

SUMMARY OF OBSERVATIONS.

MARCH, 1902.

General Summary.—During the earlier half of the month the weather, though cloudy and occasionally foggy, was for the most part fair and dry. Later on the conditions became far less settled, with frequent rain in most districts, and with sleet or snow showers at many of the northern stations. Thunderstorms occurred at some places in the east and north-east of England on the 2nd, and in a few isolated parts of Great Britain on the 20th and 21st. Pressure was low, but temperature was above the average; the winds were chiefly from the Westward (South-west to North-west); rainfall was rather deficient generally, but exceeded the average in the extreme western and northern districts; bright sunshine amounted to less than the normal, especially in the west and south-west.

Pressure.—*Mean at 8 a.m.* ranged from 29·90 ins. and upwards in the Channel Islands, and from 29·85 ins. and upwards over the Channel and the south of England generally, to 29·55 ins. and less in the extreme north of Scotland. The distribution over our islands agreed closely with the normal, but the mean values were below the average,* and as the deficit was much greater in the north than in the south, the gradient for Westerly and South-Westerly winds was unusually steep for the month of March. *Highest* readings occurred on the 16th or 17th, when the barometer rose to 30·2 ins. and upwards over the southern half of the United Kingdom, and to 30·0 ins. and upwards in all the more northern districts. *Lowest* readings occurred over the United Kingdom generally on the 20th and 21st, when the barometer fell to 28·4 ins. and less in the Shetlands, to 29·0 ins. and less over the northern parts of the kingdom generally, and to 29·2 ins. and less on all but our extreme southern coasts. Over the central parts of Ireland and England the lowest readings, 28·9 ins. to 29·1 ins., occurred during the passage of the deep cyclonic system of the 24th. *Range* was slight in the southern districts, and moderate elsewhere.

Depressions were rather numerous, the most important systems observed being those of the 19th–23rd and the 24th–25th. In the former case the disturbance was originally of considerable depth, its centre remaining almost stationary off the north of Scotland throughout the 19th and 20th. On the 21st and 22nd the system became much shallower, and advanced slowly southwards to central Scotland, while on the 23rd it moved northwards again, and, after reaching a position about midway between the Shetlands and the Norwegian coasts, gradually dispersed. The depression of the 24th and 25th was also deep, the centre in this case moving briskly eastwards across Ireland, England, the Netherlands, and North Germany to the Baltic provinces, where the system filled up.

Anticyclones.—Three such systems were observed, but in each case the high pressure area remained but a very short time in our own immediate neighbourhood. The first extended over from Northern and Central Europe on the 4th, but moved away in a southerly direction after the 6th. The second, a system of slight intensity, advanced over our islands from the south-westward on the 9th, and afterwards drifted steadily north-eastwards to the northern parts of the Continent. The third also spread in from the south-westward on the 16th, but receded southwards again on the following day.

Winds were chiefly from points between South-West and North-West, the prevalence of breezes from the Eastward or North-Eastward being unusually small for the time of year. Gales were somewhat rare in the south and east, but were more numerous in the extreme north and north-west; at Blacksod Point they occurred on 9 days, while at the very exposed station, Malin Head, they are reported to have occurred on as many as 18 days.

Temperature.—*Mean at sea level* ranged from a little above 49° at Scilly, and from 46° and upwards in the south-western parts of the United Kingdom generally, to 43° or less at several stations in the east and north-east of England, to 41° or less in the north of Scotland, and to a little below 40° in the Shetlands. The general distribution was in fair agreement with the normal, but the mean values were in all cases above the average,* the excess amounting to 3° and upwards at many stations in England and the north of Ireland, and to more than 4° at Fulbeck. *Highest* readings occurred, as a rule, on the 17th, but in some parts of the south and east of England on the 31st. On the former date the thermometer rose to 60° or slightly above it in nearly all districts, while on the latter it again exceeded 60° at a few places in the south and east, the highest reading reported being 63° at Southampton. *Lowest* readings occurred at some of the English stations on the 6th or 7th, but more generally between the 23rd and 25th; on the latter occasions the sheltered thermometer fell below 25° in many parts of Scotland, and reached a minimum of 18° at Braemar. *Range* was moderate for the time of year. *Vapour Tension* ranged from 0·30 in. at Scilly, and 0·26 in. and upwards on our extreme western and southern coasts generally to between 0·20 in. and 0·22 in. in the north and east of Scotland. *Relative Humidity* varied from 96 per cent. at Portland Bill, 95 per cent. at Dungeness, and 90 per cent. or more at several other stations on our south and east coasts, and in Ireland, to 84 per cent. at Jersey on the one hand, and to 81 per cent. at Aberdeen and Leith on the other.

Rainfall was in excess of the average* in the extreme western and northern parts of the kingdom, and also at a few scattered places in the central and southern parts of England. Elsewhere there was a deficiency—slight in extent as a rule, but large in the north of England and the south and east of Scotland. The largest aggregates reported were 12·4 ins. at Glencarron, 9·2 ins. at Laudale, and 7·4 ins. at Fort William; the smallest being 0·6 in. at Durham, 0·7 in. at Leith, Shields, and Littlestone-on-Sea, and 0·8 in. at Cambridge. Over England the number of days with rain was small, but in the extreme west and north it was much larger; at Malin Head and Blacksod there was not one day without a measurable quantity. Snow or sleet occurred frequently in the north between the 20th and 29th, and occasionally spread to some of our central stations.

Bright Sunshine amounted to less than the average,* the deficiency being large at many of our western and south-western stations. The percentage of the possible duration ranged from 43 at Bognor, and 35 or more at several other places in the south and east of England to 25 or less at several of our more northern stations, and to only 18 at Fort William.

* The averages employed are—*Pressure and Temperature* for the 30 years, 1871–1900; *Rainfall* for the 35 years, 1866–1900; and *Bright Sunshine* for the 20 years, 1881–1900. (The averages will be published shortly as an appendix to the "Weekly Weather Report.")