

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE

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

PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE. To be purchased directly from H.M. STATIONERY OFFICE at the following addresses: ADASTRAL HOUSE, KINGSWAY, LONDON, W.C.2; 120 GEORGE STREET, EDINBURGH 2; YORK STREET, MANCHESTER 1; 1 ST. ANDREW'S CRESCENT, CARDIFF; 80 CHICHESTER STREET, BELFAST; or through any Bookseller.

VOL. 52. No. 3.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE

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MARCH, 1935.—Dry; mild, apart from a cold spell from the 8th—11th.

The most interesting features of the month were the deficiency of rainfall, the abnormally warm spell from the 18th to 28th and the cold period from the 8th to 11th.

The opening days were unsettled. Heavy rain in the south-west on the 1st was associated with a trough of low pressure which moved east across the country. During the next few days the centre of the main disturbance off south Iceland moved north and became less deep, while a secondary trough moved slowly eastward, causing the unsettled weather to continue. On the 5th, however, pressure rose slowly over the British Isles and subsequently the anticyclone off our south-west coasts moved north-east and coalesced with another over the Baltic and the resulting system dominated conditions over the British Isles from the 7th to 14th. From the 8th to 11th, the easterly wind current was very cold. Although the weather was mainly fair in most districts during the anticyclonic period, a break occurred in southern districts on the 10th and 11th, with the northward and then westward movement of a depression over the Bay of Biscay. Sleet or snow fell locally, mainly in the south and south-west, and the fall was considerable at some places in the Isle of Wight and south-west England (snow $4\frac{1}{2}$ to $6\frac{1}{2}$ in. at Newton Abbot and 4 in. at Shaftesbury).

Between the 15th and 17th a shallow depression passed slowly across the country from the Atlantic, and some precipitation fell in many districts. From the 22nd to 26th, high pressure prevailed southward of the British Isles, while depressions moved north-east or east along our north-western or northern seaboard, maintaining unsettled weather in northern districts. Small secondaries moving east caused general rain in the south also, on the 23rd. On the 27th, pressure rose in northern districts and fair weather prevailed temporarily except in the extreme north-west and north. A shallow trough caused further rain, chiefly in northern districts, on the 29th and 30th, and a new depression near the Faroes gave local gales in north Scotland on the 31st and some rain in Scotland and Ireland.

Pressure and Wind.—Mean pressure for the month greatly exceeded the average throughout the country, the excess at 7h. varying from 7.4 mb. at Valentia to 10.9 mb. at Lerwick. As might be expected from the largely anticyclonic nature of the month, gales were not, on the whole, very frequent. They occurred most often in the extreme north of Scotland: for instance, at Lerwick Observatory, an hourly wind of more than 38 m.p.h. was recorded on the 3rd, 4th, 5th, 20th, 25th, 26th and 31st. North-westerly gales occurred locally in the south-west between the 1st and 2nd. Squally easterly winds prevailed over England on the 9th and 10th, and reached gale force locally on the 9th, while strong westerly winds occurred in England on the 23rd, reaching a gale locally in western districts and at Kingstown. A widespread south-westerly gale was experienced in Scotland and locally in north Ireland on the 25th and a west-north-westerly gale was recorded in northern Scotland on the 31st. Among the highest speeds recorded in gusts were 75 m.p.h. at the Lizard and 73 m.p.h. at Scilly on the 1st and 73 m.p.h. at Butt of Lewis and 70 m.p.h. at Kirkwall on the 31st.

Temperature.—Mean temperature exceeded the average for the month in all districts except the Channel Islands. The excess in the remaining districts ranged from 0.9°F. in England, S.W. to 3.1°F. in Scotland, E. (See Table I).

The only really cold spell occurred, particularly in southern districts, from about the 8th to 11th. It was accompanied by easterly winds of continental origin and, on the 9th, at a number of stations in the south, day temperature only reached or slightly

exceeded the freezing point (e.g. maximum temperature 32°F. at Addington, Biggin Hill and Tunbridge Wells and 33°F. at numerous other stations). Severe frost occurred locally during the anti-cyclonic period from the 7th to 14th, and at some places on the 15th and 16th.

An exceedingly mild spell occurred from the 18th to 28th: temperature rose to 60°F. or above at some station or other on most of these days and 65°F. was exceeded at a number of places in south-east and east England on the 21st.

The extremes for the month were:—(England and Wales) 68°F. at Cromer on the 21st, 18°F. at Usk on the 8th; (Scotland) 62°F. at Aberdeen, Craibstone, Montrose and Balmakewan on the 25th and at Arbroath on the 31st, 16°F. at Braemar on the 12th; (Ireland) 62°F. at Seskin, Carrick-on-Suir, on the 25th and 26th, and 25°F. at Phoenix Park, Dublin, on the 14th.

Precipitation.—The general precipitation of the British Isles expressed as a percentage of the normal for the period 1881–1915 was 49, the values for the constituent countries being England and Wales 38, Scotland 71 and Ireland 53. The deficiency was general except in the extreme north of Scotland where some places received an excess.

In parts of north-west Scotland, the first 18 days were unusually dry; for instance, Kinlochquoich in Inverness-shire had only one day with rain from the 1st to the 18th. In east and south-east England the period, 5th to 22nd, was unusually dry, an absolute drought being recorded at numerous stations between these days (e.g. no measurable rain occurred at Shoeburyness or Margate from the 5th to 22nd inclusive and none at Surbiton, Domel Elham, Folkestone or Ascot from the 6th to 21st).

Among the heavier falls in 24 hours may be mentioned:—

23rd. 28 mm. at Oldham and Buxton, 29 mm. at Lake Vyrnwy (Montgomery) and 34 mm. at Snowdon.

24th. 28 mm. at Fort William and 60 mm. at Kinlochquoich.

The 5th and the 15th were the only occasions when appreciable snow fell in Scotland. The snow did not lie except on high ground on the 5th. During the cold period, 8th to 11th, some snow fell in England, the falls being the heaviest in the south and south-west, where it lay to a depth of a few inches in some instances ($4\frac{1}{2}$ to $6\frac{1}{2}$ in. at Newtown Abbot and 4 in. at Shaftesbury on the morning of the 11th).

Sunshine.—Sunshine aggregates were variable. The percentage of the average for the districts varied from 131 in Scotland, N. to 89 in Scotland, W. The Midland Counties (with 112 per cent.) and England, N.E. (with 110 per cent.) also received an appreciable excess. At individual stations, Stornoway and Nairn enjoyed an excess of 45 hours and 37 hours respectively, while deficiencies of 28 hours, 27 hours and 25 hours were experienced at Falmouth, Malin Head and Stirling respectively.

Fog.—Fog occurred fairly frequently (notably in England) particularly from the 1st to 3rd, 7th to 8th, 15th to 21st and, mainly in the south, on the 24th and from the 26th to 29th. It was thick at times in places. In Scotland, during the quiet conditions round the 8th and from the 15th to 18th, fog occurred rather frequently, especially over inland districts and was thick locally at times.

Miscellaneous Phenomena.—The aurora was observed locally in Scotland on the nights of the 3rd, 7th and 14th, and at Armagh on the 31st. Solar halos were of frequent occurrence and in some cases the mock suns were visible. At Oxford, solar halos were noted on 14 days. The zodiacal light was observed at Ross-on-Wye on the 3rd and a sun pillar was reported at Totland Bay on the 9th and at Newquay and Ross-on-Wye on the 30th.