Global: Monthly Climate Outlook
July to April

Issued: October 2020

Overview

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

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

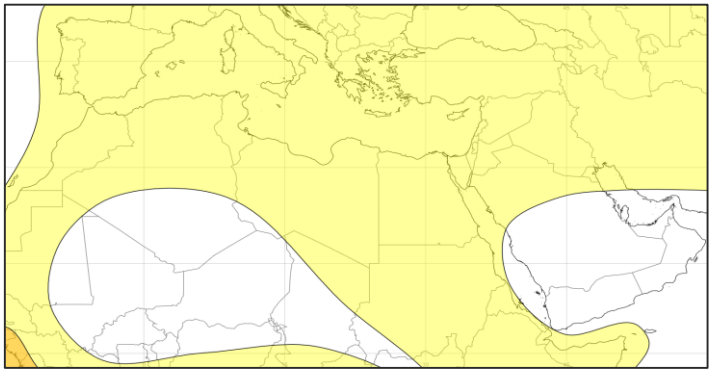
Global Seasonal Outlook – Temperature

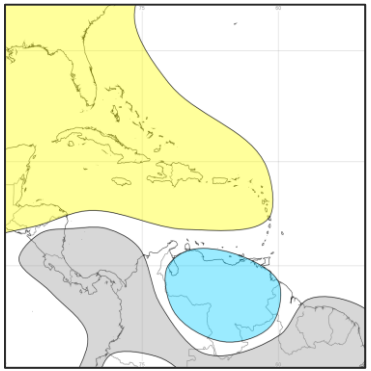
Global Seasonal Outlook – Rainfall

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

Current Status: Conditions have been warmer than normal across the Middle East and large parts of North Africa, particularly during August and September. Similarly for the Caribbean, where temperatures have been widely been much warmer than normal.

Outlook: Temperatures are likely to continue to be above normal during the next 3-6 months, the main exception to this is likely to be over parts of northern South America, where colder than normal conditions are likely – this consistent with impacts from the ongoing La Niña event.





3-Month Outlook November to January - Temperature

Below Normal		Near-Normal	Above Normal	
Very Likely	Likely		Likely	Very Likely

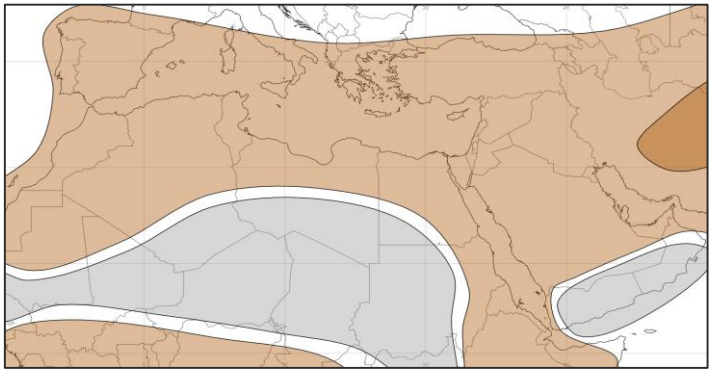
Left: Middle East and North Africa
Right: Caribbean region

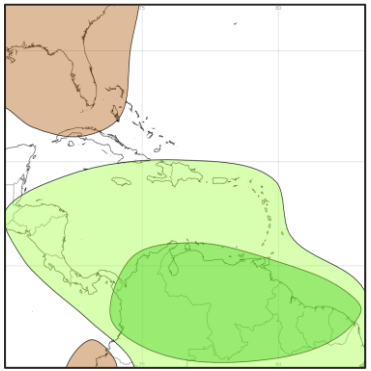
MENA, Caribbean and British Overseas Territories Current Status and Outlook - Rainfall

Current Status: Rainfall has generally been near normal over the Middle East and North Africa, although the majority of this area normally sees less than 10mm per month during July, August and September. Across Turkey, rainfall has near-normal in July and August, and drier than normal in September. Rainfall in the Caribbean has been near normal overall, although July and September the eastern Caribbean was drier than normal, despite an active tropical cyclone season. The only area that were wetter than normal was the far west of Cuba, where tropical cyclone impacts did occur.

Outlook: Below normal rainfall is likely across the Middle East and North Africa during the next 3-6 months, however above normal rainfall, likely highly influenced by the ongoing La Niña event in the tropical Pacific, is very likely over northern South America, and likely over the southern Caribbean.

