

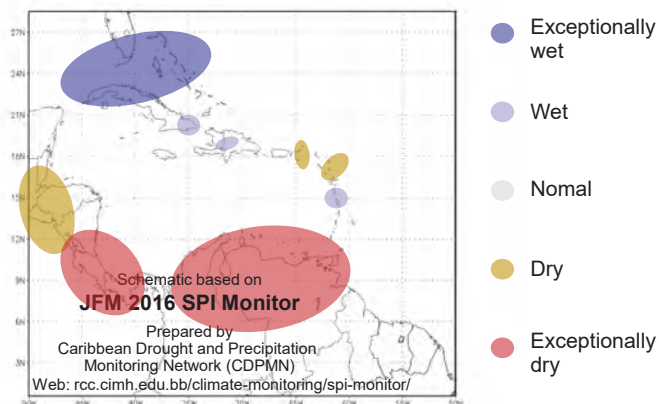
BRIEF SUMMARY: JANUARY TO JULY 2016

January to March was warmer than usual throughout the Caribbean. After a failure of the wet season in ABC Islands and of the secondary wet season in the Guianas, as well as with dry conditions in parts of the eastern Caribbean, many island territories remained in drought. Much of Belize is no longer in drought.

May to July 2016: We expect above-normal or normal temperatures throughout the region, which will become increasingly uncomfortable. We further expect the drought to gradually alleviate across the region. Problems related to water shortage in agriculture should disappear in many places. However, the wet season may start abruptly in May. This means rains are expected to often disrupt outdoor activities. Finally, as extremely wet spells may occur, a serious potential for flash flooding is developing.

LOOKING BACK:

Jan-Feb-Mar 2016 (JFM)



Observations

- ♦ **RAINFALL:** *March:* very dry in S Guyana; very wet in Dominica and Martinique. *February:* very dry in Antigua, Grenada, St. Lucia, St. Vincent. *January:* very dry in ABC Islands, Dominica, St. Croix.
- ♦ **Temperatures:** *March, February, January:* above-normal across most parts of the Caribbean.

Notable climate records:

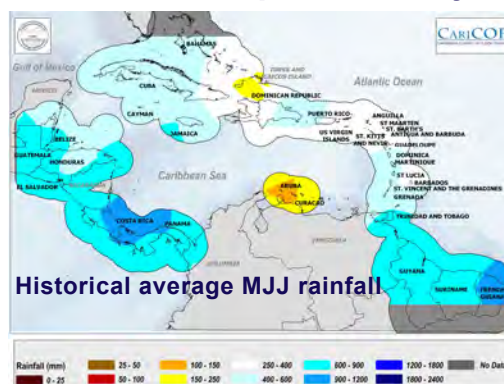
- ♦ **WET - March:** record wet in 1 location in Martinique.
- ♦ **HOT - JFM:** 2, 2 & 1 territories with locations recording highest min., mean & max. temps., respectively (notably Jamaica).

Notable Impacts

- ♦ Prevailing short- and long-term drought across the Caribbean, with:
 - doubling of food insecurity and rising hunger in Haïti;
 - failed 2016 sugar cane harvest & water rationing in Barbados;
 - low water levels in four regions and impacting households & farmers in Guyana;
 - Trinidad's Water and Sewerage Authority implementing water supply plans as of March 1st;
 - St. Vincent river flows seeing significant reduction;
 - Domestic water service interruptions in Grenada.

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

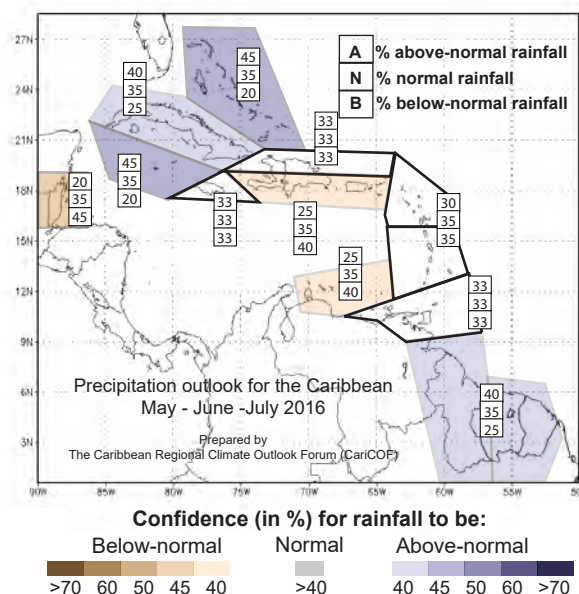
C'bean Islands south of 16°N (except ABC Islands):

May - end of dry season.
Limited number & extent of heavy showers; occasionally very wet.
Jun & Jul - early wet season.
Increasingly heavy showers.

