Caribbean Climate Outlook Newsletter

CariCOF
CARIBBEAN CLIMATE OUTLOOK FORUM

September to November 2018

BRIEF SUMMARY: May to November 2018

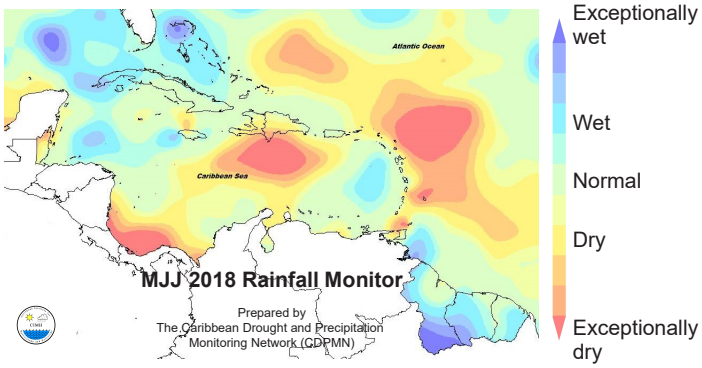
May to July 2018: Much of the region observed the usual rainfall or less, leading to short term drought in Barbados, the Leewards and southernmost Hispaniola. Temperatures were around average or cooler for most of the Lesser Antilles as well as Puerto Rico and nothern Guyana, while other areas observed warmer temperatures.

September to November 2018: September to November is usually the wettest part of the year. However, this season is not forecast to be excessively wet in Belize and the Caribbean Islands. There is a forecast for slightly lower potential for long-term flooding than usual at this time, however, flash flood concern is expected to peak in the coming months. The Guianas, on the other hand, are in their dry season. Heat discomfort and heat stress caused by high temperatures and humidity, especially during heatwaves, is expected to decrease over time.

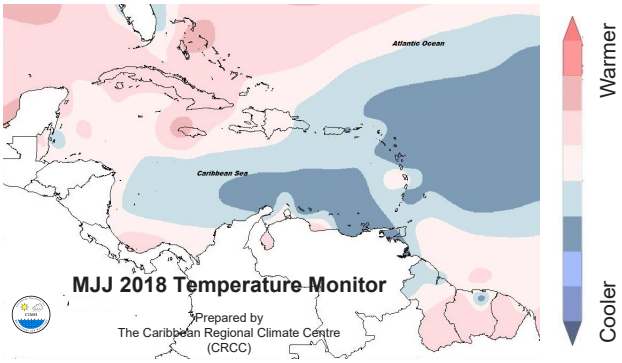
LOOKING BACK:

May - Jun. - Jul. 2018 (MJJ)

Observations



- **RAINFALL**: Antigua, Barbados, N Belize, S Hispaniola dry; N Bahamas, W Cuba, Guyana, Suriname wet.



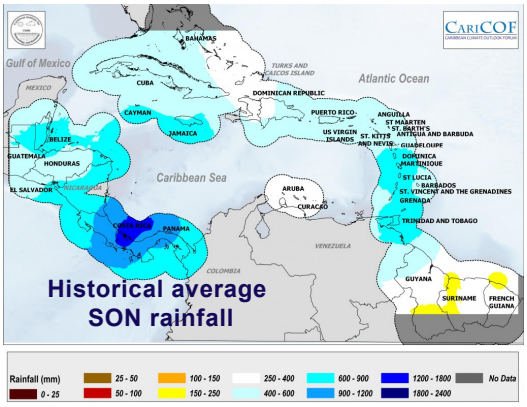
- **TEMPERATURES**: slightly warmer than average in the Greater Antilles; cooler than avg. from east Hispaniola south to northern Guyana except Martinique.

Notable Climate Records:

- **WET** - ***MJJ:*** 2 locations in Guyana recorded its highest rainfall totals on record (~165-175% of avg.).
  July: 1 location in French Guiana.
- **DRY** - ***MJJ:*** 1 location in Dom. Republic recorded its lowest rainfall totals (~60% of avg.).
  July: Cayman and 1 location in Belize

WHAT NEXT?

Rainfall patterns September-October-November (SON)



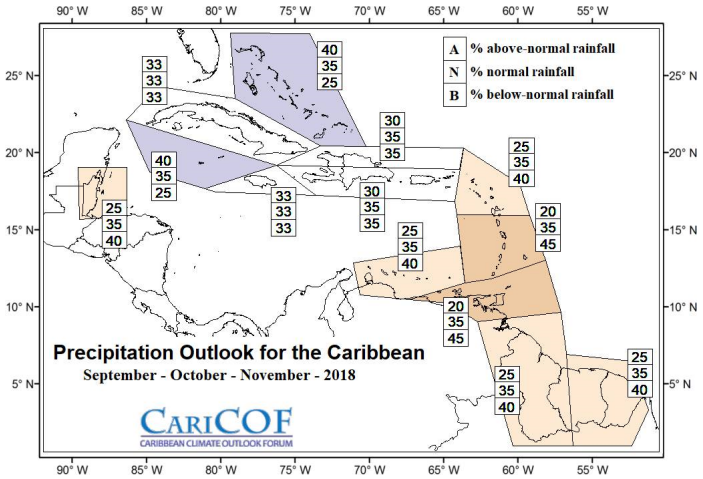
Belize & C'bean Islands north of 16°N:
Sep to Nov - wet season. Usually frequent heavy showers.

