

Monthly Weather Report

OF THE METEOROLOGICAL OFFICE

Summary of observations compiled from returns of official stations and voluntary observers

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July 1959—*Dry over most of England.* *Sunny and warm generally except in western Scotland*

For the greater part of the month a ridge of high pressure extended north-eastwards from an anticyclone near the Azores towards north-west Europe. Sometimes this ridge covered the British Isles giving warm sunny weather, especially in the south, but often it moved south to allow weak Atlantic fronts to cross the country. During the last six days of the month weather became generally unsettled and rather cool.

Weak fronts in a moist south-westerly airstream gave cloudy weather with some slight occasional rain in most districts during the first three days of the month. Meanwhile an anticyclone had been moving eastwards from the Bay of Biscay and as pressure rose over Germany on the 4th, wind over the British Isles became light but mainly southerly and weather sunny and warm generally except in northern Scotland. Many places recorded between 14 and 15 hours of sunshine and temperature rose into the eighties in most districts and reached 88°F. at Cromer. On the 5th thunderstorms, associated with an eastward moving weakening upper trough, broke out in western districts and moved slowly across the country reaching south Yorkshire and Lincolnshire during the afternoon. In many midland and eastern districts the 5th was the warmest day of the year, so far, with afternoon temperatures exceeding 90°F.; Gunby recorded 96°F. and Cromer 94°F.

A ridge was re-established over the country on the 6th and a small centre of high pressure moved eastward across southern England to Germany during the next two days maintaining warm sunny weather over most of England and Wales with temperature again reaching 90°F. on the 8th. 1000–500 mb. thickness values in the ridge became exceptionally high over Germany (5760 m. was measured on the 9th), but by this time a strong south-westerly thermal gradient existed between the European ridge and an eastern Atlantic trough, and thundery low pressure systems moved north-eastwards from Spain giving widespread thunderstorms over southern England from the 9th to the 11th. On the 9th maximum temperatures in parts of southern England were some 10°F.–15°F. lower than the previous day as thunderstorms moved north-east from Poole to East Anglia; during one of these storms .75 in. of rain fell at Watford in 10 min. Violent thunderstorms with torrential rain broke out on the night of the 10th/11th and among the many remarkable falls which were recorded that night was one of 1.75 in. at Northolt in 30 min. Later on the 11th a warm front, associated with a vigorous depression off north-west Scotland, brought further rain to most districts. Winds veered to north-west the next day and there were bright periods with scattered thundery showers in most districts as the depression moved away north-eastward between Scotland and Norway.

A ridge from an Atlantic anticyclone extended over southern England on the 13th marking the beginning of a warm mainly dry spell, which lasted in many southern districts until the 25th. During this period wind was mostly light south-westerly or variable and temperature generally above average, particularly in the south where 80°F. was exceeded in many places. Weak fronts moved in from the Atlantic on a number of occasions but gave little or no rain in the Midlands and southern England except on the night of the 16th/17th when it was fairly widespread. There were falls of over 1 in. at several places in the north-west of England on this occasion.

The anticyclonic weather began to break up on the night of the 25th/26th with the approach of a trough from the Atlantic which brought thunderstorms to western districts. Thundery rain subsequently spread over the whole country. On the 27th a slow moving depression, previously

off western Scotland, became centred over Northern Ireland, and many places in Scotland and north-west England had more than 1 in. of rain in 24 hr. on both the 26th and 27th. Frequent and widespread thundery rain and thunderstorms continued until the 29th as the depression moved to south-east England, but as it moved away eastward to the continent the last two days of the month were cooler and drier with northerly winds and only scattered showers.

Pressure and Wind. Mean pressure was everywhere above the 1921–50 average, the excess at 9 h. ranging from 1.8 mb. at Stornoway to 3.3 mb. at Spurn Head. Winds were predominantly south-westerly for most of the month although they were light and variable in south and south-east England on 4th–10th and over most of the country on 21st–24th, and north-westerly or northerly winds prevailed on 12th–13th and 29th–31st. Wind reached gale force locally in Scotland on 6th, 12th, 13th and 19th and in England and Wales on the 1st, 2nd, 9th, 13th and 22nd; a gust of 52 kt. was reported at Moor House on the 2nd.

Temperature. It was the sixth successive month with mean temperature above the 1921–50 average, the excess being 1.8°F. in England and Wales, 1.1°F. in Scotland and 1.3°F. in Northern Ireland. The warmest days were around the 4th and 25th in Scotland and western England, and on the 5th in east and south-east England where temperature exceeded 90°F. at many places. Maximum temperatures of 90°F. and over have been recorded during 11 of the last 25 Julys but 96°F. has not been reached in July since 1923.

Extremes included: (England and Wales) 96°F. at Gunby on the 5th, 32°F. at Moor House on the 15th; (Scotland) 82°F. at Sourhope on the 25th, 33°F. at Kincaig on the 14th; (Northern Ireland) 79°F. at Ballykelly on the 25th, 35°F. at Parkmore Forest on the 12th.

Precipitation. The general precipitation expressed as a percentage of the 1916–50 average was 84 in England and Wales, 119 in Scotland and 106 in Northern Ireland. In Scotland nearly twice the average fell in part of Ross-shire but the east was much drier and part of Aberdeenshire had only half the average. Most of England and Wales had just over half the average but there were isolated areas of much higher rainfall, a reflection of the thundery outbreaks in the predominantly fine weather; for example in the London area the percentage ranged from 55 to 165. Many stations in south-east England reported 15 days without measurable rain commencing the 11th.

Thunder was heard on 16 days in Scotland and on the 5th, 6th, 8th–13th, 17th, 18th and 23rd–30th (18 days) in England and Wales where thunderstorms were widespread, and in the south often unusually severe, on the 5th, 9th–11th and 26th–29th.

Sunshine. The general sunshine expressed as a percentage of the 1921–50 average was 132 over England and Wales, where it was the third successive month with sunshine above average, 97 in Scotland and 98 in Northern Ireland. In south-east England sunshine was 150 per cent. of the average at places along the south coast and nowhere less than 130 per cent. In Scotland however sunshine was considerably below average in the west; at Stornoway it was the dullerest July since 1939.

Fog. Early morning fog occurred at one place or another on 8 days; it was most prevalent on the 11th.

Miscellaneous Phenomena. The aurora was observed in Scotland on two nights.