

Caribbean Climate Outlook Newsletter – August to October 2022

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: April 2022 to October 2022

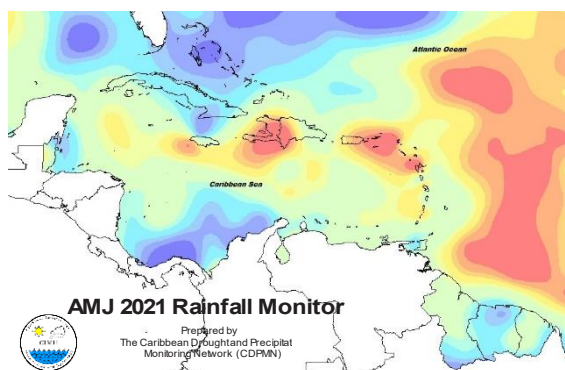
April to June 2022: The transition into the wet season was wetter than usual in the Bahamas (esp. in the northwest), northeast Belize, Cuba, far southern Guyana, and Suriname where disastrous floods occurred. Short-term drought developed in parts of the Dominican Rep., Haiti, Jamaica, the Leeward Is. and Puerto Rico. The transition into the 2022 Heat Season was warmer than usual in the northwestern Caribbean.

August to October 2022: The peak of the wet/heat/hurricane season is forecast to bring a notable increase in wet days and wet spells, heatwaves and tropical cyclone activity in the Caribbean Islands and in Belize. This results in frequent disruptions of outdoor activities and rising water levels in soils, rivers and reservoirs. Importantly, the potential for flash floods, long-term flooding and cascading impacts will be high to extremely high. Heat stress will peak during this season, especially during heat waves, but will likely be less intense than in recent hot years (e.g., 2016, 2020). The Guianas enter the dry season, though extreme wet spells remain possible. Existing drought concerns in the region should subside by the end of August.

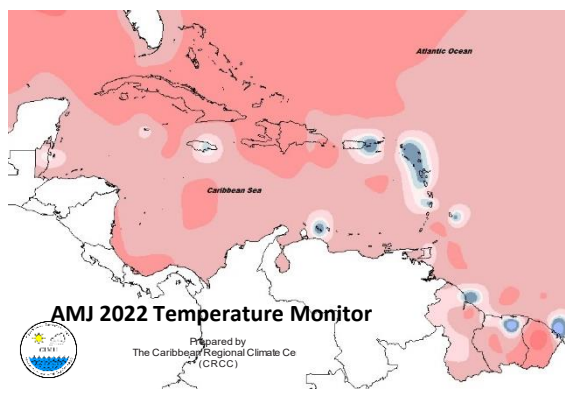
LOOKING BACK:

Rainfall Apr. – May – Jun. 2022

Observations:



RAINFALL: Western half of Hispaniola, west Jamaica, most of the Leeward Is. very dry; Bahamas, northeast Belize, parts of Cuba, southernmost Guyana and north Suriname very wet.

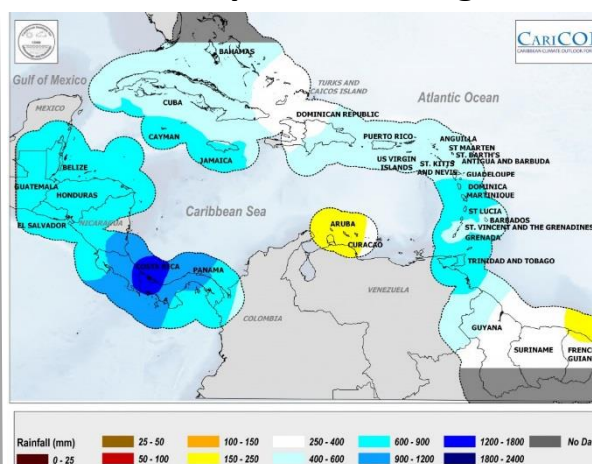


TEMPERATURE: Significantly warmer than usual in the Bahamas, most of French Guiana and most parts of the Greater Antilles; signif. cooler than usual in Curaçao, parts of the coastal Guianas, and Leeward Is.

Apr.-May-Jun. records: 1 location in The Bahamas recorded its **highest rainfall totals** for this period (~210% of avg.), while 1 location in the Dom. Rep., 1 in Guadeloupe and St. Croix recorded their **lowest totals** (~5-25% of avg.).

WHAT NEXT?

Rainfall patterns August – September - October



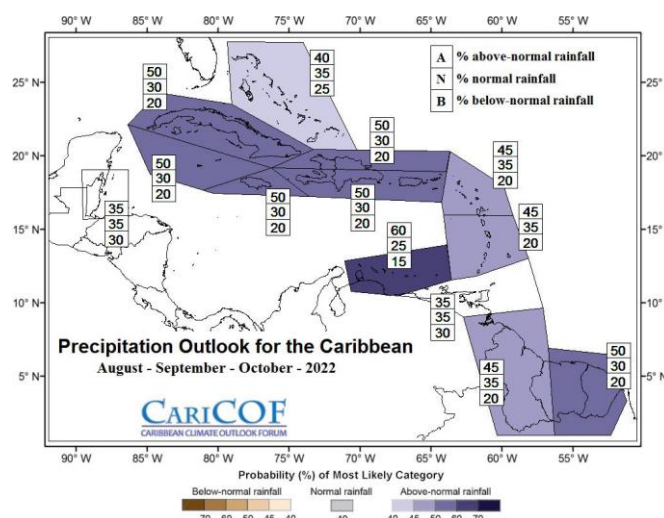
Guianas: *Early Aug - primary wet season.* Frequent heavy showers.
Late Aug to Oct - dry season. Heavy showers at times.

