



Weather Front.

July 2024/1924

July 2024

Observers Notes.

Ely: The mean temperature was the same as July 2023, but the mean minimum was the lowest since 1993. No maximum temperature was above 22 C until the 17th, then two days with 30 +C. 95% of the total rainfall fell by the 16th. The total rainfall January to July is 442.4 mm, the highest for the period on the station record.

Lowdham: Total rainfall January to July is 500.2 mm making it the seventh wettest for the period on the Nottingham record since 1840. Sunshine total at Radcliffe-on-Trent is 166.8 hours (90% of the 1991-2020 average)ⁱ.

Mountsorrel: July 2024 was a cooler, wetter, and duller month than normal. The mean temperature was the coolest since July 2023 and was marginally wetter than normal; the wettest since 2003. It was also the duller than normal, with 86 % of average sunshine. The month had a cool first half, but a warmer second half, with temperatures exceeding 26 C on five occasions. There were 18 occasions with maxima below 22 C, and 13 occasions above. While rain fell on 13 days there were only two occasions which accounted for 39 mm, or 64%, of the monthly total.

Derby: Nothing too remarkable, with both summer months running just below average temperatures. Six days with maxima at 25 C or above, which is near normal.

Mickleover: 42.4 mm, or 62%, of the month's total rainfall fell in just two days. Temperatures slightly below average.

Middleton: The second half of the month was 4.0 C warmer than the first half, while the first half was the wettest on record, with 86.5 mm, or 92%, of the month's total falling during that period. The first half was exceptionally dull with only 33.9 hours of sunshine in the first 16 days.

Coton-in-the-Elms: Rather cool overall despite a warm second half; the mean temperature for the first 16 days was just 14.8 C, yet for the period 17th to 31st the mean was 17.6 C!

Although there were some very warm, even hot, days towards the end of the month, it was disappointing. Rainfall was about average for July, though 17 rain days is above average for the month. For the second consecutive July no maximum temperature reached 30 C. The mean daily minimum temperature illustrates cool nights, this being the third lowest such figure on the July record in 30+ years.

Saltfleetby:

10 Day Mean Temperatures.			
	Max	Min	Mean
1-10	20.0	10.6	15.3
11-20	20.5	12.8	16.7
1-20	20.3	11.7	16
21-31	22.5	12.6	17.6

Desford: A disappointingly cool month, until the end. Summer warmth was rare, and short lived. Seemingly cloudy and often cool with 17 days failing to reach 20 C, and only 5 days recording 25 C, or greater, during the second half of the month.

UK Overview, July 2024.

The start of July continued June's theme of cooler than average weather, but with the addition of more wet weather. Temperatures were consistently and persistently below average across the UK for the first two weeks. Low pressure across the UK led to unsettled weather, and several frontal systems brought bands of rain. Areas of southwest, southeast and northeast England had already received more than the average July rainfall by mid-month. Temperatures increased in the third week of July, with temperatures in the upper 20s across southeast England, reaching the 30s in some areas. Heathrow and Kew Gardens (Greater London) both saw 32.0°C on the 30th, the highest temperature of the year so far. The temperature remained above average to the end of the month and felt occasionally muggy especially in the southeast. In the north of the UK, temperatures at the end of the month were above average as well, although not quite as high as in the south. Scattered showers in the penultimate week cleared slightly in the last few days of the month, although areas of south-west Scotland and northeastern England experienced some wet weather. By the 15th, the mean temperature for the UK was -2.0°C below average, and all four countries were around 2°C below the average temperature. This was provisionally the coldest start to July since 2004. However, the warm end to the month led to an overall mean temperature of 14.8°C, with an anomaly of just -0.5°C. July rainfall was average for the UK (82.4mm, or 100% of the long-term average July rainfall), but wetter than average for areas in southern England, which saw 129% of the average rainfall. Scotland, Wales and Northern Ireland were slightly drier than average. The wet start to the month saw counties including Bristol, Buckinghamshire, and Tyne and Wear all experience over 100% of their monthly rainfall by mid-month. Sunshine duration overall was below average, with the UK experiencing 153.7

hours of sunshine, 89% of the average July sunshine hours. Reference climatology used for calculating anomalies is the period 1991-2020 unless otherwise stated.

