

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

(Supplement to the 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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DULL AND WET.

Pressure, Winds and Weather.—The unsettled type of pressure distribution which prevailed throughout March, was maintained into the opening days of April, but the disturbances in existence in our immediate neighbourhood were shallow, so that the first two days of the month were of a much quieter character than their predecessors. The remaining twenty-eight days were divided into two well-marked periods—of high and of low pressure respectively. In the night of the 2nd the situation changed, and on the following morning the last of the depressions was passing down to Northern Spain, a decided increase of pressure was in progress, and already there were anticyclones centred over Denmark and off the north of Iceland. By the evening of the 3rd these systems had coalesced, their common centre extending from Southern Norway westward beyond Iceland. From the 3rd to the 10th the British Isles were between the high pressure area working westward beyond the north of Scotland, then southward outside the western coasts and a low pressure system which moved slowly from Northern Spain across Southern and Central Europe to Russia. Under these circumstances this country experienced a strongly marked Easterly to Northerly type of conditions. With the rapid rise of the barometer at the commencement the anticyclone quickly reached its maximum intensity, the highest pressure being recorded on the 4th off the north of Scotland, the late evening reading at Lerwick being 30.64 in., at Wick, 30.59 in. These were the highest values reported during the month at the home stations. Atlantic depressions of this period kept far to the southward, moving south-eastward and eastward from the Newfoundland Bank past the Azores and Madeira for the Canaries and North Africa.

The end of the high pressure period was brought about in a more than usually interesting manner. Spitzbergen reports showed that a depression left that neighbourhood on the morning of the 9th, passing down across Lapland and Finland to Riga by the evening of the 11th, the anticyclone at the same time moving further out over the Atlantic. Another depression appeared between Greenland and Iceland on the evening of the 10th, and travelling rapidly on a south-easterly course across Britain reached North Italy by the evening of the 12th. The high pressure system now drifted southward to its normal position along the middle belt of the Atlantic, and thenceforward the northern portion of the ocean was occupied by cyclonic disturbances of considerable depth, the barometer sinking below 28.5 in. on the 15th and 16th in the neighbourhood of Iceland, and on the 26th off the north-west of Ireland, in about 56°N., 11°W. Most of these disturbances followed very erratic paths out at sea, sometimes, as was the case in March, moving due west over hundreds of miles. The lowest pressure on shore, 28.53 in., occurred at Malin Head on the 26th, in the depression already referred to. Very few centres crossed this country, the weather being influenced mainly by the eastern portions of the low pressure areas lying out on the Atlantic.

The mean pressure of the month was only a little below the normal. The results indicate an area of minimum pressure over Iceland, 29.55 in. at the Vestmanna, off the south coast. Thence the values increase to 29.74 in. at Castlebay, and 29.89 in. at Jersey, to 30.10 in. at Moscow, and to 30.26 in. at Horta, Azores. The distribution was in fair accordance with the normal, indicating the general prevalence of a Southerly to Westerly type, though, as already noted, there was a distinct period of North-Easterly conditions.

During the period of high pressure, the only instances of gale force at the telegraphic reporting stations occurred at Holyhead on the 5th, and at Dungeness on the following day; at Holyhead the anemometer registered gusts at the rate of 57 miles per hour. From the 4th to the 8th, however, owing to the existence of a disturbance over the western portion of the Continent bringing about a considerable steepening of the North-Easterly gradient, strong or high winds were felt daily over nearly the whole of England. As a rule this anticyclonic spell was marked by dry weather in most parts of the kingdom, more especially so in the north and west. Many places had seven or more rainless days in succession, St. Andrew's and Cahir, nine days, and at Ballinacurra there was only one trifling shower in eleven days. South-Eastern England was outside the dry area, some considerable rainfalls being registered, more than an inch at Sandgate on the third.

A change of a somewhat remarkable character resulted from the arrival of the Greenland disturbance on the 11th. Its progress was unusually rapid, so that the Southerly wind on its eastern side was of very brief duration, but it was surprisingly cold, and brought with it a snowstorm which was nearly as heavy as the heaviest experienced during the past winter. Several localities reported from three to six inches of snow lying next morning, melting quickly. At Norwich and Felixstowe, the water measured was $\frac{3}{4}$ in., nearly all melted snow. On the slopes of Snowdon the precipitation was about $1\frac{1}{4}$ in. of water.

