



## Weather Front

### November 2021/1921

#### November 2021

##### Observers Notes.

**Desford:** Dry and very mild until a cold snap at the end of the month, with some early snow, and very cold minima. The coldest November night since and the deepest snowfall since 2005. The 27<sup>th</sup> saw sleet turning to snow at 08.00 and gave a 2 cm covering by 1000, thawing through the day. First November snowfall since 25<sup>th</sup> November 2017. Steady moderate snow falling on the 29<sup>th</sup> between 1500 and 1800 gave a 4 cm covering, with temperature falling sub-zero under clear skies by evening, and widespread ice. Deepest lying snowfall since 29<sup>th</sup> November 2005, also 4 cm. Overnight minima on 29<sup>th</sup>, with 4 cm of snow cover, was -4.1 C. The coldest November night since 29<sup>th</sup> November 2010 when the minimum was -8.4 C.

**Mickleover:** The driest November on the station record and, locally, since 1962. The maximum snowfall (29<sup>th</sup>) was 5.5 cm at 0900, but no trace of snow on the 30<sup>th</sup>. The lowest minimum temperature was the lowest for November since 2010 and the second lowest since 1987.

**Mountsorrel:** A very dry and, mostly quiet, month, apart from Storm Arwen at the months end. It was also the driest November on the 20-year record, and the driest November recorded in Leicestershire since 1956. The very cold Arctic air, introduced by Storm Arwen, saw snow falling in the afternoon of the 28<sup>th</sup>; snow depth was 3 cm.

**Middleton:** The driest November since 2004 and the 5<sup>th</sup> on record. 18.5 cm of snow on the 27<sup>th</sup> was the largest since 2010.

**Pitsford:** Generally dry for the most part, and mild, but turning colder during the last week, with some notable rain linked to Storm Arwen.

**Lowdham:** 11 rain days are the lowest on the station record (1991), and in the local area since 1989.

## **Weather impacts<sup>i</sup>**

November began unsettled, with reports of localised surface water flooding on the 1st across Merseyside, Lancashire, and Greater Manchester. In Northern Ireland there was flooding near Glenavy, County Antrim and in parts of the Ards Peninsula. On the 7th there were some impacts from strong winds reported in Aberdeenshire: the A93, A981 and some minor roads were blocked by fallen trees. No further reports of impacts arose until the last six days of the month. Following the naming of Storm Arwen by the Met Office, including a very rare red wind warning for eastern coastal areas of Scotland and Northern England as these were the areas expected to see the worst, many impacts were experienced on the 26th and 27th. Regrettably, three deaths were reported due to falling trees in Aberdeenshire, Antrim, and Cumbria. In Scotland, Traffic Scotland, the Police and ScotRail took mitigating action ahead of the strongest winds by closing a part of the A1, warning HGV drivers to take an alternative route to the A1 and warning passengers of potential delays on the East Coast Mainline due to speed restrictions. Fallen trees caused widespread disruption on the roads in Scotland, including many A roads, and the snow gates were closed at Braemar and Glenshee. ScotRail reported disruption and cancellations. Some councils temporarily withdrew road services staff due to safety concerns, but with so many roads being blocked by trees they resumed clearing the roads in the early hours. There were numerous highvoltage faults reported and over 120,000 properties were left without power, with 17,000 still without power by month-end. Damage was reported to buildings including Lanark United FC's ground, chimneys and roofs in Dunbar, Eyemouth, and Coldstream. A large area of trees was flattened in a forest near Kinbuck, Stirling. Northern Ireland suffered some delays to rail services, and fallen trees blocked roads. In Wales too, roads and railways were disrupted, with several train services being cancelled on the 27th and delays continuing into the 28th; almost 67,500 customers lost power during the storm. North-west England saw nearly 74,000 properties without power, some for over 2 days. Many trees were brought down which caused disruption to road and rail travel. Cumbria Police declared a major incident because of the power outages and impact on communities. Snow closed Trans-Pennine routes, with 120 HGV drivers stuck on the M62. Speed restrictions were placed on railway lines, numerous roads were blocked due to fallen trees, and there were some reports of damaged buildings. In north-east England nearly 220,000 properties lost their electricity supply, some for over 3 days, with numerous fallen trees and damage to a number of homes. Some holiday caravans were damaged at coastal sites. Many schools were closed either pre-emptively or because of structural damage caused by the storm. South-west England had 78,000 customers without power for some time on the 27th, fallen trees blocked roads, and a person was taken to hospital in the Bristol area after being hit by a falling tree. The last three days of November brought some low-impact ice warnings which hindered ongoing recovery efforts.

**November 1921.**

## Observers Notes.

**Lenton Fields (Nottingham):** Extraordinary lack of south-west winds.

**Hodstock Priory (Nottingham):** The first cold month after thirteen continuous warm ones; much easterly wind.

**Leyland (Lancashire):** Rainfall all below average. A cold month.

**Southport (Lancashire):** South-easterly winds more frequent than in any previous November during 51 years' observations.

**Ipswich (Suffolk):** The minimum temperatures on the night of the 27<sup>th</sup>-28<sup>th</sup> were, [-6 C] in the screen and, on the grass [-10 C], are the lowest I have ever recorded in November.

