



A Joint Bulletin of the CTO, the CHTA and the CIMH

# CARIBBEAN TOURISM CLIMATIC BULLETIN

for Tourism Businesses and Policymakers

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# Purpose

This Bulletin is a joint effort between the Caribbean Tourism Organization (CTO), the Caribbean Hotel & Tourism Association (CHTA) and the Caribbean Institute for Meteorology and Hydrology (CIMH) to help tourism businesses and policymakers identify and prepare for favourable or inclement climate conditions in the Caribbean and source markets, before they occur. It is recommended that industry stakeholders use the seasonal climate forecast information for the upcoming period (June-August 2019) presented in this Bulletin in tandem with weather forecasts (1-7 days). This suite of information can inform strategic and operational decisions related to the use of environmental resources, marketing, and enhancement of the visitor experience.

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## Looking back: February - April 2019



Shorter term drought has developed across Aruba, French Guiana, the northern Leewards and Martinique, as well as in pockets of other countries, impacting mainly on food production. Southeastern Belize, southernmost Cuba, much of French Guiana and Hispaniola, north-eastern Jamaica and the Lesser Antilles are in long term drought. The latter means water resources have been depleted faster during the 2018-2019 Dry Season than in many other years throughout much of the region.



Temperatures have been steadily increasing from February to April, which marks the end of the cool season (November to April) with generally comfortable temperatures. Slightly to significantly warmer than average conditions were recorded for this part of the year, exceeding 1.5°C above average in The Bahamas and the Guianas.

# Climate Advisories: Caribbean

**June through August marks: 1) part of the long Dry Season in the ABC Islands, 2) the early Wet Season in Belize and the Lesser Antilles, 3) the summer portion of the Wet Season in the Greater Antilles, and 4) the transition from the Wet to the Dry Season in the Guianas.**  
**What should you do?**



The **2019 Hurricane Season officially starts on June 1st**, but storms and hurricanes have, (including 1 named Tropical Storm this year), occurred before the official start date. Severe weather systems, which can come with a range of hazards, including high winds, landslides, flash floods, among others, are expected to affect Caribbean territories. Tourism operators are advised to keenly monitor weather advisories issued by the National Meteorological Services and other information provided by the Caribbean Disaster Emergency Management Agency (<http://cdema.org/>) and the US National Hurricane Center (<https://www.nhc.noaa.gov/>). At all times, tourism operators should maintain a state of readiness, including communication plans and response protocols to deal with sudden eventualities.



Climatically, June to August forms the **first half of the Caribbean Wet Season** with a fair number of wet days and longer wet spells, but at the same time still a number of short dry spells. Some of these dry spells may coincide with incursions of Saharan dust, which tends to be most frequent around this time of the year, particularly in the Lesser Antilles. The combination of dryness and dust may impact on respiratory and ocular illness in employees and visitors. Besides such spells, the intensity and frequency of heavy showers tends to be relatively high and clustered in wet spells and very wet spells throughout the period. Consequently, there is potential for flooding throughout the region (*high confidence*).

# Climate Advisories: Caribbean Cont'd



In the coastal Guianas, flooding potential should start decreasing in August, with the return of their primary dry season (*high confidence*). Extreme wet spells, of which usually up to one or two occur during these three months (except in the ABC Islands), may coincide with thunderstorms and high winds, and may result in flash floods, land slippage, power outages and possible contamination of food and water supplies. Therefore, proper planning / contingencies for these scenarios is imperative for tourism operators, especially those operating outdoors. Tourism facilities should clear their drainage and clean catchment systems as soon as possible.



