

# Weather Front

# February 2025

# **Observers Notes.**

**Derby:** The fourth consecutive February with below average frost frequency despite the coldest mid-February period since 2013.

**Mountsorrel:** It was the coolest February since 2018It was also the dullest February in the 5 years of sunshine recoding with 14 sunless days, or 50% of average. Average temperatures, below average rainfall and below average sunshine with 50% of days under anticyclonic conditions being completely dull.

**Ely:** A month not far from average, temperatures marginally above, but minimum temperatures and rainfall slightly below. The coldest February overall since 2018. Only one really wet day. Frost early and mid-month and days of air frost already exceed the total for the whole of 2024.

**Coton-in-the-Elms:** Mostly cold until the 18<sup>th</sup>, then turning significantly milder. The month as a whole was slightly milder than average, with only a few air frosts and no snow at all. Ground frosts were the highest since 2021. Rainfall was below average under the influence of frequent high pressure, but no where near as dry as 2023 (4.2 mm) or anywhere near as wet as 2024 (114.0 mm).

**Middleton:** A cool and dry February. Very little snowfall, the maximum depth being just 1 cm on the 8<sup>th</sup>. Very dull during mid-month with just 12.6 hours of sun from the 7<sup>th</sup> to 24<sup>th</sup> inclusive.

**Bablake:** It was the dullest February in Coventry since 2011 (48.6 hours). That February was the only February to record less sunshine than 2025 in the past 32 years. What is remarkable is that there were 14 sunless days during February 2025, the most in any February since before 1978.

**Lowdham:** There were 76.3 hours of sunshine (94% of 1919-2020 average) recorded at Radcliffe-on-Trent. Less than 2 hours of sunshine were recorded between the 9<sup>th</sup> and 16<sup>th</sup>.<sup>i</sup>

#### Saltfleetby:

		Wind Speed, Beaufort Force.					
1	2	3	4	5	6	7	8
4	7	5	5	3	4	0	0
	10 Date 1-10 11-20 1-20	Day Mea Max 7.6 6.7 7.1	n. Min 1.5 2.3 1.9	Mean 4.5 4.5 4.5			
	21-28	11.8	4.2	8.0			

#### **UK overview**

February began with rain across western Scotland and Northern Ireland, before the weather turned more settled. A blocking high pressure system to the east of the UK led to overcast but settled conditions for the next few weeks, with below average temperatures and some scattered showers. Occasional frontal systems brought rain, sometimes wintry over high ground. Scotland saw some snow and freezing rain on the 18th, before the blocking high started moving away around the 19th. The weather turned more unsettled as a low-pressure system to the west of the UK moved towards Iceland. This led to frontal systems bringing heavy rain to much of the country, and coastal gales in northern areas. Temperatures also rose to above average as the cold easterly weather regime shifted to milder westerly conditions. Frontal systems brought particularly heavy rain to Wales and western parts of England and Scotland on the 23rd, leading to some flooding. The end of the month saw building high pressure, resulting in more settled conditions as well as widespread frost and some foggy conditions. Although temperatures for the UK in the first two weeks of February were below average, the shift mid-month to warmer conditions led to an overall mean temperature above average for the month. The UK recorded a provisional mean of 4.6°C, 0.5°C above the long-term average. Northern Ireland in particular was warm, seeing temperatures provisionally 0.9°C above average. February started with little rainfall under the high-pressure system, but this shifted mid-month as the weather became more unsettled. Overall rainfall, however, was still below average, with the UK provisionally recording 72.7mm of rainfall, 76% of the long-term average February rainfall. Northern England was particularly dry, seeing little over half of the average February rainfall. Despite a gloomy start to the month, sunshine hours increased in the latter half, resulting in the UK provisionally recording 67 hours of sunshine, 93% of the average. Scotland saw above average sunshine, with northern Scotland particularly sunny, seeing provisionally 137% of the average sunshine hours for February. Reference climatology used for calculating anomalies is the period 1991-2020 unless otherwise stated.

