

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

OCTOBER 1900.

(Issued as a Supplement to the Weekly Weather Report, 1900.)

ISSUED BY THE METEOROLOGICAL OFFICE, 63, VICTORIA STREET, LONDON; W. N. SHAW, F.R.S., SECRETARY. PUBLISHED BY EYRE AND SPOTTISWOODE, EAST HARDING STREET, FLEET STREET, E.C.; JOHN MENZIES & CO., 12, HANOVER ST., EDINBURGH, and 90, WEST NILE STREET, GLASGOW; AND HODGES, FIGGIS, & CO., LIMITED, 104, GRAFTON STREET, DUBLIN.

General Summary.—The weather of October was generally unsettled, especially in the western and northern districts, where rain was frequent and often very heavy. The fall which occurred over the counties of Durham and Northumberland between the mornings of the 26th and 27th was of quite a torrential character, and resulted in disastrous floods. Over the eastern and southern parts of the kingdom the weather, though changeable and showery, was upon the whole much finer than in the west and north. Thunder and lightning occurred in the north on the 2nd, and in many parts of England and Ireland on the 5th; lightning was seen in the south and south-east of England on the 21st, and in several parts of the country on the 26th. Pressure was rather low in the north, but high in the south; temperature was in excess of the average in all but the northern districts; the winds were chiefly from the Westward (South-west to North-west); rainfall was heavy in the west and north generally, but comparatively slight in the east and south; bright sunshine was mostly in excess of the average.

Pressure.—*Mean at 8 a.m.* ranged from 30·0 ins. and upwards over the English Channel to 29·75 ins. and less in the north of Scotland, and to 29·65 ins. and less in the Shetlands. The general distribution agreed closely with the normal, but as the actual values were a trifle below the average* in the north, and above it in the south, the gradients for Westerly and South-westerly winds were unusually steep. The difference between the mean pressure in the Shetlands and in the Channel Islands was in fact nearly twice as great as in a normal October. *Highest* readings were recorded on the 21st or 22nd, when the barometer rose to 30·7 ins. and upwards in the south of Ireland, and to 30·5 ins. and upwards in all other districts excepting the extreme north of Scotland. *Lowest* readings were observed mostly on the 26th, when the barometer fell to 28·9 ins. and less in the north-east of England, to 29·2 ins. and less in the northern and eastern parts of Great Britain generally, and to 29·5 ins. and less in all other parts of the United Kingdom. *Range* was moderate.

Depressions were rare for the time of year, and were, as a rule, of little intensity. The principal cases occurred on the 4th, when the centre of a rather deep depression moved north-north-eastward along our extreme western and northern coasts, and (2) on the 13th–15th, when a large and very complex disturbance travelled in an east-south-easterly direction across Scandinavia. In the rear of a somewhat shallow depression which skirted our northern coasts on the 25th, a deep secondary was formed over the north of England, the latter system moving firstly south-eastwards to the north of Holland and afterwards north-eastwards to the Skager Rack, where it apparently dispersed. The formation of the system was accompanied by the unusually heavy fall of rain referred to above.

Anticyclones.—Two such systems were observed. The first moved slowly eastwards across France and our southern districts between the 10th and 12th. The second spread eastwards and southwards from the northern parts of the Atlantic on the 18th, and remained over Western Europe until the 23rd and 24th, when it moved away to the southward and south-westward.

Winds.—Over the eastern and central parts of the United Kingdom the winds were mostly from the Westward or South-westward. On our south-west coasts they varied considerably in direction, while in the extreme north and north-west they were frequently North-westerly or Northerly. Gales were rather frequent during the earlier half of the month, but were, as a rule, of no great strength. During the passage, however, of the deep secondary depression of the 26th and 27th, a severe Westerly gale prevailed for a short time on the north-east coast of England.

Temperature.—*Mean at sea level* ranged from 56° at Jersey and from 53° and upwards on the south-west coasts of England, to 48° and less over inland parts of the north of Ireland, to 46° and less in the north of Scotland, and to very little above 44° in the Shetlands. The general distribution was in close agreement with the normal, but the mean values were a trifle below the average* in the north, and above it elsewhere, the excess amounting to 2° or more at several stations in the south and east of England. *Highest* readings occurred between the 7th and 9th, when the thermometer rose to 65° and upwards in most parts of England and Ireland, to 70° and upwards over our eastern and midland counties, and to 75° at Gildesdon, Cambridge, and in London. Over the greater part of Scotland the thermometer did not exceed 60°. *Lowest* readings occurred at various times in the different districts, mostly on the 16th in the north, but on the 22nd at many of the English stations. Frost occurred in most of the northern and inland districts, the lowest readings reported being 24° at Nairn, and 25° at Ochertyre, Glenlee, and Llandoverly. *Range* was moderate for the time of year. *Vapour Tension* varied from 0·37 in. at Scilly and 0·32 in. and upwards on our south and south-west coasts generally to 0·26 in. and less on the north and north-east coasts of Scotland. *Relative Humidity* ranged from 94 per cent. at Parsonstown, 92 per cent. at Donaghadee, and 91 per cent. at Wick, to 81 per cent. at Holyhead, and 72 per cent. at Jersey.

Rainfall was in excess of the average* in all the more western and northern parts of the United Kingdom—largely so in the north-east of Great Britain, where the aggregate was swollen very materially by the heavy fall of the 26th and 27th. At Leith and Shields the total amount was more than twice the average, and was larger than in any November since the record commenced in 1866. In the east and south of England the fall was, as a rule, considerably less than the average; at Scilly it did not amount to one-half the normal. The largest aggregates reported were:—10·5 ins. at Laudale, 10·4 ins. at Glencarron, and 10·3 ins. at Killarney; the smallest were 1·6 in. in London, 1·7 in. at Portland Bill, and 1·8 in. at Scilly. Heavy daily falls were rather frequent in the west and north, by far the most important of these occurring over the counties of Durham and Northumberland during the 24 hours ending with the morning of the 27th. On this occasion more than 3 inches fell in several places, the largest amounts reported being 3·7 ins. at Alnwick Castle and Newcastle-on-Tyne, 3·3 ins. at Seaham, and 3·2 ins. at Shields. Showers of snow or sleet fell in many parts of Scotland on the 13th and 14th.

Bright Sunshine was, as a rule, in excess of the average,* but showed a deficiency at a few scattered places in the west and north. The percentage of the possible amount ranged from 50 at Felixstowe, 47 at Hollesley Bay, and 40 or more at many places in the east and south of England, to 25 or less at several of our northern and north-western stations, and to only 17 at Fort Augustus.

* 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. (See preface to "Weekly Weather Report, 1895," and preface to "Daily Weather Reports, July–December, 1896.")