

## MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

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

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VOL. 40, No. 3.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE.

Price 9d. Net, Post free, 10d.

Annual Subscription, including Annual Summary and Introduction, 10s. post free.

## MARCH, 1923: MILD AND DRY.

**General.**—The month may be roughly divided into three periods, a mild, unsettled week, two weeks of easterly winds and rather cold weather, and a warm week with southerly breezes. From the 1st to the 7th south-westerly winds were predominant and the weather generally mild and unsettled, although rain was seldom heavy and some days had a fair amount of sunshine. On the 7th a depression crossed England and an anticyclone developed in its rear, near the Faeroes. The high pressure area moved eastwards and joined that over northern Europe. A somewhat cold "easterly" type of weather prevailed on the whole until the 20th, although on the 13th a trough of low pressure passed rapidly down the English Channel, accompanied by heavy rains in London and the South. Towards the end of the month the continental anticyclone spread further southward, and light, warm, southerly winds and comparatively clear skies were experienced. Unusually high day temperatures were registered about the 27th. At Kew Observatory, Richmond, a maximum of 68°F. occurred on that date. Such a temperature has only once before been recorded there in March during the past 50 years. Thunderstorms occurred locally in various parts of England and Scotland between the 26th and the 29th.

The general character of the month is illustrated by the following remarks taken from observers' notes and returns:—Alfriston (Sussex),—A very warm March, not a flake of snow all through the month and only two readings below 32°F. in the screen. Isleworth,—A great deal of smoke mist between the 14th and 26th. No snow. A favourable month in the garden. Torquay,—The temperature during the whole of the month remained consistently high and equitable. The duration of sunshine was above normal and the rainfall much below normal. An unusually dry March. Cargen,—A splendid seed-time; farm work well advanced and all vegetation very forward. Dublin,—From the 12th to the 21st easterly winds of considerable strength, harsh and dry, blew with little intermission and there was no rainfall in Dublin or its vicinity.

**Pressure and Winds.**—The mean pressure of the month was everywhere above normal. The departure of monthly means of pressure at fixed hours from the normal varied from +12mb. at Lerwick to +3mb. at Birr Castle, Roches Point, Southampton and Scilly. The isopleths of mean pressure trended roughly north and south with high pressure to the east and low pressure to the west.

Two primary depressions traversed the British Isles, the first on the 2nd and 3rd (Track A) and the second on the 7th (Track E). Three secondary depressions also crossed some part of the country. The lowest pressures occurred on the first two days of the month.

The strongest winds were those of the 1st—3rd, 5th, 12th and 13th. Lerwick had 3 days during which the wind had a mean strength of more than 38 m.p.h. for a period of not less than one hour, while Quilty had 2 such days. The strongest recorded gust of the month was one of 66 m.p.h. at Quilty on the 2nd, while Lerwick had one of 61 m.p.h. on the 5th and Valencia Observatory one of 60 m.p.h. on the 2nd.

**Temperature.**—The mean temperature of Districts 1 to 10 was 44°F. The mean temperature of each District was above the normal for the fourth month in succession, the greatest excess being 2.4°F. in Scotland north (mean temperature 43°F.) and the least 1.9°F. in England north-east (mean temperature 43°F.). The last week of the month was the warmest, the deviation from the normal for the week varying between +6.9°F. and +4.4°F. For Scotland the month was the fifth in succession with temperature above normal, and the November—March period was the mildest since 1881—1882.

The extreme temperatures for the month were:—(England and Wales) 69°F. on the 27th at eleven stations in England east and south-east, 25°F. at East Ham, Cambridge and Chelmsford on the 12th and at Cranwell on the 25th. (Scotland) 65°F. at Liberton and Kelso on the 27th, 17°F. at Braemar on the 20th. (Ireland) 59°F. at Killarney on the 25th, Birr Castle on the 26th and Newtownbarry on the 28th, 25°F. at Phoenix Park, Dublin, on the 14th. Ground frosts were fairly numerous; the lowest readings of thermometers

exposed over grass being 15°F. at Renfrew on the 24th and 17°F. at Rounton (N. Riding) on the 21st. These temperatures are decidedly low for the time of year.

**Precipitation.**—The general precipitation in the British Isles expressed as a percentage of the average was 73, the values for the several countries being:—England and Wales 82, Scotland 49, Ireland 85.

The precipitation of the month was above the average in parts of the south of the British Isles, notably in a region extending from Gloucestershire to the Sussex coast, including the London area, and in a region embracing south-west Ireland. At Oxford 174 per cent. of the normal was recorded. Except for the immediate neighbourhood of the Thames Valley, however, the falls did not greatly exceed the normal in the English region above mentioned. Two large areas had less than half the normal fall, viz., the northern part of Scotland, where an extensive region had less than one-third of the normal, and a belt comprising north-west Wales, Lancashire and the Lake District and south-east Scotland. At Gordon Castle the month was the driest March for at least 50 years, and at Strathpeffer the total of 7.5mm. was the smallest recorded in any month since September, 1894.

The only recorded daily rainfall above 20mm. was that at Valencia Observatory on the 10th, when 30mm. were registered.

Very little snow fell in England and Wales. A few stations had slight snowfalls confined to one day, such as, for example, Hampstead on the 9th and Hastings on the 15th. There was an unusual absence of snow in Scotland. One or two stations reported "snow lying" about the middle of the month.

Thunderstorms occurred locally in the British Isles, mainly between the 26th and 29th. At a large number of stations in England and Scotland thunderstorms were recorded on the first of these dates.

**Sunshine.**—The duration of sunshine was appreciably below normal in all Districts except Scotland north and Ireland north. The largest mean daily deficiency occurred in the Midland Counties (—1.01hr.). Scotland north and the Channel Isles and Scilly had 39 per cent. of the possible duration, but the Midland Counties had only 21 per cent. A number of records exceeding 9 hrs. of daily duration were obtained during the month; the sunniest days were the 17th, 26th, 27th and 29th, the largest daily amount being 10.9 hrs. at Crathes (Kincardine) on the 26th, 10.9 hrs. at Folkestone on the 27th and the same at Douglas on the 29th. A large difference was shown between the aggregates of Gordon Castle and Edinburgh, the former being 169 hrs. and the latter only 96 hrs.

**Fog.**—A large number of occasions of fog and mist were reported at most stations. The visibility at 7h. at the observatories and telegraphic stations was considerably lower during March than in any previous month of the winter, but no severe fogs occurred in London. On the 23rd dirt laden air extended over a large area of the north of England and over the Irish Sea. (See *Meteorological Magazine* for April, 1923, Vol. 58, p. 61.)

**Miscellaneous Phenomena.**—Aurora was seen at Baltasound on the 2nd, 14th and 16th, at Nairn on the 14th, at Wick on the 15th, at Lerwick on the 14th, 21st and 26th and at Leuchars and Castlebay on the 24th. Solar and lunar halos were frequently observed. A parhelion was seen at Oxford on the 2nd, and on the same evening the ordinary lunar halo of 22° was observed together with the upper arc of contact, paraselenæ and a portion of the 46° halo. On the 3rd a lunar halo and corona were observed simultaneously at Lympne. On the 25th a lunar halo with upper and lower arcs of contact was seen at Armagh. The zodiacal light was observed at Oxford on the 5th, 6th, 17th, 18th and 19th, at Ross-on-Wye on the 6th, at Wadhurst (near Tunbridge Wells) on the 6th and 17th and at Lincoln on the 18th.