

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE

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

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JANUARY, 1936.—Wet, except in the north-west; a cold spell from the 12th to the 23rd.

The mild, unsettled conditions of the last week of December persisted during the first ten days of January, in which period extensive flooding again occurred. From the 1st to 8th, Atlantic depressions passed slowly across the British Isles; rain fell almost daily and was heavy at times, though a temporary improvement occurred locally around the 3rd-4th. A very deep depression, centred off north-west Ireland on the 9th, skirted our north-west coasts and was centred near the Shetlands on the 10th and off the west coast of Norway on the 11th. The rainfall of the 9th was general, and heavy in many places, and widespread, rather severe gales were experienced between the 9th and 11th. The tropical air in front of this depression was very mild and the highest temperatures of the month were registered at this time.

In the rear of this disturbance, an anticyclone moved south-east over Ireland and England, and, subsequently, an extension of a high-pressure system over Greenland covered the British Isles. Anticyclonic weather prevailed for the most part until the 15th; temperature fell decidedly, and fog was rather widespread in England.

Between the 16th and 18th a depression, centred initially off north-west Spain, moved north-east and then north. Weather continued cold, but with widespread snow or sleet. This disturbance was followed on the 19th by a new depression, which moved slowly north-east from a position off our south-west coasts. It deepened considerably over the Irish Sea and caused rather widespread gales on the 20th and a severe snowstorm in Scotland, northern England and north-east Ireland on the 19th-20th. Finally, the depression became much less deep over Scandinavia. Temperature remained low for the most part throughout this period, and sleet or snow was reported in many places. On the 23rd and 24th, two depressions approached from the Atlantic, one from west and the other from south-west. They moved slowly over the British Isles and filled up. Temperature rose gradually and rain fell generally on the 24th and 25th, being heavy locally on the 25th. A new intense disturbance approached north-west Ireland on the 27th; the centre of the main depression remained almost stationary, but a secondary moved north-east and then north over Britain from the Bay of Biscay. Mild weather prevailed, with heavy rain at times, notably on the 28th.

Pressure and Wind.—A noteworthy feature of the month was the exceptionally low mean pressure registered over the country generally. For instance, at Southport, the mean pressure was lower than in any previous month, except December 1876, in 65 years' records, at Newquay the mean pressure was the lowest in any month in 33 years, at Attenborough it was the lowest in any month since records were started in 1920 and at the Radcliffe Observatory, Oxford, the lowest in January since before 1881.

The most widespread gales occurred from the 5th-6th, 9th-11th and 20th-21st, the one of the 9th-10th being the most severe. A mean hourly velocity of 62 m.p.h. was recorded at Kingstown and one of 60 m.p.h. at Pendennis on the 9th, while among the greatest speeds registered in gusts were 92 m.p.h. at Bidston Observatory, 89 m.p.h. at Southport and 88 m.p.h. at Fleetwood, Manchester (Barton) and Catterick, all on the 9th. Local gales occurred at times outside these periods. At Bell Rock Lighthouse a mean hourly velocity of more than 38 m.p.h. was recorded on ten days.

Temperature.—Mean temperature was below the average except in east and south-east England and the Channel Islands. The deficiency was greatest in Ireland and Scotland, amounting to 3.5°F. in Ireland, N., 2.9°F. in Ireland, S., and more than 2.5°F. in each of the Scottish districts.

The outstanding feature was the cold spell from the 12th-23rd. Some extremely low screen minima were recorded during this spell, especially on the 19th and 20th; readings below 15°F. were numerous,

while values of 10°F. or below were registered at some places. On the grass, 0°F. was reported at Rickmansworth on the 18th, at Mayfield on the 19th and at Braemar on the 20th.

The first ten days were mild, on the whole, a broad belt of equatorial air being responsible for the unusually high temperatures recorded around the 9th, when maxima exceeded 55°F. at a large number of places in England and Wales. Mild conditions were established again towards the end of the month, particularly in the south.

The extremes for the month were: (England and Wales) 58°F. at Stratford-on-Avon, London (Westminster), Llandudno and Bath on the 9th; 9°F. at Worksop, Mayfield and Manchester (Barton) on the 19th; (Scotland) 52°F. at Peebles, Dumfries, Ruthwell and Douglas on the 9th and at Ayr on the 9th and 10th, 6°F. at Logie Coldstone on the 20th; (Ireland) 57°F. at Glasnevin on the 8th, and 18°F. at Newtownforbes and at Aldergrove on the 19th.

Precipitation.—The general precipitation of the British Isles expressed as a percentage of the average for the period 1881-1915 was 163, the values for the constituent countries being England and Wales 178, Scotland 140 and Ireland 148. The excessive rainfall was almost universal, except in that part of Scotland westward of a line drawn from about Greenock to Durness in Sutherland, where there was a deficiency. The deficiency amounted to more than 60 per cent. at some places along the Caledonian Canal. The greatest excess in Scotland occurred along the east coast from Aberdeen to Edinburgh; at Aberdeen, it was the wettest January in a record back to 1871. It was the wettest January on record also at certain stations in England.

Among the largest falls in 24 hours were:—

4th: 66 mm. at Borrowdale, Cumberland.

9th: 85 mm. at Forest Lodge, Dalry (Kirkcudbrightshire).

58 mm. at Borrowdale, 56 mm. at Glencrosh (Dumfries-shire) and 53 mm. at Dunoon and Trecastle (Brecon).

21st: 45 mm. at Sealand, Cheshire.

Snow fell rather frequently and a conspicuous feature of the month's weather was the snowstorm of the 19th-20th. The latter was notable in Scotland, north-east Ireland, northern England and the northern Midlands. In Scotland, some villages were isolated for several days and railway and road traffic was seriously disorganised. Even a week later some important roads in Speyside had not been re-opened to wheeled traffic. Depths of undrifted snow were commonly reported in inland districts of Scotland as being between 6 inches and 9 inches. The storm was particularly severe on high ground; at Bellingham, Northumberland, the snow was 12 inches deep on the 20th, and 9 inches from the 21st-24th; at Buxton (Derbyshire) it was 18 inches deep on the 22nd, and at Bingley (Yorks.), 10 inches on the 20th. At numerous stations in northern England and the Midlands snow lying was reported from the 16th-24th and at one or two stations until the 27th and on high ground in Scotland, it was lying practically from the 11th until the end of the month.

Sunshine.—Sunshine exceeded the average, for the most part, in Scotland and England, N.E., but the district values were below the average elsewhere. The deficiency was greatest in England, S.E., where it amounted to 40 per cent. (See Table 1.)

Fog.—Fog occurred rather frequently, particularly from the 1st-4th, 7th-8th, 12th-16th, 18th-19th, 24th-26th and 29th-31st.

Miscellaneous Phenomena.—The aurora was noted in northern districts of Scotland on the 21st, 22nd, 23rd, 24th, 26th and 27th. Solar halos were observed at Oxford on 16 days. During a thunderstorm at Newbury (Berks.) on the 10th there was a single flash of lightning; a 70-ft. tree was struck and the windows of all the houses near the tree were blown out.