3-month	1-month	About the Outlook	Shifts in likelihood	What is average?	Q&A	Find out more

3-month summary

- Double the usual chance of the period being hot
- Increased likelihood of heatwaves and heat-related impacts
- Slight increase in the likelihood of the period being drier than average
- Nevertheless, an increased chance of impacts from thundery downpours
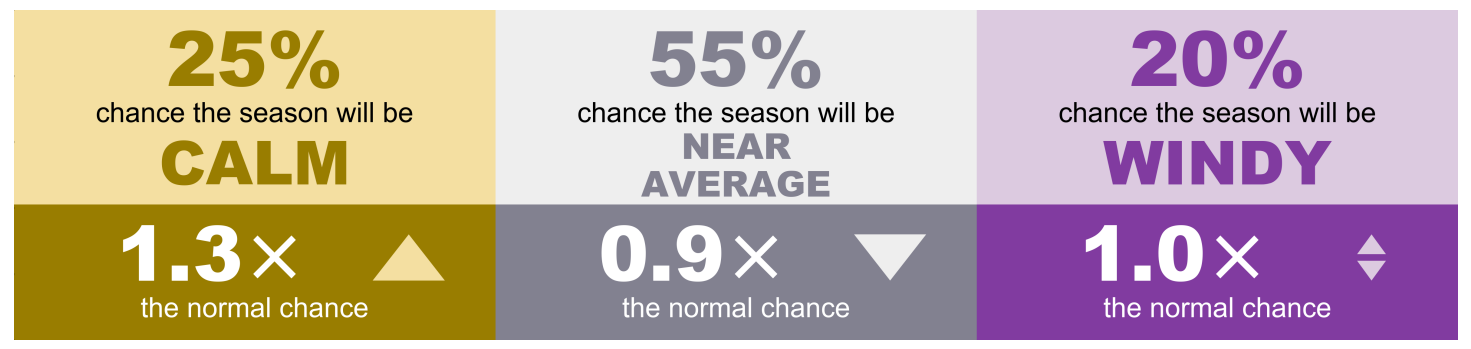
3-month likelihood of impact

Temperature

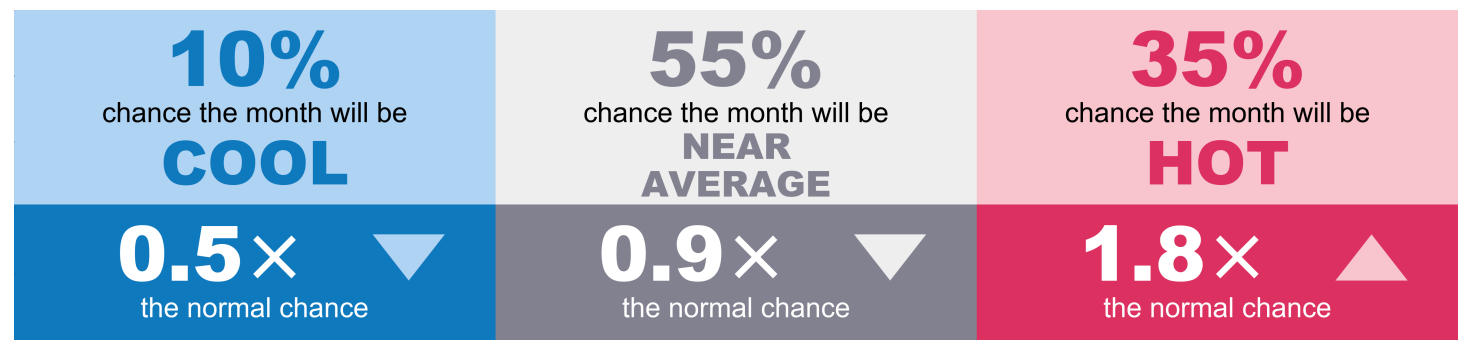| 5% chance the season will be **COOL**	55% chance the season will be **NEAR AVERAGE**	40% chance the season will be **HOT**
0.3× ▼ the normal chance	0.9× ▼ the normal chance	2.0× ▲ the normal chance

Precipitation

25% chance the season will be **DRY**	60% chance the season will be **NEAR AVERAGE**	15% chance the season will be **WET**
1.3× ▲ the normal chance	1.0× ⇕ the normal chance	0.8× ▼ the normal chance

Wind speed

25% chance the season will be **CALM**	55% chance the season will be **NEAR AVERAGE**	20% chance the season will be **WINDY**
1.3× ▲ the normal chance	0.9× ▼ the normal chance	1.0× ⇕ the normal chance

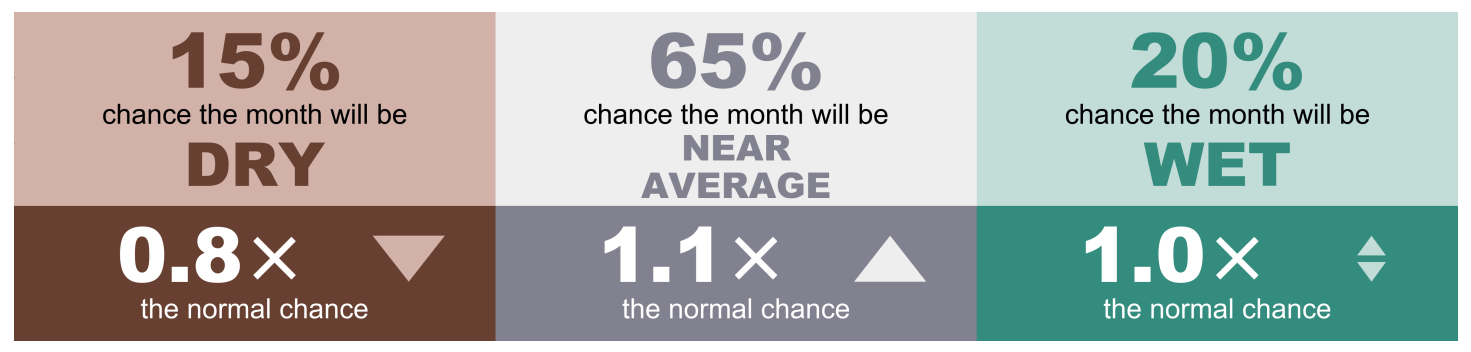| 3-month | **1-month** | About the Outlook | Shifts in likelihood | What is average? | Q&A | Find out more |

