

Global: Monthly Climate Outlook January to October

Issued: April 2021

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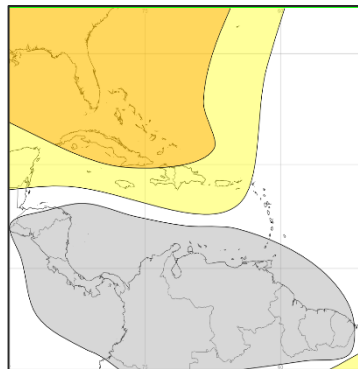
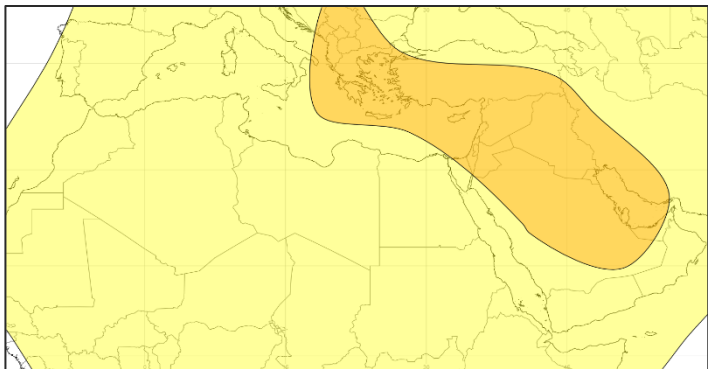
MENA, Caribbean and British Overseas Territories Current Status and Outlook - Temperature

Current Status:

During the last three months the Middle East has experienced much above normal temperatures, and most other regions have been warmer than normal. The exception to this has been some of the more remote British Overseas Territories, such as Pitcairn Islands, as well as northern parts of South America, where below normal temperatures have dominated for the last three months.

Outlook:

For most of these areas the next three months will be characterised by temperatures that are likely to be warmer than normal. However, northern parts of South America are likely to be near normal.



3-Month Outlook May to July - Temperature

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

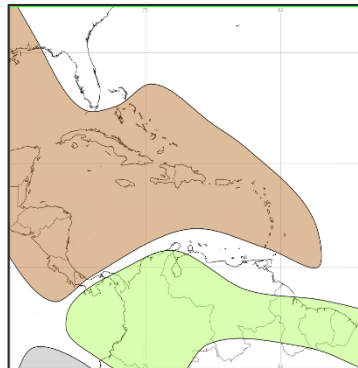
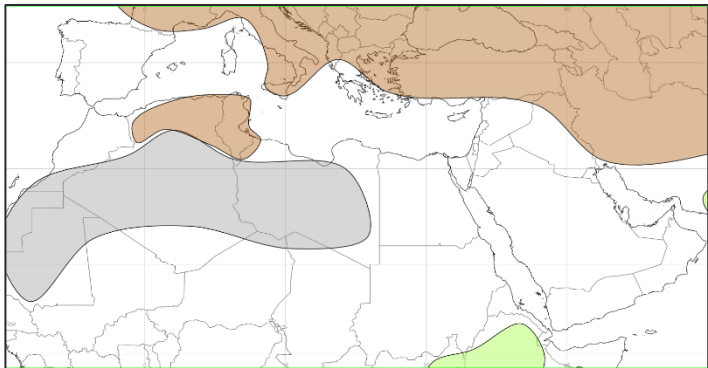
Left: Middle East and North Africa

Right: Caribbean region

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

Current Status: MENA, the Caribbean and British Overseas Territories have seen near normal to below normal over the last three months. Parts of Iraq have been very dry in March.

Outlook: For the next three months, conditions are likely to be drier than normal for much of the Middle East, Tunisia and northern Algeria. Near-normal rainfall is likely across the rest of North Africa. For the Caribbean, much of the area is likely to be drier than normal. However, northern South America and the far southeast of Central America, where conditions are likely to be wetter than normal through this period.