Weather impacts

- Hot spell in the final week of July saw many areas in southeastern England experiencing temperatures over 30°C
- Prolonged periods of rain on the 9th, 10th and 15th led to flooding in Scotland and England

July saw little in the way of impactful weather, with no amber warnings issued for the second successive month. The first half of the month saw changeable, mainly Atlantic-dominated weather with temperatures below average across the UK. The latter half of the month saw more settled weather with temperatures exceeding 30°C across southern England, but with an increase in occasionally thundery weather as well. A period of prolonged rain across north-east Scotland on the 9th and 10th led to reports of road flooding and some road closures in various locations including Peterhead, Elgin and Aberdeen. Further south, the same band of rain gave way to clusters of heavy, thundery downpours. One such downpour in Merseyside on the evening of the 9th led to reports of road and property flooding across the area, including in the same location where two fatalities had occurred in August of the previous year. Cleveland and North Yorkshire also reported flooding on the 9th. On the 15th, widespread rain hit the southern half of the UK as well, with heavy downpours affecting parts of southern and eastern Scotland on the 16th. Local traffic disruption in Fife was reported, and a golf course clubhouse was reportedly damaged by floodwater ingress. There was a period of settled weather in the second half of the month, with temperatures rising to around 30°C across southern England, especially in the south-east, for several days. There was a threat of a thundery breakdown of the weather in the last few days of the month.

From the Press.

Hurricane warnings were issued for much of the Windward Islands in the Caribbean during the week ending the 2nd. Hurricane Beryl had strengthened to a category 4 storm, with winds reaching 130 mph or more. The storm brought “utter devastation to Grenada and St Vincent and the Grenadines. The storm was downgraded to a tropical storm as it crossed the Yucatan peninsula, but coastal flood warnings were issued for the Texas and Louisiana coasts.ⁱⁱ

Japan issued a heatstroke alert for 26 of the 47 prefectures on the 8th, urging people not to go outside unless absolutely necessary, to use air conditioning day and night, and to drink plenty of water.ⁱⁱⁱ

Heavy rainfall was recorded across parts of the upper Texas coast, and Louisiana, with at least 8 people dead; all associated with hurricane Beryl.^{iv}

Southern and eastern Europe experienced a heatwave, during the week ending the 16th, with daytime temperatures across the Balkans reaching the high 30s to low 40s Celsius, more than 7 C above average. Night temperatures also remained high, often well into the 20s C. It was a similar situation in densely urbanised areas of Greece.^v

China experienced heavy rain from the start of the rainy season, which runs from May to September. It has resulted in at least 20 floods in major rivers. Xiangjiang county, in Chongqing province, received 269.2 mm in one day with 40,000 people being affected.^{vi}

More than 230 weather-related events were reported across Slovenia. In the village of Kokra, in Preddvor, a bridge was swept away. The storm also damaged infrastructure, including a power line which supplied Jezersko, a popular alpine destination. The wet conditions followed a period of hot weather, which saw temperatures across the country reaching between 3 and 7 C above average since the 8th.

East of the Philippines a tropical depression developed into Tropical Storm Gaemi, on the 20th, and was moving towards eastern Taiwan. Wind speeds of 51 mph, and gusts to 67 mph, were expected to increase as the storm passed over the warm seas south and east of Taiwan.

A “state of calamity” was declared in Manila on the 24th, with rainfall totals being in excess of 300 mm. More than half a million people evacuated their homes, and 32 deaths were confirmed. This destruction was due to Typhoon Gaemi interacting with existing monsoon weather systems, worsening already heavy rains across the island of Luzon, and causing several landslides. An oil tanker in Manila Bay capsized in rough seas resulting in a significant oil spill.^{vii}

July 1924

Observers Notes.^{viii}

Copdock (Suffolk): The first half of July was exceptionally brilliant, but after the 16th frequent small depressions passed over with persistent heavy rainfall and a good deal of thunder. Rainfall more than 50%, and sunshine more than 25%, above average.

