

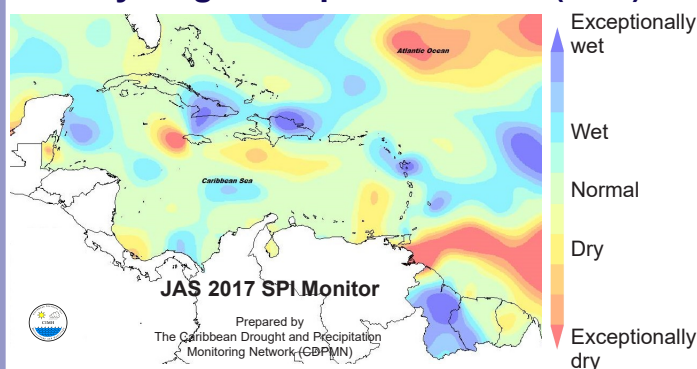
BRIEF SUMMARY: July 2017 to January 2018

July to September 2017: Major hurricane activity has been record high in the Caribbean during September of the wet/hurricane season. This led to destructive wind, extreme wet spell related flash floods and inundations in at least 10 territories. The hottest feel-like temperatures of this year in the islands were recorded between July and September, which resulted in heatwaves and heat stress in the vulnerable population.

November 2017 to January 2018: In the transition between the wet and dry seasons, ample rainfall could lessen possible water shortages for agriculture beyond January and temperature is forecast to be comfortable. In the southern Caribbean, many forecast wet spells imply a high potential for flooding and flash floods, while high humidity is likely to enhance environmental conditions for mosquito breeding and moisture related pests.

LOOKING BACK:

July-August-September 2017 (JAS)



Observations

- ♦ **RAINFALL: September:** Central Belize, W Jamaica very dry; Barbados, E Cuba, Dominica, Dominican Rep., Guadeloupe, W Guyana, central Jamaica, St. Kitts and S Suriname very wet.
- ♦ **August:** French Guiana very dry; SE Puerto Rico, Tobago very wet. **July:** Parts of Dominica, E Dominican Republic, E Jamaica, parts of coastal Guianas, E Hispaniola, St. Croix, W Tobago, S Trinidad very dry; inland portions of Guyana and W Suriname very wet.

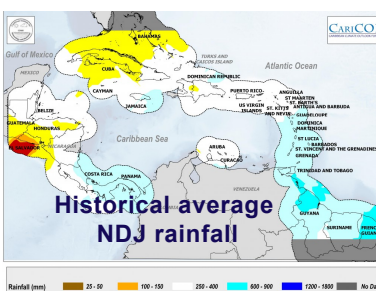
- ♦ **TEMPERATURES: JAS:** warmer than average, especially in Bahamas ($>1.5^{\circ}\text{C}$ above avg.) and, Aruba, N Belize, N French Guiana, St. Lucia and Trinidad ($>0.75^{\circ}\text{C}$ above avg.); slightly cooler than average in Antigua.

Notable Climate Records:

- ♦ **WET - JAS:** 3 locations in Dominican Republic (190-280% of avg). **September:** Dominica, 7 locations in Dominican Rep. 5 locations in Guadeloupe.
- ♦ **DRY - JAS:** 1 location in Belize, 1 in Jamaica (60% of avg). **September:** 1 location in Belize.
- ♦ **HOT - JAS:** 1 location in Guyana, 1 in St. Lucia recorded their highest minimum; 1 location in Bahamas, 1 in French Guiana, 3 in Guyana, 1 in Trinidad their highest mean; 3 locations in Guyana, 1 in Haiti their highest maximum.

WHAT NEXT?

Rainfall patterns November-December-January (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:

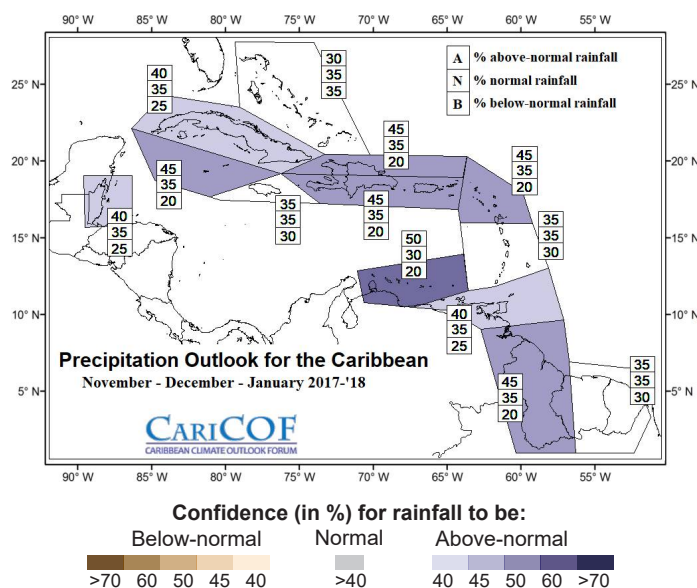
Nov to Dec - transition to dry season. Decreasing shower frequency & intensity. January - sunny days and some days with showers.