3-Month Outlook May to July - 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

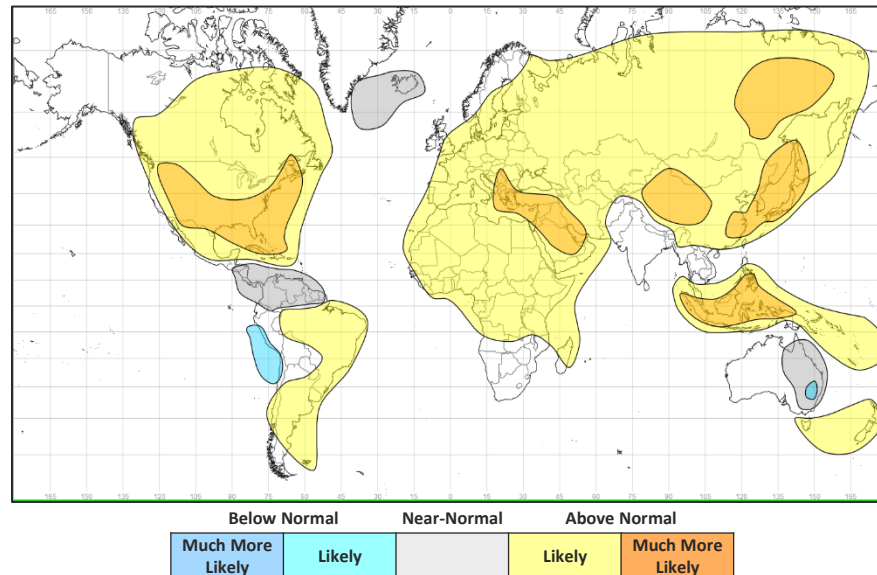
Outlook:

With the high likelihood of the El Niño–Southern Oscillation reverting to neutral in the next month or so, its influence is less significant over the next three months. This is reflected in signals from longer range forecast systems which offer mixed, and at times conflicting, forecasts for this period.

However, some consistent signals are apparent. Many parts of the globe are likely to see warmer than normal conditions through the next three months. Parts of the southern USA, much of the Caribbean, Middle East, China and Indonesia are much more likely to be warmer than normal.

Eastern Australia, as well as some western areas of South America are likely to be cooler than normal, with the residual influence from La Niña

3-Month Outlook May to July - Temperature



Global Outlook - Rainfall

Outlook:

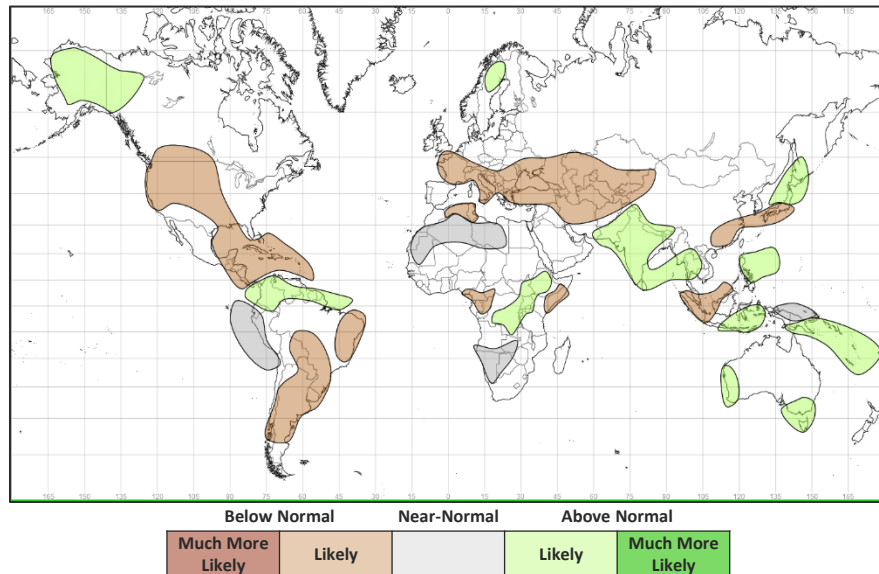
As described in the temperature section, the recent La Niña is in decline; residual La Niña influences are mainly related to reduced rainfall in the tropical Pacific.

Over the next three months, the seasonal northward shift of rains will see the onset of the South Asian Monsoon (SAM). Wetter than normal conditions for much of the Indian subcontinent, Sri Lanka, as well as parts of southeast Asia are likely over the next three months. This may reflect either an early onset of the SAM, or a more intense SAM as compared to normal. The Philippines, particularly the east, is likely to be wetter than normal, perhaps indicative of enhanced tropical storm activity.

