



Weather Front.

May 2023/1923.

May 2023

Observers Notes.

Ely: Temperatures marginally below average, but nearly all rain fell between the 5th and 10th. The maximum rainfall of 16.9 mm occurred on the 6th, and was the wettest day in May since 2016.

Middleton: May 2023 was the 6th warmest, and 14th driest, May in the last 46 years. It was also the calmest May since 2001.

Derby: This was the 3rd consecutive May to fail to reach 25 C, but the month was the 9th warmest May since 1952.

Mountsorrel: An unsettled start to the month with virtually all the rain falling in the first 12 days. From the 12th however, high pressure took control.

Mickleover: The second driest May since 2010 and the 2nd fewest rain-days since 1998.

Coton-in-the-Elms: Overall this was rather a warm May, especially by day. There were however, several chilly nights. In spite of some warm days, no day was classed as “hot”, the absolute maximum being the lowest in May since 2021. Rainfall was close to average, hiding the fact that the first half of the month was wet and the second half dry. Thunder was heard on the 5th around 1500 GMT. There was also a thunderstorm on the 9th around 1430-1500 GMT.

Pitsford: Largely unsettled through the first fortnight with some thundery showers, becoming drier and brighter towards the middle of the month. The second half was generally dry, warm, and sunny, although some cloudier, cooler days were recorded across the county.ⁱ

Saltfleetby: The afternoon of the 14th became very hot and humid and resulted in a thunderstorm, which moved north. Of the 15.4 mm of rain noted on that day, 12.7 mm were recorded in 15 minutes. It was dry from the 20th to the 31st; a period of 12 days.

Desford: On the 9th there was a thunderstorm which, for the time of year, was very active. It began at 1325 GMT with almost continuous, and very loud, thunder until 1435 GMT. The storm began with

large hail that measured 5 to 7 mm in diameter and was accompanied by heavy rain. The hail covered the ground before melting quickly. The temperature dropped from 18.2 °C to 12.5 °C during the passage of the thunderstorm. It was one of the most impressive, and notable, thunderstorms for many years at this station.

UK overviewⁱⁱ

The very start of May was quite settled and fine, but the weather soon turned much more unsettled from the south-west, with widespread falls of rain between the 4th and the 11th. Heavy thunderstorms and locally torrential rain caused flooding in many southern and eastern areas of England on the 9th. Towards mid-month things settled down, with high pressure building, and from the 12th onwards any falls of rain were mostly localised and light. This period was also a rather sunny period for many areas, in contrast to much of the rest of this spring, with the fine and settled weather lasting for the rest of the month, though at times a lot of cloud covered eastern coastal areas. Temperatures were above average for the majority of the time, though nowhere reached 24 °C until May 27th. The provisional UK mean temperature for the month was 11.6 °C, which is 1.0 °C above average. Rainfall was above average in a band from Devon to Norfolk, whereas much of Wales, Scotland and north-west England had well below half the average, and for the UK overall rainfall was 55% of average. Sunshine was slightly below average for some northern and eastern areas, but above average for Wales and western/central parts of England, giving 108% of average for the UK overall. Reference climatology used for calculating anomalies is the period 1991-2020 unless otherwise stated.

Weather impacts •

Heavy rain, thunderstorms and flooding between the 5th and the 11th. Fine and settled from the 12th to the end of the month.

May was mostly dominated by settled, anticyclonic conditions which yielded a much drier and rather warmer than average month as a whole. Most of the month's rainfall came between the 5th and the 12th, with several days of scattered locally intense thundery downpours, especially across a belt stretching from the south-west through central southern and into eastern England. The only severe weather warnings issued this month were for thunderstorms between the 7th and the 11th. However, on the 5th surface water flooding affected parts of Lincolnshire after some locally intense downpours, particularly around RAF Waddington where hail also accumulated for a time. The Louth area was also impacted by localised surface water flooding, with Environment Agency teams reporting a couple of properties having been affected. The 9th saw widespread heavy showers and thunderstorms develop across particularly south-west and central southern England, later spreading to parts of Wales, the Midlands and eventually London and eastern England. Impacts were reported quite widely across the south-west, with surface water flooding in various locations in south and east Devon, notably at Newton Poppleford on the A3052 but also in Tipton St. John, Fluxton, Metcombe and Sidmouth. In Somerset the village of North Cadbury was flooded at both ends, with the village hall taking in evacuated residents as multiple properties succumbed to surface water flooding. When the downpours moved further east an ensuing landslip blocked the Basingstoke to Winchester rail line. Later that day a section of the M11 in Essex was partially closed due to surface water. Further intense downpours developed on the 11th, this time focussed further east with surface water flooding reported on roads in Harpenden, Stevenage, Hatfield, and Welwyn Garden City in Hertfordshire.

