1	—	72	26th	44	3, 26	59.1	55.9	6.68	170	—	32	23rd	23	17	0	0	0	2	0	0	4.00	—	27	
	Hutton	9 9 9	82	65.5	51.5	58.5	—	74	26th	41	3, 26	59.3	56.9	5.21	132	—	38	23rd	21	20	0	0	0	1	—	0	4.52	—	31	
	Lancaster	9 9 9	311	64.0	52.8	58.4	—	73	27th	47	2nd	59.1	56.7	6.99	198	—	28	4th	25	21	0	0	0	2	0	0	3.90	—	26	
Cheshire.	Leyland	9 9 9	124	64.4	51.7	58.1	—	73	27th	42	26th	—	—	4.74	120	—	29	23rd	21	18	0	0	0	3	0	0	4.62	—	31	
	Manchester																													
	(Whitworth Pk)	2121 9	125	65.5	52.3	58.9	-1.0	75	27th	44	8, 16, 26	—	—	3.91	99	+	11	13	23rd	21	18	—	—	—	—	0	—	3.66	-0.50	25
	(Oldham Road)	2121 9	190	66.3	54.5	60.4	-0.2	76	27th	47	16th	59.9	59.7	4.10	104	+	10	14	17th	21	18	0	0	0	0	—	0	3.39	-0.58	23
	(Swinton)	9 9 9	253	65.6	50.4	58.0	—	74	27, 31	43	8th	—	57.7	4.90	124	—	20	1st	20	17	0	0	0	3	0	0	0	3.73	—	25
7b. NORTH WALES.	Southport	9 9 9	37	64.5	54.1	59.3	+0.3	73	30th	45	26th	62.4	61.1	4.03	102	+	14	23	23rd	21	17	0	0	0	3	0	0	5.33	-0.41	36
	Stonyhurst	9 9 9	377	63.4	51.9	57.7	-0.1	72	27th	44	26th	—	—	7.98	203	+	74	60	23rd	24	23	0	0	0	3	0	0	4.46	-0.41	30
	Hoylelake	9 9 9	30	66.5	53.6	60.1	+0.2	75	26th	42	16th	—	—	2.58	66	—	8	9	23rd	19	18	—	—	—	—	—	—	5.81	+0.29	40
	Liverpool	18-7 7	189	63.9	53.6	58.7	-0.8	71	26, 30	48	3, 16, 26	—	—	2.64	67	—	11	12	3rd	19	16	0	0	0	2	0	0	5.50	—	37
	(Bidston)																													
Flint.	Macclesfield	9 9 9	500	65.5	50.4	57.9	-0.4	76	27th	42	19, 26	—	—	4.47	113	+	17	20	23rd	21	19	0	0	1	1	0	—	—	—	—
	West Kirby	9 9 9	25	67.4	54.3	60.9	—	75	10, 30	45	16th	—	—	1.85	47	—	8	23rd	18	14	0	0	0	1	1	0	0	2.54	—	37
	Hawarden B'ge	9 9 9	22	66.4	53.7	60.1	-0.2	74	26, 30	43	16th	—	—	2.56	65	—	8	17	23rd	17	15	—	—	—	—	—	—	—	—	—
	Rhyl	9 9 9	30	65.1	53.8	59.5	+0.3	74	27, 30, 31	43	26th	—	—	2.63	67	—	2	10	23rd	21	15	0	0	0	0	0	0	5.20	-0.70	35
	Sealand	18-7 7	16	65.9	51.7	58.8	-0.5	74	26th	39	16th	59.1	57.0	2.79	71	—	2	12	23rd	18	16	0	0	0	1	1	0	5.18	+0.27	35
Anglesey.	Holyhead	18-7 7	26	62.7	54.9	58.8	+0.1	72	27th	48	19th	—	—	3.09	79	—	2	13	5th	19	14	0	0	0	0	0	0	3.48	-0.83	33
	Colwyn Bay	9 9 9	81	65.8	55.4	60.6	—	76	31st	47	26th	—	—	2.49	63	—	13	23rd	17	12	0	0	0	0	0	—	4.35	—	30	
	Aber (Bangor)	9 9 9	60	64.4	54.4	59.4	—	76	27th	47	26th	—	—	3.56	90	—	24	23rd	20	17	—	—	—	—	—	0	4.13	—	28	
	Llandudno	9 9 9	22	64.8	54.7	59.7	-0.2	74	27th	46	19, 26	—	—	2.38	61	—	16	12	23rd	19	12	0	0	0	0	0	—	14.75	-1.02	32
	Welshpool	9 9 9	254	68.6	50.8	59.7	—	75	25th	40	25th	—	—	2.39	61	—	17	5th	13	11	0	0	0	0	2	—	0	—	—	—
8a. SOUTH WALES.	Cardiff	2121 9	202	65.9	52.9	59.4	-0.6	74	27th	47	5, 8	61.4	58.7	3.77	96	—	11	57	3rd	14	11	0	0	0	1	0	0	5.12	—	35

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, AUGUST, 1929.

DISTRICT, COUNTY AND PLACE.	Terminal Hours of Observation.	Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
			Means of		Deviation from Normal.	Absolute Maximum and Minimum.			Total Fall.	Deviation from Normal.			Most in a day.		Precip'n.	Snow lying.	Hail.	Thunderstorm.	Fog (M'ring Obs.)	Ground Frost.	Gale.	Hours per day.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
			A	B		Maximum.	Date.	Minimum.			Date.	1 ft.	4 ft.	Amount.								Date.	0.2 mm. or more.	1 mm. or more.	Snow.	Daily Mean.	Deviation from Normal.	Per Cent.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
			Max.	Min.	Max.	Min.	Mean of A and B.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.

TABLE IV.—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of AUGUST, 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.													
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.								
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Visibility.	8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		
																0	1	2	3																	4	5
0. SCOTLAND, N.																																					
Shetlands.	Lerwick	1	59	1006.8	—	51.7	1.4	11.9	90.8	2	0	0	7	13	11	0	0	0	1	0	0	1	14	15	0	0	3	23	5	2	1	1	4	5	5	7	1
		7	59	1006.8	-2.8	52.4	1.8	11.6	87.8	0	0	1	7	13	10	0	0	0	0	0	0	2	10	19	0	0	2	28	1	2	0	2	3	6	5	9	3
		13	59	1007.5	—	55.1	3.3	11.6	79.8	5	0	0	4	17	10	0	0	0	0	0	0	3	9	19	0	0	3	28	0	1	1	1	3	4	10	7	4
		18	59	1007.4	—	53.6	2.3	12.1	85.8	6	0	0	5	15	11	0	0	0	1	0	1	2	11	16	0	0	6	25	0	2	1	1	3	7	8	6	3
Orkneys.	Deerness	9	165	1008.4	—	54.0	2.4	12.0	84.7	3	0	1	14	6	10	0	0	0	1	0	0	1	3	16	10	0	15	16	0	1	1	2	2	5	4	10	6
		21	165	1009.2	—	51.7	1.3	12.0	91.7	1	0	5	6	11	9	0	0	0	0	0	0	1	2	24	4	0	8	21	2	3	1	1	3	6	1	12	2
Hebrides.	Stornoway	7	41	1008.7	-1.7	53.1	1.1	12.7	92.8	1	0	4	0	17	10	0	0	0	0	0	1	6	18	6	0	0	8	20	3	3	3	1	0	2	9	8	2
		13	41	1009.0	—	57.9	3.4	13.0	79.7	8	0	3	5	13	10	0	0	0	1	0	1	4	10	14	1	0	12	19	0	3	5	1	1	2	6	10	3
		18	41	1008.7	—	55.8	2.2	13.2	86.8	0	0	3	3	12	13	0	0	0	1	0	0	2	13	13	2	0	15	13	3	2	5	0	1	1	9	7	3
		21	41	1008.8	—	53.0	1.1	12.7	92																												
Caithness.	Wick	1	97	1008.3	—	51.4	1.4	11.5	90.7	3	1	3	7	9	11	0	0	0	0	0	0	2	29	0	0	1	30	0	1	2	2	0	3	11	9	3	
		7	97	1008.4	-2.2	52.5	1.6	12.2	89.7	5	1	1	11	4	14	0	0	0	1	0	0	1	3	26	0	0	0	31	0	2	1	0	1	5	10	6	6
		13	97	1008.8	—	56.8	2.9	13.0	82.8	4	0	0	3	18	10	0	0	0	0	1	0	0	4	26	0	0	5	26	0	2	3	0	0	7	10	4	5
		18	97	1008.8	—	55.6	2.5	12.9	85.8	4	0	0	5	13	13	0	0	0	0	1	0	0	4	26	0	0	1	30	0	2	3	1	3	5	5	5	7
Inverness.	Inverness	9	250	1009.4	—	55.6	3.2	12.2	80.6	3	0	2	13	12	4	0	0	0	1	0	0	2	2	10	16	0	11	17	3	2	2	0	1	1	17	2	3
		17	250	1009.3	—	54.6	0.8	14.0	95.6	3	0	3	13	12	3	0	0	0	0	0	0	2	3	9	17	0	19	10	2	3	1	0	1	3	14	3	4
1. SCOTLAND, E.																																					
Nairn.	Nairn	7	82	1009.3	-1.5	53.4	2.0	11.9	87.6	7	0	3	10	14	4	0	0	0	0	0	1	0	9	21	0	0	2	19	10	1	0	0	1	3	6	9	1
		13	82	1009.6	—	60.0	4.8	12.7	72.6	7	0	1	14	11	5	0	0	0	0	0	0	3	4	24	0	0	8	18	5	2	0	5	1	0	3	14	1
		18	82	1009.3	—	57.5	3.6	12.3	77.7	5	0	1	5	21	4	0	0	0	0	0	0	3	6	22	0	0	3	23	5	1	0	4	0	0	3	15	3
Aberdeen.	Aberdeen	7	85	1009.9	-1.5	54.3	2.9	11.7	82.6	3	0	9	5	8	9	0	0	0	0	1	0	6	8	16	0	0	4	19	8	1	0	0	2	3	8	3	6
		13	85	1010.2	-1.4	59.9	5.9	11.6	67.5	0	0	2	8	14	7	0	0	0	0	0	0	3	7	21	0	0	11	20	0	1	0	3	3	9	4	6	5
		18	85	1010.1	-1.3	58.1	4.1	12.5	75.7	9	0	3	2	16	10	0	0	0	0	0	3	3	11	14	0	0	4	25	2	2	1	2	3	11	3	3	4
		21	85	1010.6	-1.3	55.2	2.9	12.1	82.6	6	0	6	7	9	9	0	0	0	0	0	3	5	14	9	0	0	1	24	6	1	0	1	1	9	5	4	4
		h.*	85	1010.0	-1.5	56.0	3.7	12.0	78																												
Aberdeen.	Braemar	9	1114	1010.6	—	53.6	3.8	10.7	75	—	—	—	—	—	0	0	0	0	1	4	16	10	0	0	0	1	29	1	0	1	0	1	1	20	4	3	
Perth.	Crieff	9	482	1011.5	—	56.1	3.6	11.8	77.8	2	0	1	7	13	10	—	—	—	—	—	—	—	—	—	—	0	16	15	0	4	0	3	1	2	5	13	3
		21	482	1010.8	—	53.9	2.4	12.0	84.8	2	0	2	3	15	11	—	—	—	—	—	—	—	—	—	—	0	5	26	0	2	0	4	0	3	7	13	2
Fife.	Inchkeith	1	184	1010.3	—	53.6	1.3	13.0	91.7	0	0	7	5	8	11	0	0	0	0	0	0	1	9	17	4	0	3	28	0	1	2	1	1	2	12	10	2
		7	184	1010.6	—	53.4	1.5	12.3	90.7	3	0	6	3	16	6	0	0	0	0	0	2	5	12	12	0	0	4	27	0	1	1	2	1	2	12	10	2
		13	184	1010.6	—	59.9	5.8	11.8	67.8	0	0	0	6	14	11	0	0	0	0	0	0	1	8	21	1	0	9	22	0	2	5	0	0	3	15	5	1
		18	184	1010.5	—	57.4	3.2	12.7	80.8	2	0	1	7	12	11	0	0	0	0	0	0	2	10	17	2	0	5	26	0	2	4	1	2	2	16	3	1
Fife.	Leuchars	7	36	1010.7	—	53.9	1.7	12.8	89.6	6	1	6	7	8	9	0	1	0	0	0	0	5	10	14	1	0	3	26	2	2	0	4	0	1	12	8	2
		13	36	1010.7	—	61.5	4.7	13.8	74.8	4	0	0	3	21	7	0	0	0	0	0	0	4	7	15	5	0	12	18	1	2	2	2	2	12	7	1	
		18	36	1010.7	—	58.2	3.0	13.6	82.7	8	0	2	6	12	11	0	0	0	0	1	4	8	11	7	0	8	22	1	2	1	3	3	2	10	7	2	
Edinburgh.	Blackford Hill	9	441	1012.0	—	56.9	3.9	12.0	76.7	1	0	4	6	12	9	—	—	—	—	—	—	—	—	—	—	0	18	13	0	2	0	3	2	2	5	13	4
		21	441	1011.9	—	54.6	2.7	12.2	83.7	8	0	4	4	9	14	—	—	—	—	—	—	—	—	—	—	0	11	15	5	2	1	0	0	5	9	8	1
6a. SCOTLAND, W.																																					
Argyll.	Tiree	7	40	1010.0	—	55.2	2.1	12.7	86.7	6	0	0	8	16	7	0	0	0	0	0	0	1	9	20	1	0	23	8	0	5	2	1	0	7	2	7	7
		13	40	1010.6	—	57.9	3.0	13.4	82.7	4	0	1	7	16	7	0	0	0	0	0	1	1	9	16	4	0	29	2	0	5	1	2	0	4	2	12	5
		18	40	1010.5	—	56.5	2.3	13.6	85.7	2	0	2	9	11	9	0	0	0	0	0	0	4	7	17	3	0	27	4	0	6	0	0	1	3	4	13	4
Bute.	Rothesay	9	187	1011.4	—	56.3	2.0	13.4	87.8	4	0	1	5	10	15	0	0	0	0	1	1	3	3	18	5	0	16	15	0	1	3	0	3	3	4	7	10
		21	187	1012.4	—	54.2	1.5	12.8	90.9	0	0	1	2	7	21	0	0	0	0	0	1	6	6	14	4	0	6	25	0	0	0	0	2	4	8	11	

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of AUGUST, 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	GOOD VISIBILITY.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
																0	1	2	3				4	5	6													7	8	9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
2. ENGLAND, N.E.—cont.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
Durham.	Durham	..	G.M.T.	ft.	mb.	mb.	°F.	°F.	mb.	%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							</

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of AUGUST, 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.														
										No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).			DIRECTION.											
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Visibility.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	
																0	1	2	3				4	5	6													7
5. ENGLAND, S.E.—cont.																																						
Kent.	Biggin Hill H	G.M.T.	ft.	mb.	mb.	°F.	°F.	mb.	%																													
		7	596	1015.9	—	56.1	1.6	13.9	90.6.8	2	5	4	14	6	0	0	0	0	0	0	0	3	13	15	0	0	0	6	21	4	1	0	0	3	4	15	2	2
		13	596	1015.5	—	66.7	6.7	14.9	67.6.9	0	3	11	12	5	0	0	0	0	0	0	0	3	21	7	0	0	10	21	0	1	0	0	3	2	16	8	1	
Kent.	Dungeness ..	18	596	1015.5	—	62.9	4.3	14.9	77.6.6	2	4	6	13	6	0	0	0	0	0	0	1	2	23	5	0	0	4	25	2	1	0	1	1	1	19	4	2	
		1	23																																			
		7	23																																			
Kent.	Lympne H	13	23																																			
		18	23																																			
		1	345	1016.2	—	56.0	1.3	14.1	92.4.7	7	8	4	4	8	0	1	1	0	0	1	10	13	5	0	0	6	25	0	4	0	2	1	2	11	7	4		
Kent.	Manston H	7	345	1016.3	—	57.3	1.9	14.2	89.5.8	3	9	2	11	6	0	0	0	0	0	0	4	14	8	4	0	0	10	20	1	5	1	3	1	1	12	4	3	
		13	345	1016.3	—	65.6	6.2	14.7	69.5.9	3	5	7	13	3	0	0	0	0	0	0	3	3	8	15	2	0	15	16	0	1	0	2	6	2	15	5	0	
		18	345	1016.2	—	62.2	3.8	15.1	79.6.1	1	7	5	15	3	0	0	0	0	0	0	2	8	5	14	2	0	9	21	1	2	2	1	2	17	3	1		
Kent.	Tunbridge Wells	7	152	1016.5	—	59.2	2.8	14.3	83.6.5	1	7	4	16	3	0	0	1	0	0	2	2	15	11	0	0	10	21	0	2	0	0	4	4	10	5	6		
		13	152	1016.5	—	67.9	7.8	14.5	62.7.0	2	2	6	15	6	0	0	0	0	0	0	2	13	16	0	0	15	15	1	0	1	1	6	4	9	4	5		
		18	152	1016.3	—	63.7	4.5	15.3	76.7.1	2	3	4	18	4	0	0	0	0	0	0	3	8	19	1	0	11	19	1	2	1	1	5	7	10	4	0		
Sussex.	Brighton H	9	396	1018.1	—	61.7	3.3	15.4	81.5.7	3	7	6	9	6	0	0	0	0	0	0	6	14	11	0	0	6	25	0	0	0	0	2	2	16	8	3		
Sussex.	St. Leonards	9	174	1016.7	—	63.2	4.5	14.8	75.6.0	4	3	8	10	6	0	0	0	0	0	0	2	21	8	0	2	5	24	0	1	2	2	6	1	11	6	2		
		21	174	1017.0	—	59.7	2.4	15.1	86.5.9	5	4	5	11	6	0	0	0	0	0	0	2	19	10	0	0	0	31	0	0	1	0	2	1	11	10	6		
Hampshire.	Calshot ..	1	15	1016.7	—	57.8	1.7	14.6	89.4.7	7	8	3	7	6	0	0	0	0	0	0	4	11	16	0	0	7	24	0	3	0	1	1	1	6	12	7		
		7	15	1016.8	—	59.0	2.2	14.8	86.6.5	2	6	2	14	7	0	0	0	0	0	0	2	13	6	9	0	0	11	18	2	3	1	2	2	0	7	8	6	
		13	15	1017.1	—	65.9	6.1	14.9	69.6.7	0	6	4	15	6	0	0	0	0	0	0	1	0	0	2	5	23	0	21	10	0	3	0	5	1	15	4	3	
Hampshire.	Southampton H	18	15	1016.8	—	63.7	4.7	14.8	75.6.1	1	5	7	16	2	0	0	0	0	0	0	4	7	20	0	0	17	13	1	0	0	2	3	0	12	7	6		
		9	84	1016.8	+0.9	60.8	3.3	14.7	80.5.6	3	6	7	8	7	0	0	0	0	0	6	4	21	0	0	0	6	25	0	0	0	1	3	2	6	12	7		
		21	84	1017.0	+1.2	62.5	4.0	15.0	77.6.5	0	6	6	12	7	0	0	0	0	0	3	8	20	0	0	0	0	0	31	0	0	0	1	0	14	12	4		
Hampshire.	S. Farnborough	7	256	1015.9	—	56.4	1.6	13.9	90.6.7	2	6	3	10	10	0	0	1	2	1	1	8	11	7	0	0	6	21	4	0	0	0	3	4	9	8	3		
		13	256	1015.8	—	69.3	7.3	13.5	56.7.3	0	2	8	17	4	0	0	0	0	0	0	3	14	14	0	0	13	17	1	0	0	0	1	6	10	11	2		
		18	256	1015.6	—	64.8	6.2	14.1	68.6.3	1	8	4	14	4	0	0	0	0	0	0	2	10	18	1	0	7	23	1	0	1	0	4	3	12	8	2		
Hampshire.	Winchester (Worthy Down)	7	273	1016.1	—	55.7	1.4	13.5	91.7.3	2	5	1	12	11	0	0	1	1	0	4	5	11	9	0	0	3	22	6	1	0	2	2	7	7	3	3		
		13	273	1016.0	—	66.9	7.7	13.7	61.7.8	0	1	5	17	8	0	0	0	0	0	0	2	3	26	0	0	13	17	1	0	0	0	3	5	12	8	2		
		18	273	1015.9	—	63.7	5.5	14.1	70.7.1	1	2	7	17	4	0	0	0	0	0	0	0	5	26	0	0	5	24	2	1	0	1	1	8	9	6	3		
I. of Wight.	Ventnor (Hosp.)	9	80	1017.0	—	62.4	3.3	15.4	81.6.5	1	7	5	9	9	—	—	—	—	—	—	—	—	—	—	—	—	0	10	21	0	2	0	5	1	0	5	14	4
		15	80	1017.0	—	65.2	4.4	16.1	77.5.8	1	8	8	7	7	—	—	—	—	—	—	—	—	—	—	—	—	0	15	16	0	2	0	3	1	0	4	20	1
Wilts.	Larkhill H	9	444	1016.1	—	61.3	4.2	14.1	76.6.4	0	7	9	7	8	0	0	0	0	0	0	1	5	25	0	0	13	17	1	3	0	0	2	5	7	10	3		
		13	444	1016.0	—	65.4	6.5	14.3	67.8.0	0	1	5	17	8	0	0	0	0	0	0	0	4	27	0	0	19	12	0	1	0	1	1	4	8	10	6		
		15	444	1015.8	—	65.6	6.7	14.1	66.7.7	0	2	3	20	6	0	0	0	0	0	0	0	3	28	0	0	17	14	0	1	0	0	3	3	5	12	7		
7a. ENGLAND, N.W.																																						
Cumberland.	Aspatria (Mealsgate)	9	485	1012.9	—	56.6	2.6	13.3	84.8.3	1	0	6	7	17	—	—	—	—	—	—	—	—	—	—	—	—	0	2	28	1	3	1	0	1	3	10	8	4
		21	485	1013.2	—	55.0	1.4	13.4	91.8.2	2	1	3	6	19	—	—	—	—	—	—	—	—	—	—	—	—	0	2	23	6	2	0	0	1	6	14	2	0
Lancashire.	Hutton ..	9	86	1012.7	—	59.1	3.3	13.7	80.7.5	1	0	7	13	10	—	—	—	—	—	—	—	—	—	—	—	—	0	1	27	3	1	0	0	4	5	6	6	6
Lancashire.	Southport H	9	42	1013.7	—0.5	59.4	3.6	13.7	79.7.6	0	2	7	11	11	0	0	0	0	0	7	3	2	19	0	0	19	12	0	3	0	0	4	6	4	9	5		
		13	42	1014.0	—0.2	63.0	5.0	14.3	72.6.8	0	4	8	11	8	0	0	0	0	0	1	5	0	21	4	0	22	9	0	0	0	0	1	4	3	16	7		
		18	42	1013.9	+0.1	61.1	4.2	14.1	76.7.2	0	7	3	10	11	0	0	0	0	0	4	4	1	19	3	0	17	10	4	1	1	0	0	4	6	12	3		
		21	42	1014.1	—0.1	58.4	2.4	14.4	86.7.2	1	8	2	3	17	0	0	0	0	0	6	4	4	17	0	0	15	14	2	0	0	0	2	8	7	8	4		
Lancashire.	Stonyhurst ..	9	381	1013.9	—	58.1	3.6	12.8	78.8.1	1	1	2	17	10	0	0	0	0	0	0	17	6	8	0	0	9												

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of AUGUST, 1929.

DISTRICT COUNTY AND PLACE.	Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
			At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
										0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Visibility.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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8a. SOUTH WALES—cont.	G.M.T.	ft.	mb.	mb.	°F.	°F.	mb.	%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						

TABLE I. DISTRICT VALUES.

The District Values of this Table are computed from the statistics for selected individual stations set out in Table III and Table IV.

The representative stations from which the District Values of rainfall and temperature are computed are indicated in Table III by the sign ¶ while the representative stations from which District Values of sunshine are computed are indicated by the sign §. The deviations from and percentages of normal for Air Temperature, Rainfall and Sunshine are the means of the corresponding deviations or percentages for the representative District Value stations. The deviations from normal of Earth Temperature are derived from the deviations for all the stations reporting in Table III for which normals of Earth Temperature are available. The highest and lowest temperatures for the District recorded during the month may refer to any station in Table III.

TABLE II. SUMMARY OF AUTOGRAPHIC RECORDS OF WIND.

The records used in the preparation of this Table are generally made by anemographs of the pressure-tube type. At a few stations the Robinson Cup Anemograph is utilised. The classification adopted for the "Distribution of Wind" is based on the specification of the Beaufort Scale of Wind Force (see *The Observer's Handbook*). For an anemograph complying with the specification "head 33 ft. above ground in the open" the several columns correspond with Force 8 and above (gales), Forces 6 and 7 (strong winds), Forces 4 and 5 (moderate breezes), Forces 2 and 3 (light breezes), Forces 1 and 0 (nearly calm). Some information as to the nature of the actual exposures may be gathered from the figures in the "Height" columns.

The "Highest Hourly Wind" is determined by the mean speed of the wind for a period of sixty minutes from 30 minutes before to 30 minutes after an exact hour by Greenwich Mean Time. Under the heading "Veer from N" the azimuth of the direction from which the wind was blowing is stated, the entry for an east wind being 90°, that for a south wind 180° and so on.

TABLE III. SUMMARY OF OBSERVATIONS AT TERMINAL HOURS.*

Temperature.—The terminal hours of observation are given for each station. When the terminal hours for maximum and minimum temperature are stated independently the temperatures refer to intervals of 24 hours. If the maximum thermometer is read in the morning the reading is credited to the previous day. When the terminal hours for maximum and minimum are separated by a dash, thus, 18-7, the day-maximum for the period 7h. to 18h. and the night-minimum for the period 18h. to 7h. are reported and are utilised in determining the means for the month; in such cases the extreme temperatures for successive periods of 24 hours are also read by the observers, so that the absolute maximum and minimum temperatures for the month are obtained.

Except at the Royal Observatory, Greenwich, where a Glaisher stand is in use, the air temperature is obtained from thermometers placed in louvred screens. At Kew Observatory, Richmond, and Valentia Observatory these are north wall screens a few feet from the ground. At Aberdeen Observatory the north wall screen is at 41 feet. Otherwise the screens are in the open.

Rainfall.—The daily amounts are for the 24 hours beginning at the "terminal hour." "Rainfall" includes all forms of precipitation. The number of days of precipitation is counted with reference to the limit .01 inch or 0.2 mm. and also with reference to the limit .04 inch or 1 mm. The lower limit excludes mere "traces" of precipitation, but it is frequently passed on occasions when the precipitation is only dew.

Weather.—The numbers of days of Precipitation, Snow, Hail, Thunderstorms and Gale are counted irrespective of the hour at which the phenomena occur. Except for "Precipitation" the day is the civil day.

For the purpose of this summary "Snow" includes sleet (*i.e.*, snow with rain), "Hail" includes graupel (soft hail), "Snow lying" refers to occasions when at least one-half of the country surrounding the station is covered with snow at the morning observation. The entry of "fog" implies that regular observations of the range of vision are made on the scale set out below. Days of fog are those on which the range of vision is less than 1,100 yards at the hour of morning observation. That hour is generally given by the third entry of column 2 of the table and may be 7h. or 9h. G.M.T. The variability of the observation hour may exercise an important effect upon the statistics of fog frequency. "Thunderstorm" includes any day on which thunder is heard. "Gale" is a wind of Force 8 or upwards on the Beaufort Scale. A "ground frost" is entered when the reading of a "grass minimum" thermometer set the previous evening and read at the morning observation is 30° F. or lower.

Sunshine.—The percentage of possible sunshine in the last column is calculated with reference to the maximum duration theoretically possible in the latitude, allowance being made for refraction (see

International Meteorological Tables (Paris) pp. A17-A20 and 42-47) but not for the fact that the sunshine recorder is generally insensitive to sunshine when the sun is at an altitude of less than 3°. Where the symbol § occurs it indicates that obstructions obscure the sun during more than 5% of the period when it is over 3° above the horizon.

TABLE IV. SUMMARY OF OBSERVATIONS AT FIXED HOURS.*

Mean Air Pressure is expressed in millibars. (1 millibar = 1,000 dynes per square centimetre = the pressure due to .029531 inch of mercury at 32° F. in Lat. 45°). The corrections for latitude, temperature and height have been applied to the barometer readings so as to obtain pressure at mean sea level. Barometric pressure is given at station level for a few stations at altitudes of 600 ft. or more in footnotes in Table IV.

Hygrometry.—The values given depend on the readings of the dry and wet bulb thermometers in Stevenson Screens (except at the Observatories, see above). The observations were formerly reduced by Glaisher's method; as from January, 1926 they are reduced by the new hygrometrical tables issued by the Office which are based on a formula of Regnault. In general the relative humidity and vapour pressure are derived from the monthly means of the dry and wet bulb readings. At certain stations the daily values of relative humidity and vapour pressure are found and the means are computed therefrom. These stations are indicated by the letter "H."

Cloud Amount.—The proportion of sky covered with cloud is estimated on the scale 0 to 10, the entry "0" being equivalent to clear sky "10" to overcast.

Visibility.—The observations are classified according to the following scheme—the distances, specified by international arrangement in metres, are given here in yards and miles:—

CODE.	RANGE OF VISION.
0	Less than 55 yards.
1	Exceeding 55 yards, less than 220 yards.
2	" 220 " " 550 "
3	" 550 " " 1,100 "
4	" 1,100 " " 1½ miles.
5	" 1½ miles " 2½ "
6	" 2½ " " 6½ "
7	" 6½ " " 12½ "
8	" 12½ " " 31 "
9	" 31 " "

Wind Summaries.—The estimates of wind force refer to the Beaufort Scale, and in general to the wind experienced at the time of observation. At Deerness, Cahirciveen, Richmond, Armagh, Eskdalemuir, Southport, Greenwich and Oxford the analysis refers to tabulations of autographic records. For Oxford the mean wind speed for half-an-hour centred at the hour of observation is used for conversion to "force" on the Beaufort Scale; for the remaining observatories the mean wind speed used for each observation refers to a period of one hour. In these cases winds equivalent to Force 1 are counted with the calms, whilst Forces 2 and 3 are taken together in the preceding column of the Table.

INTERPOLATED VALUES.

When the observations for any station for a month are incomplete and relevant data (e.g. records from neighbouring stations) which make it practicable to interpolate approximate values for the missing observations are available, such approximate values may be used for completing summaries for stations published in Tables III and IV. Parts of a summary obtained in this way are shown in brackets thus—(52.4).

STANDARD OF TIME.

As a rule observations are made in all parts of the British Islands according to Greenwich Mean Time, but at the following stations Local Mean Time is used for the observations summarised in Tables III and IV. The number of minutes after Greenwich Time is shown in brackets—Darwen (10), Rhayader (15), Ashburton (15), Tavistock (17), Plymouth (15), Douglas (20), Armagh (26), Balbriggan (25), Lisburn (30), Newcastle, Co. Wicklow (30), Ballinacurra (30), Cork (34).

"Summer Time" is not used in the Monthly Weather Report, but at certain stations the hours of observation vary in the course of the year. For such stations all time entries are converted to G.M.T. before they are printed and the winter hours are given as the terminal hours in the annual tables. For the summer hours reference should be made to the appropriate months.

NORMALS.

In Table III the normals used are those for the 35 years 1881-1915. The normals of temperature and sunshine are published in the Book of Normals, Section I, those for rainfall in the Book of Normals, Section V.

The normals for pressure with which comparison is made in Table IV also refer to the period 1881-1915.

* In addition to the frequencies published in this Report (Tables III and IV), the Meteorological Office has issued since January, 1927, in the form approved by the International Commission for Air Navigation, monthly frequency tables of height of base of low cloud, and speed and direction of surface and upper winds.

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

SUMMARY OF OBSERVATIONS COMPILED FROM RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS.

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VOL. 46. No. 9.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE.

SEPTEMBER, 1929. Unusually warm and dry.

Anticyclonic conditions prevailed generally throughout the greater part of September, 1929. The weather was mainly fine and warm, particularly during the first half of the month. There was a notable scarcity of rainfall, except in the extreme north-west of Scotland, which was practically the only area to be affected by Atlantic depressions, whose tracks lay well to the north-west of the British Isles, and in this area precipitation exceeded twice the normal locally.

At the beginning of the month a depression centred between the Faeroes and Scotland was moving north-eastwards and slight rain or showers were experienced in Scotland and Ireland. On the 2nd an anticyclone had established itself over England and Ireland and with it was associated warm brilliant weather; 12.3 hours' sunshine was recorded at Felixstowe and Cattewater, and 12.2 hours at Leafeld on the 2nd. Associated with a shallow depression off the south-west coasts, thunderstorms occurred locally on the 3rd. From the 5th to the 12th anticyclonic conditions extended to most districts and precipitation was confined to the extreme north-west. The days were very warm and sunny, temperature in the eastern and midland districts of England rising above 80° F. on several days; 89° F. was reached in London on the 4th and 8th, and 90° F. at Newport (I. of Wight) on the 5th.

Abundant sunshine was recorded in several districts on the 4th, 7th and 8th. Associated with a shallow trough of low pressure, thunderstorms occurred on the 12th and slight to moderate amounts of precipitation were recorded in northern districts and in the south-west of England. Further slight precipitation occurred in Scotland and north-west England on the 14th. A deep depression centred near Iceland caused fairly heavy falls in Scotland during the night of the 17th to 18th and secondaries associated with this depression were responsible for local thunderstorms and scattered showers; 18 mm. fell at Shobern during a thunderstorm on the 18th. At Jersey thunder and lightning were experienced for the most part of four days, from the 15th to the 18th, and 71 mm. fell during the 24 hours commencing at 17h. on the 16th. Cooler and cloudier weather prevailed from the 19th to the 21st. Heavy rain occurred in Scotland on the 19th (42 mm. at Achnashellach) and strong winds and gales were general on the 20th and 21st. In most English districts precipitation amounted to only a trace. From the 25th to the 28th fine warm weather was again experienced in most districts, temperature rising above 70° F. in many parts of England. On the 29th a trough of low pressure moved eastwards over England and was accompanied by general rain on the 29th and 30th, the first rain to be experienced during the month in places in the Midlands and the south-east of England.

Pressure and Winds.—Conditions during the month were mainly anticyclonic, the tracks of depressions keeping so far to the north-west that almost the only districts affected by them were those in the extreme north-west. In these parts monthly means of atmospheric pressure were below the normal, but elsewhere they exceeded the normal. Winds were mostly south-westerly to westerly. Strong winds occurred on the 17th, 20th, 21st, 28th and 29th, and in exposed places the wind attained gale force. Gusts of 50 mi/hr. and over were recorded in many places on the 20th or 21st, the highest velocity in a gust, 69 mi/hr., being recorded at Liverpool (Bidston) on the 20th.

Temperature.—September, 1929, was unusually warm, particularly during the first half of the month when temperatures in the neighbourhood of 80° F. were frequently recorded in parts of the southern Midlands and south-east of England. Even towards the end of the month 70° F. was frequently exceeded. The hottest days occurred generally during the period 4th to the 9th and on the 12th. In London maximum temperatures of 80° F. and over were recorded at Greenwich and Camden Square on the 4th, 5th, 7th, 8th, 9th and 12th, the temperature rising to 89° F. on the 4th and 8th. The highest temperature reached during the hot spell was 90° F. at Newport (I. of Wight). Minima were, as a rule, above the normal, and during the first few days of the month did not fall below 60° F. in several southern districts. Ground frosts occurred locally about the 16th and on the 25th and 26th. In all districts the mean temperature for the month was above the normal, the departures exceeding 5° F. in most districts in the east and south-east of England. In some places the present month was the warmest September experienced in over 50 years. Thus, the mean maximum temperature and the mean temperature for September, 1929, was the highest since at least 1871 at Richmond (Kew Observatory), Oxford, Dungeness and Falmouth, and since at least 1872 at Yarmouth.

At Southampton and Douglas the mean temperature was the highest recorded in any September since at least 1871 and 1878 respectively. The extremes of temperature for the month were:—(England and Wales): 90° F. at Newport (I. of W.) on the 5th and 30° F. at Newton Rigg on the 14th, and at Marlborough on the 26th; (Scotland) 77° F. at Gordon Castle on the 11th, and 29° F. at West Linton on the 14th; (Ireland) 80° F. at Newcastle (Wicklow), and Kilkenny on the 8th and 35° F. at Kilkenny on the 17th.

Precipitation.—An outstanding feature of the weather of the month was the pronounced deficiency of rainfall. The general precipitation of the British Isles, expressed as a percentage of the normal for the period 1881–1915, was 47; the values for the constituent countries were:—England and Wales, 37; Scotland, 73; Ireland, 38. During the last 60 years there have been only four drier Septembers; of these, 1907 and 1910 were appreciably drier, and 1894 and 1895 slightly drier.

In all districts of England and Wales monthly totals were below the normal, the drought being most intense in the Midlands and in the south-east, where some places had no measurable rain until the 28th, 29th or 30th, when rain became general over the whole country. At Richmond (Kew Observatory) the rainfall for the month, 4 mm., was the smallest September total since at least 1866 and with the dry spell during the latter part of August the drought had lasted there for the exceptionally long period of 37 days. At Ross-on-Wye the month was the driest September since 1865.

A notable exception to the general deficiency of rainfall occurred in the northern and north-western districts of Scotland, where there was a particularly large excess. In parts of Sutherlandshire the rainfall exceeded twice the normal, and at Melvich was as much as 290 per cent. of the normal. Deerness had slightly more than twice the normal and Stornoway more than one-and-a-half times the normal. During the month there was only one day without rain at Loch Carron (Ross-shire) and Portree, and only two at Kyleakin and Loch More (Achnafary). Over the greater part of Scotland, however, there was a deficiency and in the border counties less than 10 per cent. of the month's normal rainfall was recorded. The smallness of the rainfall total in the south and east may be gleaned from the smallness of the following monthly totals:—Drygrange, 3 mm.; Swinton House, Belhaven, Galashiels, Gorebridge, Marchmont, and Fairmile, 5 mm.; Newbattle and Inchkeith, 6 mm.

In all parts of Ireland rainfall totals were considerably below the normal, the deficiency being most pronounced in the neighbourhood of Dublin, where locally less than 20 per cent. of the normal was recorded. In Dublin City rain in substantial amount fell only on the 28th and 29th and the combined precipitation on those two days represented nearly 73 per cent. of the total for the month.

Thunderstorms occurred locally on the 1st, 3rd, 12th, 17th, 18th, 20th, and 29th. The number of thunderstorms reported in any one district did not as a rule exceed three. The observer at Goodleigh, Barnstaple, reported the occurrence there of a very severe thunderstorm on the 3rd: at Brayford, which was also affected by the storm, it is stated that one man was killed and three injured by the lightning. On the 17th the storms were very severe in the Channel Islands and accompanied by heavy rain, Jersey reporting 71 mm. during the 24 hours ended at 17h. on the 17th.

Sunshine.—Except in the extreme north-west of Scotland, sunshine aggregates were considerably above the normal. Representative aggregates for Districts, expressed as a percentage of the normal for the period 1881–1915, varied from 80 per cent. in Scotland N. to 139 per cent. in the Midland Counties, and 134 per cent. in England S.E. Daily records of between 11 and 12 hours bright sunshine were obtained frequently in many districts during the first half of the month, while during the last week abundant sunshine was recorded in the south and east of England. Amongst the largest daily records were 12.4 hours at Hastings and 12.1 hours at Falmouth on the 8th, and 12.0 hr. at Brighton on the 2nd, and at Jersey on the 4th.

Fog.—Favoured by the persistence of anticyclonic conditions, mist occurred frequently during the month and on occasions developed in intensity to fog, generally during the period 3rd to 5th and about the 17th.

Miscellaneous Phenomena.—At Oxford a solar halo with parhelion was observed on the 3rd, 28th and 29th, and a moon pillar on the 16th. Aurora was observed in northern districts of Scotland on the 5th, 9th, 10th, 12th, 13th, 14th, 15th, 22nd and 27th.

TABLE I.—DISTRICT VALUES—SEPTEMBER, 1929.

[1908, revised 1928.]

DISTRICTS.	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High-est.	Low-est.	Daily Mean. Deviation from Normal.	At 1 ft. Deviation from Normal.	At 4 ft. Deviation from Normal.	Per-centage of Normal.	No. of Days. Deviation from Normal.	Per-centage of Normal.	Per-centage of Possible Duration.
o. SCOTLAND, N.	°F. 72	°F. 35	°F. +1.6	°F. —	°F. —	% 133	+3	% 80	% 23
Eastern.									
1. SCOTLAND, E.	77	29	+2.6	—	—	39	-5	120	38
2. ENGLAND, N.E.	84	31	+3.8	+2.4	+0.9	46	-7	123	43
3. ENGLAND, E...	89	31	+6.0	+4.0	+1.2	16	-9	124	51
4. MIDLAND COUNTIES	87	31	+5.0	+2.8	+1.0	25	-9	139	49
5. ENGLAND, S.E.	90	30	+5.4	+4.5	+2.8	24	-9	134	55

DISTRICTS.	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High-est.	Low-est.	Daily Mean. Deviation from Normal.	At 1 ft. Deviation from Normal.	At 4 ft. Deviation from Normal.	Per-centage of Normal.	No. of Days. Deviation from Normal.	Per-centage of Normal.	Per-centage of Possible Duration.
Western.	°F. 75	°F. 34	°F. +1.9	°F. —	°F. +0.5	% 53	-1	% 98	% 30
6. SCOTLAND, W. (& I. of Man)									
7. ENGLAND, N.W. (& N. Wales)	80	30	+2.3	+2.1	+1.2	64	-6	116	40
8. ENGLAND, S.W. (& S. Wales)	85	32	+4.4	+2.7	+0.7	39	-7	131	52
9. IRELAND, N...	78	36	+2.8	+1.7	+0.3	50	-1	107	33
10. IRELAND, S...	80	35	+3.0	+1.6	+0.7	40	-5	111	39
11. CHANNEL I. (& Scilly)	87	50	+3.9	+3.7	+1.9	88	-8	126	59
Mean: DISTRICTS 1-10	90	29	+3.7	+2.7	+1.0	40	-6	120	43

TABLE II.—SUMMARY OF AUTOGRAPHIC RECORDS OF WIND.—SEPTEMBER, 1929.

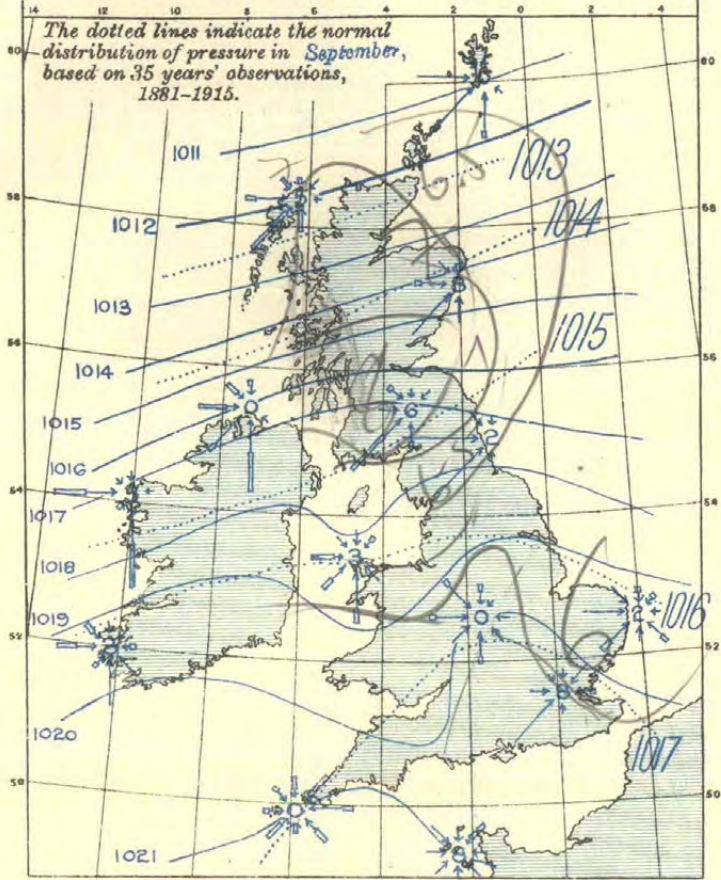
[1914.]

DISTRICT AND STATION.		Height.			Distribution of Wind.††								Extreme Velocities.								
		Above Mean Sea Level.	Above Ground.	Above Building.	More than 38 mi/hr.		25 to 38 mi/hr.		13 to 24 mi/hr.	4 to 12 mi/hr.	Less than 4 mi/hr.	No Record.	Highest Hourly Wind.				Highest Gust.				
					Dates of Occurrence.	Duration.	No. of Days.	Duration.	Duration.	Duration.	Duration.	Duration.	from N.	Speed.	Mid Time.	Speed.	Time.				
o. SCOTLAND, N.		ft.	ft.	ft.		hr.		hr.	hr.	hr.	hr.		°	mi/hr.	m/s.	day. hr.	mi/hr.	m/s.	d.	h.	m.
Shetlands	Lerwick ..	310	42	33†	28, 29	10	8	59	225	293	129	4	240	48	21	28 22	65	29	28	22	5
Orkneys	Deerness (Cup Anr.)	188	16	5	21	2	6	32	262	354	45	25	300	45	20	21 12	—	—	—	—	—
1. SCOTLAND, E.																					
Aberdeen	Aberdeen ..	70	42	33†	—	0	2	8	100	491	121	0	300	32	14	21 13	57	25	21	12	25
Kincardine	Balmakewan ..	140	25	18	—	0	—	0	50	(370)	(300)	0	320	22	10	21 4	43	19	21	13	20
Edinburgh	Edinburgh ..	485	39	31†	—	0	7	25	303	281	95	16	200	34	15	28 3	50	22	21	10	50
6a. SCOTLAND, W.																					
Argyll	Tiree ..	80	55	48†	—	0	9	73	370	194	53	30	320	38	17	20 4	56	25	20	3	20
Renfrew	Paisley ..	188	81	15	—	0	1	3	91	441	185	0	260	26	11	21 12	53	24	21	12	30
Dumfries	Eskdalemuir ..	825	50	22	—	0	4	28	191	285	216	0	270	36	16	21 11	64	29	21	11	0
2. ENGLAND, N.E.																					
Durham	South Shields ..	62	46	20	—	0	2	10	66	341	303	0	280	32	14	21 13	55	25	21	11	50
York, E.R.	Spurn Head ..	67	41	35†	20, 21	10	8	39	275	368	28	0	300	48	21	21 13	65	29	20	8	30
Lincoln	Cranwell ..	284	43	31†	—	0	3	12	122	439	147	0	300	35	16	21 15	53	24	21	15	0
3. ENGLAND, E.																					
Norfolk	Gorleston ..	52	42	33†	—	0	2	7	174	419	114	6	290	28	13	20 12	46	21	20	12	30
Suffolk	Felixstowe Aero. ..	55	40	25	—	0	3	8	199	308	205	0	300	27	12	21 16	43	19	20	11	25
Essex	Shoeburyness ..	115	104	14†	—	0	3	6	151	365	185	13	210	26	12	30 16	47	21	20	11	35
4. MIDLAND COUNTIES.																					
Warwick	Birmingham ..	643	118	18	—	0	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—
5. ENGLAND, S.E.																					
Surrey	Richmond (KewObs)	82	65	22	—	0	—	0	81	332	307	0	210	22	10	29 14	38	17	20	10	30
Surrey	Croydon ..	313	105	49	—	0	3	10	163	333	214	0	290	29	13	20 10	51	23	21	14	10
Kent	Dover ..	61	32	22	—	0	1	1	220	397	102	0	—	26	12	30 23	42	19	20	10	0
Kent	Lympne ..	409	70	55†	—	0	1	1	144	441	100	34	310	27	12	20 15	41	18	20	15	5
Hampshire	Calshot ..	58	50	32†	—	0	3	18	170	408	124	0	320	33	15	20 13	50	22	20	12	35
Hampshire	Worthy Down ..	314	43	27	—	0	2	5	58	415	242	0	290	27	12	20 12	50	22	20	11	40
7a. ENGLAND, N.W.																					
Lancashire	Fleetwood ..	112	50	12	20, 21	8	5	40	128	335	209	0	290	47	21	20 9	60	27	20	8	40
Lancashire	Southport ..	77	59	45†	20, 21	8	5	65	141	416	90	0	290	46	21	20 8	63	28	20	6	15
Lancashire	Liverpool (Bidston)	253	64	35	20, 21	10	4	55	187	393	75	0	280	43	19	20 8	69	31	20	8	30
7b. NORTH WALES.																					
Anglesey	Holyhead ..	64	45	29†	20	4	3	33	230	343	110	0	290	43	19	20 8	56	25	20	8	35
Flint	Sealand ..	81	65	49†	20, 21	2	2	21	83	409	205	0	300	39	17	21 13	60	27	21	13	15
8b. ENGLAND, S.W.																					
Devon	Plymouth ..	185	88	2	—	0	2	2	83	359	276	0	—	25	11	21 16	47	21	21	16	10
Devon	Pendennis Castle..	256	65	32	—	0	4	20	171	400	129	0	220	34	15	30 15	53	24	21	10	50
9. IRELAND, N.																					
Donegal	Dunfanaghy Road	180	47	39	—	0	5	48	149	325	198	0	—	35	16	21 4	60	27	28	5	35
Antrim	Aldergrove ..	282	40	27†	—	0	—	0	113	456	151	0	290	23	10	21 8	49	22	21	8	10
10. IRELAND, S.																					
Dublin	Kingstown (CupAnr.)	49	27	16	—	0	5	42	150	394	134	0	250	36	16	21 4	—	—	—	—	—
Clare	Quilty ..	100	40	32†	—	0	3	32	226	351	111	0	—	32	14	20 7	45	20	21	7	5
Kerry	Cahiriveen (Val. O.)	98	41	34†	—	0	2	3	210	392	115	0	210	25	11	30 2	41	18	30	1	45
Cork	Weaver Pt. ..	160	30	21†	—	0	—	0	104	600	96	10	—	24	11	20 11	39	17	21	10	50
11. SCILLY ISLES.																					
	St. Mary's..	230	65	17†	—	0	4	36	300	354	30	0	310	34	15	21 10	47	21	21	13	10

†† Brackets () indicate that the distribution as between winds above and below 4 m.p.h. is doubtful, but the total number of hours with winds below 12 m.p.h. is reliable.

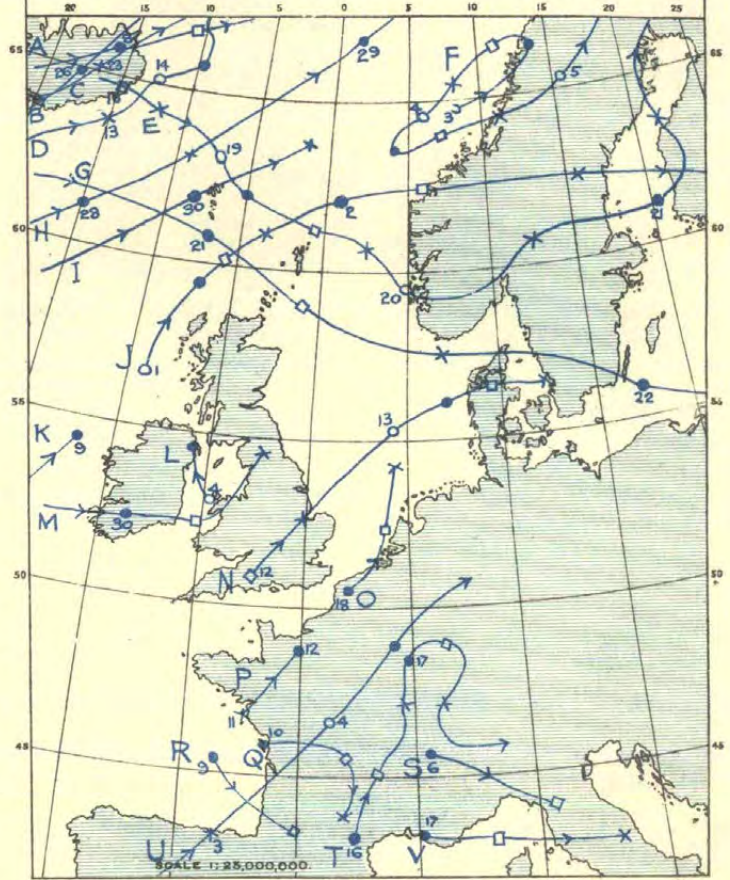
† Standard mounting.

1. WIND AND MEAN PRESSURE. 7 A.M. *



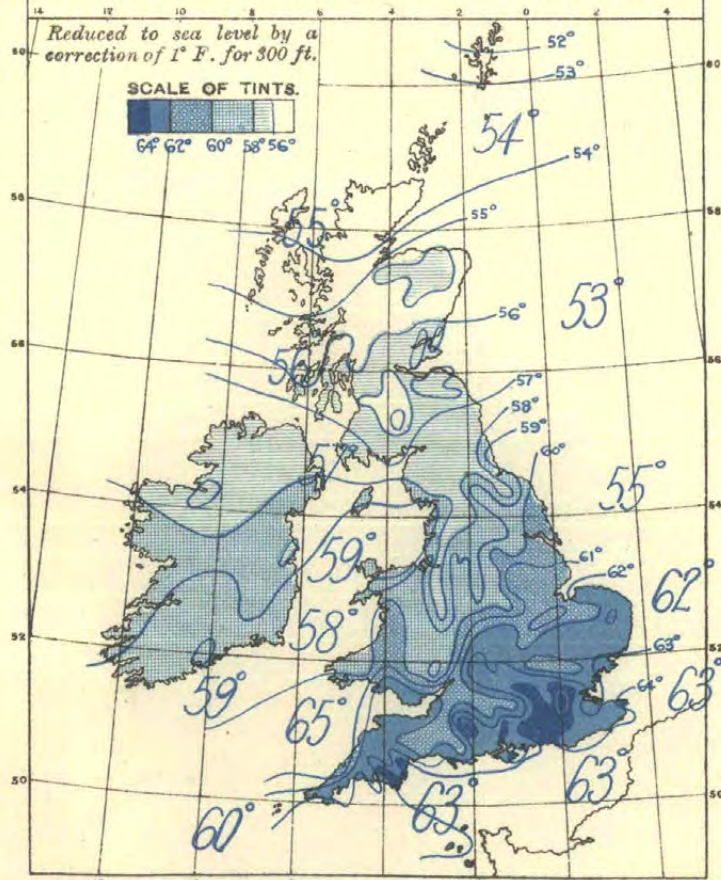
WIND ROSES. The arrows fly with the wind and indicate frequency and force, thus:
 LIGHT TO STRONG 30 OBS. = 1 inch

2. MOVEMENTS OF DEPRESSIONS.



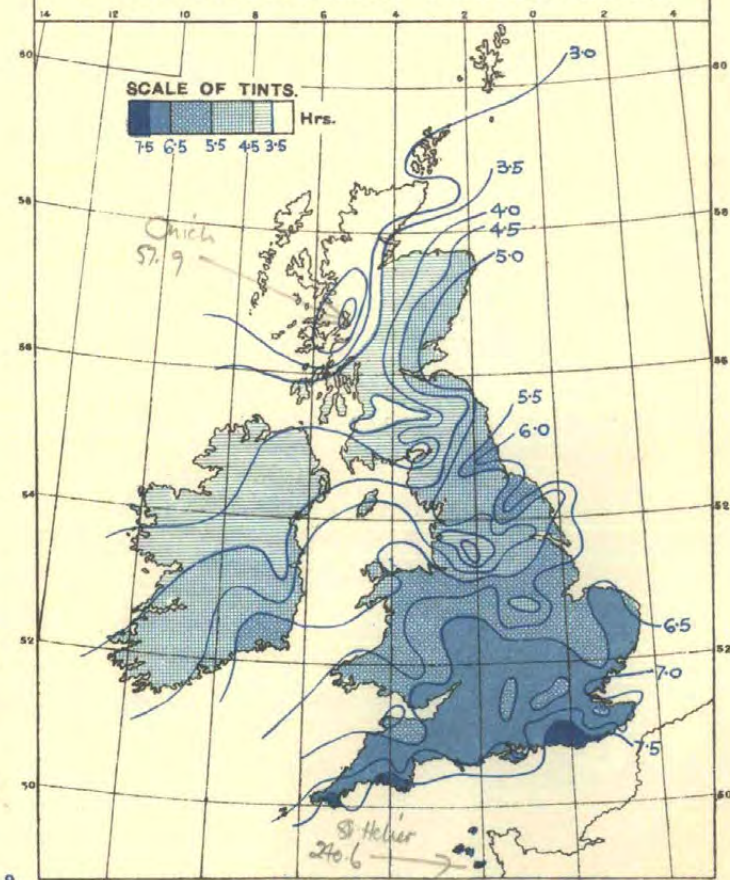
Positions of centres are shown thus:—O at 1h; ● at 7h; □ at 13h; X at 18h.

3. DISTRIBUTION OF MEAN TEMPERATURE.



Sea temperatures are shown in large figures, thus: 55°

4. BRIGHT SUNSHINE, HOURS PER DAY.



* The pressure is expressed in millibars.

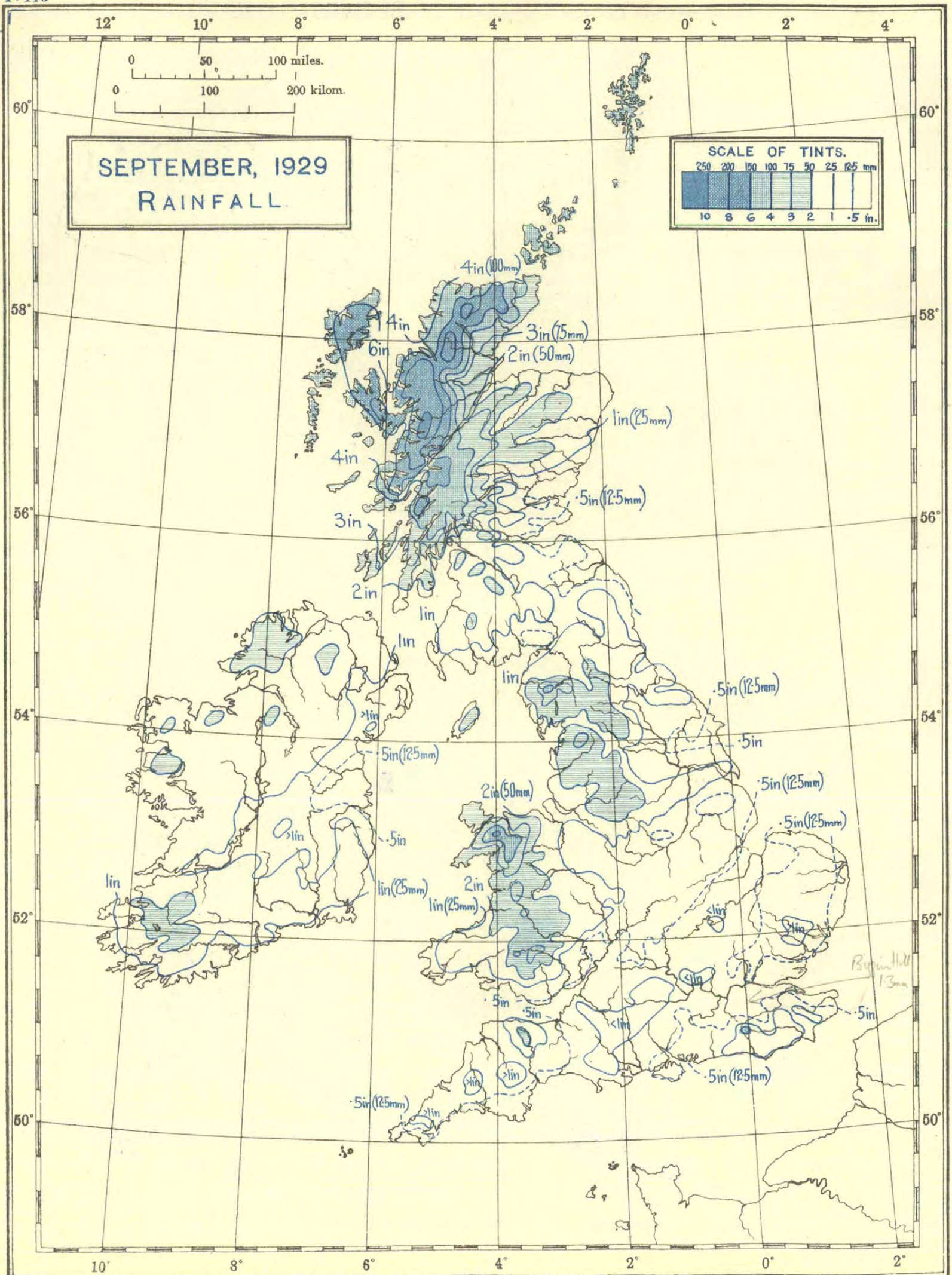


TABLE III.—SUMMARY OF THE RECORDS OF TEMPERATURE, RAINFALL AND SUNSHINE, and of WEATHER OBSERVATIONS, SEPTEMBER, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.							Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.							
		Max.	Min.		Means of		Deviation from Normal.	Absolute Maximum and Minimum.			1 ft.	4 ft.	Total Fall.	Deviation from Normal.	Most in a day.		Precip'n.	Snow lying.	Snow falling.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.		Per Cent.									
					A	B		Maximum.	Date.	Minimum.					Date.	Amount.								Date.	0.2 mm. or more.		1 mm. or more.	Snow.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.
					Max.	Min.																														Mean of A and B.
0. SCOTLAND, N.		G.M.T.	ft.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	in.	mm.	mm.	mm.											hr.	hr.	%					
Shetlands.	Baltasound	9 9 9	31	55.7	47.5	51.6	—	60	1, 14, 15	41	20, 21, 22	51.9	—	3.27	83	—	13	21st	28	19	0	0	1	0	3	—	2	2.56	—	20					
	Lerwick	18-7 7	54	55.4	49.0	52.2	+1.6	60	11th	40	20th	—	—	4.26	108	+ 32	20	19th	22	20	0	0	1	0	0	—	2	2.65	-1.35	21					
Orkneys.	Deerness	2121 9	160	57.5	47.4	52.5	+1.1	64	8th	42	20, 30	—	—	5.94	151	+ 77	35	6th	23	18	0	0	1	1	1	—	1	2.95	-0.55	23					
	Kirkwall	9 9 9	151	57.3	48.5	52.9	—	68	11th	43	21st	—	—	5.57	141	—	29	6th	25	19	0	0	2	0	1	0	4	3.13	—	23					
Hebrides.	Skallary	9 9 9	20	58.4	51.1	54.7	—	62	14th	45	16th	—	—	4.91	125	—	23	17th	27	24	0	0	1	0	—	—	0	—	—	—					
	Stornoway	18-7 7	30	57.1	49.1	53.1	+1.1	65	7th	41	16th	—	—	6.19	157	+ 57	21	6th	28	25	0	0	0	0	0	—	2	2.83	-1.00	21					
Caithness.	Wick	18-7 7	81	58.0	48.6	53.3	+2.4	70	8th	41	16, 21	—	—	5.57	89	+ 25	20	6th	22	17	0	0	0	1	0	—	1	—	—	—					
Ross & Cromarty.	Achnashellach	9 9 9	225	60.7	45.5	53.1	+1.4	69	11, 12, 13	35	12, 14, 16	—	—	9.22	234	+ 42	42	19th	26	26	0	0	0	0	0	2	1	—	—	—					
	Fortrose	9 9 9	69	61.4	49.0	55.2	—	70	7, 11	40	30th	—	—	1.76	45	—	9	6th	18	10	0	0	0	0	0	—	0	3.62	—	28					
	Strathpeffer	9 9 9	125	61.9	47.9	54.9	+2.1	72	7th	37	16, 30	—	—	2.45	62	+ 6	11	19th	22	16	0	0	0	0	—	—	—	—	—	—					
Inverness.	Ft. Augustus	9 9 9	68	60.4	49.3	54.9	+2.2	70	11th	35	16th	—	—	2.67	68	- 17	19	19th	21	13	0	0	0	0	1	—	1	2.37	-0.70	19					
	Inverness	9 9 9	242	60.5	50.4	55.5	+1.8	70	7, 28	40	16th	—	—	1.93	49	- 9	11	8th	16	9	0	0	0	0	0	—	0	3.99	-0.07	31					
	Onich	9 9 9	48	59.3	50.8	55.1	—	67	4th	37	16th	—	—	6.40	163	—	28	19th	24	23	0	0	0	1	10	1	1	1.93	—	15					
1. SCOTLAND, E.																																			
Nairn.	Nairn	18-7 7	82	60.6	49.0	54.8	+2.1	72	7th	38	16th	—	—	1.79	45	- 11	7	6th	17	11	0	0	0	0	0	—	4	3.83	-0.07	30					
Elgin.	Gordon Castle	2121 9	104	63.6	48.6	56.1	+2.9	77	11th	39	16th	—	—	1.50	38	- 26	8	19th	14	11	0	0	0	0	0	—	0	4.13	—	32					
Banff.	Banff	9 9 9	130	62.0	49.1	55.5	—	74	8th	42	13, 21, 30	—	—	1.37	35	—	9	6th	13	9	0	0	0	0	0	—	0	14.65	—	36					
Aberdeen.	Aberdeen	242424	37	61.8	48.8	55.3	+2.8	76	8th	41	30th	—	53.5	1.28	33	- 23	7	5th	14	8	0	0	0	0	0	1	0	5.22	+1.09	41					
	Hourly*		37			55.1	+2.6																												
	Balmoral	9 9 9	927	61.9	44.8	53.3	—	74	7th	31	17th	—	—	1.01	26	- 35	7	3rd	15	6	0	0	0	0	—	5	1	—	—	—					
	Braemar	2121 9	1120	60.2	44.8	52.5	+2.6	73	7th	33	13, 16	—	—	1.29	33	- 31	11	3rd	15	8	0	0	0	0	1	3	0	—	—	—					
	Craibstone	9 9 9	300	62.6	47.4	55.0	—	76	8th	40	13, 21	54.7	54.0	1.10	28	—	6	3rd	12	7	0	0	0	0	0	—	0	15.49	—	43					
	Logie Coldstone	9 9 9	608	63.4	44.5	53.9	—	76	8th	31	17th	—	—	1.18	30	- 29	7	3rd	13	8	0	0	0	0	0	4	0	—	—	—					
Kincardine.	Stonehaven	9 9 9	93																																
Angus	Arbroath	2121 9	93	63.5	48.0	55.7	—	76	7th	37	17th	—	—	0.65	16	—	7	3rd	7	4	0	0	0	0	1	2	0	5.26	—	41					
(Forfar)	Carnoustie	9 9 9	39	62.9	47.2	55.1	—	74	7th	38	17th	—	—	0.68	17	—	5	3rd	15	7	0	0	0	0	—	—	0	5.12	—	40					
	Dundee (E. Nec.)	2121 9	198	63.6	48.8	56.2	+2.7	73	7th	40	17th	—	—	0.65	17	- 36	7	3rd	8	5	0	0	0	0	—	2	—	—	—	—					
	Mayfield	9 9 9	147	65.5	48.1	56.8	+2.5	72	7th	41	17, 30	55.7	—	0.59	15	- 36	7	3rd	6	5	0	0	0	0	—	0	2	5.18	+1.30	41					
	Kettins	9 9 9	218	63.3	46.9	55.1	—	75	7th	34	17th	55.6	—	0.54	14	—	6	3rd	9	5	0	0	0	0	4	0	—	—	—	—					
	Montrose	9 9 9	16	63.1	48.2	55.7	—	76	7th	43	11, 13	—	—	0.37	9	—	5	3rd	4	3	0	0	0	0	—	—	0	5.31	—	42					
Perth.	Crieff	2121 9	478	62.9	47.4	55.1	+1.5	73	7th	38	30th	—	—	0.82	21	- 52	7	3rd	14	6	0	0	0	0	—	—	—	—	—	—					
	Perth	9 9 9	76	64.5	48.6	56.5	+3.2	74	7th	34	17th	—	—	0.40	10	- 47	5	3rd	5	2	0	0	0	0	—	—	—	14.98	—	39					
Fife.	Cupar	9 9 9	210	62.6	48.6	55.6	—	73	7th	38	17th	—	—	0.45	11	—	5	3rd	8	4	0	0	0	0	—	—	—	—	—	—					
	Inchkeith	18-7 7	190	60.6	51.7	56.1	—	68	1st	46	13th	—	—	0.25	6	—	2	3rd	7	3	0	0	0	0	2	0	0	5.10	—	40					
	Kirkcaldy	9 9 9	66	64.2	49.7	56.9	—	73	7th	41	30th	—	—	0.48	12	—	5	29th	7	4	—	—	—	—	—	—	—	—	—	—					
	Leuchars	18-7 7	30	63.4	47.4	55.4	—	74	7th	37	17th	—	—	0.51	13	—	4	3rd	10	5	0	0	0	1	0	2	0	5.29	—	41					
	St. Andrews	9 9 9	20	64.0	48.8	56.4	—	74	7th	40	17th	54.9	54.2	0.49	13	—	6	3rd	6	4	0	0	0	0	0	—	—	04.77	—	37					
Linlithgow.	Bangour	2121 9	587	61.0	46.1	53.5	—	69	7, 8	36	16th	—	—	0.85	22	—	7	29th	11	4	0	0	0	0	—	—	—	—	—	—					
Edinburgh.	Blackford Hill	2121 9	441	62.6	48.9	55.7	+2.4	71	8th	40	13th	—	—	0.35	9	- 39	5	3rd	6	2	0	0	0	—	0	—	0	5.30	+1.30	42					
	Boghall	9 9 9	645	61.5	48.2	54.9	—	69	7, 8	40	13, 17	54.6	54.5	0.38	10	—	5	3rd	5	3	0	0	0	0	1	0	—	0	5.07	—	40				
	Edin. Univ.	9 9 9	227	64.5	52.2	58.3	—	71	8th	46	13, 17, 30	56.5	55.9	0.30	8	- 42	4	3rd	5	3	—	—	—	—	—	—	—	—	—	—	—				
	Liberton	9 9 9	190	65.1	—	—	—	72	8th	—	—	—	—	0.31	8	—	5	3rd	5	2	0	0	0	0	—	—	—	—	—	—	—				
Haddington.	N. Berwick	9 9 9	152	64.5	48.8	56.7	—	73	7th	39	17th	—	—	0.26	7	—	3	3rd	6	2	0	0	0	0	0	—	—	0	5.08	—	40				
	Smeaton	9 9 9	100	64.7	47.5	56.1	—	74	8th	39	17th	56.8	—	0.84	21	- 29	11	4th	11	3	0	0	0	0	—	—	—	—	—	—	—				
Berwick.	Marchmont	9 9 9	498	64.2	47.1	55.7	+3.1	76	8th	40	11, 18, 21	—	—	0.21	5	- 56	1	28th	9	1	0	0	0	—	—	—	04.39	+0.36	34						
Peebles.	West Linton	9 9 9	770	59.9	42.9	54.4	+1.3	70	8th	29	13th	—	—	0.91	23	—	7	19th	19	5	0	0	0	0	—	4	1	—	—	—	—				
Roxburgh.	Kelso (Br'ml'ds)	9 9 9	195	64.8	47.4	56.1	—	74	4, 8	38	18th	—	—	0.37	9	- 39	3	30th	9	2	0	0	0	0	1	—	—	—	—	—	—				
	Wolfelee	9 9 9	537	62.7	47.2	54.9	—	71	5, 9	35	16th	—	—	0.70	18	- 47	7	1st	4	4	0	0	0	0	—	—	—	—	—	—	—				
6a. SCOTLAND, W.																																			
Argyll.	Ardtornish	2121 9	48	60.4	50.1	55.3	—	68	8th	35	16th	—	—	5.15	131	—	16	19th	25	22	0	0	0	0	—	—	1	—	—	—	—				
	Ford	9 9 9	149	61.4	49.8	55.6	+2.1	69	4, 5	34	16th	57.5	56.4	5.70	145	+ 1	22	20th	23	22	0	0	0	0	—	1	0	2.83	—	22					
	Tiree	18-7 7	22	58.7	51.9	55.3	—	64	4th	40	16th	—	—	3.56	90	—	22	17th	23	16	0	0	0	0	1	0	0	2.93	—	23					
	Glenbranter	9 9 9	188	60.4	48.5	54.5	—	69	8th	35	16th	—	—	5.13	130	—	31	29th	24	20	0	0	0	1	1	—	—	—							

*Mean of hourly readings. § See paragraph headed "Sunshine" in Notes on Tables on last page of this issue.

†On and after April 21st, observations were taken one hour earlier than the times shown.

