



BRIEF SUMMARY: October to December 2016

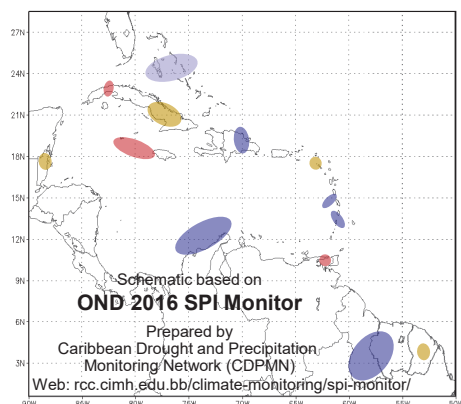
October to December 2016 was warmer than usual throughout the region for that period. October was uncomfortably hot at times. Drought conditions continue to persist in Grand Cayman.

February to April 2017: We are entering the driest part of the year. Above-normal to normal rainfall is forecast for much of the region, which may delay the buildup of usual dry season impacts on water availability, except in current drought areas (e.g. Cayman and Tobago). Apart from a small chance in the Guianas and the Greater Antilles, there is virtually no flash flood potential in this season.

Finally, despite that temperatures start rising beyond January, the heat should remain relatively comfortable because the air will be less humid and because of a generally stronger breeze than in the wet season.

LOOKING BACK:

October-November-December 2016 (OND)



- Exceptionally wet
- Wet
- Normal
- Dry
- Exceptionally dry

Observations

- ♦ **RAINFALL: December:** Cayman extremely dry; Cuba very dry; SE Belize, Dominica, Grenada, S Guyana very wet;
November: Barbados, N Dom. Republic, Guyana, S Puerto Rico, St. Lucia, St. Vincent, Suriname very wet; Cayman, NW French Guiana very dry. **October:** NE Guyana, St. Maarten and Trinidad very dry; S Dom. Republic and S Guianas very wet.

- ♦ **TEMPERATURES: OND:** warmer than average in most places.

Notable Climate Records:

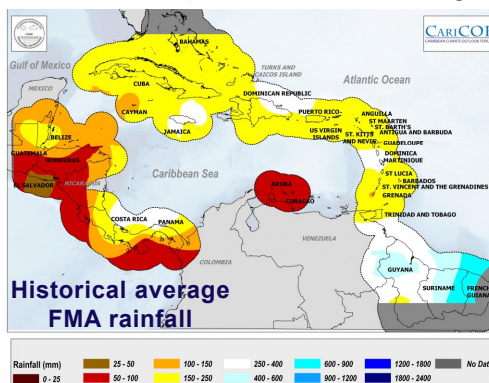
- ♦ **WET - OND:** 1 location in Barbados (157% of avg.), 10 in Dom. Rep. (215-350% of avg.).
December: 1 location in Guyana, 2 in Martinique.
- ♦ **DRY - OND:** 1 location in Cuba. **December:** 1 location in Jamaica.
- ♦ **HOT - OND:** 11, 4 & 3 territories had locations recording their highest min., mean or max. temp., resp. Notably, Piarco, Trinidad broke all three records.

Notable Impacts

- ♦ Persistent long-term drought in Grand Cayman
- ♦ Repeated flooding in St. Vincent & the Grenadines and Barbados after (near-)record rainfall in November..

WHAT NEXT?

Rainfall patterns February-March-April (FMA)



Belize:

Feb to Apr - dry season.
Mostly without heavy rainfall.

C'bean Islands north of 16°N:

Feb to Apr - sunny days and some days with showers.

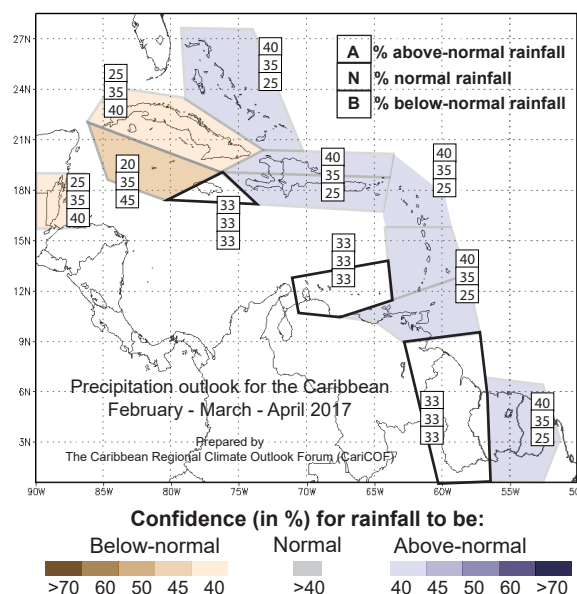
C'bean Islands south of 16°N (except ABC Islands):

Feb to Apr - sunny days and some days with showers.

