

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

(Supplement to Weekly Weather Report.)

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

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE.

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THIRTY-NINTH YEAR.
Vol. XXXI. (New Series)

No. VIII.

AUGUST, 1914.

[Price 6d.]

WARM, DRY AND SUNNY.

The **general character of the Weather**, after being rainy and cool for the first 8 or 9 days, was **warm and mostly dry**, with a good percentage of bright sunshine. Considered generally the conditions were very favourable for harvest operations after the first week.

The **pressure distribution** over the British Isles and their immediate neighbourhood was **marked by alternate cyclonic and anti-cyclonic periods**. Until the 9th it was continuously cyclonic, but an anticyclonic system then became gradually established over the entire Kingdom and continued the dominant feature, except for a time in the south-west, until the 20th. From the **21st onward to the 28th** the conditions were cyclonic, but an anticyclone which then came on from the south-westward became the chief factor until the end of the month and far into September. The **mean level** of the barometer for the month, as will be seen from map I, page 87, was **slightly in excess of the average**, and the mean gradient more favourable than usual for **winds from the Southward and South-Westward**. Although depressions were fairly numerous for the time of year the centres of only two passed directly over the United Kingdom. Both the highest and lowest readings occurred in the northern districts, the former value (1,030 millibars) being generally recorded on the 31st, and the latter (between 990 and 997 millibars) on the 2nd or 3rd.

During the **first cyclonic period** the chief depression, marked A on the map on page 87, arrived from the Atlantic, and was centred over Aberdeenshire on the evening of the 2nd. Its subsequent course until it finally moved away northward on the 4th, was very erratic. The main system and a secondary that passed across England on the 5th, brought a considerable quantity of rain over the Kingdom generally. Falls exceeding an inch in twenty-four hours were recorded at many stations, the heaviest being 1.6 in. at Shrewsbury on the 1st, 1.2 in. at Manchester on the 2nd, and 1.3 in. at Creech Grange, Dorset, on the 3rd. Further depressions encroaching on these Islands as their centres moved north-eastward on the Atlantic caused the wind to continue Southerly and South-Westerly, with rain almost daily. On the 5th 0.9 in. fell at Kew Observatory, 1.4 in. at Surbiton, and 1.5 in. at Goring, and on the 7th 1.0 in. at Valencia. On the 8th large quantities were again general, 1.4 in. at Lancaster, and 1.5 in. at Aspatria and Eskdalemuir, and 4.7 in. at Seathwaite. At Pen-y-Gwryd, Carnarvonshire, there was the exceptional fall of 6.4 in. Between the 1st and the 6th isolated thunderstorms occurred over a considerable area, but were not of great severity.

The **barometric gradient** accompanying these disturbances was seldom steep enough to allow the wind to blow with greater force than a strong breeze, but on the 2nd the velocity of 20 m/s was attained in gusts at Gorleston and Dover, on the 3rd 18 m/s at Eskdalemuir, and on the 8th 20 m/s at Holyhead, and 22 m/s at Pendennis. The rate of 22 m/s was recorded at Pendennis on the 9th also.

The **superseding anticyclonic system** came up from the southward on the 9th and 10th but did not advance sufficiently far to prevent rain in the outlying districts of the north and north-west until later. A **temporary reversion** to a cyclonic type over the southern and western districts was caused on the 14th and 15th by the arrival of another depression from the westward, marked D on the map. This disturbance brought **thunderstorms** very generally to Ireland and numerous stations in the west and south-west of England. At Teignmouth the thunder and lightning continued for 12 hours from 6 p.m. on the 14th. The eastern and northern districts were beyond the direct influence of the depression, and the weather remained dry. At several places in the west and south-west, and locally in the south-west of Scotland, the rain was heavy. At Seskin (Carrick-on-Suir), Darleith (Dumbarton), and Carrigallen the measurement was 1.6 in., at Waterford 1.5 in., and at Castleforbes 1.4 in., and at Pakenham Hall, Westmeath, there was 3.2 in. At Guernsey the downpour of rain and hail was abnormally heavy. The total amount was 1.78 in., of which as much as **1.5 in. fell in 15 minutes**. On the disturbance passing away over France the anticyclone in the north extended to all parts of this country and remained the controlling influence until the 20th, when **depressions again** arrived from the Atlantic bringing Southerly and South-Westerly winds and rain. On the 21st thunderstorms occurred in practically all parts of the Kingdom, but the accompanying rain was not, as a rule, heavy. Falls of 0.5 in.

