

Caribbean Climate Outlook Newsletter - July to September 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.

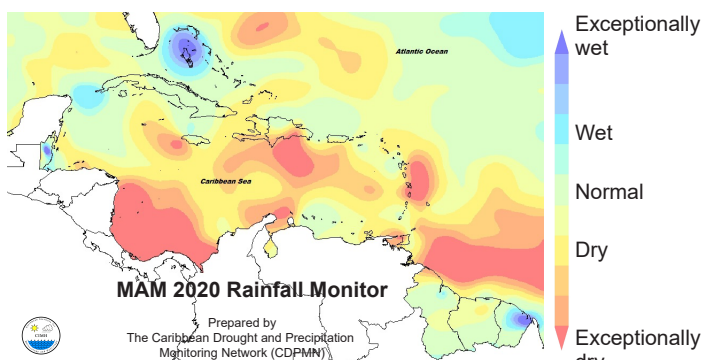
BRIEF SUMMARY: March to September 2020

March to May 2020: The dry season ended up with several areas experiencing short term drought while a greater proportion of the region ended up in long term drought. With temperatures significantly above average in April and May, some record temperatures, a number of heatwaves and further drying of soils occurred in this period.

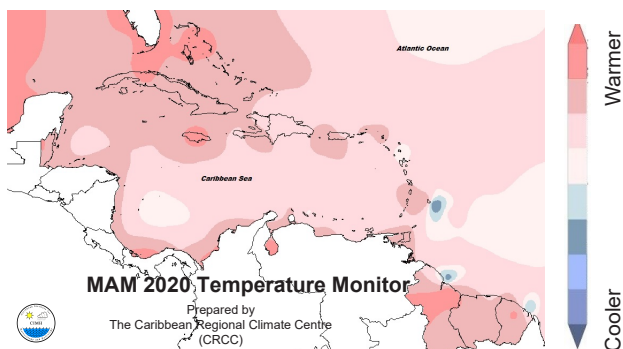
July to September 2020: This increasingly wet period in Belize and the Islands will be accompanied by high flooding, flash flood and landslide potential, but also likely by strong tropical cyclone activity from August onwards. At the same time, heat stress will likely be higher than in most years due to high humidity and warmer than usual temperatures - particularly at night. Episodes of Saharan dust will initially be frequent. On a brighter note, copious rains should ease drought concerns during this period. The Guianas will return to their hot, dry season in August.

LOOKING BACK:

March - April - May 2020 (MAM) Observations



- ♦ **RAINFALL:** Aruba, Barbados, S Dominican Rep., S Haiti, Martinique, Saint Lucia, W Trinidad very dry; NW Bahamas, central Belize and E French Guiana very wet.



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

Notable Climate Records:

WET: MAM: 3 locations in Jamaica, and 1 in French Guiana recorded their highest rainfall totals for this period (140-350% of avg.).

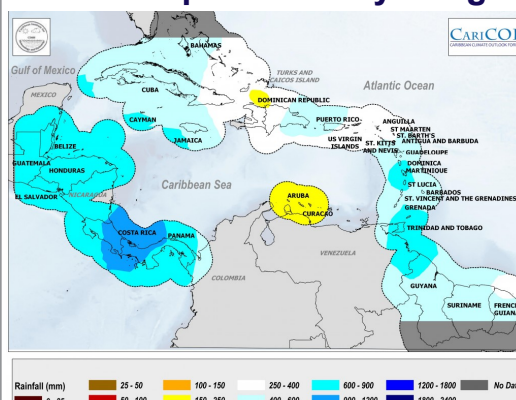
DRY: MAM: no record low rainfall totals for this period.

May: Anguilla and St. Thomas, USVI had their driest month of any month on record.

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

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.

