



Weather Front.

January 2024/1924

January 2024

Observers Notes.

Eastwood: January has been a wet and cold month, other parts of the UK may have been mild, but Eastwood has been colder than average. The 18th/19th of January was the coldest for the last 21 years.

Coton-in-the-Elms: Overall, an average month in terms of temperature, but the monthly means hide some extremes; minimum -10.0 C on the 18th, but a maximum of 14.6 C just five days later! Days of air frost were about average but there was an absence of snow. Rainfall was below average for the month, but the very wet start caused local flooding, after an exceptionally wet December. On the 2nd there was a local flooding problem, after two wet days and a very wet December. On the 18th it was very frosty; the minimum temperature was -10 C, the coldest January temperature in over thirty years of records.

Bablake: Only seven January months have recorded more sunshine than 2024 since 1895; 2001, 93.9 hours; 2000, 93.8 hours; 2023, 88.7 hours; 2015, 85.5 hours; 2007, 84.9 hours; 2022, 84.7 hours; 1984, 84.1 hours; 2024, 82.7 hours.

Mickleover: Snowfall on the 16th gave only a thin covering.

Desford: It finally stopped raining on the 2nd and was, surprisingly, dry thereafter.

Ely: A mild start and end, but very cold mid-month. Very wet for the first four days (77% of the monthly total). Despite 42 mm of rain by the 4th, the next fifteen days only produced 1 mm, almost drought conditions!

Middleton: The least snowy January since 2012, and the only lying snow was 0.5 cm on the 16th.

Derby: A variable month overall, with a distinct cold period 14th to 19th, and a very mild late month period, which was 3.75 C above normal.

Mountsorrel: Storm Henk, on the 2nd, gave 24.8 mm of rain on already saturated ground. The result was the worst flooding in Leicestershire for at least 50 years. Flooding occurred not just on traditional flood plains but in urban areas in Leicester and Loughborough as the River Soar reached record levels. Residents in Loughborough reported that this was the first time in 63 years that flooding affected Belton Road. It took a week for the water to go down. After the very wet start, 39 mm in the first 48 hours, the rest of the month was much drier. After a mild start the weather became colder, with the coldest spell being from the 15th to the 19th; the lowest maximum was 1.3 C, and the lowest minimum was -7.5 C, the coldest night since December 2010. There was very little snow with just two days and no accumulations. In summary, temperatures close to average, as was rainfall, but it was also a sunny month.

Saltfleetby:

10 Day Mean Temperatures			
	Max	Min	Mean
1-10	7.5	4.0	5.7
11-20	5.6	-1.1	2.2
1-20	6.5	1.4	4.0
21-31	10.8	3.2	7.0

UK overviewⁱ

January started on a mild, wet, and unsettled note, continuing the theme of much of the autumn and December – i.e. a relentless succession of Atlantic low-pressure systems. The eighth named storm of the 2023-24 winter, Henk, on the 2nd brought heavy rain and strong winds – including a gust of 70Kt (81mph) at Exeter Airport. With rivers full and the ground already saturated from the persistent rain throughout December, the extra rainfall from Henk resulted in significant flooding problems, particularly from the River Trent. By the 5th, most of central and south-east England had already received two-thirds or more of the whole-month average rainfall. However, fortunately after this the weather regime changed dramatically with high pressure becoming established across the UK and bringing dry, sunny conditions and a marked drop in temperature. Just before mid-month, a northerly flow of Arctic Maritime air brought snow showers mainly across northern areas (although not especially unusual for the time of year). Northern Scotland, in particular Shetland, experienced several days of snow between the 16th and 20th. The cold but dry conditions persisted through the middle of the month until they were brought to an abrupt end with the arrival of the ninth and tenth named storms on the 21st to 24th. Storms Isha and Jocelyn brought strong winds and rain to much of the UK, but also milder temperatures which continued to the end of the month. Storm Isha was especially impactful, prompting extensive amber warnings for wind across the UK and resulted in a gust of 86Kt (99mph) in Northumberland. Temperatures for January started off cold, with maximum temperatures around 1.0 to 1.5°C below average in many areas. However, the colder conditions early in the

month were compensated for by much milder conditions towards the end of the month, resulting in close to average temperatures for the UK for the month as a whole (anomaly - 0.1°C). The UK experienced a new daily maximum temperature record for January on the 28th, with 19.9°C recorded at Achfary, Sutherland. Rainfall was close to average levels across the UK (97% of the long-term average), with the wet start and end of the month compensated for by the dry spell mid-month. Wales and northern England bore the brunt of the rainfall, while Northern Ireland was much drier (75% of the long-term average). Much of the UK experienced above average sunshine hours (128% of the long-term average).