### Weather impacts

• Strong winds and heavy rain on the 19th saw loss of power in some areas of Northern Ireland and travel disruption across southwest England

• Heavy rain in Wales on the 23rd and 24th led to flooding and travel disruption

February was a quiet month with relatively little in the way of impactful weather, largely due to an extended period of anticyclonic conditions between the 6th and 19th. Spells of more changeable weather bookended the settled period, but there were no named storms and just a single amber warning issued for rain. Temperatures across the UK balanced out at or a little above the long-term average, with the first half of the month cooler than average and the second half milder as the airflow veered round from southeasterly to southerly/southwesterly. The anticyclonic influence made for a drier than average month, especially across northern Wales, northern England and central and northern parts of Scotland. Sunshine, however, was in relatively short supply except across northern Scotland, the continental airflow during the more settled period bringing with it extensive areas of low cloud. On the 4th, a slow, eastwards-moving cold front gave prolonged rainfall across the western side of Scotland. There were several reports of minor flooding on some of the trunk roads around Glasgow. By the 6th, high pressure was exerting its influence across much of the UK, which would continue for much of the following fortnight. The weather during this period was rather cold, often cloudy but largely settled and non-impactful. The drying trend did, however, raise the wildfire threat and the 18th/19th saw several fires break out across parts of Wales including reports of a blaze on Cwm Mountain near Llandudno on the evening of the 18th. A major pattern change began on the 19th as the resilient area of high pressure finally retreated eastwards into continental Europe. This allowed Atlantic weather fronts to gain supremacy and resulted in several days of much more unsettled but also milder weather across the UK. The 19th saw heavy rainfall across parts of Cumbria whilst the winds were also on the increase with reports on the 21st of around 1500 customers without power across southeastern Northern Ireland and several trees reportedly brought down by the strong southerly winds. Rail services in southwest England were also disrupted with reports of a tree blocking the line between Truro and St Austell. Various low impact rain and wind warnings were issued over this period. On the 21st, a landslip in southwest Scotland was reported to have blocked the west coast main line near Beattock. The 23rd would prove to be the wettest and the joint windiest day of the month with over 100mm of rain recorded at both White Barrow, Devon and in parts of Rhondda Cynon Taf, south Wales. Winds were strong right across the UK with numerous diversions reported from both Dublin and Edinburgh airports. The M48 Severn crossing was reported as closed for a time and there were reports of fallen trees blocking roads from as far apart as Barnstaple, Anglesey and Lanark. The main concern as regards flooding impacts was across southern Wales where the prolonged rainfall threatened renewed flooding in areas that had seen significant impacts earlier in the winter. Whilst some 12 flood warnings were issued by Natural Resources Wales along the principal rivers, no major

river flooding was reported, though there were a number of minor surface water flooding issues reported, especially in and around the valley heads. The rail line between Pontypridd and Aberdare was reported closed by flooding but was able to reopen on the morning of the 24th. After further rain on the 24th to 26th the month ended dry and sunny for many as high pressure returned to provide a settled end to winter.

# February 1925

#### **Observers Notes.**

Blundellsands: The wettest February since records were started in the district 50 years ago.

**Cheltenham:** A wet month, the rainfall being exceeded in February only five times since records commenced in 1867. Sunshine duration just above normal.

**Copdock:** For the third year in succession February has yielded a smaller amount of sunshine than January. A wild and stormy month.

**Newport (IOW):** An excessively wet month with frequent showers of hail and occasional thunder and lightning.

**Redruth:** Rainfall much above the average but cloud and humidity both below average.

**Sidmouth:** Many gales, mainly from the south and south-west. Much damage done by extraordinarily high seas.

**Southport:** The wettest February since that of 1881. Mean air pressure exceptionally low. A westerly month; NE and E winds particularly scarce.

**Teignmouth:** Exceptionally severe gales during the latter part of the month. Rainfall, sunshine, and temperature above the average.

**Torquay:** Exceptionally wet and wild, with frequent showers of hail and sleet; temperatures and sunshine above the average.

**Totland bay:** Twice only in 38 years has so much rain been registered. On only three occasions has the February mean temperature higher. The first February in my records with only two sunless days.

Walton-on-Naze: An exceptionally mild and windy month. Vegetation too far advanced.

Ardross Castle (Ross-shire): Very wet and cold, with snow lying on the hills.

**Dirleton (E Lothian):** Considerable amounts of bright sunshine.

Edinburgh: The wettest February since 1903.

