Caribbean Climate Outlook Newsletter - June to August 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.

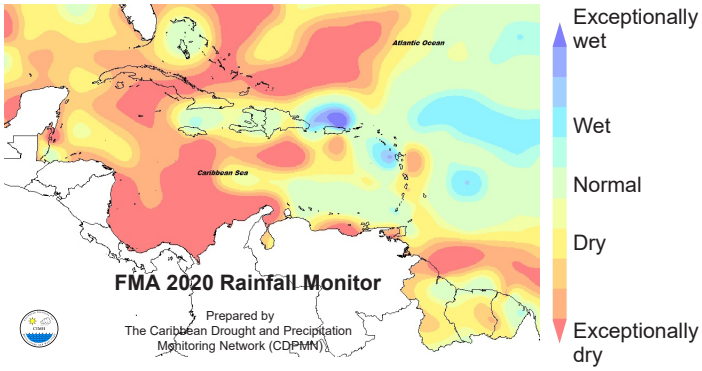
BRIEF SUMMARY: February to August 2020

February to April 2020: Short term developed or persisted and long term drought persisted in many areas in the Caribbean. Temperatures were record high during April in Belize, Saint Lucia, St. Kitts and Sint Maarten, after climbing from warmer than usual, yet comfortably cool conditions in February and March.

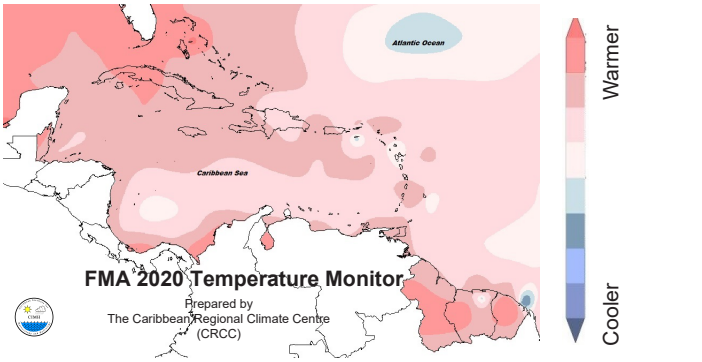
June to August 2020: Climate conditions expected for this part of the wet season are best summarized into 2 scenarios. In scenario 1 - *the more likely scenario* -, wetter than usual conditions will bring progressive drought relief and keep daytime temperatures close to normal. However, nighttime heat stress, flood potential and tropical cyclone activity will be particularly elevated. Scenario 2, in which rainfall totals, flood potential and tropical cyclone activity pose similar concerns as in most other years, would bring more heat stress and slower drought relief.

LOOKING BACK:

February - March - April 2020 (FMA)
Observations



- **RAINFALL:** Central and SE Bahamas, N Belize, Cayman, Cuba, N & W Guyana, Hispaniola, Martinique, S Saint Lucia, SE Suriname, and W Trinidad very dry; N Puerto Rico very wet.



- **TEMPERATURE:** Virtually the entire Caribbean was significantly warmer than avg., especially in parts of the NW Bahamas, N Cuba and in the Guianas.

Notable Climate Records:

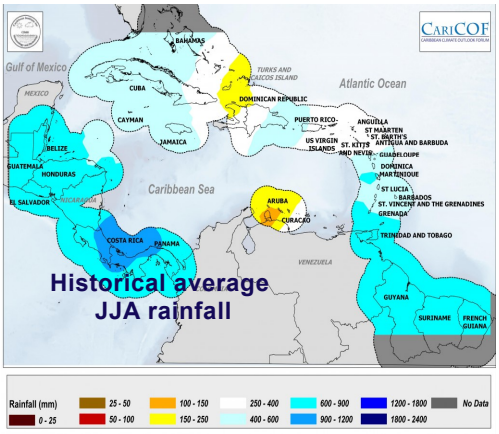
WET: *FMA:* St. Croix, 2 in Jamaica, 1 in Dominica, and 1 in the Dom. Rep. recorded their highest rainfall totals for this period (200-355% of avg.).

DRY: *FMA:* no record low rainfall totals for this period.
April: 3 locations in the Dom. Rep. and 1 in Belize had their driest month of any month on record.

HOT: *April:* Belize, Saint Lucia, St. Kitts and St. Maarten recorded their highest mean temperature for the season.

WHAT NEXT?

Rainfall patterns June - July - August (JJA)



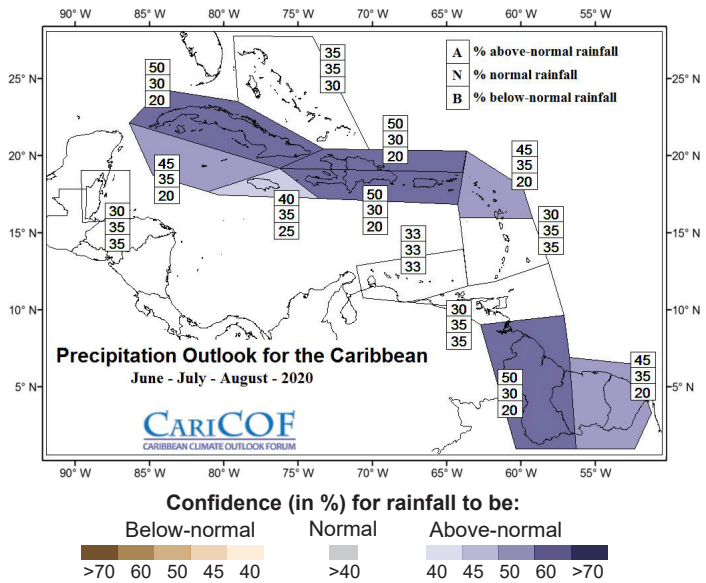
Belize & C'bean Islands north of 16°N:
Jun - wet season. Usually frequent heavy showers.
Jul to Aug - wet season. Often includes a mid-summer dry spell.