Weather impacts

- Strong winds and heavy rain from storms Henk, Isha and Jocelyn cause fallen trees, flooding, travel disruption and power cuts across the UK
- Heavy snow affecting Scotland and northern England.

Storm Henk brought heavy rain and wind to the UK on the 2nd, with southern England particularly affected. Wind and rain damaged overhead rail wires between Ipswich and Norwich, as well as causing fallen trees and flooded roads. Rail services in parts of southwest England and south Wales were affected by track flooding, and in Gloucestershire, Tewkesbury was particularly badly affected by flooding from the merging of the rivers Avon and Severn. There were also reports of a tree blocking the line between Exeter and Tiverton. In York, the Ouse overtopped with a number of properties flooded as a result. Pembrokeshire also reported road closures due to rain and wind, and a severe flood warning was issued for the River Ritec in Tenby. From the 13th, a southwards plunge of Arctic air into the UK brought snow showers to the northern half of mainland Scotland, the Northern/Western Isles and the north of Northern Ireland. By the 16th, the widespread snow spread to affect northern England and southern Scotland. The majority of schools closed in Shetland closed on the 16th, and all schools shut the following day. The largest accumulations of snow were on Shetland and northern Scotland where Highland Council were reporting drifts of over a metre in depth on some roads on the morning of the 18th. Snow and ice conditions caused road closures in northern Scotland and Pembrokeshire. On the 21st and 22nd, storm Isha brought widespread impacts across the UK, in particular due to strong winds. Extensive amber warnings were issued for much of the UK, and a red wind warning was issued for parts of NE Scotland. Disruption to power supplies was widespread, with over 50,000 properties across parts of northern England and Northern Ireland experiencing loss of power. Sections of the rail network in Scotland and northern England were completely closed down, and several HGVs were reportedly overturned on the M6 in Cumbria late on the 21st. Heavy rainfall caused some river flooding and surface flooding closed sections of rail lines and main roads in Scotland and Cumbria. Storm Jocelyn arrived on the 23rd and 24th. Winds were slightly less strong than during Isha, but such was the impact of Isha that Network Rail Scotland decided to close their entire rail network for the duration of Jocelyn. Elsewhere across Scotland and

northern England both road and rail transport were impacted by fallen trees. Power outages were reported but on a smaller scale than during Isha.

January 1924.

Observers Notes.ⁱⁱ

Copdock: A quiet, still, month, with a good deal of fog; rainfall substantially in excess.

Malvern: Variable temperature during early part of the month.

Torquay: wet, cloudy, and unsettled weather; temperature above normal.

Skegness: An average January. Dry at the beginning of the month, wet in the middle, getting dry towards the end again. The rainfall for January 22nd, 20 mm, is the greatest total for one day in January since 1886. Fairly high mean air pressure.

Arisaig (Inverness): The only normal feature of this month was the way in which the very heavy westerly gale on the 12th, with tremendous squalls of snow, hail, and rain, moderated quite suddenly, and was followed by a calm, misty day.

Arrochar (Argyll): Weather very variable throughout the month. Season late. Great lack of sunshine.

Dublin City: An open month, but unpleasant by reason of clouds, dampness, and frequent rainfall.

Derby/Burton-on-Trent:ⁱⁱⁱ A fairly normal amount of precipitation during the month with most of the local gauges yielding 50-60 mm; the higher level Byrkley Gardens site had 68 mm. There was a fair amount of cold weather, particularly early in the month, with the lowest temperatures around -6 C on the 10th. At Byrkley Gardens daytime maxima remained below 0 C on the 4th and 9th. The highest maximum was 10 C at Burton on the 13th. There were ten air frosts, and the overall mean temperature of 4.1 C was noticeably below the CET value of 4.7 C.

