Met Office

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Global: Monthly Climate Outlook
June to March

Issued: September 2024

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Overview

MENA, Caribbean and British Overseas Territories Current Status and Outlook – Temperature

MENA, Caribbean and British Overseas Territories Current Status and Outlook – Rainfall

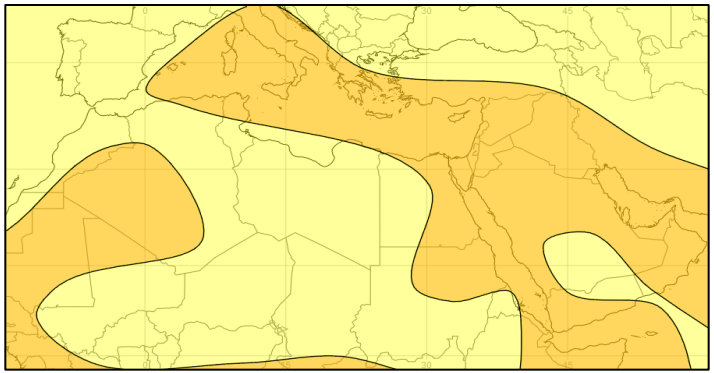
Global Seasonal Outlook – Temperature

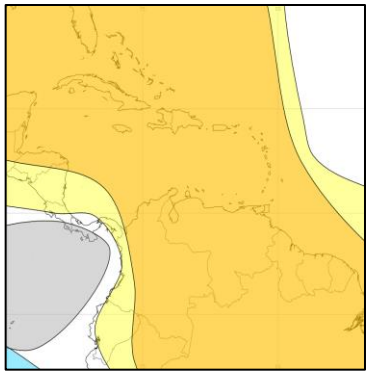
Global Seasonal Outlook – Rainfall

MENA, Caribbean and British Overseas Territories Current Status and Outlook - Temperature

Current Status: The Caribbean has been hot over the past three months while more mixed conditions were observed over South America with cool conditions for Colombia and western Venezuela. Hot conditions prevailed over MENA though during August normal temperatures returned over Syria and Iraq.

Outlook: Warmer than normal conditions are very likely across most of these areas.





3-Month Outlook October to December - Temperature

Below Normal		Near-Normal	Above Normal	
Much More Likely	Likely		Likely	Much More Likely

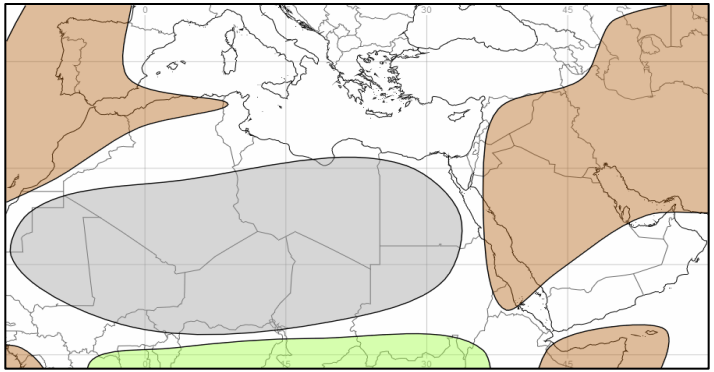
Left: Middle East and North Africa
Right: Caribbean region

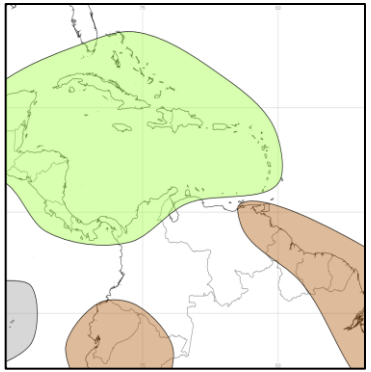
MENA, Caribbean and British Overseas Territories Current Status and Outlook - Rainfall

Current Status: Normal conditions were observed across much of MENA with summer typically dry across these areas. The main exceptions are Eritrea and some western parts of Yemen which were very wet during August. Some northern parts of the Caribbean region were very wet in June and July before many areas were then dry during August. Very dry conditions have prevailed across Colombia, Venezuela and Guyana.

