













Caribbean Climate Outlook Newsletter

June to August 2018

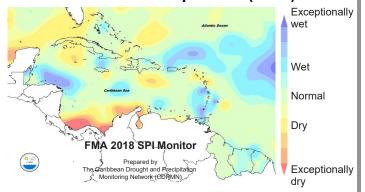
BRIEF SUMMARY: February to August 2018

February to April 2018: Most areas observed at least the usual rainfall totals, as is common during a La Niña event. Barbados, Belize, Dominica, Grenada and north-western Puerto Rico were particularly wet. Drought is not a primary concern at this time. This was one of the coolest season in recent years in the east of the region.

June to August 2018: A relatively cool summer season is forecast, although a number of heat waves are likely to temporarily increase heat stress in vulnerable sections of the population. Except in the Guianas, rainfall totals are forecast to be lower than usual or similar to the usual; a number of short dry spells is expected, along with fewer wet spells than usual. The latter may reduce the potential for flooding and associated hazards in Belize and in the islands. Nevertheless, there is a concern for flash flooding from extreme wet spells in any area.

LOOKING BACK:

Feb. - Mar. - Apr 2018 (FMA)



Observations

• RAINFALL: April: Barbados, N Belize, SW Dominica, Grenada and NW Puerto Rico very wet. March: central Bahamas, Barbados, Grenada, N Jamaica, St. Vincent, W Trinidad very wet; N Bahamas, W Martinique, St. Kitts, SE Trinidad very dry. February: Aruba, W Belize, Curacao, Grenada, N Dominican Republic, S Martinique very wet; N Bahamas and S Jamaica very dry.

• TEMPERATURES:

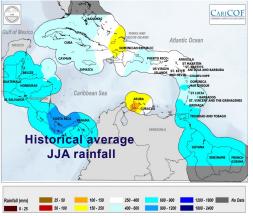
FMA: slightly warmer than average in most places, but >1°C above avg. in N & central Bahamas, W Cuba and W Jamaica; slightly cooler than avg. in Barbados, Grenada, St. Vincent and the Grenadines and NF Suriname.

Notable Climate Records:

- WET FMA: 2 locations in Belize recorded their highest rainfall totals on record (~160-193% of avg.), 7 in Dom. Republic (~210-415% of avg.), 3 in Martinique (~190-215% of avg.). April: 1 in Belize, 1 in Dominica, 4 in Dom. Republic, 2 in Martinique.
- DRY February: 1 location in Jamaica (~15% of avg.)
- HOT FMA: 1 location in Belize recorded its highest minimum temperature. Haiti recorded its highest maximum temp. (incl. also a record warmest month of February).

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.

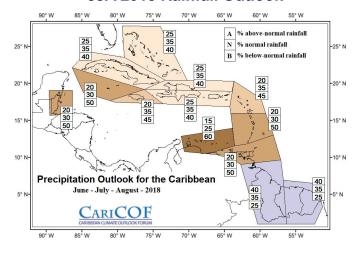
C'bean Islands south of 16°N (except ABC Islands):

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 2018 Rainfall Outlook



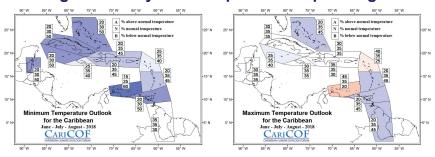
Confidence (in %) for rainfall to be:

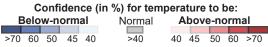


Regionally, rainfall totals from June to August are likely to be the usual or drier across Belize and the islands. By contrast, the Guianas are forecast to be at least as wet as usual.

More on the climate outlook

Night- and day-time temperatures up to August





JJA night-time (minimum) and day-time (maximum) temp. in the Caribbean are likely to be cooler than in most recent years, except in ABC Is and Leewards during the day.

June to August 2018

Wet days and wet spells up to August

What usually happens from June to August?

- Number of wet days: roughly 30 to 45 in flatter areas of the islands, and 50 to 65 in mountanous areas and in the 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 potential a concern in most areas in the event of extreme wet spells.
- Slightly reduced long-term flooding potential and recharge rates of large water reservoirs associated w/ slightly fewer wet spells than usual, except in the Guianas.
- Less reliable rains for agriculture and slower increase in surface wetness in Belize and the islands.

Drought conditions up to August

Current Drought situation: Short term drought is seen in Cayman, Western Cuba and St. Kitts & Nevis, though not severe.

Shorter term outlook: Shorter term drought might possibly develop in Barbados, south-eastern Belize, eastern and northern Dom. Republic,

St. Kitts and Tobago.

Long term concern: Long term drought may possibly develop in Western Cuba and northern French Guiana

(by 30 Nov., 2018)

BRIEF CLIMATE OUTLOOK - September to November 2018

Although indications suggest that the period are likely to be cooler than in most recent years, heat discomfort may peak and heat waves are likely in September across the region. The precipitation outlook trends to a usual or a wetter than usual period in the ABC Islands, Greater Antilles and Leewards, but drier than usual in Barbados, the Guianas, Trinidad and Tobago and Windwards.

For detailed temperature and precipitation outlooks for SON 2018, please visit rcc.cimh.edu.bb/climate-outlooks/

What influences the next season?

El Niño Southern Oscillation (ENSO)

Recent observations: The Cool SST anomalies between -0.5°C and -1°C in the Niño3.4 region of the Pacific associated with a weak La Niña since August have faded in April, marking an end to the La Niña event.

Model forecast and guidance: Most models suggest neutral ENSO conditions for JJA. Model confidence for ENSO neutral conditions is ~65% for JJA and ~40- 45% for SON. Most models suggest El Nino conditions to appear later in the year, with a confidence of 40-50% by SON.

Expected impacts on rainfall and temperatures: If neutral, ENSO will exert minimal influence on Caribbean rainfall and temperature. If El Niño manifests by SON, an enhanced sub-tropical jet would tend to increase precipitation in the north, while increased wind shear further south would reduce precipitation there.

Climate conditions in the Tropical North Atlantic and Caribbean

Recent observations: Tropical North Atlantic (TNA) have been around average (anomalies of -0.5°C to +0.5°C), with the exception of coastal portions off West Africa (-0.5°C to -1°C), and in portions of the western Caribbean Sea and north of Cuba (+0.5 to +1°C).

Expected conditions: Most models indicate sustained positive anomalies in the TNA north of the region by SON. They also suggest temperatures below-average to dominate the TNA further south and east during JJA. Expected impacts: With near average SSTs around the region and below-average SSTs off of West Africa, slightly below-average humidity and atmospheric instability is expected, tilting the odds towards usual or slightly drier conditions, particularly in the Lesser Antilles.

Climate outlooks - background

The Caribbean Climate Outlooks are prepared by the Caribbean Regional 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. For more information on how the outlooks are produced, please visit rcc.cimh.edu.bb.

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

Below-normal (B) - within the driest/coldest third of the historical record

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