Brocklesby:

10 Day Mean Temperatures			
Date	Max	Min	Mean
1-10	37	30	34
11-20	43	34	39
1-20	40	32	36
21-31	45	37	41

UK Overview.^{iv}

The month commenced with a period of mild, dull, and rainy weather, typically associated with the passage of shallow secondary depressions. On the 4th, pressure rose over the southern North Sea, and by the 5th a ridge of high pressure extended from the Bay of Biscay, across England, to Scandinavia, and winds became light and variable across southern England. There was also a lowering of temperature, which produced thick fog in many parts of the country, at Ross-on-Wye the fog persisted all day on the 4th. Ground frost was reported in many places, and at some stations the grass minimum temperatures were very low. On the 8th a deep depression, centred to the west of Ireland, moved south-east, producing easterly and south-easterly gales in many parts of the country. Snow was reported generally during the period 8th to 10th, and in some places, including London (Hampstead), snow lay to a depth of 5 to 6 inches [13-15 cm]. The depression filled to produce a short period of mild, unsettled weather between the 10th and 17th. The passage of a vigorous secondary across Ireland and the north of Scotland saw strong to gale force south to south-westerly winds, together with heavy rain, being reported in the west and south-west of the country. On the 17th, under the influence of an anticyclone over Scandinavia, easterly winds affected eastern parts of the British Isles. At several stations in the Eastern and Midland counties temperatures did not rise above freezing. After the 17th mild, and wet weather set in, and persisted until the 26th when the Azores anticyclone spread northwards. Apart from the extreme north and north-west the weather was mainly fair with occasional drizzle, and local mist or fog, to the end of the month.

The mean temperature for the month was above average. The greatest excess was 2.4 F [1.2 C] in Northern Ireland (mean 43 F [6 C]). The week ending the 12th was the coldest of the month, and the week ending the 26th was the warmest. The lowest daily maxima occurred on the 9th and 17th when, at several stations, the temperature did not rise above 32 F [0 C] all day. At Leadhills the maximum temperature on the 9th was 25 F [-4 C], and at Nairn and Leafield 27 F [-3 C]. At several stations, on the 10th, screen minima below 20 F [-7 C] were reported. The highest temperatures on the 12th were around 50 F [10 C] and occurred on various dates at stations in the south-east of England. The highest temperatures elsewhere occurred at Dublin (Phoenix Park) on the 21st, when a maximum of 59 F [15 C] was recorded, while at Llandudno on the 26th, and Gordon Castle on the 29th, maxima of 57 F [14 C] were noted.

Ground frost occurred at Worksop on 23 occasions, at West Linton, Leamington Spa, Hampstead, and at Leuchars, on 21 occasions.

Rainfall was below average in the north of Scotland and north-west England. In Cumberland [Cumbria] precipitation was about 75% of average. In the south-east of Ireland, in the counties of Wicklow, Wexford, and Carlow, rainfall was 200% of average, and over the south-east of England rainfall was 175% of average.

In Scotland there was a moderate amount of rainfall during the first half of the month, but from the 18th onwards rain was reported on every day in the north-west, with heavy rain noted on the 25th and 26th. Compared to average totals were moderately above average in Fife, Perth, Forfar, and to the south of the Forth/Clyde valley, but elsewhere rain was below average.

The largest total reported was 253 mm at Newtownbarry (Wexford). Some of the largest daily totals were 68 mm at Leadhills, 50 mm at Eskdalemuir, both on the 13th, 42 mm at Clongowes Wood, and 39 mm at Newtownbarry, both on the 12th. Flooding occurred, due to the heavy rain, in several places. The Upper Thames was “severely inconvenienced”, by floods, while rainfall in the Suir Valley was heavy during the fortnight ending the 19th. The flood at Clonmel rose to the level of the 1840 flood, while at Carrick-on-Suir the level almost reached that of 1895.

Snow fell over much of the country overnight 8th-9th and, over the following two days, snow in London was the heaviest for many years. High winds associated with the snowstorm produced considerable drifting. In north-east Yorkshire the snowfall was said to have been the heaviest of the winter while, in Glasgow, on the night 17th/18th, snow depth was reported to be 4 inches [10 cm].

The snow in the south of the country was associated with a deep depression on the 8th, which moved from the west of Ireland into France and producing severe easterly gales over the country. The snow on the 10th, in the north of the country was associated with a secondary depression moving north-east while the main centre remained stationary off the north-west coast.

Thunderstorms were reported in the south on the 10th, and in Scotland on the 11th, 12th, 24th, and 26th.

Fog was reported at Southampton on 29 days, and at Lincoln on 20 days while, at several stations 10 or more days of fog were noted. On the 23rd, between 1200 and 1400, it was very dark in London, but with no appreciable fog, and “many streetlamps were lighted”.

Europe and the Rest of the World.^v

The river Seine began to rise towards the end of December 1923, and continued into January 1924. At Paris the river reached a height of 24 feet [7.3 metres] above normal on the night of the 5th to 6th, after which it began to fall. Many streets were flooded, about 5,000 people were forced to leave their homes, and an additional 10,000 lost many possessions. On the 3rd, Cologne was threatened with flooding from the Rhine, but the danger passed.

