

February 2025 Monthly Weather Report

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

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UK overview

February began with rain across western Scotland and Northern Ireland, before the weather turned more settled. A blocking high pressure system to the east of the UK led to overcast but settled conditions for the next few weeks, with below average temperatures and some scattered showers. Occasional frontal systems brought rain, sometimes wintry over high ground. Scotland saw some snow and freezing rain on the 18th, before the blocking high started moving away around the 19th. The weather turned more unsettled as a low pressure system to the west of the UK moved towards Iceland. This led to frontal systems bringing heavy rain to much of the country, and coastal gales in northern areas. Temperatures also rose to above average as the cold easterly weather regime shifted to milder westerly conditions. Frontal systems brought particularly heavy rain to Wales and western parts of England and Scotland on the 23rd, leading to some flooding. The end of the month saw building high pressure, resulting in more settled conditions as well as widespread frost and some foggy conditions.

Although temperatures for the UK in the first two weeks of February were below average, the shift mid-month to warmer conditions led to an overall mean temperature above average for the month. The UK recorded a provisional mean of 4.6°C, 0.5°C above the long-term average. Northern Ireland in particular was warm, seeing temperatures provisionally 0.9°C above average. February started with little rainfall under the high pressure system, but this shifted mid-month as the weather became more unsettled. Overall rainfall, however, was still below average, with the UK provisionally recording 72.7mm of rainfall, 76% of the long-term average February rainfall. Northern England was particularly dry, seeing little over half of the average February rainfall. Despite a gloomy start to the month, sunshine hours increased in the latter half, resulting in the UK provisionally recording 67 hours of sunshine, 93% of the average. Scotland saw above average sunshine, with northern Scotland particularly sunny, seeing provisionally 137% of the average sunshine hours for February.

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

Weather impacts

- **Strong winds and heavy rain on the 19th saw loss of power in some areas of Northern Ireland and travel disruption across southwest England**
- **Heavy rain in Wales on the 23rd and 24th led to flooding and travel disruption**

February was a quiet month with relatively little in the way of impactful weather, largely due to an extended period of anticyclonic conditions between the 6th and 19th. Spells of more changeable weather bookended the settled period, but there were no named storms and just a single amber warning issued for rain. Temperatures across the UK balanced out at or a little above the long-term average, with the first half of the month cooler than average and the second half milder as the airflow veered round from southeasterly to southerly/southwesterly. The anticyclonic influence made for a drier than average month, especially across northern Wales, northern England and central and northern parts of Scotland. Sunshine, however, was in relatively short supply except across northern Scotland, the continental airflow during the more settled period bringing with it extensive areas of low cloud.

On the 4th, a slow, eastwards-moving cold front gave prolonged rainfall across the western side of Scotland. There were several reports of minor flooding on some of the trunk roads around Glasgow. By the 6th, high pressure was exerting its influence across much of the UK, which would continue for much of the following fortnight. The weather during this period was rather cold, often cloudy but largely settled and non-impactful. The drying trend did, however, raise the wildfire threat and the 18th/19th saw several fires break out across parts of Wales including reports of a blaze on Cwm Mountain near Llandudno on the evening of the 18th.

A major pattern change began on the 19th as the resilient area of high pressure finally retreated eastwards into continental Europe. This allowed Atlantic weather fronts to gain supremacy and resulted in several days of much more unsettled but also milder weather across the UK. The 19th saw heavy rainfall across parts of Cumbria whilst the winds were also on the increase with reports on the 21st of around 1500 customers without power across southeastern Northern Ireland and several trees reportedly brought down by the strong southerly winds. Rail services in southwest England were also disrupted with reports of a tree blocking the line between Truro and St Austell. Various low impact rain and wind warnings were issued over this period. On the 21st, a landslide in southwest Scotland was reported to have blocked the west coast main line near Beattock.

The 23rd would prove to be the wettest and the joint windiest day of the month with over 100mm of rain recorded at both White Barrow, Devon and in parts of Rhondda Cynon Taf,

south Wales. Winds were strong right across the UK with numerous diversions reported from both Dublin and Edinburgh airports. The M48 Severn crossing was reported as closed for a time and there were reports of fallen trees blocking roads from as far apart as Barnstaple, Anglesey and Lanark. The main concern as regards flooding impacts was across southern Wales where the prolonged rainfall threatened renewed flooding in areas that had seen significant impacts earlier in the winter. Whilst some 12 flood warnings were issued by Natural Resources Wales along the principal rivers, no major river flooding was reported, though there were a number of minor surface water flooding issues reported, especially in and around the valley heads. The rail line between Pontypridd and Aberdare was reported closed by flooding but was able to reopen on the morning of the 24th.

After further rain on the 24th to 26th the month ended dry and sunny for many as high pressure returned to provide a settled end to winter.

Monthly extremes

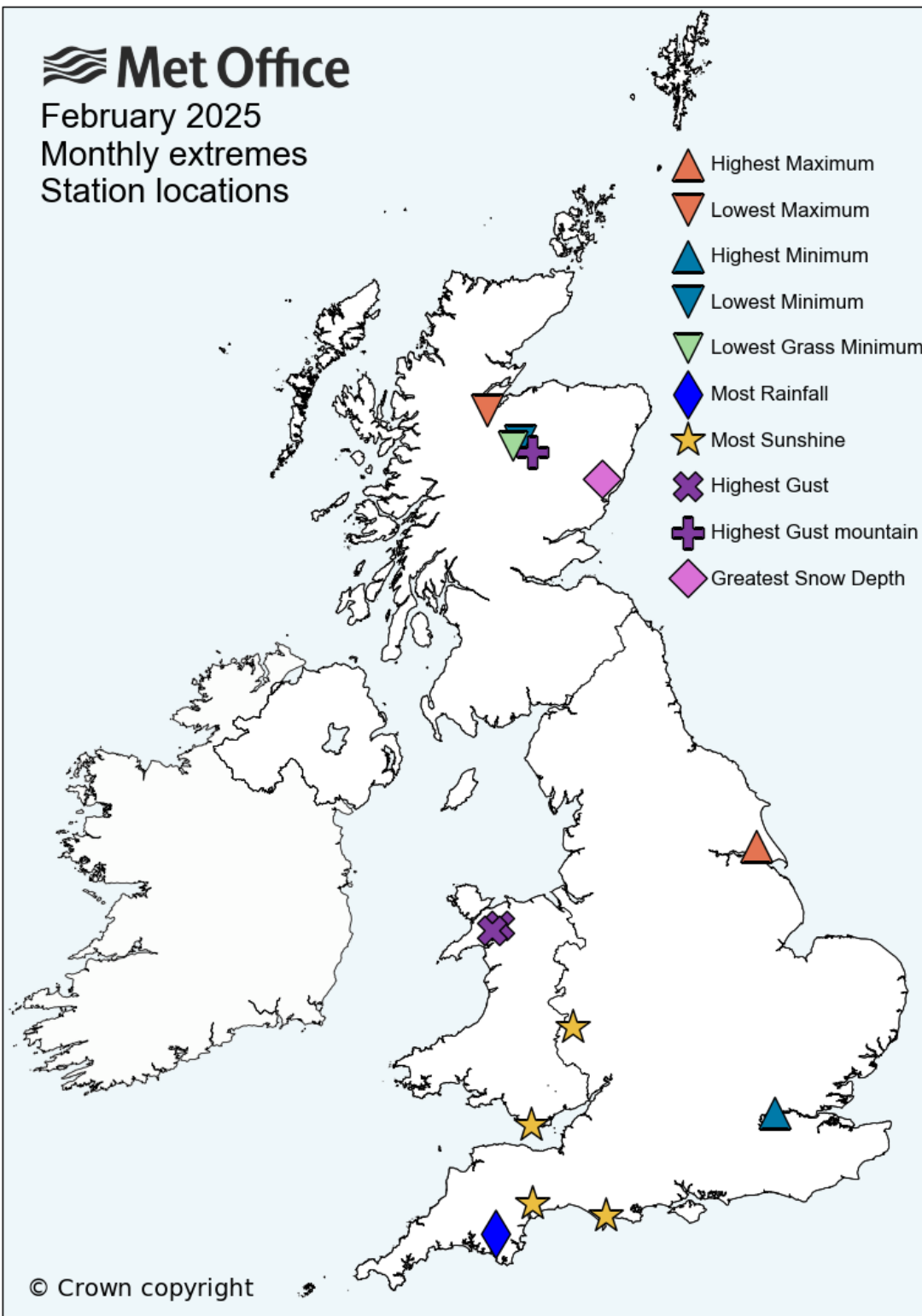
The table below lists UK monthly weather extremes recorded at individual weather stations during February 2025 from data available on 03/03/2025. The map shows the location of these stations.