Newquay: Temperatures still equable and a little below normal. Rainfall above normal, sunshine somewhat below.

Redruth: A dull damp month, humidity and cloud being both above average. Rainfall 145% of the average 1901-20.

Skegness: An average July.

Torquay: The month was generally unsettled with moderate equable temperatures. There was a dry period of ten days, five exceptionally heavy downpours of rain, an absence of thunderstorms and a duration of sunshine slightly above average.

Walton-on-Naze: Over three times as much rain as in July 1923, nearly all in second half of month. Temperatures exceptionally low.

St Andrews (Fifeshire): Wet and chilly, not summerlike.

Swinton House (Berwickshire): Incessant rain did much damage to hay.

Dublin: The month was cloudy, rainy, and generally unsettled, with a mean temperature one degree below normal [about -0.5 C]. In the Dublin district there were only five rainless days.

Louth (Westgate): Total rainfall 2.42 in [61.5 mm].

Brocklesby:

10 Day Mean Temperatures			
Date	Max	Min	Mean
1-10	61	46	53
11-20	68	51	59
1-20	64	48	56
21-30	71	52	61

Derby/Burton-on-Trent: quite a wet month with 60-70 mm being the general range in the district, higher altitude Byrkley Gardens received 82 mm. Temperatures varied between a minimum of around 5 C on the 1st, and 6 C on the 5th and 27th, and a maximum of about 29 C on the 12th. The mean temperature in Burton was 15.9 C (CET 15.3 C).

Overview July 1924.^{ix}

July 1924 was notable for severe thunderstorms and generally heavy rain. The first week, low pressure dominated the west and north of the country, with secondaries tracking in a north-easterly direction producing cool and unsettled weather, and rainfall above the weekly average, except in eastern and south-eastern England. On the 3rd and 4th thunderstorms were widespread over England and Ireland, with gales occurring along exposed places in the south. On the 9th a ridge of high pressure, to the south, spread north over the country and the North Sea, bringing fine, warm weather generally, but with low pressure still to the north-west weather on the west coast of Ireland and Scotland remained unsettled. Temperatures rose gradually until the 12th, which was the hottest day of the year. The fine weather broke on the 17th as an intense secondary depression passed eastwards across southern England producing heavy rain and local gales in the south [see *Abroad, July 1924 – Winds in the Straits of Dover*]. From the 17th to the end of the month the weather remained cool and unsettled as depressions passed across southern areas producing rain, locally heavy, and numerous thunderstorms.

The mean temperature throughout the country was below average, except for northern Scotland and eastern England. The largest excess was +0.4 F [+0.2 C] in eastern England, and the largest deficiency was -1.4 F [-0.7 C] in south-west England. The second week was the warmest with the highest temperatures occurring on the 12th, the hottest day of the year; the highest being 90 F [32 C] at Camden Square (London), 81 F [27 C] at Fort Augustus, and 75 F [24 C] at Dublin on the 15th. Lowest temperatures were; 35 F [2 C] at Usk (Monmouth) on the 1st, 37 F [3 C] at Eskdalemuir on the 27th, and 39 F [4 C] at Kilkenny on the 4th.

Frequent low day temperatures and low mean daily range were once again a feature of the month alongside low soil temperatures. A few stations reported one or two ground frosts, Chopwellwood (Durham) having seven.

