



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 (September - November 2023) 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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# CLIMATE RISK MANAGEMENT IN CARIBBEAN TOURISM

Climate risk management linked to enhancing visitor health and safety, remains a critical factor in ensuring tourism sector resilience and managing the overall visitor experience. Tourism interests across the region should be prepared to deal with weather and climate emergencies in addition to ongoing concerns related to managing the COVID-19 pandemic, as well as other possible threats as they arise.

The CTO, CHTA, and CIMH will continue to closely monitor the situation.



# Climate Advisories: Caribbean

**September through November marks: 1) the late wet season in the Caribbean Islands and Belize, 2) the transition to the wet season in the ABC Islands, and 3) the hot, dry season in the Guianas. What should you do?**



Climatically, September to November forms the **second half of the wet season** in the Caribbean Islands and in Belize. During this period, a large number of wet days and frequent wet spells occur. However, a number of short dry spells still can punctuate this season, particularly in the Greater Antilles. By contrast, the Guianas are in their **hot, dry season**, running into November in most areas, but continuing through April in far inland, southwestern parts of the region. Hence, frequent dry spells, but infrequent wet days and wet spells are the historical norm from September to November.

This year, **El Niño** conditions are in place in the tropical Pacific Ocean. El Niño more often than not is marked by a warmer heat season, a drier summer season, and reduced Atlantic Hurricane Season activity, especially from September to November.



In addition, **near-record temperatures in the North Atlantic Ocean** also contribute to higher air temperatures and a greater frequency of heatwaves in the Caribbean. However, this unusual heat in the North Atlantic Ocean also tends to increase humidity and seasonal rainfall totals, as well as the frequency of severe weather during the wet season.

# Climate Advisories: Caribbean (Cont'd)



The **2023 Hurricane Season** officially lasts until November 30th, with the peak of tropical cyclone activity typically lasting until around mid-October, but storms and hurricanes have occurred after the official end date. It appears that the warmer North Atlantic temperatures have thus far been dominant over the El Niño in driving hurricane season activity upwards, with an above-normal tally of 12 Tropical Storms, including 3 hurricanes of which 2 were major (Category 4) hurricanes as of 31 August 2023. The **second half of the Hurricane Season** is still predicted to be close to or even more active than average, likely ending up with another 5-12 named storms, 3-8 hurricanes, and up to 3 major hurricanes (*medium confidence*). However, even higher numbers cannot be excluded.

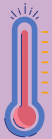


**Severe weather systems** related to tropical cyclones, as well as heavy showers often affect Caribbean territories. Tourism operators are advised to **constantly monitor weather advisories** issued by National Meteorological Services and other information provided by the Caribbean Disaster Emergency Management Agency (<http://cdema.org/>) and the US National Hurricane Center (<https://www.nhc.noaa.gov/>), and abide by any official advisories issued by the National Meteorological Service in their country. At all times, tourism operators should maintain a state of readiness, including communication plans and response protocols to deal with sudden eventualities.



# Climate Advisories: Caribbean (Cont'd)

While preparing for hurricanes and other severe weather events remains a priority, this year an additional priority for climate risk management should be on **heat and associated impacts**, at least through October. Because of record heat in the oceans, there are strong indications that the level of **excessive heat** during the last two months of the Caribbean Heat Season – i.e., September and October – will possibly challenge the record-breaking years 2010, 2016 and 2020. This is in view of warmer than usual daytime and nighttime **temperatures**, higher **humidity**, as well as a higher frequency of **heat waves** (high confidence). **Heat stress** is, therefore, a particular concern in the Lesser Antilles and the Guianas, where the Heat Season typically peaks in September. Moreover, in the aftermath of a debilitating severe weather event, exposure to the combination of humid heat and recurrent heat waves can become severely dangerous to human life if unmitigated. Tourism practitioners should expect an increase in demand for cooling/hydration services (e.g., AC use and refrigeration use, use of pools and showers, and drinking water) and should advise their guests accordingly in the upcoming period.



# Climate Advisories: Caribbean (Cont'd)



The usual or even higher seasonal **rainfall totals** are expected in the ABC Islands, and the Leeward Islands. By contrast, the Bahamas, Barbados, Belize, Cayman Islands, the Guianas, Trinidad & Tobago and the Windward Islands are likely to record the usual rainfall amounts or less.



It should be noted that virtually all countries in the Caribbean could potentially experience the heavy showers and extreme wet spells that trigger **flooding or flash floods** and cascading hazards such as landslides. This potential is extremely high in Belize, Cayman Islands, Cuba, Puerto Rico and USVI, but also high to extremely high across the remainder of the Caribbean region.