Further north thundery downpours caused surface water flooding in the village of Cropwell Butler, Nottinghamshire, with multiple properties impacted by excess surface water. As the month progressed the weather became more settled and the ground quickly dried out, so the emphasis shifted to wildfire outbreaks with several fires reported across Wales over the weekend of the 21st/22nd. Further outbreaks over the last week of the month were seen as far apart as Dartmoor and Marsden Moor in West Yorkshire.

Monthly extremes.

The table below lists UK monthly weather extremes recorded at individual weather station during May 2023 from data available on 05/06/2023.

Highest Maximum 25.1°C on 30th at Porthmadog (Gwynedd, 7mAMSL)

Lowest Maximum 6.4°C on 1st at Fair Isle (Shetland, 57mAMSL)

Highest Minimum 14.0°C on 28th at Mumbles Head (West Glamorgan, 44mAMSL)

Lowest Minimum -2.2°C on 2nd at Loch Glascarnoch (Ross & Cromarty, 269mAMSL)

Lowest Grass Minimum -6.0°C on 16th at Llangunllo, Cefnysur (Powys (south), 310mAMSL)

Most Rainfall 43.6mm on 9th at Harestock S Wks (Hampshire, 51mAMSL)

Most Sunshine 16.2hr on 30th at Tiree (Argyll (in Strathclyde Region), 9mAMSL)

Highest Gust 54Kt 62mph on 4th at Warcop Range (Cumbria, 227mAMSL)

Highest Gust (mountain*) 61Kt 70mph on 8th at Cairngorm Summit (Inverness-shire, 1237mAMSL)

May 1923

Observers Notes.

Belper (Derbyshire): The coldest May since 1902.

Blundellsands (Lancashire): The coldest May for the past 110 years.

Cheltenham: The coldest May on record, but sunshine has been registered on everyday.

Hodsock Priory (Nottingham): Coldest May since 1902, the deficiency being mainly in the daytime with no reading as high as 60 F [15 C] after the 8th. Vegetation has made little progress.

Ipswich: A very remarkable month. Rainfall much below the average and sunshine not more than half the normal, the lowest in 20 years.

Meltham (Yorkshire): The coldest May since 1902 and the wettest since 1886.

Newquay: A very cold month on account of prevalent high northerly winds; mean maximum temperature lowest since 1902.

Torquay: Generally unsettled and exceptionally cool with a deficiency of sunshine and unusually cold northerly winds.

Walton-on-Naze: An unusually cloudy month.

Wistanstow (Shropshire): Miserable, cold, unseasonable; all vegetation checked and much discoloured.

Cargen (Kirkcudbright): Farm crops have suffered seriously and vegetation generally is very backward.

Dublin: The coldest May experienced since 1869; a dreary and dismal prolongation of winter.ⁱⁱⁱ

Derby: Rainfall seems to have been close to normal levels, with most gauges yielding a little either side of 60 mm. One of the drier spots in Burton had 52.8 mm. The temperature range was from as low as -1 C on the 24th, and 0 C on the 12th, 13th, 17th, and 18th, upto 25 C in Burton on the 4th. The 3rd was almost as warm, at 23 C. The overall mean was 9.5 C at Burton, compared to the CET value of 9.2 C.^{iv}

Summary of May 1923.

The weather for May 1923 was cool and dull, apart from a few warm days at the start of the month. Pressure was high over the south of the country for the first week which gave warm, sunny weather and light winds over England, Ireland, and much of Scotland. Temperatures rose to between 24 C and 27 C in the south, and slightly higher between the 3rd and 5th, but fell by around 9 C within a few days. From the 9th onwards temperatures rarely exceeded 15 C, and sometimes remained below 10 C throughout the day. These conditions were the product of a series of depressions in the North Sea and anticyclonic conditions to the west of the British Isles. The resulting northerly airstream over the country, strong at times, was accompanied by showers of rain, hail, sleet, and even snow at times. A trough, secondary to a depression over the North Sea, lay across southern England on the 23rd and produced much rain in London, but the heaviest falls in the London area were due to a depression which developed over Flanders on the night of the 28th and moved west along the English Channel.