Highest Maximum	17.0°C on 21st at Hull, East Park (Humberside, 2mAMSL)
Lowest Maximum	0.1°C on 8th at Lentrán (Inverness-shire, 146mAMSL)
Highest Minimum	11.9°C on 21st at London, St James's Park (Greater London, 5mAMSL)
Lowest Minimum	-9.6°C on 14th at Aviemore (Inverness-shire, 228mAMSL)
Lowest Grass Minimum	-12.6°C on 14th at Aviemore (Inverness-shire, 228mAMSL)
Most Rainfall	111.2mm on 23rd at White Barrow (Devon, 445mAMSL)
Most Sunshine	10.2hr on 28th at Shobdon Airfield (Hereford & Worcester, 99mAMSL) and Preston, Cove House (Dorset, 44mAMSL) and St Athan (South Glamorgan, 49mAMSL) and Exeter Airport No 2 (Devon, 27mAMSL)
Highest Gust	69Kt 79mph on 21st at Capel Curig No 3 (Gwynedd, 216mAMSL) also on 23rd at Capel Curig No 3 (Gwynedd, 216mAMSL)
Highest Gust (mountain*)	104Kt 120mph on 23rd at Cairngorm Summit (Inverness-shire, 1237mAMSL)
Greatest Snow Depth at 0900 UTC	4cm on 18th at Fettercairn, Glensaugh No 2 (Kincardineshire, 171mAMSL)

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

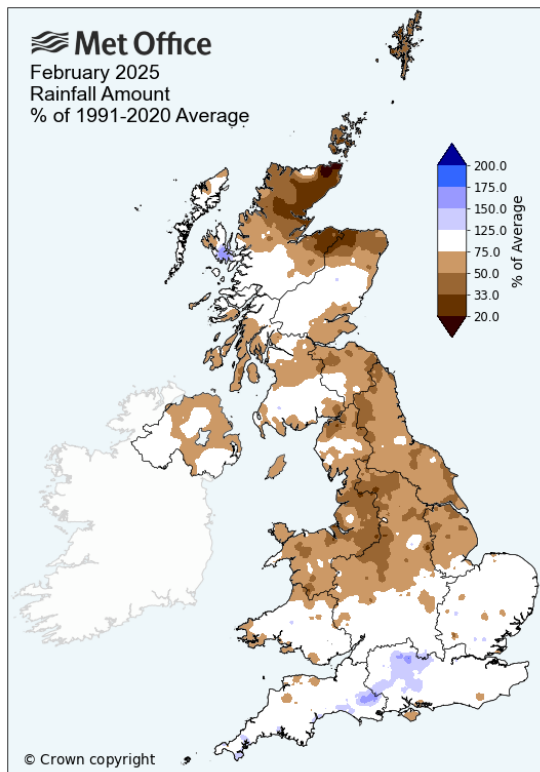
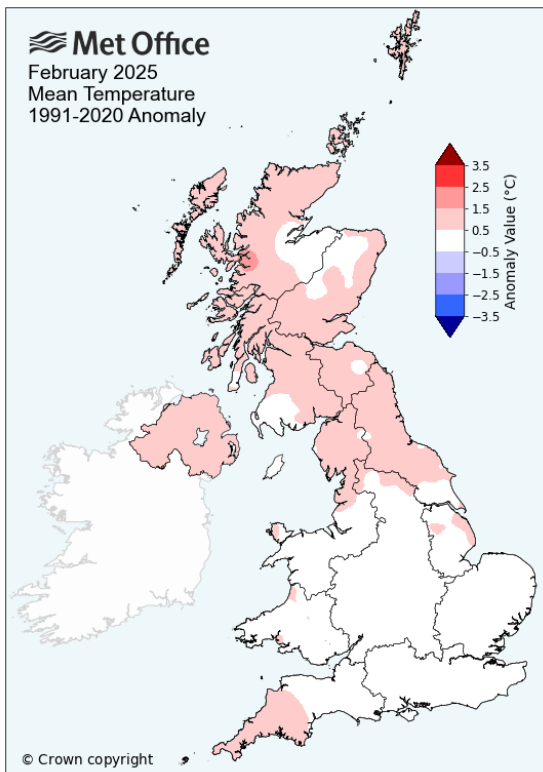
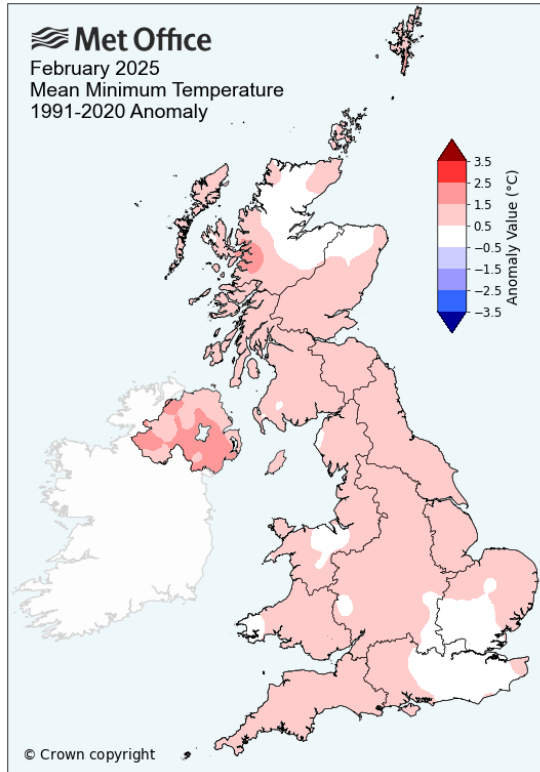
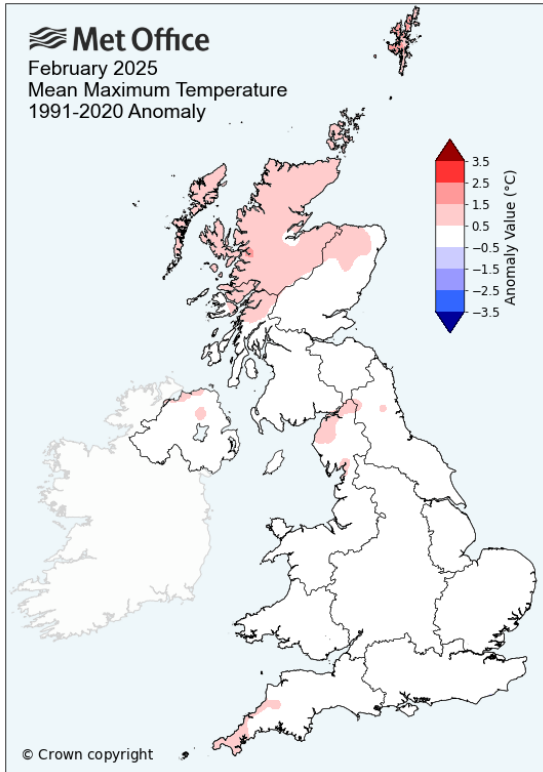
*Mountain stations are above 500mAMSL.