1-month summary

- Increased chance of a hot July compared to normal
- This increases the likelihood of heatwaves and heat-related impacts
- Similar likelihood of either a wet or dry month
- Nevertheless, an increased chance of impacts from thundery downpours
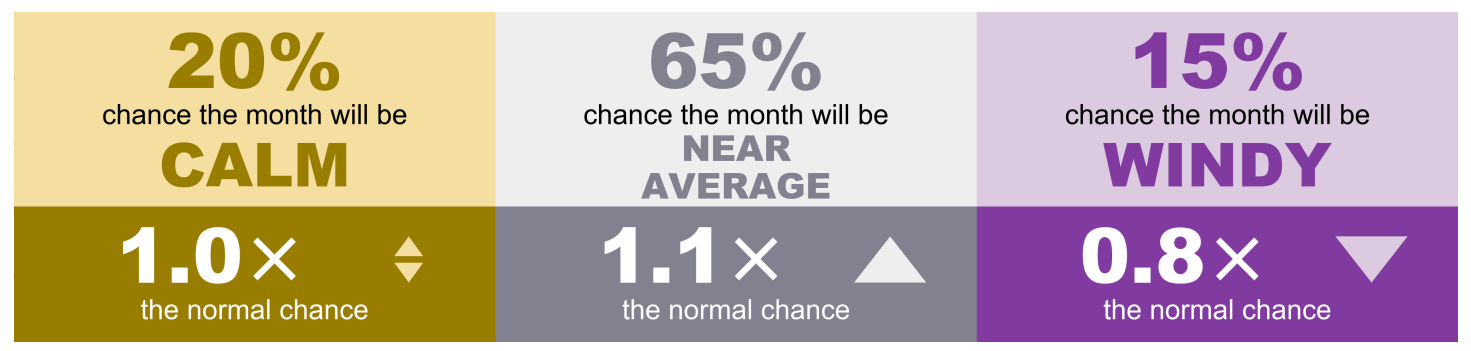
1-month likelihood of impact

Temperature

10% chance the month will be COOL	55% chance the month will be NEAR AVERAGE	35% chance the month will be HOT
0.5× ▼ the normal chance	0.9× ▼ the normal chance	1.8× ▲ the normal chance

Precipitation

15% chance the month will be DRY	65% chance the month will be NEAR AVERAGE	20% chance the month will be WET
0.8× ▼ the normal chance	1.1× ▲ the normal chance	1.0× ↕ the normal chance

Wind speed

20% chance the month will be CALM	65% chance the month will be NEAR AVERAGE	15% chance the month will be WINDY
1.0× ↕ the normal chance	1.1× ▲ the normal chance	0.8× ▼ the normal chance

3-month	1-month	**About the Outlook**	Shifts in likelihood	What is average?	Q&A	Find out more

Understanding the Outlook

The Outlook uses 3 categories for possible UK temperature, precipitation and wind speed in the next 1 and 3 months:

COOL, NEAR AVERAGE and HOT for temperature
WET, NEAR AVERAGE and DRY for precipitation
CALM, NEAR AVERAGE and WINDY for wind speed

These are linked to observed UK conditions in past years. The NEAR AVERAGE category represents typical conditions for the period and has a normal likelihood of 60%. The higher and lower categories represent more unusual conditions that are more likely to produce impacts. Each has a normal likelihood of 20%.

The Outlook shows how the chances of occurrence of the categories differ from normal, based on knowledge of expected global meteorological patterns. It does not identify which category will actually occur.

Same 3-month period over the last 10 years

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
HOT	NEAR AVERAGE	COOL	HOT	NEAR AVERAGE	NEAR AVERAGE	HOT	NEAR AVERAGE	HOT	HOT
DRY	NEAR AVERAGE	NEAR AVERAGE	NEAR AVERAGE	NEAR AVERAGE	NEAR AVERAGE	WET	NEAR AVERAGE	NEAR AVERAGE	DRY
NEAR AVERAGE	CALM	NEAR AVERAGE	WINDY	NEAR AVERAGE	NEAR AVERAGE	NEAR AVERAGE	NEAR AVERAGE	CALM	CALM

Same 1-month period over the last 10 years

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
HOT	HOT	NEAR AVERAGE	NEAR AVERAGE	NEAR AVERAGE	HOT	HOT	NEAR AVERAGE	HOT	HOT
NEAR AVERAGE	NEAR AVERAGE	WET	NEAR AVERAGE	NEAR AVERAGE	DRY	NEAR AVERAGE	NEAR AVERAGE	NEAR AVERAGE	DRY
NEAR AVERAGE	NEAR AVERAGE	NEAR AVERAGE	NEAR AVERAGE	NEAR AVERAGE	CALM	NEAR AVERAGE	WINDY	CALM	NEAR AVERAGE

Outlook in context

Drivers of UK weather for July to September

The impact of global weather patterns on the UK is small through this period. The few drivers relevant to the current Outlook are:

• The warming of the UK climate, consistent with wider global warming trends
• Sea surface temperatures surrounding the UK are currently much higher than average, this favours warmer than normal conditions, especially in July

El Niño continues to develop in the tropical Pacific - while fundamentally important globally, the impacts of El Niño on UK weather patterns at this time of year are modest.

