

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

JULY 1899.

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General Summary.—Over the United Kingdom as a whole the weather of July was very changeable, with frequent thunderstorms, accompanied locally by heavy falls of rain. In many of the English districts, however, and especially in the east and south, the latter part of the month was mostly fair and dry, the spell of fine weather being interrupted only by severe thunderstorms, which occurred at various times between the 20th and 23rd. Pressure and temperature were above the average, the excess of warmth being considerable in the south of England; winds were mainly from some Westerly point; rainfall was very deficient over England, but showed great variations in Ireland and Scotland; bright sunshine was considerably in excess of the normal in our eastern, central, and southern districts, but was slightly below the average in Ireland and the northern parts of Great Britain.

Pressure.—*Mean* at 8 a.m. ranged from 30·10 ins. and upwards over the extreme southern and south-western parts of our islands generally, to 29·95 ins. and less in the extreme north of Scotland, the general distribution being in fair agreement with the normal. The actual values were, however, in all cases above the average,* the excess ranging from about 0·12 in. on the east and south-east coasts of England, to between 0·17 in. and 0·19 in. in Ireland. *Highest* readings occurred on the 31st, when the barometer rose to 30·45 ins. and upwards at many of the English stations, and to 30·40 ins. and upwards in all but the extreme northern parts of the kingdom. *Lowest* readings were observed during the passage of the depression of the 1st and 2nd, the barometer falling below 29·4 ins. in the north of England and the south of Scotland, and below 29·7 ins. in all other localities. *Range* was moderate generally, but rather large for the time of year in the districts just mentioned.

Depressions.—The depressions observed in the immediate neighbourhood of our islands were few in number, and mostly of little depth. The principal disturbance moved eastward across the more central parts of the United Kingdom on the 1st, and ultimately became filled up over the North Sea.

Anticyclones.—Three such systems were observed. The first extended over our islands from the south-westward on the 3rd, and ultimately embraced nearly the whole of Europe, but moved away to the eastward and southward on the 9th and 10th. The second spread over Europe from the south-westward on the 14th, but broke up after the 18th, a portion of the system remaining, however, over the north of our islands until the 22nd. The third extended over the western countries from the Atlantic on the 24th, and after receding temporarily southwards on the 25th, finally spread over nearly the whole of our islands and the Continent.

Winds were chiefly from some Westerly point (between South-west and North-west). Slight gales were experienced in many places during the early part of the month—chiefly during the progress of the depression of the 1st.

Temperature.—*Mean at sea level* ranged from between 66° and 68° over inland portions of the south of England, to 59° and less on all our extreme north and north-west coasts, to rather below 57° in the Hebrides, and to about 55° in the Shetlands. The general distribution was in close agreement with the normal, but the mean values were everywhere above the average,* the excess being slight on our north-west coasts, but large (three and a half to four and a half degrees, or rather more) in the south of England. *Highest* readings occurred over England mostly on the 20th or 21st, when the thermometer rose to 85° and upwards at many of the inland stations, to 89° in London, and to 90° at Cambridge. In Ireland and Scotland the absolute maxima were recorded, as a rule, on the 31st, and were in no case much above 80°. *Lowest* readings were observed at various times, the thermometer falling in many places slightly below 45°, at Wick and Markree Castle to 40°, and at Braemar to 37°. *Range* was moderate generally, but rather large at some of the English and Welsh stations; at Cirencester it amounted to 41°, at Cambridge to 42°, and at Llandovery to 46°. *Vapour Tension* ranged from 0·48 in. and upwards at most of the English Channel stations, to 0·42 in. over Scotland generally, and to a little below 0·40 in. at Aberdeen. *Relative Humidity* varied from 92 per cent. at Sumburgh Head and Malin Head, and 91 per cent. at Holyhead, to between 75 and 80 per cent. over the east of Scotland and the eastern and central parts of England, and to only 71 per cent. in London.

Rainfall.—Over England as a whole the amount of rain was considerably less than the average,* this being especially the case at some of the south-western stations, where the total quantity was less than one-fourth of the normal. In Ireland and Scotland there were considerable local variations in the amount, an excess being shown, however, at most stations in the east and south of Scotland. The largest aggregates reported were :—6·6 ins. at Glencarron, 5·8 ins. at Holyhead, and 4·3 ins. at Fort William and Laudale; the smallest being 0·5 in. at Jersey, 0·6 in. at Clifton, and 0·7 in. at Hereford and Falmouth. The number of days with rain was fairly large in the extreme north and north-west, but small over England; at Dungeness there were only five such occasions, while at Portland Bill there were only three. Amounts exceeding an inch in 24 hours were reported at many places in the west and north, the largest being 3·4 ins. at Holyhead on the 20th (an inch more than the average for the whole month), and 1·9 ins. at Shaftesbury and Cullompton on the 22nd.

Bright Sunshine.—This was slightly deficient over Ireland and the northern parts of Great Britain, but considerably in excess of the average* elsewhere. The percentage of the possible duration ranged from 64 at Bognor, and 60 and upwards at several other of the English Channel stations, to 20 or less at Strathpeffer Spa, Markree Castle and Armagh, and to 17 at Fort Augustus and Fort William.

* The averages employed are—*Pressure and Temperature* for the 25 years 1871–95; *Rainfall* for the 30 years 1866–95; and *Bright Sunshine* for the 15 years 1881–95.