

## 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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## Cold and Wet.

With the exception of brief warm spells round about the 2nd and 10th the weather of the month was of a dull, cold, and wintry character, and was the coldest March experienced in Scotland for at least sixty years, perhaps for a century. From the 16th to 18th the type of weather was anticyclonic; but during the rest of the month it was cyclonic, the atmospheric conditions over the British Isles being very largely dominated by depressions, which followed one another in rapid succession, many of these disturbances being secondaries. As a result there was frequent and general precipitation in the form of rain, sleet and snow; hail, too, was especially frequent at some of the more northern stations. During the last half of the month snow fell somewhere or other on most days, the lowest temperatures of the month being very generally recorded during this period. Ground frosts were common throughout the month.

The following notes supplied by observers illustrate the general character of the month: *Allans Green (Northumberland)*.—A cold month, with snow showers and a good deal of east wind. The closing days were dry and with severe frost. Vegetation very backward, and there was practically no growth. I never saw the hill ground so bare. *Kenninghall (Norfolk)*.—Generally an exceptionally cold month, especially during the second half, when frosts at night were frequent. The first half was very wet. Vegetation is very backward. *Copdock (Suffolk)*.—An unpleasant month; dull and wet during first part, and then very cold. The maximum temperature of the month (28.5a) was the lowest I have ever recorded in March. *Weston Turville (Bucks)*.—A very cold, unseasonable month. Vegetation extremely backward. *Tenbury (Worcester)*.—A wet, cold and wintry month. The total rainfall (126 mm.) was 65 mm. above the normal. Owing to the unworkable condition of the soil all spring sowing has been much delayed. *Llandrindod Wells (Radnor)*.—With the exception of 1903, it was the wettest March for 36 years. *Warlingham (Surrey)*.—Throughout the month snow was more or less always on the ground, and on the 30th it lay to a depth of six to eight inches. There was a good deal of sunshine during the month, but the snow persisted in spite of it, and in places there were deep drifts. *Southport (Lancs.)*.—The total rainfall (135 mm.) was greater than in any previous March for at least 57 years. The water level maximum was higher even than in January, and unequalled by any month whatever since the great floods of 1882-3. *Blundellsands (Lancs.)*.—The wettest March recorded here during 43 years. *Dublin (Fitzwilliam Square)*.—A very cold month of unsettled weather and frequent precipitation, except in the period from the 12th to 17th, which was dry. Snow fell daily after the 21st. *Carrigoran (Co. Clare)*.—The weather during the month has been very varied, but on the whole of a very wintry character. Rainfall was nearly 25 mm. below the normal, but the rain-days were one above. During the latter half of the month the days were intensely cold, with snow and sleet, and there was frost at night. *Hurdlestown (Co. Clare)*.—The total rainfall (75 mm.) was 7 mm. above the normal, and the rain-days four above. It was a cold, severe month, but generally suitable for farm work.

**Air Pressure.**—Except at Stornoway, where it was 0.6 mb. above the normal, and at Castlebay, where it was normal, the mean monthly air pressure was deficient, the deficiency ranging from 0.1 mb. at Lerwick to 3.9 mb. at Dungeness. As shown by the map on p. 27, the trend of the mean isobars was of a North-Westerly type instead of the customary Westerly. The tracks of nearly all the depressions, which were very numerous, ran across England from west to east, so that Scotland was generally under the influence of cold and comparatively dry winds. On the 1st a large depression advanced from the S.W., and by 7h. on the following morning was extended over the whole of the British Isles. As this system moved north-eastwards the wind became southerly over the whole kingdom, and maximum temperatures as high as 28.6a and above were common, the 2nd very generally being the warmest day of the month. In Iceland to the North-Westward of the centre of this system there was a gale from the North, with an extremely low temperature and snow. This depression developed several secondaries on the 3rd, one of which lay across northern and western Europe, the system showing a difference of 6a between its north-western and south-eastern sides. Between the 4th and 14th depressions were very conspicuous on the weather-map, and brought frequent falls of rain to all parts of the British Isles, with snow and hail on several days in Scotland. As a rule these depressions were not associated with any very severe gales. During this period in the week ended on the 12th the precipitation at Beddgelert amounted to 186 mm., of which 115 mm. fell on the 10th and 11th. The frequency of these depressions maintained the weather during this part of the month in a very unstable condition, the fluctuations in the temperature being very marked, the northerly and north-westerly winds at the rear of these depressions being associated with some very cold nights. On the 16th at 7h. a ridge of high air-pressure extended from the Southward to the Irish Sea region, and on the following day anticyclonic conditions were established all over western