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, SEPTEMBER, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.		
					Means of		Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.			Deviation from Normal.	Most in a day.		Precip'n. or more.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.						
					A	B		Maximum.	Date.	Minimum.	Date.					Amount.	Date.								Daily Mean.	Deviation from Normal.	Per Cent.				
																												Max.	Min.		
		Max.	Min.		°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	1 ft.	4 ft.	in.	mm.	mm.	mm.	0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	hr.	hr.	%	
2. ENGLAND, N.E.		G.M.T.	ft.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	in.	mm.	mm.	mm.													
Northumberland.	Berwick-on-T.	9 9 9	76	63.0	49.0	56.0	—	74	7, 8	41	21st	—	—	0.31	8	—	3	28th	7	3	0	0	0	0	0	0	0	5.30	—	42	
	Bellingham	9 9 9	848	62.4	46.8	54.6	—	71	4, 7	39	18, 21	—	—	0.83	21	—	14	28th	8	4	0	0	0	0	0	0	—	—	—	—	
	Cockle Park	2121 9	325	65.5	47.3	56.4	+4.0	77	12th	38	14th	55.0	54.9	0.94	24	29	19	28th	6	4	0	0	0	0	0	0	1	5.42	+1.05	43	
	Tynemouth	18-7 7	67	64.6	51.1	57.9	+3.6	77	8th	43	21st	—	—	0.98	25	21	13	28th	8	5	0	0	0	0	7	0	0	—	—	—	—
Durham.	Chopwellwood	9 9 9	445	66.8	45.3	56.1	—	77	8th	33	16th	—	—	1.20	31	—	17	28th	7	5	0	0	0	0	0	0	11	6.00	—	47	
	Durham	2121 9	336	66.0	47.0	56.5	+2.5	77	7th	38	11th	—	—	1.28	32	12	17	28th	8	4	0	0	0	0	0	0	0	5.25	+1.25	41	
	Houghall	9 9 9	160	67.3	46.4	56.9	—	78	7th	35	11th	—	—	1.34	34	—	17	28th	4	4	0	0	0	0	0	3	0	5.27	—	41	
	Ushaw College	9 9 9	594	66.4	48.8	57.6	—	75	7, 8	42	14, 21, 30	—	—	1.07	27	24	15	28th	7	4	0	0	0	0	2	—	2	—	—	—	—
York, N. Riding.	Castleton	9 9 9	425	67.3	44.1	55.7	—	79	8th	31	14th	54.8	—	0.68	17	—	11	28th	7	4	0	0	0	0	1	0	1	—	—	—	—
	Rounton	2121 9	249	67.1	47.9	57.5	+3.9	78	4, 7	40	11, 14, 18	56.9	—	1.16	29	16	17	28th	8	6	0	0	0	0	0	2	0	—	—	—	—
	Scarborough	9 9 9	118	67.5	52.4	59.1	+4.1	80	8th	45	14, 21	—	—	0.26	7	38	2	28, 30	5	3	0	0	0	0	0	1	0	5.49	+0.92	43	
	West Witton	9 9 9	605	66.3	48.0	57.1	—	75	4, 7	39	11th	56.1	54.3	1.02	26	—	15	28th	7	4	0	0	0	0	1	—	0	—	—	—	—
York, E. Riding.	York	2121 9	56	68.8	49.3	59.1	+3.5	80	8th	40	14th	58.6	57.2	0.51	13	28	5	28th	5	4	0	0	0	0	—	—	0	4.82	+0.65	38	
	Hull	2121 9	8	69.4	51.4	60.4	+5.0	83	8th	43	21, 31	59.9	57.2	0.76	19	25	14	30th	6	4	0	0	0	0	3	0	0	5.59	—	44	
	Osgodby	2121 9	30	69.3	46.4	57.9	—	81	8th	36	27th	—	—	0.53	13	—	8	30th	5	3	0	0	0	0	3	0	0	5.31	—	42	
	Spurn Head	18-7 7	29	65.6	55.3	60.5	+3.9	80	8th	48	21st	—	—	0.83	21	23	18	30th	4	2	0	0	0	0	2	—	2	5.95	—	47	
Lincoln.	Cranwell	18-7 7	236	70.3	51.1	60.7	+4.7	84	12th	40	26th	60.0	58.6	1.09	28	17	10	19th	6	4	0	0	0	0	1	4	0	6.15	+1.22	48	
	Cleethorpes	9 9 9	23	68.5	51.7	60.1	—	84	8th	42	30th	—	—	0.94	24	—	20	30th	5	3	0	0	0	0	2	—	0	5.65	—	44	
	Skegness	9 9 9	12	68.5	53.2	60.9	+4.9	84	8th	41	21st	—	—	0.35	9	37	7	30th	5	1	0	0	0	0	1	1	—	6.27	+1.04	50	
3. ENGLAND, E.																															
Norfolk.	Cromer	9 9 9	150	69.7	55.3	62.5	+5.2	82	12th	45	21st	—	—	0.81	21	25	9	30th	7	5	0	0	0	0	1	0	0	6.25	+1.18	49	
	Hunstanton	9 9 9	105	69.6	54.4	62.0	—	84	12th	48	27th	—	—	0.48	12	—	11	30th	4	1	0	0	0	0	1	2	—	6.47	—	51	
	Norwich	9 9 9	98	73.4	52.2	62.8	+6.1	88	4, 8	39	26th	59.9	—	0.65	17	37	6	30th	7	5	0	0	0	0	1	—	0	6.63	—	52	
	Sprowston	9 9 9	93	70.9	50.8	60.9	—	85	8th	37	26th	—	—	0.81	21	—	6	17th	5	5	0	0	0	0	1	2	2	6.56	—	52	
Suffolk.	Yarmouth	18-7 7	14	68.5	55.9	62.2	+5.2	82	9th	46	22nd	63.1	59.8	0.32	8	42	4	29th	4	2	0	0	0	0	1	2	0	6.30	+0.89	50	
	Bungay (Flix'n)	9 9 9	79	72.5	51.3	61.9	—	86	4, 8	37	26, 27	—	—	1.12	28	—	18	17th	7	6	0	0	0	0	2	0	1	0	—	—	—
	Copdock	9 9 9	164	72.6	52.2	62.4	—	87	8th	38	27th	60.5	59.3	1.37	35	—	21	17th	6	5	0	0	0	0	2	1	0	6.43	—	51	
	Felixstowe	18-7 7	15	69.7	55.9	62.8	—	83	9th	44	27th	—	—	0.12	3	—	2	29th	2	2	0	0	0	0	1	1	0	7.39	—	58	
Cambridge.	Lowestoft	9 9 9	83	68.6	55.7	62.1	+4.9	82	9th	43	21st	62.0	59.7	0.19	5	45	2	29th	3	2	0	0	0	0	1	0	0	7.21	+1.48	57	
	Cambridge (Bot. Gdns.)	2121 9	41	74.3	50.5	62.4	+5.5	88	4, 8	35	26th	62.1	59.8	0.10	3	38	1	30th	2	2	0	0	0	0	0	2	0	6.19	+1.16	49	
	Wisbech	2121 9	10	72.5	48.8	60.7	—	86	4th	35	26th	—	—	0.38	10	—	9	30th	2	1	0	0	0	0	2	2	0	6.45	—	51	
	Cardington	18-7 7	100	73.6	51.2	62.4	—	88	4th	34	26th	—	—	0.16	4	—	3	29th	2	1	0	0	0	0	1	4	0	6.46	—	51	
Bedford.	Luton	9 9 9	390	72.2	48.3	60.3	—	87	4th	31	26th	61.4	58.7	0.12	3	—	2	29th	2	1	0	0	0	0	1	0	1	6.50	—	52	
	Woburn	9 9 9	291	72.3	49.7	61.0	+5.7	85	4, 8	35	26th	63.6	57.8	0.17	4	41	3	29th	2	2	0	0	0	0	1	0	0	6.71	—	53	
	Rothamsted	9 9 9	420	72.0	52.0	62.0	+6.3	85	4th	38	26, 27	61.0	—	0.22	5	44	3	29th	2	2	0	0	0	0	1	1	0	6.87	+1.84	55	
	St. Albans	9 9 9	272	74.0	52.9	63.5	—	87	4th	32	27th	62.6	—	0.24	6	—	3	30th	2	2	—	—	—	—	0	1	—	—	—	—	—
Essex.	Clacton-on-S.	18-7 7	55	69.6	57.0	63.3	+5.8	81	9th	45	27th	63.2	61.5	0.38	10	29	7	29th	4	2	0	0	0	0	1	1	0	6.95	+1.08	55	
	Chelmsford	9 9 9	134	74.0	50.5	62.3	—	87	8th	33	27th	—	—	0.73	19	25	9	3rd	5	4	0	0	0	0	3	—	0	—	—	—	
	Chelmsford (Good Easter)	9 9 9	185	73.3	49.2	61.3	—	86	8th	32	27th	—	—	0.39	10	—	5	29th	4	3	0	0	0	0	1	0	2	6.11	—	48	
	Earls Colne	9 9 9	168	74.3	51.8	63.1	—	89	8th	34	27th	—	—	0.82	21	—	10	17th	6	5	0	0	0	0	2	—	0	—	—	—	—
4. MIDLAND COUNTIES.	Halstead	9 9 9	139	73.9	50.9	62.4	—	88	8th	34	27th	—	—	0.76	19	—	7	29th	5	5	0	0	0	0	2	0	—	0	—	—	—
	Shoeburyness	18-7 7	11	72.1	53.4	62.7	+4.3	86	9th	37	27th	—	—	0.73	19	21	18	18th	2	1	0	0	0	0	1	3	1	7.15	—	57	
	Bradford	9 9 9	439	65.8	47.8	56.8	—	77	4th	38	14th	56.2	56.1	0.63	16	37	6	28th	7	3	0	0	0	0	2	0	0	5.08	—	50	
	Giggleswick	9 9 9	575	63.7	47.6	55.7	—																								

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, SEPTEMBER, 1929.

DISTRICT, COUNTY AND PLACE.	Terminal Hours of Observation.	Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.										Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.		
			Means of		Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.	Deviation from Normal.	Most in a day.			Precip'n.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.									
			A	B		Maximum.	Date.	Minimum.	Date.			Amount.	Date.	0.2 mm. or more.								1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.
			Max.	Min.																											
4. MID. COUNTIES—cont.			G.M.T.	ft.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	in.	mm.	mm.	mm.												hr.	hr.	%
Warwick.	Birmingham	¶§	18-7 7	535	69.3	52.5	60.9	+5.2	83	8th	45	30th	57.1	54.8	0.90	23	23	15	30th	4	3	0	0	0	1	5	0	0	6.05	+1.95	48
	B'ham, Sparkhill	¶§	713 7	424	72.2	49.9	61.1	—	86	8, 12	36	26th	—	—	0.92	23	—	16	30th	4	2	0	0	0	1	7	5	1	—	—	—
	Coventry	¶§	9 9 9	270	71.1	51.3	61.2	+4.8	84	12th	41	25, 27	59.1	57.5	0.86	22	24	16	30th	4	2	0	0	0	1	0	0	0	5.98	+1.58	47.8
	Rugby	¶§	2121 9	390	70.8	50.1	60.5	—	83	8th	41	26, 30	—	—	1.56	40	—	22	30th	3	2	—	—	—	—	—	—	—	—	—	—
Oxford.	Leafield	¶§	18-7 7	612	70.8	50.3	60.5	—	83	8th	43	25, 26, 27	—	—	0.17	4	—	4	30th	2	1	0	0	0	1	6	0	0	6.78	—	54
	Oxford	¶§	9 9 9	208	73.8	51.3	62.5	+5.9	86	4, 8	37	26th	63.0	60.3	0.09	2	41	1	30th	2	2	0	0	0	3	1	1	0	6.64	+1.17	53
	Oxford (Sandford)	¶§	9 9 9	210	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bucks.	Mursley	¶§	9 9 9	490	72.0	51.5	61.7	—	85	4th	44	21, 22	58.5	—	0.16	4	—	2	29th	2	2	0	0	0	1	0	—	1	—	—	—
Stafford.	Mayfield	¶§	9 9 9	374	68.1	45.7	56.9	—	79	8th	32	27th	—	—	0.92	23	—	11	30th	8	6	0	0	0	1	—	2	0	6.23	—	49.8
Shropshire.	Newport	¶§	9 9 9	211	68.9	47.5	58.2	—	82	8th	34	14th	—	—	0.83	21	—	8	3rd	5	5	0	0	0	1	1	7	0	6.17	—	49
	Roden, Well'n	¶§	9 9 9	207	69.6	44.1	56.9	—	84	8th	31	27th	—	—	0.95	24	—	9	3rd	6	6	0	0	0	2	3	—	0	—	—	—
	Shrewsbury	¶§	9 9 9	184	69.3	47.9	58.6	—	82	8th	36	25, 27	—	—	1.14	29	—	9	3rd	7	5	—	—	—	2	—	4	—	6.12	—	48
	Wistanstow	¶§	2121 9	481	69.7	(47.5)	(58.6)	(+3.8)	82	8th	—	—	—	—	1.07	27	22	11	30th	6	5	0	0	0	3	0	1	0	—	—	—
Worcester.	Malvern	¶§	9 9 9	377	70.7	53.1	61.9	—	83	8th	46	26th	61.6	60.1	0.70	18	31	10	30th	4	2	0	0	0	0	2	0	0	7.07	—	56
	Worcester (Perdiswell)	¶§	9 9 9	95	72.6	47.3	59.9	—	85	8th	32	27th	—	—	1.07	27	—	21	30th	3	3	0	0	0	1	—	2	1	6.82	—	54
Hereford.	Bromyard	¶§	9 9 9	392	69.9	47.6	58.7	—	82	8th	32	26, 27	59.2	57.9	1.40	36	—	20	30th	4	3	0	0	0	1	0	2	0	—	—	—
	Hereford	¶§	9 9 9	291	70.7	46.7	58.7	+3.1	83	8th	35	26, 27	—	—	1.29	33	14	12	30th	4	4	0	0	0	1	2	0	0	—	—	—
	Ross-on-Wye	¶§	18-7 7	223	71.7	50.2	60.9	+4.4	84	8th	37	25th	61.7	59.8	0.36	9	40	8	30th	2	2	0	0	0	1	8	0	0	6.84	+2.30	54
Gloucester.	Cheltenham	¶§	2121 9	214	72.7	52.8	62.7	+6.7	84	8th	42	25th	62.9	62.6	0.35	9	38	5	3rd	3	2	0	0	0	1	0	0	0	6.74	—	53
5. ENGLAND, S.E.																															
London.	City, Bunhill Row	¶§	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.45	+1.48	43	
	Camden Square	¶§	9 9 9	110	75.8	55.1	65.5	+6.9	89	4, 8	44	27th	61.7	59.1	0.28	7	39	4	29, 30	2	2	0	0	0	—	—	—	—	—	—	—
	East Ham	¶§	9 9 9	15	73.5	54.6	64.1	—	88	4th	40	27th	—	—	0.70	18	—	14	3rd	3	3	—	—	—	—	—	—	—	—	—	—
	Enfield	¶§	9 9 9	148	75.1	52.7	63.9	—	89	8th	36	27th	—	—	0.35	9	38	6	30th	2	2	0	0	0	1	0	0	0	6.51	—	52
	g Greenwich	¶§	2424 9	149	75.5	52.6	64.1	+6.1	89	4th	40	27th	58.7	57.1	0.17	4	41	1	30th	4	3	0	0	0	1	4	2	0	6.51	+1.56	52
	Hampst'd Res.	¶§	9 9 9	450	72.9	52.6	62.7	—	87	4th	42	22nd	—	—	0.33	8	—	5	29th	2	2	0	0	0	—	—	—	0	6.73	—	53
	Kensington	¶§	18-9 9	80	74.4	55.2	64.8	—	87	4, 8	44	27th	62.7	61.3	0.21	5	—	4	29th	2	2	0	0	0	0	4	0	0	—	—	—
	Regent's Park	¶§	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.17	—	41	
	Richmond (Kew Obs.)	¶§	2424 9	18	73.0	53.8	63.4	+6.3	85	4th	40	27th	62.2	60.3	0.16	4	44	3	30th	2	2	0	0	0	0	6	0	0	6.54	+1.71	52
	Stroud Green	¶§	18-7 7	212	73.6	54.0	63.8	—	87	8th	42	27th	—	—	0.34	9	—	5	29th	2	2	0	0	0	0	3	0	0	—	—	—
	Tottenham	¶§	2121 9	51	74.9	55.5	65.2	+7.2	88	4th	42	26th	—	—	0.35	9	34	5	29th	2	2	0	0	0	—	—	—	0	5.98	+1.22	47
	Westminster	¶§	9 9 9	27	74.5	56.4	65.5	+7.3	88	4th	44	27th	—	—	0.17	4	38	3	29th	2	2	—	—	—	—	—	—	0	6.17	+1.94	49
Surrey.	Addington	¶§	9 9 9	472	73.6	54.3	63.9	—	86	4, 8	45	21st	—	—	0.27	7	—	6	30th	3	1	—	—	—	—	—	—	—	—	—	—
	Croydon Aero.	¶§	18-7 7	244	73.8	53.7	63.7	—	88	4th	41	26th	—	—	0.14	3	—	3	30th	2	1	0	0	0	0	5	0	0	6.66	—	53
	Wisleigh	¶§	9 9 9	150	75.1	50.5	62.8	+6.4	88	4th	34	27th	61.1	59.7	0.16	4	49	2	29th	2	2	0	0	0	0	1	2	0	6.23	+1.16	49
Kent.	Biggin Hill	¶§	18-7 7	597	71.6	53.6	62.6	—	86	4th	44	21, 22	—	—	0.05	1	—	1	30th	1	1	0	0	0	0	5	0	0	7.06	—	56
	Bromley	¶§	9 9 9	213	73.7	52.9	63.3	—	87	4th	38	26th	—	—	0.10	3	—	1	30th	2	2	0	0	0	1	0	0	0	—	—	—
	Canterbury	¶§	9 9 9	124	72.8	51.7	62.3	—	85	8th	35	26th	62.2	60.4	0.32	8	—	5	30th	2	2	—	—	—	—	2	—	—	—	—	—
Sussex.	Dover	¶§	9 9 9	22	69.2	57.1	63.1	—	77	4, 12	45	27th	65.5	63.9	0.61	15	—	8	29th	2	2	0	0	0	0	0	0	0	7.07	—	56
	Dungeness	¶§	18-7 7	20	69.8	55.8	62.8	+4.6	80	4th	38	27th	—	—	0.75	19	33	8	29th	6	4	0	0	0	1	3	—	0	—	—	—
	East Malling	¶§	9 9 9	127	73.4	50.1	61.7	—	88	4th	35	26, 27	—	—	0.61	15	—	10	30th	4	3	0	0	0	1	3	2	0	6.62	—	53
	Folkestone	¶§	9 9 9	101	71.8	56.7	64.3	—	84	3rd	44	21st	—	—	0.74	19															

TABLE III (continued).—SUMMARY OF THE RECORDS OF TEMPERATURE, RAINFALL AND SUNSHINE, and of WEATHER OBSERVATIONS, SEPTEMBER, 1929.

DISTRICT, COUNTY AND PLACE.	Terminal Hours of Observation.	Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.							Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
			Means of		Deviation from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.	Total Fall.	Deviation from Normal.	Most in a day.		Precip'n.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
			A	B		Maximum.	Date.	Minimum.	Date.					Amount.	Date.									0.2 mm. or more.	1 mm. or more.	Daily Mean.	Deviation from Normal.	Per Cent.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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TABLE IV.—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of SEPTEMBER, 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.													
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.								
											0	1 to 3	4 to 6	7 to 9	10	FOG.				Mist.	Poor Vis.	Mod. Vis.	GOOD VISIBILITY.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
																0	1	2	3				4	5	6												
0. SCOTLAND, N.																																					
Shetlands.	Lerwick	..	G.M.T.	ft.	mb.	mb.	°F.	°F.	mb.	%																											
			1	59	1011.2	—	51.0	1.8	11.1	87.8	0	3	3	11	13	0	0	0	0	0	0	1	13	16	0	1	4	23	2	1	0	0	2	8	10	6	1
			7	59	1010.7	-1.4	51.4	1.7	11.2	88.8	0	0	5	16	9	0	0	0	0	0	1	3	15	11	0	0	2	28	0	1	0	0	1	7	9	9	3
			13	59	1011.0	—	53.9	3.0	11.4	80.7	0	1	9	8	12	0	0	0	0	0	1	3	11	15	0	0	5	25	0	2	0	1	0	7	9	9	2
Orkneys.	Deerness	..	18	59	1011.7	—	51.9	2.5	10.9	83.7	0	3	5	16	6	0	0	0	1	0	0	1	14	14	0	0	2	27	1	1	0	0	0	6	7	9	6
			9	165	1012.6	—	53.3	1.7	12.1	88.8	0	1	5	11	13	0	0	1	0	0	0	2	6	16	5	0	13	17	0	3	0	1	0	8	8	8	2
			21	165	1013.2	—	51.1	1.6	11.3	89.7	2	4	5	7	12	0	0	0	0	0	1	0	0	24	5	0	9	17	4	3	0	0	2	8	5	6	2
Hebrides.	Stornoway	..	7	41	1012.1	-0.6	52.0	1.0	12.3	93.8	0	2	4	10	14	0	0	0	0	1	4	5	16	4	0	0	16	9	5	1	2	1	0	3	9	7	2
			13	41	1013.2	—	55.3	2.3	12.6	85.8	0	1	3	15	11	0	0	0	0	1	1	3	14	11	0	0	20	9	1	1	2	0	1	4	8	8	5
			18	41	1013.1	—	53.7	1.8	12.5	88.8	0	2	4	10	14	0	0	1	0	0	2	4	9	14	0	0	19	9	2	1	2	1	1	3	10	6	4
			21	41	1013.2	—	52.4	1.1	12.2	92	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Caithness.	Wick	..	1	97	1012.9	—	51.4	1.6	11.3	89.7	1	6	2	12	9	0	0	0	0	0	0	3	27	0	0	4	25	1	1	0	0	1	6	11	7	3	
			7	97	1012.5	-0.6	51.6	1.7	11.6	88.8	0	0	5	12	13	0	0	0	0	0	1	1	3	25	0	0	5	23	2	1	0	0	1	6	11	7	2
			13	97	1013.0	—	56.0	3.3	12.1	79.8	0	0	6	11	13	0	0	0	0	0	0	1	2	27	0	1	7	22	0	3	2	0	0	9	8	5	3
			18	97	1013.5	—	53.1	2.6	11.3	83.8	0	0	8	10	12	0	0	0	0	0	0	2	28	0	0	7	23	0	1	3	0	3	7	5	6	5	
Inverness.	Inverness	..	9	250	1013.9	—	54.9	2.3	12.6	85.5	0	5	15	8	2	0	0	0	0	0	0	3	2	8	17	0	14	16	0	2	2	0	0	3	18	2	3
			17	250	1014.4	—	56.1	4.3	11.2	73.5	0	6	13	6	5	0	0	0	0	0	1	1	1	9	18	0	18	12	0	3	2	0	0	5	13	5	2
1. SCOTLAND, E.																																					
Nairn.	Nairn	..	7	82	1013.4	0.0	52.6	2.0	11.9	87.6	0	0	10	19	1	0	0	0	0	0	0	2	7	21	0	0	1	14	15	1	0	2	0	0	3	7	2
			13	82	1013.6	—	59.7	4.5	13.0	73.6	0	1	17	12	0	0	0	0	0	0	0	0	8	21	1	2	7	18	3	1	0	4	0	1	4	16	1
			18	82	1014.4	—	55.1	3.2	11.7	79.7	0	1	9	18	2	0	0	0	0	0	0	0	9	21	0	0	3	22	5	0	0	5	0	0	5	13	2
Aberdeen.	Aberdeen	H	7	85	1014.7	+0.4	52.2	2.4	11.1	84.6	1	9	4	13	3	0	0	0	0	0	1	7	11	11	0	0	2	17	11	0	0	0	0	4	8	5	2
			13	85	1014.8	+0.5	59.9	5.2	12.3	70.6	0	6	9	8	7	0	0	0	0	0	0	4	7	19	0	0	10	19	1	1	2	1	2	8	9	3	3
			18	85	1015.3	+0.9	56.6	3.7	12.0	78.5	0	11	4	10	5	0	0	0	0	0	3	3	8	16	0	0	6	21	3	1	1	1	0	8	6	3	7
			21	85	1016.1	+1.3	53.7	2.9	11.3	82.5	0	10	6	6	6	0	0	0	0	0	2	5	12	11	0	0	1	21	8	2	0	0	1	5	7	2	5
			h.*	85	1015.1	+0.6	55.1	3.5	11.8	79	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Aberdeen.	Braemar	..	9	1114	1015.0	—	53.4	3.2	10.7	79	—	—	—	—	—	0	0	0	1	8	4	8	5	4	0	0	5	25	0	0	0	2	1	2	21	3	1
Perth.	Crieff	..	9	482	1015.5	—	55.0	2.7	12.2	83.7	0	6	5	9	10	—	—	—	—	—	—	—	—	—	—	0	10	20	0	1	1	3	0	0	3	22	0
			21	482	1016.2	—	52.7	2.8	11.1	81.5	7	2	7	6	8	—	—	—	—	—	—	—	—	—	—	0	7	23	0	1	2	6	0	0	5	15	1
Fife.	Inchkeith	..	1	184	1016.2	—	53.6	1.5	12.8	90.4	0	18	3	5	4	0	0	0	0	0	0	2	12	15	1	0	6	24	0	0	4	0	1	0	15	9	1
			7	184	1015.6	—	53.4	1.3	12.5	91.7	0	1	9	13	7	0	2	0	0	1	3	4	8	12	0	0	8	22	0	0	3	0	0	1	16	9	1
			13	184	1016.0	—	58.6	3.6	13.4	79.7	0	2	6	15	7	0	0	0	0	2	0	4	18	2	0	9	21	0	1	2	1	0	0	16	9	1	
			18	184	1016.2	—	57.2	3.2	12.7	80.7	0	3	8	13	6	0	0	0	0	0	3	5	22	0	0	10	20	0	2	3	0	0	1	16	7	1	
Fife.	Leuchars	H	7	36	1015.6	—	52.0	1.2	12.4	92.7	0	3	5	16	6	0	0	0	0	0	2	8	11	9	0	0	5	22	3	0	0	1	1	0	15	9	1
			13	36	1015.9	—	61.4	4.8	13.6	73.7	0	1	12	11	6	0	0	0	0	0	2	4	9	10	5	0	13	17	0	0	0	3	1	1	16	6	3
			18	36	1016.2	—	56.7	3.0	12.8	81.6	0	8	7	9	6	0	0	0	0	0	1	1	9	15	4	0	7	23	0	0	0	3	3	1	9	11	3
Edinburgh.	Blackford Hill	H	9	441	1017.1	—	56.9	3.4	12.5	79.6	1	5	3	12	9	—	—	—	—	—	—	—	—	—	—	0	14	11	5	1	0	1	0	3	8	10	2
			21	441	1018.0	—	53.4	3.1	10.8	79.5	5	5	6	5	9	—	—	—	—	—	—	—	—	—	—	—	0	12	13	5	0	0	0	0	2	7	15
6a. SCOTLAND, W.																																					
Argyll.	Tiree	..	7	40	1014.9	—	54.3	1.3	13.0	91.8	0	0	4	13	13	0	0	0	1	0	0	4	9	16	0	0	21	9	0	5	0	0	0	3	6	11	5
			13	40	1015.9	—	57.7	2.9	13.5	83.7	0	4	4	11	11	0	0	0	0	0	1	9	20	0	0	25	5	0	3	0	0	1	4	4	10	8	
			18	40	1016.0	—	55.8	2.2	13.2	86.8	0	2	5	10	13	0	0	0	0	0	0	4	6	20	0	0	20	9	1	4	0	0	1	3	6	8	7
Bute.	Rothesay	..	9	187	1017.3	—	55.7	1.9	13.5	87.8	0	1	5	8	16	0	0	0	0	5	3	3	5	12	2	0	10	20	0	1	3	1	2	2	7	8	6
			21	187	1018.5	—	53.8	1.9	12.4	87.7	0	4	7	8	11	0	0	0	0	1	2	2	5	17	3	0	9	21	0	0	2	1	1	2	3	12	9
Renfrew.	Renfrew	..	7	40	1016.4	—	51.9	1.1	12.2	92.8	1	0	3	12	14	0	0	0	5	3	6	7	6	3	0	0	9	12	9	0	1	2	0	0			

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of SEPTEMBER, 1929.

DISTRICT, COUNTY AND PLACE		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.													
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	NO. OF OBSERVATIONS.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.								
											0	1 to 3	4 to 6	7 to 9	10	FOG.				Mist.	Poor Vis.	Mod. Vis.	GOOD VISIBILITY.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
																0	1	2	3				4	5	6												
2. ENGLAND, N.E.—cont.																																					
Durham.	Durham ..	9	352	1018.0	—	57.9	3.3	13.1	79.5	1	4	8	5	9	4	0	0	0	0	9	2	10	6	3	0	0	3	24	3	3	1	0	0	10	3	7	3
		21	352	1018.9	—	54.3	2.1	12.2	86.5	2	7	5	5	3	10	0	0	0	1	0	4	9	16	0	0	0	0	26	4	2	1	0	0	8	4	9	2
York, N. Riding.	Scarborough	9	96	1017.9	—	59.9	4.2	13.3	75.2	7	11	9	5	4	1	0	0	0	0	1	0	3	18	8	0	0	2	28	0	2	0	0	2	3	7	7	9
		21	53	1019.8	—	58.5	3.0	14.0	82.3	20	0	0	1	0	9	—	—	—	—	—	—	—	—	—	—	0	0	28	2	4	1	0	1	8	2	10	2
York, E. Riding.	Spurn Head	1	28	1018.8	—	57.4	1.0	14.9	94.4	6	4	13	1	6	0	1	0	0	0	1	11	16	1	0	0	11	17	2	1	3	1	0	3	8	4	8	
		7	28	1018.9	+3.0	56.8	1.2	14.7	92.7	7	0	1	7	15	7	0	1	0	1	0	2	15	10	1	0	0	7	22	1	4	2	0	1	6	5	8	3
		13	28	1018.7	—	64.0	4.0	15.9	78.6	6	1	2	11	13	3	0	0	0	0	0	2	14	12	2	0	2	11	15	2	2	4	0	8	3	2	3	6
		18	28	1018.2	—	60.2	1.9	15.7	89.6	7	0	3	12	10	5	0	0	0	0	0	3	9	15	3	0	0	14	16	0	1	4	3	6	8	2	3	3
Lincoln.	Cranwell H	1	240	1019.8	—	54.0	1.3	12.9	91.3	7	10	8	2	5	5	0	0	2	0	0	5	14	8	1	0	0	3	25	2	2	2	1	2	5	4	10	2
		7	240	1019.7	—	53.7	1.2	13.1	92.6	6	0	7	4	13	6	0	0	4	0	1	2	16	6	1	0	0	6	22	2	2	0	0	4	2	6	10	4
		13	240	1019.1	—	68.1	7.5	15.0	64.6	5	2	3	5	15	5	0	0	0	0	0	1	16	9	4	0	0	12	18	0	1	4	0	2	5	5	9	4
		18	240	1018.8	—	63.0	4.5	14.9	75.5	9	4	5	5	13	3	0	0	0	0	0	0	15	10	5	0	0	5	25	0	1	1	4	4	3	2	7	8
3. ENGLAND, E.																																					
Norfolk.	Cromer H	9	74	1019.5	—	63.4	4.8	14.8	75.5	4	1	9	7	8	5	0	0	0	0	0	16	8	5	1	0	7	23	0	1	3	3	3	4	4	4	8	
		1	26	1019.6	—	59.6	1.5	16.1	91.3	17	1	6	1	5	0	0	0	0	0	0	1	13	16	0	0	0	4	23	3	3	1	2	3	2	6	7	3
Norfolk.	Yarmouth ..	7	26	1019.3	+2.9	57.7	1.8	14.6	89.5	8	5	2	11	4	8	0	0	1	1	0	2	18	8	0	0	0	5	23	2	2	2	1	4	3	5	7	4
		13	26	1019.3	—	67.1	6.3	15.3	68.5	3	4	4	11	8	3	0	0	0	0	0	0	16	14	0	0	0	14	16	0	5	2	3	7	2	5	4	2
Suffolk.	Felixstowe Aero.	7	20	1019.9	—	59.6	2.2	15.4	87.4	5	8	7	2	6	7	0	1	0	0	4	10	6	5	0	0	8	17	5	4	3	2	1	3	3	4	5	
		13	20	1019.5	—	68.5	7.7	15.1	62.4	3	6	9	3	11	1	0	0	0	0	0	0	7	8	13	2	0	12	18	0	1	3	4	7	5	3	4	3
Cambridge.	Cambridge H	9	43	1020.0	+2.7	63.8	5.1	14.8	73.5	7	3	3	9	8	—	—	—	—	—	—	—	—	—	—	—	0	3	23	4	3	4	1	2	2	6	5	3
		21	43	1019.8	+2.6	60.0	2.8	15.1	83.2	5	19	2	2	3	4	—	—	—	—	—	—	—	—	—	—	0	3	20	7	2	4	1	5	2	4	3	2
Bedford.	Cardington	7	187	1020.0	—	54.1	1.7	12.6	89.5	7	5	5	3	10	7	0	1	0	3	1	4	15	3	3	0	0	4	24	2	2	5	1	0	1	9	7	3
		13	187	1019.1	—	71.5	10.5	13.3	52.5	0	14	1	9	5	0	0	0	0	0	0	7	14	8	1	0	13	17	0	2	3	4	3	1	6	8	3	
Hertford.	Rothamsted	7	187	1018.9	—	67.4	8.6	12.9	57.4	7	4	10	4	8	4	0	0	0	0	0	0	7	17	6	0	0	7	21	2	3	3	2	3	1	1	6	9
		21	187	1019.6	—	60.2	4.4	13.1	74.3	13	5	2	9	1	0	0	0	0	0	0	6	16	8	0	0	5	21	4	1	6	2	2	1	7	3	4	
Essex.	Shoeburyness H	9	396	1019.7	—	62.6	5.3	13.9	71.5	0	2	9	8	6	5	0	0	0	1	0	5	24	0	0	0	3	16	11	2	2	1	0	5	3	3	3	
		7	14	1020.2	—	58.2	1.2	15.5	93.4	6	9	1	9	5	1	0	0	2	4	7	6	6	4	0	0	4	23	3	5	1	3	1	2	3	5	7	
Essex.	Shoeburyness H	13	14	1019.8	—	69.8	6.1	17.7	71.3	9	7	9	4	10	0	0	0	0	0	0	1	6	8	15	0	0	9	20	1	0	2	5	4	3	7	4	4
		18	14	1019.4	—	64.2	2.9	17.3	84.4	0	6	9	7	7	1	0	0	0	0	0	0	11	4	15	0	0	6	21	3	1	1	7	3	3	6	4	2
4. MIDLAND COUNTIES.																																					
York, W. Riding.	Harrogate ..	7	478	1018.8	—	52.6	1.7	12.1	88.5	9	0	11	3	10	6	0	1	1	2	1	10	3	9	3	0	0	4	22	4	0	0	0	5	16	5	0	
		13	478	1018.4	—	64.6	6.6	13.8	65.5	1	1	13	3	11	2	0	0	0	0	1	5	6	8	10	0	0	6	24	0	1	0	0	3	5	17	4	0
Nottingham.	Nottingham	7	478	1018.5	—	59.6	4.0	13.5	77.4	2	0	18	2	7	3	0	0	0	1	0	8	4	11	5	1	0	4	25	1	1	0	0	2	5	18	3	0
		18	478	1018.5	—	59.6	4.0	13.5	77.4	2	0	18	2	7	3	0	0	0	1	0	8	4	11	5	1	0	4	25	1	1	0	0	2	5	18	3	0
Warwick.	Birmingham H	9	215	1019.1	—	58.9	3.3	13.7	80.5	7	0	10	8	6	6	0	0	0	4	11	2	10	2	1	0	1	4	25	0	3	2	3	2	2	3	14	1
		13	542	1020.3	—	54.8	2.1	12.7	86.5	1	4	6	7	8	5	0	2	2	1	3	6	8	2	6	0	0	4	26	0	3	1	2	3	5	4	6	6
Oxford.	Oxford ..	7	542	1019.4	—	66.8	8.6	13.0	58.4	5	4	9	4	12	1	0	0	0	0	1	3	9	1	16	0	0	4	26	0	2	2	2	2	3	4	6	9
		18	542	1019.4	—	64.2	6.8	13.2	64.4	5	4	11	3	11	1	0	0	0	0	0	4	10	0	16	0	0	5	24	1	5	2	2	1	2	4	5	8
Hereford.	Ross-on-Wye H	9	212	1020.6	+2.8	61.0	4.8	13.3	73.4	9	4	8	5	9	4	0	0	0	1	2	1	11	9	6	0	0	3	13	14	4	1	1	1	1	2	4	2
		7	226	1020.1	—	52.9	1.7	12.1	88.5	8	4	7	2	9	8	0	1	3	4	1	5	5	2	9	0	0	4	17	9	5	0	1	0	0	5	10	0
Gloucester.	Cheltenham	13	226	1019.3	—	69.2	9.5	13.4	55.4	6	4	10	4	10	2	0	0	0	0	0	0	10	7	10	3	0	7	23	0	2	2	2	3	2	5	7	7
		18	226	1019.0	—	65.7	6.5	14.5	66.4	8	2	13	2	11	2	0	0	0	0	0	0	7	7	14	2	0	2	28	0	3	2	5	1	3	3	7	6
		21	226	1020.0	—	58.7	3.2	13.8	81.3	1	8	13	1	5	3	0	0	0	0	0	4	14	2	10	0	0	0	27	3	2	1	4	2	4	5	7	2
		9	230	1020.3	—	61.5	4.6	13.8	74.4	2	9	5	8	6	2	0	0	0	0	0	2	8	14	6	0	0	0	24	6	0	0	1	1	3	6	10	3
5. ENGLAND, S.E.	London. g Greenwich H	21	230	1020.0	—	61.6	4.																														

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of SEPTEMBER, 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	NO. OF OBSERVATIONS.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Visibility.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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5. ENGLAND, S.E.—cont.		G.M.T.	ft.	mb.	mb.	°F.	°F.	mb.	%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of SEPTEMBER, 1929.

DISTRICT COUNTY AND PLACE.	Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
			At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
										0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Visibility.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
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TABLE I. DISTRICT VALUES.

The District Values of this Table are computed from the statistics for selected individual stations set out in Table III and Table IV.

The representative stations from which the District Values of rainfall and temperature are computed are indicated in Table III by the sign ¶ while the representative stations from which District Values of sunshine are computed are indicated by the sign §. The deviations from and percentages of normal for Air Temperature, Rainfall and Sunshine are the means of the corresponding deviations or percentages for the representative District Value stations. The deviations from normal of Earth Temperature are derived from the deviations for all the stations reporting in Table III for which normals of Earth Temperature are available. The highest and lowest temperatures for the District recorded during the month may refer to any station in Table III.

TABLE II. SUMMARY OF AUTOGRAPHIC RECORDS OF WIND.

The records used in the preparation of this Table are generally made by anemographs of the pressure-tube type. At a few stations the Robinson Cup Anemograph is utilised. The classification adopted for the "Distribution of Wind" is based on the specification of the Beaufort Scale of Wind Force (see *The Observer's Handbook*). For an anemograph complying with the specification "head 33 ft. above ground in the open" the several columns correspond with Force 8 and above (gales), Forces 6 and 7 (strong winds), Forces 4 and 5 (moderate breezes), Forces 2 and 3 (light breezes), Forces 1 and 0 (nearly calm). Some information as to the nature of the actual exposures may be gathered from the figures in the "Height" columns.

The "Highest Hourly Wind" is determined by the mean speed of the wind for a period of sixty minutes from 30 minutes before to 30 minutes after an exact hour by Greenwich Mean Time. Under the heading "Veer from N" the azimuth of the direction from which the wind was blowing is stated, the entry for an east wind being 90°, that for a south wind 180° and so on.

TABLE III. SUMMARY OF OBSERVATIONS AT TERMINAL HOURS.*

Temperature.—The terminal hours of observation are given for each station. When the terminal hours for maximum and minimum temperature are stated independently the temperatures refer to intervals of 24 hours. If the maximum thermometer is read in the morning the reading is credited to the previous day. When the terminal hours for maximum and minimum are separated by a dash, thus, 18-7, the day-maximum for the period 7h. to 18h. and the night-minimum for the period 18h. to 7h. are reported and are utilised in determining the means for the month; in such cases the extreme temperatures for successive periods of 24 hours are also read by the observers, so that the absolute maximum and minimum temperatures for the month are obtained.

Except at the Royal Observatory, Greenwich, where a Glaisher stand is in use, the air temperature is obtained from thermometers placed in louvered screens. At Kew Observatory, Richmond, and Valentia Observatory these are north wall screens a few feet from the ground. At Aberdeen Observatory the north wall screen is at 41 feet. Otherwise the screens are in the open.

Rainfall.—The daily amounts are for the 24 hours beginning at the "terminal hour." "Rainfall" includes all forms of precipitation. The number of days of precipitation is counted with reference to the limit .01 inch or 0.2 mm. and also with reference to the limit .04 inch or 1 mm. The lower limit excludes mere "traces" of precipitation, but it is frequently passed on occasions when the precipitation is only dew.

Weather.—The numbers of days of Precipitation, Snow, Hail, Thunderstorms and Gale are counted irrespective of the hour at which the phenomena occur. Except for "Precipitation" the day is the civil day.

For the purpose of this summary "Snow" includes sleet (*i.e.*, snow with rain), "Hail" includes graupel (soft hail), "Snow lying" refers to occasions when at least one-half of the country surrounding the station is covered with snow at the morning observation. The entry of "fog" implies that regular observations of the range of vision are made on the scale set out below. Days of fog are those on which the range of vision is less than 1,100 yards at the hour of morning observation. That hour is generally given by the third entry of column 2 of the table and may be 7h. or 9h. G.M.T. The variability of the observation hour may exercise an important effect upon the statistics of fog frequency. "Thunderstorm" includes any day on which thunder is heard. "Gale" is a wind of Force 8 or upwards on the Beaufort Scale. A "ground frost" is entered when the reading of a "grass minimum" thermometer set the previous evening and read at the morning observation is 30° F. or lower.

Sunshine.—The percentage of possible sunshine in the last column is calculated with reference to the maximum duration theoretically possible in the latitude, allowance being made for refraction (see

International Meteorological Tables (Paris) pp. A17-A20 and 42-47) but not for the fact that the sunshine recorder is generally insensitive to sunshine when the sun is at an altitude of less than 3°. Where the symbol § occurs it indicates that obstructions obscure the sun during more than 5% of the period when it is over 3° above the horizon.

TABLE IV. SUMMARY OF OBSERVATIONS AT FIXED HOURS.*

Mean Air Pressure is expressed in millibars. (1 millibar = 1,000 dynes per square centimetre = the pressure due to .029531 inch of mercury at 32° F. in Lat. 45°). The corrections for latitude, temperature and height have been applied to the barometer readings so as to obtain pressure at mean sea level. Barometric pressure is given at station level for a few stations at altitudes of 600 ft. or more in footnotes in Table IV.

Hygrometry.—The values given depend on the readings of the dry and wet bulb thermometers in Stevenson Screens (except at the Observatories, see above). The observations were formerly reduced by Glaisher's method; as from January, 1926 they are reduced by the new hygrometrical tables issued by the Office which are based on a formula of Regnault. In general the relative humidity and vapour pressure are derived from the monthly means of the dry and wet bulb readings. At certain stations the daily values of relative humidity and vapour pressure are found and the means are computed therefrom. These stations are indicated by the letter "H."

Cloud Amount.—The proportion of sky covered with cloud is estimated on the scale 0 to 10, the entry "0" being equivalent to clear sky "10" to overcast.

Visibility.—The observations are classified according to the following scheme—the distances, specified by international arrangement in metres, are given here in yards and miles:—

CODE.	RANGE OF VISION.	
0	Less than 55 yards.	
1	Exceeding 55 yards, less than 220 yards.	
2	" 220 "	" 550 "
3	" 550 "	" 1,100 "
4	" 1,100 "	" 1½ miles.
5	" 1½ miles "	" 2½ "
6	" 2½ "	" 6½ "
7	" 6½ "	" 12½ "
8	" 12½ "	" 31 "
9	" 31 "	" "

Wind Summaries.—The estimates of wind force refer to the Beaufort Scale, and in general to the wind experienced at the time of observation. At Deerness, Cahirciveen, Richmond, Armagh, Eskdalemuir, Southport, Greenwich and Oxford the analysis refers to tabulations of autographic records. For Oxford the mean wind speed for half-an-hour centred at the hour of observation is used for conversion to "force" on the Beaufort Scale; for the remaining observatories the mean wind speed used for each observation refers to a period of one hour. In these cases winds equivalent to Force 1 are counted with the calms, whilst Forces 2 and 3 are taken together in the preceding column of the Table.

INTERPOLATED VALUES.

When the observations for any station for a month are incomplete and relevant data (e.g. records from neighbouring stations) which make it practicable to interpolate approximate values for the missing observations are available, such approximate values may be used for completing summaries for stations published in Tables III and IV. Parts of a summary obtained in this way are shown in brackets thus—(52.4).

STANDARD OF TIME.

As a rule observations are made in all parts of the British Islands according to Greenwich Mean Time, but at the following stations Local Mean Time is used for the observations summarised in Tables III and IV. The number of minutes after Greenwich Time is shown in brackets—Darwen (10), Rhayader (15), Ashburton (15), Tavistock (17), Plymouth (15), Douglas (20), Armagh (26), Balbriggan (25), Lisburn (30), Newcastle, Co. Wicklow (30), Ballinacurra (30), Cork (34).

"Summer Time" is not used in the Monthly Weather Report, but at certain stations the hours of observation vary in the course of the year. For such stations all time entries are converted to G.M.T. before they are printed and the winter hours are given as the terminal hours in the annual tables. For the summer hours reference should be made to the appropriate months.

NORMALS.

In Table III the normals used are those for the 35 years 1881-1915. The normals of temperature and sunshine are published in the Book of Normals, Section I, those for rainfall in the Book of Normals, Section V.

The normals for pressure with which comparison is made in Table IV also refer to the period 1881-1915.

* In addition to the frequencies published in this Report (Tables III and IV), the Meteorological Office has issued since January, 1927, in the form approved by the International Commission for Air Navigation, monthly frequency tables of height of base of low cloud, and speed and direction of surface and upper winds.

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE

SUMMARY OF OBSERVATIONS COMPILED FROM RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS.

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OCTOBER, 1929. Wet and windy with considerable bright periods.

The weather during October was unsettled and windy with frequent rain, heavy falls occurring during the first eight days and on the 24th. For the first time since November, 1928, all districts except eastern coastal areas received at least a normal rainfall. Mean temperatures were generally within 1° F. of the normal. Bright periods occurred frequently and except in the north of Scotland sunshine aggregates for the month exceeded the normal.

The unsettled weather which had set in at the end of September, continued during the first nine days of October; rain was general on the 1st and 2nd and was heavy in the north and west while gales were reported from various parts of the coast on the 2nd and 3rd. A renewal of strong winds with widespread rain occurred on the 5th, and during the night of the 5th to 6th, the rain being exceptionally heavy in the south-west of England where more than 50 mm. were recorded in several places. A further general fall gave more than 25 mm. with a southerly gale in the south-west on the night of the 7th to 8th. Thunder occurred locally on a few days while sunshine records were sometimes good, notably on the 1st, 2nd, 7th and 9th.

The unsettled weather was broken on the 9th by a ridge of high pressure which passed across the country and thereafter an anticyclone, drifting slowly eastwards from the Bay of Biscay, gave fairer weather in most districts. Very mild weather prevailed generally, maximum temperatures of 60° F. and over occurring widely during the period 11th to the 17th; 65° F. was reached at Logie Coldstone on the 14th and 67° F. at South Farnborough and Shoburyness on the 16th. By the 18th, temperature had reached a more seasonable level and on the mornings of the 18th and 19th the first severe ground frosts of the season were recorded in several districts. On the 20th a deep depression centred near the Shetlands moved south-eastwards giving general rain and strong winds or gales along our western coasts. At Scilly the wind reached 72 mi/hr. in a gust. Associated with a secondary disturbance generally heavy rain occurred on the 24th with gales in southern and eastern England, the wind at Scilly reaching a velocity of 77 mi/hr. in a gust on the morning of the 24th. Cold brighter weather followed with frequent hail showers at first and some thunder. Low temperatures in the screen and on the grass were recorded on the mornings of the 25th, 26th, 27th and 28th.

After a warmer rainy interval on the 28th and 29th, pressure rose steadily and mainly fine weather, apart from some local rain on the east and south-east coast, ensued to the end of the month, with some ground frost inland.

Pressure and Winds.—Except for anticyclonic conditions which extended over the southern districts of the British Isles from the 12th to the 15th, weather of a cyclonic type prevailed during the greater part of the month and in all districts monthly means of atmospheric pressure were decidedly below the normal, the deficit amounting to 11 mb. at Lerwick and to 1 mb. at St. Mary's Scilly. The isobars of monthly mean pressure trended roughly from west to east and winds were mostly from between south-west and north-west. Strong winds or gales occurred frequently, particularly during the first eleven days, and on the 20th, 21st, 23rd and 24th. Gales occurred over England and Wales about the 6th, in a few southern districts on the 20th and 21st and in many parts of Great Britain on the 23rd or 24th. In Scotland gales occurred over a wide area on the 2nd, 3rd and 10th. Wind velocities exceeding 70 mi/hr. in a gust were recorded at Tiree on the 2nd, at Pendennis Castle on the 5th, at Liverpool (Bidston) on the 6th, at Lerwick on the 10th, at Calshot on the 23rd and at St. Mary's (Scilly) on the 24th. The highest recorded wind velocity in a gust was 78 mi/hr. at Lerwick on the 10th, closely approached by 77 mi/hr. at Pendennis Castle on the 5th and at St. Mary's (Scilly) on the 24th. The wind velocity of 74 mi/hr. recorded at Calshot on the 23rd is the highest wind velocity recorded there since the records were commenced in 1920.

Temperature.—During the first half of October maximum temperatures were about or above the normal, the mildest spell occurring between the 12th and 16th when the temperature approached or exceeded 65° F.; 66° F. was recorded at Ross-on-Wye on the 11th and 12th and at Aberdeen on the 14th and 67° F. at South Farnborough and Shoburyness on the 16th. The nights too were frequently mild during this period. The second half of the month was, on the whole, less mild and during the last week the nights were mostly cold, minimum temperatures in the screen about or below freezing point being recorded in several northern districts on the mornings of the 26th, 27th, 28th and 31st. Monthly mean temperatures were generally within 1° F. of the normal, being somewhat below the normal in Scotland and above the normal in most parts of England and Wales and Ireland. Ground frosts were common and were severe in many districts on the mornings of the 18th, 19th, 25th, 26th, 27th, 28th and 31st. Amongst the lowest readings recorded by the grass minimum thermometer were 12° F. at Arbroath on the morning of the 26th and 13° F. at Birr and 15° F. at Renfrew and Eskdalemuir on the morning of the 27th.

The extreme temperatures for the month were:—(England and Wales): 68° F. at Birmingham (Sparkhill) on the 12th and at London (Camden Square) on the 16th and 22° F. at Worcester (Perdiswell) on the 22nd; (Scotland) 65° F. at Logie Coldstone on the 14th and 21° F. at Braemar on the 31st; (Ireland) 68° F. at Kilkenny on the 14th and 23° F. at Markree Castle on the 27th.

Precipitation.—October, 1929, was wet and although a slight excess was recorded over the British Isles as a whole in May and August the present month is the first since November, 1928, in which there has been a substantial excess. The general precipitation for the British Isles expressed as a percentage of the normal for the period 1881–1915 was 128: the values for the constituent countries were:—England and Wales, 120; Scotland, 144; Ireland, 127. Precipitation was particularly heavy during the first eight days and in many districts the total rainfall for the first week exceeded three times the normal, the general precipitation amounting to 366 per cent. of the normal over the Midland counties, and to 341 per cent. over England, S.W., and South Wales.

Over England and Wales rainfall totals exceeded the normal, except in the north-east where there was an appreciable deficiency and in parts of the south-east where the deficiency was slight; in western districts there was a substantial excess, monthly totals exceeding one and a half times the normal in many places in the north-west and extreme south-west of England and locally in western Wales. Unusually heavy rain fell in the south-west of England on the 5th and during the night of the 5th to 6th; amongst the largest falls on the 5th were 112 mm. at Princetown, 97 mm. at Holne (Devon) and 90 mm. at Wheddon Cross (Somerset). At Ross-on-Wye the fall on the 5th, 63 mm., was the heaviest day's rain there since December 30th, 1900. Heavy falls were again recorded on the night of the 7th to 8th and on the 24th.

The rainfall over most of Scotland exceeded the normal; the areas with a deficiency of rainfall were confined chiefly to the Dee Valley and to the south-eastern counties. At Lerwick there was more than 200 per cent. of the normal and at Logie Coldstone and Wolfelee under 80 per cent. A prominent feature was the number of days with heavy local falls. Over 25 mm. rain fell on three different days at Ardtornish, Glenorchy Manse, Kinlochmoidart, Mallaig Manse, Loch Carron, Loch More and Bendamph; on four at Forest Lodge, Ardgour, Glenhurich Forest, Port McDonnell, Achnacarry and Dalnaspidal; on six at Forsinard; on seven at Glendessary and Ratagan and on eight at Glenquoich. Over 50 mm. of rain fell at Loch More, Bendamph, Ardgour, Glenhurich Forest, Forsinard, Glendessary and Ratagan on one of these days; at Achnacarry on two and at Glenquoich on four, the largest individual fall reported being 76 mm. from Glenquoich on the 13th.

In Ireland rainfall totals exceeded the normal except in the east and south-east where there was a moderate deficiency. The rainfall was generally heavier in the north than in the south of the country and at Armagh the month's total slightly exceeded twice the normal.

Hail was of frequent occurrence during the month, most districts, particularly northern districts, reporting the phenomenon; hail occurred on 12 days at West Kirby and eight days at Malin Head. Sleet or snow occurred on one or two days at a few places in Scotland and the north of England. Thunder occurred in many districts on several days; at Cargen there were five days with thunder.

Sunshine.—Although the month was on the whole wet and windy there were considerable bright periods, monthly aggregates exceeding the normal except in the north of Scotland and Channel Islands where there was a deficiency. Representative totals for District, expressed as a percentage of the normal for the period 1881–1915, ranged from 124 per cent. in England N.E. to 85 per cent. in Scotland N. Much sunshine was recorded in northern districts during the first 11 days of the month and in the central and south-eastern district of England during the second half of the month. In all districts considerable bright periods were experienced, during the last week of the month.

Good records were obtained in northern districts during the first week and in several districts on the 7th, 9th, 21st, 26th and 27th. Amongst the largest daily amounts recorded were 9 hr. at Cranwell on the 7th, 9·6 hr. at Lympne and 9·5 hr. at Leafeld and Calshot on the 21st and 9·5 hr. at Calshot and 9·3 hr. at Ross-on-Wye on the 27th.

Fog.—Fog occurred locally on the 4th, 5th, 14th, 15th, 19th, about the 22nd and during the last five days of the month.

Miscellaneous Phenomena.—Aurora was observed in Scotland over a wide area on the 7th and 8th when it was visible as far south as Dumfriesshire; it was observed less extensively in Scotland on the 9th, 17th, 23rd to 25th, 27th, 30th and 31st. At Oxford a solar halo was observed on the 6th, 7th, 8th, 10th and 25th with a parhelion on the 6th and 25th. A lunar pillar was observed at Stonyhurst on the 9th.

TABLE I.—DISTRICT VALUES—OCTOBER, 1929.

[1908, revised 1928.]

DISTRICTS.	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High-est.	Low-est.	Daily Mean. Deviation from Normal.	At 1 ft. Deviation from Normal.	At 4 ft. Deviation from Normal.	Per-cent- age of Normal.	No. of Days. Deviation from Normal.	Per-cent- age of Normal.	Per-cent- age of Possible Duration.
o. SCOTLAND, N.	°F. 62	°F. 26	°F. -0.7	°F. —	°F. —	% 173	+6	% 85	% 21
Eastern.									
1. SCOTLAND, E.	65	21	-0.4	—	—	110	0	111	32
2. ENGLAND, N.E.	67	26	+0.5	-0.5	+0.1	70	-4	124	35
3. ENGLAND, E...	67	26	+0.8	-0.8	+0.6	117	-3	115	36
4. MIDLAND COUNTIES	68	22	+0.9	-0.8	+0.1	117	-3	123	34
5. ENGLAND, S.E.	68	24	+0.2	+0.2	+1.6	117	-1	108	34

DISTRICTS.	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High-est.	Low-est.	Daily Mean. Deviation from Normal.	At 1 ft. Deviation from Normal.	At 4 ft. Deviation from Normal.	Per-cent- age of Normal.	No. of Days. Deviation from Normal.	Per-cent- age of Normal.	Per-cent- age of Possible Duration.
Western.	°F. 62	°F. 22	°F. -0.6	°F. —	°F. -0.1	% 151	+6	% 113	% 31
6. SCOTLAND, W. (& I. of Man)	62	22	-0.6	—	-0.1	151	+6	113	31
7. ENGLAND, N.W. (& N. Wales)	65	24	+0.5	-0.6	+0.2	138	+7	113	32
8. ENGLAND, S.W. (& S. Wales)	66	24	+0.6	-0.2	+0.3	137	+1	104	32
9. IRELAND, N...	64	23	+0.4	-0.8	-0.3	156	+6	111	31
10. IRELAND, S...	68	27	+0.4	-1.0	-0.3	106	+2	109	33
11. CHANNEL I. (& Scilly)	66	38	+0.1	-0.5	+0.6	141	-2	91	34
Mean : DISTRICTS 1-10	68	21	+0.3	-0.6	+0.2	122	+1	113	33

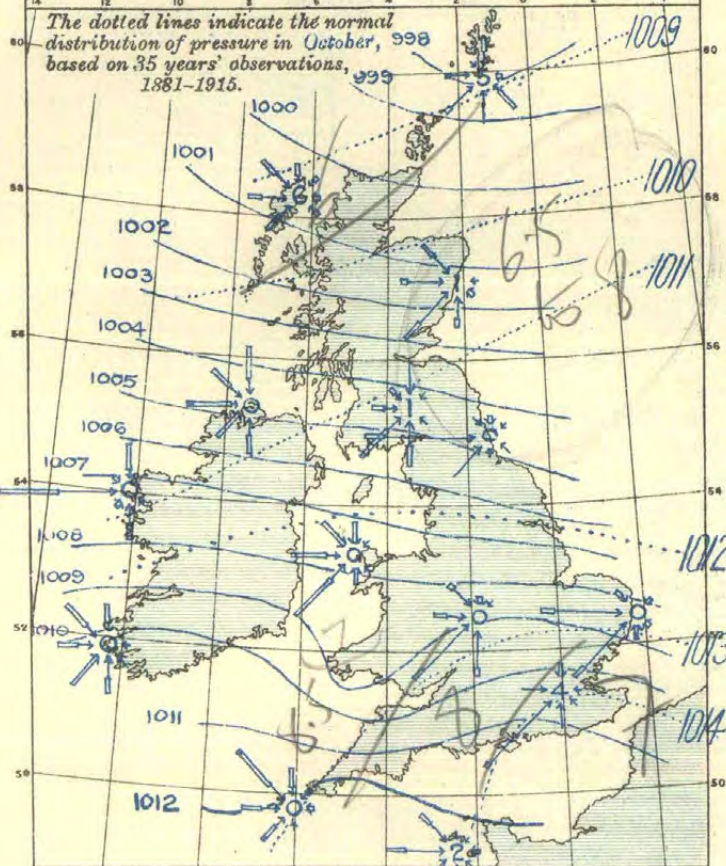
TABLE II.—SUMMARY OF AUTOGRAPHIC RECORDS OF WIND.—OCTOBER, 1929.

[1914.]

DISTRICT AND STATION.				Height.			Distribution of Wind.††								Extreme Velocities.							
				Above Mean Sea Level.	Above Ground.	Above Building.	More than 38 mi/hr.		25 to 38 mi/hr.		13 to 24 mi/hr.	4 to 12 mi/hr.	Less than 4 mi/hr.	No Record.	Highest Hourly Wind.			Highest Gust.				
							Dates of Occurrence.	Duration.	No. of Days.	Duration.	Duration.	Duration.	Duration.	Duration.	Veer from N.	Speed.	Mid Time.	Speed.	Time.			
o. SCOTLAND, N.				ft.	ft.	ft.		hr.		hr.	hr.	hr.	hr.	°	mi/hr.	m/s.	day. hr.	mi/hr.	m/s.	d. h. m.		
Shetlands Lerwick				310	42	33†	2, 4, 7, 10, 14, 23	43	23	178	286	173	55	9	260	51	23	10 24	78	35	10 21 15	
Orkneys Deerness (Cup Anr.)				188	16	5	4, 10, 11	7	14	91	339	220	62	25	270	41	18	11 2	—	—	— — —	
1. SCOTLAND, E.																						
Aberdeen Aberdeen				70	42	33†	—	0	3	8	216	468	52	0	290	31	14	11 14	52	23	11 13 50	
Kincardine Balmakewan ..				140	25	18	—	0	—	0	122	(389)	(233)	0	250	24	11	3 14	51	23	3 14 30	
Edinburgh Edinburgh ..				485	39	31†	—	0	13	63	290	277	58	56	220	36	16	3 13	59	26	3 13 20	
6a. SCOTLAND, W.																						
Argyll Tiree				75	50	42†	2, 3, 6, 7, 10, 20, 23	44	7	193	382	114	11	0	290	46	21	2 6	72	32	2 05 10	
Renfrew Paisley				188	81	15	—	0	2	3	193	416	132	0	190	27	12	10 16	56	25	16 21 15	
Dumfries Eskdalemuir ..				825	50	22	—	0	11	93	250	295	106	0	230 220	38	17	10 18 23 13	62	28	6 22 20	
2. ENGLAND, N.E.																						
Durham South Shields ..				62	46	20	—	0	5	22	190	372	160	0	350	30	13	30 4	57	25	2 12 35	
York, E.R. Spurn Head ..				67	41	35†	5, 6	8	19	137	363	214	22	0	180	45	20	6 2	56	25	6 00 31	
Lincoln Cranwell				284	43	31†	—	0	4	21	280	401	42	0	150	32	14	6 3	51	23	6 02 46	
3. ENGLAND, E.																						
Norfolk Gorleston				52	42	33†	6, 24	3	10	65	197	418	51	10	160	40	18	6 6	61	27	24 19 10	
Suffolk Felixstowe Aero. ..				55	40	25	—	0	10	70	275	259	140	0	180	37	17	24 18	48	21	6 09 20	
Essex Shoeburyness ..				115	104	14†	24	4	9	69	295	352	24	0	190	42	19	24 15	55	25	24 15 05	
4. MIDLAND COUNTIES.																						
Warwick Birmingham ..				643	118	18	—	0	1	2	229	487	26	0	200	26	12	24 10	48	21	5 23 50	
5. ENGLAND, S.E.																						
Surrey Richmond (Kew Obs)				82	65	22	—	0	—	0	147	375	222	0	200	24	11	24 13	43	19	6 17 25	
Surrey Croydon				313	105	49	—	0	7	38	301	314	91	0	250	32	14	6 18	55	25	6 17 05	
Kent Dover				61	32	22	24	1	8	76	288	317	52	10	—	39	17	24 18	60	27	24 19 45	
Kent Lympne				409	70	55†	—	0	3	17	137	323	83	184	200	31	14	24 12	48	21	24 18 05	
Hampshire Calshot				58	50	32†	5, 6	3	12	61	267	333	70	10	180	44	20	6 1	74	33	23 16 10	
Hampshire Worthy Down ..				314	43	27	—	0	3	17	170	387	170	0	170	32	14	6 1	56	25	24 14 20	
7a. ENGLAND, N.W.																						
Lancashire Fleetwood ..				112	50	12	6, 7	6	12	88	340	224	86	0	290	42	19	6 21	55	25	6 21 20	
Lancashire Southport ..				77	59	45†	6, 7, 29	11	17	154	317	217	45	0	290	47	21	6 20	66	29	6 19 40	
Lancashire Liverpool (Bidston)				253	64	35	6	5	15	126	349	254	10	0	290	44	20	6 20	73	33	6 19 57	
7b. NORTH WALES.																						
Anglesey Holyhead				64	45	29†	6	5	20	187	417	125	10	0	320	48	21	6 17	64	29	6 16 59	
Flint Sealand				81	65	49†	—	0	3	10	207	410	117	0	290	38	17	6 19	59	26	6 18 30	
8b. ENGLAND, S.W.																						
Devon Plymouth				185	88	2	5, 7, 24	11	7	37	223	333	140	0	—	49	22	5 19	68	30	5 16 30	
Devon Pendennis Castle..				256	65	32	5, 7, 24	10	15	106	310	257	61	0	280 220	49	22	7 22 24 08	77	34	5 19 20	
9. IRELAND, N.																						
Donegal Dunfanaghy Road				180	47	39	3, 10, 16, 23	8	11	102	336	217	81	0	—	47	21	10 14	69	31	10 14 50	
Antrim Aldergrove				282	40	27†	—	0	4	6	241	443	54	0	210	29	13	14 7	52	23	3 16 35	
10. IRELAND, S.																						
Dublin Kingstown (Cup Anr.)				49	27	16	—	0	16	143	339	239	23	0	240	38	17	2 9	—	—	— — —	
Clare Quilty				100	40	32†	20	2	17	170	400	157	15	0	—	40	18	20 17	57	25	20 16 40	
Kerry Cahirciveen (Val. O.)				98	41	34†	—	0	11	72	450	201	21	0	15	37	17	21 3	55	25	20 17 45	
Cork Weaver Pt.				160	30	21†	—	0	7	52	228	407	13	44	—	35	16	6 13	57	25	20 20 20	
11. SCILLY ISLES.																						
St. Mary's.. ..				230	65	17†	6, 8, 20, 21, 24, 29	17	23	241	317	150	19	0	20	48	21	21 1	77	34	24 07 30	

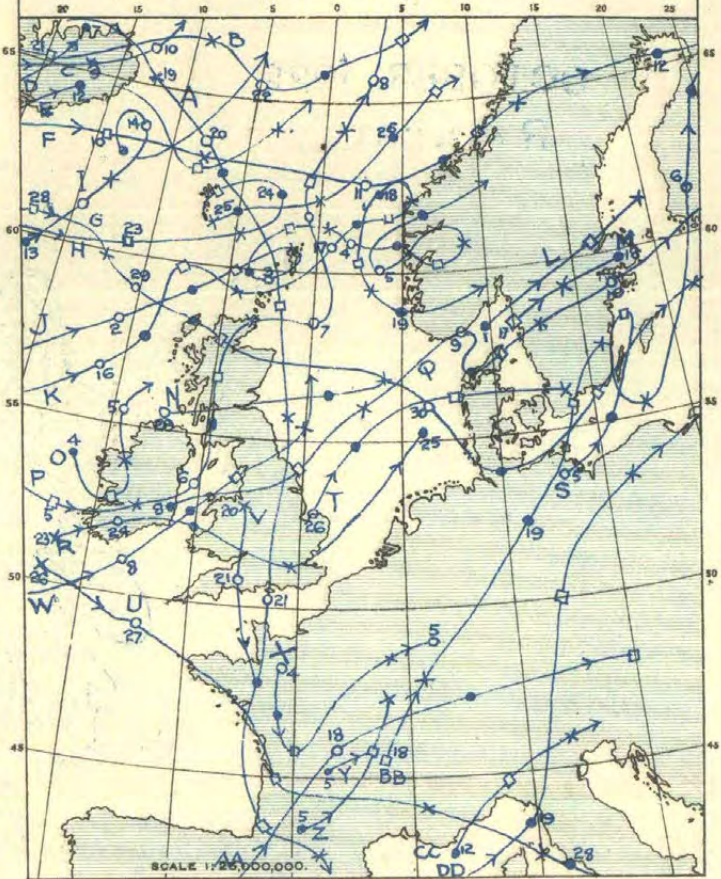
†† Brackets () indicate that the distribution as between winds above and below 4 m.p.h. is doubtful, but the total number of hours with winds below 12 m.p.h. is reliable.
† Standard mounting.

1. WIND AND MEAN PRESSURE. 7 A.M. *



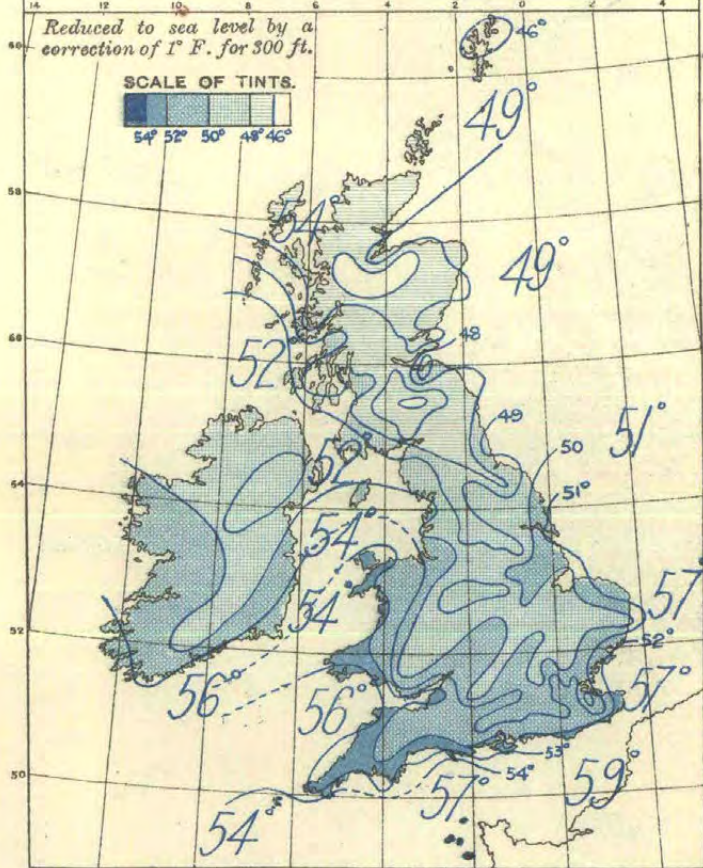
WIND ROSES. The arrows fly with the wind and indicate frequency and force, thus: LIGHT TO STRONG GALE 30 Obs. = 1 inch

2. MOVEMENTS OF DEPRESSIONS.



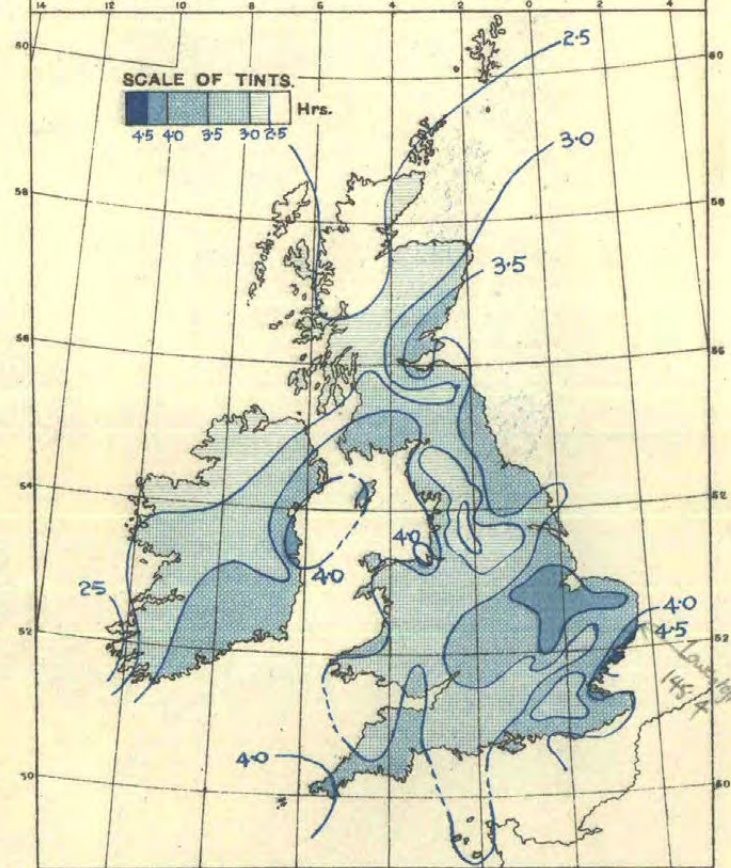
Positions of centres are shown thus: ○ at 1h; ● at 7h; □ at 13h; X at 18h.

3. DISTRIBUTION OF MEAN TEMPERATURE.

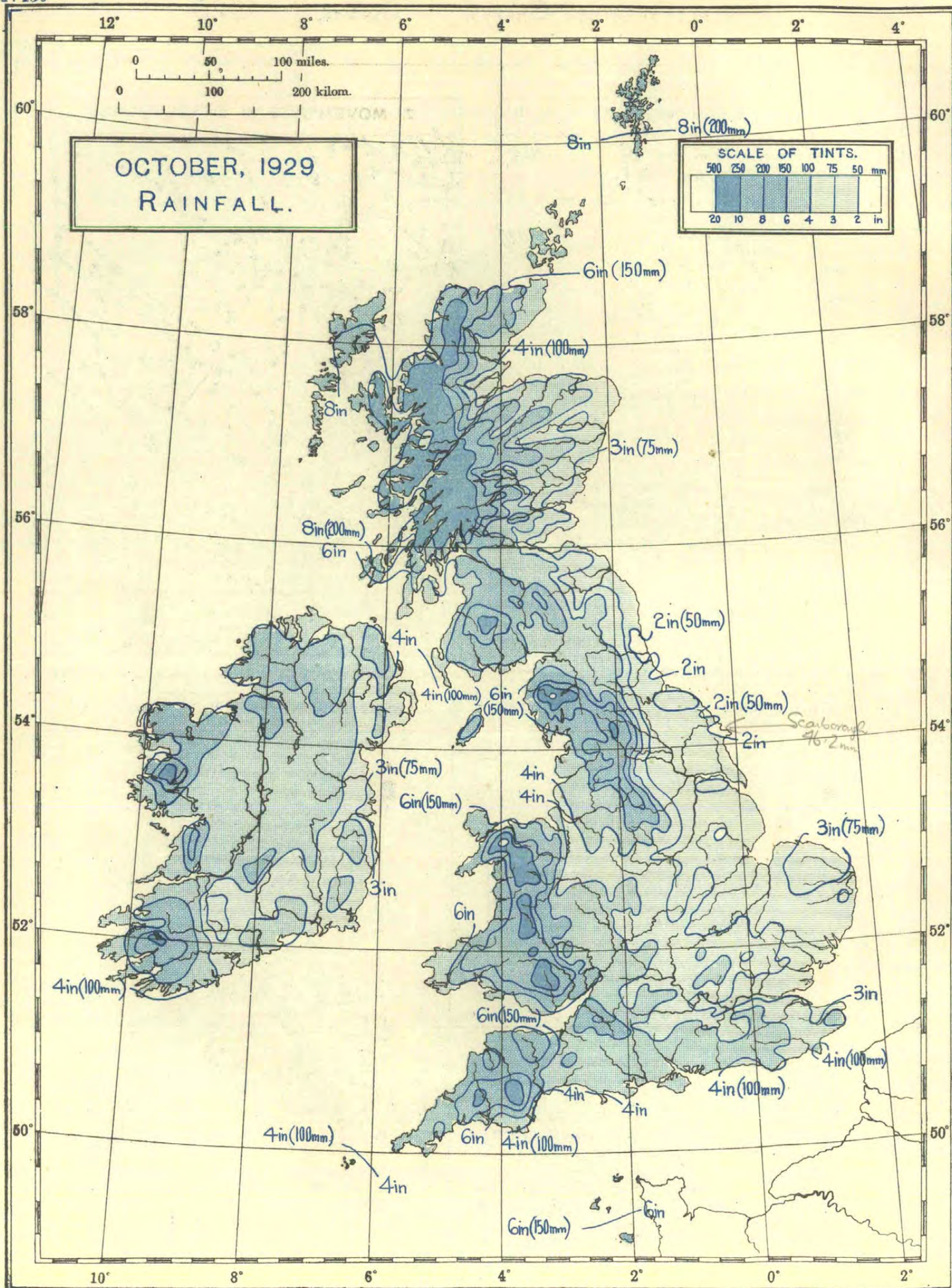


Sea temperatures are shown in large figures, thus: 54°

4. BRIGHT SUNSHINE, HOURS PER DAY.



* The pressure is expressed in millibars.



