

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE

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

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JANUARY, 1939.—Exceptionally wet in England and Wales; cold in the west and north.

The month was remarkable for excessive rainfall and serious flooding in England and Wales; in the north-west of the British Isles, however, rainfall was below the average. There was considerable snow at times, particularly during the first six days and from the 24th–28th. It was cold during the first week and from the 25th onwards.

During the opening days depressions moved directly over the British Isles causing rain or snow at times. On the 5th and 6th a wedge of high pressure crossed the country giving a short spell of fairer weather but further precipitation was associated with a deep Atlantic depression on the 6th and 7th. The first six days were cold but tropical air in front of the depression on the Atlantic gave a rapid rise of temperature in the British Isles during the 7th. The depression moved north-east along our north-west seaboard and finally eastward to southern Norway by the 10th. On the 10th and 11th a new disturbance off south-west Ireland moved north-east to the North Sea. Rain occurred generally in England on the 10th and appreciable sleet or snow fell in northern England on the 11th and on high ground in the north of Scotland on the 12th. A period of mild unsettled weather ensued; from the 14th–16th an intense depression moved from north of the Azores to the north of Ireland, causing widespread rain and gales. Between the 17th and 19th a secondary depression forming off our south-west coasts moved north-east across England causing further rain. On the 21st a depression moved east over England and on the 22nd–23rd another deep disturbance off western Ireland moved eastward to the North Sea; in the rear of the latter disturbance unusually severe north-westerly gales prevailed on the south-west coasts. On the 25th and 26th a depression passed eastward along the English Channel; cold easterly to northerly winds, reaching gale force locally, prevailed, and were accompanied by heavy snow, particularly in southern districts. Subsequently pressure was high to the north and low to the south of the British Isles; weather was cold with mainly easterly winds and little rainfall on the whole; gales were reported locally in England between the 29th and 31st.

Pressure and Wind.—Mean pressure was substantially below the average, the deficiency being least in the north; the deviation at 7h. ranged from -5.7 mb. at Lerwick to -14.5 mb. at Kew Observatory. Gales occurred frequently at exposed stations in the south-west; they were reported on 14 days at Hartland Point and 13 days at St. Ann's Head. The most widespread south-westerly gale was reported on the 15th. An exceptionally severe north-westerly gale occurred on the south-west coasts on the night of the 22nd–23rd; the St. Ives lifeboat was capsized during this gale and serious loss of life resulted. Gales from between east and north occurred on the 25th and 26th and easterly gales were reported locally on the south and west coasts of England and Wales between the 29th and 31st. Among the highest mean hourly velocities recorded was 66 m.p.h. at the Lizard on the 22nd and at Scilly on the 23rd, while the highest speeds registered in gusts included 96 m.p.h. at Scilly on the 23rd, 92 m.p.h. at Scilly; 91 m.p.h. at the Lizard and 83 m.p.h. at Valentia Observatory on the 22nd and 83 m.p.h. at Pembroke and 80 m.p.h. at Holyhead on the 15th.

Temperature.—Mean temperature was appreciably below the average in the west and north and exceeded the average in the south-east, the deviation for the districts ranging from -2.9°F . in Scotland, N. to $+1.6^{\circ}\text{F}$. in England, S.E. The first week was notably cold in most parts, particularly the north and it was cold again from the 25th onwards. There was a rapid rise of temperature during the 7th and many places registered the highest temperature of the month on the 7th or 8th, while the week 15th–21st was really mild. Some remarkably low temperatures were reported during the first week; in Scotland, 1°F . was recorded at Dalwhinnie and Braemar on the 4th, 6°F . at Logie Coldstone on the 6th and 7°F .

at Balmoral on the 4th, 6th and 7th and at West Linton on the 6th; in England, 5°F . was registered at Newport (Shropshire), 6°F . at Shrewsbury and 7°F . at Mayfield (Staffs.) all on the 6th.

The extremes for the month were:—(England and Wales) 59°F . at Colwyn Bay on the 7th, 5°F . at Newport, Shropshire, on the 6th; (Scotland) 55°F . at Onich on the 7th, 1°F . at Dalwhinnie and Braemar on the 4th; (Ireland) 58°F . at Blacksod Point on the 7th and 8th and 12°F . at Markree Castle on the 5th and at Armagh on the 6th.

Precipitation.—The general precipitation of the British Isles expressed as a percentage of the average for the period 1881–1915 was 179, the values for the constituent countries being England and Wales 220, Scotland 130 and Ireland 128. In England and Wales it was the wettest January since before 1868 and as far as can be estimated since 1764. More than three times the average occurred over a fairly large area in east England and at a few isolated places elsewhere. Serious flooding occurred in many parts and the observer at Copdock says that on January 26th and 27th the floods at Ipswich and neighbourhood were the worst in the 38 years he has lived there. In Scotland, less than the average rainfall occurred over a large area in the west and north-west, and less than 50 per cent. locally in Argyllshire and Inverness-shire. On the other hand more than twice the average was received in parts of the east and south-east. In Ireland less than the average occurred in the extreme north-west.

Among the heavier falls in 24 hours may be mentioned:—

8th 2.19 in. at Oughtershaw (Yorkshire) and 2.07 in. at Kirkby Stephen (Westmorland).

14th 2.55 in. at Lochgoilhead (Argyllshire), 2.45 in. at Ardarroch (Dumartonshire), 2.41 in. at West Kilbride (Ayrshire) and 2.07 in. at Holne (Devon).

25th 2.24 in. at Halstead, 2.10 in. at Earl's Colne, 2.04 in. at Copdock (Suffolk), 2.01 in. at Lexden (Essex) and 2.00 in. at Rendlesham Hall (Suffolk).

Snow fell frequently during the month, chiefly between the 1st and 6th, 10th and 14th and 24th and 28th. On the 1st snow was lying to a depth of 8 inches at Bellingham and was still lying on the 7th, and at Braemar undrifted snow was 6 to 8 inches deep during the first week. On the 10th there was 7 inches of sleet and snow at Meltham (Yorkshire) and on the 11th there was 5 inches of snow lying at Buxton. The snowfall on the 25th was greatest in the south and it lay for a considerable time on high land; at Cantref (Brecknock) it was 14 inches deep on the 26th and snow was still lying on the 31st and at Princetown it was 10 inches deep on the 27th and still 7 inches deep on the 31st. At Stanford Dingley, Berkshire, the level snow was 19 inches on the morning of the 26th. At Braemar the depth of undrifted snow was about 8 inches on the 28th and 29th.

Sunshine.—There was an unusual excess of sunshine for the most part in the west and north of Scotland and north Ireland; more than twice the average was recorded locally in north and west Scotland, while Stornoway had 222 per cent. of the average. On the other hand sunshine was below the average at most places in England and Wales, east Scotland and south Ireland. The percentages of the average for the districts ranged from 69 in England, S.W. to 143 in Scotland, N.

Fog.—Fog occurred at times, mainly from the 4th–7th, 10th–11th, 14th, 17th–21st and 25th. It was widespread on the 14th. It was thick at times and fairly persistent locally in north England and around Renfrew between the 5th and 7th. It was also persistent and thick locally on the north-east coast of England and the south-east coast of Scotland on the 19th.

Miscellaneous Phenomena.—The aurora was observed in Orkney or Shetland on 11 nights and at Aberdeen on the 13th. Solar halos were noted at Oxford on 12 days.