

# Monthly Weather Report

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### December, 1947—Dry; mainly dull; mild, apart from short cold spells at the beginning and end.

The month was dry on the whole and mean temperature slightly exceeded the average but there were cold spells at the beginning and end. Sunshine was generally deficient except locally in the eastern half of England.

At the beginning of the month a secondary depression developed off our south-west coasts and subsequently moved north-east and then swung north. Meanwhile a wedge of high pressure moved north over our eastern districts. Temperature was low and rain fell in the south-west and west, and wintry showers occurred in parts of Scotland. On the 3rd rain became general over England, Wales and Ireland but little or none fell in Scotland. On the 4th a new depression developed off our south-west coasts and moved north-east to the Bristol Channel and then north to north-west England, where it remained almost stationary becoming less deep; on the 6th a centre to the south of the main centre moved east to the southern North Sea. Precipitation occurred fairly generally, moderately heavy locally in the south of England, though there was little or none in the west of Scotland. On the 7th a feeble ridge moved east over the country and was followed by weak troughs, which caused further rain except in the north-east. On the 8th small depressions moving south-east over England were associated with some rain in most parts of England and Wales and scattered showers in Scotland and Ireland.

In the rear of these shallow disturbances an anticyclone moved south-east over the British Isles and mainly anticyclonic conditions prevailed until the 23rd. Rain, generally slight, occurred at times and on the whole it was mainly dull, though there were bright periods locally. By the 17th the high pressure was situated off south-west Ireland and on the 21st and 22nd troughs of low pressure moving south-east across Britain caused showers in Scotland and Ireland on the 21st and considerable rain locally in the north of Scotland on the 22nd. Gales were reported in the north of Scotland on the 21st. On the 23rd the high receded southward and began to grow less intense.

A change to generally unsettled weather occurred on the 24th when a complex depression was centred near Iceland and troughs of low pressure moved over the British Isles. On the 25th a deep depression near Iceland (pressure at the centre 960 mb.) moved south-east and then east, giving widespread strong winds and local gales, as well as general rain in the south and showers in the north and west. Gales occurred at a number of places on the 26th and there was considerable precipitation. On the 27th a complex elongated depression west of Scotland moved rather rapidly east-north-east and in its rear cold polar air flowed over the British Isles. Widespread precipitation occurred on the 27th and it was fairly general in the west of Scotland and in Ireland on the 28th but more scattered elsewhere, while gales were reported at a number of places on both days. On the 29th and 30th an almost stationary trough extended from a depression over Denmark to the north of Scotland. Cold north-westerly winds and widespread wintry precipitation prevailed but there were also periods of bright sunshine. On the closing day a ridge of high pressure moved east over the British Isles but it was quickly followed by troughs associated with a deep Atlantic depression and rain spread to all districts by the evening.

**Pressure and Wind.**—Mean pressure exceeded the average, the excess being greatest in the north-west; the deviation at 9h. ranged from +8.3 mb. at Stornoway and Tiree to +2.1 mb. at Lympe. In most areas westerly or northerly winds predominated. On the whole the month was quieter than usual but gales were reported locally on the 5th, 10th, 19th, 21st, 25th–29th and 31st. Among the highest speeds registered in gusts were 77 m.p.h. and 73 m.p.h. at Pendennis Castle and St. Ann's Head respectively on the 5th, 81

m.p.h. at St. Mary's, Scilly, on the 25th, 72 m.p.h. at Prestwick on the 27th and 71 m.p.h. at Bidston on the 28th.

**Temperature.**—Mean temperature for the month exceeded the average by 1.2°F. in England and Wales, 0.6°F. in Scotland and 1.1°F. in Northern Ireland. The period 5th–25th was generally mild and over parts of England and Wales the mild weather persisted until the 28th. The first three days were exceedingly cold; at a number of places the minimum temperature fell to 15°F. or below. The minimum, 20°F., at Edinburgh on the 2nd was the lowest recorded there in December since 1908, while the maximum on the 1st at Wakefield, 28°F., was as low as any in December there for 39 years. The last three days were also cold.

The extremes for the months were:—(England and Wales) 58°F. at Totnes on the 12th, Newport (Mons) on the 20th and Usk on the 24th, 11°F. at Porton on the 1st and Ampleforth on the 2nd; (Scotland) 58°F. at Stonehaven on the 12th, 6°F. at Kelso and Dalwhinnie on the 2nd and Braemar on the 3rd; (Northern Ireland) 55°F. at Castlerock on the 11th and 18°F. at Garvagh on the 2nd.

**Precipitation.**—The general precipitation expressed as a percentage of the average for the period 1881–1915 was 83 over England and Wales, 58 over Scotland and 76 over Northern Ireland. More than the average occurred in the extreme north of the mainland of Scotland, over part of the West Riding of Yorkshire, in an area covering east England from south Norfolk to east Kent and including the Thames Estuary, at a few scattered places elsewhere in England and locally in counties Armagh and Down. Less than 50 per cent. of the average was received in west and central Scotland, in Fife, in an area over part of Cumberland and the neighbourhood of the Solway Firth, at Teignmouth in S. Devon and in the north-east part of Northern Ireland. At Dalwhinnie, in Inverness-shire, it was the driest December since 1933.

Among the heavier falls in 24 hours were:—

26th 2.87 in. at Blaenau Festiniog (Merioneth), 2.28 in. at Rhondda Water Works (Glam.) and 2.29 in. at Afon Mynach (Merioneth).

31st 2.33 in. at Cwm Dyli (Snowdon).

Thunder occurred locally on the 1st, 4th–6th, 19th–20th, and 23rd–29th.

Snow or sleet showers were reported at times, chiefly from the 1st–5th and 25th–31st. Between the 1st and 5th up to five inches of snow was reported from Glenlivet, near Tomintoul. Blizzard conditions swept Scotland on the 29th with falls of snow up to six inches on Donside, Aberdeenshire.

**Sunshine.**—The duration of bright sunshine was appreciably below the average over the country as a whole, the percentages of the average being 87 in England and Wales, 74 in Scotland and 57 in Northern Ireland (see Table I). The percentages at individual stations were variable, the variation being due in some cases to the incidence of fog. In Scotland and Ireland a deficiency was practically general but locally in the eastern half of England and the north Midlands more than the average was recorded.

**Fog.**—Fog occurred frequently at some inland stations particularly during the first half of the month; for example it was reported at 9h. on 15 days at Huddersfield, 14 at Meltham, and 12 at Edinburgh (Botanic Gardens) and Santon Downham. It occurred mainly on the 1st–4th, 7th–14th and 30th–31st.

**Miscellaneous Phenomena.**—The aurora was observed locally in Scotland on the 5th, 9th and 28th. Solar halos were noted at Oxford on seven days. In a thunderstorm at Southport on the 29th, the ground was covered with soft hailstones many of which were the size of marbles.