

Caribbean Climate Outlook Newsletter - October to December 2019

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.

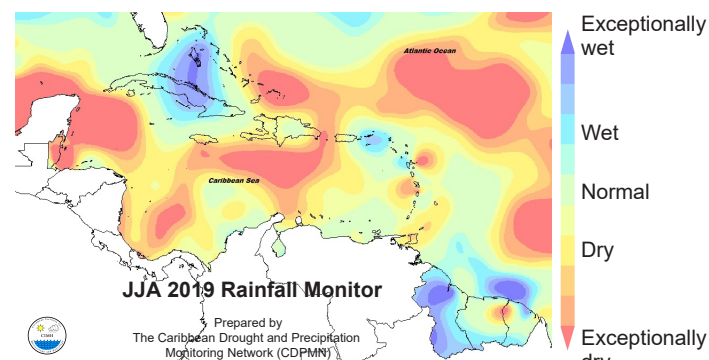
BRIEF SUMMARY: June to December 2019

June to August 2019: Shorter term drought and long term drought have developed in many areas in the Caribbean. Seasonal temperatures were mostly above average, with all-time records broken in June in Cuba and Jamaica, and a build-up of excessive heat, especially during heat waves.

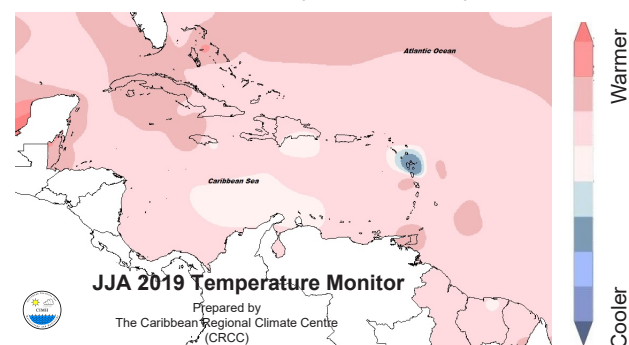
October to December 2019: The October to December period typically marks the transition between wet and dry seasons, during which many very wet spells occur, as well as, up to 1 or 2 extremely wet spells. Those spells are expected to raise the concern for long-term flooding and flash floods, respectively. In the coastal Guianas specifically, those concerns will arise when their dry season ends in mid- to late-November. Uncomfortable heat is still expected at times during October, the last month of the Caribbean Heat Season, especially during heat waves which still occur in the Guianas and Windwards.

LOOKING BACK:

June - July - August 2019 (JJA) Observations



- **RAINFALL:** Aruba, Belize, NW French Guiana, parts of Hispaniola, S Jamaica, Martinique, N Saint Lucia, parts of Trinidad & Tobago, Turks & Caicos very dry; NW Bahamas, central Cuba, much of Guyana, USVI very wet.



- **TEMPERATURE:** Antigua, Guadeloupe signif. cooler than avg.; NW Bahamas, Belize, Cayman, W & central Cuba, W Jamaica, Martinique, Trinidad & Tobago signif. warmer.

Notable Climate Records:

- WET: JJA:** 1 location in Guyana recorded its highest rainfall totals for this period (165% of average).
- DRY: JJA:** 1 location in Dom. Repub. recorded its lowest rainfall totals for this period (50% of avg.).
- HOT: JJA:** 2 locations in Guyana, 1 in Dominica, 1 in Puerto Rico recorded their highest mean temp., while 1 location in Guyana and 1 in Saint Lucia their highest min. temp.

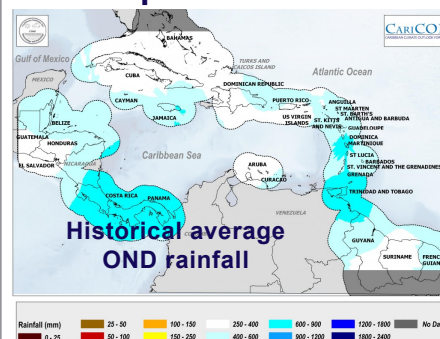
September 2019

find out more by using the clickable images and headings or visit rcc.cimh.edu.bb

e-mail caricof@cimh.edu.bb

WHAT NEXT?

Rainfall patterns October-November-December (OND)



- Belize:**
Oct to Dec - wet season. Frequent heavy showers.
- C'bean Islands north of 16°N:**
Oct - wet season. Frequent heavy showers
Nov to Dec - transition to dry season.
Decreasing shower frequency & intensity.
- C'bean Islands south of 16°N (except ABC Islands):**
Oct to Nov - wet season. Frequent heavy showers. Dec - transition to dry season.
Decreasing shower frequency & intensity.
- Guianas:**
Oct - Dry season with heavy showers at times.
Nov to Dec - transition to wet season. Increase in showers.

