

January 2025 Monthly Weather Report

This document provides a summary of the UK's weather and climate statistics for January 2025.

Table of Contents

1. UK overview
2. Weather impacts
3. Monthly extremes
4. Monthly maps
5. Monthly climate statistics
6. Monthly time-series
7. Daily time-series
8. Daily maximum temperature maps - calendar view
9. Daily minimum temperature maps - calendar view
10. Daily rainfall maps - calendar view
11. Monthly atmospheric circulation
12. Weather diary
13. Notes

UK overview

January started with an Arctic maritime airmass bringing cold temperatures to the UK as well as wintry showers, especially in northern regions. From the 4th to the 6th a low pressure system brought extensive rain, freezing rain, sleet and snow to the UK, with large amounts of snowfall in northern England and southern Scotland while central England and Wales saw predominantly rain. High pressure brought more settled conditions in the second week of January, although temperatures were still below average and widespread frosts and freezing fog brought some disruption. Altnaharra (Sutherland) saw its lowest January temperature since 2010 with -18.9°C recorded on the 11th, before warmer air moved in and brought above average temperatures to northern Scotland and Northern Ireland, before spreading further south across the country over the next few days. High pressure persisted for around a week, with some frontal systems bringing showers but otherwise settled conditions. On the 24th, the fifth named storm of the season, Eowyn, brought destructive winds to northwestern parts of the UK and the first red warnings for wind in 2025. Gusts of over 90mph were recorded across parts of Northern Ireland, Wales and Scotland. Northern Ireland also recorded its lowest January MSLP on the 24th, with 948.1mb recorded at Magilligan (Londonderry). Further wet and windy weather followed Eowyn as storm Herminia, named by the Spanish Meteorological Service, brought heavy rain and strong winds to southern England and Wales.

Temperatures for the UK were below average, with the UK recording a provisional mean temperature of 3.0°C , -0.9°C below the long-term average. All four nations recorded provisional mean temperatures below average for January. Although rainfall for the UK overall was below average, with provisionally 79% of the long-term average recorded, there was strong regional variation, with some areas experiencing much heavier rainfall. England, and in particular southern England, saw over 100% of the average rainfall, while Scotland and Northern Ireland saw around half the average rainfall. Nottinghamshire and South Yorkshire recorded nearly 150% of the average rainfall for January, and counties including Wiltshire and Cornwall recorded over 125% of the average January rainfall. However, despite the cold and stormy weather, January was sunnier than average, with the UK provisionally recording 61.8 hours of sunshine, 130% of the long-term average. Northern Ireland, northern England and Scotland were particularly sunny, provisionally recording 148%, 143% and 140%, respectively, of the long-term average sunshine duration, but areas further south were closer to average.

Reference climatology used for calculating anomalies is the period 1991-2020 unless otherwise stated.

Weather impacts

- **Storm Eowyn, the strongest UK storm for 10 years, brought strong winds and heavy rain to Northern Ireland, Scotland and northern England, with widespread travel disruption, closure of schools and loss of power**
- **Prolonged rainfall in southern England at the end of the month led to flooding**

January started with flooding before a cold spell moved in and there was appreciable snowfall in places. The cold then gave way to quieter, milder conditions either side of mid-month. The final third was much more unsettled and included a powerful storm, Eowyn. Temperatures were below the 1991-2020 average with much of Scotland and Northern Ireland drier than average, while much of England and Wales saw near or above average rainfall. Arctic air early in the month, combined with anticyclonic conditions mid-month, helped make it a relatively sunny month for many areas.

New Years Day saw persistent rain from the previous day finally clearing to the south after an amber rain warning had been issued on New Years Eve for southern parts of northern England. Significant flooding affected parts of Lancashire and the south side of Manchester, where one of the principal flood storage basins in Didsbury overtopped as the nearby River Mersey reached record levels. Several hundred properties in northwest England were reported as having flooded with around 1300 reported as evacuated from flood risk zones in south Manchester. Both road and rail disruption were extensive across the south of northwest England, whilst in Cheshire the Bridgewater canal at Little Bollington was reported as suffering a major breach which resulted in extensive flooding of adjacent farmland.

After the 1st, cold air spread south to most of the UK, but there were already clear signs that a developing low centre would attempt to push much milder air back north into the UK for a time around the 5th. Both snow and rain were set to feature and, with initial concerns more focussed on the snow aspect, two medium impact amber snow warnings were issued on the 3rd for large areas of England and Wales. On the 5th, widespread snow moved north across England and Wales, giving way to prolonged rain across southern and central areas but staying as snow across the Pennines and northernmost counties of England. Before the snow began, there were some pre-emptive road closures. Overnight on the 4th/5th as the snow arrived airport runway closures were reported at Bristol, Birmingham, Liverpool, Manchester, Leeds/Bradford and Teesside. Multiple Pennine road closures followed, along with some rail service suspensions. Meanwhile, the prolonged rainfall across southern/central England brought reports of road flooding in Essex and a combination of river and surface water flooding in Berkshire. Road closures were reported in Lincolnshire, Hereford and Worcestershire. In Leicestershire, probably the county worst affected, a severe

flood warning and emergency alert were issued on the 6th for Barrow-upon-Soar where a caravan park had to be evacuated.

Colder air then returned and the following week saw some severe overnight frosts (-18.9C at Altnaharra, northern Scotland on the 11th) and further snow showers. More widespread snow affected parts of southwest England on the 8th, resulting in an amber warning with numerous school closures reported across southwest England and Northern Ireland on the 9th. The cold spell finally relinquished its grip around the 12th/13th with largely benign weather for the next week. In northern Scotland it became exceptionally mild from the 12th to the 17th, with rapid melting of the existing snowpack.

By the morning of the 20th a major low pressure centre was being signalled to impact the UK around the 24th. On the 21st, this impending low was named Storm Eowyn, the fifth named storm of the 24/25 season. Numerous rain/wind warnings were issued for Eowyn, including a high impact yellow wind warning for northern England, Scotland and Northern Ireland which was escalated to amber on the 22nd, and escalated further on the 23rd to separate red wind warnings for Northern Ireland and southern/central Scotland, with a further amber wind warning following for northern Scotland and the Isles. Eowyn intensified by some 52hPa in 24 hours before fringing Northern Ireland and northern Scotland on the 24th. It would prove to be the strongest UK storm in 10 years with a maximum gust of 100mph recorded at Drumalbin, southern Scotland. Impacts across Northern Ireland, Scotland and northern England were widespread with pre-emptive closures of schools and suspension of public transport reported widely. In Northern Ireland some 285,000 customers (around 30% of households) lost power whilst an estimated 3500 homes suffered some form of damage. Both Belfast International and Belfast City Airports were reduced to backup generators, as were many acute hospitals. In Scotland some 280,000 homes lost power with full restoration taking around a week. There was one tree-related fatality reported from Mauchline, Ayrshire. Some roads in southern Scotland were closed for a time, and almost 90% of schools and the entire rail network were reported as closed throughout the 24th. Several large buildings including Celtic Park stadium sustained structural damage. Northernmost counties of England also suffered widespread power outages and some structural damage. Thousands of trees were lost to the winds right across the amber/red warning areas including a 166-year-old Himalayan Cedar in Edinburgh's Royal Botanic Garden.

A second deep low centre then affected the more southern areas of the UK on the 26th/27th. This system was named storm Herminia by the Spanish Meteorological Service. Although less severe than Eowyn, multiple low/medium impact yellow wind/rain warnings were issued across England and Wales. Widespread heavy showers and spells of more prolonged rainfall occurred with some road flooding and reports of both river and surface water flooding affecting Chard and Ilminster in Somerset, where tens of properties were reported as

flooded. Meanwhile in White Cross, Cornwall, a housefire early on the 27th was attributed to a lightning strike.