Scale 1 : 5,000,000.

Pd. 1543/2201. Wb. 91A. D. 16. 1100. 11/29.

The equivalent values in mm. are given in round numbers. The exact relation is 10 in. = 254 mm.

TABLE III.—SUMMARY OF the RECORDS of TEMPERATURE, RAINFALL AND SUNSHINE, and of WEATHER OBSERVATIONS, OCTOBER, 1929.

DISTRICT, COUNTY AND PLACE.	Terminal Hours of Observation.	Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.				
			Means of				Deviation from Normal.	Absolute Maximum and Minimum.			1 ft.	4 ft.	Total Fall.	Deviation from Normal.	Most in a day.		Precip'n.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.						
			A	B	Max.	Min.		Max.	Date.	Minimum.					Date.	Amount.									Date.	0.2 mm. or more.	1 mm. or more.	Daily Mean.	Deviation from Normal.	Per Cent.	
0. SCOTLAND, N.																															
Shetlands.	Baltasound	9 9 9	31	49.6	40.7	45.1	—	54	2, 6, 13	30	26th	46.3	—	7.37	187	—	27	4th	31	24	0	0	3	1	1	—	5	2.05	—	20	
	Lerwick	18-7 7	54	49.0	42.9	45.9	-0.3	53	2, 6, 10, 14	35	28th	—	—	8.70	221	+121	27	4th	28	27	0	0	4	0	0	—	7	2.02	-0.48	20	
Orkneys.	Deerness	2121 9	100	50.9	41.4	46.1	-0.8	57	2, 11	36	25, 26, 28	—	—	6.13	156	+ 60	25	5th	27	25	1	0	1	0	0	—	3	2.54	+0.09	25	
	Kirkwall	9 9 9	151	49.5	42.0	45.7	—	56	12, 13	33	26th	—	—	7.16	182	—	20	5th	28	24	0	0	2	0	0	2	5	2.65	—	26	
Hebrides.	Skallary	9 9 9	20	52.0	45.2	48.6	—	57	12th	37	25th	—	—	6.46	164	—	16	22nd	26	23	0	0	2	0	0	—	0	—	—	—	
	Stornoway	18-7 7	30	50.2	41.9	46.1	-0.6	57	12, 13, 14	31	31st	—	—	7.61	193	+ 61	35	6th	30	26	0	0	0	0	0	—	6	2.52	-0.25	24	
Caithness.	Wick	18-7 7	81	50.3	41.6	45.9	-0.6	62	12th	29	26th	—	—	4.41	112	+ 37	23	6th	29	23	0	0	0	0	0	—	3	—	—	—	
	Achnashellach	9 9 9	225	49.6	40.2	44.9	-0.8	56	13th	28	27, 31	—	—	16.03	407	+196	55	13th	30	30	0	0	0	0	0	10	1	—	—	—	
Ross & Cromarty.	Fortrose	9 9 9	69	51.9	41.5	46.7	—	60	12th	33	31st	—	—	3.09	79	—	10	6th	19	16	0	0	0	0	0	—	0	2.68	—	26	
	Strathpeffer	9 9 9	125	51.5	39.7	45.6	-0.6	61	12th	27	31st	—	—	3.61	92	+ 27	13	5th	26	19	0	0	0	0	—	—	—	—	—	—	
Inverness.	Ft. Augustus	9 9 9	68	51.3	40.1	45.7	-1.0	57	12th	26	31st	—	—	7.30	185	+ 85	31	2nd	29	22	2	2	2	1	—	1	1.63	-0.50	16		
	Inverness	9 9 9	242	51.1	41.8	46.5	-0.9	58	12th	31	31st	—	—	3.56	90	+ 30	15	2nd	21	15	0	0	0	0	0	3	1	2.28	-0.84	22	
	Onich	9 9 9	48	52.0	42.3	47.1	—	57	12, 15	28	27th	—	—	12.06	306	—	39	23rd	30	24	1	0	2	1	0	7	4	2.15	—	21	
1. SCOTLAND, E.																															
Nairn.	Nairn	18-7 7	82	50.1	41.0	45.5	-0.6	60	12th	29	31st	—	—	3.41	87	+ 27	17	6th	22	16	0	0	0	0	0	—	1	2.76	-0.40	27	
	Gordon Castle	2121 9	104	51.8	40.5	46.1	-1.0	62	12th	30	5, 26	—	—	3.49	89	+ 9	21	6th	25	16	0	0	0	0	—	0	2.62	—	25		
Banff.	Banff	9 9 9	130	51.2	42.0	46.6	—	61	12, 13	31	26th	—	—	3.66	93	—	25	6th	20	16	1	0	2	0	0	4	1	2.64	—	26	
	Aberdeen.	2424 24	37	51.9	41.3	46.6	-0.5	64	14th	30	26th	—	50.8	3.20	81	+ 5	39	6th	15	10	1	0	1	1	0	5	0	3.57	+0.51	35	
	Balmoral	9 9 9	927	48.9	36.4	42.7	—	59	14th	23	31st	—	—	3.15	80	- 11	22	5th	23	13	0	0	0	0	—	11	2	—	—	—	
	Braemar	2121 9	1120	48.8	36.8	42.8	-0.7	58	12th	21	31st	—	—	3.72	95	- 1	18	5th	20	17	3	0	0	0	0	9	0	—	—	—	
Kincardine.	Craibstone	9 9 9	300	51.3	40.1	45.7	—	63	14th	28	26th	46.9	49.7	3.60	91	—	35	5th	16	10	0	0	0	1	—	5	0	3.76	—	36	
	Logie Coldstone	9 9 9	608	51.4	37.8	44.6	—	65	14th	26	31st	—	—	2.34	59	- 23	20	5th	21	12	0	0	0	0	1	13	0	—	—	—	
Angus	Stonehaven	9 9 9	93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Arbroath	2121 9	93	53.2	40.5	46.9	—	64	14th	27	26th	—	—	2.32	59	- 11	11	1, 4	12	9	0	0	0	1	1	16	0	3.91	—	38	
(Forfar)	Carnoustie	9 9 9	39	52.9	39.6	46.3	—	62	14th	29	27th	—	—	2.47	63	- 12	4, 5	16	11	0	0	0	0	—	—	0	3.85	—	37		
	Dundee (E. Nec.)	2121 9	198	51.9	40.7	46.3	-0.4	62	14th	30	27th	—	—	2.86	73	+ 5	17	1st	16	11	0	0	0	0	—	2	—	—	—	—	
	Mayfield	9 9 9	147	52.9	41.9	47.4	-0.2	64	12, 14	32	27th	48.6	—	2.79	71	+ 5	17	1st	14	11	0	0	0	1	—	9	3.80	+0.90	37		
	Kettins	9 9 9	218	52.3	38.4	45.3	—	63	14th	25	31st	47.4	—	3.73	95	- 27	1st	15	12	0	0	0	0	0	12	0	—	—	—	—	
Perth.	Montrose	9 9 9	16	52.9	40.8	46.9	—	64	14th	24	26th	—	—	2.61	66	- 15	1st	11	10	0	0	0	0	0	—	0	3.75	—	36		
	Crieff	2121 9	478	52.0	39.0	45.5	-1.4	60	12th	28	31st	—	—	5.37	136	+ 36	34	1st	21	15	2	0	2	1	—	0	—	—	—	—	
Fife.	Perth	9 9 9	76	53.6	40.2	46.9	+0.5	64	14th	24	31st	—	—	3.61	92	+ 17	20	1st	19	16	0	0	0	1	—	2	3.67	—	35		
	Cupar	9 9 9	210	52.2	39.9	46.1	—	62	14th	28	27th	—	—	2.64	67	- 24	1st	17	13	0	0	1	1	—	—	1	—	—	—	—	
	Inchkeith	18-7 7	190	52.4	44.8	48.6	—	59	14th	35	27th	—	—	1.83	47	- 11	1st	17	12	0	0	0	3	0	0	3	3.73	—	36		
	Kirkcaldy	9 9 9	66	53.5	41.9	47.7	—	61	12, 14	31	27th	—	—	2.88	73	- 18	1st	18	13	—	—	—	—	—	—	—	—	—	—	—	
Linlithgow.	Leuchars	18-7 7	30	52.8	40.4	46.6	—	63	14th	27	25th	—	—	2.15	55	- 15	1st	16	11	0	0	0	1	0	11	1	3.78	—	36		
	St. Andrews	9 9 9	20	52.6	41.7	47.1	—	63	14th	31	25, 28	47.2	50.2	2.49	63	- 19	1st	17	16	0	0	1	0	0	5	1	—	—	—	—	
Edinburgh.	Bangor	2121 9	587	50.8	38.7	44.7	—	57	12, 14	27	27, 31	—	—	3.50	89	- 17	1st	24	20	1	0	1	1	2	—	7	—	—	—	—	
	Blackford Hill	2121 9	441	52.1	42.0	47.1	-0.3	61	14th	32	27th	—	—	3.04	77	+ 11	19	1st	20	15	0	0	0	0	—	2	1	3.96	+0.79	38	
	Boghall	9 9 9	645	51.0	40.9	45.9	—	58	12, 13, 14	32	26, 27, 28, 31	46.7	49.7	3.18	81	- 21	1st	19	15	0	0	3	2	1	5	1	4.02	—	39		
	Edin. Univ.	9 9 9	227	53.8	44.0	48.9	—	61	13, 14	33	27th	48.8	52.0	2.56	65	- 4	17	1st	19	13	—	—	—	—	—	—	—	—	—	—	—
	Liberton	9 9 9	190	54.0	—	—	—	62	13, 14	—	—	—	—	2.87	73	- 17	1st	20	16	1	0	1	0	—	—	0	—	—	—	—	—
Haddington.	N. Berwick	9 9 9	152	53.6	41.5	47.5	—	62	14th	32	27th	—	—	2.19	56	- 9	1st	16	15	0	0	1	0	0	5	4	3.19	—	31		
	Smeaton	9 9 9	100	54.4	39.1	46.7	—	61	12, 13, 14	28	27th	49.5	—	2.34	59	- 11	7	5th	22	15	0	0	1	0	—	7	0	—	—	—	—
Berwick.																															

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, OCTOBER, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level.		AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.								
						Means of A and B.				Absolute Maximum and Minimum.						Total Fall.		Deviation from Normal.		Most in a day.		Precip'n.		Snow lying.		Hail.		Thunderstorm.		Fog (Morning Obs.)		Ground Frost.		Gale.		Hours per day.		
Max.	Min.	Rain.	Max.	Min.	Mean of A and B.	Deviation from Normal.	Maximum.	Date.	Minimum.	Date.	1 ft.	4 ft.	in.	mm.	mm.	mm.	0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.										
2. ENGLAND, N.E.																																						
Northumberland.	Berwick-on-T.	9 9 9	76	52.8	41.6	47.2	—	62	13th	32	26th	—	—	2.19	56	—	13	7th	15	14	0	0	0	0	4	0	3.94	—	38									
	Bellingham	9 9 9	84.8	50.7	38.6	44.7	—	61	12th	27	27th	—	—	3.73	95	—	14	24th	23	20	—	—	—	0	0	—	—	—	—									
	Cockle Park	9 9 9	325	54.0	39.7	46.9	+0.5	(61)	(12, 14)	30	26th	46.1	49.9	2.36	60	—	27	13	7th	16	13	0	0	0	0	5	1	3.93	+0.87	38								
	Tynemouth	18-7 7	67	54.8	44.6	49.7	+1.4	65	14th	34	26, 27, 28	—	—	2.34	59	—	17	10	24th	17	13	0	0	1	1	2	0	—	—	—								
Durham.	Chopwellwood	9 9 9	445	54.3	38.9	46.6	—	63	14th	27	28th	—	—	1.83	46	—	13	23rd	12	12	0	0	0	1	0	17	0	3.97	—	38								
	Durham	9 9 9	336	54.2	39.8	47.0	-0.4	61	12, 14	27	26th	—	—	1.93	49	—	31	12	23rd	15	12	0	0	0	1	6	3	3.72	+0.95	35								
	Houghall	9 9 9	160	55.2	39.3	47.3	—	63	12, 14	26	26th	—	—	2.04	52	—	—	13	23rd	12	11	0	0	0	1	0	9	0	3.78	—	36							
	Ushaw College	9 9 9	594	53.3	41.2	47.3	—	62	12, 14	31	27, 28	—	—	2.02	51	—	36	11	23rd	14	12	0	0	0	1	4	1	—	—	—								
York, N. Riding.	Castleton	9 9 9	425	56.0	38.4	47.2	—	67	12th	26	22nd	48.4	—	3.20	81	—	17	5th	14	12	1	0	0	1	0	—	1	—	—	—								
	Rounton	9 9 9	249	54.5	39.5	47.0	-0.2	64	12th	29	26, 27, 28	50.4	—	3.20	81	+	7	17	23rd	15	14	0	0	0	0	1	11	0	—	—								
	Scarborough	9 9 9	118	56.6	44.3	50.5	+1.1	65	12th	34	28th	—	53.5	1.82	46	—	33	12	24th	13	10	0	0	0	1	0	0	3.48	+0.38	33								
	West Witton	9 9 9	605	53.7	41.9	47.8	—	61	12, 14	29	26, 28	47.5	50.7	4.38	111	—	—	24	23rd	21	14	1	0	1	0	—	7	0	—	—								
York, E. Riding.	York	9 9 9	56	55.6	42.6	49.1	+0.5	64	15, 16	28	26th	51.2	53.6	2.52	64	—	4	14	5th	15	14	0	0	1	1	—	0	3.37	+0.72	32								
	Hull	9 9 9	8	56.4	43.4	49.9	+1.2	65	16th	30	26th	50.8	54.3	2.10	53	—	23	13	24th	14	11	0	0	1	2	6	7	0	3.61	—	34							
	Osgodby	9 9 9	30	56.1	40.8	48.5	—	65	14th	27	26th	—	—	2.64	67	—	—	18	5th	16	12	0	0	0	1	3	7	0	3.49	—	33							
	Spurn Head	18-7 7	29	55.5	46.5	51.0	+0.7	63	16th	37	28th	—	—	2.41	61	—	13	15	24th	14	11	0	0	1	1	0	2	3.80	—	36								
Lincoln.	Cranwell	9 9 9	236	56.1	42.6	49.3	+0.7	65	15th	31	26, 28	49.8	53.8	1.95	49	—	24	12	24th	13	8	0	0	1	0	2	3	0	4.00	+0.68	37							
	Cleethorpes	9 9 9	23	56.9	43.1	50.0	—	65	15th	32	28th	—	—	2.79	71	—	—	17	24th	15	13	1	0	1	2	1	—	0	3.68	—	35							
	Skegness	9 9 9	12	56.5	42.9	49.7	+0.6	64	12, 16	31	19, 28	—	—	2.29	58	—	12	12	20th	13	11	0	0	0	1	0	—	0	3.89	+0.31	37							
3. ENGLAND, E.																																						
Norfolk.	Cromer	9 9 9	150	56.9	45.4	51.1	+0.8	66	15, 16	35	28th	—	—	3.26	83	+	13	19	24th	15	12	0	0	1	1	0	0	0	4.09	+0.67	39							
	Hunstanton	9 9 9	105	56.2	45.2	50.7	—	63	15, 16	33	28th	—	—	2.22	57	—	—	12	24th	13	10	0	0	0	1	0	—	1	3.82	—	36							
	Norwich	9 9 9	98	58.2	43.3	50.7	+1.2	66	15th	32	28th	49.5	—	3.19	81	+	2	14	20th	14	12	0	0	0	1	—	5	2	3.94	—	37							
	Sproston	9 9 9	93	57.0	43.2	50.1	—	65	16th	31	20th	—	—	2.91	74	—	—	11	20th	13	12	0	0	0	1	3	8	0	4.10	—	39							
Suffolk.	Yarmouth	9 9 9	14	57.6	45.6	51.6	+1.3	65	14, 15, 16	33	27th	53.0	56.6	2.93	74	0	—	11	24th	14	11	0	0	0	0	1	0	2	3.92	+0.41	37							
	Bungay (Flix'n)	9 9 9	79	57.1	43.0	50.1	—	65	16th	32	27, 28	—	—	2.73	69	—	—	12	30th	13	10	0	0	0	1	1	—	0	—	—	—							
	Copdock	9 9 9	164	57.3	43.1	50.2	—	65	16th	31	28th	51.6	55.0	2.84	72	—	—	17	24th	12	10	0	0	0	1	1	5	0	3.89	—	37							
	Felixstowe	18-7 7	15	57.1	46.9	52.0	—	64	16th	36	28th	—	—	2.27	58	—	—	12	20th	12	9	0	0	0	0	1	1	0	4.63	—	44							
Cambridge.	Lowestoft	9 9 9	83	57.6	44.0	50.8	+0.1	66	15, 16	32	27, 28	51.1	56.2	2.54	65	—	6	13	24th	13	11	0	0	0	0	1	—	3	4.69	+1.04	44							
	Cambridge (Bot. Gdns.)	9 9 9	41	58.1	40.3	49.2	-0.2	66	11, 16	28	27, 28	52.0	56.1	2.83	72	+	12	16	20th	12	10	0	0	1	1	0	7	0	3.29	-0.06	31							
	Wisbech	9 9 9	10	57.5	41.2	49.3	—	66	16th	30	28th	—	—	2.93	74	—	—	19	20th	13	10	0	0	0	0	2	5	1	3.72	—	35							
	Cardington	18-7 7	100	57.6	42.5	50.1	—	66	11th	28	26th	—	—	2.70	69	—	—	15	24th	12	9	0	0	0	1	2	5	0	4.17	—	39							
Bedford.	Luton	9 9 9	390	56.9	41.1	49.0	—	64	11, 12, 16	28	26th	50.5	56.2	3.86	98	—	—	22	20th	14	10	0	0	0	1	2	8	0	3.43	—	32							
	Woburn	9 9 9	291	56.3	42.4	49.3	+0.9	64	16th	26	26th	50.9	54.5	3.19	81	+	13	20	20th	15	10	0	0	0	1	0	7	1	3.65	—	34							
	Rothamsted	9 9 9	420	55.4	42.3	48.9	+0.3	63	11th	32	26, 27	50.4	—	4.09	104	+	26	21	24th	16	10	0	0	0	1	0	5	0	3.87	+0.61	37							
	St. Albans	9 9 9	272	57.3	40.8	49.1	—	65	16th	26	27th	52.5	—	3.39	86	—	—	20	24th	14	10	—	—	—	—	0	6	—	—	—	—							
Essex.	Clacton-on-S.	9 9 9	55	57.1	46.7	51.9	+1.2	64	2, 11	33	28th	53.3	56.9	2.41	61	+	10	15	24th	14	12	0	0	0	0	0	2	2	4.45	+0.84	42							
	Chelmsford	9 9 9	134	57.6	41.7	49.7	—	66	16th	30	20, 28	—	—	3.47	88	+	25	25	24th	15	12	0	0	0	1	—	0	—	—	—	—							
	Chelmsford (Good Easter)	9 9 9	185	57.8	41.3	49.5	—	65	16th	29	20th	—	—	2.91	74	—	—	15	24th	13	11	0	0	1	1	—	9	0	3.85	—	36							
	Earls Colne	9 9 9	168	57.8	43.1	50.5	—	66	16th	30	20th	—	—	2.50	63	—	—	17	24th	12	10	0	0	0	2	—	0	—	—	—	—							
4. MIDLAND COUNTIES.	Halstead	9 9 9	139	58.5	41.6	50.1	—	67	16th	30	20, 27, 28	—	—	3.19	81	—	—	22	24th	12	9	0	0	1	2	0	—	0	—	—	—							
	Shoeburyness	18-7 7	11	58.5	44.8	51.7	+0.3	67	16th	31	27th	—	—	1.99	51	—	6	16	24th	13	11	0	0	0	1	1	5	1	4.23	—	40							
	Wakefield	9 9 9	124	56.6	42.5	49.5	—	66	14th	27	26th	49.3	52.3	2.25	57	—	16	15	5th	15	12	0	0	0	0	—	11	—	2.84	+0.77	33							
	Wakefield	9 9 9	124	56.6	42.5	49.5	—	66	14th	27	26th																											
Derby.	Belper (School)	9 9 9	222	55.6	41.2	48.4	—	63	16th	25	27th																											

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, OCTOBER, 1929.

DISTRICT, COUNTY AND PLACE.	Terminal Hours of Observation.	Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
			Means of		Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.			Deviation from Normal.	Most in a day.		Precip'n.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
			A	B		Maximum.	Date.	Minimum.	Date.		Amount.	Date.		0.2 mm. or more.	1 mm. or more.								Daily Mean.	Deviation from Normal.	Per Cent.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
			Max.	Min.	Max.	Min.	Mean of A and B.	Maximum.	Date.	Minimum.	Date.	1 ft.	4 ft.	mm.	mm.	mm.	mm.	in.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, OCTOBER, 1929.

DISTRICT, COUNTY AND PLACE.	Terminal Hours of Observation.	Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.				
			Means of		Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.			Deviation from Normal.	Most in a day.		Precip'n.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.	Per Cent.							
			A	B		Maximum.	Date.	Minimum.	Date.		Amount.	Date.		0.2 mm. or more.	1 mm. or more.										Daily Mean.	Deviation from Normal.					
			Max.	Min.	Max.	Min.	Mean of A and B.	Maximum.	Date.	Minimum.	Date.	1 ft.	4 ft.	in.	mm.	mm.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.	in.	mm.
5. ENGLAND, S.E.—cont.																															
Hampshire	Calshot	18-7 7	8	58.0	46.3	52.1	—	65	16th	35	27, 28	—	—	4.44	113	—	19	5th	16	15	0	0	0	1	1	1	4	3.63	—	34	
	Grayshott	9 9 9	661	55.4	42.5	48.9	—1.1	63	12, 16	33	26, 27, 28	51.4	—	4.75	121	+ 15	29	24th	14	11	0	0	0	1	0	6	2	3.63	+0.02	34	
	Long Sutton	9 9 9	479	56.6	43.1	49.9	—	66	16th	31	27th	52.4	—	4.39	111	—	33	24th	12	11	0	0	0	1	0	6	0	3.73	—	35	
	Southamp'n	2121 9	64	58.0	44.3	51.1	—0.4	66	1st	31	27th	—	—	4.99	127	+ 27	31	5th	17	14	0	0	1	1	2	4	1	3.54	+0.06	33	
	S. Farnboro'	18-7 7	237	57.9	41.8	49.9	—	67	16th	25	27th	—	—	3.39	86	—	27	24th	14	10	0	0	0	1	1	12	0	3.74	—	35	
I. of Wight.	Winchester (Worthy Down)	18-7 7	272	56.8	41.9	49.3	—	66	16th	28	27th	—	—	4.29	109	—	25	24th	14	9	0	0	0	1	1	10	0	3.49	—	33	
	Newport	9 9 9	48	58.8	42.9	50.9	—	65	2, 16	28	27th	—	—	5.09	129	—	17	28th	19	15	0	0	1	1	0	5	4	—	—	—	
	Ryde	9 9 9	13	58.4	46.0	52.2	—	65	2, 16	36	22, 26, 27	—	—	3.80	97	—	13	24th	19	13	0	0	1	0	0	—	0	3.96	—	37	
	Sandown	9 9 9	13	58.8	45.1	51.9	—	66	3rd	31	28th	—	—	4.65	118	—	15	2nd	20	16	0	0	0	0	0	—	1	3.69	—	34	
	Totland Bay	9 9 9	140	58.0	46.5	52.3	+0.5	67	1st	36	27, 28	—	—	4.72	120	+ 16	20	24th	18	17	0	0	3	0	0	4	7	3.60	—0.24	34	
Wilts.	Ventnor (Hospital)	9 9 9	59	58.5	48.4	53.5	+0.2	64	16th	39	26, 31	—	—	5.56	141	+ 41	27	2nd	20	18	0	0	1	1	—	—	2	3.76	+0.05	35	
	Larkhill	9 9 9	440	56.1	42.8	49.5	—	64	16th	31	27th	—	—	3.50	89	—	23	5th	14	10	0	0	0	1	0	6	1	—	—	—	
	Marlboro'	2121 9	424	56.3	40.6	48.5	+0.6	63	16th	24	27th	51.1	54.6	4.70	119	+ 30	25	5th	13	12	0	0	0	0	0	11	1	3.19	+0.22	30	
	Porton	9 9 9	363	56.5	41.3	48.9	—	61	12, 17	28	27th	51.4	—	3.72	94	—	25	24th	15	10	0	0	0	1	1	9	1	3.43	—	32	
7a. ENGLAND, N.W.																															
Cumberland.	Aspatria (Mealsgate)	2121 9	487	51.8	42.5	47.1	—0.5	59	14th	29	27th	50.1	52.2	6.28	159	+ 48	44	23rd	28	22	0	0	1	0	—	6	0	2.90	—0.36	28	
	Keswick	9 9 9	254	53.7	43.6	48.7	—	62	14, 15	26	27th	51.2	52.0	7.53	191	—	44	23rd	27	21	1	0	4	2	1	9	0	2.81	—	27	
	Newton Rigg	2121 9	559	53.1	40.3	46.7	0.0	61	14, 15	25	27th	—	—	4.88	124	+ 30	18	7th	27	20	0	0	0	0	0	9	0	3.34	+0.57	32	
Lancashire.	Bolton	9 9 9	341	54.3	42.4	48.3	—	61	16th	30	27th	49.9	52.8	7.20	183	—	29	5th	25	20	0	0	0	0	—	3	0	2.36	—	22	
	Burnley	9 9 9	458	53.0	41.8	47.4	—	60	14, 15, 16	26	27th	50.0	52.7	6.35	161	—	28	5th	23	19	0	0	0	0	4	15	0	2.40	—	23	
	Darwen	2121 9	724	52.5	41.7	47.1	—	59	12, 14, 16	30	27th	48.9	51.8	9.18	233	—	34	5th	24	22	0	0	5	0	0	5	0	2.66	—	25	
	Hutton	9 9 9	82	55.0	42.4	48.7	—	63	14th	25	27th	50.8	53.6	5.85	149	—	21	23rd	26	18	0	0	2	2	2	9	0	3.00	—	29	
	Lancaster	9 9 9	311	54.8	43.5	49.1	—	59	12, 14	32	27th	49.8	51.8	6.71	170	—	51	23rd	26	17	0	0	0	1	0	6	0	3.24	—	31	
	Leyland	9 9 9	124	54.1	42.3	48.2	—	62	14th	24	27th	—	—	5.64	143	—	15	23rd	25	21	0	0	1	1	3	5	0	2.82	—	27	
	Manchester (Whitworth Pk) (Oldham Road)	2121 9	125	54.9	43.5	49.2	—0.6	63	14th	26	27th	—	—	5.17	131	+ 47	17	5th	22	17	—	—	—	—	12	—	—	2.42	+0.36	23	
		2121 9	190	54.4	45.3	49.9	—0.6	61	12, 14, 15, 16	31	27th	50.1	55.0	5.30	135	+ 46	17	23rd	21	18	0	0	2	1	—	1	0	1.85	—0.31	18	
	(Swinton)	9 9 9	253	54.5	41.2	47.9	—	62	14th	24	27th	—	52.8	5.21	132	—	20	5th	19	14	2	0	2	2	3	7	1	2.60	—	25	
	Southport	9 9 9	37	54.4	45.4	49.9	+0.7	62	14th	30	27th	50.3	54.2	4.52	115	+ 25	21	23rd	26	19	0	0	4	1	0	5	3	3.52	+0.46	33	
	Stonyhurst	9 9 9	377	52.5	42.8	47.7	—0.1	60	14th	29	27th	—	—	6.74	171	+ 57	20	23rd	23	21	0	0	0	2	0	4	0	2.98	+0.27	28	
Cheshire.	Hoylake	9 9 9	30	56.1	45.3	50.7	+0.4	64	14th	30	27th	—	—	4.68	119	+ 34	14	23rd	22	21	—	—	—	—	—	—	—	4.13	+1.16	39	
	Liverpool (Bidston)	18-7 7	189	53.4	46.0	49.7	+0.2	62	14th	37	25th	—	—	3.76	96	+ 13	10	23rd	24	19	0	0	2	0	1	1	1	3	4.45	—	33
	Macclesfield	9 9 9	500	53.5	41.1	47.3	—0.3	65	14th	27	27th	—	—	4.80	122	+ 36	17	5th	21	18	0	0	2	1	1	—	0	—	—	—	
	West Kirby	9 9 9	25	56.0	45.7	50.9	—	63	14th	32	27th	—	—	4.21	107	—	13	23rd	25	20	0	0	12	3	0	3	4	4.01	—	38	
7b. NORTH WALES.																															
Flint.	Hawarden B'ge	9 9 9	22	56.5	45.4	50.9	+0.9	64	12th	31	28th	—	—	3.45	88	+ 14	12	5th	24	17	—	—	—	—	0	—	—	—	—	—	—
	Rhyl	9 9 9	30	56.5	45.3	50.9	+0.9	63	14, 16	31	31st	—	—	4.06	103	+ 21	18	23rd	24	21	0	0	2	1	0	2	1	3.83	+0.44	36	
	Sealand	18-7 7	16	56.1	44.0	50.1	+1.2	63	12, 14, 16	26	26th	50.7	53.2	3.35	85	+ 8	12	5th	22	17	0	0	2	1	1	6	1	3.48	+0.81	33	
Anglesey.	Holyhead	18-7 7	26	55.1	48.9	52.0	+1.0	61	12, 14	40	26, 31	—	—	6.16	157	+ 56	35	5th	23	15	0	0	5	1	0	1	5	3.86	+0.66	37	
Denbigh.	Colwyn Bay	9 9 9	81	56.1	46.2	51.1	—	65	14th	36	31st	—	—	4.72	120	—	17	23rd	25	22	0	0	1	1	0	—	0	3.75	—	35	
Carnarvon.	Aber (Bangor)	9 9 9	60	55.8	47.1	51.5	—	64	14th	36	27th	—	—	6.79	173	—	37	23rd	23	20	0	0	4	1	—	1	0	2.59	—	24	
	Llandudno	9 9 9	22	56.4	47.7	52.1	+1.1	63	1, 14	35	31st	—	—	4.19	106	+ 15	14	23rd	22	20	0	0	2	1	0	—	1	3.91	+0.56	37	
Montgomery.	Welshpool	9 9 9	254	56.3	41.4	48.9	—	64	12th	26	27, 31	—	—	3.54	90	—	19	5th	18	15	0	0	0	0	0	—	0	—	—	—	
8a. SOUTH WALES.																															
Cardigan.	Aberystwyth	9 9 9	59	57.2	48.2	52.7	—	62	1st	33	27th	—	—	6.49	165	—	35	23rd	21	19	0	0	1	1	0	—	2	3.33	—0.12	31	
	„ P.B.S.†	9 9 9	452	53.4	44.9	49.1	—	59	1, 12	34	27, 31	—	—	7.72	196	—	33	23rd	27	20	0	0	1	2	0	5	0	3.05	—	29	

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, OCTOBER, 1929.

DISTRICT, COUNTY AND PLACE.			Terminal Hours of Observation.		Height of Station above Mean Sea Level.		AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.				
							Means of		Deviation from Normal.		Absolute Maximum and Minimum.						Total Fall.		Deviation from Normal.		Most in a day.		Precip'n.		Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.		Per Cent.		
											Maximum. Date. Minimum. Date.																				Amount.	Date.		Daily Mean.	Deviation from Normal.
											A	B	Max.	Min.																						Mean of A and B.
			Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	1 ft.	4 ft.	in.	mm.	mm.	mm.	0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.					
8b. ENGLAND, S.W.—cont.			G.M.T.	ft.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	in.	mm.	mm.	mm.											hr.	hr.	%				
Devon.																																			
Arlington			9 9 9	613	55.0	44.2	49.6	+0.2	60	1st	33	31st	—	—	8.44	214	+ 52	54	5th	24	23	0	0	1	1	—	4	1	—	—	—				
Ashburton			9 9 9	583	—	—	—	—	—	—	—	—	—	—	8.48	215	+ 61	88	5th	17	15	—	—	—	—	—	—	—	—	—	—				
Cullompton			9 9 9	202	58.4	42.7	50.5	+0.6	65	2, 12, 13, 16	32	19, 27	52.9	—	5.92	150	+ 45	57	5th	20	15	0	0	0	0	2	10	1	3.04	+0.10	28				
Dean Prior			2121 9	331	56.9	41.8	49.3	—	66	12th	31	31st	—	—	10.00	254	—	83	5th	16	15	0	0	0	0	—	—	—	—	—	—				
Ilfracombe			9 9 9	74	57.4	50.0	53.7	+0.4	62	1st	40	26th	54.2	58.5	7.73	196	+ 84	56	5th	20	18	0	0	4	0	0	0	1	2.43	—	23				
Killerton			9 9 9	159	58.2	43.2	50.7	—	65	12th	33	19, 22	—	—	5.00	127	—	45	5th	17	14	0	0	1	0	0	0	—	—	—	—				
Newton Abbot			9 9 9	350	57.8	44.9	51.3	—	65	12th	36	19, 26, 31	—	—	6.05	154	—	61	5th	17	15	0	0	2	0	0	0	1	3.70	—	35				
Plymouth (Hoe)			2121 9	116	58.9	46.0	52.5	+0.7	65	14th	38	20, 31	54.0	57.1	5.93	151	+ 50	56	5th	17	15	0	0	0	1	1	0	3	3.50	+0.02	33				
Plymouth (Mount Batten)			18-7 7	82	57.4	47.4	52.4	—	62	2, 12, 14	39	26, 31	—	—	5.55	141	—	47	5th	17	13	0	0	1	1	0	1	6	3.41	—	32				
Princetown			9 9 9	1359	51.7	42.6	47.1	—	59	1st	35	26, 31	—	—	14.09	358	—	112	5th	24	20	0	0	1	0	5	1	0	—	—	—				
Salcombe			9 9 9	39	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Sidmouth			9 9 9	147	57.3	45.9	51.6	+0.4	65	16th	37	26th	—	—	4.72	120	+ 25	37	5th	19	18	0	0	1	0	0	2	1	—	—	—				
(Sidmouth)																																			
Sidmouth †			9 9 9	25	58.5	45.5	52.0	—	64	2nd	36	26th	—	—	4.37	111	—	36	5th	17	14	0	0	1	0	0	1	2	3.44	—	32				
Tavistock			9 9 9	458	55.9	43.2	49.5	—	62	17th	34	20, 31	55.9	—	9.76	248	—	90	5th	22	18	0	0	2	3	0	12	2	—	—	—				
Teignmouth			9 9 9	20	58.5	46.8	52.7	+0.6	66	12th	38	20th	—	—	5.56	141	+ 43	59	5th	17	15	0	0	0	0	0	0	4	3.74	—	35				
Torquay			9 9 9	12	59.4	47.7	53.5	+1.2	66	12th	38	31st	59.7	—	4.04	103	—	35	5th	15	11	0	0	0	1	1	0	3	3.93	+0.45	37				
Woolacombe			9 9 9	59	56.1	49.2	52.7	+0.0	62	1st	40	26, 27	—	—	3.74	95	—	62	5th	20	13	0	0	2	0	0	0	1	—	—	—				
Falmouth Obs.			9 9 9	167	57.8	47.3	52.5	+0.5	62	1st	36	31st	54.5	58.9	7.77	197	+ 71	65	5th	18	15	0	0	1	1	0	3	3.81	+0.07	36					
(Pendennis)			18-7 7	200	57.0	49.4	53.2	—	62	2nd	40	31st	—	—	6.64	169	—	52	5th	19	18	0	0	2	0	0	—	3	3.91	—	37				
Fowey			9 9 9	51	59.1	46.7	52.9	—	65	2nd	36	31st	—	—	7.57	192	—	75	5th	18	16	0	0	0	0	0	—	0	3.69	—	34				
Gulval			9 9 9	20	57.8	47.4	52.6	—	63	1st	37	20th	—	—	7.42	189	—	47	5th	24	17	0	0	0	2	—	0	4.18	—	39					
Newquay			9 9 9	190	56.4	47.9	52.1	+0.4	64	14th	38	20th	54.3	56.4	6.22	158	+ 57	41	5th	20	17	0	0	2	0	0	—	1	3.51	+0.20	33				
Redruth			9 9 9	397	56.2	46.2	51.2	—	63	14th	39	20, 25, 31	—	—	8.65	220	+ 87	69	5th	23	15	0	0	2	1	0	3	1	—	—	—				
9. IRELAND, N.																																			
Sligo.			2121 9	122	54.5	41.9	48.2	+0.3	64	15th	23	27th	52.1	54.2	5.67	144	+ 40	22	5th	27	23	0	0	9	0	0	—	2	2.98	+0.14	28S				
Mayo.			18-7 7	10	53.7	47.9	50.8	+0.4	61	13, 15	37	27th	—	—	6.12	155	+ 28	26	5th	28	25	0	0	3	0	0	—	0	—	—	—	—			
Mallary			9 9 9	120	54.6	45.6	50.1	—	63	15th	34	27th	—	—	3.88	99	—	44	10th	29	27	0	0	1	0	0	—	0	3.05	+0.35	29				
Donegal.			18-7 7	51	52.6	46.4	49.5	+0.1	62	15th	38	25, 31	—	—	5.18	132	+ 57	14	3rd	26	25	0	0	8	0	0	—	4	2.87	+0.21	28				
Antrim.			18-7 7	238	52.8	42.3	47.5	—	60	14th	26	27th	—	—	4.92	125	—	36	5th	24	19	0	0	2	1	0	6	0	3.68	—	35				
Belfast			9 9 9	13	55.4	43.2	49.3	—	63	12, 14	31	31st	—	—	4.63	118	—	20	5th	25	21	0	0	0	0	1	—	—	—	—	—				
Lisburn			9 9 9	206	55.2	40.8	48.0	+0.2	62	12, 14	27	27th	—	—	4.17	106	+ 25	21	5th	23	17	—	—	—	—	—	—	—	—	—	—				
Down.			18-7 7	40	54.0	44.2	49.1	+0.2	62	14th	34	25, 26	—	—	3.45	88	+ 15	17	5th	22	14	0	0	1	0	0	—	1	—	—	—				
Armagh.			2121 9	204	53.9	41.9	47.9	+0.1	62	14th	29	27, 31	50.6	53.2	5.55	141	+ 72	55	5th	24	17	0	0	0	1	0	3	0	3.74	+0.87	36				
Longford.			2121 9	161	53.9	41.4	47.7	—	62	15th	27	27th	50.4	53.2	4.76	121	—	28	5th	26	18	0	0	0	1	—	4	—	—	—	—				
10. IRELAND, S.																																			
Dublin.			9 9 9	203	54.8	43.2	49.0	+0.1	66	14th	31	27th	50.5	54.4	2.85	72	+ 1	25	7th	21	13	0	0	0	0	0	4	4	—	—	—				
Balbriggan			2121 9	54	55.3	44.9	50.1	+0.1	66	14th	32	27th	—	—	2.38	60	— 8	22	7th	22	12	0	0	0	0	0	3	1	—	—	—				
Dublin City			2121 9	55	57.0	42.1	49.5	+0.7	67	14th	28	27, 31	—	—	2.59	66	— 3	17	7th	21	13	0	0	1	0	1	7	0	—	—	—				
„ Glasnevin			2121 9	155	56.0	41.7	48.9	+0.6	67	14th	27	27, 31	—	—	2.80	71	+ 4	17	23rd	21	14	0	0	0	0	0	4	0	4.52	+1.17	43				
„ Phoenix Pk.			2121 9	12	56.0	45.2	50.6	+0.4	67	14th	33	27th	51.8	54.0	2.33	59	— 5	19	7th	21	12	0	0	0	0	—	3	0	—	—	—				
„ Trin. Coll.			2121 9	366	56.1	42.7	49.4	—	65	13th	28	27th	51.8	53.5	3.15	80	—	21	23rd	21	17	—	—	—	—	0	3	—	3.47	—	33				
Hazelhatch			9 9 9	256	55.6	44.1	49.9	—	67	14th	34	27th	—	—	2.75	70	—	33	7th	14	8	0	0	0	0	0	—	0	—	—	—				
Wicklow.			18-7 7	173	54.7	43.3	49.0	+1.1	66	14th	27	27th	51.4	54.6	4.06	103	+ 29	18	23rd	25	20	0	0	0	0	0	9	0	3.64	+0.48	34				
Newcastle			2121 9	173	54.7	43.3	49.0	+1.1	66	14th	27	27th	51.4	54.6	4.06	103	+ 29	18	23rd	25	20	0	0	0	0	0	9	0	3.64	+0.48	34				
Birr Castle			9 9 9	252	55.7	42.6	49.1	—	68	13th	28	31st	—	—	4.87	124	—	34	5th	28	19	—	—	—	—	—	—	—	—	—	—				
(King's Co.).																																			
Leix.			9 9 9	153	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
(Queen's Co.).																																			
Wexford.			9 9 9	182	56.2	41.9	49.1	+0.6	68	14th	28	31st	—	—	3.05	77	— 3	17	5th	22	12	—	—	—</											

TABLE IV.—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of OCTOBER, 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.										WIND, NUMBER OF OBSERVATIONS.															
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.										FORCE (0-12).					DIRECTION.									
											0	1 to 3	4 to 6	7 to 9	10	Fog.					Mist.	Poor Vis.	Med. Vis.	GOOD VISIBILITY.					8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.
																0	1	2	3	4				5	6	7	8	9												
0. SCOTLAND, N.																																								
Shetlands.	Lerwick	..	G.M.T.	ft.	mb.	mb.	°F.	°F.	mb.	%																														
			1	59	999.7	—	45.8	1.9	9.0	85.7	1	0	5	10	4	12	0	0	0	0	0	0	0	10	20	0	1	10	16	4	4	1	0	5	2	8	5	2		
			7	59	997.4	—11.5	45.2	1.7	8.7	86.7	6	0	3	8	11	9	0	0	0	0	0	0	2	12	17	0	1	8	17	5	4	0	1	5	5	6	4	1		
			13	59	997.9	—	47.9	2.8	9.0	79.7	6	0	0	10	11	10	0	0	0	0	0	0	2	10	15	4	1	10	20	0	4	1	2	3	7	7	4	3		
Orkneys.	Deerness	..	18	59	998.2	—	46.6	2.1	9.2	84.7	9	0	1	11	6	13	0	0	0	0	0	1	1	10	18	1	3	8	20	0	3	3	2	4	5	6	5	3		
			9	165	999.4	—	46.1	1.8	9.1	86.7	1	0	2	11	8	10	0	0	0	0	0	0	5	15	6	0	21	8	2	2	1	0	2	5	6	9	4			
			21	165	1000.4	—	45.8	1.5	9.3	88.7	1	0	5	7	11	8	0	0	0	0	0	0	1	2	28	0	18	12	1	3	2	1	2	3	9	6	4			
Hebrides.	Stornoway	..	7	41	1000.1	—9.2	44.6	1.0	9.4	92.8	0	2	5	11	13	0	0	0	0	0	2	6	22	1	0	0	13	12	6	3	2	1	2	0	5	6	6			
			13	41	1000.5	—	48.8	2.0	10.1	85.8	2	0	1	3	16	11	0	0	0	0	0	1	4	6	19	1	0	13	16	2	5	2	2	0	3	5	8	4		
			18	41	1000.8	—	46.2	1.1	9.6	91.8	2	0	2	6	17	0	0	0	0	2	1	4	12	12	0	0	14	11	6	5	1	1	0	2	4	9	3			
			21	41	1000.9	—	45.8	1.0	9.7	92	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Caithness.	Wick	..	1	97	999.9	—	45.1	1.3	9.1	89.6	9	0	3	12	6	10	0	0	0	0	0	0	1	30	0	1	9	21	0	0	1	2	0	2	7	13	6			
			7	97	999.7	—9.8	43.8	1.2	8.8	90.8	2	0	2	6	6	17	0	0	0	0	0	1	6	24	0	0	10	21	0	1	1	0	4	8	12	4				
			13	97	1000.2	—	48.9	2.8	9.4	79.7	9	0	0	9	12	10	0	0	0	0	0	0	3	28	0	1	13	17	0	2	0	0	2	4	6	10	7			
			18	97	1000.4	—	46.5	1.9	9.4	85.8	1	0	0	8	9	14	0	0	0	0	0	1	2	28	0	1	11	19	0	2	2	0	3	2	6	11	5			
Inverness.	Inverness	..	9	250	1001.4	—	45.9	2.3	8.7	82.5	8	0	7	12	9	3	0	0	0	1	0	0	3	10	17	0	13	13	5	1	1	0	1	5	14	4	0			
			17	250	1001.7	—	47.1	3.0	8.5	77.5	0	0	7	14	10	0	0	0	0	0	0	0	1	12	18	0	14	15	2	3	0	0	2	6	10	7	1			
1. SCOTLAND, E.																																								
Nairn.	Nairn	..	7	82	1000.7	—9.2	44.0	1.7	8.4	86.7	1	0	1	9	18	3	0	0	0	0	0	0	7	24	0	0	3	18	10	2	0	1	0	0	2	13	3			
			13	82	1000.6	—	49.7	3.0	9.6	79.6	5	0	0	18	13	0	0	0	0	0	0	0	5	26	0	0	5	21	5	2	1	3	0	1	5	11	3			
			18	82	1001.1	—	46.3	2.4	8.6	81.6	8	0	0	13	18	0	0	0	0	0	0	0	5	26	0	0	2	25	4	2	0	2	0	1	2	15	5			
Aberdeen.	Aberdeen	H	7	85	1001.5	—9.3	45.0	2.2	8.3	83.6	6	0	7	5	12	7	0	0	0	1	1	7	3	19	0	0	11	17	3	0	0	1	1	3	8	11	4			
			13	85	1001.9	—9.1	50.5	4.5	8.6	69.6	5	0	7	8	10	6	0	0	0	0	1	3	4	23	0	0	15	16	0	2	0	0	0	5	11	4	9			
			18	85	1002.5	—8.7	47.4	3.1	8.5	77.5	7	0	12	3	10	6	0	0	0	0	3	9	8	11	0	0	7	22	2	1	0	0	1	3	11	7	6			
			21	85	1002.8	—8.5	46.0	2.5	8.5	81.5	1	6	8	3	5	9	0	0	0	0	1	12	12	6	0	0	6	21	4	1	1	0	1	5	8	8	3			
			h.*	85	1001.9	—9.1	46.9	3.0	8.6	78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Aberdeen.	Braemar	..	9	1114	1002.6	—	43.9	2.7	7.6	78	—	—	—	—	—	—	—	—	—	5	12	10	3	1	0	0	7	24	0	1	2	0	0	4	12	7	5			
Perth.	Crieff	..	9	1114	961.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
			9	482	1002.8	—	46.3	2.8	8.3	78.6	6	3	6	4	5	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
Fife.	Inchkeith	..	9	482	1003.4	—	44.3	2.2	8.0	82.6	7	3	4	6	3	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
			21	482	1003.4	—	44.3	2.2	8.0	82.6	7	3	4	6	3	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
			1	184	1003.0	—	47.4	1.9	9.4	85.6	4	1	9	4	4	13	0	0	0	0	0	0	2	1	28	0	0	16	15	0	1	2	2	1	1	13	10	1		
			7	184	1002.6	—	46.6	1.8	9.5	86.7	2	0	7	3	10	11	0	0	0	0	0	0	3	6	22	0	2	10	19	0	2	1	2	0	2	14	9	1		
Fife.	Leuchars	H	13	184	1003.1	—	50.0	2.3	10.3	83.7	1	0	3	11	10	7	0	0	0	0	0	0	3	5	23	0	1	15	15	0	1	1	2	0	2	17	6	2		
			18	184	1003.6	—	48.6	2.6	9.6	81.7	1	0	5	8	7	11	0	0	0	0	1	0	2	10	18	0	1	12	17	1	1	1	2	0	2	13	8	3		
			7	36	1002.8	—	44.2	1.4	9.1	88.7	1	0	7	2	12	10	0	0	0	0	1	4	12	14	0	0	9	19	3	0	0	0	1	2	14	7	4			
			13	36	1003.0	—	51.1	4.1	9.2	71.7	2	0	3	6	15	7	0	0	0	0	0	3	7	20	1	0	11	20	0	1	1	0	3	2	11	10	3			
Edinburgh.	Blackford Hill	H	18	36	1003.5	—	46.7	2.3	9.1	83.7	0	0	5	8	10	8	0	0	0	0	0	0	6	10	15	0	0	9	20	2	2	0	1	1	1	14	6	4		
			9	441	1004.3	—	47.3	3.0	8.5	77.5	9	3	6	9	6	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			
			21	441	1005.5	—	45.6	2.3	8.7	82.6	7	4	4	3	8	12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
6a. SCOTLAND, W.																																								
Argyll.	Tiree	..	7	40	1002.4	—	48.5	2.3	9.9	83.7	1	0	3	10	11	7	0	0	0	0	0	1	6	6	17	1	2	27	3	0	9	3	0	2	2	1	8	6		
			13	40	1003.1	—	50.9	3.0	10.1	79.8	1	0	1	5	17	8	0	0	0	0	0	1	4	5	15	6	4	21	6	0	9	0	1	1	1	5	8	6		
			18	40	1003.3	—	49.2	2.4	9.8	83.7	6	0	3	6	10	12	0	0	0	0	0	2	3	8	15	3	2	20	9	0	8	1	1	1	3	1	11	5		
Bute.	Rothesay																																							

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of OCTOBER, 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Visibility.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
																0	1	2	3				4	5	6													7	8	9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
2. ENGLAND, N.E.—cont.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
Durham.	Durham	G.M.T.	ft.	mb.	mb.	°F.	°F.	mb.	%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																</

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of OCTOBER, 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.										WIND, NUMBER OF OBSERVATIONS.												
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.										FORCE (0-12).					DIRECTION.						
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Vis.	8 or more	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		
																0	1	2	3																	4	5
5. ENGLAND, S.E.—cont.																																					
Kent.	Biggin Hill H	G.M.T.	ft.	mb.	mb.	°F.	°F.	mb.	%																												
		7	596	1010.1	—	46.0	0.7	10.1	94.6.5	6	2	3	9	11	0	2	0	0	1	3	6	19	0	0	0	8	21	2	0	0	1	0	1	18	5	4	
		13	596	1009.9	—	53.8	3.8	10.7	75.7.5	2	2	4	16	7	0	0	0	0	0	4	10	16	1	0	0	13	18	0	3	1	1	0	0	16	8	2	
Kent.	Dungeness ..	18	596	1010.0	—	49.5	1.7	10.7	87.6.8	4	2	6	8	11	0	0	0	1	3	4	11	12	0	0	0	10	19	2	2	0	1	0	3	15	6	2	
		1	23	1010.6	—	50.5	1.3	11.6	91.6.1	5	3	8	4	11	0	0	0	1	0	1	3	7	18	1	0	12	19	0	2	1	0	1	4	5	11	7	
		7	23	1010.6	-2.6	48.2	1.0	10.5	92.7.4	0	4	6	11	10	0	0	0	1	3	2	6	7	12	0	0	10	21	0	4	2	0	1	2	6	8	8	
Kent.	Lympe H	13	23	1010.9	—	56.3	3.6	11.8	77.7.6	1	1	5	13	11	0	0	0	0	0	0	1	11	19	0	1	13	17	0	4	1	1	0	0	14	9	2	
		18	23	1010.6	—	53.4	2.5	11.4	83.7.3	0	3	9	7	12	0	0	0	0	0	0	2	8	21	0	1	10	20	0	3	1	1	0	2	9	12	3	
		1	345	1010.3	—	47.8	1.3	10.4	90.6.1	7	4	2	5	13	0	0	0	0	1	5	12	8	5	0	0	10	21	0	5	0	0	1	4	7	7	7	
Kent.	Manston H	7	345	1010.4	—	46.6	1.0	10.2	92.6.7	1	8	3	9	10	0	0	0	1	4	5	10	5	6	0	0	8	22	1	5	1	1	0	3	5	9	6	
		13	345	1010.6	—	54.3	4.3	10.5	72.7.9	1	2	3	15	10	0	0	0	0	0	1	12	6	8	4	0	15	14	2	4	0	1	0	1	14	4	5	
		18	345	1010.7	—	50.7	2.6	10.5	82.6.6	2	5	7	5	12	0	0	0	1	2	12	11	5	0	0	9	22	0	5	1	0	0	6	11	6	2		
Kent.	Tunbridge Wells	7	152	1010.5	—	47.5	0.9	10.6	93.7.0	0	7	4	12	8	0	0	0	0	4	10	8	9	0	0	12	19	0	2	0	2	5	8	9	5	5		
		13	152	1010.7	—	55.9	4.6	11.0	71.7.4	1	3	17	7	8	0	0	0	0	0	3	9	19	0	0	21	8	2	2	1	1	1	3	8	9	4		
		18	152	1010.7	—	51.4	2.1	11.2	85.6.6	0	10	2	11	8	0	0	0	0	0	4	19	8	0	0	12	17	2	1	2	0	2	6	11	4	3		
Sussex.	Brighton H	9	396	1011.6	—	49.7	1.8	10.7	87.5.4	3	9	6	5	8	0	0	0	1	3	5	10	10	2	0	1	5	25	0	0	2	1	0	1	16	9	2	
Sussex.	St. Leonards	9	48	1011.7	—	53.3	1.9	12.2	85.5.5	6	6	5	5	9	0	0	0	0	1	3	17	7	3	0	0	2	21	8	3	1	0	0	2	10	2	5	
		21	174	1011.0	—	52.1	2.4	11.0	83.6.2	1	10	2	7	11	0	0	0	0	0	0	7	22	2	0	2	4	25	0	3	3	2	0	0	7	7	9	
		18	174	1010.9	—	50.7	1.7	11.2	88.5.9	6	4	5	4	12	0	0	0	0	0	0	8	20	3	0	2	6	23	0	3	3	0	1	0	9	12	3	
Hampshire.	Calshot ..	1	15	1010.8	—	50.3	2.0	10.6	86.5.8	6	5	4	5	11	0	0	0	1	0	0	3	17	10	0	1	10	18	2	3	1	0	1	1	4	11	8	
		7	15	1011.3	—	49.4	2.0	10.3	85.6.5	0	7	6	13	5	0	1	0	0	0	0	8	12	10	0	0	9	20	2	3	0	1	0	2	6	10	7	
		13	15	1011.4	—	56.4	5.0	10.7	69.7.5	0	4	5	11	11	0	0	0	0	0	5	4	22	0	0	19	12	0	4	1	1	0	1	12	7	5		
Hampshire.	Southampton H	18	15	1011.5	—	53.0	3.1	10.9	79.6.3	3	7	2	13	6	0	0	0	0	0	5	10	16	0	0	10	20	0	3	1	0	2	3	4	14	4		
		9	84	1011.2	-3.2	50.8	2.1	10.9	84.6.6	2	6	3	9	11	0	0	0	2	4	20	5	0	0	0	2	29	0	1	1	1	0	0	10	12	6		
		21	84	1011.0	-3.3	51.4	2.4	11.0	83.7.4	0	3	5	12	11	0	0	3	4	10	11	3	0	0	0	5	26	0	0	0	0	1	0	8	19	3		
Hampshire.	S. Farnborough	7	256	1010.5	—	44.9	1.0	9.4	93.5.8	2	9	3	11	6	0	0	1	0	2	0	8	12	8	0	0	5	22	4	0	1	0	0	4	10	10	2	
		13	256	1010.3	—	50.5	5.7	10.1	65.7.9	1	1	6	13	10	0	0	0	0	0	1	16	14	0	0	16	15	0	1	2	0	0	4	13	7	4		
		18	256	1010.4	—	50.3	2.6	10.1	82.6.5	2	6	5	8	10	0	0	0	0	0	1	8	15	7	0	0	7	18	6	2	0	0	5	9	8	1		
Hampshire.	Winchester (Worthy Down)	7	273	1011.0	—	44.7	0.7	9.5	94.6.7	1	6	5	9	10	0	0	0	1	0	2	3	15	10	0	0	5	20	6	2	1	0	2	4	7	4	5	
		13	273	1010.7	—	54.8	4.7	10.3	70.8.0	1	2	4	11	13	0	0	0	0	0	3	7	21	0	0	17	14	0	3	1	0	0	4	9	10	4		
		18	273	1011.0	—	50.0	2.2	10.3	84.7.2	1	5	4	9	12	0	0	0	0	0	4	8	19	0	0	4	24	3	3	0	0	1	4	8	8	4		
I. of Wight.	Ventnor (Hosp.)	9	80	1011.4	—	53.5	1.9	12.0	87.6.6	0	8	5	9	9	—	—	—	—	—	—	—	—	—	—	0	13	18	0	4	1	2	1	1	2	15	5	
		15	80	1011.0	—	50.4	3.0	12.4	81.6.5	0	8	7	6	10	—	—	—	—	—	—	—	—	—	—	1	15	15	0	3	1	1	1	0	4	16	5	
		18	80	1011.0	—	50.4	3.0	12.4	81.6.5	0	8	7	6	10	—	—	—	—	—	—	—	—	—	—	1	15	15	0	3	1	1	1	0	4	16	5	
Wilts.	Larkhill H	9	444	1010.8	—	49.8	1.9	10.8	87.6.4	1	9	3	8	10	0	0	0	0	1	0	2	9	19	0	0	12	17	2	3	1	1	0	5	7	9	3	
		13	444	1010.3	—	54.0	3.8	10.9	75.7.9	0	3	2	14	12	0	0	0	0	1	0	1	5	24	0	0	21	10	0	3	2	0	0	6	8	8	4	
		15	444	1010.0	—	53.4	3.3	10.9	78.7.8	0	3	3	17	8	0	0	0	0	0	0	3	5	23	0	0	20	11	0	2	2	0	0	6	7	8	6	
7a. ENGLAND, N.W.																																					
Cumberland.	Aspatria (Mealsgate)	9	485	1005.9	—	48.1	2.1	9.6	84.7.4	4	1	6	2	18	—	—	—	—	—	—	—	—	—	—	0	8	17	6	1	0	0	0	12	6	6		
		21	485	1006.2	—	45.9	1.5	9.3	88.7.5	4	2	4	1	20	—	—	—	—	—	—	—	—	—	—	0	8	18	5	0	0	0	4	4	10	4	4	
Lancashire.	Hutton ..	9	86	1006.6	—	49.2	1.3	10.7	91.6.3	1	4	12	7	7	—	—	—	—	—	—	—	—	—	0	4	25	2	0	1	0	4	7	8	5	4		
Lancashire.	Southport H	9	42	1007.4	-5.7	49.9	2.4	10.4	83.6.7	0	4	13	2	12	0	0	0	0	0	10	3	1	17	0	0	21	8	2	2	1	1	1	7	4	10	3	
		13	42	1007.6	-5.2	53.1	3.9	10.3	74.6.7	0	6	6	11	8	0	0	0	0	0	2	5	5	18	1	0	22	7	2	2	0	1	1	2	8	10	6	
		18	42	1007.7	-4.8	50.1	2.7	10.1	81.7.3	0	7	2	9	13	0	0	0	0	1	11	4	5	10	0	0	18	11	2	3	0	1	2	5	3	11		

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of OCTOBER, 1929.

DISTRICT COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Visibility.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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8a. SOUTH WALES—cont.		G.M.T.	ft.	mb.	mb.	°F.	°F.	mb.	%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						</

TABLE I. DISTRICT VALUES.

The District Values of this Table are computed from the statistics for selected individual stations set out in Table III and Table IV.

The representative stations from which the District Values of rainfall and temperature are computed are indicated in Table III by the sign ¶ while the representative stations from which District Values of sunshine are computed are indicated by the sign §. The deviations from and percentages of normal for Air Temperature, Rainfall and Sunshine are the means of the corresponding deviations or percentages for the representative District Value stations. The deviations from normal of Earth Temperature are derived from the deviations for all the stations reporting in Table III for which normals of Earth Temperature are available. The highest and lowest temperatures for the District recorded during the month may refer to any station in Table III.

TABLE II. SUMMARY OF AUTOGRAPHIC RECORDS OF WIND.

The records used in the preparation of this Table are generally made by anemographs of the pressure-tube type. At a few stations the Robinson Cup Anemograph is utilised. The classification adopted for the "Distribution of Wind" is based on the specification of the Beaufort Scale of Wind Force (see *The Observer's Handbook*). For an anemograph complying with the specification "head 33 ft. above ground in the open" the several columns correspond with Force 8 and above (gales), Forces 6 and 7 (strong winds), Forces 4 and 5 (moderate breezes), Forces 2 and 3 (light breezes), Forces 1 and 0 (nearly calm). Some information as to the nature of the actual exposures may be gathered from the figures in the "Height" columns.

The "Highest Hourly Wind" is determined by the mean speed of the wind for a period of sixty minutes from 30 minutes before to 30 minutes after an exact hour by Greenwich Mean Time. Under the heading "Veer from N" the azimuth of the direction from which the wind was blowing is stated, the entry for an east wind being 90°, that for a south wind 180° and so on.

TABLE III. SUMMARY OF OBSERVATIONS AT TERMINAL HOURS.*

Temperature.—The terminal hours of observation are given for each station. When the terminal hours for maximum and minimum temperature are stated independently the temperatures refer to intervals of 24 hours. If the maximum thermometer is read in the morning the reading is credited to the previous day. When the terminal hours for maximum and minimum are separated by a dash, thus, 18-7, the day-maximum for the period 7h. to 18h. and the night-minimum for the period 18h. to 7h. are reported and are utilised in determining the means for the month; in such cases the extreme temperatures for successive periods of 24 hours are also read by the observers, so that the absolute maximum and minimum temperatures for the month are obtained.

Except at the Royal Observatory, Greenwich, where a Glaisher stand is in use, the air temperature is obtained from thermometers placed in louvered screens. At Kew Observatory, Richmond, and Valentia Observatory these are north wall screens a few feet from the ground. At Aberdeen Observatory the north wall screen is at 41 feet. Otherwise the screens are in the open.

Rainfall.—The daily amounts are for the 24 hours beginning at the "terminal hour." "Rainfall" includes all forms of precipitation. The number of days of precipitation is counted with reference to the limit .01 inch or 0.2 mm. and also with reference to the limit .04 inch or 1 mm. The lower limit excludes mere "traces" of precipitation, but it is frequently passed on occasions when the precipitation is only dew.

Weather.—The numbers of days of Precipitation, Snow, Hail, Thunderstorms and Gale are counted irrespective of the hour at which the phenomena occur. Except for "Precipitation" the day is the civil day.

For the purpose of this summary "Snow" includes sleet (*i.e.*, snow with rain), "Hail" includes graupel (soft hail), "Snow lying" refers to occasions when at least one-half of the country surrounding the station is covered with snow at the morning observation. The entry of "fog" implies that regular observations of the range of vision are made on the scale set out below. Days of fog are those on which the range of vision is less than 1,100 yards at the hour of morning observation. That hour is generally given by the third entry of column 2 of the table and may be 7h. or 9h. G.M.T. The variability of the observation hour may exercise an important effect upon the statistics of fog frequency. "Thunderstorm" includes any day on which thunder is heard. "Gale" is a wind of Force 8 or upwards on the Beaufort Scale. A "ground frost" is entered when the reading of a "grass minimum" thermometer set the previous evening and read at the morning observation is 30° F. or lower.

Sunshine.—The percentage of possible sunshine in the last column is calculated with reference to the maximum duration theoretically possible in the latitude, allowance being made for refraction (see

International Meteorological Tables (Paris) pp. A17-A20 and 42-47) but not for the fact that the sunshine recorder is generally insensitive to sunshine when the sun is at an altitude of less than 3°. Where the symbol § occurs it indicates that obstructions obscure the sun during more than 5% of the period when it is over 3° above the horizon.

TABLE IV. SUMMARY OF OBSERVATIONS AT FIXED HOURS.*

Mean Air Pressure is expressed in millibars. (1 millibar = 1,000 dynes per square centimetre = the pressure due to .029531 inch of mercury at 32° F. in Lat. 45°). The corrections for latitude, temperature and height have been applied to the barometer readings so as to obtain pressure at mean sea level. Barometric pressure is given at station level for a few stations at altitudes of 600 ft. or more in footnotes in Table IV.

Hygrometry.—The values given depend on the readings of the dry and wet bulb thermometers in Stevenson Screens (except at the Observatories, see above). The observations were formerly reduced by Glaisher's method; as from January, 1926 they are reduced by the new hygrometrical tables issued by the Office which are based on a formula of Regnault. In general the relative humidity and vapour pressure are derived from the monthly means of the dry and wet bulb readings. At certain stations the daily values of relative humidity and vapour pressure are found and the means are computed therefrom. These stations are indicated by the letter "H."

Cloud Amount.—The proportion of sky covered with cloud is estimated on the scale 0 to 10, the entry "0" being equivalent to clear sky "10" to overcast.

Visibility.—The observations are classified according to the following scheme—the distances, specified by international arrangement in metres, are given here in yards and miles:—

CODE.	RANGE OF VISION.
0	Less than 55 yards.
1	Exceeding 55 yards, less than 220 yards.
2	" 220 " " 550 "
3	" 550 " " 1,100 "
4	" 1,100 " " 1½ miles.
5	" 1½ miles " 2½ "
6	" 2½ " " 3½ "
7	" 3½ " " 4½ "
8	" 4½ " " 5½ "
9	" 5½ " " 6½ "

Wind Summaries.—The estimates of wind force refer to the Beaufort Scale, and in general to the wind experienced at the time of observation. At Deerness, Cahirciveen, Richmond, Armagh, Eskdalemuir, Southport, Greenwich and Oxford the analysis refers to tabulations of autographic records. For Oxford the mean wind speed for half-an-hour centred at the hour of observation is used for conversion to "force" on the Beaufort Scale; for the remaining observatories the mean wind speed used for each observation refers to a period of one hour. In these cases winds equivalent to Force 1 are counted with the calms, whilst Forces 2 and 3 are taken together in the preceding column of the Table.

INTERPOLATED VALUES.

When the observations for any station for a month are incomplete and relevant data (e.g. records from neighbouring stations) which make it practicable to interpolate approximate values for the missing observations are available, such approximate values may be used for completing summaries for stations published in Tables III and IV. Parts of a summary obtained in this way are shown in brackets thus—(52.4).

STANDARD OF TIME.

As a rule observations are made in all parts of the British Islands according to Greenwich Mean Time, but at the following stations Local Mean Time is used for the observations summarised in Tables III and IV. The number of minutes after Greenwich Time is shown in brackets—Darwen (10), Rhayader (15), Ashburton (15), Tavistock (17), Plymouth (15), Douglas (20), Armagh (26), Balbriggan (25), Lisburn (30), Newcastle, Co. Wicklow (30), Ballinacurra (30), Cork (34).

"Summer Time" is not used in the Monthly Weather Report, but at certain stations the hours of observation vary in the course of the year. For such stations all time entries are converted to G.M.T. before they are printed and the winter hours are given as the terminal hours in the annual tables. For the summer hours reference should be made to the appropriate months.

NORMALS.

In Table III the normals used are those for the 35 years 1881-1915. The normals of temperature and sunshine are published in the Book of Normals, Section I, those for rainfall in the Book of Normals, Section V.

The normals for pressure with which comparison is made in Table IV also refer to the period 1881-1915.

* In addition to the frequencies published in this Report (Tables III and IV), the Meteorological Office has issued since January, 1927, in the form approved by the International Commission for Air Navigation, monthly frequency tables of height of base of low cloud, and speed and direction of surface and upper winds.

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

SUMMARY OF OBSERVATIONS COMPILED FROM RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS.

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ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE.

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NOVEMBER, 1929. Unsettled and windy. Very wet southern half of British Isles.

The outstanding feature of the weather of the month was the pronounced excess of precipitation recorded in the southern half of the British Isles where in most districts the month was the wettest November and in a few places the wettest month of any name during the last 60 years at least. The weather was generally unsettled with frequent strong winds and gales and, apart from a cold spell from the 13th to the 18th and frequent ground frosts at night, was mild, particularly during the last ten days.

During the first few days appreciable rain, associated with low pressure troughs, occurred in the west and north. In the south and east, rainfall amounts were usually small at first and sunshine records were often good, more than 7 hours sunshine being recorded locally on the 1st and 3rd. Sharp ground frosts occurred at night from the 1st to the 4th, 14° F. being recorded at Burnley on the 1st. Rather heavy rain fell in the west and north on the 5th (34mm. at Eskdalemuir and 27 mm. at Falmouth) accompanied by gales in the south-west. Further heavy rain fell on the 9th and during the night of the 9th to the 10th, and in coastal districts the wind attained gale force. A secondary depression, forming a trough-like extension to a main depression to the north and with a well-marked squall line, passed across the country on the 11th, and was accompanied by strong winds or gales and widespread rain. The gale lasted for 13, 14 and 16 hours respectively at Lympne, Falmouth and Scilly and gusts exceeding 60 mi/hr. were recorded in several places; 82 mi/hr. was recorded at St. Mary's, Scilly, 70 mi/hr. at Holyhead and Cranwell and 68 mi/hr. at Dover. Heavy rain fell locally, e.g. in South Wales, resulting in disastrous floods. Amongst the heaviest falls recorded on the 11th were 211 mm. at Mardy Reservoir (Glamorgan), 133 mm. at Treherbert (Glamorgan) and 87 mm. at Cantref (Brecknock). As the air in the warm sector of the depression travelled across the country the temperature reached a high level for the time of year, exceeding 60° F. locally in North Wales and north-west England. In many parts of England and Wales the highest temperature of the month was recorded during the night of the 11th to 12th.

With the passage of the squall line there was a sharp drop in temperature and much colder weather supervened until the 19th. Maximum temperature failed to exceed 32° F. at several places on the 15th; 30° F. was the maximum at Renfrew and 32° F. at Cranwell, while a minimum of 10° F. was registered on the ground at Burnley and of 12° at Rhayader on the 18th. Snow fell heavily in Scotland, northern Ireland, northern England and the Midlands and lay to a considerable depth in some districts; rain occurred often further south, but sunshine records were good on many of the days, e.g. over 7 hrs. in southern England and Ireland on the 17th. Thunderstorms occurred locally on the 10th to 14th and widespread morning mist and fog were experienced on the 14th to 18th, occasionally persisting all day. Associated with a deep depression over the Channel gales occurred in the south-west and west on the 15th and 16th.

During the 18th a deep depression spread in from the Atlantic, causing a complete change to unsettled mild weather which lasted until the end of the month. Gales and heavy rain were experienced at most places on either the 18th or 19th. Gales were again experienced at many places on the 23rd and 25th and rain fell over the country generally on most days between the 19th and 30th, the 24-hour totals frequently exceeding 25 mm. in the south and west. From the 19th onwards the temperature was considerably above the normal, maximum temperature in the south rarely falling below 50° F. and reaching 60° F. at Greenwich on the 22nd.

Pressure and Winds.—Associated with the frequent passage of depressions across or in the neighbourhood of the British Isles, monthly mean pressures were well below the normal in all districts. The prevailing winds were south-westerly and frequently strong in force, gales occurring on the 5th, 7th, 8th, 11th, 12th, 15th, 16th, 18th, 19th, and between the 22nd and 26th. The highest wind velocities were recorded generally during the gales on the 11th to 12th and on the 24th to 25th.

Temperature.—November was mostly mild, particularly during the last ten days of the month and in practically all districts the mean temperature for the month exceeded the normal. The excess, however, was slight owing mainly to the occurrence of many cold nights early in the month and to the cold spell from the 12th to the 18th. The highest temperatures were recorded generally on the 8th, when maximum temperatures of 60° F. were registered in the south-east of England, on the 11th when 60° F. was recorded in North Wales and Southern Ireland and on the 22nd. The lowest screen temperatures were recorded on the 1st and 2nd and from the 15th to the 18th. The extreme temperatures for the month were:—(England and Wales) 62° F. at Brighton on the 8th and Colwyn Bay on the 11th and 16° F. at Castleton on the 15th. (Scotland) 58° F. at Gordon Castle on the 5th, Rothesay on the 9th and at Cupar on the 11th and 11° F. at Balmoral and Braemar on the 18th. (Ireland) 61° F. at Hazelhatch on the 11th and 22° F. at Markree on the 17th.

