

Caribbean Climate Outlook Newsletter - August to October 2020

For climate information specific to your country, please consult with your national meteorological service.
CariCOF outlooks speak to recent and expected seasonal climate trends across the Caribbean in general.

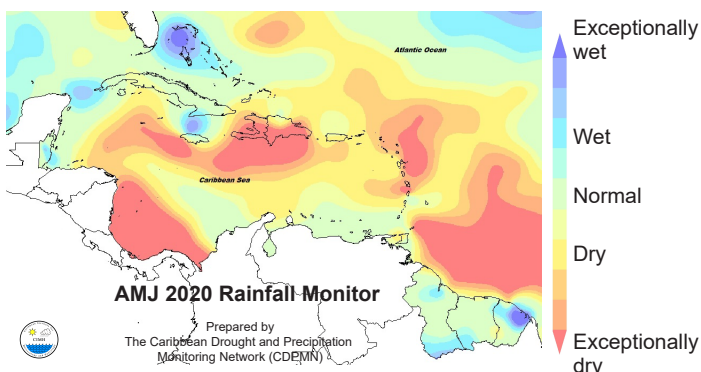
BRIEF SUMMARY: April to October 2020

April to June 2020: The transition from the dry to the wet season ended up with several areas experiencing short term drought while a greater proportion of the region remains in long term drought. With temperatures above average, including some record temperatures, a number of heatwaves occurred in this period.

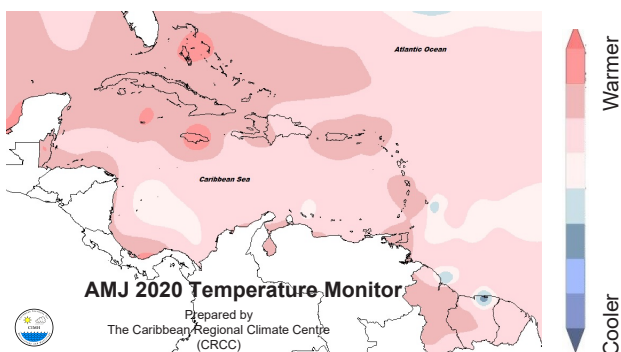
August to October 2020: Entering the peak of the 2020 wet season in Belize and the Islands, there will be high flooding, flash flood and landslide potential, but also, likely, strong tropical cyclone activity. The possibility of a *La Niña* event further increases the probability of such hazards. At the same time, heat stress will likely be higher than in most years due to high humidity and warmer than usual temperatures. On a brighter note, copious rains should ease drought concerns during this period for most. The Guianas return to their hot, dry season at this time.

LOOKING BACK:

April - May - June 2020 (AMJ) Observations



- ♦ **RAINFALL:** Grand Cayman, Dominica, Hispaniola, Leeward Is. (except USVI), Martinique, N Saint Lucia and Tobago very dry; NW Bahamas, parts of Jamaica and E French Guiana very wet.



- ♦ **TEMPERATURE:** Virtually the entire Caribbean was significantly warmer than avg., especially in parts of the NW Bahamas, Grand Cayman and Jamaica.

Notable Climate Records:

WET: AMJ: 4 locations in Jamaica recorded their highest rainfall totals for this period (235%-265% of avg.).

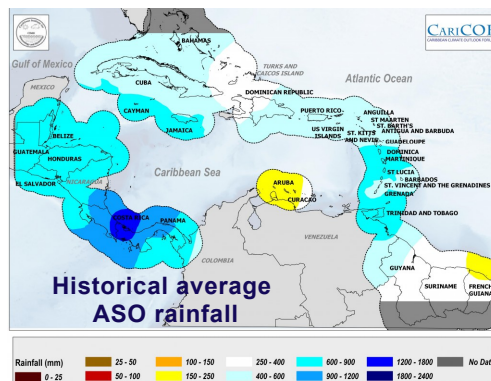
DRY: AMJ: no record low rainfall totals for this period.

HOT: AMJ: No three-month record temperatures reported.

Jun.: Grand Cayman recorded its highest mean temp. for this period.

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.

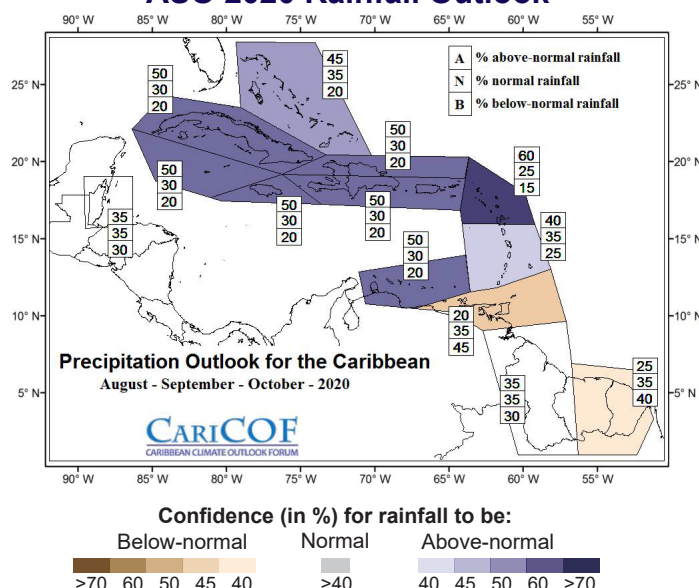
C'bean Islands south of 16°N (except ABC Islands):

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

ABC Islands: Mostly dry with occasional wet spells, increasing in frequency in October.

