

Monthly Weather Report

OF THE METEOROLOGICAL OFFICE

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

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December 1954—Mild; Wet in Scotland, north-west England and Wales; frequent gales.

During the first half of the month the weather was unsettled with frequent rain. In the second half conditions in the south were mainly influenced by high pressure to the south and south-west of the British Isles but unsettled conditions persisted for the most part in the west and north. South-westerly or westerly winds predominated throughout the month and they were frequently strong to gale force at exposed stations in the west and north.

In the first few days depressions moved east-north-east across the North Atlantic and passed between Iceland and Scotland giving mild weather; on the 2nd temperature reached between 55° and 60°F. over almost the whole country. There was frequent rain, heavy at times in the north and west. On the 4th a depression crossed northern Scotland and was accompanied by squally, north-westerly gales over much of the country; gales were severe at exposed places in the north-west; temperature fell with the influx of polar air. Subsequently the track of depressions veered and on the 6th and 7th a weak system moved south-east across the British Isles bringing snow as far south as southern England. On the 8th a depression on a parallel track deepened off Ireland, moved towards Wales and crossed northern England and Scotland during the 9th and 10th giving fairly widespread and locally severe gales. Rainfall was heavy locally on the 8th and moderately heavy in the north on the 9th. On the 8th in addition to fairly general rain, snow and hail there were rather widespread thunderstorms in the south and east; at some places in the south-east large hailstones up to ½ inch in diameter were reported and there were local tornadoes including one in the west London area, where there was considerable damage to buildings. With the departure of this depression less active systems travelled across the Atlantic to the British Isles; unsettled weather persisted until the 14th, with some rain in most places nearly every day. The period 5th to 12th–13th was generally rather cold, but on the 14th temperature rose to 55°F. in places though it was a sunless day. From the 15th to the 19th an anticyclone extended from west to east across Europe, and frontal activity was confined mainly to western and northern areas where rainfall was heavy locally. In the south during this period there were sunny intervals but a good deal of fog particularly during the nights of the 15th to 18th. From the 20th the dominant system was an anticyclone which moved from America and intensified to west-south-west of the British Isles, though on the 21st a depression moving round it from Iceland towards Denmark brought a period of rather cold, squally north-westerly gales over most of the country and heavy rain locally in north Wales and Argyllshire on the 22nd. From the 25th to 29th the anticyclone off our south-west coasts moved slowly eastwards and mild air from the Azores spread to all districts; weather was dull generally, with temperature 5–10°F. above average, and mainly dry in the south but with more rain in the north, heavy in places on the 25th–28th. By the 30th the anticyclone over Germany had linked up with the high pressure over Scandinavia and there was little rain anywhere except on the south-west coast of Ireland.

Pressure and Wind.—Mean pressure was below the average almost everywhere; the deviation at 9h. ranged from –9.7 mb. at Lerwick to +0.8 mb. at Newquay. Thus the mean pressure gradient was again considerably stronger than the average. Westerly or south-westerly winds predominated, the month was notably windy and gales were unusually frequent. At Oxford and Southport the total run of wind was the highest since before 1930. The gales were widespread and severe locally on the 4th, 8th–9th and 21st–23rd. Among the highest gusts, in knots, were 77 at Tiree and 74 at Millport and Bidston on the 4th, 78 at The Lizard on the 6th, 75 at Stornoway, 74 at Edinburgh and 72 at Spurn and Felixstowe on the 21st and 71 at Manchester Airport and Mildenhall on the 23rd.

Temperature.—Mean temperature exceeded the average for the period 1921–50 by 3.7°F. in England and Wales, 1.9°F. in Scotland and 3.2°F. in Northern Ireland. It was rather cold from the 5th to

the 12th–13th and again around the 23rd–24th. The rest of the month was generally mild, the highest temperature occurring in most places on the 2nd. Rather low minimum temperatures were registered on the 7th, 8th, 11th and 14th.

Extreme temperatures for the month included:—(England and Wales) 62°F. at Colwyn Bay on the 2nd, 17°F. at Moor House on the 7th; (Scotland) 59°F. at Liberton, Dunbar and Loch Fyne on the 2nd, 12°F. at Braemar on the 14th; (Northern Ireland) 58°F. at Garvagh on the 2nd, 29°F. at Ballykelly on the 8th and at Aldergrove and Garvagh on the 11th.

Precipitation.—The general precipitation expressed as a percentage of the average for the period 1881–1915 was 89 over England and Wales, 137 over Scotland and 120 over Northern Ireland. In Scotland it was more than average almost everywhere except at a number of places on or near the east coast from Craibstone to St. Abbs Head; over a large central and northern area it was more than 175 per cent of average. Rainfall was more than average also over most of north Wales and north-west England and locally in the Midlands, but over much of the southern half of England and Wales and the eastern half of England it was less than average; at one or two places in the extreme south-east it was less than half the average. In Northern Ireland rainfall was more than average except at Newtownbutler, County Fermanagh.

Among the heavier falls, in inches, in 24 hours were:—

1st	3.70 at Cwm Dyli, Snowdon and 3.40 at Watendlath Farm, Cumberland.
2nd	2.94 at Oakley Quarries, Merionethshire, 2.91 at Corris, Montgomeryshire and 2.64 at Swansea Waterworks, Brecknockshire.
17th	6.02 at Cruadhach, western Inverness-shire.
18th	4.35 at Cruadhach.
22nd	2.53 at Blaenau Festiniog, Merionethshire.
27th	5.01 at Cruadhach.

Thunderstorms occurred on the 2nd–4th, 6th–10th, 12th, 18th and 20th. They were fairly widespread on the 8th and 9th and were heavy in some parts, particularly in the south and east, on the 8th.

Snow fell fairly frequently, roughly north-west of a line Bristol Channel to the Wash, particularly in parts of Scotland where there were heavy falls which blocked some roads for several days. It was widespread on the 8th, 12th, 23rd and 24th. On the 8th snow was lying to a depth of 22 in. at Braemar and 18 in. at Balmoral while on the 9th Achnagoichan and Glenmore Lodge, both in Inverness-shire, each reported a depth of 14 in. There was 6 in. of snow lying at Moor House from the 9th–12th and 4 in. at Buxton from the 8th–10th.

Sunshine.—The general sunshine expressed as a percentage of the average for the period 1921–50 was 108 over England and Wales, 80 over Scotland and 58 over Northern Ireland. In western districts of Scotland sunshine was substantially less than the average, several stations having less than half their usual amount, but locally on the east coast there was a considerable excess. Over much of the north-eastern, eastern and Midland districts of England it considerably exceeded the average, but in parts of north-west England, including the Lake District, as also in Northern Ireland there was a large deficit. In southern England percentages of average were variable.

Fog.—Fog occurred locally on the 7th, 8th and 11th and fairly widely from the 12th to 18th; it persisted all day in places on the 16th. It occurred locally again from the 24th to 28th and rather more widely on the 29th and 31st. Fog was observed at 09h. on 13 days at Moor House and 9 days at both Malham Tarn and Whitworth Park, Manchester.

Miscellaneous Phenomena.—The aurora was observed in Scotland on 7 nights. Minor tornadoes occurred locally in south-east England on the 8th.