Precipitation.—Excluding the north and north-east of Scotland and a small area in the north-east of England, where precipitation was below the normal, rainfall totals exceeded the normal everywhere and over the British Isles as a whole; November 1929, with 188 per cent. of the normal, was the wettest November during the last 60 years, the next wettest Novembers being those of 1926 and 1877 with 155 per cent. The general precipitation for each country expressed as a percentage of the normal for the period 1881–1915 was:—England and Wales 232, Scotland 130, Ireland 151. Over England and Wales the month was the wettest November on record. Scotland experienced eight wetter Novembers while over Ireland 1900 and 1890 were wetter with 154 and 169 per cent. respectively.

Over England and Wales more than twice the normal was recorded in the central and southern districts; rather less than the normal was, however, recorded in the neighbourhood of Newcastle. The monthly percentage values ranged from 350 in parts of Devon, Dorset, and Sussex to 94 at Newcastle. More than two and a half times the normal rainfall was recorded over most of Wales and the south and south-west of England stretching as far inland as Nottingham. Excluding the east coast of England and the west coast of Wales, the month was the wettest November during the last 60 years at practically every station to the south of a line extending roughly from Crewe to Lincoln as well as in the Lake District. The month was the wettest month of any name during the last 60 years at Falmouth, Ashburton and St. Austell and at Ross-on-Wye and Teignmouth since 1818 and 1871 respectively. The month was the wettest November in records covering 41 years at Strelley, 37 years at Halstead, 30 years at West Kirby and 25 years at Wakehurst. At Camden Square (London) the month's total was the largest recorded in November since 1858. At Southport the month was the wettest November, with the single exception of 1890, during the past 59 years. The heaviest falls were recorded on the 11th, 15th to 16th, 18th, 24th to 25th and 27th to 28th. At Symondsburry, Bridport (Dorset) rain fell continuously for 17½ hours on the 27th to 28th, the total fall amounting to 56 mm.; large areas in the neighbourhood were flooded. Consequent upon the frequent heavy rains severe floods occurred in many districts, particularly in South Wales and south-west England. By the end of the month the Thames was approaching a state of flood.

Over the greater part of Scotland the rainfall totals were above the November average, the excess being most pronounced in the southern half of the country. The month was, however, decidedly deficient in rainfall over most of the counties of Moray, Nairn, Banff and Aberdeen and only somewhat less so in parts of Ross, Inverness and Sutherland. There were very few dry days, the driest period occurring between the 14th and 17th, while the heaviest falls of rain occurred about the 4th, 7th, 10th, 12th, 18th and 25th. Amongst the largest daily falls were 83 mm. at Ardour, 78 mm. at Glencroe and 63 mm. at Glenhurich on the 4th, while Glenhurich had also 66 mm. on the 12th. There were 6 days with over 25 mm. at Glencroe, 5 at Carsphairn and 4 at Forest Lodge, Achnacarry, Glenquoich and Inverary.

Over Ireland rainfall totals everywhere exceeded the normal, more than twice the normal being recorded in the south-east. At Cahirciveen the month was the wettest November since at least 1871.

Hail showers and thunder occurred locally on several occasions, mostly in western districts, while snow or sleet fell on high ground or in northern districts, mostly between the 8th and the 19th. In some districts in Scotland snow was reported as lying between the 12th and the 20th.

Sunshine.—In spite of the unsettled and wet weather which prevailed during the month, sunshine aggregates exceeded the normal in most districts except in the west and in Ireland. Representative totals for Districts expressed as a percentage of the normal for the period 1881–1915 ranged from 120 per cent. in England S.E. to 78 per cent. in England N.W. Good sunshine records were obtained in many districts on the 1st, 3rd, 9th, 12th, 14th, 15th, 17th, 21st and 27th, over 8 hours being recorded in some southern districts on the 1st, 3rd and 9th.

Fog.—Much fog was reported during the month; it occurred in the south on the 1st and 2nd and in several districts on the 6th, 7th, between the 13th and 20th and on the 28th and 29th.

Miscellaneous Phenomena.—Aurora was visible in Scotland on the nights of the 1st, 2nd, 3rd, 6th, 8th, 11th, 12th, 16th, 20th, 24th and 26th, the display on the nights of the 1st and 2nd being the most widely reported; that of the 1st was seen at places as widely separated as Lerwick, Stornoway and Eskdalemuir. At Oxford a 22° solar halo with parhelia was observed on the 17th, 24th, 26th and 27th, and a moon pillar on the 16th, a portion of the 46° halo was observed on the 13th.

TABLE I.—DISTRICT VALUES—NOVEMBER, 1929.

[1908, revised 1928.]

DISTRICTS.	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High-est.	Low-est.	Daily Mean. Deviation from Normal.	At 1 ft. Deviation from Normal.	At 4 ft. Deviation from Normal.	Per-cent- age of Normal.	No. of Days. Deviation from Normal.	Per-cent- age of Normal.	Per-cent- age of Possible Duration.
o. SCOTLAND, N.	°F. 57	°F. 21	°F. +0.7	°F. —	°F. —	% 127	+3	% 115	% 19
Eastern.									
1. SCOTLAND, E.	58	11	+0.4	—	—	125	+4	117	27
2. ENGLAND, N.E.	58	16	+0.4	+0.4	0.0	156	+3	122	26
3. ENGLAND, E...	60	21	+0.9	-0.1	-0.4	205	+3	100	24
4. MIDLAND COUNTRIES	61	19	+1.0	-0.3	-0.8	267	+3	116	25
5. ENGLAND, S.E.	62	20	+1.3	+0.3	+0.3	223	+4	120	28

DISTRICTS.	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High-est.	Low-est.	Daily Mean. Deviation from Normal.	At 1 ft. Deviation from Normal.	At 4 ft. Deviation from Normal.	Per-cent- age of Normal.	No. of Days. Deviation from Normal.	Per-cent- age of Normal.	Per-cent- age of Possible Duration.
Western.									
6. SCOTLAND, W. (& I. of Man)	58	18	+0.9	—	-0.1	176	+6	91	16
7. ENGLAND, N.W. (& N. Wales)	62	22	+1.0	+0.8	-0.5	184	+6	78	17
8. ENGLAND, S.W. (& S. Wales)	60	19	+1.1	+0.6	-0.2	263	+5	100	23
9. IRELAND, N...	59	22	+0.4	0.0	-0.5	133	+4	89	20
10. IRELAND, S...	61	24	+0.6	+0.9	-0.6	169	+7	85	21
11. CHANNEL I. (& Scilly)	58	34	+0.4	-0.1	-0.3	211	+3	114	30
Mean: DISTRICTS 1-10	62	11	+0.8	+0.3	-0.3	190	+5	102	23

TABLE II.—SUMMARY OF AUTOGRAPHIC RECORDS OF WIND.—NOVEMBER, 1929.

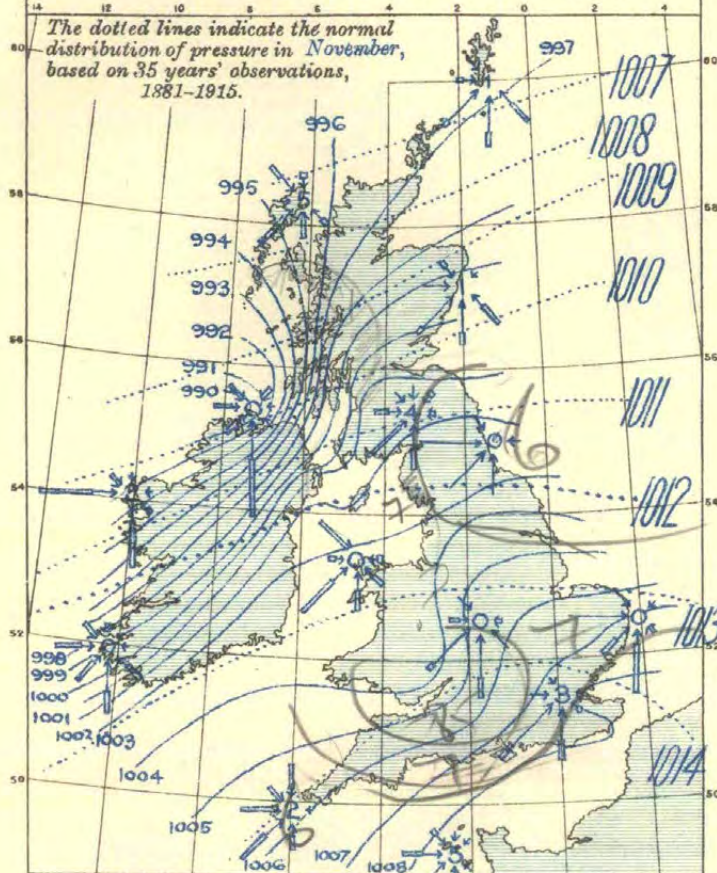
[1914.]

DISTRICT AND STATION.		Height.			Distribution of Wind.††								Extreme Velocities.								
		Above Mean Sea Level.	Above Ground.	Above Building.	More than 38 mi/hr.		25 to 38 mi/hr.		13 to 24 mi/hr.	4 to 12 mi/hr.	Less than 4 mi/hr.	No Record.	Highest Hourly Wind.				Highest Gust.				
					Dates of Occurrence.	Duration.	No. of Days.	Duration.	Duration.	Duration.	Duration.	Duration.	from N.	Speed.	Mid Time.	Speed.	Time.				
o. SCOTLAND, N.		ft.	ft.	ft.		hr.		hr.	hr.	hr.	hr.	°	mi/hr.	m/s.	day. hr.	mi/hr.	m/s.	d.	h.	m.	
Shetlands	Lerwick ..	310	42	33†	7, 8, 13, 19, 23	19	23	242	359	73	27	0	90	45	20	19 13	66	29	8	3	10
Orkneys	Deerness (Cup Anr.)	188	16	5	—	0	13	112	426	163	19	0	140	37	17	25 6	—	—	—	—	—
1. SCOTLAND, E.																					
Aberdeen	Aberdeen ..	70	42	33†	—	0	5	15	191	451	63	0	140	30	14	25 5	49	22	25	05	55
Kincardine	Balmakewan ..	140	25	18	—	0	—	0	59	(389)	(272)	0	240	22	10	19 4	42	19	25	05	10
Edinburgh	Edinburgh ..	485	39	31†	11	2	10	60	263	237	137	21	200	40	18	11 12	65	29	5	09	05
6a. SCOTLAND, W.																					
Argyll	Tiree ..	75	50	42†	17, 24	9	19	196	302	169	34	0	200	43	19	24 7	62	28	24	2	15
Renfrew	Paisley ..	188	81	15	—	0	3	11	117	403	189	0	130	31	14	11 12	60	27	11	11	55
Dumfries	Eskdalemuir ..	825	50	22	11	1	9	49	235	303	130	2	50	39	18	11 13	60	27	11	11	50
2. ENGLAND, N.E.																					
Durham	South Shields ..	62	46	20	—	0	—	0	84	452	184	0	190	24	11	11 15	49	22	11	14	40
York, E.R.	Spurn Head ..	67	41	35†	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lincoln	Cranwell ..	284	43	31†	11	2	8	31	323	331	33	0	200	42	19	11 15	70	31	11	16	05
3. ENGLAND, E.																					
Norfolk	Gorleston ..	52	42	33†	11, 23	6	16	121	210	348	33	2	200	40	18	11 16	65	29	11	15	50
Suffolk	Felixstowe Aero. ..	55	40	25	11, 23	4	14	105	286	279	46	0	200	40	18	11 18	54	24	11	17	40
Essex	Shoeburyness ..	115	104	14†	11, 12, 23, 25	22	18	130	332	227	9	0	210	48	22	11 17	64	29	11	16	55
4. MIDLAND COUNTIES.																					
Warwick	Birmingham ..	643	118	18	—	0	6	21	257	414	28	0	210	34	15	11 14	61	27	11	13	20
5. ENGLAND, S.E.																					
Surrey	Richmond (Kew Obs)	82	65	22	—	0	4	18	182	348	172	0	210	30	13	11 15	53	23	11	13	40
Surrey	Croydon ..	313	105	49	11	3	10	75	329	242	71	0	220	42	19	11 16	73	33	12	02	25
Kent	Dover ..	61	32	22	11, 12	4	17	128	301	233	16	38	—	43	19	11 17	68	30	11	17	30
Kent	Lympne ..	409	70	55†	11, 12	10	10	48	304	324	34	0	190	41	18	11 17 2	60	27	11	16	00
Hampshire	Calshot ..	58	50	32†	11, 12, 23	8	15	138	253	271	50	0	220	45	20	11 15	65	29	11	14	40
Hampshire	Worthy Down ..	314	43	27	—	0	7	48	220	342	110	0	200	38	17	11 15	63	28	11	15	10
7a. ENGLAND, N.W.																					
Lancashire	Fleetwood ..	112	50	12	—	0	13	72	311	263	74	0	190	32	14	25 19	56	25	25	20	25
Lancashire	Southport ..	77	59	45†	25	1	9	71	338	292	18	0	240	48	21	25 20	64	29	25	19	45
Lancashire	Liverpool (Bidston)	253	64	35	—	0	10	55	410	205	46	4	220	35	16	25 18	66	29	25	17	55
7b. NORTH WALES.																					
Anglesey	Holyhead ..	64	45	29†	11, 15, 16	7	21	174	330	184	25	0	200	44	20	11 11	70	31	11	11	35
Flint	Sealand ..	81	65	49†	—	0	6	21	230	399	70	0	230	33	15	25 19	71	32	25	19	00
8b. ENGLAND, S.W.																					
Devon	Plymouth ..	185	88	2	11, 18, 19, 23, 24, 25	29	16	153	211	188	129	10	—	50	22	24 23	66	29	24	23	05
Devon	Pendennis Castle..	256	65	32	15, 9, 10, 11, 15, 18, 19, 22, 23, 24, 25, 27	96	18	128	279	145	59	13	210	56	25	24 23	78	35	25	12	45
9. IRELAND, N.																					
Donegal	Dunfanaghy Road	180	47	39	11	2	9	49	263	242	164	0	—	48	21	11 11	67	30	11	10	50
Antrim	Aldergrove ..	282	40	27†	—	0	6	12	239	367	102	0	130	35	16	24 24	62	28	11	10	40
10. IRELAND, S.																					
Dublin	Kingstown (Cup Anr.)	49	27	16	11, 15	9	18	101	278	270	62	0	240	56	25	11 13	—	—	—	—	—
Clare	Quilty ..	100	40	32†	11, 24, 25	4	15	113	336	217	36	14	—	44	20	24 23	72	32	24	22	45
Kerry	Cahirciveen (Val. O.)	98	41	34†	11, 24	2	16	87	371	212	48	0	185	44	19	24 21	69	31	24	01	20
Cork	Weaver Pt. ..	160	30	21†	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. SCILLY ISLES.																					
	St. Mary's..	230	65	17†	11, 12, 15, 16, 18, 19, 22, 24, 25	44	21	258	278	108	32	0	240	50	22	25 13	82	37	11	22	55

†† Brackets () indicate that the distribution as between winds above and below 4 m.p.h. is doubtful, but the total number of hours with winds below 12 m.p.h. is reliable.

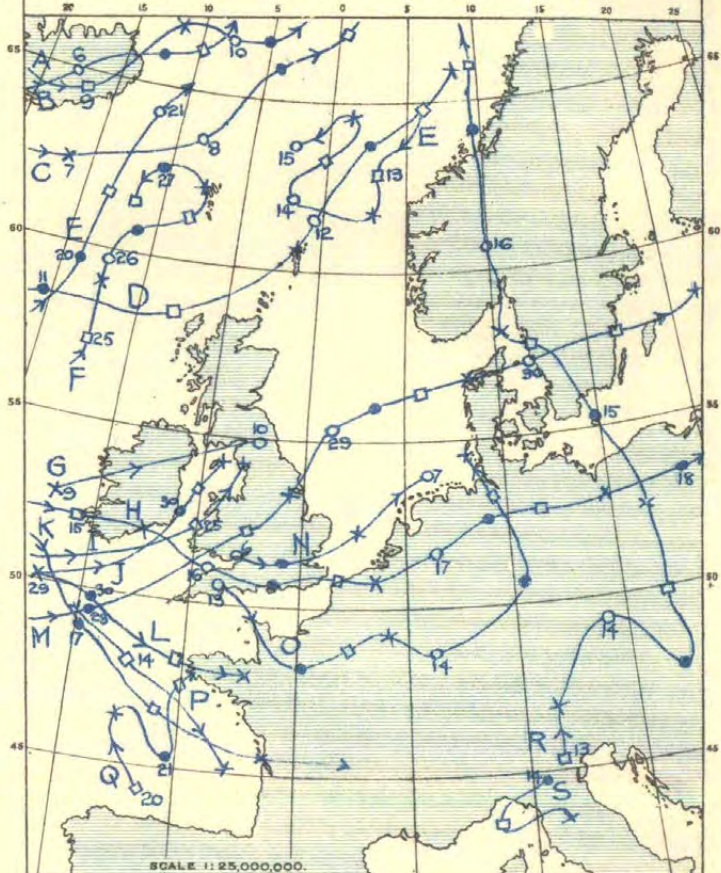
† Standard mounting.

1. WIND AND MEAN PRESSURE. 7 A.M.*



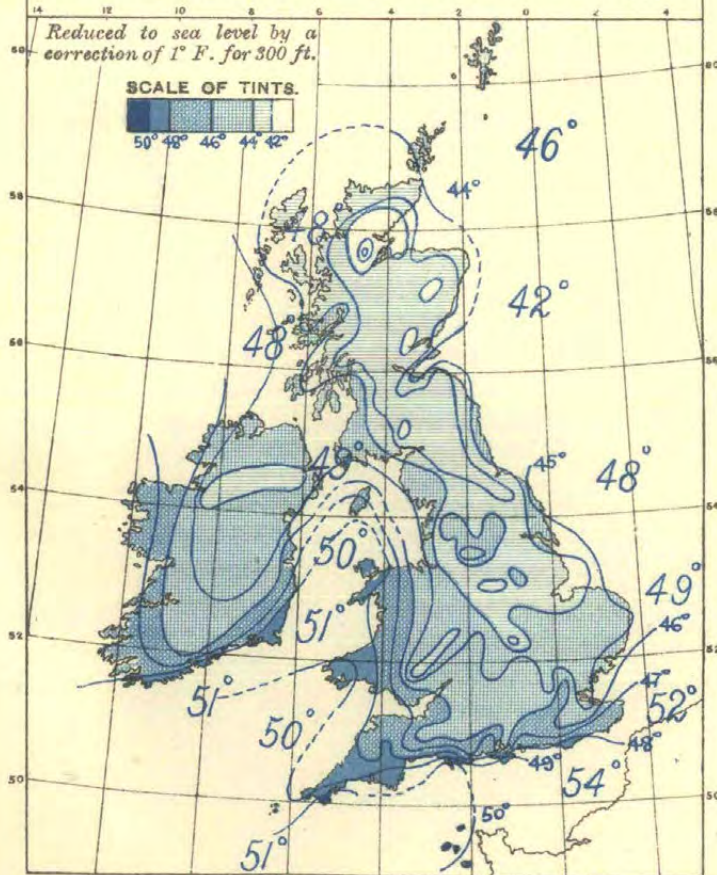
WIND ROSES. The arrows fly with the wind and indicate frequency and force, thus:
 LIGHT MODERATE GALE
 30 OBS. = 1 inch

2. MOVEMENTS OF DEPRESSIONS.



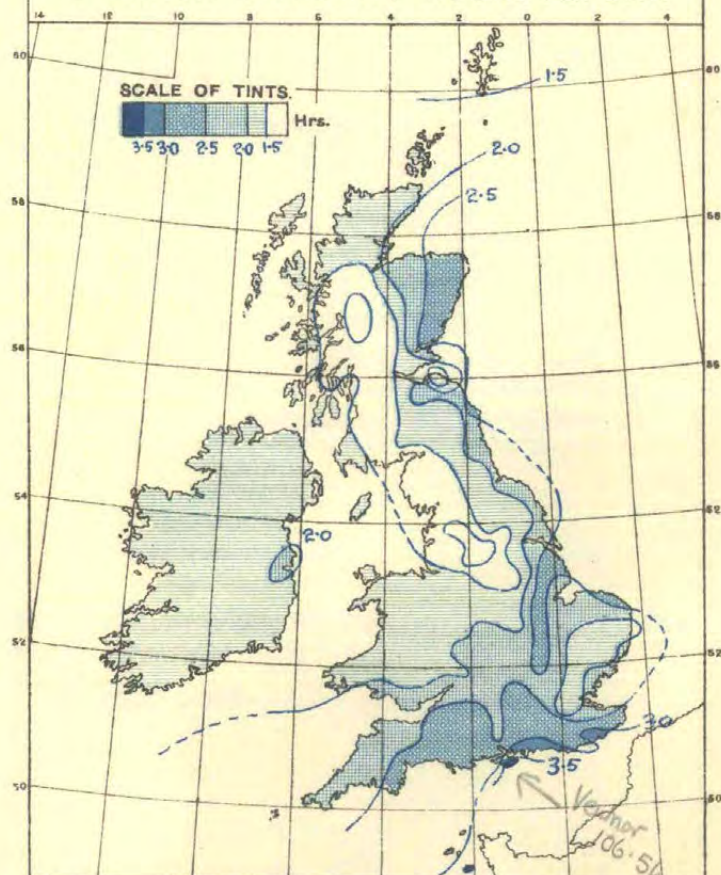
Positions of centres are shown thus: ○ at 1h; ● at 7h; □ at 13h; X at 18h.

3. DISTRIBUTION OF MEAN TEMPERATURE.

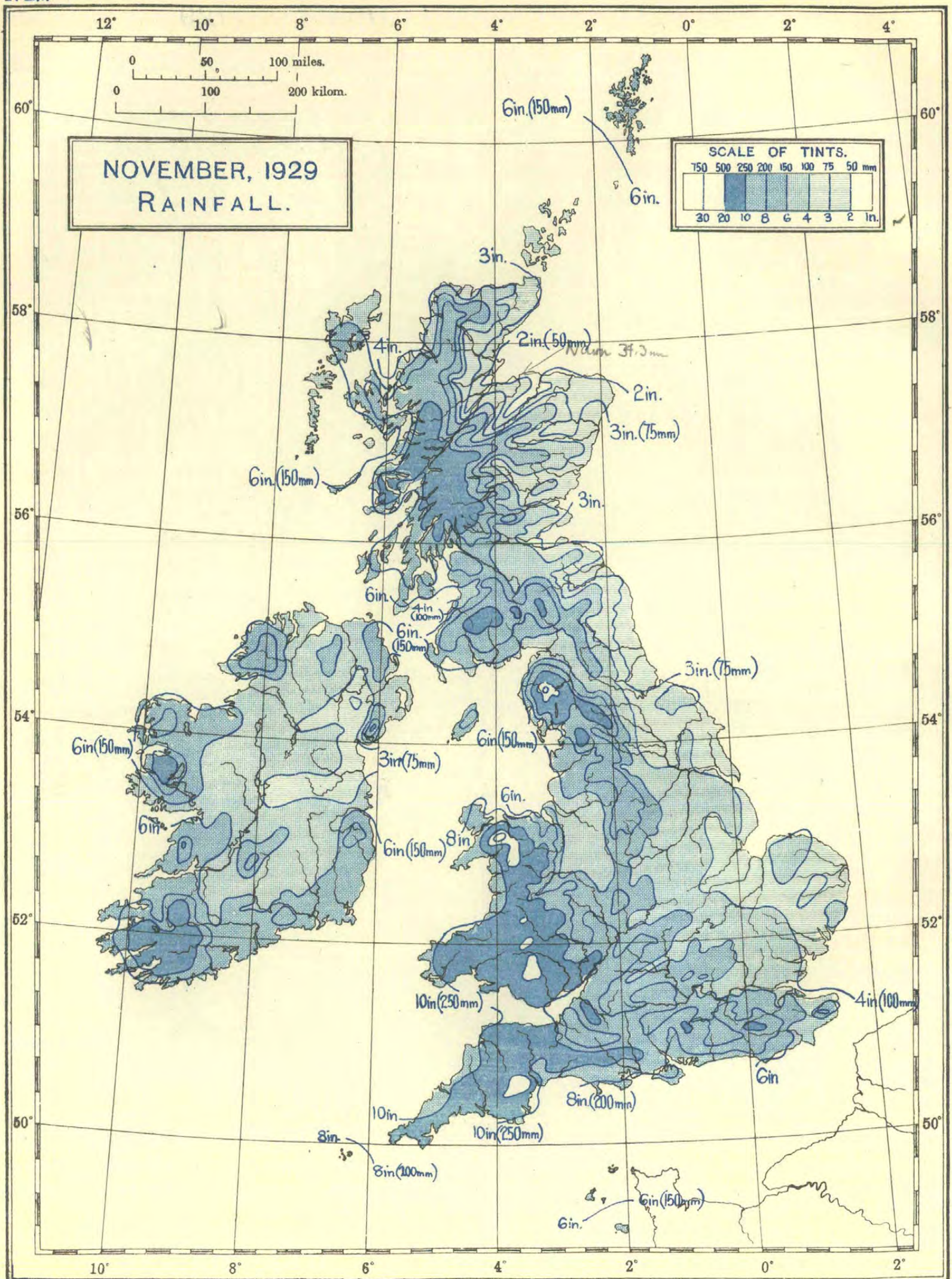


Sea temperatures are shown in large figures, thus: 52°

4. BRIGHT SUNSHINE, HOURS PER DAY.



* The pressure is expressed in millibars.



Scale 1 : 5,000,000.

p4.1544/2015 W6.91A. D.16 1100 12/29.

The equivalent values in mm. are given in round numbers. The exact relation is 10 in. = 254 mm.

TABLE III.—SUMMARY OF the RECORDS of TEMPERATURE, RAINFALL AND SUNSHINE, and of WEATHER OBSERVATIONS, NOVEMBER, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level.		AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
						Means of A and B.				Absolute Maximum and Minimum.						Total Fall.		Deviation from Normal.		Most in a day.		Precip'n.		Snow lying.		Thunderstorm.		Fog (Morning Obs.)		Ground Frost.		Gale.		Hours per day.		Per Cent.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Max.	Min.	Rain.	Max.	Min.	Max.	Min.	Mean of A and B.	Deviation from Normal.	Maximum.	Date.	Minimum.	Date.	1 ft.	4 ft.	in.	mm.	mm.	mm.	0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
0. SCOTLAND, N.		G.M.T.	ft.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.</

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, NOVEMBER, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level.		AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.						
						Means of A and B.				Absolute Maximum and Minimum.						Total Fall.		Deviation from Normal.		Most in a day.		Precip'n.		Snow lying.		Thunderstorm.		Fog (Morning Obs.)		Ground Frost.		Gale.		Hours per day.		
Max.	Min.	Max.	Min.	Mean of A and B.	Deviation from Normal.	Maximum.	Date.	Minimum.	Date.	1 ft.	4 ft.	in.	mm.	mm.	mm.	0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Fall.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.									
2. ENGLAND, N.E.																																				
Northumberland.	Berwick-on-T.	9 9 9	76	48.8	38.0	43.4	—	56	5th	27	15th	—	—	2.34	59	—	16	30th	17	13	0	0	1	0	0	7	0	2.63	—	32						
	Bellingham	9 9 9	848	47.0	33.7	40.3	—	55	5th	18	15th	—	—	3.57	91	—	26	9th	22	18	—	—	—	—	—	—	—	—	—	—						
	Cockle Park	2121 9	325	48.1	36.4	42.3	+0.8	56	8, 20	26	15th	41.2	44.8	4.07	103	+ 37	26	9th	20	14	0	0	0	0	3	7	1	2.56	+0.43	31						
	Tynemouth	18-7 7	67	48.3	40.9	44.6	+1.3	56	11th	28	15th	—	—	2.94	75	+ 21	17	17th	18	14	0	0	0	0	1	5	0	—	—	—						
Durham.	Chopwellwood	9 9 9	445	49.6	34.4	42.0	—	56	7th	20	16th	—	—	2.70	69	—	15	25th	19	14	0	0	0	0	1	11	0	2.31	—	27						
	Durham	2121 9	336	47.7	36.1	41.9	-0.1	56	11, 20	22	16th	—	—	2.57	65	+ 7	13	9th	19	16	0	0	0	0	6	8	2	1.98	+0.15	23						
	Houghall	9 9 9	160	49.4	34.7	42.1	—	58	19th	18	15th	—	—	2.59	66	—	13	9th	17	15	0	0	0	0	0	16	0	1.92	—	23						
	Ushaw College	9 9 9	594	47.6	36.8	42.2	—	54	7, 11	27	15th	—	—	2.71	69	+ 4	17	9th	17	14	1	0	0	0	6	—	3	—	—	—						
York, N. Riding.	Castleton	9 9 9	425	48.2	34.4	41.3	—	55	7, 11, 25	16	15th	42.2	—	4.34	110	—	17	17th	22	19	1	0	2	0	4	—	5	—	—	—						
	Rounton	2121 9	249	47.6	36.3	41.9	0.0	55	25th	18	15th	44.3	—	3.01	77	+ 20	13	28th	22	18	0	0	0	0	0	14	0	—	—	—						
	Scarborough	9 9 9	118	50.1	39.3	44.7	+0.6	55	7, 8, 11, 19, 25	28	15th	—	47.2	2.66	68	+ 5	8	28th	21	18	0	0	1	0	2	7	1	2.46	+0.76	29						
	West Witton	9 9 9	605	47.6	37.2	42.4	—	55	7, 19	25	14th	41.6	47.7	5.10	129	—	16	9th	22	20	1	0	4	0	—	13	3	—	—	—						
York, E. Riding.	York	2121 9	56	49.4	37.9	43.7	+0.7	57	11th	25	15th	44.6	48.3	3.47	88	+ 35	20	28th	21	14	0	0	0	0	—	—	0	1.54	+0.11	188						
	Hull	2121 9	8	49.5	38.6	44.1	+1.2	57	8th	27	15th	43.7	48.7	3.71	94	+ 38	21	28th	20	15	1	0	0	0	18	14	0	2.26	—	26						
	Osgodby	2121 9	30	49.0	36.3	42.7	—	57	11th	25	1, 15	—	—	3.50	89	—	17	28th	19	14	0	0	0	0	8	11	2	2.01	—	23						
	Spurn Head	18-7 7	29	48.3	40.7	44.5	0.0	54	5, 7, 8, 11, 25	30	15, 16	—	—	3.54	90	+ 33	21	28th	18	11	0	0	1	0	0	—	1	3.05	—	35						
Lincoln.	Cranwell	18-7 7	236	48.5	37.4	42.9	+0.2	56	25th	27	15th	42.8	47.1	4.38	111	+ 64	22	11, 28	22	14	2	0	0	0	4	7	1	2.46	+0.53	27						
	Cleethorpes	9 9 9	23	49.6	37.8	43.7	—	56	7, 8	28	15, 16	—	—	3.48	88	—	20	28th	14	10	0	0	0	0	8	—	0	2.64	—	31						
	Skegness	9 9 9	12	49.3	37.0	43.1	-0.2	57	8th	26	15th	—	—	3.32	84	+ 29	18	11th	20	11	0	0	0	0	2	—	0	2.43	+0.16	38						
3. ENGLAND, E.																																				
Norfolk.	Cromer	9 9 9	150	50.0	40.2	45.1	+0.8	58	8th	27	16th	—	—	3.31	84	+ 24	22	11th	20	13	0	0	0	0	0	3	0	2.80	+0.77	32						
	Hunstanton	9 9 9	105	49.8	39.3	44.5	—	57	25th	30	15, 16	—	—	3.41	87	—	20	11th	19	15	0	0	0	0	1	—	2	2.44	—	28						
	Norwich	9 9 9	98	50.1	38.0	44.1	+1.0	58	8th	27	15th	41.5	—	3.42	87	+ 22	19	11th	21	15	0	0	1	0	—	12	3	2.04	—	23						
	Sprowston	9 9 9	93	49.9	38.1	44.0	—	59	28th	28	16th	—	—	3.32	84	—	19	11th	21	13	0	0	0	0	9	13	0	2.05	—	248						
Suffolk.	Yarmouth	18-7 7	14	49.0	40.3	44.7	+0.6	58	8th	29	15, 16	44.7	51.0	3.45	88	+ 27	16	11th	21	14	0	0	1	0	3	5	2	1.88	-0.18	22						
	Bungay (Flix'n)	9 9 9	79	49.4	37.9	43.7	—	58	8th	27	15, 16	—	—	3.00	76	—	12	11th	20	12	0	0	0	0	3	18	0	—	—	—						
	Copdock	9 9 9	104	49.7	38.2	43.9	—	59	8th	28	14, 15, 16	44.2	48.8	4.00	101	—	16	11th	19	14	0	0	0	0	5	9	0	1.86	—	21						
	Felixstowe	18-7 7	15	48.8	41.4	45.1	—	59	8th	29	5th	—	—	3.77	96	—	13	7th	18	15	0	0	0	0	2	2	2	2.35	—	26						
Cambridge.	Lowestoft	9 9 9	83	50.0	39.7	44.9	+0.4	58	8th	28	15th	44.1	49.1	3.29	84	+ 24	16	11th	18	13	0	0	0	0	3	6	1	2.31	+0.04	27						
	Cambridge (Bot. Gdns.)	2121 9	41	51.0	37.1	44.1	+1.0	58	8, 22	25	14, 15	45.0	49.5	4.09	104	+ 55	17	11th	18	17	0	0	0	0	5	12	0	2.11	+0.04	24						
	Wisbech	2121 9	10	49.6	36.5	43.1	—	58	8th	26	2, 4, 15	—	—	3.69	94	—	17	11th	20	16	0	0	0	0	4	10	2	2.20	—	25						
	Cardington	18-7 7	100	49.5	38.1	43.8	—	58	8th	23	2nd	—	—	4.49	114	—	15	11th	17	16	1	0	1	0	4	11	1	2.51	—	29						
Bedford.	Luton	9 9 9	390	50.5	36.3	43.4	—	58	8th	21	2nd	43.9	50.3	5.79	147	—	21	11th	20	17	0	0	0	0	4	14	0	2.43	—	28						
	Woburn	9 9 9	291	50.3	37.3	43.8	+1.2	57	7, 8	22	2nd	43.3	49.0	5.78	147	+ 90	17	11, 29	22	17	0	0	0	0	2	10	1	2.35	—	27						
	Rothamsted	9 9 9	420	48.7	37.5	43.1	+0.4	57	8th	27	2, 13	42.9	—	6.25	159	+ 94	23	11th	19	18	2	0	0	0	3	15	2	2.60	+0.43	30						
	St. Albans	9 9 9	272	50.9	35.5	43.2	—	60	8th	23	15th	44.2	—	6.34	161	—	25	11th	19	17	1	0	1	0	1	15	0	—	—	—						
Essex.	Clacton-on-S.	18-7 7	55	48.4	41.7	45.1	+1.0	59	8th	29	15th	45.5	50.4	3.65	93	+ 45	13	11th	20	16	0	0	2	1	1	4	1	2.11	-0.22	24						
	Chelmsford	9 9 9	134	50.2	37.8	44.0	—	59	8th	26	15th	—	—	4.52	115	+ 57	21	11th	22	15	0	0	0	0	—	—	—	—	—	—						
	Chelmsford	9 9 9	185	51.0	36.6	43.8	—	60	8th	25	13, 15	—	—	4.19	106	—	19	11th	19	15	0	0	0	0	7	11	0	2.04	—	23						
	(Good Easter)																																			
Derby.	Earls Colne	9 9 9	168	49.4	37.5	43.5	—	58	8th	28	13, 15, 16	—	—	4.22	107	—	18	11th	19	16	0	0	0	1	—	—	2	—	—	—	—					
	Halstead	9 9 9	139	50.0	36.9	43.5	—	58	8th	25	15th	—	—	5.23	133	—	21	11th	21	17	0	0	1	0	3	—	0	—	—	—	—					
	Shoeburyness	18-7 7	11	50.6	39.9	45.3	+0.6	60	8th	28	15th	—	—	4.01	105	+ 53	19	16th	18	15	0	0	1	1	2	6	6	2.28	—	26						
4. MIDLAND COUNTIES.																																				
York, W. Riding.	Bradford	9 9 9	439	48.0	36.0	42.0	—	57	19th	24	14th	42.6	48.0	6.18	157	+ 83	21	11th	27	20	0	0	0	0												

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, NOVEMBER, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
					Means of		Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.			Deviation from Normal.	Most in a day.		Precip'n.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
								Maximum.	Date.	Minimum.	Date.																	1 ft.	4 ft.	0.2 mm. or more.	1 mm. or more.	Daily Mean.	Deviation from Normal.	Per Cent.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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Max.	Min.	Rain.	Max.	Min.	Mean of A and B.	Max.	Min.	Mean of A and B.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, NOVEMBER, 1929.

DISTRICT, COUNTY AND PLACE.	Terminal Hours of Observation.	Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.				
			Means of		Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.			Deviation from Normal.	Most in a day.	Precip'n.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.		Per Cent.							
			A	B		Maximum.	Date.	Minimum.	Date.		Amount.	Date.										0.2 mm. or more.	1 mm. or more.		Daily Mean.	Deviation from Normal.					
			Max.	Min.	Max.	Min.	Mean of A and B.	Maximum.	Date.	Minimum.	Date.	1 ft.	4 ft.	Amount.	Date.	0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.				
5. ENGLAND, S.E.—cont.			G.M.T.	ft.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	in.	mm.	mm.	mm.									hr.	hr.	%					
Hampshire			Calshot ..	18-7 7	8	52.3	42.7	47.5	—	61	8th	30	14, 15	—	—	6.82	173	—	29	15th	20	17	0	0	2	1	2	6	52.83	—	32
—cont.			Grayshott ..	9 9 9	661	49.6	38.2	43.9	+1.7	59	8th	28	14, 15, 18	44.1	—	9.19	234	+148	40	11th	22	18	1	0	2	0	3	14	42.85	+0.55	32
			Long Sutton ..	9 9 9	479	50.4	38.7	44.5	—	60	8th	27	15th	44.0	—	8.28	211	—	29	11th	18	18	1	0	0	0	1	11	02.75	—	31
			Southamp'n ..	2121 9	64	52.9	40.2	46.5	+1.1	59	8th	27	15th	—	—	9.06	230	+150	33	11th	19	17	0	0	0	0	7	10	32.41	+0.21	27
			S. Farnboro' ..	18-7 7	237	50.6	38.7	44.7	—	60	8th	21	15th	—	—	6.60	168	—	23	11th	20	18	1	0	1	0	5	14	02.70	—	31
			Winchester ..	18-7 7	272	50.9	38.9	44.9	—	61	8th	23	15th	—	—	9.74	247	—	31	24th	21	18	0	0	1	0	3	11	12.73	—	31
			(Worthy Down)																												
I. of Wight.			Newport ..	9 9 9	48	53.1	38.0	45.5	—	61	8th	23	15th	—	—	9.38	238	—	39	11th	21	15	0	0	1	1	7	12	2	—	—
			Ryde ..	9 9 9	13	53.3	42.4	47.9	—	60	8th	31	15th	—	—	7.58	193	—	29	11th	20	16	0	0	1	1	1	—	13.01	—	34
			Sandown ..	9 9 9	13	53.3	40.4	48.7	—	61	8th	29	18th	—	—	7.07	180	—	33	27th	24	16	0	0	0	1	4	—	63.15	—	35
			Totland Bay ..	9 9 9	140	52.7	41.5	47.1	+0.8	60	8th	30	15, 18, 19	—	—	8.12	206	+126	34	15th	19	16	0	0	1	2	2	8	42.91	+0.31	32
			Ventnor ..	9 9 9	59	53.5	44.6	49.1	+1.5	60	8th	35	18th	—	—	6.91	175	+93	27	27th	21	16	0	0	1	1	—	—	23.55	+0.98	40
			(Hospital)																												
Wilts.			Larkhill ..	9 9 9	440	50.8	37.0	43.9	—	57	11th	25	15, 18	—	—	7.96	202	—	25	23rd	17	17	0	0	0	0	3	10	3	—	—
			Marlboro' ..	9 9 9	424	51.1	34.9	43.0	+0.8	58	8th	20	15th	44.8	49.9	8.39	213	+134	26	27th	19	17	0	0	0	0	3	15	22.25	+0.48	25
			Porton ..	9 9 9	363	51.2	35.5	43.3	—	56	7, 11	24	14, 15, 18	44.6	—	7.74	197	—	25	27th	19	17	0	0	0	2	3	15	22.59	—	29
7a. ENGLAND, N.W.																															
Cumberland.			Aspatria ..	2121 9	487	47.4	38.7	43.1	+0.7	56	19th	27	15, 16	45.3	48.4	7.08	180	+83	31	9th	26	21	0	0	0	0	—	—	01.06	-0.91	13
			(Mealsgate) ..	9 9 9	254	49.7	39.3	44.5	—	58	7th	26	15th	44.9	49.1	12.58	319	—	48	11th	26	19	3	0	2	2	0	10	00.71	—	8
			Keswick ..	9 9 9	559	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
			Newton Rigg ..	2121 9	559	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lancashire.			Bolton ..	9 9 9	341	48.9	37.7	43.3	—	55	7th	27	18th	43.8	47.1	8.85	225	—	38	11th	24	21	1	0	4	1	—	8	01.01	—	12
			Burnley ..	9 9 9	458	48.1	37.4	42.7	—	55	7th	24	18th	43.3	46.9	8.11	206	—	33	11th	24	19	0	0	4	0	5	20	00.82	—	10.8
			Darwen ..	2121 9	724	46.8	38.2	42.5	—	54	8th	27	15th	42.9	46.3	10.65	270	—	43	11th	26	22	1	0	3	1	8	7	01.13	—	13.8
			Hutton ..	9 9 9	82	49.6	37.6	43.6	—	56	11th	24	18th	44.2	48.4	6.83	173	—	25	11th	24	20	0	0	3	2	2	9	11.24	—	15
			Lancaster ..	9 9 9	311	50.6	39.3	44.9	—	54	7th	29	15th	42.9	45.7	8.46	189	—	33	11th	23	21	1	0	1	1	2	7	01.04	—	12
			Leyland ..	9 9 9	124	49.5	37.6	43.5	—	56	11th	24	18th	—	—	6.81	173	—	26	11th	25	19	0	0	3	3	4	8	11.41	—	16
			Manchester ..																												
			(Whitworth Pk)	2121 9	125	49.3	39.8	44.5	+0.9	56	11, 19, 20	27	18th	—	—	6.46	164	+97	30	11th	20	18	—	—	—	—	15	—	1.12	+0.45	13
			(Oldham Road)	2121 9	190	49.3	41.3	45.3	+1.1	56	8, 19, 20, 22, 25	30	18th	43.3	48.7	6.88	175	+100	32	11th	23	18	2	0	1	0	—	4	00.68	+0.15	8.8
			(Swinton) ..	9 9 9	253	49.4	36.6	43.0	—	56	11, 25	24	18th	—	46.4	6.68	170	—	31	11th	22	21	3	0	6	1	6	10	11.11	—	13
			Southport ..	9 9 9	37	49.5	39.9	44.7	+1.0	57	11th	27	18th	43.0	47.2	6.22	158	+78	19	11th	24	22	0	0	5	1	2	5	11.44	-0.36	17
			Stonyhurst ..	9 9 9	377	48.8	37.9	43.3	+0.7	55	10th	24	14th	—	—	7.85	199	+84	35	11th	22	22	0	0	3	0	1	6	21.31	-0.26	15.8
Cheshire.			Hoylake ..	9 9 9	30	51.6	40.0	45.8	+0.7	59	11th	26	1, 18	—	—	4.93	125	+55	21	11th	26	23	—	—	—	—	—	—	1.77	-0.16	21
			Liverpool ..	18-7 7	189	48.4	41.4	44.9	+0.5	58	11th	29	18th	—	—	4.35	110	+46	13	11th	23	21	1	0	3	2	0	4	01.76	—	20
			(Bidston)																												
			Macclesfield ..	9 9 9	500	48.1	36.9	42.5	+0.5	54	7, 11, 19, 25	26	18th	—	—	6.23	158	+83	31	11th	24	20	3	0	3	1	0	—	0	—	—
			West Kirby ..	9 9 9	25	50.5	40.9	45.7	—	59	11th	27	18th	—	—	5.16	131	—	23	11th	26	20	5	0	9	4	0	6	21.74	—	20
7b. NORTH WALES.																															
Flint.			Hawarden B'ge	9 9 9	20	51.5	38.6	45.1	+0.3	61	11th	24	18th	—	—	4.49	114	+57	17	9th	26	21	—	—	—	—	1	—	—	—	—
			Rhyl ..	9 9 9	30	53.3	40.1	46.7	+1.7	61	11th	29	18th	—	—	5.38	137	+76	22	11th	25	21	0	0	4	0	0	6	31.57	-0.63	18
			Sealand ..	18-7 7	16	50.0	39.4	44.7	+1.1	60	11th	23	18th	44.7	48.2	4.58	116	+55	15	9, 11	25	20	2	0	4	1	1	9	11.61		

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, NOVEMBER, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
		Means of				Absolute Maximum and Minimum.				Total Fall.		Deviation from Normal.			Most in a day.		Precip'n.		Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.		Per Cent.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
		A	B		Mean of A and B.	Deviation from Normal.	Maximum.	Date.	Minimum.	Date.	1 ft.	4 ft.	Amount.	Date.	0.2 mm. or more.	1 mm. or more.	Snow.	0.2 mm. or more.							1 mm. or more.	Daily Mean.		Deviation from Normal.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
		Max.	Min.		Ran.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.

TABLE IV.—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of NOVEMBER, 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	NO. OF OBSERVATIONS.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
											0	1 to 3	4 to 6	7 to 9	10	FOG.				Mist.	Poor Vis.	Mod. Vis.	GOOD VISIBILITY.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
																0	1	2	3				4	5	6													7	8	9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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Shetlands.	Lerwick	..	1	59	997.0	—	44.5	1.9	8.6	85	6.8	0	4	10	9	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0</

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of NOVEMBER, 1929.

DISTRICT, COUNTY AND PLACE		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.														
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.									
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Visibility.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	
																0	1	2	3				4	5	6													7
2. ENGLAND, N.E.—cont.																																						
Durham.	Durham ..	G.M.T.	ft.	mb.	mb.	°F.	°F.	mb.	%																													
		9	352	1003.5	—	42.1	1.3	8.1	89.6	5	4	4	6	11	0	1	1	4	7	1	10	6	0	0	0	3	25	2	0	1	1	0	12	5	8	1		
		21	352	1002.8	—	41.9	0.8	8.5	93.7	5	3	2	1	19	0	1	1	0	1	4	12	10	1	0	1	5	23	1	0	2	0	0	16	4	6	1		
York, N. Riding.	Scarborough	9	96	1003.7	—	44.4	1.9	8.3	85.4	7	8	4	7	6	5	0	0	1	1	1	0	11	12	4	0	0	1	29	0	0	0	1	0	9	8	7	5	
		21	53	1005.2	—	42.3	1.4	8.0	88.5	8	2	4	3	13	—	—	—	—	—	—	—	—	—	—	—	0	1	28	1	1	2	2	13	4	4	1		
	York ..	21	53	1004.0	—	43.0	1.5	8.2	87.6	9	0	0	1	20	—	—	—	—	—	—	—	—	—	—	—	0	1	29	0	2	0	2	3	11	6	3	3	
York, E. Riding.	Spurn Head	1	28	1004.6	—	43.8	0.5	9.4	96.7	1	0	7	5	5	13	0	0	0	1	0	1	14	14	0	0	0	22	8	0	2	1	0	1	6	10	3	7	
		7	28	1004.3	-7.9	43.4	0.5	9.0	96.6	8	0	6	9	5	10	0	0	0	0	0	0	15	15	0	0	0	21	9	0	2	0	0	1	7	5	10	5	
		13	28	1004.1	—	46.9	1.5	9.7	89.7	5	0	2	8	12	8	0	1	0	0	0	0	16	13	0	0	1	16	12	1	2	0	1	0	5	11	6	4	
		18	28	1003.6	—	45.1	0.9	9.5	93.6	8	0	6	9	4	11	0	1	0	2	0	0	14	13	0	0	0	17	12	1	2	0	1	1	7	11	4	3	
Lincoln.	Cranwell H	1	240	1005.8	—	41.0	1.0	8.1	91.5	7	7	4	3	4	12	0	0	3	1	3	5	13	4	1	0	0	18	12	0	0	0	0	5	9	5	8	3	
		7	240	1005.7	—	40.4	0.9	8.0	92.6	2	0	10	5	4	11	0	1	2	1	2	2	7	13	2	0	0	13	17	0	0	1	0	3	8	10	6	2	
		13	240	1005.1	—	47.1	2.4	9.2	82.7	7	1	1	5	4	10	10	0	1	1	1	3	2	12	7	3	0	0	16	14	0	0	1	0	4	10	6	6	3
		18	240	1005.0	—	43.5	1.5	8.6	88.5	5	1	3	12	3	1	11	0	0	1	3	4	3	9	8	2	0	0	12	17	1	2	0	0	2	10	10	5	0
3. ENGLAND, E.																																						
Norfolk.	Cromer H	9	74	1006.7	—	45.3	1.6	9.1	88.6	1	4	4	6	8	8	0	0	0	0	1	0	19	8	2	0	0	9	21	0	1	0	2	4	10	7	4	2	
		1	26	1007.5	—	44.5	1.1	9.3	91.5	7	6	5	4	3	12	0	0	0	0	0	2	16	11	1	0	0	16	14	0	1	0	1	0	12	8	5	3	
Norfolk.	Yarmouth ..	7	26	1007.0	-6.1	43.4	1.3	8.4	89.6	6	4	2	8	3	13	0	2	0	1	0	2	17	8	0	0	0	12	18	0	0	1	0	1	10	6	9	3	
		13	26	1006.6	—	47.3	1.2	9.9	91.7	6	1	2	6	6	15	0	1	0	1	0	2	22	4	0	0	1	15	14	0	1	0	2	1	8	9	4	5	
		18	26	1006.5	—	45.2	1.6	8.8	87.5	2	8	5	4	3	10	0	1	2	0	0	3	21	3	0	0	1	10	19	0	0	2	0	1	14	7	4	3	
Suffolk.	Felixstowe Aero.	7	20	1007.9	—	43.6	0.9	9.1	93.6	8	2	5	4	7	12	0	1	0	1	1	4	9	10	4	0	0	17	12	1	1	0	1	2	13	2	6	4	
		13	20	1007.5	—	47.6	2.3	9.6	84.7	0	3	3	3	12	9	0	1	1	0	0	4	8	10	6	0	1	15	14	0	1	1	1	6	8	5	4	4	
		18	20	1007.6	—	45.7	1.4	9.4	89.5	3	9	3	5	3	10	0	1	1	0	0	4	8	14	2	0	1	9	20	0	1	2	0	2	14	5	2	4	
Cambridge.	Cambridge H	9	43	1006.8	-7.5	43.2	1.1	8.9	92.7	7	7	0	2	6	5	—	—	—	—	—	—	—	—	—	—	—	0	6	22	2	0	0	1	2	8	11	2	4
		21	43	1006.4	-7.9	43.5	1.3	8.8	89.4	4	15	1	1	1	12	—	—	—	—	—	—	—	—	—	—	—	0	8	21	1	1	0	4	5	7	6	0	
		7	187	1006.4	—	41.4	1.1	7.9	91.6	3	1	9	2	9	9	0	0	2	2	0	1	9	9	7	0	0	15	13	2	0	1	0	2	8	9	7	1	
Bedford.	Cardington	13	187	1005.0	—	48.6	3.2	9.0	77.7	1	0	6	5	8	11	0	1	1	0	1	3	6	12	6	0	0	19	10	1	1	2	1	0	8	9	4	4	
		18	187	1005.9	—	44.4	1.9	8.3	85.5	6	2	11	2	3	12	0	0	0	0	1	1	10	15	3	0	0	15	14	1	1	0	1	3	8	8	4	4	
		21	187	1006.1	—	43.4	1.5	8.2	87.5	2	7	8	2	1	12	0	0	0	0	2	2	7	15	4	0	0	19	8	3	1	0	1	3	7	9	6	0	
Hertford.	Rothamsted	9	396	1006.9	—	43.7	1.3	8.8	89.6	3	4	5	4	4	13	0	2	1	2	3	12	10	0	0	0	7	14	9	0	1	1	2	7	5	3	0		
Essex.	Shoeburyness H	7	14	1008.0	—	43.0	0.7	9.0	94.6	2	2	7	4	10	7	0	2	0	0	0	2	7	12	7	0	0	8	22	0	1	1	1	1	10	7	5	4	
		13	14	1007.4	—	48.1	2.0	9.9	86.7	1	1	4	6	11	8	1	1	0	0	0	0	4	8	16	0	0	12	17	1	1	1	1	0	8	10	2	6	
		18	14	1007.4	—	45.3	1.3	9.3	90.4	7	7	5	6	6	6	0	0	1	1	0	1	5	7	15	0	0	9	19	2	1	1	1	1	6	13	1	4	
4. MIDLAND COUNTIES.																																						
York, W. Riding.	Harrogate ..	7	478	1004.2	—	40.9	0.9	8.1	92.5	0	0	12	1	11	6	0	2	1	3	0	4	2	9	7	2	0	5	24	1	2	0	0	5	6	13	3	0	
		13	478	1003.5	—	46.3	2.4	8.6	81.7	0	0	7	2	10	11	0	2	0	5	1	9	2	5	6	0	0	6	23	1	1	0	0	3	14	8	2	1	
		18	478	1002.8	—	43.0	1.1	8.5	91.5	3	3	9	2	4	12	0	1	1	3	1	12	1	11	0	0	1	4	23	2	1	0	0	1	15	9	1	1	
Nottingham.	Nottingham	9	215	1005.1	—	42.1	1.4	8.0	88.8	0	0	3	5	5	17	2	4	4	5	7	1	4	3	0	0	0	9	21	0	1	1	1	2	6	6	11	2	
Warwick.	Birmingham H	7	542	1005.9	—	41.8	0.6	8.9	94.6	3	3	5	1	11	10	0	0	0	0	2	7	5	7	9	0	0	7	23	0	0	0	1	4	10	10	2	3	
		13	542	1005.3	—	47.1	2.3	9.2	82.7	0	0	4	7	12	7	0	0	0	0	3	3	4	11	4	5	0	0	13	17	0	2	1	0	3	10	8	3	
		18	542	1005.4	—	44.5	1.4	9.0	88.5	9	3	9	3	3	12	0	0	0	0	2	2	8	7	6	5	0	0	12	18	0	0	1	0	5	11	5	5	
Oxford.	Oxford ..	9	212	1007.1	-7.9	43.2	1.4	8.3	88.6	7	2	6	4	6	12	0	3	0	5	4	2	8	1	7	0	0	8	14	8	1	1	0	5	8	4	3	0	
Hereford.	Ross-on-Wye H	7	226	1005.6	—	41.6	1.0	8.6	91.7	1	2	7	0	5	16	0	3	0	0	2	3	9	6	7	0	0	6	22	2	0	2	2	4	4	9	4	3	
		13	226	1004.9	—	48.4	3.1	9.1	78.7	7	1	5	0	12	12	0	0	0	2	2	0	9	9	6	2	0	12	17	1	1	1	0	4	5	10	3	5	
		18	226	1005.1	—	46.1	2.2	9.0	83.6	2	1	11	0	6	12	0	0	0	1	2	5	12	3	6	1	0	9	21	0									

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of NOVEMBER, 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.													
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	NO. OF OBSERVATIONS.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.								
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Vis.	8 or more	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.		
																0	1	2	3																	4	5
5. ENGLAND, S.E.—cont.																																					
Kent.	Biggin Hill H	G.M.T.	ft.	mb.	mb.	°F.	°F.	mb.	%																												
		7	596	1007.0	—	42.2	0.8	8.7	93.6	9	4	3	4	8	11	2	0	1	0	0	7	6	14	0	0	0	10	15	5	0	0	1	1	3	17	1	2
		13	596	1006.6	—	47.9	2.7	9.1	80.7	1	0	7	3	10	10	0	0	1	1	2	0	5	11	10	1	0	0	11	19	0	1	2	0	1	4	15	3	4
Kent.	Dungeness ..	18	596	1007.3	—	44.4	1.7	8.7	86.4	3	6	3	9	9	0	0	1	1	3	3	16	6	0	0	1	7	22	0	2	1	0	2	4	14	3	4	
		1	23	1008.5	—	46.6	1.6	9.6	87.5	8	1	7	4	10	0	0	1	1	3	0	4	10	11	0	1	16	12	1	3	1	1	2	8	8	3	5	
		7	23	1007.9	-5.9	45.8	1.2	9.5	91.7	1	3	5	7	14	0	1	0	0	0	0	5	9	15	0	0	13	16	1	5	0	1	0	7	9	2	3	
Kent.	Lympne H	13	23	1007.7	—	50.4	2.9	9.7	79.7	0	1	8	10	11	0	1	0	0	0	0	0	15	14	0	1	14	15	0	4	0	1	1	5	10	5	4	
		18	23	1007.7	—	48.5	1.9	10.2	86.5	1	4	10	6	9	0	0	0	0	0	0	1	16	13	0	1	11	18	0	5	1	0	0	6	11	5	2	
		1	345	1008.9	—	44.1	1.3	9.0	89.6	6	3	4	5	12	0	1	2	2	6	8	8	3	0	1	16	13	0	2	1	0	5	10	5	1	6		
Kent.	Manston H	7	345	1008.2	—	43.4	1.0	8.9	92.7	3	4	2	8	13	0	1	1	2	1	7	9	4	5	0	0	12	18	0	3	1	0	4	11	3	2	6	
		13	345	1007.6	—	48.5	2.8	9.4	80.6	2	6	2	11	9	0	1	0	0	0	4	12	8	4	1	0	17	13	0	3	1	1	3	9	8	2	3	
		18	345	1008.0	—	45.6	1.9	9.0	85.5	3	11	3	1	12	0	0	0	2	0	5	8	13	2	0	1	12	17	0	6	0	0	3	12	7	1	1	
Kent.	Tunbridge Wells	7	152	1008.4	—	43.6	0.9	9.1	92.7	0	5	2	9	12	0	0	0	0	1	11	16	1	0	0	15	14	1	0	0	0	0	5	11	5	3	5	
		13	152	1008.0	—	49.2	2.5	9.8	82.7	0	5	4	12	9	0	1	0	0	0	3	4	11	11	0	0	22	8	0	1	0	2	3	8	4	7	5	
		18	152	1008.2	—	45.6	1.4	9.4	89.5	7	4	4	7	8	0	0	0	1	0	0	5	20	4	0	1	12	16	1	1	1	0	3	9	8	2	5	
Sussex.	Brighton H	9	396	1008.4	—	44.4	0.9	9.1	93.6	2	5	4	7	12	0	1	0	0	8	7	8	6	0	0	0	8	22	0	1	1	0	3	8	10	6	1	
Sussex.	St. Leonards	9	174	1008.3	—	47.1	2.0	9.3	85.6	1	4	8	7	10	0	0	1	0	0	1	12	16	0	0	4	8	18	0	3	2	0	1	2	14	3	5	
		21	174	1008.2	—	47.3	2.2	9.1	83.6	6	2	6	8	8	0	0	0	0	0	0	7	21	2	0	2	12	16	0	3	2	0	0	0	16	3	6	
		1	15	1008.1	—	47.4	2.0	9.5	85.5	6	6	2	6	10	0	0	0	0	0	3	7	14	6	0	1	17	12	0	1	1	0	5	8	4	5	6	
Hampshire.	Calshot ..	7	15	1007.5	—	45.2	1.6	8.9	88.6	1	8	4	6	11	0	2	0	0	0	2	11	9	6	0	0	12	17	1	2	0	0	3	7	6	3	8	
		13	15	1007.6	—	50.8	3.6	9.5	75.6	0	6	4	13	7	0	0	0	1	0	2	8	11	7	1	1	17	11	1	2	1	0	4	6	8	3	5	
		18	15	1007.9	—	48.7	2.8	8.9	80.6	3	5	4	5	13	0	0	0	0	0	3	5	16	6	0	1	19	10	0	1	0	1	3	9	5	6	5	
Hampshire.	Southampton H	9	84	1007.9	-7.4	45.2	1.5	9.4	88.7	3	2	3	6	16	0	1	5	1	13	7	3	0	0	0	0	8	22	0	2	3	1	2	3	7	6	6	
		21	84	1007.9	-7.1	47.5	1.9	9.7	85.7	1	2	3	10	14	0	0	4	1	15	10	0	0	0	0	0	7	23	0	1	0	1	2	2	12	8	4	
		7	256	1007.1	—	41.3	0.8	8.3	93.6	2	7	3	5	13	0	2	1	2	1	12	3	8	0	0	7	18	5	0	1	1	4	7	7	4	1		
Hampshire.	S. Farnborough	13	256	1006.7	—	49.6	3.2	9.3	77.2	0	3	9	8	10	0	0	1	0	0	1	7	15	6	0	0	11	19	0	1	1	0	3	8	9	2	6	
		18	256	1007.1	—	44.6	1.5	8.8	87.5	5	8	0	6	11	0	0	0	1	3	2	7	15	2	0	0	8	22	0	2	0	1	7	6	6	5	3	
		7	273	1007.3	—	41.6	0.8	8.3	93.6	3	6	1	8	12	0	2	0	1	0	2	8	9	8	0	0	8	18	4	2	1	0	4	11	3	2	3	
Hampshire.	(Worthy Down)	13	273	1007.0	—	49.0	2.8	9.4	79.7	0	5	2	12	11	0	1	0	0	1	1	7	10	10	0	0	18	12	0	3	1	0	4	9	6	3	4	
		18	273	1007.4	—	44.9	1.4	9.0	88.6	1	11	2	6	10	0	0	0	0	0	1	6	11	12	0	0	8	20	2	1	1	1	3	9	6	3	4	
		9	80	1007.5	—	49.0	2.2	9.9	83.6	0	7	5	8	10	—	—	—	—	—	—	—	—	—	—	—	1	15	14	0	5	0	2	0	2	9	9	3
I. of Wight.	Ventnor (Hosp.)	15	80	1007.4	—	50.8	3.3	9.8	77.6	0	7	8	3	12	—	—	—	—	—	—	—	—	—	—	—	1	13	16	0	3	1	1	2	1	8	10	4
		9	444	1006.7	—	43.2	1.2	8.9	91.6	2	5	4	6	13	1	1	0	1	3	2	6	9	7	0	0	13	17	0	3	2	0	4	9	7	2	3	
		13	444	1006.3	—	48.5	3.1	9.2	78.7	1	5	3	12	9	0	1	0	0	0	1	3	8	17	0	1	22	6	1	3	2	0	3	10	7	1	3	
Wilts.	Larkhill H	15	444	1006.2	—	47.7	3.0	8.9	78.7	0	7	1	10	12	0	0	0	0	1	0	4	8	16	1	2	18	9	1	4	1	0	4	10	6	1	3	
		7a. ENGLAND, N.W.																																			
		Cumberland.	Aspatria (Mealsgate)	9	485	1001.8	—	43.9	1.5	8.6	87.7	1	1	7	4	17	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
21	485			1001.8	—	42.8	1.1	8.5	91.8	2	2	2	3	21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
9	86			1002.8	—	43.2	1.2	8.4	90.7	1	4	6	9	10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Lancashire.	Southport H	9	42	1003.9	-9.3	43.9	1.6	8.7	87.7	0	4	5	7	14	0	1	0	1	2	16	3	0	7	0	0	13	16	1	0	1	0	11	10	2	3	2	
		13	42	1002.9	-10.1	47.7	2.5	9.3	82.7	0	5	4	7	14	0	0	0	0	5	13	2	2	8	0	0	14	15	1	0	1	3	7	9	3	5	1	
		18	42	1002.6	-10.3	45.7	1.8	9.1	86.8	0	3	3	4	20	0	0	0	0	3	14	2	5	6	0	0	17	12	1	2	0	0	6	9	5	4	3	
Lancashire.	Stonyhurst ..	21	42	1002.7	-10.5	44.9	1.3	9.3	89.8	0	6	2	2	20	0	0	0	0	0	18	3	4	5	0	0	19	9	2	2	0	2	8	6	3	5	2	
		9	381	1004.3	—	42.6	1.5	8.2	87.7	0	4	5	10	11	0	1	0	0	0	2	26	1	0	0	0	5	25	0	6	2	1	2	3	6	4	6	
		21																																			

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of NOVEMBER, 1929.

[illegible]

* Mean of hourly readings.

TABLE I. DISTRICT VALUES.

The District Values of this Table are computed from the statistics for selected individual stations set out in Table III and Table IV.

The representative stations from which the District Values of rainfall and temperature are computed are indicated in Table III by the sign ¶ while the representative stations from which District Values of sunshine are computed are indicated by the sign §. The deviations from and percentages of normal for Air Temperature, Rainfall and Sunshine are the means of the corresponding deviations or percentages for the representative District Value stations. The deviations from normal of Earth Temperature are derived from the deviations for all the stations reporting in Table III for which normals of Earth Temperature are available. The highest and lowest temperatures for the District recorded during the month may refer to any station in Table III.

TABLE II. SUMMARY OF AUTOGRAPHIC RECORDS OF WIND.

The records used in the preparation of this Table are generally made by anemographs of the pressure-tube type. At a few stations the Robinson Cup Anemograph is utilised. The classification adopted for the "Distribution of Wind" is based on the specification of the Beaufort Scale of Wind Force (see *The Observer's Handbook*). For an anemograph complying with the specification "head 33 ft. above ground in the open" the several columns correspond with Force 8 and above (gales), Forces 6 and 7 (strong winds), Forces 4 and 5 (moderate breezes), Forces 2 and 3 (light breezes), Forces 1 and 0 (nearly calm). Some information as to the nature of the actual exposures may be gathered from the figures in the "Height" columns.

The "Highest Hourly Wind" is determined by the mean speed of the wind for a period of sixty minutes from 30 minutes before to 30 minutes after an exact hour by Greenwich Mean Time. Under the heading "Veer from N" the azimuth of the direction from which the wind was blowing is stated, the entry for an east wind being 90°, that for a south wind 180° and so on.

TABLE III. SUMMARY OF OBSERVATIONS AT TERMINAL HOURS.*

Temperature.—The terminal hours of observation are given for each station. When the terminal hours for maximum and minimum temperature are stated independently the temperatures refer to intervals of 24 hours. If the maximum thermometer is read in the morning the reading is credited to the previous day. When the terminal hours for maximum and minimum are separated by a dash, thus, 18-7, the day-maximum for the period 7h. to 18h. and the night-minimum for the period 18h. to 7h. are reported and are utilised in determining the means for the month; in such cases the extreme temperatures for successive periods of 24 hours are also read by the observers, so that the absolute maximum and minimum temperatures for the month are obtained.

Except at the Royal Observatory, Greenwich, where a Glaisher stand is in use, the air temperature is obtained from thermometers placed in louvred screens. At Kew Observatory, Richmond, and Valentia Observatory these are north wall screens a few feet from the ground. At Aberdeen Observatory the north wall screen is at 41 feet. Otherwise the screens are in the open.

Rainfall.—The daily amounts are for the 24 hours beginning at the "terminal hour." "Rainfall" includes all forms of precipitation. The number of days of precipitation is counted with reference to the limit .01 inch or 0.2 mm. and also with reference to the limit .04 inch or 1 mm. The lower limit excludes mere "traces" of precipitation, but it is frequently passed on occasions when the precipitation is only dew.

Weather.—The numbers of days of Precipitation, Snow, Hail, Thunderstorms and Gale are counted irrespective of the hour at which the phenomena occur. Except for "Precipitation" the day is the civil day.

For the purpose of this summary "Snow" includes sleet (*i.e.*, snow with rain), "Hail" includes graupel (soft hail), "Snow lying" refers to occasions when at least one-half of the country surrounding the station is covered with snow at the morning observation. The entry of "fog" implies that regular observations of the range of vision are made on the scale set out below. Days of fog are those on which the range of vision is less than 1,100 yards at the hour of morning observation. That hour is generally given by the third entry of column 2 of the table and may be 7h. or 9h. G.M.T. The variability of the observation hour may exercise an important effect upon the statistics of fog frequency. "Thunderstorm" includes any day on which thunder is heard. "Gale" is a wind of Force 8 or upwards on the Beaufort Scale. A "ground frost" is entered when the reading of a "grass minimum" thermometer set the previous evening and read at the morning observation is 30° F. or lower.

Sunshine.—The percentage of possible sunshine in the last column is calculated with reference to the maximum duration theoretically possible in the latitude, allowance being made for refraction (see

International Meteorological Tables (Paris) pp. A17-A20 and 42-47) but not for the fact that the sunshine recorder is generally insensitive to sunshine when the sun is at an altitude of less than 3°. Where the symbol § occurs it indicates that obstructions obscure the sun during more than 5% of the period when it is over 3° above the horizon.

TABLE IV. SUMMARY OF OBSERVATIONS AT FIXED HOURS.*

Mean Air Pressure is expressed in millibars. (1 millibar = 1,000 dynes per square centimetre = the pressure due to .029531 inch of mercury at 32° F. in Lat. 45°). The corrections for latitude, temperature and height have been applied to the barometer readings so as to obtain pressure at mean sea level. Barometric pressure is given at station level for a few stations at altitudes of 600 ft. or more in footnotes in Table IV.

Hygrometry.—The values given depend on the readings of the dry and wet bulb thermometers in Stevenson Screens (except at the Observatories, see above). The observations were formerly reduced by Glaisher's method; as from January, 1926 they are reduced by the new hygrometrical tables issued by the Office which are based on a formula of Regnault. In general the relative humidity and vapour pressure are derived from the monthly means of the dry and wet bulb readings. At certain stations the daily values of relative humidity and vapour pressure are found and the means are computed therefrom. These stations are indicated by the letter "H."

Cloud Amount.—The proportion of sky covered with cloud is estimated on the scale 0 to 10, the entry "0" being equivalent to clear sky "10" to overcast.

Visibility.—The observations are classified according to the following scheme—the distances, specified by international arrangement in metres, are given here in yards and miles:—

CODE.	RANGE OF VISION.	
0	Less than 55 yards.	
1	Exceeding 55 yards, less than 220 yards.	
2	" 220 " " 550 "	
3	" 550 " " 1,100 "	
4	" 1,100 " " 1½ miles.	
5	" 1½ miles " 2½ "	
6	" 2½ " " 6½ "	
7	" 6½ " " 12½ "	
8	" 12½ " " 31 "	
9	" 31 " "	

Wind Summaries.—The estimates of wind force refer to the Beaufort Scale, and in general to the wind experienced at the time of observation. At Deerness, Cahirciveen, Richmond, Armagh, Eskdalemuir, Southport, Greenwich and Oxford the analysis refers to tabulations of autographic records. For Oxford the mean wind speed for half-an-hour centred at the hour of observation is used for conversion to "force" on the Beaufort Scale; for the remaining observatories the mean wind speed used for each observation refers to a period of one hour. In these cases winds equivalent to Force 1 are counted with the calms, whilst Forces 2 and 3 are taken together in the preceding column of the Table.

INTERPOLATED VALUES.

When the observations for any station for a month are incomplete and relevant data (e.g. records from neighbouring stations) which make it practicable to interpolate approximate values for the missing observations are available, such approximate values may be used for completing summaries for stations published in Tables III and IV. Parts of a summary obtained in this way are shown in brackets thus—(52.4).

STANDARD OF TIME.

As a rule observations are made in all parts of the British Islands according to Greenwich Mean Time, but at the following stations Local Mean Time is used for the observations summarised in Tables III and IV. The number of minutes after Greenwich Time is shown in brackets—Darwen (10), Rhayader (15), Ashburton (15), Tavistock (17), Plymouth (15), Douglas (20), Armagh (26), Balbriggan (25), Lisburn (30), Newcastle, Co. Wicklow (30), Ballinacurra (30), Cork (34).

"Summer Time" is not used in the Monthly Weather Report, but at certain stations the hours of observation vary in the course of the year. For such stations all time entries are converted to G.M.T. before they are printed and the winter hours are given as the terminal hours in the annual tables. For the summer hours reference should be made to the appropriate months.

NORMALS.

In Table III the normals used are those for the 35 years 1881-1915. The normals of temperature and sunshine are published in the Book of Normals, Section I, those for rainfall in the Book of Normals, Section V.

The normals for pressure with which comparison is made in Table IV also refer to the period 1881-1915.

* In addition to the frequencies published in this Report (Tables III and IV), the Meteorological Office has issued since January, 1927, in the form approved by the International Commission for Air Navigation, monthly frequency tables of height of base of low cloud, and speed and direction of surface and upper winds.

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

SUMMARY OF OBSERVATIONS COMPILED FROM RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS.

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DECEMBER, 1929. Mild, abnormally wet and stormy, but with frequent sunny periods.

The outstanding features of the weather of the last month of a remarkable year were the excessive rainfall and the persistence of violent gales. Apart from a spell of cold weather from about the 17th to the 22nd during the last few days of which snow fell in many districts, the month was mild and in practically all districts monthly mean temperatures were above the normal. A noteworthy feature was that in spite of the very unsettled conditions and heavy rainfall, sunshine aggregates exceeded the normal in most districts.