February 2025
Monthly extremes
Station locations

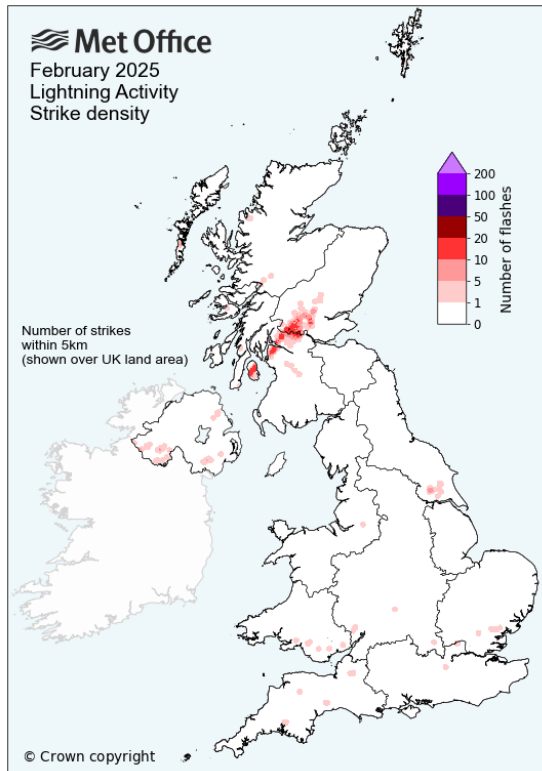
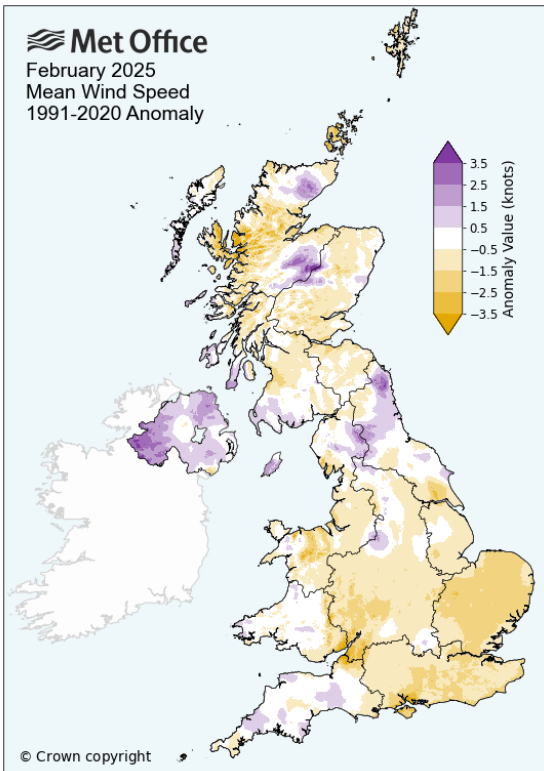
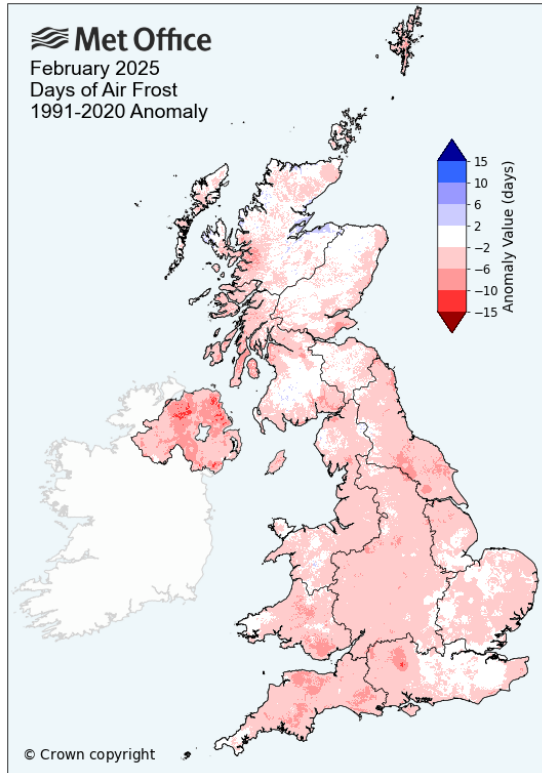
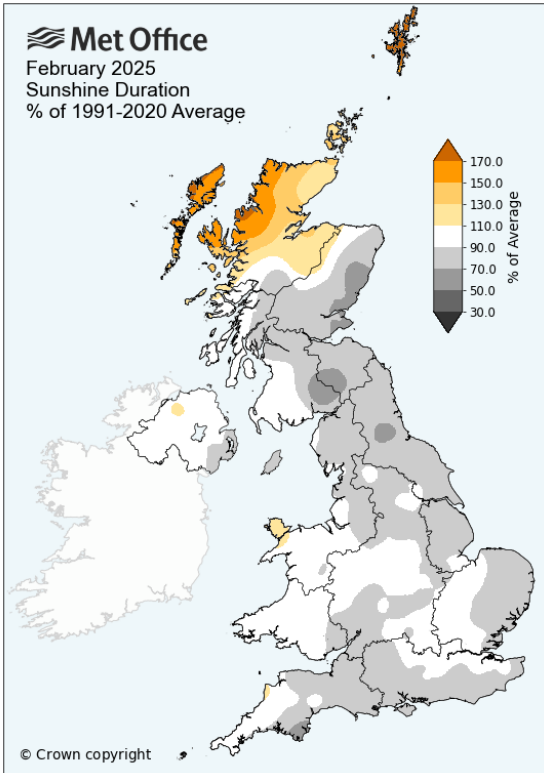


Monthly maps

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



These maps show monthly sunshine, monthly air frost and monthly windspeed for February 2025 as anomalies relative to the February 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 February 2025 for max, min and mean temperature, rainfall, sunshine and windspeed as actual values and anomalies relative to the February 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	7.4	0.2	35	108	142
England	7.8	0.0	49	94	142
Wales	7.3	-0.1	54	89	142
Scotland	6.5	0.6	25	118	142
Northern Ireland	8.2	0.3	42	101	142
Central England	8.0	-0.0	53	96	148

Mean minimum temperature

Region	Mintemp (°C)	1991-2020 Anomaly (°C)	Rank - warmest	Rank - coldest	Series length (yrs)
UK	1.9	0.8	26	117	142
England	2.2	0.7	29	114	142
Wales	2.3	0.7	38	105	142
Scotland	1.0	0.8	26	117	142
Northern Ireland	3.1	1.5	14	129	142
Central England	2.6	0.7	42	107	148

Mean temperature

Region	Meantemp (°C)	1991-2020 Anomaly (°C)	Rank - warmest	Rank - coldest	Series length (yrs)
UK	4.6	0.5	32	111	142
England	5.0	0.4	41	102	142
Wales	4.8	0.3	41	102	142
Scotland	3.8	0.7	27	116	142
Northern Ireland	5.6	0.9	20	123	142
Central England	5.3	0.3	88	280	367

