











Caribbean Climate Outlook Newsletter

December 2017 to February 2018

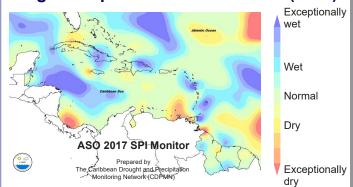
BRIEF SUMMARY: August 2017 to February 2018

August to October 2017: Major hurricane activity has been record high in the Caribbean during September of the wet/hurricane season. This led to destructive wind, extreme wet spell related flash floods and inundations in at least 10 territories. The hottest feel-like temperatures of 2017 in Haïti, Lesser Antilles and Guianas were recorded between August and October, which resulted in heatwaves and heat stress among the vulnerable.

December 2017 to February 2018: With the exception of southern Haïti and, possibly, parts of The Bahamas and western Cuba, drought or excessive dryness is not forecast to be a major concern in the C'bean during this relatively cool period, marking the early dry season in the islands. The short wet season in the Guianas is likely to be wetter than usual, with reliable rains, but also flash flood and long-term flooding concern.

LOOKING BACK:

August-September-October 2017 (ASO)



Observations

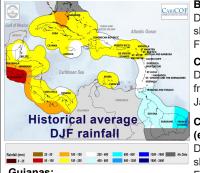
- RAINFALL: October: SW Guyana, E Puerto Rico very dry; Barbados, N & S Belize, E Tobago, E Trinidad very wet. September: Central Belize, W Jamaica very dry; Barbados, E Cuba, Dominica, Dominican Rep., Guadeloupe, W Guyana, central Jamaica, St. Kitts and S Suriname very wet. August: French Guiana very dry; SE Puerto Rico, Tobago very wet.
- TEMPERATURES: ASO: warmer than average, especially in central Bahamas & SW Trinidad (>1.5°C above avg.); slightly cooler than average in Antigua and parts of the Grenadines.

Notable Climate Records:

- WET ASO: 3 locations in Dom. Rep. (180-230% of avg.), 1 in Guadeloupe (175% of avg.), 1 in Trinidad (160% of avg.). October: 1 location in Belize, 2 in Trinidad.
- DRY October: 1 location in Dom. Rep.
- HOT ASO: 1 location in The Bahamas, 1 in Dominica, 2 in Guyana, 1 in Martinique recorded their highest minimum temperatures; 1 location in The Bahamas, 2 in Guvana. 1 in St. Lucia their highest mean: 1 location in Guyana, 1 in Haïti, 1 in Trinidad their highest maximum.

WHAT NEXT?

Rainfall patterns December-January-February (DJF)



Guianas:

Dec to Jan - wet season. Frequent, heavy showers.

February - dry season. Heavy showers on some days.

Belize:

Dec to Jan - transition to dry season. Heavy showers becoming less frequent. February - dry season. Few heavy showers.

C'bean Islands north of 16°N:

December - early dry season. Decreasing shower frequency & intensity.

Jan to Feb - mostly sunny, some days with showers.

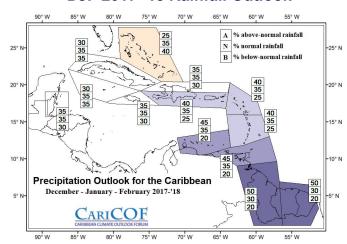
C'bean Islands south of 16°N (except ABC Islands):

Dec to Jan - transition to dry season. Decreasing shower frequency & intensity.

February - peak of dry season. Often sunny, mostly light morning or evening showers on some days.

ABC Islands: transition from to dry season in Feb. Frequent heavy showers December in most years.

DJF 2017-'18 Rainfall Outlook



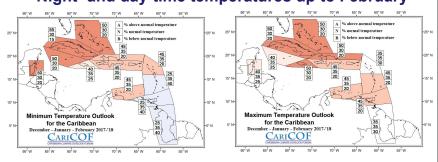
Confidence (in %) for rainfall to be:

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

DJF rainfall is likely to be above- to normal in the Guianas, S Hispaniola, Lesser Antilles and US Caribbean territories, but below- to normal in the Bahamas. White areas indicate where the forecast indicates little information on total rainfall.

More on the climate outlook

Night- and day-time temperatures up to February



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

December to February 2017-'18

Wet days and wet spells up to February What usually happens from December to February?

- Number of wet days: roughly 25 to 40 (ABC Is: 10 to 35;
- coastal Guianas: 30 to 50).

 # of wet spells: 1 to 3 (ABC Is.: 2 to 6; Guianas: 1 to 5),
- of which 1 or 2 are very wet (ABC Is & Guianas: up to 3).

 # of extreme wet spells: up to 1 in Belize & some islands
- **Forecast and Implications:**

(coastal Guianas: up to 2).

- Flash flood and long-term flooding concern from many wet spells in coastal Guianas through January.
- Slower depletion of large water reservoirs related to above average # of wet spells during the dry season.
- Wetter surface makes environmental conditions more conducive to mosquitoes & moisture related pests.
- Reliable rains for crop production in the Guianas.
- Fewer rain disruptions of outdoor activities.

Drought conditions up to February

Drought situation: The Bahamas, Cayman Islands and Turks & Caicos are under a long term drought, while short term drought is seen in portions of N Cuba and W Jamaica. Short and long term drought have also been developing in southern portions of Haïti.

Shorter term outlook: Shorter term drought conditions may remain in central Bahamas, N Cuba, S Haïti, and western-most portions of

Jamaica. Shorter term drought may also develop in Antigua and west-central Belize.

Long term concern: Long term drought is evolving in central Bahamas & S Haïti; it may develop in N Bahamas, SE Belize, Cuba & S Dom. Rep.

BRIEF CLIMATE OUTLOOK - March to May 2018

Indications are that the latter half of the dry season may be wetter than usual throughout the region. Night- and day-time temperatures are forecast to be cooler than usual in the Lesser Antillies and Guyana, implying a slower build-up of heat discomfort than usual from April onwards, when heat waves become possible in Trinidad. By contrast, in the northwest of the region, above- to normal forecast temperatures imply a quicker return of heat discomfort in this period for the vulnerable population. Finally, except for The Bahamas and Haïti, long term drought is not forecast to be a concern. For detailed temperature and precipitation outlooks for MAM 2018, please visit rcc.cimh.edu.bb/caricof-climate-outlooks/

What influences the next season?

El Niño Southern Oscillation (ENSO)

Recent observations: Cooler than usual sea-surface temperatures (SSTs) of 0.5-1°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 La Niña conditions to be in place until at least FMA (70-75% confidence for La Niña conditions in DJF), but a likely return to neutral conditions by MAM. Expected impacts on rainfall and temperatures: A weak La Niña state will drive chances of drier conditions slightly upwards in the northwest of the region (in particular The Bahamas, Cayman and Cuba), while slightly increasing chances of wetter conditions, with more shower activity in the southeast.

Climate conditions in the Tropical North Atlantic and Caribbean

Recent observations: SSTs Tropical North Atlantic (TNA) and Caribbean Sea SSTs have been cooling from 1°C to 2°C above average two in August, to around 0-1°C. above average in October.

Expected conditions: Sustained average SSTs east of the Caribbean and warm anomalies in the north-western most portion of the region are forecast by MAM.

Expected impacts: Warm SSTs in the NW Caribbean may lead to above-average humidity, as well as atmospheric instability in those areas. Those factors tilt the odds towards a relatively wet dry season there and an earlier transition into the wet season in April or May.

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

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