ABC Islands: Feb to Apr - generally dry.

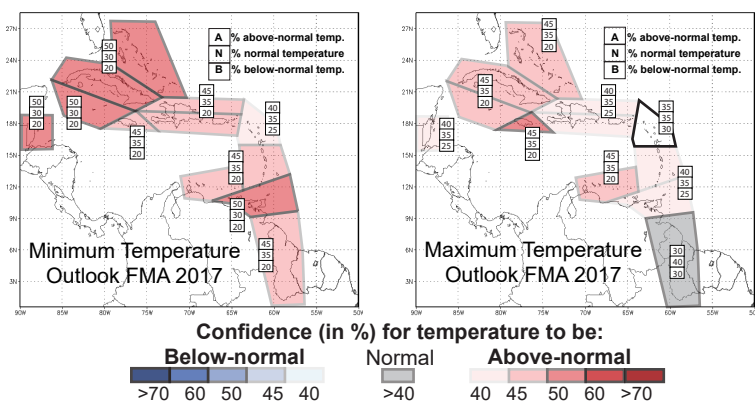
Guianas: Feb to Apr - End of dry season with occasional heavy showers and thunderstorms.

FMA 2017 Rainfall Outlook



FMA rainfall is likely to be above- to normal in the eastern Guianas, Hispaniola, Leewards, Lucayan Islands, Windwards, Trinidad & Tobago and the US C'bean Terr., but below- to normal in Belize, Cayman and Cuba. There is low predictability elsewhere.

Min. and max. temperatures up to April



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

Wet days and wet spells up to April

What usually happens from February to April?

- Number of wet days: roughly 20 to 35.
- Number of wet spells: up to 4 (ABC Is: up to 3; Guianas: up to 4), of which up to 2 are very wet (ABC Is: up to 1; Guianas: up to 2).
- Number of extremely wet spells: up to 1.

Forecast and Implications:

- Relatively few wet days and resulting rain disruptions.
- Very few wet spells: little recharge of large water reservoirs at this time of year.
- No extremely wet spells, so no major flash flood concerns.

Drought conditions up to April

Currently:
(as of December 31)

Alert levels:

Long-term Concern:
(up to May 2017)

Short-term and long-term drought continues to be a concern in Cayman, long-term drought is also prevalent in N Belize, Cuba, Tobago.

Drought warning: Cayman, E & central Cuba. **Drought watch:** Bahamas, W Cuba, S Fr. Guiana, W Jamaica, N Haiti

Drought emergency: Cayman. **Drought warning:** Central Cuba and Tobago. **Drought watch:** portions of Belize, E Cuba, Grenada, French Guiana, Jamaica, NW & SE Puerto Rico and Trinidad.

BRIEF CLIMATE OUTLOOK - May to July 2017

Temperatures across the Caribbean are forecast to rise but gradually become uncomfortable beyond April, with the chance of heat waves appearing in May and June for many. As the region transitions from the dry to the wet season, there are indications (*low confidence*) that May to July may be slightly wetter than normal across the region.

For detailed temperature and precipitation outlooks for MJJ 2017, please visit rcc.cimh.edu.bb/long-range-forecasts/caricof-climate-outlooks/

What influences the next season?

El Niño Southern Oscillation (ENSO)

Recent observations: In recent months, sea-surface temperatures (SSTs) in the equatorial eastern Pacific (NINO3.4) warmed slightly from 0.5°C below-average, or borderline La Niña conditions, to near average or ENSO neutral.

Model forecast and guidance: A majority of models suggest a return to ENSO neutral conditions by FMA (with 75% - 90% confidence).

Expected impacts on rainfall and temperatures: La Niñas tend to shift rainfall chances for FMA to above-normal in the southern-most islands of the Caribbean, and below-normal in the Bahamas and Cuba. However, with a forecast return to ENSO neutral, ENSO will have little effect on rainfall. Likewise, ENSO neutral conditions are not expected to shift temperatures for FMA and 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/colest third of the historical record |

DISCLAIMER

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Climate conditions in the Tropical North Atlantic and Caribbean

Recent observations: SSTs up to 0.5°C above-average within the C'bean and the Tropical North Atlantic east of the islands. SSTs north of the Greater Antilles are now near-average due to usual trade wind activity in the region.

Expected conditions: Near normal SSTs are expected to return to the Caribbean Sea and further east by MJJ; strength of trade winds is hardly predictable at seasonal time scales.

Expected impacts: A slight probability shifts towards above- to normal rainfall is expected for FMA as positive SST anomalies in the Caribbean Sea and Tropical North Atlantic tend to increase humidity in the region, which in turn can lead to increased rainfall. This influence will tend to subside by MJJ.