

## MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE

SUMMARY OF OBSERVATIONS COMPILED FROM RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS

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**OCTOBER, 1942.—Mainly dull; unsettled generally in the north, and in the south also from the 20th onwards.**

During the opening days the anticyclone off our south-west coasts spread north-east over the southern half of the British Isles. Meanwhile a trough of low pressure associated with a depression in the far north moved south-east over the British Isles causing slight rain, chiefly in the west and north-west, but there was also slight rain in east Kent on the morning of the 1st; good sunshine records were obtained in many parts of England. On the 3rd and 4th a depression west-north-west of Ireland moved first east-north-east and then north-east and was associated with rain in Scotland and Ireland; widespread fog was reported in England. On the 5th a deep depression off south Iceland moved east-north-east and a trough of low pressure moved south-east over England; strong winds and local gales occurred in the north-west and north and there was rain in southern England and showers in northern Scotland. Meanwhile an anticyclone off west Ireland spread eastward giving a mainly fair day in most parts on the 6th. Subsequently a very deep depression off south Iceland moved slowly east and became gradually less deep; general rain prevailed on the 7th and a gale occurred locally in the north, while there were showers and long bright periods, with local thunderstorms, on the 8th. A new disturbance off south-west Iceland moving eastward caused somewhat widespread gales on the 9th and 10th and heavy rain locally in the west and north on the 9th and showery weather and bright periods on the 10th. A short break in the unsettled conditions occurred on the 11th with the passage of a wedge of high pressure over the country, when most places enjoyed a fair, sunny day. Unsettled weather was renewed on the 12th with the south-eastward movement of a trough of low pressure associated with an almost stationary depression over Iceland. Subsequently pressure was high southward of the British Isles, while an intense disturbance moved east-north-east across Iceland to Norway; there were widespread gales and rain fell at times.

For a period high pressure was maintained southward of the British Isles and mild, dull weather prevailed, with rain at times, chiefly in the northern half of the country. Locally in England there were considerable bright periods on the 19th and day temperatures reached 70°F. at some stations. The eastward passage of a trough of low pressure over Britain on the 20th caused general rain, heavy locally, and some local thunderstorms. Complex depressions moved eastwards to the north of Scotland on the 21st and 22nd, while associated troughs passed over the British Isles; further rain occurred which was heavy locally on the 21st. Subsequently a small secondary depression over southern Ireland moved east-north-east and was associated with heavy rain in the south on the 23rd. This was followed on the 25th by a complex depression, with centres west of Scilly and westward of Ireland, which moved in an easterly direction; rather cold, wet weather prevailed with heavy rain locally. Thereafter the centre off east Scotland drifted north and that over the English channel moved north-east to the North Sea; further rain occurred, which was heavy locally in southern England and north Ireland on the 26th. During the closing days cold winds from between north and east prevailed over the British Isles and rain fell at times, especially in the east and south.

**Pressure and Wind.**—Generally speaking, mean pressure was below the average in the north and somewhat exceeded the average in the south; at 7 h. the deviation ranged from -5.5 mb. at Sumburgh, Shetlands, to +2.0 mb. at Plymouth. Winds from between S. and W. predominated. Local gales occurred fairly frequently, mainly from the 5th-7th, 9th-10th, 14th-16th, 21st-26th, and 29th-30th; they were most widespread on the 9th-10th and 14th-15th. Among the highest speeds recorded in gusts at anemometer stations were 87 m.p.h. at Lerwick on the 10th, 85 m.p.h. at Lerwick on the 9th, and 85 m.p.h. at Lerwick and 82 m.p.h. at Kirkwall on the 15th.

**Temperature.**—Mean temperature somewhat exceeded the average on the whole, the deviation for the districts ranging from 0.0°F. in Scotland, N. and Northern Ireland to +1.8°F. in England, E. (see Table I). Broadly speaking, the first 24 days were rather mild, particularly the week ending the 24th. Maximum temperatures of 70°F. or slightly above were registered at numerous places in England on the 2nd, 7th and 19th and at a few on the 1st, 4th and 14th. Temperatures approaching 70°F. were registered locally in north-east Scotland on the 14th. The night of the 22nd-23rd was unusually mild for one so late in the year, the temperature at 0100 being 60°F. at numerous stations in south-east and east England. The last week was cold, both day and night temperature being low at times. Ground frosts were widespread and fairly severe during the last week.

The extremes for the month were:—(England and Wales) 72°F. at Bridlington and Worcester on the 19th, 26°F. at Houghall on the 28th; (Scotland) 69°F. at Banff on the 14th, 23°F. at Dalwhinnie and Braemar on the 28th; (Northern Ireland) 65°F. at Castlerock on the 14th, 30°F. at Garvagh, Aldergrove, Hillsborough and Armagh on the 31st.

**Precipitation.**—The general precipitation expressed as a percentage of the average for the period 1881-1915 was 99 over England and Wales, 139 over Scotland and 118 over Northern Ireland. In Scotland less than the average was confined to the south-east while more than twice the average was received over considerable areas in Sutherland and Argyll. In England and Wales more than the average occurred over most of east and south, but not south-west, England and also over a smaller area in north-west England. More than 150 per cent. of the average was received over part of East Anglia, locally in the London area and at places in Lancashire. Less than 50 per cent. of the average was registered in a small area in north-east England and locally in mid-Wales and Herefordshire. In Northern Ireland the excess was fairly general except in the south-east of the province; the percentages ranged from 79 at Armagh to 154 at Omagh.

Rainfall was very frequent in north Scotland; measurable rain fell on 31 days at Kirkwall, Skallary, Stornoway and Duntuilim, on 30 days at Cape Wrath and 29 at Wick and Fort Augustus.

Among the heaviest falls in 24 hours were:—

- 3rd. 3.35 in. at Glenquoich (Inverness-shire).
- 4th. 3.27 in. at Glendessary (Inverness-shire).
- 9th. 3.50 in. at Glenquoich, 3.39 in. at Blaenau Festiniog (Merioneth), 3.13 in. at Glenshiel (Ross and Cromarty).
- 21st. 3.43 in. at Blaenau Festiniog and 2.85 in. at Machynlleth.

Local thunderstorms were reported at times; for example on the 8th-9th, 13th, 20th, 25th, 27th-29th. In Scotland, thunderstorms were widespread on the night of the 28th-29th; at Banff a monument was damaged by lightning.

Snow fell in the Clyde area, at Fort William and at a few other places in the west of Scotland on the 8th. During the last week snow fell generally over high ground in Scotland.

**Sunshine.**—On the whole, sunshine was appreciably below the average. The percentage of the average was roughly 86 for both England and Wales and Scotland. In the Shetlands and locally in east Scotland, north-east England and the Midlands, however, there was an excess. The mean daily sunshine ranged from less than 1.5 hours over the western Highlands of Scotland to slightly more than 3.5 hours over rather small areas in south-east Scotland and north-east England and locally in the west Midlands (see Chart 4).

**Fog.**—Fog occurred, particularly in England, mainly from the 1st-5th, 7th, 14th, 17th-20th, 22nd, 23rd and 28th-30th.

**Miscellaneous Phenomena.**—The aurora was observed in Scotland on 17 nights. Solar halos were noted at Oxford on 11 days.