

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE

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

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JULY, 1936.—Dull and very wet, with frequent thunderstorms.

Unsettled conditions prevailed throughout the month; the excessive rainfall was almost universal and at a number of stations in England and Ireland it was the wettest July on record. Sunshine was generally deficient except at a few places in Scotland.

During the opening days of the month a shallow depression, centred initially off the north of Ireland, moved slowly south-east and filled up. Rain fell at times and was heavy locally on the 1st and 2nd. A small anticyclone moving north-east from Spain to France caused a temporary improvement in the weather on the 5th, particularly in England and south-east Scotland but heavy rain was again reported in south-west England on the night of the 5th-6th. Thereafter until the 22nd depressions moved across the country mainly in some easterly direction. Rain fell frequently during this period and was unusually heavy at times, while thunderstorms occurred locally on most days. The deep depression which developed off our south-west coasts on the 17th deserves special comment. It moved slowly north-east and caused widespread gales in southern England on the 18th. On the 22nd a feeble ridge of high pressure moved eastward over the British Isles but a new, intense depression approaching the west of Ireland caused rain on the night of the 22nd-23rd. The latter system moved slowly north-east and then north and caused heavy local rain and gales in places between the 23rd and 25th. Another depression approached west Ireland on the 27th, moved south-east to the mouth of the English Channel and subsequently north-east to Belgium. Thunderstorms were widespread on the 28th and occurred locally on the 29th. Pressure was high off our south-west coasts on the 29th and 30th, but a depression centred near Iceland on the 30th moving east-south-east caused further rain on the 30th and 31st, though the 30th was a fair day over most of southern England.

Pressure and Wind.—Mean pressure was substantially below the average generally, the deficiency at 7 h. varying from 5.4 mb. at St. Mary's, Scilly to 8.2 mb. at Wick.

The prevailing winds were from between south-west and north-west. Gales were reported locally between the 23rd and 25th and a notable gale occurred in southern England around the 18th (see *Meteorological Magazine*, vol. 71, pp. 155-157). Among the highest speeds registered in gusts were 64 m.p.h. at Holyhead on the 17th, 63 m.p.h. at Larkhill and 62 m.p.h. at Pendennis Castle on the 18th and 60 m.p.h. at Valentia Observatory on the 23rd.

Temperature.—Mean temperature appreciably exceeded the average in north and east Scotland and was in general, below the average in southern districts of England and Wales and the Midlands. (See Table I.) In Ireland, mean temperature was on the whole, rather low, though it exceeded the average at a few stations in the north. At numerous stations in southern England, south Wales and the Midlands, the mean was 2°F. or more below the average, the deficiency being mainly due to persistently cool days. The absence of really warm days was a striking feature of the weather of the month. For example, at Kew Observatory, maxima of 71°F. or above were recorded on six days only, while the extreme for the month was as low as 76°F. At Hampstead it was the coolest July since 1922. The warmest period was on the whole the first seven or eight days but there was a brief warm spell in England around the 17th and in east Scotland the 31st was a warm day. The lowest temperatures were registered generally on the 22nd or 27th.

The extremes for the month were:—(England and Wales) 80°F. at Tunbridge Wells on the 17th, 33°F. at Rickmansworth on the 27th; (Scotland) 76°F. at Forres on the 2nd, 34°F. at Dalwhinnie on the 27th; (Ireland) 74°F. at Glasnevin and Trinity College, Dublin, on the 4th and at Rathfarnham on the 1st and 41°F. at Markree Castle on the 8th, at Birr Castle on the 22nd and at Waterford on the 27th.

Precipitation.—The general precipitation of the British Isles expressed as a percentage of the average for the period 1881-1915 was 182; the values for the constituent countries being England and Wales 191, Scotland 150 and Ireland 197. It was only at Marchmont, Berwickshire, at Tiree, Argyllshire, over a small area in Inverness-shire and at a few isolated stations in northern England that less than the average rainfall was received. Over large areas in England and Wales and in Ireland more than twice the average occurred, while more than three times the average fell in parts of Devonshire and locally in Northamptonshire. At a number of places in England it was the wettest July since 1888, at some others the wettest July on record, while the totals at Woburn and Wellingborough were the highest for any month since observations were first taken in 1883 and 1861 respectively. At Phoenix Park, Dublin, it was the highest July total since before 1865. The month was not only excessively wet but the rainfall was exceptionally frequent; at Valentia, Bristol and Collumpton measurable rain fell on each day of the month and at several other places on 30 days.

Heavy local falls of rain in short periods of time were another feature of the rainfall and among heavy falls in 24 hours or less were:—

- 1st. 64 mm. at Hartland, N. Devon.
- 7th. 78 mm. at Northwood, Middlesex, nearly all of which fell in about 30 minutes.
- 10th. 57 mm. at Eastbourne between 6.50 a.m. and 8.10 a.m. G.M.T.
- 17th. 87 mm. at Forrest Lodge, Kirkcudbrightshire and 74 mm. at Auchnafree, Perthshire (nearly all of which fell in under an hour).
- 23rd. 65 mm. at Fofanny, Down and 61 mm. at Benmore, Mull.

Thunderstorms were unusually frequent; they were reported on 10 days at Wakefield, 9 days at Attenborough and Worksop and 8 days at Cromer and Woburn.

Sunshine.—Sunshine was markedly deficient; it was only at a few stations in Scotland (chiefly in the north) that more than the average was registered. The percentage of the average for the districts varied from 64 in England, S.W. and S. Wales to 101 in Scotland, N. (see Table I). A daily mean of more than 6 hours was recorded only in east Kent, at Sandown, Isle of Wight, at the Scilly Isles and at Jersey, while less than 3 hours a day was registered at some stations in central Ireland, central Wales and north-west England.

Fog.—Local fog occurred at times, mainly from the 1st-8th, on the 12th and 15th, from 17th-19th, 22nd-23rd and 29th-31st.

Miscellaneous Phenomena.—Solar halos were noted at Oxford on 8 days. A small whirlwind swept from Seaton up the Axe valley in the early morning of the 28th. Waterspouts were observed in the English Channel off Newhaven on the 10th.