











Caribbean Climate Outlook Newsletter

August to October 2018

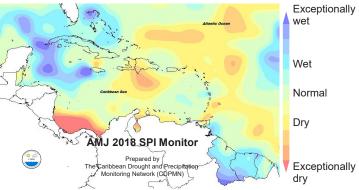
BRIEF SUMMARY: April to October 2018

April to June 2018: Portions of The Bahamas, Cuba and the Guianas experienced a wet period, Belize and most islands observed the usual rainfall or less, leading to short term drought in Barbados and southern Hispaniola. The Bahamas, Cuba and Jamaica were warmer than usual, while other areas were around average or cooler.

August to October 2018: With cooler ocean temperatures than in recent years, the warmest part of the year is not forecast to be excessively hot and the number of heat waves should remain low, limiting heat stress. Rainfall totals are forecast to be the usual or lower for the peak of the wet season with less wet days than usual, except in the ABC Islands and Guianas which are in their dry season. A number of short dry spells is likely in most areas except for Belize and the Lesser Antilles. There is a potential for flooding and flash floods across the region.

LOOKING BACK:

Apr. -May - Jun. 2018 (AMJ)



Observations

RAINFALL: June: W Barbados, S Hispaniola very dry;
N Bahamas, W Cuba, S Guyana, SW Suriname very wet.
May: .Bahamas, W Cuba, and pockets of Suriname very wet.

April: Barbados, N Belize, SW Dominica, Grenada and NW Puerto Rico very wet.

• TEMPERATURES:

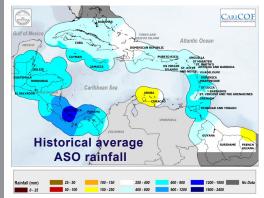
AMJ: slightly warmer than average in the Greater Antilles except US Caribbean Territories; slightly cooler than avg. in ABC Is., the Lesser Antilles, N Guyana and parts of Suriname.

Notable Climate Records:

- WET AMJ: 4 locations in Jamaica recorded its highest rainfall totals on record (~230-260% of avg.).
 June: 1 location in Guyana.
- DRY *June*: Grenada, 1 location in Dom. Republic and 3 in Jamaica.
- · HOT AMJ: None

WHAT NEXT?

Rainfall patterns August-September-October (ASO)



Belize & C'bean Islands north of 16°N:

Aug - wet season. Often includes a mid-summer dry spell. Sep to Oct - wet season. Usually frequent heavy showers.

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

Aug to Oct - wet season. Usually frequent heavy showers.

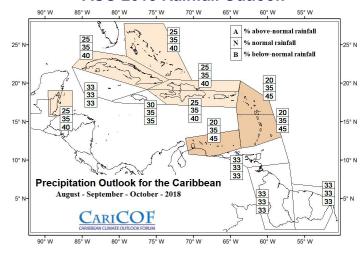
ABC Islands: Mostly dry with occasional wet spells.

Guianas:

Aug - long wet season. Heavy

showers are frequent. Sep to Oct - dry season. Heavy showers at times.

ASO 2018 Rainfall Outlook



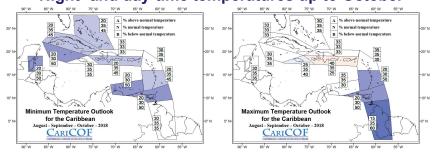
Confidence (in %) for rainfall to be:



Rainfall totals from August to October are likely to be the usual or drier across the region. White areas indicate where the forecast indicates little information on total rainfall.

More on the climate outlook

Night- and day-time temperatures up to October



Confidence (in %) for temperature to be:

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

ASO night-time (minimum) and day-time (maximum) temp. in the Caribbean are likely to be cooler than in most recent years, except in Hispaniola and US C'bean Territories during the day.

August to October 2018

Wet days and wet spells up to October

What usually happens from August to October?

- Number of wet days: roughly 35 to 50 (ABC Is. 10 to 20; coastal Guianas: 15 to 30).
- # 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, though reduced in the Guianas.
- Long-term flooding potential associated with the peak season for wet spells.
- Recharge rates of large water reservoirs potentially slower than usual.
- Less reliable rains for agriculture.

Drought conditions up to October

Current Drought situation: Short term drought is seen in Barbados and southernmost Hispaniola.

Shorter term outlook: Shorter term drought is evolving in northern Belize and may possibly develop in Barbados, northern French Guiana,

Grenada, Haiti, St. Vincent and Suriname.

Long term concern: Long term drought is evolving in Antigua and St. Kitts and may possibly develop in north-western Belize, Cayman

(by 30 November 2018) Guadeloupe, eastern Jamaica and south-eastern Puerto Rico.

BRIEF CLIMATE OUTLOOK - November to January 2018-'19

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 (Niño3.4) have increased to 0-0.5°C, which indicates neutral ENSO conditions.

Model forecast and guidance: A majority of models continues the anomalous warming of the Niño3.4 region, forecasting weak to moderate El Niño conditions for ASO (~55% confidence) and NDJ (65-70% 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 NDJ.

Climate conditions in the Tropical North Atlantic and Caribbean

Recent observations: Tropical North Atlantic (TNA) SSTs are currently very cool for the time of the year (-0.5°C to -2°C) in the Caribbean Sea and further east, while above average temperatures (+0.5 to +1°C) fare observed in the subtropics.

Expected conditions: Most models indicate sustained positive anomalies in the north of the region. They also suggest below-average temperatures to dominate the TNA during ASO, 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 ASO, tilting the odds towards cooler air temperatures (especially at night) and towards drier conditions across the Caribbean.

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, 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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