



## Weather Front.

### February 2022/1922

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#### Observers Notes.

**Coton-in-the-Elms:** February 2022 was the mildest February since 1998 (mean 7.3 C). Frost was infrequent, and the lowest minimum was the second highest for February on the 30-year record. The coldest day (6.6 C) was the warmest for any February on the station record.

**Eastwood:** February 2022 was very wet, and the 19 rainy days was just short of the station maximum. The number of days of frost was well below the station average of 9.8.

**Derby:** The lowest maximum temperature was the highest on the station record for February. The mean temperature was the 4<sup>th</sup> mildest since 1952. This was the first frost free February since 1961, and only the second since 1952.

**Middleton:** February 2022 was the third wettest February on the station record. Ten days with hail was the most on record for the month.

**Bablake:** It was the mildest February since 1998. Only three February's have been milder since 1892, (1903, 1990, 1998). Only six February's have been wetter since 1870, (1881, 1900, 1923, 1950, 1977, 2020). The 27<sup>th</sup> was the sunniest February day (9.4 hours) in Coventry since records began in 1895.

**Mickleover:** This was the third wettest, and most rain-days, on the station record (1981). There was an absence of air frosts for the first time in the February records, and the fifth mildest, since 1981.

**Mountsorrel:** The mildest February since 1998. A very mild month, and quite wet with the three named storms, Dudley, Eunice, and Franklin in the third week. Only minor damage was recorded in Leicestershire. Only one air frost, the lowest in the 22 years of records. Only one day of snow falling, but no accumulation; again, the lowest on the station record.

### February 1922

## **Observers Notes.**

**Tenbury (Worcester):** Very wintry from the 5<sup>th</sup> to the 18<sup>th</sup>, then mild, wet, and windy to the end.

Ipswich (Suffolk): In spite of the spell of cold weather early in the month, the mean temperature is nearly a degree above average.

Carrigoran (Co. Clare): The weather throughout this month has been exceedingly bad, but especially from the 14<sup>th</sup> to the end of the month.

Dublin: February proved to be a very changeable month, the weather being, for the most part, of a cyclonic type. Atmospheric pressure was generally in an unstable condition. There were sudden fluctuations of temperature, and precipitation, while not heavy, was of frequent occurrence.<sup>i</sup>

Derby/Burton on Trent: There was a broad range of precipitation totals during this month; 65-79 mm covers a wet February in this area. Temperatures ranged from around -6 C on several occasions between the 5<sup>th</sup> and 9<sup>th</sup>, and the 12<sup>th</sup> to 14<sup>th</sup>, to 16.5 C on the 25<sup>th</sup>. Local means were recorded around 4 C overall, which, at that time, was near normal. There were 13 air frosts in Burton.<sup>ii</sup>

Detonating Fireballs observed in Sunshine.

A fireball was observed from Bristol, Cardiff, and other places, on 7 February at 1555. The resulting sound was heard at many places throughout the west Midlands. The track of the fireball appears to have originated over Oxford and travelled to Shropshire. The height lowered along the 80-mile track from 56 miles to 32 miles, and the speed was around 10 miles per second. The object was at its' brightest halfway along its' route. Fire and sparks were noted, and explosions were so violent that cattle and horses were extremely disturbed, one observer noted that the noise was so loud that his dog "ran for his life".<sup>iii</sup>

## **Overview of February 1922.**

On the first of the month, a ridge of high pressure collapsed ahead of a depression from the Atlantic. In its path temperatures rose to [10 C], and above, in many parts of Central and Southern England. Rainfall maxima were between 10 mm and 15 mm in several districts. On the 2<sup>nd</sup> a line squall was recorded across south-east England, associated with thunderstorms in the London area and southern England. On the 4<sup>th</sup> an anticyclone spread south-west from Scandinavia and brought an improvement to the south-east. The night was mild, but temperatures dropped markedly during the morning, and snow and sleet fell steadily over eastern England during much of the day. The maximum temperature at Cranwell, Gorleston, and Pulham was only [-1 C], and a thunderstorm was recorded in the Channel Islands at 1300. Snow fell in most parts of Scotland during the 4<sup>th</sup> and 5<sup>th</sup> but was most severe in the west. The anticyclone continued to dominate the east of the country for several days, producing a

