

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE

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

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OCTOBER, 1938.—Wet in the west and north; frequent strong winds; rather mild.

The weather of the month was unsettled and rather mild with frequent gales at exposed places in the west and north. Rainfall was notably excessive over most of Ireland, Scotland, north-west England and Wales, but it was deficient over considerable areas in England south-east of a line drawn from the Humber to south Cornwall. Sunshine was variable but, broadly speaking, it exceeded the average in eastern districts of Great Britain and the English Midlands and was deficient on the whole in the west.

Between the 2nd and 5th depressions moved north-east over Scotland; very unsettled weather prevailed with gales and heavy rain at times and local thunderstorms. The disturbance which crossed Scotland during the early hours of the 4th was very intense and caused widespread and severe gales; considerable damage and some loss of life occurred. From the 6th to the 18th the tracks of the main depressions lay to the northward of Scotland, while associated secondary depressions passed across the British Isles. Large daily falls of rain were numerous, particularly from the 2nd–8th, 11th–13th and on the 16th.

On the 19th and 20th a wedge of high pressure moved eastward over the country and subsequently an anticyclone was established over the Baltic region; over most of England fair weather prevailed, apart from fog, until the 25th. In the west and north, however, conditions were mainly unsettled. A good deal of fog developed in England on the 20th and from the 22nd–25th. Sharp frost occurred locally in south-east and east England on the 25th; a screen minimum of 22°F. was registered at Thetford.

On the 26th a depression near the Faeroes moved south-south-east giving rain in most parts on the 26th and 27th, and on the 30th and 31st secondary depressions associated with a disturbance near Iceland moved eastward over the country and caused further rain which was heavy locally on the 31st. Gales occurred locally in Scotland from the 29th–31st.

Pressure and Wind.—Except at the Scilly Isles mean pressure was everywhere below the average, the deficiency being much greater in the north than in the south. At 7h. the deviation from the average ranged from +0.7 mb. at Scilly to –10.6 mb. at Lerwick; the mean pressure gradient over the country was thus greatly increased. Gales occurred frequently at exposed stations in the west and north and were reported on 13 days at Lerwick, 11 days at St. Ann's Head, 10 days at Stornoway, 9 days at Huddersfield (Oakes) and 8 days at Valentia Observatory and Kirkwall. The gale of the 4th was exceptionally severe; a mean hourly speed of 64 m.p.h. was registered at Bidston Observatory and one of 60 m.p.h. at Southport, while among the highest speeds recorded in gusts were 104 m.p.h. at St. Ann's Head, 95 m.p.h. at Bidston, 92 m.p.h. at Manchester (Barton) and Holyhead and 90 m.p.h. at Southport.

Temperature.—Mean temperature exceeded the average on the whole, the deviations for the districts ranging from –0.1°F. in England, E. to +1.6°F. in Scotland, N. Among warm days may be mentioned the 13th and, in east England, the 9th. Sharp frosts occurred in east and south-east England on the 25th; elsewhere the lowest temperatures were registered for the most part on one of the

days between the 26th and 29th or on the 31st. In some localities the month was unusually free from low night temperatures; at Ross-on-Wye, for example, the absolute minimum, 37°F. on the 31st, is the highest for October since 1910.

The extremes for the month were:—(England and Wales) 69°F. at Colwyn Bay and Cannington on the 13th, 22°F. at Thetford on the 25th; (Scotland) 67°F. at Liberton and Dunbar on the 13th, 26°F. at Braemar and Logie Coldstone on the 29th; (Ireland) 69°F. at Trinity College, Dublin, on the 13th and 33°F. at Glasnevin, Dublin, on the 28th and at Waterford on the 26th and 29th.

Precipitation.—The general precipitation of the British Isles expressed as a percentage of the average for the period 1881–1915 was 154, the values for the constituent countries being England and Wales 126, Scotland 186 and Ireland 193. Over large areas in Ireland, western Scotland and north-west England and smaller areas in north Wales more than twice the average occurred, while more than three times the average was registered at Inveraray Castle and Keswick. At Lancaster the total, 9.53 in., was the highest in October for over 75 years. Less than the average rainfall occurred in large areas in the Midlands, Norfolk, Lincolnshire, round the Humber, at numerous stations in the south of England and in a small area in north-east Scotland. Rain was not only heavy in the west and north but occurred very frequently; it was reported on 31 days at Baltasound, Skallary and Colonsay and on 30 days at a number of other stations. Large daily falls of rain were numerous in the west and north, particularly between the 2nd and 8th, 11th and 13th and on the 16th.

Among the heavier falls in 24 hours were:—

- 2nd. 3.20 in. at New Dungeon Ghyll, Westmorland, and 2.99 in. at Borrowdale, Cumberland.
- 3rd. 3.86 in. at Borrowdale, 3.60 in. at New Dungeon Ghyll, 3.35 in. at Glenbranter.
- 6th. 3.49 in. at Borrowdale.
- 8th. 2.91 in. at Borrowdale and 2.90 in. at Blaenau Festiniog, Merioneth.
- 12th. 3.80 in. at Blaenau Festiniog, 2.89 in. at Ystalyfera, Glamorganshire.
- 13th. 3.20 in. at Kinlochquoich, Inverness-shire.
- 16th. 3.45 in. at Glenquoy Reservoir, Glendevon, Perthshire.

Local thunderstorms occurred at times; for example, on the 2nd, from 4th–7th, 10th, 12th, and 21st. In Scotland, snow fell generally on high ground on the 26th and was reported locally on 12 other days.

Sunshine.—Sunshine was variable but on the whole it exceeded the average in the eastern districts of Great Britain and the Midland Counties of England and was somewhat deficient in the west. The percentages of the average for the districts ranged from 89 in Ireland, S. to 114 in England, E. and England, S.E.

Fog.—Fog occurred at times, particularly from the 20th–26th, and 28th–30th; it was most frequent and widespread in England.

Miscellaneous Phenomena.—The aurora was observed in Scotland on 17 nights. Solar halos were noted at Oxford on 18 days.