



Weather Front.

March 2023/1923

March 2023

Observers Notes.

Derby: After a cold start, which included the lowest March maximum since 2018, and three “wintry days” (8th-10th), the month eventually became milder. There were some considerable daily fluctuations in temperature alternating between rather cold and rather mild conditions. For much of the month the mean temperature was running below that for February. While rainfall measurements have ceased, it looks as though the local area may just have achieved around 100 mm totals, quite a rarity for March.

Coton-in-the-Elms: A very cold start to the month, much milder later. Overall, temperatures were slightly above average. However, the highest maximum was the lowest for March since 2018, the lowest minimum was also the lowest for March since 2018, and the lowest maximum was the lowest for March, again, since 2018. It was also the wettest March since 2018.

Middleton: This was the wettest March since 1981, and the second wettest on record. It was also the dullest since 2005. The snowfall on the 9th, of 31 cm, was the largest single snowfall on record for March.

Mickleover: This was the wettest March since 2018, and the second wettest for March since 1981, also locally since at least 1952.

Bablake: It was the wettest March in Coventry since 1947 (126.6 mm), and the only March wetter than 2023 in 153 years of city records. It was the dullest March since 1998 (81.6 hours), with just four March months duller in the past forty years (1991, 1992, 1996, 1988).

Mountsorrel: An exceptionally wet month and the wettest March in twenty-one years of records at Rothley. A dull month and the dullest March on record. After a cold, wintry, first half, with 4 cm of snow on the 9th and 10th, the second half was much milder, and temperatures finished close to the monthly average.

Ely: Nearly four times the January/February rainfall at a stroke! The first 100+ month since December 2020, and the first in March in fifty-one years. A cold first ten days but, a milder end, brought the mean close to the thirty-year average: still the coldest March since 2018. The 2nd was the only day with nil rain!

Pitsford: A dry and cold start but turning generally milder and unsettled following some snow.

Desford: Snow began falling at 0840 GMT on the 8th and, by 0900 GMT the following morning there was 7 cm of lying snow. There was a partial thaw during the 9th with snow fall continuing until 1300 GMT. Thereafter it was dry but with rain by late afternoon, some of which was moderate to heavy overnight before turning back to snow around dawn on the 10th to give a fresh snowfall of 10 cm. A general thaw set in readily there after and the snow soon disappeared.

Lowdham: The total rainfall recorded was the highest for March since 1991, and the highest since 1947 in the local area. The 24 rain days were the highest for March on the station record. The 31.0 mm recorded on the 9th was the wettest March day on the station record and would have been the highest in the local area since 1947. However, the 33.3 mm recorded at Radcliffe-on-Trent pushed this back to 8 March 1889.

UK overview

March began cold and dry, under the influence of high pressure, but from the 8th onwards it was predominantly unsettled with moist, milder air pushing up from the south. For the second week the cold air was at times reluctant to move away from northern areas, with snow for some areas most especially around the 7th-10th on the northern boundary of the milder air, but from mid-month it was broadly mild everywhere. After transitory fine weather on the 27th, the month ended with a westerly pattern, very unsettled with low pressure close to the UK, maintaining a dull and wet theme. Mean temperatures for this month ended up close to average for many areas, although it was colder across Scotland, especially in the north. The provisional UK mean temperature was 5.7 °C, which is equal to the 1991-2020 average. Rainfall was well above average in most areas, with over twice the average amount for many southern areas, and only northwestern Scotland was drier than average. The UK had 155% of average rainfall for the month, and it was the sixth wettest March in records back to 1836. It was a sunnier than average month for the western side of Scotland, but rather dull for most other areas, and especially dull in the south of England and Wales with some places having barely half their average sunshine, the dullest March in a series from 1910 for certain counties. Reference climatology used for calculating anomalies is the period 1991-2020 unless otherwise stated.

Weather impacts •

The start of the month continued the settled theme of February, but the rest of March was predominantly cyclonic across the UK, with many parts of England, South Wales and the south of Northern Ireland receiving over 200% of the longterm average rainfall • Some

