

Caribbean Climate Outlook Newsletter - November to January 2020-21

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: July 2020 to January 2021

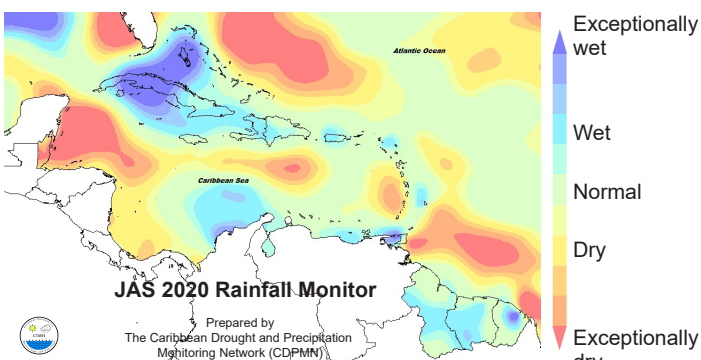
July to September 2020: This period marking the peak of the 2020 Caribbean Heat Season and the middle of the 2020 Wet Season stood out in terms of record-breaking heat across many parts of the region. Notably, Dominica, Grenada and Puerto Rico observed all-time record daily high temperatures. Drought eased for most in this period.

November 2020 to January 2021: La Niña conditions are in place. This means particularly high flooding, flash flood, landslide, rockfall and soil erosion potential across Belize and the Caribbean Islands until December and, from late-November, in the coastal Guianas. With the transition into the dry season in Belize and the islands, frequent, short dry spells are expected from Hispaniola westward, potentially impacting unprotected crop farming. On a positive note, with the intense 2020 Heat Season ending in October, heat stress should quickly subside.

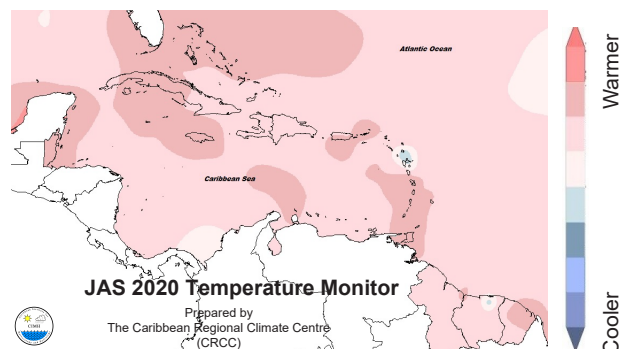
LOOKING BACK:

July - August - September 2020 (JAS)

Observations



- ♦ **RAINFALL:** Belize, and St. Vincent very dry; NW Bahamas, parts of the Cayman Is., and central N Cuba very wet.



- ♦ **TEMPERATURE:** Virtually the entire Caribbean was significantly warmer than avg., especially in The Bahamas, Belize, Cayman Is., Cuba, French Guiana, Jamaica, the US Caribbean Terr. and in the southern half of the Lesser Antilles.

Notable Climate Records:

WET: JAS: 1 location in Cuba recorded its highest rainfall totals for this period (~200% of avg.).

DRY: JAS: none

HOT: JAS: Grenada and St. Kitts, as well as, 2 locations in Guyana, 1 in Jamaica, 1 in Martinique, 1 in Puerto Rico, 1 in Guyana, 1 in Jamaica and 1 in Saint Lucia recorded their highest mean temperatures for this period. Several records were observed for the max. and min. temperatures.

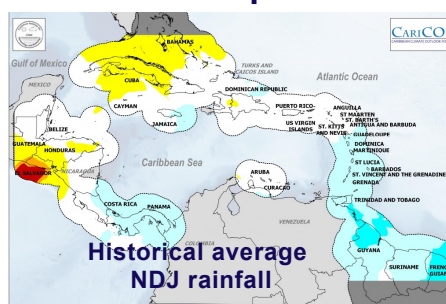
October 2020

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

e-mail caricof@cimh.edu.bb

WHAT NEXT?

Rainfall patterns Nov. - Dec. - Jan. (NDJ)



Guianas:

Nov to Jan - wet season. Frequent, heavy showers.

Belize:

Nov to Dec - wet season. Frequent heavy showers.

January - dry season. Few heavy showers in some years.

C'bean Islands north of 16°N:

Nov to Dec - transition to dry season.

Decreasing shower frequency & intensity.

January - sunny days and some days with showers.

C'bean Islands south of 16°N

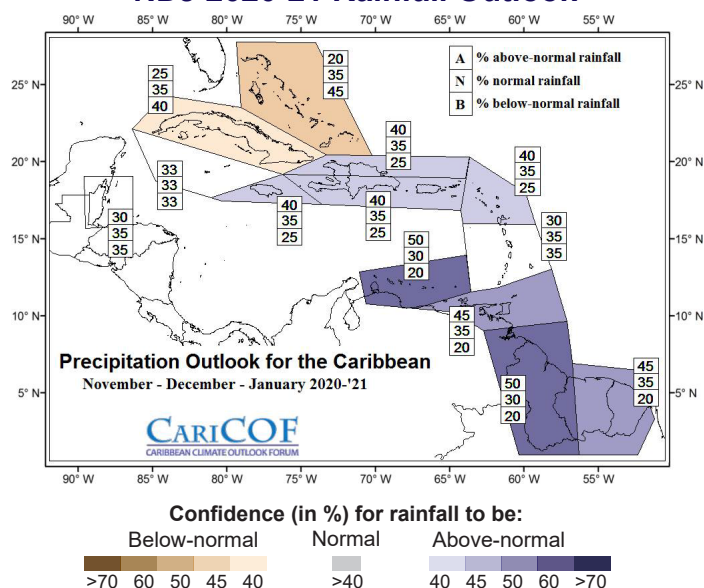
(incl. ABC Islands):

Nov - wet season. Frequent heavy showers.