Rainfall

Region	Rainfall (mm)	% of 1991-2020 Average	Rank - wettest	Rank - driest	Series length (yrs)
UK	72.7	76	109	82	190
England	52.2	79	105	86	190
Wales	90.3	75	105	86	190
Scotland	102.6	73	110	81	190
Northern Ireland	71.2	78	112	79	190
EWP (England and Wales)	57.1	79	146	115	260

Sunshine

Region	Sunshine (hours)	% of 1991-2020 Average	Rank - sunniest	Rank - dullest	Series length (yrs)
UK	67.0	93	52	65	116
England	67.5	87	58	59	116
Wales	68.1	98	52	65	116
Scotland	65.8	104	37	80	116
Northern Ireland	66.4	99	47	70	116

Windspeed

Region	Windspeed (knots)	1991-2020 Anomaly (knots)	Rank - windiest	Rank - calmest	Series length (yrs)
UK	10.2	-0.6	33	25	57
England	8.7	-0.8	39	19	57
Wales	10.9	-0.6	29	29	57
Scotland	12.1	-0.6	33	25	57
Northern Ireland	11.1	1.2	16	42	57

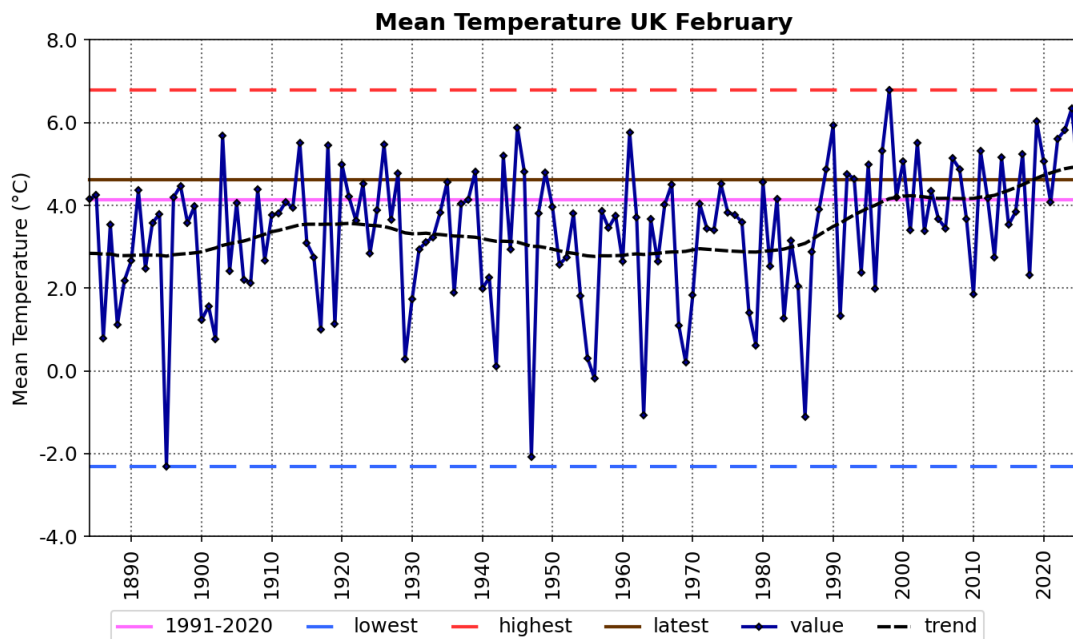
Monthly time-series

These charts show time-series for the UK for February 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.

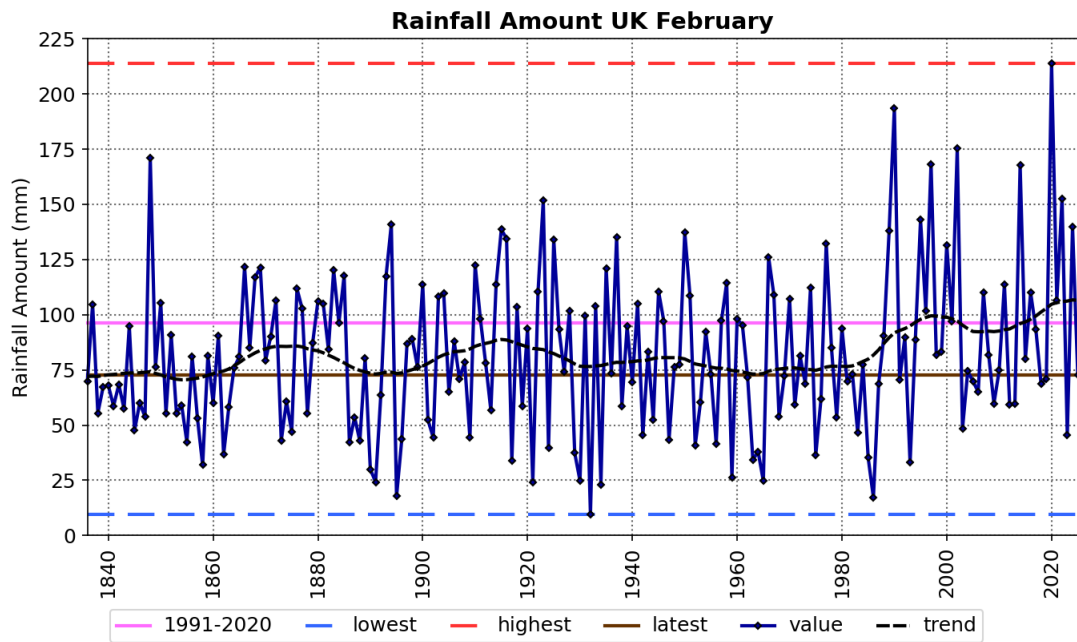


Source: HadUK-Grid 01/03/2025 10:44

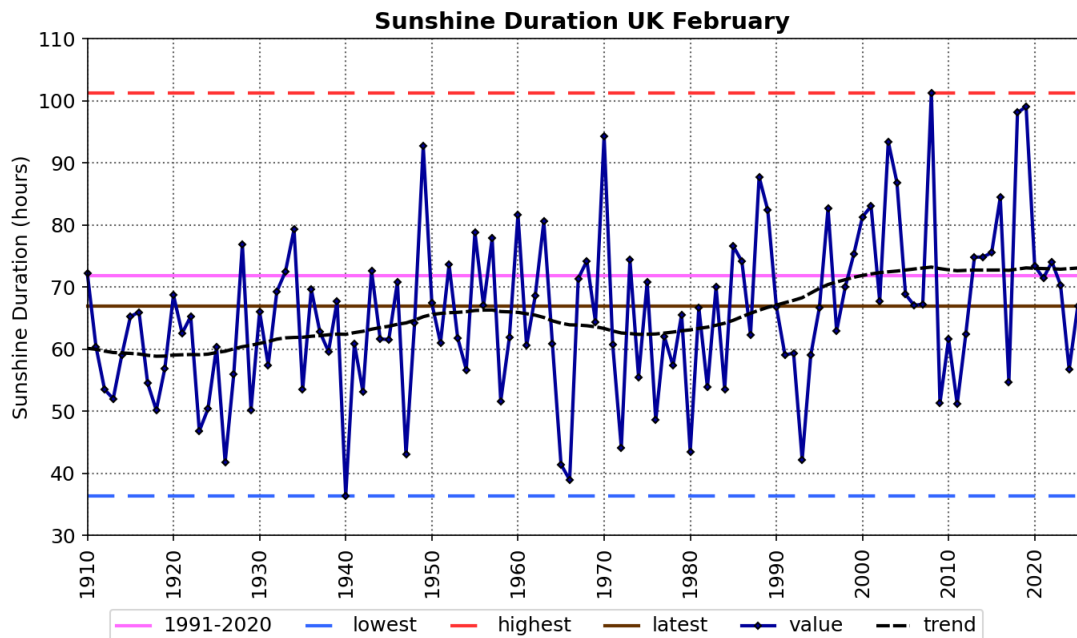
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Period	1961-1990	1991-2020	2016-2025	2025
Meantemp (°C)	3.0	4.1	4.9	4.6



