

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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October 1958—*Wet and changeable at first, generally dry during second half of the month*

The first half of the month was characterised by cyclonic and westerly situations, but from 17th to 29th a warm anticyclone dominated the weather over the British Isles.

A shallow depression centred over Wales, with a closed circulation at 500 mb., gave thundery showers on the 1st, especially in central and southern England. The depression filled rapidly, but an occlusion from the Atlantic brought heavy rain to many places during the night. The following day complex surface depressions moved east-south-east towards the British Isles and on the 3rd a large depression, with a circulation in depth, became established off our south-west coasts. This depression subsequently moved northward, as it filled, and was centred over Scotland about noon on the 4th and off south-west Iceland 24 hours later. Meanwhile an upper trough remained over the British Isles and a pronounced ridge over Europe. Weather during this time was mild, especially at night, and there was widespread rain which was heavy locally in central and southern England where thunderstorms also occurred. On the 3rd, the wettest day of the month generally, most western districts from Glasgow to Cornwall had falls of more than 1 in. in 24 hr. and several places in south and central Wales recorded more than 2 in. Until late on the 5th temperature had not fallen below 50°F. over much of southern England and the Midlands since the beginning of the month.

Weather became distinctly colder on the night of the 5th/6th as the upper trough, which had been situated over the western part of the British Isles since the 1st, moved eastward and a north-westerly airstream spread across the country; screen temperature at Eskdalemuir fell to 27°F., 20°F. below that of the previous night. On the 7th a depression began to move east across the British Isles but soon became absorbed in the circulation of a rapidly deepening depression centred near Iceland; associated troughs moved slowly across the country on the 7th and 8th, but although there was some moderate to heavy local rain in southern England at first, rainfall was mainly slight. The next four days were showery with local thunderstorms, but with good sunny periods, as a major trough, which had formed at about 28°W. on the 9th, moved slowly eastwards. On the 9th several places in northern Scotland recorded over 2 in. of rain in 24 hr. and falls of more than 1 in. were common. The upper trough moved slowly eastwards across the British Isles on the 11th and 12th, and a belt of rain, associated with an approaching warm front, reached north-west Scotland during the afternoon of the 12th and spread to the remainder of the country during the evening and night; rain was unusually heavy in the north-west, more than 2 in. being recorded in 24 hr. at a number of places in North Wales, the Lake District and Pennines. The following day was dull in the south and Midlands with widespread rain, but further north there were good sunny periods with scattered showers.

On the 14th, frontal rain, mainly slight except in the extreme north, was followed by fresh north-westerly winds which spread across the country reaching the extreme south-east by midnight. Pressure rose rapidly and weather became fine and sunny, apart from scattered showers, for two or three days. Wind reached gale force locally on the 16th but moderated and veered towards the north as an anticyclone became centred over Ireland on the 17th.

On the 18th a warm ridge at 500 mb. extended from our South-west Approaches to northern Norway, and this, together with a cold low over central Russia from which a cold trough extended southward to the Mediterranean, formed a block to the general westerly flow into Europe. The surface anticyclone retreated south-westwards and cloudy weather, with occasional rain, spread round its northern side, first to Scotland and then, on the 19th, to the rest of the British Isles. The anticyclone remained off our south-west coasts for about five days, but the generally dull weather persisted even when it moved north-east again to become

centred over the British Isles on the 23rd and pressure over southern England reached record high levels. Thereafter the anticyclone declined slowly and drifted eastward reaching the continent on the 26th. Fog occurred frequently from 20th to 29th but in general was prevented from becoming thick by cloud cover. There was little measurable rain over much of the country from 14th to 28th, except around the 19th, but some places in Dorset and Cornwall missed this rain and had an absolute drought.

The first frontal rain since the 20th reached the Hebrides on the night of the 28th/29th and moved slowly across the country to clear south-east England by the morning of the 31st; falls were moderate locally.

Pressure and Wind. Pressure was everywhere above the average, the excess at 9h. ranging from 2.8 mb. at Stornoway to 5.8 mb. at Scilly. On the 23rd the sea level pressure of 1040.6 mb. at Kew was the highest in October since records began there in 1869. Winds were generally south-westerly until the 14th and north-westerly from 15th to 22nd. After a period of light variable winds they were mainly south to south-east on the 27th and 28th, south-westerly on the 29th and north-westerly on the 31st. Gale force was reached in some places on 17 days in Scotland and on the 1st, 3rd, 4th, 7th and 13th–16th in England and Wales. Gusts of 62 kt. and 68 kt. were recorded on the 12th at Benbecula and Stornoway respectively and one of 75 kt. on the 16th at Tiree.

Temperature. Mean temperature exceeded the 1921–50 average by 1.3°F. in England and Wales, 2.2°F. in Scotland and 1.8°F. in Northern Ireland. In England and Wales the excess was largely due to mild nights; from 20th to 23rd night temperatures were only a little below the day maxima to be expected at that time of year. In Scotland, however, there was ground frost at one place or another on all but 5 days of the month, and it was widespread on the 6th, 12th, 18th and 31st.

Extreme temperatures included:—(England and Wales) 69°F. at Huddersfield (Oakes) on the 28th, 28°F. at Kielder Castle on the 18th; (Scotland) 68°F. at Balmoral on the 23rd, 25°F. at Carnwath and Castle Douglas on the 18th; (Northern Ireland) 64°F. at Belfast (Stormont Castle) and Armagh on the 14th, 32°F. at Ballykelly on the 12th.

Precipitation. The general precipitation expressed as a percentage of the 1916–50 average was 88 in England and Wales, 81 in Scotland and 73 in Northern Ireland. Less than half the average rainfall occurred along much of the east coast from Tynemouth to the Moray Firth. More than the average fell in a narrow belt from north Devon to Hereford, over Kent, east Surrey, London and Essex and locally in Oxfordshire, Staffordshire, Inverness-shire and north-west Scotland. Most of the rain fell during the first half of the month.

Among falls of 2 in. or more in 24 hr. were:—

3rd 2.03 in. at Princetown, Devon.

4th 2.04 in. at Borrowdale, Cumberland.

9th 2.63 in. at Onich, Inverness-shire.

12th 2.89 in. at Blaenau Ffestiniog, Merionethshire.

Thunderstorms occurred on 10 days in Scotland and on 1st–7th, 10th–12th, 14th–16th and 31st in England and Wales where they were widespread on the 1st and 4th.

Sunshine. The general sunshine expressed as a percentage of the 1921–50 average was 95 in England and Wales, 105 in Scotland and 93 in Northern Ireland. Sunshine was above the average over much of north-east England and also in east Scotland where many places had as much as 140 per cent. of their normal amount.

Fog. Fog occurred at one place or another on 12 days in Scotland and on 16 days in England and Wales where it was widespread every morning from 22nd–29th.

Miscellaneous Phenomena. The aurora was observed on 16 nights in Scotland; on the 22nd it was also seen from Driffield, Yorkshire.