

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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Dull, Unsettled and Wet.

A decided decrease of temperature marked the opening day of the month when in most parts of England the thermometer had fallen by 12a and 13a. In London and many parts of Great Britain the weather was dull and rainy, and right up to the last day, on which hailstorms were widespread, the month was unsettled, inclement and showery. In Scotland, the South-westerly type of conditions which had been dominant since the beginning of the year was but little in evidence and there were but few warm days. During the greater part of the month the weather over the British Isles was of a cyclonic character, and depressions passing eastwards from the Atlantic kept the air pressure so low, that at some stations the mean was the lowest on record for April. Rain fell frequently and many stations had as many as 28 rain-days. Good sunshine records were, however, obtained on some days, Cahirciveen, for instance received 11·2hr on the 4th, Nairn 12·4hr on the 20th, and Malin Head 14·0 hr on the 30th, but commonly these sunny conditions were only temporary, and confined to limited areas. In some localities the lack of sunshine was very marked, the daily mean at Kew Observatory and at Nottingham being about half the normal amount for April. This general deficiency of sunshine kept the day temperatures very low, so that at many stations the mean maximum was below the normal, while, owing to the persistent cloudiness the nights were unusually warm. At Copdock, Ipswich, the mean minimum for the month (278a) was the highest April value during 19 years, and at Totland Bay, Isle-of-Wight, the mean (280a) was the highest during 34 years. The warmest days of the month were the 23rd and 24th, the highest readings being 290a at Crathes (Kincardine) on the 24th, and 292a at Woking (Surrey) on the 23rd and 24th; the coldest mornings were those of the 1st, 8th, 9th and 30th, on the last of which dates 267a in the screen, and 264a on the grass, were registered at Eskdalemuir.

Snow fell infrequently and was mainly confined to Scotland, the principal falls being those on the 7th and 10th. Hail was more frequent and often accompanied thunderstorms. During an especially violent thunderstorm at Tenby on the 19th, more than 25mm. of rain fell. Gales and strong winds were not very widely experienced, the more notable occurring on the 16th in the South-west of England, on the 20th in the Western Districts and, on the 21st in the South of England.

The following notes supplied by observers illustrate the general character of the month: Southport (Lancs.) "This was by far the dullest April on record. It had a lower mean barometric pressure, smaller mean daily and extreme monthly ranges of temperature, and a greater number of rain-days than any previous April since 1871." Leyland (Lancs.) "The wettest April on record, except 1913. Rain almost double the 10 years record." Meltham (Yorks.) "A remarkable month. Rainfall two-and-a-half times the normal, and much greater than in any April for 40 years. Rain-days the most, and barometric pressure the least, in the same period." Tenbury (Worcs.) "April 1913 and 1920, the two wettest Aprils in 26 years. The month has been unusually wet and gloomy. The most sunless April yet recorded (91·7 hr below the normal). The River Teme was in flood on the 15th and 16th. Spring sowing much delayed owing to the water-logged state of the land." Ross-on-Wye (Hereford.) "A wet and cloudy month. Day-temperatures usually below the normal, nights generally warm. No frost in screen, and only one frost on the ground. River Wye in flood about the 17th." Totland Bay (Isle-of-Wight.) "Rain days 18, the greatest number since 1889." Copdock, Ipswich, "Much the wettest and much the dullest April in 19 years record." Dublin City, "A cloudy, cold cheerless month, with 27 rain days." Carrigoran (Co. Clare) "Except during the first 4 or 5 days, we had almost incessant rain throughout the month. We have had much violent and cold wind, with a great many gloomy, sunless days, a great hindrance to agricultural operations."

Air Pressure.—As shown by the map on page 45, the mean monthly air pressure was considerably below the normal. Pressure was lowest in a belt embracing the extreme north of Ireland and the whole of Scotland. The mean pressure was lowest at Malin Head, where the value was the lowest ever found in April at that station, which has been operating since 1885. The old record of 1005·7 dates from 1901. The 1920 figure is 1002·8. At 7 hr on the 1st an area of low pressure extended across the southern part of England and northern France, the air pressure at the same time being high in an anticyclonic system, which stretched from Iceland to Norway. These conditions were maintained during the 2nd and 3rd, and the weather during this period was dull, misty, rainy and cold. On the 5th a depression moved south-eastwards from Iceland to the Faroe Islands and was separated from a low pressure area over Germany by a wedge of high pressure over the British Isles. The depression over the Faroe Islands became more intense on the 7th and developed a "V" over the British Isles, which was associated with a temperature low for the time of year. In the Shetlands there was snow. Another depression approached the British Isles from the south-west on the 8th, and moving slowly it was centred over Wales on the morning of the 10th. During the

