

Monthly Weather Report

OF THE METEOROLOGICAL OFFICE

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January, 1949—Mild; wet in the north-west and extreme north; dry in the east and south.

The month was dry and sunny on the whole in the east and south and mainly dull and wet in the north-west and extreme north.

On the 1st an exceptionally deep depression moved east across Ireland and later north-north-east to a position off the west of Norway by the morning of the 3rd. On the 1st, gales, severe locally, occurred at exposed stations, while thunderstorms were recorded in southern England and heavy rain locally in Scotland. In the rear of this depression cold winds of polar origin were experienced over the British Isles. On the 4th a depression moved from north-west Ireland to East Anglia and snow fell in Northern Ireland, north England and extreme south-west Scotland, while over much of Scotland day temperature remained below freezing point on the 3rd and 4th. On the 5th a trough of low pressure moving east across the country caused heavy rain locally in Scotland. By the 6th pressure was high from the Bay of Biscay across France to the Caspian Sea; meanwhile another trough of low pressure moved across north Ireland and south Scotland giving appreciable rain in these areas. On the 7th a depression moved east across the north of Scotland giving widespread gales on the 7th–8th and further rain, particularly in the west and north.

Meanwhile an intense anticyclone developed on the Atlantic and subsequently drifted south-east to a position off our south-west coasts where it remained until the 21st. Throughout this period deep depressions to the north of Scotland moved east and were associated with almost daily local gales in the north. Mainly mild weather prevailed, dry on the whole over much of England but wet in the north and west of Scotland. Subsequently the anticyclone moved slowly east to central Europe and was followed on the 24th by a new anticyclone which also moved east across England to Czechoslovakia. Mild, mainly dry and sunny conditions prevailed over most of the British Isles apart from fog. Local rain occurred on most days, however, in the west and extreme north of Scotland. On the 31st a weak trough moving south-south-east across Britain caused slight local rain in England also.

Pressure and Wind.—Mean pressure exceeded the average except in the Shetland Isles. At 9h. the deviation from the average ranged from -0.6 mb. at Lerwick to $+7.1$ mb. at Scilly. Westerly winds predominated and gales, severe at times, occurred frequently at exposed stations in the north. The pressure on the 1st fell to a notably low level in north Ireland and England and Wales; at individual stations it was the lowest on record and at Oxford it was the lowest since December 8, 1886. The large range of pressure was noteworthy; at Kew Observatory, the range 82 mb. represents the greatest in any one month since recording began in 1869. The gale on the 1st was unusually severe in southern England. Among the highest speeds registered in gusts were 77 knots at Scilly, 76 knots at Pendennis Castle and 75 knots at St. Ann's Head and Lympne on the 1st, 75 knots at Durham and Stornoway on the 17th and 76 knots at Lerwick on the 29th and 79 at Stornoway on the 25th.

Temperature.—Mean temperature exceeded the average by 2.1°F . in England and Wales, 1.4°F . in Scotland and 2.6°F . in Northern Ireland. The first four or five days were cold in Scotland and Northern Ireland and it was cold in England around the 3rd. Day temperature remained below freezing point over much of Scotland on the 3rd and

4th and only reached 20°F . at Dalwhinnie and 25°F . at Braemar on the 4th. It was very mild on the whole from the 14th to the 28th or 29th though some rather low minima were registered on the 25th, 28th and 29th.

The extremes for the month were:—(England and Wales) 57°F . at a number of stations on various dates, 17°F . at Bellingham on the 3rd; (Scotland) 57°F . at Nairn on the 27th, 0°F . at Braemar on the 5th; (Northern Ireland) 54°F . at Ballykelly on the 26th and 27th and at Castlerock on the 26th, 19°F . at Ballykelly on the 4th.

Precipitation.—The general precipitation expressed as a percentage of the average for the period 1881–1915 was 58 over England and Wales, 127 over Scotland and 104 over Northern Ireland. It was the driest January over England and Wales since 1911. In Scotland less than the average occurred in the east roughly from Aberdeen to the Tweed and also in the extreme south-west; on the other hand more than twice the average occurred over much of Sutherland. In England and Wales somewhat more than the average was confined to small areas in the north-west. Less than 50 per cent. was received over large areas in the north-east and south-west, and in small isolated areas elsewhere. In Northern Ireland percentages of the average increased from 69 at Seaford, County Down to 159 at Londonderry. Rain fell very frequently in the north and west of Scotland; at Stornoway and Cape Wrath measurable rain fell on each day. In strong contrast the number of rain-days was only five at Newton Abbot, south Devon and six at Sidmouth, Swanage and Portsmouth.

Among the heaviest falls in 24 hours were:—

- 1st 2.65 in. at Luichart (Ross and Cromarty).
- 5th 2.20 in. at Shaws Water Works (Renfrewshire).
- 18th 4.15 in. at Glenquoich and 3.82 in. at Kinlochhourn (Inverness-shire).

Thunderstorms occurred locally in the south of England on the 1st and 2nd and locally in Scotland on the 11th, 14th, 19th and 20th.

Snow or sleet showers fell widely in Scotland during the first four days and on the 11th; snow lay to a depth of several inches in Galloway on the 2nd. Snow fell in Northern Ireland, northern England and extreme south-west Scotland on the 4th.

Sunshine.—The distribution of sunshine expressed as a percentage of the average for the period 1906–35 was 114 in England and Wales, 87 in Scotland and 86 in Northern Ireland. A marked excess occurred at many places in the east and south. The percentages for the districts ranged from 69 in Scotland, N. to 136 in England, SE. (See Table I).

Fog.—Fog was less frequent in Scotland than in any January for at least 12 years. It developed fairly frequently at some inland stations in England. It occurred mainly on the 4th–7th, 10th, 15th, 22nd and 24th–31st; it was rather widespread in England from the 26th–29th.

Miscellaneous Phenomena.—The aurora was observed in Scotland on four nights. The display on the 25th was seen as far south as Boscombe Down (Wiltshire). Solar halos were noted at Oxford on six days.