Period	1961-1990	1991-2020	2016-2025	2025
Rainfall (mm)	77.5	96.2	107.4	72.7



Period	1961-1990	1991-2020	2016-2025	2025
Sunshine (hours)	64.4	71.9	74.9	67.0

Daily time-series

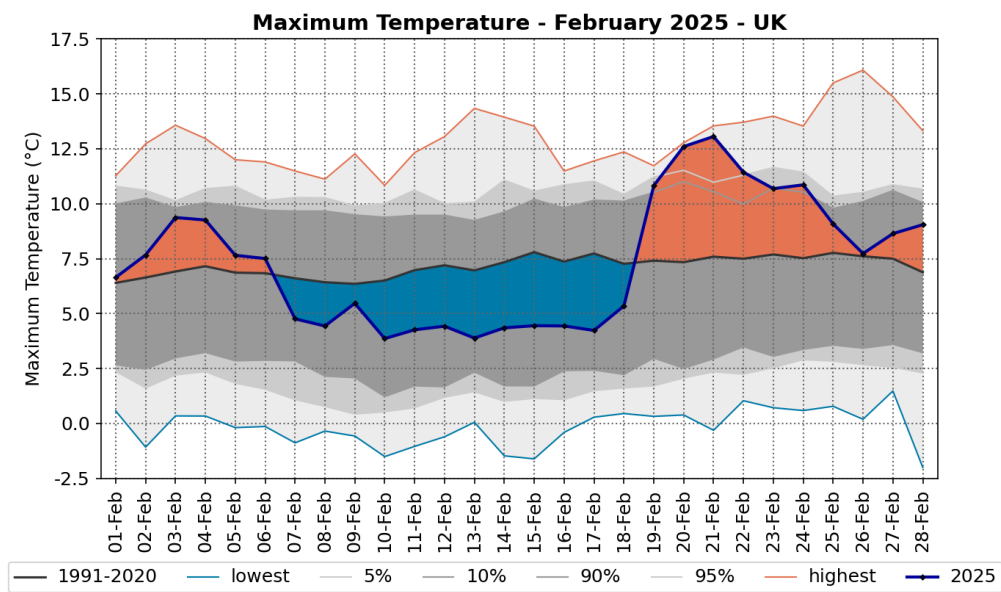
These charts show time-series of UK area-average daily maximum and daily minimum temperature and daily rainfall for each day of February 2025. The areas shaded in grey show the highest and lowest values in the daily temperature series (from 1960) and daily rainfall series (from 1891) together with percentiles 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



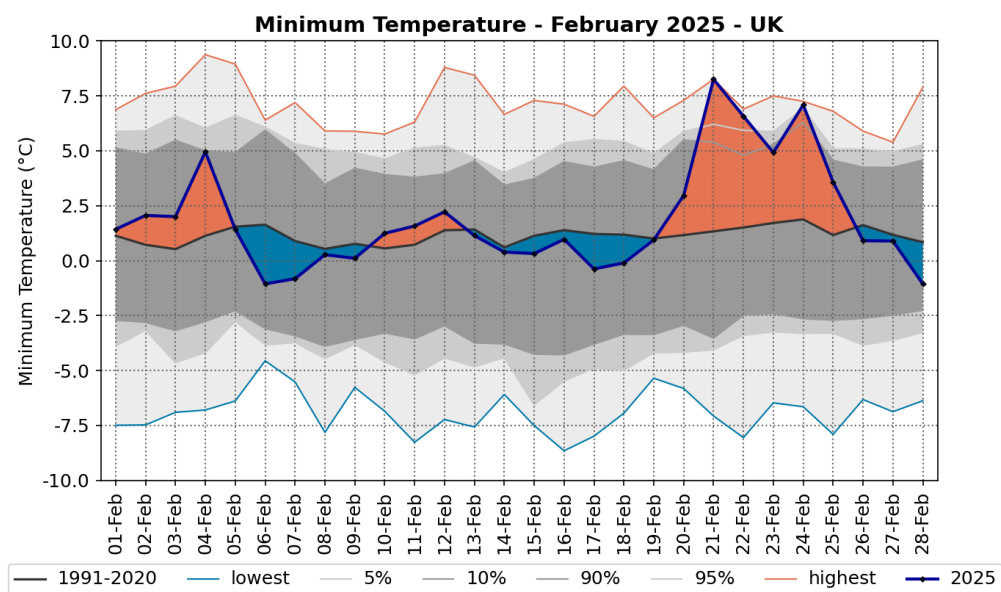
Source: HadUK-Grid 01/03/2025 10:52

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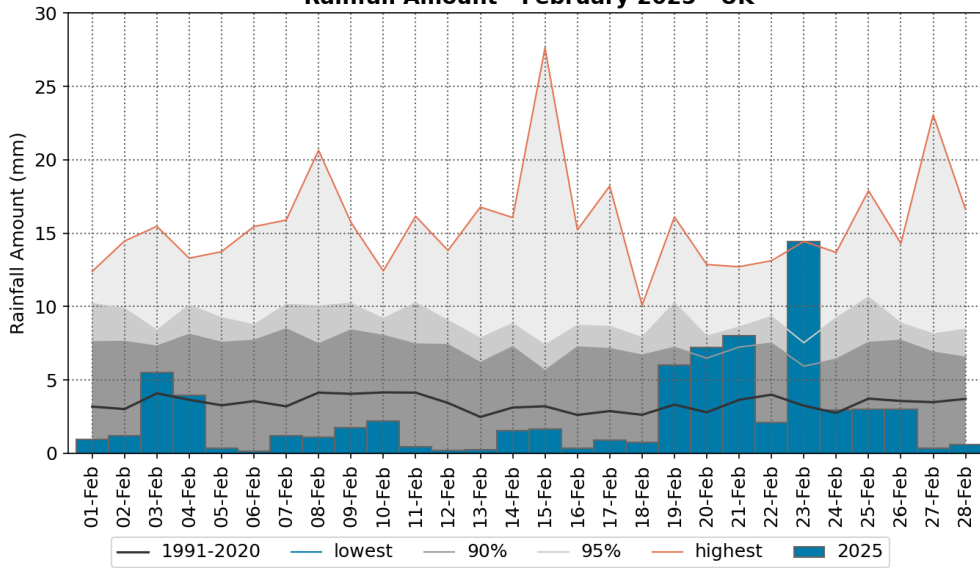
Daily rainfall and rainfall accumulation

Met Office

Source: HadUK-Grid 01/03/2025 10:52

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Rainfall Amount - February 2025 - UK

