

Caribbean Climate Outlook Newsletter - June to August 2021

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 2021

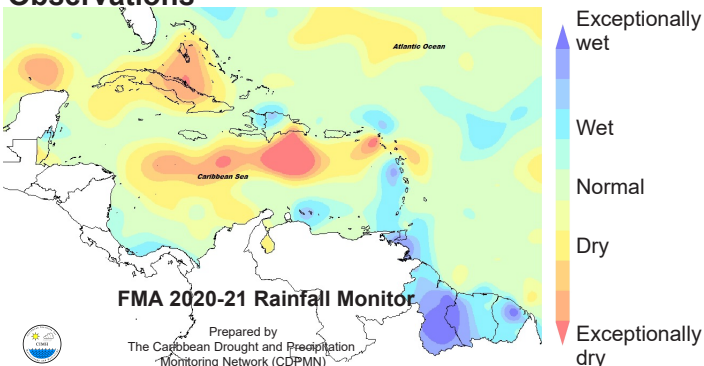
February to April 2021: This period in the dry season stood out in terms of short term drought in many areas north and west of Guadeloupe contrasted with wetter than usual conditions to the south. This pattern was, at least in part, driven by a fading La Niña. Temperatures were seasonably comfortable and even slightly cooler than usual in a handful of countries.

June to August 2021: The early wet season is forecast to bring an increase in wet days and wet spells. This results in a decrease in dryness, wild fire potential and dust levels, as well as an increase in water levels in soils, rivers and reservoirs. However, the potential for flash floods, long-term flooding and cascading impacts will increase from moderate to high by August in the islands, while it will decrease from high to moderate in the Guianas. Heat discomfort, brought about by high temperatures peaking during recurrent heat waves and increasing humidity in the air, will likewise increase towards August. A similar increasing trend in tropical cyclone activity is expected, with a busy Atlantic Hurricane Season on forecast.

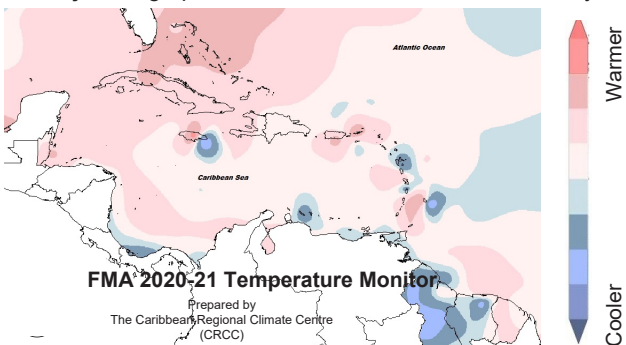
LOOKING BACK:

Feb. - Mar. - Apr. (FMA) 2021

Observations



RAINFALL: Antigua, parts of The Bahamas, Central Cuba, parts of southeastern Dominican Republic and Sint Maarten very dry; Curaçao, large parts of the Guianas, and Trinidad very wet.



TEMPERATURE: Much of the Caribbean slightly warmer than the 1991-2020 average, especially in The Bahamas, parts of northern Cuba, central Jamaica, southern Puerto Rico and St. Thomas. Guadeloupe, much of Guyana, southeastern Jamaica and parts of Suriname cooler than average.

Notable Climate Records:

WET: Apr: One location in Guyana recorded its highest rainfall totals for April (260% of avg.).

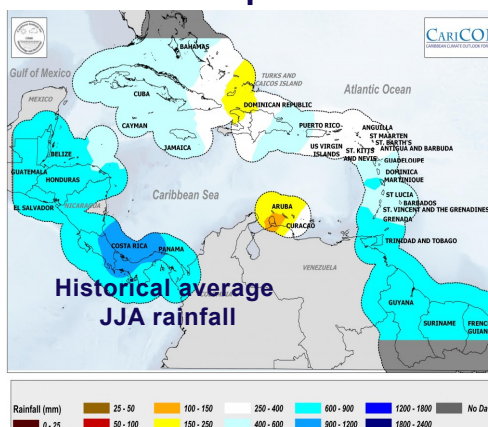
DRY: FMA: no records were broken during this period.

HOT: Apr: St. Kitts recorded its warmest max. temperature and 1 location in Jamaica its warmest mean temperature for this period.

May 2021

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):

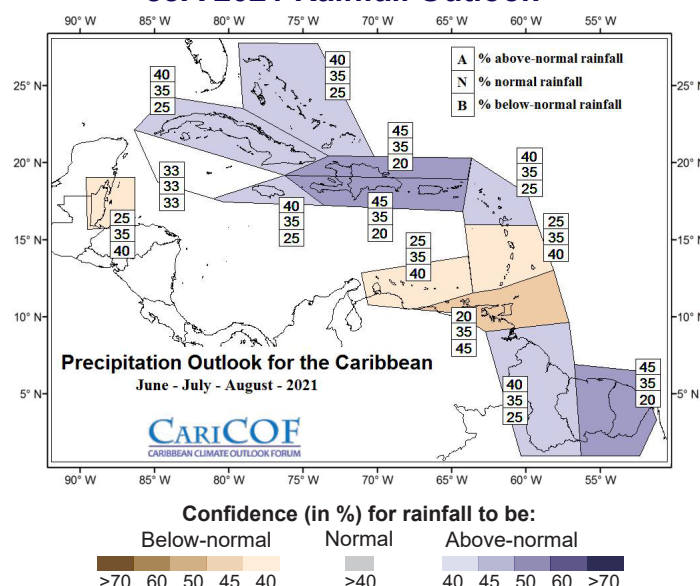
Jun to Aug - first half of wet season. Increasingly heavy showers.