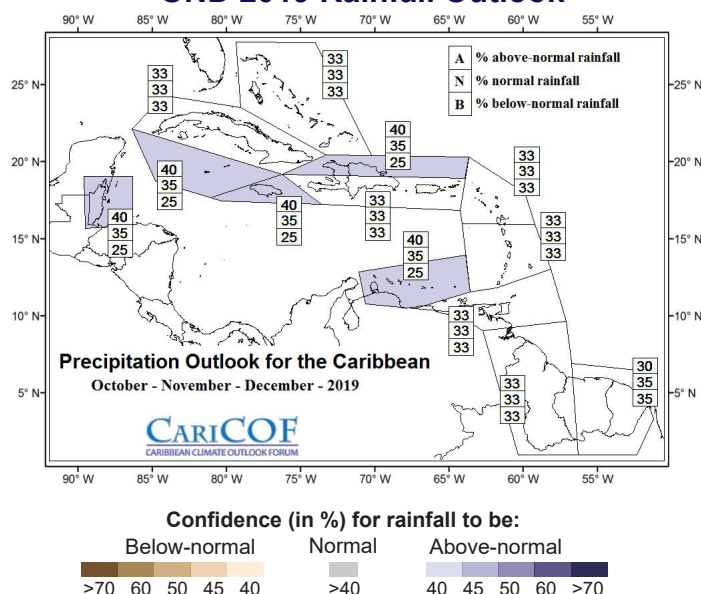
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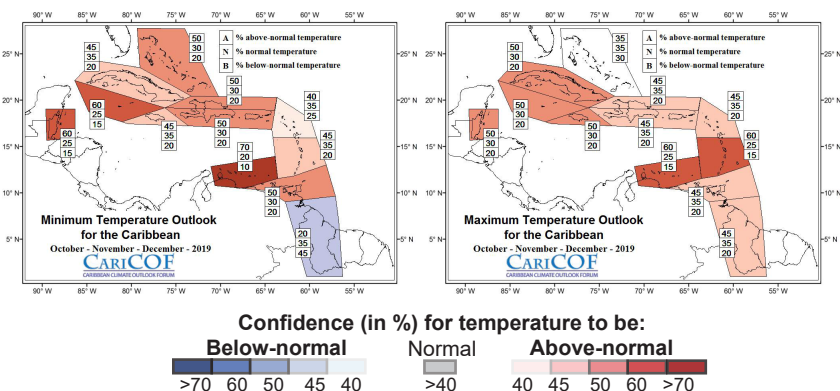
ABC Islands: frequent showers, occasionally heavy.

OND 2019 Rainfall Outlook



Rainfall totals from October to December are likely to be at least the usual across the ABC Islands, Belize, Cayman, northern Hispaniola and Jamaica.
White areas show where the forecast indicates little information on rainfall totals.

Night- and day-time temperatures up to December



OND night-time (min.) and day-time (max.) temperatures are likely to be at least as warm as usual across the Caribbean during this period, with the possible exception of night-time temperatures in Guyana. October is the last month of the Caribbean Heat Season.

Wet days and wet spells up to December

What usually happens from October to December?

- Number of wet days: roughly 35 to 50 (ABC Is: 15 to 35; coastal Guianas: 20 to 40).
- Number of wet spells: 3 to 6 (coastal Guianas: 1 to 4), of which 1 to 4 are very wet (coastal Guianas: up to 2).
- Number of extremely wet spells: up to 2 (Guianas: up to 1).

Forecast and Implications:

- Flash flood concern from possible extremely wet spells.
- Surface dryness possibly increased in the Guianas.
- Potentially slower recharge of water reservoirs and soil moisture in Barbados and Windwards, but accelerated depletion in the Guianas.
- Significant, though slightly reduced potential for long-term flooding across the region.

Drought conditions up to December

Drought situation: (as of September 1)

Severe (or worse) drought has developed in Aruba, much of Belize, NW French Guiana, parts of Hispaniola, S Jamaica, Martinique, N Saint Lucia, parts of Trinidad & Tobago, Turks & Caicos on the shorter term; Aruba, Barbados, E & N Belize, E Cuba, SW Dominica, S & E Dom. Repub., NW & NE French Guiana, Haiti, Martinique, Puerto Rico, N Saint Lucia, Trinidad are in long term drought.

Shorter term outlook:

Shorter term drought is evolving in west-central and south-eastern Belize.

Long term concern:

Long term drought is of immediate concern in SE Belize, and is evolving in Antigua, Barbados, much of Belize, Dominica, French Guiana, Grenada, St. Kitts and Trinidad & Tobago.

BRIEF CLIMATE OUTLOOK - January to March 2020

Indications are that the first quarter of 2020, within the Caribbean dry season, may be warmer than usual across the region. Portions of the coastal Guianas might see a wetter than usual transition period between their secondary wet and dry seasons. The occurrence of extreme wet spells and corresponding flash flood potential diminishes drastically towards February across the entire region. Temperatures and humidity will feel seasonably comfortable in spite of the usual rise starting in March and the potentially warmer than usual temperatures forecast for most parts of the Caribbean. For detailed temperature and precipitation outlooks for JFM 2020, please visit rcc.cimh.edu.bb/caricof-climate-outlooks/

What influences the next season?

El Niño Southern Oscillation (ENSO)

Recent observations: In the past month, sea-surface temperature (SSTs) in the tropical Pacific decreased to ENSO neutral levels with SST anomalies about 0.25°C below average.

Model forecast and guidance: Most models suggest ENSO neutral conditions to persist during OND (with 65-60% confidence) and possibly maintain ENSO neutral through JFM (55% confidence).

Expected impacts on rainfall and temperatures: The ENSO neutral phase does not drive seasonal rainfall or temperatures in any direction in the Caribbean, leading to diminished forecast skill during ENSO neutral conditions. Climate conditions in the Caribbean region may be more affected by North Atlantic SST variability during ENSO neutral periods.

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/colest 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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