

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE

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

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MAY, 1934.—Very dry in southern England and the Midlands.

The most striking features of the weather of the month were the scarcity of rainfall in southern England and the Midlands, and the unusually warm spell from the 10th to the 12th.

On the 1st, a belt of high pressure extended across the southern half of the country, but pressure was low near Iceland and an associated trough of low pressure moved east across the British Isles, giving rain in the west and north on the 1st and local thunderstorms in south-east England on the 2nd. In the rear of the trough an anticyclone spread north-east across Great Britain, but a depression over France moving north caused some heavy rain and local thunderstorms in eastern England on the night of the 3rd and on the 4th, while another depression approached Ireland from the west. From the 5th until the 9th, Atlantic depressions centred westward or north-westward of the British Isles, and secondaries moving across the country, caused unsettled weather, with rain at times and widespread gales on the 6th. During the 9th, the anticyclone situated southward of the British Isles moved north and very warm, settled conditions prevailed for a time. The fair weather was terminated in the north-west and north on the night of the 11th-12th by a shallow trough moving north-east across Scotland. The trough was followed by a depression which moved south-east from Iceland and a cool, northerly current brought a marked fall of temperature to England on the 13th. A period of cold, unsettled weather ensued, with pressure low over southern Scandinavia or the North Sea and secondaries moving counter-clockwise round the main centre.

On the 19th, a new disturbance approached from the Atlantic and moved away north-east and subsequently, the anticyclone over France and the Bay of Biscay moved northward and became the dominating feature of the weather until the end of the month. Some rain fell at times in the west and north during this period, but many places in the south had none. Between the 29th and 31st the anticyclone moved eastward to Germany and practically no rain fell after the 27th except 7 mm. at The Lizard, measured during a thunderstorm on the night of the 30th-31st.

Pressure and Wind.—Mean pressure for the month was below the normal in the north and exceeded the normal everywhere in England and Ireland. The deviation at 7h. ranged from -3.3 mb. at Lerwick to $+4.6$ mb. at the Scilly Isles. The gradient for westerly winds was thus appreciably increased and gales were frequent for the season in parts of Scotland.

Widespread gales occurred on the 6th and in northern districts they occurred locally between the 13th and 16th and again on the 21st. In the extreme north gales were registered also on the 8th and 9th.

Among the highest speeds attained in gusts may be mentioned 77 m.p.h. at Cahirciveen, 75 m.p.h. at Holyhead and 70 m.p.h. at Aldergrove on the 6th.

Temperature.—Mean temperature for the month was rather variable, but for the country as a whole differed little from the average. The greatest departures from the average were $+1.6^{\circ}\text{F}$. in Scotland, E., $+1.2^{\circ}\text{F}$. in England, N.E., $+1.1^{\circ}\text{F}$. in the Midlands and -0.9°F . in Scotland, W.

A notable warm spell occurred during the mainly anticyclonic distribution from the 10th-12th. In eastern Scotland, the maximum temperature exceeded 70°F . at many places on the 10th, or 11th and touched 76°F . at Balmakewan on the 10th. In England, 80°F . was reached or slightly exceeded at numerous stations on the 12th. The coldest period of the month immediately followed this warm spell and lasted until the 18th or 19th. The difference between the maximum on the 12th and that on the 13th was as much as -18°F . at some English stations. The lowest minima occurred widely on the 17th or 18th and in Scotland low readings were registered also on the 3rd.

The 31st was a warm day, particularly in western and north-western districts.

The extremes for the month were:—(England and Wales) 82°F . at Rickmansworth, Camden Square, South Farnborough and Newport (I. of W.) on the 12th, 26°F . at Rickmansworth on the 17th; (Scotland) 76°F . at Balmakewan on the 10th, 27°F . at Braemar on the 3rd and at Marchmont on the 18th; (Ireland) 75°F . at Mountmellick on the 11th and 27°F . at Markree Castle on the 18th.

Precipitation.—The general precipitation of the British Isles expressed as a percentage of the normal for the period 1881-1915 was 89, the values for the constituent countries being England and Wales 71, Scotland 120 and Ireland 103. In view of the serious deficiency of rainfall experienced during the past year, the most important feature of the distribution was the large area (including most of south-east England, the Midlands, and parts of east and north-east England) with less than 50 per cent. of the normal. Locally in Buckinghamshire and west Sussex less than 25 per cent. of the normal was recorded. It is noteworthy that the dry area included the whole of the Thames basin. In marked contrast was the excess experienced in the greater part of north-west England and north Wales: in some localities in these districts, more than 150 per cent. occurred. In Scotland, more than 100 per cent. of the normal was recorded over most of the country. The excess was greatest in the west and south-west, where more than 150 per cent. was recorded locally. The deficiency was substantial, however, in the south-east and locally in the north-east: Edinburgh had only 60 per cent. and Keith (Banffshire) 65 per cent. In Ireland, more than 100 per cent. of the normal was recorded in most northern counties: in the south, conditions were more variable, some stations experiencing an excess but many (including those on the south-west coast of Kerry) recording a deficiency. An absolute drought occurred at some places in the eastern, south-eastern and Midland districts of England from the 17th onwards.

Among heavy falls in 24 hours are included 54 mm. at Watendlath (Cumberland), 40 mm. at Cantref (Brecknock), and at Ardkinglas (Argyll) on the 6th, 46 mm. at Borrowdale (Cumberland) and 53 mm. at Snowdon (Carnarvon) on the 15th and 46 mm. at Borrowdale on the 19th.

During the cold spell from the 12th-18th, sleet or snow showers were recorded at times in the north and fell as far south as north-west England on the 16th and 17th.

Thunder occurred locally between the 2nd and 4th, 12th and 14th, 16th and 18th and on the 23rd, 25th and 31st.

Sunshine.—Sunshine was rather variable but perhaps the most striking feature was the deficiency in the north-western districts, the percentage of the average being only 83, 86 and 88 in Scotland W., England, N.W. and Ireland N. respectively. At Oban, the deficiency amounted to as much as 64 hours. In most of the other districts of England there was an excess, the excess being greatest in the south-west and in the Channel Islands. Sunny days included 11th, 14th, 24th, 26th, 27th, 30th and 31st.

Fog.—Fog occurred frequently (particularly in England) from the 1st-3rd, 8th-12th, 19th-23rd and 30th-31st. It was thick locally at times, notably in the south-west on the 9th, 10th and 20th-23rd, when equatorial air had travelled some distance over the Atlantic. Thick fog occurred in the extreme north of Scotland on the 4th and 5th.

Miscellaneous Phenomena.—The aurora was observed at Stornoway on the night of the 16th. At Oxford, solar halos were noted on 15 days and short sun pillars on the 2nd and 29th. Brilliant optical phenomena were observed at Birmingham on the 7th, including the halo of 22° , the halo of 46° and the circumzenithal arc. A small whirlwind passed over Ilford, Essex, on the 26th.