Caribbean Climate Outlook Newsletter - May to July 2025

For climate information specific to your country, please consult with your national meteorological service.

CariCOF outlooks speak to recent and expected seasonal climate trends across the Caribbean in general.

BRIEF SUMMARY: January to July 2025

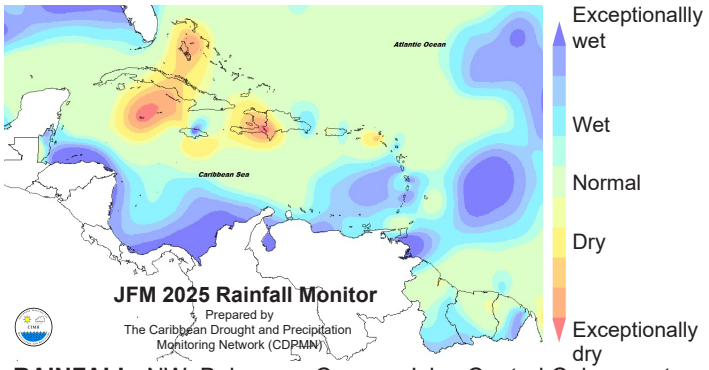
January to March 2025: Tropical North Atlantic ocean temperatures have cooled to below average eastwards of the Caribbean, but just above average around the region and, correspondingly, comfortable, slightly above average air temperatures. Parts of the Greater Antilles observed less rainfall than usual, whereas Belize, the Lesser Antilles and the Guianas observed at least the usual rainfall totals.

May to July 2025: ENSO neutral conditions in the Pacific, combined with unusually warm waters around the Caribbean and, temporarily, cooler waters in the eastern Tropical North Atlantic imply: (**i**) a Caribbean Heat Season with the *possibility* of heatwaves, gradually ramping up, but *unlikely* to match 2023 and 2024; (**ii**) in May, the occurrence of high evaporation rates, short dry spells and the *possible* buildup of any ongoing drought increases heat and wildfire potential; (**iii**) rainfall intensity and shower frequency should rise in May (the Bahamas, Guianas and Greater Antilles) or June (Belize and the Lesser Antilles), resulting in *high* to *extremely high* potential for flooding, flash floods, cascading hazards and associated impacts. Episodes of Saharan dust intrusion will *likely* be frequent; the more frequent, the more dryness and heat, and the more *erratic* the occurrence of severe weather - including intense tropical cyclone activity.

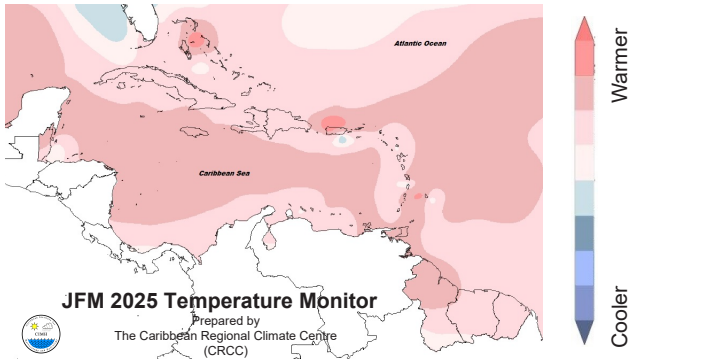
LOOKING BACK:

January - February - March (JFM) 2025

Observations



- **RAINFALL:** NW. Bahamas, Cayman Isls., Central Cuba, western Hispaniola very dry; northern Belize, Dominica, Martinique, St. Vincent, southern Trinidad, southernmost Guyana & Suriname, eastern French Guiana very wet.



- **TEMPERATURE:** Most locations 0.25-1.5ºC warmer than usual, with New Providence and parts of Puerto Rico exceeding +1.5ºC anomaly.

Notable Climate Records in JFM 2025:

WET: 1 location in Belize, 1 in the Dom. Rep., 1 in Trinidad reported record high rainfall for this period (~180-205% of average).

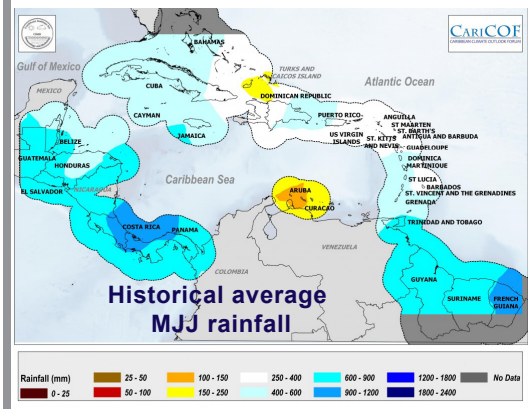
DRY: *No locations reported record-low rainfall totals for this period.*

HOT: 1 location in Jamaica and 1 in Puerto Rico reported record-high mean temperatures.

