

Monthly Weather Report

OF THE METEOROLOGICAL OFFICE

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

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November 1957—*Stormy at first, then mostly cloudy and dry.*

The first five days of November were stormy and wet, with troughs and depressions moving across the country, but during most of the remainder of the month weather was dry with anticyclones situated over or near the British Isles.

The month began with a broad westerly flow at 500 mb. extending across the Atlantic associated with a complex low pressure area from Scotland to Greenland. A deep depression, moving eastward from the Atlantic, reached the Orkneys at 06 h. on the 1st. Considerable rain fell in Scotland and winds increased to gale force over much of the north and north-west of the British Isles with gusts exceeding 70 kt. at both Benbecula and Tiree. The axis of the strongest upper winds moved slowly south during the next few days as a cold trough at 500 mb. intensified to the west of Ireland and surface fronts and depressions moved north-east across the British Isles. Weather was generally unsettled and rather cold with periods of rain and frequent showers which were heavy and thundery at times. A small but vigorous depression, approaching from the south-west on the 3rd, reached Devon at midnight, and Lincolnshire six hours later. The depression deepened considerably as it moved north-eastward across the country, and gales, which were widespread in the south, progressively strengthened and became severe in eastern districts, causing heavy damage to property. A gust of 80 kt. was recorded at Dover and one of 90 kt. at West Raynham. Torrential rain, associated with the passage of the depression led to floods in many areas especially in the Midlands and many places in central and southern England recorded more than one inch of rain in 24 hr. while at Dudley in Staffordshire more than half an inch of rain fell in seven minutes. Snow and sleet fell over high ground in parts of Yorkshire and Nottinghamshire. Another depression, a little less vigorous, approached our south-west coasts about 24 hr. later and was also accompanied by widespread, locally heavy rain and a renewal of gales, as it moved northward over the Irish Sea. The weather continued wet in most places throughout the following day as the upper trough to the west of Ireland moved eastward and the main centre of low surface pressure shifted to northern England.

On the 6th the depression over the British Isles moved away northward and weather became quiet and sunny generally although there were a few scattered showers. An anticyclone, which was centred south of Iceland on the 7th and which moved to Scotland two days later, was associated with a rapidly developing ridge at 500 mb. which by the 10th had formed a separate high cell to the north of the British Isles. This high cell, in conjunction with an intense cold vortex near Spain, formed a block in the zonal flow, and pressure remained high to the north of Scotland until the 15th. On the 7th, at the beginning of this period, weather was fine and cold and the following morning fog and frost were widespread, and although fog was dense locally it cleared from most places during the morning, re-forming at night. This was the coldest part of the month at many places with screen temperature falling to about 20°F. on the 7th and 8th. From 10th to 15th weather was dull and generally milder, especially at night with some slight rain or drizzle here and there. Several stations in south-east England recorded no sunshine for six days. The blocking pattern at 500 mb., which had weakened and drifted slowly eastward to Scandinavia, became re-established on the 15th at about longitude 10°W. where it persisted for several days. On the 16th and 17th a shallow depression over the Low Countries helped to maintain the dull weather, but during the next two days the British Isles lay between a large European anticyclone and northward moving depressions to the west of Ireland; western districts had mild wet weather with southerly gales but it was mainly cloudy and dry elsewhere. An anticyclone, which was in the region of Newfoundland on the 19th, moved across the Atlantic and became centred to the west of Ireland by the 22nd and cold northerly winds and brighter weather spread to the whole of the British Isles. On

the 24th the anticyclone moved south-east to the region of the English Channel; a blocking pattern was again established and the anticyclone remained almost stationary until the end of the month. Weather was dry, dull and mild over most of England and Wales but rain or drizzle fell at times over Scotland and north-west England. On the 28th, a new anticyclone moved southward from the Norwegian Sea, intensifying as it came, and on the last day of the month temperature fell about 10°F. as cold air spread over England from the Continent.

Pressure and wind. Mean pressure at 9 h. was everywhere above the average, the excess ranging from 9.3 mb. at Stornoway to 5.5 mb. at Tunbridge Wells. Winds were mainly south-westerly during the first five days, light and variable on the 6th and 7th becoming predominantly north-easterly until the 11th and between east and south-east on 12th–14th. Two days of light variable winds were followed by winds from a generally south to south-easterly direction on 18th–20th and from north to north-west on 21st–22nd, after which they were mainly south-westerly until the 28th and south-easterly or variable during the last two days of the month. Gales occurred on 11 days in Scotland, the stormiest day being the 1st, but in England and Wales gales were mainly confined to the first five days of the month, on the night of the 3rd/4th they were widespread and severe.

Temperature. Mean temperature in England and Wales approximated to the 1921–50 average, but exceeded this average by 1.1°F. in Scotland and 0.3°F. in Northern Ireland. The first half of the month was generally colder than the second; in eastern Scotland mean temperature during the last week was more than 10°F. higher than during the first. At many places the coldest period of the month was from 7th to 9th; on the latter date temperature at Dalwhinnie fell to 18°F. in the screen and 8°F. on the ground.

Extreme temperatures for the month included: (England and Wales) 60°F. at Sellafield on the 13th, 19°F. at Kielder Castle on the 7th; (Scotland) 59°F. at Glenmore Lodge on the 18th and at Dyce on the 25th, 16°F. at Glenshee Lodge on the 7th; (Northern Ireland) 57°F. at Garvagh on the 28th, 24°F. at Aldergrove on the 10th.

Precipitation. The general precipitation expressed as a percentage of the 1881–1915 average was 71 over England and Wales, 54 over Scotland and 42 over Northern Ireland. More than the average was recorded in Moray and Banffshire, on the Yorkshire coast, in the lower Thames valley and also in Kent where more than 150 per cent. of the average fell in the eastern part of the county. Most of the rain of the month fell during the first five days, but heavy rain did occur in Kent on the 7th, and rain was fairly widespread on the 21st which was the only wet day during the period 6th–30th at many places in England and Wales.

Thunder was heard locally on the 1st and 5th in Scotland and on 2nd–7th in England and Wales.

Snow and sleet were widely reported in Scotland on 1st–8th and in many parts of central England and Yorkshire on the 4th.

Sunshine. The general sunshine expressed as a percentage of the 1921–50 average was 111 in England and Wales, 76 in Scotland and 98 in Northern Ireland. It was a cloudy month over most of Scotland, in the Fortrose area it was the dulllest November since 1947. In England, eastern districts were the sunniest, Bunhill Row in central London reporting 145 per cent. of its average for the month.

Fog. Fog was reported at one place or other on 23 days in Scotland, and every day of the month, except on the 1st–4th and 22nd, in England and Wales; it persisted throughout the day at many places on the 11th.

Miscellaneous Phenomena. The aurora was observed in Scotland on 16 nights, and was seen in many places in north-east England on the night of 6th/7th.