Monthly extremes

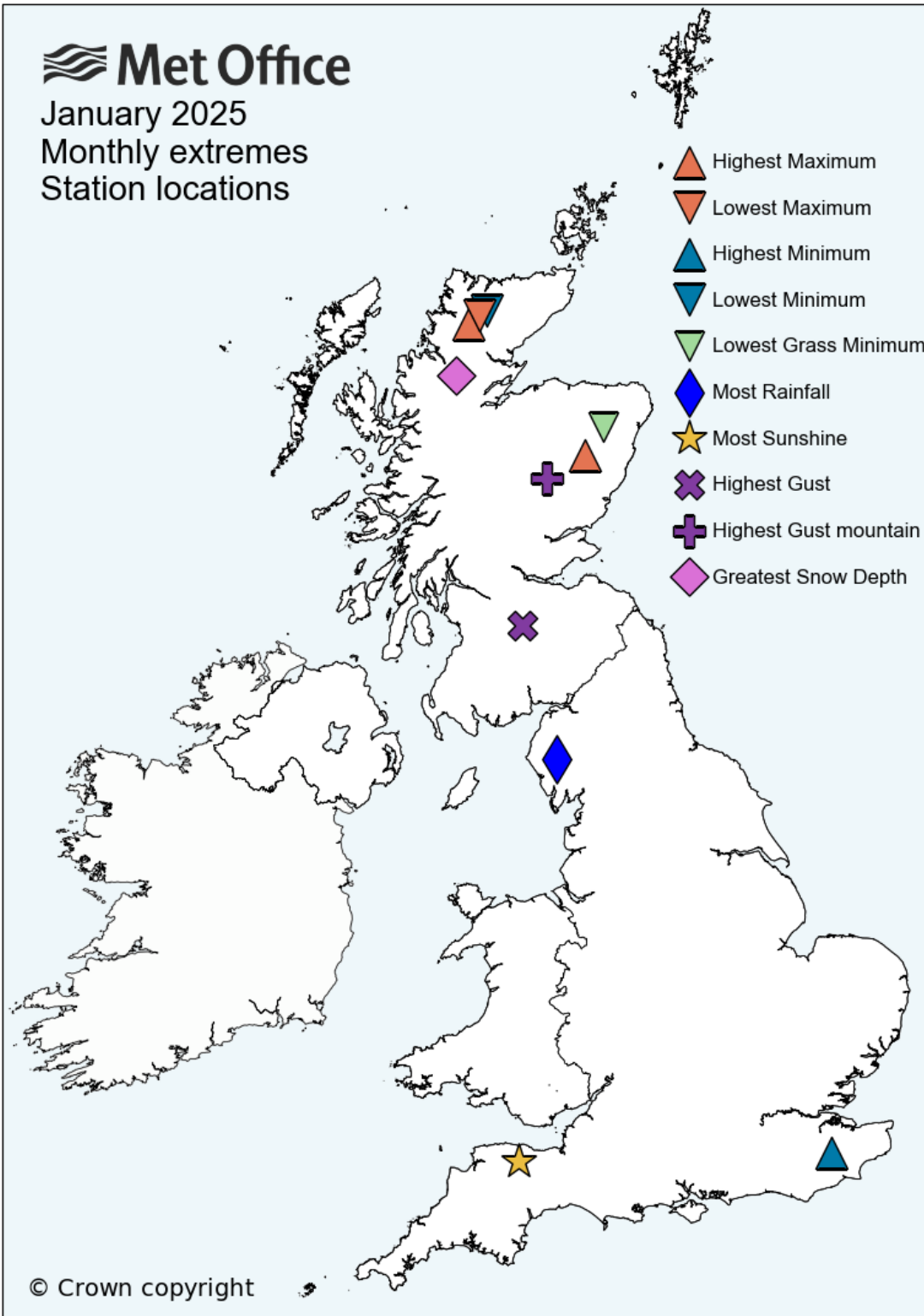
The table below lists UK monthly weather extremes recorded at individual weather stations during January 2025 from data available on 03/02/2025. The map shows the location of these stations.

Highest Maximum	15.7°C on 14th at Cassley (Sutherland, 99mAMSL) also on 15th at Aboyne No 2 (Aberdeenshire, 140mAMSL)
Lowest Maximum	-10.8°C on 10th at Altnaharra No 2 (Sutherland, 81mAMSL)
Highest Minimum	11.1°C on 6th at Frittenden (Kent, 38mAMSL)
Lowest Minimum	-18.9°C on 11th at Altnaharra No 2 (Sutherland, 81mAMSL)
Lowest Grass Minimum	-15.0°C on 11th at Oyne No 2 (Aberdeenshire, 116mAMSL)
Most Rainfall	94.0mm on 13th at Seathwaite (Cumbria, 129mAMSL)
Most Sunshine	8.0hr on 15th at Liscombe (Somerset, 348mAMSL)
Highest Gust	87Kt 100mph on 24th at Drumalbin (Lanarkshire, 245mAMSL)
Highest Gust (mountain*)	117Kt 135mph on 24th at Cairnwell (Aberdeenshire, 928mAMSL)
Greatest Snow Depth at 0900 UTC	26cm on 9th at Loch Glascarnoch (Ross & Cromarty, 269mAMSL)

mAMSL refers to station elevation in metres above mean sea level.

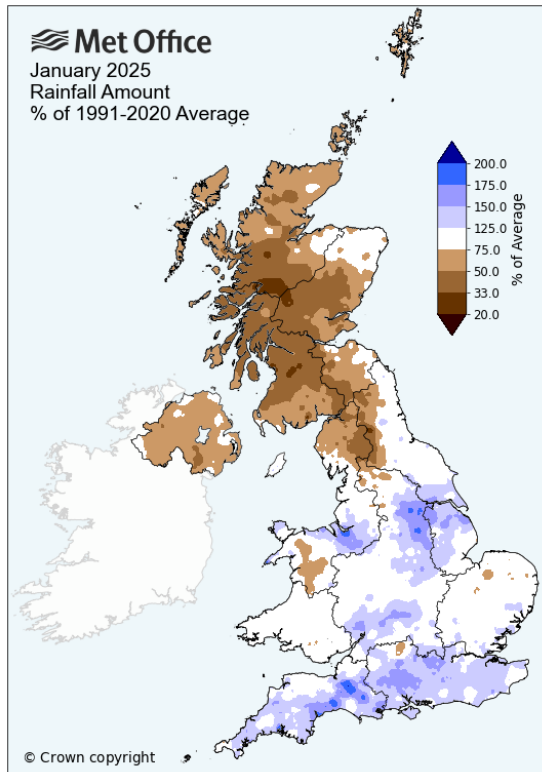
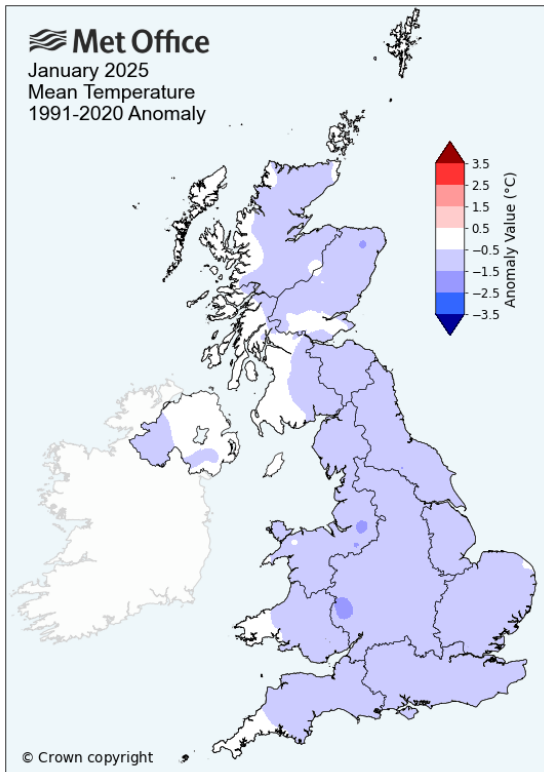
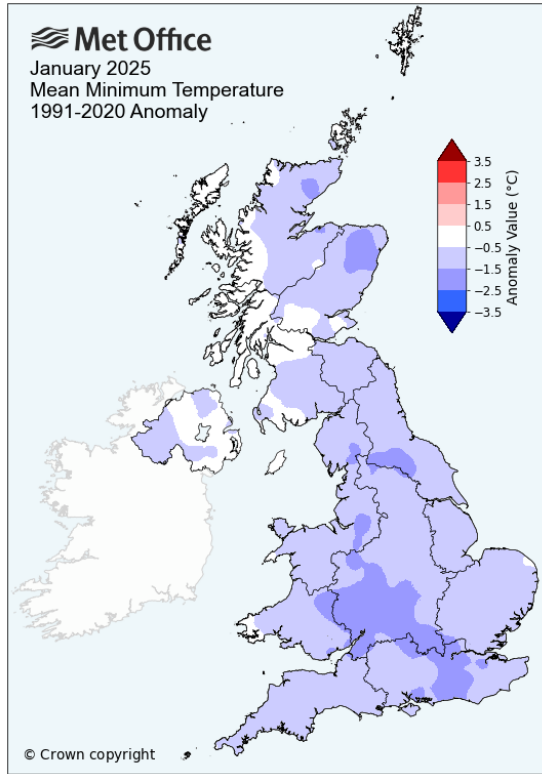
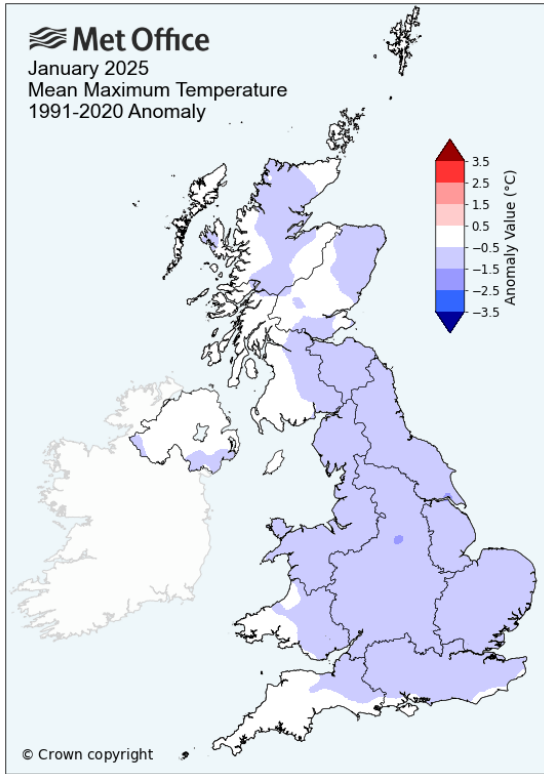
*Mountain stations are above 500mAMSL.

