

# MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

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

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE,

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## SUMMARY OF OBSERVATIONS.

**General Summary.**—The severe cold and the snowstorms which marked the closing week of 1906 were succeeded by an abrupt and decided change in the character of the weather with the opening of the New Year. A very deep cyclonic system passed round the north of Scotland between January 1st and 3rd, occasioning a strong North-Westerly gale at Holyhead, a whole gale from West on the south-west coasts of England, and a storm from East and North-East in Shetland. After this, for about three weeks, the relative distribution of pressure underwent but little modification. An area of high barometer readings occupied the Bay of Biscay and France, while disturbances were continually passing eastward in the neighbourhood of the Arctic Circle. As a result the country enjoyed a fairly steady type of mild, open weather, which was generally dry (an absolute drought of from 15 to 24 days locally), with many bright periods. The mildness was due largely to the nights being relatively warm; minimum temperatures as high as 40° to 45° occurred even in the extreme north, and the frosts experienced were unimportant. On the 22nd a great alteration took place in the disposition of pressure. An anticyclone of exceptional intensity, 31 ins. to 31·5 ins., appeared over north-eastern Europe and spread westward across our northern districts, and a low pressure area simultaneously advanced from the Atlantic and slowly crossed southern Spain. Easterly winds, varying in strength from a light breeze to a fresh gale, were consequently set up over our southern and eastern districts, and as they were drawn from the Continental regions of severe frost, the weather in most parts of the kingdom became bitterly cold. The lowest temperatures were found chiefly in the south, comparative mildness ruling in the extreme north-west and north. Snow fell in many localities, but the amounts were not large. From the 27th to the end the conditions were under the influence of a deep disturbance which followed a south-easterly course from Iceland to the Baltic, causing fresh or strong Westerly to Northerly gales in many places, a storm at Malin Head, with further falls of cold rain or snow, but no very low temperatures. Thunderstorms occurred at some southern stations on the 3rd, and in many northern districts on the 28th and 29th. Parhelia were observed in many parts of England on the 4th. For the month as a whole pressure was considerably higher than usual; temperature was a little variable, in excess in some districts, in defect in others: the winds were mainly from Westerly directions; precipitation was nearly everywhere in defect; and bright sunshine was in excess over Great Britain, in defect over Ireland. Earthquake shocks occurred on the 3rd in the vicinity of Landale; on the 16th at Oundle; on the 17th between Oban and Fort William; and the newspapers reported shocks at Newport, Mon., on the 2nd.

**Pressure.**—Mean at 8 a.m. ranged from 30·38 ins. at Jersey, and above 30·2 ins. over nearly the whole of England and Ireland to below 30 ins. in the extreme north of Scotland, 29·92 ins. at Sumburgh Head. The values were in all cases considerably above the average, by 0·23 in. at Sumburgh Head, and as much as 0·43 in. at Valencia. The distribution of mean pressure was of a more Westerly type than the normal, and the gradient was somewhat steeper. Highest readings occurred nearly everywhere on the morning of the 23rd, exceeding 30·8 ins. except along the English Channel, reaching 31 ins. and upwards in the north of England and of Ireland and in many parts of Scotland, 31·06 ins. at Aberdeen. On the English Channel the maximum values were registered on the 11th, 30·77 ins. at Scilly. Lowest readings were recorded generally on the 2nd, below 29 ins. over the northern half of the kingdom, 28·34 ins. at Sumburgh Head, where also the same value was reported on the 28th. Range was consequently large, amounting to 2·6 ins. at Wick and Sumburgh Head, and exceeding 2 ins. over all northern districts, diminishing to 1·3 in. at Jersey.

**Depressions.**—For the midwinter month the disturbances which visited our shores were few in number, the great majority keeping on an easterly course beyond the Arctic Circle. A deep one moved round the north of Scotland on the 1st and 2nd, and passed on to Denmark and Russia. Those which crossed our western districts from the north of Ireland to the English Channel in the nights of the 21st and 26th were high barometer depressions, above 30·2 ins. in the former, and 30·4 ins. in the latter. They were accompanied by rain, sleet or snow, but not much wind. Two boisterous weather over the northern half of these islands.

**Anticyclones.**—High pressure systems ruled during nearly the whole month. From the 3rd to the 21st the central space of one made slight changes in its position about the Bay of Biscay, our southern districts, and the more western portion of the Continent. On the 19th the maximum pressure was transferred to northern Russia, and until the 26th this remarkable anticyclone (see special note following) occupied eastern Europe, and for a time extended westward to the Atlantic. On the 25th another anticyclone appeared off the Irish coast, and during the remainder of the month it gradually passed to the Bay of Biscay and France, then across Spain to the Atlantic.