**Dublin:** The month brought an after-winter of some severity; other notable features were its extreme wetness and the over-whelming prevalence of winds from WSW. Only four days failed to yield a measurable rainfall.

**Skegness:** Mean Max 45.7 F [7.6 C] Mean Min 36.5 F [2.5 C] Mean 41.1 F [5.1 C], Rainfall 2.00 in [64.2 mm] mean daily sunshine 2.72 hours.

Louth (Westgate): Total Rainfall 2.47 in [62.7 mm].

Belvoir Castle: Total Rainfall 2.43 in [61.7 mm].

Worksop (Hodsock): Total Rainfall 2.21 in [56.1 mm].

Mickleover (Clyde House): Total Rainfall 2.90 in [73.7 mm].

Buxton (Devon Hospital): Total Rainfall 7.58 in [192.5 mm].

**Derby/Burton-on-Trent:**<sup>ii</sup> A rather wet month with 70-75 mm of rain generally over the area (mean 41.4 mm as of 1891-1920 averages). Temperatures were also slightly above average with maxima of 13 or 14 C on the 10<sup>th</sup>, 15<sup>th</sup>, and 16<sup>th</sup>. The lowest minimum was around -2 or -3 C on the 24<sup>th</sup>. There were ten air frosts in Burton. The overall mean locally was 4.8 C compared with a CET of 5.2 C. The month was about 1 C above normal.

### Brocklesby:

### **10** Day Mean Temperatures.

Date	Max	Min	Mean
1-10	49	34	41
11-20	45	34	39
1-20	47	34	40
21-28	42	31	36

# Overview of February 1925.<sup>iii</sup>

The unsettled weather, which commenced during the last week of January, continued throughout much of February. During the first week depressions tracked well to the north of Britain with winds and gales being reported in a few exposed places. Rain, hail, or snow, showers were reported on most of these days, interspersed with many bright intervals; Castel Lough, Tipperary, noting 32 mm on the 3<sup>rd</sup>. Snow fell in many parts of Scotland on the 6<sup>th</sup>. A ridge of high pressure moved rapidly across England on the 7<sup>th</sup> giving more than eight hours of bright sunshine in southern England. The unsettled weather was renewed in Ireland on the evening of the 7<sup>th</sup> and spread east to cover the whole country until the 16<sup>th</sup>. Heavy rain fell on the 10<sup>th</sup> to the 12<sup>th</sup>; 82 mm being recorded on Snowdon, 45 mm at Penrhyn Quarry (Caernarfon), and 38 mm at Arkengarthdale (Yorkshire) on the 10<sup>th</sup>. On the 11<sup>th</sup> 52 mm was

recorded at Bettws Garmon (Caernarfon) on the 11<sup>th</sup> and 39 mm at Newport (IOW) on the 12<sup>th</sup>. Gales were recorded on several days and gusts of 78 mph [68 kt] were noted at Valencia and Birmingham on the 9<sup>th</sup>, and at Shoeburyness on the 11<sup>th</sup>; a gust of 82 mph [71 kt] was also recorded at Rosyth on the 10<sup>th</sup>. A line squall passed through South Farnborough and Hampstead on the 11<sup>th</sup>. On the 14<sup>th</sup> a fall of rain of 61mm was recorded at Langholm (Dumfries), and 49 mm at Grantown-on-Spey on the 16<sup>th</sup>.

During the third week the weather improved becoming quieter, colder, and fairer. Sunshine durations of 8 or 9 hours were reported at many places between the 18<sup>th</sup> and 22<sup>nd</sup>, but snow, sleet, and rain showers were reported generally. Considerable amounts of snow were reported in Scotland between the 21<sup>st</sup> and 23<sup>rd</sup>; the snow depth at Crieff (Perth) on the 21<sup>st</sup> was 6 in [15.2 cm]. From the 22<sup>nd</sup> to 24<sup>th</sup> temperature maxima did not rise above 35 F [1.7 C] at a few places in northern England and Scotland; 32 F [0 C] at Eskdalemuir on the 22<sup>nd</sup> and 35 F [1.7 C] at Harrogate on the 23<sup>rd</sup>.

