

## Weather Front.

October 2024/1924.

October 2024.

### Observers Notes.

**Mountsorrel:** October was a slightly wetter month than average, but was actually the driest since 2018; many recent Octobers have been exceptionally wet. It was the coolest and dullest since 2020. The month began very wet but turned much drier in the second half as an anticyclone became established from the 22<sup>nd</sup> onwards. Temperatures were unremarkable with the absolute maximum being much lower than in recent years. Storm ashley gave a maximum gust of 42 mph on the 20<sup>th</sup>, but only 4.5 mm of rain.

**Lowdham:** 97.1 hours of sunshine (94% of 1991-2020 average) were recorded at Radcliffe-on-Trent. October 2024 produced the most sunless days since 2020.<sup>i</sup>

**Coton-in-the-Elms:** A mild October, with temperatures slightly above average. However, this was the coolest October since 2020, which indicates how mild recent Octobers have been. There were several cold nights, together with the highest number of ground frost since 2028. The extreme minimum, on the 11<sup>th</sup>, which gave a widespread air frost, was the lowest October temperature, again, since 2018. Rainfall wa slightly below average.

**Middleton:** A uneventful month; coolest and dullest since 2020, driest since 2018, and the foggiest since 2013.

**Ely:** Lowest mean max, and overall mean temperature since 2020, and the lowest mean minimum since 2019. The sixth consecutive October with above average rainfall, but only 1.6 mm fell after the 20<sup>th</sup>.

**Bablake:** 90% of the rainfall total fell in the first 18 days. The dullest January to October since 1993.

**Mickleover:** The mean cloud cover at 0900 GMT was the most for October since 2014.

### Saltfleetby:

10 Day Mean Temperature.			
Date	Max	Min	Mean
1-10	15.9	9.4	12.6
11-20	15.0	6.7	10.8
1-20	15.4	7.8	11.6
21-30	15.0	7.8	11.4

## UK overview<sup>ii</sup>

October saw a mix of settled conditions due to high-pressure systems as well as wet and windy weather from a succession of low-pressure systems, including the first named storm of the 2024/25 season. The month started with wet weather across the Midlands and East Anglia, followed by a brief interlude of settled weather as high-pressure dominated. A major Atlantic low-pressure system arrived on the 6th and brought rain, especially in southern England. A return to clear and settled weather on the 10th and 11th provided good conditions for viewing the Aurora after another solar geomagnetic storm, before slow-moving weather fronts moved in and brought widespread rain to England and Wales. On the 20th, the first named storm of the season, Storm Ashley, arrived and brought heavy rain and strong winds to Northern Ireland, Scotland, and northern parts of England and Wales. Further frontal systems brought heavy rain to Scotland and Cumbria on the 27th, before high pressure returned to close out the month. Overall, October saw above average temperatures, with the UK 0.7°C above the long-term average. There was little regional variation, with only a few areas of western Scotland and northern Wales experiencing temperatures closer to average. Despite a brief spell of below average temperatures early in the month, overall October was a month of mild temperatures for most. October was drier than average, with the UK recording 103.5mm of rainfall, 84% of the long-term average. England, and in particular southern England, were both wetter than average, recording 101% and 103% of the long-term average rainfall, respectively. Sunshine duration was around average for the UK in October, with 89.4 hours recorded (97% of the long-term average). Wales, Northern Ireland and northern England were slightly sunnier than average, while southern England and Scotland were both duller than average. Reference climatology used for calculating anomalies is the period 1991-2020 unless otherwise stated.

## Weather impacts

- **Heavy showers and some thunderstorms on the 7th and 8th led to surface water flooding in southern and northeastern England**
- **The first named storm of the 2024/25 season, Storm Ashley, brought heavy rain and winds to Northern Ireland, Scotland and northern England on the 20th and 21<sup>st</sup>.**

October saw slightly drier conditions than the very wet end to September, but was still changeable in nature, with a mix of anticyclonic and cyclonic regimes. The month started with wet weather across the east Midlands and East Anglia, but with few impacts. An anticyclonic interlude followed, before a major Atlantic low centre brought rain across the UK on the 6th, followed by heavy showers and some thunderstorms in the south on the 7th. Truro was reported to have had several major roads flood due to surface water excess. Widespread heavy rain on the 8th affected southern England, the Pennines and northeast England, with the Tyne and Wear Metro system reporting disruptions due to flooding. By the morning of the 9th, the A1 was reportedly closed just north of Darlington due to the flooding, as well as