Tropical Cyclone outlook: Information can be found here.





3-Month Outlook November to January - Rainfall

Below Normal		Near-Normal	Above Normal	
Very Likely	Likely		Likely	Very Likely

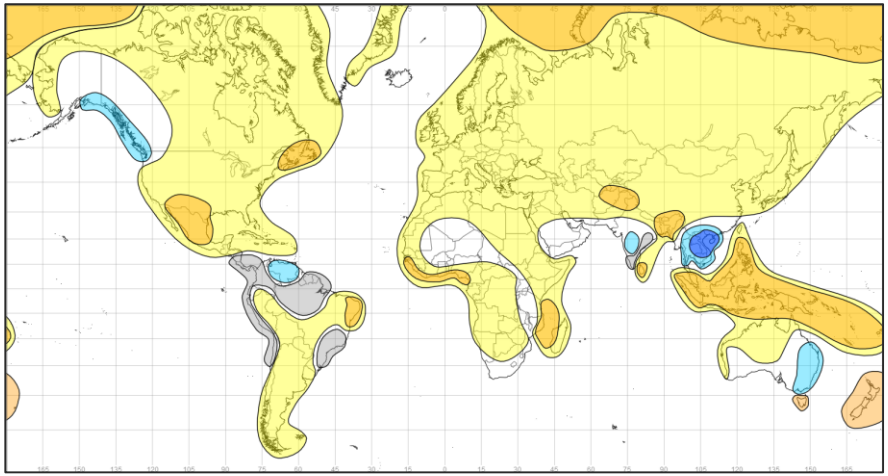
Left: Middle East and North Africa
Right: Caribbean region

Global Outlook - Temperature

Outlook: For the next three months, **t**he majority of the globe is likely to experience warmer than normal conditions, which is supported by the generally warming climate over the past decade (the anomalies forecast are with respect to the 1981-2010 climate).

The most significant deviations from this are in areas where La Niña has a strong influence – for example colder than normal conditions are very likely across south-east Asia, whereas warmer than normal conditions are very likely across Indonesia and Malaysia, where Sea Surface Temperatures (SSTs) are above normal. Warmer than normal conditions are very likely over large parts of the Arctic, where sea ice and snow cover are currently at record minimum levels.

3-Month Outlook November to January - Temperature



Below Normal		Near-Normal	Above Normal	
Very Likely	Likely		Likely	Very Likely

Global Outlook - Rainfall

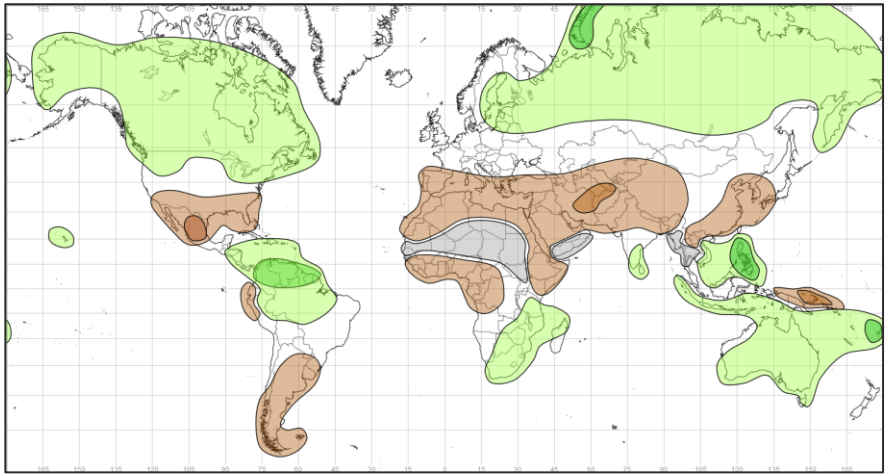
Outlook: As with temperature, the rainfall patterns over the next 3-6 months are expected to be influenced by the ongoing mature La Niña event in the tropical Pacific. Confidence is highest in these rainfall patterns across the tropics, but the impacts of La Niña will be far reaching, and in general the expected rainfall anomalies are in line with what is normally expected in a La Niña year.

Rainfall is very likely to be above normal over the Philippines and north-west Pacific tropical cyclone activity likely higher across the Philippine and South China Seas compared to areas further north. Above normal rainfall is also very likely in parts of southern Africa, the southern Caribbean Sea, the north of South America, large parts of northern North America, northern Asia, parts of Scandinavia, parts of Indonesia, and Australia.

