

Monthly Weather Report

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OF THE METEOROLOGICAL OFFICE

Summary of observations compiled from returns of official stations and voluntary observers

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December 1958—*Changeable; mainly dull and wet with foggy periods*

The foggy anticyclonic weather of late November continued during the first week of December, but for most of the second week weather was unsettled with westerly winds. From 13th to 17th winds over the British Isles were light and variable and pressure exceptionally low, but during the next five days a deep depression off Ireland brought mild southerly winds to most districts. Subsequently, after a short quiet foggy period which lasted until Christmas day, the month ended with nearly a week of fresh westerly winds and mild unsettled weather.

The month opened with an anticyclone centred over the British Isles, on the eastern side of a marked upper ridge extending from the Azores to Spitzbergen. There was a cold low off Portugal. The anticyclone gave quiet weather for a week, fog being widespread during the first four days, especially in central and eastern England where thick fog persisted all day on the 3rd and 4th. There was some improvement on the 5th but the fog became fairly widespread again on the night of the 6th/7th.

On the 7th/8th a depression moved eastwards to the north of Scotland and its associated cold front crossed the country. On the 8th there were frequent showers with local hail and thunder in the northwesterly airstream behind the front. Subsequently the depression track was further south, lows moving east-south-east across England on 9th/10th and again on 10th/11th. These brought more general rain, and some areas had snow. By the 12th a deep depression was centred south of Iceland and its associated fronts crossed all areas giving moderate or heavy rain in many districts; in western Scotland several places had more than 1 in. in 24 hours.

However, by the 10th the upper flow had become zonal over the Atlantic but the westerly flow was mainly to the south of 50°N. and the deep depression of the 12th did not alter this. By the 13th slow-moving depressions were established over the British Isles with centres over Ireland and England. These cold lows, whilst deep, were not intense and this type of situation lasted until the 18th: winds were mainly light and there were outbreaks of rain and snow. The rain was heavy locally, particularly on the 14th in eastern Scotland where many places recorded more than 1 in.; Strathyre, Perthshire, had 3.51 in. on that day. Snow and sleet was mainly confined to the North and Midlands but fell as far south as Kent and Sussex on the 13th. Fog was widespread from 15th to 17th, being thick all day over much of southern England on the 16th: at many places this was weather similar to that experienced in the opening days of the month, but then pressure was some 50 mb. higher.

During the period 18th–22nd a deep and vigorous depression moved from our South-west Approaches along the west coast of Ireland to our North-west Approaches. This brought milder air, temperatures reaching the middle fifties at one or two places on the 20th. Winds reached gale force locally on the 19th and 20th and a belt of rain which was heavy in places, moved northwards across the country. There were local thunderstorms.

During this same period (18th–22nd) the upper flow over the Atlantic had become meridional and by the 21st upper troughs were situated at about 15°W. and near the eastern seaboard of North America, with a strong intervening upper ridge. The strong south-westerly flow on the southern side of the Labrador upper low extended steadily east-north-east and a cut-off low was formed in the southern part of the eastern Atlantic upper trough. Pressure rose generally over the British Isles becoming uniform over much of the country from 23rd to 25th. The result was a quiet foggy spell, which began in some places on the 22nd.

Fog was thick day and night in many areas from 23rd to 25th, and dense locally. However, the westerlies extended over the country on the 26th and from then until the end of the month weather was mild with rain at times. Winds reached gale force in Scotland and northern England from 27th to 30th and in S.E. England on 31st.

Pressure and wind. Mean pressure was considerably below average everywhere, the deficit at 9 h. ranging from 5.6 mb. at Lerwick to 11.0 mb. at Scilly. On the 1st the 1000–500 mb. thickness (about 5640 m.) to the north of Scotland was unusually high for the time of year. There were three periods during which winds were mainly light and variable; the 1st–7th, 13th–17th and 23rd–25th. At other times winds were mainly between west and south-west except for a period of generally southerly winds on 18th–22nd. A gust of 75 kt. was recorded at Benbecula on the 28th and one of 72 kt. at Tiree on the 29th.

Temperature. Mean temperature was 0.4°F. above the 1921–50 average in England and Wales and 0.9°F. and 1.2°F. below average in Scotland and Northern Ireland respectively. The warmest days were generally around the 20th and towards the end of the month, the coldest nights around the 7th and 14th.

Extreme temperatures included: (England and Wales) 58°F. at Poole on the 27th, 17°F. at Moor House on the 10th; (Scotland) 54°F. at Glenbranter on the 20th and at Largs and Colmonell on the 28th, 8°F. at Kincaig on the 14th; (Northern Ireland) 55°F. at Kilkeel on the 27th, 24°F. at Ballykelly on the 14th.

Precipitation. The general precipitation expressed as a percentage of the 1916–50 average was 119 over England and Wales, 112 over Scotland and 113 over Northern Ireland. Less than the average fell over most of Wales, north-west England and western Scotland while more than 150 per cent. of the average was recorded in the east Midlands, on the East Anglian coast and over many eastern coastal districts from Northumberland to Aberdeen. Twice the average was exceeded in East Lothian and Kinross-shire.

Thunder was heard on 10 days in Scotland and 9 days (8th–10th, 12th–14th, 15th, 20th and 29th) in England and Wales. Thunderstorms were fairly widespread in southern and western districts on the 13th and in the Midlands and northern England on the 29th.

Snow. In Scotland there were moderate falls of snow in the second week and it lay several inches deep in hilly inland districts. Lighter falls occurred during the last week of the month. In England and Wales snow or sleet fell at one place or another from 6th to 18th and was fairly frequent from 9th to 14th. Ground was snow-covered in parts of East Anglia on the 10th, and in parts of the Midlands on 11th–16th.

Sunshine. The general sunshine expressed as a percentage of the 1921–50 average was 75 in England and Wales, 105 in Scotland and 94 in Northern Ireland. In south-east England the percentage of the local average varied from 21 at South Farnborough to 110 at Margate.

Fog. In Scotland fog occurred at one place or another on every day except the 11th, the highest frequency for 25 years. In England and Wales there were three separate periods during which thick or dense fog persisted throughout the day – the first week, from 15th to 17th and from 22nd to 25th.

Miscellaneous Phenomena. In Scotland the aurora was visible on 22 nights.