the rail line between Darlington and Bishop Auckland. More settled and clear weather on the 10th and 11th provided good conditions for viewing the Aurora after a solar geomagnetic storm affected Earth. However, unsettled conditions returned on the 15th and 16th as slow-moving weather fronts from the Atlantic moved in, bringing widespread rain to southwest England, the west Midlands, Wales, and northwest England. Impacts from these two days of rain were widespread, stretching from Cheshire and Merseyside down to Devon and Cornwall, with Shropshire and Herefordshire amongst the worst affected counties. Among the incidents reported were the closure of rail lines around Crewe and Shrewsbury, a number of vehicles trapped in floodwater across Herefordshire, the closure of the A49 in Shropshire, and homes and schools in Wales and Herefordshire affected by flooding. Also on the 16th, the first signs of a potential major low development were confirmed, and by the 18th the system was named Storm Ashley by Met Eireann, the first named storm of the 2024/25 season. In Scotland, various pre-emptive measures were taken on the transport networks with some early ferry service cancellations to Arran and the Western Isles and speed restrictions announced for several rail lines. The Great South Run, scheduled to take place in Portsmouth on the 20th, was cancelled due to fears that the less strong winds forecast for the south coast could threaten the safety of the course. On the 20th, Storm Ashley delivered a typical range of low to medium impacts across the northwestern half of the UK with maximum gusts generally in the range 60-70mph, though with the most exposed sites in northwest Wales and southeast Northern Ireland recording gusts in excess of 80mph. Across Northern Ireland around 5000 customers were reported to be without power on the afternoon of the 20th. Fallen trees blocked several roads, flights were cancelled, and passengers were reportedly unable to disembark for a time at Belfast City Airport as winds peaked. In Scotland, high waves crashing over the sea defences reportedly curtailed rail services at both Largs/Ardrossan and at Helensburgh. Meanwhile inland, fallen trees and flooding caused numerous issues on the rails and roads with rail services impacted around Glasgow and near Aberdeen. Roads near Aberfeldy and Ballindalloch, Grampian were closed due to fallen trees. In Cumbria, strong winds resulted in almost 1400 customers reportedly without power for a relatively short period, and the A66 trans-Pennine route was reportedly closed for a time due to an overturned HGV. On the 27th, Atlantic weather fronts brought some heavy rain to southwest Scotland, Cumbria and northwest Wales. There were a few very localised impacts in southwest Cumbria, especially around the Ulverston area. As the month closed out, pressure was building across the UK at the start of what looked like an extended anticyclonic spell that would last well into the first half of November.

## **October 1924.**

### **Observers Notes.<sup>iii</sup>**

**Copdock (Suffolk):** A very wet and sunless October. Temperature slightly above normal.

**Eye (Northants):** Very wet; one of the wettest Octobers since 1881.

**Gorleston-on-Sea:** The early part of the month was mainly fine. The absence of fog was very marked.

**Isleworth:** Heavy rainfall, otherwise an average October.

**Leyland (Lancs.):** A wet month.

**Newport (IOW):** A wet month free from frosts.

**Skegness:** Wettest October since 1907. Dull month with light winds at first, increasing towards the end.

**Walton-on-Naze:** Precipitation in heavier falls than usual in October. A notable absence of gales.

**Welshpool:** Another wet month. Severn out in flood on several occasions.

**Berwick-on-Tweed:** A remarkably calm month with a large share of fog.

**Branxholme (Hawick):** Showery days but a good October on the whole.

**Fort William (Inverness):** A fairly good October on the whole.

**Laggan (Inverness):** Mild temperatures and high humidity. Practically no frost during the month.

**University College, Cork:** A wet month with high relative humidity, and temperatures above normal.

**Dublin City:** A month of average mean temperatures and of frequent, but not heavy, rainfall.

**Derby/Burton-on-Trent:**<sup>iv</sup> The statistics for 100 years ago at Derby and Burton-on-Trent suggest a very wet October. For some of the observing sites, but not for all, it was the wettest October since 1906, totals ranged from 90 to 125 mm. Temperatures varied widely from a maximum around 21 C on the 12<sup>th</sup> and 13<sup>th</sup>, to a minimum of around -1 C on the 24<sup>th</sup> and 25<sup>th</sup>. The overall mean in the area was about 9.7 C, compared to the CET mean of 10.1 C.