**Bude (Cornwall):** Remarkable for the prevailing wind to be East.

**Carrigoran (Co. Clare):** We have had a remarkable continuation of winds from easterly points.<sup>ii</sup>

**Derby/Burton on Trent:** The month was a little drier than normal although, in the context of 1921, it was a moderately wet month. The group of Derby gauges yielded 40-50 mm typically, while those in the Burton area were more in the 45-55 mm range. Temperatures varied between -5 C or -6 C on the 9<sup>th</sup>, and 13 C to 16 C on the 4<sup>th</sup>. Cold days on the 8<sup>th</sup> and 30<sup>th</sup> saw maxima of around 2 C and 0 C respectively. For Burton that might imply foggy conditions prevailing, but no confirmation is available. There were thirteen ground frosts in Burton during the month.

## Overview of November 1921.

On 1<sup>st</sup> November the depression, which had produced the unsettled weather in the north of the country, had moved east into Scandinavia. It was accompanied by severe gales, hail, and snow showers, particularly in the Baltic and the North Sea, storm force 11 being reported at Bornholm on the south coast of Sweden. The gales caused wrecks and loss of life in the North Sea, and "phenomenally" high tides in the Thames Estuary<sup>iii</sup>. A complicated pressure distribution was left over the British Isles average, resulting in generally unsettled weather. Between the 2<sup>nd</sup> and 5<sup>th</sup>, in excess of 30 mm of rain was recorded at Kew, which was more than half of the monthly average. A second depression was noted off the north-west coast of Ireland on the 5<sup>th</sup>, and moved rapidly east across Central England and, by 0700 on the 6<sup>th</sup>, was positioned off the East Anglian coast. Once again gales and heavy rain were recorded, as well as local thunderstorms. Cross channel shipping and telegraphic services were severely disrupted, and wrecks were reported in the North Sea and English Channel. In the rear of this depression northerly winds produced showers of hail, sleet, and snow. Cold weather continued over England through to the middle of the month with, in some places, snow lying several inches deep. Frost occurred over many nights, the worst being on the 8<sup>th</sup> when a

screen minimum of [-11 C] was recorded at Shotwick, near Chester. On the 10<sup>th</sup> and 13<sup>th</sup> [-4 C] was recorded at Kew, the lowest for early November. During this period, the north and west came under the influence of an Atlantic depression on the 9<sup>th</sup>, and a typical winter distribution of temperatures covered the country for several days. A south-westerly airstream produced very mild conditions in the west with temperatures above [12 C] but, in the south-east, which was under the influence of a continental anticyclone centred over Germany and the Baltic, easterly winds and frost prevailed, with ice skating being enjoyed in many parts of England. From the 13<sup>th</sup> to the 17<sup>th</sup> considerable rain and strong winds were noted in the south-west and, a secondary low, in the region of the Scilly Isles, on the 14<sup>th</sup> and 15<sup>th</sup> produced considerable heavy rain over a wide area. Eventually a large anticyclone over northern Scandinavia influenced the weather over the whole of the British Isles and produced an easterly airstream, a good deal of cloud, and showers along the east coast. For the remainder of the month the west was under the influence of Atlantic depressions but the east, being under an anticyclonic regime, continued dry, cold, and generally fair. Thick fog prevailed locally, especially in industrial areas. London suffered severely on the 27<sup>th</sup> and 28<sup>th</sup>. The fog was one of the thickest and most persistent with traffic being dislocated together with considerable inconvenience. Along the south-east coast however, brilliant sunny weather was enjoyed in stark contrast to London.<sup>iv</sup>

### **Rest of the World.<sup>v</sup>**

On the night of the 17<sup>th</sup> two tornadoes occurred in different parts of Arkansas, probably in the south-east quadrant of a depression which passed across Texas on that day. Twelve people were killed and over thirty injured. On the 24<sup>th</sup> a storm over Lake Ontario caused the wreck of the steamer "City of New York" off Stoney Point, Lake Ontario, with the loss of nine lives.

A telegram, dated the 11<sup>th</sup>, reported that rains had checked bush fires in New South Wales; these fires had been serious during the drought.

A message from Brazil noted that, during November, there had been an unusual frequency of high pressure associated with cold winds from the south, particularly over the southern states. Drought had seriously affected the crops in the centre and south, especially cotton, rice, sugar, and maize, and had also affected the estimate for the coffee crop of the following year.

### **1921 Central England Data.<sup>vi</sup> (Averaging period is 1891 to 1920.)**

Mean Maximum Temperature: 7.3 C. Average: 9.3 C.

Mean Minimum Temperature: 2.0 C. Average: 3.4 C.

Mean Temperature: 4.6 C. Average: 6.2 C.

England and Wales Rainfall: 70.9 mm. Average: 82.2 mm.

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

Midlands Mean Maximum Temperature: 6.9 C. Average: 8.6 C.

Midlands Mean Minimum Temperature: 0.9 C. Average: 2.2 C.

Midlands Mean Temperature: 3.9 C. Average: 5.4 C.

Midlands Rainfall: 53.6 mm. Average: 63.5 mm.

**2021 Central England (Averaging period is 1991-2020) (Provisional).**

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

Mean Minimum Temperature: 4.1 C. Average: 4.5 C.

Mean Temperature: 7.3 C. Average: 7.4 C.

England and Wales Rainfall: 43.2 mm. Average: 106.1 mm.

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<sup>i</sup> Monthly Weather Report, November 2021, Meteorological Office, December 2021, provisional.

<sup>ii</sup> Monthly Weather Report, November 1921, Meteorological Office, HMSO 1922, p. 141.

<sup>iii</sup> MWR, November 1921, p. 141.

<sup>iv</sup> MWR, November 1921, p. 141.

<sup>v</sup> Meteorological Magazine, December 1921, Meteorological Office, HMSO 1922, p. 339.

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