During the first fourteen days of the month, conditions were very unsettled, depressions passing frequently from the Atlantic along our north-western seaboard while intense secondaries passed north-eastwards across the country. Rain fell daily and was both persistent and heavy during the period 1st to 11th, falls of 25 mm. and over being recorded locally on several days. More noteworthy, however, were the strong winds and gales that affected most districts during the period 5th to the 12th. The gales were most severely felt in the south-western districts of the British Isles where unusually high wind velocities were recorded, Scilly reporting a gust of 111 mi/hr. on the 6th, the highest wind velocity so far recorded there. Between the depressions there were intervals of bright weather, the sunniest days of the first half of the month being the 3rd, 4th and 10th, when about 5 hrs. bright sunshine were recorded at many places. Thunder was heard occasionally, the southern districts experiencing heavy thunderstorms during the evening of the 6th and northern England on the 8th and 9th. Temperature was high throughout this period, maxima being usually about or above 50° over the kingdom generally.

After the 14th there was a change to fair anticyclonic conditions with local fog; good sunshine records were obtained during the period 16th to 19th, more than 7 hours being reported from places in southern England on the 19th. Temperature fell to a more seasonable level, screen minima below freezing point and severe ground frost occurring at night in many places.

On the 19th pressure fell generally over the whole country and unsettled weather spread in from the west. Snow or sleet fell in Scotland and northern England from the 20th to 23rd, lying locally to a depth of 1 to 2 inches, and maximum temperatures on the 20th-22nd were round 35° F. generally; 25° F. was recorded at Renfrew, 32° F. at Harrogate and 33° F. at Durham and Ross-on-Wye on the 22nd. Gales occurred at many places during these days and fog locally on the 22nd and 23rd. On the 23rd there was a renewal of mild rainy weather with gales, severe locally, on the 25th, 28th and 29th. The heaviest rain of the month was experienced on the 28th, when 84 mm. fell at Rothwaite (Cumberland), 79 mm. at Oughtershaw (Yorkshire) and 78 mm. at Dungeon Ghyll (Westmorland). The year closed, however, with a mainly fine quiet day.

Pressure and Winds.—In consequence of the frequent passage of depressions and associated secondaries across the British Isles during the month, monthly mean pressures were below the normal in all districts, the deficiency at 7h. G.M.T. varying from 15 mb. at Stornoway to 7 mb. at Scilly. The prevailing winds were from a south-westerly or westerly point and were frequently strong, unusually stormy conditions prevailing during the period 5th to the 12th and on the 20th, 21st, 24th, 25th, 28th and 29th. The gales were most severe in coastal districts in the south and west of England and Wales and in the south of Ireland. The most violent gales were associated with the deep and vigorous disturbances which followed the tracks D and G (Map 1). At Blacksod Pt. the mean sea level pressure at 7 hours on the 5th was as low as 950.2 mb. while at Cahirciveen a mean sea level pressure of 949.5 was recorded at 19h. 30m. on the 6th. On the morning of the 5th the wind attained a mean hourly velocity of 70 mi/hr. at Pendennis and in gusts reached 94 mi/hr. at Pendennis, 84 mi/hr. at Plymouth, 81 mi/hr. at Scilly and 68 mi/hr. at Croydon. At Quilty in the evening of the same day, 84 mi/hr. was recorded in a gust. Even greater velocities were recorded during the night of the 6th to 7th when the wind momentarily touched 111 mi/hr. at Scilly, the highest velocity on record there, 103 mi/hr. at Falmouth and 80 mi/hr. at the inland station Worthy Down (near Winchester, Hants). In another exceptionally violent gale on the morning of the 7th, Scilly and Falmouth reported a gust of 102 mi/hr. and Liverpool 84 mi/hr. Amongst the greatest gusts reported on the 8th were 98 mi/hr. at Pendennis, 94 mi/hr. at Scilly, 81 mi/hr. at Liverpool (Bidston) and 80 mi/hr. at Calshot and Holyhead. Gusts exceeding 80 mi/hr. were again reported from the south-west during the night of Christmas Eve and on the morning of the 29th (88 mi/hr. at Cahirciveen and 81 mi/hr. at Weaver Point on the 24th and 83 mi/hr. at Pendennis, 82 mi/hr. at Scilly and 81 mi/hr. at Calshot on the 29th). The eastern districts of Great Britain escaped the full fury of the gales and in only a few places did the wind exceed 70 mi/hr. in gusts.

Temperature.—Apart from a spell of wintry weather from about the 17th to the 22nd the month was very mild and in all districts monthly mean temperatures exceeded the normal. Unusually high temperatures for the time of year occurred at the beginning and about the middle of the month; amongst the highest readings recorded were 60° F. at Llandudno on the 2nd, 59° F.

at Sealand (near Chester) and Llandudno on the 13th and 59° F. at Rhyll and 58° F. at Richmond (Kew Observatory), Maldon (Essex) and Lowestoft on the 14th. The maximum temperature of 58° F. at Richmond on the 14th has only once been equalled since at least 1871, viz., in December, 1918. The coldest days and nights extended from about the 16th to the 22nd. Day maximum temperatures which on the 14th exceeded 55° F. in many parts of England were considerably lower on the 16th and in some places failed to exceed 40° F.; thus Croydon reported 38° F. as the highest temperature on the 16th as against 57° F. on the 14th. During this period the temperature in the screen fell below freezing point during the night and severe ground frosts were widely reported; amongst the lowest grass minima reported were 13° F. at Burnley, 14° F. at Birr Castle and 15° F. at Winchester on the 16th, 11° F. at Rhayader and Winchester on the 17th, 8° F. at Balmoral and 10° F. at Renfrew on the 22nd.

The extreme temperatures for the month were:—(England and Wales) 60° F. at Llandudno on the 2nd, 20° F. at Usk on the 17th and at Castleton (Yorks) on the 18th. (Scotland) 56° F. at Onich and Edinburgh on the 2nd, and 1 at Edinburgh, Smeaton and Dumfries on the 13th, 14° F. at Renfrew on the 22nd. (Ireland) 60° F. at Hazelhatch (Co. Dublin) on the 2nd, 22° F. at Markree (Sligo) and Dublin (Glasnevin and Phoenix Park) on the 17th.

Precipitation.—December like November was excessively wet, monthly totals almost everywhere greatly exceeding the normal; over large areas, there was extensive flooding. Over the British Isles as a whole the month was the wettest December since 1876, although December, 1914, was almost as wet. The general precipitation of the British Isles expressed as a percentage of the normal for the period 1881-1915 was 183; the values for the constituent countries were: England and Wales 190, Scotland 168, Ireland 184.

In England and Wales few districts recorded less than one and a half times the normal. Many places had more than twice the normal and a few more than two and a half times the normal, e.g., the month was the wettest December at Ross-on-Wye since 1876, at Meltham since at least 1881 and at Teignmouth since 1915. At Meltham the total for December, 1929, has only twice been exceeded in any month, viz., in January, 1928 (317 mm.) and September, 1918 (351 mm.). Heavy daily falls were very frequent; amongst the most noteworthy were:—84 mm. at Rothwaite (Cumberland), 79 mm. at Oughtershaw (Yorkshire), 78 mm. at Dungeon Ghyll (Westmorland), 54 mm. at Keswick and 41 mm. at Giddleswick on the 28th, 54 mm. at Dean Prior on the 4th, 52 mm. at Rhayader on the 6th and 41 mm. at Giggleswick on the 28th.

In Scotland a few places around the Moray Firth reported totals less than the normal, but elsewhere there was a decided excess and in some parts the rainfall was more than twice the normal. There were many large daily falls, these being centred mostly around the 1st, 5th, 12th, 20th and 28th. Heavy falls of snow occurred locally on the 20th; at Otterden (Maybole) 5 in. lay on the 20th and at Glenbranter 4 in. on the 21st.

In Ireland monthly totals exceeded one and a half times the normal in most places and in the east and south-east more than twice the normal; at Cahirciveen (Co. Kerry) the month was the wettest December for more than half a century.

Sunshine.—A noteworthy feature of the weather of the month was the excess of bright sunshine recorded in most districts. Representative sunshine totals for Districts, expressed as a percentage of the normal for the period 1881-1915, ranged from 149 per cent. in the Midland Counties to 99 per cent. in Scotland N. The sunniest period occurred during a period of anticyclonic weather from the 16th to the 19th, when more than 6 hours bright sunshine were recorded in many districts in the south and east. Amongst the largest daily amounts recorded were 7.3 hr. at Weymouth on the 16th and 7.3 hr. at Plymouth and 7.1 hr. at Calshot on the 19th. At Copdock (Suffolk) 22.2 hrs. sunshine were recorded during the period 16th to the 19th, which is more than on any four consecutive December days since records commenced there in 1901. At Rothamsted the month was the sunniest December since 1852. At Southport the month was the sunniest December since records were commenced there 39 years ago. Amongst other days on which good records were obtained in various districts were the 3rd, 4th, 10th, 24th, 26th, 29th and 31st.

Fog.—The first half of the month was almost entirely free from fog; it occurred in many districts on the 14th and 15th, extensively during the period of anticyclonic weather from the 16th to the 19th and on the 22nd and 23rd.

Miscellaneous Phenomena.—Solar halos, accompanied on some occasions by parhelia, were observed at Oxford on several days, especially during the first half of the month. Aurora was observed in the northern districts of Scotland on the 3rd, 4th, 5th, 6th, 9th, 16th, 17th, 20th, 22nd, 24th and 29th. Observers in the south of England reported having seen a brilliant meteor at about 18h. G.M.T. on the 2nd. The observer at Ross-on-Wye also reported having seen a meteor at 7h. 11m. G.M.T. on the 3rd.

TABLE I.—DISTRICT VALUES—DECEMBER, 1929.

[1908, revised 1928.]

DISTRICTS.	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High-est.	Low-est.	Daily Mean. Deviation from Normal.	At 1 ft. Deviation from Normal.	At 4 ft. Deviation from Normal.	Per-cent- age of Normal.	No. of Days. Deviation from Normal.	Per-cent- age of Normal.	Per-cent- age of Possible Duration.
o. SCOTLAND, N.	°F. 56	°F. 22	°F. +1.7	°F. —	°F. —	% 135	+4	% 99	% 11
Eastern.									
1. SCOTLAND, E.	56	15	+1.8	—	—	149	+4	143	26
2. ENGLAND, N.E.	57	20	+2.0	+1.4	+0.8	173	+4	138	22
3. ENGLAND, E...	58	23	+3.7	+0.7	+0.6	178	+4	143	24
4. MIDLAND COUNTRIES	59	23	+3.1	+0.3	+0.2	204	+6	149	26
5. ENGLAND, S.E.	58	21	+3.1	+1.1	+1.3	205	+7	147	27

DISTRICTS.	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High-est.	Low-est.	Daily Mean. Deviation from Normal.	At 1 ft. Deviation from Normal.	At 4 ft. Deviation from Normal.	Per-cent- age of Normal.	No. of Days. Deviation from Normal.	Per-cent- age of Normal.	Per-cent- age of Possible Duration.
Western.	°F. 56	°F. 14	°F. +1.6	°F. —	°F. +1.1	% 189	+6	% 144	% 16
6. SCOTLAND, W. (& I. of Man)	56	14	+1.6	—	+1.1	189	+6	144	16
7. ENGLAND, N.W. (& N. Wales)	62	22	+2.4	+0.9	+0.7	170	+8	145	22
8. ENGLAND, S.W. (& S. Wales)	58	20	+2.3	+1.0	+1.1	185	+6	143	24
9. IRELAND, N...	56	22	+0.8	-0.1	-0.2	186	+5	120	19
10. IRELAND, S...	60	22	+0.8	-0.8	-0.1	190	+5	118	22
11. CHANNEL I. (& Scilly)	56	34	+1.9	-0.1	+0.6	159	+3	119	26
Mean: DISTRICTS 1-10	62	14	+2.2	+0.6	+0.6	183	+5	139	23

TABLE II.—SUMMARY OF AUTOGRAPHIC RECORDS OF WIND.—DECEMBER, 1929.

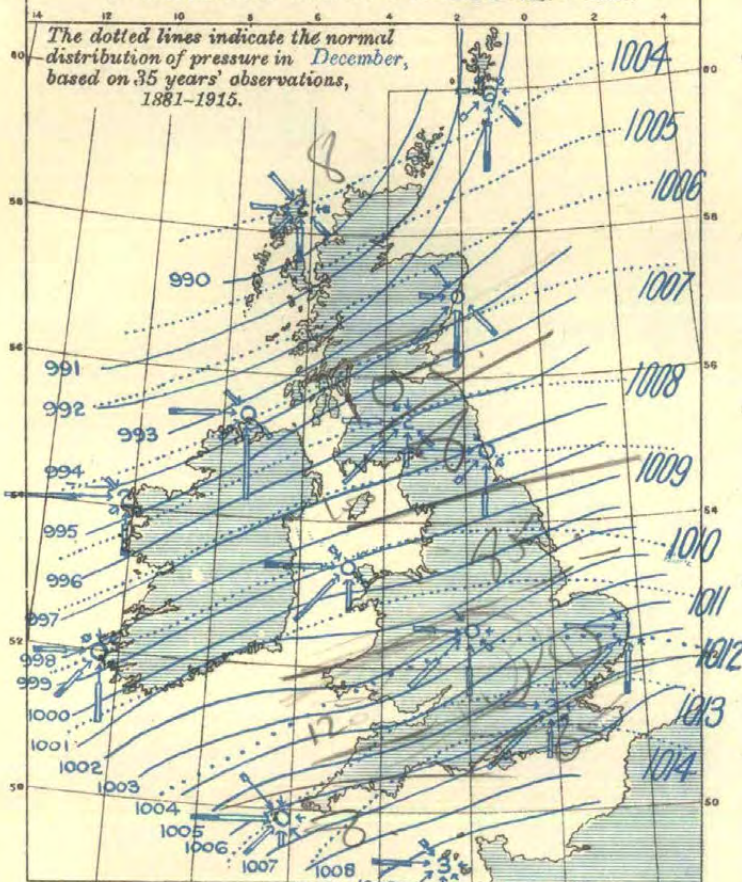
[1914.]

DISTRICT AND STATION.	Height.			Distribution of Wind.††								Extreme Velocities.								
	Above Mean Sea Level.	Above Ground.	Above Building.	More than 38 mi/hr.		25 to 38 mi/hr.		13 to 24 mi/hr.	4 to 12 mi/hr.	Less than 4 mi/hr.	No Record.	Highest Hourly Wind.				Highest Gust.				
				Dates of Occurrence.	Duration.	No. of Days.	Duration.	Duration.	Duration.	Duration.	Veer from N.	Speed.	Mid Time.	Speed.	Time.					
o. SCOTLAND, N.	ft.	ft.	ft.		hr.		hr.	hr.	hr.	hr.	hr.	°	mi/hr.	m/s.	day. hr.	mi/hr.	m/s.	d.	h.	m.
Shetlands Lerwick	310	42	33†	2, 4, 6, 13, 14 19-26, 29, 30	146	22	209	279	96	7	7	160	53	24	20 24	77	34	14	2	25
Orkneys Deerness (Cup Anr.)	188	16	5	2, 5, 6, 20-25, 29, 30	76	23	152	215	112	11	178	120	49	22	25 6	—	—	—	—	—
1. SCOTLAND, E.																				
Aberdeen Aberdeen	70	42	33†	25	10	14	103	270	330	31	0	120	47	21	25 5	70	31	25	6	45
Kincairdine Balmakewan ..	140	25	18	—	0	2	2	175	(446)	(121)	0	270	25	11	29 14	46	21	29	13	50
Edinburgh Edinburgh ..	485	39	31†	—	0	21	139	387	184	34	0	180	38	17	2 5	63	28	11	18	25
6a. SCOTLAND, W.																				
Argyll Tiree	75	50	42†	1-9, 12, 19, 20 23-25, 29	88	28	286	321	40	0	9	190	58	26	20 18	82	37	20	17	55
Renfrew Paisley	188	81	15	—	0	8	33	226	395	90	0	130	31	14	5 21	63	28	11	17	30
Dumfries Eskdalemuir ..	825	50	22	5, 13	3	18	126	342	196	77	0	180	40	18	5 20	62	28	12	4	20
2. ENGLAND, N.E.																				
Durham South Shields ..	62	46	20	—	0	8	40	214	356	134	0	120	35	16	25 2	67	30	12	5	50
York, E.R. Spurn Head ..	67	41	35†	5-7, 12, 21, 25, 29	43	23	204	379	110	5	3	190	47	21	5 8	66	29	7	10	40
Lincoln Cranwell	284	43	31†	7, 25	3	18	149	325	258	9	0	190 210	40	18	{ 7 4 } 25 15	68	30	25	12	40
3. ENGLAND, E.																				
Norfolk Gorleston	52	42	33†	2, 5-7, 9, 21	31	18	152	271	263	22	5	200	47	21	6 21	64	29	7	2	45
Suffolk Felixstowe Aero. .	55	40	25	5, 6, 7, 9,	14	17	193	335	166	34	2	190	42	19	5 9	57	25	{ 7 1 } 9 14	30	
Essex Shoeburyness ..	115	104	14†	2, 5-9, 25, 29	37	19	193	359	135	20	0	210	55	25	29 6	76	34	7	1	05
4. MIDLAND COUNTIES.																				
Warwick Birmingham ..	643	118	18	—	0	10	63	353	298	30	0	280	36	16	7 11	65	29	7	9	55
5. ENGLAND, S.E.																				
Surrey Richmond (Kew Obs)	82	65	22	—	0	7	52	269	303	120	0	210	36	16	7 3	68	30	29	5	25
Surrey Croydon	313	105	49	7-9, 29,	15	18	169	340	176	44	0	230	43	19	29 5	77	34	8	17	50
Kent Dover	61	32	22	5-9	20	20	166	307	170	10	71	—	44	20	7 5	70	31	7	5	40
Kent Lympne	409	70	55†	7, 8, 9, 29	22	15	124	315	272	11	0	210	48	21	{ 7 5 } 9 14	71	32	7	1	50
Hampshire Calshot	58	50	32†	2, 5-9, 25, 29	33	19	152	325	202	32	0	180 230	49	22	{ 7 1 } 9 12	81	36	29	7	20
Hampshire Worthy Down ..	314	43	27	5, 7	2	14	86	288	280	88	0	170	40	18	5 8	80	36	6	23	40
7a. ENGLAND, N.W.																				
Lancashire Fleetwood ..	112	50	12	7-9, 12, 29	26	19	135	352	189	42	0	300	53	24	7 13	76	34	8	22	50
Lancashire Southport ..	77	59	45†	7-12, 25, 26 29	76	22	136	353	171	8	0	270	55	25	8 22	72	32	7	12	35
Lancashire Liverpool (Bidston)	253	64	35	7, 8 11, 12, 29	44	19	138	419	137	6	0	300	50	22	7 12	84	38	7	11	50
7b. NORTH WALES.																				
Anglesey Holyhead	64	45	29†	5-9, 11, 12, 21, 25, 26, 29	70	25	251	304	116	3	0	270	56	25	8 21	80	36	8	21	40
Flint Sealand	81	65	49†	—	0	15	73	307	329	35	0	280	38	17	7 11	68	30	2	19	05
8b. ENGLAND, S.W.																				
Devon Plymouth	185	88	2	1, 4-10, 20, 21, 24, 25, 28, 29	55	20	187	267	162	73	0	—	65	29	5 3	85	38	6	22	50
Devon Pendennis Castle..	256	65	32	2, 4-12, 20, 21, 23-25, 28-30	134	20	267	206	108	29	0	190	70	31	5 2	103	46	6	23	10
9. IRELAND, N.																				
Donegal Dunfanaghy Road	180	47	39	5-7, 11-13, 29	30	21	160	280	238	36	0	—	52	23	11 15	77	34	11	14	30
Antrim Aldergrove ..	282	40	27†	24	1	15	89	323	294	37	0	120	39	17	24 22	69	31	11	16	00
10. IRELAND, S.																				
Dublin Kingstown (Cup Anr.)	49	27	16	4-7, 10-12, 24, 25, 29	42	25	222	280	181	19	0	260	51	23	7 10	—	—	—	—	—
Clare Quilty	100	40	32†	4, 5, 7, 8, 11, 24, 25	31	21	197	294	199	23	0	—	47	21	8 15	84	37	5	18	25
Kerry Cahirciveen (Val. O.)	98	41	34†	4, 5, 8, 24, 25, 28	31	22	216	301	145	51	0	205	57	25	24 23	88	39	24	21	40
Cork Weaver Pt.	160	30	21†	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
11. SCILLY ISLES																				
St. Mary's.. ..	230	65	17†	4-12, 20-21, 23-25, 28, 29	145	28	319	206	71	3	0	280	68	30	7 1	111	49	6	19	35

†† Brackets () indicate that the distribution as between winds above and below 4 m.p.h. is doubtful, but the total number of hours with winds below 12 m.p.h. is reliable.

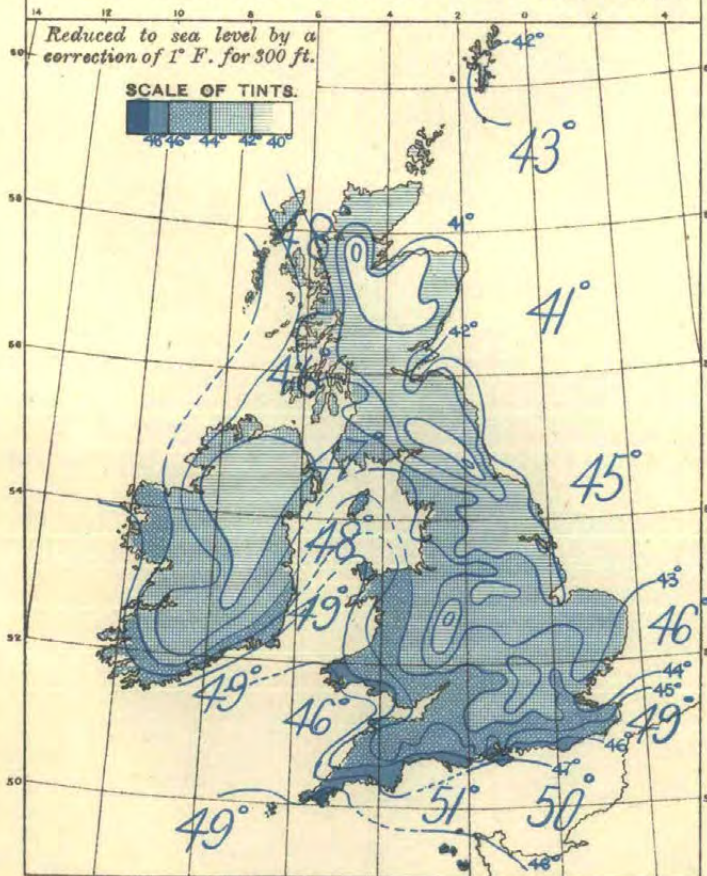
† Standard mounting.

1. WIND AND MEAN PRESSURE. 7 A.M. *



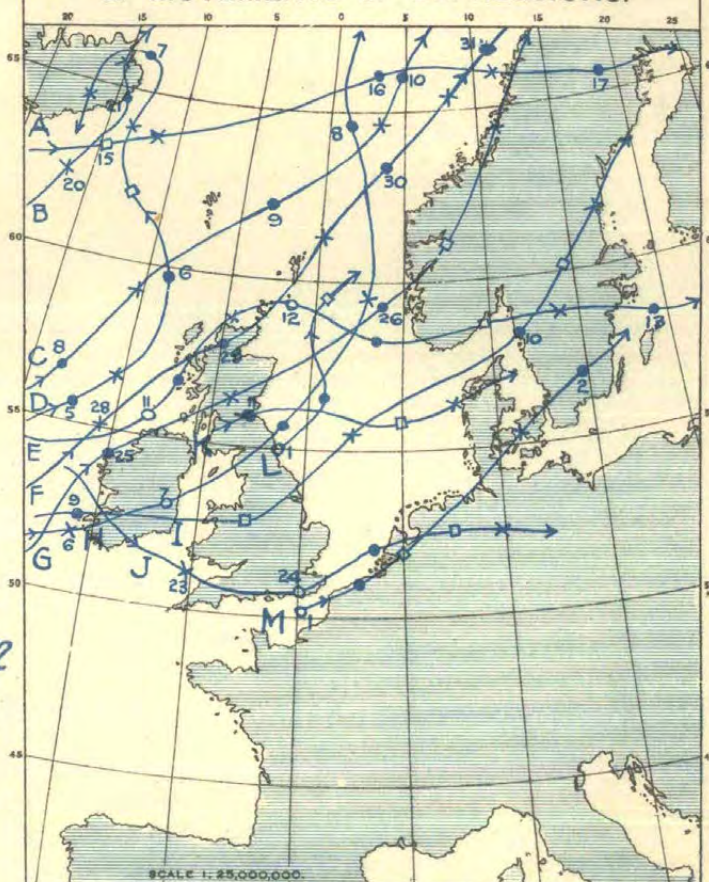
WIND ROSES. The arrows fly with the wind and indicate frequency and force, thus:
 LIGHT TO STRONG GALE
 30 0 6 5 1 inch

3. DISTRIBUTION OF MEAN TEMPERATURE.



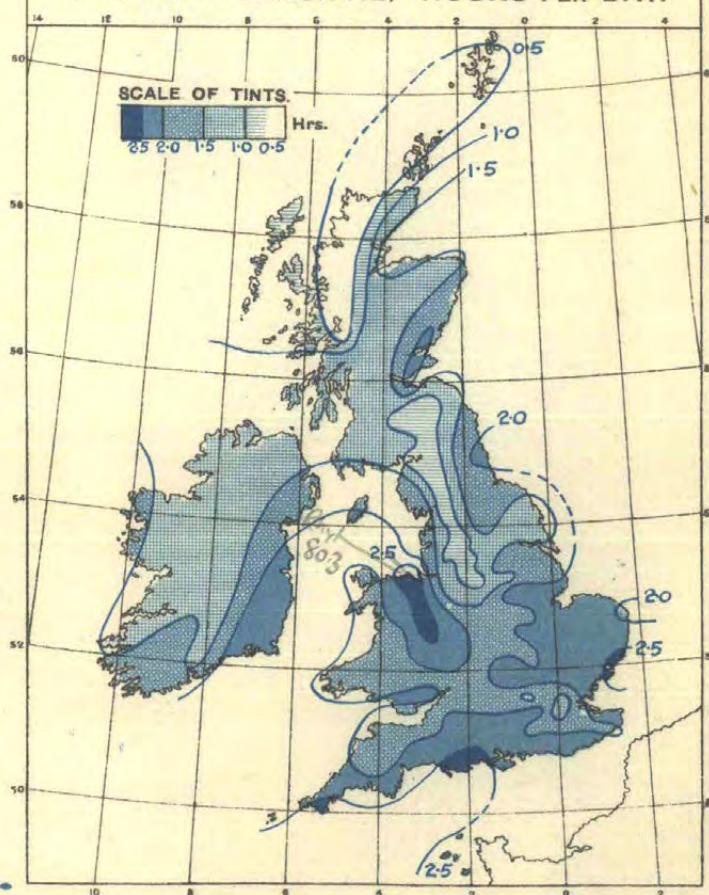
Sea temperatures are shown in large figures, thus: 45°

2. MOVEMENTS OF DEPRESSIONS.



Positions of centres are shown thus: ○ at 1h; ● at 7h; □ at 13h; X at 18h.

4. BRIGHT SUNSHINE, HOURS PER DAY.



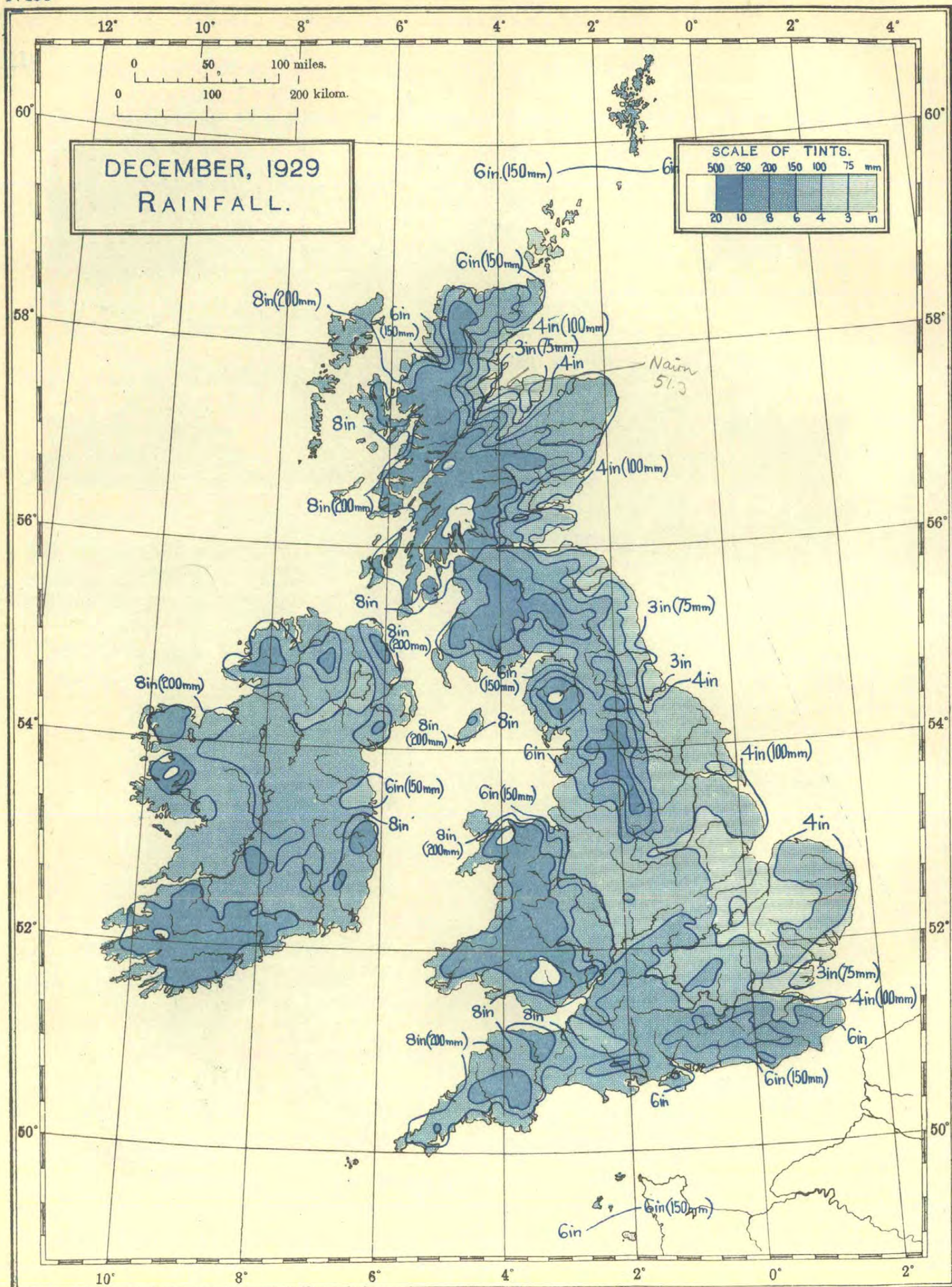


TABLE III.—SUMMARY OF the RECORDS of TEMPERATURE, RAINFALL AND SUNSHINE, and of WEATHER OBSERVATIONS, DECEMBER, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.										Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
					Means of		Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.	Deviation from Normal.	Most in a day.			Precip'n.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
								A	B	Maximum.	Date.																Minimum.	Date.	Amount.	Date.	0.2 mm. or more.	1 mm. or more.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, DECEMBER, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.	Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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				A	B		Maximum.	Date.	Minimum.			Amount.	Date.	0.2 mm. or more.	1 mm. or more.								Snow.	Daily Mean.	Deviation from Normal.	Per Cent.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
				Max.	Min.	Max.	Min.	Mean of A and B.	Maximum.	Date.	Minimum.	1 ft.	4 ft.	in.	mm.	mm.	mm.	0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
2. ENGLAND, N.E.				G.M.T.	ft.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	in.	mm.	mm.	mm.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										</

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, DECEMBER, 1929.

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					Means of		Deviation from Normal.	Absolute Maximum and Minimum.				Total Fall.			Deviation from Normal.	Most in a day.		Precip'n.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.).	Ground Frost.	Gale.	Hours per day.						
								A	B	Maximum.	Date.					Minimum.	Date.									Amount.	Date.	0.2 mm. or more.	1 mm. or more.	Daily Mean.	Deviation from Normal.	Per Cent.
4. MID. COUNTIES—cont.																																
Warwick.	Birmingham	18-7 7	535	45.1	38.1	41.6	+2.5	55	14th	29	22nd	43.1	47.0	5.34	136	+ 68	13	23rd	24	19	2	2	0	0	3	7	5	1.87	+0.67	24		
	B'ham, Sparkhill	713 7	424	46.7	37.0	41.9	—	57	14th	28	22nd	—	—	5.92	150	—	17	9th	21	20	2	2	0	0	2	12	11	—	—	—		
	Coventry	9 9 9	270	46.8	37.2	42.0	+2.8	56	14th	29	17th	41.4	46.4	5.33	135	+ 69	17	23rd	22	21	1	0	0	0	2	9	0	1.48	+0.61	19		
	Rugby	2121 9	390	(47.0)	36.2	(41.6)	—	—	—	26	17th	—	—	4.69	119	—	14	8th	21	19	—	—	—	—	—	11	—	—	—	—		
Oxford.	Leafeld	18-7 7	612	45.2	37.2	41.2	—	53	2, 14, 15	28	20th	—	—	6.44	164	—	19	7th	24	20	0	0	2	2	2	8	6	2.35	—	30		
	Oxford	9 9 9	208	48.6	38.2	43.4	+3.5	56	14th	29	18th	42.5	47.1	5.18	132	+ 69	14	23rd	24	20	2	0	4	3	1	7	8	2.16	+0.77	28		
	Oxford (Sandford)	9 9 9	210	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Bucks.	Mursley	9 9 9	490	47.1	36.2	41.7	—	55	13, 14	29	17, 18, 20	42.2	—	6.08	155	—	40	4th	21	18	0	0	0	1	2	—	6	—	—	—		
Stafford.	Mayfield	9 9 9	374	45.6	34.4	40.0	—	55	14th	26	20th	—	—	5.99	152	—	22	28th	26	23	1	1	2	1	—	14	1	1.52	—	20		
Shropshire.	Newport	9 9 9	211	46.9	37.0	41.9	—	56	13th	28	16th	—	—	4.20	107	—	13	28th	25	18	1	1	0	0	3	10	3	2.56	—	34		
	Roden, Well'n	9 9 9	207	45.7	34.7	40.2	—	56	2nd	23	22nd	—	—	4.29	109	—	15	8th	25	18	2	1	0	0	—	—	1	—	—	—		
	Shrewsbury	9 9 9	184	48.0	37.0	42.5	—	58	13th	25	22nd	—	—	4.67	119	—	15	6th	22	19	1	0	0	0	2	9	13	2.42	—	32		
	Wistanstow	2121 9	481	46.3	—	—	—	55	13th	—	—	—	—	7.61	193	+75	23	6th	21	21	2	0	0	0	0	10	1	—	—	—		
Worcester.	Malvern	9 9 9	377	47.1	38.7	42.9	—	57	14th	31	22nd	41.1	44.8	6.70	170	+100	22	4th	23	19	1	0	1	3	1	5	5	2.34	—	30		
	Worcester (Perdiswell)	9 9 9	95	48.3	36.9	42.6	—	58	14th	26	17th	—	—	5.25	133	—	15	4th	21	17	1	0	2	0	—	11	6	2.39	—	31		
Hereford.	Bromyard	9 9 9	392	47.0	36.0	41.5	—	56	14th	23	17th	40.8	44.8	6.03	153	—	18	7th	23	21	1	0	0	2	1	11	3	—	—	—		
	Hereford	9 9 9	291	47.1	34.7	40.9	+1.4	57	14th	25	17th	—	—	6.65	169	+ 94	20	7th	26	19	0	0	1	1	1	7	9	—	—	—		
	Ross-on-Wye	18-7 7	223	47.5	39.9	43.7	+3.7	56	14th	23	17th	42.6	46.6	7.74	196	+121	24	4th	25	20	0	0	2	3	1	8	5	2.34	+0.99	30		
Gloucester.	Cheltenham	2121 9	214	48.4	38.9	43.7	+3.7	56	2nd	26	16th	42.6	46.5	6.92	176	+107	23	6th	18	16	0	0	0	0	1	10	0	1.85	—	24		
5. ENGLAND, S.E.																																
London.	City, Bunhill Row	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.36	+0.10	5		
	Camden Square	9 9 9	110	48.0	39.1	43.5	+3.0	57	14th	31	19th	43.9	47.9	4.19	106	+ 45	11	6th	25	20	0	0	0	0	—	—	—	—	—	—		
	East Ham	9 9 9	15	49.0	38.9	43.9	—	58	14th	27	19th	—	—	4.03	102	—	15	6th	23	19	—	—	—	—	—	—	—	—	—	—		
	Enfield	9 9 9	148	48.0	37.0	42.5	—	57	14th	25	19th	—	46.6	5.01	127	+ 65	16	6th	23	20	0	0	0	1	6	8	4	1.52	—	19		
	Greenwich	2424 9	149	48.1	38.5	43.3	+3.1	57	14th	26	20th	44.7	47.2	4.52	115	+ 58	15	4th	26	19	0	0	2	1	3	16	8	1.52	+0.46	19		
	Hampst'd Res.	9 9 9	450	46.5	36.4	41.5	—	55	14th	28	17th	—	—	4.53	115	—	11	6th	27	21	0	0	1	2	—	17	7	1.85	—	24		
	Kensington	18-9 9	80	47.8	40.3	44.1	—	57	14th	30	20th	44.0	48.2	4.10	104	—	12	6th	24	19	0	0	1	2	7	12	3	—	—	18		
	Kingsway	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	Regent's Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
	Richmond	242424	18	48.2	38.9	43.5	+3.2	57	14th	29	19th	42.8	47.7	4.43	113	+ 55	14	5th	23	22	0	0	1	2	1	13	0	2.04	+0.85	26		
	(Kew Obs.)	Hourly*	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Stroud Green	18-7 7	212	47.1	39.6	43.3	—	57	14th	29	19th	—	—	4.01	102	—	11	9th	23	20	0	0	1	1	4	7	6	—	—	—	—	
	Tottenham†	2121 9	51	49.3	39.9	44.6	+3.9	57	14, 15	28	19th	—	48.9	4.13	105	+ 48	11	28th	20	19	0	0	1	1	—	5	1	0.85	-0.15	11		
	Westminster	9 9 9	27	49.6	39.5	44.5	+3.2	58	14th	29	18, 19	—	—	3.91	99	+ 45	10	6th	24	21	—	—	—	—	—	11	—	1.24	+0.72	16		
Surrey.	Addington	9 9 9	472	47.2	37.9	42.5	—	56	14th	30	17, 18, 20	—	—	7.15	182	—	18	4th	26	22	—	—	—	—	—	—	—	—	—	—		
	Croydon Aero.	18-7 7	244	47.4	40.0	43.7	—	57	14th	27	18th	—	—	6.87	174	—	17	6th	25	23	2	0	1	2	2	5	4	1.87	—	24		
	Wisley	9 9 9	150	48.5	38.3	43.4	+3.5	57	14th	27	18th	42.7	46.8	6.34	161	+ 97	20	4th	25	21	0	0	0	1	1	16	13	1.93	+0.58	24		
Kent.	Biggin Hill	18-7 7	597	45.8	38.5	42.1	—	54	14th	27	20th	—	—	7.13	181	—	16	8th	26	23	2	0	0	2	3	9	2	1.95	—	24		
	Bromley	9 9 9	213	47.8	37.8	42.8	—	57	14th	28	18, 19	—	—	5.44	138	—	18	4th	22	20	0	0	0	1	0	10	1	—	—	—		
	Canterbury	9 9 9	124	49.3	37.8	43.5	—	57	14th	27	19th	45.3	48.1	6.39	162	—	23	21st	23	19	—	—	—	—	—	15	—	—	—	—		
	Dover	9 9 9	22	49.5	41.3	45.4	—	55	4, 14	32	21st	44.3	48.4	6.51	165	—	19	30th	23	21	2	0	5	0	2	3	6	1.95	—	25		
	Dungeness	18-7 7	20	48.4	(41.7)	(45.1)	(+3.4)	55	4, 1	(26)	18	—	—	6.38	162	+ 92	27	21st	24	21	0	0	3	2	1	—	8	—	—	—		
	East Malling	9 9 9	127	48.7	36.7	42.7	—	56	14th	24	19th	—	—	5.07	129	—	17	21st	24	20	0	0	1	1	3	15	4	2.04	—	26		
	Folkestone	9 9 9	101	49.0	40.0	44.5	—	54	3, 4, 6, 12	32	20, 21	—	49.1	6.12	155	—	17	30th	23	21	0	0	3	3	1	6	7	2.00	—	25		
	Lympne	18-7 7	347	46.5	39.4	42.9	—	53	4, 11	29	17th	—	47.4	7.11	181	—	22	21st	25	21	0	0	3	2	3	7	5	2.12	—	27		

TABLE III (continued).—SUMMARY OF THE RECORDS OF TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, DECEMBER, 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level.		AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.							
						Means of		Deviation from Normal.		Absolute Maximum and Minimum.						Total Fall.		Deviation from Normal.		Most in a day.		Precip'n.		Snow lying.		Thunderstorm.		Fog (Morning Obs.)		Ground Frost.		Gale.		Hours per day.		Per Cent.	
Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	1 ft.	4 ft.	in.	mm.	mm.	mm.	0.2 mm. or more.	1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per Cent.								
5. ENGLAND, S.E.—cont.																																					
Hampshire	Calshot	18-7 7	8	49.6	41.8	45.7	—	55	4, 14	28	18th	—	—	5.94	151	—	15	5th	27	21	0	0	3	1	1	2	12	2.40	—	30							
	Grayshott	9 9 9	661	46.6	37.4	42.0	+2.3	53	2, 14	28	18th	41.8	—	9.21	234	+138	20	6th	26	22	1	0	5	4	2	12	6.2.10	+0.52	27								
	Long Sutton	9 9 9	479	47.4	37.4	42.4	—	55	14th	29	17, 18	42.0	—	7.66	195	—	20	4th	25	22	0	0	1	0	0	8	5.2.09	—	26								
	Southamp'n	2121 9	64	49.6	39.2	44.4	+2.6	55	2, 4, 14, 15	25	18th	—	—	7.44	189	+96	18	24th	25	22	0	0	3	2	6	5	9.2.21	+0.66	28								
	S. Farnboro'	18-7 7	237	47.9	38.6	43.3	—	57	14th	23	17, 18	—	—	7.53	191	—	28	6th	26	24	1	0	1	1	1	13	4.2.19	—	28								
I. of Wight.	Winchester (Worthy Down)	18-7 7	272	47.8	38.2	43.0	—	56	14th	21	18th	—	—	8.52	216	—	23	5th	23	21	0	0	3	2	1	12	3.2.30	—	29								
	Newport	9 9 9	48	49.7	39.4	44.5	—	55	2, 14	23	18th	—	—	8.31	211	—	25	5th	27	24	0	0	9	3	1	9	15	—	—	—							
	Ryde	9 9 9	13	50.3	41.1	45.7	—	55	2, 4, 11, 14	29	18th	—	—	6.33	161	—	19	7th	26	22	0	0	2	1	2	—	5.2.40	—	30								
	Sandown	9 9 9	13	50.9	41.1	46.0	—	55	2, 6, 10, 13, 14	26	18th	—	—	6.39	162	—	22	7th	29	26	0	0	2	3	1	—	7.2.34	—	29								
	Totland Bay	9 9 9	140	50.2	41.6	45.9	+3.3	54	2, 4, 10, 12, 13	29	17, 18	—	—	6.33	161	+79	19	6th	26	23	0	0	0	1	0	5	6.2.25	+0.44	28								
Wilts.	Ventnor (Hospital)	9 9 9	59	50.9	43.8	47.3	+3.5	55	2nd	34	17th	—	—	5.84	148	+64	18	7th	27	22	0	0	5	1	—	—	3.2.34	+0.63	29								
	Larkhill	9 9 9	440	47.8	36.6	42.2	—	56	14th	22	17th	—	—	7.18	182	—	20	4th	26	19	0	0	3	0	1	13	9	—	—	—							
	Marlboro'	9 9 9	424	48.1	36.2	42.1	+2.3	55	2, 14	23	17, 18	42.6	47.3	7.52	191	+102	20	4th	26	21	1	0	1	0	0	11	2.1.86	+0.70	24								
	Porton	9 9 9	363	48.3	35.7	42.0	—	55	14th	21	17th	42.7	—	6.84	174	—	22	23rd	25	19	0	0	2	0	1	12	5.2.15	—	27								
	7a. ENGLAND, N.W.																																				
Cumberland.	Aspatria (Mealsgate)	2121 9	487	45.0	36.8	40.9	+1.9	53	2nd	28	22nd	42.7	46.2	6.99	177	+69	22	28th	28	23	1	0	0	0	—	7	0.0.78	—0.28	11								
	Keswick	9 9 9	254	46.6	38.0	42.3	—	57	13th	26	16, 22	42.6	46.2	12.82	326	—	54	28th	30	25	5	1	3	2	0	10	10.0.47	—	6								
	Newton Rigg	2121 9	559	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—							
	Bolton	9 9 9	341	45.3	37.0	41.1	—	53	13th	31	22nd	41.4	44.5	7.29	185	—	24	28th	27	24	2	1	3	0	—	6	0.0.70	—	9								
	Burnley	9 9 9	458	44.7	36.9	40.8	—	54	13th	27	16th	40.9	44.2	10.33	262	—	26	28th	27	24	2	1	1	1	5	23	3.0.28	—	48								
Lancashire.	Darwen	2121 9	724	43.5	36.1	39.8	—	52	13, 14	29	22nd	40.2	43.6	10.24	260	—	32	28th	26	26	3	1	2	0	3	5	0.0.74	—	10								
	Hutton	9 9 9	82	46.4	37.4	41.9	—	55	13th	26	16th	41.9	45.8	6.22	158	—	20	9th	28	23	1	1	4	0	2	11	10.1.46	—	20								
	Lancaster	9 9 9	311	47.3	37.6	42.5	—	52	13th	30	22nd	40.8	43.5	7.45	189	—	29	28th	27	26	1	0	1	1	2	9	1.1.23	—	17								
	Leyland	9 9 9	124	46.4	37.0	41.7	—	56	13th	27	16th	—	—	6.24	159	—	22	28th	26	24	2	1	4	0	2	10	6.1.56	—	21								
	Manchester (Whitworth Pk)	2121 9	125	46.5	37.7	42.1	+1.7	55	14th	27	16th	—	—	6.03	153	+71	20	9th	26	25	—	—	—	—	10	—	1.0.7	+0.65	14								
Cheshire.	(Oldham Road)	2121 9	190	46.3	39.5	42.9	+1.9	55	14th	32	22nd	41.5	46.4	6.40	163	+73	23	9th	26	24	3	0	2	0	—	1	0.0.47	+0.24	68								
	(Swinton)	9 9 9	253	46.1	35.6	40.9	—	56	14th	27	17th	—	—	43.9	6.02	153	—	21	9th	25	23	3	1	4	0	3	10	5.0.67	—	9							
	Southport	9 9 9	37	46.6	38.8	42.7	+2.5	55	13th	29	22nd	40.5	44.2	5.62	143	+61	18	28th	28	24	2	1	6	1	2	8	9.1.88	+0.65	25								
	Stonyhurst	9 9 9	377	44.9	37.3	41.1	+2.1	53	13th	30	16th	—	—	8.66	220	+97	23	28th	27	25	4	2	4	1	3	5	8.1.16	+0.35	168								
	Hoylake	9 9 9	30	48.4	38.8	43.6	+2.3	56	13th	26	22nd	—	—	4.62	117	+45	19	6th	25	25	—	—	—	—	—	—	—	2.5.7	+1.28	34							
Montgomery.	Liverpool (Bidston)	18-7 7	189	45.3	39.9	42.6	+1.8	55	13th	31	22nd	—	—	3.88	99	+32	14	9th	26	23	3	1	3	1	1	2	6	2.2.27	—	30							
	Macclesfield	9 9 9	500	44.6	35.5	40.1	+1.9	53	13, 14	28	16th	—	—	4.77	121	+33	14	28th	26	24	4	0	1	1	3	—	0	—	—	—							
	West Kirby	9 9 9	25	46.7	39.3	43.0	—	56	13th	29	22, 23	—	—	4.41	112	—	18	6th	27	20	4	0	10	6	0	6	11.2.23	—	30								
	7b. NORTH WALES.																																				
	Flint.	Hawarden B'ge	9 9 9	20	48.3	38.2	43.3	+1.8	58	13th	28	22nd	—	—	4.21	107	+49	13	6th	26	21	—	—	—	—	0	—	—	—	—	—	—					
Rhyl		9 9 9	30	49.5	39.3	44.4	+2.4	59	14th	29	22, 23	—	—	4.93	125	+61	14	6th	26	24	0	0	0	1	0	12	4.2.59	+1.04	35								
Sealand		18-7 7	16	47.5	39.3	43.4	+2.9	59	13th	26	22nd	42.4	44.4	4.48	114	+50	12	7th	27	21	3	1	5	0	1	8	3.2.46	+1.23	33								
Anglesey.	Holyhead	18-7 7	26	48.5	43.4	45.9	+2.5	54	2nd	34	22nd	—	—	6.50	165	+59	20	20th	27	24	0	0	5	2	0	1	14	1.8.2	+0.63	24							
	Colwyn Bay	9 9 9	81	49.3	40.5	44.9	—	58	13th	28	22nd	—	—	6.08	154	—	20	6th	26	24	0	0	0	2	0	—	—	1.2.08	—	28							
Carnarvon.	Aber (Bangor)	9 9 9	60	51.0	41.2	46.1	—	58	2nd	30	22nd	—	—	10.29	261	—	38	4th	26	24	0	0	6	5	—	4	14.0.46	—	68								
	Llandudno	9 9 9	22	49.9	40.9	45.4	+2.6	60	2nd	32	22nd	—	—	5.96	151	+72	20	20th	26	23	3	0	1	6	0	—	(6)	2.2.22	+0.93	30							
Montgomery.	Welshpool	9 9 9	254	49.0	36.1	42.5	—	56	15th	22	22nd	—	—	7.14	181	—	22	28th	22	21	0	0	0	0	1	—	0	—	—	—	—						
	8a. SOUTH WALES.																																				
Cardigan.	Aberystwyth	9 9 9	59	47.9	40.6	44.3	—	54	2nd	29	17th	—	—	5.59	142	—	15	28th	23	21	0	0	1	1	0	—	5	1.8.3	+0.70	24							
	" P.B.S.†	9 9 9	452	44.2	40.6	42.4	—	54	2, 28	29	17th	—	—	7.57	192	—	20	6th	26	24	0	0	0	0	0	5	3.1.69	—	22								
Pembroke.	Haverfordwest	2121 9	250	48.7	40.4	44.5	—	55	2nd	26	17th	—	—	11.33	288	+143	27	20th	27	23	0	0	2	1	—	—	13	1.8.5	+0.40	24							
	St. Ann's Hd.	18-7 7	142	49.8	44.5	47.1	+2.4	54	1, 2, 10	36	17th	—	—	9.28	236	+121	24	4th	27	22	0	0	14	1	1	—	12	1.4.9	+0.14	19							
Radnor.	Rhayader	9 9 9	757	46.5	36.0	41.3	+1.7	55	2nd	21	18th	—	—	13.00	330	+172	52	6th																			

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, DECEMBER, 1929.

DISTRICT, COUNTY AND PLACE.	Terminal Hours of Observation.	Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.								Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.					
			Means of		Deviation from Normal.	Absolute Maximum and Minimum.				1 ft.	4 ft.	Total Fall.	Deviation from Normal.	Most in a day.		Precip'n.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog (Morning Obs.)	Ground Frost.	Gale.	Hours per day.								
			A	B		Maximum.	Date.	Minimum.	Date.					Amount.	Date.									0.2 mm. or more.	1 mm. or more.	Daily Mean.	Deviation from Normal.	Per Cent.				
			Max.	Min.																												
8b. ENGLAND, S.W.—cont.																																
Devon.		G.M.T.	ft.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	in.	mm.	mm.	mm.											hr.	hr.	%		
	Arlington	..	9 9 9	613	46.3	38.6	4.25	+1.5	55	2nd	26	17th	—	—	10.08	256	+88	23	28th	26	26	0	0	9	7	—	5	3	—	—	—	
	Ashburton	..	9 9 9	583	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Cullompton	..	9 9 9	202	49.5	38.1	43.8	+2.6	57	14th	22	17th	45.0	—	8.36	213	+101	33	4th	26	25	0	0	1	2	5	12	6	1.85	+0.62	23	
	Dean Prior	..	2121	9 331	49.4	37.7	43.5	—	56	2nd	24	17th	—	—	18.25	463	—	54	4th	28	26	0	0	5	3	—	10	14	—	—	—	
	Ilfracombe	..	9 9 9	74	51.3	42.8	47.1	+1.8	57	2nd	33	17th	45.5	50.5	9.33	237	+119	36	7th	27	26	0	0	9	5	0	2	5	1.46	—	18	
	Killerton	..	9 9 9	159	50.2	38.6	44.4	—	58	13, 14	24	17th	—	—	6.59	167	—	21	4th	26	24	0	0	1	1	2	13	—	—	—	—	
	Newton Abbot	..	9 9 9	350	49.3	39.4	44.3	—	55	2nd	27	17th	—	—	9.53	242	—	31	4th	25	23	0	0	1	0	1	8	3	2.34	—	29	
	Plymouth (Hoe)	..	2121	9 116	50.8	42.1	46.5	+2.4	56	2nd	28	17th	46.2	50.1	7.68	195	+68	29	4th	25	23	0	0	4	2	2	6	11	1.98	+0.40	25	
	Plymouth (Mount Batten)†	..	18-7	7 82	50.5	43.9	47.2	—	58	6th	29	17th	—	—	6.90	175	—	26	4th	26	21	0	0	5	2	0	3	15	2.07	—	26	
	Princetown	..	9 9 9	1359	45.7	36.6	41.1	—	52	2nd	28	17th	—	—	19.58	497	—	58	4th	27	26	4	0	3	1	7	7	3	—	—	—	
	Salcombe	..	9 9 9	39	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Sidmouth	..	9 9 9	147	49.9	41.4	45.7	+2.7	56	14th	31	23rd	—	—	8.62	219	+119	28	4th	25	23	0	0	4	2	—	7	4	—	—	—	
	(Sidmouth)	..	9 9 9	25	51.4	40.5	45.9	—	57	14th	28	17th	—	—	6.49	165	—	26	4th	25	22	0	0	2	2	2	3	9	2.44	—	31	
	Sidmouth†	..	9 9 9	458	49.2	38.9	41.4	—	55	2nd	24	17th	—	—	47.5	11.50	292	—	28	20th	27	26	0	0	4	3	1	10	10	—	—	—
	Tavistock	..	9 9 9	20	51.4	41.3	46.3	+2.4	58	2nd	29	17th	—	—	8.81	224	+122	30	4th	28	23	0	0	2	2	0	4	10	2.32	—	29	
	Teignmouth	..	9 9 9	12	51.5	42.2	46.9	+2.7	57	2nd	32	17th	—	—	48.5	7.07	179	+65	22	6th	25	20	0	0	4	2	0	4	14	2.41	+0.47	30
	Torquay	..	9 9 9	20	51.5	42.2	46.9	+2.7	57	2nd	32	17th	—	—	48.5	7.07	179	+65	22	6th	25	20	0	0	4	2	0	4	14	2.41	+0.47	30
	Woolacombe	..	9 9 9	59	(48.9)	42.5	(45.7)	+1.2	56	1, 2	35	17, 22, 23	—	—	4.91	125	+25	23	7th	25	24	0	0	4	8	0	2	8	—	—	—	
Cornwall.	Falmouth Obs.†	..	9 9 9	167	51.0	42.5	46.7	+1.5	56	2nd	34	17th	46.6	50.3	9.23	234	+75	24	28th	27	25	0	0	4	0	0	6	9	2.42	+0.65	30	
	(Pendennis)	..	18-7	7 200	50.6	44.4	47.5	—	56	2nd	35	17th	—	—	7.28	185	—	19	20th	25	22	0	0	5	1	0	—	18	2.58	—	32	
	Powey	..	9 9 9	51	51.6	41.9	46.7	—	55	1, 3, 13, 14	28	17th	—	—	6.36	161	—	16	28th	26	25	0	0	0	2	0	—	9	2.07	—	26	
	Gulval	..	9 9 9	20	51.5	42.2	46.9	—	56	2nd	33	18th	—	—	8.94	227	—	23	28th	28	25	0	0	5	1	—	2	—	2.20	—	27	
	Newquay	..	9 9 9	190	50.0	42.3	46.1	+0.7	56	2nd	30	17th	46.9	49.5	6.74	171	+61	19	8th	28	25	0	0	5	3	1	—	9	2.03	+0.42	25	
	Redruth	..	9 9 9	397	49.5	41.0	45.3	—	55	2nd	33	17th	—	—	10.43	265	+106	26	20th	28	26	0	0	5	2	0	6	12	—	—	—	
9. IRELAND, N.																																
Sligo.	Markree Cas.	..	2121	9 122	46.8	35.4	41.1	+0.8	54	2, 13, 14	22	17th	42.9	46.5	7.95	202	+82	24	28th	28	28	3	0	6	2	0	—	13	1.05	—0.01	14	
Mayo.	Blacksod Pt.	..	18-7	7 10	48.1	41.4	44.7	+1.0	55	1st	33	22nd	—	—	10.76	273	+118	22	1st	29	26	4	0	15	2	0	—	1	—	—	—	—
	Mallary	..	9 9 9	120	48.7	38.8	43.7	—	55	1st	32	17th	—	—	11.01	280	—	31	28th	27	26	2	0	5	3	0	—	0	1.02	+0.06	14	
Donegal.	Malin Head	..	18-7	7 51	45.2	39.4	42.3	+0.1	54	1, 2	31	23rd	—	—	6.80	173	+88	17	28th	30	28	1	0	10	2	0	—	7	1.18	+0.18	17	
Antrim.	Aldergrove	..	18-7	7 238	43.9	36.6	40.3	—	54	2nd	26	23rd	—	—	5.71	145	—	19	6th	27	24	4	0	1	0	0	11	3	1.75	—	24	
	Belfast	..	9 9 9	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Lisburn	..	9 9 9	206	46.2	34.7	40.5	+1.2	55	13th	27	16, 17	—	—	6.72	171	+85	40	6th	25	23	1	0	0	0	1	—	10	—	—	—	—
Down.	Donaghadee	..	18-7	7 40	46.2	38.5	42.3	+0.7	56	13th	32	16, 17	—	—	6.99	178	+97	24	20th	24	22	0	0	0	0	0	—	0	—	—	—	—
Armagh.	Armagh	..	2121	9 204	46.1	35.8	40.9	+0.9	55	2nd	23	23rd	41.8	45.4	5.88	149	+69	16	28th	28	24	1	1	2	1	0	6	7	1.81	+0.62	25	
Longford.	Newtownforbes	..	2121	9 161	46.4	35.5	40.9	—	54	2, 13	25	16th	40.5	44.2	7.46	189	—	29	28th	27	24	1	2	1	0	—	8	—	—	—	—	
10. IRELAND, S.																																
Dublin.	Balbriggan	..	9 9 9	203	47.2	36.4	41.8	+0.9	56	14th	30	22, 23	41.1	45.4	5.83	148	+75	17	20th	28	21	1	1	0	0	0	17	9	—	—	—	
	Dublin City	..	2121	9 54	48.5	39.1	43.8	+1.2	58	13th	28	17th	—	—	6.09	155	+92	19	20	26	21	4	1	1	0	5	7	—	—	—	—	—
	Glasnevin	..	2121	9 55	49.0	36.2	42.6	+1.3	58	13th	22	17th	—	—	5.98	152	+87	17	20th	28	22	3	1	1	0	4	17	2	—	—	—	—
	Phoenix Pk.	..	2121	9 155	48.2	35.5	41.9	+1.0	57	13th	22	17th	—	—	5.49	139	+74	14	20th	26	23	5	2	0	0	0	10	5	2.43	+0.88	32	
	Trin. Coll.	..	2121	9 12	49.0	39.2	44.1	+1.4	58	2, 13	28	17th	42.3	45.9	5.80	147	+87	19	20th	26	20	1	1	0	0	—	6	4	—	—	—	—
	Hazelhatch	..	9 9 9	366	49.6	36.1	42.9	—	60	2nd	23	17th	41.4	44.7	5.72	145	—	14	20th	27	25	—	—	—	—	—	0	6	—	2.09	—	28
Wicklow.	Newcastle	..	2121	9 256	47.8	37.7	42.7	—	56	13th	30	22, 23	—	—	9.79	249	—	26	20th	25	22	0	0	1	0	0	—	2	—	—	—	—
Offaly.	Birr Castle	..	18-7	7 173	45.9	37.6	41.7	+1.1	57	13th	26	16th	42.3	46.2	6.50	165	+81	16	28th	28	25	3	0	2	1	1	13	0	1.75	+0.36	23	
(King's Co.).	—	..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Leix.	Mountmellick	..	9 9 9	252	46.6																											

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of DECEMBER, 1929.

DISTRICT, COUNTY AND PLACE		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Vis.	8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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2. ENGLAND, N.E.—cont.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
Durham.	Durham	..	G.M.T.	ft.	mb.	mb.	°F.	°F.	mb.	%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										

TABLE IV (continued).—SUMMARY OF THE OBSERVATIONS OF PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY AND WIND at fixed hours at certain Stations during the Month of DECEMBER, 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.													
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.								
											0	1 to 3	4 to 6	7 to 9	10	Fog.									8 or more	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	
																0	1	2	3	4	5	6	7	8													9
5. ENGLAND, S.E.—cont.																																					
Kent.	Biggin Hill H	7	596	1005.2	—	41.5	1.1	8.3	91.6	4	3	4	4	14	0	0	1	2	0	3	15	10	0	0	1	17	11	2	0	1	0	2	6	13	6	1	
		13	596	1005.9	—	44.6	2.4	8.3	82.6	4	2	5	9	10	0	0	1	0	0	5	9	16	0	0	0	19	11	1	0	0	0	3	5	13	7	2	
		18	596	1007.1	—	42.0	1.9	7.9	85.4	7	8	5	4	7	0	0	0	1	0	9	10	11	0	0	0	16	14	1	0	0	0	2	5	15	6	2	
Kent.	Dungeness ..	1	23	1007.0	—	46.0	1.4	9.4	89.5	0	3	7	7	6	0	0	1	1	1	0	1	13	14	0	2	16	13	0	1	0	0	2	7	10	9	2	
		7	23	1012.9	-0.2	45.1	1.2	9.2	91.6	3	5	3	7	13	0	1	0	0	0	0	4	9	17	0	5	15	10	1	1	0	0	1	6	12	6	4	
		13	23	1007.1	—	46.7	1.6	9.6	87.7	2	2	7	8	12	0	0	0	0	0	1	8	12	10	7	9	15	0	1	0	0	1	6	9	10	4		
Kent.	Lympe H	18	23	1008.5	—	45.5	1.4	9.0	89.6	3	3	9	6	10	0	0	1	0	1	0	1	4	13	12	0	2	16	13	0	2	0	0	6	13	5	5	
		1	345	1007.8	—	42.8	1.2	8.6	90.4	10	4	3	3	11	0	1	0	4	0	3	6	9	8	0	1	19	11	0	1	0	0	7	5	12	4	2	
		7	345	1006.9	—	42.4	1.2	8.5	89.6	4	4	3	6	14	0	1	1	1	2	4	8	7	7	0	3	16	12	0	2	0	0	2	9	10	7	1	
Kent.	Manston H	13	345	1007.6	—	44.8	2.2	8.5	83.7	3	2	5	8	13	0	0	0	2	9	5	8	6	1	1	20	10	0	3	0	1	3	6	8	8	2		
		18	345	1003.7	—	42.7	1.6	8.3	86.3	6	5	2	5	13	0	0	0	2	0	10	9	9	1	0	0	18	13	0	0	1	0	3	6	11	6	4	
		7	152	1007.0	—	43.0	1.3	8.7	89.6	3	5	4	11	8	0	0	0	0	0	1	10	15	5	0	0	17	14	0	0	0	0	11	10	4	3		
Kent.	Manston H	13	152	1007.6	—	45.7	2.0	9.0	84.6	1	6	4	9	11	0	0	0	1	0	0	10	10	10	0	1	21	9	0	1	0	0	2	9	8	8	3	
		18	152	1008.8	—	43.2	1.7	8.3	86.5	6	8	2	4	11	0	0	0	0	1	0	12	14	4	0	1	19	11	0	0	0	4	6	10	8	3		
		9	396	1007.6	—	42.5	0.9	8.7	93.5	3	8	5	3	12	0	0	1	1	5	10	5	8	1	0	5	9	17	0	0	0	2	8	14	6	1		
Sussex.	Brighton H	9	48	1007.9	—	45.9	0.9	10.1	93.6	7	0	7	4	13	0	0	2	0	1	1	15	8	4	0	1	5	25	0	2	2	0	4	1	18	0	4	
Sussex.	St. Leonards	9	174	1007.9	—	45.2	1.9	8.6	85.6	5	5	3	5	13	0	0	0	1	0	3	7	18	2	0	4	9	18	0	1	1	0	1	3	15	6	4	
		21	174	1009.1	—	45.1	2.0	8.5	84.5	9	5	3	4	10	0	0	0	0	0	1	8	19	3	0	1	9	21	0	0	0	1	0	3	12	9	6	
Hampshire.	Calshot ..	1	15	1007.2	—	45.9	2.2	8.7	83.5	5	8	1	6	11	0	0	0	1	0	2	5	11	12	0	3	18	10	0	3	0	0	2	5	8	10	3	
		7	15	1007.7	—	45.1	2.1	8.4	84.6	3	9	1	8	10	0	0	1	0	0	1	7	15	7	0	1	20	10	0	1	0	0	1	7	8	11	3	
		13	15	1007.4	—	48.3	3.4	8.5	75.6	3	4	5	13	6	0	0	0	0	1	2	8	10	10	0	1	21	8	1	1	0	0	1	4	8	12	4	
Hampshire.	Southampton H	18	15	1008.4	—	45.8	2.4	8.5	81.5	3	12	2	7	7	0	0	0	1	0	0	11	12	7	0	2	18	11	0	0	0	1	4	3	6	13	4	
		9	84	1007.5	-6.7	44.0	1.6	8.7	87.6	4	2	4	12	9	0	1	3	2	6	14	5	0	0	0	1	9	21	0	1	1	0	2	3	12	9	3	
		21	84	1009.1	-5.1	44.7	1.8	8.8	85.6	2	5	5	3	16	0	0	6	0	7	13	5	0	0	0	1	13	17	0	0	0	1	3	14	7	5		
Hampshire.	S. Farnborough	7	256	1005.6	—	41.9	1.2	8.1	90.6	4	8	2	4	13	0	1	0	0	2	2	14	6	6	0	0	15	13	3	0	0	0	3	7	9	8	1	
		13	256	1006.3	—	46.9	2.8	8.7	79.6	4	3	0	17	7	0	0	0	0	2	1	10	12	6	0	1	17	13	0	1	0	1	3	5	9	10	2	
		18	256	1007.4	—	42.8	1.7	7.9	86.5	8	6	2	4	11	0	0	0	2	2	3	8	8	8	0	0	15	14	2	0	0	0	4	4	11	8	2	
Hampshire.	Winchester (Worthy Down)	7	273	1005.9	—	41.5	1.1	8.1	90.6	3	7	0	8	13	0	0	0	1	2	1	11	15	1	0	0	14	16	1	0	1	1	1	8	11	5	3	
		13	273	1006.8	—	46.1	2.7	8.4	79.6	3	4	4	12	8	0	0	0	0	2	7	2	20	0	0	0	18	12	1	2	0	0	2	6	10	8	2	
		18	273	1007.8	—	42.8	1.6	8.0	86.5	5	9	4	5	8	0	0	0	0	0	2	6	12	11	0	0	14	15	2	1	0	1	3	6	10	7	1	
I. of Wight.	Ventnor (Hosp.)	9	80	1007.5	—	47.2	2.1	9.2	84.6	1	8	7	3	12	—	—	—	—	—	—	—	—	—	—	1	18	12	0	1	2	0	0	3	7	14	4	
		15	80	1008.1	—	47.9	2.7	9.1	79.6	1	6	10	6	8	—	—	—	—	—	—	—	—	—	—	1	14	16	0	1	0	1	2	3	5	13	6	
Wilts.	Larkhill H	9	444	1005.8	—	41.0	0.7	8.2	91.7	2	5	2	14	8	0	1	0	0	1	1	16	8	4	0	1	21	9	0	1	2	0	4	4	10	8	2	
		13	444	1006.0	—	45.5	2.1	8.7	83.6	2	7	5	9	8	0	0	0	0	0	2	7	11	11	0	4	20	7	0	1	0	0	4	7	9	7	3	
		15	444	1006.4	—	44.7	2.0	8.6	84.5	1	12	3	7	8	0	0	0	0	0	2	6	13	10	0	0	20	10	1	1	0	0	5	5	10	6	3	
7a. ENGLAND, N.W.																																					
Cumberland.	Aspatria (Mealsgate)	9	485	998.6	—	41.6	1.2	8.1	90.8	0	2	7	5	17	—	—	—	—	—	—	—	—	—	—	—	0	11	18	2	0	0	0	4	4	14	7	0
		21	485	999.5	—	40.9	1.3	7.8	89.7	6	3	1	2	19	—	—	—	—	—	—	—	—	—	—	—	0	13	16	2	0	0	0	7	8	7	6	1
Lancashire.	Hutton ..	9	86	999.1	—	41.4	1.1	7.9	91.7	2	4	6	7	12	—	—	—	—	—	—	—	—	—	—	1	8	21	1	0	1	2	12	0	8	6	1	
Lancashire.	Southport H	9	42	1000.4	-10.9	42.5	1.7	8.0	86.6	0	7	6	7	11	0	0	0	2	0	16	5	4	4	0	3	20	6	2	0	1	1	4	9	2	9	3	
		13	42	1001.1	-9.9	44.4	2.4	8.1	81.6	0	9	5	6	11	0	0	0	0	1	8	8	6	8	0	4	18	9	0	1	0	1	5	5	5	12	2	
		18	42	1001.6	-9.4	42.8	2.2	7.8	82.7	1	0	5	8	4	14	0	0	0	1	0	10	5	8	7	0	4	17	10	0	1	0	0	8	7	4	8	3
		21	42	1001.7	-9.7	42.6	1.9	7.9	85.7	0	4	6	3	18	0	0	0	1	0	16	4	4	6	0	4	22	5	0	0	0	0	7	8	4	9	3	
Lancashire.	Stonyhurst ..	9	381	1000.7	—	41.0	1.5	7.6	87.8	1	1	6	7	16	0	1</																					

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY and WIND at fixed hours at certain Stations during the Month of DECEMBER, 1929.

DISTRICT COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. of Observations.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				DIRECTION.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
											0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Vis.	8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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8a. SOUTH WALES—cont.		G.M.T.	ft.	mb.	mb.	°F.	°F.	mb	%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		

TABLE I. DISTRICT VALUES.

The District Values of this Table are computed from the statistics for selected individual stations set out in Table III and Table IV.

The representative stations from which the District Values of rainfall and temperature are computed are indicated in Table III by the sign ¶ while the representative stations from which District Values of sunshine are computed are indicated by the sign §. The deviations from and percentages of normal for Air Temperature, Rainfall and Sunshine are the means of the corresponding deviations or percentages for the representative District Value stations. The deviations from normal of Earth Temperature are derived from the deviations for all the stations reporting in Table III for which normals of Earth Temperature are available. The highest and lowest temperatures for the District recorded during the month may refer to any station in Table III.

TABLE II. SUMMARY OF AUTOGRAPHIC RECORDS OF WIND.

The records used in the preparation of this Table are generally made by anemographs of the pressure-tube type. At a few stations the Robinson Cup Anemograph is utilised. The classification adopted for the "Distribution of Wind" is based on the specification of the Beaufort Scale of Wind Force (see *The Observer's Handbook*). For an anemograph complying with the specification "head 33 ft. above ground in the open" the several columns correspond with Force 8 and above (gales), Forces 6 and 7 (strong winds), Forces 4 and 5 (moderate breezes), Forces 2 and 3 (light breezes), Forces 1 and 0 (nearly calm). Some information as to the nature of the actual exposures may be gathered from the figures in the "Height" columns.

The "Highest Hourly Wind" is determined by the mean speed of the wind for a period of sixty minutes from 30 minutes before to 30 minutes after an exact hour by Greenwich Mean Time. Under the heading "Veer from N" the azimuth of the direction from which the wind was blowing is stated, the entry for an east wind being 90°, that for a south wind 180° and so on.

TABLE III. SUMMARY OF OBSERVATIONS AT TERMINAL HOURS.*

Temperature.—The terminal hours of observation are given for each station. When the terminal hours for maximum and minimum temperature are stated independently the temperatures refer to intervals of 24 hours. If the maximum thermometer is read in the morning the reading is credited to the previous day. When the terminal hours for maximum and minimum are separated by a dash, thus, 18-7, the day-maximum for the period 7h. to 18h. and the night-minimum for the period 18h. to 7h. are reported and are utilised in determining the means for the month; in such cases the extreme temperatures for successive periods of 24 hours are also read by the observers, so that the absolute maximum and minimum temperatures for the month are obtained.

Except at the Royal Observatory, Greenwich, where a Glaisher stand is in use, the air temperature is obtained from thermometers placed in louvered screens. At Kew Observatory, Richmond, and Valentia Observatory these are north wall screens a few feet from the ground. At Aberdeen Observatory the north wall screen is at 41 feet. Otherwise the screens are in the open.