**Skegness:** Total rainfall, 4.07 in, 103.4 mm, 149%.

**Louth, Westgate:** Total rainfall, 3.91 in, 99.3 mm, 121%.

**Belvoir Castle:** Total rainfall, 4.40 in, 111.8 mm, 163%.

**Mickleover, Clyde House:** Total rainfall, 4.02 in, 102.1 mm, 149%.

**Buxton, Devon Hospital:** Total rainfall, 7.18 in, 182.4 mm, 146%.

## Overview of October 1924<sup>v</sup>

Apart from a few periods of fine, dry, weather the month was generally wet and unsettled. Most of the rain occurred in the west during the first few days, with fine sunny weather, and early morning mist or fog in the eastern counties. On the 4<sup>th</sup> a depression over the Bay of Biscay moved north, and rain became general over the whole country. On the 7<sup>th</sup> another depression moved east, up the English Channel, and produced high winds and gales, together with heavy rain, in south-western England. The weather remained unsettled until the 12<sup>th</sup> when an anticyclone, over central Europe, spread across the country bringing dryer weather for about a week. Sunshine reports of over 9 hours duration were noted on several days, particularly on the 13<sup>th</sup> and 14<sup>th</sup> when temperatures rose above 70 F [21 C] at many sites, with mist and fog occurring locally at night and in the early morning. On the 18<sup>th</sup>, a further depression moved in from the Atlantic bringing more unsettled weather over the whole country, and heavy rain in the west spreading to the east on the 21<sup>st</sup>. On the morning of the 22<sup>nd</sup> high winds and gales were reported along south-eastern coasts. An anticyclone then developed bringing settled conditions for a few days, during which the lowest temperatures for the month were reported. During the last few days there was a renewal of mild, unsettled weather, and further heavy rain.

Temperatures were above average through out the country, the largest deviation being +2.4 F [+1.3 C] in eastern England, and the smallest being +0.3 F [+0.2 C] in eastern Scotland. The period 12<sup>th</sup> to 18<sup>th</sup>, and 26<sup>th</sup> to November 1<sup>st</sup>, were the warmest.

A number of ground frosts were reported throughout the month, the lowest being reached during the period 19<sup>th</sup> to 25<sup>th</sup>; a few stations reported as many as 11 ground frosts. Grass minima of 17 F [-8 C] at Achnaschellach on the 22<sup>nd</sup>, 19 F [-7 C] at Inverness on the 22<sup>nd</sup> and Wisley on the 24<sup>th</sup>, and 20 F [-6.7 C] at Balmoral on the 22<sup>nd</sup> were reported. The MWR noted that these temperatures were low for the time of year.

Rainfall was below average in north-west England, northern and western Scotland, and northern and southern Ireland, the deficiency being 75% of normal, while at Colmonell (Ayrshire) the rainfall total was only 48%. Over the greater part of England and Wales, the eastern coast of Scotland, and much of western and central Ireland, the rainfall total was in excess of 100%, while in southern and eastern England, and the Midlands, rainfall was greater than 150%, and in the area around Dundee 177% was noted.

The week 5<sup>th</sup> to 11<sup>th</sup> showed an excess of rain throughout the country, except for southern Ireland, while the last week of the month was very wet everywhere, particularly in south-west England where 300% of normal was noted. The week 12<sup>th</sup> to 18<sup>th</sup> was the driest, being exceptionally deficient in some areas. More than 25 mm fell on the 7<sup>th</sup> over a broad area from Land's End to Worcestershire and Warwickshire while over much of Cornwall, more than 50 mm was reported causing serious flooding in some places. The largest daily fall ever recorded at Falmouth was 83 mm on the 7<sup>th</sup>, Penzance recorded 82 mm, and at Newquay, on

the same day 65 mm was recorded which was the largest daily fall noted at Newquay since records began in January 1893. Similarly, on the same day, St Austell recorded 88 mm, and was the wettest day on record since 1865. At Skegness, on the 21<sup>st</sup>, 25 mm was recorded, and was the greatest daily rainfall in October since 1899.

Snow fell on the Cairngorms on the 5<sup>th</sup>, 6<sup>th</sup>, and 21<sup>st</sup>, and at Baltasund (Shetland) on the 20<sup>th</sup> and 21<sup>st</sup>.

Thunderstorms were reported at some Scottish stations on the 6<sup>th</sup>, and some Irish stations on the 12<sup>th</sup> and 13<sup>th</sup>. On the 30<sup>th</sup> a thunderstorm, with hail, occurred in south-eastern England, however, thunder was most frequent in eastern England and the Midlands, Cambridge reporting 3 days of thunder.

Sunshine exceeded the average in north-east and north-west England, and eastern Scotland. Northern Ireland experienced average sunshine, but elsewhere below average duration was noted.

The amount of fog varied considerably. Many stations submitted nil returns, while others reported as many as 7 to 13 days; Stirling had 14. Fog was rather frequent in Scotland, particularly near the middle of the month, there being very dense fog in the Firths of Forth and Tay from the 13<sup>th</sup> to 16<sup>th</sup>.

October 1924 was warm, wet in the east and south, and deficient in sunshine, except in the north.