Long-range weather predictions

The Met Office and other prediction centres around the world routinely produce long-range predictions of conditions in the months ahead. Agreement for this three-month period is relatively good between these systems. They show an increased likelihood of pressure to be higher than average near or across the north of the UK with lower than average pressure to the south.

Impact

Consistent with our warming climate, there is an increase in the likelihood of hotter than normal conditions. Whilst this doesn't necessarily mean heatwaves will occur, it does increase the likelihood of these compared to normal. Whilst there are only small shifts in the likelihood of wet and dry compared to normal, given the most likely prevailing weather patterns, there is an increased chance of drier-than-normal conditions in the north. Given likely periods of continental flow, there is an increased chance of thunderstorms, these possible across the whole country, but perhaps more prevalent for southern areas.

| 3-month | 1-month | About the Outlook | **Shifts in likelihood** | What is average? | Q&A | Find out more |

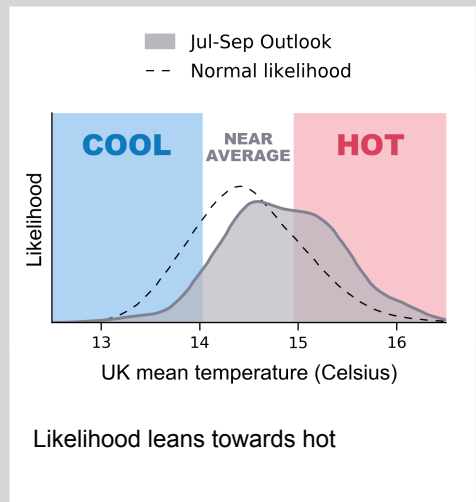# Outlook compared to normal likelihood

The curves below show the likelihood of the 1- and 3-month average temperature, precipitation and wind speed taking specific values. In each case:

• The dashed curve shows the normal likelihood based on how often each value has been recorded in past years
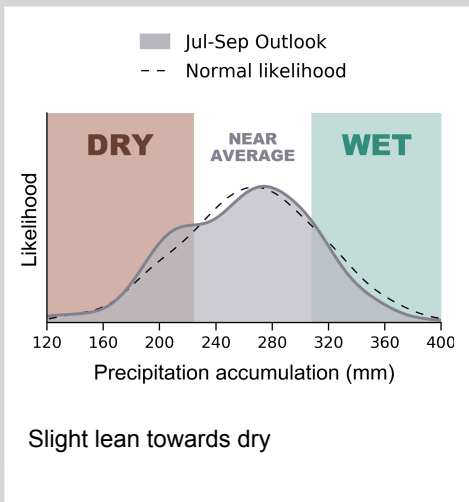• The solid curve shows the current likelihood based on the Outlook for this year

The differences in these curves show how the probabilities for the coming periods differ compared to past years. Where the solid curve (corresponding to this year's Outlook) lies above the dashed curve (normal likelihood), the temperature, precipitation or wind speed at that point has a greater-than-normal likelihood of occurring. Likewise, wherever it is below the dashed curve, the likelihood of those values is less than normal.

A shift of the solid curve to the left of the dashed curve indicates an increase in the chances of below-average temperature, rainfall or winds. A shift to the right, meanwhile, indicates increased chances of above-average values.

3-month temperature Outlook compared to normal

Likelihood leans towards hot

3-month precipitation Outlook compared to normal

Slight lean towards dry

3-month wind speed Outlook compared to normal

Similar likelihood of calm and windy

1-month temperature Outlook compared to normal

Likelihood leans towards hot

1-month precipitation Outlook compared to normal

Similar likelihood of wet and dry

1-month wind speed Outlook compared to normal

Similar likelihood of calm and windy
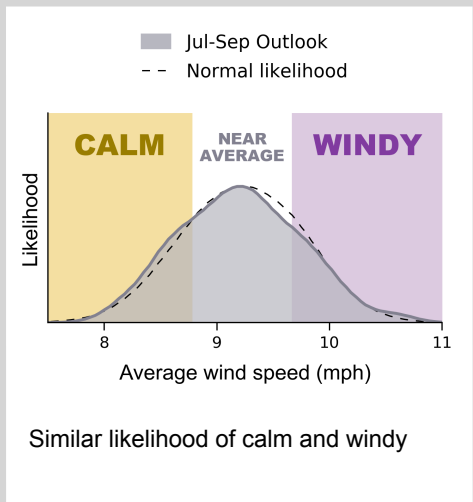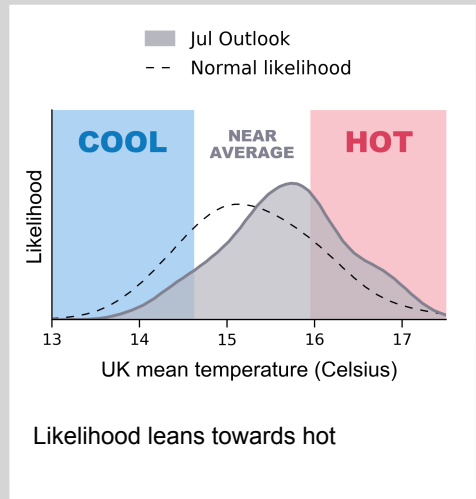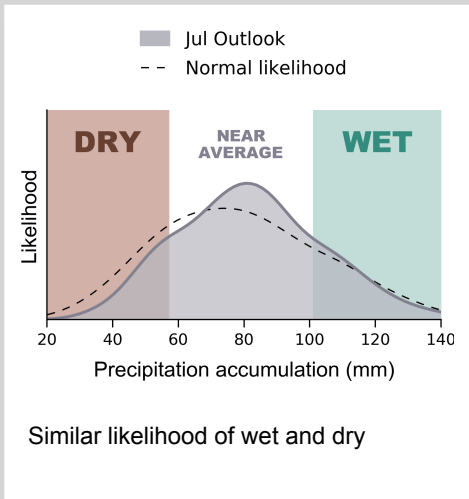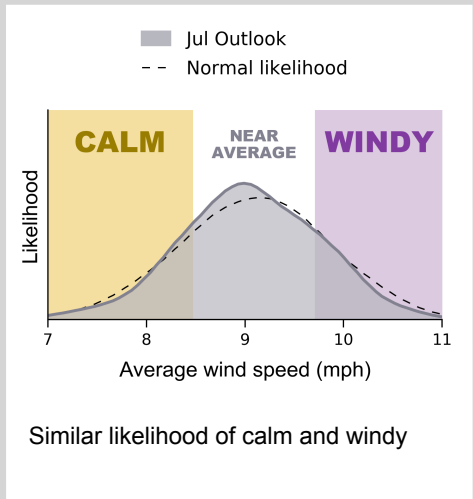
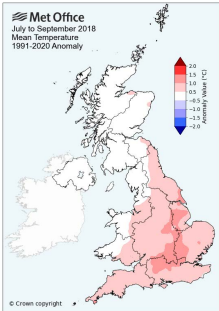| 3-month | 1-month | About the Outlook | Shifts in likelihood | What is average? | Q&A | Find out more |