More at *https://carogen.cimh.edu.bb/index.php/component/countrydata/*

WHAT NEXT?

Rainfall patterns May-June-July (MJJ)



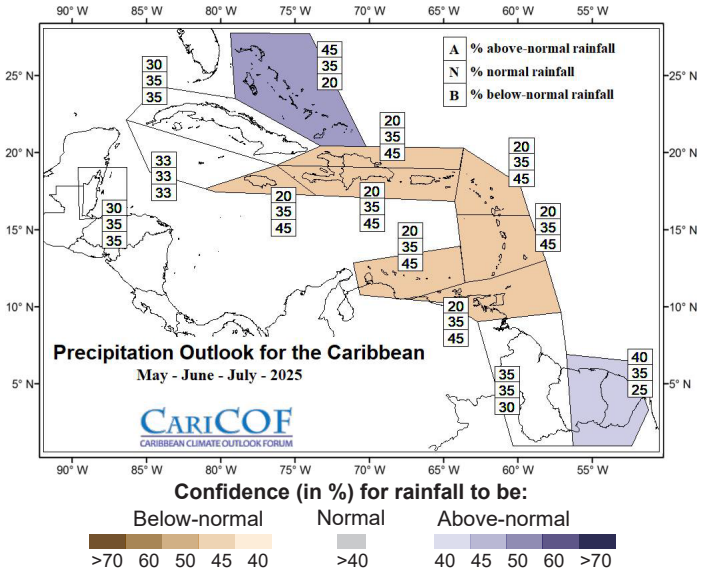
Belize & C'bean Islands north of 16ºN:
May & Jun - usually frequent heavy showers.
Jul - wet season, often including a mid-summer dry spell.

C'bean Islands south of 16ºN (except ABC Islands):
May - end of dry season.
Limited spatial extent and duration of heavy showers; occasionally very wet.
Jun & Jul - early wet season.
Increasingly heavy showers.

ABC Islands: *May to Jul - mostly dry.*

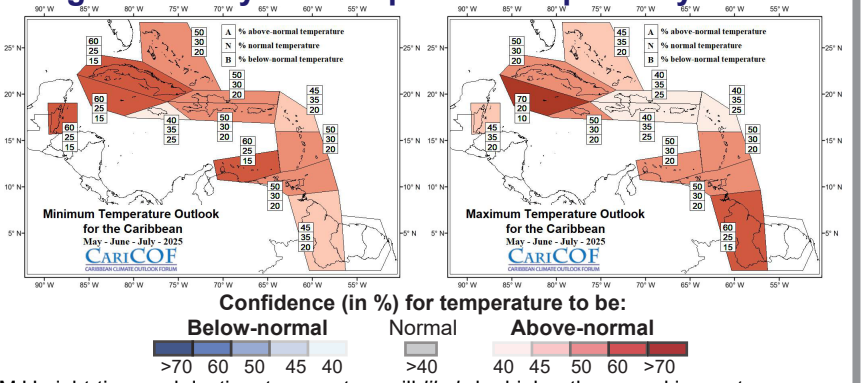
Guianas: May to Jul - long wet season; heavy showers are frequent.

MJJ 2025 Rainfall Outlook



Rainfall totals from May to July are likely to be the usual or higher in the Bahamas and eastern parts of the Guianas, but, *likely*, the usual or less in the ABC Islands, Hispaniola, Jamaica, the Lesser Antilles and Puerto Rico.
White areas show where the forecast indicates little information on rainfall totals.

Night- and daytime temperatures up to July



MJJ night-time and daytime temperature will *likely* be higher than usual in most areas. Episodes of hazardous, extreme heat with heatwaves could ramp up into July. Wind-exposed areas in the Lesser Antilles will *unlikely* experience intense heatwaves. However, *increased risk* exists in wind-sheltered areas, particularly when the air is dusty and humid.

Wet days and wet spells up to July

What usually happens from May to July?

- Number of wet days: roughly 20 to 40, (ABC Is. 5-15; Guianas: 45-65).
- # of wet spells: 1 to 5 (Guianas: 4 to 7), of which 2 or 3 are very wet (ABC Is. up to 1; Guianas: 1 to 5).
- # of extreme wet spells: up to 1 in most locations.