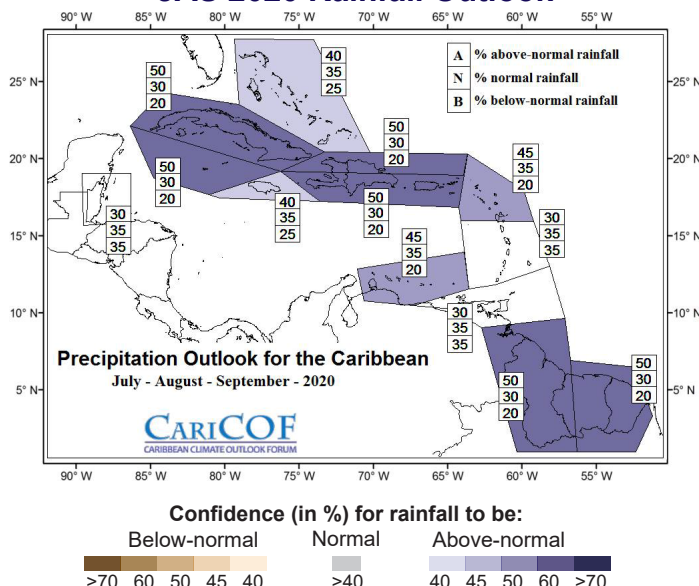
C'bean Islands south of 16°N (except ABC Islands):
Jul to Sep - wet season. Increasingly frequent heavy showers.

ABC Islands: Mostly dry with occasional wet spells.

Guianas:

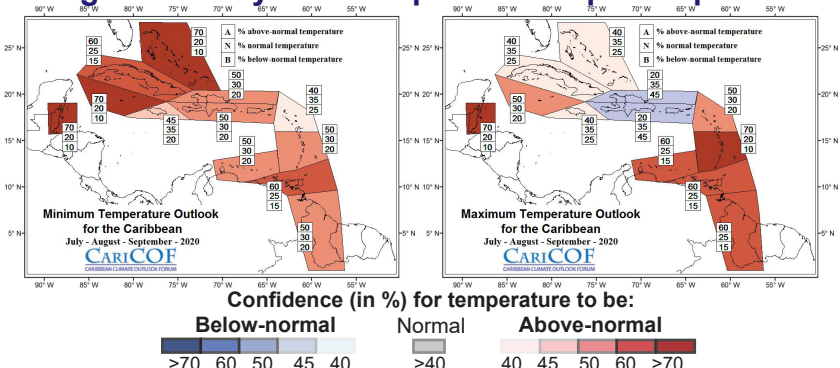
Jul to Aug - long wet season. Heavy showers are frequent. Sep - dry season. Heavy showers at times.

JAS 2020 Rainfall Outlook



Rainfall totals from July to September are likely to be at least as wet as usual in the ABC Islands, 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 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 and, along with increasing humidity, will often feel uncomfortably hot during heat waves.

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, 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 and long-term flooding potential** will be a growing concern by September in Belize and the Islands, but decreasing in the Guianas from August on.
- 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 Aruba, Barbados, S Dominican Rep., S Haiti, Martinique, Saint Lucia, and W Trinidad; long term drought in far N & E Bahamas, Barbados, N & W Belize, Dominican Rep., E Guadeloupe, Martinique, western-most Puerto Rico, Saint Lucia, St. Vincent, and Trinidad.

Shorter term concern: Shorter term drought should ease by the end of July in most currently affected places, but it might possibly develop or (for the end of September) continue in Dominica, Martinique, St. Kitts, and Trinidad & Tobago.

Long term concern: Long term drought should slowly ease and concerns decrease in most affected areas, particularly after August. By the end (for the end of November) of November, long term drought concern is evolving in Martinique and Suriname and may possibly persist in Dominica, Grenada, Saint Lucia, St. Vincent, and Trinidad.

BRIEF CLIMATE OUTLOOK - October to December 2020

There are indications that the last three months of 2020 may be particularly wet across Belize and the Antilles, resulting in a high potential for flooding, flash floods, land slides and associated hazards. These concerns become particularly strong should a La Niña manifest by October. Up until October, however, strong tropical cyclone activity is expected, along with a peak in heat stress at night and during the daytime, especially due to high humidity. 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 OND 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 during May from slightly above average to around -0.5°C by June, meaning borderline La Niña conditions are now in place.

Model forecast and guidance: The models favour either ENSO neutral or a transition to La Niña through OND (with 40-50% confidence for each of the two scenarios).

Expected impacts on rainfall and temperatures: La Niña tilts the odds to more rainfall and stronger tropical cyclone activity. 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 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/colest 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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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 1°C above average.

Expected conditions: Most models sustain warm SST anomalies of +0.5°C to +1°C across the Caribbean Sea, the TNA and the sub-tropical North Atlantic throughout the remainder of 2020.

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.