January 2025
Monthly extremes
Station locations

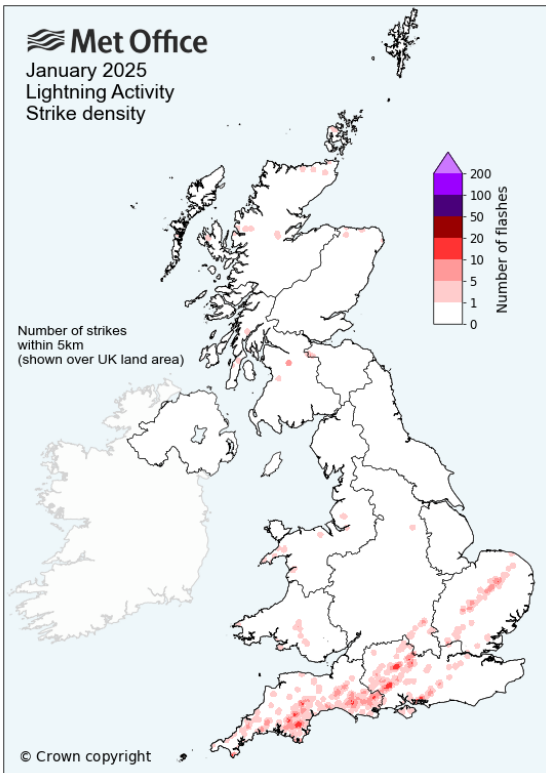
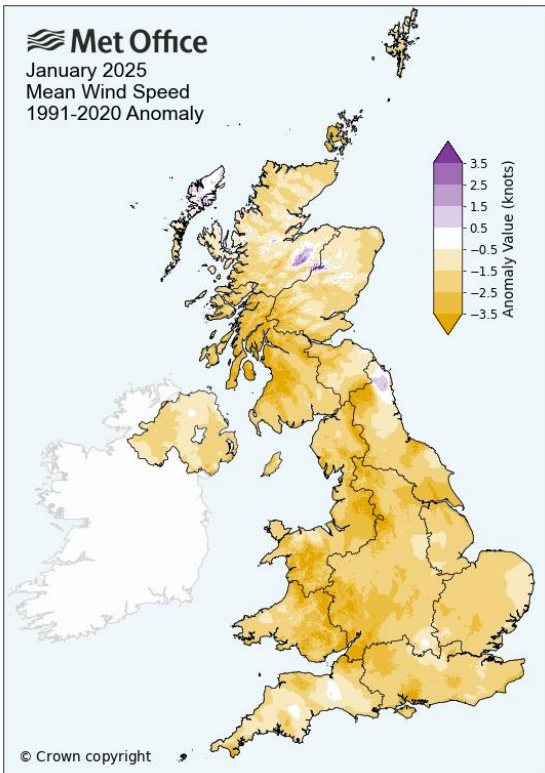
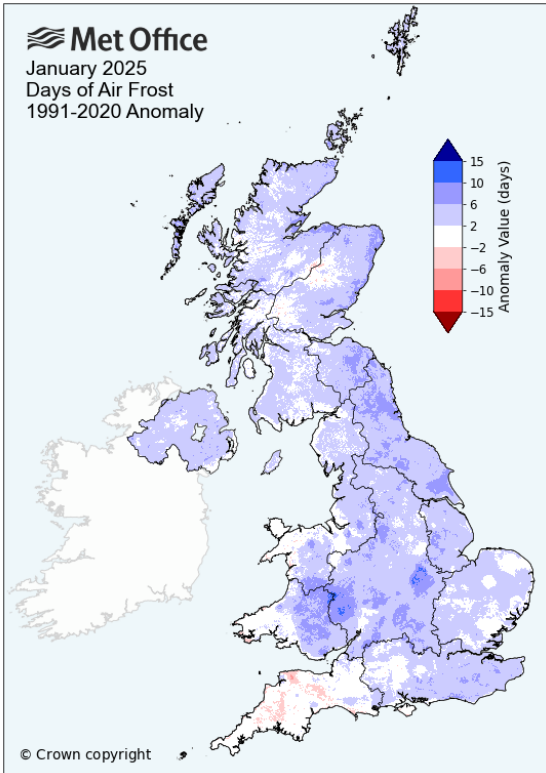
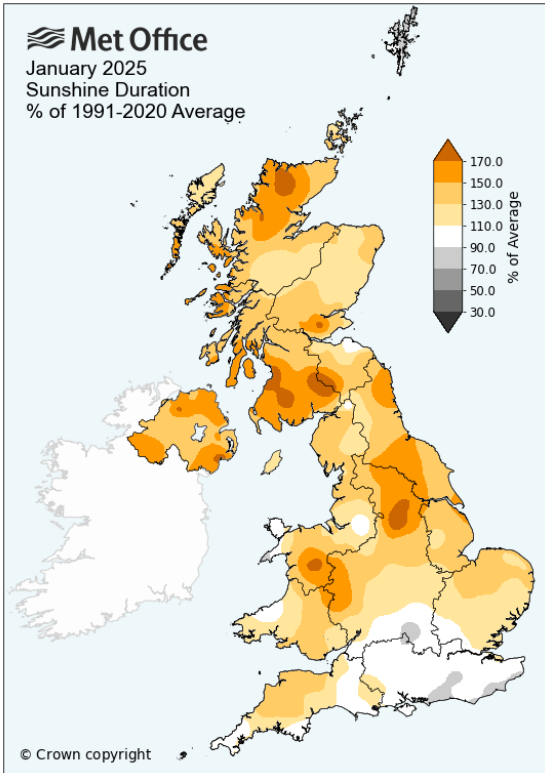


Monthly maps

These maps show monthly average daily maximum, monthly average daily minimum and monthly mean temperature and monthly rainfall for January 2025 as anomalies relative to the January 1991-2020 long term average.



These maps show monthly sunshine, monthly air frost and monthly windspeed for January 2025 as anomalies relative to the January 1991-2020 long term average, plus a map showing lightning activity as the number of strikes within a 5km radius of any land location.



Monthly climate statistics - actuals and anomalies

These tables show the UK and national climate statistics for January 2025 for max, min and mean temperature, rainfall, sunshine and windspeed as actual values and anomalies relative to the January 1991-2020 long term average. The position of the value within the full series (in both ascending and descending order) is shown in the two 'Rank' columns. Central England Temperature (CET) and England & Wales Precipitation (EWP) are also included.

Mean maximum temperature

Region	Maxtemp (°C)	1991-2020 Anomaly (°C)	Rank - warmest	Rank - coldest	Series length (yrs)
UK	5.9	-0.8	71	72	142
England	6.2	-1.0	74	69	142
Wales	6.3	-0.7	75	68	142
Scotland	5.1	-0.5	69	74	142
Northern Ireland	6.9	-0.4	71	72	142
Central England	6.3	-1.1	83	66	148

Mean minimum temperature

Region	Mintemp (°C)	1991-2020 Anomaly (°C)	Rank - warmest	Rank - coldest	Series length (yrs)
UK	0.2	-1.0	92	51	142
England	0.3	-1.3	92	51	142
Wales	0.6	-1.1	97	46	142
Scotland	-0.4	-0.7	83	60	142
Northern Ireland	1.2	-0.5	78	65	142
Central England	0.5	-1.4	110	39	148

Mean temperature

Region	Meantemp (°C)	1991-2020 Anomaly (°C)	Rank - warmest	Rank - coldest	Series length (yrs)
UK	3.0	-0.9	81	62	142
England	3.3	-1.1	83	60	142
Wales	3.5	-0.9	84	59	142
Scotland	2.3	-0.6	80	63	142
Northern Ireland	4.0	-0.5	74	69	142
Central England	3.4	-1.3	202	166	367