C'bean Islands south of 16°N (except ABC Islands):
Sep to Nov - wet season. Usually frequent heavy showers.

ABC Islands: *Mostly dry with occasional wet spells.*

Guianas:
Sep to Oct - Dry season with heavy showers at times. November - increase in showers.

SON 2018 Rainfall Outlook

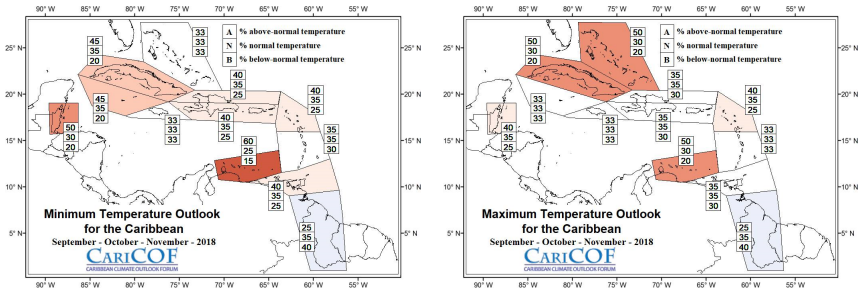


Confidence (in %) for rainfall to be:

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

Rainfall totals from September to November are likely to be the usual or drier in Belize and the Lesser Antilles but at least as wet as usual in Bahamas and Cayman.
White areas show where the forecast indicates little information on rainfall totals.

Night- and day-time temperatures up to November



Confidence (in %) for temperature to be:

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

SON night-time (minimum) and day-time (maximum) temp. in the Caribbean are likely to be warmer than usual than in most recent years, except in Guyana.

Wet days and wet spells up to November

What usually happens from September to November?

- Number of wet days: roughly 35 to 50 (ABC Is. 10 to 20; coastal Guianas: 20 to 35).
- # of wet spells: 3 to 6 (coastal Guianas: 1 to 3), of which 1 to 4 are very wet (coastal Guianas: up to 2)
- # of extreme wet spells: up to 2 (Guianas: none)

Forecast and Implications:

- **Flash flood potential** a concern in the event of extreme wet spells
- **Slightly reduced risk of long-term flooding potential** associated with the peak season for wet spells .
- **Recharge rates** of large water reservoirs potentially slower than usual.
- **Peak in frequency of rainfall distructions** of outdoor **activities**

Drought conditions up to November

Current Drought situation: (*as of 1 August 2018*)	Antigua is under a long term drought, while short term drought is seen in Barbados, Leewards and southernmost Hispaniola.
Shorter term outlook:	Shorter term drought is evolving in northwestern Belize and may possibly develop in northeastern Belize, Cayman, Dominica, Grenada, Haïti, western Jamaica, southerwestern Puerto Rico and Tobago.
Long term concern:	Long term drought may possibly develop in Antigua, northwestern Belize, Cayman and St. Kitts.

BRIEF CLIMATE OUTLOOK - December 2018 to February 2019

There are relatively strong indications that an El Niño will be in place during this period. By consequence, rainfall totals may be higher than usual in the Bahamas, Belize and Cuba, whereas the Leeward Antilles (incl. the ABC Islands), the Lesser Antilles and the Guianas may be drier than usual. If this trend manifests, the secondary wet season in the coastal Guianas may fail, with many dry spells potentially decreasing crop productivity there.

For detailed temperature and precipitation outlooks for NDJ 2018-'19, please visit rcc.cimh.edu.bb/climate-outlooks/

What influences the next season?

El Niño Southern Oscillation (ENSO)

Recent observations: Sea-surface temperatures (SSTs) in the equatorial eastern Pacific (Niño 3.4) have remained between 0-0.5°C, which indicates neutral ENSO conditions.

Model forecast and guidance: A majority of models continues the anomalous warming of the Niño 3.4 region, forecasting weak to moderate El Niño conditions for SON (~65% confidence) and DJF (70% confid.).

Expected impacts on rainfall and temperatures: If El Niño manifests, a more stable atmosphere and enhanced sub-tropical jet would tend to decrease storm and tropical cyclone activity, rainfall and increase chances of drought and the number of dry spells. The exception is the north-western Caribbean, where precipitation often increases during DJF.

Climate conditions in the Tropical North Atlantic and Caribbean

Recent observations: Tropical North Atlantic (TNA) SSTs have remained cool (-0.5°C to -2°C) in the Caribbean Sea and farther east, whereas above average temperatures (+0.5 to +1°C) persist in the subtopics.

Expected conditions: Most models indicate sustained positive anomalies in the north of the region. They also suggest average to below-average temperatures to dominate the TNA during SON, while the negative anomalies are forecast to lessen by NDJ.

Expected impacts: With below-average SSTs in and eastward of the region, below-average humidity and atmospheric instability is expected in SON, tilting the odds towards drier conditions across majority of the Caribbean.

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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