

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

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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Abnormally Dry in South and East; Sunny and Warm.

During the greater part of the month the weather over the British Isles was largely dominated by anticyclonic systems to the North and East, with a preponderance of winds from points between South and East, the depressions which had an influence on the weather conditions affecting only the western and south-western coasts. As a result, except in Ireland and at some of the stations in the South and West of England, there was a notable shortage of rain, a large number of stations, especially in the eastern and south-eastern parts of England, experiencing an absolute drought, which at several places persisted from the 2nd, 3rd, or 4th to the 31st, or even to June 4th, many of the monthly totals being the smallest ever recorded in May. These abnormally dry conditions were further emphasised by the very low percentages of humidity recorded at many of the stations, the infrequency with which dew was reported being also noteworthy. At many of the coast stations fog and mist were unusually frequent, with a consequent reduction in the month's sunshine totals; but as a rule at the inland stations the sunshine was abundant, and there were many warm days. Ground frosts were rare and gales infrequent.

In Scotland the temperature remained at a moderate to rather low level during the first week or so, but thereafter the weather was almost continuously warm except on the east coast during the last three days. Lowest readings occurred everywhere between the 2nd and 4th, as low as 26.8a at Kingussie, Balmoral, and Braemar. On the 27th Ford (Argyll) recorded a maximum of 30.1a. The mean for the month was everywhere above the normal, the excess being moderate in the East and large in the West and South. At Glasgow, during the last sixty years, a warmer May has been experienced only in 1896, but at Edinburgh the month had a mean temperature slightly below that of May, 1918. There was a little hail and slight snow in some districts early in the month, and thunderstorms here and there on the 10th, 11th, 17th, 24th, and 30th.

The following notes supplied by observers illustrate the general character of the month:—*Copdock (Suffolk)*.—The finest and driest May I have recorded during eighteen years. The absolute drought from the 3rd to 24th is practically unique, but the countryside looks prosperous in spite of it. *Eye (Northampton)*.—Lowest May rainfall (7 mm.) since 1870. All summer work was very much in arrear owing to excessive wet, and now for want of rain all corn crops are backward and are short, yellow, and dry. *Hodsock (Nottingham)*.—The mean temperature was higher than in any previous May for at least 44 years. The excess in the day readings was especially large, and the mean daily range was about a record for May at this station. *Southport (Lancs.)*.—The warmest May during 48 years. Daily range of temperature was as much as 2.2a above the normal. The 9h. mean relative humidity was no less than 7 per cent. below normal. *Dublin (Fitzwilliam Square)*.—A favourable month after an unsettled opening. The mean temperature was 1.8a above the May normal. A thunderstorm during the night of the 14th was followed by unusual visibility lasting for two days. About five-sixths of the month's rainfall fell at night.

Air Pressure.—As shown by the map on p. 51, the mean monthly distribution of air pressure was very abnormal, the highest pressure being in the East instead of in the South, as is customary in May. As a result the departures from the normal at the telegraphic reporting stations were very varied, and ranged from +6.1 mb. at Lerwick to -1.9 mb. at Blacksod Point. The monthly track chart shows that there was no instance of a primary depression passing directly across the British Isles. Some of the more prominent features connected with the movements of the depressions and anticyclones of the month were as follows:—On the 1st an Icelandic depression had spread considerably from the North-West, and a northerly wind current which had prevailed during several previous days was replaced by winds from south of west, with a very general increase in temperature. This depression continued for some days and gave rise to secondaries, one of which on the 3rd moved eastwards, and was accompanied by rain showers in the extreme North-West of Scotland and in the South-East of England. On the 3rd, at 1h., there were also some indications of a secondary of some importance centred about 400 miles west of the Scilly Isles, and on the 4th a secondary developed over the North-West of Ireland. The winds associated with these secondaries were mainly from some westerly point, but were of low speed. At 7h. on the 5th a depression extended from the West of Ireland to the South of Iceland, and caused rain in the North of Ireland and parts of Scotland, but the precipitation was not large. During the following days the weather of the British Isles was mainly dominated by a large anticyclone which extended from Scandinavia to Iceland, the pressure at the same time being low over the Bay of Biscay, where thunderstorms occurred on the 8th. This distribution of pressure caused light or moderate winds from between North and East over the British Isles generally, a type of weather which prevailed until the 11th.