Long-term average temperatures (3-month)

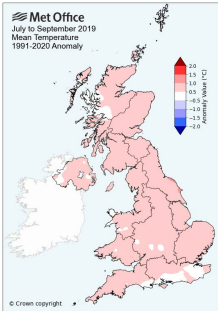This page shows the long-term average temperatures across the UK applicable to the 3-month Outlook period.
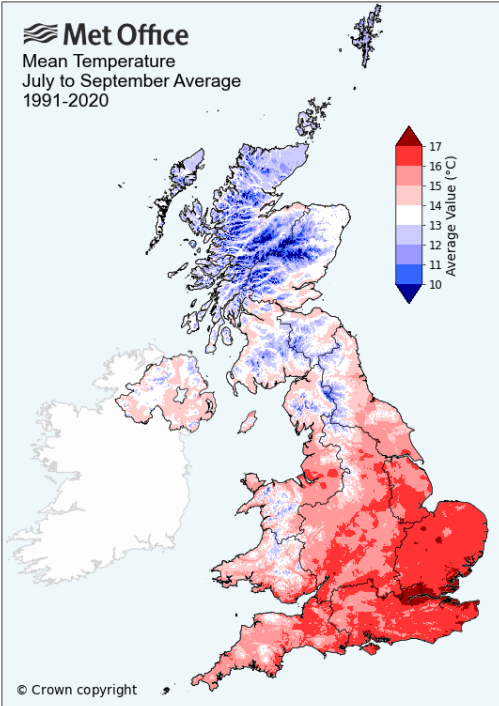
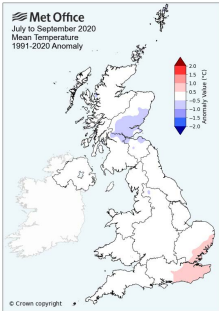Average temperatures for July - September based on observations of past years.

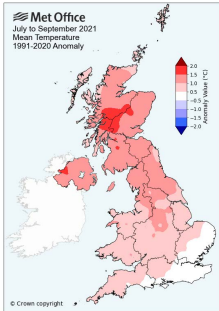## Last 5 years temperatures, difference from average (3-month)
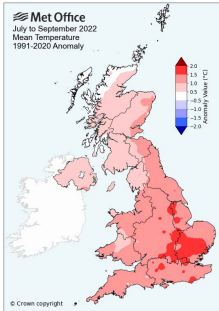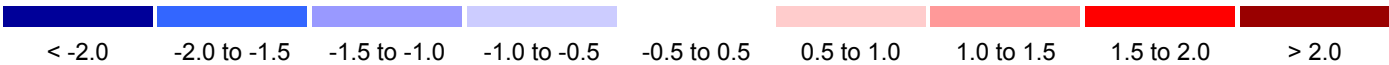

Jul - Sep 2018   Jul - Sep 2019   Jul - Sep 2020   Jul - Sep 2021   Jul - Sep 2022

Anomaly (°C)

| < -2.0 | -2.0 to -1.5 | -1.5 to -1.0 | -1.0 to -0.5 | -0.5 to 0.5 | 0.5 to 1.0 | 1.0 to 1.5 | 1.5 to 2.0 | > 2.0 |

These maps show how July - September temperatures in the last five years differed from the long-term average temperatures shown above in the upper panel. Pink and red colours indicate hotter-than-average conditions while blue shades indicate cooler-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

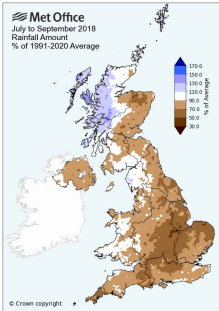| 3-month | 1-month | About the Outlook | Shifts in likelihood | What is average? | Q&A | Find out more |

Long-term average precipitation (3-month)