However, below normal rainfall is very likely over parts of Mexico, and in parts of south-west Asia. More broadly, below normal rainfall is likely across northern and eastern Africa, large parts of southern North America, southern South America, southern Europe and southern Asia.

Forecasts for the Indian Ocean Dipole (IOD) show lower likelihood that it will become negative as the La Niña continues to dominate. However, if the IOD does become negative, the effects on rainfall patterns are likely to be similar to those caused by La Niña, particularly in countries surrounding the Indian Ocean Basin.

3-Month Outlook November to January - Rainfall



Below Normal		Near-Normal	Above Normal	
Very Likely	Likely		Likely	Very Likely

Current Status

Current Status maps

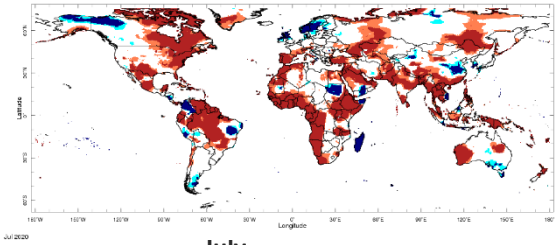
MENA – Middle East

MENA – North Africa

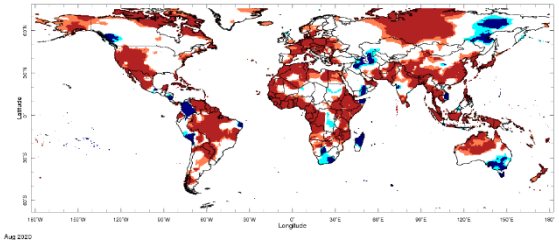
Caribbean

British Overseas Territories

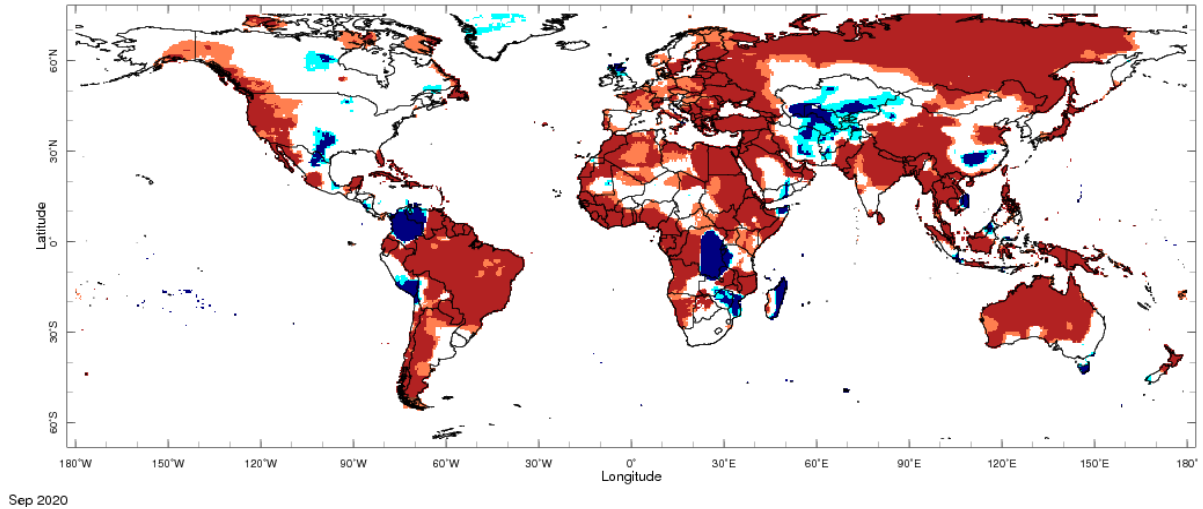
Current Status – Temperature percentiles



July



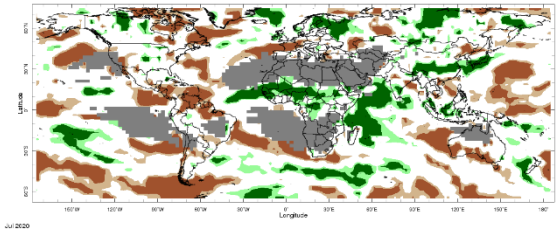
August



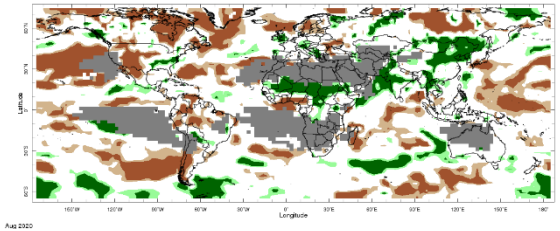
September

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.

