

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

AUGUST 1899.

(Issued as a Supplement to the Weekly Weather Report, 1899.)

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PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & Co., 12, HANOVER ST., EDINBURGH, and 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS, & Co., LIMITED, 104, GRAFTON STREET, DUBLIN.

General Summary.—Until the closing week the weather of August was mostly fine, warm and dry, the only important exceptions occurring between the 3rd and 7th, and on the 15th, when sharp thunderstorms occurred, with heavy falls of rain locally. After the 24th the conditions became for a time far less settled, frequent rain occurring in most districts, with occasional thunderstorms; in the south-east of England, however, the showers were of little weight. Pressure and temperature were considerably above the average; the winds were rather variable, but mostly from the Eastward in the south; rainfall was very deficient, especially in the north and east; bright sunshine was largely in excess of the average. Proof of the abnormal character of the weather in the south-east of England is afforded by the fact that in London the values for each of the following elements constituted a record for the month of August, viz., mean pressure, mean temperature, and also mean maximum and mean minimum temperature, total rainfall and number of rainy days, and bright sunshine. The records with which the comparison was made extend back in the case of pressure and temperature to 1871, total rainfall to 1866, number of rainy days to 1871, and bright sunshine to 1881.

Pressure.—*Mean at 8 a.m.* ranged from 30·10 ins. and upwards over the greater part of England and the Channel (excluding the extreme northern and south-western counties) to 30·05 ins. and less in the west of Ireland, the extreme north-west of Scotland and the Shetlands. The general distribution over our islands was quite abnormal, being of a strongly marked anticyclonic type, and the mean values were considerably above the average* especially in the north of Scotland, where the excess amounted to more than a quarter of an inch. *Highest* readings occurred over England on the 1st, when the barometer rose to 30·4 ins. and upwards, over nearly the whole country. In Scotland the highest values (30·3 ins. and upwards) were recorded on the 11th, while in Ireland similarly high readings occurred at various times in the month, chiefly on the 1st or 22nd. *Lowest* readings were registered mostly on the 27th and 30th, when the barometer fell below 29·6 ins. in many parts of Scotland and the north of Ireland and below 29·8 ins. on all but our extreme southern coasts. In the north of Scotland somewhat lower readings (29·4 ins. to 29·5 ins.) were recorded on the 16th. *Range* was moderate.

Depressions.—The depressions observed in our immediate neighbourhood were few in number and of little importance, the chief disturbances being those of the 16th and 17th and of the 30th and 31st. The former—a small but deep disturbance—skirted our extreme northern coasts and afterwards passed across the south of Scandinavia; the latter advanced north-eastwards directly across Scotland, and moved on to the south of Norway, where it dispersed very early in September.

Anticyclones.—A large anticyclone which had spread over Europe from the Atlantic at the close of July gradually broke up after the 2nd, a remnant of the main area moving off to the northward of our islands. In this position it remained almost stationary until the 7th, when it again increased in intensity and spread southward over nearly the whole of Europe, the system drifting away towards the eastward after the 14th. A second anticyclone advanced from the Atlantic on the 16th, and also extended over our islands and nearly the whole of the Continent, the system moving away to the eastward on the 23rd and finally settling down over Southern Europe.

Winds varied a good deal in direction, but at our western and southern stations the current most strongly represented was that from the Eastward (North-east to South-east). Over England and Ireland there was an almost complete absence of high winds, but in Scotland a strong gale from West and North-west was experienced during the passage of the depression of the 16th and 17th.

Temperature.—*Mean at sea level* ranged from 68° and upwards over inland parts of the south of England, to 58° and less on the north-east coast of Scotland, and to 54° and less in the Shetlands. The general distribution over our islands agreed fairly with the normal, but the mean values were considerably above the average*, the excess amounting to between 5° and 6° in many parts of England and Ireland, and to more than 7° at Lairg and Clifton. *Highest* readings occurred in Ireland and the north-eastern parts of Great Britain on the 1st, but in other localities mostly on the 24th or 25th; in Ireland and Scotland the thermometer did not rise much above 80°, but at most of the English stations it exceeded 85°, and in London and at Cambridge and Llandoverly it reached 90°. *Lowest* readings occurred as a rule between the 9th and 11th, when the thermometer fell to 45° and less over the northern and central parts of the kingdom as a whole, to 35° at Braemar and to 33° at Wick. *Range* was rather large for the time of year—between 40° and 45° at most of the inland stations, and as many as 46° at Bawtry and 47° at Wick. *Vapour Tension* ranged from 0·54 in. at Scilly and 0·52 in. and upwards at the English Channel stations generally to 0·44 in. and less over central England, and to 0·40 in. and less on the north-east coasts of Scotland. *Relative Humidity* varied from 91 per cent. at Shields, and 90 per cent. at Stornoway and Pembroke to 76 per cent. at Liverpool and Jersey.

Rainfall was in excess of the average* at some stations in central and southern Ireland, but very deficient elsewhere, and especially over the more northern and eastern parts of Great Britain, where the total amount was in many cases less than one-fourth of the normal. The largest aggregates reported were 5·4 ins. at Valencia, 4·3 ins. at Parsonstown and 3·8 ins. at Dublin and Belmullet; the smallest being 0·1 in. at Spurn Head, 0·3 in. in London and 0·4 in. at Felixstowe and Jersey. The number of rainy days was generally small; in London there were only 5 such occasions, and at Spurn Head and Cranley only 4. In some places heavy falls were experienced locally during thunderstorms, the largest daily amounts reported being 2·2 ins. at Dublin on the 5th and at Valencia on the 24th, 1·7 in. at Parsonstown on the 7th, and 1·5 in. at Hillington on the 15th.

Bright Sunshine was greatly in excess of the average* in nearly all districts. The percentage of the possible duration exceeded 65 on many parts of our south and south-west coasts, and amounted to as much as 72 at Brighton and Jersey and 74 at Guernsey. The lowest values reported were 24 per cent. at Deerness, 28 per cent. at Newcastle-on-Tyne and 31 per cent. at Glasgow.

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