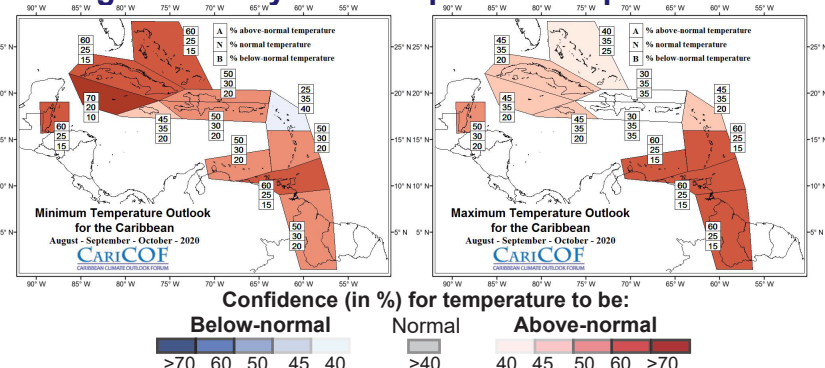
Guianas: early Aug - long wet season. Heavy showers are frequent.
late Aug to Oct - dry season. Heavy showers at times.

ASO 2020 Rainfall Outlook



Rainfall totals from August to October are likely to be at least as high as usual in the ABC Islands, Barbados, the Greater Antilles, the Windward and Leeward Is., but the usual or lower in eastern parts of the Guianas and in Trinidad & Tobago. 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, with the possible exception of night-time temp. in the Leeward Is. Frequent heat waves and increasing humidity will increase discomfort.

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:

- **Flash flood and long-term flooding potential** will be a significant concern in Belize and the Islands.
- Frequent **disruptions** of outdoor activities & favourable conditions for **moisture-related pests and diseases** in Belize and the Islands.
- **Recharge of large water reservoirs** may be faster than usual in many places.

Drought conditions

- Drought situation:** Severe (or worse) shorter term drought has developed in Cayman, Dominica, most of Hispaniola, the Leeward Is. except USVI, Martinique, N Saint Lucia, and Tobago; long term drought in Aruba, N & SE Bahamas, Barbados, Belize, Cayman W Cuba, Dom. Rep., NW French Guiana, E Guadeloupe, SW Puerto Rico, Trinidad, and Windward Is. (except Grenada).
- Shorter term concern:** Shorter term drought should ease by the end of August in places that are currently affected, and is unlikely to be of significant concern by the end of October.
- Long term concern:** Long term drought should slowly ease and concerns decrease in most affected areas, particularly after August. By the end of November, long term drought concern is evolving in Martinique, and may possibly persist in Cayman, Dominica, northern-most Guyana, Saint Lucia, and Trinidad.

BRIEF CLIMATE OUTLOOK - November 2020 to January 2021

There are indications that the transition period between the 2020 wet season and the early 2020-21 dry season may be wetter than usual with the likely exception of the Bahamas and Cuba, in view of a potential La Niña. This results in a lingering potential for flooding, flash floods, land slides and associated hazards through the end of 2020. In addition, some tropical cyclone activity may still occur as late as December.

On a brighter note, chances are good that long term drought impacts will completely subside and cooler conditions will return by November.

For detailed temperature and precipitation outlooks for NDJ 2020-21, please visit rcc.cimh.edu.bb/caricof-climate-outlooks/

What influences the next season?

El Niño Southern Oscillation (ENSO)

Recent observations: Sea Surface Temperatures (SSTs) in the eastern Pacific SSTs cooled during May from slightly above average to between -0.5°C and 0°C, meaning neutral to borderline La Niña conditions.

Model forecast and guidance: The models slightly favour a transition to La Niña through NDJ (with around 50-55% confidence) over maintaining ENSO neutral (40-45% confidence).

Expected impacts on rainfall and temperatures: La Niña tilts the odds to more rainfall and stronger tropical cyclone activity, but tilts the odds to less rainfall in the northern Caribbean in NDJ. ENSO neutral offers little contribution to seasonal rainfall or temperature prediction in the Caribbean, leading to diminished confidence in seasonal forecasts at this time.

Climate conditions in the Tropical North Atlantic and Caribbean

Recent observations: SSTs along the shores of the Caribbean and in parts of the Tropical North Atlantic (TNA) and sub-tropical North Atlantic are around 0.5°C to 1°C above average.

Expected conditions: Most models sustain warm SST anomalies of around +0.5°C across the Caribbean Sea, the TNA and the sub-tropical North Atlantic throughout ASO 2020 and NDJ 2020-2021.

Expected impacts: Continued warm SSTs throughout the Caribbean tends to contribute to above-average humidity, seasonal rainfall totals, wet spell frequency and Atlantic Hurricane Season activity across the region. In addition, warm SSTs favour warmer night-time temperatures and, where rainfall does not increase, warmer day-time temperatures.

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, i.e. a range called the 'usual' |
| 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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