Rainfall.—The daily amounts are for the 24 hours beginning at the "terminal hour." "Rainfall" includes all forms of precipitation. The number of days of precipitation is counted with reference to the limit .01 inch or 0.2 mm. and also with reference to the limit .04 inch or 1 mm. The lower limit excludes mere "traces" of precipitation, but it is frequently passed on occasions when the precipitation is only dew.

Weather.—The numbers of days of Precipitation, Snow, Hail, Thunderstorms and Gale are counted irrespective of the hour at which the phenomena occur. Except for "Precipitation" the day is the civil day.

For the purpose of this summary "Snow" includes sleet (*i.e.*, snow with rain), "Hail" includes graupel (soft hail), "Snow lying" refers to occasions when at least one-half of the country surrounding the station is covered with snow at the morning observation. The entry of "fog" implies that regular observations of the range of vision are made on the scale set out below. Days of fog are those on which the range of vision is less than 1,100 yards at the hour of morning observation. That hour is generally given by the third entry of column 2 of the table and may be 7h. or 9h. G.M.T. The variability of the observation hour may exercise an important effect upon the statistics of fog frequency. "Thunderstorm" includes any day on which thunder is heard. "Gale" is a wind of Force 8 or upwards on the Beaufort Scale. A "ground frost" is entered when the reading of a "grass minimum" thermometer set the previous evening and read at the morning observation is 30° F. or lower.

Sunshine.—The percentage of possible sunshine in the last column is calculated with reference to the maximum duration theoretically possible in the latitude, allowance being made for refraction (see

International Meteorological Tables (Paris) pp. A17-A20 and 42-47) but not for the fact that the sunshine recorder is generally insensitive to sunshine when the sun is at an altitude of less than 3°. Where the symbol § occurs it indicates that obstructions obscure the sun during more than 5% of the period when it is over 3° above the horizon.

TABLE IV. SUMMARY OF OBSERVATIONS AT FIXED HOURS.*

Mean Air Pressure is expressed in millibars. (1 millibar = 1,000 dynes per square centimetre = the pressure due to .029531 inch of mercury at 32° F. in Lat. 45°). The corrections for latitude, temperature and height have been applied to the barometer readings so as to obtain pressure at mean sea level. Barometric pressure is given at station level for a few stations at altitudes of 600 ft. or more in footnotes in Table IV.

Hygrometry.—The values given depend on the readings of the dry and wet bulb thermometers in Stevenson Screens (except at the Observatories, see above). The observations were formerly reduced by Glaisher's method; as from January, 1926 they are reduced by the new hygrometrical tables issued by the Office which are based on a formula of Regnault. In general the relative humidity and vapour pressure are derived from the monthly means of the dry and wet bulb readings. At certain stations the daily values of relative humidity and vapour pressure are found and the means are computed therefrom. These stations are indicated by the letter "H."

Cloud Amount.—The proportion of sky covered with cloud is estimated on the scale 0 to 10, the entry "0" being equivalent to clear sky "10" to overcast.

Visibility.—The observations are classified according to the following scheme—the distances, specified by international arrangement in metres, are given here in yards and miles:—

CODE.	RANGE OF VISION.	
0	Less than 55 yards.	
1	Exceeding 55 yards, less than 220 yards.	
2	" 220 "	" 550 "
3	" 550 "	" 1,100 "
4	" 1,100 "	" 1½ miles.
5	" 1½ miles "	" 2½ "
6	" 2½ "	" 6½ "
7	" 6½ "	" 12½ "
8	" 12½ "	" 31 "
9	" 31 "	" "

Wind Summaries.—The estimates of wind force refer to the Beaufort Scale, and in general to the wind experienced at the time of observation. At Deerness, Cahirciveen, Richmond, Armagh, Eskdalemuir, Southport, Greenwich and Oxford the analysis refers to tabulations of autographic records. For Oxford the mean wind speed for half-an-hour centred at the hour of observation is used for conversion to "force" on the Beaufort Scale; for the remaining observatories the mean wind speed used for each observation refers to a period of one hour. In these cases winds equivalent to Force 1 are counted with the calms, whilst Forces 2 and 3 are taken together in the preceding column of the Table.

INTERPOLATED VALUES.

When the observations for any station for a month are incomplete and relevant data (e.g. records from neighbouring stations) which make it practicable to interpolate approximate values for the missing observations are available, such approximate values may be used for completing summaries for stations published in Tables III and IV. Parts of a summary obtained in this way are shown in brackets thus—(52.4).

STANDARD OF TIME.

As a rule observations are made in all parts of the British Islands according to Greenwich Mean Time, but at the following stations Local Mean Time is used for the observations summarised in Tables III and IV. The number of minutes after Greenwich Time is shown in brackets—Darwen (10), Rhayader (15), Ashburton (15), Tavistock (17), Plymouth (15), Douglas (20), Armagh (26), Balbriggan (25), Lisburn (30), Newcastle, Co. Wicklow (30), Ballinacurra (30), Cork (34).

"Summer Time" is not used in the Monthly Weather Report, but at certain stations the hours of observation vary in the course of the year. For such stations all time entries are converted to G.M.T. before they are printed and the winter hours are given as the terminal hours in the annual tables. For the summer hours reference should be made to the appropriate months.

NORMALS.

In Table III the normals used are those for the 35 years 1881-1915. The normals of temperature and sunshine are published in the Book of Normals, Section I, those for rainfall in the Book of Normals, Section V.

The normals for pressure with which comparison is made in Table IV also refer to the period 1881-1915.

* In addition to the frequencies published in this Report (Tables III and IV), the Meteorological Office has issued since January, 1927, in the form approved by the International Commission for Air Navigation, monthly frequency tables of height of base of low cloud, and speed and direction of surface and upper winds.

SUMMARY FOR THE YEAR 1929, INCLUDING MONTHLY AND ANNUAL TABLES OF WIND BASED UPON THE RECORDS OF AUTOGRAPHIC INSTRUMENTS.
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Noteworthy Gales.—The early months of the year were on the whole quiet, and although gales occurred about the middle and at the end of February the wind velocities recorded were not remarkable. The last three months of the year, on the other hand, were unusually stormy, the gales in the south-west of England during the period December 5th to 12th being unprecedented for their persistence and severity. The dates of occurrence of the most outstanding gales are given below. The tracks followed by the depressions associated with these gales are indicated by letters which are those assigned to them in the track chart (Map 2) published in the separate monthly issues.

Date.	Track.	Area Affected.
October 5th-6th ..	P	Great Britain.
" 23rd-24th ..	R	Southern districts of British Isles.
November 11th-12th ..	D	British Isles.
" 24th-25th ..	F.I.	Southern and western districts.
December 5th ..	D	British Isles.
" 6th-7th ..	H	England and Wales and Ireland.
" 24th-25th ..	G	British Isles, except S.E. England.
" 29th ..	F	British Isles.

The gales which occurred on October 5th-6th were associated with a depression which crossed southern Ireland and passed northwards over the western districts of Scotland (Track P); the wind momentarily attained a velocity of 77 mi./hr. on the evening of the 5th at Pendennis and 73 mi./hr. at Liverpool (Bidston) on the evening of the 6th. In eastern districts the velocities attained were much less; 56 mi./hr. was recorded at Spurn Head and 51 mi./hr. at Cranwell on the 6th. The passage of a depression across the southern districts of the British Isles on October 23rd-24th (Track R) occasioned further gales, the wind attaining a velocity in a gust of 74 mi./hr. at Calshot on the afternoon of the 23rd and 77 mi./hr. at Scilly (St. Mary's) on the morning of the 24th. Widespread gales on November 11th-12th were associated with a deep depression to the north of the British Isles, which followed the Track D; amongst the highest velocities recorded in gusts were 82 mi./hr. at Scilly on the 11th and 73 mi./hr. at Croydon on the early morning of the 12th. A deep depression to the north-west of the British Isles and an associated secondary over the Channel (Tracks F and I) caused gales in most exposed districts on November 24th and 25th, during which the wind momentarily attained a velocity of 72 mi./hr. at Quilty on the 24th and 78 mi./hr. at Pendennis on the 25th. Gales were most frequent and severe in December. On the morning of the 5th the wind attained a mean hourly velocity of 70 mi./hr. at Pendennis and in gusts reached 94 mi./hr. at Croydon. At Quilty in the evening of the same day, 84 mi./hr. was recorded in a gust. Even greater velocities were recorded during the night of the 6th to 7th, when the wind momentarily touched 111 mi./hr. at Scilly, the highest velocity on record there, 103 mi./hr. at Pendennis, which has been equalled on only two previous occasions, viz. on March 14th, 1905, and on March 8th, 1922, and 80 mi./hr. at the inland station Worthy Down (near Winchester, Hants). On the morning of the 7th, Scilly and Falmouth reported a gust of 102 mi./hr. and Liverpool 84 mi./hr. Associated with the depression to the north-west of Ireland which followed the Track G, widespread gales occurred on the 24th-25th, during which gusts exceeding 80 mi./hr. were reported from the south-west, the wind at Cahirciveen on the late evening of the 24th momentarily attaining a velocity of 88 mi./hr. Gusts exceeding 80 mi./hr. were again from the south-west on the morning of the 29th (83 mi./hr. at Pendennis, 82 mi./hr. at Scilly and 81 mi./hr. at Calshot).

Temperature.—In most districts the mean temperature for 1929 was within 0.5° F. of the normal. Conspicuous incidents in the annual course of temperatures were the intense cold of February and the abnormal warmth of September. The cold in February was most intense during the period 11th to 17th and the severest experienced since February, 1895. Temperatures remained continuously below freezing point from the 11th to the 17th over large areas of Great Britain and in some eastern and south-eastern districts, e.g. at Manston (near Margate) from the 17th to the 20th. Screen minima below 10° F. were fairly numerous from the 12th to the 16th and in one or two places readings below zero were recorded, e.g. -1° F. at Ross-on-Wye and Usk on the 14th and at Houghall (Durham) on the 17th. Grass minimum temperatures below zero were also recorded in some districts, including Birmingham (-1° F. on the 14th), Rhayader (-3° F. on 14th and -1° F. on 15th), South Farnborough (-1° F. on 15th) and Hampstead, London (-2° F. on 15th), Ireland to a large extent was only slightly affected by the cold; in fact, in the extreme west and south-west the mean temperature for February exceeded the normal, the excess amounting to about 1° F. at Cahirciveen, where the mean temperature was 45.5° F. In contrast, Shoburyness (Essex) had a mean temperature for February of 31.3° F., which was 8.3° F. below the normal. The most noteworthy spell of hot weather occurred during the last few days of August and continued until nearly mid-September; 90° F. was recorded in London (Camden Square) and at Margate on August 31st and at Newport (Isle of Wight) on September 5th. In London (Camden Square) the temperature rose to 75° F. or over on 5 consecutive days from August 23rd to 27th and again on 18 consecutive days from August 30th to September 16th. September was abnormally warm; in most places the warmest month of the year and in several places the warmest September for half a century. At Rothamsted, September with a mean temperature of 62.0° F. (6.3° F. above the normal) was the warmest month of the year and by far the warmest September since regular observations of temperature began there in 1878. The unusually large diurnal range in temperature during March was an interesting feature of 1929. At the beginning of the month unusually low screen temperatures with severe ground frost occurred at night and in some places skating was still in progress. During the last few days the temperatures reached an unusually high level, maximum temperatures of 70° F. and over being recorded in several places from the 27th to the 30th. At Wakefield (Yorks) the temperature rose to 77° F. on the 29th, the highest temperature recorded in March in the British Isles since at least 1881. The extreme range in temperature was remarkably large in many districts, amounting to as much as 63° F. at Wakefield, 62° F. at Roden, Wellington (Shropshire) and to 60° F. at Mayfield (Stafford).

The extreme temperatures for the year were:—(England and Wales) 90° F. at Camden Square and Margate on August 31st and at Newport (Isle of Wight) on September 5th, and -1° F. at Ross-on-Wye and Usk on February 14th and at Houghall on the 17th; (Scotland) 83° F. at Ruthwell on July 15th, and at Nairn, Paisley and Ruthwell on the 16th and 0° F. at Wolfelee on February 16th; (Ireland) 81° F. at Mountmellick, Kilkenny and Foynes on July 14th and at Foynes on the 15th, and 7° F. at Markree Castle on January 1st.

JANUARY was remarkable for its persistent and pronounced coldness; in all districts the mean temperature was below the normal. Frost occurred frequently during the night, some unusually low readings on the ground being recorded on several nights. Except in the extreme south-west of Ireland, monthly mean temperatures for FEBRUARY were below the normal, particularly in the central and eastern districts of Great Britain, where the deficit ranged from 5° F. to 8° F. At almost all stations the mean temperature for MARCH exceeded the normal. Ground frost occurred with remarkable frequency and at the majority of stations was recorded on more than 20 occasions. Apart from two brief spells of warm weather about the 8th and from the 16th to the 18th in the north and to the 19th in the south, APRIL, 1929, was cold. Ground frost occurred frequently at night and in many districts was often severe. The mean temperature for MAY was above the normal in the northern districts and about normal in the southern districts. The warmest period of the month extended from about the 22nd to the 28th, the temperature rising to 80° F. locally in England on the 23rd. Ground frost occurred fairly frequently, mostly during the first half of the month. Except at a few coastal stations, monthly mean temperatures in JUNE were below the normal. Day temperatures were often below the normal owing to the prevalence of cool winds from between west and north, and rather cold nights were experienced widely from about the 5th to the 9th and from the 25th to the 29th. Ground frosts were rather widespread during these periods. On the 19th the temperature attained or exceeded 80° F. locally in the south-east and east of England. Mean temperatures in JULY were within 1° F. of the normal. During a hot spell about the middle of the month the temperature rose to over 80° F. in most places; in the south-east of England even higher temperatures were recorded on the 20th, a maximum of 89° F. being recorded at Camden Square on that date. The mean temperature for AUGUST differed little from the normal in most districts. In the east and south-east of England maximum temperatures of 80° F. and over were recorded locally on the 27th and again on the 31st, when 90° F. was recorded in London and at Margate. In all districts the mean temperature for SEPTEMBER was above the normal, the departures exceeding 5° F. in most districts in the east and south-east of England. Monthly mean temperatures for October were generally within 1° F. of the normal, being somewhat below the normal in Scotland and above the normal in most parts of England and Wales and Ireland. Ground frosts were common and were severe in many districts on the mornings of the 18th, 19th, 25th, 26th, 27th, 28th and 31st. NOVEMBER was mostly mild, particularly during the last ten days of the month and in practically all districts the mean temperature for the month exceeded the normal. The excess, however, was slight, owing mainly to the occurrence of many cold nights early in the month and to the cold spell from the 12th to the 18th. Apart from a spell of wintry weather from about the 17th to the 22nd, DECEMBER was very mild and in all districts monthly mean temperatures exceeded the normal. The coldest days and nights extended from about the 16th to the 22nd. During this period the temperature in the screen fell below freezing point during the night and severe ground frosts were widely reported.

Precipitation.—The distribution of the rainfall in 1929 in space and time presented features of more than usual interest, conspicuous amongst which were the dryness of the period January to September and the unprecedented wetness of October to December. The rainfall of the first nine months of the year over the British Isles as a whole was less than that of any other January to September in the last 60 years, while the rainfall of the last three months was greater than that of any other October to December. Nevertheless, over the British Isles as a whole the general precipitation exceeded the normal by only 2 per cent. Over England and Wales, considered as a whole, the general rainfall was exactly equal to the normal; Scotland had 103 per cent. and Ireland 105 per cent. of the normal rainfall. Over more than half the country annual totals were within 10 per cent. of the normal. Most of the districts which had an excess were situated in the western half of the kingdom, comprising mainly the mountainous regions in the south-west of Scotland, Wales, Ireland, and the north-west of England; there was more than 120 per cent. over much of the Devon-Cornwall peninsula. On the other hand less than 80 per cent. fell in Lincolnshire and in the neighbourhood of the Moray Firth.

A consideration of the monthly variations in the general precipitation reveals many striking features, chief amongst which are the low general falls in March and September. March was the driest month of that name since at least 1870, and ranks with February, 1891, and June, 1925, as the driest month in the last 60 years over the British Isles as a whole. During the same period there have been only four drier Septembers—those of 1894, 1895, 1907 and 1910. Of the last three wet months, November and December were particularly remarkable. November was easily the wettest November on record over the British Isles as a whole, notwithstanding the fact that the greater part of northern Scotland received less than the normal fall for the month. December's rainfall over the country as a whole has been exceeded only by that of 1876, although December, 1914, was about as wet. Such was the excessive wetness of the last three months that at stations representative of the whole of England and Wales, except the north-east and over much of the southern uplands and Western Highlands of Scotland, the total rainfall for the last three months amounted to more than half the year's total rainfall. At Croydon and Tunbridge Wells the rainfall for October to December was almost double that of the first nine months.

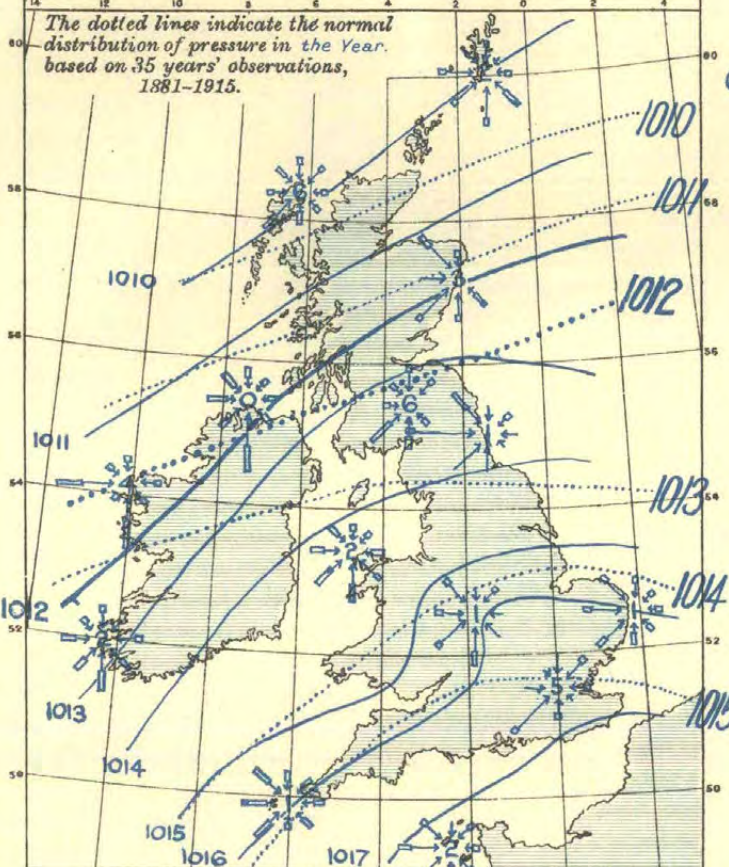
Reference may be made to some of the outstanding falls on a rain day. On 11th November (Armistice Day) rain and gales occurred in most districts, heavy falls occurring in the south and west. On that day the rainfall at Pont Lluest Wen Reservoir, in the Rhondda Valley, reached the exceptionally large amount of 211 mm., a figure exceeded in a single "rainfall day" (9 a.m. to 9 a.m.) on only two previous occasions. Another noteworthy fall was one of 145 mm. at Treherbert during the 24 hours ended at 4 p.m. on November 19th. This same station had previously recorded 133 mm. on November 11th. There was very extensive and disastrous flooding in many districts, the floods in Somerset and the Rhondda Valley being particularly noteworthy.

There was a decided deficiency of precipitation in JANUARY. Over the British Isles as a whole the general fall amounted to 63 per cent. of the normal than which a smaller value has occurred only in the Januaries of 1880, 1881, 1896, 1907 and 1911. Over Scotland the month was the driest January since

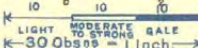
ANNUAL WEATHER CHARTS, 1929.

P. 171

1. WIND AND MEAN PRESSURE. 7 A.M. *

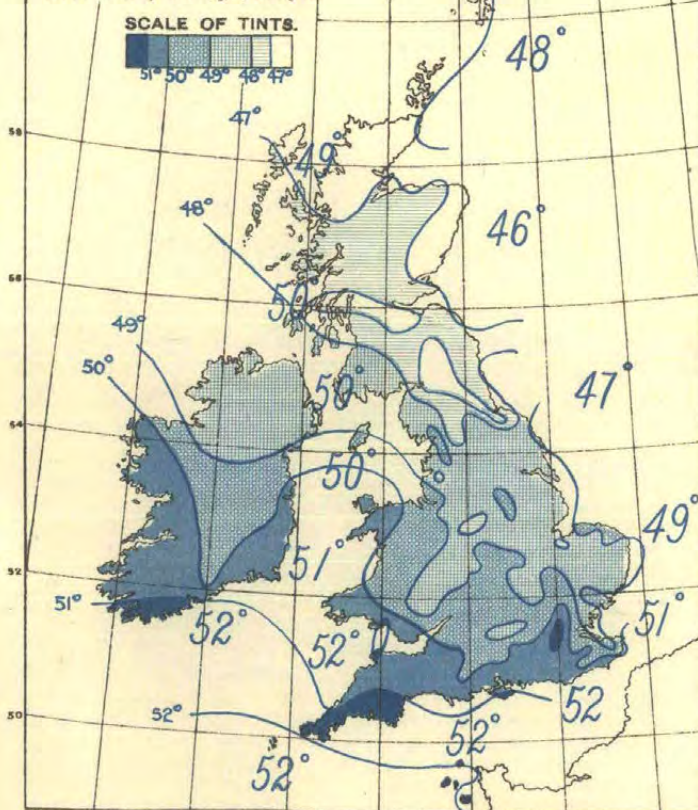


WIND ROSES. The arrows fly with the wind and indicate the mean monthly frequency and force, thus:



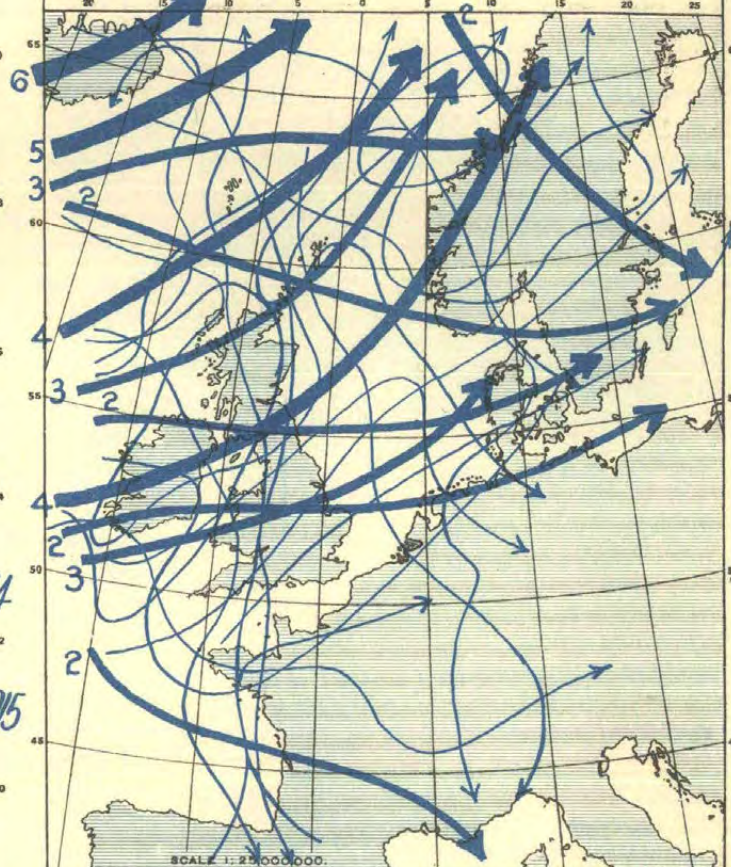
3. DISTRIBUTION OF MEAN TEMPERATURE.

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



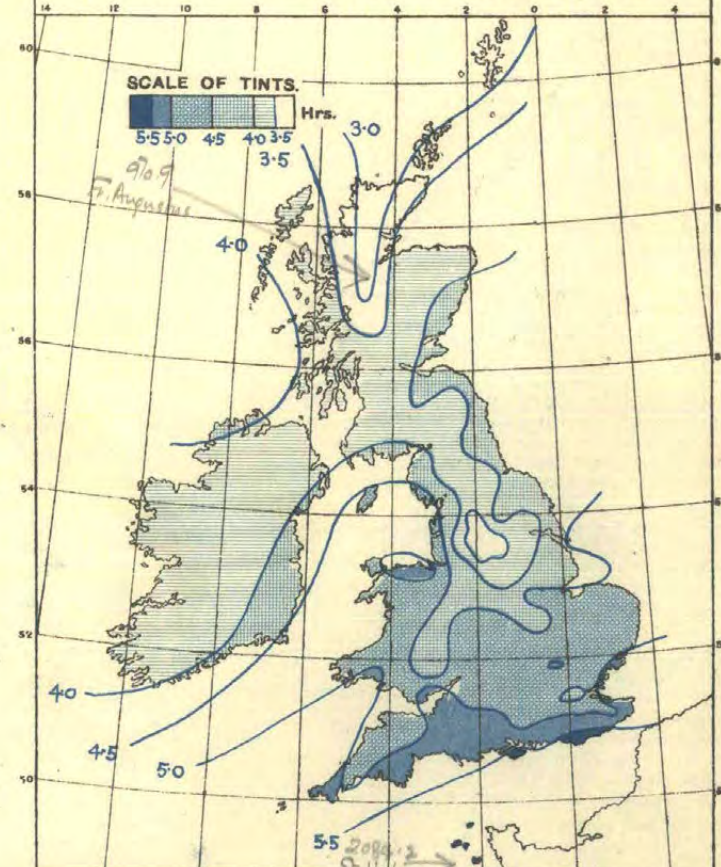
Sea temperatures are shown in large figures, thus: 52°

2. MOVEMENTS OF DEPRESSIONS.

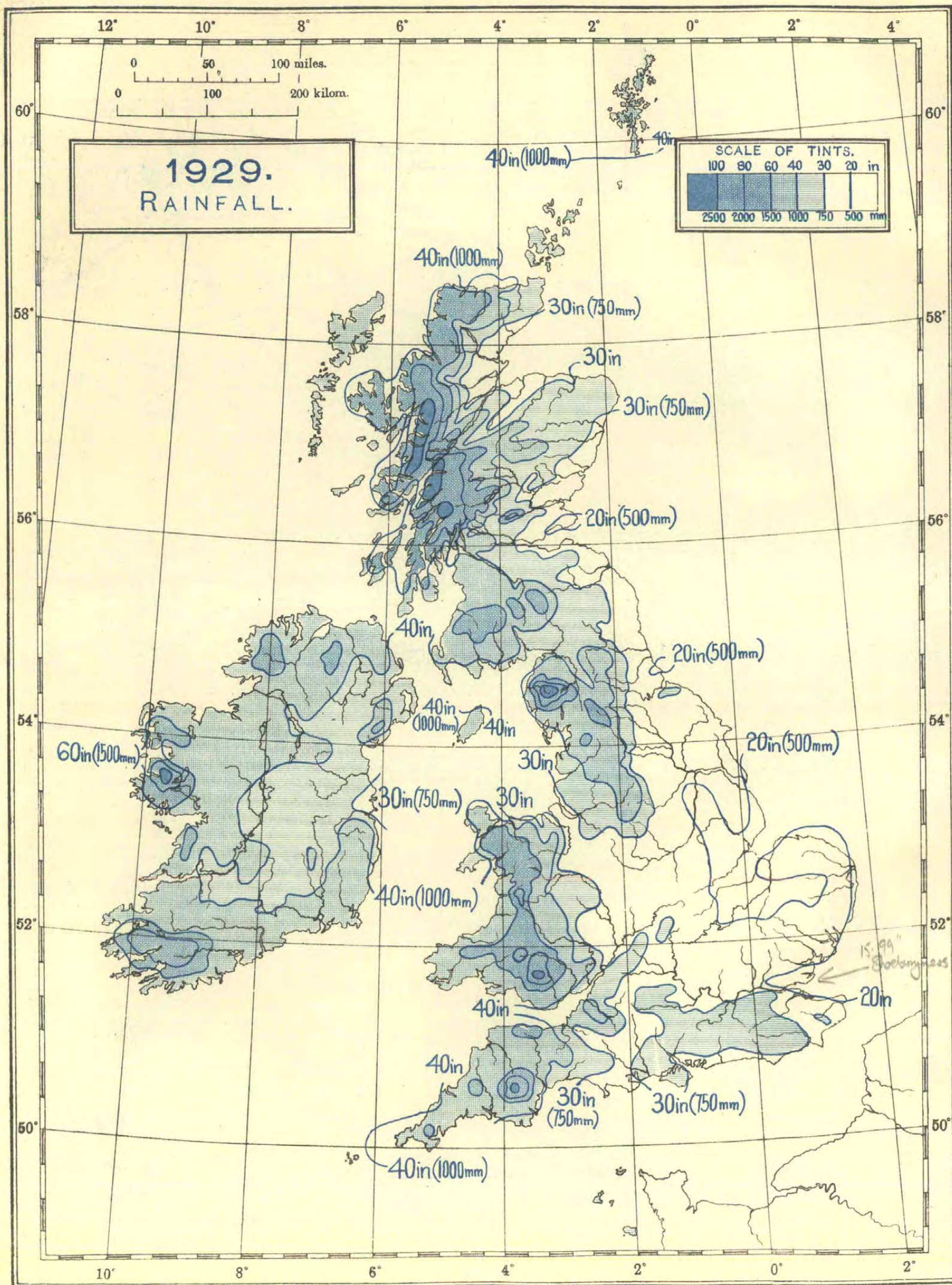


The figures indicate the number of depressions following each track. A number of tracks have been omitted.

4. BRIGHT SUNSHINE, HOURS PER DAY.



* Pressure in millibars.



that of 1881. Precipitation in FEBRUARY was decidedly deficient in Great Britain, except around the estuary of the Tay and in the extreme south-west of England, where there was a slight excess. In Ireland precipitation exceeded the normal, except in the north-west; more than twice the normal was recorded in the south-east. MARCH was abnormally dry, the general precipitation over the British Isles being only 18 per cent. of the normal, the lowest value for March since at least 1870. At Richmond (Surrey) and Malvern the month was the driest of any in over 50 years' records. At Edinburgh, where the month's total was 5 mm., so small a total has been recorded in March only four times in the past 150 years, viz. in 1781, 1809, 1847 and 1850. Over the British Isles as a whole and over Ireland, APRIL was the driest month of that name since 1921. A few exceptions to the general deficiency of rainfall occurred locally in the north and east of Scotland and in some central and eastern districts of England. Apart from an excess of precipitation around the Firths of Forth and Tay and locally in the east of England, precipitation in MAY was below the normal in the north and east of Scotland, the eastern, central and parts of the north-western districts of England and in the west of Ireland. In the south and south-west of England, the greater part of Wales, the west of Scotland, and in the north-east, south-east and south of Ireland, there was a considerable excess. Over each country as a whole there was a slight to moderate excess. The general precipitation in JUNE was below the normal over England and Wales and Ireland, and above the normal over Scotland. In the north and west of Scotland and locally in Wales, Devon and Cornwall, there was an excess, and in the eastern districts of Great Britain a decided deficiency. In Ireland an excess was recorded in the west and north. In spite of some very heavy falls, mostly associated with thunderstorms, the JULY rainfall was generally decidedly below the normal over England, except over the north and north-west, northern Wales and East Anglia. Over Scotland and Ireland the general rainfall exceeded the normal, the only extensive areas with a deficiency being the Lothian district, the regions north of Inverness and the eastern counties of Ireland. Apart from a well-defined excess in the north-west, rainfall totals for AUGUST over England and Wales were almost everywhere below the normal. Over Scotland and Ireland the general rainfall exceeded the normal, the excess being greatest in the western districts of Scotland and over most of the north and west of Ireland. Except in the north and north-west of Scotland, where there was a pronounced excess, rainfall totals in SEPTEMBER were markedly below the normal. At Richmond (Surrey) the month's total, 4 mm., was the smallest September total since at least 1866. With the dry spell during the latter part of August the absolute drought in the London area had lasted for the exceptionally long period of 37 days, the longest dry spell at Camden Square since records began there in 1858. At Ross-on-Wye the month was the driest September since 1865. The general precipitation of OCTOBER exceeded the normal over each of the countries of the British Isles. In western districts there was a substantial excess. November was exceptionally wet in all three countries but particularly in England and Wales, where the general precipitation for the month reached the unprecedented amount of nearly two and one-third times the normal. Scotland has experienced eight wetter Novembers and Ireland two. DECEMBER, like November, was excessively wet, monthly totals greatly exceeding the normal except in a few places around the Moray Firth, where there was a deficiency.

Snow.—Precipitation in January frequently took the form of snow, particularly during the period 5th to 9th and about the 16th and 27th. Up to 6 inches of snow fell in parts of Scotland on the 9th. Further snow occurred in the north-east counties of Scotland from the 15th to 17th, amounts ranging up to 12 inches. In February snow fell frequently in Great Britain during the period 10th–18th and 25th–28th. Heavy falls of snow accompanied the southeasterly gales of the 11th–12th in the south-west of England, Wales and Scotland. Further heavy falls occurred in Scotland and in the west of England and in Wales on the 15th to 16th. The frozen state of the ground, combined with drifting, rendered many roads impassable and in some districts they remained closed to traffic until the 23rd. In central and eastern Scotland roads were again blocked with snow around the 26th. Although snow fell fairly frequently in April there were few very heavy falls.

Thunder.—There was an almost complete absence of reports of thunder during the first four months of the year; in January no thunderstorms were

reported. Thunder occurred fairly frequently in most districts during the months May to October. In November thunder occurred most frequently in the north-west of England, Wales and the north-west of Ireland. On July 20th severe thunderstorms associated with a line squall and accompanied by exceptionally heavy rain occurred in many places in the south of England. An observer at Goodleigh, near Barnstaple, reported the occurrence there of a very severe thunderstorm on September 3rd. On September 17th the storms were very severe in the Channel Isles and were accompanied by heavy rain.

Sunshine.—In nearly all districts sunshine aggregates for the year exceeded the normal, the excess being considerable in many parts of England; at Rothamsted, 1,854 hours' sunshine were recorded during the year, which is the largest amount recorded since observations of sunshine commenced at that station in 1890, exceeding by 5 hours the previous record total for the sunny year 1893. The largest actual aggregates were recorded in southern coastal districts of England where the average daily sunshine amounted to between 5.5 and 6 hours and along the north coast of Wales where the average daily sunshine slightly exceed 5 hours. Representative totals for Districts expressed as a percentage of the normal for the period 1881–1915 ranged from 116 per cent. in England south-east and 114 per cent. in England north-west to 100 per cent. in Scotland north.

In JANUARY, sunshine aggregates were in general above the normal in the north and west of Scotland and in the western districts of England and Wales and Ireland and below the normal elsewhere. In FEBRUARY a slight to moderate excess of sunshine was recorded locally chiefly in the north of Scotland and on or near the south-east coast of England, but in general monthly totals were deficient, particularly in the central and eastern districts of England. MARCH was conspicuously sunny, representative totals for Districts, expressed as a percentage of the normal for the period 1881–1915, ranging from 168 per cent. in England north-west to 129 per cent. in Scotland north. Sunshine aggregates for APRIL were in general above the normal in the western districts of England and Wales and along the western seaboard of Ireland and below the normal elsewhere. In the western district of England and Wales and in the Channel Isles the month was the sunniest April since 1921. The month was also notably sunny in the Hebrides and neighbouring islands. Monthly totals of bright sunshine were in general above the normal in MAY, notably in the north-western, central and eastern districts of England and in the west of Scotland. In the north-west of England the month was the sunniest May for at least 20 years. There was a pronounced excess of sunshine in western districts in JUNE. In some places, e.g. at Hoylake, West Kirby, Rhyl, Pembroke, the total sunshine for June represented an average of more than 9 hours per day. In JULY the only districts with an appreciable deficiency were northern Scotland and southern Ireland. The period 12th to the 25th was remarkably sunny and over a large part of England the sunniest fortnight of the year. During this fortnight Rothamsted recorded an average of just under 12 hours. At Hastings (Sussex) the total sunshine recorded during the period July 12th to 17th represented a daily average of 14.5 hours. Except in coastal districts in the south and east of England, sunshine aggregates for AUGUST were deficient in most places. Sunshine aggregates for September considerably exceeded the normal except in the extreme north-west of Scotland. In spite of the excessive wetness of the last three months' sunshine aggregates during this period exceeded the normal in most districts, notably in the central and eastern districts of Great Britain. At Copdock (Suffolk) December was the sunniest month of that name in records extending back to 1901. At Rothamsted the month was the sunniest December since observations of sunshine began there in 1890, and at Southport the sunniest December since records commenced there 39 years ago.

Fog.—Fog occurred locally in each month but was prevalent and widespread during the first three months of the year and in November.

Miscellaneous Phenomena.—Stations, mostly in the north of Scotland, making regular observations of aurora reported its occurrence in each month except during the months May to July. At Oxford where regular observations of optical phenomena are made, the Zodiacal light was seen on February 28th, March 1st, 2nd, 4th, 8th, 9th, and April 7th and 8th. Observers in the south of England reported having seen a brilliant meteor at about 18h. G.M.T. on October 2nd. The observer at Ross-on-Wye also reported having seen a meteor at 7h. 11m. G.M.T. on October 3rd.

TABLE I.—DISTRICT VALUES FOR THE WHOLE YEAR, 1929. [1908, REVISED 1928].

DISTRICTS.	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High-est.	Low-est.	Daily Mean. Deviation from Normal.	At 1 ft. Deviation from Normal.	At 4 ft. Deviation from Normal.	Per-centage of Normal.	No. of Days. Deviation from Normal.	Per-centage of Normal.	Per-centage of Possible Duration.
o. SCOTLAND, N.	°F. 81	°F. 12	°F. +0.2	°F. —	°F. —	% 100	— 4	% 100	% 27
Eastern.									
1. SCOTLAND, E.	83	3	0.0	—	—	94	—15	106	33
2. ENGLAND, N.E.	86	—1	0.0	—0.5	—0.3	86	—20	106	33
3. ENGLAND, E...	89	8	0.0	—0.9	—1.1	93	—36	107	39
4. MIDLAND COUNTIES	88	—1	0.0	—0.8	—0.7	95	—35	110	36
5. ENGLAND, S.E.	90	5	—0.3	—0.2	—0.1	97	—31	116	42

DISTRICTS.	AIR TEMPERATURE.			EARTH TEMPERATURE.		RAINFALL.		SUNSHINE.	
	High-est.	Low-est.	Daily Mean. Deviation from Normal.	At 1 ft. Deviation from Normal.	At 4 ft. Deviation from Normal.	Per-centage of Normal.	No. of Days. Deviation from Normal.	Per-centage of Normal.	Per-centage of Possible Duration.
Western.									
6. SCOTLAND, W. (& I. of Man)	83	8	—0.5	—	—0.7	113	—1	110	30
7. ENGLAND, N.W. (& N. Wales)	87	1	—0.1	—0.8	—0.5	102	—7	114	37
8. ENGLAND, S.W. (& S. Wales)	85	—1	0.0	—0.5	—0.6	108	—25	113	40
9. IRELAND, N...	81	7	+0.4	—0.3	—0.3	108	—13	104	30
10. IRELAND, S...	81	20	+0.3	—0.3	—0.3	110	—7	100	33
11. CHANNEL I. (& Scilly)	87	19	—0.4	—0.2	—0.1	116	—42	108	45
Mean: DISTRICTS 1—10	90	—1	0.0	—0.6	—0.5	101	—19	109	35

TABLE II.—SUMMARY OF AUTOGRAPHIC RECORDS OF WIND—THE YEAR 1929. [1914].

The Summary showing the duration of Gales, Fresh and Moderate Breezes, and Calms and Light Airs, with Extreme Velocities, at anemograph stations, will be found as Table XI, p. 191, in the Wind Section.

TABLE III.—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, YEAR 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.		Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.						Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.		
					Means of		Mean of A and B.	Deviation from Normal.	Absolute Maximum and Minimum. For Dates see Table V.	Total Fall.			Deviation from Normal.	Most in a day.		Precipitation.	Precipitation 1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog.	Ground Frost.	Gale.	Hours per day.				
					A	B					Amount.	Date.		Daily Mean.	Deviation from Normal.										Per cent.				
					Max.	Min.	Max.	Min.	Max.	Min.	1 ft.	4 ft.	mm.	mm.	mm.	mm.	Precipitation.	Precipitation 1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog.	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per cent.	
0. SCOTLAND, N.																													
Shetlands.	Baltasound	9 9 9	31	49.8	41.4	45.6	—	67	22	45.9	—	41.83	1063	—	27	4 Oct.	297	211	39	15	53	11	13	—	31	2.83	—	23	
	Lerwick	18—7 7	54	49.4	42.9	46.1	+1.3	66	27	—	—	45.99	1168	+204	30	21 Dec.	236	202	35	15	35	0	2	—	40	2.99	—0.42	24	
Orkneys.	Deerness	21 21 9	160	49.8	41.5	45.7	+0.4	64	27	—	—	38.30	973	+72	35	6 Sept.	256	190	39	12	28	4	9	—	—	3.29	+0.11	27	
	Kirkwall	9 9 9	151	49.6	41.7	45.7	—	68	27	—	—	41.22	1047	—	29	6 Sept.	257	193	35	11	28	3	2	51	36	3.46	—	28	
Hebrides.	Skallary	9 9 9	20	51.9	44.4	48.1	—	68	26	—	—	44.61	1133	—	33	16 Aug.	256	206	9	6	20	2	—	—	1	—	—	—	—
	Stornoway	18—7 7	30	51.0	41.4	46.2	+0.2	76	22	—	—	47.68	1211	—	55	6 Oct.	263	215	20	2	22	1	1	—	19	3.50	+0.05	29	
Caithness.	Wick	18—7 7	81	49.3	41.3	45.3	+0.5	70	20	—	—	33.11	841	+79	23	6 Oct.	246	166	27	6	18	3	5	—	33	—	—	—	—
Ross and Cromarty.	Achnashellach	9 9 9	225	51.9	39.5	45.7	+0.5	80	12	—	—	82.05	2084	—145	55	13 Oct.	243	221	11	11	0	0	0	128	7	—	—	—	—
	Fortrose	9 9 9	69	52.8	41.0	46.9	—	80	20	—	—	19.68	500	—	26	6 May	184	116	8	5	2	0	4	—	1	—	—	—	—
	Strathpeffer	9 9 9	125	52.8	39.3	46.1	0.0	81	15	—	—	27.45	697	—79	22	16 Aug.	215	151	17	1	4	0	—	—	—	—	—	—	—
Inverness.	Ft. Augustus	9 9 9	68	52.3	39.8	46.1	—0.1	79	12	—	—	40.64	1032	—91	32	13 Dec.	228	163	18	5	2	2	11	—	12	2.66	+0.10	228	
	Inverness	9 9 9	242	51.9	40.6	46.3	—0.6	79	18	—	—	23.06	586	—96	36	17 Aug.	171	113	23	15	5	1	4	82	3	3.81	+0.06	31	
	Onich	9 9 9	48	52.7	41.3	47.0	—	80	19	—	—	77.69	1973	—	43	4 Nov.	240	201	18	3	10	4	41	108	23	3.23	—	268	
1. SCOTLAND, E.																													
Nairn.	Nairn	18—7 7	82	51.6	40.3	45.9	—0.1	83	16	—	—	21.62	549	—86	35	6 May	198	111	22	9	5	2	4	—	10	3.79	+0.10	31	
Elgin.	Gordon Castle	21 21 9	104	53.4	40.0	46.7	+0.1	77	18	—	—	23.21	589	—168	21	6 Oct.	195	133	28	5	11	5	—	—	4	3.81	—	318	
Banff.	Banff	9 9 9	130	51.4	41.2	46.3	—	74	18	—	—	28.22	717	—	28	24 Dec.	208	138	27	9	10	4	0	81	3	3.81	—	31	
Aberdeen.	Aberdeen	24 24 24	37	51.2	41.2	46.2	+0.1	76	20	—	46.5	30.82	783	+35	49	31 July	193	135	42	21	26	3	5	103	1	3.88	+0.08	32	
		Hourly*	37																										
	Balmoral	9 9 9	927	50.6	35.4	43.0	—	78	7	—	—	29.34	745	—94	36	31 July	215	134	28	64	0	2	—	165	5	—	—	—	—
	Braemar	21 21 9	1120	50.4	35.7	43.1	—0.2	77	3	—	—	32.27	820	—79	36	31 July	185	140	41	—	2	6	49	135	0	—	—	—	—
	Craibstone	9 9 9	300	51.0	39.4	45.2	—	76	15	45.6	45.7	34.09	866	—	54	31 July	199	132	33	29	11	5	—	91	8	4.18	—	348	
	Logie Coldstone	9 9 9	608	52.5	36.7	44.6	—	76	7	—	—	25.07	637	—148	32	31 July	205	125	54	37	0	2	50	—	0	—	—	—	—
Angus (Forfar).	Arbroath	21 21 9	93	53.1	39.8	46.5	—	76	15	—	—	25.73	654	—	28	4 July	154	106	17	13	7	9	17	150	3	4.34	—	35	
	Carnoustie	9 9 9	39	52.4	39.4	45.9	—	74	18	—	—	27.54	699	—	31	4 July	195	120	11	2	3	7	—	—	7	4.11	—	34	
	Dundee E. Nec.	21 21 9	198	52.3	40.1	46.2	—0.3	76	17	—	—	26.79	681	—16	37	4 July	161	125	7	3	0	5	—	—	10	—	—	—	—
	„ Mayfield	9 9 9	147	53.2	40.9	47.1	—0.1	78	19	46.1	—	25.14	639	—27	37	4 July	143	118	10	19	7	11	—	—	13	4.05	+0.09	33	
	Kettins	9 9 9	218	52.8	38.1	45.5	—	76	5	46.3	—	30.05	763	—	30	4 July	180	122	16	20	7	2	4	137	4	—	—	—	—
Perth.	Montrose	9 9 9	16	52.0	39.9	45.9	—	76	13	—	—	26.00	660	—	27	17 Aug.	146	110	16	15	3	4	4	—	3	4.13	—	34	
	Crieff	21 21 9	478	52.5	38.8	45.7	—1.0	76	14	—	—	39.25	997	—40	59	17 Aug.	197	147	26	34	8	4	—	—	1	—	—	—	—
Fife.	Perth	9 9 9	76	54.1	39.2	46.7	+0.1	78	11	—	—	25.57	649	—133	29	31 July	176	125	22	8	3	3	—	—	8	3.94	—	32	
	Cupar	9 9 9	210	52.9	39.5	46.2	—	75	9	—	—	27.31	694	—	29	4 July	171	136	12	18	5	6	—	—	1	—	—	—	—
	Inchkeith	18—7 7	190	51.4	42.7	47.1	—	70	20	—	—	19.89	505	—	27	4 July	159	105	22	5	1	14	19	58	9	4.30	—	35	
	Kirkcaldy	9 9 9	66	53.5	41.3	47.4	—	76	15	—	—	25.44	646	—	31	4 July	178	117	—	—	—	—	—	—	—	—	—	—	—
	Leuchars	18—7 7	30	52.7	39.8	46.3	—	75	10	—	—	23.98	609	—	39	4 July	159	112	22	11	11	9	5	120	4	4.41	—	36	
	St. Andrews	9 9 9	20	52.9	40.4	46.7	—	75	10	46.3	46.5	26.48	673	—	38	4 July	166	124	11	0	4	4	2	95	1	—	—	—	—
Linlithgow.	Bangour	21 21 9	587	51.3	38.0	44.7	—	73	8	—	—	29.66	753	—	25	4 July	219	146	29	26	8	10	23	—	20	—	—	—	—
Edinburgh.	Blackford Hill	21 21 9	441	52.3	41.0	46.7	+0.2	78	15	—	—	24.04	611	—17	19	1 Oct.	182	115	9	2	0	4	—	81	7	4.28	+0.51	35	
	Boghall	9 9 9	645	51.3	39.7	45.5	—	76	13	45.3	46.0	28.31	719	—	22	4 July	182	134	27	13	12	10	13	94	10	4.19	—	34	
	Edin. Univ.	9 9 9	227	53.5	42.9	48.2	—	78	18	46.8	47.6	22.92	582	—79	18	4 July	162	106	—	—	—	—	—	—	—	—	—	—	—
	Liberton	9 9 9	190	53.7	—	—	—	79	—	—	—	24.36	619	—	17	1 Oct.	173	121	10	1	4	4	—	—	1	—	—	—	—
Haddington.	North Berwick	9 9 9	152	53.7	40.3	47.0	—	75	6	—	—	21.09	536	—	25	4 July	159	114	19	10	5	7	5	104	12	4.23	—	35	
Berwick.	Marchmont	9 9 9	498	52.7	38.7	45.7	+0.1	78	12	—	—	28.13	715	—102	33	4 July	202	121	19	22	6	9	—	—	4	3.88	+0.24	32	
Peebles.	West Linton	9 9 9	770	50.9	35.5	43.2	—0.4	79	3	—	—	34.47	875	—	33	31 July	246	150	43	39	10	12	—	142	15	—	—	—	—
Roxburgh.	Kelso (Br'ml'ds)	9 9 9	195	54.1	38.6	46.3	—	79	8	—	—	23.07	586	—76	28	4 July	187	107	16	26	1	5	7	—	2	—	—	—	—
6a. SCOTLAND, W.																													
Argyll.	Ardtornish	21 21 9	48	53.0	—	—	—	79	20	—	—	78.99	2006	—	57	1 Dec.	241	206	17	22	17	8	—	—	12	—	—	—	—
	Tiree	18—7 7	22	51.7	43.9	47.8	—	72	25	—	—	47.26	1200	—	27	24 Feb.	241	181	8	3	29	4	6	64	34	4.10	—	33	
	Glenbranter	9 9 9	188	53.2	39.1	46.1	—	82	16	—	—	95.75	2432	—	43	20 Dec.	231	212	26	68	19	6	4	118	—	—	—	—	—
	Oban	9 9 9	21	52.3	42.6	47.5	—0.4	80	21	—	—	59.91	1522	+176	32	30 Aug.	219	176	9	5	19	5	1	64	3	3.72	+0.54	298	
Bute.	Rothsay	21 21 9	200	52.6	41.4	47.0	—0.8	77	20	47.3	48.0	57.41	1458	+213	39	16 Aug.	246	203	4	1	27	5	31	95	1	3.60	+0.19	30	
Dumbarton.	Cardross	9 9 9	130	54.0	38.7	46.3	—	81	12	—	—	48.29	1227	—	37	4 July	208	172	—	—	—	—	—	—	—	—	3.40	—	288
	Helensburgh	9 9 9	21	53.3	38.7	46.0	—	81	15	—	—	57.05	1449	+186	45	4 July	218	176	19	18	2	6	33	—	1	3.55	—	298	
Stirling.	Stirling	9 9 9	151	53.1	39.9	46.5	—	77	15	47.3	47.5	34.08	866	—	32	1 Oct.	164	131	19	22	8	6	57	63	1	3.62	—	308	
Renfrew.	Greenock	9 9 9	199	52.8	41.9	47.3	+0.2	80	16	—	—	67.64	1718	+153	77	4 July	226	187	14	15	10	3	80	—	0	—	—	—	—
	Paisley	21 21 9	106	53.4	41.5	47.5	—0.8	83	17	47.6	47.6	45.79	1163	+129	33	20 Dec.	208	163	21	31	7	7							

\$ See paragraph headed "Sunshine" in Notes on Tables on page 183 of this issue.

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, YEAR 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.			Height of Station above Mean Sea Level.			AIR TEMPERATURE IN DEGREES FAHRENHEIT.							Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
								Means of		Deviation from Normal.	Absolute Maximum and Minimum. For Dates see Table V.	Total Fall.	Deviation from Normal.	Most in a day.			Precipitation.	Precipitation 1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog.	Ground Frost.	Gale.	Hours per day.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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2. ENGLAND, N.E.		G.M.T.	ft.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	in.	mm.	mm.	mm.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, YEAR 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.			Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.						Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
						Means of		Deviation from Normal.	Absolute Maximum and Minimum. For Dates see Table V.	Total Fall.	Deviation from Normal.			Most in a day.		Precipitation.	Precipitation 1 min. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog.	Ground Frost.	Gale.	Daily Mean.	Deviation from Normal.	Per cent.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
		A	B	Amount.		Date.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
		Max.	Min.	Rain.	Max.	Min.	Mean of A and B.			1 ft.	4 ft.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, YEAR 1929.

DISTRICT, COUNTY AND PLACE.	Terminal Hours of Observation.			Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.						Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.				
	Max.	Min.	Rain.		Means of		Mean of A and B.	Deviation from Normal.	Absolute Maximum and Minimum. For Dates see Table V.	1 ft.	4 ft.	Total Fall.	Deviation from Normal.	Most in a day.		Precipitation.	Precipitation 1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog.	Ground Frost.	Gale.	Hours per day.						
					A	B								Amount.	Date.										Daily Mean.	Deviation from Normal.	Per cent.				
					Max.	Min.																									
5. ENGLAND, S.E.—cont.																															
Hampshire—	Calshot	..	18—7	7	8	56.2	44.1	50.1	—	82	19	—	—	26.05	662	—	29	15 Nov.	135	102	12	5	6	7	24	77	25	5.33	—	44	
(cont.)	Grayshott	..	9	9	9	661	55.6	41.0	48.3	0.0	84	12	48.9	—	35.59	904	+ 61	40	11 Nov.	146	107	32	6	10	13	24	121	18	5.18	+0.66	42
	Long Sutton	..	9	9	9	479	56.8	40.6	48.7	—	87	9	49.9	—	30.54	776	—	47	20 July	120	105	17	12	1	6	10	110	5	4.96	—	41
	Southamp'n	¶§	21	21	9	64	57.7	42.5	50.1	-0.7	87	12	—	—	33.14	842	+ 56	33	11 Nov.	145	110	6	7	4	6	46	90	14	5.14	+0.57	42
	S. Farnboro.	..	18—7	7	237	58.0	40.1	49.1	—	89	5	—	—	27.42	696	—	37	20 July	136	98	27	3	4	9	45	150	4	4.99	—	41	
	Winchester (Worthy Down)	..	18—7	7	272	57.1	40.2	48.7	—	86	7	—	—	33.09	841	—	31	24 Nov.	139	99	13	6	6	9	31	125	4	5.06	—	41	
I. of Wight.	Newport	..	9	9	9	48	58.7	41.1	49.9	—	90	12	—	—	35.41	899	—	39	11 Nov.	146	106	7	4	11	11	21	116	22	—	—	—
	Ryde	..	9	9	9	13	56.6	44.7	50.7	—	84	12	—	—	28.95	735	—	49	3 July	144	101	3	1	4	6	9	—	11	5.42	—	44
	Sandown	..	9	9	9	13	56.3	43.1	49.7	—	82	13	—	—	29.42	747	—	33	27 Nov.	170	114	—	—	—	—	—	—	—	5.52	—	45
	Totland Bay	..	9	9	9	140	55.9	43.2	49.5	-0.7	83	16	—	—	30.61	777	+ 52	34	15 Nov.	138	103	6	12	4	8	22	90	21	5.51	+0.63	45
	Ventnor	..	9	9	9	59	56.5	46.0	51.3	0.0	83	21	—	—	31.29	795	+ 61	27	2 Oct. } 27 Nov. }	152	109	—	—	—	—	—	—	—	5.67	+0.86	46
Wilts.	Larkhill	..	9	9	9	440	56.3	40.0	48.1	—	85	10	—	—	27.57	700	—	25	23 Nov.	133	98	15	13	5	7	13	119	16	—	—	—
	Marlborough	¶§	9	9	9	424	56.5	38.0	47.3	-0.4	85	7	48.6	49.5	32.47	825	+ 34	26	27 Nov.	142	112	16	23	2	6	31	155	7	4.86	+1.04	40
	Porton	..	9	9	9	363	57.0	38.9	47.9	—	86	10	49.3	—	27.23	692	—	25	24 Oct.	148	97	15	17	2	10	11	145	8	5.17	—	42
7a. ENGLAND, N.W.																															
Cumberland.	Aspatria (Mealsgate)	¶§	21	21	9	487	52.3	41.0	46.7	-0.6	81	15	47.5	47.8	39.81	1011	- 30	44	23 Oct.	204	150	3	0	1	0	—	—	0	4.14	+0.19	34
	Keswick	..	9	9	9	254	54.4	41.0	47.7	—	83	15	47.7	48.0	55.15	1401	—	54	28 Dec.	196	156	20	11	11	11	3	127	10	3.89	—	32
	Newton Rigg	..	21	21	9	559	53.4	39.0	46.2	-0.2	82	11	—	—	38.30	973	+ 48	42	9 Nov.	185	134	7	40	3	2	2	135	1	4.31	+0.47	35
Lancashire.	Bolton	..	9	9	9	341	54.5	40.9	47.7	—	83	13	47.3	47.5	47.55	1208	—	38	11 Nov.	192	146	13	19	7	9	—	77	0	3.18	—	26
	Burnley	..	9	9	9	458	53.5	39.7	46.6	—	82	11	47.2	47.5	42.20	1072	—	33	11 Nov.	187	142	10	4	5	7	47	161	—	3.49	—	29
	Darwen	..	21	21	9	724	53.3	40.3	46.8	—	82	12	47.5	46.9	56.71	1440	—	43	11 Nov.	197	161	14	7	10	11	36	82	0	3.86	—	32
	Hutton	..	9	9	9	82	54.9	40.4	47.7	—	84	13	47.8	48.2	38.10	968	—	38	23 Aug.	185	140	8	6	11	11	—	110	11	4.20	—	34
	Lancaster	..	9	9	9	311	55.1	42.1	48.6	—	87	15	47.4	47.3	47.40	1204	—	51	23 Oct.	181	143	5	2	2	11	21	107	1	4.44	—	36
	Leyland	..	9	9	9	124	54.6	40.1	47.3	—	85	12	—	—	38.13	968	—	29	23 Aug.	187	146	8	9	8	13	26	107	7	4.27	—	35
	Manchester— (W. Park)	..	21	21	9	125	54.9	42.2	48.5	-0.7	85	15	—	—	35.46	901	+ 96	30	11 Nov.	169	136	—	—	—	—	102	—	—	3.59	+0.70	29
	(Oldham Rd.)	..	21	21	9	190	55.5	44.1	49.8	0.0	86	17	48.1	49.8	37.50	953	+ 83	33	5 July	174	139	19	—	6	5	—	42	0	3.09	+0.20	25
	(Swinton)	..	9	9	9	253	55.0	40.4	47.7	—	84	14	—	—	47.4	914	—	31	11 Nov.	169	135	22	4	14	15	43	95	7	3.48	—	29
	Southport	¶§	9	9	9	37	54.2	42.7	48.5	+0.1	85	14	49.1	49.8	32.06	814	+ 1	27	28 Sept.	184	137	9	9	17	11	17	89	18	4.74	+0.48	39
	Stonyhurst	¶§	9	9	9	377	53.1	40.9	47.0	-0.4	82	13	—	—	48.71	1237	+ 54	60	23 Aug.	179	158	15	8	13	15	12	81	10	4.20	+0.56	34
Cheshire.	Hoylelake	..	9	9	9	30	55.8	42.4	49.1	-0.4	83	14	—	—	28.49	724	+ 9	21	11 Nov.	168	152	—	—	—	—	—	—	—	5.04	+0.97	41
	Liverpool (Bidston)	..	18—7	7	189	53.2	43.8	48.5	-0.4	82	15	—	—	25.17	639	- 70	18	28 Sept.	171	134	15	7	10	9	15	59	9	4.72	—	39	
	Macclesfield	..	9	9	9	500	54.3	39.9	47.1	-0.1	83	11	—	—	36.94	938	+ 72	33	30 Sept.	174	145	17	0	9	8	19	—	0	—	—	—
	West Kirby	..	9	9	9	25	55.7	42.9	49.3	—	85	14	—	—	26.10	663	—	23	11 Nov.	176	128	22	15	—	—	—	100	25	5.10	—	42
7b. NORTH WALES.																															
Flint.	Hawarden Br'g	..	9	9	9	20	56.1	42.9	49.5	-0.1	86	15	—	—	25.95	659	+ 41	32	4 July	176	135	—	—	—	—	—	—	—	—	—	—
	Rhyl	..	9	9	9	30	56.0	42.9	49.5	+0.4	85	15	—	—	25.99	660	+ 22	33	28 Sept.	176	127	9	0	7	3	5	75	—	5.19	+0.70	43
	Sealand	¶§	18—7	7	16	55.3	41.3	48.3	-0.2	84	12	48.5	48.7	25.79	655	- 6	20	31 July	177	131	17	8	13	9	30	98	9	4.65	+0.97	38	
Anglesey.	Holyhead	¶§	18—7	7	26	53.9	46.1	50.0	+0.5	76	21	—	—	37.41	950	+ 62	35	5 Oct.	178	132	6	13	16	6	13	32	33	4.96	+0.56	41	
Denbigh.	Colwyn Bay	..	9	9	9	81	56.0	44.6	50.3	—	85	18	—	—	30.79	782	—	41	28 Sept.	174	133	3	7	2	3	0	—	1	5.01	—	41
Carnarvon.	Aber (Bangor)	..	9	9	9	60	55.5	44.1	49.8	—	83	19	—	—	44.28	1125	—	49	28 Sept.	179	151	10	11	18	6	—	71	—	4.14	—	34
	Llandudno	..	9	9	9	22	55.6	44.6	50.1	+0.2	85	18	—	—	29.21	742	- 23	33	28 Sept.	167	136	7	2	6	8	0	—	10	5.14	+0.80	42
Montgomery.	Welshpool	..	9	9	9	254	56.9	38.3	47.6	—	84	1	—	—	30.24	768	—	29	11 Nov.	144	120	10	13	0	1	24	—	0	—	—	—
8a. SOUTH WALES.																															
Cardigan.	Aberystwyth	..	9	9	9	59	53.1	42.8	47.9	—	79	12	—	—	44.79	1138	—	44	11 Nov.	204	143	5	3	5	6	8	86	4	4.93	—	40
	" P.B.S.†	..	9	9	9	452	53.1	42.8	47.9	—	79	12	—	—	44.79	1138	—	44	11 Nov.	204	143	5	3	5	6	8	86	4	4.93	—	40
Pembroke.	Haverfordwest	..	21	21	9	250	54.7	42.8	48.7	—	77	18	—	—	53.34	1355	+177	36	18 Nov.	183	146	5	11	4							

TABLE III (continued).—SUMMARY of the RECORDS of TEMPERATURE, RAINFALL and SUNSHINE, and of WEATHER OBSERVATIONS, YEAR 1929.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.			Height of Station above Mean Sea Level.	AIR TEMPERATURE IN DEGREES FAHRENHEIT.						Earth Temperature.		RAINFALL.				WEATHER. Number of days.										BRIGHT SUNSHINE.				
		Max.	Min.	Rain.		Means of		Deviation from Normal.	Absolute Maximum and Minimum. For Dates see Table V.	1 ft.	4 ft.	Total Fall.	Deviation from Normal.	Most in a day.		Precipitation.	Precipitation 1 mm. or more.	Snow.	Snow lying.	Hail.	Thunderstorm.	Fog.	Ground Frost.	Gale.	Hours per day.							
						A	B							Amount.	Date.										Daily Mean.	Deviation from Normal.	Per cent.					
						Max.	Min.																									
8b. ENGLAND, S.W.—cont.		G.M.T.	ft.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	°F.	in.	mm.	mm.	mm.	24 Oct.	128	110	9	21	3	4	—	—	11	—	—	—	hr.	hr.	%	
Dorset—	Shaftesbury ..	9 9 9	722	56.5	41.4	48.9	+0.7	82	15	—	—	27.20	691	—135	23	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
cont.																																
Devon.	Arlington ..	9 9 9	613	55.1	42.1	48.6	+0.3	79	17	—	—	55.67	1414	+48	68	3 Aug.	175	164	6	19	19	16	—	—	80	6	—	—	—	—	—	
	Cullompton ..	9 9 9	202	58.4	40.6	49.5	—0.1	84	12	51.1	—	40.33	1025	+129	57	5 Oct.	176	128	8	17	3	6	19	125	9	4.47	+0.41	37	—	—	—	
	Dean Prior ..	21 21 9	331	56.6	40.5	48.5	—	85	10	—	—	84.15	2137	—	83	5 Oct.	176	150	17	22	13	9	—	—	—	—	—	—	—	—	—	
	Ilfracombe ..	9 9 9	74	55.7	46.5	51.1	—0.4	81	22	52.3	53.3	44.77	1137	+223	56	5 Oct.	159	136	4	1	19	10	2	33	6	4.79	—	39	—	—	—	
	Newton Abbot ..	9 9 9	350	56.9	42.9	49.9	—	85	19	—	—	43.28	1099	—	61	5 Oct.	152	118	7	14	8	3	11	75	4	4.96	—	41	—	—	—	
	Plymouth (Hoe) ..	21 21 9	116	57.0	44.8	50.9	—0.1	79	23	51.9	52.2	45.59	1158	+225	56	5 Oct.	157	126	8	2	6	4	29	54	26	5.25	+0.69	43	—	—	—	
	Plymouth ..	18—7 7	82	56.0	45.6	50.8	—	77	24	—	—	41.82	1062	—	47	5 Oct.	159	115	11	10	11	9	10	56	40	5.21	—	43	—	—	—	
	(Mount Batten)																															
	Princetown ..	9 9 9	1359	52.0	40.7	46.3	—	78	15	—	—	100.22	2546	—	112	5 Oct.	199	164	21	10	9	4	62	73	3	—	—	—	—	—	—	
	Sidmouth ..	9 9 9	25	56.5	43.0	49.7	—	82	17	—	—	32.85	834	—	36	5 Oct.	142	114	6	7	5	4	7	52	—	5.04	—	41	—	—	—	
	Tavistock ..	9 9 9	458	56.6	42.3	49.5	—	80	19	—	51.6	61.75	1568	—	90	5 Oct.	178	137	11	5	14	13	11	128	24	—	—	—	—	—	—	
	Teignmouth ..	9 9 9	20	56.8	44.7	50.7	—0.5	82	21	—	—	40.78	1036	+232	59	5 Oct.	157	114	12	6	8	6	2	44	28	5.21	—	43	—	—	—	
	Torquay ..	9 9 9	12	57.5	45.9	51.7	+0.6	80	23	—	52.6	34.06	865	+25	35	5 Oct.	141	107	7	4	12	7	12	37	37	5.36	+0.54	44	—	—	—	
	Woolacombe ..	9 9 9	59	55.5	45.6	50.5	—0.6	81	20	—	—	29.35	746	+46	23	7 Dec.	154	122	4	4	14	12	0	40	11	—	—	—	—	—	—	
Cornwall.	Falmouth Ob. ¶	9 9 9	167	56.6	46.0	51.3	+0.3	78	27	53.3	54.1	50.64	1286	+179	65	5 Oct.	164	131	4	1	11	4	17	75	15	5.12	+0.30	42	—	—	—	
	(Pendennis)	18—7 7	200	55.3	47.3	51.3	—	76	28	—	—	41.75	1060	—	52	5 Oct.	156	127	4	0	12	3	12	—	37	5.20	—	43	—	—	—	
	Fowey ..	9 9 9	51	58.0	44.9	51.5	—	83	23	—	—	41.41	1052	—	75	5 Oct.	146	129	2	0	2	4	13	—	24	4.97	—	41	—	—	—	
	Gulval ..	9 9 9	20	57.4	45.7	51.5	—	78	27	—	—	50.05	1271	—	47	5 Oct.	184	145	2	2	10	4	—	37	—	5.21	—	43	—	—	—	
	Newquay ..	9 9 9	190	55.2	45.1	50.1	—0.9	77	22	51.8	51.8	38.95	989	+144	41	5 Oct.	168	136	2	1	15	7	6	—	13	5.18	+0.55	42	—	—	—	
	Redruth ..	9 9 9	397	55.3	44.6	49.9	—	75	24	—	—	57.17	1452	+303	69	5 Oct.	189	140	5	9	12	5	18	89	30	—	—	—	—	—	—	
9. IRELAND, N.																																
Sligo.	Markree Cas. ¶	21 21 9	122	55.1	40.7	47.9	+0.2	79	7	50.2	49.9	44.86	1139	+33	37	30 Aug.	230	182	10	0	21	11	2	—	19	3.52	+0.06	29	—	—	—	
Mayo.	Blacksod Pt. ¶	18—7 7	10	54.0	46.4	50.2	+0.8	75	29	—	—	55.07	1399	+137	36	11 June	233	188	7	0	27	6	1	—	15	—	—	—	—	—	—	
	Mallarany ..	9 9 9	120	54.9	44.3	49.6	—	79	25	—	—	65.89	1674	—	44	10 Oct.	236	207	—	—	14	8	0	—	0	3.63	+0.10	30	—	—	—	
Donegal.	Malin Hd. ¶	18—7 7	51	52.1	44.6	48.3	+0.2	73	27	—	—	36.33	923	+111	35	30 Aug.	226	175	8	0	35	6	1	—	12	4.06	+0.28	33	—	—	—	
Antrim.	Aldergrove ..	18—7 7	238	53.3	41.4	47.3	—	76	21	—	—	36.82	935	—	36	5 Oct.	210	156	21	1	11	5	20	110	3	3.97	—	33	—	—	—	
	Belfast ..	9 9 9	13	55.4	43.5	49.5	—	78	25	—	—	38.37	975	—	54	6 Dec.	198	162	5	5	1	2	46	—	—	—	—	—	—	—	—	
	Lisburn ..	9 9 9	206	55.4	40.6	48.0	+0.5	81	23	—	—	34.38	873	+7	40	6 Dec.	204	150	9	0	—	—	38	—	—	—	—	—	—	—	—	
Down.	Donaghadee ..	18—7 7	40	53.0	43.4	48.2	—0.1	75	28	—	—	35.43	900	+105	24	20 Dec.	210	144	9	1	4	2	9	—	—	—	—	—	—	—	—	
Armagh.	Armagh ¶	21 21 9	204	54.7	41.3	48.0	+0.1	79	22	49.2	49.3	33.74	857	+51	55	5 Oct.	207	148	14	8	4	8	11	90	9	3.63	+0.09	28	—	—	—	
Longford.	Newtownforbes	21 21 9	161	54.7	40.7	47.7	—	79	20	48.7	49.1	40.75	1035	—	31	6 Aug.	211	157	7	10	11	16	—	—	17	—	—	—	—	—	—	
10. IRELAND, S.																																
Dublin.	Balbriggan ..	9 9 9	203	54.6	42.5	48.5	+0.3	77	27	49.4	50.4	30.07	764	+33	33	20 Feb.	189	142	8	5	2	2	12	92	21	—	—	—	—	—	—	
	City ..	21 21 9	54	55.8	44.4	50.1	+0.1	79	27	—	—	27.26	692	—3	25	3 Aug.	193	119	12	4	11	5	38	56	11	—	—	—	—	—	—	
	Glasnevin ..	21 21 9	55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Phoenix Pk. ¶	21 21 9	155	56.1	40.4	48.3	+0.3	79	21	—	—	28.37	721	+19	28	6 Aug.	183	138	13	7	3	7	11	74	5	4.31	+0.18	35	—	—	—	
	Trin. Coll. ..	21 21 9	12	56.3	44.1	50.2	+0.3	80	27	50.0	50.1	26.29	668	+6	26	21, 22 July	185	118	9	4	3	3	—	66	5	—	—	—	—	—	—	—
Wicklow.	Newcastle ..	21 21 9	256	55.3	42.9	49.1	—	80	26	—	—	38.66	982	—	33	7 Oct.	170	133	6	6	2	3	5	—	5	—	—	—	—	—	—	
Offaly	Birr Castle ¶	18—7 7	173	55.5	42.2	48.9	+0.6	80	20	50.1	50.3	34.19	869	+42	24	23 Aug.	207	153	7	—	7	7	15	97	0	3.86	+0.18	32	—	—	—	
(King's Co.)																																
Leix	Mountmellick	9 9 9	252	—	—	—	—	—	—	—	—	38.05	967	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
(Queen's Co.)																																
Wexford.	Newtownbarry	9 9 9	153	56.7	41.7	49.2	—	79	20	51.4	51.2	47.78	1214	—	51	22 July	177	140	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kilkenny.	Kilkenny ..	9 9 9	182	56.8	41.4	49.1	+0.4	81	22	—	—	33.46	850	+8	24	22 May	207	143	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Waterford.	Seskin, Carrick-on-Suir.	21 21 9	542	54.7	42.3	48.5	—	76	26	—	—	49.15	1249	—	43	20 Feb.	208	159	7	7	6	9	17	63	27	4.22	—	35	—	—	—	
	Waterford ¶	9 9 9	137	56.5	43.7	50.1	+0.5	75	24	—	—	48.09	1222	+233	58	20 Feb.	195	143	4	2	5	4	76	—	—	—	—	—	—	—	—	—
Limerick.	Foynes ..	9 9 9	50	56.4	43.4	49.9	+0.1	81	23	—	—	40.08	1018	+10	29	23 Aug.	220	164	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kerry.	Cahurciveen ¶	24 24 24	30	55.3	46.6	50.9	+0.1	75	26	—	—	60.19	1529	+115	37	11 Nov.	237	190	7	0	30	5	2	25	9	3.85	—0.11	31	—	—	—	
	(Val. Obs.)	Hourly*																														
	Killarney ..	9 9 9	174	—	—	—	—	79	21	—	—	48.05	1221	—169	32	8 Feb.	227	178	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cork.	Ballinacurra §	9 9 9	24	55.9	43.6	49.7	—0.4	72	23	—	—</																					

* Mean of hourly readings.

§ See paragraph headed "Sunshine" in the Notes on Tables on page 183 of this issue.

