

# Caribbean Climate Outlook Newsletter - December 2019 to February 2020

For climate information specific to your country, please consult with your national meteorological service.  
*CariCOF outlooks speak to recent and expected climate trends across the Caribbean in general.*

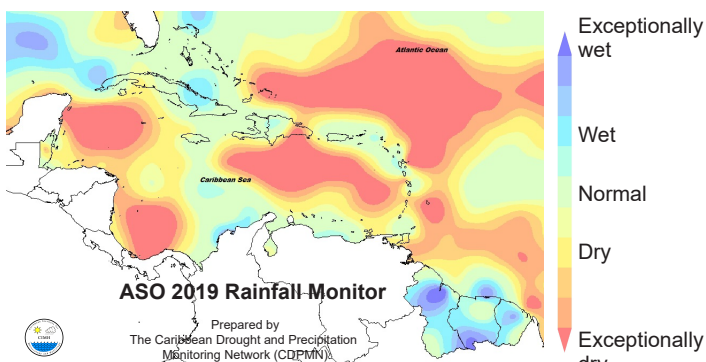
## BRIEF SUMMARY: August 2019 to February 2020

**August to October 2019:** Shorter term drought and long term drought have developed in many areas in the Caribbean. Temperatures were significantly above average during this peak period within the Caribbean heat season, leading to recurrent heat waves. With elevated humidity, the heat led to discomfort in most locations.

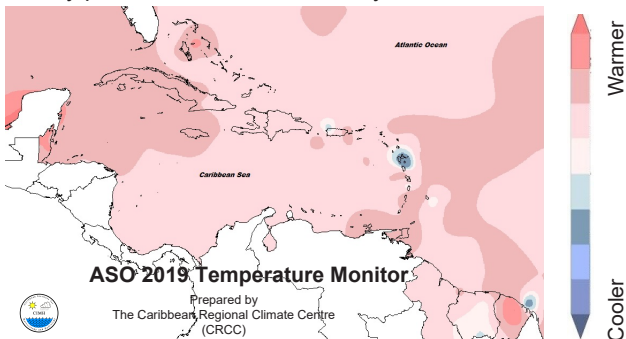
**December 2019 to February 2020:** Limited water availability is becoming a major concern by February due to evolving long term drought in Barbados, Belize and Cayman, and possible continued drought in other areas. Dry spells in the western half of the Caribbean, alongside evolving short term drought in the Bahamas, Cayman, and western Cuba, may limit crop productivity and increases wildfire potential. Flash flood potential from extreme wet spells remains through December in Belize and the islands, and throughout the period in the coastal Guianas.

### LOOKING BACK:

#### August - September - October 2019 (ASO) Observations



- **RAINFALL:** Barbados, Cayman, E Dom. Republic, NE Guadeloupe, NW Martinique, St. Vincent and S Trinidad very dry; many portions of the Guianas very wet.



- **TEMPERATURE:** Guadeloupe signif. cooler than avg.; NW Bahamas, W Barbados, Belize, Cayman, Cuba, S Dominica, French Guiana, Grenada, Jamaica, Martinique, E Puerto Rico, St. Vincent & the Grenadines, Trinidad & Tobago signif. warmer.

#### Notable Climate Records:

- WET:** 3 locations in Dom. Rep., 1 in Guadeloupe, 1 in Puerto Rico, 1 in Trinidad recorded their highest rainfall totals for this period (160-280% of avg.).
- DRY:** 1 location in Fr. Guiana, recorded its lowest rainfall for this period (20% of avg.).
- HOT:** 1 location in Guyana, 1 in Haiti recorded their highest max. temp.; 2 loc. in Guyana, 1 in Dominica, 1 in Martinique their highest min. temp. for this period

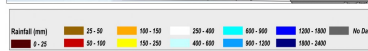
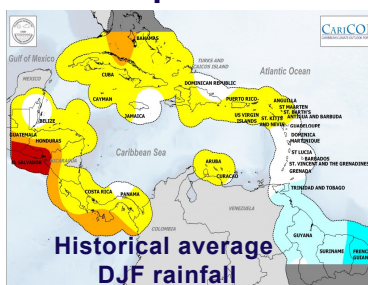
November 2019

find out more by using the clickable images and headings or visit [rcc.cimh.edu.bb](http://rcc.cimh.edu.bb)

e-mail [caricof@cimh.edu.bb](mailto:caricof@cimh.edu.bb)

