

Caribbean Climate Outlook Newsletter - July to September 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: March to September 2019

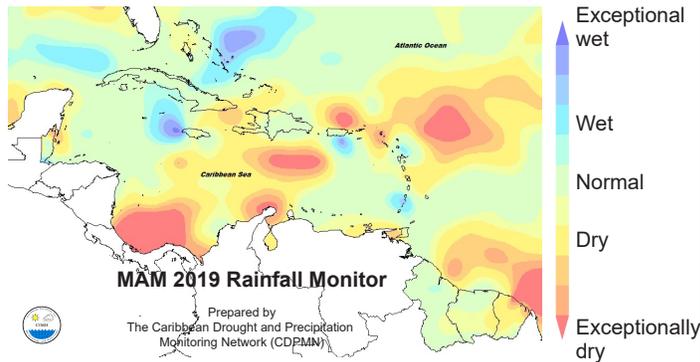
March to May 2019: Shorter term drought has developed across northern Belize, eastern extremities of Cuba, coastal French Guiana and the Northern Leewards while Aruba, southeast Belize, Northern Leewards, Martinique, Dominica, Barbados, and Trinidad are in long term drought. Temperatures were mostly above average.

July to September 2019: Drought may continue in areas currently affected, especially in the ABC Islands, Belize and the Lesser Antilles, in part due to a weak El Niño. A progressive increase in wet spells are expected throughout the region (except in the ABC Islands), however possibly fewer than in most wet seasons. The spells may bring some level of drought relief, but also concern for flooding. Peak heat stress will likely be experienced between August and September, especially during heatwaves. Episodes of Saharan dust incursion are expected.

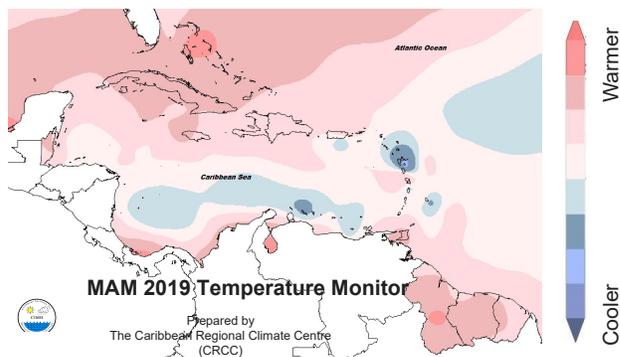
LOOKING BACK:

March - May 2019 (MAM)

Observations



♦ **RAINFALL:** Northern Belize, eastern-most Cuba, coastal French Guiana, Northern Leewards very dry; central Bahamas, western-most Jamaica, St. Vincent & the Grenadines very wet.



♦ **TEMPERATURE:** Antigua, Curaçao, Guadeloupe signif. cooler than avg.; Bahamas, northern Belize, Cayman, Cuba, much of the Guianas, western Jamaica and Trinidad signif. warmer.

Notable Climate Records:

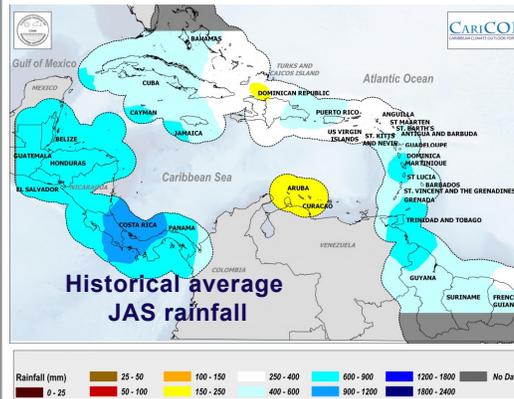
WET: *MAM:* 3 locations in Jamaica, 1 in French Guiana, 1 in Guyana, and 1 in St. Vincent recorded their highest rainfall totals (140-340% of average).

DRY: *May:* Anguilla recorded its lowest rainfall totals on record.

HOT: *MAM:* 2 locations in Guyana and 1 location in French Guiana recorded their highest maximum temp.

WHAT NEXT?

Rainfall patterns July - August - September (JAS)



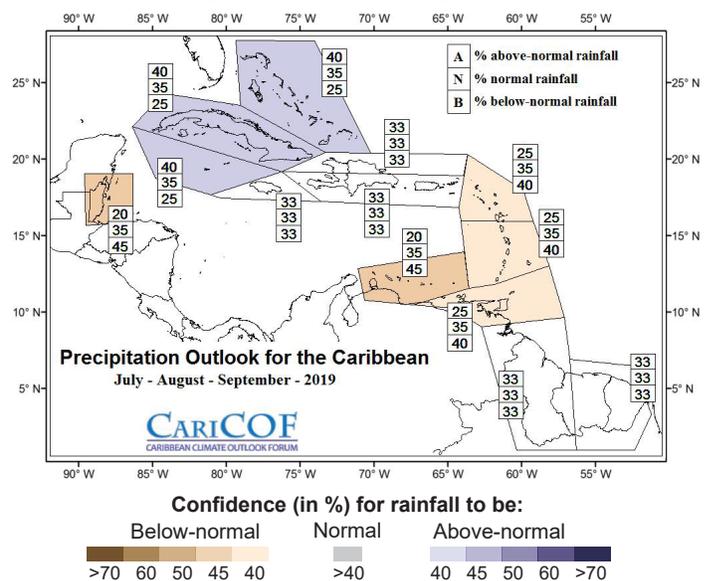
Belize & C'bean Islands north of 16°N:
Jul to Aug - wet season. Often includes a mid-summer dry spell. Sep - wet season. Usually frequent heavy showers.

