

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

SUMMARY OF OBSERVATIONS COMPILED FROM RETURNS OF OFFICIAL STATIONS AND VOLUNTEER OBSERVERS.

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MAY, 1922. Mainly fine and sunny. Some unusually high temperatures.

The most notable feature of the month was the hot spell which began about the 20th in the south-east and eastern parts of England. Thunderstorms occurred in the beginning and towards the end of the month (accompanied in the latter case by hailstones of remarkable size), otherwise it was generally dry, except in the West of Scotland.

During the first week in May, the weather over the British Isles was variable and unsettled owing to the passage of a series of depressions to the southward of Iceland. Winds were mainly westerly or south-westerly, reaching gale force in exposed places. Frequent showers of rain and hail occurred, and line squalls were reported in one or two places. Under the influence of northerly air currents, due to a depression over Denmark, several screen-minimum temperatures below 32°F. were registered about the 3rd, amongst the lowest being 26°F. at Balmoral, 27°F. at Porton (Salisbury Plain), and 29°F. at Renfrew and Birr Castle, while grass-minimum temperatures of about 20°F. were recorded in many places. About the 6th an anticyclone which had formed over France began to influence conditions over south-east England. Maximum temperatures were unusually high in most parts of England and Ireland, 80°F. being recorded at London on the 8th. By the 9th pressure was high all over the British Isles and fine warm weather prevailed generally.

On the 12th the anti-cyclone was situated between Iceland and the Azores, whilst a deep depression existed over Scandinavia causing a northerly wind current over the British Isles. Temperature fell below the normal, and at several stations readings considerably below the freezing point were recorded on the 12th and 13th.

A depression which made its appearance to the west of Iceland on the 12th moved in an easterly direction and soon affected the north-west district of the British Isles. On the 14th a depression near the Faröes moved eastwards causing strong winds during its passage, gale force being reached at Blacksod Point. The weather in the north was of a very unsettled condition, much rain being reported, notably in Scotland and northern parts of England. Amongst the heaviest falls were 58mm. at Rothsay (Bute), 35mm. at Kilmarnock, 33mm. at Renfrew, while the total for two days, the 14th and 15th, was as much as 109mm. at Fort William and 85mm. at Ford (Argyll). Under the influence of an anticyclone extending from the Azores to Austria, pressure was relatively high over Southern England. The weather, as a whole, was fair or fine over this area with occasional showers in places.

Conditions remained practically unaltered up to the 18th. On the 19th small secondaries caused unsettled weather generally. A V-shaped depression over the Atlantic to the west of the British Isles moved slowly north-east, bringing rain to the north and west of the Kingdom. By the 20th, the continental anticyclone had begun to extend northwards over England. From the 22nd to the 24th, the weather in the eastern and south-eastern parts of England was remarkable for the exceptional heat for the time of year, reaching a maximum of 91°F. at Camden Square (London), 90°F. at Bexley Heath (Kent), 89°F. at Norwich and Reading on the 22nd, and 89°F. at Grain (Kent) on the 23rd. The nights also were very warm, at a number of stations the night temperature did not fall below 62°F., and in one or two instances it stood at 65°F. Thunderstorms occurred in most parts of the country. A thunderstorm accompanied by exceptionally heavy hail, "large as walnuts . . ." in the words of the observer, occurred in Yorkshire on the 21st. At West Witton, the rainfall measured 68mm. Thunderstorms were reported on the 25th

in London and the south-eastern parts of England. By the morning of the 28th the continental anticyclone had extended over Scotland. Up to the end of the month, apart from the extreme north of Scotland, which was under the influence of a small secondary, the weather over the British Isles was fine and dry with abundant sunshine and high temperatures.

The following notes by observers illustrate some of the characteristic features of the month's weather:—Durham.—Sunshine amount highest since 1885. Tenbury.—The hottest May ever remembered here. Isleworth.—The average maximum of 71°F. has never been exceeded in my 38 years records, but was equalled in 1917. An interesting account of a minor tornado was received from the observer at Giggleswick School, Yorkshire, West Riding. The centre of the tornado passed Giggleswick School in the direction of Settle Station. One barn was demolished by the wind, and several walls were blown down along its track. At 19h. 23m. a projection was seen hanging down from the cloud and moving in the direction of the tornado centre.

Air Pressure.—As the map shows, the general trend of the isobars is in accordance with the normal. All the tracks of depressions passed between Iceland and the north-west of Scotland. Except in the north of Scotland pressure was in excess of normal all over the British Isles. The gradient was for winds between west and south-west. At the telegraphic reporting stations the departures of the monthly means of pressure from the normal varied from -2.7 mb. at Lerwick to $+5.0$ mb. at Scilly. The highest reading recorded during the month was 1035.3mb. at Dungeness and the lowest 981.2mb. at Stornaway.

Temperature.—As already pointed out, the most notable feature was the hot spell which began about the 20th in the south-eastern parts of England. At Kew Observatory the day maximum in the north wall screen reached 86°F. on three successive days (22nd, 23rd, 24th), this being the highest temperature recorded for May during the last 50 years. The mean temperature for all districts was above normal, particularly over England. The deviation of the monthly means from the normal ranged from $+4.9$ °F. in north-east England to $+0.4$ °F. in north Scotland.

Humidity.—The air was exceptionally dry during the month. At the London stations the difference between the readings of the screened dry and wet bulb thermometers in the middle of the day averaged more than 10°F., corresponding with a relative humidity as low as 52 per cent.

Rainfall.—For the British Isles as a whole, the rainfall for the month was below the average. Rainfall above the normal occurred mainly in the western half of Scotland where a considerable area received more than twice the average, and in isolated areas in the west of Ireland. The greatest amount of precipitation in one day occurred at Egremont (Cumberland) where 81mm. was recorded on the 16th.

Sunshine.—With the exception of north-west England, sunshine was above normal particularly over eastern and south-eastern England, and below normal over Scotland and Ireland. The departure from normal of the mean daily duration of sunshine ranged from $+2.50$ over S.E. England to -1.00 over N. Scotland. Abundant sunshine was recorded at several stations, Lympne 15.6 hrs. (29th), Valencia 15.3 hrs. (28th), Edinburgh 15.2 hrs. (31st), Calshot 15.0 hrs. (29th).

Optical Phenomena.—An exceptionally fine rainbow was observed at Benson at 18h. 55m. on May 17th. Solar and lunar halos were observed at various stations throughout the month.

NOTE:—The article by Mr. W. C. Kaye in the *Meteorological Magazine* for May has been utilised in the preparation of this summary.