### 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.

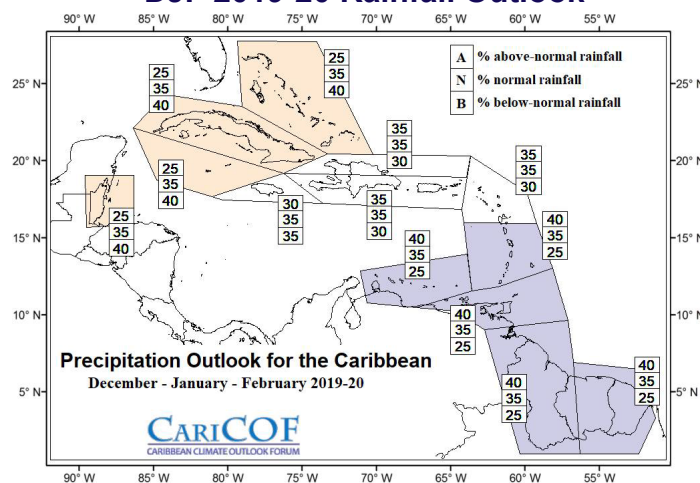
#### C'bean Islands south of 16°N (except ABC Islands):

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 2019-20 Rainfall Outlook



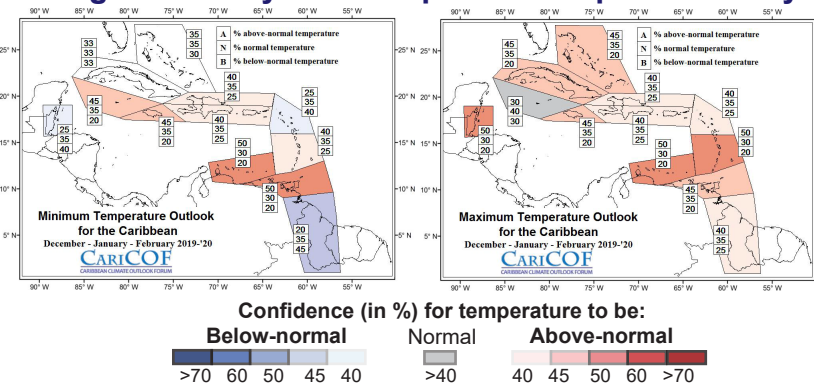
#### Confidence (in %) for rainfall to be:



Rainfall totals from December to February are likely to be at least the usual across the ABC Isls., Barbados, the Guianas and Windward Isls., but as dry as usual or drier in the Bahamas, Belize, Cayman and Cuba.

White areas show where the forecast indicates little information on rainfall totals.

## Night- and day-time temperatures up to February



DJF night-time (min.) and day-time (max.) temperatures are likely to be at least as warm as usual across most of the Caribbean during this period, while being comfortable (cool season), with the possible exception of Guyana and the Leeward Islands.

## 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 (coastal Guianas: up to 2).

## Forecast and Implications:

- Flash flood concern from possible extreme wet spells through December (January in coastal Guianas).
- Significant flood potential in coastal Guianas throughout the period, and elsewhere through December.
- Potentially slightly faster recharge (slower depletion) of large water reservoirs in the ABC Is. and coastal Guianas (in Barbados and the Windwards).

## Drought conditions up to February

## Drought situation:

(as of November 1st)

Severe (or worse) drought has developed in Barbados, Cayman, E Dom. Republic, NE Guadeloupe, NW Martinique, St. Vincent and southern Trinidad on the shorter term; Aruba, Barbados, Cayman, E Cuba, E-, S- and W-most Hispaniola, Martinique, W Puerto Rico, St-Barth, St. Thomas and Trinidad are in long term drought.

## Shorter term outlook:

Shorter term drought is evolving in NW Bahamas, Cayman Is. and W Cuba.

## Long term concern:

Long term drought is evolving in Barbados, E and W-central Belize, Cayman Is., and is possible in AABC Islands, most of Cuba, Dom. Republic, Guadeloupe, Haiti, Trinidad and the Windwards (except Grenada)

## BRIEF CLIMATE OUTLOOK - March to May 2020

Indications are that the second half of the 2019-20 dry season may end up drier than usual across the northern part of the region. Region-wide, pockets of severe or worse long-term drought are likely to remain, and will likely be accompanied by frequent dry spells, resulting in growing concerns of water availability towards the end of May, of potentially reduced crop productivity and enhanced wildfire potential. Heat stress may rise faster than usual towards May, with the possibility of heatwaves, particularly in Belize and Trinidad.

For detailed temperature and precipitation outlooks for FMA 2020, please visit [rcc.cimh.edu.bb/caricof-climate-outlooks/](http://rcc.cimh.edu.bb/caricof-climate-outlooks/)

## What influences the next season?

## El Niño Southern Oscillation (ENSO)

**Recent observations:** Though SSTs in the east-central Pacific have warmed from ENSO-neutral levels to very weak El Niño levels in recent weeks (0.7°C above average), ENSO neutral conditions are still in place.

**Model forecast and guidance:** Most models favor ENSO neutral conditions to persist during DJF (with 60-70% confidence) and possibly maintain ENSO neutral through MAM (65-75% confidence).

**Expected impacts on rainfall and temperatures:** The ENSO neutral phase offers little contribution to seasonal rainfall or temperature prediction in any part of the Caribbean. Thus, seasonal forecast skill for the Caribbean region tends to be diminished during ENSO neutral conditions. Chances for equal chances of below, normal, and above conditions are increased.

## 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          |
| 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 they may provide.

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