Temperatures were below average and ranged from -2 C in eastern Scotland to -0.6 C in eastern England. The first week of the month was the warmest, but subsequent maxima were low. At Aberdeen and Eskdalemuir the temperature did not rise above 5 C on the 11th, and at Cranwell the temperature was 7 C on the 23rd. Considerable damage was done to crops, by frost, on the 24th, especially in the midlands and eastern counties.

Extremes for the month.

England and Wales: Maxima; 28 C at three stations on the 4th and at Canterbury on the 5th. Minima; -3 C at Benson on the 12th, and Belvoir Castle and Raunds on the 24th.

Scotland: Maxima; 21 C at Crathes on the 4th. Minima; -5 C at Braemar on the 9th and Leadhills on the 10th.

Ireland: Maxima; 19 C at Kilkenny on the 1st, Lisburn and Newtownforbes on the 29th. Minima; -1 C at Newtownforbes on the 7th, Clongowes Wood on the 13th, and Phoenix Park on the 24th.

Ground frosts were well documented, the lowest grass minimum was -8 C at Durham on the 9th, while at the end of the month a grass minimum temperature of -5 C was recorded at Balmoral.

Rainfall was above average in England and Wales, and Scotland, but below average in Ireland. The distribution was also irregular. England, as far south as the Wash, and the whole of Wales was well above average (121%); in parts of Cardiganshire and Merioneth [Dyfed and Powis] nearly twice the average was recorded. Other wet areas were in the London area, lower Thames Valley, Surrey, Kent, Sussex, and Cornwall. The rest of the country was below average; in some places well below Pitsford, for example, had only 49%. In Scotland the country could be divided almost equally between wet and dry, the wet being in the north, with Morayshire, Banff, and Sutherland having the greatest fall; Grantown-on-Spey (Morayshire) receiving over 300% of average, and Keith (Banff) around 400%. However, stretches along the west coast had considerably less than average rainfall. In Ireland, apart from the north-west coast, rainfall was almost everywhere below average, and parts of Cork had less than 40%, at Keith and Grantown-on-Spey it was the wettest May for at least 40 years; the total at Keith being 280 mm. Grantown-on-Spey recorded 47 mm on the 25th, while Llyn Llydaw (Snowdonia) recorded 38 mm on the 13th. There were a considerable number of daily totals of 25 mm or more recorded during the month.

Snow was recorded frequently in Scotland between the 9th and 17th, with falls on the high ground in the north being considered abnormal, and much drifting occurred. At the end of the month rivers in the north-east were in flood. Slight snowfalls were noted in England during the same period; on the 16th a snow depth of 1 inch [25 mm] was recorded at Buxton. Hail showers were also frequent. Falmouth reported hail every day between the 11th and 16th, while Markree noted hail, again every day, between the 9th and 17th.

Thunderstorms were fairly general in London and the south-east on the 12th and 16th, and locally in Scotland on various dates, mainly in the south-east, and in Shetland on the 21st.

Fog was infrequent during the month, Croydon having the greatest number (twice at 0700) with visibility not reaching 1100 yards.

Sunshine was below average in various areas; the Channel Isles, and the Isles of Scilly having 41%, while northern Scotland had only 26%. Between the 6th and 12th was the sunniest period with the majority of the country having above average sun, the rest of the month was below average almost everywhere. A number of records of 14 hours and above were noted with Rothesay recording 15.2 hours on the 28th while the 29th was the only day in the month when no sunshine was recorded at Greenwich. The actual deficit of sunshine was 35-40 hours in London, Falmouth, and Aberdeen, and 60 hours at Nottingham.^v

The following details obtained from other sources summaries the month as a whole; "Cold Spring – 15 May: Cyclonic situation, heavy snowfall in Scottish Highlands, Pennines, Cotswolds, and parts of south England."^{vi} "May, after a few warm days the month was cool and wintry, with many storms."^{vii}

