

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

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

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FEBRUARY, 1924: DULL AND VERY DRY. COOL IN ENGLAND.

General.—During the first week of the month westerly winds and mild weather prevailed over the British Isles. An anticyclone lay off the south-west coasts and depressions passed eastwards across Iceland to Scandinavia. The first three days were fair but the weather subsequently became dull. A large depression which came in from the Atlantic caused high southerly winds and gales on the west coasts on the 8th; there was heavy rain locally in Ireland. From the 10th to the 14th pressure remained high over northern Europe while part of the Atlantic low pressure area moved slowly across the Bay of Biscay and France. As a result of these conditions cold easterly winds, bringing a decided fall of temperature prevailed generally. Gales were experienced locally from the 12th to 14th. Subsequently high pressure was maintained to the west of Ireland with cold winds varying between west and north. Periodical depressions moved southwards over Scandinavia and the North Sea, causing snow and sleet over most of the United Kingdom but bringing also at first a slight temporary rise in temperature. The depression on the 29th was very deep, and high winds or gales were experienced in all parts of the country. From the 11th onwards the weekly averages of temperature and sunshine were, with few exceptions, below the normal. Rainfall was markedly below normal almost everywhere.

The general character of the month is illustrated by the following remarks taken from observer's notes:—Coppdock (Suffolk).—A thoroughly gloomy month, sunshine little more than half the average, rainfall considerably below the average; an unusual prevalence of northerly winds. Morwenstow (Cornwall).—A very fine month with a good deal of frost. Intensely cold on many days. Skegness. —An average February. Southport. —A dry month, noteworthy for an unusual scarcity of winds from all southerly points. Torquay. —The month will long be remembered for the persistently cold northerly winds, low temperatures, deficiency of rainfall and exceptional number of frosts. Sunshine above the average. Totland Bay. —A cold month with somewhat deficient sunshine, wind mainly from west and north. The chief feature was the small amount of rainfall. Aberlour (Banff). —An exceptionally dull month. A severe blizzard started on 28th and continued all day on 29th. Eriska (Argyll). —On the average more like the month of March, with cold winds. Braxholme (Roxburgh). —Dry open month, with cold winds. Dublin. —The month brought an after-winter of some severity. Rainfall and rain-days much below the average.

Pressure and Winds.—The mean pressure was above normal everywhere. The excess of monthly means of pressure at fixed hours from the normal varied from 7.5mb. at Malin Head to 1.5mb. at Kew and Dungeness. The isobars of mean pressure were irregular but trended roughly from N.W. to S.E.

Pressure distribution was predominately anticyclonic, but three primary depressions crossed some part of our Islands. A pressure of 1040mb. was recorded at Valencia on 2nd and one of 960mb. at Lerwick on the 29th.

High southerly winds and gales occurred on the west coasts on the 8th in connection with the depression indicated by Track C. Local gales were also experienced between the 11th and 14th. High winds or gales occurred in all parts of the British Isles on the 29th, associated with the depression indicated by Track N. Of the anemometer stations Deerness recorded four days during which the wind had a mean strength of more than 38 m.p.h. for a period of not less than an hour and several other stations had three such days. The highest recorded gusts of the month were one of 73 m.p.h. at Fleetwood on the 29th and one of 72 m.p.h. at Lerwick on the 5th. There were a number of gusts exceeding 60 m.p.h. at various stations.

Temperature.—The mean temperature of Districts 1 to 10 was 39°F. With the exception of the Scottish Districts and Ireland N. the mean temperature of all Districts was below normal. The largest excess, 1.2°F., was experienced in Scotland N. (mean temperature 39°F.) and the largest deficiency, 2.4°F., in England S.E. (mean temperature 38°F.). The first week of the month was the warmest and temperatures were markedly above normal in every District. The middle of the month was the coldest. On the 13th the maximum reading at Balmoral was only 30°F. and on several other days there were places at which the temperature did not rise above 31°F. or 32°F. On the 28th and 29th the weather was bitterly cold in Scotland. The extreme west of Ireland and the Scilly Isles had the highest mean temperature.