Dec to Jan - transition to dry season.

Decreasing shower frequency & intensity.

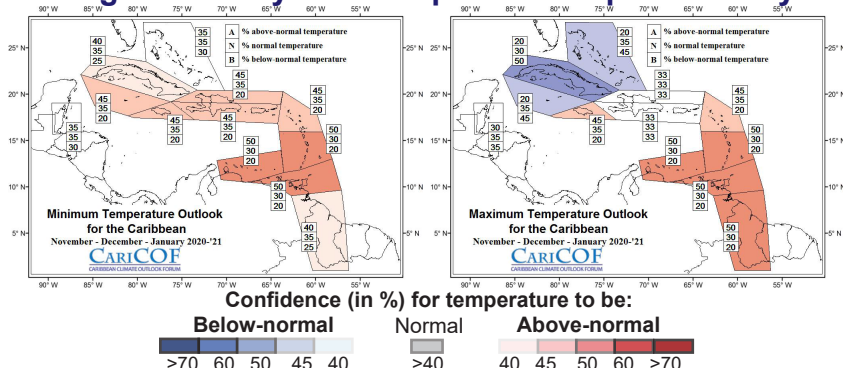
NDJ 2020-21 Rainfall Outlook



Rainfall totals from November to January are likely to be at least as high as usual in the Guianas and most of the Antilles; but likely the usual or drier in the Bahamas and Cuba.

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

Night- and day-time temperatures up to January



NDJ 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 day-time temp. in the Bahamas, Cayman Is. and Cuba. Any lingering heat discomfort should subside quickly.

Wet days and wet spells up to January

What usually happens from November to January?

- Number of wet days: roughly 35 to 50 (ABC Is: 20 to 45; coastal Guianas: 30 to 50).
- # of wet spells: 2 to 5, of which 1 to 3 are very wet (coastal Guianas: up to 2).
- # of extreme wet spells: up to 2 (Belize & Greater Antilles: up to 1)..

Forecast and Implications:

- **Flash flood, long-term flooding, land slide, rock fall and widespread soil erosion potential** remain a concern across Belize, the Islands and, from late-November, the coastal Guianas due to very wet spells and extreme wet spells.
- Decreasing surface wetness makes environmental conditions progressively less conducive to **mosquitoes & moisture related pests** Belize and the islands.

Drought conditions

Drought situation:

(as of October 1st)

Severe (or worse) shorter term drought has developed in Belize and St. Vincent, but eased in previously affected areas; long term drought in in western Belize, central parts of the Dominican Rep., western French Guiana, eastern Guadeloupe, northernmost Guyana, Martinique, Saint Lucia, St. Vincent, and eastern Suriname..

Shorter term concern:

(at the end of January)

Shorter term drought is unlikely to be of significant concern by the end of January, with the possible exception of parts of southwest Belize.

Long term concern:

(at the end of November)

Long term drought should continue to ease in most affected areas. By the end of November, long term drought concern drought concern should evolve southwest Belize, Dominica and Martinique, and expected to possibly develop or continue in Antigua, southwest Belize, St. Kitts, Saint Lucia, St. Vincent, and Suriname.

BRIEF CLIMATE OUTLOOK - February to April 2021

Indications are that the peak of the 2020-21 dry season may be characteristic of a La Niña event. Wetter than usual conditions are likely in the Guianas, the ABC Is. and the Lesser Antilles. However, it may possibly be even drier than usual in the Bahamas, Belize and the Greater Antilles. Frequent dry spells may impact crop production, particularly in the northwestern part of the region. Temperatures usually remain comfortable through March, but tend to increase in April. The forecasts suggest the rising heat merits monitoring in Belize and Cuba, where the heat season tends to start in April, versus May elsewhere. For temperature and precipitation outlooks for FMA 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 cooled from around average in May to more than 1°C below average; as such, moderate La Niña conditions are in place.

Model forecast and guidance: The models strongly favour a La Niña event to manifest by NDJ (with around 90-95% confidence) and possibly persist through FMA (with around 60% confidence).

Expected impacts on rainfall and temperatures: La Niña tilts the odds to more rainfall, more extreme rainfall - and stronger tropical cyclone activity till December -, but tilts the odds to less rainfall in the northwestern Caribbean in FMA. In addition, temperatures tend to be tempered by the 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 close to 1°C above average.

Expected conditions: Most models sustain warm SST anomalies of around +0.5°C across the Caribbean Sea, and +1°C in the sub-tropical North Atlantic through FMA.

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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