Precipitation was above average in most areas, being between 100% and 200%, except for a small area around The Wash, in one or two small areas in Scotland and Ireland. The second week was the driest, and in most areas below the weekly average. The heaviest fall was 103 mm at Wisley (Surrey) on the 22nd, and was associated with the heavy thunderstorm reported on that day. During the 24 hours ending midnight on the 21st 74 mm was reported at Falmouth, once again associated with a thunderstorm, and was the largest amount ever recorded at the station for a similar period. Other notable falls were; 51 mm at Clacton on the 17th (associated with the depression of that date), and one of 64 mm at Brushford (Somerset) on the 20th. The 28th was a day of heavy rainfall in Ireland, England, and later, in eastern Scotland (which was associated with the track of a depression), 64 mm at Douglas (IOM), 52 mm at Petersfield (Hampshire), 46 mm at Hawarden Bridge (Flint), and 41 mm at Cockle Park (Northumberland). At Hampstead the rainfall total of 193 mm was the largest recorded in any month since 1858, the nearest being 180 mm in October 1865.

Thunderstorms were a significant feature of the month, and were sometimes severe, many of which were accompanied by heavy rain, often local in character. In London, on the afternoon of the 22nd, 10 mm fell in 3 minutes at South Kensington, with a total fall of 32 mm in 25 minutes. The rate of rainfall was not as great as that recorded at Camden Square on 23 June 1878. Ball lightning was observed during this storm at South Kensington and at Woking. At Hampstead 9.9 mm fell in 2 ½ minutes, with a total fall of 25 mm in 16 minutes. Another severe storm in London occurred on the 29th, with Hampstead recording 54 mm. Thunder was widely reported on the 3rd and 4th, and again on the 18th and 26th. A severe storm was generally reported in Scotland on the 12th. Very few stations reported no days of thunder; a maximum of six being noted at several stations in England and Scotland. Hail was infrequent, Copdock (Suffolk) and Hampstead noting 3 days. Hailstones at Hampstead, on the 22nd, measured ½ to 1 inch [13mm to 25 mm] in diameter, and at the Air Ministry, Kingsway, 0.8 in [20 mm] in diameter on the same day.

Sunshine duration was above average in NE, E, and SE England, the Midlands, and northern Scotland, but below average elsewhere. The largest excess was 1.13 hours in south-east England, and the largest deficit being 1.39 hours in western Scotland. South-east England

had 51% of possible duration, but Northern Ireland had only 21%. The third week was the sunniest and the last week the dullest. A number of stations recorded daily durations exceeding 14 hours, and a few over 15 hours.

Fog was reported at a number of stations, but not extensively, Bellinham (Northumberland) noting 11 days and Manchester (Whitworth Park) 7 days.

Abroad, July 1924.^x

The first half of the month in western Europe was mainly fine, with some very hot days, particularly in Paris on the 14th. Castile and Andalusia had been suffering from a prolonged drought, with no rain for nearly four months. There was drought in southern Russia, but in the north and north-west of the country there was prolonged cold and rainy weather, while in the northern Tyrol, on the 1st, severe storms caused floods. The second half of the month was exceptionally stormy throughout the whole of Europe.

A storm, on the 17th, developed rapidly, and the Meteorological Office issued a gale warning for eastern parts of the English Channel and the southern North Sea. The warning spoke of south-west winds reaching force 7 to 8, and were expected along southern coasts from Start Point to Harwich. The wind, at time of issue, was moderate in the Straits of Dover and the southern North Sea. The wind continued moderate for 4 or 5 hours near Dover and slightly longer in the North Sea. The wind increased in strength during the evening, reaching gale during the night, at first from the south to south-west veering later to the north-west. It is understood that there was much loss of life along the Dutch and Belgian coasts from small craft not having any radio contact with either Lands End or Niton radio.

There were numerous thunderstorms in Switzerland, particularly during the 23rd. On the 27th there was a sharp fall in temperature in Switzerland and northern Italy resulting in snow falling as low as 4000 ft. On the 22nd heavy rain was reported from Tolosa (northern Spain – Navarre), and on the 30th, another severe thunderstorm occurred in Brussels and Ghent where considerable damage was done from lightning strikes.