The extreme screen temperatures for the month were:—(England and Wales) 54°F. at a number of stations from the 4th to the 10th, 13°F. at Cirencester on the 17th; (Scotland) 54°F. at a number of stations, mainly on the 2nd and 21st, 14°F. at Dungavel on the 14th; (Ireland) 54°F. at Foynes on the 3rd, 23°F. at Kilkenny on the 17th. A number of temperatures of between 10°F. and 15°F. were obtained with the terrestrial radiation thermometer, while at Rhayader 8°F. was recorded on the 15th, and 9°F. on the 17th and 27th.

Precipitation.—There was a deficit in every District, in some cases a very marked one. There were three small areas in which precipitation exceeded the normal, one in the extreme north of Scotland, one in north-east Scotland and a small region of the East Anglian coast. Over a wide belt of eastern Great Britain from the Forth to the Thames Estuary precipitation exceeded 50% of the normal, as also over the greater part of Ireland. Elsewhere it was less than 50%, several English and Scottish stations reporting from 10% to 20%. The general precipitation of the British Isles expressed as a percentage of the normal was 50; the values for the several countries were:—England and Wales 43, Scotland 60, Ireland 56.

A fall of 57mm. occurred at Valencia on the 8th. Remarkably low total falls for the month were registered at Llanthony Lock (Gloucester), 0.5mm., and Bishop's Canning (Wilts.), 2mm. The rainfall at Ross-on-Wye, 7.1mm., was the lowest February fall since 1896, with the exception of 1921. At Totland Bay (Isle of Wight) a partial drought of 36 days from January 25th to February 29th gave a precipitation of only 7.6mm., the normal for the period being 68.6mm.

Snow fell in many parts of the country, mainly between the 10th and 16th and from the 24th to the end of the month. Several days of "snow lying" were reported at a number of stations, the largest number of days being 13 at Braemar. There was practically no snow in the south of the British Isles. On the 29th a severe blizzard occurred in Northern Scotland. At Gordon Castle (Elgin) it was stated to be one of the worst blizzards for 20 years. Serious drifting occurred in north and north-east Scotland and many trains were snow-bound and roads impassable. The observer at Meltham (Yorks.) stated that the gale on that day took the form of a real blizzard.

Hail was confined mainly to England N.E. and Scotland. Lerwick had 9 days of hail.

One day of thunder was reported at some stations, mainly in the west.

Sunshine.—The duration of sunshine was below normal in all Districts. The smallest mean daily deficiency occurred in England S.W. (0.06hr.) and the largest in England E. (0.95hr.). England S.W. had 26% of the possible duration, while Scotland N. had only 15%. The last week of the month was the sunniest and the duration exceeded the normal everywhere except in Scotland N. A number of daily records of between 8hrs. and 9hrs. were obtained. Records exceeding 8hrs. were also obtained during the first three days of the month. The greatest amount of sunshine was recorded in the Scilly Isles and Cornwall.

Fog.—At the majority of stations fog was not very prevalent. Certain towns, however, reported a considerable number of days of fog; of these the chief were Southampton 24 days, Coventry 18 days, and Lincoln 13 days.

Miscellaneous Phenomena.—Solar and lunar halos were of frequent occurrence. A parhelion was observed at Ross-on-Wye on the 1st and at Oxford on the 2nd. A sun-pillar was seen at Oxford on the 10th. An exceptionally fine sunset was observed over a large area of the south of England on the 5th. The observer at Teignmouth states that the colouring was red and mauve and lasted for two hours, the clouds travelling very quickly. At Collumpton (Devon) it was described as "Yellow, pink and purple." The observer at Weymouth states "peculiar sunset, pink," Wisley (Surrey) "Very fine sunset" and at Tavistock "fine wonderful sunset." The Zodiacal Light was observed at Oxford on the 1st, 3rd, 4th, 22nd, 23rd, 25th, 26th and 28th, at Ross-on-Wye on the 1st, 6th and 24th, at Stonyhurst on the 22nd and at Wadhurst (Sussex) on the 1st, 2nd, 4th, 28th and 29th.