

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

OCTOBER 1893.

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ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; R. H. SCOTT, F.R.S., SECRETARY.
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General Summary.—The weather of October was exceedingly changeable, with heavy falls of rain in the extreme northern and southern parts of the United Kingdom, and with snow in Scotland at the close of the period. Thunder and lightning were unusually prevalent during the early part of the month, especially in the south of England. Pressure was below the average in all but the southern districts; temperature was high; the winds were mostly from the Westward; rainfall was in excess of the normal in the northern and north-western, and also in many parts of the southern districts; and bright sunshine was abundant, especially in the northern and eastern parts of England.

Pressure.—*Mean for the month at 8 a.m.* ranged from 29·95 ins. and upwards over the English Channel to about 29·52 ins. in the Shetlands, the general distribution being very similar to that noticed in September. The actual values were a little above the average* in the southern parts of England and Ireland, but considerably below it in the north, the deficit being greatest (0·21 in.) in the Shetlands; the mean gradient (for Westerly winds) was therefore steeper than usual. *Highest* readings were recorded on the 23rd, when the barometer rose to between 30·3 ins. and 30·6 ins. in all parts of the Kingdom. *Lowest* readings were observed very generally on the 4th, when the mercury fell below 29·0 ins. over the northern parts of our islands, and below 29·2 ins. on all but our extreme southern coasts. *Range* was moderate.

Depressions.—In the majority of cases the Atlantic depressions passed well to the northward of our islands in the tracks shown by the generalised arrows A and B in Map 2, Plate X. During the early part of the month, however, some shallow disturbances advanced directly over the United Kingdom, the most important of these being a small system which travelled north-eastwards across England on the night of the 7th and which afterwards moved northwards along the east coast of Scotland.

Anticyclones.—The anticyclones noticed over Western Europe lay as a rule to the southward of our islands. In three instances however, viz., between the 18th and 20th, the 22nd and 24th, and the 30th and 31st, a well-marked high-pressure area advanced over us from the Atlantic, the system in each case passing away quickly in a southerly direction.

Winds were chiefly Westerly, but rather variable in the extreme north, as well as at the two south-western stations, Valencia and Scilly. The gales experienced were mostly slight, but rather numerous on our northern and also on our extreme southern coasts; at Aberdeen there were as many as 10, at Dungeness 7, and at Stornoway and Hurst Castle 6.

Temperature.—*Mean at Sea Level* ranged from between 54° and 56° over the English Channel to 48° or less over the central parts of Ireland and Scotland, and to 47° or less in the north of Scotland. The general distribution in the western and northern districts was of a more wintry type than is usual in October, but the actual values were in nearly all cases above the average*, the excess being greatest (2° or more) in the central and south-eastern parts of England. *Highest* readings were observed mainly between the 14th and 16th, or on the 20th and 21st, when the thermometer rose to 65° or more at most of the English stations, and to 70° at Llandudno. *Lowest* readings occurred in nearly all places on the 31st, when frost occurred at all but the west coast stations; at Llandovery the thermometer fell to 23° and in several parts of England and Scotland to 25°. *Range* was moderate. *Vapour Tension* ranged from between 0·34 in. and 0·36 in. over the English Channel to 0·28 in. or less over central Ireland, the east of Scotland and the northern and central parts of England. *Relative Humidity* was very irregularly distributed, the per-centages varying from 80 at Liverpool and the North Foreland, 81 at Jersey and 82 at Aberdeen and Holyhead to 91 at Cambridge, 94 at Wick, and 96 at Stornoway and Hawes Junction.

Rainfall was in excess of the average* over the greater part of Scotland, the north of Ireland, and the north-west of England, as well as in some parts of our midland and southern counties. Elsewhere the amounts were less than the normal, the deficiency being large in the extreme north of England. The largest aggregates measured were 14·9 ins. at Glencarron, 12·7 ins. at Fort William, 11·2 ins. at Laudale, and 8·4 ins. at Arlington, the smallest being 0·7 in. at Durham, and 1·0 in. at Shields and Dublin. Rainy days were frequent at most of the western and northern stations, and especially so in the north of Scotland; at Stornoway a measurable quantity was recorded on every day in the month. The largest falls in 24 hours were registered in the west and north of Scotland on the 24th, when 3·4 ins. were measured at Glencarron, and 3·3 ins. at Fort William. Heavy falls occurred at times in the south of England, the largest of all being 1·6 ins. at Rothamsted on the 9th, and at Hurst Castle on the 17th.

Bright Sunshine exceeded the average amount at all stations excepting Stornoway, Pembroke, and Plymouth, the excess being considerable over the northern, eastern, and central parts of England. The percentage of the possible duration ranged from 47 at Durham and 46 at Rothamsted to 21 at Manchester, 20 at Stornoway, 14 at Fort William, and to only 10 at Fort Augustus.

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