

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE

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

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JULY, 1938.—Cool and dull; Wet on the whole except in the south-east.

Broadly speaking the month was cool, dull and wet; over large areas in the eastern half of England, however, less than the average rainfall occurred. Thunderstorms were experienced frequently and some heavy falls of rain in 24 hours were reported, notably in the west and north. Fog was fairly prevalent on the south-west coasts.

During the first eight days cool, unsettled weather prevailed and thunderstorms were reported from some part of the country on each day. On the 1st a trough of low pressure moved eastward over the British Isles and from the 3rd–5th a depression moved on a south-easterly track from the south of Iceland to England. A new depression developed off south-west Ireland on the 6th and moved across England to the North Sea by the morning of the 9th; heavy rain occurred locally on the 6th, 7th and 8th and gales were reported in places between the 7th and 9th. Thereafter pressure was relatively high to the south and south-west of the British Isles, while depressions moved eastward across Scotland; rain occurred at times but falls were slight in some parts, particularly in south-east England. Between the 13th and 16th a trough of low pressure passed slowly east over the British Isles; moderately heavy rain fell locally at times.

Subsequently the anticyclone off our south-west coasts spread north-east and anticyclonic conditions prevailed for the most part over England from the 19th–23rd and in Scotland from the 21st–23rd.

Unsettled weather was renewed in the west and north on the 24th and more generally on the 25th by the eastward movement of a trough of low pressure from the west of Ireland; local thunderstorms were reported from the 24th–26th. On the 27th and 28th a depression moved north-east across the British Isles and on the 29th and 30th another Atlantic depression moved north-east along the north-west seaboard; local gales occurred at times from the 27th–30th and heavy rain was experienced in the west and north, especially on the 29th. On the 31st a belt of high pressure spread northward over the southern districts of the British Isles. There was a considerable rise of temperature during the last two days, particularly in east and south-east England where 85°F. was registered locally on the 31st.

Pressure and Wind.—Mean pressure was slightly below the average generally, the deficiency at 7 h. ranging from 0.6 mb. at the Scilly Isles to 3.6 mb. at Aberdeen. Over England and Wales and southern Ireland, the mean pressure gradient was greater than the average. Strong winds and gales were widespread on the 8th and 9th; gales were reported locally also on the 7th, 14th and from the 27th–30th. Among the highest speeds registered in gusts were 76 m.p.h. at Calshot on the 7th, 63 m.p.h. at Lympne on the 8th and at Bidston Observatory on the 9th and 62 m.p.h. at Holyhead on the 27th.

Temperature.—Mean temperature was below the average in all districts, the deficiency being greatest in the west. The deviation from the average for the districts ranged from –0.4°F. in Scotland, E. to –2.4°F. in Ireland S. In particular the first half of the month was cool, the mean temperature for the week ending on the 9th being as much as 4°F. below the average in Ireland. It was

warm at times between the 18th and 25th and again on the 30th and 31st.

The extremes for the month were:—(England and Wales) 85°F. at Tunbridge Wells on the 31st, 35°F. at Thetford on the 1st and at Castleton on the 5th; (Scotland) 75°F. at Forres and Banff on the 22nd and 35°F. at Balmoral and Braemar on the 1st and at Eskdalemuir on the 5th; (Ireland) 75°F. at Armagh on the 19th and at Cork on the 18th and 19th, 40°F. at Markree Castle on the 7th.

Precipitation.—The general precipitation of the British Isles expressed as a percentage of the average for the period 1881–1915 was 132, the values for the constituent countries being England and Wales 115, Scotland 143 and Ireland 163. In Scotland and Ireland the excessive rainfall was almost general but over large areas in the eastern half of England there was a deficiency. Less than 50 per cent. of the average was received at a few places in east and south-east England. More than twice the average occurred at a few scattered stations in Scotland, Ireland and the English Lake district. In parts of the south of England and the eastern Midlands July was the sixth successive month with less than the average rainfall. Large daily falls were measured in some parts, notably between the 6th and 8th and on the 27th, 29th and 30th. Among the largest were:—

- 7th 3.31 in. at Newcastle, 3.14 in. at Greystones, 3.02 in. at Roundwood (all in County Wicklow) and 2.83 in. at Glenasmole Reservoir (County Dublin).
- 29th 5.95 in. at Watendlath Farm and 5.60 in. at Borrowdale (Cumberland), 5.05 in. at Dungeon Ghyll (Westmorland), 4.02 in. at Ambleside and 4.37 in. at Garinish Island (County Cork).

Local thunderstorms occurred frequently, chiefly from the 1st–8th, 16th and 23rd–28th. Some of the storms were accompanied by heavy hail; for example in north Lincolnshire on the 1st and at Bishop's Waltham (near Winchester) and Eastbourne on the 7th.

In Scotland, snow was reported on the 5th at Kirkmichael and sleet in the Edinburgh district on the 6th.

Sunshine.—A marked feature of the weather of the month was the deficiency of sunshine, the percentage of the average for the districts ranging from 64 in England, S.W. to 94 in Scotland, W. The deficiency was general except at Kirkwall, Orkney, and a number of stations in the west of Scotland, where an excess was registered. The percentage of the average was only 52 at Phoenix Park, Dublin, 58 at Lancaster and Gulval (Cornwall), 62 at St. Ann's Head and 63 at Cullompton and Coventry.

Fog.—Local fog occurred at times. It was reported fairly frequently on the south-west coasts, particularly from the 10th–14th, 18th–20th, 25th and 30th–31st.

Miscellaneous Phenomena.—Solar haloes were noted at Oxford on ten days.