Outlook: During late autumn and into early winter, rainfall amounts tend to increase across MENA. For the October to December period, most areas are likely to experience drier than normal conditions. The main exception to this pattern is for southern parts of the Arabian Peninsular, including Yemen, which tends to become drier into winter. Here, near-normal rainfall is likely over the next 3 months. Across much of the Caribbean, wetter than normal conditions are likely, although the far south of Windward Islands and Guyana are more likely to be drier than normal.

Tropical Cyclone outlook: Information can be found here. The climatological peak of the North Atlantic hurricane season is during September though the season officially continues until the end of November. As a result of the developing La Niña and above average sea surface temperatures across the tropical Atlantic, forecasts continue to suggest above average activity. This brings a continued risk of landfalls from tropical cyclones across parts of the Caribbean region though with a much reduced likelihood by December.





3-Month Outlook October to December - Rainfall

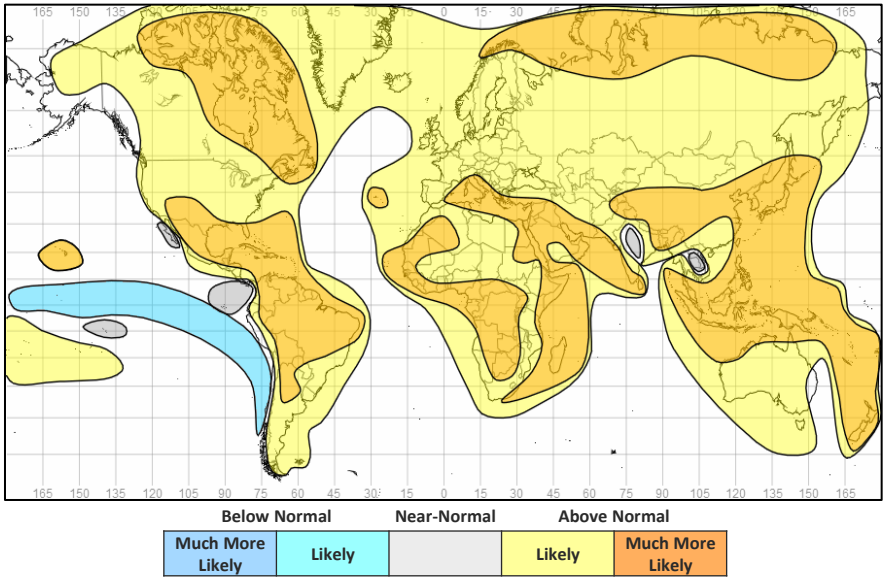
Below Normal		Near-Normal	Above Normal	
Much More Likely	Likely		Likely	Much More Likely

Left: Middle East and North Africa
Right: Caribbean region

Global Outlook - Temperature

Outlook: Consistent with a warming climate, warmer than normal conditions are likely across the vast majority of land areas. There are limited exceptions, most notably some Pacific coastal districts in the Americas where near normal or colder than normal conditions are more likely – this linked to cooler sea surface temperatures associated with the developing La Niña. The main other exceptions are for central India and parts of mainland Southeast Asia which is linked to likely wetter than normal conditions in these areas.

3-Month Outlook October to December - Temperature



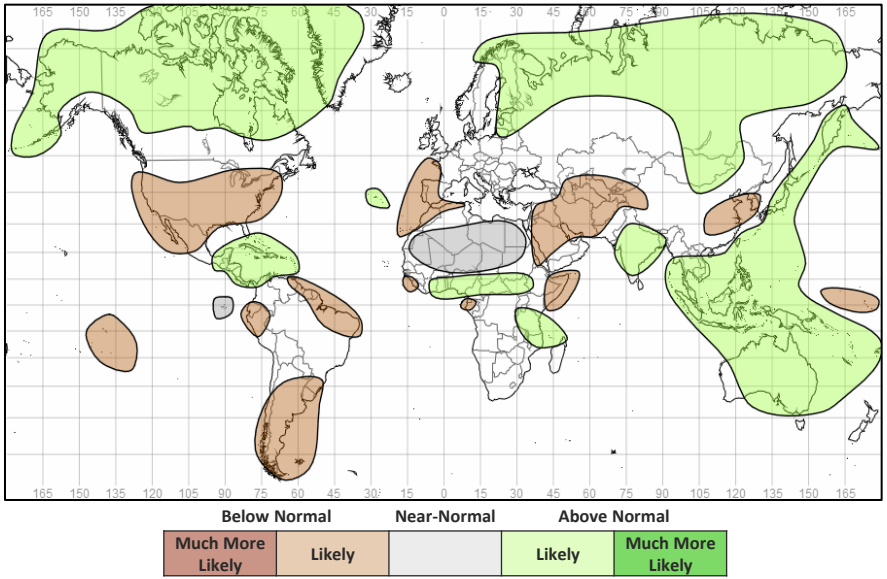
Global Outlook - Rainfall

Outlook:

