

# Monthly Weather Report

## OF THE METEOROLOGICAL OFFICE

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### October 1957—*Dry during first half, then changeable*

Under the influence of an anticyclone centred first to the south-west of Ireland and later over the continent there was little rainfall over most of the British Isles during the first half of the month, with absolute droughts recorded at many stations in central and southern England. During the second half, weather was changeable with heavy rain and floods in western districts towards the end of the month.

For the first three or four days a large upper ridge remained almost stationary to the west of the British Isles with an anticyclone centred off the south-west of Ireland. Ground frost was fairly widespread early and the weather during the day, though rather cold with winds from the north-west, was quiet and fine especially in southern England where in many places it was brilliantly sunny. Over Scotland and Northern Ireland weather was generally dull with some slight rain or drizzle. Gales occurred in north Scotland on the night of the 2nd/3rd as a vigorous depression moved quickly eastward off the north coast toward southern Scandinavia; wind reached 70 kt. in gusts in the Orkneys.

The large upper ridge then began to move eastwards crossing the British Isles on the 7th, subsequently becoming quasistationary in the region of the Baltic. The associated anticyclone off south-west Ireland also moved eastwards, the highest pressure being over the central English Channel on the 6th and over central Europe the following day. Most of the British Isles remained in a weak pressure gradient for another week, but with the movement of the anticyclone surface winds slowly backed and weather over the country became milder with the influx of a more southerly airstream. Early morning fog developed over eastern and southern counties on the 7th, and during the second week of the month fog became progressively more extensive over England and Wales each morning but, except in the Midlands where it persisted locally throughout the day on the 8th and 9th, it cleared from most places by mid-morning. The afternoons, especially in the south, were generally warm and sunny with temperature rising above 60°F. and reaching 70°F. locally. In Scotland and Northern Ireland weather during the second week was mainly cloudy with some rain on most days.

The spell of settled dry weather was brought abruptly to an end by a burst of cold air, associated with strong westerly winds at high levels, which swept across the country on the 16th accompanied by widespread and locally heavy rain; many stations recorded more than 1 in. during the day. As the westerly regime became established, vigorous depressions from the Atlantic moved across the country on the 17th and 18th giving two almost sunless days with widespread rain and gales.

A large amplitude upper trough, which had formed on the western Atlantic by a cold outbreak down the Davis Strait three days previously, moved steadily across the British Isles on the 19th in the wake of the two depressions. As pressure over the country rose and surface winds veered towards the north-west, weather became brighter and colder, with scattered showers and local thunderstorms. Ground frost was widespread on the 20th, and apart from a belt of slight frontal rain which moved across the country later that day, weather remained generally bright and rather cold with scattered thundery showers until the 22nd. The next day a frontal system to a deep depression off the north of Scotland brought dull weather with slight rain to most districts of the British Isles, and the dull wet weather was maintained on the 24th and 25th as waves moved north-east over the country along the cold front. There was a short break in the wet weather on the 26th as the cold front cleared the country, but more active fronts approached from the north-west the same day and these in turn became slow moving and developed waves. Rainfall was heavy in western districts and during the period 26th–29th a total of 12.71 in. of rain was recorded near Blaenau Ffestiniog, Merionethshire and floods occurred in parts of Wales and north-west England. Wide-

spread gales developed on the last day of the month as a deep depression moved towards north Scotland; rain was widespread and heavy locally and there were scattered thunderstorms.

**Pressure and Wind.** Mean pressure at 9 h. was above average everywhere except in the north of Scotland; the departure from the mean ranged from +4.1 mb. at Newquay and Oxford to -3.1 mb. at Lerwick. Winds were mainly between west and north-west during the first five days, remaining light but becoming mainly southerly from 6th to 15th. During the second half of the month fresher south-westerly winds predominated, although wind veered temporarily towards the north-west on the 19th, 22nd, 26th and 30th. Gales occurred on 13 days, being widespread on the 17th and 18th and fairly widespread on the 31st. Gusts of 70 kt. were recorded at Stornoway on the 27th and 72 kt. at Grimsetter on the 2nd.

**Temperature.** Mean temperature exceeded the 1921–50 average by 1.4°F. in England and Wales, 1.2°F. in Scotland and 0.6°F. in Northern Ireland. In most districts the mean maximum and minimum temperatures were almost equally above their respective averages, the greatest excess occurring in south-east England. Frost was widespread on the 20th, when screen temperatures fell to 20°F. at Castle Douglas, and to 29°F. at Durham and Totnes and ground temperature to 17°F. at Eskdalemuir.

Extreme temperatures for the month included:—(England and Wales) 70°F. at several places in the south of England on the 8th, 10th, 13th and 14th, 27°F. at Shardlow Hall on the 20th; (Scotland) 65°F. at Strathy and Dyce on the 6th and at Gordon Castle on the 5th, 6th and 7th, 20°F. at Castle Douglas on the 20th; (Northern Ireland) 64°F. at Ballykelly on the 9th, 33°F. at Aldergrove on the 1st and at Garvagh on the 20th.

**Precipitation.** The general precipitation expressed as a percentage of the 1881–1915 average was 74 over England and Wales, 108 over Scotland and 118 over Northern Ireland. It was less than half the average over much of Kent, Surrey and Sussex, over an area extending from Monmouthshire to Leicestershire, over the eastern half of East Anglia and over the eastern counties of Scotland north of the Tay. Rainfall was above the average over North Wales, north-west England and the western half of Scotland.

Among the heavier falls in 24 hr. were:—

- 26th 2.62 in. at Corris (Clinws Camp), Montgomeryshire.
- 27th 2.17 in. at Loch Hourn (Kinlochourn), Inverness-shire.
- 28th 2.97 in. at Rhondda W.W. (Llyn Fawr Reservoir), Glamorgan-shire.
- 29th 4.14 in. at Blaenau Ffestiniog (Llechwedd Quarry), Montgomeryshire.

Thunder occurred over a wide area in the Midlands and south of England on the 19th–21st and there were reports of local thunder on the 16th, 22nd and 31st.

Snow and sleet showers occurred locally over high ground in Scotland.

**Sunshine.** The general sunshine expressed as a percentage of the 1921–50 average was 87 in England and Wales, 82 in Scotland and 71 over Northern Ireland. Few stations had more than their average amount of sunshine but among these were Berwick-on-Tweed and Huddersfield with 110 and 112 per cent. respectively.

**Fog.** Early morning fog was prevalent during the second week of the month and this persisted throughout the day in some midland districts on the 8th and 9th.

**Miscellaneous Phenomena.** The aurora was visible in Scotland on 15 nights; it was also seen from stations as far south as Waterbeach and Shawbury on the 20th and 21st.