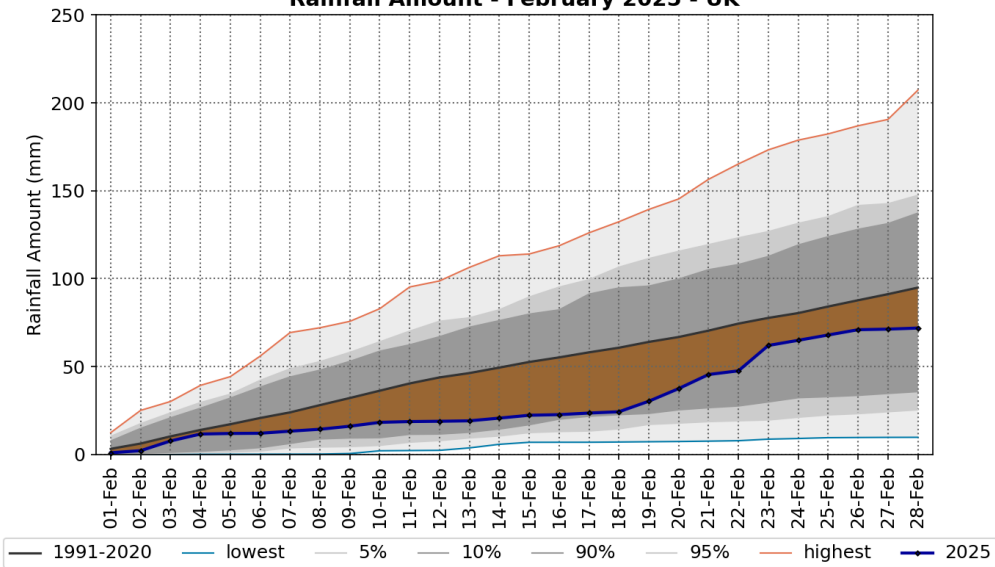


Met Office

Source: HadUK-Grid 01/03/2025 10:55

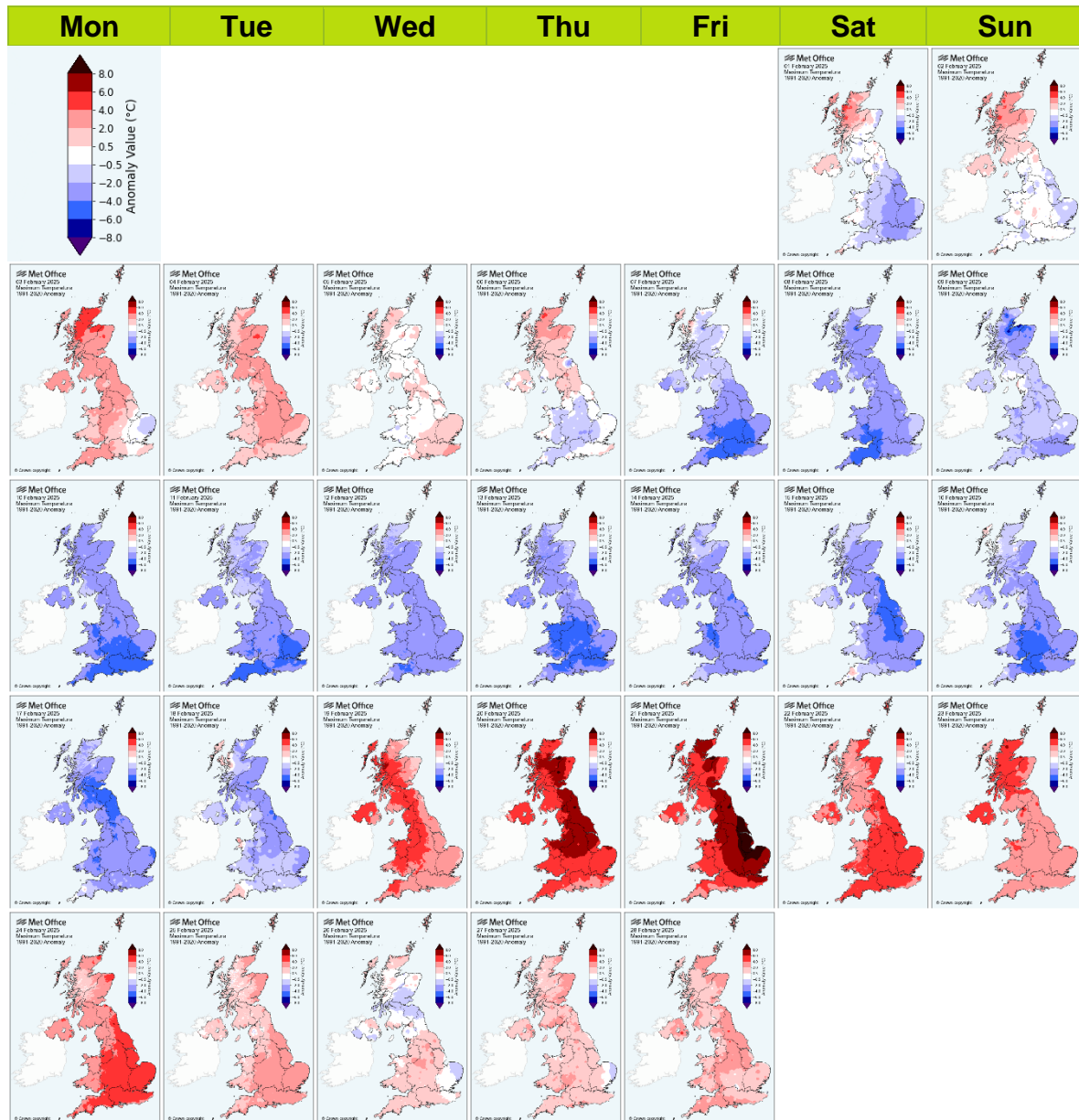
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Rainfall Amount - February 2025 - UK



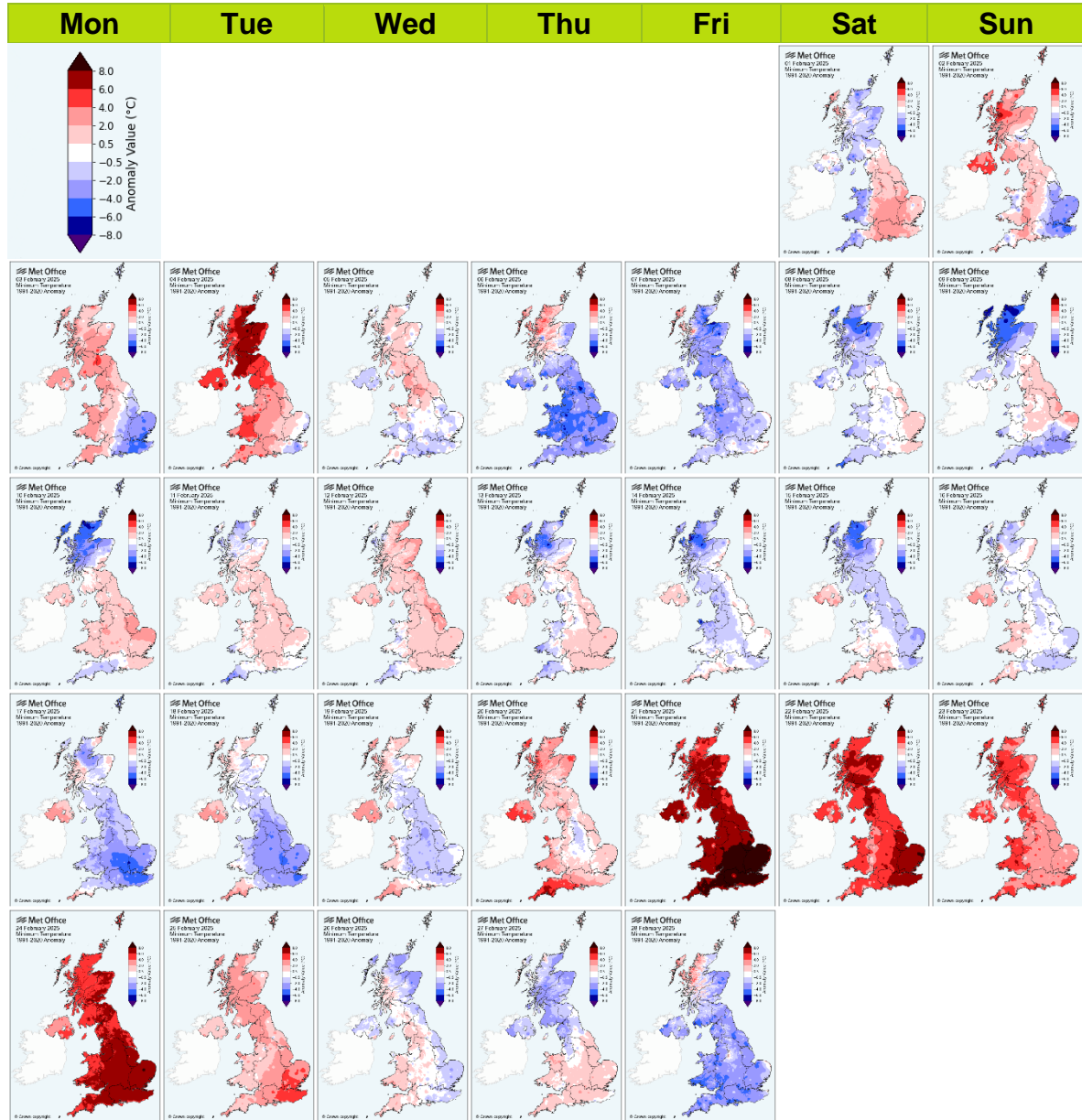
Daily maximum temperature maps - calendar view