In India the monsoon rains were good, and in the south they were very heavy, particularly in Cochin [Kochi] and Travancore [the western edge of the Western Ghats]. The river Cauvery rose to 34 ½ ft above its usual level at Erode [about 150 miles NE of Kochi], resulting in thousands of houses being washed away, as well as much loss of life. The Coleroon river, south of Pondicherry [Puducherry] was also in flood, taking away bridges, and creating havoc with communications. On the 25th the Bombay Presidency [a narrow belt of land from roughly 15 N to the Indus River] was under threat of drought, but very heavy rain fell at Ahmedabad [Ahmadabad] on the 19th.

In China flooding was even worse, the previous high water mark of 1917 being exceeded. In the province of Chihli [Hebei – Beijing] the flood covered an area in excess of 10 thousand square miles, making at least one million people homeless, and the port of Tientsin [Tianjin]

was reported to be in great danger from the floods. Severe flooding was also reported from Ho-nan [Henan] province, central China, where, again, one million people were reported to be homeless. By the 21st rainfall in northern China had exceeded 20 inches [508 mm], and was still falling; the average for the month at that time was 7 inches [178 mm].

After the hurricane, at the end of June, conditions in North America calmed down. In Canada the hot, dry weather of the first half of the month was threatening drought conditions in the area of Winnipeg however, a depression on the 16th, which was following a more northerly track, brought welcome rain.

The monthly rainfall throughout Brazil was low, amounts being; 21 mm, 10 mm, and 35 mm below normal in the northern, ventral, and southern districts respectively. While anticyclones continued to traverse the country, they were often interspersed with depressions. It is understood that the weather was favourable for wheat but not so for other crops.

From The Press.

July Rains.^{xi}

From the point of view of what is best for the countryside we can probably do without such broiling weather. It is remarkable how quickly and thoroughly the exceeding heavy rains of recent days were imbibed by the land, the promising fruits of which reveal the extent of the good they did. Temperate sunshine and occasional showers will now bring the greatest possible measure of satisfaction to the farmer.

One old local proverb tells us that; a shower of rain in July when corn begins to fill

Is worth a plough of oxen, and all that belongs theretill.

And another;

Some rain, some rest,

Fine weather isn't always best...

Stamford.^{xii} Mr Green, the celebrated aeronaut, intends to ascend in a balloon from Northampton on the 8th inst.

So severe a storm of thunder and hail was experienced at Castor, near Peterborough, about two o'clock on Tuesday afternoon, that several martins and other small birds, killed by it, were afterwards picked up, and the hailstones lay in heaps for a considerable time.

Retford June 30. The fine present weather has considerably improved the hop plantations in the North Clays; even during the late cold rains, they grew much faster than could have been supposed, but since the present delightful season set in they have improved beyond the most

sanguine expectations. Still however the scarcity of bine, and the number of deadly hills, precludes the possibility of a full crop in the best plantations.

Boston. Wednesday June 30 – From the exceedingly heavy rains, the crops are a good deal laid, and the water stands on the land in the Fens; a continuance of wet weather would do much injury – Wheat of best quality is held at more money today, and the millers give an advance, taking off most of the fresh parcels; stale samples have few buyers.

Kent.^{xiii} - On Friday last the 9th instant, one of the most violent torrents of rain within memory deluged the middle part of the county of Kent: it entered from Sussex, and passing over the entire eald of Kent, Canterbury, and the towns on the sea coast, discharged an immense quantity of water, stopping the passage of many bridges and public highways, and laying the low lands under water, spoiling and carrying off vast quantities of hay and seed grass. The extreme breadth of the cloud appeared about 20 miles, within the range of which great damage has been done. Margate suffered severely; and at Ramsgate the flood rose to such height, near the marketplace, as to lay all the cellars under water, to the very material injury of the proprietors of the goods there deposited, one of whom, the proprietor of the London Hotel, has sustained a loss of £200. After pouring down almost sheets of water for upwards of two hours, the atmosphere cleared up, and the evening was fair. – Kentish Gazette.