Rainfall

Region	Rainfall (mm)	% of 1991-2020 Average	Rank - wettest	Rank - driest	Series length (yrs)
UK	95.8	79	118	73	190
England	93.0	112	58	133	190
Wales	146.8	95	87	104	190
Scotland	90.3	51	168	23	190
Northern Ireland	75.5	66	140	51	190
EWP (England and Wales)	109.6	116	56	205	260

Sunshine

Region	Sunshine (hours)	% of 1991-2020 Average	Rank - sunniest	Rank - dullest	Series length (yrs)
UK	61.8	130	5	112	116
England	69.0	125	11	106	116
Wales	61.6	130	10	107	116
Scotland	49.4	140	4	113	116
Northern Ireland	63.3	148	7	110	116

Windspeed

Region	Windspeed (knots)	1991-2020 Anomaly (knots)	Rank - windiest	Rank - calmest	Series length (yrs)
UK	8.7	-2.0	46	12	57
England	7.5	-2.1	53	5	57
Wales	9.0	-2.6	49	9	57
Scotland	10.8	-1.8	45	13	57
Northern Ireland	8.4	-1.5	48	10	57

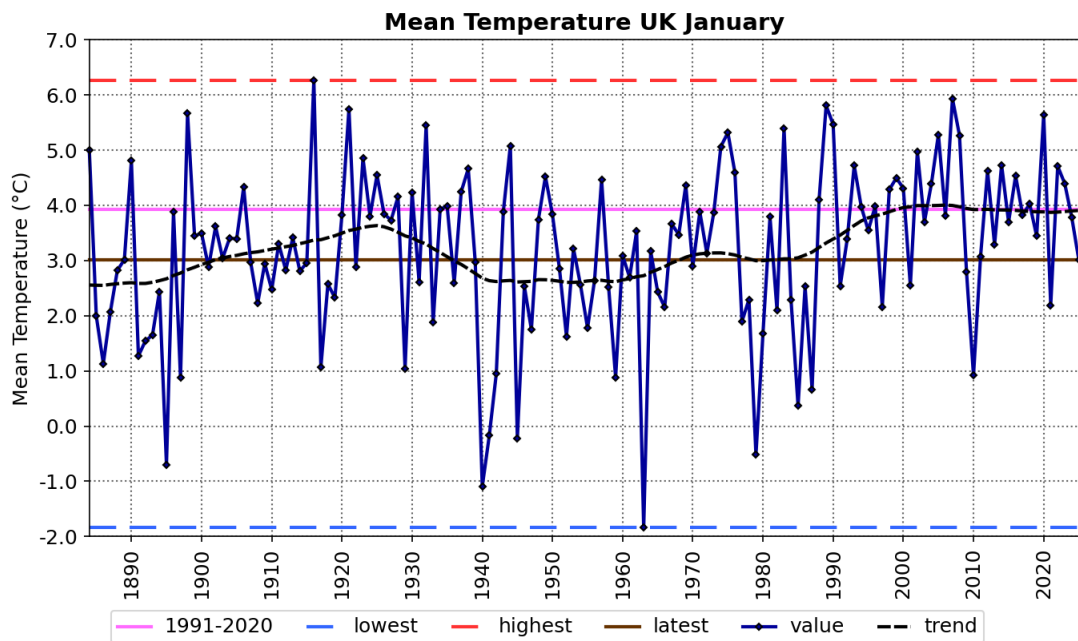
Monthly time-series

These charts show time-series for the UK for January for monthly mean temperature (from 1884), monthly rainfall (from 1836) and monthly sunshine (from 1919). The brown line shows the latest (2025) value. The hatched black line is a smoothing filter which shows the long-term trend. The tables below show statistics for the latest year, latest 10 years 2016-2025, the most recent 30-year climate reference period 1991-2020 and the 30-year baseline climate reference period 1961-1990.

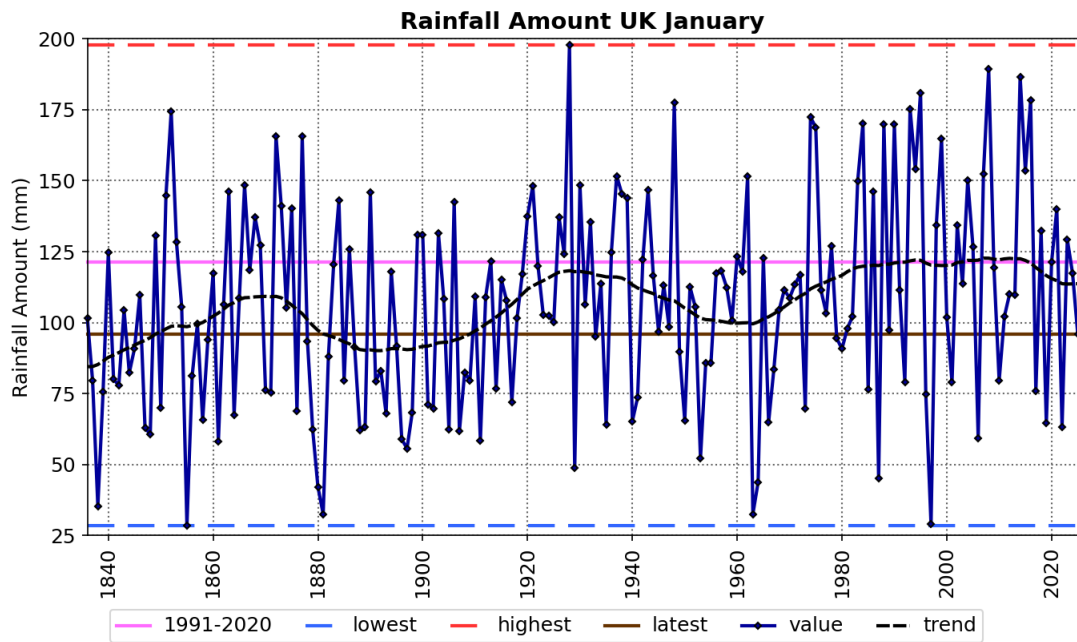


Source: HadUK-Grid 01/02/2025 10:47

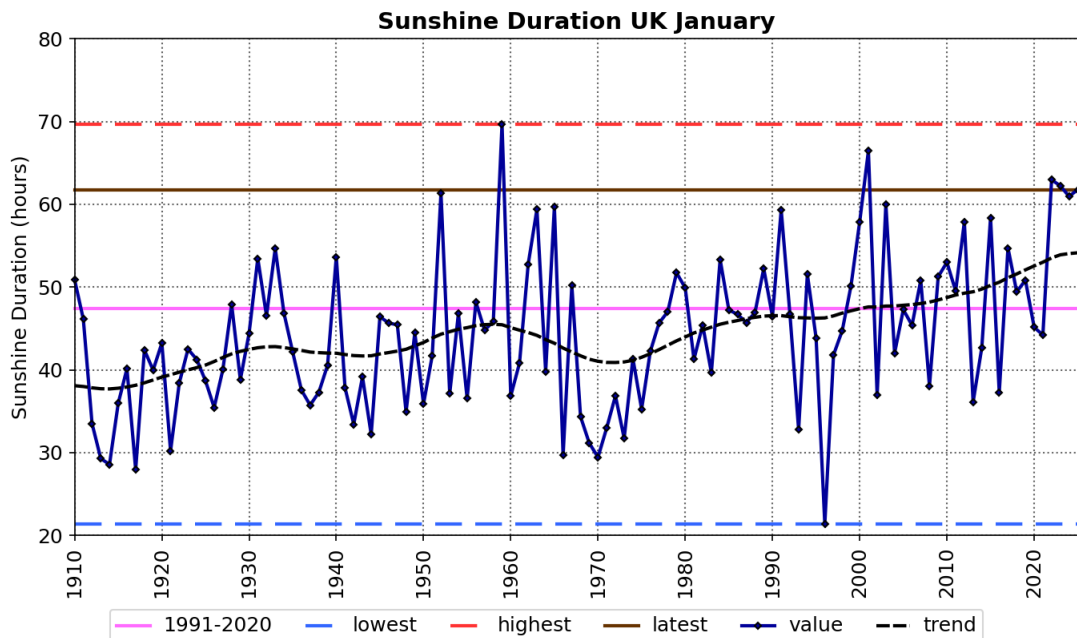
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Period	1961-1990	1991-2020	2016-2025	2025
Meantemp (°C)	3.0	3.9	4.0	3.0



