

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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VOL. 64 No. 7

ISSUED BY THE AUTHORITY OF THE METEOROLOGICAL COMMITTEE
PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE

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July 1947—A rather warm month, with a cool spell 5th–11th; frequent, and at times severe, thunderstorms.

The month was rather warm on the whole with a cool spell from the 5th–11th. Temperature rose on the 13th and the remainder of the month was mainly warm, with frequent thunderstorms.

During the early days of the month Atlantic depressions approached north-west Scotland or Iceland while associated troughs of low pressure crossed the British Isles. Some rain occurred but amounts were small on the whole. On the 4th and 5th a depression moved rapidly east from mid-Atlantic across Scotland to the northern North Sea and then turned north; rain fell generally in the British Isles on the 4th and slight rain occurred in the west and north on the 5th, and winds were strong locally. On the 6th a deep depression remained almost stationary near the Faeroes, while a small secondary disturbance moved east along the English Channel; showers were reported in most places. Thereafter the depression over the Faeroes moved first slowly south and then east to southern Scandinavia, becoming less deep, while a trough crossed the British Isles. Showers occurred on the 6th and 7th and local thunderstorms (particularly in the eastern half of England) on the 8th and 9th. Unsettled weather persisted on the 10th.

Subsequently a ridge of high pressure off our south-west coasts moved east and increased somewhat in intensity. Mainly fair weather prevailed from the 12th–14th although some rain occurred in the west on the 12th and one or two slight thunderstorms were reported on the 14th. Temperature rose considerably on the 13th. The high pressure moved slowly north-east to Scandinavia, while a complex area of low pressure covered the north Atlantic and a trough of low pressure moved slowly across this country. A spell of warm weather with widespread and severe thunderstorms ensued. Conditions improved in the west on the 17th but rain and local thunderstorms occurred in eastern districts of England. By the 18th pressure was almost uniform over Great Britain, while another trough of low pressure approached our western seaboard and moved slowly east. Heavy rain occurred in north and north-west Scotland on the 18th and there were further scattered thunderstorms. On the 20th and 21st an almost stationary depression was situated west of Ireland and a trough of low pressure moved slowly north-east across England; unsettled weather prevailed. On the 24th a weak trough of low pressure, associated with a depression over the Azores, approached our south-west coasts and moved north-east; eventually it became almost stationary over central Ireland and northern England. A spell of hot weather ensued in south-east and east England and heavy rain fell at times in the vicinity of the trough, particularly in the north of England on the 26th. On the 27th a weak anticyclone over Scotland moved rather quickly east-south-east to the North Sea giving a mainly fair day but on the 28th a complex trough of low pressure stretching south-east across Ireland to north-west France swung north-east causing widespread and locally severe thunderstorms. Finally an anticyclone developed over the British Isles and the closing days of the month were mainly fine apart from local mist or fog.

Pressure and Wind.—Mean pressure was somewhat below the average, the greatest deficiency at 9 h. being 2.2 mb. at Eskdalemuir. At stations with autographic records there were no days with a mean hourly velocity of more than 38 m.p.h. but strong winds were experienced locally at times mainly from the 4th–8th and 20th–21st. The month was quieter than usual, the total run of the wind being considerably below the average. Among the highest speeds registered in gusts were 59 m.p.h. at Eskdalemuir and 53 m.p.h. at Bidston on the 5th, 53 m.p.h. at Lympne on the 8th and at The Lizard on the 20th.

Temperature.—Mean temperature was about average in Northern Ireland and exceeded the average by 1.6°F. in England and Wales and 1.3°F. in Scotland. The period 5th–11th was cool, while the 13th–16th and 25th–31st were on the whole, very warm. The 0–24 h. minimum temperature 68.0°F. on the 28th at Kew Observatory equalled the highest minimum ever recorded there in July; the same value was registered on July 13th, 1923.

The extremes for the month were:—(England and Wales) 90°F. at Cheltenham on the 27th and in London (Greenwich) on the 28th, 40°F. at Droitwich on the 12th; (Scotland) 80°F. at Lossiemouth on the 15th, 36°F. at Balmoral and Logie Coldstone on the 8th and at West Linton on the 9th; (Northern Ireland) 79°F. at Lisburn on the 31st, 40°F. at Ballykelly and Castle Archdale on the 17th.

Precipitation.—The general precipitation expressed as a percentage of the average for the period 1881–1915 was 95 over England and Wales, 99 over Scotland and 118 over Northern Ireland. In Scotland, less than the average occurred in most of the north and east, in the Lothians and in the Shetlands and more than the average in central and south-western districts and some Border areas. Less than 50 per cent. occurred in the north-east tip of Caithness and at Baltasound, while more than 175 per cent. was received at Inveraray, Argyll and at Blair Castle Gardens, in Perthshire. In England and Wales more than the average occurred in the extreme north, over much of Wales and the neighbouring parts of Cheshire and the Midlands and over smaller scattered areas in the southern part of the country. More than 200 per cent. was registered locally due to heavy falls on individual days. In Northern Ireland the excess was general and ranged from 104 per cent. at Newtownbutler, County Fermanagh to 136 at Aldergrove, County Antrim.

Among the heavier falls in 24 hours were:—

16th	4.53 in. at Wisley, Surrey and 2.91 in. at Tenterden, Kent.
18th	2.72 in. at Strachur (Argyll).
19th	3.91 in. at Frodesley Hall, Shrewsbury.
26th	2.44 in. at Cockle Park, Northumberland.
27th	2.37 in. at Ballykelly.

Thunderstorms occurred rather frequently, mainly on the 1st, 8th–9th, 11th, 14th–19th, 22nd–23rd and 28th–29th. Those on the 15th–16th and 28th were widespread and severe locally. On the 16th, at Wisley, 4 in. fell in about 75 minutes, a "very rare" fall, and hailstones about the size of grapes were observed. In Perthshire, two persons were killed by lightning on the 16th and there was considerable flooding and other damage. At Ballykelly, on the early morning of the 28th, 1.67 in. fell in 60 minutes causing serious flooding.

Sunshine.—Sunshine was appreciably below the average in central and western districts, but in north-east and east Scotland and locally in eastern districts of England it exceeded the average. The excess was large in the Shetland Isles: for example, the percentage of the average at Baltasound was 194, while at Lerwick the mean daily value was over 10 hours during each of the periods 6th–12th and 17th–24th.

Fog.—Fog occurred at times, especially on the coasts. It was reported mainly on the 3rd, 11th, 13th–20th and 25th–31st.

Miscellaneous Phenomena.—The aurora was observed locally in the western districts of the British Isles as far south as the Lizard on the night of the 17th–18th. Solar halos were noted at Oxford on six days.