

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE

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

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OCTOBER, 1937.—Dry and dull on the whole.

The period 2nd–20th was unusually dry in many parts; subsequently weather became generally unsettled and rain fell frequently. Mean temperature for the month somewhat exceeded the average for the most part except in Ireland.

During the opening days, a depression over the Bay of Biscay with an associated trough extending north over Britain moved slowly eastward; rain fell in Scotland and parts of Ireland and western England, and was heavy locally on the 1st. On the 3rd, the Azores anticyclone spread north-east and subsequently anticyclonic conditions prevailed over the greater part of the country until the 12th. Relatively low pressure over Germany moving south-east to France caused, however, rain in the extreme south-east of England on the night of the 4th and on the 5th and slight rain over a wider area on the 6th, while a shallow trough of low pressure westward of Ireland gave rain in Ireland and the Hebrides on the 6th. From the 13th–19th anticyclonic conditions persisted in the south while depressions near Iceland moved eastward or north-eastward. Gales were recorded in the extreme north of Scotland between the 15th and 18th, but generally there was not a great deal of rain. On the 20th and 21st pressure was relatively low and rather uniform over the British Isles; some rain occurred in Scotland and Ireland but little fell over most of England.

A spell of unsettled weather ensued, when complex depressions moved directly over the British Isles. On the 23rd an exceptionally deep centre over south-west England moved north-east and on the 25th a new centre off the south of Ireland moved north-north-east. Heavy rain occurred between the 22nd and 26th and thunderstorms, accompanied locally by heavy hail, were widespread in England on the 25th. Local gales occurred in England and Wales between the 23rd and 25th and in Ireland on the 25th. A feeble anticyclone passed across Ireland and Scotland on the 27th giving good records of sunshine in these countries, while a shallow depression over western France moving north caused further rain in England. From the 29th–30th a depression was situated south of Iceland, while another depression moved north over Britain from the Bay of Biscay; weather continued unsettled until the end of the month.

Pressure and Wind.—Mean pressure somewhat exceeded the average generally, the deviation at 7 h. ranging from +1.1 mb. at Kew observatory to +4.1 mb. at Stornoway. A very striking feature of the weather of the month was the great range of pressure; at Kew Observatory the extremes were 1,035.3 mb. on the 17th and 970.8 mb. on the 23rd giving a range of 64.5 mb., a value which has not been equalled in October since at least before 1869. Previous high values were 60.8 mb. in 1886, 60.4 mb. in 1887 and 61.7 mb. in 1925. The minimum value, 970.8 mb., is the lowest in the record apart from 970.5 mb. in 1886.

Gales were reported at times, chiefly in the north of Scotland between the 15th and 19th, widely in England and Wales on the 23rd, locally in the British Isles between the 24th and 26th and locally in Scotland on the 28th. Among the highest speeds registered in gusts were 74 m.p.h. at Lerwick on the 15th, 69 m.p.h. at Kirkwall on the 16th, 82 m.p.h. at St. Mary's, Scilly, 80 m.p.h. at the Lizard and 71 m.p.h. at Pendennis Castle on the 23rd and 68 m.p.h. at Plymouth on the 25th.

Temperature.—On the whole, mean temperature exceeded the average except in Ireland. The deviations for the districts varied from -1.4°F. in Ireland, N. to +1.7°F. in Scotland, N. The excess was greatest in the extreme north of Scotland where it amounted to 4.2°F. at Deerness and 3.9°F. at Lerwick. In England the highest temperatures were widely recorded on the 1st or 2nd; in Scotland the warmest day was more frequently the 19th and in Ireland the 18th or 19th. Somewhat high temperatures were recorded in some parts between the 3rd and 5th. Among low minima were those recorded on the 16th, 18th and 19th in England,

on the 25th, 27th and 28th in Scotland and on the 27th and 28th in Ireland.

The extremes for the month were:—(England and Wales) 71°F. at Attenborough on the 1st and at Canterbury on the 2nd, 27°F. at Castleton on the 19th; (Scotland) 67°F. at Edinburgh University on the 19th, 19°F. at Braemar on the 28th; (Ireland) 66°F. at Hazelhatch on the 19th and at Phoenix Park (Dublin) on the 18th and 19th, 23°F. at Markree Castle on the 27th and 28th.

Precipitation.—The general precipitation of the British Isles expressed as a percentage of the average for the period 1881–1915 was 80, the values for the constituent countries being England and Wales 83, Scotland 81, and Ireland 66. In England and Wales the distribution was variable; more than the average rainfall occurred in a number of scattered areas, while less than half the average was registered in a part of north-west England and at a few isolated stations elsewhere. In Ireland less than half the average was received over most of the north-western half of the country and less than 30 per cent locally in Counties Mayo and Galway; more than the average was registered in a coastal strip in the east from County Down to Counties Kildare and Dublin. In Scotland more than the average was mainly confined to a belt along the east coast and a few isolated stations elsewhere, while less than 50 per cent of the average occurred locally in the west and north-west.

During the dry period from the 2nd–20th absolute droughts were experienced in many places. In England and Wales numerous stations reported an absolute drought from the 2nd–20th; others from the 7th–21st, while at Mablethorpe, Lincolnshire, rain on the 23rd ended a drought of 27 days. At Swinton House (Berwickshire), a 17 days' drought ended on the 19th.

Heavy rain was reported at times from the 22nd onwards. Among heavy falls in 24 hours may be mentioned:—

1st	1.99 in. at Scilly.
22nd	1.85 in. at Carmarthen, 1.80 in. at Ballinacurra, County Cork and 1.77 in. at Brechfa, Carmarthen.
23rd	3.80 in. at Llanerchymedd, Anglesey, 2.62 in. at Lligwy, Anglesey, 2.05 in. at Llanbeblig, Carnarvon, 1.93 in. at Waenfawr, Carnarvon, 1.87 in. at Aber and 1.73 in. at Douglas, Isle of Man.
25th	2.18 in. at Phoenix Park, Dublin.

Local thunderstorms occurred at times; thunder was heard at Colmonell on the 3rd, at Dumfries and New Luce on the 21st. Thunderstorms were reported, chiefly in the western districts of England, on the 23rd and they were widespread in England on the 25th; the latter storm was accompanied locally by heavy hail.

In Scotland, snow fell on the hills in the north and west between the 21st and 28th.

Sunshine.—Sunshine for the most part was deficient, the percentage of the average for districts 1–10 being 84. The district percentages ranged from 66 in England, N.E. to 102 in the Channel Islands and Scilly (see Table I). An excess was recorded, however, at a number of stations in Ireland, Wales and western England and at a few stations in south-east England. In Scotland there was also an excess at a few stations, particularly along the area of the Caledonian Canal. On the other hand, at Marchmont, Berwickshire, it was the dullest October since 1889 and at Cranwell, Lincolnshire, it was the dullest October since records were first taken in 1921.

Fog.—Fog occurred frequently, particularly from the 1st–6th, 9th–13th, 16th–23rd and 28th–31st.

Miscellaneous Phenomena.—The aurora was observed in Scotland on 15 nights. The display of the night of the 3rd–4th was very fine; it was seen as far south as Brixham, Devon, and "The Times" reports that this aurora was also seen from a trawler off the Cornish coast. (See "Meteorological Magazine," November, 1937, pp. 237–8). Solar halos were noted at Oxford on 11 days.