

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE

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

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NOVEMBER, 1938.—Exceptionally mild; wet on the whole.

The weather of the month was distinguished by exceptional mildness; at numerous places it was the mildest November on record. It was also unsettled, windy and wet on the whole, with variable sunshine.

On the 1st and 2nd a deep depression off the north of Scotland moved north-north-east while an associated trough of low pressure moved eastward over the British Isles; gales occurred in the west and north on the 1st and 2nd, and moderately heavy rain locally in northern districts on the 1st. Local thunderstorms were reported in the northern half of the country and snow in Scotland. On the 3rd and 4th Atlantic depressions moved north-east and fairly heavy rain fell at a number of places in the west and north on the 3rd. Between the 5th and 15th an anticyclone moved north-east from Spain to central Europe and then eastward to Russia; meanwhile Atlantic depressions moved north-east or north along our western seaboard. This pressure distribution caused a flow of unusually mild equatorial air over the British Isles. Heavy rain occurred at times in the west and north. Weather improved temporarily in Scotland on the 14th and 15th. On the 18th a depression centred over mid-Atlantic moved quickly north-east and became very intense, causing gales in the north and west on the 18th and 19th and considerable rain generally; a gust of 98 m.p.h. was registered at Stornoway, in the northern Hebrides, on the 18th.

Subsequently depressions moved more directly over the British Isles; lower temperatures prevailed and precipitation was frequent in all districts. On the 23rd an intense depression moved rapidly north-east from Ireland to southern Norway causing widespread and severe gales over Ireland, England and southern Scotland. Considerable snow fell in Scotland between the 22nd and 24th and it lay to a depth of 4 to 6 inches at a number of places. Secondary depressions moving across the country caused heavy rain, particularly in southern districts, during the 24 hours ending at 9 a.m. on the 26th. From the 27th-30th deep depressions took an east-north-easterly track to the north of Scotland, causing local gales in the west and north and rain at times in all districts.

Pressure and Wind.—Mean pressure was everywhere below the average but the deficiency was much greater in the north than in the south; the deviation at 7h. ranged from -11.6 mb. at Lerwick to -3.1 mb. at Yarmouth. The mean pressure gradient was markedly increased above the average and gales occurred frequently at exposed stations in the west and north; they were reported on 14 days at Lerwick, 11 days at Kirkwall, 10 days at Wick and Eskdalemuir and 9 days at Stornoway and St. Ann's Head, Pembroke. The gale on the 23rd was widespread and unusually severe in England and Wales and Ireland; mean hourly speeds of 59 m.p.h., 56 m.p.h. and 56 m.p.h. were registered at Cardington, the Lizard and Scilly respectively. Among the highest speeds recorded in gusts were 108 m.p.h. at St. Ann's Head, 91 m.p.h. at Mildenhall, 86 m.p.h. at Cardington and 84 m.p.h. at Birmingham and Valentia Observatory on the 23rd and 98 m.p.h. at Stornoway on the 18th.

Temperature.—The most remarkable feature of the weather of the month was the exceptional mildness. At numerous stations it was the mildest November on record; for example at Southport, Totland Bay (Isle of Wight), Wakefield and Ross-on-Wye since records were begun in 1871, 1886, 1889 and 1874 respectively. At Oxford, in a record back to 1815, the mean temperature, 49.3°F., is the highest in November since 1818. In many places the absolute maximum temperature, registered as a rule on one of the days from the 4th-6th, was the highest on record for November. At numerous stations in east England and at one or two in south-east England 70°F. was registered on the 5th. Minimum temperatures were also unusually

high, notably from the 5th-7th and 11th-14th. The first 19 days formed a period of exceptional warmth; subsequently the weather became cooler and in Scotland, north-east England and Ireland the mean temperature for the week ending the 26th was appreciably below the average.

The extremes for the month were:—(England and Wales) 70°F. at Mildenhall, Cambridge, Clacton, Chelmsford, Halstead and Tottenham on the 5th, 24°F. at Attenborough on the 27th; (Scotland) 65°F. at Stonehaven on the 4th, 18°F. at Braemar on the 22nd; (Ireland) 65°F. at Phoenix Park, Dublin, on the 5th and 28°F. at Glasnevin, Dublin, on the 20th and at Ballinacurra on the 29th.

Precipitation.—The general precipitation of the British Isles expressed as a percentage of the average for the period 1881-1915 was 147, the values for the constituent countries being England and Wales 141, Scotland 157 and Ireland 156. In Ireland, the excess was general except locally in Dublin; more than twice the average was confined to a few stations on the north-west coast. In England and Wales, less than the average was received in the neighbourhood of the Wash, around the Thames Estuary, in parts of east Kent, locally in Northumberland and at Llandudno; more than twice the average occurred in small areas in Cumberland, South Wales and South Devon. In Scotland, more than twice the average occurred in fairly large areas in the south and west and less than the average over a moderate area in the north-east.

Among the heavier falls in 24 hours were:—

- 5th 4.73 in. at Kinlochquoich (Inverness-shire) and 2.44 in. at Glenquoich (Inverness-shire).
- 6th 4.20 in. at Kinlochquoich and 2.53 in. at Glenquoich.
- 7th 2.35 in. at Glen Loy (Inverness-shire).
- 12th 3.54 in. at Troutbeck (Cumberland), 3.50 in. at Borrowdale (Cumberland), 3.37 in. at Keswick, 2.80 in. at Princetown, 2.54 in. at Wolfelee (Roxburgh), and 2.50 in. at Ballynahinch Castle (County Galway).
- 25th 2.91 in. at Totnes, 2.35 in. at Holne (Devon), and 2.26 in. at Ipplepen Vicarage (Devon).
- 28th 2.80 in. at Glenetive (Argyllshire).

Snow or sleet was reported locally in the north on the 1st and 2nd and occurred locally at times during the latter half of the month. The falls were appreciable in Scotland between the 22nd and 24th and snow lay to a depth of four to six inches in many places.

Local thunderstorms were reported, chiefly in the west and north, on the 1st, 2nd, 12th and on most days between the 16th and 30th.

Sunshine.—Sunshine was below the average on the whole in Ireland and the western half of Scotland and exceeded the average in the eastern half of Scotland. In England it was variable, but there was an appreciable excess in the Midlands and north-east England, at some inland stations in east England and locally in north-west England. On the other hand it was very deficient locally in the south-east and south-west. At Chester (Sealand) it was the sunniest November since records were started in 1923; at Eskdalemuir, in the south of Scotland, it was the dullest since records were first taken in 1910; at Eastbourne only two Novembers, namely 1888 and 1936, have had less sunshine during the period 1888-1938.

Fog.—Fog occurred locally at times chiefly from the 3rd-6th, 9th-10th, 14th-18th, 21st-22nd and 28th-29th. It was somewhat widespread in England from the 15th-18th and in the west of Scotland on the 16th.

Miscellaneous Phenomena.—The aurora was observed in Scotland on 17 nights. Solar halos were noted at Oxford on 13 days.