C'bean Islands south of 16°N (except ABC Islands):
Jun to Aug - first half of wet season. Increasingly heavy showers.

ABC Islands: *Mostly dry*

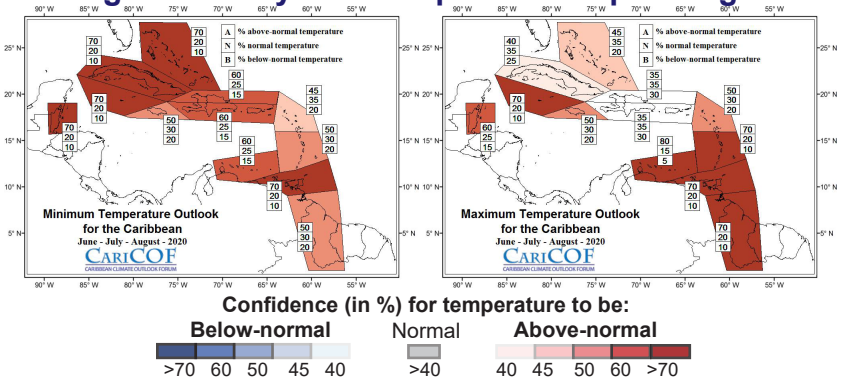
Guianas: Jun to Jul - long wet season; Frequent heavy showers. Aug - transition to dry season. Heavy showers become less frequent.

JJA 2020 Rainfall Outlook



Rainfall totals from June to August are likely to be at least as wet as usual in the Greater Antilles, the Guianas, and the Leeward Islands.
White areas show where the forecast indicates little information on rainfall totals.

Night- and day-time temperatures up to August



Confidence (in %) for temperature to be:

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

JJA night-time (min.) and day-time (max.) temperatures are likely to be at least as warm as usual across the Caribbean and will feel uncomfortably hot during heat waves.

Wet days and wet spells up to August

What usually happens from June to August?

- Number of wet days: 30 to 45 in flatter areas of the islands. 50-65 in mountanous areas and Guianas (ABC Is. 5 to 15).
- # of wet spells: 3 to 6 (ABC Islands: up to 3), of which 1 to 3 are very wet (ABC Is: up to 2)
- # of extreme wet spells: up to 1 or 2.

Forecast and Implications:

- **Flash flood and long-term flooding potential** will be a growing concern by August in the islands, but will be decreasing in the Guianas towards August.
- Increasingly frequent **disruptions of outdoor activities** and relatively slow decrease of ***wild fire potential*** related to a slow increase in the number of wet days.
- **Recharge of large water reservoirs** may be faster than usual in many places (*in scenario 1 - see p. 1*).

Drought conditions

Drought situation: (*as of May 1st*)	Severe (or worse) shorter term drought has developed in Central & SE Bahamas, N Belize, Cayman, Cuba, N/W Guyana, Hispaniola, Martinique, S Saint Lucia, SE Suriname, W Trinidad; long term drought in Aruba, N & SE Bahamas, Barbados, Belize, Cayman, N Cuba, Dominican Rep., NW French Guiana, Martinique, Saint Lucia, St. Vincent, Trinidad, St. Croix.
Shorter term concern: (*for the end of August*)	Shorter term drought is evolving in north-western and west-central Belize, and is possible in the ABC islands, eastern Belize, and Trinidad & Tobago.
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 may possibly persist in west-central Belize, northern French Guiana, Martinique, Saint Lucia, Saint Vincent, and Trinidad.

BRIEF CLIMATE OUTLOOK - September to November 2020

There are indications that the wettest part of the year will be wetter than usual across much of the Caribbean. This will be accompanied by high flood potential, which should be of particular concern if a La Niña manifests. In addition, region-wide, long term drought concerns should ease by the end of November, but small pockets may remain. In September and October, however, strong tropical cyclone activity is expected, along with a peak in heat stress, especially due the high humidity and particularly during the forecasted frequent heat waves. Cooler temperatures will progressively return in November. For detailed temperature and precipitation outlooks for SON 2020, 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 from slightly above average to slightly below average in May, meaning ENSO neutral conditions are in please.
Model forecast and guidance: Most models favor ENSO neutral conditions to persist during JJA (with 65-70% confidence) and possibly through SON or cool to La Niña (with around 40% confid. each).
Expected impacts on rainfall and temperatures: La Niña (*scenario 1 on p. 1*) tilts the odds to more rainfall and stronger tropical cyclone activity. ENSO neutral (*scenario 2 on p. 1*) 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 across much of the Caribbean and the Tropical North Atlantic (TNA) are around 1°C above average, with sub-tropical North Altantic SSTs up to 2°C above average.
Expected conditions: Sustained warm SST anomalies of up to +1°C are expected across the Caribbean Sea and in the TNA and the sub-tropical North Atlantic.
Expected impacts: Continued warm SSTs throughout the Caribbean may contribute to above-average humidity, seasonal rainfall totals, wet spell frequency 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.

DISCLAIMER