Ongoing severe **drought** is expected to continue impacting some areas in the Caribbean. **Short term drought** is evolving in Martinique and will possibly persist in the ABC Islands, Antigua, Barbados, much of Belize, eastern Dominican Republic, central French Guiana, northeastern Puerto Rico, St. Martin, Trinidad, and the US Virgin Islands. Short term drought may impact food production, potable water availability, as well as, water availability from small streams and small ponds. This may further increase the potential for bushfires and (temporarily) increase smoke and soot concentrations in the air. **Long term drought**, which may affect water availability across a multitude of socio-economic sectors in a country, is evolving in Suriname and northern French Guiana, and may possibly persist in Barbados, west-central Belize, Dominica, Grenada, Martinique, central French Guiana, northern Guyana, Saint Lucia, St. Martin, St. Vincent and the Grenadines, Trinidad and Tobago, and the USVI. This is, in part, due to an ongoing weak El Niño. That said, extreme to exceptional drought such as that experienced by many territories between 2014 and 2016, when El Niño was particularly strong, is unlikely. Tourism facilities should continue to enhance/upgrade their water conservation practices (e.g. rainwater harvesting and repairs to leaky pipes) as we enter a drier than normal Wet Season, and advise staff and guests of the need for water conservation on an ongoing basis.



# Climate Advisories: Caribbean Cont'd



Night-time and day-time **temperatures** in the Caribbean are set to remain high throughout this portion of the Caribbean's annual heat season which starts in May and ends in October, with the exception of the Guianas which tend to be cooler from June to July. At the same time, humidity and the associated heat stress will steadily increase through August, and will peak during heatwaves. Note that the forecasts suggest warmer than usual temperatures during both day and night, with an increase in the frequency of heatwaves when compared to the past two years (*high confidence*). Tourism practitioners should expect an increase in demand for cooling/hydration services (e.g. AC use and drinking water) in the upcoming period as compared to the same period in the previous two years.



The **UV index** on sunny days will be extremely high (12) around noon time (on a scale from 1 to 12, with details available here: <https://www.epa.gov/sunsafety/uv-index-scale-1>). There is a high risk of skin damage due to intense UV radiation. Visitors should be encouraged to apply high SPF sunscreen lotion regularly (preferably reef safe), and seek shaded areas between the hours of 10 AM and 3 PM. Outdoor tourism operators and staff should also be mindful to minimise skin exposure during these times, and to wear sunscreen when working outdoors.



Ocean temperatures will warm up into August, but are not yet expected to become as warm as to trigger **coral bleaching** throughout the period, with the possible exception of northern portions of the Bahamas and Tobago. This is a good season to engage in coral reef restoration activities, especially in destinations where there are on-going programs.

# Climate Advisories: Caribbean Source Markets

June to August marks the summer season in the source markets. What should you do?



Most source markets tend to experience the warm and sunny summer conditions vacationers are seeking, except northern Europe. Tourism operators are therefore recommended to focus on enhanced marketing efforts to attract visitors, and to differentiate themselves through package offers, memorable customer service, and activities that take advantage of the pristine natural environments on offer. In addition, inbound Tour Operators are recommended to monitor the weather forecasts in the source markets during this season, in particular over the northwestern US, where a wetter than usual summer is forecasted.

USA & CANADA



EUROPE



Photo Credit: cia.gov

# Climate Outlook for the Caribbean

Except in the ABC Islands, it is the wet season. What do we expect for the Caribbean?

## How wet?

Regionally, **rainfall totals** from June to August are forecast to likely be the usual or drier than the usual across Belize and the Caribbean Islands, with the possible exception of northern Hispaniola (*medium to high confidence*).

## How hot?

Night-time and day-time temperatures are forecast to be at least as warm as usual (*medium to high confidence*) and, in view of increasing humidity, will feel increasingly uncomfortable towards the end of the period.

**Heat waves** tend to become more frequent by July in The Bahamas and Turks and Caicos, and the Greater Antilles, as well as, by August in the rest of the Caribbean. In view of the ongoing drought and associated dry spells, which increases the chance of heat waves, heat stress is expected to be a greater concern than in 2017 and 2018 (*medium to high confidence*).

## How dry?

**Short term drought** (on a 3-6 months timescale) is currently evolving in Martinique (*high confidence*) and may possibly continue in Belize, as well as, in many countries from the Dominican Republic southwards (*medium confidence*).

