

Monthly Weather Report

OF THE METEOROLOGICAL OFFICE

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

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August 1955—Sunny and mostly dry apart from thunderstorms.

For the major part of the month the country experienced mainly anticyclonic conditions but there was rather an unsettled period from the 14th to the 19th.

On the 1st the upper ridge of the blocking high over the British Isles declined, and was slowly displaced westward by an intensifying upper trough over the North Sea; an associated surface cold front moved southwards across the country on the 2nd and 3rd. Weather was warm and sunny ahead of the front – temperature rose to 80°F. at London Airport on the 1st and 2nd – but the front brought cooler conditions and the first appreciable rain for some weeks. Cloud amounts were variable but reports of 11 and 12 hr. sunshine were common. During the first few days depressions had been crossing the Atlantic in high latitudes, but on the 6th and 7th a depression moved from Iceland to the Baltic bringing a deep northerly current down the North Sea behind a weak cold front. This northerly airstream deepened the upper cold trough already in this region and maintained the lower surface temperatures over the country for the next day or two. A warm ridge in the eastern Atlantic developed considerably from the 6th to the 9th and building north-eastwards across the country re-established the blocking pattern which had been present over north-west Europe for most of July. The cold trough aloft was cut off and the resulting cold pool moved southward to central Europe. From the 10th to the 14th England came under the influence of this upper cold pool which had extended westward, while on the surface an anticyclonic belt had extended from the Azores across the British Isles to Scandinavia. Temperatures slowly rose to the middle seventies and thunderstorms developed in many places during this period with outbreaks of heavy rain locally; more than 1 in. of rain fell at many stations in south-east England on the 11th, 13th and 14th. A general increase in cyclonic activity over the western Atlantic from the 14th to the 19th brought a south-westerly airstream with embedded fronts across the British Isles. The moister air gave considerable fog at night but this cleared quickly most mornings. An occlusion, with a cold trough aloft, gave widespread thundery rain on the 17th and 18th as it crossed the country. The following day an upper warm ridge formed over the British Isles and later merged with and helped to maintain the blocking high which by now had drifted to north-east Germany. An anticyclonic regime became established over the country for nearly a week. Temperatures rose steadily and exceeded 85°F. at many places from the 22nd to the 24th; they were highest in the east on the 22nd and in the west on the 23rd when 90°F. was reached at Chivenor; at some places during this very warm spell temperature did not fall below 65°F. at night. Fog was again widespread during the early morning and persisted throughout the day in some coastal areas, but the weather was generally dry and sunny with 12 hr. or more sunshine in many areas. On the 26th a small upper cold pool moved westward from Germany and remained over south-east England for a day or two bringing renewed thundery conditions to the Midlands and the South-east, while at the same time a cold front moved slowly south-east across the country on the 26th and 27th followed by a sharp fall of temperature. A deepening upper trough on the Atlantic encroached during the last two days of the month bringing occasional rain to our western districts.

Pressure and Wind.—Mean pressure was everywhere above the average for the period 1921–50, the deviation at 9h. ranging from +8.4 mb. at Stornoway to +3.4 mb. at Scilly. Winds were mainly

light and between north and north-west for the first 9 days after which north-easterly winds predominated until the 13th; during the latter part of the month they were mostly from a south or south-westerly direction from the 14th to the 19th and from the 28th to the end of the month, but otherwise very variable. Gales occurred locally in Scotland around the 16th.

Temperature.—Mean temperature exceeded the 1921–50 average by 3.5°F. in England, Wales and Scotland and by 4.1°F. in Northern Ireland. It was the warmest August in many places since 1947. Ground frost occurred occasionally: among the lowest grass minimum temperatures reported were 25°F. at Dalwhinnie and Glenlivet on the 4th and 18th respectively, 23°F. at Moor House and 25°F. at Kielder Castle both on the 8th.

Extreme temperatures for the month included:—(England and Wales) 90°F. at Chivenor on the 23rd, 33°F. at Rhayader on the 8th; (Scotland) 89°F. at Elgin on the 25th (no higher temperature has been recorded in Scotland during August since 1876), 32°F. at Dalwhinnie on the 4th, at Glenbranter, Leadhills and Carnwath on the 8th and at Glenlivet on the 18th; (Northern Ireland) 83°F. at Armagh and Castle Archdale on the 24th and 25th, 39°F. at Ballykelly on the 4th.

Precipitation.—The general precipitation expressed as a percentage of the 1881–1915 average was 34 per cent for England and Wales (where there have only been two drier Augusts, 1947 and 1940); 30 per cent for Scotland (where only 1947 was drier since at least 1880); and 24 per cent for Northern Ireland. Rainfall deficiencies were marked almost everywhere and there was an excess mainly due to thunderstorms only around Sittingbourne, Kent, Southend and Armaghanoon, County Down. Apart from south-east England and the English Lake District, few places had more than 50 per cent of the average. Nearly half the United Kingdom including most of the area from south-west England, across the Midlands to the West Riding of Yorkshire, east coast districts of Scotland and much of Northern Ireland had less than 25 per cent. Most of Cornwall and small areas around Leamington and Leuchars had less than 10 per cent. At many stations it was the driest August since 1947.

Among the heavier falls in 24 hours or less were:—

- 13th 3.44 in. at Armaghanoon, County Down, a 'very rare' fall, all of which fell in 80 min. 3.67 in. at Sittingbourne, Kent, which fell in 130 min.
- 21st 2.28 in. at Keswick, 2.21 in. at Braystones and 2.27 in. at Sellafield all in Cumberland.

Thunderstorms.—In Scotland thunder occurred on the 2nd, 12th–18th, 26th–28th and 30th. In England and Wales there were thunderstorms on the 9th–15th, 17th, 19th, 21st and 26th–31st; they were widespread from 10th–14th.

Sunshine.—The general sunshine expressed as a percentage of the 1921–50 average was 116 over England and Wales, 123 over Scotland and 111 over Northern Ireland. It was the sunniest August since 1947 at Teignmouth, Newquay, Oban, Kilmarnock and Eskdalemuir.

Fog.—Fog was prevalent on the north and east coasts of Scotland and in north-east England on the 22nd–25th. Otherwise early morning fog was rather erratic; it was reported at 9 hr. at Chesterfield on 17 occasions.

Miscellaneous Phenomena.—The aurora was observed in Scotland on 5 nights.