

Caribbean Climate Outlook Newsletter - August to October 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: April to October 2019

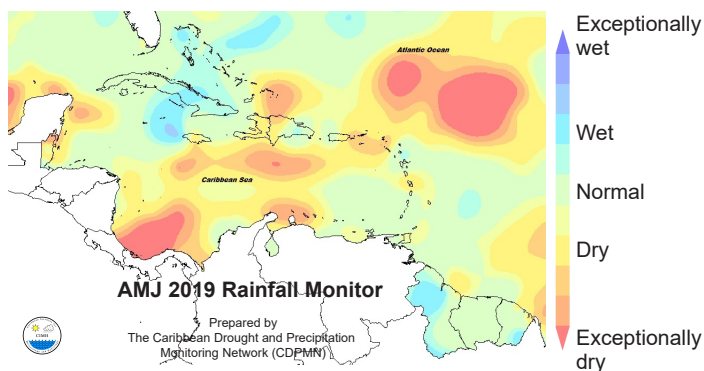
April to June 2019: Shorter term drought has developed in northern Belize, northernmost Dominican Rep., the northern Leewards, St. Kitts and the USVI. Barbados, southern Belize, the northern Leewards, Martinique, Tobago, US Caribbean Territories, and parts of Cuba, French Guiana and Hispaniola are in long term drought.

August to October 2019: This period marks the peak of the Caribbean Heat Season, which runs from May to October and is likely to be warmer than in the past two years with several heatwaves possible in any low-lying area. The main impact would be recurrent episodes of heat stress to vulnerable individuals, in small livestock and poultry. Drought may continue in areas currently affected. A seasonable increase in very wet and extremely spells is expected across the region, which may bring some drought relief, but also concern for flash floods and flooding.

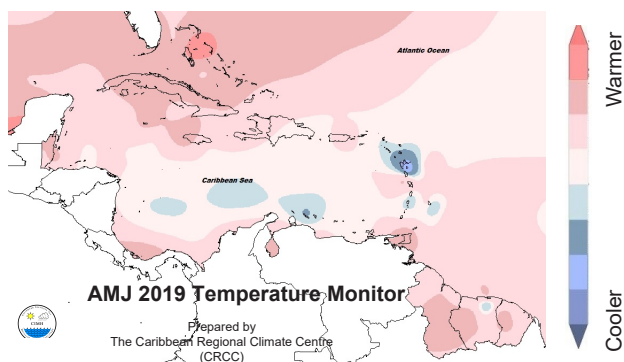
LOOKING BACK:

April - May - June 2019 (MAM)

Observations



- ♦ **RAINFALL:** northern Belize, northernmost Dominican Rep., northeastern Jamaica, the northern Leewards, St. Kitts and the USVI very dry.



- ♦ **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:

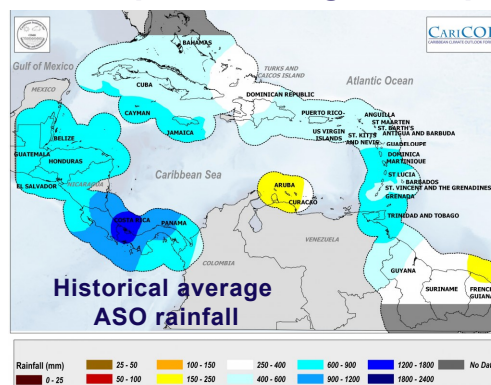
WET: AMJ: 4 locations in Jamaica recorded their highest rainfall totals (130-260% of average).

DRY: June: 2 locations in Dom. Repub., 2 in Guyana recorded their lowest monthly rainfall totals on record.

HOT: AMJ: 1 location in Guyana recorded its highest maximum temp.

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):

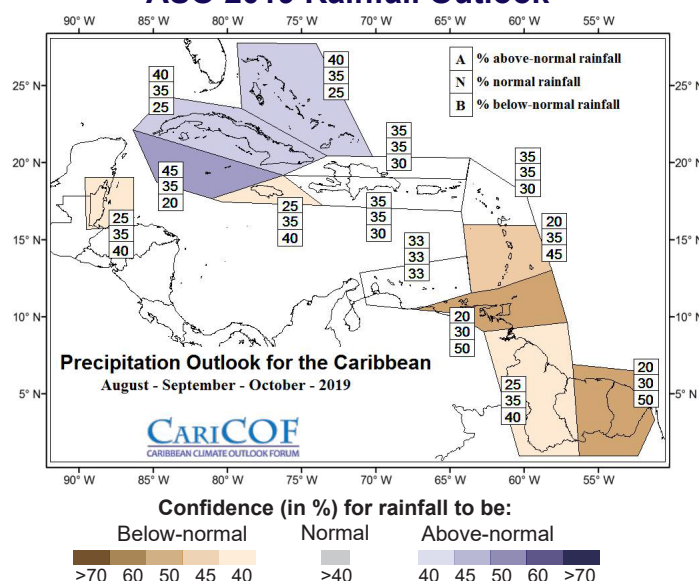
Aug to Oct - wet season. Usually frequent heavy showers.