were uncommon, but locally at Skegness the gauge yielded an inch. The centre of the main depression, marked F on the map, moved from the south-west of France to the south-east of England, but brought little rain in its vicinity. Between the 23rd and 25th, however, under the influence of large depressions on the Atlantic, heavy falls were experienced in Ireland, Wales, and all the western and north-western districts of England. Several places measured more than an inch; at Sheepstor and Princetown the value was 1.5 in., at Pen-y-Gwryd 1.7 in., Intake 1.9 in., at Copper Mill 2.2 in., and at Filey and Lowthorpe the respective figures were 1.8 in. and 1.6 in. About this time thunderstorms, generally of slight or moderate intensity, occurred in various English districts.

Towards the **end of the month** the pressure distribution became mainly **anticyclonic**, but owing to the prevalence of local irregularities rain was still reported in various districts; over the southern half of Ireland there was a considerable quantity—nearly an inch at Dublin and 1.1 in. at Valencia on the 29th.

Temperature.—During the cloudy and rainy weather of the first 8 days, the temperature was below the average, the afternoon maximum readings seldom being as high as 70° even in the south-east and south of England. With the change to anticyclonic conditions, however, the heat increased appreciably, and during the remainder of the month, whether the pressure distribution was anticyclonic or the reverse, the thermometer was almost continuously **higher than the normal level**. There were, nevertheless, very few excessively hot days; maximum readings above 80° were rare. The absolute maxima for the month were reached during the prevalence of a gentle South to South-East wind and a nearly cloudless sky on the 13th or 14th. At Brighton the value was 86°. At a few other stations in the southern and at some in the midland counties of England the thermometer reached 83°, but at some places on the coast of North Wales and in isolated parts of Scotland it touched 85°, and at Holyhead rose to 86°. The 80° mark was reached or passed at some stations during the last fortnight. The range of temperature was not generally large, but a rather striking instance of a low minimum following a high maximum occurred at Balmoral. The maximum on the 16th was as high as 82°, and the minimum on the 17th as low as 34°.

The **temperature of the sea surface** water differed little from that of the preceding month, but was at times some degrees lower than the temperature of the air. **Coastal fog** was experienced in the north-east during the earlier days of the month, and on various parts of the west and south-west coasts from the 8th to the 20th. From that date onward it was again **rather common** on the north-east and east coasts, as well as in the west, while late in the month it extended to the south coast also.

Rainfall.—With the exception of a few stations in Scotland, South Wales and Devonshire, and many in Ireland the **aggregate fall was less than the normal**, the deficit being very large over a wide area in the south-east of England and considerable in most other regions. At Margate the total was no more than 0.25 in., and the percentage of the average only 12. Shoeburyness was also extremely dry, with a percentage of the average as low as 18. In Scotland the percentage of the average varied greatly from 50 at Braemar to 133 at Poltalloch. In the wettest parts of Ireland the percentage was 132 at Foynes, 137 at Waterford, and 138 at Kilkenny. High figures were also recorded at **St. Ann's Head**, where the percentage was 137, at **Arlington in Devonshire** with a percentage of 123, and at **Wilton** near Salisbury with 139 per cent. of the average. Over extensive tracts in England and Wales, including Snowdonia, there was **no rain from the 10th to the 20th inclusive**, and at several stations the **dry spell** continued for **12 or 13 days**, while at Tankerton there was absolute drought from the 9th till the 23rd, and at Chelmsford from the **9th till the 24th**.

The **duration of Bright Sunshine** exceeded the normal number of hours except here and there in the south-eastern quarter of England. The greatest excess over the normal occurred in the north-western districts. At Stornoway the percentage of the average was 137, at Fort Augustus 144, and at Newton Rigg and Blackpool 140. At Rothamsted the corresponding value was only 91, and at Kew and Greenwich 92.