El Niño-Southern Oscillation (ENSO) – ENSO is currently neutral. Equatorial sea surface temperatures across the central and eastern Pacific are around or below average. It looks likely (~70% chance) that La Niña will emerge over the next couple of months and then persist into the northern hemisphere winter. Skilful prediction of ENSO tends to be high at this time of year and the majority of forecasts favour a weak to moderate La Niña. A transition to La Niña would improve the predictability of global weather patterns on seasonal timescales, particularly in the tropics, though its influence may not be as strong as some La Niña events over recent years. This can be seen in current output from seasonal predictions systems which represent some of the typical influences of La Niña on rainfall patterns, particularly in the tropics, though the signal not as strong as would be the case if a La Niña was already underway.

Indian Ocean Diploe (IOD) – The IOD is currently neutral. Sea surface temperatures across much of the Indian Ocean basin are above average. The IOD is most likely to remain neutral over the next few months but with a negative phase of the IOD more likely than positive. However, skilful prediction of the IOD at this time of year tends to be limited beyond a couple of months ahead.

3-Month Outlook October to December - Rainfall



Current Status

Current Status maps

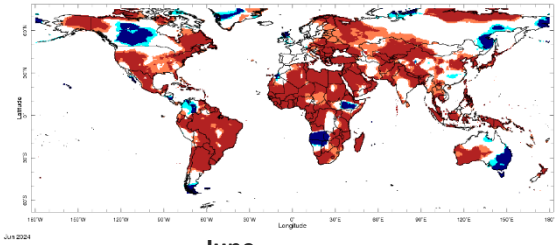
MENA – Middle East

MENA – North Africa

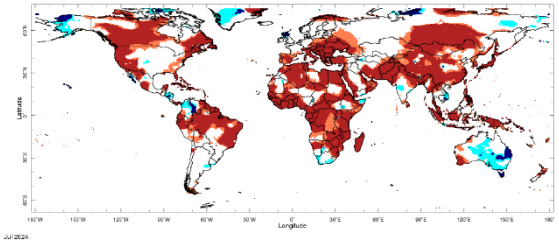
Caribbean

British Overseas Territories

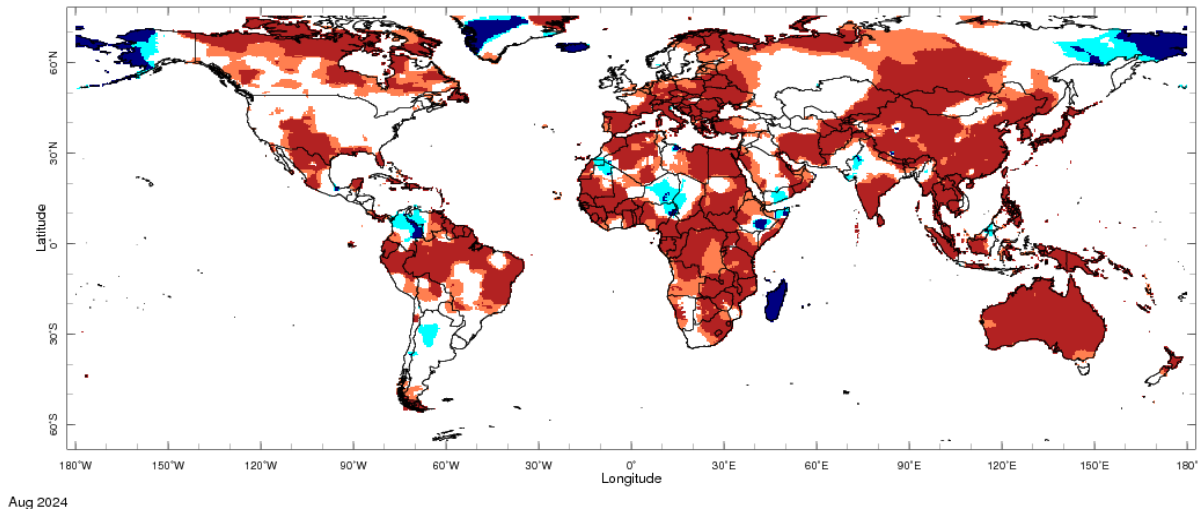
Current Status – Temperature percentiles



