

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

(Supplement to Weekly Weather Report.)

SUMMARY OF OBSERVATIONS COMPILED FROM RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS IN THE UNITED KINGDOM, AND AT GIBRALTAR AND MALTA, WITH A CHART OF RAINFALL CONTRIBUTED BY THE BRITISH RAINFALL ORGANIZATION.

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE.

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EAST WINDS CONTINUING.

Very dry generally; bright except in the south-west; temperature not far from normal.

Pressure.—The mean distribution of pressure differed greatly from the June average. It will be seen by reference to map 1, page 63, that while the normal isobars are favourable for Westerly to South-Westerly winds, the distribution in June 1915 was favourable for South-South-Easterly winds over the United Kingdom generally, and for South-Easterly or East-South-Easterly winds in the south-east of England. The mean height of the barometer was above the average and the range of pressure slightly less. During June of last year the mean isobars ran in almost exactly the opposite direction, being favourable for winds from North or North-North-West. The barometer reached its highest point in most districts on the 12th, 13th, or 14th during the passage northward of a well marked anticyclone, the maximum figure being 1032 millibars in Scotland North. The lowest readings in Ireland were recorded on the 2nd, and in Scotland N. on the 3rd. These were associated with a depression on the Atlantic. Over Great Britain generally the lowest pressure was due to the depression at the end of the period. During a large portion of the month the distribution of pressure was anticyclonic, and the maximum pressure was frequently recorded in Scotland or Northern England. Depressions were unusually few, and those that did pass over this country or its immediate vicinity were of too little intensity to produce a sustained gale on any part of the coast, although there were some gusts of gale force at various points along the southern, western, and northern coasts. The principal gusts were experienced on the western and northern coasts on the 2nd, with a Southerly to South-Westerly wind, and on the south and south-west coasts of England on the 14th with an Easterly to North-Easterly wind. Over a large portion of the Kingdom the prevailing wind current continued from some Easterly point; this was especially the case in the south and south-east of England and also over the nearer parts of the Continent, where the wind blew from the Eastward or North-Eastward on at least 19 days before a change in the pressure distribution brought about a South-Westerly wind on the 26th. During the long régime of the North-Easterly and Easterly wind the pressure distribution over these Islands as a whole was more often anticyclonic than cyclonic.

Rainfall.—Rain was very seldom experienced, even in slight amounts. A depression centred on the Atlantic on the 2nd, however, brought considerable falls to the west and north; at Valencia the measurement was 33 mm., and at Port Talbot 28 mm. The same districts received further rains on the 4th, when pressure was relatively low over Scotland and the wind Southerly to Westerly. Atlantic depressions continued to yield rain in the western and northern districts until the 9th, but the quantity was very slight, and a thunderstorm that occurred over many parts of England on the 8th added little to the general total. At Skegness on the 9th, however, there was 25 mm., and at Llanddeusant a heavy thunderstorm on the 10th was accompanied by 77 mm. of rain in a little less than three hours. The anticyclonic period that set in immediately after that date was the driest of the month over the greater part of these Islands, but it was broken on the 21st by a depression over the Bay of Biscay causing rain in the extreme south-west of England—21 mm. at Falmouth. From this time the weather became unsettled, and more or less rain fell daily in most districts until the end of the month. Between the 25th and 30th many localities experienced thunderstorms, and the accompanying rain was heavy.

The most striking feature of the rainfall of the month was the droughty condition which either continued from May or began early in the month. Over a large portion of southern England the last 11 or 12 days of May passed without rain, and this state of absolute drought was prolonged until the third week in June at a number of stations, while at many other places it was only interrupted by a fall of a millimetre or two on the 2nd. At Eltham there was absolute drought from May 18th to June 26th, a stretch of 39 days; at Dover there were 37 days till the 24th, at Clifton (Bristol) 33 days till the 21st and at Bucklebury 32 days till the 22nd. Partial droughts of about six weeks duration were experienced at Liverpool, Mansfield, and Totland Bay. Over extensive areas in the northern half of England the drought after the 2nd or 3rd continued from 14 to 21 days. In Scotland, where there were no heavy falls—the total was extremely slight, less than 50 per cent. of the average—there were no long periods of absolute drought as in England; while in Ireland, where the total fall was much less than the normal, the number of days with a measurable amount ranged from 8 at Donaghadee to 18 at Roche's Point. In many parts of Great Britain the percentage of the average was less than 30, and at some Irish stations less than 50. At Dover the value was only 13 per cent., at Hull 14, Whitby 16,