### **The World<sup>vi</sup>**

Over western Europe winds were mainly from the south or south-west while, over eastern Europe winds were from the south-east. This resulted in above average rainfall in the west and below average in the east. Temperatures were above average over the whole of Europe, the greatest being at Haparanda [Sweden] at 7.7 F [4.3 C]. The first fortnight was generally unsettled, after which a few fine days with local mist, or fog, was reported. It is understood that the Zeppelin ZRS 3 took off from Germany en-route to the USA. The flight started under ideal conditions over Europe, but adverse winds were encountered after leaving the Azores. A period of fine days interspersed with stormy days followed, including gales and falls of heavy rain. On the night of 21<sup>st</sup> and 22<sup>nd</sup> a Swedish steamer was wrecked in a gale which affected the eastern Atlantic and North Sea. Unfortunately rescue was impossible due to the heavy seas. Snow was reported in Russia, Iceland, and Switzerland; two feet of snow fell at Santis [Alpenstein Massif, NE Switzerland, height 2,501 meters AMSL] on the 30<sup>th</sup>. In France, floods were reported from rising river levels, and from inundations from the sea, along the English Channel coast. At the end of the month the Rhine and Meuse rivers were in flood, which stopped river traffic. In the Mediterranean the weather was mainly fair, with temperatures around 80 F [27 C], but there were some heavy falls of rain, and a gale off Sicily on the 7<sup>th</sup>.

The floods in India, reported last month, began to subside during the early part of October. The rains, for the week ending the 15<sup>th</sup>, were heavy in the United Provinces and in the Central provinces [roughly north-east Mumbai to the Hymalayas]. However, in the north-west, [the Arabian Sea coast and Parkistan], eastern India [the Bay of Bengal], Mysore and Madras [the southern tip of the sub-continent] the rainfall continued to be “scanty”. By the 22<sup>nd</sup> rain was generally normal for the time of year. In eastern Siberia the river Amur was in flood having risen 12 feet [nearly 4 meters] above normal, and caused the death of 400 people. Typhoons, which caused considerable damage and loss of life, were reported from the Philippines on the 8<sup>th</sup>, and the coast of Annam [Gulf of Tong King] on the 23<sup>rd</sup> and 24<sup>th</sup>.

The Canadian crop harvest was unfavourable as damage had been caused by rain, which delayed the threshing of wheat. Damage had also been caused, in some places, by frost. At Mantua (Cuba), and Nicaragua, on the 20<sup>th</sup>, torrential rain, and flooding, destroyed buildings and caused loss of life. In Cuba the tobacco crop suffered.

In Brazil the rainfall was below average over the whole country, particulalry in the central and southern districts, being 24 mm and 86 mm below normal respectively. Fewer anticuclones had passed across the country than in recent months but, it is understood, that the “continental depression was more active”. There was however an improvement in the crops owing to the small amount of rain. At Rio de Janiero the mean temperature was 0.7 F [0.4 C] below average, and maxima during the month were unusually low.

#### **Central England Data.<sup>vii</sup> (Averaging period is 1891 to 1920.)**

Mean Maximum Temperature: 13.0 C. Average: 12.7 C.

Mean Minimum Temperature: 7.2 C. Average: 6.1 C.

Mean Temperature: 10.1 C. Average: 9.4 C.

England and Wales Rainfall: 132.7 mm. Average: 102.4 mm.

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

Midlands Mean Maximum Temperature: 12.9 C. Average: 12.7 C.

Midlands Mean Minimum Temperature: 6.1 C. Average: 4.8 C.

Midlands Mean Temperature: 9.5 C. Average: 8.7 C.

Midlands Rainfall: 110.8 mm. Average: 74.3 mm.

#### **Central England Data 2024 (Provisional) (Averaging period is 1991-2020).<sup>viii</sup>**

Mean Maximum Temperature: 14.8 C. Average: 14.3 C.

Mean Minimum Temperature: 8.1 C. Average: 7.5 C.

Mean Temperature: 11.5 C. Average: 10.9 C.

England and Wales Rainfall: 102.5 mm. Average: 102.9 mm.

**Midlands Data.**

Mean Maximum Temperature: 14.5 C. Average: 13.9 C.

Mean Minimum Temperature: 7.5 C. Average: 6.8 C.

Mean Temperature: 11.0 C. Average: 10.4 C.

Midlands Rainfall: 82.1 mm. Average: 81.3 mm.

Sunshine: 96.9 hours. Average: 99.9 hours.

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<sup>i</sup> Courtesy T Scholey, by email.

<sup>ii</sup> Monthly Weather Summary, October 2024, Meteorological Office, HMSO, November 2024, pp. 1-3.

<sup>iii</sup> Monthly Weather Report, October 1924, Meteorological Office, HMSO, 4 December 1924, p. 127.

<sup>iv</sup> D J Stanier, by email, 10 November 2024.

<sup>v</sup> Monthly Weather Report, October 1924, Meteorological Office, HMSO, 4 December 1924, p. 127.

<sup>vi</sup> Meteorological Magazine, October 1924, Meteorological Office, HMSO, November 1924, pp. 248-249.

<sup>vii</sup> Hadley Centre, Central England and Midlands, Meteorological Office.

<sup>viii</sup> Regional Values, MWR, October 2024, Meteorological Office, HMSO, November 2024.