

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

(Supplement to the Weekly Weather Report.)

SUMMARY OF OBSERVATIONS COMPILED FROM THE RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS IN THE UNITED KINGDOM
WITH A CHART CONTRIBUTED BY THE BRITISH RAINFALL ORGANISATION.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE,

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SUMMARY OF OBSERVATIONS.

General Summary.—The very disturbed atmospheric conditions which set in over the British Isles at the beginning of April, and were maintained without any important interruption during April and May, have with remarkable persistency been still further prolonged throughout the month of June. So far as regards the actual weather of the second quarter of the year it may be said to present the same general features of wet and cold, and yet the pressure conditions of the several months which produced similar weather differed in some important particulars. A striking contrast is found in the paths followed by the low pressure minima of May and of June. In the former month the systems caused a prevalence of cold winds from some Easterly point, whereas in June they gave us a preponderance of breezes from between South and West. Instead, however, of these winds from Equatorial directions bringing a softer and warmer atmosphere, they proved to be, relatively speaking, and allowing for the advance of the season, colder than the Easterly type of the preceding month.

An area of high pressure, the permanent mid-Atlantic anticyclone, maintained its position in the neighbourhood of the Azores, but the Arctic high pressure of May had receded to a more northerly position beyond Iceland. A dozen depressions approached our western coasts, and of these only three reached Norway, and one crossed Finland. One which appeared off the south of Ireland on the 11th, moved up the western Channels as far as the Færøe, and then went westward to the southward of Iceland. Another made its appearance well to the southward of Iceland on the 17th, crossed the Orkneys and passed on to northern Scandinavia. The other disturbances were either over or near the south-east of England or beyond the North Sea. For the summer season the barometer was very low, the readings on several days being below 29·5 ins. in some part or other of the country, and in the depressions of the 10th and 26th it dropped below 29·2 ins. on the north-western coasts. In all there were during the month over or near these islands the unusually large number of 17 disturbances, their duration being from one day to four days.

In these circumstances the weather was almost continuously in an unsettled state. Strong or high winds were of frequent occurrence in many localities, and at the telegraphic reporting stations the force of a gale was reached on the 3rd, from West at Bath and Holyhead; on the 12th, from South and South-West at Portland Bill; on the 16th, from West at Shields; on the 17th, from North at Wick; on the 18th, from South at Malin Head; and on the 24th, from West at Liverpool and Portland Bill, while Pembroke on the same day had a strong gale from the same direction. At the self-recording anemometrical stations the greatest velocity registered in any one hour was 47 miles from West at Fleetwood, on the 3rd; but at about midnight of the 24th, during a brief but hard gust from West at Holyhead, the velocity was at the rate of 64 miles per hour.

The month was wet more by reason of the abnormally large number of days on which precipitation was measured than of the aggregate total of rainfall, although in the majority of places the amount showed an excess. In many parts of eastern, central and southern England and in the English Channel the amounts were actually less than the normal. Yet in these districts which return a deficiency in the quantity the frequency of the falls was nearly 40 per cent. in excess of the average, while in other regions the excess of the frequency ranged from 60 per cent. to more than 90 per cent. Another feature worthy of notice is that our summer thunderstorm rains are often of tropical intensity, and it is not uncommon for falls of one, two or three inches to occur in short intervals; but the month now under review, although marked by many thunderstorms, was singularly free from violent downpours. At Isleworth during the thunderstorm of the 30th the rain water was at first "blackish, apparently soot-coloured, as we often notice during foggy weather."

Snow is said to have fallen at Farnham, Surrey, on the 3rd, but still nearer the summer solstice there was sleet at Stornoway on the 22nd. On Midsummer Day there was sleet at Laudale, the observer at Kinlochewe reported snow on the neighbouring hills, and late in the evening snow fell at Harrogate.

Thunderstorms, or thunder or lightning alone, occurred in some portions of the country on as many as twenty-six days, the 2nd, 3rd, 16th and 17th being the only days without. On the 1st the region affected was the south-east of England; on the 9th an extensive portion of Britain; on the 10th many parts of England and Ireland; on the 12th northern England and Ireland; on the 15th and 22nd north-eastern England; and on the 29th and 30th mainly over England. Some of the storms were very severe locally, but as a rule they were of slight to moderate intensity. On several occasions there were sharp falls of hail.

The unusual persistency of cold weather is strikingly illustrated by the fact that there was only one day (the 9th) during the month on which the thermometer rose to 70° or above at a number of stations, with two or three exceptions all situated in England and Wales. Some of the south coast stations return very low maxima, the highest point touched at Eastbourne being 61·5°, at Newquay and Valencia 61°, at Pembroke and Scilly 60°, and at Portland Bill 59°. In the far north Deerness did not exceed 57°, and Sumburgh Head 56°. The 24th, Midsummer Day, was one of the coldest days of the month, the thermometer not rising above 51° at Malin Head, 52° at Darwen, 53° at Birr Castle, Blacksod Point and Sumburgh Head, and 54° at Stornoway, Strathpeffer, Aberdeen, Blackpool and Holyhead; similarly low maxima were registered in many other places. Occasionally there were very cold nights locally. In the eastern half of the kingdom the minimum temperatures did not as a rule differ much from the normal, whereas at the more western stations they were frequently well below it. There were not many records of ground frost, the lowest temperatures on the grass being registered in most districts on the last three mornings of the month.

Cloudy to overcast skies were the rule during this exceptional June, while on as many as eighteen days fog was experienced on various sections of our coasts. The days on which fog was most prevalent were the 1st, 4th, 7th, 8th, 13th to 15th, 26th and 27th. On referring to the tables it will be seen that the mean amount of cloud was everywhere very large, from 75 to 95 per cent. of the sky being covered in many places. This fact is further rendered more prominent in the sunshine returns, which show a deficiency in every portion of the kingdom, the deficiency at a considerable proportion of the stations amounting to from 2 hours to 3·5 hours per day. Comparing the figures with those of three months earlier it is found that with four unimportant exceptions there was less sunshine in June than in March, the difference in many cases being very large.

Taking the month as a whole pressure, temperature and bright sunshine were well under the normal; rainfall was nearly everywhere in excess; and the winds were mostly Southerly to Westerly in direction.

Pressure.—Mean at 8 a.m. ranged from 29·99 ins. at Jersey, and above 29·8 ins. over the southern districts of England and Ireland to below 29·65 ins. in the north of Scotland, 29·62 ins. at Wick and Sumburgh Head. The values at all stations were below the average, from 0·03 in. at Jersey, and 0·09 in. at Dungeness and Scilly to more than 0·25 in. in the north, 0·31 in. at Wick. The general distribution of mean pressure was similar to the normal, but the gradient was unusually steep, amounting to 0·36 in. between Jersey and Wick, against the average of 0·11 in. between Jersey and Shetland. Highest readings were registered on the 16th, 30·28 ins. at Roche's Point and Scilly, and 30·29 ins. at Valencia and Jersey.

Lowest values occurred on several days, below 29·5 ins. on the 1st, 2nd, 3rd, 5th, 9th and 12th, 29·18 ins. at Malin Head on the 10th, 29·19 ins. at Stornoway on the 26th, and 29·20 ins. at Sumburgh Head on the 27th. **Range** was, in the absence of any anticyclones or cyclones of great intensity, only moderate, less than 0·7 in. at Shields, Spurn Head and Nottingham, and slightly exceeding an inch at Blacksod Point and Valencia.

Depressions.—For the summer season the cyclonic systems which arrived on our shores from various parts of the Atlantic were uncommonly numerous. Disturbances having their origin elsewhere than on the ocean were few in number.