Caribbean Climate Outlook Newsletter

November 2018 to January 2019

CariCOF
CARIBBEAN CLIMATE OUTLOOK FORUM

BRIEF SUMMARY: July 2018 to January 2019

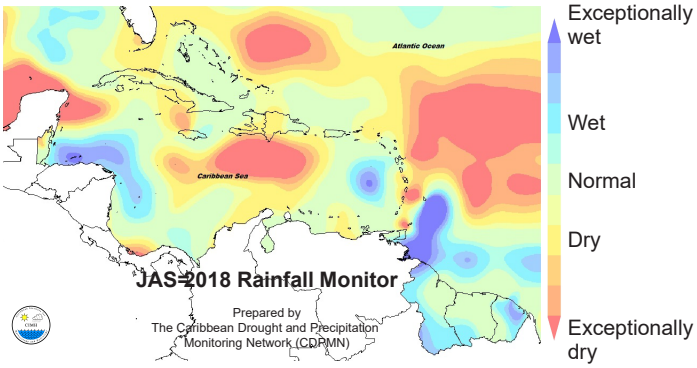
July to September 2018: Much of the region observed the usual rainfall or less, leading to short term drought in northern Belize and St. Lucia, as well as long term drought in Antigua, N Belize and southern-most Hispaniola. Temperatures were close to average, except in Guadeloupe (cooler), central Bahamas and W Jamaica (warmer).

November 2018 to January 2019: The transition from the wet season into the early dry season in Belize and the Caribbean islands still brings frequent wet days and wet spells through December, leading to concerns of flood and flash flood potential. This concern remains throughout the period in the coastal Guianas which are in their secondary wet season. The forecasts suggest severe drought is unlikely, except perhaps in northern Belize and St. Lucia, but recurrent dry spells may affect crop growth. Temperatures will be seasonably comfortable.

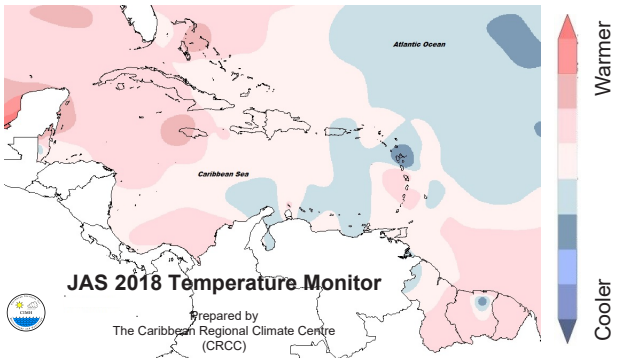
LOOKING BACK:

Jul. - Aug. - Sep. 2018 (JAS)

Observations



- **RAINFALL:** St. Lucia, St. Vincent, N Belize, S Hispaniola; Tobago very dry; Barbados, central French Guiana very wet.



- **TEMPERATURES:** Guadeloupe significantly cooler than avg.; Central Bahamas, W Jamaica sign. warmer than avg.

Notable Climate Records:

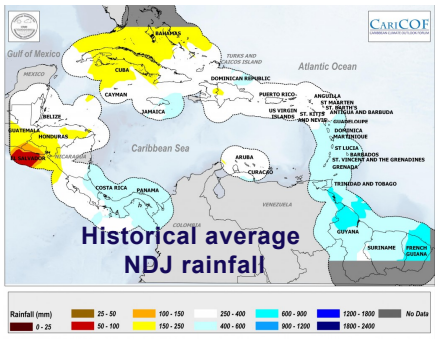
WET: ***JAS:*** 3 locations in Dom. Republic, 1 in Guadeloupe recorded their highest rainfall totals on record (160-280% of avg.). ***September***: 1 location in Guyana.

DRY: ***JAS:*** 1 location in Barbados, 1 in Belize, 1 in French Guiana recorded their lowest rainfall totals (30-60% of avg.)

HOT: ***JAS:*** 1 location in Bahamas, 1 in French Guiana, 3 in Guyana, 1 in St. Lucia, 1 in Trinidad recorded their highest mean temperatures.

WHAT NEXT?

Rainfall patterns November-December-January (NDJ)



Guianas:
Nov to Jan - wet season. Frequent, heavy showers

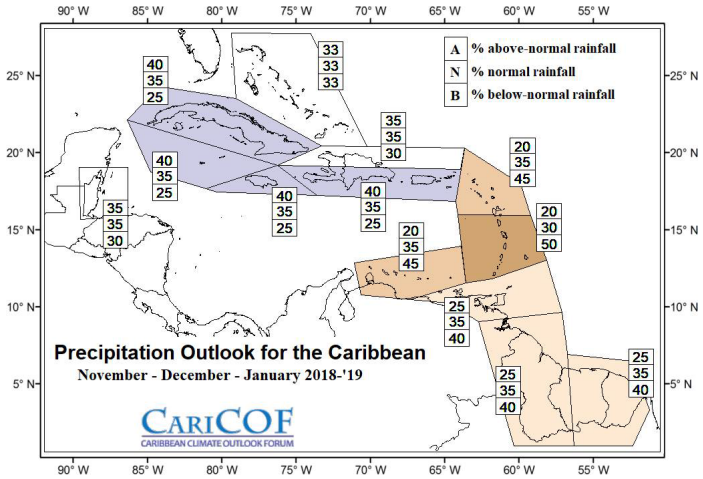
Belize :
Nov to Dec - wet season. Frequent heavy showers.
January - dry season. Few heavy showers in some years.