and at Durham 18, while in various parts of Scotland it was less than 25 per cent. Along a stretch of coast extending from the Wash to Newcastle and including a considerable area inland June has not been so dry since 1889. In certain parts of the Kingdom, however, the thunderstorms towards the end of the month raised the total to above the average. Thus at Newquay and Falmouth the fall was 130 per cent., at Great Yarmouth 146 per cent., and at St. Ann's Head 177 per cent. of the average. The quantity of rain with the thunderstorms varied greatly in different districts. On the 25th 50mm. fell at Stockport, 37mm. at Buxton, 36mm. at Mayfield, and 32mm. at Wantage. Local falls of about 25mm. were recorded on the 26th, 27th, and 28th, and larger amounts on the 29th and 30th. On the latter date 71mm. fell at Buxton accompanied by heavy thunder and lightning. At Wellingborough on the same day torrential rain and hail fell from 9.30 till 11.30 a.m. Between 50mm. and 75mm. fell in 1 hour. At the same time villages two miles on either side had scarcely any rain.

The level of the underground water at Kew Observatory varied between 258 cm. above mean sea level on the 1st to 221cm. on the 30th.

Seventeen stations recorded measurements for the 9 hours ending at 6 p.m. and for the 15 hours ending at 9 p.m. The day and night falls differed greatly in the various districts, but the mean fall was slightly less during the day than at night. At Southport 9mm. fell between 9 a.m. and 6 p.m. and 33 mm. between 6 p.m. and 9 a.m., whereas an allocation of the total rainfall to the two periods of the day in proportion to their duration is 16 and 26 mm.

Temperature differed very little from the average over the Kingdom generally, being less than a degree above it in the Midlands and the Eastern and North-Eastern districts of England, in Scotland West, Ireland South, and the English Channel, and slightly below it elsewhere. The only strikingly warm period began on the 4th and ended by the 10th, the thermometer reaching its highest point in eastern, south-eastern, and central England on the 8th. At Cromer and Norwich the value was 90° and at several other stations in eastern and south-eastern England 89° or 88°. At Copdock the maximum of 85° was the highest in June for 14 years. In Scotland the highest readings occurred a little later—mostly on the 12th—while in Ireland, Wales, and the south-west of England the most general date was the 13th. An occasional day or two with maxima above the normal was subsequently experienced, but as a rule the temperature was low for the time of year. The lowest readings occurred on the 1st at many stations in the south and west, but generally they were recorded between the 18th and 21st. In every district except England South-East, Ireland South, and the English Channel the sheltered thermometer descended to 32° or below. At Braemar the value was 27°, and at Balmoral and Garforth 28°. In England East the minimum was 30°, and the extreme range of temperature within 11 days in that district was 60°. Readings below 32° on the grass were common; on the 20th a reading of 24° was recorded at Llangammarch Wells, 25° at Greenwich, and 26° at Tunbridge Wells and Birmingham, and a considerable amount of damage was done to tender vegetation in various parts of England. The daily range of temperature was often very large. At Meltham the mean daily range was 21°·7, which is the greatest in any month since the records began in October, 1878. At Isleworth the observer commented:—"Unfavourable month of high diurnal range."

The mean temperature of the water of the River Derwent at Belper was 60°·5, and the mean temperature of the air 56°·9.

Coastal Fogs were common in the west and south-west, but were only occasionally reported in the south and east. On some days they were very widespread in the west, especially on the Irish coast from the 5th-7th and about the 27th.

Bright Sunshine.—The distribution of sunshine was extremely unusual. The duller part of the Kingdom was the Scilly Isles, while the south and south-west of Ireland were less bright than Shetland, and the Channel Islands very little brighter. The brightest regions were the Hebrides and the extreme north of Ireland, and different parts of central and north-western England. In England South-East and South-West, Ireland South, and the English Channel there was a deficit—as much as 2·8 hours per day in the last district—but elsewhere there was a considerable excess. At Deerness the percentage of the average was 144 and at Scarborough 147, while at St. Ann's Head it was 73, Guernsey 67, and at Scilly 57.