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

Nov - wet season. Frequent heavy showers. Dec to Jan - transition to dry season. Decreasing shower frequency & intensity.

ABC Islands: wet season. Frequent heavy showers in most years.

NDJ 2017-'18 Rainfall Outlook



NDJ rainfall is likely to be above- to normal throughout the region, with the exception of The Bahamas, Barbados, east Guianas, Jamaica and Leewards where the forecast indicates little information.

Night- and day-time temperatures up to January

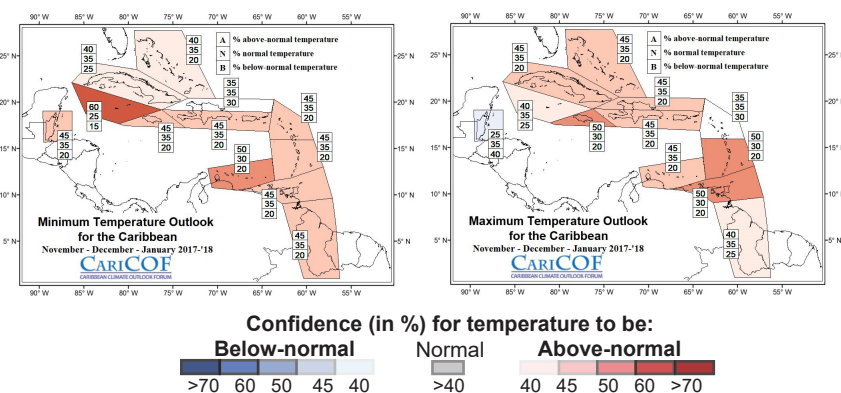
Wet days and wet spells up to January

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 concern** from possible extreme wet spells, in particular in ABC & Windward Islands and Guianas.
- Wetter surface makes environmental conditions more conducive to **mosquitoes & moisture related pests**.
- Ample **recharge of large water reservoirs** related to wet spells ahead of upcoming dry season in S C'bean.
- Fewer **rain disruptions** of outdoor activities in Greater & Lesser Antilles towards January.



NDJ night-time (minimum) and day-time (maximum) temp. in the Caribbean are likely to be above- to normal, except perhaps day-time temp. in Belize.

Drought conditions up to January

Drought situation:
(as of October 1)

The Cayman Islands are under a long term drought, while short term drought is seen in central Belize and western-most portions of Jamaica. Short and long term drought have also been developing in southern portions of Haïti.

Shorter term outlook:

Shorter term drought conditions may continue in Haïti and the central parts of The Bahamas by January.

Long term concern:

Long term drought is evolving in central Bahamas and may continue in Haïti and develop in N Bahamas.

BRIEF CLIMATE OUTLOOK - February to April 2018

Indications are that February to April - which form the core of the dry season - may be drier than usual in Belize, Cayman and Cuba, and wetter than usual in the ABC Islands, the Guianas and the Lesser Antilles. Night- and day-time temperatures across the Caribbean are forecast to return to cooler levels by January, making February to March comfortable for most, while April may see heat discomfort increasing in Belize and Trinidad. Finally, except where drought is already evolving, the intensity of the dry season should not translate into great long term drought concern by April. For detailed temperature and precipitation outlooks for FMA 2018, please visit rcc.cimh.edu.bb/climate-outlooks/

What influences the next season?

El Niño Southern Oscillation (ENSO)

Recent observations: Cooler than usual sea-surface temperatures (SSTs) of about 0.5°C below average have been in place in the equatorial eastern Pacific (NINO3.4), meaning cold neutral to borderline weak La Niña conditions.

Model forecast and guidance: Most models suggest ENSO conditions to fluctuate around cold neutral to weak La Niña (65-70% and 40-45% confidence for La Niña conditions in NDJ and FMA, respectively).

Expected impacts on rainfall and temperatures: A weak La Niña state will drive chances of drier conditions slightly upwards in the northwest of the region (in particular Bahamas, Cayman and Cuba), while slightly increasing chances of wetter conditions, with more shower activity in the south-east.

Climate conditions in the Tropical North Atlantic and Caribbean

Recent observations: SSTs Tropical North Atlantic (TNA) and Caribbean Sea SSTs have been 0.5°C to 2°C warmer than average.

Expected conditions: Sustained warm SST anomalies in these areas are forecast by FMA.

Expected impacts: Warm SSTs in and around the Caribbean may lead to above-average humidity, as well as atmospheric instability. Those factors tilt the odds towards a wetter end of the year and a prolonged hurricane season. Warmer air temperatures, and more heatwaves, are expected until the end of October, especially during dry spells.

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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