Elsewhere, it is likely to be wetter than normal for parts of central and eastern Africa. This is also the case in northern parts of South America, where a northward displaced Intertropical Convergence Zone means conditions are likely to be wetter than normal across areas which have already seen impacts from flooding over the last few months.

Much of the rest of South America, as well as the contiguous USA, Caribbean, central and eastern Europe and the Middle East are likely to be drier than normal. This is also true for eastern China, southern Japan and parts of western Indonesia and Malaysia.

3-Month Outlook May to July - Rainfall



Current Status

[Current Status maps](#)

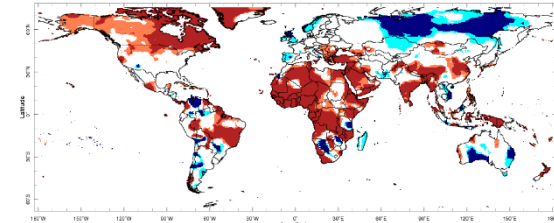
[MENA – Middle East](#)

[MENA – North Africa](#)

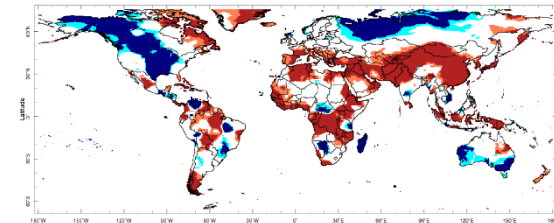
[Caribbean](#)

[British Overseas Territories](#)

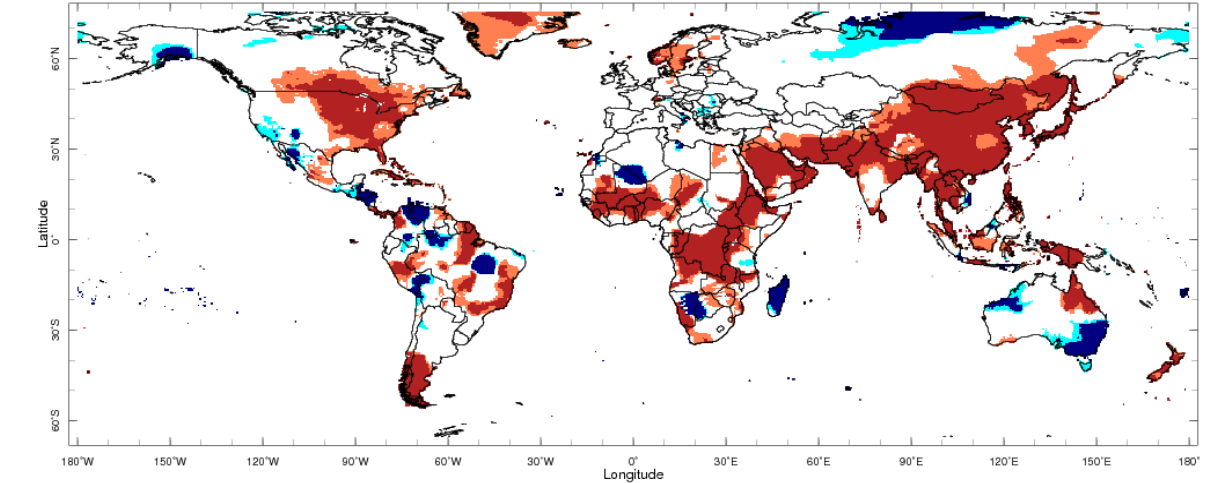
Current Status – Temperature percentiles



January



February



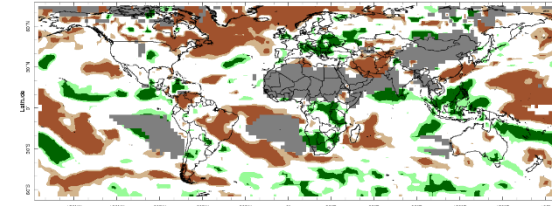
Mar 2021

March

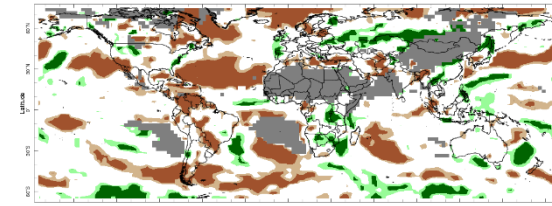


Notes: The percentiles shown in the map indicate a ranking of temperature, with the 0th percentile being the coolest and the 100th percentile being the warmest in the 1981-2010 climatology. Orange and red shading represent values above the 80th (Warm) and 90th (Hot) percentile, respectively; regions 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.