Belize & C'bean Islands north of 16°N:
Aug - wet season. Often includes a mid-summer dry spell.
Sep to Oct - wet season. Usually frequent heavy showers.

C'bean Islands south of 16°N (except ABC Islands):
Aug to Oct - wet season. Usually frequent heavy showers.

ABC Islands: Mostly dry with occasional wet spells, increasing in frequency in October.

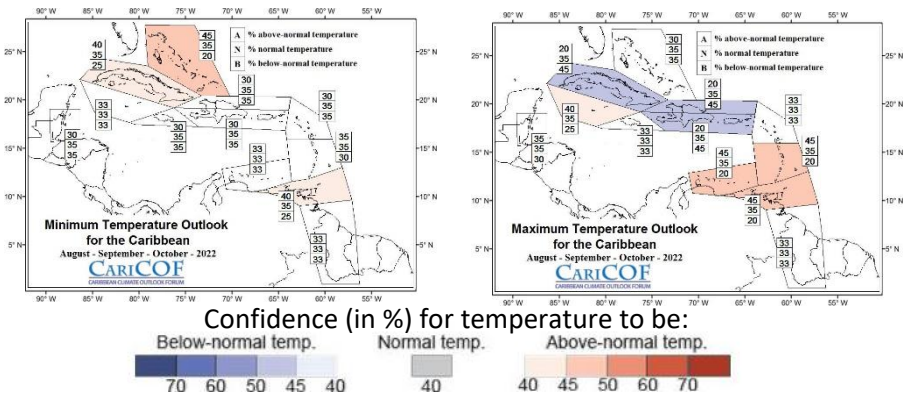
ASO 2022 Rainfall Outlook



Rainfall totals from August to October are likely to be at least as high as usual across most of the Caribbean Islands and the Guianas.

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

Night/Day – time temperatures up to September



ASO night-time (min.) and daytime (max.) temperatures are expected to be warm during the peak of the Heat Season. Heat exposure will be excessive during heatwaves, but likely less than in recent hot years. Daytime temps. may be slightly cooler than usual in Cuba, Hispaniola, US Terr.

Wet days and wet spells up to October

What usually happens from August to October?

- Number of wet days: 35 to 50 in flatter areas of the islands. 45-60 in mountainous areas and Guianas (ABC Is. 10 to 20).
- # of wet spells: 3 to 6 (ABC Is. up to 3), of which 1 to 4 are very wet (ABC Is. Up to 2)
- # of extreme wet spells: up to 2.

Forecast and Implications for ASO 2022:

- High to extremely high potential for flooding, flash floods, and cascading hazards in most islands and in Belize due to recurrent very wet & extreme wet spells.
- Accelerating recharge rates of large reservoirs and soil moisture associated with frequent wet spells.
- Frequent disruptions of outdoor activities & favourable conditions for moisture-related pests and diseases in Belize and the Islands in view of frequent wet days.

Drought conditions

Lastest drought situation (as of July 1st) : Severe (or worse) shorter term drought has developed in western Hispaniola, and the majority of the Leeward Islands; severe long-term drought has developed in western Cuba, southern Hispaniola, eastern Jamaica, the majority of the Leeward Islands, Martinique, Saint Lucia and St. Vincent.

Short-term drought by the end of October 2022: Short-term drought is not expected to be a concern.

Long-term drought by the end of November 2022: Long term drought might possibly develop or continue for parts of Belize and St. Vincent

BRIEF CLIMATE OUTLOOK – November to January 2022 - 23

This period marks (1) the transition into the 2022-23 dry season in the islands and in Belize, (2) the secondary wet season in the northern Guianas; and (3) the transition into the cool season across the Caribbean. A long lasting weak La Nina signal will likely persist with slightly above average sea surface temperatures in and around the north of the Caribbean. As a result, along with cooler temperatures, rainfall totals are expected to be the usual at best along the northwest of the region, with the potential for more frequent dry spells, whereas at least the usual rainfall is expected elsewhere. Excessive heat should taper rapidly into the early part of the NDJ season. For temperature and precipitation outlooks for NDJ 2022-23, 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 remain below normal -0.6°C ; La Niña conditions have maintained into the middle of 2022.

Model forecast and guidance: The models forecast indicate La Niña conditions in ASO (60-70% confidence), which may maintain into NDJ (60-65% confidence).

Expected impacts on rainfall and temperatures: La Niña tilts the odds to more rainfall activity in ASO and NDJ, except in the northern Caribbean where it tilts the odds to less rainfall. La Niña also tilts the odds for higher tropical storm frequency in the Atlantic Basin.

Climate conditions in the Tropical North Atlantic and Caribbean

Recent observations: Warmer than usual SSTs persisted up to 1°C above average around the western subtropical North Atlantic and in the Gulf of Mexico in June. Elsewhere in the Caribbean SSTs were near normal.

Expected conditions: Models are forecasting SST to be slightly warmer than usual (up to 0.5°C above average) around the Caribbean and in the sub-tropical North Atlantic.

Expected impacts: Warm SSTs in and around the Caribbean tend to contribute to higher air temperatures with above-average humidity, seasonal rainfall totals and an increased frequency of extreme rainfall.

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 they may provide.

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