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 2021 Rainfall Outlook



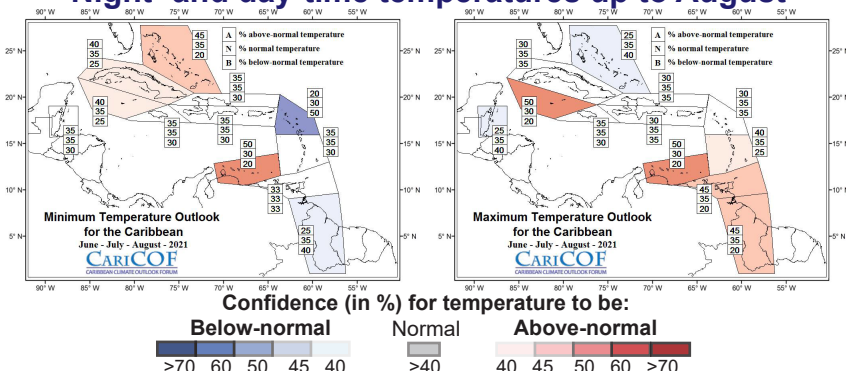
Rainfall totals from June to August are likely to be the usual at best in the ABC Is., Barbados, Belize, Trinidad and Tobago and the Windward Islands, but at least as high as usual in other countries.

White areas show where the forecast indicates little information on rainfall totals.

find out more by using the clickable images and headings or visit rcc.cimh.edu.bb

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Night- and day-time temperatures up to August



JJA night-time (min.) temperatures are forecast to be the usual or higher in the ABC Is., the Bahamas, Cayman Is. and Cuba, but possibly cooler than usual in Guyana and the Leeward Is. The usual or higher daytime (max.) temperatures are forecast for the Cayman Is. and locations southwards of Guadeloupe. Heat stress would peak during heatwaves.

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 mountainous 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:

- Moderate to high potential for long-term flooding, flash floods and related hazards from very wet and extreme wet spells.
- Increasingly frequent disruptions of outdoor activities and decrease of wild fire potential related to an increase in the number of wet days.
- Accelerating recharge rates of rivers, large water reservoirs and soil moisture related to an increase in the number of wet spells.

Drought conditions

Lastest drought situation: (as of May 1st) Moderate (or worse) shorter term drought has developed in most parts of Antigua, most parts of The Bahamas, southwest Belize, Cuba, southeastern- and southeastern-most Hispaniola, St. Kitts, Sint Maarten/St-Martin; moderate (or worse) long term drought has developed in southwest Belize, along the southern coast of Hispaniola, St. Croix, St. Kitts and the west coasts of the Windward Islands.

Shorter term drought at the end of August 2021 There is no major concern for shorter term drought by the end of August in the Caribbean.

Long term drought at the end of November 2021 Long term drought by the end of November may possibly develop in west-central Belize and in St. Vincent and the Grenadines.

BRIEF CLIMATE OUTLOOK - September to November 2021

During the late wet season, the number of very wet and extreme wet spells reaches its annual peak across Belize and the Islands, with a high potential for flooding and flash floods, as well as, cascading hazards. This is with the exception of the Guianas, which will be in their long dry season until mid-November. If La Niña event re-emerges, the region can expect to be at least as wet or even wetter than usual, with the potential for a busy second half of the Atlantic Hurricane Season. Heat stress is expected to be high until October due to high temperatures and humidity, particularly during recurrent heatwaves. For temperature and precipitation outlooks for JJA 2021, 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 have recently anomalously warmed to within 0.5°C below average; cold-neutral ENSO conditions are in place.

Model forecast and guidance: The models favour ENSO neutral conditions into JJA (with about 70% confid.). Large uncertainties exist for SON with 40-50% and 25-50% chance of neutral and La Niña conditions, resp.

Expected impacts on rainfall and temperatures: ENSO neutral conditions tend to increase the level of uncertainty in the seasonal forecasts. If La Niña were to re-emerge in SON, it would tilt the odds to wetter and more stormy conditions. Heat during the Caribbean Heat Season post a La Niña event tends to be attenuated.

Climate conditions in the Tropical North Atlantic and Caribbean

Recent observations: SSTs have anomalously cooled to just below average in much of the Caribbean Sea and the Tropical North Atlantic (TNA) and around 0.5°C above average in the sub-tropical North Atlantic.

Expected conditions: Models vary in forecasting whether the observed SST anomalies between 0°C and 0.5°C above average will maintain, decrease or increase somewhat across the Caribbean Sea and the TNA through SON.

Expected impacts: Continued warm SSTs in and around the Caribbean tends to contribute to above-average humidity, seasonal rainfall totals, reduced dry spell frequency and a potential slightly earlier start of the wet season in the Lesser Antilles and the Guianas.

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.

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