

SUMMARY of the OBSERVATIONS made at the STATIONS included in the DAILY and WEEKLY WEATHER REPORTS, for the CALENDAR MONTH,

JULY 1894.

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General Summary.—The weather of July was exceedingly unsettled, with frequent thunderstorms, and with heavy falls of rain, especially in the south of England and the extreme north of Scotland. Aurora was seen in some parts of England on the night of the 20th. Pressure was slightly below the average in most places; temperature was low in the south, but rather high in the north; the winds were chiefly from the Westward or South-westward; rainfall was in excess of the normal at nearly all stations; and bright sunshine, though fairly abundant in the north, was very deficient in the extreme south.

Pressure.—Mean at 8 a.m. ranged from 29·95 ins. and upwards in the Channel Islands, and 29·90 ins. and upwards over the south of England generally to 29·8 ins. and less in the western parts of Scotland. The general distribution agreed fairly well with the normal, but the actual values were a little below the average* in all districts excepting the extreme north and north-east of Scotland, and as the deficiency was greatest in the south, the mean gradient was somewhat slighter than usual. *Highest* readings were recorded mostly on the 1st, when the barometer rose to 30·35 ins. and upwards in the eastern parts of Great Britain, and to 30·10 ins. and upwards in all but the extreme south-western parts of the kingdom. In the latter districts, however, readings exceeding 30·2 ins. were observed on the 3rd. *Lowest* readings were registered on the 11th and 12th, when the barometer fell to between 29·1 ins. and 29·3 ins. in nearly all districts. *Range* was moderate generally, but rather large for the time of year in the eastern districts.

Depressions were numerous, but in the majority of cases their centres passed outside our western or northern coasts in the directions shown approximately by the arrows A and B in Map 2, Plate VII. Of those which appeared in our immediate neighbourhood the most important was that of the 10-13. The centre of this disturbance advanced in the first instance north-eastwards across the English Channel and the southern parts of the North Sea, but on reaching the Danish coasts it began to move in a north-westerly direction, and finally disappeared to the northward of Scotland. The system was attended throughout its entire course by heavy rains, the south of England being affected on the 10th, Denmark and the south of Norway on the 11th, and the north of Scotland on the 12th.

Anticyclones.—At the commencement of the month an anticyclone covered the greater part of Europe, its gradual dispersal on the 2nd being followed by the arrival of a new high-pressure area off our south-west coasts. The latter system, however, soon moved away to the eastward, and for the remainder of the time the conditions over our islands were mainly cyclonic, the only important exception occurring between the 25th and 28th, when an anticyclone extended from the northward over the northern and eastern parts of Great Britain.

Winds though rather variable, were chiefly Westerly or South-westerly over Ireland and England, but Easterly or North-easterly in the north of Scotland. On our western and northern coasts there was an almost entire absence of stormy weather, but on the east and south-east coasts of England there were two days with gales, and at Jersey three.

Temperature.—*Mean at sea level* ranged from between 62° and 63° over a considerable portion of the English midland and southern counties to about 58° on the Atlantic coasts of Ireland, and to very little above 57° in Caithness and the Shetlands. The actual values were a trifle below the average* over the southern parts of the kingdom generally, but above it in the north, the excess being greatest (3° to 4°) in the extreme north and north-west of Scotland. *Highest* readings were observed mostly on the 1st, but at some of the eastern and southern stations they occurred on the 6th, the thermometer on one or other of these dates exceeding 80° in most districts and reaching 87° at Cambridge, Llandoverly, and Bristol. *Lowest* readings, which occurred at various times in the different districts, were below 45° at many of the inland stations; at Braemar the thermometer fell to 39°, and at Glenlee and Markree Castle to 40°. *Range* was moderate for the time of year. *Vapour Tension* ranged from between 0·46 in. and 0·48 in. on the south-east coasts of England to 0·40 in. at Leith, Liverpool, and Holyhead, and to 0·39 in. at Aberdeen. *Relative Humidity* varied from only 75 per cent. in London and at Liverpool, and 79 per cent. at Aberdeen, to between 87 and 89 per cent. on most parts of our western and extreme northern coasts.

Rainfall was in excess of the average* generally, but showed a deficiency at several of the stations in the northern parts of England and Ireland. At Stornoway, Dungeness, Hastings, and Scilly the total amount was more than twice as much, and at Jersey nearly three times as much as the normal. The largest aggregates reported were at the widely separated stations, Stornoway, Valencia, and Jersey, where the amounts ranged between 6·8 ins. and 7·2 ins., the smallest amounts being 1·6 ins. at Sumburgh Head and Durham, and 1·8 ins. at Alnwick Castle. The number of rainy days was large in Ireland, Markree Castle and Valencia reporting 28 such occasions, and Belmullet and Killarney 29. Falls exceeding an inch in 24 hours were reported in many places, the largest of all being 2·2 ins. at Bristol and 1·8 ins. at Cullompton on the 24th, and 1·8 ins. at Marchmont on the 2nd.

Bright Sunshine was in excess of the average* in the west and north of Scotland, and also over the northern parts of England and Ireland. Elsewhere there was a deficiency, the departure from the normal being very large in the Channel Islands. The per-centage of the possible duration ranged from 42 at Douglas, and 41 at York and Brighton, to 25 at Edinburgh, 22 at Parsonstown, and 19 at Fort Augustus.

* The averages employed are—*Pressure* and *Temperature* for the 20 years, 1871-90; *Rainfall* for the 25 years, 1866-90; and *Bright Sunshine* for the 10 years, 1881-90.