Period	1961-1990	1991-2020	2016-2025	2025
Rainfall (mm)	111.1	121.5	111.8	95.8



Period	1961-1990	1991-2020	2016-2025	2025
Sunshine (hours)	43.6	47.5	53.0	61.8

Daily time-series

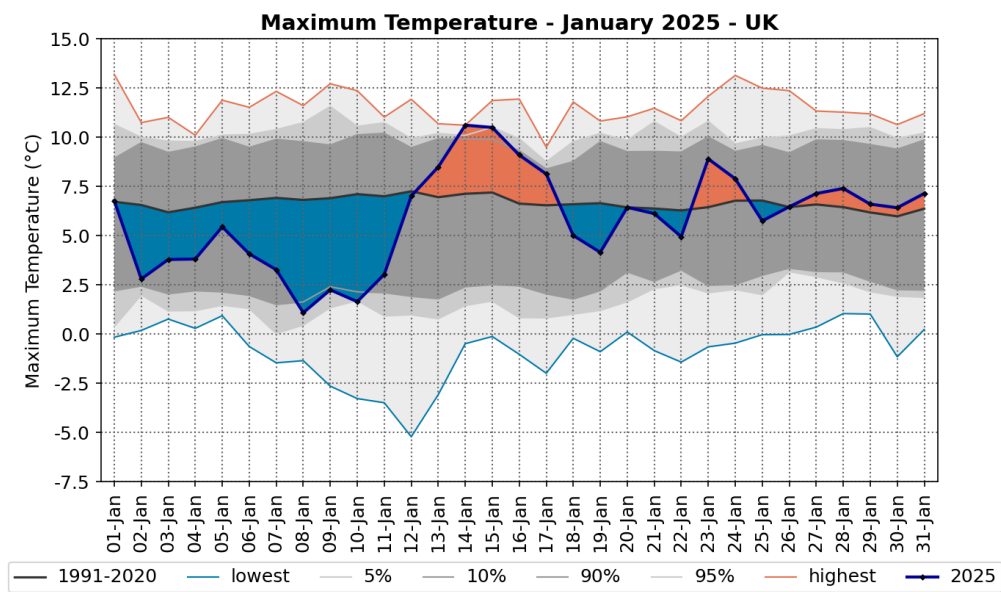
These charts show time-series of UK area-average daily maximum and daily minimum temperature and daily rainfall for each day of January 2025. The areas shaded in grey show the highest and lowest values in the daily temperature series (from 1960) and daily rainfall series (from 1891) together with percentiles and the 1991-2020 long term averages for each day. The rainfall accumulation chart shows the daily rainfall series as an accumulation through the month.

Daily maximum and daily minimum temperature



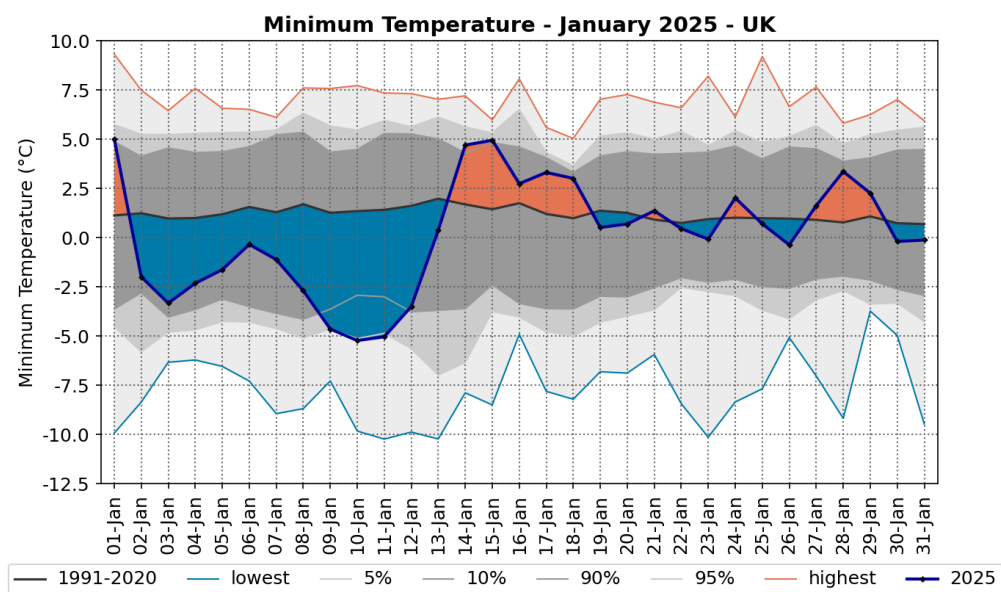
Source: HadUK-Grid 01/02/2025 10:55

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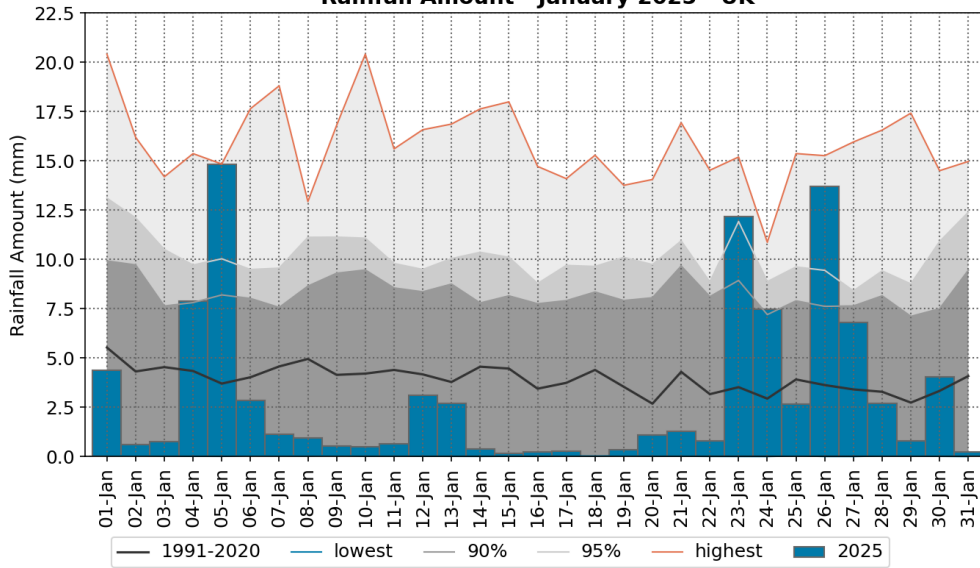
Daily rainfall and rainfall accumulation

Met Office

Source: HadUK-Grid 01/02/2025 10:55

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Rainfall Amount - January 2025 - UK