spell of cold, dry weather. Frost continued throughout the 5<sup>th</sup>, and during the succeeding night the minimum at Benson fell to [-7 C], South Farnborough [-9 C], and at Cranwell [-10 C]. From the 10<sup>th</sup> to the 13<sup>th</sup>, bright and sunny weather prevailed over southern England, with daily sunshine being recorded between seven and eight hours. Depressions in the vicinity of Iceland brought mild weather to the extreme west of Ireland, with maximum temperatures about [10 C]. On the 12<sup>th</sup> pressure began to fall over western Europe and the anticyclone drifted east. This was followed by a trough, which extended from eastern Iceland, across Britain, into the Bay of Biscay, this was then followed by a ridge which produced frost over inland areas of England on the night 13<sup>th</sup> to 14<sup>th</sup>. The whole of the British Isles then came under the influence of a depression located off south-west Iceland, which produced mild and unsettled weather. The pressure pattern remained almost unchanged for the rest of the month, continuing low near Iceland and high towards the south-east. A well developed secondary low, located over eastern Scotland during the early hours of the 18<sup>th</sup>, was followed by a cold north-westerly. Many hours of bright sunshine were recorded, which exceeded eight hours over southern England. On the 19<sup>th</sup> a very deep depression, which was located to the north-west of the country, gradually filled, but remained stationary for several days. Secondaries however travelled across the country bringing hail, sleet, and snow. Thunderstorms were recorded on western coasts on the 21<sup>st</sup>. From the 23<sup>rd</sup> to the 25<sup>th</sup>, a south-westerly, originating in the area of the Azores, produced maxima exceeding [13 C] over a wide area. On the 24<sup>th</sup>, in Scotland, the temperature reached [14 C] at Banff, and [15.5 C] at Gordon Castle. On the coast of North Wales [16.5 C] was recorded on the 25<sup>th</sup>. At Nottingham a maximum of [16 C] on the 25<sup>th</sup>, was only exceeded once before in February during the previous fifty years.

The weather associated with these secondaries remained unsettled for the rest of the month, with heavy falls of rain occurring in the west; Valencia Observatory recording 21 mm on the 24<sup>th</sup> and 20 mm on the 25<sup>th</sup>. General, but less heavy, rain fell further east. There were, however, fair intervals with about ten hours of bright sunshine being recorded at Felixstowe and Clacton on the 25<sup>th</sup>. In the English Channel, South Wales, and along the Atlantic coasts, strong winds and gales were frequent. At western coastal stations thunderstorms with hail were reported on the 26<sup>th</sup>, 27<sup>th</sup>, and 28<sup>th</sup>. Thunderstorms were also widely reported in Scotland at this time.

Precipitation was generally above average over the whole country, with the exception of the Lake District, extreme north of Scotland, and the south-east of Ireland. Precipitation totals of 150% covered a large area, which included the whole of Wales, Central England, north-west Ireland, and the extreme west of Scotland. Shropshire recorded more than twice the average, while areas of less than 50mm were small and confined to south-east England and locally along the extreme eastern coasts of England, Scotland, and Ireland. In the mountains total rainfall exceeded 250 mm, and 500mm in Snowdonia. In eastern Scotland, particularly in the Tay and Dee valleys, flooding caused much damage due to the heavy rainfall at the end of the

month and melting snow on surrounding hills which followed the heavy rainfall of January. At Perth it was the most severe flooding experienced for several years.<sup>iv</sup>

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

Very low temperatures were recorded over nearly all of France on the 5<sup>th</sup> reaching [-12 C] at Paris and [-20 C] at Strasbourg.