This page shows the long-term average precipitation across the UK applicable to the 3-month Outlook period.
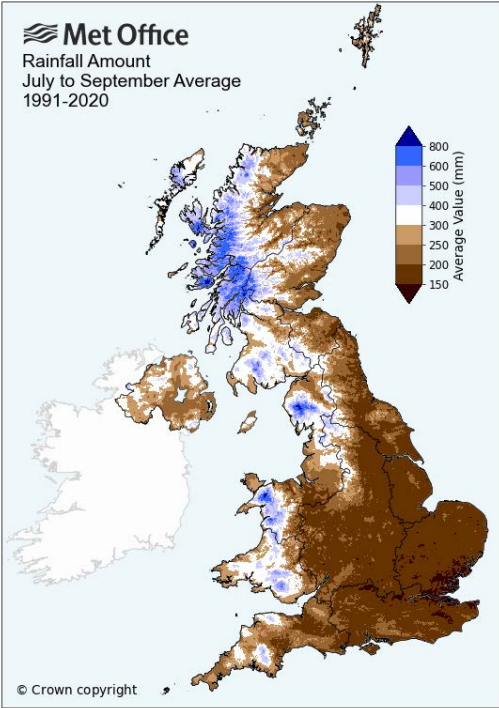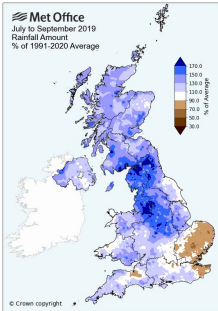

Average precipitation for July - September based on observations of past years.
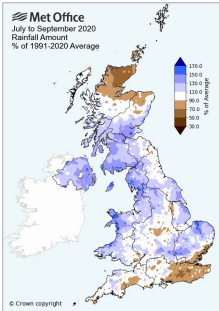
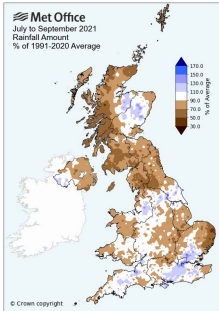## Last 5 years precipitation, difference from average (3-month)
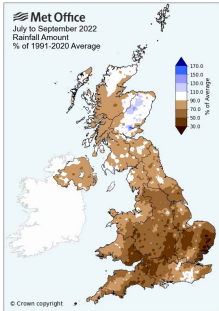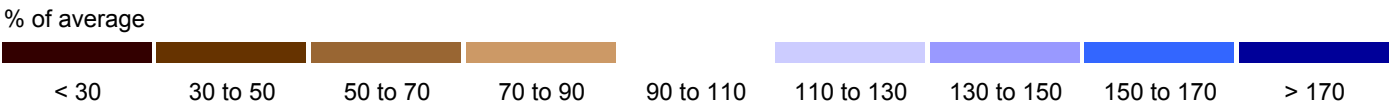

Jul - Sep 2018   Jul - Sep 2019   Jul - Sep 2020   Jul - Sep 2021   Jul - Sep 2022

% of average

| < 30 | 30 to 50 | 50 to 70 | 70 to 90 | 90 to 110 | 110 to 130 | 130 to 150 | 150 to 170 | > 170 |

These maps show how July - September precipitation in the last five years differed from the long-term average precipitation shown above in the upper panel. Brown colours indicate drier-than-average conditions while blue shades indicate wetter-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

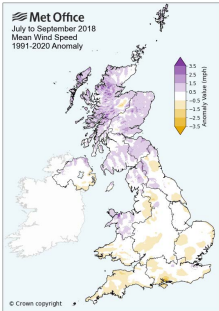| 3-month | 1-month | About the Outlook | Shifts in likelihood | **What is average?** | Q&A | Find out more |

Long-term average wind speed (3-month)

This page shows the long-term average wind speed across the UK applicable to the 3-month Outlook period.
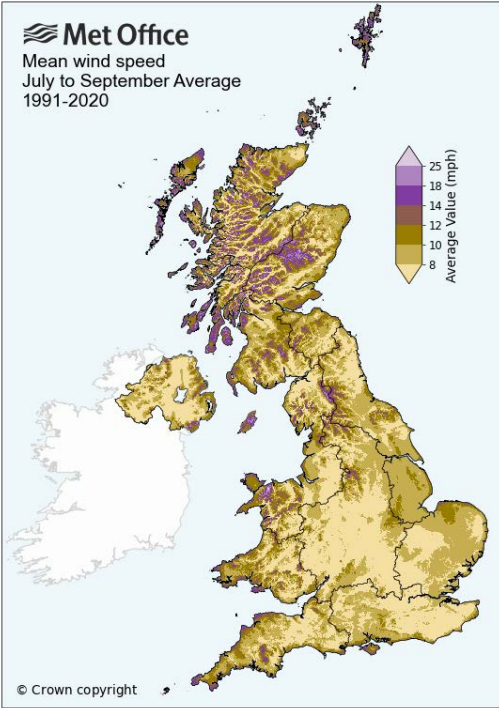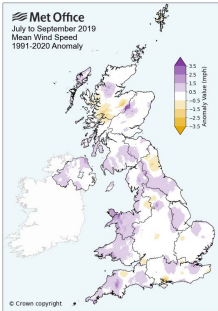

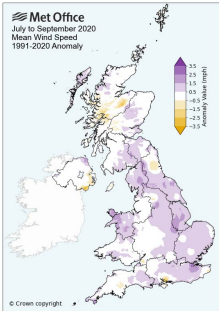Average wind speed for July - September based on observations of past years.