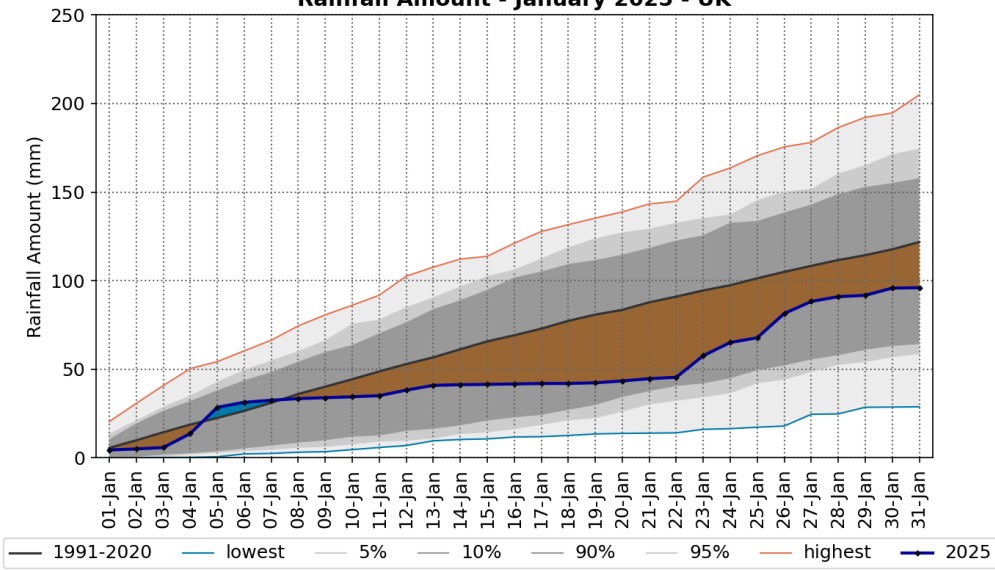


Met Office

Source: HadUK-Grid 01/02/2025 10:58

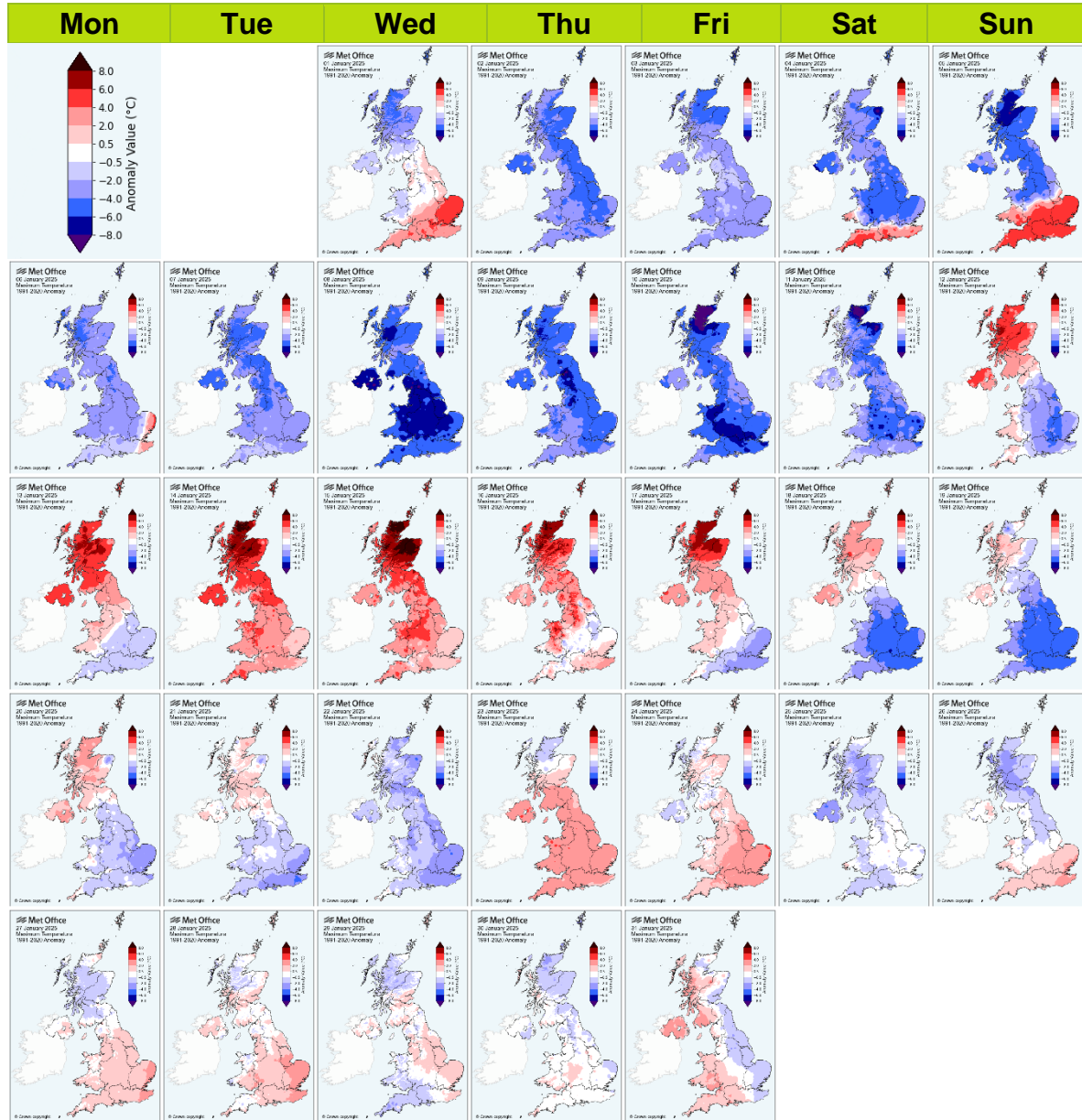
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Rainfall Amount - January 2025 - UK



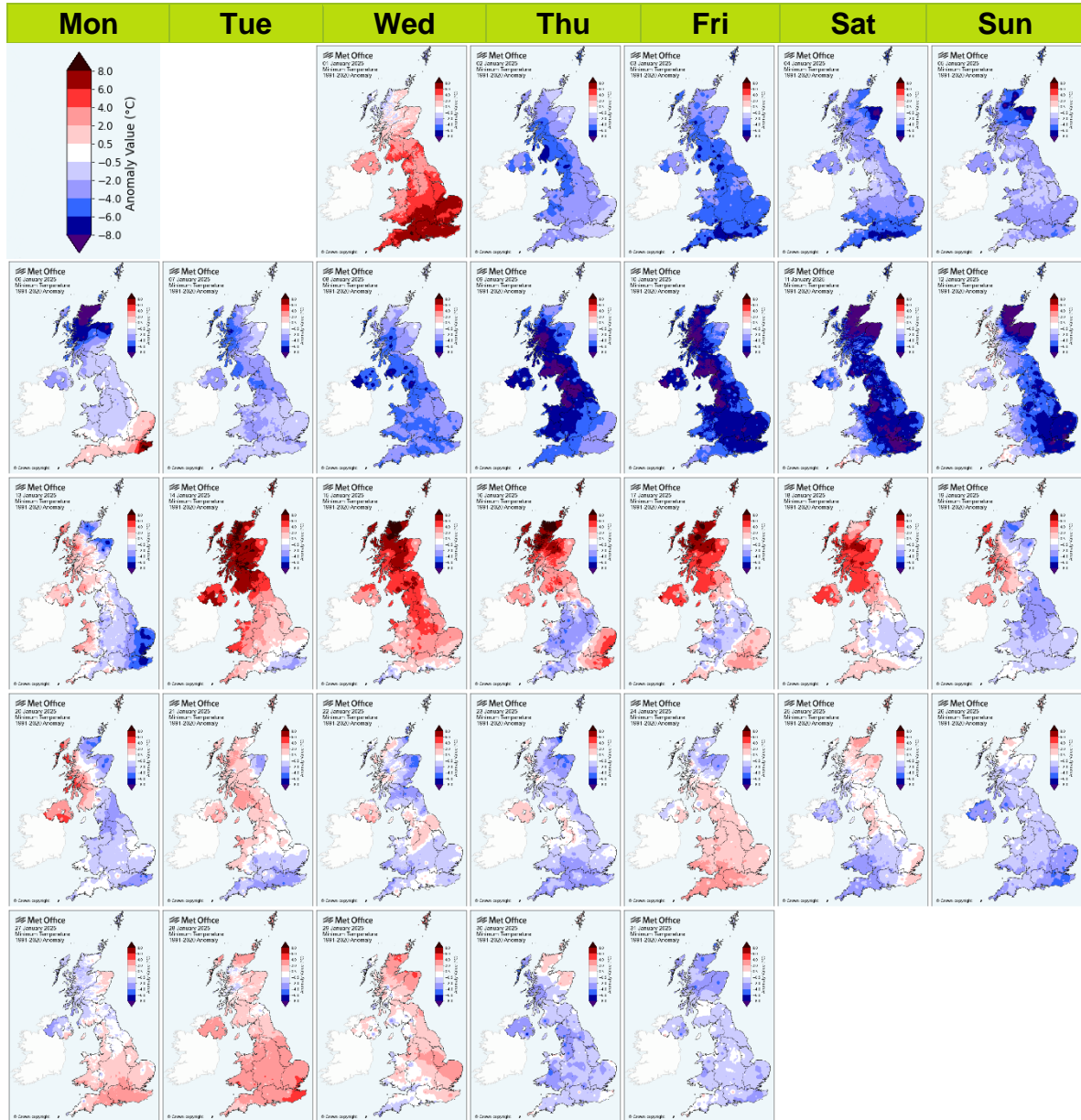
Daily maximum temperature maps - calendar view

These maps show daily maximum temperatures for each day of January 2025 as anomalies relative to the January 1991-2020 long term average. The daily maximum temperature is the maximum from 0900UTC on the day in question to 0900UTC the following day. Normally, the maximum occurs in the early afternoon.



