

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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CLOUDY AND DRY—ONE FOGGY WEEK.

Pressure, Winds and Weather.—Broadly, the first half of the month was characterised by a vast belt of high pressure, which occupied the southern half of the area under observation, stretching from British Columbia eastward across the United States, and the middle belt of the Atlantic to Southern and Eastern Europe and away to Eastern Asia. On some days the sea level pressure was above 30.7 in. at various stations in America and Europe, and above 31.1 in. in the neighbourhood of Lake Baikal, in Siberia. This great anticyclone enclosed on its Arctic side a well-marked basin of low pressure, in which were numerous secondary depressions, following, in the main, the usual easterly paths of translation, the barometer standing below 29 in. nearly every day, and on the evening of the 6th sinking to nearly 28 in. on the south coast of Iceland. About the 10th the situation began to undergo a change, with the northward expansion of the anticyclone over Western Europe. By the 15th a very striking reversal of the situation had been accomplished, the area of highest pressure now occupying the northern regions, from Hudson Bay eastward across the upper portion of the Atlantic to North-Western, Central and South-Eastern Europe, while the cyclonic systems were transferred to the southern side, being about the States, the Middle Atlantic and the Mediterranean. Towards the close of the month the conditions became more irregular, but the changes were comparatively unimportant.

Two main types of widely different atmospheric conditions thus influenced the weather over the United Kingdom. From the 1st to the 9th the whole country was affected by the deep depressions which were always present on the ocean to the westward and northward. The centres of all the main systems of this period passed away to the northward or to the eastward of Iceland, only two secondary disturbances visiting our coasts. A very shallow one appeared on the English Channel on the 1st, and subsequently travelled away across the Baltic to central Russia. From the 6th to the 9th a cyclonic area of great depth was centred to the southward of Iceland, and on the 7th it threw off a well-developed satellite, which struck off on a north-easterly course, its centre crossing the Hebrides and Shetland, and finally dispersing over Finland on the 9th. During the evening or night of the 7th the barometer descended below 29 in. in all parts of Scotland and the north of Ireland, the lowest record of the month, 28.77 in., being registered at Blacksod Point. With the disappearance of this secondary system a decided increase of pressure set in over the whole of Western Europe, and by the night of the 9th the entire area of the British Isles had been brought within the limits of an extensive anticyclone, the centre of which was over France at first, but covered a great part of England by the morning of the 12th, when the barometer mounted to 30.7 in. in several localities, and to 30.72 in. at Kew Observatory. This was not only the highest reading for the month, but it is also higher than any previous record in the kingdom since the opening days of February, 1911, a period of just over two years. With the establishment of the high pressure distribution a spell of very quiet conditions set in, the position of the maximum pressure shifting about continually in an irregular manner. It passed to the western and central parts of the Continent on the 23rd, and thus rendered it possible for depressions out on the Atlantic to spread in over this country. Between the 25th and the 27th two shallow depressions appeared, one moving up the western coasts to the Hebrides, then starting off on a due easterly course to Russia, the other following an easterly path into the Channel, and dispersing over Normandy, when the barometer again ascended briskly, another anticyclone covering the country on the last day of the month.

As there was thus a considerable preponderance of anticyclonic conditions the mean pressure for the month over these islands was everywhere well above the normal, the excess ranging from 0.11 in. at Blacksod Point and Birr Castle to 0.20 in. at Clacton, and 0.22 in. at Yarmouth. The lowest mean pressure was 29.53 in. in Western Iceland, thence the values increased to 29.94 in. at Lerwick, and 29.97 at Stornoway, 30.19 in. at Jersey, London and Yarmouth, and to 30.28 in. at Vienna. The general distribution was thus favourable to the prevalence of a South-Westerly type.

Under the influence of the depressions off the north and west coasts very breezy changeable weather ruled over these islands through the first nine days, strong to high and squally, Southerly to Westerly winds being reported over a wide area every day, the force of a gale being attained in several neighbourhoods in the first five days. On the 6th, with the nearer approach of a secondary disturbance, the area of gale force became more extensive, and on the 7th and 8th the gale was pretty general, and in many localities severe, there being a considerable number of instances of a strong

