Caribbean Climate Outlook Newsletter

March to May 2018

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CARIBBEAN CLIMATE OUTLOOK FORUM

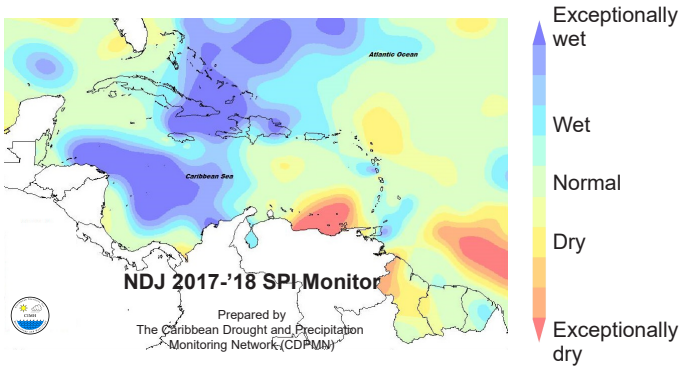
BRIEF SUMMARY: November 2017 to May 2018

November 2017 to January 2018: Most areas observed at least the usual rainfall totals, which were extremely high in the Bahamas, eastern Cuba, much of Hispaniola and northern Jamaica. As a result, long-term drought is only seen in few areas. Hot 'feels-like' temperatures were rare as the region transitioned into the cool season.

March to May 2018: During the transition from the late dry season to the wet season, the northwest of the Caribbean may be wetter than usual. By contrast, the late dry season may be drier than usual in the Lesser Antilles. In any case, drought should not be a major concern in the region by the end of the dry season, with the likely exception of southeastern Haiti. From May onwards, heat discomfort will gradually increase in the islands and more frequent incursions of Sahara dust may be noted, but fire risk, where present, will decrease.

LOOKING BACK:

Nov.-Dec.-Jan. 2017-'18 (NDJ)



Observations

- **RAINFALL**:

January: Much of the Bahamas, Eastern and Central Cuba, Dominica, Dom. Republic, Grenada, Haïti, Tobago very wet.

December: W Cuba, Guadeloupe, W Guyana very dry; Dominica, portions of French Guiana, S Jamaica, Martinique, St Lucia, Trinidad, Tobago very wet.

November: Antigua & Barbuda, NW Bahamas, SW Dominica, some inland portions of Dominican Rep., N Grenadines, portions of W Guyana, W Martinique, W Trinidad very dry; central & SE Bahamas, SE Cuba, coastal Dominican Rep., Haïti, west-central Jamaica, N Puerto Rico, Turks & Caicos very wet.

- **TEMPERATURES**:

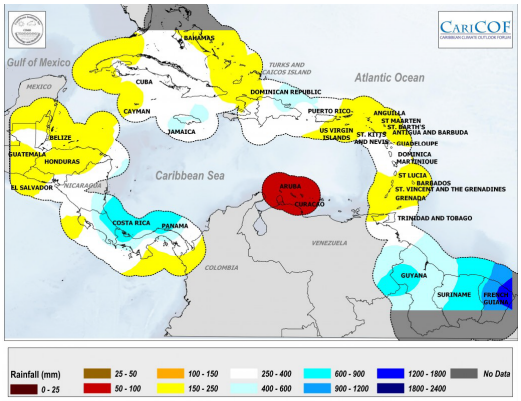
NDJ: warmer than average, especially in St. Maarten (>2.5 ºC above avg.) and central Bahamas (>1.5ºC above avg.); slightly cooler than average in southern Belize and parts of eastern Suriname.

Notable Climate Records:

- **WET** - ***NDJ:*** 4 locations in Dom. Republic (~195-275% of avg.), 2 locations in Jamaica (~230-530% of avg.) and 1 location in Cuba (350% of avg.)
- **HOT** - ***NDJ***: Tobago recorded its highest mean temperature Haïti its highest maximum temperature.

WHAT NEXT?

Rainfall patterns March-April-May (MAM)

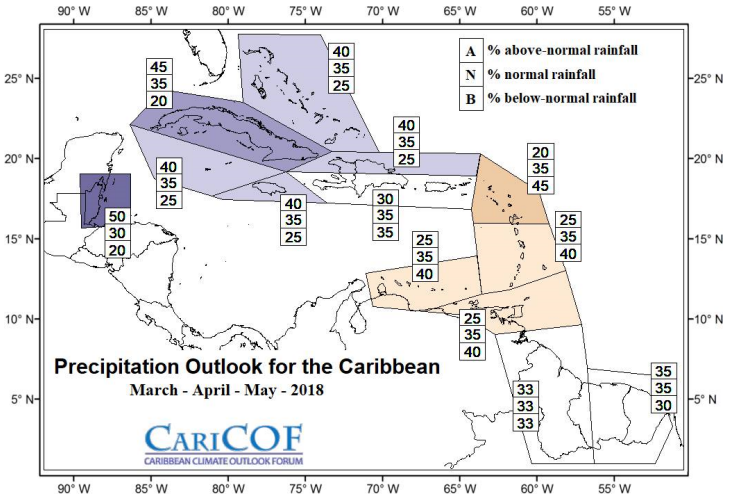


Belize & C'bean Islands north of 16ºN:
Mar to Apr - latter part of dry season; limited duration and area of heavy showers.
May - transition to wet season.

C'bean Islands south of 16ºN (except ABC Islands):
Mar to May - second half of dry season; limited duration and area of heavy showers; April & May occasionally very wet.
ABC Islands: Mar to May generally dry.

