

## 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.

AND PUBLISHED FOR H.M. STATIONERY OFFICE BY WYMAN AND SONS, LTD., FETTER LANE, E.C.; OR OLIVER AND BOYD, EDINBURGH; OR E. PONSONBY, LTD., 116, GRAFTON STREET, DUBLIN.

THIRTY-SEVENTH YEAR.

Vol. XXIX. (New Series)  
Weekly Weather Report.

No. II.

FEBRUARY, 1912.

[Price 6d.]

## SUMMARY OF OBSERVATIONS.

**Pressure, Winds and Weather.**—Throughout the month now under review an abnormal type of pressure distribution was in the ascendant, not only over the British Isles but also generally over Europe and the North Atlantic. The new series of maps published in the Weekly Weather Report, exhibiting the atmospheric conditions daily between Western Canada and Eastern Russia, show that from the beginning to the end of February the Atlantic, frequently down to the 30th parallel if not to the Tropic of Cancer, was in an exceedingly disturbed state. Cyclonic systems were never absent, and were often very deep, and had their centres much further south than usual, the lowest barometer reported being in 45° N., 35° W., on the morning of the 6th, when it went down to 28 in. Over the European Continent the conditions were likewise of an unusual character. During the first eleven days low pressure areas occupied the whole of the western half, and sometimes the entire Continent. Subsequently anticyclonic systems appeared in various regions, but they lacked both the intensity and the stability of Continental Midwinter high pressures. Occasionally the barometer rose to 30.4 in. or a little above, the only instance of 30.5 in. occurring in Eastern France on the morning of the 28th, while the highest pressure registered in the course of the month was 30.56 in. on the north coast of Iceland on the 1st. Over the United Kingdom pressure was nearly always low; at a number of western stations it never mounted to 30 in., but at Jersey it rose to 30.33 in. on the 27th, when an anticyclone covered South-Western Europe. On the other hand the barometer stood below 29 in. on several days at the western stations, on as many as seven days at Scilly, the lowest reading reported being 28.45 in. at Valencia on the 9th. Under these circumstances the mean results for the entire month disclose a remarkably extensive system of low pressure. It embraced Europe and practically the whole of the North Atlantic. The barometer was below 29.5 in. over the western half of Ireland, in the Farøe, and over the ocean from the south coast of Iceland down to the neighbourhood of the Azores, where the 7 a.m. value was 29.59 in. at Horta. On the outskirts of the system the highest results were 29.94 in. at Madeira, 29.96 in. at Rome, 29.97 in. at Odessa, and 29.95 in. at Moscow. At the home stations the values were from 29.45 in. at Blacksod Point to 29.71 in. at Dover. In all cases the results were far below the normal level, the deficiency being 0.23 in. at Lerwick, and 0.26 in. at Wick, while at Scilly it amounted to 0.45 in., and at Valencia to 0.47 in. With the general absence of anticyclones the range of pressure was much smaller than in ordinary years; at some stations it was less than half the range in the corresponding period of last year. On the east coast of England, Yarmouth and Clacton-on-Sea had a range of just over an inch, and in the South-west Scilly and Valencia were short of 1.5 in. The pressure gradient was of a Southerly type, the normal being Westerly to South-Westerly, but though the general conditions were of an exceedingly unsettled type, they were by no means stormy.

The opening day of the month witnessed a complete reversal of the pressure distribution over and around the British Isles, the well-developed anticyclone which was centred over this country during several days at the end of January passing away to Spain, leaving these islands between depressions on the Baltic and off the Bay of Biscay respectively on February 1st. For five days the situation favoured the prevalence of cold Northerly (North-Westerly to Easterly) winds, which as a rule were not of much strength, but rose to a gale at Spurn Head on the 2nd, and at Portland Bill on the 5th, a strong gale at Holyhead and Nottingham on the 2nd. Weather of a severe wintry character was, however, common to all districts. For the most part it was dry, but there were falls of snow in nearly all places, in somewhat larger quantities than had been experienced of late years, the depth in some instances being from 4 in. to 6 in., and at Chopwellwood (Durham), on the 2nd, it was a foot deep. The cold spell, which set in about January 27th, increased in intensity, and from the 2nd to the 5th shade minimum temperatures below 20° were registered over a wide area; even on the south coast of England Fowey touched 18°, Folkstone, St. Leonards and Bexhill 17°, and Seaford 14°. At inland stations the records were much lower, below 10° in many cases, 5° at Wokingham, 4° at Nairn, 2° at Shrewsbury, 0° at Crathes and Gordon Castle, -2° at Balmoral, -4° at Braemar, and -5° at West Linton. At a very large number of stations the thermometer remained below 30° on these days, the lowest of the maxima being 24° at Stonehaven, Wistanstow and Birmingham, 22° at Glencarron and Pen-y-gwryd (Llanberis), and 21° at Braemar, West Linton and Thorntonhall. Such a hard frost produced ice of unusual thickness, 5 in. at Southport, 5½ in. at Belvoir Castle, and 6 in. at Macclesfield. There was consequently more skating than had been possible at any time since the great frost of the early months of 1895, an interval of 17 years. In Ireland very dry weather prevailed from about January 18th, one or two trifling showers being noted in places. Carrigallen and Birr

Castle had respectively 14 and 15 successive rainless days to February 4th, and Donaghadee 19 days to the 5th.

