

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE

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

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JULY, 1944.—Exceptionally dull

The month was distinguished by an exceptional deficiency of sunshine; the amount of cloud was also exceptional. Temperature slightly exceeded the average and the rainfall distribution was variable, a feature of the rainfall map being a substantial deficiency in the north of Scotland.

During the opening days a depression over Ireland moved slowly north-north-east and ultimately north-west. Unsettled, rainy weather prevailed: rainfall was heavy at times, notably on the 2nd and, in the eastern half of England, on the 3rd. From the 6th-8th a new depression off south-west Ireland moved north-north-east and filled up; weather was warm, with rain or showers and local thunderstorms, but good sunshine records on the whole. On the 9th and 10th a rather deep depression moved east over Scotland and then north-east to Scandinavia. Rain fell on the 9th and showers and local thunderstorms on the 10th. On the 13th and 14th a depression south-west of Iceland moved east, while associated troughs crossed the British Isles: rain occurred in most places.

Subsequently an anticyclone over France moved north-north-east, while an Atlantic depression approached from the west. Temperature rose over the British Isles reaching its peak on the 17th and fair weather prevailed over much of the country, but there was some rain in the west and south-west. Thereafter high pressure became established in the Iceland region, while a depression west of Ireland moved slowly south-east and then turned east; rain occurred in the south-west on the 20th and heavy rain in southern England on the 21st. On the 22nd a ridge of high pressure moved in eastward over the British Isles and practically no rain occurred from the 22nd-24th, except in west and south Ireland on the 24th. In Scotland the period 16th-24th was very dry.

Unsettled conditions were re-established on the 25th, when a depression centred west-south-west of Ireland moved slowly east-north-east across the British Isles; rain occurred on the 25th and warm weather, with thunderstorms or thundery rains prevailed on the 26th and 27th. On the 28th a new depression was situated west of Ireland and subsequently moved east across England; it was associated with rain and local thunderstorms but practically no rain was reported in the north of Scotland.

Mainly fair weather, apart from local showers, prevailed during the closing days with the eastward passage of a ridge of high pressure over these Islands, though rain was again reported in Ireland on the 31st.

Pressure and Wind.—Mean pressure was below the average except in the Shetland Isles, the deviation at 7h. ranging from +0.3 mb. at Sumburgh, Shetlands to -3.9 mb. at Scilly. Over most of the country the pressure distribution was very uniform and the month was less windy than usual in most areas except the south of England. In Scotland it was the first month with an entire absence of gales since August 1939. A gale was reported locally in the south-west on the 10th. Among the highest speeds registered in gusts were 52 m.p.h. at Plymouth on the 7th and 59 m.p.h. at St. Ann's Head on the 10th.

Temperature.—Mean temperature exceeded the average, the excess ranging from 0.4°F. in Scotland, E. and England N.E. to 1.3°F. in Scotland, N. and W. The excess resulted mainly from relatively high night temperatures. Among the warmest days were the 6th, 17th, 26th, 27th and 31st.

The extremes for the month were:—(England and Wales) 84°F. at Cromer on the 26th, 39°F. at Milford on the 25th; (Scotland) 79°F. at Glasgow and Kilmarnock on the 17th, 39°F. at Baltasound on the 24th; Eskdalemuir on the 6th and Kettins on the 21st; (Northern Ireland) 77°F. at Castlerock on the 17th, 47°F. at Lisburn and Ballyhalbert on the 15th and at Hillsborough on the 20th.

Precipitation.—The general precipitation expressed as a percentage of the average for the period 1881-1915 was 97 over England and Wales, 79 over Scotland and 116 over Northern Ireland. In Scotland more than the average occurred over a belt extending from the Solway Firth northward to the Clyde area and Perthshire and in the neighbourhood of the Firth of Forth and locally round the Firth of Tay. Less than 50 per cent. of the average was received over most of the country north and west of the Great Glen. In England and Wales more than the average occurred in fairly large, rather scattered, areas including an area over north Wales, another extending from Westmorland to Tynemouth, a coastal belt stretching from about Falmouth to West Sussex and skirting the south-east coast, in the neighbourhood of the Humber and the Wash, and over a strip in the western Midlands from north Gloucestershire to south Lancashire and the neighbouring part of the West Riding of Yorkshire. Elsewhere there was a deficiency. In Northern Ireland less than the average was registered from Londonderry to Armagh, while more than 150 per cent. occurred in the neighbourhood of Aldergrove.

Among the heaviest falls in 24 hours were:—

- 2nd 2.63 in. at Benmore, near Dunoon and
2.44 in. at Kaim Dam, Lochwinnoch;
about 100 stations in Scotland registered more than an inch.
- 3rd 2.15 in. at Skegness, Lincolnshire and
2.06 in. at Bircham Newton, Norfolk.
- 27th 2.13 in. (of which about 1.50 in. fell in 1 hour) at
Ardachie, near Ft. Augustus.

Thunderstorms were reported at times, chiefly on the 3rd, 6th-8th, 10th, 18th, 20th and 26th-29th.

Sunshine.—The most notable feature of the weather of the month was the marked deficiency of sunshine. At Stornoway, in the northern Hebrides there was an excess, but all other stations recorded a deficiency. At many places it was the dullest July on record; for example, at Kew Observatory, Richmond in a record back to 1880, at Oxford, Falmouth, Llandudno, Marchmont and Birr Castle in records back to 1881, and at Paisley back to 1884. At Dumfries the total was the lowest in a 35-year record and at Ross-on-Wye in a 30-year record.

This scarcity of sunshine was accompanied by frequent overcast skies. At Oxford the mean cloud amount was a record high value in their long record back to 1881. At many stations there was a mean cloud amount of 9-tenths or more at the morning observation hour (see Table IV).

Fog.—Local fog developed frequently, particularly on the coasts of south-west England and Wales and east and north Scotland.

Miscellaneous Phenomena.—The aurora was observed at Lossiemouth on the 29th. Solar halos were noted at Oxford on five days.