

# Monthly Weather Report

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### November, 1947—Large and rapid fluctuations of temperature.

The weather of the month was distinguished by exceptionally large and rapid variations of temperature. Broadly speaking, rainfall exceeded the average in the north and west and was below the average in the south and east. Unsettled conditions prevailed over the greater part of the month.

During the opening days an almost stationary depression was situated south-west of Iceland, while a deepening secondary depression near the Azores moved north-north-east. Strong winds or gales were widespread on the 2nd, while fairly heavy rain occurred in the west and north on the 1st and 2nd. On the 3rd and 4th the depression south-east of Iceland moved slowly east-north-east; gales were reported at exposed stations in the northern half of the British Isles on the 3rd and 4th and local thunderstorms on the 3rd. From the 5th–7th a belt of high pressure moved slowly eastward over the country; slight rain occurred in the west and north, while widespread, thick fog developed over England on the 6th–7th causing considerable dislocation of traffic. On the 8th an Atlantic depression moved north-east to Iceland; subsequently it moved slowly eastward to the west coast of Norway. Meanwhile secondary depressions moved quickly north-east off our western seaboard on the 8th and a small secondary moved rapidly east across southern districts in the early hours of the 10th; rain fell in most parts of the country. On the 11th and 12th a depression from mid-Atlantic moved rapidly eastward across Scotland to the southern Baltic giving strong winds in the southern half of the country and gales in the south-west; heavy rain occurred in the west and north on the 11th.

An abrupt change to colder conditions took place on the 13th, when a cold, polar air current flowed over the British Isles in the rear of the depression over the Baltic. During the ensuing days secondary depressions moved south or south-east in the northerly current and unsettled, cold weather prevailed with snow or sleet at times in the north and west. On the 18th and 19th a shallow depression moved slowly east-south-east from south-west Ireland to north-east France; snow or sleet was fairly widespread in England on the northern side of the track.

On the 20th a large, complex, rather deep depression covered the north-east Atlantic. In front of this system very mild tropical air drawn from south of the Azores flowed over the British Isles and there was a rapid change from cold to very mild, humid conditions. Temperature rose by some 15°F. to 25°F. or more in 24 hours and water streamed down the inside walls of buildings. Widespread heavy rain occurred in the west and north on the 20th and 21st. These mild conditions persisted for three or four days. By the 22nd the main centre of the depression (which had now deepened to 964 mb.) was situated just south of Iceland; it moved slowly eastward, while a subsidiary disturbance off north-west Ireland moved rapidly east-north-east to Skagerrak. In the rear of these depressions a cold, polar air current caused another rapid fall of temperature and cold, showery weather, with bright periods persisted until the end of the month.

**Pressure and Wind.**—Mean pressure was below the average except locally in the south-west, where there was a slight excess; at 9h. the deviation from the average ranged from –3.3 mb. at Lerwick to +1.4 mb. at Plymouth. Winds from south-west to north-west predominated. Gales occurred fairly frequently at exposed stations in the west and north, mainly on the 2nd–4th, 8th–9th, 11th–13th, 15th, 17th and 20th–27th. The gale on the 2nd was widespread. Among the highest speeds registered in gusts were 73 m.p.h. at the Lizard, 69 m.p.h. at St. Ann's Head, 68 m.p.h. at St. Mary's, Scilly all on the 2nd and 64 m.p.h. at Edinburgh on the 20th.

**Temperature.**—Except in the north of Scotland mean temperature exceeded the average in all districts (See Table I). There were, however, exceptionally large and rapid variations of temperature. Mainly mild conditions prevailed until the 12th; thereafter it was cold until the 19th, exceptionally so in the north. On the 20th

temperatures rose by 15 to 25°F. or more and very mild conditions persisted for three or four days but on the 24th temperatures again fell very rapidly and it remained cold for the rest of the month. Very low day temperatures were registered in the north on the 18th; for example, the maximum temperature was only 23°F. at Dalwhinnie, 26°F. at Fort William and 27°F. at Renfrew. On the morning of the 19th, temperature fell to 15°F. or below at numerous stations in Scotland.

The extremes for the month were:—(England and Wales) 65°F. at Hawarden on the 21st and 22nd and at Hawarden Bridge and Llandudno on the 21st; 14°F. at Houghall on the 19th; (Scotland) 63°F. at Dunoon (Benmore), Liberton and Dunbar on the 20th and Craibstone on the 21st, 1°F. at Dalwhinnie on the 19th; (Northern Ireland) 62°F. at numerous places on the 20th and at Ballykelly and Castlerock also on the 21st, 23°F. at Ballykelly on the 19th and 30th and at Aldergrove on the 27th.

**Precipitation.**—The general precipitation expressed as a percentage of the average for the period 1881–1915 was 86 over England and Wales, 139 over Scotland and 153 over Northern Ireland. In Scotland less than the average occurred in the east from Aberdeen to the Firth of Tay and near the coast of Berwickshire increasing to more than 150 per cent. of the average in the Western and Northern Highlands and in Clydesdale. In a fairly large area from the Moray Firth to near the west coast more than 175 per cent. was registered. In England and Wales less than 50 per cent. was received in an area extending from south of Cambridge to the Sussex coast and locally in Hampshire, increasing north-westward to more than 175 per cent. in Snowdonia and locally in Cumberland. In Northern Ireland percentages ranged from 107 at Seaford, County Down, to 195 at Londonderry and 197 at Omagh, Tyrone.

Heavy rain occurred in the west and north on the 8th, 11th, 20th, 21st and 22nd and there were falls of more than 2 in. at many places, particularly on the 11th and 20th.

Among the heavier falls in 24 hours were:—

11th 4.32 in. at Blaenau Festiniog (Merioneth).

20th 6.28 in. at Glenquoich, 4.45 in. at Kinlochourn and 4.24 in. at Erracht (all in Inverness-shire).

21st 4.50 in. at Borrowdale and 3.60 in. at Blaenau Festiniog.

Thawing snow and heavy rains on the 20th caused severe flooding in Lochaber, Inverness-shire.

Thunderstorms were reported at times, for example, on the 1st–4th, 13th, 15th and 29th.

Snow and sleet occurred frequently in Scotland from the 13th–19th and 24th–30th; heavy snow fell in north-east and north-west Scotland between the 15th and 17th; in parts of Inverness-shire and at Tomintoul it lay to a depth of 6–7 in. with drifts 3–6 ft. deep. Icebound roads and snow drifts held up traffic in some areas. Considerable snow occurred in some parts of England and Wales on the 18th–19th; by the evening of the 18th, 5½ in. was lying at Crickhowel and 3½ in. at Usk while on the morning of the 19th, it lay 6 in. deep at Wrexham and 4 in. at Birmingham.

**Sunshine.**—Sunshine was notably excessive in most districts. There was a deficiency, however, in the Moray Firth area and parts of Wales and south and south-west England. The percentages for the districts ranged from 91 in England, S.W. and S. Wales to 172 in England, N.E. At some stations it was the sunniest November on record, for example, at Sheffield, Leuchars and Renfrew.

**Fog.**—The chief periods of fog were the 1st, 4th–8th, 18th–22nd and 30th. The fog on the 6th–7th was widespread and thick locally in England and Wales.

**Miscellaneous Phenomena.**—The aurora was observed at northern stations in Scotland on nine nights. Solar halos were noted at Oxford on 14 days. Lunar rainbows were observed at Trefrant on the 22nd and from Skye on the 28th; the latter showed all the colours of a solar rainbow.