Last 5 years wind speed, difference from average (3-month)
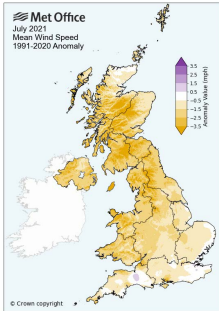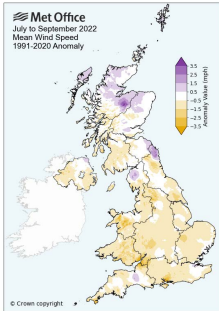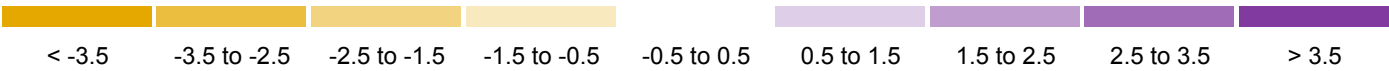

Jul - Sep 2018   Jul - Sep 2019   Jul - Sep 2020   Jul - Sep 2021   Jul - Sep 2022

Anomaly (mph)

| < -3.5 | -3.5 to -2.5 | -2.5 to -1.5 | -1.5 to -0.5 | -0.5 to 0.5 | 0.5 to 1.5 | 1.5 to 2.5 | 2.5 to 3.5 | > 3.5 |

These maps show how July - September wind speed in the last five years differed from the long-term average wind speeds shown above in the upper panel. Yellow colours indicate calmer-than-average conditions while purple shades indicate windier-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

≋ Met Office   UK 3-month Outlook

Period: July - September 2023
Issue date: 26.6.2023
Next issue: 31.7.2023

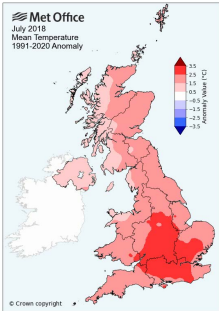| 3-month | 1-month | About the Outlook | Shifts in likelihood | What is average? | Q&A | Find out more |

Long-term average temperatures (1-month)

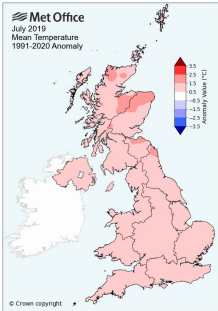This page shows the long-term average temperatures across the UK applicable to the 1-month Outlook period.
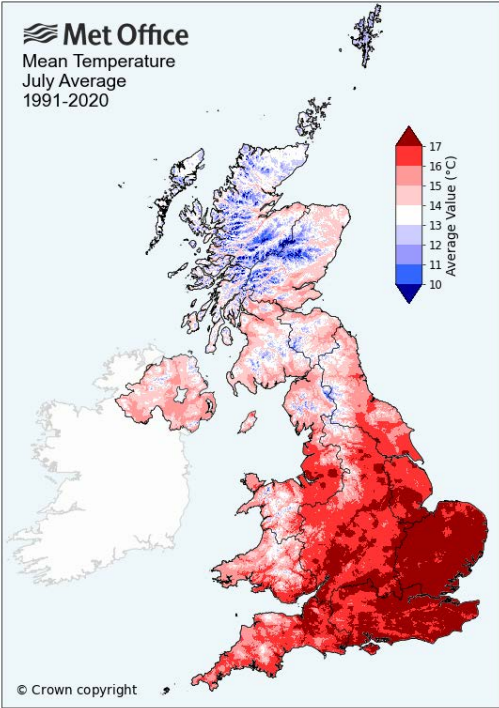
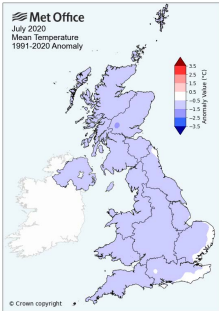Average temperatures for July based on observations of past years.

Last 5 years temperatures, difference from average (1-month)

Jul 2018   Jul 2019   Jul 2020   Jul 2021   Jul 2022

Anomaly (°C)

| < -3.5 | -3.5 to -2.5 | -2.5 to -1.5 | -1.5 to -0.5 | -0.5 to 0.5 | 0.5 to 1.5 | 1.5 to 2.5 | 2.5 to 3.5 | > 3.5 |

These maps show how July temperatures in the last five years differed from the long-term average temperatures shown above in the upper panel. Pink and red colours indicate hotter-than-average conditions while blue shades indicate cooler-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

| 3-month | 1-month | About the Outlook | Shifts in likelihood | What is average? | Q&A | Find out more |

Long-term average precipitation (1-month)

This page shows the long-term average precipitation across the UK applicable to the 1-month Outlook period.

Average precipitation for July based on observations of past years.

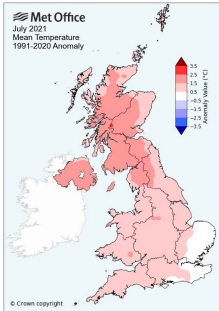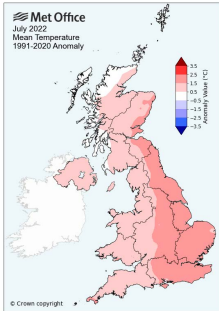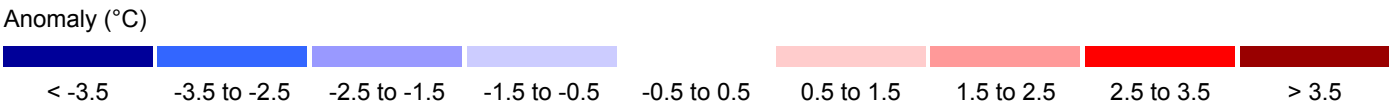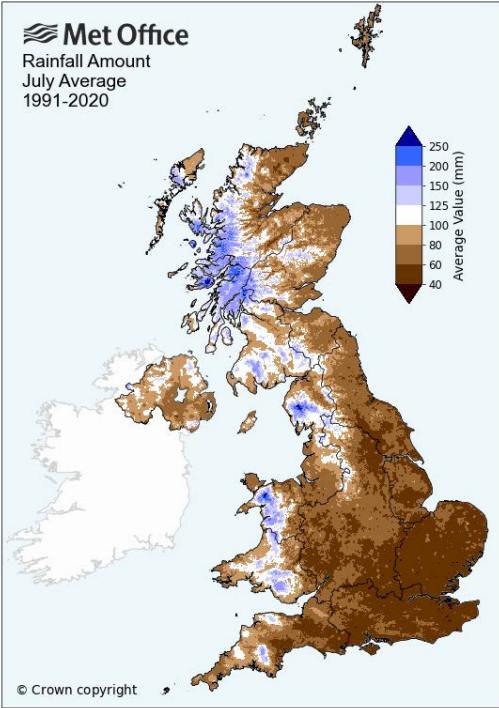# Last 5 years precipitation, difference from average (1-month)

