

## 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 Showery.

During the greater part of its career the month was true to type, and very generally the weather was changeable and unsettled. Showers of rain and hail were frequent, and only on the 18th and 19th was there any really warm weather, the rest of the month being unseasonably cold. An outstanding event was the remarkable snowstorm of the 27th-28th, accompanying a secondary depression which passed southwards across England. In London and its neighbourhood the snow lay to a depth of 20 cm., but a marked feature of this heavy snowfall was the rapidity with which it disappeared. Another notable event was the very low reading of the barometer recorded on the 14th and 15th, when a deep depression was moving slowly eastwards from the North-West of Ireland. On the latter date a reading of 970 mb. was recorded at Meltham, Yorks., and was the lowest air-pressure recorded in April at this station during 41 years. At Southport 969 mb. was registered on the 14th, the lowest April record during 48 years; at Stonyhurst it was the lowest during 72 years. At Leith 973 mb. was recorded, the lowest April value since 1874. By the morning of the 20th, when an anticyclone had spread northwards from the Bay of Biscay, the pressure at Leith had risen to 1042 mb., this being the highest reading recorded in April at this station for at least 60 years. The great contrast between the maximum temperatures on the 18th and 19th and those on the 27th was also an outstanding feature of the month's history. This may be illustrated by the temperatures recorded at Cambridge, where on the 18th the maximum was as high as 29.4a, but only 28.0a on the 27th. Thunder and lightning occurred in parts of England between the 8th and 15th, and also in some of the Southern counties on the 26th.

In Scotland a March with an unprecedentedly low mean temperature had followed an abnormally cold February, and the first two days or so of April were also cold. Thereafter, with minor fluctuations, the temperature was for the most part at least equal to the normal until the 18th, on which date the highest readings of the month were very generally recorded, the highest value being 29.5a at Crathes. From the 26th to the 28th the conditions were wintry. Thunder occurred in the far North early on the 1st, and here and there on the 9th, 13th, and 16th. There were a few very sunny days, but with many cloudy ones the sunshine aggregates were below the normal. At Aberdeen it was the cloudiest April for twenty years.

The following notes supplied by observers illustrate the general character of the month:—*Allans Green (Northumberland)*.—It has been a cold month, and there was very little growing weather. Grass is still scarce and not many roots are planted yet. *Kenninghall (Norfolk)*.—An exceptionally cold month, especially during the latter part. At the end of the month the cuckoo had not been heard, nor had swallows appeared. Vegetation is very backward and garden and field-work have been much retarded. *Copdock (Suffolk)*.—The total rainfall (84 mm.) is the highest I have ever recorded in April, and the maximum fall 43 mm. on the 27th is not only the highest ever noted here in April, but is also the second greatest daily fall recorded in any month whatever, and was exceeded only on August 29th, 1916, when 69 mm. were measured. *Tenbury (Worcestershire)*.—A very variable month and generally cold. Vegetation was very backward until towards the end of the month, but then made rapid growth, the blossom on the fruit trees being wonderful. *Southport (Lancs.)*.—The month was a healthy but dull one, sea winds being unusually predominant, and the easterly winds of spring-time almost absent. Relative humidity was higher than in any previous April since 1886. *Dublin (Fitzwilliam Square)*.—A month of normal mean temperature, but with considerable extremes, the maximum on the 19th being 29.0a, but only 28.0a on the 27th. Generally the wind was from points between North-West and South-West, and the rainfall, though rather frequent, was scanty. Snow fell on the 1st and 27th, the 27th and 28th being bitterly cold days. *Carrigoran (Co. Clare)*.—During the first half of the month the weather was of a most gloomy character, but the following nine days were fine and mild. The last five days were most unseasonable, with cold north-west winds, hail and snowstorms, and frost at night. *Hurdlestown (Co. Clare)*.—On the whole it was a favourable month, but owing to northerly winds the weather of the last week was very severe, with snow showers on the 27th. Grass is growing well, and the red rhododendrons are now at their best.

**Air Pressure.**—As shown by the map on p. 39, the mean monthly trend of the isobars was of a North-Westerly type instead of the customary South-Westerly, the barometric gradient being much steeper than usual. Over the southern part of the Kingdom the pressure was in excess, but deficient in the North, the departures from normal ranging from + 6.3 mb. at Cahirciveen to - 2.5 at Lerwick. Throughout the month low-pressure areas with no definite centre were frequent, but those which passed directly across the British Isles were rare. On the evening of the 4th the weather map showed a depression over Northern Scandinavia which by the following morning had grown deeper, a secondary being developed over the North of Scotland, where local gales occurred, a wind of force 11 from the West being reported at Houton