June



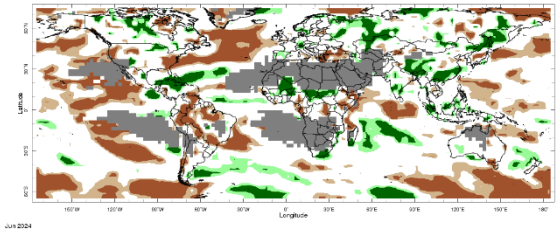
July



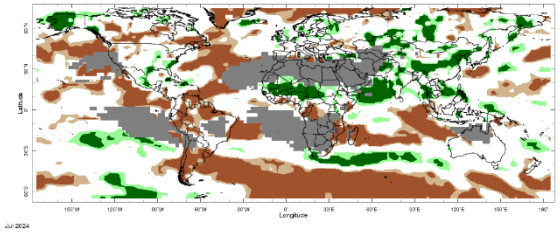
August

Notes: The percentiles shown in the map indicate a ranking of temperature, with the 0th percentile being the coolest and the 100th percentile being the warmest in the 1981-2010 climatology. Orange and red shading represent values above the 80th (Warm) and 90th (Hot) percentile, respectively; regions shaded in light and dark blue indicate values below the 20th (Cool) and 10th (Cold) percentile, with respect to the 1981-2010 climatology. The data used in this map are from the NOAA Climate Prediction Center.

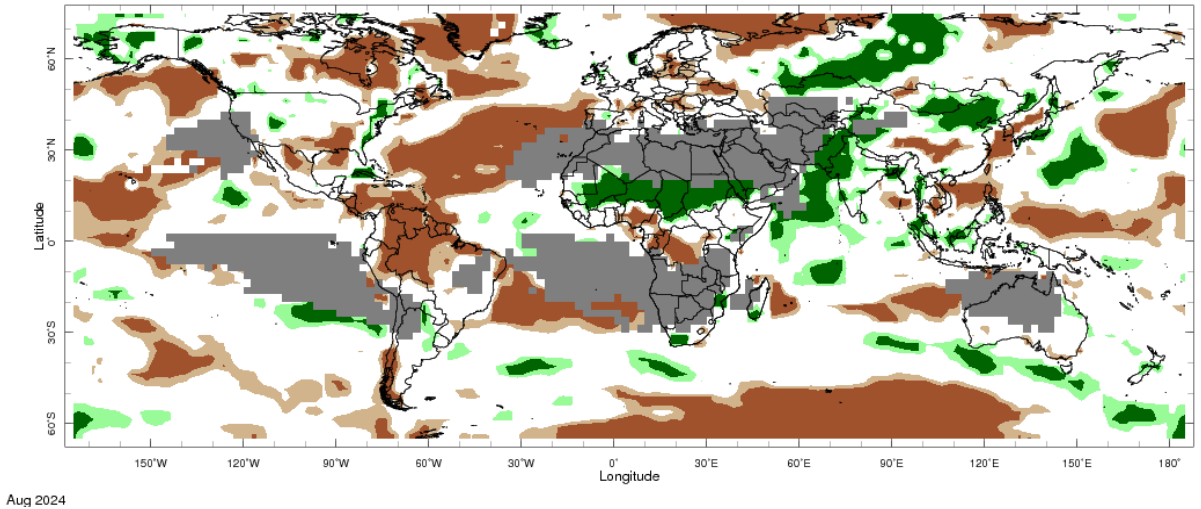
Current Status – Precipitation percentiles



June



July



August

Notes: The percentiles shown in the map indicate a ranking of rainfall, with the 0th percentile being the driest and the 100th percentile being the wettest in the 1981-2010 climatology. Green and dark green shading represent values above the 80th (Wet) and 90th (Very Wet) percentile, respectively; regions shaded in light and dark brown indicate rainfall below the 20th (Dry) and 10th (Very Dry) percentile, with respect to the 1981-2010 climatology. Grey areas on the map mask out regions that receive less than 10 mm/month of rainfall on normal in the 1981-2010 climatology for the month. The data used in this map are from the NOAA Climate Prediction Center.