TABLE III(a).—RIVER TEMPERATURE.

Place.	River.	Hour.	Highest. °F.	Lowest. °F.	Mean. °F.	Devia- tion from Normal °F.
Belper	Derwent	9	67	35	50.4	+0.7
Atten-	Trent	7	—	—	—	—
borough	"	18	—	—	—	—

TABLE III (b).—ROYAL OBSERVATORY, GREENWICH.—SKY OBSERVATIONS, THE YEAR 1929.

WEATHER DIARY.					NIGHT SKY RECORDER.†		
				Number.	Recorder in operation on 364 nights.		
Persistently overcast days	..	..	..	19	Average exposure (hours)		9.47
" cloudless "	..	..	..	2	Polaris unobscured (per cent.)		51
" foggy "	..	..	..	1	δ Ursæ Minoris (ditto)		46

† See Meteorological Magazine, May, 1920, p. 70.

TABLE IV.—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY, and WIND at fixed hours at certain Stations during the Year 1929.

DISTRICT, COUNTY AND PLACE.			Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.					VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
					At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	NO OF OBSERVATIONS.					NUMBER OF OBSERVATIONS.									FORCE (0-12).																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
												0	1 to 3	4 to 6	7 to 9	10	Fog.				Mist.	Poor Vis.	Mod. Vis.	Good Visibility.			8 or more.	4 to 7	1 to 3	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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0. SCOTLAND, N.			G.M.T.	ft.	mb.	mb.	°F.	°F.	mb.	%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										</

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY, and WIND at fixed hours at certain Stations during the Year 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.						VISIBILITY.										WIND, NUMBER OF OBSERVATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No. OF OBSERVATIONS.					NUMBER OF OBSERVATIONS.										FORCE (0-12).																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
											0	1 to 3	4 to 6	7 to 9	10	Fog.										8 or more.	4 to 7	1 to 4	Calm.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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2. ENGLAND, N.E.—cont.		G.M.T.	ft.	mb.	mb.	°F.	°F.	mb.	%																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY, and WIND at fixed hours at certain Stations during the Year 1929.

[illegible]

TABLE IV (continued).—SUMMARY of the OBSERVATIONS of PRESSURE, TEMPERATURE, HUMIDITY, CLOUD, VISIBILITY, and WIND at fixed hours at certain Stations during the Year 1929.

DISTRICT, COUNTY AND PLACE.		Hour of Observation.	Height of Barometer above Mean Sea Level.	MEAN PRESSURE.		TEMPERATURE AND HUMIDITY.				CLOUD AMOUNT.						VISIBILITY.									WIND, NUMBER OF OBSERVATIONS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
				At Mean Sea Level.	Deviation from Normal.	Dry Bulb.	Depression of Wet Bulb.	Vapour Pressure.	Relative Humidity.	Mean Amount.	No of OBSERVATIONS.					NUMBER OF OBSERVATIONS.									FORCE (0-12).				N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
											0	1 to 3	4 to 6	7 to 9	10	FOG.				MIST.	POOR VIS.	MOD. VIS.	GOOD VISIBILITY.	8 or more.	4 to 7	1 to 3	Calm.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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TABLE I. DISTRICT VALUES.

The District Values of this Table are computed from the statistics for selected individual stations set out in Table III and Table IV.

The representative stations from which the District Values of rainfall and temperature are computed are indicated in Table III by the sign ¶ while the representative stations from which District Values of sunshine are computed are indicated by the sign §. The deviations from and percentages of normal for Air Temperature, Rainfall and Sunshine are the means of the corresponding deviations or percentages for the representative District Value stations. The deviations from normal of Earth Temperature are derived from the deviations for all the stations reporting in Table III for which normals of Earth Temperature are available. The highest and lowest temperatures for the District recorded during the month may refer to any station in Table III.

TABLE II. SUMMARY OF AUTOGRAPHIC RECORDS OF WIND.

The records used in the preparation of this Table are generally made by anemographs of the pressure-tube type. At a few stations the Robinson Cup Anemograph is utilised. The classification adopted for the "Distribution of Wind" is based on the specification of the Beaufort Scale of Wind Force (see *The Observer's Handbook*). For an anemograph complying with the specification "head 33 ft. above ground in the open" the several columns correspond with Force 8 and above (gales), Forces 6 and 7 (strong winds), Forces 4 and 5 (moderate winds), Forces 2 and 3 (light winds), Forces 1 and 0 (nearly calm). Some information as to the nature of the actual exposures may be gathered from the figures in the "Height" columns.

The "Highest Hourly Wind" is determined by the mean speed of the wind for a period of sixty minutes from 30 minutes before to 30 minutes after an exact hour by Greenwich Mean Time. Under the heading "Veer from N" the azimuth of the direction from which the wind was blowing is stated, the entry for an east wind being 90°, that for a south wind 180° and so on.

TABLE III. SUMMARY OF OBSERVATIONS AT TERMINAL HOURS.*

Temperature.—The terminal hours of observation are given for each station. When the terminal hours for maximum and minimum temperature are stated independently the temperatures refer to intervals of 24 hours. If the maximum thermometer is read in the morning the reading is credited to the previous day. When the terminal hours for maximum and minimum are separated by a dash, thus, 18-7, the day-maximum for the period 7h. to 18h. and the night-minimum for the period 18h. to 7h. are reported and are utilised in determining the means for the month; in such cases the extreme temperatures for successive periods of 24 hours are also read by the observers, so that the absolute maximum and minimum temperatures for the month are obtained.

Except at the Royal Observatory, Greenwich where a Glaisher stand is in use, the air temperature is obtained from thermometers placed in louvered screens. At Kew Observatory, Richmond, and Valentia Observatory these are north wall screens a few feet from the ground. At Aberdeen Observatory the north wall screen is at 41 feet. Otherwise the screens are in the open.

Rainfall.—The daily amounts are for the 24 hours beginning at the "terminal hour." "Rainfall" includes all forms of precipitation. The number of days of precipitation is counted with reference to the limit .01 inch or 0.2 mm. and also with reference to the limit 0.4 inch or 1.0 mm. The lower limit excludes mere "traces" of precipitation, but it is frequently passed on occasions when the precipitation is only dew.

Weather.—The numbers of days of Precipitation, Snow, Hail, Thunderstorms and Gale are counted irrespective of the hour at which the phenomena occur. Except for "Precipitation" the day is the civil day.

For the purpose of this summary "Snow" includes sleet (*i.e.*, snow with rain), "Hail" includes graupel (soft hail), "Snow lying" refers to occasions when at least one-half of the country surrounding the station is covered with snow at the morning observation. The entry of "fog" implies that regular observations of the range of vision are made on the scale set out below. Days of fog are those on which the range of vision is less than 1,100 yards at the hour of morning observation. That hour is generally given by the third entry of column 2 of the table and may be 7, 8 or 9h. G.M.T. The variability of the observation hour may exercise an important effect upon the statistics of fog frequency. "Thunderstorms" include any day on which thunder is heard. "Gale" is a wind of Force 8 or upwards on the Beaufort Scale. A "ground frost" is entered when the reading of a "grass minimum" thermometer set the previous evening and read at the morning observation is 30°F. or lower.

Sunshine.—The percentage of possible sunshine is in all cases calculated with reference to the maximum duration possible in the latitude on the assumption of an unobstructed horizon, due allowance being

made for refraction (see *International Meteorological Tables* (Paris) pp. A17-A20 and 42-47). The sunshine recorder is generally insensitive to sunshine when the sun is at an altitude of 3° or less. The symbol s is entered against the percentage at some stations and indicates that obstructions of altitudes greater than 3° reduce the possible record of duration for the year by more than 5 per cent.

TABLE IV. SUMMARY OF OBSERVATIONS AT FIXED HOURS.*

Mean Air Pressure is expressed in millibars. (1 millibar = 1,000 dynes per square centimetre = the pressure due to .029531 inch of mercury at 32°F. in Lat. 45°). The corrections for latitude, temperature and height have been applied to the barometer readings so as to obtain pressure at mean sea level. Barometric pressure is given at station level for a few stations at altitudes of 600 ft. or more in footnotes in Table IV.

Hygrometry.—The values given depend on the readings of the dry and wet bulb thermometers in Stevenson Screens (except at the Observatories, see above). The observations were formerly reduced by Glaisher's method; as from January, 1926 they are reduced by the new hygrometrical tables issued by the Office which are based on a formula of Regnault. In general the relative humidity and vapour pressure are derived from the monthly means of the dry and wet bulb readings. At certain stations the daily values of relative humidity and vapour pressure are found and the means are computed therefrom. These stations are indicated by the letter "H."

Cloud Amount.—The proportion of sky covered with cloud is estimated on the scale 0 to 10, the entry "0" being equivalent to clear sky "10" to overcast.

Visibility.—The observations are classified according to the following scheme—the distances, specified by international arrangement in metres are given here in yards and miles:—

CODE.	RANGE OF VISION.
0	Less than 55 yards.
1	Exceeding 55 yards, less than 220 yards.
2	220 " " 550 "
3	" 550 " " 1,100 "
4	" 1,100 " " 1½ miles "
5	" 1½ miles " " 2½ "
6	" 2½ " " 3½ "
7	" 3½ " " 12½ "
8	" 12½ " " 31 "
9	" 31 " "

Wind Summaries.—The estimates of wind force refer to the Beaufort Scale, and in general to the wind experienced at the time of observation. At Deerness, Cahirciveen, Richmond, Armagh, Eskdalemuir, Southport, Greenwich and Oxford the analysis refers to tabulations of autographic records. For Oxford the mean wind speed for half-an-hour centred at the hour of observation is used for conversion to "force" on the Beaufort Scale; for the remaining observatories the mean wind speed used for each observation refers to a period of one hour. In these cases winds equivalent to Force 1 are counted with the calms, whilst Forces 2 and 3 are taken together in the preceding column of the Table.

STANDARD OF TIME.

As a rule observations are made in all parts of the British Islands according to Greenwich Mean Time, but at the following stations Local Mean Time is used for the observations summarised in Tables III and IV. The number of minutes after Greenwich Time is shown in brackets—Darwen (10), Rhayader (15), Ashburton (15), Tavistock (17), Plymouth (15), Armagh (26), Balbriggan (25), Lisburn (30), Newcastle, Co. Wicklow (30), Ballinacurra (30), Cork (34).

"Summer Time" is not used in the Monthly Weather Report, but at certain stations the hours of observation vary in the course of the year. For such stations all time entries are converted to G.M.T. before they are printed and the winter hours are given as the terminal hours in the annual tables. For the summer hours reference should be made to the appropriate months.

NORMALS.

In Table I the normals of temperature, rainfall and sunshine for districts, used for the computation of the columns headed "Deviation from Normal," are those given in the Book of Normals, Section II, Table 6, and refer to the period 1881-1915. In the case of earth temperatures, the deviations for districts are computed as the mean of the corresponding deviations for the individual stations from their (as yet unpublished) normals.

In Table III the normals used are those for the 35 years 1881-1915. The normals of temperature and sunshine are published in the Book of Normals, Section I, those for rainfall in the Book of Normals, Section V.

The normals for pressure with which comparison is made in Table IV also refer to the period 1881-1915.

* In addition to the frequencies published in this Report (Tables III and IV), the Meteorological Office has issued since January, 1927, in the form approved by the International Commission for Air Navigation, monthly frequency tables of height of base of low cloud, and speed and direction of surface and upper winds.

TABLE V [1913].—WARMEST DAY and NIGHT and COLDEST DAY and NIGHT in the YEAR at each STATION.

DISTRICT, COUNTY AND PLACE.				Terminal Hours of Observation.		Height of Station above M.S.L.	Warmest Day. Highest Maximum and Date.		Warmest Night. Highest Minimum and Date.		Coldest Day. Lowest Maximum and Date.		Coldest Night. Lowest Minimum and Date.	
				Max.	Min.		Rain.							
0. SCOTLAND, N.														
Shetlands.	Baltasound ..	9	9	9	31	July 19	67	July 20	55	Feb. 11, 14, 15	35	Jan. 29, Dec. 27	22	
	Lerwick ..	18	7	7	54	July 19	66	July 20, 21	55	Feb. 15, 25	34	Feb. 14, 15, 16	27	
Orkneys.	Deerness ..	21	21	9	160	May 26, July 18, 19, 20 September 8	64	July 20	55	Feb. 14, 26, 27	33	February 16	27	
	Kirkwall ..	9	9	9	151	July 18, 20, Sept. 11	68	July 20	56	February 15	32	February 16, 17	27	
Hebrides.	Skallary ..	9	9	9	20	July 15	68	July 16	58	February 26	34	February 17	26	
	Stornoway ..	18	7	7	30	July 16	76	September 12	57	February 12, 16	33	January 28, 29	22	
Caithness.	Wick ..	18	7	7	81	September 8	70	July 20, Sept. 8	55	February 16, 26	32	January 29	20	
	Achnashellach ..	9	9	9	225	July 15, 16	80	July 17, 20	57	January 5	28	Jan. 28, Feb. 28	12	
Ross and Gromarty.	Fortrose ..	9	9	9	69	July 16	80	July 20	59	January 4	31	January 5	20	
	Strathpeffer ..	9	9	9	125	July 16	81	July 14, 20	60	January 4	22	January 5, 6	15	
Inverness.	Fort Augustus ..	9	9	9	68	July 16	79	July 20	58	January 4	27	January 29	12	
	Inverness ..	9	9	9	242	July 16	79	September 28	60	January 5	28	January 4	18	
	Onich ..	9	9	9	48	July 16	80	July 17	62	February 12, 13	32	January 5	19	
1. SCOTLAND, E.														
Nairn.	Nairn ..	18	7	7	82	July 16	83	July 20	59	January 5	24	February 14	16	
Elgin.	Gordon Castle ..	21	21	9	104	July 15, Sept. 11	77	September 8	60	February 16	29	February 14, 26	18	
Banff.	Banff ..	9	9	9	130	July 20, Sept. 8	74	September 8	59	February 16	28	February 14	18	
Aberdeen.	Aberdeen ..	24	24	24	37	September 8	76	July 19	58	February 28	31	February 14	20	
	Balmoral ..	9	9	9	927	July 15	78	September 8	57	January 4	24	January 4	7	
	Braemar ..	21	21	9	1120	July 15	77	July 19, 20, Sept. 8	56	January 2	22	January 4	3	
Angus. (Forfar).	Craibstone ..	9	9	9	300	September 8	76	July 10, 11, 19, Sept. 1	55	February 16	28	February 17	15	
	Logie Coldstone ..	9	9	9	608	July 24, Sept. 8	76	July 19, 20, 30	57	February 16	25	February 17	7	
	Arbroath ..	21	21	9	93	September 7	76	September 8	61	February 16	30	February 14	15	
Dundee (E. Nec.) Mayfield	Carnoustie ..	9	9	9	39	July 14, Sept. 7	74	July 19	56	February 16	29	February 14, 15, 17	18	
	Dundee (E. Nec.) ..	21	21	9	198	July 14	76	September 8	59	February 16	27	February 14, 16	17	
	Kettins ..	9	9	9	147	July 14	78	September 8	59	February 16	28	February 14	19	
Perth.	Montrose ..	9	9	9	16	September 7	76	July 10	59	February 17	24	February 16	5	
	Crieff ..	21	21	9	478	July 14, 15	76	August 23	56	February 16, 26	30	February 17	13	
	Perth ..	9	9	9	76	July 15	78	September 5	56	February 16	24	February 14	14	
Fife.	Cupar ..	9	9	9	210	July 14	75	September 8	59	February 16	23	February 14	11	
	Inchkeith ..	18	7	7	190	July 14	70	September 8	59	February 15, 16	30	February 16, 17	9	
	Kirkcaldy ..	9	9	9	66	July 14	76	July 20, Sept. 8	59	February 16	28	February 16	20	
Linlithgow.	Leuchars ..	18	7	7	30	July 14	75	September 8	59	February 16	29	February 14	15	
	St. Andrews ..	9	9	9	20	July 14	75	September 8	60	February 16	26	February 16	10	
	Bangour ..	21	21	9	587	July 16	73	September 8	59	February 16	27	February 16	10	
Edinburgh.	Blackford Hill ..	21	21	9	441	July 16	78	September 8	58	February 15, 16, 26	27	February 14, 16	8	
	Boghall ..	9	9	9	645	July 16	76	September 8	60	February 15, 16	27	February 16	15	
	Edinburgh Univ. ...	9	9	9	227	July 16	78	September 8	61	February 15, 26	27	February 16	13	
Haddington.	Liberton ..	9	9	9	190	July 16	79	September 8	62	February 15, 16	29	February 16	18	
	North Berwick ..	9	9	9	152	July 14	75	—	—	February 16	27	—	—	
	Smeaton ..	9	9	9	100	—	—	July 11, Sept. 8	57	February 16	28	February 16	6	
Berwick.	Marchmont ..	9	9	9	498	July 14, 15	78	—	—	February 11, 16	30	February 17	14	
	West Linton ..	9	9	9	770	July 16	79	September 8	57	February 16	25	February 16	12	
	Kelso (Br'mlands) ..	9	9	9	195	July 15, 16	79	September 8	58	February 12	24	February 16	3	
Roxburgh.	Wolfelee ..	9	9	9	537	July 16	80	July 11, Aug. 10, Sept. 8	58	January 27	24	February 16	8	
6a. SCOTLAND, W.														
Argyll.	Ardtornish ..	21	21	9	48	July 15, 16	79	(July 16)	(59)	February 2	29	Jan. 12, Feb. 12	20	
	Ford ..	9	9	9	149	July 17	78	July 17	59	(February 13)	(28)	(January 28)	(11)	
	Tiree ..	18	7	7	22	July 15	72	July 16, Sept. 7	58	February 12, 26, 27	33	February 16	25	
Bute.	Glenbranter ..	9	9	9	188	July 15	82	July 20, Sept. 8	58	February 13	29	Jan. 28, 29, Feb. 16	16	
	Oban ..	9	9	9	21	July 16	80	July 16	62	February 13	30	February 16	21	
	Rothsay ..	21	21	9	200	July 15, 16	77	September 18	59	February 16	28	February 14	20	
Dumbarton.	Cardross ..	9	9	9	130	July 15	81	September 8	59	February 16	28	February 14	12	
	Helensburgh ..	9	9	9	21	July 16	81	July 20, Sept. 8	58	February 11, 12	31	February 16	15	
	Stirling ..	9	9	9	151	July 15, 16	77	September 8	56	February 13	30	February 14, 16	15	
Renfrew.	Greenock ..	9	9	9	199	July 16	77	September 8	59	February 16	28	February 14, 16	15	
	Paisley ..	21	21	9	106	July 16	80	July 20, Sept. 8	58	February 13	29	February 13	16	
	Renfrew ..	18	7	7	36	July 16	83	September 7, 8	59	Jan. 2, Feb. 16, Dec. 22	29	February 14, 15, 16	17	
Lanark.	Dungavel ..	9	9	9	798	July 16	82	July 20	59	January 4	24	February 15, 16	11	
	Glasgow (Univ.) ..	9	9	9	139	July 16	80	September 8	58	February 11	27	February 16	9	
	Thorntonhall ..	9	9	9	440	July 15, 16	79	July 18	60	February 13, 16	29	February 16	18	
Ayr.	Colmonell ..	9	9	9	170	July 15	81	July 20, Sept. 8	57	February 16	28	February 16, 17	12	
	Kilmarnock ..	9	9	9	90	July 15, 16	80	Aug. 31, Sept. 7	59	February 13	28	February 16	15	
	Dumfries ..	21	21	9	140	July 15	82	July 16, 20, Sept. 8	59	February 11, 12	31	February 15, 16	16	
Dumfries.	Dumfries ..	21	21	9	140	July 15	81	July 16, 20, Aug. 31, September 5	58	February 15	28	February 14	12	
	Eskdalemuir ..	24	24	24	794	July 15	78	September 5	55	February 16	24	February 28	8	
	Ruthwell ..	21	21	9	67	July 15, 16	83	July 21	61	February 16	29	February 14	13	
Kirk- cudbright.	Cargen ..	9	9	9	85	July 15	82	—	—	February 15, 16	—	—	—	
6b. ISLE OF MAN.														
Isle of Man.	Douglas ..	9	9	9	284	July 15	76	September 7	60	February 15	30	February 16	24	
2. ENGLAND, N.E.														
Northum- berland.	Berwick-on-Tweed ..	9	9	9	76	September 7, 8	74	September 8	60	February 16	26	February 14	15	
	Bellingham ..	9	9	9	848	July 15	79	September 5	57	February 13	25	February 16	8	
	Cockle Park ..	21	21	9	325	July 20	80	July 11	58	February 13, 16	26	February 16	6	
Durham.	Tynemouth ..	18	7	7	67	July 20, Sept. 8	77	July 11	61	February 13, 16	29	February 14	11	
	Chopwellwood ..	9	9	9	445	July 20	81	July 1	57	February 15th	25	February 16	5	
	Durham ..	21	21	9	336	July 20	81	July 11	60	February 12, 13, 15	25	February 14, 28	10	
York, N. Riding.	Houghall ..	9	9	9	160	July 17, 20	82	July 11	63	February 15	25	February 17	—	
	Ushaw College ..	9	9	9	594	July 17	79	August 24	57	February 15	23	February 16	12	
	Castleton ..	9	9	9	425	July 15, 17	82	August 24	61	February 12, 15	24	February 17	1	
Rounton ..	Rounton ..	21	21	9	249	July 15, 17	83	July 11	61	February 15	26	February 14	10	
	Scarborough ..	9	9	9	118	July 11, Sept. 8	80	July 20	60	February 15	26	February 16	21	

TABLE V [1913] (continued).—WARMEST DAY and NIGHT and COLDEST DAY and NIGHT in the YEAR at each STATION.

DISTRICT, COUNTY AND PLACE.			Terminal Hours of Observation.			Height of Station above M.S.L.	Warmest Day.		Warmest Night.		Coldest Day.		Coldest Night.	
			Max.	Min.	Rain.		Highest Maximum and Date.		Highest Minimum and Date.		Lowest Maximum and Date.		Lowest Minimum and Date.	
2. ENGLAND, N.E.—cont.														
York.	West Witton	..	9	9	9	605	July 15	82	Aug. 24, Sept. 9	60	February 13	23	February 17	10
N. Riding.														
York.	York	..	21	21	9	56	July 20	84	July 11	62	February 13, 15	26	February 14, 17	14
York.	Hull	..	21	21	9	8	July 17	86	July 21	60	February 15	27	February 16	16
	Osgodby	..	21	21	9	30	July 20	84	September 4	59	February 15	25	February 13	11
	Spurn Head	..	18	7	7	29	July 11	83	August 24	62	February 12	26	February 16	10
Lincoln.	Cranwell	..	18	7	7	236	July 20	85	July 22, August 24	61	February 15	21	February 16	9
	Cleethorpes	..	9	9	9	23	September 8	84	August 24	63	February 15	23	February 16	9
	Skegness	..	9	9	9	12	September 8	84	July 20	65	February 14	27	February 16	19
3. ENGLAND, E.														
Norfolk.	Cromer	..	9	9	9	150	July 17	85	July 12	64	February 11	25	February 16	14
	Hunstanton	..	9	9	9	105	September 12	84	July 17	63	February 15	24	February 16	10
	Norwich	..	9	9	9	98	September 4, 8	88	July 21	64	February 14	25	February 15	13
	Sprowston	..	9	9	9	93	September 8	85	July 17	61	February 11, 12, 14	25	February 16	9
	Yarmouth	..	18	7	7	14	July 17	85	July 22	63	February 15	24	February 15	13
Suffolk.	Bungay (Flixton)	..	9	9	9	79	September 4, 8	86	July 21	64	February 11	25	February 14	12
	Copdock	..	9	9	9	164	September 8	87	July 21	63	February 12, 14	25	February 14, 15, 16	18
	Felixstowe	..	18	7	7	15	September 9	83	July 21	65	February 14	23	February 15	14
	Lowestoft	..	9	9	9	83	September 9	82	July 20, 21	63	February 14	24	February 15, 16	17
Cambridge.	Cambridge	..	21	21	9	41	September 4, 8	88	July 21	69	February 15	22	February 14, 15	13
	(Bot. Gdns.)	..												
	Wisbech	..	21	21	9	10	July 20, Sept. 4	86	July 21	61	February 15	23	February 12, 13	16
Bedford.	Cardington	..	18	7	7	100	September 4	88	July 21	64	February 15	23	February 14	11
	Luton	..	9	9	9	390	September 4	87	July 22, Aug. 24, 28	60	February 11, 13	25	February 14	8
	Woburn	..	9	9	9	291	September 4, 8	85	July 21	62	February 27	26	February 14, 15	9
Hertford.	Rothamsted	..	9	9	9	420	September 4	85	July 21	62	February 13	23	February 14, 15	13
	St. Albans	..	9	9	9	272	September 4	87	July 21	62	February 13	25	February 15	9
Essex.	Clacton-on-Sea	..	18	7	7	55	September 9	81	July 21	65	February 14, 15	24	February 15	18
	Chelmsford	..	9	9	9	134	July 20, Sept. 8	87	July 21	65	February 15	23	February 17	14
	Chelmsford	..	9	9	9	185	August 31	87	July 21	63	February 13	24	February 15	12
	(Good Easter)	..												
	Earls Colne	..	9	9	9	168	September 8	89	July 21	64	February 13	25	February 17	14
	Halstead	..	9	9	9	139	September 8	88	July 21	65	February 13	25	February 17	13
	Shoeburyness	..	18	7	7	11	August 31	87	July 21	64	February 13	25	February 15	16
4. MIDLAND COUNTIES.														
York.	Bradford	..	9	9	9	439	July 15, 16	80	August 24	60	February 13	22	February 14	8
W. Riding.	Giggleswick	..	9	9	9	575	July 15	80	August 24	59	February 13	22	February 14	8
	Harrogate	..	18	7	7	478	July 14, 15, 20	80	July 11	60	February 13	22	February 13, 14	12
	Huddersfield	..	21	21	9	325	July 20	83	July 11	61	February 13, 15	23	February 14	9
	(Oakes)	..	21	21	9	761	July 15, 16	82	July 11	59	February 13, 15	21	February 13, 15, 18	13
	Meltham	..	9	9	9	513	July 16	82	August 24	60	February 13	22	February 14	9
Derby.	Pontefract	..	9	9	9	189	July 20	83	August 24	63	February 12, 13, 15	24	February 16, 18	14
	Sheffield	..	21	21	9	428	July 16	82	August 24	62	February 13	23	February 13, 14	15
	Wakefield	..	9	9	9	124	July 20	84	July 11, Aug. 24	62	February 13, 15	24	February 14, 18	11
	Belper (School)	..	9	9	9	222	July 16	84	July 11	61	February 15	24	February 14	11
	Belper (Q. Bank)	..	9	9	9	280	July 20	85	July 11	61	February 15	22	February 13	11
	Buxton	..	9	9	9	1007	July 16	79	August 24	58	February 13	20	February 14	8
	Nottingham.	Attenborough	..	7	7	7	89	July 16	88	August 24	60	February 13, 15	25	February 14, 18	9
Leicester.	Mansfield	..	9	9	9	357	September 12	85	July 21	62	February 13, 15	24	February 16	12
	Nottingham	..	9	9	9	192	July 16	84	July 14	62	February 15	22	February 14	14
	Strelley	..	9	9	9	377	July 16, 20	84	August 24	61	February 15	22	February 14	12
	Sutton Bonington	..	9	9	9	157	July 16, 20	84	August 24	61	February 15	22	February 14	11
	Worksop	..	9	9	9	56	July 20, Sept. 8	86	August 24	62	February 15	25	February 16	7
	Belvoir Castle	..	21	21	9	259	July 20	84	July 22	61	February 15	22	February 14, 17	9
	Oundle	..	9	9	9	147	July 20, Sept. 4	85	July 21	61	February 15	23	February 18	12
	Raunds	..	9	9	9	213	September 4	87	July 21	63	February 15	23	February 13, 14, 18	12
	Road	..	9	9	9	394	July 20	86	July 21	61	February 13	24	February 14, 15, 18	11
	Birmingham	..	18	7	7	535	July 16	86	September 9	60	February 13	24	February 14	13
Warwick.	" Sparkhill	..	7	13	7	424	July 16	87	July 11, Aug. 24	59	February 13	24	February 14, 15	9
	Coventry	..	9	9	9	270	July 16	86	July 11, 21, 22, Aug. 24	60	February 15	21	February 14, 15	13
	Rugby	..	21	21	9	390	July 16	86	July 11, 22, Aug. 11, September 11	58	February 15, 16	26	February 15	8
Oxford.	Leafield	..	18	7	7	612	July 16	85	August 24	59	February 13	23	February 14	10
	Oxford	..	9	9	9	208	July 16	87	July 21, Aug. 24	61	February 13	25	February 14, 15	11
	(Sandford)	..	9	9	9	210	July 16	87	July 11	62	February 13	25	February 15	7
Bucks.	Mursley	..	9	9	9	490	September 4	85	July 21	60	—	—	—	—
Stafford.	Mayfield	..	9	9	9	374	July 16	82	July 11, Aug. 24	60	February 13, 15	23	February 14	9
Shropshire.	Newport	..	9	9	9	211	July 16	86	August 24	61	February 13	24	February 15	10
	Roden, Wellington	..	9	9	9	207	July 16	87	August 24	59	February 14	20	February 14	7
	Wistanstow	..	21	21	9	481	July 16	85	—	—	February 15	26	February 14	4
Worcester.	Malvern	..	9	9	9	377	July 16	88	September 9	62	February 12, 13	25	February 14	13
	Worcester	..	9	9	9	95	July 16	88	August 24	61	February 13	26	February 17	7
Hereford.	(Perdiswell)	..												
	Bromyard	..	9	9	9	392	July 16	85	July 11, Aug. 24	59	February 15	25	February 14, 15	5
	Hereford	..	9	9	9	291	July 16	86	July 23	60	—	—	—	—
Gloucester.	Ross-on-Wye	..	18	7	7	223	July 16	85	August 24	61	February 15	24	February 14	—1
	Cheltenham	..	21	21	9	214	July 16	86	August 24	61	February 15	26	February 14	13

TABLE V [1913] (continued).—WARMEST DAY and NIGHT and COLDEST DAY and NIGHT in the YEAR at each STATION.

DISTRICT, COUNTY AND PLACE.				Terminal Hours of Observation.		Height of Station above M.S.L.	Warmest Day.		Warmest Night.		Coldest Day.		Coldest Night.	
				Max.	Min.		Highest Maximum and Date.		Highest Minimum and Date.		Lowest Maximum and Date.		Lowest Minimum and Date.	
				ft.				°F		°F		°F		°F
5. ENGLAND, S.E.														
London.	Camden Square ..	9	9	9	110	August 31	90	July 21	64	February 13	25	February 15	15	
	East Ham ..	9	9	9	15	August 31	89	July 22	64	February 11, 13	26	February 18	15	
	Enfield ..	9	9	9	148	September 8	89	July 21	65	February 13	25	February 15	13	
	Greenwich ..	24	24	9	149	August 31	91	July 21	62	February 13	26	February 15	12	
	Hampstead Res. ..	9	9	9	450	July 20, Sept. 4	87	July 21, Sept. 5, 9	61	February 12, 13	22	February 15	9	
	Kensington ..	18	9	9	80	July 16	88	July 21	65	February 13	26	February 15	14	
	Richmond (Kew Obs.) ..	24	24	24	18	July 16	87	July 21	63	February 13	26	February 15	13	
	Stroud Green ..	18	7	7	212	July 20, Aug. 31, Sept. 8	87	July 21	63	February 15	25	February 15	15	
	Tottenham ..	21	21	9	51	Aug. 31, Sept. 4	88	July 21	65	February 13	25	February 15	11	
	Westminster ..	9	9	9	27	July 20, Sept. 4	88	July 21	65	February 13	26	February 15	14	
Surrey.	Addington ..	9	9	9	472	July 20, Sept. 4, 8	86	July 21	62	February 11, 13	25	February 14, 15	14	
	Croydon Aero. ..	18	7	7	244	September 4	88	July 21	64	February 12, 13	26	February 15	12	
	Wisley ..	9	9	9	150	July 20	89	July 21	63	February 11, 13	27	February 15	9	
Kent.	Biggin Hill ..	18	7	7	597	July 20	88	July 21, Sept. 5, 9	62	February 1, 11	24	February 13	13	
	Bromley ..	9	9	9	213	September 4	87	July 21	64	February 13	25	February 15	12	
	Canterbury ..	9	9	9	124	August 31	89	July 21	63	February 14	24	February 15	13	
	Dover ..	9	9	9	22	August 31	86	July 21, Sept. 12, 17	63	February 11, 14	24	February 15	18	
	Dungeness ..	18	7	7	20	August 31	82	September 12	62	February 14	24	February 15	9	
	East Malling ..	9	9	9	127	July 20, Sept. 4	88	July 21	62	February 11, 13	25	February 15	14	
	Folkestone ..	9	9	9	101	August 31	88	September 5	63	February 11	23	February 15	15	
	Lympne ..	18	7	7	347	August 31	84	July 21	62	February 14	22	February 15	8	
	Manston ..	18	7	7	150	August 31	89	July 17, 21, Sept. 17	62	February 11, 14	23	February 15	14	
	Margate ..	9	9	9	51	August 31	90	July 17, 21	64	February 11	24	February 13	19	
Sussex.	Tunbridge Wells ..	9	9	9	354	September 4	87	July 21	62	February 11, 13	24	February 15	10	
	Wye ..	9	9	9	164	September 4	88	July 21, Sept. 17	61	February 11	23	February 15	8	
	Ardingly ..	9	9	9	437	July 20, Sept. 4	88	July 17	63	February 13	25	February 15	11	
	Brighton ..	9	9	9	31	September 3	83	July 16, Sept. 1	63	February 13	26	February 15	14	
	Eastbourne ..	21	21	9	35	September 5	82	July 21, Aug. 28, Sept. 6	62	February 13	25	February 15	15	
	Hellingly ..	18	7	7	209	September 4, 5	88	July 21	61	February 13	25	February 15	8	
	St. Leonards ..	21	21	9	178	July 16, Aug. 31, Sept. 5	81	September 12	66	February 12, 13	25	February 15	15	
	Selsey Bill ..	9	9	9	21	July 20	82	September 12	64	February 13	25	February 14	11	
	Ascot(Heatherwood) ..	21	21	9	320	September 4, 8	87	July 21	60	February 12	26	February 15	8	
	Bucklebury Pl. ..	9	9	9	409	September 4, 8	87	July 21, August 28	59	February 15	26	February 14, 15	9	
Berkshire.	Reading (Shinfield) ..	9	9	9	200	September 4, 8	89	July 21	61	February 12, 13	27	February 15	8	
	" (Univ. Coll.) ..	9	9	9	152	September 4	88	July 21	61	February 11, 13, 16	29	February 15	9	
Warfield ..	9	9	9	220	September 4	88	July 22, August 28, September 10	59	February 12, 13	26	February 15	8		
Hampshire.	Aldershot ..	9	9	9	231	September 4	87	July 21	62	February 13	25	February 15	7	
	Bournemouth ..	9	9	9	145	September 5	87	July 16	63	February 13	28	February 14	14	
	Calshot ..	18	7	7	8	September 9	82	September 12	65	February 13	26	February 14	19	
	Grayshott ..	9	9	9	661	September 4, 5, 8	84	September 5, 12	61	February 13	25	February 15	12	
	Long Sutton ..	9	9	9	479	September 4	87	July 16	65	February 12, 14	26	February 14	9	
	Southampton ..	21	21	9	64	September 5	87	July 16	63	February 13	27	February 15	12	
	S. Farnborough ..	18	7	7	237	September 4, 5	89	July 21	61	February 14	27	February 15	5	
	Winchester ..	18	7	7	272	September 4, 5	86	July 21	61	February 15	26	February 15	7	
	(Worthy Down)													
	Isle of Wight.	Newport ..	9	9	9	48	September 5	90	July 16, Aug. 25, Sept. 1	61	February 13	26	February 14, 15	12
Ryde ..		9	9	9	13	September 5, 9	84	September 12	64	February 13	25	February 14, 15	12	
Sandown ..		9	9	9	13	September 8, 9	82	September 11, 12	63	February 13	28	February 14	13	
Totland Bay ..		9	9	9	140	September 9	83	July 16, Sept. 1, 12	60	February 13	26	February 14	16	
Ventnor (Hospital) ..		9	9	9	59	September 9	83	September 12	65	February 12, 13	30	February 14	21	
Larkhill ..		9	9	9	440	September 4	85	July 21	60	February 12, 13, 15	25	February 15	10	
Wilts.	Marlborough ..	9	9	9	424	September 4	85	August 24	59	February 12, 13, 14	28	February 14, 15	7	
	Porton ..	9	9	9	363	September 4	86	July 16	62	February 13	26	February 13, 14, 15	10	
7a. ENGLAND, N.W.														
Cumberland.	Aspatria ..	21	21	9	487	July 16	81	July 16	59	February 15	26	February 16	15	
	(Mealsgate)													
Lancashire.	Keswick ..	9	9	9	254	July 15	83	July 16	63	February 12, 15	28	February 16, 17	15	
	Newton Rigg ..	21	21	9	559	July 15	82	July 11, 16, 20	58	February 15	25	February 16, 28	11	
	Bolton ..	9	9	9	341	July 16	83	July 16, August 24	59	February 13	25	February 14, 15	13	
	Burnley ..	9	9	9	458	July 15, 16	82	August 24	59	February 12, 13	24	February 14	11	
	Darwen ..	21	21	9	724	July 16	82	July 11	59	February 13	23	February 14	12	
	Hutton ..	9	9	9	82	July 16	84	August 24	61	February 15	26	February 14	13	
	Lancaster ..	9	9	9	311	July 15	87	July 16, August 31	61	February 13	28	February 14	15	
	Leyland ..	9	9	9	124	July 15	85	July 16	61	February 15	26	February 14, 15	12	
	Manchester—													
	(Whit. Park) ..	21	21	9	125	July 16	85	July 11	62	February 13	25	February 14, 15	15	
Cheshire.	(Oldham Rd.) ..	21	21	9	190	July 16	86	July 11, 16	62	February 13	25	February 14	17	
	(Swinton) ..	9	9	9	253	July 16	84	July 16	59	February 12	22	February 14	14	
	Southport ..	9	9	9	37	July 15	85	Aug. 24, Sept. 5	60	February 15	26	February 15	14	
	Stonyhurst ..	9	9	9	377	July 15	82	August 31	60	February 12, 13, 15	25	February 14	13	
	Hoyle ..	9	9	9	30	July 15, 16	83	July 19, 30, Aug. 24, September 1, 5, 9	59	February 13	24	February 15	14	
	Liverpool (Bidston) ..	18	7	7	189	July 16	82	July 11	61	February 13	25	February 14	15	
	Macclesfield ..	9	9	9	500	July 16	83	July 16, August 24	59	February 13	23	February 14, 15	11	
	West Kirby ..	9	9	9	25	July 16	85	July 11	63	February 13	26	February 15	14	
7b. NORTH WALES.														
Flint.	Hawarden Bridge ..	9	9	9	20	July 16	86	September 1	61	February 13	28	February 14	15	
	Rhyl ..	9	9	9	30	July 15	85	August 31	62	February 13	28	February 15	15	
	Sealand ..	18	7	7	16	July 16	84	August 11, 24	61	February 13, 15	27	February 14, 15	12	
Anglesey.	Holyhead ..	18	7	7	26	July 15	76	July 16	61	February 13	31	February 14	21	
Denbigh.	Colwyn Bay ..	9	9	9	81	July 15	85	August 24, 31	62	February 12	28	February 13, 15	18	
Carnarvon.	Aber (Bangor) ..	9	9	9	60	July 15	83	July 16	67	February 12	29	February 14	19	
	Llandudno ..	9	9	9	22	July 15	85	August 31	63	February 12	28	February 14	18	
Montgomery.	Welshpool ..	9	9	9	254	July 16	84	August 11	59	February 15	26	February 14	1	

TABLE V. [1913] (continued).—WARMEST DAY and NIGHT and COLDEST DAY and NIGHT in the YEAR at each STATION.

DISTRICT, COUNTY AND PLACE.		Terminal Hours of Observation.			Height of Station above M.S.L.	Warmest Day.		Warmest Night.		Coldest Day.		Coldest Night.	
		Max.	Min.	Rain.		Highest Maximum and Date.		Highest Minimum and Date.		Lowest Maximum and Date.		Lowest Minimum and Date.	
8a. SOUTH WALES.													
Cardigan.	Aberystwyth ..	9	9	9	59	July 15	82	July 16	65	February 12	26	February 14	19
	" P.B.S.†	9	9	9	452	July 15	79	July 16	62	February 12, 13	26	February 13	12
Pembroke.	Haverfordwest ..	21	21	9	250	July 15	77	July 16	60	February 13	29	February 17	18
	St. Ann's Head ..	18	7	7	142	July 14, 15	74	Aug. 31, Sept. 1	60	February 12, 15	31	February 12	25
Radnor.	Rhayader ..	9	9	9	757	July 16	79	August 24	59	February 15	24	February 14	4
Brecknock.	Cantref ..	9	9	9	1080	July 16	77	July 16	57	February 13	22	February 14	11
Glamorgan.	Cardiff ..	21	21	9	202	July 15, 16	81	July 16, 23, Aug. 24	60	February 15	24	February 14	12
	Swansea ..	9	9	9	27	September 8	82	July 16	65	February 12, 13	30	February 13	21
8b. ENGLAND, S.W.													
Monmouth.	Newport ..	9	9	9	265	July 14, 15, 16	82	August 24	60	February 15	25	February 14	10
	Usk ..	9	9	9	70	July 16	82	June 23, July 23	59	February 15	26	February 14	—1
Somerset.	Bath ..	9	9	9	66	July 16	84	July 21, August 11, 24	61	February 15	26	February 14	8
	Cannington ..	9	9	9	95	July 16, Sept. 8	84	July 16, August 24	61	February 12, 13	28	February 17	6
	Long Ashton ..	9	9	9	162	July 16	84	August 11, 24	59	February 13, 15	27	February 14	7
Dorset.	Holton Heath ..	9	15	9	64	September 5	84	July 16	64	February 13	28	February 14	10
	Portland Bill ..	18	7	7	32	September 9	73	September 12	64	February 12	31	March 1, 2	21
	Shaftesbury ..	9	9	9	722	July 20, Sept. 4	82	September 12	63	February 12	26	February 12, 13, 14	15
Devon.	Arlington ..	9	9	9	613	July 14, 15, Sept. 8	79	July 16	63	February 12	26	February 13	17
	Ashburton ..	9	9	9	583	September 6	83	September 9	61	January 6	31	February 28	19
	Cullompton ..	9	9	9	202	September 8	84	July 16	63	February 12	28	February 17	12
	Dean Prior ..	21	21	9	331	September 5	85	September 1	62	February 12	27	February 17	10
	Ilfracombe ..	9	9	9	74	July 15	81	July 16, August 31	63	February 12	30	February 28	22
	Killerton ..	9	9	9	159	July 11, Sept. 4, 8	82	July 16	61	—	—	—	—
	Newton Abbot ..	9	9	9	350	September 5	85	August 24, 25	59	February 12, 27	31	February 17, 28	19
	Plymouth— (The Hoe) ..	21	21	9	116	July 12, Sept. 5	79	September 3	62	January 6, 7, February 13, 14, 15	34	Jan. 27, Feb. 28	23
	*(Mount Batten)	18	7	7	82	July 12, Sept. 9	77	September 3	62	February 12	30	Jan. 17, Feb. 28	24
	Princetown ..	9	9	9	1359	September 4	78	September 9	60	February 12	26	February 28	15
	Sidmouth— (Sidmouth) ..	9	9	9	147	September 9	81	July 16	63	—	—	—	—
	†Sidmouth ..	9	9	9	25	September 9	82	July 16	62	February 12	30	February 17	17
	Tavistock ..	9	9	9	458	September 8	80	August 24	66	February 12	30	February 28	19
	Teignmouth ..	9	9	9	20	September 9	82	August 24	62	February 13	33	February 17	21
	Torquay ..	9	9	9	12	September 9, 12	80	August 24, 25	62	Jan. 7, Feb. 27	34	February 17	23
	Woolacombe ..	9	9	9	59	July 15	81	July 16, Sept. 3, 4	62	February 13, 14	31	February 17	20
Cornwall.	Falmouth Obs. ..	9	9	9	167	September 9	78	September 9	62	Jan. 4, Feb. 12, 13	35	January 8	27
	" (Pendennis)	18	7	7	200	September 9	76	July 22, Sept. 3	61	February 14	34	January 8	28
	Fowey ..	9	9	9	51	September 9	83	July 16, 20, 22, Aug. 31, Sept. 29	60	Jan. 12, Feb. 13	35	February 28	23
	Gulval ..	9	9	9	20	September 7, 9	78	July 22	62	Jan. 4, Feb. 13	35	January 8	27
	Newquay ..	9	9	9	190	July 15	77	July 23, August 24, September 3, 4, 10	60	February 12	33	February 28	22
	Redruth ..	9	9	9	397	July 11	75	Aug. 24, Sept. 3	60	February 12	32	January 8	24
9. IRELAND, N.													
Sligo.	Markree Castle ..	21	21	9	122	July 15	79	July 16	60	January 2, 4	33	January 1	7
Mayo.	Blacksod Point ..	18	7	7	10	July 15	75	September 3	63	January 6	37	January 25	29
	Mallarany ..	9	9	9	120	July 15	79	August 27	60	Jan. 5, 6, Feb. 15	35	January 25	25
Donegal.	Malin Head ..	18	7	7	51	July 16	73	September 7, 12	60	February 15	31	January 4	27
Antrim.	Aldergrove ..	18	7	7	238	July 14	76	July 16	59	February 15	31	January 2	21
	Belfast ..	9	9	9	13	July 14	78	July 11, 16	61	Feb. 12, 14, 16, 27	33	January 2	25
	Lisburn ..	9	9	9	206	July 14	81	July 11	58	February 15	32	January 2	23
Down.	Donaghadee ..	18	7	7	40	September 8	75	July 11	58	Feb. 12, 13, 26	33	February 16	28
Armagh.	Armagh ..	21	21	9	204	July 14	79	August 30	58	February 15, 27	33	January 2	22
Longford.	Newtownforbes ..	21	21	9	161	July 14, 15	79	July 28	66	February 15	32	January 1	20
10. IRELAND, S.													
Dublin.	Balbriggan ..	9	9	9	203	September 8	77	July 11	60	February 15	31	January 17, 25	27
	City ..	21	21	9	54	July 16	79	July 16	62	February 12	34	January 17	27
	Glasnevin ..	21	21	9	55	September 8	79	July 11, 20, 29	59	—	—	—	—
	Phoenix Park ..	21	21	9	155	September 8	79	July 11, 20, August 31	59	February 15	33	January 17	21
	Trinity College ..	21	21	9	12	September 8	80	July 16	62	February 15	33	March 18	27
	Hazelhatch ..	9	9	9	366	July 14, 15	80	August 24	60	—	—	—	—
Wicklow.	Newcastle ..	21	21	9	256	September 8	80	July 29	60	February 12, 13, 15	32	January 16, 17	26
Offaly.	Birr Castle ..	18	7	7	173	July 14	80	July 11, 16	61	January 6	33	January 1, 25	20
	(King's Co.)												
Leix.	Mountmellick ..	9	9	9	252	July 14	81	August 24	60	—	—	—	—
	(Queen's Co.)												
Wexford.	Newtownbarry ..	9	9	9	153	July 14, Sept. 8	79	July 29	59	Jan. 26, Feb. 12	33	January 17	20
Kilkenny.	Kilkenny ..	9	9	9	182	July 14	81	August 24	61	February 15	34	January 17	22
Waterford.	Seskin, Carrick-on-Suir ..	21	21	9	542	July 14	76	August 23	59	January 6, 13, 14	33	Jan. 1, 17, Feb. 12	26
	Waterford ..	9	9	9	137	July 14, 15	75	July 29, August 30	60	January 6	36	January 17	24
Limerick.	Foynes ..	9	9	9	50	July 14, 15	81	July 14	69	January 2, 4	34	Jan. 2, 3, 7, Dec. 17	23
Kerry.	Cahiriveen ..	24	24	24	30	May 28	75	August 23	61	January 1	38	January 2	26
	(Valentia Obs.)												
	Killarney ..	9	9	9	174	July 15	79	August 24	61	January 7	34	January 2	21
Cork.	Ballinacurra ..	9	9	9	24	May 28, August 23	72	August 24	61	January 6	35	January 17	23
	Cork (Univ. Coll.)	9	9	9	57	May 28, July 14	75	June 23, August 11	62	January 6	35	January 2	23
	Roche's Point ..	18	7	7	22	May 28, August 23	70	September 12	61	January 6	35	Jan. 17, Feb. 16	30
11. CHANNEL ISLES AND SCILLY.													
Scilly.	St. Mary's ..	18	7	7	163	September 9	73	July 22	60	January 4	36	February 14	31
Guernsey.	St. Peter Port ..	21	21	7	173	September 3	78	September 12	65	February 13	30	February 13	23
Jersey.	(St. Heliers) ..	9	9	9	28	September 4	87	September 5	66	February 13	28	February 12, 13	19
GIBRALTAR	..	18	7	7	102	July 6, 24, August 19	91	September 3, 14	74	January 2	51	January 5	38
MALTA	..	18	7	7	232	July 6, 29	95	July 6, 29	77	February 3	46	February 3, 4, 15	39

* Known as Catterwater till end of September, 1893.

† New Station from November, 1893.

‡ First Reading Station established.

TABLE VI [1913].—MONTHLY FREQUENCIES OF SUNSHINE FOR 20 STATIONS.—NUMBER OF DAYS in each MONTH on which the DURATION of SUNSHINE

STATION.	January.					February.					March.					April.					May.					June.				
	Sunless.	0-3 hours.	3-6 hours.	6-9 hours.	9 hours.	Sunless.	0-3 hours.	3-6 hours.	6-9 hours.	9 hours.	Sunless.	0-3 hours.	3-6 hours.	6-9 hours.	9 hours.	Sunless.	0-3 hours.	3-6 hours.	6-9 hours.	9 hours.	Sunless.	0-3 hours.	3-6 hours.	6-9 hours.	9 hours.	Sunless.	0-3 hours.	3-6 hours.	6-9 hours.	9 hours.
Deerness	10	16	5	0	0	12	12	4	0	0	4	13	5	9	0	3	8	6	6	7	2	5	6	7	11	4	10	3	6	7
Aberdeen	14	11	6	0	0	14	9	3	2	0	7	7	4	7	6	2	8	9	7	4	0	9	7	10	5	2	6	7	6	9
Cockle Park .. .	14	13	4	0	0	15	8	4	1	0	4	7	6	5	9	5	4	8	8	5	1	3	13	5	9	0	5	6	10	9
Cambridge	17	8	6	0	0	15	4	6	3	0	3	7	7	10	4	4	8	7	5	6	2	5	2	7	15	1	7	5	5	12
Birmingham ..	18	11	2	0	0	11	13	3	1	0	3	5	7	11	5	4	11	6	7	2	1	6	4	9	11	1	6	8	4	11
Richmond Kew (Obs.)	17	9	4	1	0	10	10	7	1	0	5	5	9	9	3	3	9	7	6	5	2	4	5	7	13	1	7	5	5	12
Southampton ..	14	8	7	2	0	13	5	5	5	0	2	6	6	12	5	3	8	5	7	7	3	4	2	5	17	4	2	5	6	13
Rothsay	13	9	8	1	0	14	7	5	2	0	3	7	5	11	5	3	9	5	6	7	3	4	6	7	11	3	3	5	6	13
Renfrew	20	7	2	2	0	15	9	2	2	0	4	11	7	6	3	3	13	3	5	6	3	7	8	3	10	0	6	6	6	12
Eskdalemuir ..	13	11	5	2	0	10	10	3	5	0	2	6	7	8	8	4	8	9	5	4	3	6	7	6	9	2	7	5	8	8
Douglas	13	10	6	2	0	17	6	3	2	0	4	4	7	9	7	2	8	5	4	11	3	4	2	8	14	1	4	5	7	13
Southport	17	8	3	3	0	17	3	5	3	0	2	4	8	10	7	1	5	5	11	8	0	6	7	5	13	0	4	5	6	15
Stonyhurst .. .	17	7	6	1	0	13	9	6	0	0	1	8	5	12	5	1	6	10	6	7	0	7	7	3	14	0	7	7	4	12
Holyhead	14	8	6	3	0	9	8	6	5	0	2	4	4	8	13	2	5	6	10	7	3	2	3	6	17	1	4	4	3	18
Falmouth	12	10	9	0	0	9	10	7	2	0	5	6	5	4	11	2	9	2	5	12	3	6	6	5	11	3	4	2	5	16
Markree Castle ..	10	15	5	1	0	13	12	2	1	0	2	4	7	13	5	3	11	5	9	2	0	4	11	6	10	2	11	4	4	9
Armagh	14	12	5	0	0	15	8	2	3	0	4	5	9	6	7	4	9	6	5	6	1	8	7	5	10	1	6	8	6	9
Dublin (Phoenix Park)	16	13	2	0	0	16	7	0	5	0	2	3	9	9	8	3	10	5	6	6	2	2	6	8	13	1	5	8	5	11
Birr Castle .. .	15	12	4	0	0	14	10	4	0	0	3	3	6	11	8	4	8	8	6	4	1	5	9	6	10	4	3	6	9	8
Cahiriveen (Valentia Obs.)	14	9	5	3	0	8	14	3	3	0	3	4	5	7	12	4	6	7	5	8	2	6	8	8	7	5	6	2	4	13

TABLE VII [1913].—COLDEST DAY and WARMEST NIGHT in each month for 20 STATIONS. Date on which the *lowest* reading

STATION.	January.				February.				March.				April.				May.				June.			
	Coldest Day.		Warmest Night.		Coldest Day.		Warmest Night.		Coldest Day.		Warmest Night.		Coldest Day.		Warmest Night.		Coldest Day.		Warmest Night.		Coldest Day.		Warmest Night.	
	Date.	Max.	Date.	Min.	Date.	Max.	Date.	Min.	Date.	Max.	Date.	Min.	Date.	Max.	Date.	Min.	Date.	Max.	Date.	Min.	Date.	Max.	Date.	Min.
Deerness ..	28	34	31	43	14, 15, 26, 27	33	3, 4	41	1, 19	41	29, 30	45	24	40	8	44	4	46	11, 26, 27	47	4	47	13, 16, 19, 30	49
Aberdeen ..	28	32	31	43	28	31	2	41	1	37	24	45	27, 28	39	18	48	2	45	11	50	6	48	19	54
Cockle Park ..	16	32	31	41	13, 16	26	1	37	19	36	21	45	15	41	18	50	3	47	23	49	5	54	19	53
Cambridge ..	6, 7	33	31	42	15	22	1, 2	40	2, 15	40	22	49	12	39	18	48	1	52	23, 24	53	5	57	13	55
Birmingham ..	6	30	31	45	13	24	1	46	15	37	21	46	12	38	19	44	1	48	24	54	5	51	23	56
Richmond (Kew Obs.)	6	32	30	45	13	26	1	45	15	39	22	46	12	39	18	49	1	51	24	56	30	57	12	57
Southampton ..	6	31	30	45	13	27	1	46	1	41	22, 26	46	12	40	18	47	1	51	27	56	14	58	23	60
Rothsay ..	7, 27, 28, 29	37	31	44	16	28	3	43	1	39	25	43	1	42	18	47	6	46	27, 28	51	21, 22	57	2, 28, 29	50
Renfrew ..	4	24	20	45	16	28	1, 3, 4	44	1	38	25	47	26	41	18	51	6	45	23	53	5, 21	57	19	57
Eskdalemuir ..	16	31	31	41	16	24	1, 3	41	1	34	21	41	12	38	18	44	6	45	26	51	4	54	19	53
Douglas ..	6, 21	37	31	46	15	30	1	44	1	38	29	49	12	45	19	44	6	45	28	54	5	54	13, 15, 19, 22	52
Southport ..	6	33	31	47	15	26	1	48	1	40	25	46	12	45	19	46	1, 8	52	23	56	5	53	2	55
Stonyhurst ..	7, 28	34	31	47	12, 13	25	1	44	1	37	25	45	12	43	18	45	1	47	28	55	5	54	2	54
Holyhead ..	6	35	30, 31	48	13	31	1, 3	46	1	39	25	47	12	44	18	47	6	50	28	54	5	54	23	54
Falmouth ..	4	35	30, 31	48	12, 13	35	1	50	1	41	25	48	12	44	17	49	5, 13	53	28	55	30	54	23	58
Markree Castle	2, 4	33	31	48	13	34	1, 2	44	5	42	21	46	28, 29	46	18	52	1, 6	51	26	54	5	55	2	56
Armagh ..	2, 17	35	30	49	15, 27	33	3	45	5	41	1	46	28, 29	43	18	54	7	52	26	53	5	51	2	56
Dublin (Phoenix Pk.)	7	35	30	51	15	33	2	44	13	45	21	43	12	44	17, 18	43	1, 7	51	22, 23	49	5	57	19	57
Birr Castle ..	6	33	30	52	13, 16, 27	36	1	46	1	45	21, 25	48	13	43	18	55	1, 6, 7	52	28	55	5	56	23	57
Cahiriveen (Val. Obs.)	1	38	30	52	13	41	20	51	1	46	18	51	28	46	17	52	1	52	28	58	5	57	1	56

TABLE VIII [1914].—NUMBER OF DAYS in the YEAR with RAINFALL between given limits.

STATION	0 in. 0 or 0·1 mm.	0·01-0·04 in. 0·2-1·0 mm.	0·05-0·20 in. 1·1-5·0 mm.	0·21-0·40 in. 5·1-10·0 mm.	0·41-0·60 in. 10·1-15·0 mm.	0·61-0·80 in. 15·1-20·0 mm.	0·81-1·00 in. 20·1-25·0 mm.	1·00 in. 25 mm.	STATION.	0 or 0·1 in. 0 or 0·1 mm.	0·01-0·04 in. 0·2-1·0 mm.	0·05-0·20 in. 1·1-5·0 mm.	0·21-0·40 in. 5·1-10·0 mm.	0·41-0·60 in. 10·1-15·0 mm.	0·61-0·80 in. 15·1-20·0 mm.	0·81-1·00 in. 20·1-25·0 mm.	1·00 in. 25 mm.
Deerness	109	69	124	44	13	2	2	2	Douglas	173	47	65	45	17	8	5	5
Aberdeen	172	67	77	29	13	3	1	3	Southport	181	58	67	40	10	5	2	2
Cockle Park ..	197	54	75	23	12	3	0	1	Stonyhurst	186	32	69	37	24	9	4	4
Cambridge	244	36	50	26	2	5	1	1	Holyhead	187	47	72	28	14	10	5	2
									Falmouth	201	35	56	33	15	7	5	13
Birmingham ..	205	52	60	27	14	4	1	2									
Richmond (Kew Obs.)	234	40	55	23	8	1	2	2	Markree Castle ..	135	62	87	54	13	9	3	2
Southampton ..	220	41	55	17	14	10	3	5	Armagh	168	52	84	45	11	4	0	1
Rothsay	119	49	101	51	18	17	6	4	Dublin (Phoenix Park)	183	50	89	26	10	3	2	2
Renfrew	167	49	70	49	14	10	5	1	Birr Castle	158	61	83	42	14	6	1	0
Eskdalemuir ..	158	45	66	43	20	13	7	13	Cahiriveen (Valentia Obs.)	126	47	88	52	24	14	10	4

was (1) nil, (2) 3 hours or less, (3) more than 3 hours but not more than 6 hours, (4) more than 6 hours but not more than 9 hours, (5) more than 9 hours.

July.					August.					September.					October.					November.					December.					Year.					STATION.	
Sunless.	0-3 hours.	3-6 hours.	6-9 hours.	9 hours.	Sunless.	0-3 hours.	3-6 hours.	6-9 hours.	9 hours.	Sunless.	0-3 hours.	3-6 hours.	6-9 hours.	9 hours.	Sunless.	0-3 hours.	3-6 hours.	6-9 hours.	9 hours.	Sunless.	0-3 hours.	3-6 hours.	6-9 hours.	9 hours.	Sunless.	0-3 hours.	3-6 hours.	6-9 hours.	9 hours.							
3	11	6	5	6	2	12	11	4	2	5	12	8	5	0	9	10	10	2	0	10	15	2	3	0	14	15	2	0	0	78	139	68	47	33	Deerness.	
5	6	6	5	9	2	14	7	7	1	4	6	5	10	5	6	10	6	8	1	8	9	8	5	0	11	13	7	0	0	75	108	75	67	40	Aberdeen.	
4	7	6	6	8	1	8	12	6	4	1	7	7	13	2	2	13	8	6	2	12	7	6	5	0	10	8	13	0	0	69	90	93	65	48	Cockle Park.	
0	9	3	4	15	0	8	10	3	10	3	4	4	11	8	4	13	6	8	0	12	7	7	4	0	6	14	10	1	0	67	94	73	61	70	Cambridge.	
3	11	5	3	9	2	8	7	11	3	3	3	8	8	8	4	8	13	6	0	10	10	8	2	0	7	16	8	0	0	67	108	79	62	49	Birmingham.	
1	4	5	5	16	1	8	7	6	9	1	5	7	9	8	2	13	7	9	0	10	8	9	3	0	7	14	9	1	0	60	96	81	62	66	Richmond (Kew Obs.).	
2	4	2	9	14	1	6	5	12	7	1	7	2	10	10	7	9	7	8	0	9	10	8	3	0	8	12	10	1	0	67	81	64	80	73	Southampton.	
3	10	4	8	6	6	10	8	4	5	9	8	6	2	8	9	10	4	0	14	11	5	0	0	9	18	4	0	0	84	106	73	54	48	Rothsay.		
4	7	6	6	8	6	4	13	4	3	2	4	9	7	9	1	4	15	6	6	0	10	16	4	0	0	10	16	5	0	0	81	129	60	55	40	Renfrew.
4	8	10	1	8	4	12	6	6	3	6	10	6	7	1	8	10	5	8	0	16	8	6	0	0	16	14	1	0	0	88	110	70	56	41	Eskdalemuir.	
4	3	9	6	9	6	7	8	5	5	3	7	6	7	7	3	12	6	7	3	12	10	5	3	0	9	11	11	0	0	77	86	73	60	69	Douglas.	
1	9	5	5	11	1	8	9	7	6	2	10	5	6	7	2	15	5	8	1	14	9	7	0	0	9	13	9	0	0	66	94	73	64	68	Southport.	
3	7	6	6	9	2	13	7	5	4	3	9	3	9	6	3	14	9	5	0	12	11	7	0	0	11	16	4	0	0	66	114	77	51	57	Stonyhurst.	
4	5	3	10	9	3	9	8	5	6	3	7	5	6	9	3	11	7	10	0	12	10	6	2	0	9	14	8	0	0	65	87	66	68	79	Holyhead.	
2	3	6	6	14	2	7	5	9	8	0	3	5	10	12	3	11	10	6	1	7	13	6	4	0	6	13	11	1	0	54	95	74	57	85	Falmouth.	
4	12	6	4	5	6	12	9	2	2	2	12	7	8	1	3	16	8	4	0	11	10	9	0	0	10	19	2	0	0	66	138	75	52	34	Markree Castle.	
4	12	8	1	6	4	19	3	5	0	4	7	8	6	5	3	15	3	9	1	13	10	6	1	0	10	12	9	0	0	77	123	74	47	44	Armagh.	
4	10	6	5	6	3	10	9	7	2	4	7	8	6	5	2	9	9	11	0	14	5	6	5	0	4	16	9	2	0	71	97	77	69	51	Dublin (Phoenix Park).	
4	10	8	5	4	4	11	8	7	1	2	10	4	11	3	3	11	11	6	0	11	9	7	3	0	5	21	5	0	0	70	113	80	64	38	Birr Castle.	
5	12	5	4	5	7	7	6	7	4	2	13	3	6	6	6	15	8	2	0	9	16	4	1	0	12	15	4	0	0	77	123	60	50	55	Cahiriveen (Valentia Obs.).	

for the month of the maximum thermometer and the highest reading of the minimum thermometer were recorded.

July.				August.				September.				October.				November.				December.				Year.				STATION.
Coldest Day.		Warmest Night.		Coldest Day.		Warmest Night.		Coldest Day.		Warmest Night.		Coldest Day.		Warmest Night.		Coldest Day.		Warmest Night.		Coldest Day.		Warmest Night.		Coldest Day.		Warmest Night.		
Date.	Max.	Date.	Min.	Date.	Max.	Date.	Min.	Date.	Max.	Date.	Min.	Date.	Max.	Date.	Min.	Date.	Max.	Date.	Min.	Date.	Max.	Date.	Min.	Date.	Max.	Date.	Min.	
4, 7	53	20th	55	4, 17, 26	55	9, 11, 21	52	30th	51	8, 11	53	27th	43	12, 16	47	12th	40	23rd	47	31st	40	1, 4, 5, 6	43	Feb. 14, 15, 26, 27	33	July 20	55	Deerness.
5th	52	19th	58	17th	55	10th	55	20th	53	8th	55	27th	44	13th	52	16th	39	22nd	47	17th	40	5th	45	Feb. 28	31	July 19	58	Aberdeen.
4th	54	11th	58	4, 18	59	31st	57	30th	54	8th	56	25, 27	45	14th	51	14, 16, 18	40	5, 20	46	21, 22	34	6, 13, 14	40	Feb. 13, 16	26	July 11	58	Cockle Park.
1st	58	21st	69	19th	62	24th	60	20th	64	1, 10, 12	58	20, 27	49	3rd	53	15th	36	30th	48	20th	35	14th	54	Feb. 15	22	July 21	69	Cambridge.
1st	57	11th	59	3rd	57	24th	59	30th	58	9th	60	27th	46	16th	51	18th	37	20th	50	22nd	35	14th	51	Feb. 13	24	Sept. 9	60	Birmingham.
1st	61	21st	63	18th	64	24th	61	19th	65	3rd	60	27th	41	2nd	54	15th	41	22nd	51	20th	38	14th	53	Feb. 13	26	July 21	63	Richmond (Kew Obs.).
2, 5	63	16th	63	6th	60	25th	60	27th	65	7th	61	27th	50	2nd	55	13, 14, 17	45	22, 29	50	19th	39	14th	52	Feb. 13	27	July 16	63	Southampton.
4, 7, 28	58	16, 18, 19, 20	55	6th	54	27, 31	55	30th	55	18th	59	26, 27	46	13th	51	17, 18	40	5, 7	49	24th	41	5th	46	Feb. 16	28	Sept. 18	59	Rothsay.
2nd	60	20th	59	6th	54	31st	58	19, 30	57	1, 7	58	25th	44	14th	55	15th	30	5th	51	22nd	25	6, 14	45	Jan. 4	24	July 20	59	Renfrew.
7th	56	19th	55	6th	55	30, 31	55	30th	54	5th	55	26th	43	13th	49	15th	32	22nd	46	22nd	33	5th	41	Feb. 16	24	{July 19, Sept. 5}	55	Eskdalemuir.
9, 10	57	16th	58	4th	55	31st	58	30th	55	7th	60	24th	47	16th	53	13, 15, 16	43	7th	52	22nd	40	14th	48	Feb. 15	30	Sept. 7	60	Douglas.
6th	59	19th	59	5th	60	24th	60	30th	55	5th	60	25th	46	15th	54	14th	38	20th	49	22nd	35	14th	49	Feb. 15	26	{Aug. 24, Sept. 5}	60	Southport.
6th	57	16th	58	5th	58	31st	60	30th	54	1st	57	25th	41	15th	53	14th	36	22nd	49	22nd	36	14th	47	Feb. 12, 13, 15	25	Aug. 31	60	Stonyhurst.
10th	58	16th	61	4, 5	58	31st	60	29th	57	4th	59	27th	49	14, 15	56	15th	44	8th	52	22nd	43	14th	51	Feb. 13	31	July 16	61	Holyhead.
2nd	58	22nd	61	3, 16	61	24th	61	20th	63	9th	62	25th	52	12th	57	16th	48	21st	51	19th	46	14th	52	Jan. 4	35	Sept. 9	62	Falmouth.
2nd	58	16th	60	5, 17, 21	59	23, 31	57	30th	55	1st	57	25th	45	14th	55	15th	39	1, 30	47	22nd	38	5, 13	43	Feb. 12, 13, Jan. 2, 4	33	July 16	60	Markree Castle.
2nd	59	10th	57	5, 21	59	30th	58	30th	57	4th	57	25th	45	14, 15	51	14th	36	28th	45	22nd	35	1st	44	Feb. 15, 27	33	Aug. 30	58	Armagh.
7th	60	11, 20	59	5th	58	31st	59	30th	56	4th	56	25th	48	14th	56	16th	41	24th	48	16, 22	40	13th	47	Feb. 15	33	{July 11, 20, Aug. 31}	59	Dublin (Phoenix Park.)
30th	59	11, 16	61	5th	57	24th	60	30th	55	4, 12	59	25th	42	11, 12, 15	54	17th	34	5th	54	16, 21	39	14th	52	Jan. 6	33	July 11, 16	61	Birr Castle.
5th	56	15th	59	1st	59	23rd	61	30th	57	3rd	60	25th	48	14th	57	14, 17	45	1st	51	21st	42	13th	50	Jan. 1	38	Aug. 23	61	Cahiriveen (Valentia Obs.).

TABLE IX [1913].—NUMBER OF DAYS in the YEAR with MAXIMUM and MINIMUM TEMPERATURES between given limits.

STATION.	MAXIMUM TEMPERATURE.								MINIMUM TEMPERATURE.								STATION.	MAXIMUM TEMPERATURE.								MINIMUM TEMPERATURE.							
	32° or less.	33° to 41°.	42° to 50°.	51° to 59°.	60° to 68°.	69° to 77°.	78° to 86°.	Above 86°.	5° or less.	6° to 14°.	15° to 23°.	24° to 32°.	33° to 41°.	42° to 50°.	51° to 59°.	Above 59°.		32° or less.	33° to 41°.	42° to 50°.	51° to 59°.	60° to 68°.	69° to 77°.	78° to 86°.	Above 86°.	5° or less.	6° to 14°.	15° to 23°.	24° to 32°.	33° to 41°.	42° to 50°.	51° to 59°.	Above 59°.
Deerness ..	0	44	152	136	33	0	0	0	0	0	0	24	161	151	29	0	Douglas ..	5	31	114	113	95	7	0	0	0	0	0	30	116	132	86	1
Aberdeen ..	9	53	116	107	75	5	0	0	0	0	6	51	136	128	44	0	Southport ..	7	42	79	102	109	24	2	0	0	1	8	49	99	115	91	2
Cockle Park ..	10	56	80	92	100	26	1	0	0	4	7	81	127	114	32	0	Stonyhurst ..	10	48	90	94	102	19	2	0	0	1	12	61	102	117	71	1
Cambridge ..	8	46	59	80	84	64	22	2	0	3	14	87	89	112	56	4	Holyhead ..	3	23	102	131	98	8	0	0	0	2	12	88	139	122	2	
Birmingham..	11	55	76	81	95	36	11	0	0	2	8	58	101	119	76	1	Falmouth ..	0	15	74	140	103	32	1	0	0	0	22	81	149	106	7	
Richmond	8	49	61	88	79	59	20	1	0	1	8	68	94	101	86	7	Markree Castle	0	26	85	128	112	13	1	0	0	3	8	58	125	106	64	1
(Kew Obs.)																	Armagh ..	0	44	75	110	116	17	3	0	0	0	4	60	134	109	58	0
Southampton	6	35	56	104	77	77	10	0	0	1	10	64	83	113	86	8	Dublin	0	30	80	104	124	26	1	0	0	0	8	63	135	106	53	0
Rothsay ..	7	34	102	128	89	5	0	0	0	0	3	38	137	140	47	0	(Phoenix Park)																
Renfrew ..	14	43	87	89	113	17	2	0	0	3	16	66	117	95	67	1	Birr Castle ..	0	37	75	105	118	27	3	0	0	0	3	49	118	120	72	3
Eskdalemuir..	18	62	96	106	78	4	1	0	0	9	24	101	119	92	20	0	Cahiriveen	0	10	84	160	105	6	0	0	0	0	0	13	82	160	107	3
																	(Val. Obs.)																

Wind Section.

TABLE X.—PARTICULARS OF ANEMOGRAPHS.

