

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE

SUMMARY OF OBSERVATIONS COMPILED FROM RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS IN THE UNITED KINGDOM, AND AT GIBRALTAR AND MALTA, WITH A CHART OF RAINFALL CONTRIBUTED BY THE BRITISH RAINFALL ORGANIZATION.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE.

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Dry, except in the North and North-West; Mild generally.

Although less rainy than either of the two months which preceded it, February was very mild; in fact at practically every station appearing in the Weekly Weather Report the mean temperature for each of the four weeks of the month was above the normal. This excess of warmth was mainly due to some unusually high temperatures on some of the days; the maxima registered during the third week at several stations were higher than any previously recorded in February. Many of the nights, on the other hand, were very cold, and ground frosts, although only occasionally severe, were fairly numerous. Commonly the coldest weather of the month occurred during the first week, and it was also cold about the 22nd. Around the 18th–20th the South-Easterly passage of a trough of low pressure from the North-West caused a warm Southerly current of air to be replaced by cold Northerly winds, with a consequent rapid fall in temperature, the maximum at Kew Observatory, for instance, falling from 287 a on the 19th to 279 a on the 20th. This change was also accompanied by a wide-spread fall of snow during the night of the 19th–20th, the depth of which was about 4 to 7 inches. This was the heaviest snowfall of the month and the only other falls of any importance occurred during the week ended on the 14th, when snow and sleet fell frequently in Scotland and the North of England. Hail was seldom reported and there was also a notable absence of thunderstorms. Gales also were rare and the most notable of them were those which occurred between the 9th and 11th. Commonly air pressure ranged high and the conditions proved favourable for wet fogs and mists, which were very frequent especially during the early hours of the morning, the fogs experienced in London on the 25th and 27th being denser than on any previous occasion during the winter.

In Scotland the weather was for the most part mild to very mild, and the only touches of real cold occurred around the 14th and between the 18th and 20th. It is noteworthy that the mean temperature for the month, as had been the case for the two preceding months, was much above that for November, 1919; and that as on previous occasions during the last sixty years at any rate, great cold in November has been followed by a prolonged spell of weather for the most part mild. There was some snow around the 11th, 14th and 19th, and at one or two places towards the North on the 26th and 27th.

The following notes supplied by observers illustrate the general character of the month:—*Copdock, Ipswich*.—A mild, bright, and dry month, the driest in my record except 1903, and the brightest except 1914. *Meltham, Yorks*.—The maximum temperature of 289 a recorded on the 18th is the highest in February at this station for at least 43 years. It was followed by snow, which fell to a depth of 7 inches twenty-six hours later. *Ross-on-Wye*.—A fine, dry, warm month, with frost in the screen on three nights only. The maximum temperature exceeded 283 a on 18 days, and the reading of 289 a recorded on the 18th was the highest in February at this station since 1899. *Southport, Lancs*.—The ninth consecutive month with a deficiency of hours of Easterly winds, and warmer than either of the two mild previous months. *Dublin, Fitzwilliam Square*.—Like December and January the month was an open one, with a preponderance of oceanic or equatorial winds, much cloud and a humid atmosphere. Air pressure, however, was higher and the precipitation was neither so frequent nor so large as in the two previous months. The diurnal range of temperature was small.

Air Pressure.—As shown by the map on page 17 the mean monthly air pressure was above the normal; the trend of the isobars was of a normal South-Westerly type, but the gradient was much steeper than usual. The adjoining map shows that there was only one instance of a primary depression passing directly across the British Isles and that the centres of the depressions most commonly travelled across the Icelandic—Scandinavian region. Some of the outstanding features connected with the anticyclones and depressions of the month were as follows:—During the night of the 1st–2nd gales were caused in the North of Scotland by a depression which approached this locality from Iceland, the temperature rising in Scotland but falling over England, the air pressure over the latter area under the influence of an anticyclone to the South-Eastwards being high. Little change in the general conditions occurred during the 3rd, but Lerwick (Shetland) experienced a full gale (force 10) from the South-West during the evening which was renewed from the North-West on the morning of the 4th. At 7h. on the 5th an anticyclone was spread over the British Isles, having travelled rapidly from the South-West and intensified as it moved. This system was associated with