Current Status – MENA – Middle East

	Current Status: Temperature			Current Status: Rainfall		
	June	July	August	June	July	August
Turkey	Hot	Hot (2)	Hot (2)	Dry	Wet	Normal
Palestine	Hot	Hot	Warm	Normal*	Normal*	Normal*
Lebanon	Hot	Hot	Warm	Normal*	Normal*	Normal*
Jordan	Hot	Hot	Warm	Normal*	Normal*	Normal*
Syria	Hot	Hot	Normal	Normal*	Normal*	Normal*
Iraq	Hot	Warm	Normal	Normal*	Normal*	Normal*
Yemen	Mixed (1)	Mixed	Mixed (3)	Normal*	Normal	Mixed (4)

Notes:

The table gives an assessment of whether temperature and rainfall across each country have been above normal, normal or below normal over the past three months, using data from the NOAA Climate Prediction Center and the IRI Map Room: http://iridl.ldeo.columbia.edu/maproom/.

* Region usually experiences less than 10mm/month rainfall during the month (dry season).

Additional Information:

(1) Note: Normal in central parts, Hot in the west and the east.
(2) Note: Normal in the east
(3) Note: Cool in central areas, warm in the southwest else normal
(4) Note: Very wet in the far west, else normal

Current Status – MENA – North Africa

	Current Status: Temperature			Current Status: Rainfall		
	June	July	August	June	July	August
Morocco	Normal	Hot	Hot (3)	Normal*	Normal*	Normal*
Algeria	Hot	Hot	Hot	Mixed (1)	Mixed (1)	Normal*
Tunisia	Hot	Hot	Warm	Normal*	Normal*	Normal*
Libya	Hot	Hot	Mixed (4)	Normal*	Normal*	Normal*
Egypt	Hot	Hot	Hot	Normal*	Normal*	Normal*
Eritrea	Hot	Hot	Warm	Mixed (2)	Normal	Very Wet

Notes:

The table gives an assessment of whether temperature and rainfall across each country have been above normal, normal or below normal over the past three months, using data from the NOAA Climate Prediction Center and the IRI Map Room: http://iridl.ldeo.columbia.edu/maproom/.

* Region usually experiences less than 10mm/month rainfall during the month (dry season).

Additional Information:

(1) Note: Wet in the far south, otherwise normal.
(2) Note: Normal in the north, very dry in the south
(3) Note: Cool in the far south
(4) Note: Normal in west, hot in east

Current Status – Caribbean and Central America

	Current Status: Temperature			Current Status: Rainfall		
	June	July	August	June	July	August
Caribbean Region	Hot	Hot	Hot	Mixed (1)	Mixed (2)	Mixed (4)
Haiti	Hot	Hot	Hot	Very Wet	Very Wet	Normal
Guyana	Hot	Hot	Hot	Normal	Very Dry	Very Dry
Venezuela	Mixed (3)	Mixed (3)	Mixed (3)	Very Dry	Very Dry	Very Dry
Columbia	Cool	Cool	Cool	Mixed (5)	Mixed (5)	Mixed (5)

Notes:

The table gives an assessment of whether temperature and rainfall across each country have been above normal, normal or below normal over the past three months, using data from the NOAA Climate Prediction Center and the IRI Map Room: http://iridl.ldeo.columbia.edu/maproom/.

* Region usually experiences less than 10mm/month rainfall during the month (dry season).