Over much of Europe the first half of the month was cold, with snow. The Baltic coast of Denmark was ice-bound from the 2nd, and shipping was delayed throughout the month. On the 3rd the ice was 5 inches [nearly 13 cm] thick on harbours, and large steamers were frozen

in. Early in the month Danzig [Gdansk] was isolated by heavy snow, and rail traffic in Poland was seriously interrupted until the 5th. Berlin reported heavy snow in north Germany on the 8th, together with serious damage due to frost, snowstorms, and sea ice. The mouth of the Elbe was covered with floating ice, and “icebergs” two or three feet high [about 1 metre] were reported in the Baltic. At the start of the month severe winter conditions were reported in Austria, while in Switzerland, the alternation between heavy snow, thaw, and rain, noted in December, continued for several days, causing further avalanches. By the 5th conditions improved, and remained good until the 22nd, when there was further thaw, accompanied by rain.

In Italy, severe cold was reported on the 2nd, and again on the 8th, when heavy snow was recorded in Lombardy, and at the end of the month, when there were deaths from cold were reported from Florence. On the 7th a severe storm was reported in Greece, followed by intense cold. In Russia the end of December, and the first week in January, saw very low temperatures recorded, reaching -40 F [-40 C] at Blagoveshchensk in Siberia. In Finland -50 F [-46 C] was reached at Sodankyla [about 65 N, 28 E] on the morning of the 22nd.

There was a severe gale recorded at Biarritz on the 8th, another storm offshore Portugal on the 14th, while the weather in the North Atlantic was stormy throughout the month.

In North America the weather was also very cold, particularly in the north and east of the USA, on the 5th. The temperature fell to -15 F [-26 C] as far south as St Louis, -16 F [-27 C] at Chicago, where twelve people died from the cold, and -39 F [-39 C] at Virginia, Minnesota. A further cold spell was reported on the 21st, when temperatures fell to 4 F [-16 C] at New York, and to -28 F [-33 C] further north. On the 27th the temperature fell to -60 F [-51 C] in northern Ontario, after falling 64 F [31 C] in 36 hours.

In Brazil, rainfall in the central districts was 105 mm above average, and flooding was reported on the Parahyba River. However, in northern and southern districts rainfall was 51 mm and 80 mm respectively below normal. Temperatures remained one or two degrees above average. The cane and cotton crops were reported to be in a better condition in northern Brazil, and the wheat crop was also noted as being “plentiful”.

Central England Data.^{vi} 1924 (Averaging period is 1891 to 1920.)

Mean Maximum Temperature: 7.1 C. Average: 6.1 C.

Mean Minimum Temperature: 2.4 C. Average: 1.3 C.

Mean Temperature: 4.7 C. Average: 3.7 C.

England and Wales Rainfall: 94.1 mm. Average: 77.1 mm. 122%.

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

Midlands Mean Maximum Temperature: 6.4 C. Average: 5.9 C.

Midlands Mean Minimum Temperature: 1.2 C. Average: 0.7 C.

Midlands Mean Temperature: 3.8 C. Average: 3.3 C.

Midlands Rainfall: 74.4 mm. Average: 72.2 mm. 103%.

Central England 2024 (Provisional) (Averaging period is 1991-2020).

Mean Maximum Temperature: 7.6 C. Average: 7.4 C.

Mean Minimum Temperature: 1.9 C. Average: 2.0 C.

Mean Temperature: 4.7 C. Average: 4.7 C.

England and Wales Rainfall: 97.2 mm. Average: 94.2 mm. 103%.

Midland Data.

Midlands Mean maximum temperature: 7.2 C. Average: 7.0 C.

Midlands Mean minimum temperature: 1.5 C. Average: 1.3 C.

Midlands Mean temperature: 4.3 C. Average: 4.1 C.

Midlands Rainfall: 73.3 mm. Average: 73.3 mm. 100%

Midlands Sunshine: 67.8 hours. Average: 55.7 hours. 123%.

ⁱ Monthly Weather Report, January 2024, Meteorological Office, February 2024.

ⁱⁱ Monthly Weather Report, January 1924, Meteorological Office, HMSO, February 1924, p. 1.

ⁱⁱⁱ D J Stanier, by email, 1 February 2024.

^{iv} Monthly Weather Report, January 1924, Meteorological Office, HMSO, February 1924, p. 1.

^v Meteorological Magazine, February 1924, Meteorological Office, HMSO, pp. 20 and 21.

^{vi} Hadley Centre, Central England and Midlands, Meteorological Office.