



## Weather Front.

November 2023/1923

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### Observers Notes.

**Saltfleetby:** Strong ESE winds all day on 13<sup>th</sup>, gust of 47 mph. On the 30<sup>th</sup>, a few minutes of wet snow flurries late am, driven by strong north-easterlies. Cold spell during last week, with moderate frost at the end.

10 Day Mean Temperature.

Date	Max	Min	Mean
1-10	12.5	6.2	9.3
11-20	12.1	4.1	8.1
1-20	12.3	5.1	8.7
21-30	8.5	2.2	5.3

**Derby:** Lowest pressure since barograph installed in 1994 (960 mb on 2<sup>nd</sup>).

**Ely:** Pressure of 957mb on 2<sup>nd</sup> lowest in station record of 53-years, and mean pressure for the month, 1001 mb, is the lowest of any month this year.

**Pitsford:** An unsettled start with the first few days dominated by Storm Ciaran. Remaining unsettled through the first fortnight with further named storms passing to the north and south. The month ended cold, but dry.

**Mickleover:** Snow grains falling early on 30<sup>th</sup> left only a minimal covering. Barometric pressure of 965 mb, at 0900 on 2<sup>nd</sup>, was the lowest for November on record.

**Bablake:** Only 8 November months have recorded more sunshine than 2023 since 1894, 1938, 1972, 1977, 1985, 1989, 1996, 2005, 2006.

**Coton-in-the-Elms:** Overall, a near-average month in both temperature and rainfall.

**Lowdham:** Sunshine recorded at Radcliffe-on-Trent was 95.9 hours, which is 134% of 1991-2020 average

## UK overview

The first half of November was unsettled and stormy at times with the ongoing influence of Atlantic low-pressure systems and strong winds and heavy rain of most note. Storm Ciaran on 1st to 2nd was an exceptionally severe storm for the Channel Islands and northern France but fortunately a 'near miss' for southern England. Further south, winds were comparable to the 'Great Storm' of 16 October 1987. Storm Debi also brought some very strong winds on 13th, particularly affecting Northern Ireland, North Wales, and north-west England. These storms contributed to mounting rainfall accumulations through a very wet autumn in some areas. 30 to 50mm of rain fell across southern England from storm Ciaran and a further 30 to 50mm across Northern Ireland and parts of north-west England from storm Debi - with over 100mm across upland areas. There were some incursions of colder air at times with  $-7.1^{\circ}\text{C}$  recorded at Altnaharra, Sutherland on 16th, and frosts as far south as Kent with  $-0.8^{\circ}\text{C}$  at East Malling, Kent on 12th, though nothing extreme for the time of year. In contrast, the second half of November saw rather quieter autumnal weather with a continued mild Atlantic influence until the last week. However, from 24th, a northerly airflow introduced drier but much colder weather, with some hard frosts (for example  $-4.8^{\circ}\text{C}$  at Hurn, Dorset on 8th), and some wintry precipitation, particularly in the north and east. Temperatures for November were near average overall (anomaly  $-0.1^{\circ}\text{C}$ ), slightly below across northern Scotland. Despite the wet first half of the month, rainfall totals were near average across much of England, Wales, and eastern Scotland, although it was wetter than average for some southern counties. Western Scotland and Northern Ireland were drier than average. Overall, the UK received slightly above-average sunshine hours (112%), but with a variable pattern: west parts of Wales and south-west England (for example) were notably dull whereas for the bulk of the rest of England this was a fairly sunny month.

## Weather impacts

### • Flooding, wind, and coastal impacts, including storms Ciaran and Debi.

Although the UK narrowly avoided the strongest winds from storm Ciaran, the storm did still cause significant impacts to southern coastal counties on the 2nd. As many as 150,000 properties lost power for a time on the 2nd. The port of Dover was closed to all traffic for several hours with cross-Channel ferry services suspended. Many trees were brought down across south-west and south-east England. Large waves battered the South Coast with several vehicles swept into the sea and a major incident declared in Hampshire and the Isle of Wight. Hundreds of schools were closed, and flights and rail services were cancelled. Heavy rain from storm Ciaran also caused some localized flooding impacts with flooding on several motorways and rail disruption across East Anglia and south-west England. Parts of southern England were affected by further flooding in early November due to the ongoing unsettled weather, with groundwater flooding an issue in parts of Dorset, and many rivers having burst their banks. Storm Debi on 13th brought the strongest winds to coastal areas of Northern Ireland and

north-west England. A number of roads in Northern Ireland were blocked by fallen trees and further roads also affected by floodwater. In Cumbria, several thousand homes were without power for a time and in Scotland localized flooding caused some flooding to roads and disruption to rail services.