The most disturbed period was associated with the irregular movements of the very deep cyclone which was nearing Iceland on the 14th, but did

not pass the Orkneys and Shetland until the 19th, and reached Southern Norway on the next day. From the 15th to the 20th a Southerly to Westerly gale or strong gale was felt daily on various sections of our coasts, the highest gust velocities recorded being 61 miles per hour at Quilty and 64 at Pendennis Castle on the 16th, and 58 miles at Southport and 60 at Spurn Head on the 19th. Very wet weather also became general, small falls of snow in places. At Seathwaite the rainfall on the 14th amounted to 3.6 in., and on the following day there were many falls of an inch or more in England and Wales, up to 3.5 in. at Llanberis. Thunderstorms, with hail, sleet or snow occurred at a number of stations on the 17th.

With the approach of an equally deep and irregularly moving depression towards our western coasts on the 25th the weather was again very unsettled and remained so to the close of the month, a gale to a strong gale from North-West, South-West or South-East being reported from the 26th to the 29th, the gust velocities on the 26th ranging up to 61 miles an hour at Plymouth, 68 at Quilty, and 72 at Pendennis, the last mentioned station registering 59 miles of wind in an hour. There were many heavy falls of rain, the measurements for the 26th ranging up to 1.9 in. at Lampeter, 2.1 in. at Ashburton, 2.2 in. at Seathwaite, and 2.8 at Princetown. Thunder and hailstorms visited various parts of Ireland on the 27th and 28th, and in the evening of the following day they were common throughout England, very severe and destructive in a number of instances, the lightning being described as extraordinarily vivid. The storms were practically simultaneous, occurring in most localities between the hours of 7 and 11 p.m. The accompanying rainfall was fairly heavy. Several parts of England and Ireland had a similar experience on the 30th.

During the greater portion of the month the temperature was fairly uniform all over the kingdom, and the daily range was small. The few exceptions were rather striking. On the 11th and 12th the day maxima were unusually low, at numerous stations below 40°, as low as 35° at Thorntonhall, Bawtry and Garforth, 34° at Aberdeen and Baltasound, and 33° at Lerwick, Glencarroa, West Linton and Harrogate. This was succeeded by a sharp frost in the night of the 12th, with many shade minima of 25° and under, 19° at Wokingham, 18° at Balmoral. In the last week the day readings rose appreciably above the normal, the 23rd, 24th, 27th and 29th having a considerable number of maxima above 65°, Isleworth, Wisley, Woking and Ross touching 69°, Wimbledon, Canterbury and Margate 70°; there were a few minima of 51° or 52°, Basingstoke and Margate registering 53° on the morning of the 28th.

An aurora was visible at Baltasound in the night of the 22nd.

All round our coasts the temperature of the sea water was higher than during March, by as much as 3° or 4° in places. On the north-east coast of England, the eastern portion of the English Channel, and the Irish Sea and St. George's Channel, the water was colder than the air on shore, to the extent of 2° locally; in most other neighbourhoods the water was the warmer, and to about the same extent.

Fogs showed a further diminution both inland and at sea. They were rather prevalent off the east of Scotland from the 3rd to the 5th, and about the Western Channels from the 21st to the 24th, but seldom noted on the south coast of England.

Rainfall.—Precipitation exceeded the average in almost all parts of the Kingdom except the extreme north-east. Over a very large area the percentage of the average was more than 150, and in several localities more than 200. At Durham the figure was 217, Polapit Tamar 218, Cirencester 219, Cardiff 222, Ashburton 224, Coventry 240, Cargen 241, Church Stretton 249, and at Goggerddan 271. In the hilly districts the total exceeded 10 in. in many places; among the heaviest were 11.9 in. at Intake and Bungalow (Snowdonia), 12.1 in. at Princetown, 12.3 in. at Old Road (Snowdonia), 13.4 in. at Llanberis, 14.4 in. at Copper Mill (Snowdonia), 14.6 in. at Seathwaite, and 15.3 in. at Treherbert. Rain fell on 25 days at Hemel Hempstead, 26 at Seathwaite, and 27 at Midhurst. In some Scottish localities the total fall was less than the average. At Gordon Castle the percentage was only 51, at Wick 79, at Nairn and Strathpeffer 91, and at Dundee and Deerness a little below 100. At Ventnor and Jersey the figure was also slightly below 100. Rain was measured on no more than 9 days at Cawdor and Fortrose and on 12 at several other stations in Scotland. The smallest aggregates were at Gordon Castle and Fortrose, where the figure was 0.9 in.

Bright Sunshine.—Almost everywhere the mean daily duration of bright sunshine was less than the normal, the difference being large generally. The only exceptions were Strathpeffer and Markree Castle, where the respective percentages of the average were 106 and 101. The lowest figures compared with the average were at Guernsey, 57 per cent., Jersey and Torquay, 64 per cent., and Tenby, 67 per cent. The highest daily means were 5.4 hours at Clongowes Wood Col., and 5.1 hours at Felixstowe; and the lowest 2.5 hours at Hull and 2.0 hours at Bolton.