**Winds.**—In all districts the winds were largely from points in the Western half of the compass, but in some places there was a fair proportion from South-East or East. The days on which gale force was attained numbered 8 at Deerness, 7 at Guernsey, and 6 at Hastings and Strathpeffer.

**Temperature.**—Mean at sea level ranged from 46·4° at Scilly, and above 40° over Ireland, western Scotland, in most parts of Wales, and in the south-west of England to below 37° locally in the east of Scotland and of England, 36·3° at Crathes. The general distribution was in fair agreement with the normal, the actual shade values not differing greatly from the average, in excess in some districts, in defect in others. Portland Bill had an excess of 2°, and Cardiff a deficiency of nearly 2°, but these were exceptions to the general rule. Highest readings occurred mainly on the 1st, 2nd, 12th or 13th over England, on the 1st or 5th in Ireland, but on very irregular dates in Scotland—56° at Killarney (5th), Eastbourne (6th), Clathick (24th); 55° at Waterford (12th); 54° at Dublin, Kingstown, Valencia and Cullompton (1st), Dunmow (2nd), Bahrudery (12th), and Ballinacurra (28th). Lowest values were recorded in most parts of England and Ireland on the 24th or 25th, and in Scotland on the 26th and 31st. In very numerous instances the minima were below 20°, the lowest, 5° at Llangammarch Wells, 10° at Garforth, Stokesay, Hereford and Hillington (25th); 11° at Nairn (1st); 12° at Belvoir Castle and Shrewsbury (25th); 13° at Balmoral (24th); and 14° at Thornton Hall (24th). Range was generally about 30°, but a few places exceeded 40°, Llangammarch Wells 44°. At Scilly it was 25°, Blacksod Point 23°, and Donaghadee 22°. Vapour Pressure ranged from 0·183 ins. at Birmingham (9 a.m.) to 0·262 ins. at Roche's Point (6 p.m.). Relative Humidity ranged from 78 per cent. at Kew to 97 per cent. at Stornoway (8 a.m.) and Malin Head (6 p.m.). Nocturnal Radiation Temperature (on grass) was frequently 30° and under; on 27 nights at Hull, 26 at Coventry, Rauceby and Crathes, and on 25 at Cambridge. The lowest values reported were between the 24th and 26th, 1° at Llangammarch Wells, 5° at Edgbaston, 7° at Newton Rigg, and 8° at Coventry, Stokesay and Rauceby. Mean Earth Temperature at 1 ft. depth ranged from 35·7° at Lincoln and Marchmont to 43·1° at Guernsey; and at 4 ft. depth from 39·4° at Cockle Park to 46·4° at Guernsey and Eastbourne.

**Rainfall.**—With a few exceptions in the north of Scotland and at Geldeston precipitation was everywhere below the average, the deficiency exceeding 2 ins. in several localities, 3·3 ins. at Valencia, 3·7 ins. at Waterford, 3·8 ins. at Roche's Point, and 4 ins. at Killarney. The largest aggregates were 13·1 ins. at Glencarron, 7·7 ins. at Fort William, and 7·6 ins. at Landale. At a large number of stations the totals were less than an inch, Newcastle-on-Tyne and Reading receiving less than 0·4 in. There were very few falls of more than an inch in a day—on the 1st 1·1 in. at Bettws-y-Coed and Llangammarch Wells; on the 13th, 2·2 ins. at Glencarron; and on the 27th, 1·1 in. at Fort William. The days on which any precipitation was measured ranged from 29 at Stornoway, and 26 at Blacksod Point and Sumburgh Head to less than 10 in many places, 5 at Reading and Wokingham.

**Bright Sunshine.**—Generally over Britain the duration of bright sunshine was above the average by 31 hours at Hillington and 30 hours at Cambridge. In Ireland and the extreme north of Scotland there was a deficiency, the loss at Birr Castle amounting to 22 hours. The percentage of the possible duration ranged from 5 at Stornoway, 6 at Manchester (City), and 8 at Fort Augustus and Whitworth Park to 34 at Lowestoft and Cromer, 35 at Whitby, 36 at Skegness, and 37 at Scarborough.

**Observations in the Upper Air.**—Kite or pilot balloon observations were obtained on the 1st, 3rd—8th, 10th, 12th (3), 14th (3), 18th (3), 21st (2), 22nd, 25th, 26th (2), 29th and 31st.