District and Station.	Type*	Anemograph in action from	"Analysis" published from	Height of Vane or Cups.			NOTES.
				Above Mean Sea Level.	Above Ground.	Above Building.	
o. SCOTLAND, N.				Ft.	Ft.	Ft.	
Lerwick ..	D †	1923	1923	310	42	33‡	An anemograph was erected at Sandwick Manse in 1862, and remained in operation until June, 1869, when it was replaced by the instrument now at Deerness, which was at Sandwick until 1885; it was at Swanbister, 1886-1890, at Stenness, 1890-1891, and was erected at Deerness in April, 1891.
Deerness ..	R †	1862	1909	188	16	5	
i. SCOTLAND, E.							
Aberdeen ..	R †	1868	1909	119	75	12	The Record ceased February, 1920. The anemograph is situated in a field about $\frac{1}{2}$ mile east of the Observatory.
" ..	d	1907	1909	153	105	52	
" ..	D †	1922	1922	70	42	33‡	
Balmakewan ..	D	1915	1915	140	25	18	
Edinburgh ..	D	1915	1915	485	39	31‡	
6a. SCOTLAND, W.							
Tiree ..	D	1926	1927	75	50	42‡	Instrument replaced by one with direction-recorder attached in 1914.
Paisley ..	D	1914	1914	188	81	15	
Eskdalemuir ..	d †	1911	1911	825	50	22	
" ..	D †	1914	1914	825	50	22	
2. ENGLAND, N.E.							
South Shields ..	D †	1909	1911	62	46	20	On 22nd April, 1927, the instrument was removed from Groyne Lighthouse and re-erected on the South Pier. A Robinson cup-anemograph was in action on the High Lighthouse at N. Shields from September, 1886 to 1910.
Spurn Head ..	D	1913	1914	67	41	35‡	
Cranwell ..	D †	1927	1921	284	43	27	
3. ENGLAND, E.							
Gorleston ..	D	1920	1912	52	42	33‡	From 1908 to 1920 an anemograph, type d, was in operation. From 1869 to May 1919, an anemograph, type R, was in operation at the Sailors' Home, Yarmouth. This instrument was also in operation 1918 to April, 1922, analysis published from May, 1920 to March 1922.
Felixstowe ..	A †	1925	1925	55	40	25	
Shoeburyness ..	D	1902	1909	115	104	14	
4. MIDLAND COUNTIES.							
Birmingham ..	D	1923	1924	643	118	18	
5. ENGLAND, S.E.							
Richmond (Kew Obs.) ..	R †	1868	1909	82	65	22	This instrument was dismantled October, 1929. From 1896 to 1914, an anemograph, type d, was in operation.
" ..	D †	1914	1914	82	65	22	
Croydon ..	D †	1922	1922	313	105	49	
Dover ..	d	1923	1924	61	32	22	Records from a new instrument on a new site have been used since May 1928 (See Preface 1928, p. xiv.) The particulars given refer to this instrument. A similar instrument was in operation at Dover on a different site from 1914 to 1917.
Lympne ..	D †	1922	1922	410	70	55	
S. Farnboro' (Pyestock Tower)	D †	1921	1922	444	160	—	Vane erected 70 feet above ground to minimise obstructive effect of trees (20 to 30 feet high) to W, and of hangars (40 feet high) to N.E. The anemograph is erected on the top of a chimney stack about 150 feet high. Record ceased December, 1928. From 1917 to April, 1929, an anemograph, type A, was in operation. From 1922 to October, 1926, an anemobiograph was in operation at Andover.
Calshot ..	D †	1917	1920	58	50	32	
Worthy Down ..	D †	1926	1926	314	43	27	
Larkhill (Salisbury Plain)	A	1920	1920	526	51	34‡	
7a. ENGLAND, N.W.							
Fleetwood ..	D	1923	1923	112	50	12	The anemograph at Butler's Cross was dismantled in April, 1920, and removed to Larkhill; the "building" on which it now stands is an ancient tumulus. Instrument was dismantled for repair in August, 1928. A Robinson cup-anemograph was in operation at Fleetwood from 1886 to November, 1923. The present Dines Anemograph, for which the record commenced 14th December, 1923, is erected on the same building. Record defective February and March, 1929.
Southport ..	D †	1897	1909	77	59	45‡	
Liverpool (Bidston) ..	D	1928	1929	253	64	35	
7b. N. WALES.							
Holyhead ..	R †	1870	1909	50	25	—	Instrument installed November, 1928. An anemobiograph is also in operation at this station. From 1895 to 1920, an instrument, type d, was in operation. The height of the vane of this instrument was 44 feet above ground and 63 feet above sea level, not 40 feet and 60 feet, as stated in most of the relevant issues of the Weekly and Monthly Weather Reports. From 1924 to February, 1927, an anemograph, type A, was in operation.
" ..	D †	1920	1920	64	45	29‡	
Sealand ..	D †	1927	1924	81	65	49	
8b. ENGLAND, S.W.							
Plymouth ..	d	1908	1909	185	88	2	The position of the observatory at Falmouth was changed in May, 1885. New instrument installed August, 1929. From 1902 to 1924, and during 1927, an anemograph, type d, was in operation.
Falmouth ..	R †	1868	1909	208	41	13	
Pennennis Castle	D	1902	1909	256	65	32	
9. IRELAND, N.							
Dunfanaghy ..	d	1926	1927	180	47	39	
Aldergrove ..	D †	1927	1927	282	40	27	
Armagh ..	R †	1868	1909	246	50	—	
10. IRELAND, S.							
Kingstown ..	R †	1900	1909	49	27	16	A Robinson cup-anemograph of the original pattern was in operation at Kingstown from 1856 to 1895.
Quilty ..	d	1911	1911	100	40	32‡	
Cahiriveen (Valentia Obs.)	R †	1868	1909	75	45	7	
" ..	D †	1917	1917	98	41	34‡	Prior to March, 1892, the site of the Observatory was on Valentia Island. From July, 1914, the anemograph was at Roches Point. Instrument under repair July, November and December, 1929.
Weaver Point ..	d	1905	1909	160	30	21‡	
11. SCILLY ISLES.							
St. Mary's ..	D †	1927	1909	230	65	17	Erected at Telegraph Station in November, 1926. From February, 1928 onwards, this instrument has been adopted as standard. Previous anemographs:—Type R with 5 in. cups, factor, 2·8, 1879 to November, 1927; Type d, 1895 to March 1925; Type D, 1924 to 1927.

* A Anemobiograph with direction recorder. R Robinson cup-anemograph: standard size, 9-in. cups, 2-ft. arms; factor used, 2·2. D Dines tube-anemograph and direction recorder. d Dines tube-anemograph without direction recorder. ‡ Standard mounting. † Hourly values are available. Hourly readings or hourly means have been published for varying periods for Deerness, Aberdeen, Eskdalemuir, Richmond, Southport, Falmouth, Armagh and Cahirciveen.

TABLE XI* [FIRST Published 1914]. DISTRIBUTION OF WINDS of stated speeds at anemograph-stations, and Maximum Speeds for the year. The distribution of wind is not given if the record failed for 550 hours or more.

District and Station.	Distribution of Wind.†										Extreme Velocities.									
	More than 38 mi/hr.			25 to 38 mi/hr.		13 to 24 mi/hr.	4 to 12 mi/hr.	Less than 4 mi/hr.	No Record.	Highest Hourly Wind.					Highest Gust.					
	No. of Days.	Duration		No. of Days.	Duration.	Duration.	Duration.	Duration.	Duration.	Direction and Speed.	Mid. Time.			Speed.		Date.				
		1929.	Average.‡								month.	day.	hour.	mi/hr	m/s.	month.	day.	h. m.		
0. Lerwick ..	32	hr. 229	hr. 224	123	hr. 1,014	2,997	2,825	1,638	57	160	53	24	Dec. 20	24	78	35	Oct. 10	21	15	
Deerness (Cup Anr.)	18	107	98	118	831	3,485	3,498	554	285	160	51	23	Feb. 11	15	—	—	—	—	—	
1. Aberdeen ..	1	10	4†	40	221	2,263	5,239	1,027	0	120	47	21	Dec. 25	5	70	31	Dec. 25	6	45	
Balmakewan ..	0	0	0.8	3	3	859	(4,804)	(2,989)	105	270	25	11	Dec. 29	14	51	23	Oct. 3	14	30	
Edinburgh ..	1	2	23	70	347	2,722	3,997	1,596	96	200	40	18	Nov. 11	12	65	29	Nov. 11	9	05	
6a. Tiree ..	28	177	142	127	1,312	3,925	2,744	495	107	190	58	26	Dec. 20	18	82	37	Dec. 20	17	55	
Paisley ..	0	0	0.8	15	51	1,335	5,263	1,840	271	130	31	14	Nov. 11	12	63	28	Dec. 11	17	30	
Eskdalemuir ..	3	4	43	76	503	2,973	3,426	1,849	5	180	40	18	Dec. 5	20	64	29	Sept. 21	11	05	
2. South Shields ..	0	0	16	33	136	1,706	4,494	2,420	4	120	35	16	Dec. 25	2	67	30	Dec. 12	5	50	
Spurn Head ..	17	84	51	132	900	3,804	3,213	438	321	300	48	21	Sept. 21	13	66	29	Dec. 7	10	40	
Cranwell ..	4	6	5	46	275	2,661	4,799	1,019	0	200	42	19	Nov. 11	15	70	31	Nov. 11	16	05	
3. Gorleston ..	12	43	15	84	620	2,682	4,443	905	67	200	47	21	Dec. 6	21	65	29	Nov. 11	15	50	
Felixstowe ..	6	18	7	69	540	3,120	3,391	1,689	2	190	42	19	Dec. 5	9	57	25	Dec. 7	1	30	
Shoeburyness ..	13	63	21	76	581	2,745	3,738	1,097	536	215	55	25	Dec. 29	6	76	34	Dec. 7	1	05	
4. Birmingham ..	0	0	1	23	101	2,176	5,635	848	0	280	36	16	Dec. 7	11	65	29	Dec. 7	9	55	
5. Richmond (Kew Obs.)	0	0	0.1	17	91	1,670	4,541	2,458	0	210	36	16	Dec. 7	3	68	30	Dec. 29	5	25	
Croydon ..	6	23	6	61	410	3,041	3,742	1,553	0	200	44	20	May 6	11	77	34	Dec. 8	17	50	
Dover ..	8	25	24	81	575	3,126	3,998	844	192	—	44	20	Dec. 7	5	70	31	Dec. 7	5	40	
Lympne ..	7	33	22	65	350	2,963	4,536	495	383	210	48	21	Dec. 7 & 9	5 & 14	71	32	Dec. 7	1	50	
Calshot ..	16	59	23	85	578	3,242	4,053	818	10	180	49	22	Dec. 7	1	81	36	Dec. 29	7	20	
Worthy Down ..	2	2	2	34	177	1,738	4,838	1,994	11	170	40	18	Dec. 5	8	80	36	Dec. 6	23	40	
Southport ..	18	100	119	97	738	3,692	3,828	402	0	270	55	25	Dec. 8	22	72	32	Dec. 7	12	35	
Liverpool (Bidston)	9	60	60	82	587	3,909	3,724	447	33	300	50	22	Dec. 7	12	84	38	Dec. 7	11	50	
7b. Holyhead ..	18	93	91	133	1,017	3,934	2,938	778	0	270	56	25	Dec. 8	21	80	36	Dec. 8	21	40	
Sealand ..	2	2	16	39	205	2,245	4,848	1,460	0	300	39	17	Sept. 21	13	71	32	Nov. 25	19	00	
8b. Plymouth ..	24	96	51	77	544	2,560	3,817	1,733	10	—	65	29	Dec. 5	3	85	38	Dec. 6	22	50	
9. Dunfanaghy Rd.	12	40	75	68	443	2,346	3,657	1,998	276	—	52	23	Dec. 11	15	77	34	Dec. 11	14	30	
Aldergrove ..	1	1	3	28	119	2,232	4,902	1,506	0	120	39	17	Dec. 24	22	69	31	Dec. 11	16	00	
10. Kingstown (Cup Anr.)	13	54	65	128	823	3,270	3,679	934	0	240	56	25	Nov. 11	13	—	—	—	—	—	
Quilty ..	13	41	54	103	831	3,603	3,453	675	157	—	47	21	Dec. 8	15	84	37	Dec. 5	18	25	
Cahiriveen (Val. Obs.)	8	33	19	95	613	3,802	3,381	931	0	205	57	25	Dec. 24	23	88	39	Dec. 24	21	40	
11. Scilly, St. Mary's	37	222	129	157	1,565	4,014	2,565	394	0	280	68	30	Dec. 7	1	111	49	Dec. 6	19	35	

* A similar Table for Cup-Anemographs only was first published in 1909. † This average is for a period from the first year of analysis to 1928. Vide "Analysis Column" in Table X. ‡ Brackets () indicate that the distribution as between winds above and below 4 mi/hr. is doubtful, but the total number of hours with winds below 12 mi/hr. is reliable. † This average is for a period 1923 onwards. Formerly, it was computed by the inclusion of the Cup Anemograph readings for the period 1909 to 1922 (inclusive).

TABLE XII [FIRST Published 1914].—DISTRIBUTION OF DAYS on which maximum hourly wind (a) exceeded 38 mi/hr. (17.1 m/s) and (b) exceeded 24 mi/hr. (10.7 m/s).

District and Station.	† More than 38 mi/hr. or 17·1 m/s.													† More than 24 mi/hr. or 10·7 m/s.													
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct.	Nov	Dec.	Year.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct.	Nov.	Dec.	Year.	
Number of Days.																											
0. Lerwick	0	1	0	0	0	0	0	0	2	9	5	15	32	5	14	7	3	5	4	6	3	8	23	23	25	126	
Deerness	0	3	0	0	0	0	0	0	1	3	0	11	18	5	19	10	8	6	8	3	3	6	14	13	23	118	
1. Aberdeen	0	0	0	0	0	0	0	0	0	0	0	1	1	1	9	2	1	0	3	0	0	2	3	5	14	40	
Balmakewan ..	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	3	
Edinburgh	0	0	0	0	0	0	0	0	0	0	1	0	1	2	2	2	2	3	2	4	2	7	13	10	21	70	
6a. Tiree	1	2	0	0	0	0	0	0	0	7	2	16	28	6	20	3	10	6	7	3	9	9	7	19	28	127	
Paisley	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	2	3	8	15	
Eskdalemuir ..	0	0	0	0	0	0	0	0	0	0	1	2	3	3	1	1	5	9	6	3	6	4	11	9	18	76	
2. South Shields ..	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	1	3	1	4	2	3	2	5	0	8	33	
Spurn Head .. .	0	2	0	1	0	0	0	1	2	2	2	7	17	9	8	1	17	7	9	6	8	8	19	17	23	132	
Cranwell	0	0	0	1	0	0	0	0	0	0	1	2	4	1	1	1	5	2	2	1	0	3	4	8	18	46	
3. Gorleston .. .	1	0	0	0	1	0	0	0	0	2	2	6	12	10	8	1	8	6	1	2	2	2	10	16	18	84	
Felixstowe .. .	0	0	0	0	0	0	0	0	0	0	2	4	6	3	7	0	5	3	2	2	3	3	10	14	17	69	
Shoeburyness ..	0	0	0	0	0	0	0	0	0	1	4	8	13	5	4	0	3	5	4	2	4	3	9	18	19	76	
4. Birmingham ..	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	3	1	6	10	23	
5. Richmond .. .	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	0	2	0	0	4	7	17	
Croydon	0	0	0	0	1	0	0	0	0	0	1	4	6	1	3	0	3	5	5	3	3	3	7	10	18	61	
Dover	0	0	0	0	0	0	0	0	0	1	2	5	8	5	2	0	6	10	4	3	5	1	8	17	20	81	
Lympne	0	0	0	0	1	0	0	0	0	0	2	4	7	5	2	2	9	10	4	2	2	1	3	10	15	65	
Calshot	0	2	0	0	1	0	0	0	0	2	3	8	16	3	8	0	3	7	5	4	6	3	12	15	19	85	
Worthy Down ..	0	0	0	0	0	0	0	0	0	0	0	2	2	0	1	0	2	4	0	1	0	2	3	7	14	34	
7a. Fleetwood ..	0	0	—	0	0	1	0	0	2	2	0	5	—	2	1	—	2	2	6	1	6	5	12	13	19	—	
Southport .. .	0	0	0	1	1	1	0	0	2	3	1	9	18	1	6	2	8	6	11	3	7	5	17	9	22	97	
Liverpool .. .	0	1	0	0	0	0	0	0	2	1	0	5	9	2	8	1	4	3	8	2	6	4	15	10	19	82	
7b. Holyhead ..	0	1	0	0	1	0	0	0	1	1	3	11	18	11	6	2	12	11	8	4	10	3	20	21	25	133	
Sealand	0	0	0	0	0	0	0	0	2	0	0	0	2	1	3	1	2	2	3	0	1	2	3	6	15	39	
8b. Plymouth ..	1	0	0	0	0	0	0	0	0	3	6	14	24	4	11	1	1	7	3	2	3	2	7	16	21	78	
§ Pendennis ..	—	—	—	—	—	—	—	—	0	3	12	18	—	—	—	—	—	—	—	—	—	4	15	19	20	—	
9. Dunfanaghy ..	0	0	0	0	0	0	0	0	4	1	7	12	0	4	4	3	3	5	1	2	5	11	9	21	68		
Aldergrove .. .	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	2	0	0	0	4	6	15	28	28	
10. Kingstown ..	0	0	0	0	1	0	0	0	0	0	2	10	13	8	12	3	10	9	10	4	8	5	16	18	25	128	
Quilty	0	0	0	0	2	0	0	0	0	1	3	7	13	3	11	4	4	6	3	7	9	3	17	15	21	103	
Cahiriveen .. .	0	0	0	0	0	0	0	0	0	0	2	6	8	4	10	5	4	6	3	6	6	2	11	16	22	95	
§ Weaver Point ..	0	0	0	0	0	0	—	0	0	0	—	—	—	3	12	0	2	5	0	—	1	0	7	—	—	—	
11. Scilly	0	2	0	0	1	1	1	1	0	6	9	16	37	11	19	9	8	11	8	8	7	4	23	21	28	157	

TABLE XIII [FIRST Published 1900†].—OCCASIONS ON WHICH THE MEAN HOURLY WIND was 47 mi/hr. (20·8 m/s.) or more.

For an anemograph at 33 ft. above ground in the open the limit corresponds with that of Force 9 (Strong Gale) on the Beaufort Scale. Upon a plate exposed normally to it, a wind of 47 mi/hr. exerts pressure on the front and suction on the back, of which the resultant is about 3·2 mb. (6½ lb. weight per sq ft.).

The pressure equivalents of winds of stated velocities are given in the *Meteorological Observer's Handbook*.

[The highest Mean Velocity measured in this way which has been recorded at M.O. stations in the British Isles is 78 mi/hr. (35 m/s.) at Fleetwood on 22nd December, 1894, corresponding with a pressure of about 8·8 mb. (18 lb. weight per square foot).]

District and Station.	Date.	Maximum Hourly Wind.				Maximum Speed in a gust during the day.				Hours for which mean speed exceeded 38 mi/hr.
		Hour.	Direction.	Speed.		Time.		Speed.		
			°	mi/hr.	m/s	h.	m.	mi/hr.	m/s.	
0 Lerwick ..	September 28..	22	240	48	21	22	5	65	29	16h. to 24h.
	October 10..	24	260	51	23	21	15	78	35	17h. 10th to 17h. 11th.
	" 11..	1	260	51	23	0	15	72	32	17h. 10th to 17h. 11th.
	December 14..	1	220	51	23	2	25	77	34	1h. to 7h.
	" 20..	24	160	53	24	23	10	70	31	19h. on 20th to 18h. on 21st.
	" 21..	1	170	51	23	1	10	72	32	19h. on 20th to 18h. on 21st.
	" 23..	17	140	48	22	19	55	70	31	1h. on 23rd to 1h. on 26th
	" 24..	13	140	47	21	2	25	68	30	1h. on 23rd to 1h. on 26th
	" 25..	10	120	51	23	17	00	74	33	1h. on 23rd to 1h. on 26th.
	" 29..	24	300	49	22	23	30	66	30	4h., 5h., 24h.
" 30..	1	300	51	23	0	50	72	32	1h. to 5h.	
Deerness	February 11..	15	160	51	23	—	—	—	—	7h. on 11th. to 3h. on 12th.
	December 20..	21 and 23	170	48	22	—	—	—	—	19h. on 20th. to 2h. on 21st.
	December 25..	6	120	49	22	—	—	—	—	1h. to 13h.
1. Aberdeen	December 25..	5	120	47	21	6	45	70	31	1h. to 10h.
6a. Tiree ..	February 11..	8	180	49	22	11	5	67	30	5h. to 17h.
	December 2..	3	190	48	21	2	50	64	29	1h. to 17h.; 13h.
	" 5..	4	160	53	24	3	50	76	34	1h. to 5h.; 9h. to 17h.; 23h., 24h.
	" 9..	2	280	55	25	1	35	79	35	1h. to 5h.
	" 20..	18	190	58	26	17	55	82	37	13h. to 20h.
	" 24..	24	150	49	22	22	50	72	32	21h. on 24th to 9h. on 25th.
	" 25..	3	150	51	23	1	20	71	32	1h. to 9h.
2. Spurn Head	September 21..	13	300	48	21	11	35	62	28	12h. to 16h.
	December 5..	8	190	47	21	7	53	64	29	5h. to 11h.
3. Gorleston	December 6..	21	200	47	21	21	20	61	27	20h. to 22h.
Shoebury- ness.	November 11..	17	210	48	22	16	55	64	29	14h. on 11th to 2h. on 12th.
	December 5..	9	180	49	22	9	5	65	29	4h. to 13h.
	" 6..	21	190	49	22	22	30	73	33	19h. to 22h.
	" 7..	3	210	51	23	1	5	76	34	1h. to 5h.
	" 9..	13	200	48	21	13	45	60	27	11h. to 14h.
" 29..	6	215	55	25	1	5	76	34	4h. to 7h.	
5. Lympne ..	December 7..	5	210	48	21	1	50	71	32	1h. to 7h.
	" 9..	14	210	48	21	14	15	67	30	11h.; 13h.; 14h
Calshot ..	December 5..	8	180	49	22	7	35	76	34	2h.; 4h. to 9h.
	" 6..	19	190	47	21	18	50	78	35	18h. to 19h.; 22h. to 24h.
	" 7..	1	180	49	22	0	10	75	33	1h. to 5h.
	" 9..	12	230	49	22	11	50	77	34	9h. to 12h.
§7a. Fleetwood	September 20..	9	290	47	21	8	40	60	27	5h. to 10h.
	December 7..	13	300	53	24	12	55	69	31	8h.; 10h. to 18h.
	" 8..	22	280	49	22	22	50	76	34	22h. to 24h.
Southport	October 6..	20	290	47	21	19	40	66	29	19h. on 6th to 4h. on 7th.
	November 25..	20	240	48	21	19	45	64	29	20h.
	December 7..	12	280	54	24	12	35	72	32	6h. to 19h.
	" 8..	22	270	55	25	21	50	69	31	17h. to 18h.; 21h. on 8th to 3h. on 9th.
	" 9..	1	260	47	21	0	5	64	29	21h. on 8th to 3h. on 9th.
	" 11..	24	260	47	21	20	55	67	30	13h. to 15h.; 21h. on 11th to 15h. on 12th.
	" 12..	3	260	53	24	5	5	71	32	21h. on 11th to 15h. on 12th.
	" 29..	9	270	52	23	8	55	68	30	7h. to 21h.
Liverpool	December 7..	12	300	50	22	11	50	84	38	5h. to 17h.
	" 8..	22	290	48	21	21	50	81	36	18h. to 24h.
	" 12..	6	290	48	21	6	10	80	36	2h. to 13h.
	" 29..	9	290	48	21	10	20	76	34	6h. to 11h.; 20h.; 21h.

†For the years 1900 to 1914 the table of "Strong Gales" was given in the Annual Report of the Meteorological Council, and for 1905, 1906 in the Annual Summary of the Monthly Weather Report for those years. Prior to 1908 the limit of velocity was taken to be 44 miles per hour. §See Table X (Notes column).

TABLE XIII (continued).—OCCASIONS ON WHICH THE MEAN HOURLY WIND was 47 mi/hr. (20·8 m/s.) or more.

District and Station.	Date.	Maximum Hourly Wind.				Maximum Speed in a gust during the day.				Hours for which mean speed exceeded 38 mi/hr.	
		Hour.	Direction.	Speed.		Time.	Speed.				
				°	mi/hr.	m/s.	h.	m.	mi/hr.	m/s.	
7b. Holyhead	October 6..	17		320	48	21	17	5	64	29	16h. to 20h.
	December 5..	3		150	51	23	3	9	71	32	1h. to 4h.
	" 7..	9 and 10		290	54	24	10	45	77	34	4h. to 15h.
	" 8..	21		270	56	25	21	39	80	36	17h.; 20h. on 8th to 1h. on 9th.
	" 29..	8		270	47	21	7	37	66	29	5h. to 10h.; 13h. to 16th; 21h.
8b. Plymouth	October 5..	19	—	—	49	22	16	30	68	30	14h.; 16h. to 21h.
	November 11..	13	—	—	48	21	22	30	65	29	12h. to 14h.; 23h.
	" 24..	23	—	—	50	22	23	5	66	29	22h. on 24th to 2h. on 25th.
	December 4..	24	—	—	48	21	23	50	59	26	20h. on 4th to 4h. on 5th.
	" 5..	3	—	—	65	29	3	10	84	38	20h. on 4th to 4h. on 5th.
	" 6..	16	—	—	55	25	22	50	85	38	14h. to 17h., 19h. on 6th to 3h. on 7th.
	" 7..	1	—	—	50	22	1	25	76	34	1h. to 3h., 23h. on 7th to 4h. on 8th.
	" 21..	4	—	—	48	21	4	35	62	28	1h. to 4h.
	" 24..	21	—	—	47	21	21	25	66	29	18h. to 22h.
	" 29..	2	—	—	47	21	2	40	62	28	1h. to 4h.
§Pendennis	October 5..	19		210	47	21	19	20	77	34	18h. to 19h.
	" 7..	22		280	49	22	22	5	66	29	21h. to 22h.
	" 24..	8		220	49	22	9	5	68	30	4h. to 9h.
	November 11..	11		220	55	25	22	40	74	33	9h. to 24h.
	" 18..	23		210	47	21	23	20	62	28	15h. to 18h.; 20h. 18th to 23h. 19th
	" 19..	15		210	53	24	15	10	68	30	20h. 18th to 23h. 19th.
	" 24..	23		210	56	25	21	25	73	33	19h. 24th to 1h. 25th.
	" 25..	13		240	55	25	12	45	78	35	19h. 24th to 1h. 25th; 10h. to 22h.
	December 2..	7		220	48	21	7	35	69	31	3h. to 11h.
	" 4..	24		190	61	27	23	55	77	34	19h. on 4th to 5h. on 5th.
	" 5..	2		190	70	31	2	35	94	42	19h. on 4th to 5h. on 5th; 11h. to 16h.
	" 6..	24		250	69	31	23	10	103	46	12h. on 6th to 8h. on 7th.
	" 7..	1		250	65	29	0	10	102	46	12h. on 6th to 8h. on 7th; 21h. to 24h.
	" 8..	12		250	62	28	11	45	98	44	1h. to 5h., 9h.; 11h. to 19h.
	" 9..	10		240	57	25	9	50	87	39	5h. to 10h.
	" 10..	22		230	47	21	23	20	71	32	20h. on 10th to 12h. on 11th.
	" 20..	24		190	49	22	23	49	64	29	21h. on 20th to 2h. on 21st.
	" 21..	2		190	51	23	1	15	68	30	21h. on 20th to 2h. on 21st.
	" 24..	19		190	56	25	18	55	77	34	17h. to 23h.
	" 25..	11		250	55	25	8	50	82	37	5h. to 13h.
	" 28..	24		210	51	23	23	55	62	28	14h.; 17h. on 28th to 7h. on 29th.
	" 29..	2		220	55	25	2	0	83	37	17h. on 28th to 7h. on 29th.
9. Dunfanaghy	October 10..	14	—	—	47	21	14	50	69	31	12h. to 15h.; 17h.
	November 11..	11	—	—	48	21	10	50	67	30	11h. to 12h.
	December 5..	22	—	—	48	21	22	35	74	33	19h. to 24h.
	" 11..	15	—	—	52	23	14	30	77	34	13h. to 16h., 22h. on 11th to 1h. on 12th.
10. Kingstown	November 11..	13		240	56	25	—	—	—	—	10h. to 16h.
	December 5..	24		240	48	21	—	—	—	—	18h. to 21h.; 23h. 5th to 1h. 6th.
	" 7..	10		260	51	23	—	—	—	—	7h. to 11h.; 13h.
	" 29..	5		260	49	22	—	—	—	—	4h. to 6h.; 8h.; 17h. to 19h.
Quilty ..	December 8..	15	—	—	47	21	18	25	76	34	15h. to 17h.
Cahiriveen	December 24..	23		205	57	25	21	40	88	39	21h. on 24th. to 1h. on 25th.
	" 25..	1		215	54	24	0	03	82	37	21h. on 24th. to 1h. on 25th.
11. Scilly ..	October 20..	24		360	47	21	13	25	71	32	21h. 20th to 7h. 21st.
	" 21..	1		20	48	21	0	50	70	31	21h. 20th to 7h. 21st.
	November 11..	22		250	47	21	22	55	82	37	9h. to 23h.
	" 15..	24		290	48	21	23	45	69	31	21h.; 23h. 15th to 5h. 16th.
	" 16..	1		300	47	21	0	5	68	30	23h. 15th to 5h. 16th.
	" 25..	13		240	50	22	12	5	79	35	11h. to 14h.
	December 4..	24		180	54	24	23	55	80	36	20h. on 4th to 1h. on 5th.
	" 5..	1		190	56	25	0	05	81	36	1h., 11h., 13h. to 21h.
	" 6..	23		260	67	30	19	35	111	49	14h. on 6th to 12h. on 7th.
	" 7..	1		280	68	30	1	10	102	46	0h. to 12h., 21h. on 7th. to 4h. on 8th.
	" 8..	15		290	62	28	9	10	94	42	0h. to 4h., 8h. to 22h.
	" 9..	9		240	55	25	9	15	80	36	8h. on 9th to 3h. on 10th.
	" 11..	8		280	47	21	7	50	66	29	0h. to 11h.
	" 24..	18		170	47	21	18	20	71	32	16h. to 19h.
	" 25..	7		240	51	23	9	15	75	33	3h. to 13h.
	" 29..	5		290	54	24	4	05	82	37	1h. to 2h.; 4h. to 18h.

TABLE XIV [First Published 1908].—DATES on which GUSTS of 55 mi/hr. (24·5 m/s.) or more occurred.

For an anemograph at 33 ft. above ground in the open the limit corresponds with that of Force 10 (Whole Gale) on the Beaufort Scale.

Upon a plate exposed normally to it, a wind of 55 mi/hr. exerts pressure on the front and suction on the back, of which the resultant is about 4·4 mb. (9 lb. weight per square foot).

Up to 1916 fuller details were given in this table. The time of occurrence of the maximum gust each month can be found by reference to the *Monthly Weather Report*.

0	Lerwick	..	..	..	Jan. 14; Feb. 11; Sept. 28, 29; Oct. 2, 4, 7, 10, 11, 12, 23; Nov. 7, 8, 9, 13, 19, 23; Dec. 2, 6, 13, 14, 19, 20, 21, 22, 23, 24, 25, 29, 30.
1	Aberdeen	..	..	..	Sept. 21, Dec. 5, 24, 25, 28.
	Edinburgh	..	..	..	July 10; Oct. 3; Nov. 5, 7, 11, 19, 25; Dec. 2, 5, 6, 9, 11, 13, 19, 29.
6a	Tiree	..	..	..	Feb. 11, 13; Apr. 1; Sept. 20; Oct. 1, 2, 3, 6, 10, 20, 23; Nov. 4, 8, 17, 24; Dec. 2, 3, 4, 5, 6, 7, 8, 9, 12, 14, 19, 20, 23, 24, 25, 29.
	Paisley	..	..	..	Oct. 2, 10, 16; Nov. 11; Dec. 2, 3, 5, 6, 9, 11, 29.
	Eskdalemuir	..	..	..	June 16; Sept. 21; Oct. 3, 6, 10; Nov. 11; Dec. 5, 7, 11, 12, 13, 29.
2	South Shields	..	..	..	Jan. 15; Sept. 21; Oct. 2.
	Spurn Head	..	..	..	Feb. 11; Apr. 1; Sept. 20, 21; Oct. 6; Nov. 11; Dec. 5, 6, 7, 9, 11, 12, 25, 29.
	Cranwell	..	..	..	Apr. 1; Nov. 11, 25.
3	Gorleston	..	..	..	Jan. 16; May 6; Oct. 24; Nov. 11, 23.
	Felixstowe	..	..	..	Dec. 7, 9.
	Shoeburyness	..	..	..	May 6; July 31; Oct. 24; Nov. 11, 12, 23; Dec. 5, 6, 7, 8, 9, 11, 12, 29.
4	Birmingham	..	..	..	Apr. 1; Nov. 11, 25; Dec. 5, 6, 7, 12, 25, 29.
5	Richmond	..	..	..	May 6; Dec. 5, 6, 7, 8, 25, 29.
	Croydon	..	..	..	May 6; Oct. 6; Nov. 19, 23, 25; Dec. 5, 6, 7, 8, 9, 11, 12, 25, 29.
	Dover	..	..	..	Oct. 6, 24; Nov. 11, 12, 23; Dec. 5, 6, 7, 8, 9, 25, 29.
	Lympne	..	..	..	May 6; Nov. 11, 12; Dec. 5, 6, 7, 8, 9, 25, 29.
	Calshot	..	..	..	May 6; Oct. 5, 6, 24; Nov. 11, 12, 19, 23, 25; Dec. 2, 5, 6, 7, 8, 9, 11, 12, 25, 28, 29, 30.
	Worthy Down	..	..	..	May 6; Oct. 24; Nov. 11, 23, 25; Dec. 5, 6, 7, 8, 9, 11, 25, 29.
§7a	Fleetwood	..	..	..	Sept. 20, 21; Oct. 6; Nov. 25; Dec. 5, 7, 8, 9, 11, 12, 25, 29.
	Southport	..	..	..	Sept. 20, 21; Oct. 2, 3, 6, 7; Nov. 25; Dec. 6, 7, 8, 9, 11, 12, 25, 26, 29.
	Liverpool	..	..	..	Feb. 11; Apr. 1; Sept. 20, 21; Oct. 6, 7, 16, 29; Nov. 11, 12, 25; Dec. 2, 5, 7, 8, 9, 10, 11, 12, 13, 21, 24, 25, 26, 29.
7b	Holyhead	..	..	..	Feb. 27; Sept. 20; Oct. 6, 20; Nov. 9, 11, 15, 18, 25; Dec. 2, 4, 5, 6, 7, 8, 9, 11, 12, 20, 21, 23, 25, 26, 29.
	§Sealand	..	..	..	Apr. 1; June 2; Sept. 20, 21; Oct. 6; Nov. 11, 25; Dec. 2, 7, 8, 12, 13, 25, 29.
8b	Plymouth	..	..	..	Jan. 1; Feb. 12, 27; May 30; Oct. 5, 7, 24; Nov. 11, 19, 23, 24, 25; Dec. 4, 5, 6, 7, 8, 9, 10, 21, 24, 25, 29.
	§Pendennis Castle	..	..	..	Oct. 5, 6, 7, 24, 29; Nov. 5, 10, 11, 12, 15, 16, 18, 19, 22, 23, 24, 25, 26, 27.
9	Dunfanaghy	..	..	..	Sept. 20, 28; Oct. 2, 3, 10, 16, 20, 23; Nov. 5, 7, 11, 25; Dec. 2, 5, 6, 7, 8, 9, 11, 12, 13, 19, 20, 24, 25, 26, 29.
	Aldergrove	..	..	..	Nov. 11, 24, 25; Dec. 2, 3, 5, 6, 7, 11, 12, 20, 24, 25, 29.
10	Quilty	..	..	..	May 13, 14; Oct. 20; Nov. 11, 12, 24, 25; Dec. 4, 5, 7, 8, 10, 11, 12, 24, 25, 29.
	Cahirciveen	..	..	..	Feb. 12, 13, 17, 18, 19, 20; May 13; Oct. 20, 21; Nov. 10, 11, 15, 22, 24, 25; Dec. 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 20, 24, 25, 28, 29.
	§Weaver Point	..	..	..	Feb. 13; May 13; Oct. 20; Nov. 24.
11	Scilly	..	..	..	Jan. 28; Feb. 12, 26, 27; May 6, 30; June 14; July 31; Oct. 6, 7, 8, 20, 21, 24, 29; Nov. 10, 11, 12, 15, 16, 18, 19, 22 to 27; Dec. 2, 4 to 12, 20, 21, 23 to 25, 28 to 30.

§ See "Notes" column of Table X.

NOTE.

A short list of the noteworthy gales of the year is to be found on page 170.

TABLE XV [1912]. MAXIMUM SPEED in a Gust recorded by Tube Anemographs during each Month of 1929, and the HIGHEST SPEED in a Gust on record for each station. Unit, metre per second†.

District and Station and date of first appearance in this Table.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	G. (Mean of Monthly Maxima.)	Highest Gust on Record.	
	m/s.	m/s.	m/s.	m/s.	m/s.	m/s.	m/s.	m/s.	m/s.	m/s.	m/s.	m/s.	m/s.	Speed.	Date.
0. Lerwick .. 1923	26	25	21	21	21	22	21	18	29	35	29	34	25	43	Jan. 14 1925
1. Aberdeen .. 1912	19	24	23	21	16	22	16	17	25	23	22	31	22	37	Oct. 25 1917
Balmakewan .. 1915	18	19	16	21	20	17	14	16	19	23	19	21	19	37	Dec. 3 1920
Edinburgh .. 1915	23	21	21	20	20	19	26	23	22	26	29	28	23	38	Jan. 28 1927
6a. Tiree .. 1927	24	30	21	25	19	21	20	22	25	32	28	37	25	48	Jan. 28 1927
Paisley .. 1914	17	16	18	20	19	21	21	22	24	25	27	28	21	47	Jan. 28 1927
Eskdalemuir .. 1912	19	20	20	21	21	26	23	21	29	28	27	28	24	40	Oct. 25 1917
2. South Shields .. 1912	27	18	18	24	17	22	17	24	25	25	22	30	22	39	Nov. 23 1928
Spurn Head .. 1913	20	25	16	27	22	22	18	24	29	25	28	29	24	38	Jan. 6 1928
Cranwell .. 1921	17	22	17	25	24	21	21	19	24	23	31	30	23	36	Oct. 29 1927
3. Gorleston .. 1912	25	22	17	22	29	19	18	18	21	27	29	29	23	35	Nov. 6 1921
Felixstowe .. 1925	17	19	15	22	22	16	18	17	19	21	24	25	20	29	Nov. 6 1921
Shoeburyness .. 1912	19	20	15	23	25	20	24	21	21	25	29	34	23	35	Feb. 11 1925
4. Birmingham .. 1924	17	21	17	28	22	17	20	19	23	21	27	29	22	35	Feb. 9 1925
5. Richmond .. 1912	15	19	12	24	25	17	22	16	17	19	23	30	20	32	Mar. 28 1916
Croydon .. 1922	21	24	16	24	30	22	23	21	23	25	33	34	25	36	Nov. 16 1928
Dover .. 1924	22	21	16	22	22	17	21	22	19	27	30	31	23	31	Dec. 7 1929
Lympne .. 1923	20	21	18	21	25	18	21	18	18	21	27	32	22	35	Nov. 16 1928
Calshot .. 1921	17	24	13	19	29	21	24	19	22	33	29	36	24	36	Dec. 29 1929
Worthy Down .. 1923	18	20	14	19	26	20	21	17	22	25	28	36	22	36	Dec. 6 1929
7a. Fleetwood .. 1924	18	21	—	19	20	23	18	21	27	25	25	34	—	38	May 10 1926
Southport .. 1912	16	21	16	24	22	22	18	19	28	29	29	32	23	43	Oct. 29 1927
Liverpool .. 1929	22	28	19	28	24	24	22	21	31	33	29	38	27	38	Dec. 7 1929
7b. Holyhead .. 1912	22	25	17	22	23	21	20	24	25	29	31	36	25	39	Feb. 16 1916
Sealand .. 1925	19	24	18	26	21	25	17	19	27	26	32	30	24	39	Nov. 25 1928
8b. Plymouth .. 1912	25	26	19	18	25	20	19	18	21	30	29	38	24	43	Mar. 8 1922
§ Pendennis .. 1912	—	—	—	—	—	—	—	—	24	34	35	46	—	46	Mar. 14 1905
9. Dunfanaghy .. 1927	17	22	19	23	21	23	22	18	27	31	30	34	24	49	Mar. 8 1922
Aldergrove .. 1927	18	24	18	22	22	19	18	18	22	23	28	31	22	38	Dec. 6 1929
10. Quilty .. 1912	19	22	19	20	27	18	23	18	20	25	32	37	23	>50*	Jan. 27 1920
Cahiriveen .. 1917	24	31	19	21	26	18	23	21	18	25	31	39	25	43	Feb. 7 1923
§ Weaver Point .. 1914	20	25	16	21	27	16	—	19	17	25	—	—	—	40	Oct. 28 1927
11. Scilly .. 1912	25	31	22	22	30	25	27	24	21	34	37	49	29	49	Dec. 6 1929

† For the equivalent speeds in miles per hour reference should be made to the monthly issues.

§ See "Notes" column on Table X.

* This gust occurred as an isolated gust at a time when the mean wind speed was 23m/s. It appeared very exceptional and apparently artificial. The custodian of the instrument affirmed in reply to an inquiry that the record had not been tampered with: unfortunately the circumstances at the time prevented personal investigation on the spot by a meteorological expert. Accordingly the record has been published, in the absence of any positive external evidence of its apparently artificial nature.

TABLE XVI [1912].—MAXIMUM VALUE of the MEAN SPEED for an Hour measured as in Table XII during each Month of 1929. Unit, metre per second.†

District and Station.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	H (Mean of Monthly Maxima.)	Gust Ratio G./H. (For G, see Table XV.)
	m/s.	m/s.	m/s.	m/s.	m/s.	m/s.	m/s.	m/s.	m/s.	m/s.	m/s.	m/s.	m/s.	
0. Lerwick D ..	16	18	14	14	15	15	13	11	21	23	20	24	17	1.5
Deerness R ..	16	23	16	16	15	16	14	13	20	18	17	22	17	—
1. Aberdeen D ..	11	15	13	11	9	12	9	10	14	14	14	21	13	1.7
Balmakewan D ..	10	9	10	11	11	8	8	9	10	11	10	11	10	1.9
Edinburgh D ..	15	13	14	11	13	12	16	16	15	16	18	17	15	1.5
6a. Tiree D ..	17	22	16	15	14	13	14	16	17	21	19	26	17	2.2
Paisley D ..	8	9	9	11	10	10	10	11	11	12	14	14	11	1.9
Eskdalemuir D ..	15	13	12	14	15	15	16	13	16	17	18	18	15	1.6
2. South Shields D ..	13	13	11	15	12	14	12	15	14	13	11	16	13	1.7
Spurn Head D ..	16	20	12	18	17	15	13	18	21	20	20	21	18	1.3
Cranwell D ..	12	14	11	17	14	13	12	10	16	14	19	18	14	1.6
3. Gorleston D ..	17	17	11	17	18	13	13	12	13	18	18	21	16	1.4
Felixstowe A ..	15	16	9	13	17	12	13	13	12	17	18	19	15	1.3
Shoeburyness D ..	14	16	8	14	16	14	15	14	12	19	22	25	16	1.4
4. Birmingham D ..	9	11	10	15	12	10	9	10	13	12	15	16	12	1.8
5. Richmond D ..	9	11	7	12	15	9	12	9	10	11	13	16	11	1.8
Croydon D ..	13	13	9	13	20	13	14	13	13	14	19	19	14	1.8
Dover d ..	16	16	10	14	17	12	13	14	12	17	19	20	15	1.5
Lympne D ..	13	16	12	14	17	13	13	12	12	14	18	21	15	1.5
Calshot D ..	13	20	10	13	19	15	15	13	15	20	20	22	16	1.5
Worthy Down D ..	10	11	9	11	15	11	11	9	12	14	17	18	12	1.8
7a. Fleetwood D ..	12	13	—	14	14	19	11	15	21	19	14	24	—	—
Southport D ..	13	14	12	18	17	17	12	14	21	21	21	25	17	1.4
Liverpool D ..	13	17	13	17	16	15	13	14	19	20	16	22	16	1.7
7b. Holyhead D ..	16	19	12	16	18	14	16	16	19	21	20	25	19	1.3
Sealand D ..	12	16	12	17	12	15	11	13	17	17	15	17	15	1.6
8b. Plymouth d ..	19	15	12	12	16	17	13	14	11	22	22	29	17	1.4
Falmouth R ..	7	9	7	8	11	9	10	7	8	9	12	16	9	—
§ Pendennis D ..	—	—	—	—	—	—	—	—	15	22	25	31	—	—
9. Dunfanaghy d ..	11	13	13	15	14	14	13	16	21	21	21	23	16	1.5
Aldergrove D ..	10	13	9	11	11	10	10	9	10	13	16	17	11	2.0
Armagh R ..	11	11	9	7	11	9	10	11	7	10	14	15	10	—
10. Kingstown R ..	14	16	11	14	19	16	15	13	16	17	25	23	17	—
Quilty d ..	13	16	14	14	18	13	16	13	14	18	20	21	16	1.4
Cahiriveen D ..	14	16	13	14	17	12	13	13	11	17	19	25	15	1.7
§ Weaver Point d ..	12	16	10	15	15	9	—	12	11	16	—	—	—	—
11. Scilly D ..	16	21	14	15	21	17	19	18	15	21	22	30	19	1.5

Note.—The highest mean speed recorded at M.O. Stations in the British Isles is 78 mi/hr., 35 m/s. This was recorded at Fleetwood on 22nd December, 1894.

§ See "Notes" column on Table X.

† For the equivalent speeds in miles per hour reference should be made to the monthly issues.

D Dines tube-anemograph and direction recorder. R Robinson cup-anemograph.

d Dines tube-anemograph without direction recorder.

TABLE XVII [1917].—"WIND ROSE" DATA for TELEGRAPHIC STATIONS.—Frequency of winds of various strengths from different directions at 7h.

The following Tables incorporate the material used for drawing the "Wind-roses" shown on the Monthly Weather Report charts of mean pressure.

The tables show only eight possible directions for the wind. Observations at intermediate points are "thrown" alternately forward and backward. The categories Light Winds, Strong Winds and Gales are equivalent to the Beaufort Forces 1 to 3, 4 to 7, 8 to 12, respectively.

The instructions to observers for estimating wind-force on the Beaufort Scale are published in the *Meteorological Observer's Handbook* where the conventional equivalents of the scale in terms of wind-speed at 10 metres above ground will also be found.

Wind-roses have been published in the Monthly Weather Report since 1884, but the present form which indicates the strength as well as the direction of the winds, was not adopted until 1905.

LERWICK.

Months.	N.			NE.			E.			SE.			S.			SW.			W.			NW.			ALL DIRECTIONS.			CALMS.
	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	
January ..	4	2	0	0	0	0	1	0	0	6	0	0	2	0	0	3	1	0	2	0	0	3	0	0	21	3	0	7
February ..	0	0	0	1	0	0	0	0	0	3	8	2	5	2	1	4	1	0	0	0	0	0	0	0	13	11	3	1
March ..	1	0	0	0	0	0	0	0	0	0	0	0	7	1	0	5	2	0	9	1	0	3	0	0	25	4	0	2
April ..	6	1	0	3	1	0	2	0	0	2	0	0	2	0	0	1	0	0	4	2	0	4	0	0	24	4	0	2
May ..	3	0	0	4	0	0	1	0	0	3	2	0	8	1	0	2	0	0	2	0	0	3	0	0	26	3	0	2
June ..	5	2	0	1	0	0	3	0	0	2	0	0	7	1	0	1	0	0	0	1	0	6	1	0	25	5	0	0
July ..	2	2	0	1	1	0	1	0	0	5	0	0	5	0	0	3	0	0	5	1	0	2	0	0	24	4	0	3
August ..	1	1	0	0	0	0	2	0	0	3	0	0	6	0	0	4	0	0	9	1	0	3	0	0	28	2	0	1
September ..	1	0	0	0	0	0	0	0	0	1	0	0	6	1	0	8	1	0	9	0	0	3	0	0	28	2	0	0
October ..	2	2	0	0	0	0	0	1	0	1	4	0	5	0	0	5	1	0	3	0	1	1	0	0	17	8	1	5
November ..	0	0	0	0	0	0	0	0	0	3	3	1	6	2	0	7	1	0	2	1	0	3	0	0	21	7	1	1
December ..	0	0	0	0	1	0	1	0	0	1	2	2	3	4	3	3	1	0	1	2	0	0	1	0	9	11	5	6
Year ..	25	10	0	10	3	0	11	1	0	30	19	5	62	12	4	46	8	0	46	9	1	31	2	0	261	64	10	30

STORNOWAY.

January ..	4	1	0	2	0	0	0	2	0	1	0	0	3	3	0	2	1	0	1	0	0	1	0	0	14	7	0	10
February ..	0	0	0	0	0	0	0	1	0	4	5	0	4	5	0	2	1	0	0	0	0	0	1	0	10	13	0	5
March ..	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	6	3	0	3	0	0	2	1	0	12	5	0	14
April ..	4	4	0	4	0	0	4	2	0	0	0	0	1	0	0	0	0	0	1	1	0	3	1	0	16	9	0	5
May ..	1	2	0	2	2	0	1	2	0	3	0	0	4	0	0	3	1	0	0	1	0	2	0	0	16	8	0	7
June ..	4	1	0	4	1	0	1	1	0	1	0	0	2	2	0	2	0	0	1	1	0	1	4	0	16	10	0	4
July ..	2	0	0	5	1	0	0	1	0	1	0	0	2	1	0	3	3	0	1	3	0	1	0	0	15	9	0	7
August ..	3	0	0	0	2	0	1	1	0	0	0	0	1	1	0	7	2	0	6	1	0	2	1	0	20	8	0	3
September ..	0	1	0	2	0	0	1	0	0	0	0	0	3	0	1	8	0	5	2	0	0	2	0	0	9	16	0	5
October ..	1	2	0	1	1	0	0	1	0	1	1	0	0	0	0	2	3	0	4	2	0	3	3	0	12	13	0	6
November ..	1	1	0	0	0	0	0	0	0	2	1	0	0	4	0	2	5	1	3	0	0	3	2	0	11	13	1	5
December ..	1	0	0	0	0	0	1	0	1	1	2	1	1	4	2	0	4	0	2	4	0	0	5	0	6	19	4	2
Year ..	21	12	0	20	7	0	9	11	1	14	9	1	18	25	2	30	31	1	27	15	0	18	20	0	157	130	5	73

TABLE XVII (continued).—"WIND ROSE" DATA for TELEGRAPHIC STATIONS.—Frequency of Winds of various strengths from different directions at 7h.

ABERDEEN.

Months.	N.			NE.			E.			SE.			S.			SW.			W.			NW.			ALL DIRECTIONS.			CALMS.
	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	
January ..	1	1	0	0	0	0	0	1	0	1	2	0	4	0	0	2	0	0	2	0	0	8	4	0	18	8	0	5
February ..	0	0	0	0	0	0	0	2	0	0	8	0	3	4	0	5	0	0	3	0	0	2	0	0	13	14	0	1
March ..	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	5	1	0	9	0	0	8	2	0	25	3	0	3
April ..	3	2	0	1	0	0	2	2	0	1	0	0	1	0	0	2	0	0	2	1	0	6	4	0	18	9	0	3
May ..	2	1	0	3	0	0	0	0	0	4	0	0	5	1	0	4	1	0	2	0	0	3	0	0	23	3	0	5
June ..	2	1	0	0	0	0	1	0	0	2	0	0	5	0	0	5	1	0	4	0	0	6	2	0	25	4	0	1
July ..	1	2	0	1	0	0	2	0	0	4	0	0	4	0	0	6	0	0	1	0	0	7	1	0	26	3	0	2
August ..	1	1	0	0	0	0	0	0	0	1	0	0	4	0	0	10	1	0	4	0	0	3	2	0	23	4	0	4
September ..	0	1	0	0	0	0	0	0	0	0	0	0	4	0	0	9	0	0	4	1	0	3	0	0	20	2	0	8
October ..	0	0	0	0	0	0	1	0	0	0	1	0	4	1	0	7	3	0	6	1	0	4	2	0	22	8	0	1
November ..	0	0	0	1	0	0	0	0	0	2	4	0	5	2	0	7	1	0	4	0	0	2	1	0	21	8	0	1
December ..	0	0	0	0	0	0	0	0	0	1	4	1	4	5	0	5	3	0	2	2	0	3	1	0	15	15	1	0
Year ..	10	9	0	6	0	0	6	5	0	16	19	1	46	13	0	67	11	0	43	5	0	55	19	0	249	81	1	34

ESKDALEMUIR.

January	..	8	0	0	4	2	0	1	0	0	0	1	0	2	1	0	1	2	0	0	0	0	1	0	16	7	0	8	
February	..	4	0	0	3	0	0	0	3	0	2	3	0	5	1	0	2	1	0	0	0	0	2	0	0	18	8	0	2
March	..	5	1	0	0	1	0	0	0	0	0	0	0	4	1	0	0	2	0	1	0	0	2	1	0	12	6	0	13
April	..	1	3	0	3	6	0	0	1	0	0	0	0	2	1	0	0	2	0	0	0	0	0	4	0	6	17	0	7
May	..	4	1	0	2	3	0	1	0	0	2	0	0	0	5	0	0	3	0	1	1	0	0	0	0	10	13	0	8
June	..	2	0	0	7	0	0	0	0	0	0	0	0	3	2	0	2	5	0	1	2	0	3	1	0	18	10	0	2
July	..	2	1	0	3	0	0	0	0	0	3	0	0	6	2	0	2	1	0	1	1	0	1	0	0	18	5	0	8
August	..	2	1	0	1	0	0	0	0	0	0	0	0	2	2	0	4	5	0	2	2	0	2	1	0	13	11	0	7
September	..	1	0	0	2	0	0	0	0	0	0	0	0	3	1	0	4	7	0	3	0	0	2	1	0	15	9	0	6
October	..	6	0	0	1	0	0	0	0	0	1	0	0	4	3	0	3	6	0	2	2	0	1	1	0	18	12	0	1
November	..	2	0	0	1	1	0	0	1	0	0	0	0	4	3	0	1	7	0	2	2	0	2	0	0	12	14	0	4
December	..	1	0	0	0	0	0	0	0	0	1	2	0	2	3	0	3	9	0	2	5	0	1	0	0	10	19	0	2
Year	..	38	7	0	27	13	0	2	5	0	9	6	0	37	25	0	22	50	0	15	15	0	16	10	0	166	131	0	68

TYNEMOUTH.

January ..	2	1	0	3	0	0	5	0	0	1	0	0	6	0	0	4	0	0	2	0	0	6	1	0	29	2	0	0
February ..	0	0	0	0	0	0	3	0	0	5	1	0	9	1	0	2	0	0	6	0	0	1	0	0	26	2	0	0
March ..	1	0	0	1	0	0	0	0	0	2	0	0	3	0	0	5	0	0	14	1	0	3	0	0	29	1	0	1
April ..	2	1	0	3	1	0	5	0	0	0	0	0	2	0	0	4	0	0	7	0	0	5	0	0	28	2	0	0
May ..	4	0	0	5	0	0	3	0	0	0	0	0	4	1	0	5	0	0	5	0	0	1	1	0	27	2	0	2
June ..	3	0	0	2	0	0	0	0	0	0	0	0	3	0	0	5	1	0	12	0	0	3	1	0	28	2	0	0
July ..	4	0	0	0	0	0	1	0	0	1	0	0	2	0	0	5	0	0	13	0	0	2	0	0	28	0	0	3
August ..	1	1	0	0	0	0	1	0	0	0	0	0	2	0	0	8	0	0	14	0	0	4	0	0	30	1	0	0
September ..	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	10	1	0	12	0	0	3	0	0	27	1	0	2
October ..	0	1	0	1	0	0	0	0	0	2	0	0	1	0	0	7	0	0	15	3	0	1	0	0	27	4	0	0
November ..	0	0	0	0	0	0	2	0	0	0	0	0	7	0	0	8	0	0	10	0	0	3	0	0	30	0	0	0
December ..	0	0	0	0	0	0	0	0	0	0	1	0	5	3	0	4	1	0	10	6	0	1	0	0	20	11	0	0
Year ..	18	4	0	15	1	0	20	0	0	11	2	0	45	5	0	67	3	0	120	10	0	33	3	0	329	28	0	8

TABLE XVII (continued).—"WIND ROSE" DATA for TELEGRAPHIC STATIONS.—Frequency of Winds of various strengths from different directions at 7h.

YARMOUTH (GORLESTON).

Months.	N.			NE.			E.			SE.			S.			SW.			W.			NW.			ALL DIRECTIONS.			CALMS.
	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	
January ..	2	2	0	0	3	0	0	4	0	1	2	0	3	1	0	3	1	0	2	1	0	4	1	0	15	15	0	1
February ..	1	0	0	3	0	0	0	5	0	1	5	0	1	4	0	4	0	0	1	0	0	2	0	0	13	14	0	1
March ..	3	0	0	4	1	0	2	0	0	2	0	0	1	0	0	2	1	0	4	0	0	8	1	0	26	3	0	2
April ..	3	2	0	1	3	0	0	3	0	0	0	0	1	1	0	1	0	0	6	1	0	7	0	0	19	10	0	1
May ..	1	5	0	2	3	0	1	1	0	0	0	0	2	3	0	4	3	0	1	1	0	3	0	0	14	16	0	1
June ..	3	3	0	0	0	0	1	1	0	1	0	0	1	2	0	4	1	0	4	1	0	3	3	0	17	11	0	2
July ..	2	0	0	3	1	0	2	1	0	1	1	0	0	0	0	4	4	0	6	0	0	4	0	0	22	7	0	2
August ..	1	0	0	0	0	0	0	0	0	1	0	0	1	2	0	8	2	0	9	1	0	5	0	0	25	5	0	1
September ..	1	1	0	1	1	0	1	0	0	3	1	0	2	0	0	4	2	0	7	0	0	4	0	0	23	5	0	2
October ..	0	0	0	0	1	0	0	0	0	0	1	0	0	1	1	10	2	0	11	2	0	1	1	0	22	8	1	0
November ..	0	0	0	1	0	0	0	0	0	0	1	0	2	8	0	3	3	0	9	0	0	3	0	0	18	12	0	0
December ..	0	0	0	0	0	0	0	0	0	1	0	0	1	5	2	2	9	0	5	3	0	2	0	0	11	17	2	1
Year ..	17	13	0	15	13	0	7	15	0	11	11	0	15	27	3	49	28	0	65	10	0	46	6	0	225	123	3	14

BIRMINGHAM (EDGBASTON).

January ..	4	0	0	5	1	0	1	1	0	2	0	0	4	1	0	3	1	0	1	1	0	6	0	0	26	5	0	0
February ..	0	0	0	1	1	0	3	3	0	10	0	0	4	2	0	1	0	0	1	0	0	1	0	0	21	6	0	1
March ..	1	0	0	4	0	0	4	0	0	3	0	0	3	0	0	3	0	0	2	0	0	7	1	0	27	1	0	3
April ..	1	2	0	3	3	0	2	0	0	2	0	0	3	0	0	3	0	0	4	0	0	5	2	0	23	7	0	0
May ..	1	0	0	4	2	0	3	1	0	4	0	0	5	3	0	2	1	0	2	1	0	2	0	0	23	8	0	0
June ..	2	0	0	2	1	0	1	0	0	2	0	0	4	0	0	5	1	0	4	1	0	3	3	0	23	6	0	1
July ..	4	0	0	1	0	0	1	0	0	1	1	0	4	1	0	6	1	0	3	0	0	6	0	0	26	3	0	2
August ..	0	0	0	0	0	0	0	0	0	2	0	0	6	2	0	9	0	0	6	2	0	4	0	0	27	4	0	0
September ..	2	1	0	1	0	0	2	0	0	3	0	0	4	1	0	4	0	0	5	1	0	5	1	0	26	4	0	0
October ..	0	1	0	1	0	0	0	0	0	0	0	0	6	1	0	10	2	0	3	2	0	4	1	0	24	7	0	0
November ..	0	0	0	0	0	0	0	1	0	4	0	0	7	3	0	8	1	0	1	2	0	3	0	0	23	7	0	0
December ..	0	0	0	0	0	0	1	0	0	1	1	0	4	4	0	5	6	0	4	3	0	2	0	0	17	14	0	0
Year ..	15	4	0	22	8	0	18	6	0	34	2	0	54	18	0	59	13	0	36	13	0	48	8	0	286	72	0	7

RICHMOND (KEW OBSERVATORY).

January ..	8	0	0	3	2	0	4	0	0	1	0	0	1	1	0	4	0	0	1	0	0	2	0	0	24	3	0	4
February ..	0	0	0	3	0	0	8	4	0	1	0	0	1	1	0	2	0	0	2	0	0	0	0	0	17	5	0	6
March ..	4	0	0	3	0	0	5	1	0	0	0	0	1	0	0	9	0	0	1	0	0	1	0	0	24	1	0	6
April ..	4	0	0	5	3	0	0	1	0	1	0	0	2	0	0	6	0	0	3	0	0	2	0	0	23	4	0	3
May ..	0	1	0	6	3	0	2	0	0	0	0	0	5	3	0	1	3	0	3	0	0	0	0	0	17	10	0	4
June ..	5	0	0	4	1	0	1	0	0	0	0	0	3	0	0	5	1	0	6	0	0	1	0	0	25	2	0	3
July ..	3	0	0	2	0	0	3	0	0	0	0	0	2	0	0	10	1	0	5	0	0	1	0	0	26	1	0	4
August ..	1	0	0	0	0	0	1	0	0	0	0	0	2	0	0	15	1	0	3	0	0	2	0	0	24	1	0	6
September ..	1	0	0	4	0	0	2	1	0	0	0	0	1	0	0	9	0	0	3	0	0	1	0	0	21	1	0	8
October ..	2	0	0	0	0	0	1	0	0	1	0	0	4	0	0	14	1	0	4	0	0	0	0	0	26	1	0	4
November ..	0	0	0	0	0	0	0	1	0	1	1	0	5	3	0	10	2	0	3	0	0	1	0	0	20	7	0	3
December ..	2	0	0	0	0	0	1	0	0	2	0	0	2	4	0	4	8	0	2	3	0	0	0	0	13	15	0	3
Year ..	30	1	0	30	9	0	28	8	0	7	1	0	29	12	0	89	17	0	36	3	0	11	0	0	260	51	0	54

TABLE XVII (continued).—"WIND ROSE" DATA for TELEGRAPHIC STATIONS.—Frequency of Winds of various strengths from different directions at 7h.

HOLYHEAD.

Months.		N.			NE.			E.			SE.			S.			SW.			W.			NW.			ALL DIRECTIONS.			CALMS.
		Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	
January	..	1	1	0	1	2	0	6	5	0	2	0	0	1	5	0	2	0	0	2	0	0	1	1	0	16	14	0	1
February	..	0	0	0	0	0	0	4	1	1	8	4	0	5	2	0	1	0	0	0	0	0	1	0	18	8	1	1	
March	..	1	0	0	1	0	0	3	1	0	7	0	0	1	4	0	0	2	0	1	0	0	2	1	0	16	8	0	7
April	..	4	4	0	2	4	0	0	4	0	1	0	0	1	3	0	1	3	0	0	0	0	1	2	0	10	20	0	0
May	..	1	0	0	0	1	0	2	4	0	2	0	0	2	5	0	3	2	0	2	1	0	2	1	0	14	14	0	3
June	..	3	0	0	1	0	0	0	2	0	2	0	0	0	4	0	2	4	0	2	3	0	3	3	0	13	16	0	1
July	..	5	1	0	0	0	0	0	0	0	4	0	0	9	3	0	1	1	0	2	0	0	3	0	0	24	5	0	2
August	..	0	3	0	0	0	0	0	0	0	3	0	0	4	1	0	3	4	0	3	2	0	2	6	0	15	16	0	0
September	..	2	0	0	1	1	0	0	0	0	3	0	0	6	2	0	3	2	0	1	3	1	2	0	0	18	8	1	3
October	..	0	3	0	1	0	0	0	0	0	1	0	0	0	2	0	3	8	0	2	6	0	0	5	0	7	24	0	0
November	..	0	0	0	0	0	0	1	1	0	2	2	0	3	3	0	3	7	0	1	1	0	0	6	0	10	20	0	0
December	..	0	0	0	1	0	0	0	0	0	1	1	0	0	5	0	1	9	0	2	7	2	1	1	0	6	23	2	0
Year	..	17	12	0	8	8	0	16	18	1	36	7	0	32	39	0	23	42	0	18	23	3	17	27	0	167	176	4	18

BLACKSOD POINT.

January ..	0	0	0	0	1	0	2	4	0	6	5	0	0	4	0	0	1	0	1	0	0	0	1	0	9	16	0	6
February ..	1	0	0	0	0	0	1	4	0	1	5	0	3	4	0	0	0	0	6	1	0	0	1	0	12	15	0	1
March ..	1	0	0	0	0	0	5	1	0	1	3	0	3	4	0	0	0	0	3	0	0	1	0	0	14	8	0	9
April ..	1	1	0	0	2	0	6	4	0	2	1	0	5	2	0	0	0	0	2	1	0	1	1	0	17	12	0	1
May ..	2	1	0	0	0	0	3	0	0	0	1	0	7	3	0	1	2	0	1	3	0	0	1	0	14	11	0	6
June ..	3	0	0	1	0	0	2	0	0	0	0	0	3	3	0	1	0	0	7	2	0	1	1	0	18	6	0	6
July ..	3	1	0	0	2	0	0	0	0	0	0	0	3	5	0	0	1	0	3	2	0	1	1	0	10	12	0	9
August ..	0	2	0	0	0	0	0	0	0	0	0	0	5	2	0	0	0	0	9	2	0	3	2	0	17	8	0	6
September ..	1	0	0	0	0	0	1	0	0	0	0	0	6	7	0	0	1	0	5	5	0	1	0	0	14	13	0	3
October ..	1	4	0	0	0	0	0	0	0	1	0	0	3	2	0	0	1	0	9	9	0	0	1	0	14	17	0	0
November ..	1	0	0	0	0	0	1	0	0	1	1	0	2	8	0	0	0	0	4	8	0	0	2	0	9	19	0	2
December ..	0	0	0	0	0	0	0	0	0	0	1	0	2	5	1	0	1	0	6	11	0	0	2	0	8	20	1	2
Year ..	14	9	0	1	5	0	21	13	0	12	17	0	42	49	1	2	7	0	56	44	0	8	13	0	156	157	1	51

MALIN HEAD.

January ..	0	4	0	1	3	0	0	1	0	5	0	0	10	5	0	1	0	0	0	0	0	1	0	0	18	13	0	0
February ..	0	0	0	0	0	0	0	2	0	0	12	0	5	6	0	1	0	0	1	0	0	1	0	0	8	20	0	0
March ..	1	0	0	1	0	0	2	0	0	2	2	0	13	3	0	3	1	0	2	0	0	0	1	0	24	7	0	0
April ..	2	5	0	1	2	0	1	3	0	0	3	0	3	1	0	0	1	0	1	1	0	4	2	0	12	18	0	0
May ..	1	0	0	1	0	0	2	1	0	2	3	0	3	3	0	5	2	0	2	2	0	2	2	0	18	13	0	0
June ..	3	4	0	1	0	0	2	0	0	0	0	0	6	1	0	1	3	0	0	5	0	0	4	0	13	17	0	0
July ..	3	1	0	1	0	0	3	0	0	2	1	0	6	3	0	3	1	0	0	3	0	1	3	0	19	12	0	0
August ..	2	4	0	0	0	0	1	1	0	0	0	0	5	1	0	1	4	0	3	5	0	1	2	0	13	17	0	1
September ..	1	1	0	0	0	0	0	0	0	1	0	0	5	6	0	6	1	0	2	4	0	1	2	0	16	14	0	0
October ..	2	5	0	0	0	0	0	0	0	0	0	0	2	3	0	0	5	0	1	6	1	2	4	0	7	23	1	0
November ..	0	0	0	0	2	0	1	0	0	2	0	0	6	9	0	1	2	0	1	3	0	0	3	0	11	19	0	0
December ..	0	0	0	0	0	0	0	0	0	1	2	0	1	10	0	1	3	0	2	7	1	0	3	0	5	25	1	0
Year ..	15	24	0	6	7	0	12	8	0	15	23	0	65	51	0	23	23	0	15	36	2	13	26	0	164	198	2	1

TABLE XVII (continued).—"WIND ROSE" DATA for TELEGRAPHIC STATIONS.—Frequency of Winds of various strengths from different directions at 7h.

CAHIRCIVEEN (VALENTIA OBS.).

Months.	N.			NE.			E.			SE.			S.			SW.			W.			NW.			ALL DIRECTIONS.			CALMS.
	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	Light.	Strong.	Gale.	
January ..	1	0	0	6	0	0	8	2	0	1	3	0	2	4	0	1	0	0	0	0	0	0	0	0	19	9	0	3
February ..	3	1	0	1	0	0	2	3	0	1	4	0	3	4	0	2	0	0	1	1	0	1	1	0	14	14	0	0
March ..	1	0	0	2	0	0	6	1	0	6	4	0	2	3	0	2	0	0	2	0	0	0	0	0	21	8	0	2
April ..	3	1	0	5	2	0	3	3	0	1	1	0	3	1	0	2	0	0	1	1	0	0	0	0	18	9	0	3
May ..	2	0	0	3	0	0	6	0	0	4	1	0	3	2	0	2	2	0	1	2	0	1	0	0	22	7	0	2
June ..	4	0	0	2	0	0	2	0	0	0	1	0	4	5	0	1	0	0	5	1	0	3	0	0	21	7	0	2
July ..	3	1	0	3	1	0	1	1	0	2	0	0	1	7	0	1	1	0	0	2	0	0	2	0	11	15	0	5
August ..	1	0	0	2	0	0	0	0	0	3	1	0	0	4	0	5	2	0	5	0	0	4	2	0	20	9	0	2
September ..	1	0	0	2	0	0	1	1	0	4	0	0	7	0	0	1	1	0	3	3	0	1	2	0	20	7	0	3
October ..	1	3	0	1	0	0	1	0	0	2	0	0	3	2	0	0	6	0	2	3	0	2	5	0	12	19	0	0
November ..	0	1	0	1	0	0	1	0	0	2	3	0	5	3	0	1	3	1	2	4	0	0	3	0	12	17	1	0
December ..	1	0	0	1	0	0	0	0	0	3	0	0	3	6	0	2	4	2	3	4	1	0	1	0	13	15	3	0
Year ..	21	7	0	29	3	0	31	11	0	29	18	0	36	41	0	20	19	3	25	21	1	12	16	0	203	136	4	22

SCILLY.

January ..	2	3	0	1	7	0	1	2	0	3	2	0	0	3	0	0	2	0	2	2	0	0	0	0	9	21	0	1
February ..	1	1	0	0	1	0	2	2	1	1	6	1	1	3	0	2	2	0	0	2	0	1	1	0	8	18	2	0
March ..	0	1	0	1	0	0	5	4	0	4	8	0	0	2	0	2	2	0	0	0	0	1	0	0	13	17	0	1
April ..	3	4	0	2	3	0	1	2	0	2	3	0	2	0	0	3	0	0	0	1	0	2	1	0	15	14	0	1
May ..	1	0	0	4	0	0	1	3	0	0	1	0	0	2	0	1	5	0	2	1	0	3	2	1	12	14	1	4
June ..	1	1	0	3	2	0	1	1	0	0	1	0	0	1	0	2	3	0	1	6	0	2	3	0	10	18	0	2
July ..	1	1	0	2	2	0	2	2	0	0	0	0	2	1	0	3	4	0	0	4	0	2	4	0	12	18	0	1
August ..	2	1	0	1	0	0	0	0	0	2	1	0	1	1	0	0	4	0	1	7	0	6	4	0	13	18	0	0
September ..	1	2	0	1	4	0	5	2	0	2	2	0	0	1	0	1	3	0	2	1	0	2	1	0	14	16	0	0
October ..	1	4	0	1	0	1	0	1	0	0	0	0	1	0	0	2	2	1	3	3	0	3	7	1	11	17	3	0
November ..	1	4	0	0	0	0	1	0	0	0	0	0	2	2	0	4	5	0	1	5	0	0	3	0	9	19	0	2
December ..	1	0	0	0	0	0	1	0	0	2	0	0	0	2	0	0	5	1	0	8	4	0	6	1	4	21	6	0
Year ..	15	22	0	16	19	1	20	19	1	16	24	1	9	18	0	20	37	2	12	40	4	22	32	3	130	211	12	12

GUERNSEY (WIRELESS STATION).

January ..	3	2	0	3	5	0	0	3	0	3	1	0	3	3	0	3	0	0	1	0	0	1	0	0	17	14	0	0
February ..	0	0	0	0	1	0	4	3	0	2	5	0	3	5	0	2	0	0	0	1	0	1	1	0	12	16	0	0
March ..	2	0	0	4	1	0	5	5	0	3	1	0	2	0	0	0	1	0	3	0	0	1	1	0	20	9	0	2
April ..	3	1	0	2	5	0	0	2	0	2	1	0	3	0	0	1	0	0	3	2	0	4	1	0	18	12	0	0
May ..	2	0	0	4	1	0	4	2	0	0	0	0	2	1	0	5	3	0	3	1	0	2	1	0	22	9	0	0
June ..	1	0	0	7	0	0	0	1	0	1	0	0	1	1	0	2	3	0	7	0	0	5	0	0	24	5	0	1
July ..	2	0	0	4	0	0	1	0	0	0	0	0	2	0	0	4	1	0	6	2	0	2	0	0	21	3	0	7
August ..	2	0	0	1	0	0	1	0	0	1	0	0	0	0	0	8	0	0	11	2	0	5	0	0	29	2	0	0
September ..	2	0	0	3	1	0	2	0	0	3	0	0	1	0	0	3	0	0	3	0	0	4	0	0	21	1	0	8
October ..	1	0	0	1	0	0	0	1	0	2	0	0	2	0	0	6	1	0	6	3	0	4	2	0	22	7	0	2
November ..	1	0	0	1	0	0	0	0	0	1	0	0	2	4	0	6	1	0	3	3	0	2	1	0	16	9	0	5
December ..	0	0	0	0	0	0	1	0	0	1	0	0	1	5	0	4	4	0	3	5	1	2	1	0	12	15	1	3
Year ..	19	3	0	30	14	0	18	17	0	19	8	0	22	19	0	44	14	0	49	19	1	33	8	0	234	102	1	28