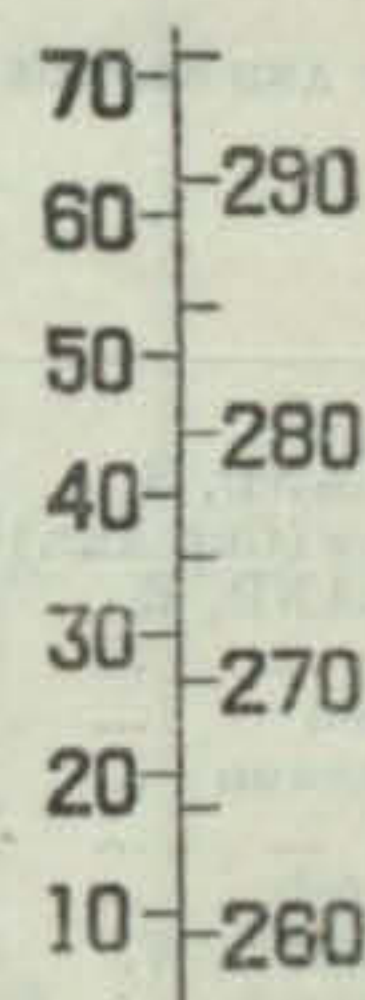
Europe, and remained the most prominent feature on the weather map until the 18th, when this high pressure system split into two, one portion covering the Bay of Biscay, the other lying to the Eastward of Iceland. This anticyclonic spell brought the sunniest days of the month, some of the stations on the 16th recording more than ten hours of sunshine. On the 19th under the influence of a depression which at 7h. was centred over the North of Ireland (track J) the weather again became very disturbed. This depression as it moved south-eastwards brought much rain, sleet, and snow to the British Islands generally, many stations on the 19th recording more than 25 mm. of precipitation. To the Northward of this depression the pressure was high, with the result that cold north-easterly winds were very generally experienced. This type of distribution of atmospheric pressure, high in the North and low in the South, continued till the 25th, the accompanying weather, especially over England, being characterised by strong easterly winds and local showers of snow and rain. On the 27th a very deep depression was centred over the North-East of Scotland and as it moved eastwards (track M) it brought strong winds and gales from the North-West to all parts of the country. During this gale the highest gusts recorded by the anemometers were 29 m/s. at Rosyth, Southport, and Scilly and 34 m/s. at Edinburgh. By the following morning this system had reached Denmark. A new depression appeared off the West of Ireland at 13h. on the next day and passed rapidly along the English Channel during the night (track N); snow was widespread, and in parts of South-East England lay rather deeply. Thereafter until the close of the month showers of snow, sleet, hail, and rain occurred over the whole country, with frost at night at most inland stations, but nowhere very severe.

**Temperature.**—The mean temperature was below the normal in all districts, the deficiency ranging from 0.6a in the English Channel to 2.4a in Scotland East, a striking contrast to the corresponding month of last year, in which all districts showed an excess ranging from 0.3a in the English Channel to 1.1a in Scotland North. Judging by the Edinburgh records this was the coldest March in Scotland for about a century. The highest reading of the month in Scotland was 28.5a at Leith on the 2nd, and never before during the last 60 years at least has the thermometer failed to reach an appreciably higher level in March. The lowest reading of the month occurred mostly during the first week or towards the end of the month. Among the lowest readings recorded may be noted 25.9a at Braemar, 26.1a at Balmoral and 26.2a at Bangour (Linlithgow). On the 11th, at some stations in the South and South-West of England, the minimum temperature did not fall below 28.3a. Nowhere did the mean maximum reach the normal, while the temperature at many stations was considerably below it. The mean minimum, though nearly everywhere less than the normal, did not show so much divergence as the maximum. While at some stations in England South-East there was no difference, one station, Wilton (Wilts), showed a slight excess.

**Precipitation.**—In Scotland North and East, precipitation was below the normal, the former having a deficiency of 16 mm., and the latter 6 mm. All other districts showed an excess, which ranged from 3 mm. in Ireland North to 65 mm. in the Channel Islands. A total of more than 100 mm. was recorded at many stations, especially in the Midlands, England North-West, and South-West. The heaviest of these were 187 mm. at Rhayader (Radnor), 173 mm. at Arlington (Devon) and 159 mm. at Wilton (Wilts). Some heavy daily falls were reported, among which is 77 mm. at Princetown (Devon), 59 mm. at Lisburn (Co. Antrim), 58 mm. at Beddgelert (Carnarvon) and 51 mm. at Bolton. The observer at Raunds reports very exceptional floods in the valley of the Nene from Northampton to Peterborough between the 15th and 22nd.

**Sunshine** was in excess of the normal in only two districts, Scotland North and West, the amount being 0.86 hr. per day and 0.12 hr. per day respectively. England East received exactly the normal, while Scotland East was only very slightly under (0.01 per day). The deficiency shown in other districts ranged from 0.17 hr. per day in Ireland North to 0.98 hr. per day in England North-East. This district, with England East, secured 20 per cent of the possible, while the Channel Islands had 33 per cent., and England South-West 34 per cent.

**Optical Phenomena.**—Solar halos were seen on the 17th and a few subsequent dates. The Zodiacal Light was seen at Oxford on the 1st, and at Jersey (St. Louis Obs.) on the 26th, 30th and 31st. Aurora was observed in Scotland on the 2nd, 3rd, 5th, 6th, 19th, 20th, 21st, 22nd, 23rd, 27th, 30th and 31st, and at Tavistock on the 17th.



Temperature Scales.