## November 1923.

### Observers Notes.

**Belper (Derbyshire):** On only two occasions in the last 43 years has the mean November temperature been within one degree of the present month [1923 mean- Belper school 36.4 F (2.4 C), Quarry Bank 36.9 F (2.7 C)]

**Copdock (Suffolk):** The coldest November in 22 years observations here, but not much colder than November 1919. Rainfall above average, sunshine markedly so, and a considerable amount of fog.

**Hodsock (Nottingham):** a very cold and unsettled month; only 1878, 1910, and 1919 have had a lower mean temperature. A moderate excess of rain and sunshine, no measurable snow.

**Leyland (Lancashire):** The wettest November on record.

**Malvern:** Very low temperature.

**Meltham (Yorkshire):** The wettest November since 1888.

**Newquay:** Extreme minimum as low as that of November 1919. Sunshine 8 hours more than in previous record for this month (1909, and 100 hours more than the lowest (1917).

**Rothamsted:** The sunniest, and the coldest November on record.

**Skegness:** The wettest November [2.43 in, 61.7 mm or 124%], and the sunniest [86 hours] since 1910.

**Torquay:** Only one equally cold November during the past 33 years (1919). Rainfall below average, sunshine much above.

**Drumlanrig (Dumfries):** Cold, backward weather. Outdoor work at a standstill.

**Ullapool (Ross and Cromarty):** The first half of the month very wet and stormy, with snow at high altitude. The last half quiet with frost and snow.

**Dublin:** A very severe wintery month. The mean temperature, 40 F [4.4 C], was however not a record, November 1878 had one of 28.2 F [-2.1 C]. Very constant westerly winds.

**Derby/Burton-on-Trent:** Rainfall over the area was in the narrow range of 50-57mm, which was slightly above the 30-year average (1891-1920), however, it was a notably cold month.

Air frost was very frequent - twenty-one instances at Burton on Trent. The temperatures managed a high maximum of 16/17C on the 3rd, but for the most part, values were below normal. Minima fell to around -7C on the 8th and again -7C/-8C on the 25th and 27th. At Byrkley Gardens one day failed rise above 0C.

The overall mean was around 2.8C (CET was 3,.3C) - there were a number of other Novembers in the 1915-1925 period which were of a similarly cold nature, but we have seen such low overall means for November since then, and there have been some notably cold spells in more recent Novembers, especially 2010.

**Louth (Westgate):** November 1923 rainfall total was 91.7 mm.

**Brocklesby:**

10 Day Mean Temperatures			
Date	Max	Min	Mean
1-10	47	33	40
11-20	44	34	39
1-20	45	33	39
21-30	37	28	32

### **United Kingdom Overview, November 1923.<sup>i</sup>**

The mild and unsettled weather of October continued for the first few days into November, with maxima over 60 F [15.5 C]; the highest being 65 F [18 C] at Cromer on the 3<sup>rd</sup>. The main feature of the weather however, apart from a short warmer spell around the middle of the month, was the cold, with much frost at night, and many sunny days.

A depression passed to the north of Scotland into Scandinavia on the 3<sup>rd</sup> producing high winds and gales around the coast, local heavy rain, and snow or sleet in the north. To the rear of the depression a northerly airstream became established which, in turn, allowed a gradual decrease in temperature; on the night of the 7<sup>th</sup>/8<sup>th</sup> some screen minima were below 20 F [-7 C], for example a minimum of 18 F [-8 C] was recorded at Tenbury. On the 9<sup>th</sup> a new depression moved south from Iceland into France with rain or sleet in association. From the 12<sup>th</sup> to 18<sup>th</sup> a series of depressions produced gales and heavy rain, with floods in Lancashire, Cheshire, and North Wales, as well as other areas. There were showers of hail, sleet, and snow which fell repeatedly in northern and western areas. Around the 25<sup>th</sup> there was intensely cold and foggy weather. A depression near the Netherlands produced snow and sleet in the London and south-eastern areas on the 28<sup>th</sup>, thunderstorms were also reported. A note at the end of the opening paragraph of the Monthly Summary to the Monthly Weather

Report suggested that “the association of an excess of rain, sun, cold, and fog in November is very unusual.”