impacts from snowfall during the second week • It was a rather cold month for Northern Scotland The start of the month was uneventful impacts-wise, until a southwards surge of Arctic air on the 6th introduced snow showers, locally heavy, to the Northern Isles and exposed parts northern of Scotland. Some roads in Highland and Grampian regions were closed due to snow by the 7th, along with increasing numbers of school closures. During the 7th and 8th, the boundary of the Arctic air stalled across the far south, and snowfall developed over some southern areas of England, together with South Wales. On the morning of the 8th Bristol Airport was closed to allow snow clearance, whilst the A3 in Surrey was also closed due to HGVs struggling to gain traction on the gradient sections as snow accumulated. Meanwhile snow showers continued over the Northern Isles and much of northern Scotland. An expectation of appreciable snowfall from the North Midlands right up to the Central Highlands was realised for the 9th. A series of amber warnings for snow was issued for the Pennines and adjoining areas of Yorkshire and Derbyshire, Mid/North Wales, and the southeast of Northern Ireland. Persistent and locally heavy snowfall and strong winds duly ensued during the 9th and overnight into the 10th, the snowfall heaviest and most disruptive across the south Pennines and Peak District where almost all the main road links were reported as impassable. The M62 was blocked for many hours due to snow clearance operations being hampered by drifting in the strong winds and by HGVs struggling to negotiate the conditions. In Derbyshire a major incident was declared, with mountain rescue teams deployed to assist trapped motorists between Buxton and Ashbourne. Widespread power outages were reported across parts of Yorkshire and Derbyshire as snow accumulated on transmission cables. Unofficial reports suggested snowfall accumulations of the order of 40cm in some higher-lying Sheffield suburbs. There was also significant transport disruption with road closures and several thousand affected by power outages in Northern Ireland. A similar combination of road closures and local power outages affected parts of North Wales. After a battle between air-masses, the cold air over northern areas was finally displaced on the 16th as an unsettled, cyclonic regime became established. Heavy rain on the 18th affected parts of South Yorkshire and Lincolnshire, with the football match between Rotherham and Cardiff abandoned due to a waterlogged pitch. Spring tides and strong south-westerly winds on the 22nd combined to cause localised coastal impacts with minor flooding in the Outer Hebrides, whilst in Cornwall several properties were flooded in Looe and Fowey. The last significant weather of the month occurred on the 31st when a small but vigorous low (named by MeteoFrance as Storm 'Mathis') raced across Southern England bringing strong winds to southernmost parts of the UK, and in Cornwall there were reports of trees blown down and several hundred properties without power.ⁱ

March 1923

Observers Notes.

Alfriston (Sussex): A very warm March, not a flake of snow all through the month and only two readings below 32 F [0 C] in the screen.

Isleworth: A great deal of smoke mist [smoke haze?] between the 14th and 26th. No snow. A favourable month in the garden.

Torquay: The temperature during the whole of the month remained consistently high and equable. The duration of sunshine was above normal and the rainfall much below normal. An unusually dry March.

Cargen: A splendid seedtime; farm work well advanced and all vegetation very forward.

Dublin: From the 12th to the 21st easterly winds of considerable strength, harsh and dry, blew with little intermission and there was no rainfall in Dublin or its vicinity.

Derby/Burton-on-Trent: March 1923 was a little drier than normal, with most of the local gauges collecting 30-35 mm. The mean temperature at Burton was 6.5 C, which was the same value as the CET. Extremes were -2 C on the 12th, with three air frosts in Burton; Numerous other minima were close to freezing. Maxima reached 18 or 19 C on the 27th.ⁱⁱ

Overview of March 1923.

The first week was mild and unsettled. The next two weeks saw a period of easterly winds and rather cold. This was followed by southerly winds and a warm week.

From the 1st to the 7th south-westerly winds produced generally mild and unsettled weather, rain was seldom heavy, and some days had some sunshine. On the 7th a depression crossed the country allowing an anticyclone to develop near the Faeroes. This anticyclone extended east, and linked with another anticyclone over northern Europe, introducing a cold easterly airstream, which prevailed until the 20th. However, on the 13th, a trough passed rapidly along the English Channel, which produced heavy rain in London and the south. Towards the end of the month the anticyclone extended further south allowing a light, warm, southerly airstream to dominate. Unusually high temperatures were recorded on the 27th; at Kew a maximum of [20 C] was recorded. Such a temperature had only been noted in March once in the previous fifty years.

Other extremes of temperature were for England and Wales on the 27th, maxima of [20 C] were recorded at eleven stations in eastern and south-eastern England and, on the 12th, minima of [-4 C] at East Ham, Cambridge, and Chelmsford. In Scotland maxima of [18 C] were recorded at Liberton and Kelso on the 27th, while a minimum of [-8 C] was noted at Braemar on the 20th. In Ireland, a maximum of [15 C] was recorded at Killarney on the 25th, Birr Castle on the 26th, and Newtownbarry on the 28th. A minimum of [-4 C] was recorded at Dublin on the 14th. Ground frosts were numerous, the lowest were [-9 C] at Renfrew on the 24th and [-8 C] at Rounton (North Riding) on the 21st. The MWR noted that these were, "decidedly low for the time of year".

