

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

JULY 1897.

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General Remarks.—During the earlier half of the month the weather was mostly fair and dry over England, but changeable and showery in Ireland and Scotland. Later on the conditions became generally unsettled, with frequent thunderstorms, accompanied in some places by very heavy falls of rain. Pressure and temperature were above the average; the winds, though rather variable, were mostly from the Westward; rainfall was, as a rule, very deficient, especially over the eastern and central parts of England; bright sunshine was largely in excess of the normal.

Pressure.—*Mean at 8 a.m.* ranged from 30·05 ins. and upwards over the southern parts of the English channel, and 30·00 ins. and upwards over all the more southern parts of Ireland and England to a little below 29·85 ins. in the Shetlands. The general distribution was therefore in close agreement with the normal, but the actual values were above the average*, the excess being greatest (about a tenth of an inch) in the western districts. *Highest* readings were observed, as a rule, on the 11th, when the barometer rose to 30·3 ins. and upwards in nearly all parts of the Kingdom, and to 30·4 ins. and upwards at some stations in the east of England. In many places, however, the readings were equally high on the 29th or 30th. *Lowest* readings were registered over the country generally on the 6th, when the barometer ranged from a little below 29·1 ins. in the extreme north of Scotland to a little below 29·7 ins. in the southern parts of Ireland and England. In the latter regions somewhat lower readings were observed on the 20th. *Range* was moderate.

Depressions.—In our own immediate neighbourhood these were somewhat rare, the most important being observed between the 3rd and 8th, when several large depressions skirted our extreme northern coasts and passed on to Scandinavia. Between the 18th and 20th some shallow and complex disturbances were developed over the southern parts of our islands, their movements being too irregular to admit of being shown on Map 2, Pl. vii.

Anticyclones.—Four such systems were observed. In two instances, viz., those of the 1st, and of the 16th–18th, the anticyclones spread in from the westward, but quickly moved away to the southward and dispersed. In the other cases the systems were more important, and extended from the south-westward over nearly the whole of north-western and northern Europe, the first of these being observed between the 9th and 14th, and the second between the 28th, and the 3rd of the ensuing month.

Winds varied considerably in direction, but over England and Ireland the Westerly current (South-West to North-West) seems to have been the most pronounced. Scarcely any gales occurred on our south and east coasts, but at some of our northern and north-western stations they were reported on two days, and at Ardrossan and Malin Head on as many as four.

Temperature.—*Mean at sea level* ranged from 65° and upwards at several inland stations in the south of England, and from 63° and upwards over the southern parts of England generally, to 54° or less in the Shetlands, areas of relative warmth being shown over central Scotland and the central and south-eastern parts of Ireland. The distribution was therefore quite normal, but the actual values were above the average* at all but a few of our eastern stations, the excess being greatest (two and a half to three degrees or more) at isolated places in the west and south. *Highest* readings occurred at various times in the different districts—mostly between the 14th and 16th, but in the east and south-east of England on the 24th or 25th, and in the north-east of England on the 29th or 30th. In most inland parts of Great Britain, and also in the north of Ireland, the thermometer on one or other of these occasions exceeded 80°, and at Southampton and Llandoverly it rose on the 16th to 88°. *Lowest* readings occurred, as a rule, either on the 7th or 8th, or on the 11th, the sheltered thermometer falling below 40° at several inland stations, and reaching 35° at Braemar and Llandoverly. On the surface of the ground slight frost occurred at these times in many isolated places. *Range* was large—over 45° in several parts of Great Britain, and as much as 53° at Llandoverly. *Vapour Tension* ranged from 0·46 in. and upwards on the south and south-west coasts of England, and, locally, at Spurn Head, to 0·37 in., and less in the north-west of England, and to 0·36 in. and less on the north-east coast of Scotland. *Relative Humidity* varied from 93 per cent. at Spurn Head and Ardrossan, and 90 per cent. at Pembroke to only 71 per cent. at Aberdeen, and 70 per cent. in London and at Liverpool.

Rainfall was generally very deficient, especially over the eastern parts of England, where the quantity amounted to a mere fraction of the average*. The largest aggregates for the month were 7·6 ins. at Glencarron, 6·5 ins. at Fort William, and 5·2 ins. at Landale; the smallest being 0·1 in. at Stamford, 0·3 in. at Spurn Head, Yarmouth and Cambridge, and less than 0·5 in. at several other stations in eastern and central England. On the 20th and 21st, however, some very heavy falls were experienced with thunderstorms both in the north, and also in the south of England; at Alnwick Castle the amount on the latter day was as much as 2·8 ins.

Bright Sunshine.—The duration of bright sunshine was considerably in excess of the average*. At most of the English stations more than 50 per cent. of the possible amount was recorded, at Hastings 55 per cent., and at Guernsey as much as 59 per cent. In Ireland and the north of Scotland, however, the proportion was less than 40 per cent., and at Fort Augustus and Markree Castle it was only 30 per cent.

* 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.