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.

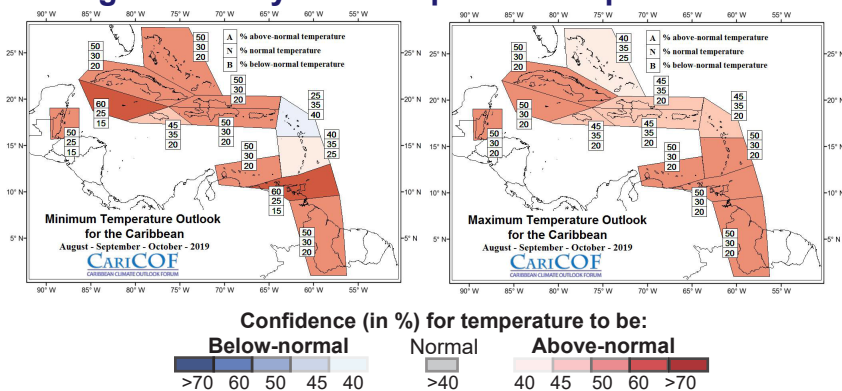
ASO 2019 Rainfall Outlook



Rainfall totals from August to October are likely to be less than the usual or, at best, the usual across Barbados, Belize, the Guianas, Jamaica, and the Windward Isls., 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 October



ASO night-time (min.) and day-time (max.) temperatures are likely to be at least as warm as usual across most of the Caribbean during this annual peak of the Heat Season, with the possible exception of the Leewards at night, which may be slightly cooler than usual.

Drought conditions up to October

Drought situation:
(as of July 1)

Severe (or worse) drought has developed in northern Belize, northernmost Dominican Rep., Jamaica, the northern Leewards, St. Kitts, USVI; Barbados, southern Belize, easternmost Cuba, southern- and easternmost Dominican Rep., parts of French Guiana, Haiti, the northern Leewards, Martinique, Tobago, US C'bean Territories on the long term.

Shorter term outlook:

Shorter term drought is evolving in northern Belize and possible in Jamaica.

Long term concern:

Long term drought is evolving in N Belize, Dominica, French Guiana, Martinique, St. Barths and St. Martin., and is possible in Antigua, Barbados, SE Belize, Dominican Repub., Grenada, Guyana, St. Kitts, Saint Lucia, Suriname, and USVI.

BRIEF CLIMATE OUTLOOK - November 2019 to January 2020

The tail end of the C'bean wet season may be wetter than usual in the ABC Islands and Trinidad and Tobago, but near normal and a slight tendency towards drier than usual elsewhere. Drought in the southeastern Caribbean may therefore persist, while it may slowly alleviate in other affected areas. The average occurrence of extreme wet spells and corresponding flash flood potential diminishes in this season. Heat stress should quickly decrease after October, while episodes of Saharan dust incursions should be infrequent.

For detailed temperature and precipitation outlooks for NDJ 2019-'20, 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 anomalously decreased to a marginal El Niño level with SST anomalies about 0.5°C above average.

Model forecast and guidance: Most models suggest ENSO neutral conditions to develop during ASO (with 55-60% confidence) and possibly maintain ENSO neutral through NDJ (40-50% confid.).

Expected impacts on rainfall and temperatures: The return to neutral ENSO phase tends to decrease forecast skill with no real signal of this driver of rainfall or temperature in any part of the Caribbean. In such situations, climate conditions in the Caribbean region may be more affected by North Atlantic SST variability.

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.

DISCLAIMER

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Wet days and wet spells up to October

What usually happens from August to October?

- Number of wet days: roughly 35 to 50 in flatter areas of the islands, but around 45 to 60 in mountainous areas and 15 to 30 in coastal Guianas (ABC Islands: 10-20).
- # 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 1, except in the Guianas.

Forecast and Implications:

- **Long-term flooding & flash flood potential** a concern in the event of very wet & extreme wet spells, resp.
- **Slightly reduced recharge rates** of large water reservoirs in Barbados and the Windwards associated with slightly fewer wet spells than usual.
- **Less reliable rains for agriculture** than usual in the ABC Islands, Barbados, Belize and the Windwards.