

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE

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

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MARCH, 1945.—Exceptionally mild; dry except in the Western Highlands.

The weather of the month was distinguished by exceptional mildness: pressure was unusually high and the general rainfall was below the average.

On the 1st a trough of low pressure moved south-south-east over England and in its rear cold, northerly winds prevailed with wintry showers in Scotland. Behind the trough pressure rose considerably and an anticyclone off north Ireland moved first south-south-east and then south-west to a position off south-west Ireland. Low minimum temperatures were registered on the 2nd and 3rd. The anticyclone remained almost stationary south-west or west of Ireland until the 8th; meanwhile shallow troughs moved south or south-east over the British Isles causing slight local rain, chiefly in the north and east. On the 8th the anticyclone spread eastward and for several days lay over the British Isles: there was practically no rainfall from the 8th-11th inclusive. On the 11th the anticyclone began to move away south-east, and troughs on the Atlantic off our north-west coasts, moving east, caused local rain in Scotland and Ireland, but dry weather persisted in England and Wales. On the 15th an almost stationary depression was situated off south-west Iceland and an associated shallow trough moved east over the British Isles causing slight rain generally. On the following days a ridge of high pressure moved slowly east over the country giving mainly fair weather except in the west and north of Scotland and west Ireland. On the 18th another trough moved east and was associated with rain in most areas except east and south-east England. On the 19th a secondary depression off north-west Ireland moved rapidly north-east while associated troughs crossed the British Isles. There were gales at exposed stations and general rainfall occurred, which was heavy in many places. Subsequently a developing ridge of high pressure moved east across the British Isles and an anticyclone was established on the continent. Meanwhile pressure became low on the Atlantic and equatorial air from the Azores region flowed over the British Isles and a spell of exceptionally warm weather prevailed. On the 24th a trough of low pressure off our south-west coasts moved north-east and on the 25th a secondary depression over south-west France moved north-east. Rain fell in most districts of England and west Ireland on the 24th and fairly generally in the British Isles on the 25th except in the south-west. Heavy local rain was reported in south-east and east England on the 25th and 26th. Thereafter until the end of the month pressure remained high southward of the British Isles while Atlantic depressions moved north-east and associated troughs crossed this country. Weather was unsettled, with frequent rain. Rather widespread thunderstorms occurred on the 30th and gales were reported on the 30th and 31st.

Pressure and Wind.—Mean pressure was unusually high; over the country as a whole it was higher than in any March since 1929. On this occasion the deviations from the average were greatest in the south, whereas in 1929 they were greatest in the north. West and south-west winds were more frequent than usual; in Scotland there was a 9 days' excess of west to south-west winds. On the whole, the month was less windy than usual; in Scotland gale force was reached on 6 days, fewer than in any other March during the past 12 years. Gales were recorded locally on the 1st, 2nd, 5th, 19th and 20th and a widespread gale occurred on the 31st. Among the highest speeds registered in gusts were 65 m.p.h. at Lerwick on the 1st and 72 m.p.h. at Stornoway, 68 m.p.h. at Tiree and 65 m.p.h. at Alness and Edinburgh on the 31st.

Temperature.—Mean temperature was exceptionally high, the excess being 5.7°F. over Northern Ireland, 5.4°F. over Scotland

and 4.3°F. over England and Wales. The month was not so warm as the exceptionally warm March of 1938 but apart from this, as far as can be estimated, over the British Isles as a whole it was the warmest March since before 1881. In the long record at Oxford, mean temperature was the highest for March since 1830, except 1938, when the mean was considerably higher. Some unusually high maxima for March were registered on the 23rd and 24th, when temperature reached or somewhat exceeded 70°F. at numerous stations in Britain. At Kew Observatory 68.9°F., on the 23rd, is the highest temperature on record for March. Absolute maxima were higher than in March 1938, but higher temperatures were registered locally in England and Wales and Northern Ireland in March 1929. The first few days were rather cold but thereafter very mild conditions prevailed on the whole. The extremes for the month were:—(England and Wales) 72°F. at Milford (Surrey) on the 23rd, 20°F. at Milford and Rhayader on the 3rd; (Scotland) 72°F. at Edinburgh (Botanic Gardens and University, Kings Buildings) on the 23rd, 19°F. at Eskdalemuir on the 3rd; (Northern Ireland) 65°F. at Castle Archdale on the 23rd, 25°F. at Aldergrove on the 2nd.

Precipitation.—The general precipitation expressed as a percentage of the average for the period 1881-1915 was 49 over England and Wales, 77 over Scotland and 55 over Northern Ireland. Rainfall exceeded the average in the Clyde area and over most of the Western Highlands and west Sutherland; elsewhere there was a deficiency. Less than 25 per cent. of the average was received over an area in east Scotland, in a coastal strip from Berwickshire to just north of Scarborough and at a few isolated places elsewhere in England and Wales. More than 75 per cent. of the average was registered over a large area extending from north Scotland to Morecambe Bay, over Norfolk, in a small area covering part of Kent and the Thames Estuary and at Ystalyfera, Glamorgan.

Among the heaviest falls in 24 hours were:—

30th. 2.67 in. at Glenquoich and 2.32 in. at Kinlochourn, both in Inverness-shire.

31st. 2.63 in. at Ardgour and 2.50 in. at Kinlochquoich.

Falls of 1 in. or more were reported locally on the 19th, 25th, 26th, 28th, 29th as well as the 30th and 31st.

Rather widespread thunderstorms occurred on the 30th and thunder and lightning were reported at Comrie on the 27th.

Sleet or snow showers were widespread in Scotland on the 1st and occurred locally (chiefly in Scotland) on nine other days.

Sunshine.—Sunshine appreciably exceeded the average over most of England and somewhat exceeded it on the east coast of Scotland. It was deficient in west, north and south Scotland, Northern Ireland and part of north-west England. The deficiency was marked in the Great Glen and the Western Isles. The mean daily duration ranged from rather less than 2 hours locally in the Great Glen to rather more than 5.5 hours locally on the south and south-west coasts of England.

Fog.—The chief periods of fog were the 13th-16th and 27th-28th. It occurred locally outside these periods, however, mainly on the 3rd, 5th, 8th-11th, 19th, 21st, 22nd, 24th and 29th. In Scotland it was not very frequent.

Miscellaneous Phenomena.—The aurora was observed in Scotland on eight nights: a well defined sun pillar of orange red colour was noted in Scotland about 18 h. on the 8th. Solar halos were noted at Oxford on 12 days and a sun pillar at 18 h. on the 20th.