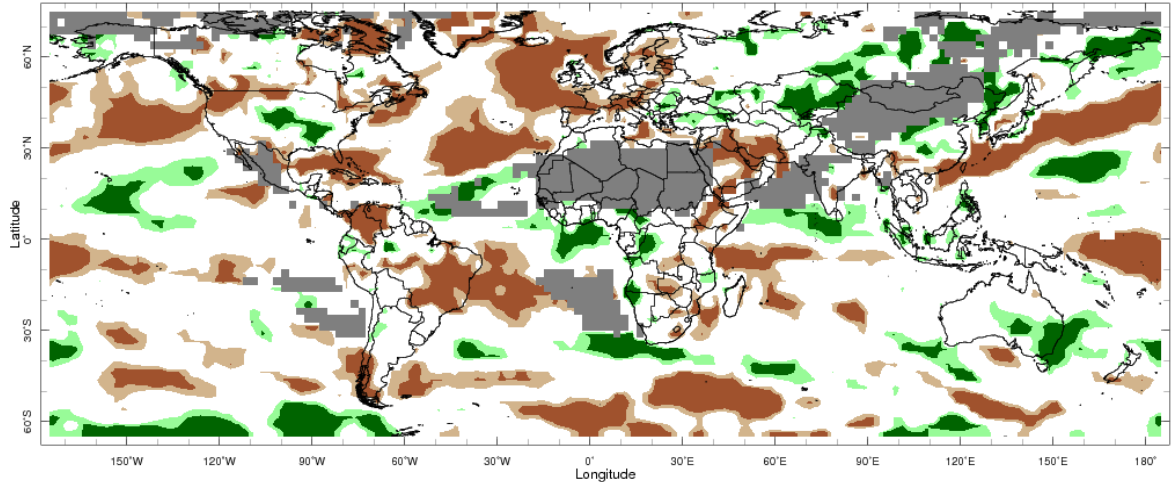
Current Status – Precipitation percentiles



January



February



Mar 2021

March



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

	January	February	March
Turkey	Hot	Hot	Normal
Palestine	Hot	Hot	Normal
Lebanon	Hot	Hot	Normal
Jordan	Hot	Hot	Warm
Syria	Hot	Hot	Normal
Iraq	Hot	Hot	Mixed (1)
Yemen	Hot	Normal	Mixed (2)

Current Status: Rainfall

	January	February	March
Turkey	Mixed (3)	Mixed (6)	Wet
Palestine	Normal	Normal	Normal
Lebanon	Normal	Normal	Normal
Jordan	Normal	Normal	Dry
Syria	Mixed (4)	Mixed (7)	Normal
Iraq	Dry (5)	Normal	Very dry
Yemen	Normal*	Normal*	Mixed (8)

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:** Warm in the south, and very warm in the far south. Normal elsewhere
- (2) **Note:** Hot in the far east and far west. Normal elsewhere
- (3) **Note:** Very wet in the far northwest, normal or wet elsewhere
- (4) **Note:** Wet in central/northern/northwestern areas, normal elsewhere
- (5) **Note:** Normal in the north and west
- (6) **Note:** Normal in the north, very dry in the south
- (7) **Note:** Very dry in the north, near normal in the south
- (8) **Note:** Very dry in the northeast, normal elsewhere

Current Status – MENA – North Africa

Current Status: Temperature

	January	February	March
Mauritania	Hot	Mixed (4)	Mixed
Morocco	Normal	Normal (5)	Normal
Algeria	Hot	Hot	Normal
Tunisia	Hot	Hot	Normal
Libya	Mixed (4)	Mixed (6)	Normal
Egypt	Hot	Mixed (7)	Mixed (6)
Eritrea	Hot	Hot	Hot