A depression, from the Atlantic, produced high winds and unsettled weather in Ireland on the 22<sup>nd</sup>, and by the 24<sup>th</sup> had become general over the whole country. The heaviest rain on the 25<sup>th</sup> was 62 mm at Llyn Fawr (Glamorgan), and 38 mm at Dormans Park (Surrey). The depression to the west of Ireland deepened until, on the 28<sup>th</sup>, pressure was unusually low, below 970 hp in many parts of the country. There was extensive flooding in the Thames Valley and Kent towards the end of the month. The depression began to fill, and parts of southern England had the brightest weather of the month on the 28<sup>th</sup>.

The mean temperatures of mainland Britain were above average, the largest departure was eastern England at +2.7 F [+1.3 C] while the smallest was northern Scotland at +0.4 F [+0.2 C]. In Ireland however the mean temperatures were at, or just below, average. Ground frosts were numerous throughout the month with a few stations reporting as many as 24 days. A grass temperature of 12 F [-11 C] was recorded at Lympne on the  $22^{nd}$ .

Precipitation was above average over the whole country, apart from two small areas along the western coast of Scotland. The whole of Wales, parts of northern and southern England, the eastern Scottish coast, and small areas in Central Ireland exceeded 200% of average; at Grantown-on-Spey precipitation was 267% of average, and at Logie Coldstone 317%. The second and fourth week were the wettest.

Snow fall was considerable during the month, especially in Scotland, the Grampians and Cairngorms being covered throughout the month. Most stations reported hail, and in some cases as many as 13 to 16 days. At Weymouth, on the 14<sup>th</sup>, hailstones measured half an inch [12.5 mm] diameter. Some thunderstorms were reported, and a few stations had as many as 4 or 5 days when thunder was heard.

Sunshine was above average in most areas, except for Scotland, north-west and eastern England. The largest departure from average was +0.61 hours, or 38% of average, in the

Channel Isles and the Isles of Scilly, while the lowest deficiency was -0.54 hours, or 18% of average, in western Scotland. The greatest duration of sunshine was in parts of the extreme south-western coast of England and the Channel Isles.

There were various reports of fog, with some stations experiencing many days, however there were no serious fogs in London.

# Europe and the Rest of the World, February 1925.<sup>iv</sup>

During February 1925 pressure was below average over the British Isles, the North Sea, Denmark, and southern Scandinavia. Over the Azores however pressure was above average with a ridge, which extended north towards Greenland. This allowed frequent deep depressions to pass across Britain and producing strong to gale force westerly and southwesterly winds. Considerable damage was done to shipping in the vicinity of Iceland, and in the Bay of Biscay. Winds were more southerly over south-western Europe. In Austria, eastern Switzerland, and northern Italy, gales were reported between the 13<sup>th</sup> and 16<sup>th</sup>. On the railway line between Salzburg and Ischl a passenger train was blown over an embankment near St Gilgen. Heavy falls of snow were reported during the same period in the Lombardy Alps, and in Switzerland where considerable damage was the result of avalanches in the Ticino Canton. The rainfall over western Europe was slightly below average, except in Sweden where the precipitation, mainly snow, was slightly above the average for the time of year.

In western Turkey the rainfall for the third month in succession was very poor, resulting in crops suffering from lack of rain. It is understood that the local population could not remember such drought conditions since 1890, but records did not go that far back. The average total rainfall for the period 1902 to 1925, according to records at the International College at Smyrna, for the period September to February was 17.49 in [444.2 mm]. The actual rainfall for the same period 1924-25 was 5.04 in [128.0 mm] and the number of rain days for the same period was 50% of average. The weather during the period varied between intense cold from the bitter north-east winds in December, and parts of January, to the unusual heat towards the end of January and the whole of February. K P Kirkwood<sup>v</sup> indicated, at the time of writing, that the days were hot, the ground baked, and the streams were dry. Fruit prospects, especially raisins and figs, were poor, cereal crops were heading for failure, and that agriculture would be in short supply. The drought extended along the western coast to the Adana region, close to the Syrian border. Inland, in the Taurus mountains, there had been an unusually severe winter with "deep snows of several feet in depth".