8th, 9th and 10th rain was very general, Roches Point having 23mm. on the 9th and Holyhead 18mm. On the 10th there was snow in Scotland, and at Wick the minimum temperature was 270a, and at Lerwick the maximum was only 279a compared with 289a in parts of Southern England. A new depression appeared off the South-west of Ireland on the morning of the 11th and during this and the two following days moved slowly northwards. On the 14th it was followed by another depression from the South-west which moving quickly was centred over Scotland at 7 hr on the 16th. During the passage of these two depressions a very unsettled type of weather persisted all over the British Isles and rain fell on every day in nearly all districts. Thunderstorms occurred on the 13th, 15th and 16th, and in South-east England there was hail on the 14th and a gale on the 16th. At 7 hr on the 17th there was a depression over the Bay of Biscay, which by the following morning had reached Holland. It was followed on the 19th by a secondary which advanced Eastwards from the West of Ireland. This system was centred over the southern part of the Irish Sea by 7 hr on the 20th, and caused South-westerly to North-westerly gales in the South-west Districts of the British Isles. During the 21st this depression crossed England to the North Sea, and on its southern side the wind again reached gale force in many places. During the following days until the 26th, the weather of the British Isles was mainly influenced by depressions passing to the Northward and North-eastwards and during this period showers with considerable bright intervals were common. On the 23rd and 24th maximum temperatures above 289a were recorded in many parts of the Kingdom, some of the minimum temperatures on the latter date also were high for the time of year. The dominant feature on the weather map during the closing days of the month was a large depression over Southern Norway, which with its accompanying small secondaries maintained an unsettled and unseasonably cold type of weather all over Western Europe, with thunderstorms at some of the British stations and heavy showers of hail and rain over a wide area.

Temperature.—Owing to the unusually warm nights the mean temperature of the month differed but little from the normal in most districts. In each of the English Districts the mean exceeded the normal, the amount of which ranged from 0·3a in England North-west to 1·1a in England East. In Ireland, and Scotland East and West the mean was below the normal: the deficit ranged from 0·1a in Ireland South to 0·4a in Ireland North. In Scotland North the mean was exactly the normal.

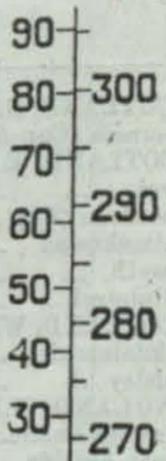
Precipitation.—With the exception of Scotland North, the rainfall in every District was above the normal, the totals in the Midlands and Eastern Districts of England being more than 200% of the normal, the deviation being 67mm. in the Midland Counties and 44mm. in both England North-east and England East. In Ireland there was a very marked difference in the amount of the excess. In the North there was an excess of only 6mm., while in the South it was as much as 47mm. In Scotland the deviation was from +6mm in the East to -10mm in the North. The heavy aggregates for the month were due to the persistency of the rain, rather than to any exceptionally heavy falls. There were only five stations at which more than 25mm. was measured in the 24 hours ending with the time of observation. It will be noticed that the exceptionally low mean pressure in the North of Ireland and Scotland was not associated with heavy rainfall in those localities.

Sunshine.—The dull character of the month was reflected in the fact that only one District, Scotland North, received its normal amount of sunshine. In all the other Districts there was a deficit which ranged from 1·22 hr per day in Ireland North, to 2·51 hr per day in the Midland Counties. Very few stations exceeded 30% of the possible, while at a large number of places the percentage was less than 20; it was as low as 9 at Manchester (Whitworth Park) and 10 at Bolton.

Optical Phenomena.—Solar haloes were seen on the 6th, and between the 17th and 28th, lunar haloes on the 2nd, 26th and 31st, and lunar coronae at a few stations between the 23rd and 30th. The Zodiacal Light, which is usually reported quite frequently in the spring months, was only seen at Ross (Hereford) on the 11th, and at Oxford on the 18th and 19th.

Aurora was seen in the Shetlands on the 4th, 17th: in the Orkneys on the 9th, 17th, 21st; at Glasgow on the 16th, and at Arbroath on the 29th.

Flying Weather.—The disturbed conditions which persisted throughout the month were unfavourable for aviation, but for the most part the visibility was fair to good, and inland fogs were rare and in most cases dissipated early in the day. On the 8th, 9th, 11th, 12th and 27th, low clouds at about 1000 ft. were more or less continuous in most places. During the gale of the 15th, a wind at 3000 ft. of no less than 110 m. p. h. was reported from the pilot-balloon station at Lympne.



Temperature Scales.