Rainfall was above average in some southern areas, particularly in an area from Gloucestershire to the Sussex coast, which also included the London area; Oxford registered

174% of average. Apart from the Thames Valley however, rainfall was generally around average in this area. There were two large areas which had less than half the average rainfall, the north of Scotland, which had less than a third of the average, and an area consisting of north-west Wales, Lancashire, the Lake District, and south-east Scotland. At Gordon Castle the month was the driest March for at least fifty years, and at Strathpeffer the total of 7.5 mm was the lowest recorded in any month since September 1894.

Very little snow fell in England and Wales. A few stations recorded slight snowfalls which were confined to single days. There was an absence of snow in Scotland, although one or two stations reported lying snow around the middle of the month.

Thunderstorms occurred in the British Isles, mainly between the 26th and 29th.

Many occasions, of fog and mist, were reported at most stations. The visibility at 0700 at the observatories was lower during March than at any other month of the previous winter. However, no severe fogs were reported in London.ⁱⁱⁱ

The Rest of the World.

At the beginning of the month violent thunderstorms and heavy rain was reported in France. Severe flooding occurred along the Seine, parts of Paris were flooded, and along many other rivers, from 1st to the 8th. There was some loss of life. However, drought conditions continued in Perpignan and prayers for rain were ordered on the 16th. On the 8th there was an unusual fall of rain at Luxor. Very severe floods were reported in Macedonia, southern Serbia, and Thessaly, from the 15th to the 18th, due to heavy rain and melting snow. The river Vardar, in Macedonia, was particularly affected, with great loss of life and damage to property.

On the 23rd the Tigris was reported to be rising to an unusual height, due to heavy rain and melting snow in Kurdistan. A few days later the river burst its banks, flooding three hundred square miles of desert and isolating Baghdad.

The month was stormy in North America. A disturbance, which developed over the southern part of the Rocky Mountains on the 5th, moved east and deepened rapidly, producing gales along the Atlantic coast on the 6th and 7th, and a blizzard in New York. Another severe storm moved up the Mississippi valley on the 12th, producing widespread damage, and a death toll of 46. On the 16th a further storm swept the lower Mississippi valley, causing 16 deaths. On the 19th another severe storm moved north-east, causing blizzards and heavy snowfall in the western and central states, leaving Chicago isolated.

In Buenos Aires a maximum temperature of [34 C] was recorded on the 12th, which was followed by a fall of [20 C] in twelve hours. Pressure rose 5 mb almost instantaneously. Near the South Orkney Isles there appeared to be considerable ice.

Heavy rain was reported in Nyasaland [Malawi] in the middle of the month which did considerable damage to the tobacco crop and produced damaging floods along the Zambesi on the 19th and 20th; railway communications were interrupted. The floods were reported to be subsiding on the 26th.

In Queensland (Australia) the month was one of drought.

In Brazil, in the north, rainfall was 53 mm below average, in the centre rain fall was irregular, while, in the south rainfall was around 100 mm above average; the excess was greatest in the extreme south. The forecast for the coffee crop was good, and the cotton crop fair, but it was suffering from the lack of rain.^{iv}

Central England Data.^v (Averaging period is 1891 to 1920.)

Mean Maximum Temperature: 9.7 C. Average: 9.1 C.

Mean Minimum Temperature: 3.3 C. Average: 1.8 C.

Mean Temperature: 6.5 C. Average: 5.3 C.

England and Wales Rainfall: 52.8 mm. Average: 70.5 mm. 75%.

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

Midlands Mean Maximum Temperature: 9.4 C. Average: 8.3 C.

Midlands Mean Minimum Temperature: 2.4 C. Average: 1.1 C.

Midlands Mean Temperature: 5.9 C. Average: 4.7 C.

Midlands Rainfall: 46.3 mm. Average: 75.7 mm. 61%.

2023 (Provisional)

Central England (Averaging period is 1991-2020).

Mean Maximum Temperature: 10.2 C. Average: 10.4 C.

Mean Minimum Temperature: 3.8 C. Average: 3.1 C.

Mean Temperature: 7.0 C. Average: 6.7 C.

England and Wales Rainfall: 136.8 mm. Average: 65.4 mm. 209%.

ⁱ Monthly Weather Summary, March 2023, Meteorological Office, April 2023.

ⁱⁱ D J Stanier, by email, 2 April 2023.

ⁱⁱⁱ Monthly Weather Report, March 1923, Meteorological Office, HMSO, June 1923, p. 79.

^{iv} Meteorological Magazine, April 1923, Meteorological Office, HMSO, 1923, p. 69.

^v Hadley Centre, Central England and Midlands, Meteorological Office.