











Caribbean Climate Outlook Newsletter - May to July 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.

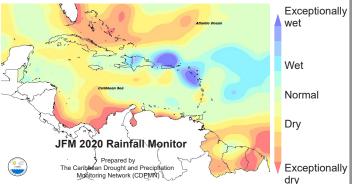
BRIEF SUMMARY: January to July 2020

January to March 2020: Despite very wet conditions from the Dominican Republic east- and southwards to Dominica, long term drought persisted in many areas in the Caribbean (including the Dom. Rep.), and short term drought developed in the northwest and southeast of the Caribbean. Temperatures were comfortably cool.

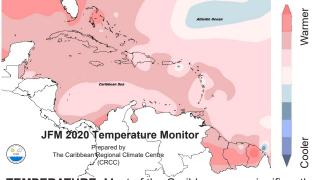
May to July 2020: Entering the Caribbean wet season, the Bahamas, Cayman, Cuba and Guianas are likely to see wetter than usual conditions. Other islands and Belize may remain drier than usual and continue to face reduced water availability due to persisting long term drought. Nonetheless, an increasing frequency of wet spells is forecast to increase flooding potential throughout the region. The first half of the Caribbean heat season is forecast to likely be at least as hot as usual, with heat stress peaking during heat waves in Belize and the islands.

LOOKING BACK:

January - February - March 2020 (JFM) **Observations**



• RAINFALL: Bahamas, Central Cuba and much of the Guianas very dry; Dominica, NW Dom. Republic, Puerto Rico, Leeward Islands very wet.



• TEMPERATURE: Most of the Caribbean was significantly warmer than avg., especially in parts of the NW Bahamas and in the Guianas.

Notable Climate Records:

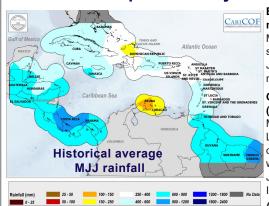
WET: JFM: 1 location in Jamaica, 1 in Martinique and 1 in Suriname recorded their highest rainfall totals for this period (175-300% of avg.).

DRY: JFM: no record low rainfall totals for this period. March: The Bahamas had their driest month of any month on record.

HOT: JFM: 1 location in Jamaica recorded their highest maximum temperature for the season.

WHAT NEXT?

Rainfall patterns May - June - July (MJJ)



Belize & C'bean Islands north of 16°N:

May & Jun - usually frequent heavy showers

Jul - wet season, often including a mid-summer dry spell.

C'bean Islands south of 16°N (except ABC Islands):

May - end of dry season.

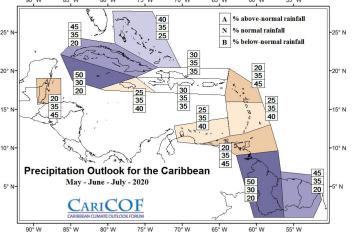
Limited spatial extent and duration of heavy showers; occasionally very

Jun & Jul - early wet season. Increasingly heavy showers.

ABC Islands: May to Jul - mostly dry.

Guianas: May to Jul - long wet season; heavy showers are frequent.

MJJ 2020 Rainfall Outlook



Confidence (in %) for rainfall to be: Normal

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

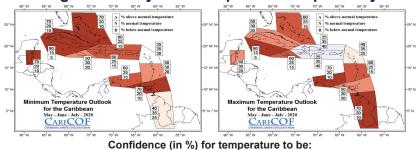
Bahamas, Cuba, Cayman Islands and the Guianas, but likely as dry as usual or drier in Belize and the remainder to the Antilles.

Rainfall totals from May to July are likely to be at least as wet as usual in the

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

More on the climate outlook

Night- and day-time temperatures up to July



Normal >40

Above-normal 40 45 50 60 >70

MJJ night-time (min.) and day-time (max.) temperatures are likely to be at least as warm as usual across the Caribbean (except max. temperatures in Hispaniola and the US C'bean Terr.) and, at times, are likely to be uncomfortably hot, esp. during heat waves.

Wet days and wet spells up to July What usually happens from May to July?

May to July 2020

- Number of wet days: roughly 20 to 40, (ABC Is. 5-15; Guianas: 45-65).
- # of wet spells: 1 to 5 (Guianas: 4 to 7), of which 2 or 3 are very wet (ABC Is. up to 1; Guianas: 1 to 5).
- # of extreme wet spells: up to 1 in most locations.

Forecast and Implications:

- Flash flood and long-term flooding potential from very wet and extreme spells form a growing concern.
- 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 Cayman, Cuba and Guianas, but slower than usual in the remainder of the Antilles and Belize.

Drought conditions up to July

Drought situation: (as of April 1st)

Moderate (or worse) drought has developed in across the Bahamas, Cayman Islands, much of Cuba, most of the Guianas, westernmost Jamaica, Martinique, Saint Lucia, St. Vincent and the Grenadines, and southwestern Trinidad; northernmost and southeastern Bahamas, Barbados, Belize, Cayman Islands, western Cuba, central Dom. Rep., parts of French Guiana, Martinique, western Puerto Rico, Saint Lucia, St. Vincent and the Grenadines, Trinidad, and the USVI.

Shorter term concern: (for the end of July)

Shorter term drought is evolving in west-central Belize and is possible in northernmost Bahamas, northern Belize, Western and Eastern Cuba, inland French Guiana, Suriname, and Tobago.

Long term concern: (for the end of May)

Long term drought is of immediate concern in west-central Belize and is evolving in the ABC Islands, Barbados, most of Belize, Grand Cayman, French Guiana, Suriname, Trinidad and the Windward Islands (except Grenada) and is possible in many other locations.

BRIEF CLIMATE OUTLOOK - August to October 2020

There are relatively strong indications that August to October may be wetter than usual across Belize, the Greater Antilles and the Leeward Islands. The heavier rains should keep temperatures moderate and hopefully bring drought relief to many affected areas. At the same time, the potential for flooding and flash floods will be very high across the region and especially in the aforementioned areas. By contrast, in Barbados, Belize, Guyana, Trinidad & Tobago and the Windward Islands the second half of the Caribbean heat season may be among the warmest in recent times, especially if drought were to continue. For detailed temperature and precipitation outlooks for JAS 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 recently warmed up slightly above normal (~0.6°C above avg.), shifting from ENSO neutral to borderline El Niño-like conditions. *Model forecast and guidance*: Most models favor ENSO neutral conditions to persist during MJJ (with 65-75% confidence) and possibly maintain ENSO neutral through ASO (50% confidence).

Expected impacts on rainfall and temperatures: The ENSO neutral phase offers little contribution to seasonal rainfall or temperature prediction in any part of the Caribbean, leading to diminished skill of and confidence in seasonal forecasts at this time. Conversely, uncertainy in the seasonal forecasts increases with ENSO-neutral conditions.

Climate conditions in the Tropical North Atlantic and Caribbean

Recent observations: SSTs across much of the Caribbean and into the western Tropical North Atlantic (TNA) are up to 1°C above average. SST farther east in the TNA has warmed up to 3°C above average along the African coast.

Expected conditions: Sustained warm SST anomalies up to about +1°C are expected across the Caribbean Sea and into the far eastern Atlantic. Expected impacts: Continued warm SSTs throughout the Caribbean may contribute to above-average humidity, seasonal rainfall totals, and 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

The information contained herein is provided with the understanding that CariCOF makes no warranties, either expressed or implied, concerning the accuracy, completeness, reliability, or suitability of the Outlook. The information may be used freely by the public with appropriate acknowledgement of its source, but shall not be modified in content and then presented as original material.