The officers of the White Star liner "Megantic" reported that the ice conditions in the North Atlantic were, "at present worse and more dangerous to navigation", than they had been for more than 20 years. The Times stated that after leaving Montreal on the 18th the vessel met with various types of ice from close packed to loose and scattered. Two days out, after passing Cape Race, one big iceberg was sighted. It was also recorded that ice in that area was most unusual after the end of March.^{viii}

Europe and Beyond.^{ix}

In western Europe the weather was cold and wet, with hail in northern France on the 10th. Snow also followed heavy rain in the Haute Savoie region on the 13th. In Italy, after extreme heat in the early part of the month, cold winds reduced the temperature to near average; there were also fresh falls of snow in the Alps. During the month floods were reported in the Volga Valley.

On the 25th and 26th floods were reported along the Tigris and Euphrates, and on the 29th heavy rain was reported at Sheikh Othman, inland from Aden, causing flooding at Lahej [Lahy], approximately 50 miles north of Aden, which had not happened for 12 years. In Kenya there were exceptionally heavy rains during the preceding two months and all rivers were flooded. Near Colombo the steamship "Okara" foundered in a cyclone on the 7th.

Much ice was reported in the St Lawrence estuary and in the North Atlantic off Newfoundland, which caused accidents to several vessels. [See item from the Times above]. Other accidents were due to fog. In New Brunswick there was heavy flooding at the beginning of the month. On the 9th a storm swept North Central USA, which brought snow as far west as North Dakota and as far south as Kentucky. This was followed by a heavy frost. On the same day San Bernardino, California, recorded the highest temperature for May, 101 F [38 C], while the first thunderstorm of the year was recorded in New York. On the 14th a tornado, in Colorado City, Texas, caused significant damage and loss of life. It was accompanied by a "cloudburst".

Early in the month, rain in eastern and southern Australia, partly broke the drought while, at the same time, heavy rain in South Island, New Zealand, produced disastrous floods.

Reports from Bazil stated that, in the north of the country rainfall was about 80 mm below average, while in the centre and south rainfall was irregular. The atmosphere was extremely active with numerous rapidly moving high pressure areas and secondaries. A severe storm was experienced at Rio de Janeiro on the 27th. The temperatures were generally above average except in the extreme south. Crops were reported to be in good condition.

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

Mean Maximum Temperature: 13.0 C. Average: 16.3 C.

Mean Minimum Temperature: 5.4 C. Average: 6.7 C.

Mean Temperature: 9.2 C. Average: 11.3 C.

England and Wales Rainfall: 69.8 mm. Average: 57.8 mm. 121%.

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

Midlands Mean Maximum Temperature: 13.0 C. Average: 16.7 C.

Midlands Mean Minimum Temperature: 4.6 C. Average: 11.5 C.

Midlands Mean Temperature: 8.8 C. Average: 11.5 C.

Midlands Rainfall: 61.4 mm. Average: 55.7 mm. 110%.

2023 (Provisional)

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

Mean Maximum Temperature: 17.3 C. Average: 16.5 C.

Mean Minimum Temperature: 7.7 C. Average: 7.3 C.

Mean Temperature: 12.5 C. Average: 11.9 C.

England and Wales Rainfall: 43.5 mm. Average: 62.7 mm.

ⁱ Headline, Monthly Weather Summary, May 2023, Pitsford Weather Centre, June 2023, p. 3.

ⁱⁱ Monthly Weather Summary, May 2023, Meteorological Office, June 2023, p. 2.

ⁱⁱⁱ Monthly Weather Report May 1923, Meteorological Office, HMSO, July 1923, p. 57.

^{iv} D J Stanier, by email, 2 June 2023.

^v Monthly Weather Report, May 1923, Meteorological Office, HMSO, July 1923, p. 57.

^{vi} Climate and Weather, Kington J, Harper Collins, 2010, P. 403.

^{vii} Agricultural Records AD 220-1977, Stratton J and Houghton Brown J, ed. Whitlock R, John Baker, 1978, p. 141.

^{viii} Meteorological Magazine, June 1923, Meteorological Office, HMSO, July 1923, p. 115.

^{ix} Meteorological Magazine, June 1923, Meteorological Office, HMSO, July 1923, p. 120.

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