

# SUMMARY OF OBSERVATIONS.

JUNE, 1906.

**General Summary.**—Under the influence of a small secondary disturbance the opening day of the month was of a very changeable character, with showers in many localities, fresh to very strong Northerly winds on the western coasts, and thunderstorms over nearly the whole of England. Thenceforward for a period of three weeks the distribution of atmospheric pressure was almost continuously anticyclonic, so that the entire country experienced a great deal of very fine bright weather, with light variable breezes. During the first week the duration of bright sunshine amounted to 70 per cent. and upwards of the possible at many stations in the southern half of England, and to as much as 86 per cent. in Jersey. The fine weather was interrupted by only a few unimportant thunderstorms in various parts of England. A striking feature, however, was the almost complete absence of afternoon temperatures much above the normal, maxima as high as 80° being unusually rare in such favourable circumstances at Midsummer. The remainder of the month was of a much more unsettled type, owing mainly to the passage of a slow-moving disturbance up the western coasts, and a shallow depression which moved eastward across the southern counties of England. Rain became more frequent, but there was no increase in the thunderstorm frequency. At times the days were rather cold, sleet being reported at Edinburgh on the 24th, and at Wick on the 28th. The depression on the 28th-29th was accompanied by a very heavy and continuous rain at many southern stations, the rainfall, which covered a period of about 11 hours, amounting to between 2 ins. and 2½ ins. in and around London. During the progress of this unusual downpour the only thunderstorm appears to have been at the eastern extremity of Kent, but the accompanying North-East wind blew very strongly. Taking the month as a whole, pressure was everywhere well in excess of the normal; the winds varied considerably in direction, but were largely from between East and North over the greater part of England; temperature was above the average in the north, but below it at most places in the south; rainfall was in excess over the south of England, in defect elsewhere; and bright sunshine was above the normal at nearly every station. Between 9.45 a.m. and 10.0 a.m. on the 27th earthquake shocks were experienced in South Wales and in many of the western and south-western counties of England, they were of a somewhat severe character for this country, occasioning a considerable amount of structural damage. According to newspaper reports, slight shocks were felt at Maxwelltown, Dumfries, on the 15th, and at Croydon and in Carnarvonshire on the 29th.

**Pressure.**—Mean at 8 a.m. ranged from 30.03 ins. at Sumburgh Head to 30.17 ins. at Jersey. The values were everywhere above the average,\* by 0.11 in. at Dungeness and Yarmouth, and by as much as 0.17 in. at Stornoway. The general distribution differed somewhat from the normal. Highest readings occurred on the 4th and 5th, 30.42 ins. at Stornoway and Aberdeen, and on the 20th, 30.44 ins. at Jersey. Lowest values were recorded on the 1st, 29.34 ins. at Malin Head, and on the 26th, 29.44 ins. at Stornoway. Range was small, from 0.6 in. at Scilly and Valencia to 1.05 in. at Malin Head.

**Depressions.**—The centres of only a few disturbances visited these islands or approached the coasts, most of the low pressure areas of the month being found over the eastern and northern parts of Europe. The depression of the 28th and 29th appears to have originated over the south-west of England, forming a well-developed cyclonic system by the time it reached the Straits of Dover.

**Anticyclones.**—From the 2nd to the 22nd areas of high pressure prevailed over the country generally, there being only a few instances of barometer readings as low as 30 ins. The mercury rose above 30.4 ins. on the 4th and 5th on the north and east coasts, and on the 20th and 21st at some of the English Channel stations.

**Winds.**—North-Westerly to South-Westerly breezes prevailed over Scotland, and winds from between East and North over the southern and eastern districts of England. Elsewhere the direction was rather more variable. The conditions were so quiet that Bettws-y-Coed was the only station where the force of a gale was attained.

**Temperature.**—Mean at sea level ranged from above 60° at Killarney and Clifton, and above 59° at a number of stations over the inland parts of England and in the south of Ireland and of Scotland to below 54° in the extreme north of Scotland, and to 50.5° in the Shetlands. The actual values were in excess of the average,\* over Scotland and at most stations in the north of England and south of Ireland, in defect over the east and south-east of England, and about equally divided between excess and defect over the Midlands and south-western England and the north of Ireland. At a few stations there was an excess of more than 2°, as much as 3° at Killarney; a few others had a similar deficiency, 2.7° at Dungeness. Highest readings were 83° at Dumfries (12th), and Maidenhead (23rd), 82° at Clathick (11th), Kew and Epsom (23rd), 81° at Oxford (23rd), and 80° at Leith (12th), Southend (21st), and Wisley (23rd). Lowest values were 29° at Wokingham, 30° at Garforth, 32° at Woburn and under 33° at Cambridge, Oundle (all on the 5th), and at Balmoral on the 16th. Range exceeded 40° at a large number of stations, amounting to 47° at Garforth, Epsom, and Maidenhead, and 50° at Wokingham, but it was only 17° at Portland Bill and 16° at Scilly. Vapour Pressure ranged from 0.43 in. at Nottingham (6 p.m.) to 0.315 in. at Sumburgh Head (8 a.m.). Relative Humidity was as high as 91 per cent. at Cockle Park (9 p.m.), and as low as 67 per cent. at Jersey (6 p.m.). Mean Earth Temperature at 1 ft. depth ranged from 61° at Plymouth to 54° at Birmingham; and at 4 ft. depth from 56° at Bath to 49° at Garforth.

**Rainfall.**—Owing to the very heavy rainstorm on the 28th, the total fall for the month was above the average\* at many stations in the southern half of England, but, with the exception of Foynes and Killarney, all other localities returned a deficiency. The excess was more than an inch at Rothamsted, Hillington and Cambridge, and the deficiency amounted to 2 ins. at Clathick and 2.5 ins. at Fort William. The largest aggregates for the month exceeded 3 ins. at several English and Irish stations, 3.5 ins. at Hillington, Woburn and Valencia, and 3.6 ins. at Cambridge; the smallest aggregates were in Scotland, 0.6 in. at Balmoral, Crathes, Fort Augustus and Wick, and 0.5 in. at Laudale. Nearly all the stations in the south of England received more than an inch on the 28th, Westminster 2.1 ins., Rothamsted 2.2 ins., and 2.4 ins. at Kew. On the 17th Killarney had 1.3 in. No other day yielded an inch anywhere. Rain fell on 17 days at Manchester (Whitworth Park) and Killarney, on less than 10 days at a large number of stations 5 at Portland Bill, 4 at Guernsey (Villa Carey).

**Bright Sunshine.**—The duration of bright sunshine exceeded the average,\* at nearly every station, by 64 hours at Westminster, 59 hours at Southampton, and 58 hours at Ventnor Hospital. The percentage of possible duration ranged from 26 at Stornoway and 27 at Deerness to 56 at Jersey, Guernsey (Brooklyn), Bournemouth, Southampton and Eastbourne.

**Observations in the Upper Air.**—Kite observations were obtained on the 1st, 3rd, 14th, 25th, and 27th.

\* The averages employed are—Pressure, Temperature and Rainfall for the 35 years 1871-1905; and Bright Sunshine for the 25 years 1881-1905. The values will appear in Appendix III. to the Weekly Weather Report for 1906.