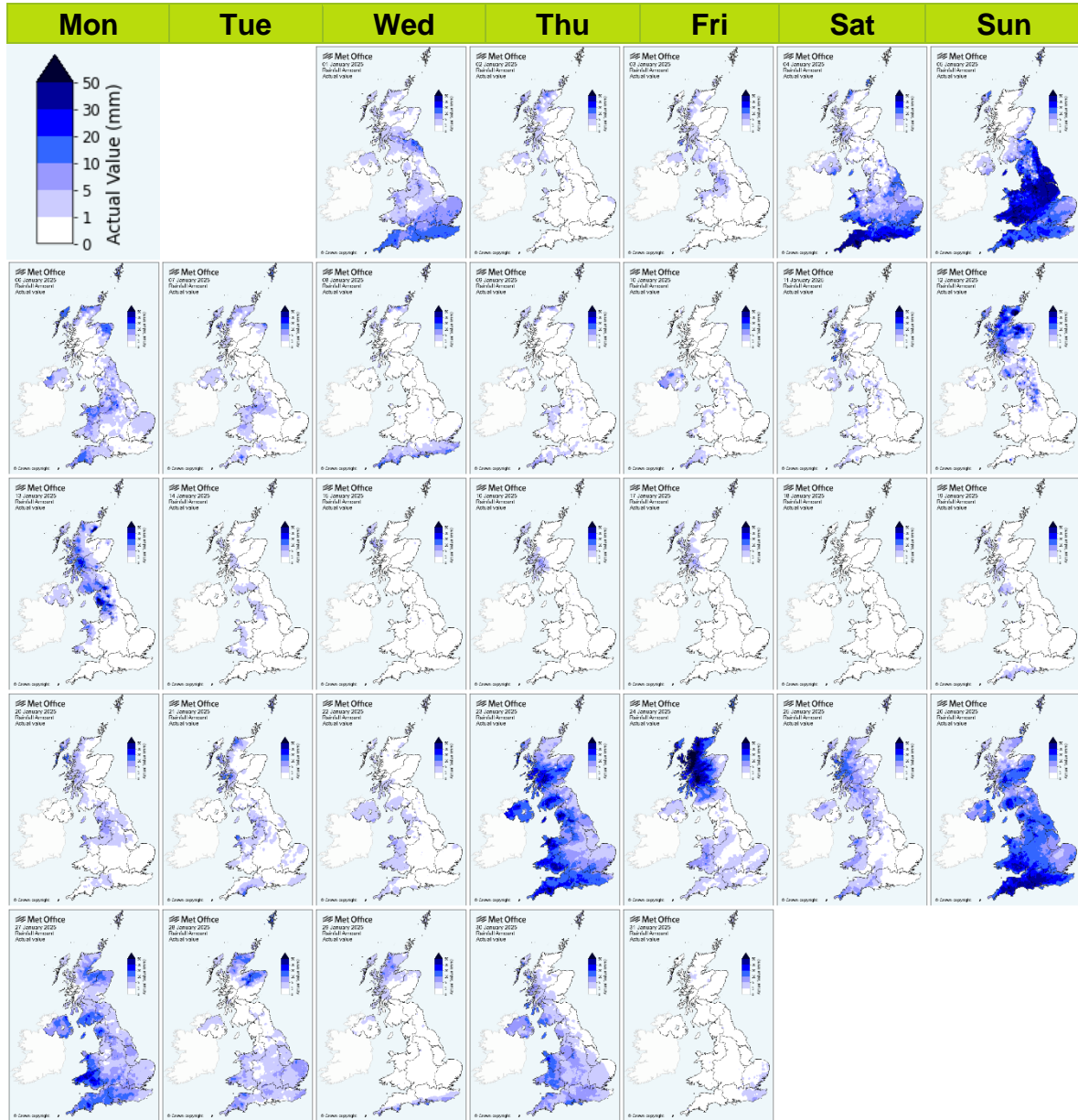
Daily minimum temperature maps - calendar view

These maps show daily minimum temperatures for each day of January 2025 as anomalies relative to the January 1991-2020 long term average. The daily minimum temperature is the minimum from 0900UTC the previous day to 0900UTC on the day in question. Normally, the minimum occurs in the early morning.



Daily rainfall maps - calendar view

These maps show daily rainfall for each day of January 2025 as daily totals. The daily rainfall is the total from 0900UTC on the day in question to 0900UTC the following day.

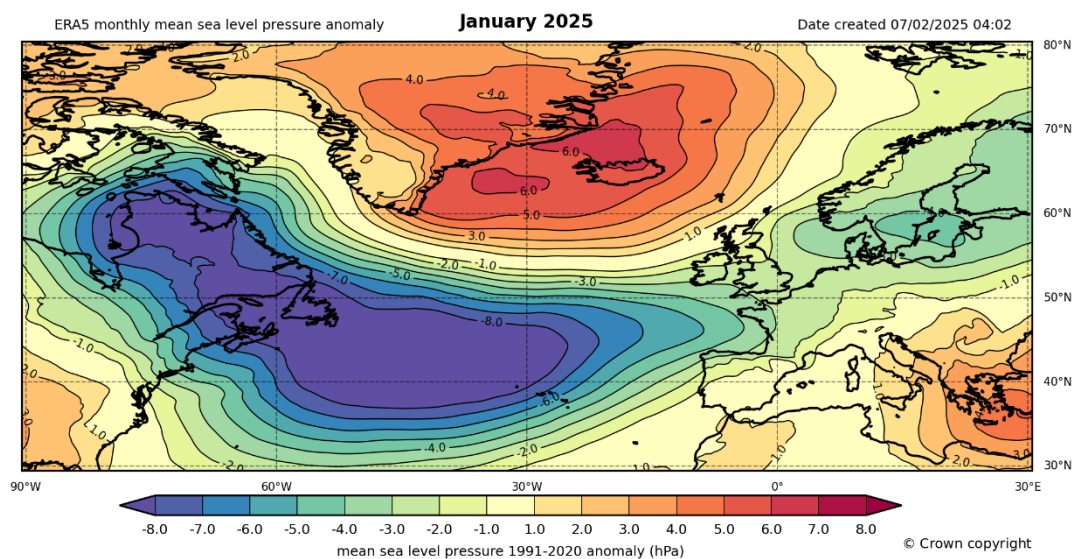
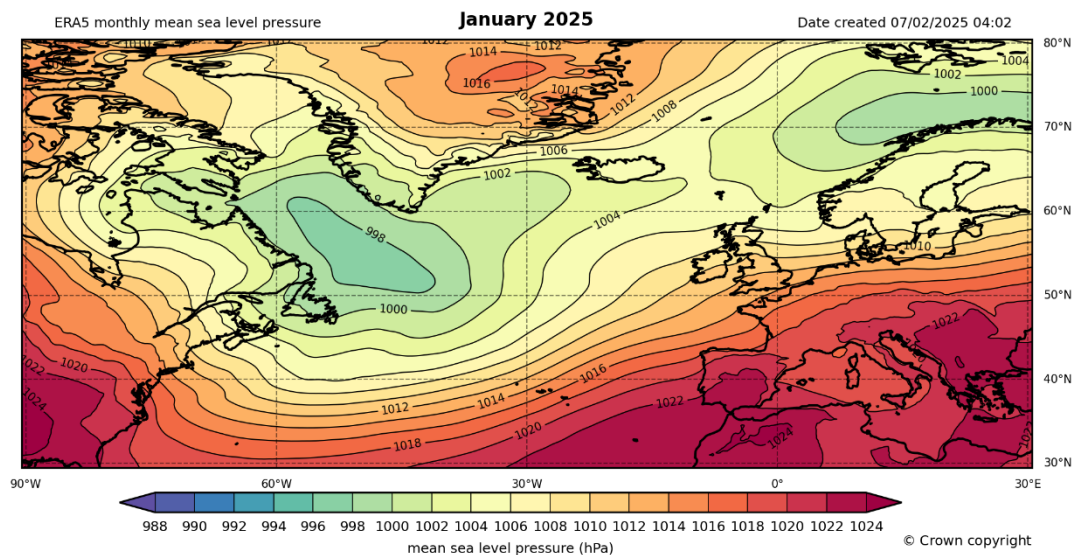


Monthly atmospheric circulation

Mean sea level pressure

These charts show the monthly mean sea level pressure for January 2025 for the UK and north Atlantic, based on the ERA5 reanalysis (Hersbach et al, 2019), both as actual values and as an anomaly relative to the January long term average. These charts provide an indication of the weather characteristics of the month overall i.e. whether the weather type has been generally settled (high pressure) or unsettled (low pressure) during the month.

