

## MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE

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

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## FEBRUARY, 1945.—Very mild, with south-westerly winds.

The weather of the month was notably mild; it was wet on the whole, excessively so in the west of Scotland.

During the opening days depressions moved east over the British Isles; heavy rain was reported on the 1st and strong winds and local gales in England and Wales on the 1st and 2nd. From the 3rd-5th depressions on the Atlantic rapidly approached south-west Iceland and associated troughs crossed the British Isles; rain occurred generally and was heavy on the 3rd; thunderstorms were reported locally in Scotland on the 3rd and were widespread in the British Isles on the 5th and local gales were registered on the 3rd. On the 6th and 7th a new disturbance in mid-Atlantic moved north-east and associated troughs passed east over the British Isles causing further rain and renewed gales. On the 8th and 9th deep depressions moved north-east along our north-west seaboard; unsettled weather persisted, with rain and there were gales at exposed places in the west and north. On the 10th a vigorous trough of low pressure passed east over these Islands and was associated with rain in most places, thunderstorms in England and gales locally on the south-west coasts. Thereafter a depression remained almost stationary south of Iceland, while secondary disturbances crossed the British Isles; on the 11th a small centre moved rapidly east-south-east across southern England causing a gale at Scilly and rain in England, Ireland and south-west Scotland and on the 12th a depression off west Ireland moved east-north-east giving rain, particularly in Ireland and Scotland. Subsequently pressure became high southward and later eastward of this country and a series of depressions on the Atlantic moved north-east or north-north-east along our north-west seaboard. Rain occurred in the west and north-west.

By the 17th there was a well established high pressure system extending from Russia to the south of France, with a complex low pressure area covering the north Atlantic. Very warm air drawn from the Azores region flowed over the British Isles. Temperature rose considerably and some notably high maxima were registered on the 18th. There was slight rain, chiefly in the west and north. Subsequently an anticyclone situated south-west and south of the British Isles maintained mainly fair weather in southern districts for the remainder of the month, apart from rain on the 23rd which was associated with a trough moving south-east over the country. Meanwhile depressions in the far north moving east affected our northern districts. The period 24th-28th was very disturbed in the northern half of the country with strong winds, local gales and local heavy rainfall.

**Pressure and Wind.**—Mean pressure was below the average in the extreme north and above the average elsewhere, the deviation at 9 h. ranging from -2.2 mb. at Stornoway to +7.7 mb. at Portland Bill. The pressure gradient over the country was thus considerably increased and the prevailing winds were from between south and west. Gales were reported locally from the 1st-3rd, 7th-15th, 21st-22nd and 24th-28th. The gale on the 2nd was widespread in southern England and in the northern half of the country the period 24th-28th was the most stormy. Among the highest speeds registered in gusts were 78 m.p.h. at Stornoway and 74 m.p.h. at Lerwick and Bell Rock lighthouse on the 24th and 78 m.p.h. at Durham on the 26th.

**Temperature.**—Mean temperature exceeded the average by 4.9°F. over England and Wales, 3.3°F. over Scotland and 4.6°F. over Northern Ireland. In Scotland mean temperature was almost similar to that of the mild February of 1943 but in England and Wales and Northern Ireland it was considerably higher. At individual stations it was the mildest February for many years; for example, at Edinburgh (Blackford Hill) it was the mildest since observations began in 1896, at Ross-on-Wye the mildest in a 72 year record, at Oxford the mildest since the record mild February in 1869. The absolute

maximum was also exceptionally high at many stations; at Oxford, 62°F. on the 18th was the highest for February since February 10th, 1899, and 60.4°F. at Hampstead also on the 18th was the highest on record there. The highest temperatures were generally from the 17th-19th and 26th-27th. Relatively low screen minimum temperatures were registered on the 3rd, 4th, 11th, 12th, 21st and 24th.

The extremes for the month were:—(England and Wales) 65°F. at King's Langley on the 18th, 19°F. at Appleby on the 11th; (Scotland) 62°F. at Nairn on the 18th, 18°F. at Balmoral on the 11th; (Northern Ireland) 60°F. at Lisburn on the 18th, 28°F. at Garvagh and Aldergrove on the 3rd, and at Lisburn on the 3rd and 11th.

**Precipitation.**—The general precipitation expressed as a percentage of the average for the period 1881-1915 was 121 over England and Wales, 142 over Scotland and 121 over Northern Ireland. Over Scotland as a whole it was the wettest February since 1925. Less than the average was received over Deeside and at most places up the east coast as far as Wick. Over a large area covering much of west and central Scotland more than 175 per cent. of the average occurred and locally within this area more than 200 per cent. In England and Wales less than the average was registered at many places along the north-east coast, in an area covering Kent, Surrey, most of Sussex and Essex and extending north-west to Wellingborough as well as along the south coast as far west as Torquay. Less than the average occurred also over an area in the south-west Midlands. More than 150 per cent. of the average was received over a considerable part of Wales and north-west England. In Northern Ireland percentages of the average ranged from 101 at Seaforde, County Down, to 144 at Newtownbutler, County Fermanagh. Rain-fall in west and north Scotland was not only excessive but frequent; measurable rain fell on each day of the month at many places.

Among the heavier falls in 24 hours were:—

- 1st. 2.21 in. at Blaenau Festiniog and 2.20 in. at Slaiddburn (Yorks.).
- 3rd. 2.32 in. at Dunoon (Benmore) and 2.00 in. at Borrowdale.
- 6th. 2.48 in. at Conaglen (Argyll).
- 12th. 2.93 in. at Lake Vyrnwy, 2.68 in. at Blaenau Festiniog (Merioneth) and 2.25 in. at Borrowdale.
- 24th, 25th, 27th and 28th. More than 2 inches locally in the west of Scotland.

Thunderstorms were reported on the 3rd, 5th, 7th, 8th, 10th, 13th and 26th: they were widespread on the 5th and fairly widespread in England on the 10th.

Snow or sleet showers were widespread in Scotland during the first week but falls were not heavy and altogether precipitation in this form occurred locally on 19 days. Snow or sleet showers were widespread in the British Isles on the 10th and 11th.

**Sunshine.**—The distribution of sunshine was somewhat irregular but broadly speaking more than the average was registered in east Scotland, north-east England and part of north-west England, particularly in the neighbourhood of the Wirral, and considerably less than the average in west Scotland and the south of England. The mean daily duration was 3.5 hours or more at many places in east Scotland and less than 1 hour locally on the mainland of west Scotland.

**Fog.**—Fog was reported less frequently in Scotland than in any previous February during the last 10 years. It developed more frequently in England and Wales, particularly on high land and on the south-west coasts. It occurred chiefly from the 4th-6th, 11th-12th, 15th-24th and 27th.

**Miscellaneous Phenomena.**—The aurora was observed in Scotland on five nights. Solar halos were noted at Oxford on 10 days and the zodiacal light on eight evenings. A heavy hail shower was reported at Newquay on the 10th; the ground was covered 3-4 inches deep.