Bay (Orkneys). Between the 9th and 11th shallow secondaries formed over the British Isles and caused rainy and misty weather over the country generally. Gales were reported by Atlantic liners on the 10th, and from Blacksod Point on the morning of the 11th. About this date the weather over the Atlantic was mainly dull and squally, with mist or fog over the British Isles. At 7h. on the 14th a deep depression was situated off the North-West of Ireland, and moving slowly Eastwards (track D) was centred over the North-East of England by 7h. on the following day. This system caused gales along the English Channel, force 10 being reported from Scilly on the 14th. On the latter date gales of force 10 and 11 were also reported from the Atlantic. By 7h. on the 16th this depression was centred over Holland, and in its rear gales were reported at several British stations. At 7h. on the 17th a wedge of high pressure, which moved in from the South-West, was shown on the weather map extending over the greater part of England, where fair to fine weather prevailed generally. Thereafter anticyclonic conditions prevailed over the British Isles until the 23rd, the 18th and 19th very generally being the warmest days of the month. By 7h. on the 24th the anticyclone was showing signs of giving way, and under the influence of a depression over Scandinavia dull, rainy weather, with snow in Scotland, was spreading in from the Eastwards. After this date secondary depressions caused a very general deterioration in the weather. During the evening of the 27th one of these secondaries developed over Scotland, and, moving South-Eastwards, caused squalls of snow and sleet throughout the kingdom, the 27th very commonly being the coldest day of the month. On this date also gales were experienced at many stations. By the telegraphic reporting stations the highest barometer reading recorded during the month was 1045 mb. at Birr Castle on the 21st, and the lowest 963 mb. at Blacksod Point on the 14th. The highest gusts recorded by the anemometers were 35 m/s. at Scilly on the 15th and 34 m/s. at Pendennis Castle on the 14th.

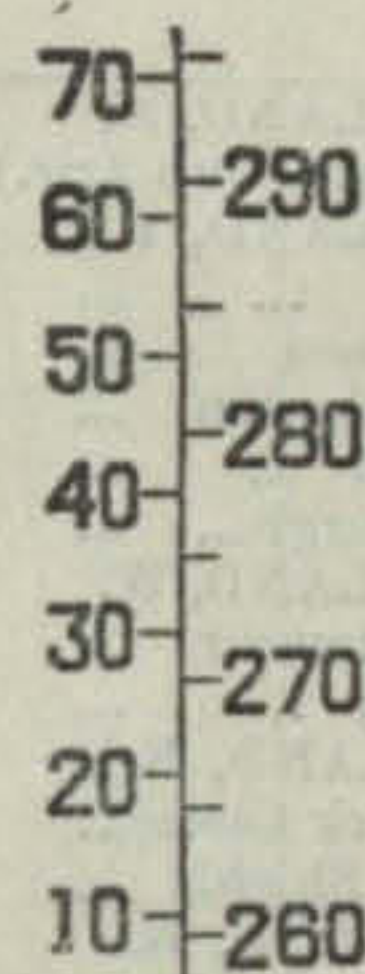
**Temperature.**—In Scotland East and in Ireland South the mean monthly temperature was equal to normal, and in England North-East it was 0.3a above it. In all other districts the mean was below the normal, the deficiency ranging from 0.1a in Scotland West and Ireland North to 0.9a in the English Channel. At the individual stations the highest daily reading recorded was 29.5a at Crathes (Kincardine) on the 18th and at Plymouth, Southampton and Weymouth on the 19th; and the lowest 26.4a at Braemar on the 2nd.

**Precipitation.**—The rainfall aggregates were very varied, Scotland North, for instance, having 167 per cent. of the normal and Ireland South only 61 per cent. In England South-East the percentage was as high as 147, but only 88 in England North-West. Generally speaking, there was more precipitation in the Midland, Eastern, and Northern Districts than in the Southern and Western, the departures from the normal ranging from + 55 mm. in Scotland North to - 26 mm. in Ireland South. In sheltered central and south-eastern districts of Scotland and around the western and southern seaboard the aggregates for the month were deficient. Thus Edinburgh had 222 and Glencarron 191 per cent. of the normal, but Crieff only 42, Colmonell 68, and Marchmont 72. At a very large number of stations the total precipitation for the month was largely accounted for by the snowfall on the 27th. The widespread nature of the latter is shown by the fact that snow was reported on this day by every telegraphic reporting station in the British Isles except Portland Bill. The fall was especially heavy in East Anglia, Copdock (Suffolk) recording 43 mm. on this day (the highest daily amount ever recorded in April at this station), Halstead (Essex) 54 mm., and Bennington (Herts.) 50 mm.

**Sunshine.**—In Ireland and in the English Channel the mean daily amount of sunshine was above the normal, but in all other districts it was below it. The greatest daily shortage was 1.46 hr. in England East, and the greatest excess 0.47 hr. in the English Channel. In the latter district the daily mean was 6.86 hr., but only 3.78 hr. in Scotland East.

**Optical Phenomena.**—Solar halos were reported on various dates, and lunar halos less frequently. A sun-pillar was seen at Mayfield (Staffs.) on the 30th, and a moon-pillar at Totland Bay on the 15th. The Zodiacal Light was observed at Oxford on the 22nd and at Jersey (St. Louis Observatory) on the 1st and 20th.

**Aurora** was seen at Baltasound and Deerness on the 8th, at Aberdeen and Paisley on the 20th, and at Oxford and Tenbury on the 29th.



Temperature Scales.