These maps show daily maximum temperatures for each day of February 2025 as anomalies relative to the February 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.



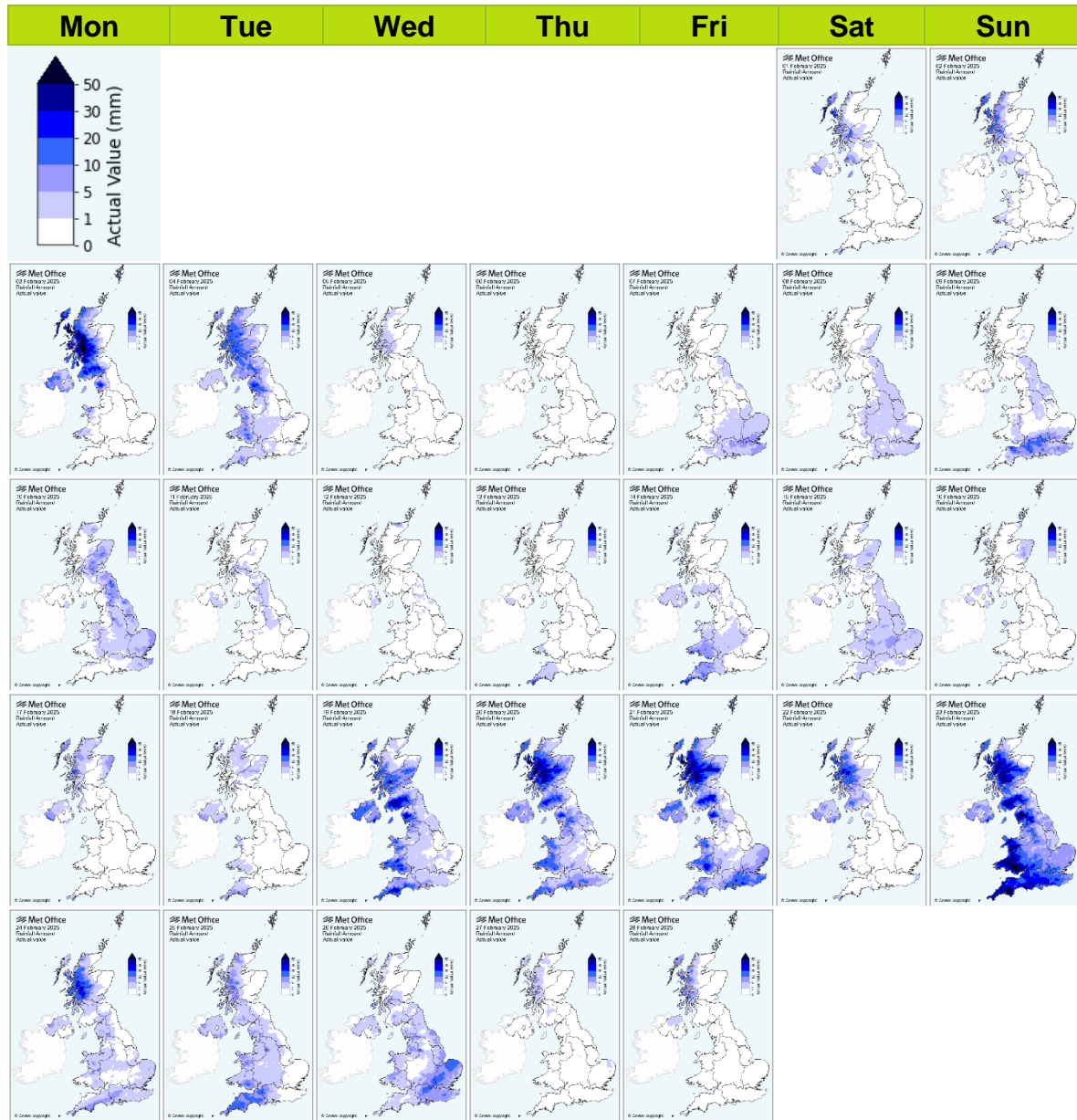
Daily minimum temperature maps - calendar view