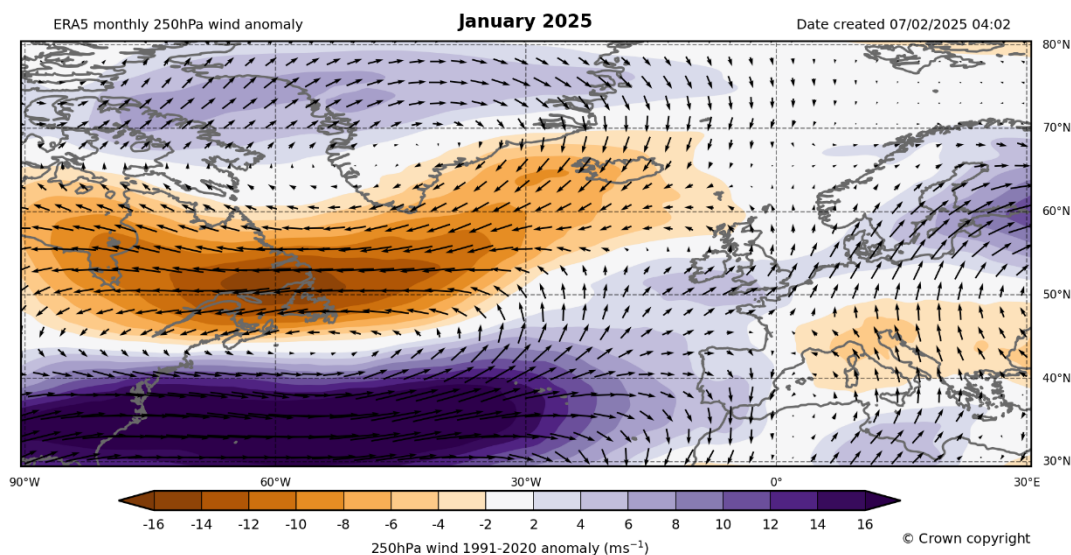
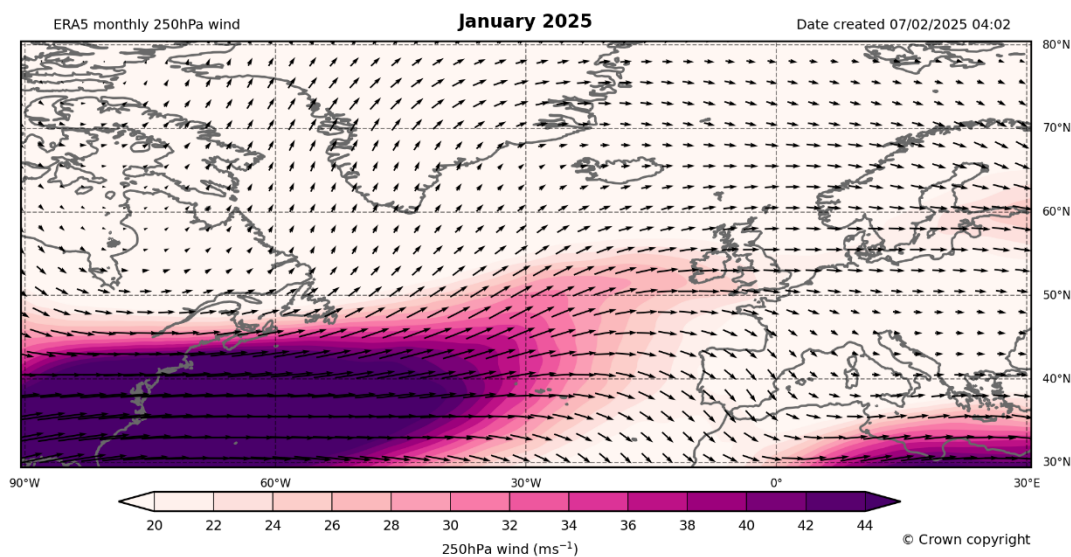
In January, the mean sea level pressure was slightly lower than average over the UK, with a large low pressure anomaly across the Atlantic and a high pressure anomaly over Iceland.



250hPa wind speed and direction

These charts show the monthly 250hPa wind speed and direction for January 2025 for the UK and north Atlantic, based on the ERA5 reanalysis (Hersbach et al, 2019), both as actual values and as an anomaly relative to the January long term average. This provides an indication of the mean strength and position of the jet stream compared to normal. The wind anomaly map shows shaded (scalar) wind speed anomalies with arrows as (vector) wind anomalies.

The jetstream was displaced to the south of its usual track and its westerly flow was slightly stronger than normal over southern UK.



Weather diary

- **Very cold with snow, ice and fog first half, milder but stormy second half**

the 1st, a depression passed close to northern Scotland, introducing northerly winds, resulting in very cold conditions with sunny spells, and snow showers from the 2nd with all regions reporting lying snow. There was a marked contrast in maximum temps north to south, with maxes struggling to break zero in Scotland, but hitting the mid-teens Celsius in southern counties of England, the contrast diminishing between the 2nd and 4th as the cold air swept south to all parts.

On the 5th, another Atlantic depression moved up from the southwest bringing some significant rain but noticeably milder temperatures to southern counties, and snowfall to all other parts of the UK. Parts of the Peak District reporting up to 16cm of lying snow. As this system moved east into the north sea on the 6th, the whole of the country was again under the influence of cold northerly winds. Snow showers were prevalent over the north coast of Scotland and Northern Ireland, and parts of the west coasts of England and Wales. Snow depths reaching 26cm in parts of the Highlands. Minima dropped well below zero everywhere, and minus double figures Celsius in Scotland on the 9th and 10th, with the lowest temperatures being recorded on the 11th, -18.9°C at Altnaharra.

As the high moved south into the near continent, winds turned southwesterly introducing significantly milder conditions from the 12th, initially for Northern Ireland, Scotland and Wales, then eventually for England. Maxima now touching 13deg C in the Province, and 14deg C in western Scotland. There was a gradual cooling over the next few days as the UK drew air from a cool continent. Rainfall was sparse, as was sunshine, under generally cloudy or overcast skies, and any frontal systems were kept out in the Atlantic.

Eventually, it was all change from the 23rd as a strong jetstream crossed the Atlantic, bringing a series of deep depressions across the UK. One such depression was Storm Eowyn which tracked to the west of Northern Ireland and Scotland on the 24th bringing exceptional winds across the whole UK, with gusts exceeding 90mph in County Down, Gwynedd, and Northumberland, and over 100mph in South Lanarkshire. Gusts exceeded 80mph as far south as the south coast of England. Even average speeds exceeded 50mph across all regions. Northern Ireland recorded its lowest barometric pressure of 948.1hPa. Respite was brief as another storm, Herminia, brought heavy rain and winds gusting in excess of 80mph to southern and western regions on the 26th. The effects of this particular storm finally diminished on the 29th as it moved away into the North Sea.

Mercifully, the last couple of days of the month offered a much needed respite from the stormy weather as a ridge of high pressure settled over the UK.

Notes

The Met Office National Meteorological Library and Archive holds a near-continuous record of monthly weather reports from 1884, and this report forms a continuation of that series. The purpose of each report is to provide an overview of the weather conditions across the UK for that month. The emphasis is mainly based on observations from the surface network of weather stations. Climate series based on data from these stations are used to provide long term context.

This summary was produced on 07/02/2025 13:00. The statistics are a provisional assessment of the observational data available at the time of production. Ongoing data receipt and quality assurance processes may result in subsequent updates to the statistics presented.

If you have any questions or feedback about this product, spot any data errors or omissions, or wish to obtain further data, please contact the Met Office.

For historical monthly weather reports please visit the Library and Archive.

- The land-surface observations presented in this report are from the Met Office official weather station network which includes both automatic weather stations and manual climate stations operated by volunteer observers. Rainfall data are from the official registered rain-gauge network which includes rain-gauges operated by a number of key partners including the Environment Agency, Scottish Environmental Protection Agency and Northern Ireland Water.
- The observations are carefully managed such that they conform to current best-practice observational standards as defined by the World Meteorological Organization (WMO). The observations also pass through a range of quality assurance procedures at the Met Office before application for climate monitoring.
- Daily and monthly maps, monthly statistics and monthly time-series are primarily based on the HadUK-Grid dataset of 1km resolution UK gridded climate data (Hollis et al, 2019). Monthly statistics from the monthly Central England temperature series 1659 (Manley, 1974) and England and Wales precipitation series from 1766 (Wigley et al, 1984) provide long term context.
- The monthly lightning activity map is based on data from the Met Office LEELA (Lightning Electromagnetic Emission Location by Arrival time difference) system. This is an automatic lightning location network comprising around ten lightning outstation sensors located across Europe.
- The monthly maps of mean sea level pressure and 250hPa wind speed and direction are based on the ERA5 reanalysis (Hersbach et al, 2019). ERA5 is the fifth generation ECMWF reanalysis for the global climate and weather for the past 4 to 7 decades. Reanalysis combines model data with observations from across the world into a globally complete and consistent dataset using the laws of physics.

Hersbach, H., Bell, B., Berrisford, P., Biavati, G., Horányi, A., Muñoz Sabater, J., Nicolas, J., Peubey, C., Radu, R., Rozum, I., Schepers, D., Simmons, A., Soci, C., Dee, D., Thépaut, J-N. (2019): ERA5 monthly averaged data on single levels from 1959 to present. Copernicus Climate Change Service (C3S) Climate Data Store (CDS).
<https://doi.org/10.24381/cds.f17050d7>

Hollis, D, McCarthy, MP, Kendon, M, Legg, T, Simpson, I. HadUK-Grid - A new UK dataset of gridded climate observations. *Geosci Data J.* 2019; 6: 151-159.
<https://doi.org/10.1002/gdj3.78>

Manley, G. (1974), Central England temperatures: Monthly means 1659 to 1973. *Q.J.R. Meteorol. Soc.*, 100: 389-405. <https://doi.org/10.1002/qj.49710042511>

Wigley, T.M.L., Lough, J.M. and Jones, P.D. (1984), Spatial patterns of precipitation in England and Wales and a revised, homogeneous England and Wales precipitation series. *J. Climatol.*, 4: 1-25. <https://doi.org/10.1002/joc.3370040102>

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