

MONTHLY WEATHER REPORT OF THE METEOROLOGICAL OFFICE.

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

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AUGUST 1932.—Exceptionally warm in England. Local Thunderstorms.

The outstanding feature of the weather of the month was the excessive heat over a large part of England.

Secondary troughs of low pressure passing eastward across the British Isles caused unsettled and rather cool weather at first with local thunderstorms. About the 4th an anticyclone off our south-west coasts began to spread north-east. Air of tropical origin was drawn in round this system and temperature rose. Much fog was experienced from the 4th to the 10th. The anticyclone moved eastward to Germany and the warm spell culminated in a very hot day on the 11th. Severe thunderstorms occurred on the 12th with cooler south-westerly air undercutting the warm south-easterly Continental current. For a few days shallow depressions lay over the country. On the 14th an anticyclone developed off Northern Scotland and moved south bringing temporarily cooler, north-easterly winds and mainly cloudier skies. Subsequently westerly winds prevailed in the north and another spell of anticyclonic conditions in the south. Temperature rose considerably and the 19th was the warmest day on record in some places. Again the warm weather ended with severe thunderstorms, on the 20th, though they were delayed in south-east England until the night of the 20th to 21st. Cool air of polar origin flowing down the North Sea round an anticyclone centred north of Scotland brought a sudden drop in temperature to the Midlands and a more gradual one in S.E. England. At Birmingham the maximum on the 20th was 66° F. as compared with 91° F. on the 19th. There followed a few days of anticyclonic weather, but it remained cool. Towards the end of the month shallow depressions moving east brought unsettled weather with local rain and thunderstorms.

Pressure and Wind.—Owing to the general anticyclonic character of the month pressure was above the normal in all districts, the excess ranging from 6.4 mb. at Malin Head and 6.2 mb. at Aberdeen to 3.0 mb. at Roche's Point. Winds were rather variable in direction. From about the 3rd to the 9th they were mainly from between W. and S. being part of a warm current drawn from relatively low latitudes round a large anticyclone on the Atlantic. There was a short spell of N.E. or E. winds about the 14th and 15th and another longer spell of cool winds from between N. and E. from the 20th to the 25th. The force of the wind was generally greatest on the 6th and the 20th to 25th inclusive. A gale occurred at Dunfanaghy Road, in Northern Ireland, on the 6th.

Temperature.—Mean temperature for the month was everywhere above the normal and notably so in south and east England and the Midlands. There were generally two very warm periods around the 11th and 19th, but in Scotland the second warm period was around the 16th. Cooler intervals were experienced during the first few days, about the 13th–15th and from the 20th–25th. The latter was the most notable of the cool spells, temperature falling below freezing point in the screen locally in Scotland on the 23rd, 24th and 25th, while ground frosts occurred in places in Northern England on the 24th and locally in Scotland between the 22nd and 25th and again on the 31st. The lowest grass temperature was 23° F. at Dalwhinnie on the 24th.

In many parts of Southern England and the Midlands temperature exceeded 90° F. on the 19th, and at the following places the figure for that day is the highest registered since records began:—

	Maximum on 19th.	Length of record.
	°F.	Years.
Camden Square	97	74
Halstead	97	40
Norwich	96	50
Oxford	95	51

It is extremely rare for temperature to remain above 70° F. throughout the night, but at Lympne it did not fall below 73° F. between 18h. on the 19th and 7h. on the 20th.

In Scotland the month was not so warm and the mild nights largely accounted for the mean temperature being above the normal. The highest temperature (as in the northern districts of England) occurred around the 11th, 82° F. being reached on that day at Kelso (Broomlands) and Marchmont. Locally in Northern and Western districts temperature failed to reach 70° F.

The extreme temperatures for the month registered in standard screens were:—(England and Wales) 97° F. at Halstead, Camden Square, Regent's Park, Enfield and Tottenham on the 19th; 32° F. at Castletown on the 24th. (Scotland) 82° F. at Kelso (Broomlands) and Marchmont on the 11th; 28° F. at Balmoral on the 23rd. (Ireland) 80° F. at Killarney on the 19th; 39° F. at Armagh on the 25th.

Precipitation.—The general precipitation of the British Isles expressed as a percentage of the normal for the period 1881–1915 was 57; the corresponding figures for the constituent countries were:—England and Wales 56, Scotland 54, Ireland 62.

In spite of the rainfall deficiency over the country as a whole, there were large variations owing to the severe local thunderstorms. For example, the percentage of the normal was 186 at Crawley Mill, Woburn, 131 at Wellington College, Berkshire, 122 at Seaforde, County Down, and 126 at Douglas, Isle of Man. In parts of Kent and Carmarthen totals were less than 20 per cent., and at Winscombe, in Somerset, the total 22.6 mm., is the lowest August fall recorded there for at least 30 years. In Scotland, only in the Hebrides, Sutherland and the Orkneys and Shetlands did rainfall totals exceed the normal. Southwards and south-eastwards from these areas the rainfall deficiency increased until locally there was less than 10 per cent. of the normal. In the Edinburgh area it was the driest August since at least 1785.

Thunderstorms were most widespread from the 11th–13th and from 19th–21st, but some severe storms occurred outside these periods. The following are some heavy falls in short periods during thunderstorms:—

Rickmansworth—56.9 mm. of rain or hail in 45 mins. in early morning of 12th.

Streatham Common—15.7 mm. in 13 mins. on 12th.

Broadford, Co. Clare—24.6 mm. in 25 mins. on 13th.

Malvern—43.7 mm. in 20 mins. on 20th.

Heavy falls in 24 hours include 71 mm. at Mursley on the 21st, 65 mm. at Wellington College, Berks, 56 mm. at Henley-on-Thames, and 56 at Reading University on the 20th. Hailstones of about $\frac{1}{2}$ inch in diameter fell during the storm at Rickmansworth and the London area on the morning of the 12th.

Heavy rain caused serious flooding locally.

Sunshine.—Sunshine was above the normal in south-east England and nearly normal in the extreme north of Scotland and in eastern England. Elsewhere it was deficient, markedly so in Ireland, particularly in the north, where the district value was only 60 per cent. of the normal.

Fog.—There was a good deal of fog, particularly from the 4th–10th and again from the 17th to 20th. At West Linton and Balerno, in S.E. Scotland, it was dense on the 14th. At Totland Bay fog occurred on 10 days and at Warfield and Beachy Head on 8 days.

Miscellaneous Phenomena.—The solar halo was observed at Oxford on no fewer than 13 days.