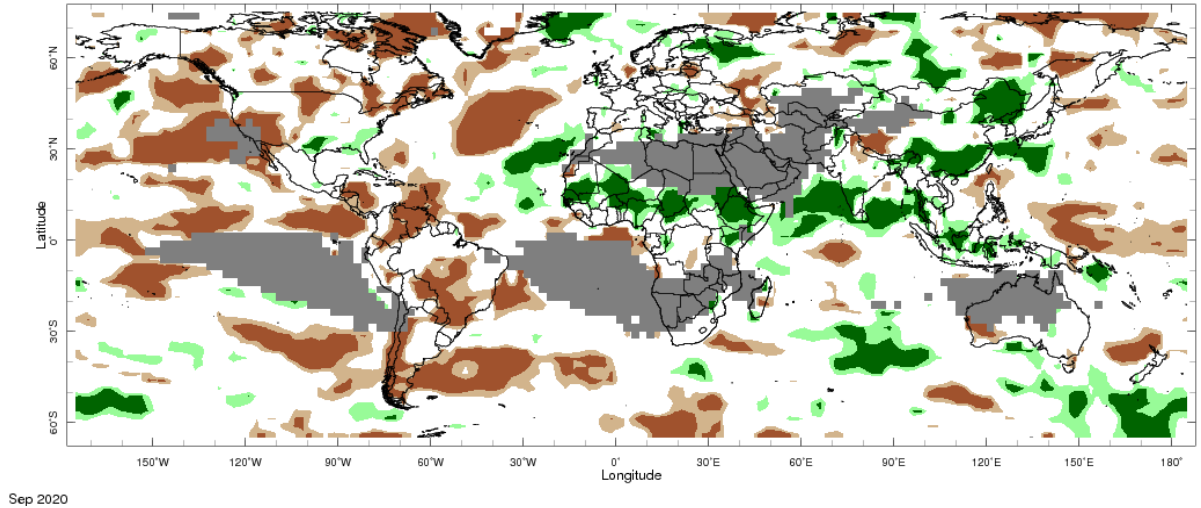
Current Status – Precipitation percentiles



July



August



September

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		
	July	August	September	July	August	September
Turkey	Hot	Warm	Normal	Normal	Normal*	Dry
Palestine	Hot	Normal	Hot	Normal*	Normal*	Normal*
Lebanon	Hot	Normal	Hot	Normal*	Normal*	Normal*
Jordan	Hot	Normal	Hot	Normal*	Normal*	Normal*
Syria	Hot	Normal	Hot	Normal*	Normal*	Normal*
Iraq	Normal	Normal^	Normal^	Normal*	Normal*^^	Normal*
Yemen	Cool	Cool	Normal	Wet	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:

^Note: Temperatures highly variable across the country August/September.
^^Note : Wet in the north-west during August.

Current Status – MENA – North Africa

	Current Status: Temperature			Current Status: Rainfall		
	July	August	September	July	August	September
Mauritania	Normal	Warm	Warm	Very Wet	Wet	Very Wet
Morocco	Hot	Hot	Hot	Normal*	Normal*	Normal
Algeria	Warm	Hot	Warm	Normal*	Normal*	Normal*
Tunisia	Normal	Hot	Normal	Normal*	Normal*	Wet
Libya	Normal	Warm	Warm	Normal*	Normal*	Normal*
Egypt	Warm	Warm	Hot	Normal*	Normal*	Normal*
Eritrea	Hot	Hot	Hot	Normal	Very Wet	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:

Current Status – Caribbean

	Current Status: Temperature		
	July	August	September
Caribbean Region	Warm	Hot	Hot
Haiti	Hot	Hot	Hot
Guyana	Hot	Hot	Hot

	Current Status: Rainfall		
	July	August	September
Caribbean Region	Dry	Normal	Dry
Haiti	Normal	Normal	Normal
Guyana	Very Dry	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:

Current Status – British Overseas Territories

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

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

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: November to April – MENA – Middle East (1)

		Forecast summary		
		November	November to January	February to April
Turkey	*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	Climatological odds - see note
Palestine	*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	Climatological odds - see note
Lebanon	*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	Climatological odds - see note
Jordan	*Temperature*	Climatological odds - see note	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 - see note

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: November to April – MENA – Middle East (2)

		Forecast summary		
		November	November to January	February to April
Syria	*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	Climatological odds - see note
Iraq	*Temperature*	Climatological odds - see note	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 - see note
Yemen	*Temperature*	Climatological odds - see note	Climatological odds - see note	Likely to be warmer than normal
	Rainfall	Likely to be near-normal	Likely to be near-normal	Climatological odds - see note

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: November to April – MENA – North Africa(1)

		Forecast summary		
		November	November to January	February to April
Mauritania	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	More
	Rainfall	Likely to be near-normal	Likely to be drier than normal in the north, but likely to be near-normal in the south	Climatological odds - see note
Morocco	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	More
	Rainfall	Likely to be drier than normal	Likely to be drier than normal	Climatological odds - see note
Algeria	*Temperature*	Likely to be warmer than normal	Climatological odds - see note	More
	Rainfall	Likely to be drier than normal in the north, but likely to be near-normal in the south	Likely to be drier than normal in the north, but likely to be near-normal in the south	Climatological odds - see note
Tunisia	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Climatological odds - see note
	Rainfall	Climatological odds - see note	Likely to be drier than normal	Climatological odds - see note

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: November to April – MENA – North Africa(2)

		Forecast summary		
		November	November to January	February to April
Libya	*Temperature*	Climatological odds - see note	Likely to be warmer than normal	Climatological odds - see note
	Rainfall	Likely to be near-normal	Likely to be drier than normal in the north, but likely to be near-normal in the south	Climatological odds - see note
Egypt	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Climatological odds - see note
	Rainfall	Likely to be near-normal	Likely to be drier than normal	Climatological odds - see note
Eritrea	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Climatological odds - see note
	Rainfall	Likely to be near-normal	Likely to be drier than normal	Climatological odds - see note

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: November to April – Caribbean

		Forecast summary		
		November	November to January	February to April
Caribbean Region	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Much more likely to be warmer than normal in the north, and likely to be near-normal in the south
	Rainfall	Likely to be wetter than normal	Likely to be wetter than normal	Likely to be drier than normal in the north, and likely to be wetter than normal in the south
Haiti	*Temperature*	Much more likely to be warmer than normal	Likely to be warmer than normal	Likely to be near-normal
	Rainfall	Likely to be wetter than normal	Likely to be wetter than normal	Climatological odds - see note
Guyana	*Temperature*	Climatological odds - see note	Climatological odds - see note	Likely to be colder than normal
	Rainfall	Likely to be wetter than normal	Much more 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: November to April – British Overseas Territories

		Forecast summary		
		November	November to January	February to April
Southern Europe	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Likely to be warmer than normal
	Rainfall	Climatological odds - see note	Likely to be drier than normal	Likely to be drier than normal
Central Indian Ocean	*Temperature*	Likely to be warmer than normal	Likely to be warmer than normal	Climatological odds - see note
	Rainfall	Climatological odds - see note	Climatological odds - see note	Climatological odds - see note
Central Pacific	*Temperature*	Likely to be colder than normal	Likely to be colder than normal	Likely to be colder than normal
	Rainfall	Climatological odds - see note	Climatological odds - see note	Climatological odds - see note

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

Tropical Storm Outlook for the North Atlantic Ocean basin

Tropical storm seasonal forecast for the November to April period:

The hurricane season officially ends on the 30th November, although tropical systems can and do develop beyond this point. However, tropical cyclone activity is much less than during the summer half of the year. Above-average activity remains the most likely outcome, with storms tending to form either in the western tropical Atlantic or Caribbean Sea at this time of year, most likely affecting the Caribbean. Above-average sea surface temperatures in these regions support this, whereas colder temperatures in the Gulf of Mexico, particularly north Gulf, reduce the chance of strong storms making landfall along the south Gulf coast.

More information, and the full forecast can be found at https://www.metoffice.gov.uk/research/weather/tropical-cyclones/seasonal/northatlantic2020

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 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

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