Guianas: Mar to May - transition to wet season; heavy showers more and more frequent.

MAM 2018 Rainfall Outlook

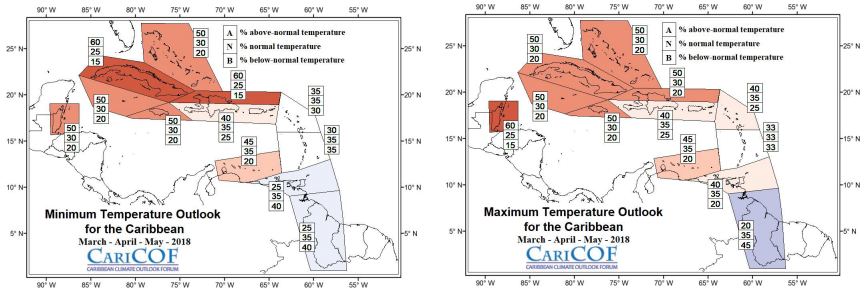


Confidence (in %) for rainfall to be:

Below-normal					Normal	Above-normal				
>70	60	50	45	40	>40	40	45	50	60	>70

MAM rainfall is likely to be above- to normal in The Bahamas, Belize, Cayman Is., Cuba, Jamaica, N Hispaniola, but below- to normal in the ABC Is., Barbados, Leewards, Trinidad & Tobago, Windwards. *White areas indicate where the current forecast indicates little information on total rainfall.*

Night- and day-time temperatures up to May



Confidence (in %) for temperature to be:

Below-normal					Normal	Above-normal				
>70	60	50	45	40	>40	40	45	50	60	>70

MAM night-time (minimum) and day-time (maximum) temp. in the Caribbean are likely to be above- to normal, except Guyana and, at night, Trinidad and Tobago.

Wet days and wet spells up to May

What usually happens from March to May?

- Number of wet days: roughly 15 to 30, but 30 to 50 in mountainous areas (ABC Is. up to 10; Guianas: 30-50).
- # of wet spells: up to 3 (Guianas: up to 5), of which up to 2 are very wet (Guianas: up to 3).
- # of extreme wet spells: up to 1 in most locations (none in ABC Is.).

Forecast and Implications:

- ***Flash flood and long-term flooding potential*** from very wet and extreme spells becoming a concern after March, and especially in May.
- Surface dryness increasing as usual along the dry season, with relatively few rain disruptions.
- Limited ***recharge of large water reservoirs*** up until April (Greater Antilles and Guianas) or May due the usual small # of wet spells during the dry season.

Drought conditions up to May

Drought situation: *(as of November 2017)*	Western parts of Puerto Rico and southeastern Haïti are under a long term drought, while short term drought is seen in northwestern Guyana.
Shorter term outlook:	Shorter term drought conditions might possibly develop in ABC Is., Caymas, W Cuba and St. Maarten.
Long term concern:	Long term drought is evolving in ABC Is. and southeastern Haiti, and may possibly develop in Antigua and in northern & southeastern Belize..

BRIEF CLIMATE OUTLOOK - June to August 2018

The early wet season is expected to be accompanied by increasingly uncomfortable heat, with the likely occurrence of heatwaves in July and August. The precipitation outlook trends to a usual or a drier than usual period in Belize and the islands. By contrast, the Guianas, in their wet season up until early August may possibly be wetter than usual during this three-month period. Surface dryness will likely build up until April north of 16°N and May further south.

For detailed temperature and precipitation outlooks for MAM 2018, please visit rcc.cimh.edu.bb/climate-outlooks/

What influences the next season?

El Niño Southern Oscillation (ENSO)

Recent observations: Cooler than usual sea-surface temperatures (SSTs) of around 0.8°C below average have been in place in the equatorial eastern Pacific (NINO3.4), meaning weak La Niña conditions are in place.

Model forecast and guidance: A majority of models suggest a return of ENSO neutral conditions for MAM (55-70% confidence), and those neutral conditions would remain for JJA (~55% confidence).

Expected impacts on rainfall and temperatures: In some years following a La Niña, the wet season in the islands may start late, thus slightly increasing chances of drier than usual conditions in MAM.

Climate conditions in the Tropical North Atlantic and Caribbean

Recent observations: SSTs Tropical North Atlantic (TNA) and Caribbean Sea SSTs have very recently hovered around 0-0.5°C above average (and warmer still to the north of the islands), but significantly cooler than average off the coast of West Africa.

Expected conditions: Most models indicate a continuation of near-average SSTs east of the Caribbean and in the Caribbean Sea, but below average offshore West Africa. However, unusual and persistent warmth to the north of the region is forecast for MAM and JJA.

Expected impacts: With near average SSTs around the Caribbean, and below-average SSTs off of West Africa, slightly below-average humidity and atmospheric instability may be seen in those areas. This tilt the odds towards a usual or slightly drier late dry season and early wet season.

Climate outlooks - background

The Caribbean Climate Outlooks are prepared by the Caribbean Regional Climate Outlook Forum (CariCOF). The Caribbean Institute for Meteorology and Hydrology, in its role as WMO Regional Climate Centre in demonstration phase, coordinates the CariCOF process. Contributors to the Outlooks are the Meteorological Services from the region. For more information on how the outlooks are produced, please visit rcc.cimh.edu.bb.

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
Below-normal	(B)	- within the driest/coldest third of the historical record