gale (force 9), while Aberdeen, Donaghadee, Malin Head, and the lighthouses at Trevoise Head and the Outer Farne had a whole gale (force 10), and Southport and Lundy a storm (force 11). During squalls the wind rose to a velocity of 72 miles an hour at Penderennis Castle, 74 at Shields, 76 at Aberdeen, 79 at Dwyran, 80 at Quilty, 83 at Holyhead, and 86 at Southport. A rapid decrease in the strength took place on the 9th. The gale was of a destructive character, and on the 7th it caused the highest tide in the Shannon that had been known for 50 years, many houses being flooded, and in some of them trout were found when the water subsided. In spite of the disturbed weather of these nine days the rainfall was singularly light over nearly the whole kingdom, the only considerable amounts being registered in the more hilly regions of the west, and even there few stations had as much as an inch in a day. On the 2nd Glencarron had 2.4 in.; on the 3rd Seathwaite 3.3 in., and on the 8th Llanberis (Penygwryd) 2.2 in. In seven consecutive days Seathwaite had 8.7 in., and on the slopes of Snowdon there were amounts up to 6.8 in. for four days. Occasionally there were small falls of snow locally, and on the 1st, 6th and 9th various localities in Ireland and Scotland had thunderstorms.

With the setting in of the anticyclonic type on the 10th the weather became very dry, and during the remainder of the month there were only a few trifling showers, many places measuring no rain through 14 or 15 successive days, Beaconsfield and Llandudno having none through the 16 days, 10th to 25th. Between the 17th and 25th strong to high winds from South-East to North-East were felt over the southern districts, due to the presence of a depression over the Western Mediterranean. On the morning of the 15th an exceedingly shallow depression formed over Eastern England within the anticyclone, barometer at about 30.3 in., and produced a very gloomy, damp day as it moved southward slowly.

As a general rule temperature was maintained within moderate limits, and for the whole month the mean results were nearly everywhere above the normal, by as much as 3° at Yarmouth. Between the 4th and the 14th, afternoon readings of 55° and upwards occurred in many localities, the highest, 60° at Jersey on the 11th, at Ruthin on the 11th and 12th, and 61° at Sheepstor on the 12th. These were in brilliant, sunny weather, at the same time that other places, enveloped in fog, were very cold, Hereford 36°, Nottingham 38°. The night of the 3rd-4th was very mild, many minima being 47° and upwards, 50° at Killarney, Welshpool, Ilfracombe and other places. Generally, the frosts registered were of the slightest, but on the mornings of the 14th and the 23rd a sharp one visited many districts, the thermometer in the shade sinking to 20° at Gwernyfed Park, and 19° at Llangammarch Wells on the former date, and to 19° at Mayfield, and 18° at Eskdalemuir on the latter date. The afternoon of the 20th was the coldest of the month, temperature not passing above 35° at a number of stations, 33° at Buxton and Sheepstor.

An aurora was observed at Baltasound on the 5th, and at Matfield (Kent) on the 8th.

Fog was unusually prevalent inland and on the coasts (and also on the Continent) from the 10th to the 15th, dense to very dense in several localities at times, and in some neighbourhoods almost continuous. In London, on the 15th, the fog was lifted above the housetops, a dense canopy which shut out the daylight completely, so that in the streets below there was intense darkness during the day. At other times during the month there was a fair amount of fog on various parts of the western coasts, mostly round Ireland.

The coastal sea water was about a degree colder than in January in most neighbourhoods, but in many places it was 2° to 4° warmer than the air on shore.

Rainfall.—The month's precipitation was below the normal at nearly every station, Birmingham, Margate, Dublin City and Glasnevin returning only 30 per cent., Dundee 31, Shaftesbury 32, and Shields 33 per cent. Of the few in excess Aspatria had 121, Fort Augustus 138, and Nairn 140 per cent. In very numerous instances the aggregate totals were less than an inch, less than $\frac{1}{2}$ in. at Shields, Tynemouth, Peterborough and Margate. At Copper Mill, Snowdon, the total was 10 in., at Seathwaite 10.5 in., and at Loan, Loch Quoich, 17.8 in. Precipitation was measured on 25 days at Baltasound, and on 22 days at Lerwick and Stornoway, but at a very large number of stations on 10 days or less, on 5 days at Margate and Temple Bruer.

Bright Sunshine.—In a few localities the duration of insolation was above the normal—Tunbridge Wells 128, Newquay and Jersey 118, and Plymouth 115 per cent.—but generally there was a deficiency, the percentage of the average being 62 at Strathpeffer, 61 at Aberdeen, 55 at Fort Augustus, and 39 at Glasgow.