

# Monthly Weather Report

## OF THE METEOROLOGICAL OFFICE

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

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### January, 1948—Continuously unsettled; stormy and very wet.

The month was unsettled throughout, with depressions or troughs of low pressure passing over or near the British Isles. It was excessively wet, particularly in England and Wales, while strong winds and local gales occurred frequently.

During the opening days of the month a large, complex low pressure system covered the north Atlantic, while secondary depressions moved east-north-east across the British Isles. The weather was mild and wet with strong winds and local gales. On the 6th and 7th a vigorous depression moved rapidly east-north-east from the Atlantic to the North Sea; further rain occurred except in the extreme north of Scotland and gales were reported at a few exposed stations in England and Wales. On the 9th and 10th a depression off our south-west coasts moved quickly across England to Poland causing considerable rain on both days. On the 10th, too, a complex, deep depression on the Atlantic moved slowly north-north-west and subsequently became almost stationary south-west of Iceland. Meanwhile secondary disturbances moved across the British Isles and a period of very unsettled weather, with precipitation and widespread strong winds and gales, prevailed from the 10th–13th. On the 14th and 15th the main depression south-west of Iceland moved east-south-east and polar air in its rear brought an appreciable fall of temperature. By the 17th a new, very deep depression was centred near Iceland; meanwhile a secondary developed to the south and moved rapidly north-east to the Shetland Isles, where it remained for a time before moving south and filling; widespread gales occurred on the 17th and 18th and fairly general precipitation, while cold north-westerly winds prevailed. On the 21st and 22nd a complex trough of low pressure moved slowly east over the British Isles and on the 23rd and 24th a depression moved north-east over southern England. Widespread precipitation was reported on the 21st and moderately heavy precipitation fell locally in the south on the 23rd.

Finally, from the 25th to the end of the month, a large, very intense depression covered the north Atlantic; it moved very slightly eastward and deepened on the 25th (pressure at centre 944 mb. on the 26th) and subsequently remained almost stationary. Meanwhile secondary troughs of low pressure crossed the British Isles and milder unsettled weather, with rain daily, prevailed. On the 29th a deep secondary depression off our south-west coasts moved rapidly eastward and was associated with gales and heavy rain in southern England. On the 30th another secondary disturbance off south-west Ireland moved rapidly north-north-west to the Shetlands, causing further strong winds and gales at exposed stations, with renewed rain and local thunderstorms.

**Pressure and Wind.**—Mean pressure was exceptionally low; at 9h. the deviation from the average ranged from  $-13.0$  mb. at Lerwick to  $-18.4$  mb. at Bidston and St. Ann's Head. At such widely separated stations as Oxford and Southport the mean pressure was the lowest on record for any month. Gales occurred frequently at exposed stations; mean hourly velocities of more than 38 m.p.h. were registered on as many as 15 days at St. Ann's Head and 13 days at St. Mary's, Scilly. Among the highest speeds registered in gusts were 81 m.p.h. at Bell Rock Lighthouse on the 11th, 75 m.p.h. at Durham on the 13th, Scilly on the 29th and Bidston on the 30th, and 74 m.p.h. at Holyhead on the 17th and Lerwick on the 18th. The stormiest periods were the 10th–13th, 17th–18th, 25th–26th and 29th–31st.

**Temperature.**—Mean temperature was below the average in Scotland and Northern Ireland, but it exceeded the average in

England and Wales. The deviations for the districts ranged from  $-2.4^{\circ}\text{F}$ . in Scotland, N. to  $+3.3^{\circ}\text{F}$ . in England, S.E. (See Table 1). The first four days were mild generally but in the northern half of the country cold weather set in on the 5th and it remained cold for the most part until the 25th; in Scotland the coldest days were the 9th, 15th–16th and 23rd–24th. In England and Wales the coldest week was that ending on the 24th.

The extremes for the month were:—(England and Wales)  $60^{\circ}\text{F}$ . at Cannington on the 3rd,  $21^{\circ}\text{F}$ . at Milford (Surrey) on the 20th; (Scotland)  $55^{\circ}\text{F}$ . at Liberton and Kilmarnock on the 2nd,  $4^{\circ}\text{F}$ . at Logie Coldstone on the 24th; (Northern Ireland)  $55^{\circ}\text{F}$ . at Castlerock on the 1st and 2nd and at Ballykelly on the 2nd,  $21^{\circ}\text{F}$ . at Ballykelly on the 16th.

**Precipitation.**—The general precipitation expressed as a percentage of the average for the period 1881–1915 was 234 over England and Wales, 162 over Scotland and 196 over Northern Ireland. In England and Wales it was the wettest January on record, that is since 1869, while in Scotland and Northern Ireland it was the wettest since 1928. Less than the average was practically confined to western Inverness-shire. More than three times the average occurred in a coastal belt from south of the Firth of Forth to south of the Tees, in a small inland area in North Wales and at Douglas, Isle of Man, while more than four times the average was received in the neighbourhood of Newcastle. In Northern Ireland percentages of the average ranged from 147 at Omagh, County Tyrone, to 272 at Seaforde, County Down.

Falls of more than 1 in. in 24 hours occurred on numerous occasions; for example, on the 1st, 3rd, 4th, 6th, 7th, 9th–14th, 17th, 23rd, 27th and 29th.

Among the heaviest falls in 24 hours were:—

3rd	3.79 in. at Blaenau Festiniog (Merioneth) and 3.95 in. at Cwm Dyli, Snowdon.
10th	4.20 in. at Cwm Dyli, 3.40 in. at Blaenau Festiniog and 3.28 in. at Llyn Fawr Reservoir (Glamorgan).
12th	3.34 in. at Treherbert (Glamorgan), 3.28 in. at Tynant, Birmingham Water Works (Radnor) and 3.26 in. at Cantref (Brecon).

Thunder was reported locally on numerous occasions; for example, the 14th–19th, 24th and 29th–31st.

Local snow or sleet showers occurred daily from the 5th–28th. In Scotland, moderate snowfalls occurred in Caithness on the 9th and more generally on the 17th–18th; it lay to a depth of from six to nine inches in places and drifts five to six feet in depth blocked main roads in central Scotland.

**Sunshine.**—Sunshine was appreciably below the average generally, the percentage of the average being 80 in England and Wales, 82 in Scotland and 95 in Northern Ireland. At some places in the north of Scotland and at a few scattered places elsewhere there was an excess.

**Fog.**—Fog, often of a frontal type, occurred locally at times, chiefly on the 1st–4th, 6th–7th, 9th–13th, 15th–17th, 21st–25th and 27th–29th. Fog was reported at 9h. on as many as 13 days at Greenock and 10 at Hull, Huddersfield and Mansfield. It was thick on the 23rd in the Dundee–Edinburgh area and delayed traffic in Edinburgh for some hours.

**Miscellaneous Phenomena.**—The aurora was observed in Scotland on 11 nights, the displays on the 15th and 30th being seen as far south as Midlothian. Solar halos were noted at Oxford on 13 days.