Additional Information:

(1) Note: Very Wet in the north, dry across the Lesser Antilles and normal elsewhere
(2) Note: Very Wet across Hispaniola, western Cuba and Jamacia. Very Dry across the Windward Islands. Normal elsewhere
(3) Note: Hot in the east and cool in the west
(4) Note: Very wet in Cuba, dry for much of the Lesser Antilles, else normal.
(5) Note: Normal in the west, dry or very dry in the east

Current Status – British Overseas Territories

	Current Status: Temperature		
	June	July	August
Southern Europe	Warm	Hot	Hot
Central Indian Ocean	Normal	Normal	Normal
Central Pacific	Cold	Cold	Normal

	Current Status: Rainfall		
	June	July	August
Southern Europe	Normal*	Normal*	Normal*
Central Indian Ocean	Normal	Wet	Very Wet
Central Pacific	Dry	Very Wet	Normal

Notes:

The table gives an assessment of whether temperature and rainfall across each country have been above normal, normal or below normal over the past three months, using data from the NOAA Climate Prediction Center and the IRI Map Room: http://iridl.ldeo.columbia.edu/maproom/.

* Region usually experiences less than 10mm/month rainfall during the month (dry season).

Additional Information:

Outlooks

Outlooks – Notes for use

MENA – Middle East

MENA – North Africa

Caribbean

British Overseas Territories

Outlooks: Notes for use

Outlooks for months 4 to 6:

As forecast uncertainty generally increases with longer range **the 4-6-month outlook is less reliable than the 1-3 month outlook**. Outlook information will only be provided when the model data signals likely outcomes. Additionally, the longer range outlook utilises fewer models because not all seasonal models are available for the extended range.

Information provided in this presentation should be used to raise early awareness of potential hazards only and should be updated with the 3-month outlook when available.

Climatological odds:

A forecast is only provided in the outlooks where there is information in the model data about likely outcomes. Therefore, where the likelihoods for above-, near- and below- normal conditions are evenly balanced the phrase 'climatological odds' will be used. This means the outcome could fall anywhere within the possible climatological range. Near-normal conditions should not necessarily be assumed, and users should update with shorter-term forecasts when available.

Outlook: March to August – MENA – Middle East (1)

		Forecast summary		
		October	October to December	January to March
Turkey	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal north, **Much more likely to be warmer than normal** south	Likely to be warmer than normal
	Rainfall	Climatological odds	Climatological odds	Climatological odds
Palestine	*Temperature*	**Much more likely to be warmer than normal**	**Much more likely to be warmer than normal**	Likely to be warmer than normal
	Rainfall	Likely to be near-normal	Likely to be drier than normal	Climatological odds
Lebanon	*Temperature*	**Much more likely to be warmer than normal**	**Much more likely to be warmer than normal**	Likely to be warmer than normal
	Rainfall	Likely to be near-normal	Likely to be drier than normal	Climatological odds
Jordan	*Temperature*	Likely to be warmer than normal	**Much more likely to be warmer than normal**	Likely to be warmer than normal
	Rainfall	Likely to be near-normal	Likely to be drier than normal	Likely to be drier than normal

Outlooks for months 4 to 6: As forecast uncertainty generally increases with longer range **the 4-6-month outlook is less reliable than the 1-3 month outlook**. Outlook information will only be provided when the model data signals likely outcomes. Additionally, the longer range outlook utilises fewer models because not all seasonal models are available for the extended range. Information provided in this presentation should be used to raise early awareness of potential hazards only and should be updated with the 3-month outlook when available.

Outlook: March to August – MENA – Middle East (2)

		Forecast summary		
		October	October to December	January to March
Syria	*Temperature*	Likely to be warmer than normal	**Much more likely to be warmer than normal**	Likely to be warmer than normal
	Rainfall	Likely to be near-normal	Likely to be drier than normal	Likely to be drier than normal
Iraq	*Temperature*	Likely to be warmer than normal	**Much more likely to be warmer than normal**	Likely to be warmer than normal
	Rainfall	Likely to be near-normal	Likely to be drier than normal	Likely to be drier than normal
Yemen	*Temperature*	**Much more likely to be warmer than normal**	**Much more likely to be warmer than normal**	Likely to be warmer than normal
	Rainfall	Climatological odds	Climatological odds	Likely to be near-normal

Outlooks for months 4 to 6: As forecast uncertainty generally increases with longer range **the 4-6-month outlook is less reliable than the 1-3 month outlook**. Outlook information will only be provided when the model data signals likely outcomes. Additionally, the longer range outlook utilises fewer models because not all seasonal models are available for the extended range. Information provided in this presentation should be used to raise early awareness of potential hazards only and should be updated with the 3-month outlook when available.