Jul 2018　　Jul 2019　　Jul 2020　　Jul 2021　　Jul 2022

% of average

| < 20 | 20 to 33 | 33 to 50 | 50 to 75 | 75 to 125 | 125 to 150 | 150 to 175 | 175 to 200 | > 200 |

These maps show how July precipitation in the last five years differed from the long-term average precipitation shown above in the upper panel. Brown colours indicate drier-than-average conditions while blue shades indicate wetter-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

| 3-month | 1-month | About the Outlook | Shifts in likelihood | What is average? | Q&A | Find out more |

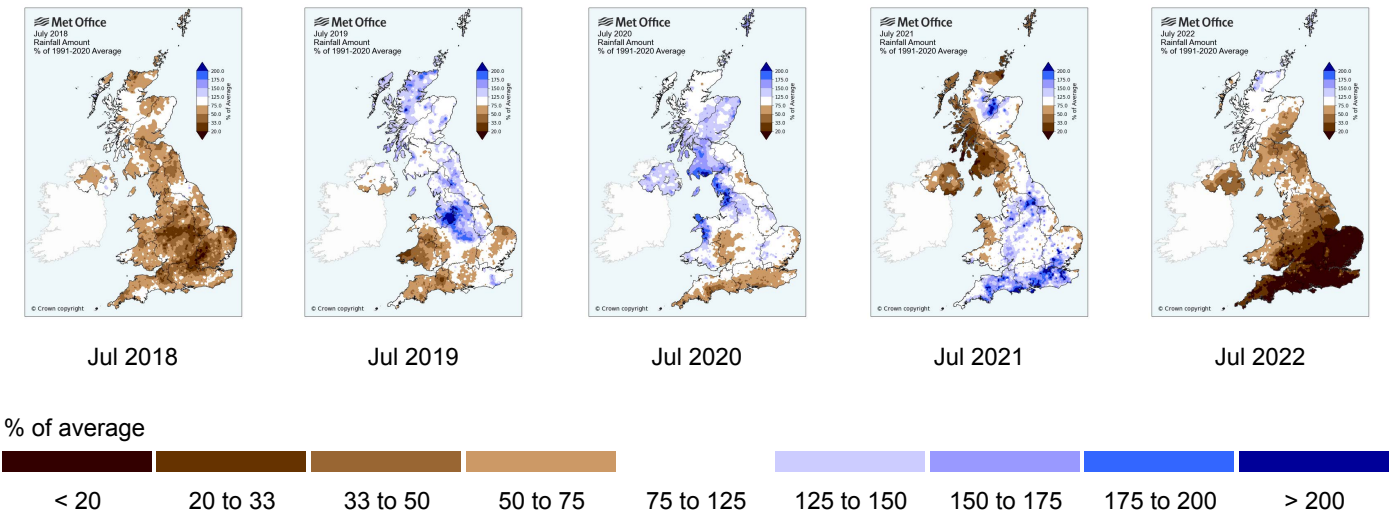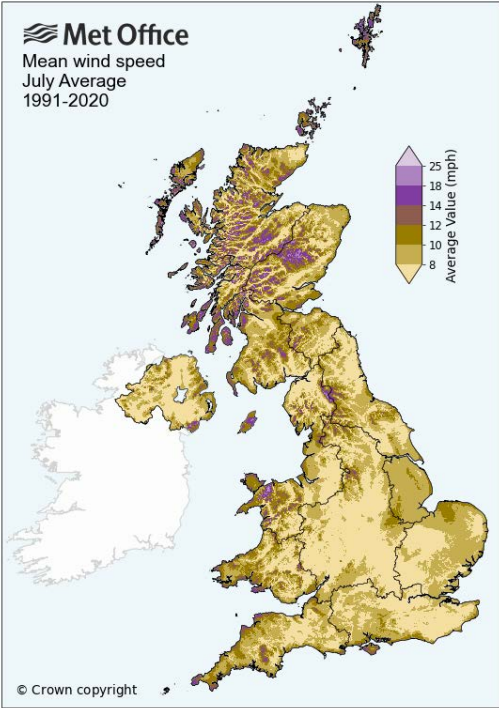## Long-term average wind speed (1-month)

This page shows the long-term average wind speed across the UK applicable to the 1-month Outlook period.

Average wind speed for July based on observations of past years.

Last 5 years wind speed, difference from average (1-month)

| Jul 2018 | Jul 2019 | Jul 2020 | Jul 2021 | Jul 2022 |

Anomaly (mph)