In the early part of the month central and southern Italy suffered severe cold weather, with snow falling in Rome on the morning of the 8<sup>th</sup>; an event which had not been noted for several years. The cold was so severe, and the snow fall heavy enough to disrupt communications over the whole country. Rail traffic was delayed and, in some parts, totally disorganised.

The severe cold brought packs of wolves down to the French and Italian coasts. Several villages had to take precautions against attack. Wolves were observed on the outskirts of a town 25 miles inland from Toulon, "an occurrence without precedent in living memory".<sup>v</sup>

On the night of the 7<sup>th</sup> very low temperatures were recorded in the area of St Moritz, the weather being very cold throughout Switzerland and with considerable falls of snow. An avalanche blocked the road and railway along the shore of Lake Brienz on the 4<sup>th</sup> extending 300 feet into the lake. The western part of Lake Neuchatel was covered in ice to a depth of 8 inches in the middle of the month; the previous week it had been possible to walk from the island of Reinenau, in the western part of Lake Constance, to Constance, a distance of about 4 miles.

The whole of south-eastern Europe experienced exceptionally severe cold weather. Heavy snowfalls occurred over Austria, Herzegovina, and southern Hungary. Railway traffic was frequently disrupted due to blocked lines, and, on the 9<sup>th</sup>, Sarajevo was completely isolated. The Danube was frozen near Mohaez and, in parts of Hungary, snowdrifts were so deep that trains and small house were buried.

The ice was so bad in the western Baltic that shipping was icebound off the coast, in some cases for over a fortnight; one ship had to be resupplied with food and water by aeroplane. Conditions improved towards the end of the month, but icebreakers were still required in Christiania Fjord where several steamers were still icebound. By the 27<sup>th</sup> there was open water between Mamo and Copenhagen.

Several large ships suffered storm damage in the Atlantic early in the month.

On the 23<sup>rd</sup> a storm of sleet, rain and wind interrupted transport services which depended on power from Niagara; all communications in Toronto and other western cities were suspended for around six hours.

Famine was being reported in certain districts of Kenya {then part of British East Africa}. This was the result of a general failure of the rains during the preceding nine months.

In the north of Brazil rainfall was 69 mm below average. In the central districts the rainfall was 47 mm above average but, in the south of the country rain was very irregular. Temperatures were above average in most places and thunderstorms were unusually frequent between Pernambuco and Rio. The coffee crop had improved but sugar, tobacco, and cotton were unsatisfactory. In Argentina an anticyclone, on the 9<sup>th</sup>, caused a severe frost in the Pampas, but no damage was done to crops.

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

Mean Maximum Temperature: 7.3 C. Average: 7.2 C.

Mean Minimum Temperature: 1.5 C. Average: 1.2 C.

Mean Temperature: 4.4 C. Average: 4.1 C.

England and Wales Rainfall: 89.7 mm. Average: 64.3 mm.

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

Midlands Mean Maximum Temperature: 7.1 C. Average: 6.9 C.

Midlands Mean Minimum Temperature: 0.3 C. Average: 0.6 C.

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

Midlands Rainfall: 82.4 mm. Average: 59.6 mm.

**2022 (Provisional)**

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

Mean Maximum Temperature: 10.1 C. Average: 7.9 C.

Mean Minimum Temperature: 3.4 C. Average: 1.8 C.

Mean Temperature: 6.8 C. Average: 4.9 C.

England and Wales Rainfall: 103.8 mm. Average: 72.4 mm.

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<sup>i</sup> Monthly Weather Report, February 1922, Meteorological Office, HMSO, April 1922, p. 15.

<sup>ii</sup> D J Stanier, by email, 2 March 2022.

<sup>iii</sup> Meteorological Magazine, April 1922, Meteorological Office, HMSO, p. 69, and Birmingham Daily Post, 13 February 1922.

<sup>iv</sup> MWR, February 1922, Meteorological Office, HMSO, April 1922, pp. 15-18.

<sup>v</sup> Meteorological Magazine, March 1922, Meteorological Office, HMSO, April 1922, p.55.

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