a great fall in the temperature, the 5th very generally being one of the coldest days of the month. The following morning the anticyclone was centred over Denmark; it subsequently moved South-Eastwards and remained a prominent feature on the weather map until the 8th, depressions at the same time spreading in from the Atlantic, so that over the British Isles a South-Westerly type of weather was general. Between the 9th and 11th the wind reached gale force in many parts of the Kingdom and there was very heavy rain in the North and West of Scotland. At 7h. on the 17th a depression was indicated on the weather map off the South-West of Ireland and a warm Southerly current associated with it caused a general rise in temperature over the British Isles, this commonly being the warmest day of the month. Owing, however, to the influence of a low pressure system which at 7h. on the following morning moved South-Eastwards from the North of Ireland this warm current was rapidly replaced by a Northerly one and in a few hours Spring gave way to Winter, and there was a wide spread fall of snow during the night of the 19th–20th. The passage of an anticyclone, which was centred to the South-West of Ireland on the 21st, and over Germany on the 23rd, was associated with dry, sunny weather in most parts of the British Isles. Under the influence of depressions in the Icelandic region the weather over the British Isles during the last four days of the month was mostly mild, rainy, and unsettled, with a gale in the North of Scotland on the night of the 28th. February's extra day was a very mild one, and very generally had a temperature which was high for the time of year, Nottingham registering a maximum of 290 a, the highest ever recorded in February at this station.

Temperature.—The mean temperature of the month was above the normal in all Districts, the excess ranging from 2.0 a in England North-West to 1.3 a in Scotland North. At the end of the month some of the day temperatures recorded in Scotland were unusually high, and 290 a was registered at Smeaton (Haddington) and 279 a at Leith on the 29th, these being the highest recorded in Scotland during the month of February since 1897.

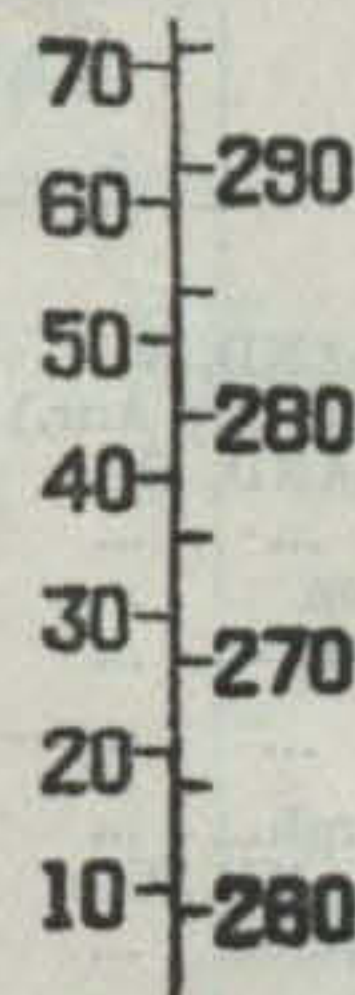
Precipitation.—Aggregates for the month showed a very wide range both as regards absolute amounts and their relation to the normal. Thus Scotland North had 229 mm. (+ 113 mm.), but England East had only 14 mm. (– 25 mm.) and England South-East only 15 mm. (– 37 mm.). Much of the North-Eastern area of Scotland had a rainfall below the normal, whilst very generally in the North-West it was the wettest February on record, with as much as 258 per cent. of the normal at Fort William. The contrasts at some of the individual stations were remarkable, Aberdeen, for instance, had only 26 mm. for the whole month, but Kinlochquoich (Inverness) had 443 mm.

Sunshine.—The mean daily amount of sunshine was very varied, the departures from the normal ranging from + 0.47 hr. per day in England North-East to – 0.35 hr. in Ireland South. The sunniest District was the English Channel (3.28 hr. per day), and the least sunny Scotland North (1.62 hr.).

Floods were very prevalent during the month and were experienced about the 11th in Derbyshire, in Wales, in the North of England, in Scotland, and along the Valley of the Shannon. In the Calder Valley (Yorks) the floods were said to be the worst for 50 years, in the Ure for 30 years, and in the Wye for many years. Floods due to the melting snow occurred about the 20th in the North Wales and Cheshire, Northwich suffering the worst inundation for 35 years.

Optical Phenomena.—Solar and lunar halos were seen mostly at the beginning and end of the month, and a solar corona at Aberdeen on the 2nd, where also a moon pillar was seen on the 8th. The Zodiacal Light was observed at Norwich on the 7th, at Valencia Observatory on the 15th, at Oxford on the 10th, 11th and 12th, and at Jersey (St. Louis Observatory) on the 19th and 22nd.

Aurora was seen on several dates, the most widely seen display being that of the 24th.



Temperature Scales.