

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

(Supplement to Weekly Weather Report.)

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

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE.

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WET AND DULL.

The dominating feature of the pressure distribution for the month was an anticyclonic system stretching eastward from the Azores and frequently extending over the Iberian Peninsula. This system underwent but slight modification from day to day, maintaining its general position until nearly the end of the period, when it moved southward, and pressure became highest over the central countries of the Continent. During the greater part of the month there was a relatively high barometer over Iceland and Denmark Strait. Between these northern and southern anticyclones numerous depressions moved eastward, many passing directly over the British Isles, where the mean pressure for the month was considerably below the average. At Lerwick the mean pressure was 11.1 millibars below the normal, while at Jersey the deficit was 6.7 millibars. The average difference in the mean pressure for March between the two places is 7.7 millibars, but last month this was increased to 11.5 millibars, and it will be seen by chart 1, p. 27, that the mean barometric gradient for Westerly winds was steeper than usual. The general trend of the isobars agreed very closely with the normal over the United Kingdom, but over the North Sea they were more favourable for South-Westerly winds.

Although depressions were very numerous and gales frequent on some portion of the coast, few of the systems were of great depth, and the wind seldom blew with gale force over a large area simultaneously. The Westerly to North-Westerly winds over this country were moderate to strong until the 5th, when a depression of increasing intensity approached the north of Scotland, and was accompanied by a general acceleration in the velocity of the wind. At 7 a.m. on the 6th the core of the depression lay near Shetland, and the barometer had sunk as low as 969 millibars. Accompanying this disturbance there were gusts from West or North-West of great violence in Scotland and the north-east of England. At Rosyth, South Shields, and Hexham the gust velocity equalled 30 metres per second (m/s), at Paisley 31 m/s, and at Spurn Head 35 m/s. At Aberdeen a gust of 29 m/s was recorded, and at Southport one of 27 m/s. This system passed across the North Sea very quickly, and on the 7th caused Westerly gales on the Baltic and the region surrounding. It was followed over these islands by a depression of moderate depth on the 8th, and also by a secondary, but no gale occurred except very locally until the night of the 13th or morning of the 14th, when a deep and extensive depression was spreading over the whole Kingdom. On the 14th the centre of the disturbance lay over the north-east of Ireland, whence it travelled in a north-easterly direction to beyond Shetland, and finally passed on to Scandinavia. The highest gust velocity with this system was 35 m/s at Scilly and Pendennis Castle, but this was nearly equally by 34 m/s at Holyhead and 33 m/s at Quilty. At Warlingham the gust velocity was as high as 32 m/s, at Eskdalemuir 31 m/s, and at Dover 30 m/s, while at a number of other stations it exceeded 20 m/s. The next gale, and the last important one of the month, followed on the 16th, in the rear of a small but deep secondary depression that gained intensity as it travelled from the Atlantic across Ireland. At 7 a.m. its centre lay near the mouth of the Mersey, and the gale, which sprang up suddenly and unexpectedly, was from the North-Westward. Its greatest force was experienced in Ireland, Wales, and England, but it was also felt along the east coast of Scotland. Among the highest gust velocities were 31 m/s at Quilty, 29 m/s at Holyhead, 30 m/s at Dover, 27 m/s at Gorleston, 26 m/s at Brighton, 25 m/s at Spurn Head, and 21 m/s at Aberdeen. The subsequent depressions brought relatively little wind over the Kingdom generally, but a small system that also increased in depth as it arrived in the neighbourhood of these Islands, covered the western half of the English Channel on the 20th and caused a gale of considerable violence from between East and North along the south-western, southern, and eastern coasts. This disturbance resembled in its depth that which travelled quickly eastward to the northward of Scotland on the 6th, but it differed from the earlier depression in its direction and rate of motion; it moved first to East Anglia, and then passed slowly northward and north north-westward on the North Sea, finally dispersing to the north-westward of Scotland on the 23rd.

The highest pressure recorded during the month was 1027.4 millibars in the Channel Isles, and the lowest 967.1 millibars in the extreme north of Scotland.