**Long term drought** (on a 12 months timescale), is evolving in northern French Guiana and Suriname (*high confidence*), and may persist in western Belize and from the USVI east- and southward (*medium confidence*).

## Surf's Up

Surfers, divers, fishers and marine craft operators should consult the 7-day wave forecast before planning activities. Click here to access this product: <http://ww3.cimh.edu.bb/>

## Sargassum Outlook

Tourism operators may consult the University of South Florida/NASA Sargassum Outlook Bulletin before planning activities. Click here to access this product: <https://optics.marine.usf.edu/projects/SaWS.html>. Additionally, a Sargassum resource guide is available from the Caribbean Alliance for Sustainable Tourism (CAST) and can be accessed here: <https://www.onecaribbean.org/wp-content/uploads/SargassumResourceGuideFinal.pdf>

# Climate Outlook for the Caribbean's Source Markets

## What do we expect in the source markets?

Most source markets are showing signs of a warmer than usual summer. That said, the northwestern US may end up wetter than usual.



Photo Credit: BVI Tourist Board

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# Upcoming Events

**Sustainable Tourism Conference (STC-2019): August 27 - 29, 2019, St. Vincent and the Grenadines**



**Photo Credit: St. Vincent and the Grenadines Tourism Authority**

## Websites

Caribbean Tourism Organization:  
[www.onecaribbean.org](http://www.onecaribbean.org)

Caribbean Hotel and Tourism Association:  
[www.caribbeanhotelassociation.com](http://www.caribbeanhotelassociation.com)

Regional Climate Centre:  
<http://rcc.cimh.edu.bb>

## Disclaimer

This Bulletin provides a broad overview of climate conditions up to 3 months in advance. It is based on insights drawn from CIMH's suite of technical climate information products and industry insights from the CTO and the CHTA. The information contained herein is provided with the understanding that the CTO, the CHTA, and the CIMH make no warranties, either expressed or implied, concerning the accuracy, completeness, reliability or suitability of said information. The Bulletin may be freely used and distributed by the public with appropriate acknowledgement of its source but shall not be modified in content and then presented as original material.

# Glossary

## Definition of technical terms

**Seasonal climate forecast** - the guidance offered by a forecaster or forecast centre on the climate conditions during the coming months.

NB: This forecast information pertains to the 3 months highlighted in the Issue.

**Short-term drought** – A rainfall deficit over a total period of 6 months.

**Long-term drought** – A rainfall deficit over a total period of 12 months.

**Dry day** - A 24 hour period during which the rainfall total is less than 1 mm.

**Dry spell** - A succession of at least 7 consecutive dry days.

**Wet Day** – A 24 hour period during which the rainfall total is at least 1 mm.

**Wet Spell** – A multi-day period during which the rainfall total is large enough to cross a certain threshold.

**Extreme wet spell** – 3 consecutive days of which the total rainfall is extremely high, with increased flash flood potential.

**The Guianas** – French Guiana, Guyana and Suriname.

**US Caribbean Territories** – Puerto Rico, U.S. Virgin Islands.

**Leeward Islands** – Anguilla, Antigua and Barbuda, British Virgin Islands, Guadeloupe, Montserrat, Saba, St. Barthélemy, St. Eustatius, St. Kitts and Nevis, St. Maarten and St. Martin.

**Windward Islands** – Dominica, Grenada, Martinique, St. Lucia and St. Vincent and the Grenadines.

**Lesser Antilles** – Leeward and Windward Islands along with, Barbados and Trinidad and Tobago.

**Greater Antilles** – Cayman Islands, Cuba, Dominican Republic, Haiti, Jamaica and Puerto Rico.

**ABC Islands** – Aruba, Bonaire, Curacao

**Lucayan Islands** – The Bahamas, Turks and Caicos Islands.

For more technical climate terms:  
<https://rcc.cimh.edu.bb/glossary-of-terms/>