

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

(Supplement to the Weekly Weather Report.)

SUMMARY OF OBSERVATIONS COMPILED FROM THE 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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SUMMARY OF OBSERVATIONS.

Pressure, Winds and Weather.—The very disturbed conditions, accompanied by frequent gales and rains, which were the characteristic features of the month of February, practically came to an end before the advent of March, and the general quietness of the latter month formed a striking contrast to the rough boisterousness of its predecessor. Through the first nine days of March the British Isles were situated between an area of low pressure, which occupied a considerable portion of the northern part of the Atlantic, and anticyclones lying over various regions on the Continent, from the Spanish Peninsula to Russia and Sweden. The only slight variation in the general situation during this period was the detaching of a small secondary disturbance from the south-eastern side of the system out on the ocean on the evening of the 3rd. Moving slowly on an east-south-easterly course it reached the Bay of Biscay on the 5th, and there dispersed. On the 9th the main depression began to move north-eastward, its central space skirting the north-west of Ireland and passing across Scotland to Scandinavia, Lapland and the Arctic Sea. On the 11th a secondary formed in the neighbourhood of Biarritz, and passing northward it filled up next day over Brittany. It was during the passage of the primary system across the northern districts that the lowest pressure of the month was registered, but the barometer readings were by no means low for the time of the year, only a few stations in Scotland and the north-east of Ireland sinking below 29½ ins., Aberdeen and Wick touching 29.14 ins., and Nairn 29.11 ins., while in the extreme south of England the values were at about 29.7 ins. Out on the ocean the low pressure area was replaced by a well-marked anticyclone on the 10th. Expanding eastward it embraced the whole of the United Kingdom by the 13th, and thenceforward to the end of the month it was the dominating factor in determining the weather conditions over these Islands. A small disturbance was near the south-west of Ireland on the 14th, and another appeared over Holland on the 18th, subsequently moving across Germany to Russia, but the other depressions of the period kept much further north, half a dozen travelling on north-easterly paths between Greenland and Iceland, and one appearing off the south-west of Iceland on the evening of the 15th, striking off on a due easterly course and disappearing across the White Sea on the 19th. At first the centre of the high pressure system remained beyond our western and south-western coasts, but on the 18th, with the passing of the last-mentioned disturbance across northern Russia, it began to move eastward, and soon the system embraced a great part of Europe. It was not, however, until the 24th that the central space of the system left the Atlantic, and for the remainder of the month it was found either directly over these Islands or a little to the eastward, between the Low Countries and Norway. Wireless reports from steamships showed that the maximum pressure over the ocean was reached on the 22nd, when the barometer stood above 30.7 ins. in 49° N., 21° W., the readings on the west coast of Ireland being then above 30.6 ins. After this the intensity was diminished somewhat, but on the 31st it again increased, the barometer mounting to 30.6 ins. and upwards at many stations in these islands, to 30.69 ins. at Shields, and to 30.73 ins. in southern Norway.

In the absence of any deep depressions the range of pressure during the month was moderate to slight. It was greatest, a little more than 1.5 in., at Aberdeen and Nairn, and least over southern England, less than an inch at all stations south of Nottingham, little more than 0.8 in. at Dungeness and in London. The general distribution of the mean pressure for the month did not differ greatly from the normal, but the actual values were, under the influence of the long prevailing anticyclonic conditions, well above the average at all stations. At Valencia and Sumburgh Head there was an excess of 0.18 in., and on the east coast of England, Shields, Spurn Head and Yarmouth had an excess of 0.25 in. The mean results ranged from 30.17 ins. at Bath, Brussels, and the Helder to 29.93 ins. at Sumburgh Head, and 29.54 ins. at Isafjord (north-west Iceland). The gradient was only slightly more than the normal, and favoured a prevalence of Southerly to Westerly winds, but in nearly all localities there was a considerable proportion from other quarters of the compass.

As a rule the disturbances which visited our neighbourhood were neither very deep nor marked by steep gradients, the result being that gales were rarely experienced, and the few reported were of a local rather than of a general character. While the low pressure system of the earlier days remained centred beyond the western coasts the Southerly wind occasionally attained the force of a gale between the 1st and the 5th at Roche's Point, Holyhead and Wick, a strong gale at Malin Head on the 2nd, and at Stornoway on the 3rd. The small secondary depression which arrived over Brittany from the lower part of the Bay of Biscay on the 12th brought the wind round into the North-East over the country generally, and freshening appreciably over the more southern districts it reached the strength of a gale at Dungeness and Portland Bill for a short interval. With the eastward advance of a large depression past the south of Iceland on the 16th a South-Westerly gale was felt at Stornoway, and a strong gale at Malin Head, the wind then veering into

North-West and North in the rear of the disturbance, but only Nottingham reported gale force on the 18th and 19th. Up to this time strong or high winds had occurred frequently in many districts, but with the establishment of anticyclonic conditions there was a decided diminution in the force. On the last day of the month, however, a depression centred in the vicinity of Corsica expanded northward, occasioning an increase in the strength of the Easterly to Northerly wind over France and southern England, and at Yarmouth a North-Easterly gale was experienced. The automatic anemometrical records accord with the estimated forces at the telegraphic reporting stations, there being an almost entire absence of high velocities. In gusts of short duration a velocity at the rate of 56 miles an hour was registered at Roche's Point on the 1st, and at Pendennis on the 9th, when Plymouth had one at the rate of 63 miles per hour. On the 17th a 57-mile gust was recorded at Southport.

