

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

JULY 1891.

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General Summary.—The month of July was very changeable and unsettled; thunderstorms were frequent over England, and heavy local falls of rain. Pressure was fairly normal; temperature was below the average in all but the eastern and southern parts of Scotland; and the winds were mostly Westerly or North-westerly. Rainfall and bright sunshine varied greatly in amount in different parts of the kingdom, the latter element being upon the whole less prevalent than usual.

Pressure.—*Mean for the month at 8 a.m.* ranged from a little above 30·0 ins. in the Channel Islands to a little below 29·8 ins. in the Shetlands and Hebrides. The actual values differed very little from the average,* but as the western stations showed a slight excess, and the eastern stations a trifling deficit, the gradient was favourable for winds from the northward rather than from the southward of west. *Highest* readings were recorded very generally on the 13th or 14th, when the barometer rose to above 30·3 ins. in most districts, and to above 30·4 ins. in the extreme north. *Lowest* values were registered mostly on the 6th or 7th, when the barometer fell below 29·7 ins. in all but the extreme southern districts, and below 29·4 ins. at some of our northern stations. *Range* was moderate.

Depressions.—The depressions observed were mostly shallow, their centres travelling in an easterly direction either over or outside our north-western coasts. Between the 14th and 16th, however, a well-marked system advanced over the North Sea from eastern Germany, while on the 28th and 29th another moved southwards from the west of Norway down the east coast of England.

Anticyclones.—Three such systems were observed, but neither of them remained in our neighbourhood for any length of time. In two of the cases the anticyclone came over from the Atlantic, but in the third instance it was formed directly over our Islands and the North Sea.

Winds.—The prevailing winds were in most places from the Westward and North-westward, but in the north of Scotland considerable variability was shown, and in the Shetlands the dominant wind was North easterly. Gales were rather numerous for the time of year on our southern coasts,—at Hurst Castle there were 4 and at Dungeness 5; in other parts of the kingdom, however, they were less frequent, and at the majority of our western, northern, and eastern stations there were none at all.

Temperature.—*Mean at Sea Level* ranged from a little below 54° in the Hebrides to rather above 59° in some of the south-eastern parts of Ireland, to a little above 60° over Central Scotland, and to a little above 61° over the inland portion of the south of England. The general distribution did not vary greatly from the normal, but the actual values were below the average* in all but the central and southern parts of Scotland, the deficit being greatest (2° or more) over the eastern, midland, and south-eastern counties of England. *Highest* values were recorded as a rule about the 17th, when the thermometer rose to between 75° and 80° in most of the inland parts of Great Britain; at Loughborough, Strathfield Turgiss, and in London it reached 81°, and at Hillington and Cambridge 82°. *Lowest* values were observed on the 28th and 29th in the eastern, central, and southern districts, but on very irregular dates in the more western and northern parts of the kingdom; at one or two of the inland stations in Great Britain the thermometer fell as low as 40°. *Vapour Tension* ranged from a little below 0·37 in. in the north of Ireland, the east of Scotland, and some parts of Northern England to 0·42 in. or more over the south of England generally, and to 0·48 in. at Hurst Castle. *Relative Humidity* was below 80 per cent. over the central and north-eastern parts of Great Britain, as well as in the south-east of England, but amounted to 91 per cent. at Hurst Castle and to 95 per cent. at Sumburgh Head.

Rainfall varied greatly in amount in different parts of the kingdom, and even in closely adjacent districts. At the western stations the fall was in most cases considerably less than the average,* but in many other places it was in excess, the difference being large in the north of Scotland. Daily amounts exceeding an inch were recorded in various parts of the country, mostly on the 7th and 21st, while on the 19th as much as 2·6 ins. fell at Sumburgh Head. The number of rainy days was large in the extreme north and north-west; at Stornoway and Glencarron there were as many as 24, at Belmullet 25, and at Laudale 27.

Bright Sunshine was in excess of the average* in the west of Scotland, the north of Ireland, and the south-west of England, but deficient elsewhere, the deficit being considerable in the northern and eastern parts of Great Britain. The per-centage of the possible amount of duration was below 30 at most of the northern and also at one or two of our central stations, the lowest of all being 17 at Fort Augustus. On the south coast of England and in the Isle of Man, however, the per-centage exceeded 40, at Jersey it was as high as 51, and at Falmouth 55.

* The averages employed are—*Pressure* and *Temperature* for 29 years, 1871–90; *Rainfall* for 25 years, 1866–90; *Bright Sunshine* for 10 years, 1881–90.