Outlook: March to August – MENA – North Africa(1)

		Forecast summary		
		October	October to December	January to March
Mauritania	*Temperature*	**Much more likely to be warmer than normal**	**Much more likely to be warmer than normal**	Likely to be warmer than normal
	Rainfall	Likely to be near-normal	Likely to be near-normal	Climatological odds
Morocco	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Likely to be near-normal	Likely to be drier than normal	Climatological odds
Algeria	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Likely to be near-normal	Likely to be drier than normal far north, else Likely to be near-normal	Climatological odds
Tunisia	*Temperature*	Likely to be warmer than normal	**Much more likely to be warmer than normal**	Likely to be warmer than normal
	Rainfall	Likely to be near-normal	Climatological odds	Climatological odds

Outlooks for months 4 to 6: As forecast uncertainty generally increases with longer range **the 4-6-month outlook is less reliable than the 1-3 month outlook**. Outlook information will only be provided when the model data signals likely outcomes. Additionally, the longer range outlook utilises fewer models because not all seasonal models are available for the extended range. Information provided in this presentation should be used to raise early awareness of potential hazards only and should be updated with the 3-month outlook when available.

Outlook: March to August – MENA – North Africa(2)

		Forecast summary		
		October	October to December	January to March
Libya	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Likely to be near-normal	Likely to be near-normal	Climatological odds
Egypt	*Temperature*	Likely to be warmer than normal	**Much more likely to be warmer than normal**	Likely to be warmer than normal
	Rainfall	Likely to be near-normal	Likely to be near-normal	Climatological odds

Outlooks for months 4 to 6: As forecast uncertainty generally increases with longer range **the 4-6-month outlook is less reliable than the 1-3 month outlook**. Outlook information will only be provided when the model data signals likely outcomes. Additionally, the longer range outlook utilises fewer models because not all seasonal models are available for the extended range. Information provided in this presentation should be used to raise early awareness of potential hazards only and should be updated with the 3-month outlook when available.

Outlook: March to August – Caribbean and Central America (1)

		Forecast summary		
		October	October to December	January to March
Caribbean Region	*Temperature*	Much more likely to be warmer than normal	Much more likely to be warmer than normal	Much more likely to be warmer than normal
	Rainfall	Likely to be wetter than normal	Likely to be wetter than normal	Likely to be wetter than normal
Haiti	*Temperature*	Much more likely to be warmer than normal	Much more likely to be warmer than normal	Much more likely to be warmer than normal
	Rainfall	Likely to be wetter than normal	Likely to be wetter than normal	Climatological odds
Guyana	*Temperature*	Much more likely to be warmer than normal	Much more likely to be warmer than normal	Likely to be near-normal
	Rainfall	Likely to be drier than normal	Likely to be drier than normal	Likely to be wetter than normal

Outlooks for months 4 to 6: As forecast uncertainty generally increases with longer range **the 4-6-month outlook is less reliable than the 1-3 month outlook**. Outlook information will only be provided when the model data signals likely outcomes. Additionally, the longer range outlook utilises fewer models because not all seasonal models are available for the extended range. Information provided in this presentation should be used to raise early awareness of potential hazards only and should be updated with the 3-month outlook when available.

Outlook: March to August – Caribbean and Central America (2)

		Forecast summary		
		October	October to December	January to March
Venezuela	*Temperature*	**Much more likely to be warmer than normal**	**Much more likely to be warmer than normal**	Likely to be warmer than normal
	Rainfall	**Likely to be drier than normal**	Climatological odds	Likely to be wetter than normal
Columbia	*Temperature*	**Much more likely to be warmer than normal**	**Likely to be near-normal** far west, else **Much more likely to be warmer than normal**	Likely to be warmer than normal
	Rainfall	**Likely to be drier than normal**	**Likely to be wetter than normal** far north, else Climatological odds	Likely to be wetter than normal

Outlooks for months 4 to 6: As forecast uncertainty generally increases with longer range **the 4-6-month outlook is less reliable than the 1-3 month outlook**. Outlook information will only be provided when the model data signals likely outcomes. Additionally, the longer range outlook utilises fewer models because not all seasonal models are available for the extended range. Information provided in this presentation should be used to raise early awareness of potential hazards only and should be updated with the 3-month outlook when available.