This unusually quiet March type of conditions was attended by much fine, bright and dry weather. Over an extensive portion of the kingdom there was occasional and in nearly all cases light precipitation only in the first seventeen or eighteen days. Falls of hail or snow occurred at various times, but they were all unimportant, the greatest depths of snow noted being an inch-and-a-half at Marchmont on the 17th, and an inch at Epsom on the 18th. It will be seen on referring to the tabulated results that there were singularly few rainfall measurements of as much as ½ in. in a day, but there were, nevertheless, some very large amounts. A heavy rainstorm occurred on the 1st in the south of Ireland, North Wales, the north-west of England and south of Scotland, a number of places receiving more than an inch, ranging up to 1.7 in. at Eskdalemuir, 1.9 in. at Penrhyn, and 2.5 ins. at Killarney. Next day, in the west of Ireland, Blacksod Point registered 1.1 in., and Lickeen, Caragh Lake, 2.5 ins. Again on the 3rd Lickeen had a fall of 1.4 in., making a total of 5.2 ins. in three days. On the 9th rather more than an inch fell in various parts of Kent, Sussex and the north-west of Ireland. At Cuckfield, Sussex, no rain was measured from the 12th to the 31st (20 days), at Worcester Lodge, Forest of Dean, from the 13th (19 days), and at very numerous stations from the 18th or 19th to the end.

Temperature was above the normal in all districts, largely due to the absence of severe night frosts, few of the minimum values being below 25°. Balmoral touched 22° on the 1st, Llangammarch Wells on the 14th, and Wokingham on the 20th and 30th; Llangammarch Wells 21° on the 26th and 30th; and Garforth 20° on the 29th. No very high afternoon maxima were observed, a few records of 60° to 62° occurring in England, Scotland and Ireland about the 20th and 30th.

Thunder was heard at Belvoir Castle on the 2nd, at Coventry and Valencia on the 8th, and at Roche's Point on the 29th, but there were no reports of lightning.

Fog was rather prevalent on the western coasts between the 4th and the 8th, on the 19th and 20th, and in the closing days; on the east coast from the 23rd to the 26th, and on some days it was thick in places.

The temperature of the sea water along our coasts was nearly everywhere a little warmer than it was in the previous month, by as much as 3° in a few isolated situations. Generally on the east coast of Britain the water was colder than the air on shore, by 3° off the north-east of England, but on the western coasts the water was of the same or a little higher temperature, and off Shetland the water was 4° warmer than the air.

Aurora was seen in many parts of Scotland on the 27th, 28th and 29th, described as bright or brilliant in some cases. On the 28th it was reported as far south as Epsom and Limerick.

Rainfall.—Precipitation was below the average in all districts, the deficiency ranging upwards to 2.6 ins. at Buxton. Owing to the great fall at Killarney on the 1st there was an excess of 2.1 ins. at that station. Over the greater part of England, and at some stations in Scotland and Ireland the total fall for the month was less than an inch, and in various localities less than ½ in., 0.28 in. at Spurn Head and Wakefield. Aggregates exceeding 5 ins. were few, 9.8 ins. at Seathwaite, and 14.5 ins. at Glenquoich. Rain fell at Stornoway on 23 days, and at Glencarron, Ennistymon, Lickeen, and Foynes on 22 days, but as a rule the frequency was less than 15, and in a very large proportion of cases less than 10 days, 5 at Dursley (Gloucester) and Tankerton (Kent), and 4 at Cuckfield.

Bright Sunshine.—At the Irish stations there was a deficiency of sunshine, by as much as 21 hours at Markree Castle; western Scotland had an average duration; all other regions an excess, which amounted to as much as 56 hours at Eastbourne, 57 hours at Tunbridge Wells and Torquay, and 58 hours at Hastings. The largest totals were 200 hours (55 per cent. of the possible) at Paignton, 197 hours (54 per cent.) at Bournemouth and Torquay, and 196 hours (54 per cent.) at Villa Carey, Guernsey; the smallest, 85 hours (23 per cent.) at Castlebay and Glasgow, 84 hours (23 per cent.) at Markree Castle, and 81 hours at Balta Sound (23 per cent.), and Newcastle-on-Tyne (22 per cent.).