C'bean Islands north of 16ºN:
Nov to Dec - transition to dry season. Decreasing shower frequency & intensity.
January - sunny days and some days with showers.

C'bean Islands south of 16ºN (except ABC Islands):
Nov - wet season. Frequent heavy showers.
Dec to Jan - transition to dry season. Decreasing shower frequency & intensity.

ABC Islands**:** *wet season. Frequent heavy showers in most years.*

NDJ 2018-'19 Rainfall Outlook



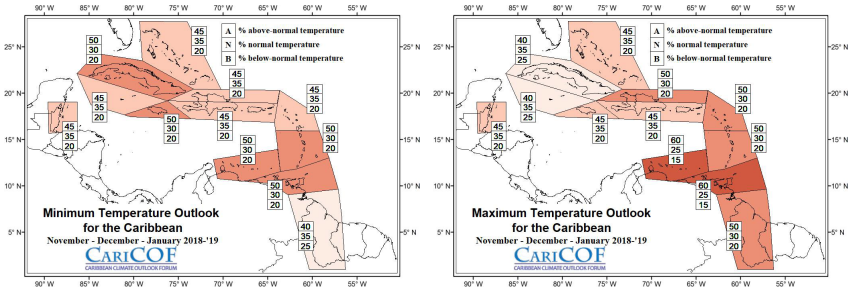
Confidence (%) for rainfall to be:

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

Rainfall totals from November to January are likely to be the usual or drier in the ABC Islands, Barbados, the Guianas, the Leewards and Windwards, but at least as wet as usual in Cayman, Cuba, southern Hispaniola, Jamaica and the US C'bean Terr.

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

Night- and day-time temperatures up to January



Confidence (in %) for temperature to be:

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

NDJ night-time (minimum) and day-time (maximum) temp. in the Caribbean are likely to be above- to normal across the region.

Wet days and wet spells up to January

What usually happens from November to January?

- Number of wet days: roughly 35 to 50 (ABC Is: 20 to 45; coastal Guianas: 30 to 50).
- # of wet spells: 2 to 5, of which 1 to 3 are very wet (coastal Guianas: up to 2).
- # of extreme wet spells: up to 2 (Belize & Greater Antilles: up to 1)..

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.
- Decreasing surface wetness in the islands makes environmental conditions progressively less conducive to mosquitoes & moisture related pests.

Drought conditions up to January

Drought situation: *(as of October 1)*	Antigua, Northern Belize and southern-most Hispaniola have seen long term drought developing, while short term drought is seen in northern Belize, St. Lucia and Tobago.
Shorter term outlook:	Shorter term drought might possibly develop in northern Bahamas and possibly remain in St. Lucia by the end of January.
Long term concern:	Long term drought evolving in northern Belize.

BRIEF CLIMATE OUTLOOK - February to April 2019

Indications are that February to April, the core of the dry season in most areas, might be drier than usual or usual in most of the region, with the exception of the ABC Islands, western Guianas, northern Hispaniola, and Trinidad and Tobago, where the forecasts indicate little information on rainfall totals. This means soil dryness towards the end of the dry season may be increased over many other years, though at present severe drought by the end of April appears unlikely (except northern Belize). Night- and day-time temperatures will be initially comfortable, but increase from March onwards. For detailed temperature and precipitation outlooks for FMA 2019, please visit rcc.cimh.edu.bb/caricof-climate-outlooks/

What influences the next season?

El Niño Southern Oscillation (ENSO)

Recent observations: In recent months, sea-surface temperatures (SSTs) in the equatorial eastern Pacific (NINO3.4) have increased to around 0.4°C above average, meaning warm neutral ENSO conditions.
Model forecast and guidance: Most models suggest ENSO conditions to evolve into a weak or moderate El Niño (with 70-90% and 65-90% confidence for NDJ and FMA, respectively).
Expected impacts on rainfall and temperatures: An El Niño state will tend to tilt the odds to drier conditions with less shower activity, except in the Bahamas and parts of the Greater Antilles (particularly Cuba), where wetter conditions become more likely. Note, however, that these effects tend to be more dominant with stronger El Niño signals.

Climate conditions in the Tropical North Atlantic and Caribbean

Recent observations: SSTs Tropical North Atlantic (TNA) and Caribbean Sea SSTs have warmed to around average (except off the West African coast, where they remained around 1°C cooler than avg.). The subtropical areas of the North Atlantic have remained 1-2°C above average.
Expected conditions: Sustained warm SST anomalies north of the Caribbean are forecast to remain in place, while TNA and Caribbean Sea SSTs are expected to increase to slightly above avg.
Expected impacts: Warm SSTs north of the Caribbean may lead to above-average humidity and atmospheric instability there. Those factors tilt the odds towards a wetter and warmer end of the year in the north. Meanwhile, cool SSTs in the eastern TNA tend to decrease humidity and instability there and, by consequence, rainfall in the eastern C'bean.

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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