Outlook: March to August – British Overseas Territories

		Forecast summary		
		October	October to December	January to March
Southern Europe	*Temperature*	**Much more likely to be warmer than normal**	**Likely to be warmer than normal**	Likely to be warmer than normal
	Rainfall	**Likely to be near-normal**	Climatological odds	Climatological odds
Central Indian Ocean	*Temperature*	**Much more likely to be warmer than normal**	**Much more likely to be warmer than normal**	Likely to be warmer than normal
	Rainfall	**Likely to be wetter than normal**	**Likely to be wetter than normal**	Climatological odds
Central Pacific	*Temperature*	Climatological odds	**Likely to be warmer than normal**	Climatological odds
	Rainfall	**Likely to be drier than normal**	**Likely to be drier than normal**	Likely to be drier than normal

Outlooks for months 4 to 6: As forecast uncertainty generally increases with longer range **the 4-6-month outlook is less reliable than the 1-3 month outlook**. Outlook information will only be provided when the model data signals likely outcomes. Additionally, the longer range outlook utilises fewer models because not all seasonal models are available for the extended range. Information provided in this presentation should be used to raise early awareness of potential hazards only and should be updated with the 3-month outlook when available.

Annex 1 – Supplemental Information

For further information

WMO Lead Centre for Long-Range Forecast Multi-Model Ensemble (LC-LRFMME)
https://www.wmolc.org/

International Research Institute for Climate and Society (IRI)
http://iridl.ldeo.columbia.edu/maproom/

NOAA El Niño technical info
https://www.ncei.noaa.gov/access/monitoring/enso/

Met Office
https://www.metoffice.gov.uk/services/government/international-development

Climate Outlook Fora (WMO Factsheet)

Technical notes

The WMO lead centre for long-range forecast multi-model ensemble (LC-LRFMME) produce a probabilistic multi-model mean forecast product in which the multi-model mean is based on uncalibrated model output with a model weighting system that accounts for errors in both the forecast probability and ensemble mean. The method used by LC-LRFMME separately computes a probabilistic forecast and calculates tercile probabilities with respect to climatology for each individual model, before creating the weighted multi-model mean. In seasonal prediction, shifts in the tercile probabilities are always closely associated with the shifts in the probability of extremes, and we can use the probability of terciles to provide information on the likelihood of above- or below- normal conditions. The thresholds used in the forecast summaries are defined below.

Seasonal forecasts rely on the aspects of the global weather and climate system that are more predictable, such as tropical sea-surface temperatures or the El Niño–Southern Oscillation (ENSO). However, whilst such forecasts may be able to show what is more or less likely to occur, they acknowledge that other outcomes are possible.

In addition, forecast uncertainty generally increases with longer range so the 6-month outlook is less reliable. It is also based on less information, because not all models are available to this range. Therefore the information presented here should be used to raise early awareness of potential hazards, and should be updated with the 3-month outlook when available.

In the report and tables precipitation is referred to as rainfall but in fact encompasses any form of water, liquid or solid, falling from the sky. Temperatures are the (2 metre) near-surface temperature.

Description	Definition
Much more likely to be below normal	When probability of lower tercile > 70%
More likely to be below normal	When probability of lower tercile is 40-70%
Likely to be normal	When probability of middle tercile is 40-70%
Much more likely to be near-normal	When probability of middle tercile > 70%
Likely to be above near-normal	When probability of upper tercile is 40-70%
Much more likely to be above normal	When probability of upper tercile > 70%
Climatological odds	When probabilities for all categories are roughly 33%

Global Producing Centres (GPC) forecasts used by WMO LC-LRFMME:

- GPC CPTEC (INPE),
- GPC ECMWF,
- GPC Exeter (Met Office),
- GPC Melbourne (BOM),
- GPC Montreal (CMC),
- GPC Moscow (Hydromet Centre of Russia),
- GPC Offenbach (DWD),
- GPC Pretoria (SAWS),
- GPC Seoul (KMA),
- GPC Tokyo (JMA),
- GPC Toulouse (Meteo France),
- GPC Washington (NCEP)

Enquiries

Email: internationaldevelopment@metoffice.gov.uk

Web: https://www.metoffice.gov.uk/services/government/international-development