Temperatures in Europe were above average, being +5 F [+2.5 C] at Zurich, +8 F [+4 C] at Stockholm, +10 F [+5 C] at Haparanda, and +14 F [+7 C] at Spitzbergen. There was however a cold period in Sweden with -33 F [-36 C] being recorded at Karesuando on the  $24^{th}$ . Ice conditions around Spitzbergen were unusual, the islands being free of ice and the fjords were open. It was also noted that thunderstorms were unusually frequent in southern Sweden.

Heavy rain was reported over the whole of south-eastern and south-central Africa, consequently, crops suffered, and flooding was noted on the Zambesi and Pungwe rivers which also interrupted traffic "on the Beira-Zambesi and Nyasaland Railways [Maputo, Mozambique to Lilongwe, Malawi]; the Zambesi rose above the 1918 flood limit. A severe hailstorm was reported at Elliot<sup>vi</sup> towards the end of the month. Morocco also suffered from heavy rain.

A heavy rainstorm occurred near Arequipa, Peru,<sup>vii</sup> and washed away about six miles of track on the Southern Railway. In Canada the temperature was very low reaching -48 F [-44 C] at White River, Ontario, on the 2<sup>nd</sup>.

In Queensland, and South Australia, heavy rain was reported during the early part of the month. At Adelaide 5 in [127 mm] of rain fell in 2 hours on the 6<sup>th</sup>, the worst storm experienced during the previous 86 years. Towards the end of the month there was a change to very hot weather at Brisbane. Gales were reported off the Japanese coast on the 24<sup>th</sup>.

In Brazil rainfall in the central and southern regions was well below average, being 93 mm and 85 mm respectively below normal. No information was available for the northern region. The South Atlantic anticyclone extended nearer to South America more than usual, resulting in long spells of fine weather, and few depressions crossed the country, thus the crops were adversely affected by the low rainfall in the middle of the wet season.

# Central England Data.viii February 1925 (Averaging period is 1891 to 1920.)

Mean Maximum Temperature: 7.9 C. Average: 6.9 C.

Mean Minimum Temperature: 2.5 C. Average: 1.2 C.

Mean Temperature: 5.2 C. Average: 4.1 C.

England and Wales Rainfall: 124.2 mm. Average: 64.3 mm.

#### Midlands Data. February 1925 (Averaging period is 1911 to 1920).

Midlands Mean Maximum Temperature: 7.6 C. Average: 6.9 C.

Midlands Mean Minimum Temperature: 1.4 C. Average: 0.6 C.

Midlands Mean Temperature: 4.5 C. Average: 3.7 C.

Midlands Rainfall: 98.8 mm. Average: 59.6 mm.

#### Central England Data February 2025 (Provisional) (Averaging period is 1991-2020).

Mean Maximum Temperature: 8.0 C. Average: 7.9 C.

Mean Minimum Temperature: 2.6 C. Average: 1.8 C.

Mean Temperature: 5.3 C. Average: 4.9 C.

England and Wales Rainfall: 57.1 mm. Average: 72.4 mm.

#### Midlands Data.

Mean Maximum Temperature: 7.7 C. Average: 7.7 C.

Mean Minimum Temperature: 2.0 C. Average: 1.3 C.

Mean Temperature: 4.8 C. Average: 4.5 C.

Midlands Rainfall: 40.9 mm. Average: 59.3 mm.

Sunshine: 68.4 hours. Average: 76.0 hours.

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

<sup>&</sup>lt;sup>ii</sup> Stanier DJ, by email 2 March 2025.

<sup>&</sup>lt;sup>III</sup> Monthly Weather Report, February 1925, Meteorological Office, HMSO, March 1925, p. 15.

<sup>&</sup>lt;sup>iv</sup> Meteorological Magazine, March 1925, Meteorological Office, HMSO, pp 48 and 49.

<sup>&</sup>lt;sup>v</sup> Drought in Western Anatolia, Kirkwood K P, International College, Smyrna, Turkey, Meteorological Magazine, March 1925, Meteorological Office, HMSO, pp. 35 and 36.

<sup>&</sup>lt;sup>vi</sup> Eastern Cape, South Africa, about 125 miles due north of East London, southern edge of the Drakensberg Range.

 $<sup>^{\</sup>rm vii}$  About 17 S 71 E, 500 miles SE of Lima, high on the western side of the Andes.

<sup>&</sup>lt;sup>viii</sup> Hadley Centre, Central England and Midlands, Meteorological Office.