All the depressions passing over these Islands or their immediate vicinity brought rain either locally or over the entire Kingdom, and between the 19th and the 26th thunderstorms, or more commonly, thunder only, occurred at a great number of stations. Very heavy rain

within a short time was not, however, a characteristic of the weather conditions, and at ordinary altitudes the large aggregates for the month were mostly composed of falls varying from less than a tenth to half an inch. Some exceptions to this rule were recorded on the 8th and 9th in the south-western, southern, and southern counties of England, when the fall exceeded an inch in 24 hours at many stations, the heaviest being 1.35 in. at Matfield, and 1.47 in. at Midhurst on the latter day. At Ashburton, where the total fall amounted to 8.99 in., the heaviest measurement on any one day was 0.94 in. on the 18th. Some further heavy falls accompanied the deep depression that gave the Northerly to Easterly gales in the southern counties on the 19th. Many places reported more than an inch; at Matfield the amount was 1.29 in., at Preston, Brighton, 1.22 in., at Heathfield, Sussex, and at Torquay 1.11 in. Late in the month, when a strong South-Easterly to Southerly wind prevailed in the south of Ireland, a heavy downpour occurred at Caragh Lake, 1.86 in. falling on the 28th, followed by 1.05 in. on the 29th. Among the high level stations the heaviest falls were 2.20 in. at Princetown on the 8th, and 3.94 in. at Pen-y-Gwryd on the 30th.

Although the temperature was generally too high to allow the precipitation to assume the form of snow, there were several occasions, mostly after the middle of the month, when, with the wind from West or North-West, sleet and snow showers were experienced. These were more widespread in the north and east than in the west and south, but no district was entirely immune. At some stations in Ireland there was no day without precipitation. On Valencia Island the 31 rainy days of March followed 27 in February, and of the 73 days since January 18th only 2 were rainless, the aggregate fall for the period amounting to 24 in. At Caragh Lake, Co. Kerry, an almost identical state of things obtained. Only 2 of the 73 days were without rain, 68 consecutive days bringing a measurable quantity, and the total for the period was 32.8 in. Observers in other parts of the Kingdom made special remarks concerning the rain. At Isleworth: "The heaviest March rainfall in my records extending over the last 35 years." At Butlers Cross, Bucks: "A very wet month, seriously interfering with work on land." At Totland Bay the observer remarked: "Humidity 88.5° shows the dampest March air since 93.1° in 1887. Rainfall 5.45 in. shows the wettest March I have recorded. First March in 26 years giving an inch of rain in one day." At New Malden, Port Talbot, and Copdock it was the wettest March on record, the records ranging from 10 to 14 years, and at Preston, Brighton, no March since 1862 has given more rain. At Falmouth the total fall for the month was 8½ in., which is more than 1 inch greater than in any previous March in the last 42 years. At Camden Square, London, the fall amounted to 4.51 in., and was the largest March total since the record began 57 years ago. At Greenwich, however, the total fall was only 3.91 in., which is less than the March fall of 1851, and the total 3.93 in. for Kew is below the corresponding value for 1862, viz., 4.47 in. Rather serious floods were reported in the Thames Valley about the middle of the month.

Over the Kingdom generally the excess of rain was very large; at numerous stations the fall was more than 200 per cent. of the average, 341 per cent. at Dungeness and 365 per cent. at Shoeburyness. There were, nevertheless, some parts of the north-east of England and a small area in the east of Ireland where the fall was below the average; at Rounton the total was only 70 per cent. of the normal.

Temperature was above the average except in some parts of Ireland and Scotland, although the divergence was rather slight. The first half of the month was warmer, as a whole, than the latter part. The highest readings, however, occurred on the 30th or 31st, except at a few isolated places. Considered generally the range of temperature was slight for March, readings above 55° and below 32° being seldom reported. The mean temperature of the surface water of the sea differed little from that of the preceding month or from the average.

Coastal fogs were not very common, but were experienced from time to time on various parts of the west and south-west coasts, and extended occasionally to the east.

Bright sunshine was very deficient over the Kingdom generally, but in some Scottish localities it exceeded the average. At Hodsock it was only 63 per cent. of the normal, at Jersey 69 per cent., and at Woolacombe 70 per cent., while at many other places it was about 80 per cent. At Fort Augustus the percentage was 131, and at Blackford 126.