

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE

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

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FEBRUARY, 1939.—Mild; wet in the west and north; mainly sunny in England.

The weather of the month was mild generally; it was wet on the whole in Scotland, Ireland, Wales and north-west England; sunshine exceeded the average over most of England, notably so in the south-east and east.

During the opening days an anticyclone over the North Sea and central Europe maintained mainly fair, cold weather over the British Isles. Subsequently the anticyclone lay over Germany and France, while depressions moved north-east off our western seaboard; temperature rose and rain fell at times, particularly in the west and north. Between the 7th and 9th deep depressions on the Atlantic extended their influence further east and occasional rain occurred in all districts. On the following days the anticyclone was situated over France and Spain, while Atlantic depressions moved north-east; weather continued very mild and further rain occurred in the west and north, though little was experienced in the south-east. On the 13th and 14th a wedge of high pressure moved south-east over the country; there were bright periods and local showers on the 13th and slight rain in the west and north on the 14th. Subsequently pressure was high to the south of the British Isles, while depressions took an easterly track to the north of Scotland; showers or occasional rain occurred mainly in the west and north, while sunshine records were good locally at times. On the 21st a trough of low pressure associated with a deep depression over Iceland crossed the British Isles and caused rain generally except in parts of east and south-east England. Between the 22nd and 24th a depression off our south-west coasts moved north-east and then north over Great Britain; occasional rain and local gales were associated with this disturbance. Troughs of low pressure, associated with a deep Icelandic depression, moving east caused further rain between the 25th and 27th and a depression off the west of Ireland moving north-east occasioned local gales in England and Ireland and widespread rain on the 28th.

Pressure and Wind.—Mean pressure was below the average in the north and above the average in the south, the deviation at 7 h. ranging from -4.8 mb. at Lerwick to $+4.5$ mb. at Portland Bill. The pressure gradient over the country was increased and the prevailing winds were from between south and west. Gales occurred frequently in Scotland; they were reported on 18 days at Lerwick (The Knab), 12 at Stornoway, 10 at Rothesay, 9 at Duntulm and 8 at St. Abbs Head. Among the highest speeds registered in gusts were 85 m.p.h. at Lerwick on the 16th, 81 m.p.h. at Edinburgh on the 6th, 80 m.p.h. at Stornoway on the 15th and 79 m.p.h. at the Lizard and 77 m.p.h. at Valentia on the 28th.

Temperature.—Mean temperature was appreciably above the average, the deviation from the average for the districts ranging from $+2.0^{\circ}\text{F.}$ in the Channel Islands to $+3.0^{\circ}\text{F.}$ in Scotland, E.

The opening days were cold and some low temperatures were registered in the screen on the 2nd and 3rd. Temperature rose on the 4th and the period 5th–12th was notably warm, 60°F. being reached locally on the 10th and 11th.

The extremes for the month were:—(England and Wales) 61°F. at Colwyn Bay on the 10th and at Hawarden Bridge and Cannington on the 11th, 11°F. at Buxton on the 3rd; (Scotland) 61°F. at Craibstone on the 10th, 9°F. at Braemar on the 2nd; (Ireland) 61°F. at Dublin (Glasnevin and Trinity College) on the 10th, 21°F. at Dublin (Glasnevin and Phoenix Park) on the 3rd.

Precipitation.—The general precipitation of the British Isles expressed as a percentage of the average for the period 1881–1915 was 100, the values for the constituent countries being England and Wales 85, Scotland 124, Ireland 118. In Scotland rainfall was less than the average in the Moray Firth area, in the extreme south-east and at one or two isolated stations. Elsewhere there was an excess, which was greatest in the west, where some stations received twice the average amount. In Ireland, less than the average occurred locally in the north-east and south-west. In England and Wales an excess was roughly confined to the north-west and the greater part of Wales. More than 150 per cent was registered over most of Cumberland, parts of Wales and locally in Lancashire. Less than 50 per cent occurred locally in the western Midlands, in a large area extending from Wath-upon-Deane in south Yorkshire to north Hertfordshire and east to the neighbourhood of the Wash, and at a few places elsewhere. Rain occurred frequently in the north and west; measurable rainfall was recorded at numerous stations on 25 days and at a few on 26 days.

Among the heaviest falls in 24 hours were:—

- 6th 2.29 in. at Lochwinnoch (Renfrewshire).
- 9th 2.85 in. at Kinlochquoich (Inverness-shire).
- 10th 5.05 in. at Kinlochquoich, 2.27 in. at Blaenau Festiniog (Merioneth).
- 20th 2.93 in. at Aasleigh House (County Mayo), 2.37 in. at North Ballachulish (Inverness-shire) and 2.35 in. at Delphi Lodge (County Mayo).
- 21st 2.37 in. at Balnaboth (Forfarshire).

Snow or sleet occurred locally at times from the 12th to the end of the month. In Scotland, snow lay on the hills throughout the month; on lower ground the falls, though frequent, were not heavy.

Local thunder was reported at times; it was most widespread on the 26th.

Sunshine.—Broadly speaking sunshine was below the average in Scotland and Ireland and exceeded the average in England, the percentages for the districts ranging from 75 in Ireland, S., to 157 in England, E. The excessive sunshine in east and south-east England and parts of the Midlands was noteworthy; at Malvern and Kew Observatory, February 1938, was the first February with a total sunshine of more than 100 hours since observations were first taken in 1909 and 1880 respectively. At Copdock, near Ipswich, with the exception of 1934, it was the sunniest February in a record of 38 years and at Oxford the total was only three-quarters of an hour less than the highest on record for February, namely 105.6 hours in 1899.

Fog.—Fog occurred locally at times, mainly from the 2nd–8th, 10th–11th, 14th–15th and 20th–21st. It was widespread in Great Britain on the 3rd and thick in places; it persisted locally throughout the day.

Miscellaneous Phenomena.—The aurora was seen in Scotland on 14 nights. On the evening of the 6th the aurora was observed as far south as South Petherton (Somerset), and Peterborough (Northants). The aurora on the 24th was widely seen in England, being recorded as far south as Torquay (see "Meteorological Magazine," March 1939, pp. 54–6). Solar halos were noted at Oxford on 14 days. At Bellingham, Northumberland, snowflakes $2\frac{1}{2}$ inches long were observed between 4.0 and 4.10 p.m. on the 28th.