The mean temperature for each region of the country was well below normal, the largest departure from average being -5.8 F [-2.9 C] in south-east England (mean temperature 39 F [3.9 C]), and the smallest -3.5 F [-1.7 C] in northern Scotland (mean temperature 38 F [3.3 C]). The coldest period was from the 25<sup>th</sup> to the end of the month; the mean temperature for south-east England during this period was 10.8 F [5.4 C] below average. The average screen minimum for the last seven days in some parts of the country was below 25 F [-4 C], and at a couple of stations it was around 20 F [-7 C]. In most places the mean was slightly warmer than the cold November of 1919, but some places were either equal or a little below average. At Kew the long period of frost during this month had not been recorded since 1890 while, at Rothamsted, the temperature did not rise above 38.9 F [3.8 C] during the last nine days, and on the 27<sup>th</sup> the screen minimum was 12 F [-11 C], the grass minimum being 11 F [-12 C]. At Copdock the screen and grass minima were 17 F [-8 C] and 12 F [-11 C] respectively, the lowest in twenty-two years of observations. At Totland Bay the minimum of 23 F [-5 C] on the 26<sup>th</sup> was the coldest November night since the 28<sup>th</sup> and 29<sup>th</sup> November 1890; apart from these dates it was the coldest night in thirty-eight years. Aircraft observations at South Farnborough indicated that the mean temperature at 15,000 feet was 19 F [9.5 C] below average. Ground frosts were numerous, with many stations reporting over 20, Hull having 28. The lowest temperatures recorded over snow were 8 F [-13 C] at Balmoral on the 15<sup>th</sup>, and 9 F [-12 C] at Renfrew on the 24<sup>th</sup>.

Rainfall varied over the country. Over 150% was noted over a wide area of northern England, the north Welsh coast, and a small area of north-eastern Scotland. England, south of the Wash, eastern Wales, central Scotland, and southern and eastern Ireland were below average, while the Isle of Wight and the extreme south of Hampshire reported less than 50% of average. The rainfall was heaviest on the 12<sup>th</sup> and 13<sup>th</sup> with 100 mm recorded at Llyn Fawr (Glamorgan) on the 13<sup>th</sup>, 90 mm at Oughtershaw (Yorkshire) on the 12<sup>th</sup>, and 73mm at Penrhyn Quarry (Caernarfon) on the 13<sup>th</sup>. At Dungeon Ghyll (Westmoreland [now part of Cumbria]) 153mm were recorded in the 48 hours ending 0900 on the 14<sup>th</sup>. Flooding, previously noted, was caused by the excessive rainfall. The Liverpool correspondent of the “Times” noted that the floods at Sale, on the Mersey, “were the most severe within memory and that the water was eleven feet deep at Sale Priory”.<sup>ii</sup> At Clitheroe, 300 houses were flooded, and at Bury, fire engines had to be called to pump water out of houses. Rain was also said to have fallen continuously for 48 hours at Porthmadoc; the streets being flooded to a depth of two feet.<sup>iii</sup>

Snow was reported generally throughout the country; at West Linton snow fell on 18 days, at Leadhills, snow was lying for 21 days, and on 20 days at Braemar. On the 15<sup>th</sup> a severe snowstorm saw 4 in [10 cm] of lying snow at Galashiels and 20 in [50 cm] at Braemar. A further fall of snow on the 28<sup>th</sup> in south-east England lay for 3 days on inland hills.

A thunderstorm was reported in west, and south, Scotland on the night of the 3<sup>rd</sup>/4<sup>th</sup>. Local storms were also reported in various parts of the country, with a few stations recording as many as four days of thunder. Hail showers were noted frequently, particularly in more northern areas; Markree and Malin Head recording 12 days, and Liverpool, Stonyhurst, and Redruth 11 days.