Current Status: Rainfall

	January	February	March
	Normal*	Normal*	Normal
	Mixed (1)	Normal	Normal
	Dry* (2)	Dry* (2)	Normal
	Dry	Dry*^^	Normal
	Dry* (2)	Dry* (2)	Normal
	Normal*	Normal*	Normal
	Normal*	Normal*	Dry

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 far north of the country, with rainfall normal elsewhere
- (2) Note: Dry across parts of the north
- (3) Note: Hot in the west, normal or warm elsewhere
- (4) Note: Very hot in the southwest, to normal in the north
- (5) Note: Hot in the far northeast
- (6) Note: Mainly normal, but warm to hot in parts of far east and west
- (7) Note: Hot in the north, normal in the south

Current Status – Caribbean

Current Status: Temperature

	January	February	March
Caribbean Region	Warm	Hot	Hot
Haiti	Warm	Hot	Hot
Guyana	Normal	Warm	Normal

Current Status: Rainfall

	January	February	March
Caribbean Region	Mixed (1)	Mixed (2)	Mixed (3)
Haiti	Normal	Normal	Normal
Guyana	Normal	Dry	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:

(1) Note: Very Wet for Jamaica and eastern Cuba. Dry for western Cuba and Dominican Republic. Normal elsewhere.

(2) Note: Very Dry for Jamaica and Puerto Rico, Normal elsewhere.

(3) Note: Dry or very dry for much of the northern Caribbean. Near normal elsewhere.

Current Status – British Overseas Territories

	Current Status: Temperature		
	January	February	March
Southern Europe	Mixed (1)	Mixed (1)	Normal
Central Indian Ocean	Warm	Warm	Warm
Central Pacific	Cold	Cold	Cold

	Current Status: Rainfall		
	January	February	March
	Mixed (2)	Mixed (3)	Dry
	Normal	Normal	Normal
	Very Dry	Normal	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:

(1) Note: Temperatures highly variable across the region.

(2) Note: Gibraltar wet. Cyprus normal.

(3) Note: Gibraltar normal, Cyprus very dry.

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: May to October – MENA – Middle East (1)

		Forecast summary		
		May	May to July	August to October
Turkey	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	Likely to be drier than normal	Likely to be drier than normal
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	Climatological odds	Climatological odds	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	Climatological odds	Climatological odds	Climatological odds
Jordan	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	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: May to October – MENA – Middle East (2)

		Forecast summary		
		May	May to July	August to October
Syria	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 drier than normal
Iraq	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 drier than normal
Yemen	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Climatological odds	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: May to October – MENA – North Africa(1)

		Forecast summary		
		May	May to July	August to October
Mauritania	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Likely to be drier than normal	Likely to be drier than normal	Likely to be near-normal
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 near-normal	Likely to be drier than normal
Algeria	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Likely to be drier than normal	Likely to be near-normal	Likely to be drier than normal
Tunisia	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Likely to be drier than normal	Likely to be drier than normal	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: May to October – MENA – North Africa(2)

		Forecast summary		
		May	May to July	August to October
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	Likely to be near-normal
Egypt	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Climatological odds	Climatological odds	Likely to be drier than normal
Eritrea	Temperature	Likely to be warmer than normal	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: May to October – Caribbean

		Forecast summary		
		May	May to July	August to October
Caribbean Region	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Likely to be drier than normal in north, likely to be wetter than normal in northern Columbia and parts of northern Venezuela	Likely to be drier than normal in north, likely to be wetter than normal in northern Columbia and parts of northern Venezuela	Climatological odds
Haiti	Temperature	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Likely to be drier than normal	Likely to be drier than normal	Likely to be near-normal
Guyana	Temperature	Climatological odds	Climatological odds	Climatological odds
	Rainfall	Likely to be wetter than normal	Likely to be wetter 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: May to October – British Overseas Territories

		Forecast summary		
		May	May to July	August to October
Southern Europe	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	Likely to be drier than normal	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	Climatological odds	Climatological odds	Climatological odds
Central Pacific	Temperature	Likely to be near-normal	Likely to be near-normal	Likely to be near-normal
	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.ncdc.noaa.gov/teleconnections/enso/indicators/sst.php>

Met Office

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

Climate Outlook Fora (<https://public.wmo.int/en/our-mandate/climate/regional-climate-outlook-products>)

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 near-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 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 CPTC (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>