Boston. Wednesday July 14 – Since the 7th inst. We have had fine weather, and the crops are a good deal improved. The farmers are now so engaged that few come to market; also, the late dull state of trade has stopped threshing generally...

Stamford.^{xiv} – Mr Green ascended in his balloon from Leicester on Monday evening last, at twenty minutes before five o'clock, amidst the cheers of a vast concourse of spectators. His voyage lasted for an hour and a half: in the course of it, he encountered the rare phenomenon of a whirlwind; but he descended safely near Alcester, in Warwickshire, 50 miles from Leicester.

Dresden,^{xv} June 30 [1724] – On the 23rd instant the thunder fell in a village called Zinna near Targau, and has laid the whole in ashes.

Stamford,^{xvi} There happened a storm of lightning and thunder on Thursday morning about eleven of the clock at Waltham Abbey, during which two men and a woman went to shelter themselves in a porch of a house there, and the said woman who stood betwixt the men, was struck by a sudden flash of lightning, but they received no damage, and the posts of the porch were shiver'd in many places from top to bottom.

About the same time, as a man and his wife were gleaning in a field, between Egham and Staines, the former was struck dead by the lightning; the hair of his breast was sing'd, but no other damage appear'd outwardly upon his body.

Central England Data.^{xvii} July 1924. (Averaging period is 1891 to 1920.)

Mean Maximum Temperature: 19.5 C. Average: 20.0 C.

Mean Minimum Temperature: 11.1 C. Average: 11.4 C.

Mean Temperature: 15.3 C. Average: 15.7 C.

England and Wales Rainfall: 118.4 mm. Average: 72.6 mm.

Midlands Data. (Averaging period is 1911 to 1920).

Midlands Mean Maximum Temperature: 19.6 C. Average: 19.7 C.

Midlands Mean Minimum Temperature: 10.0 C. Average: 10.2 C.

Midlands Mean Temperature: 14.8 C. Average: 14.9 C.

Midlands Rainfall: 96.9 mm. Average: 75.6 mm.

Central England Data July 2024 (Provisional) (Averaging period is 1991-2020).

Mean Maximum Temperature: 21.0 C. Average: 21.4 C.

Mean Minimum Temperature: 11.6 C. Average: 12.2 C.

Mean Temperature: 16.3 C. Average: 16.8 C.

England and Wales Rainfall: 89.9 mm. Average: 72.0 mm.

Midlands Data.

Mean Maximum Temperature: 20.8 C. Average: 21.3 C.

Mean Minimum Temperature: 11.2 C. Average: 11.6 C.

Mean Temperature: 16.0 C. Average: 16.5 C.

Midlands Rainfall: 71.2 mm. Average: 65.3 mm.

Sunshine: 181.0 hours. Average: 192.5 hours.

ⁱ Courtesy T Scholey.

ⁱⁱ The Guardian, 2, 3, and 9 July 2024.

ⁱⁱⁱ The Guardian, 9 July 2024.

^{iv} The Guardian, 13 July 2024.

^v The Guardian, 16 July 2024.

^{vi} The Guardian, 20 July 2024.

^{vii} The Guardian, 23 and 27 July 2024.

^{viii} Monthly Weather Report, July 1924, Meteorological Office, HMSO, September 1924, p. 85.

^{ix} MWR, July 1924, p. 85.

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- ^x The Meteorological Magazine, July 1924, Meteorological Office, HMSO, August 1924, pp. 165 and 168-169.
- ^{xi} Stamford Mercury, 4 July 1824, p. 3, col. 2.
- ^{xii} Stamford Mercury, 2 July 1824, p. 3, col. 2, 3, and 6.
- ^{xiii} Stamford Mercury, 16 July 1824, p. 2, col. 1 and 6.
- ^{xiv} Stamford Mercury, 30 July 1824, p. 3, col. 1.
- ^{xv} Stamford Mercury, 23 July 1724, p. 5.
- ^{xvi} Stamford Mercury, 23 July 1724, p. 8.
- ^{xvii} Hadley Centre, Central England and Midlands, Meteorological Office.