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

ABC Islands: Mostly dry with occasional wet spells.

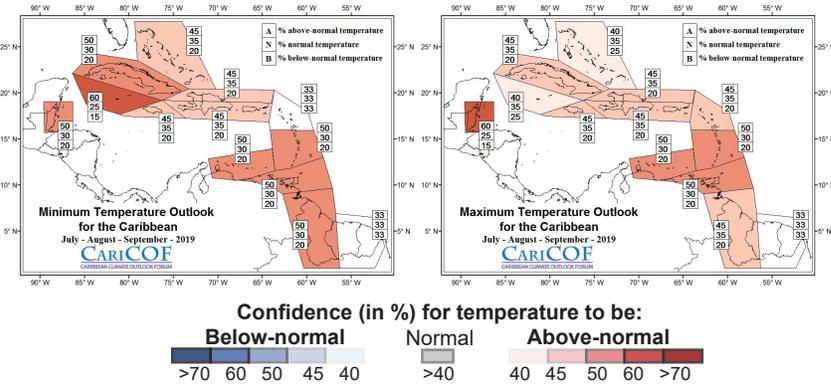
Guianas:
Jul to Aug - long wet season. Heavy showers are frequent. Sep - dry season. Heavy showers at times.

JAS 2019 Rainfall Outlook



Rainfall totals from July to September are likely to be less than the usual or, at best, the usual across the ABC islands, Belize and the Lesser Antilles, but are likely to be at least as wet as usual throughout Cayman, Cuba, and the Bahamas. White areas show where the forecast indicates little information on rainfall totals.

Night- and day-time temperatures up to September



JAS night-time (min.) and day-time (max.) temperatures are likely to be at least as warm as usual across most of the Caribbean, with a build up of heat stress towards September.

Wet days and wet spells up to September

What usually happens from July to September?

- Number of wet days: roughly 35 to 50 in flatter areas of the islands, and 50 to 65 in mountainous areas and in the Guianas (ABC Is. 5 to 15).
- # of wet spells: 2 to 6 (ABC Islands: 1 to 4), of which 1 to 3 are very wet (ABC Is: up to 2)
- # of extreme wet spells: up to 1 (or 2 in mountainous areas).

Forecast and Implications:

- **Flash flood potential** a concern in most areas in the event of extreme wet spells.
- **Slightly reduced recharge rates** of large water reservoirs associated with slightly fewer wet spells than usual.
- **Less reliable rains for agriculture** and **slower increase in surface wetness.**
- **Wild fire potential** decreasing slower than usual.

Drought conditions up to September

Drought situation: (as of June 1) Severe (or worse) drought has developed in northern Belize, eastern extremities of Cuba, coastal French Guiana, the northern Leewards, western parts of Trinidad on the shorter term, and in Barbados, southern Belize, southernmost Dominican Rep., French Guiana, southwestern Haiti, the northern Leewards, Martinique, Trinidad on the long term.

Shorter term outlook: Shorter term drought is evolving in NW Belize.

Long term concern: Long term drought is evolving in Dominica, French Guiana, Martinique, Sint Maarten and Trinidad, and is possible in ABC Islands, Barbados, most of Belize, northern Dominican Rep., Grenada, Guyana, Saint Lucia, Tobago, USVI

BRIEF CLIMATE OUTLOOK - October to December 2019

Indications are that drought in affected areas may lessen with favourable rains forecasted for the last three months of 2019 in the Caribbean, which may be wetter than usual in the ABC Islands, Belize, Cayman, Hispaniola, and eastern Greater Antilles, but possibly drier than usual in Suriname and French Guiana. Extreme wet spells, whether or not associated with tropical cyclones, are a main feature of this period, with enhanced concern for flash flood potential in any part of the region. Heat stress will likely decrease after October, while episodes of Saharan dust incursions should be infrequent during OND. For detailed temperature and precipitation outlooks for OND 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 temperature (SSTs) in the tropical Pacific maintained a weak El Niño level with SST anomalies about 0.5-1°C above average.

Model forecast and guidance: Most models suggest ENSO conditions to maintain as a weak El Niño during JAS (with 55-60% confidence >70) and a majority maintains El Niño through OND (50-60% confid.).

Expected impacts on rainfall and temperatures: An El Niño tends to tilt the odds to warmer and drier conditions with less shower activity in most parts of the Caribbean. Note, however, that an El Niño maintaining into December could lessen these impacts during the later part of the season in the northwestern part of the region.

Climate conditions in the Tropical North Atlantic and Caribbean

Recent observations: SSTs in the Tropical North Atlantic (TNA) and Caribbean Sea have remained around the seasonal average since 2019. The subtropical areas of the North Atlantic, the Gulf of Mexico, and east of the Windward Islands have remained up to 1°C above average.

Expected conditions: Sustained warm SST anomalies north of the Caribbean are forecast to remain in place, while SSTs in parts of the northern Caribbean Sea and TNA are expected to increase to slightly above average.

Expected impacts: Warm SSTs north of the Caribbean may lead to above-average humidity and atmospheric instability there. Those factors favour a wetter and warmer wet season in the north.

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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