At 7h. on this day a depression was centred off the West of Ireland, and except in the East and South-East of England, where the weather remained fine, cloudy skies were general, with rain locally. During the following days pressure remained low in the West of England, in Ireland, and in Scotland, and rain fell at times over a considerable area. On the 14th the low pressure in the West and South-West gave rise to thunderstorms in the South-West district, and in Ireland, the rain in some instances being heavy, as much as 48 mm. falling at Cahir. At 7h. on the 16th a region of relatively low pressure was stretched between two "highs," one over Scandinavia and the other over the Bay of Biscay, but there was very little precipitation. The following morning a deep depression was centred over the Atlantic, about 150 miles from Bantry Bay, and was associated with rain in Ireland. There was very little change in the type of pressure distribution during the next few days, and the barometer remained high in the East and low in the West, low-pressure areas having moved over the western parts of the Atlantic from South to North, but with no definite centres, throughout the period 11th to 24th. On the 25th anticyclonic conditions became well established all over the British Isles, and remained the dominating feature on the weather map until the close of the month. There were no widespread gales during the month, the highest gusts recorded by the anemometers being 26 m/s. at Cahirciveen (Valencia Observatory) on the 19th and 25 m/s. at Southport on the 2nd.

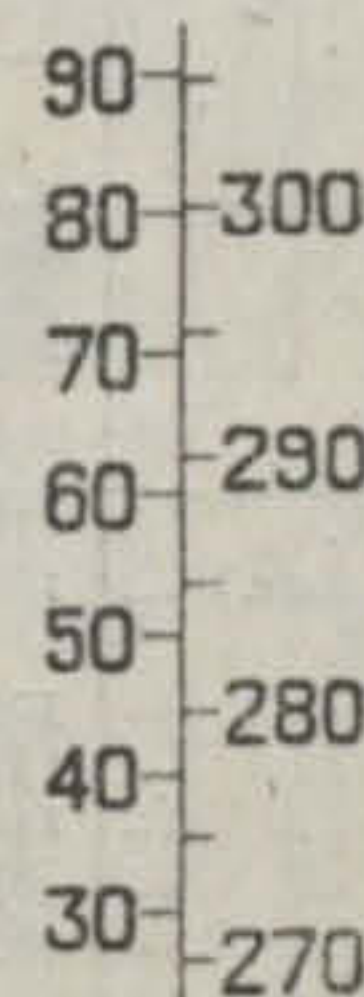
Temperature.—The mean monthly temperature was above the normal in all districts, the excess ranging from 2.8a in England North-West to 1.2a in the English Channel. At some of the individual stations the excess was very large, amounting to 3.2a at Macclesfield, 2.9a at Cheltenham and Rounton, and 2.8a at Ampleforth. Over a wide area the warmest day of the month was very commonly the 23rd, or during the last days of the month, very many stations recording maxima of 30.0a and above, the highest value being 30.1a at Kensington Palace on the 23rd and at Ford (Argyll) on the 27th. These maxima were in great contrast with those recorded at some of the coast stations, the highest for the month at Portland Bill being only 29.0a, and at Scilly, Dungeness, and Spurn Head 29.1a. On the 23rd the range of temperature at some of the inland stations was very large, being as much as 23a at Cambridge, Raunds, and Worksop, compared with only 1a at Castlebay and 4a at Lerwick.

Precipitation.—The outstanding feature of the month's precipitation was the prolonged drought, which at numerous stations in the South and East of England commenced quite at the beginning of the month, and was still unbroken at its close. As a result of this dry spell, except in Ireland South, where there was an excess of 14 mm., the rainfall was deficient in all districts, the shortage ranging from 45 mm. in Scotland North to 2 mm. in Ireland North. The total in England South-East was only 11 mm. (24 per cent. of normal) and in England East 15 mm. (33 per cent.). Some of the individual totals were notable, the following being some of the lowest:—Sevenoaks, 2 mm. (lowest in May during 36 years); Canterbury, South Farnborough, and Wallington, 3 mm.; Addington and Worthing (lowest during 49 years), 4 mm.; Dover and Margate (lowest during 54 years), 5 mm.; and Cambridge (lowest during 54 years), Bennington (lowest during 39 years), and Southend, 6 mm. The restricted nature of the drought is illustrated by the fact that at Markree Castle, Seskin, and Valencia Observatory the corresponding totals were 102 mm., 113 mm., and 119 mm. respectively. At Edinburgh the month of May was slightly drier in 1905, and at Fort William in 1915; but at Nairn, for example, it was the driest May on record, whilst at Glasgow, during the last sixty years, the aggregate for May has been smaller only in 1895.

Sunshine.—In England South-West, in Ireland South, and in the English Channel the mean daily amount of sunshine was deficient by 0.26 hr., 1.14 hr., and 1.13 hr. respectively. All other districts had an excess varying from 2.13 hr. in England East to 0.15 hr. in Ireland North.

Optical Phenomena.—Solar halos were well seen throughout the month at several stations, and lunar halos less frequently. Tenbury observed a solar corona on the 1st, and Little Massingham a lunar corona on the 9th. Sun-pillars were seen at Valencia Observatory on the 6th and at Eskdalemuir on the 22nd.

Aurora was observed at a few places on the 1st, 2nd, 3rd, 6th, 17th, and 19th.



Temperature Scales.