

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE

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

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OCTOBER, 1943. — Mild; mainly dull; wet in the west and north.

The weather of the month was dull on the whole and mild. It was excessively wet in the western and central districts of Scotland. Southerly winds predominated. Fog occurred frequently in some localities, particularly in inland districts of England.

During the opening days a depression off north-west Ireland moved north-east and on the 3rd and 4th another off south-west Iceland moved east across the Faeroes. Rain fell in Scotland and Ireland and was heavy locally. There was slight, scattered rain also in England on the 1st and locally in north and west England on the 4th. On the 5th and 6th a depression southward of Iceland moved north-east and associated secondaries crossed the British Isles. Heavy rain fell in the west and north on the 5th and rain spread to all parts of England on the 6th.

In the rear of this disturbance an anticyclone off south-west Ireland moved north-east to Denmark and dominated conditions over England until the 11th. The anticyclone maintained fair weather over the British Isles generally on the 7th but subsequently troughs of low pressure were associated with cloud and occasional rain in the west and north. There was fairly frequent fog in the east and south. By the 12th pressure was very low in the Greenland-Iceland area, while a trough moved east over the British Isles: further rain occurred in the west and north.

A period of very unsettled weather ensued over the whole country. On the 16th a depression centred just off west Ireland moved north and then north-west and was followed on the 19th by another off south-west Ireland which moved north-east and then north. The latter became almost stationary in a position off the Hebrides by the 22nd and was filling up. The week ending the 22nd was characterised by frequent rain or showers, local thunderstorms and strong winds. On the 23rd and 24th the depression off north-west Scotland moved north-east and continued to fill up: there were some further showers.

On the 25th a belt of relatively high, very uniform pressure stretched across England from south-west to north-east: there was widespread and considerable fog in this area. The high pressure moved slowly south-east until by the morning of the 27th only the south-east of the country was affected. Meanwhile Atlantic depressions, moving north-east along our west and north-west seaboard, caused rain in the west and north. Subsequently the continental anticyclone extended its influence westward, while a series of depressions extended from north of the Azores to Iceland. Very mild weather prevailed in Scotland and Ireland, with some rain on the extreme west coasts on the 28th and in southern Ireland on the 29th. Foggy conditions persisted in the east and south. Rain spread over most of the country except south-east and east England on the 30th and was reported almost everywhere on the 31st.

Pressure and Wind.—Mean pressure was below the average in the west and north and about or slightly above the average over most of England: the deviation at 7h. ranged from -6.5 mb. at Stornoway to $+1.3$ mb. at Spurn, Yarmouth and Lympne. The pressure gradient was thus considerably increased, particularly over Scotland and Ireland, and winds from a southerly point predominated; in Scotland there was a seven days' excess of southerly winds. Gales occurred fairly frequently in northern districts and were reported on seven days at Stornoway and on six at Duntuil and Kettins. A widespread gale occurred on the 19th. Among the highest speeds registered in gusts were 68 m.p.h. at Stornoway on the 4th, 65 m.p.h. at Kirkwall on the 6th and at Edinburgh on the 12th and 77 m.p.h. at St. Ann's Head and 84 m.p.h. at Plymouth on the 19th.

Temperature.—Mean temperature exceeded the average, the deviation for the districts ranging from $+1.2^{\circ}\text{F.}$ in England, NE and England, SW, to $+3.4^{\circ}\text{F.}$ in Scotland, N. It was the mildest October over Great Britain as a whole since 1921, although in England and Wales, 1930 was nearly as mild.

The extremes for the month were:—(England and Wales) 70°F. at Bodiam and Whitstable on the 1st and at Cromer and Cheltenham on the 10th, 27°F. at Milford on the 3rd and Doncaster on the 8th; (Scotland) 69°F. at Forres on the 9th, 26°F. at Eskdalemuir on the 14th; (Northern Ireland) 63°F. at Armagh on the 9th, 31°F. at Garvagh on the 24th.

Precipitation.—The general precipitation expressed as a percentage of the average for the period 1881–1915 was 85 over England and Wales, 151 over Scotland and 109 over Northern Ireland. In Scotland, over a wide area extending from Fort Augustus to south of the Clyde and from Tiree to Crieff more than twice the average rainfall occurred and at Inveraray Castle the total was three times the average. In contrast down the east coast from the Shetlands to Berwickshire less than the average occurred at nearly every station. In England and Wales more than the average was received over most of Wales and north-west England, in an area in southern England extending from Beaminster, Dorset, across the Wiltshire Downs to Hertfordshire and at a few isolated places elsewhere. Less than 50 per cent. occurred in a belt stretching from northward of Scarborough to southward of the Wash, around Yarmouth and on the south-east coast at Dungeness and Dover. In Northern Ireland the distribution was somewhat variable, the percentages ranging from 88 at Seaford to 137 at Aldergrove.

In west Scotland there were many instances of daily falls exceeding 2 inches. The 3rd and 5th were excessively wet in the west and north of Britain: in the west of Scotland a number of places had more than 4 inches on each of these days: for example, 4.26 in. at Kaim Dam (Renfrewshire) and 4.20 in. at Lennoxton on the 3rd and 4.36 in. at Kinlochquoich and 4.22 in. at Conaghen (Ardgour) on the 5th. Considerable flooding occurred as a result of these unusually heavy falls. The period 17th–23rd was very wet over the country generally.

Thunderstorms occurred locally at times, mainly from the 17th–21st, 23rd and 24th: they were widespread on the 20th–21st.

Slight snow fell locally in Scotland on the 2nd.

Sunshine.—Sunshine was below the average at the majority of stations. The deficiency was greatest in north and west Scotland. In England and Wales the distribution was more variable; there was an excess on the whole in the western districts. In Northern Ireland also there was an excess. The mean daily duration in hours ranged from less than 1.5 hours over a considerable area in central and north-west Scotland to more than 4 hours at many places in the neighbourhood of the Bristol Channel and along the south coast of England from Plymouth to Worthing.

Fog.—Fog occurred frequently at inland stations in England, particularly in large towns. It was recorded at the morning observation hour on 15 occasions at Catterick, Finningley and Nottingham and on 14 occasions at Doncaster and Marlborough. The chief periods of fog were the 8th–16th and 23rd–31st. In Scotland and Ireland it was less frequent.

Miscellaneous Phenomena.—The aurora was observed in Scotland on 13 nights. Solar halos were noted at Oxford on nine days.