Sunshine was above average throughout the country. The largest mean daily departure from average was +1.43 hours in the Channel Isles, and the smallest +0.32 hours in northern Scotland. The week 4<sup>th</sup> to 10<sup>th</sup> was the sunniest generally. At Torquay a total of 124 hours was the highest for November for 31 years.

Fog was reported generally. Southampton had 24 days of fog, Geldeston and Nottingham 10 days, while several other stations noted more than 10 days. The foggiest periods were the 6<sup>th</sup>, 9<sup>th</sup>, and 24<sup>th</sup> to 27<sup>th</sup>. On the 25<sup>th</sup> a dense blanket of fog lay over southern England stopping shipping in the Thames and Southampton Water. It also stopped aircraft movements from the continent. It should be noted that very few stations recorded "no fog".

### **Europe and the Rest of the World.**

In Western Europe storms were the most significant aspect of the weather during the early part of November. On the night of the 4<sup>th</sup> a severe gale did much damage in Denmark and Slesvig Holstein. From the 10<sup>th</sup> to the 14<sup>th</sup> heavy rain was reported in the southern Rhone valley, causing much flooding and, from the 22<sup>nd</sup> to the 28<sup>th</sup>, very cold weather affected Belgium, France, and Italy, with heavy falls of snow interfering with rail traffic, and leading to a fatal bus accident in Italy. During the latter part of the month there was heavy rain in Spain, producing flooding in Seville. Heavy rain in Italy, together with melting snow, which had fallen during the cold spell, resulted in flooding in the Scalve valley, part of the Italian Alps, which also burst the dam holding back the artificial Gleno Lake. "A wall of water, estimated at 90 feet deep, swept down the valley, doing enormous damage, while the loss of life appears to have exceeded 300."<sup>iv</sup>

Around the 29<sup>th</sup> heavy rain was reported in the hills near Aswan, Egypt, which flooded the Nile Railway, and interrupted communications.

On the 18<sup>th</sup> very heavy rain caused a breach in the east coast section of the Bengal-Nagpur railway.

On the 20<sup>th</sup> a typhoon swept SW over the island of Luzon, and the Visayas Islands, in the Philippines, causing considerable damage; Manila was partly underwater.

Rainfall in Brazil was slightly above average in the north, slightly below in the centre, and in the south still scarce. The average was 45 mm below normal. The weather was generally favourable for the crops, except for the sugar cane in the north.<sup>v</sup>

**Central England Data.<sup>vi</sup> November 1923 (Averaging period is 1891 to 1920.)**

Mean Maximum Temperature: 6.3 C. Average: 9.0 C.

Mean Minimum Temperature: 0.3 C. Average: 3.4 C.

Mean Temperature: 3.3 C. Average: 6.2 C.

England and Wales Rainfall: 92.3 mm. Average: 82.2 mm. 112%.

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

Midlands Mean Maximum Temperature: 6.0 C. Average: 8.6 C.

Midlands Mean Minimum Temperature: -0.7 C. Average: 2.2 C.

Midlands Mean Temperature: 2.7 C. Average: 5.4 C.

Midlands Rainfall: 68.7 mm. Average: 63.5 mm. 108%.

**November 2023 (Provisional)****Central England (Averaging period is 1991-2020).**

Mean Maximum Temperature: 10.4 C. Average: 10.3 C.

Mean Minimum Temperature: 4.4 C. Average: 4.5 C.

Mean Temperature: 7.4 C. Average: 7.4 C.

England and Wales Rainfall: 127.8 mm. Average: 106.1 mm. 120%

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<sup>i</sup> Monthly Weather Report, November 1923, Meteorological Office, HMSO, December 1923, p. 141.

<sup>ii</sup> Meteorological Magazine, December 1923, Meteorological Office, HMSO, December 1923, p. 269.

<sup>iii</sup> Met Mag, December 1923, p. 268.

<sup>iv</sup> Met Mag, December 1923, p. 268.

<sup>v</sup> Met Mag, December 1923, p. 269.

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