| < -3.5 | -3.5 to -2.5 | -2.5 to -1.5 | -1.5 to -0.5 | -0.5 to 0.5 | 0.5 to 1.5 | 1.5 to 2.5 | 2.5 to 3.5 | > 3.5 |
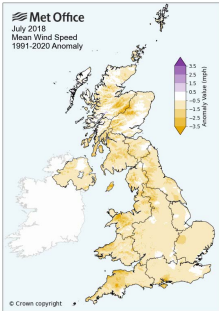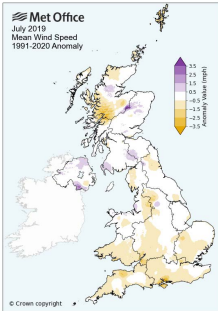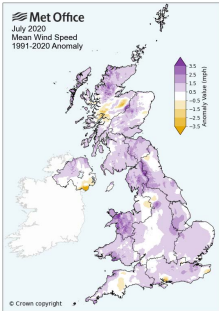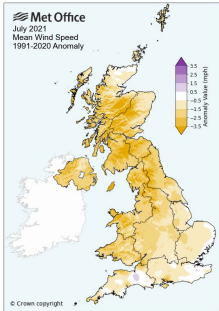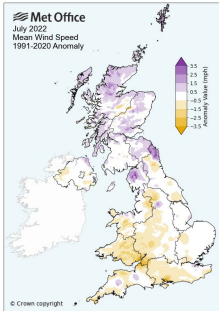
These maps show how July wind speed in the last five years differed from the long-term average wind speeds shown above in the upper panel. Yellow colours indicate calmer-than-average conditions while purple shades indicate windier-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

Period:	July - September 2023
Issue date:	26.6.2023
Next issue:	31.7.2023

Met Office — UK 3-month Outlook

3-month	1-month	About the Outlook	Shifts in likelihood	What is average?	Q&A	Find out more

Q&As

Q. What is the point of the Outlook, who is it meant for?
A. This Outlook is produced for planners in government and business who make risk-based decisions. These users are aware of the complexities of this type of outlook and will include those factors in their decision-making process.
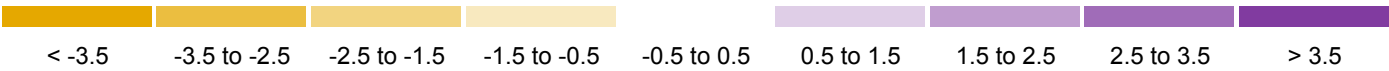
Q. How did you decide on the Outlook? What are the main factors affecting it?
A. It is based on information from observations, several numerical prediction systems and expert judgement. See the 'Outlook in Context' section of the Outlook for more details.

Q. Is the Outlook for the whole country?
A. The Outlook is for the average of conditions over the UK as a whole. Regional deviations from the UK-average can occur. For example, average UK precipitation can result from below-average rainfall for the northwest and above-average for the southeast.

Q. How confident are you in this Outlook?
A. The percentages in the 'Likelihood of Impact' sections of the Outlook give the level of confidence.

Q. Does this mean we'll see more summer heatwaves?
A. An increase in the likelihood of warmer than normal conditions is consistent with our warming climate and this Outlook suggests the chances of heatwaves are higher than normal, but a range of conditions much less extreme than heatwaves are also possible. The increased chance of hot conditions could just as easily reflect a mix of hot and cool days, warm nights, or less extreme levels of warmth rather than heatwave conditions specifically. The Outlook does not guarantee prolonged hot weather and does not imply continuous heatwave conditions. More information on heatwaves can be found here:
https://www.metoffice.gov.uk/weather/learn-about/weather/types-of-weather/temperature/heatwave

Q. Does the increase in chances of drier than average conditions mean we're going to experience drought?
A. Although there's a slight increase in the chances of the period being drier than average, the most likely scenario is for rainfall amounts to be closer to average. However, this can mask regional differences and there's a signal for thundery downpours at times, which could bring localised impacts. The exact impact of rainfall (or lack thereof) on water resources is complex, going beyond meteorology into hydrology and water management. The Met Office contributes to the UK Centre of Ecology and Hydrology (UKCEH) Hydrological Outlook, for more information about drought risks check with EA, SEPA, NRW and NI Direct.

Q. What impact has the North Atlantic marine heatwave had on this outlook? Does it influence our expected weather?
A. Higher-than-average sea surface temperatures around the UK slightly increase the chances of a warmer-than-average July, though any influence would diminish over the full 3-month outlook period. Wind speed and direction tend to have more influence on temperatures over land than adjacent sea temperatures. For more detailed analysis of this see:
https://blog.metoffice.gov.uk/2023/06/16/sea-surface-temperatures-breaking-records/

Met Office   UK 3-month Outlook

Period: July - September 2023
Issue date: 26.6.2023
Next issue: 31.7.2023

3-month	1-month	About the Outlook	Shifts in likelihood	What is average?	Q&A	Find out more

About the Outlook

The Outlook presented here is for United Kingdom as a whole and is based on information from observations, several numerical prediction systems and expert judgement. It is updated monthly to reflect the latest information on global weather patterns and their effect on the UK. The Outlook is designed to be used in conjunction with shorter-range forecasts – detailed weather forecast information is available on the Met Office website.

In this product, temperature refers to the average of daytime maxima and night-time minima. Wind speed refers to the average wind speed at a height of 10 metres. All numerical values relate to averages (temperature, wind speed) or totals (precipitation – rain, sleet, snow and hail) over 1 or 3 months, which are further averaged over the UK land area as a whole. Normal likelihood and long-term averages are established using the period 1991-2020.

Find out more

- UK 3-month Outlook user guidance page:
  https://www.metoffice.gov.uk/services/government/contingency-planners/user-guidance/user-guidance

- Explainers on climate drivers (such as the El Niño Southern Oscillation and North Atlantic Oscillation) that influence seasonal forecasts and the impacts they can have on UK weather:
  https://www.metoffice.gov.uk/services/government/contingency-planners/seasonal-forecasts-and-climate-drivers-resources

- Contingency planners page:
  https://www.metoffice.gov.uk/services/government/contingency-planners/index

Contact us

Website:
www.metoffice.gov.uk

Email:
enquiries@metoffice.gov.uk

Provide your feedback

We would like to hear your feedback on the UK 3-month Outlook to understand how it is being used. Please fill in the short form using this link or QR code to share your thoughts.