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

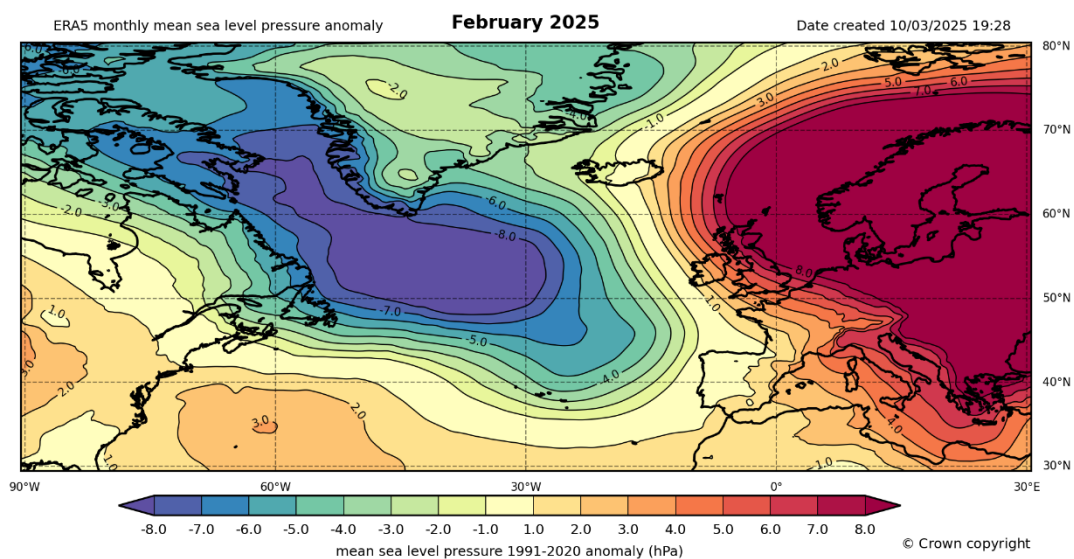
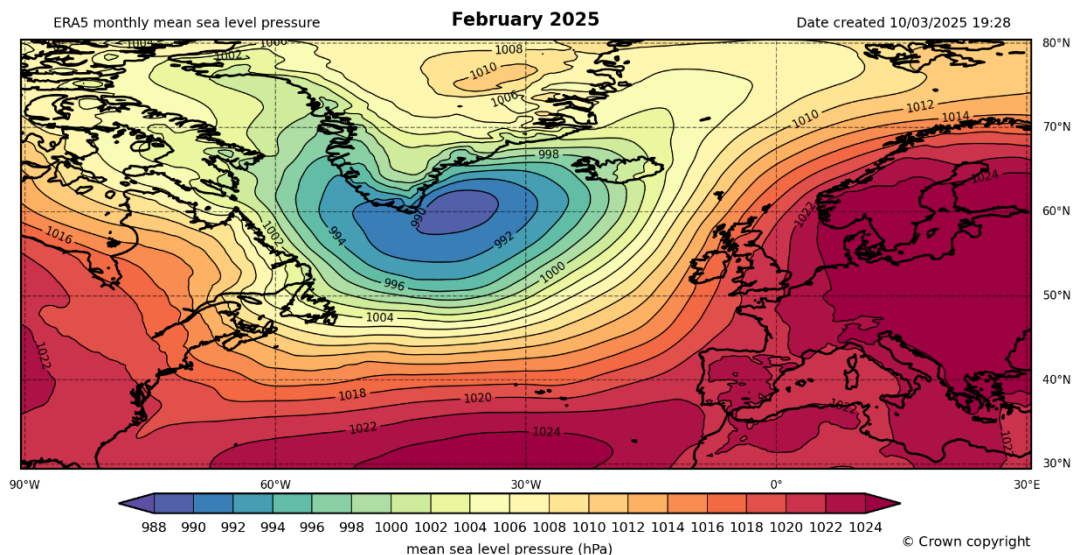


Monthly atmospheric circulation

Mean sea level pressure

These charts show the monthly mean sea level pressure for February 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 February 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.

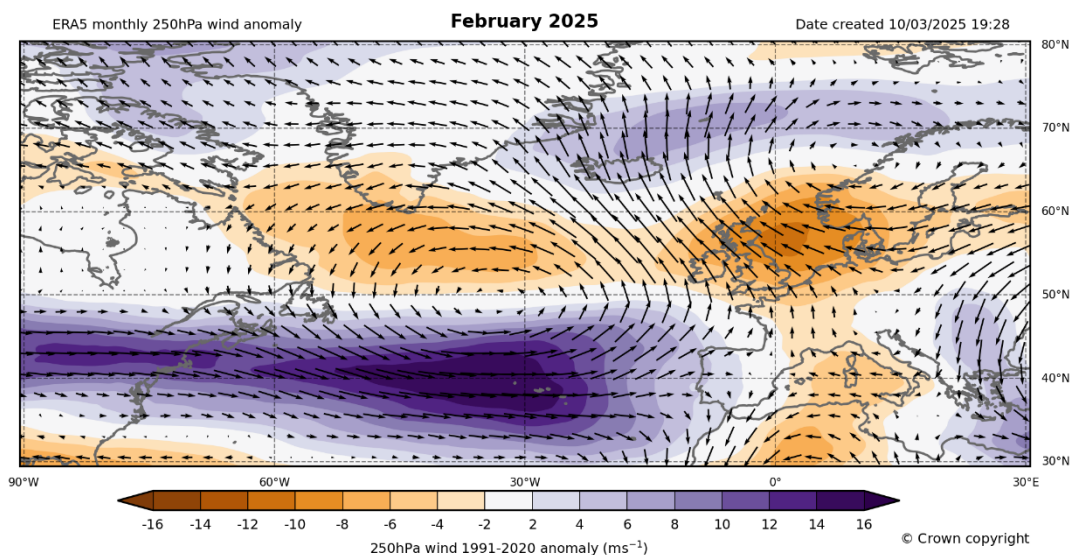
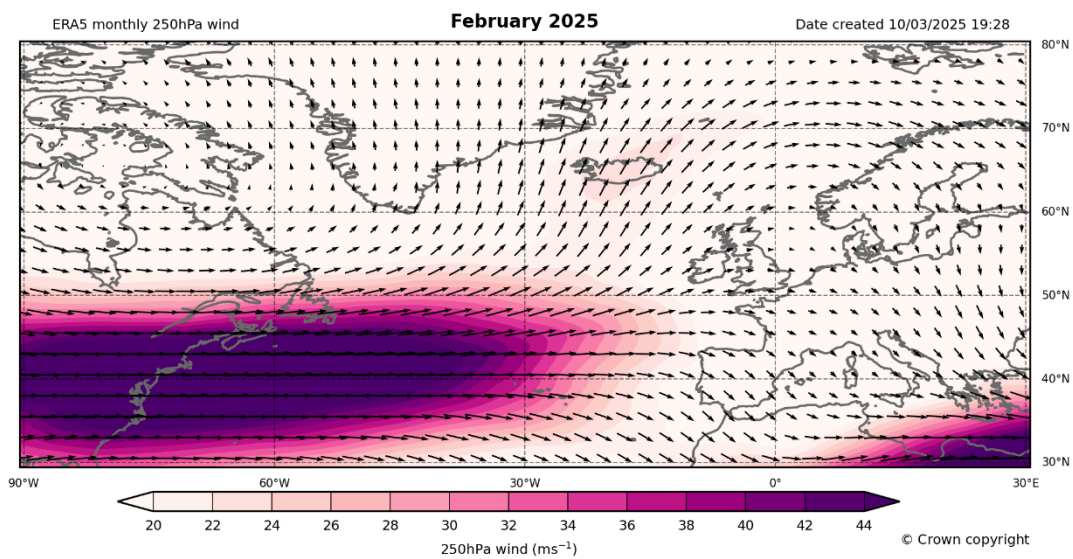
In February, low pressure to the east of Greenland and high pressure over eastern Europe led to a pressure gradient across the UK, with lower pressure to the north and high pressure to the south.



250hPa wind speed and direction

These charts show the monthly 250hPa wind speed and direction for February 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 February 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 strong jetstream was displaced slightly south of normal, with anomalously southeasterly flow over the UK.



Weather diary

- **Cold easterlies until mid-month then mild and changeable**

With high pressure firmly established over the continent during the first half of the month, the UK was subject to cold easterlies, low daytime maxima and night frosts, with any frontal incursions bringing a mix of rain, sleet and snow at times, although totals were generally low.

By the 20th, however, mobility from the Atlantic finally won out, bringing significantly milder but also wet and windy weather to the country. Gale force winds were experienced across the UK, with gusts exceeding 60mph in all regions. Temperatures generally hit the low teens Celcius and as high as 16deg Celcius in parts of northern Scotland on the 20th, and even higher on the 21st with 17°C reached in East Anglia.

There was a brief respite on the 22nd and the early part of the 23rd as the rain and winds eased, before another deep Atlantic low barrellled in the country later on the 23rd bringing heavy rain and winds, Wales and the southwest being the worst affected with rainfall totals exceeding 100mm in places and gusts surpassing 75mph. Again, though, with the winds from the southwest, temperatures were mild with maximums into low double figures.

From the 24th up to the end of the month, we lost the turbulent weather, and high pressure built across the south, resulting in cooler but more settled conditions with some night frosts.

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 from data from these stations are used to provide long term context.

This summary was produced on 12/03/2025 14:28. 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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