ABC Islands: May to Jul - mostly dry.

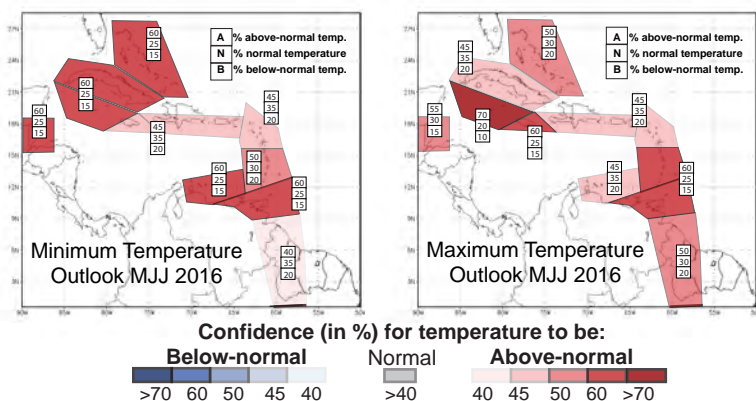
Guianas: May to Jul - long wet season; heavy showers are frequent.

MJJ 2016 Rainfall Outlook



MJJ rainfall in the Caribbean is likely to be above- to normal in Bahamas, Cayman, Cuba, Guianas and Turks & Caicos; but below- to normal in ABC Islands, Belize, S Hispaniola and US C'bean Territories. There is low predictability elsewhere.

Min. and max. temperatures up to July



MJJ min. & max. temp. in the Caribbean are likely to be above- to normal.

Wet days and wet spells up to July

What usually happens from May to July?

- Number of wet days: roughly 30 to 60.
- Number of wet spells: roughly 2 to 6, of which 1 to 4 are very wet.
- Number of extremely wet spells: up to 1 or 2.

Forecast and Implications:

- Many wet days: greater occurrence of outdoor activity disruptions; decreasing surface dryness.
- Several wet spells: effective recharge of water reservoirs expected.
- Up to 2 extremely wet spells: serious flash flood potential developing.

Drought conditions up to July

Currently:
(as of April 30)

Alert levels:

Long-term Concern:

Most islands are in long-term drought (except Bahamas and Cuba). These places suffer water shortages. Short-term drought is noted in ABC Islands, S Belize, Grenada, Guianas and Trinidad & Tobago.

Drought watch: ABC Islands, N Bahamas, portions of central Cuba, Grenada, St. Kitts, St. Vincent and Tobago.

Drought emergency: ABC Islands, Antigua. Existing water shortages may worsen up until the end of the dry season. Drought relief expected from May onwards as the wet season may start up to one month earlier than usual.

BRIEF CLIMATE OUTLOOK - August to October 2016

Temperatures across the Caribbean are expected to continue to reach uncomfortable, above-normal levels by August. There are indications (*medium confidence*) that this part of the wet season will be wetter than normal across Belize and the islands (except Trinidad and Tobago). Rains will alleviate long-term drought in many places. However, excessive rainfall could increase the risk of flash flooding and long-term flooding.

For detailed temperature and precipitation outlooks for ASO 2016, please visit rcc.cimh.edu.bb/long-range-forecasts/caricof-climate-outlooks/

What influences the next season?

El Niño Southern Oscillation (ENSO)

Recent observations: A now moderate El Niño is rapidly weakening after reaching peak strength in November 2015; sea-surface temperatures (SSTs) 1.1°C above avg. in equatorial eastern Pacific (NINO3.4).

Model forecast and guidance: Models indicate further return to ENSO neutral conditions for MJJ (55-75% confidence), and a possible transition to La Niña conditions by ASO (50-65% confid.).

Expected impacts on rainfall and temperatures: Shift towards above-normal rainfall is noted for the C'bean due to reduced winds in the upper atmosphere, which allows for stronger, local showers to develop. Higher temperatures are probable for the region, which may also add to increased moisture uptake and lead to increase precipitation.

Climate conditions in the Tropical North Atlantic and Caribbean

Recent observations: SSTs 0-1°C above-average north of C'bean, near average elsewhere; trade wind speed stronger than avg.

Expected conditions: Positive SST anomalies are expected towards the eastern Atlantic by MJJ, but cooler than average waters may develop along the equator and off the western African coast; strength of trade winds is hardly predictable at seasonal time scales; upper level winds are expected to weaken.

Expected impacts: Warm Atlantic temperatures increase evaporation and local deep atmospheric convection, potentially increasing precipitation. However, cooler waters off W Africa and around the equatorial Atlantic may reduce the formation of rain-producing weather systems that are carried into the eastern Caribbean by the tradewinds during MJJ.

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 in demonstration phase, 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 |

DISCLAIMER

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