The frost came to a sudden end in the night of the 5th, when a deep cyclonic system, with the barometer below 28½ in., was moving slowly northward near the west coast of Ireland, dispersing on reaching a position outside the Hebrides, on the 7th. This brought the wind to the South over the country generally, the temperature rose decidedly, and the weather became very unsettled and damp in all parts. These conditions were maintained, with but little variation, during the remainder of the month. Depressions which appeared in the south-west on the 12th, 19th and 24th moved across England, and occasioned cyclonic movements of air along their paths, but the principal disturbances were found well outside the western coasts, either stationary or nearly so for several days, or following north-easterly paths towards the Arctic Circle, between Scotland and Iceland. Throughout the greater part of the month, therefore, winds from between South and West were in the ascendant, but though the depressions were themselves deep or very deep, it is probable that the marked absence of very high pressures on the Continent had a moderating influence on the force of the wind, for there was no record of a serious gale on any section of our coasts. The force of a strong gale, 9, was attained at Roche's Point on the 7th; at Blacksod Point on the 18th; at Roche's Point and Scilly on the 19th; at Roche's Point on the 20th; at Blacksod on the 22nd; at Malin Head on the 26th; and at Blacksod and Roche's Point on the 28th. Anemometrical records showed that in sharp gusts the wind blew at the rate of 69 miles per hour at Pendennis on the 9th; 63 miles at Scilly, and 62 miles at Pendennis on the 10th; 62 miles at Scilly on the 19th; 63 miles at Rosyth on the 23rd; 68 miles at Quilty on the 26th; and 69 miles at Pendennis on the 28th. As a rule the rainfall accompanying the disturbances was not heavy, but on the 7th there were fairly large amounts in many localities, up to 1.2 in. at Cruachan and Sheepstor, 1.3 in. at Princetown, and 1.4 in. at Newcastle (Wicklow). The 18th was a wet day in Ireland, with records up to 1.5 in. at Glenarm. The heaviest falls of the month occurred on the 22nd at the mountain stations in Wales and western England, 2.2 in. to 2.5 in. in Snowdonia, 2.4 in. at Pen-y-gwryd, 1.8 in. at Princetown, and 1.7 in. at Seathwaite.

During the disturbed period the weather was of a mild, open character, the temperature seldom sinking as low as the freezing point. Several nights were unusually mild for the season, that of the 22nd-23rd exceptionally so, the maximum for the 24 hours ending on the morning of the 23rd having occurred in the course of the night at some stations. In numerous instances the minima registered for the 24 hours were 50° and upwards, 53° at Ilfracombe. Afternoon temperatures of 55° and upwards were common, 60° being reached at Birr Castle on the 22nd, at Jersey on the 27th, and at many places on the 28th, when Minehead touched 61°.

Notwithstanding the very unsettled conditions there were only some half dozen references to thunder or lightning in the whole month.

Aurora was seen at Brighton on the 7th, and at Baltasound on the 17th.

Fog was observed on several days at the inland stations, sometimes thick. On the western and eastern coasts it was reported nearly every day, but on the south coast it was uncommon.

At almost every coast station the temperature of the sea water was about 2° colder than it was in January. Generally the water was warmer than the air on shore, by 3° or 4° in places, but locally on the east coast and at Scilly it was slightly colder.

**Rainfall.**—The distribution of precipitation was somewhat irregular, generally an excess over Ireland and southern England, a deficiency in most other districts. Plymouth returned 163% of the normal, Newcastle-on-Tyne 168%, Gorey (Wexford) 183%, and Seaford (Down) 189%. On the other hand many places had less than 75%, Scarborough 51%, Buxton 45%, and Macclesfield 43%. In the hill districts there were a number of aggregate totals exceeding 8 in., ranging up to 11 in. at Glenquoich, 11.3 in. at Princetown, 11.9 in. at Intake (Snowdonia), and 13.8 in. at Copper Mill (Snowdonia). There were numerous records less than 1½ in., the smallest 0.9 in. at Claypole, Spurn Head and Skegness, and 0.7 in. at Stifford (Essex). Rain fell on 29 days at Baltasound, 27 days at Roche's Point and Lerwick, and on 25 or 26 days at a number of other stations, but only on 11 days at Donaghadee, and 10 days at Temple Bruer and Stifford.

**Bright Sunshine.**—The duration of bright sunshine was nearly everywhere below the normal. Birr Castle had 123%, and Torquay 109%, against 58% at Rothamsted, and 54% at Cirencester and Marlborough. The daily amounts varied from just under 3 hours at Limerick, Aspatia, Guernsey and Torquay to three quarters of an hour or less at Tottenham, Hampstead and South Kensington.