# Caribbean Climate Outlook Newsletter - September to November 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: May to November 2020**

*May to July 2020:* Short term drought, on top of long term drought, spiked in May and June in most islands from Guadeloupe southwards. By contrast, July rains put a dent in drought in most affected islands from Dominica northwestward. The first half of the Heat Season recorded higher temperatures and more heatwaves than usual.

**September to November 2020:** The peak of the 2020 wet season in Belize and the Islands is forecast to feature particularly high flooding, flash flood and landslide potential, but also strong tropical cyclone activity. A possible *La Niña* event manifests increases the probability of such hazards. Until October, heat stress will likely be higher than in most years due to very high humidity and temperatures. On a brighter note, copious rains should ease drought concerns during this period for most. The Guianas are in their hot, dry season until late November.

**Historical average SON rainfall** 

# LOOKING BACK:

#### May - June - July 2020 (MJJ) Observations



 RAINFALL: Dominica, S Guadeloupe, SW French Guiana, SW Hispaniola, Martinique, Saint Lucia, W Trinidad & E Tobago very dry; NW Bahamas, parts of Cuba and E French Guiana very wet.



• **TEMPERATURE:** Virtually the entire Caribbean was significantly warmer than avg., especially in parts of the NW Bahamas, Belize, Grand Cayman, Cuba, Jamaica, the US Caribbean Terr. and in the southern half of the Lesser Antilles.

#### Notable Climate Records:

- **WET:** *MJJ:* 2 locations in Guyana recorded their highest rainfall totals for this period (165%-175% of avg.).
- DRY: MJJ: 1 location in the Dom. Rep. recorded its lowest rainfall totals for this period.(60% of avg.)
- **HOT:** *MJJ:* 1 location in Guyana and 1 in Trinidad recorded their highest mean temperatures for this period.

# WHAT NEXT?

# Rainfall patterns Sept. - Oct. - Nov. (SON)

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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.



Rainfall totals from September to November are likely to be at least as high as usual in the western parts of the Guianas, as well as, in much of the Antilles. *White areas show where the forecast indicates little information on rainfall totals.* 

### More on the climate outlook

# September to November 2020

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;

Number of wet spells: 3 to 6 (coastal Guianas: 1 to 3), of

Number of extremely wet spells: up to 2 (Guianas: none).

which 1 to 4 are very wet (coastal Guianas: up to 2).





>70 60 50 45 40 >40 40 45 50 60 >70 SON night-time (min.) and day-time (max.) temperatures are likely to be at least as warm as usual across most of the Caribbean. Frequent heat waves and high humidity will cause significant heat discomfort until late September (in the north) or late October (in the south).

#### **Drought conditions**

# Forecast and Implications: Flash flood and long-term flooding potential, as well as, land slide and soil erosion will be a significant concern in Belize and the Islands due to recurrent very wet and some extreme wet spells.

coastal Guianas: 20 to 35).

 Frequent disruptions of outdoor activities & favourable conditions for moisture-related pests and diseases in Belize and the Islands due to the many wet days.

Brought conditions	
Drought situation: (as of August 1st)	Severe (or worse) shorter term drought has developed in Dominica, S Guadeloupe, SW French Guiana, SW Hispaniola, Martinique, Saint Lucia, W Trinidad & E Tobago; long term drought in N & SE Bahamas, Belize, Cayman Is., Dom. Rep., E Guadeloupe, W French Guiana, Windward Is. (excluding Dominica & Grenada), SW Puerto Rico, St. Croix, W Trinidad.
Shorter term concern: (for the end of November)	Shorter term drought and is unlikely to be of significant concern by the end of November, with the possible exception of SW Belize and Trinidad.
Long term concern: (for the end of November)	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, Suriname, and Trinidad, and may possibly persist in parts of W Belize, Dominica, coastal French Guiana, N Guyana, Saint Lucia, St. Vincent, and Tobago.

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#### **BRIEF CLIMATE OUTLOOK - December 2020 to February 2021**

There are indications that climatic conditions during the early 2020-21 dry season may be characteristic of a La Niña, being wetter than usual except in the Bahamas, Belize, Cayman Islands and Cuba. This results in a lingering potential for flooding, flash floods, land slides and associated hazards through the end of 2020. In addition, 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, including Trinidad, which may enter the dry season in drought. Comfortably cool temperatures are expected. For detailed temperature and precipitation outlooks for DJF 2020-21, please visit rcc.cimh.edu.bb/caricof-climate-outlooks/

#### El Niño Southern Oscillation (ENSO)

What influences the next season?

# *Recent observations:* Sea Surface Temperatures (SSTs) in the eastern Pacific SSTs cooled during May from slightly above average to between -0.7°C and 0°C; all in all, neutral to borderline La Niña conditions.

*Model forecast and guidance*: The models slightly favour a transition to La Niña through DJF (with around 50-60% confidence) over maintaining ENSO neutral (35-45% confidence).

*Expected impacts on rainfall and temperatures:* La Niña tilts the odds to more rainfall, more extreme rainfall and stronger tropical cyclone activity, but tilts the odds to less rainfall in the northern Caribbean in DJF. In addition, temperatures tend to be tempered by the added moisture and more frequent showers in areas that are wetter than usual.

#### 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  $0.5^{\circ}$ C to  $1^{\circ}$ 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 SON 2020 and DJF 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 thay may provide.

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