

Monthly Weather Report

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July 1957—Warm for a week, then rather cool; frequent rain

During the first six days of July weather was warm and thundery. Pressure distribution over the country was indefinite, although a rather weak low pressure area remained almost stationary to the south-west of the British Isles, while at 500 mb. a pronounced trough persisted in the eastern Atlantic with an upper low off the coast of Portugal. Most of the remainder of the month was cool and unsettled with low pressure systems moving eastwards towards the British Isles and a rather persistent trough at 500 mb. A ridge from the Atlantic brought fine weather to most of the country during the last few days of the month.

The hot weather of the end of June did not continue into July although the month began sunny and warm with a weak ridge of high pressure extending north-east over the British Isles. On the 2nd an upper low formed off the coast of Portugal while a shallow depression moved northward from the Bay of Biscay bringing widespread thundery rain and locally severe thunderstorms to southern England; 2.46 in. of rain fell during such a storm at Plymouth in 1 hr., an amount almost equal to the average rainfall there for the whole of July. Another 'rare fall' occurred at Hastings where more than 1½ in. of rain was recorded in 15 min. Heavy thunderstorms and widespread floods were reported on the 4th and again on the 6th as a depression off north-west Spain moved north-east towards the British Isles. Afternoon temperatures exceeded 80°F. in many places during each of these first six days of the month and 93°F. was reached locally in the London area on the 6th. The nights also were very warm; by the 7th temperature at Kew had not fallen below 60°F. for 10 days.

On the 7th the upper air low which had been in the region to the west of Spain since the beginning of the month moved north to the Irish Sea, and soon afterwards the weather changed to a westerly pattern which persisted for most of the remainder of the month with a good deal of cloud, frequent rain and temperature somewhat below average. A blocking high developed over Russia on the 11th and depressions approaching from the Atlantic became slow-moving over the British Isles. A depression which deepened off the west of Ireland and moved eastward on the 11th was the first of three such systems to give widespread rain, heavy and thundery in places. This depression did not reach the North Sea until the 14th, the second moved across the country on the 17th and 18th and the third was complex and gave outbreaks of thundery rain in many places on the 20th and 21st. The heaviest rainfall about this period was at Dyce where 4.37 in. of rain fell in the 72 hr. up to 9 h. on the 20th.

From 22nd–25th warm air spread slowly across the country from the south-west bringing light rain to many places and fog to windward coasts. By the 25th the warm air had reached extreme north-east Scotland giving dull weather with persistent and locally heavy rain over the mainland, but Shetland, in the cooler air to the north, had 13.4 hr. of sunshine. The same day, a trough, associated with a depression near Iceland, extended south-eastwards and a fresh centre formed off the Hebrides. A cold front to this new depression brought a broad belt of rain over the country and there were further heavy falls in Scotland. The total rainfall for the three days 24th–26th at both Inverailort and Arisaig in Inverness-shire was about 7 in. The cold front rain was followed by a day or two of cooler showery weather with sunny periods and fresh west to north-west winds.

On the 30th a small anticyclone developed over the British Isles giving the first generally fine day for about four weeks.

Pressure and wind. Pressure was generally below the average, the deviation at 9 h. ranging from -2.2 mb. at Tunbridge Wells to +1.4 mb. at Stornoway. Winds were rather light and variable during the first six days although they were often from an easterly direction. Apart from

the 21st when they were north-westerly, winds from a westerly or south-westerly direction predominated from the 7th to 27th but became mainly north-westerly during the last few days of the month. Gales occurred on three days only, the 12th, 26th and 27th. At Tisee gale force winds were maintained for 7 hr. on the 26th and reached 55 kt. in gusts.

Temperature. Mean temperature differed from the 1921–50 average by +0.5°F. in England and Wales, -0.1°F. in Scotland and -0.3°F. in Northern Ireland. After the warmth of the first week, when temperature in south-east England was 10°F. above the average for the period, day temperatures were mostly below normal but night minima were generally high. Frost occurred in a few places; at Dalwhinnie 26°F. was recorded on the grass on the 6th and 9th and screen temperature fell to 33°F. on the latter date.

Extreme temperatures for the month included:—(England and Wales) 93°F. at Camden Square on 6th, 38°F. at Stone on 11th and at Berwick-on-Tweed on 15th; (Scotland) 82°F. at Glenlee, Kirkcudbrightshire, on 6th, 31°F. at Achnashellach on 16th; (Northern Ireland) 77°F. at Armagh on 5th, 41°F. at Ballykelly, Garvagh, Aldergrove and Nutts Corner on 11th.

Precipitation. The general precipitation expressed as a percentage of the 1881–1915 average was 144 over England and Wales, 152 over Scotland and 144 over Northern Ireland. The only parts of England and Wales in which less than average rainfall occurred were small areas in East Anglia, Cornwall and Cumberland. More than twice the average was recorded in south-west Sussex, parts of Montgomeryshire and in Anglesey. In Scotland rainfall was below average locally in the extreme south and in the Hebrides; it was more than twice the average over much of the north-east and more than 250 per cent. of the average in parts of Aberdeenshire and Ross and Cromarty. At Craibstone it was the wettest July since records began 40 yr. ago; at Loch Leven Sluice (Kinross-shire) it was the wettest since 1883.

Among the heavier falls in 24 hr. were:—

- 4th 3.17 in. at Corris (Ceinws Camp), Montgomeryshire.
- 6th 3.36 in. at Netherseal (Chilcote), Leicestershire.
- 24th 3.15 in. at Arisaig House, Inverness-shire.
- 26th 3.17 in. at Brenchoillie, Argyllshire.

Thunder occurred more frequently than usual during July. In Scotland no thunder was reported after the 20th, but there were 16 days of thunder up to that date. Thunderstorms were severe in places on the 7th, 12th and 13th. In England and Wales thunder occurred on 22 days, particularly on 3rd, 6th, 19th–21st; many stations reported thunder on 8 or 9 days.

Sunshine. The general sunshine expressed as a percentage of the 1921–50 average was 78 over England and Wales, 74 over Scotland and 61 over Northern Ireland. Except in east and north-east England sunshine during the first week was above the average for the period; during the remaining weeks sunshine was well below the average and in north-west England was as little as 30 per cent. of the normal during the second and fourth weeks.

Fog. In Scotland the number of days with fog, 18, was well above the average; it was frequent in the north and east, especially around the middle of the month. In England and Wales early morning fog occurred on 23 days, being more widely reported on 4th and 5th, 19th and 23rd.

Miscellaneous Phenomena. The aurora was observed in Scotland on one night.