Forecast and Implications:

- The potential for flooding, flash floods and cascading impacts arising from runoff during intense rainfall events will be *high*, particularly in mountainous areas and in the Guianas.
- Water recharge rates in surface reservoirs and rivers will *likely* rapidly accelerate, particularly in the Guianas.
- Rise in wet day frequency to increasingly disrupt outdoor tourism activities, make conditions conducive to moisture-related pests, but dampen wildfire potential .

Drought conditions

Lastest drought situation: (*as of Apr.1st, 2025*)	*Moderate* (or worse) short-term drought has developed in northwestern parts of The Bahamas, Cayman Islands, Central Cuba, southwest Dominican Rep., Haiti, Sint Maarten; *moderate* (or worse) long-term drought in northern Bahamas, southwest Belize, northern Dominican Rep., southwest Jamaica, northwest Trinidad, St. Vincent and northwest Suriname.
Short-term drought (at the end of July 2025)	Short-term drought *might possibly develop or continue* in western Belize and the northern Bahama Islands.
Long-term drought (at the end of May 2025)	Long-term drought is *evolving* in The Bahamas and far southwest Belize, and *might possibly develop* or continue in southeast Puerto Rico and St. Vincent.

BRIEF CLIMATE OUTLOOK - August to October 2025

This period marks the buildup into the annual peak of the Caribbean Wet Season, the Atlantic Hurricane Season and the Heat Season. The tropical North Atlantic Ocean is forecast to remain warmer than average around the Caribbean - albeit not at record levels as experienced in 2023 and 2024. Unusually high air temperatures will most likely prevail with significant heat stress to become recurrent. The *risk* of severe weather impacts, including flooding, flash floods, and cascading impacts is expected to be *higher* than usual. Whereas hurricane season activity tends to be higher than average when the waters around the Caribbean are warmer than usual, confident forecasts for the 2025 season will not be available before late-May. *For temperature and precipitation outlooks for ASO 2025, please visit rcc.cimh.edu.bb/caricof-climate-outlooks.*

What influences the next season?

El Niño Southern Oscillation (ENSO)

Recent observations: Weak La Niña conditions have subsided in February, with Sea Surface Temperatures (SSTs) currently running near average, in other words, ENSO neutral conditions.

Model forecast and guidance: The forecast models forecast ENSO neutral conditions in MJJ (~80-85% confidence), slightly *more likely than not* remaining neutral through ASO (~50-55% confidence).

Expected impacts on rainfall and temperatures: *ENSO neutral conditions do not contribute to seasonal forecast skill, but can imply that the second half of the Atlantic Hurricane Season will unlikely be quiet.*

Climate conditions in the Tropical North Atlantic and Caribbean

Recent observations: Cooling faster than in 2024 in the eastern Tropical North Atlantic (TNA), SSTs currently run 0-0.5°C below average. Meanwhile, unseasonably warm SSTs in and around the Caribbean Sea have also cooled to around 0.5°C above average.

Expected conditions: Models are confidently forecasting persistently warm SST anomalies of 0.2-0.5°C above average in MJJ and in ASO across the Caribbean Sea and the western half of the TNA.

Expected impacts: Warm SSTs in and around the Caribbean tend to contribute to higher air temperatures, humidity, rainfall totals, increased frequency of severe weather. The likelihood of recurrent, intense heatwaves is slightly higher than usual, but less than in 2023 and 2024.

Climate outlooks - background

The Caribbean Climate Outlooks are prepared by the Caribbean Climate Outlook Forum (CariCOF). The Caribbean Institute for Meteorology and Hydrology, in its role as WMO Regional Climate Centre, coordinates the CariCOF process. Contributors to the Outlooks are the Meteorological Services from the region.
The Precipitation and Temperature Outlooks are issued in the form of a map, which shows regions where the forecast rainfall or temperatures have the same probabilities to be:

Above-normal	(A)	- within the wettest/hottest third of the historical record
Near-normal	(N)	- within the middle third of the historical record, i.e. a range called the 'usual'
Below-normal	(B)	- within the driest/coldest third of the historical record

CariCOF Outlooks offer consensus-based information averaged across multiple territories. In some cases, individual national results may differ from region wide results. To get information on your specific country context, please consult your National Meteorological and Hydrological Services and/or any national level bulletins thay may provide.

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