However, even where less than the usual rainfall totals are recorded in the next few months, these will not raise major concerns for drought. **Short-term drought** is not expected to be a significant regional concern by the end of November 2023. Short-term drought may impact food production, water quality and quantity from small streams, small ponds and other surface sources. **Long-term drought** might possibly continue in St. Vincent or develop in St. Barts and Sint Maarten/St-Martin by the end of November 2023.

# Climate Advisories: Caribbean (Cont'd)




Long-term drought (on a 12 months timescale) affects water availability across a multitude of socio-economic sectors in countries where the main freshwater resource is from very large rivers, large reservoirs or groundwater. Though major impacts are not expected, it should be noted that areas ending up in drought by the end of the wet season are prone to experiencing impacts during the ensuing dry season. Tourism facilities should continue to enhance/upgrade their water conservation practices, as well as, rainwater harvesting and repairs to leaky pipes, etc., and advise staff and guests of the need to reduce water wastage on an ongoing basis.




Notwithstanding that it is the wettest part of the year in the Caribbean Islands and Belize, there remains a high risk of skin damage due to intense ultraviolet (UV) light emitted by the sun. The **UV index** will progressively decrease from extremely high to very high on sunny days towards November. 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 and protective clothing when they work outdoors.



# Climate Advisories: Caribbean (Cont'd)



Due to near-record temperatures and resulting elevated heat stress in the Atlantic Ocean, which are expected to persist through November, 2023 is expected to feature a Caribbean mass **coral bleaching** event. It is imperative to minimise runoff of pollutants into coastal waters and to encourage the use of reef-safe sunscreen by guests and locals alike, which can increase the survival chances of coral reefs. This is a good season to engage in coral reef restoration activities, especially in destinations where there is an on-going standalone program or partnership between tourism practitioners and coastal managers.



The frequency of **Saharan dust** incursions into the Caribbean tends to decrease during this period. Similarly, local dust levels should be on the low end throughout the remainder of the Wet Season. Tourism practitioners should be aware that there may be an increase in visitors and staff experiencing respiratory and eye-related concerns.

# Climate Advisories: Caribbean Source Markets

## September to November marks the Autumn season in the source markets. What should you do?

Northern source markets will experience less sunny and cooler weather in the Autumn season despite that temperatures are likely to be at least as warm as usual in North America and Europe (*medium confidence*). This may create a climate driven increase in demand for Caribbean vacations. Tourism operators are therefore recommended to focus on enhanced marketing efforts to attract visitors. Additionally, they should differentiate themselves through innovative package offers, memorable customer service (bearing in mind appropriate health protocols where applicable), and activities that take advantage of the pristine natural environments on offer. Furthermore, Tour Operators should monitor the weather forecasts in the source markets.

In addition, some competing markets in the ASEAN region of Southeast Asia are expected to likely see much drier and even hotter than usual conditions, with increased wildfire potential and resulting smoke haze. Marketing efforts could focus on attracting visitors to the generally sunny, warm, breezy weather even in the wet season, as well as the anticipated, excellent air quality in this season and general health and safety in the Caribbean region.



# Surf and Sargassum Outlook

## *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 the West Indies / Centre for Resource Management and Environmental Studies (UWI/CERMES)'s Sargassum sub-regional Outlook Bulletin for the Eastern Caribbean or the monthly University of South Florida (USF)/NASA Sargassum Outlook Bulletin for the entire Caribbean before planning activities.

Click here to access the latest UWI/CERMES product: <https://www.cavehill.uwi.edu/cermes/projects/sargassum/outlook-bulletin.aspx>

Click here to access the USF/NASA 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://caribbeanhotelandtourism.com/publications/> Additional resources and publications for Sargassum management are also available from CTO here: <https://www.onecaribbean.org/our-work/sustainable-tourism-dept/sargassum-resources/>



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# UPCOMING EVENTS

**Caribbean World Tourism Day Virtual Forum: September 27, 2023. Please register using the link below:**  
[https://us02web.zoom.us/webinar/register/WN\\_rJVszr5QKiDTHKcJf2PDA](https://us02web.zoom.us/webinar/register/WN_rJVszr5QKiDTHKcJf2PDA)

**CTO's State of the Caribbean Tourism Industry Conference - October 11- 12, 2023, Turks and Caicos Islands. See:**  
<https://sotic.onecaribbean.org>

**CTO's 10th Human Resource Development Conference: October 30 - Nov 1, 2023, Nevis. See:**  
<https://www.onecaribbean.org/events-calendar/tourism-hr-conference-2023>

**2023/2024 Dry Season Caribbean Climate Outlook Forum: Wed Nov 29-Thurs Nov 30 Roseau, Dominica**

### Disclaimer

### 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>

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. CTO, CHTA and CIMH disclaim any liability with respect to the use of any information within this document by any person or entity

# Glossary

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

Forecast information in this Bulletin pertains to the 3 months highlighted in the Issue.

**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.

**Caribbean Heat Season** - most heatwaves and the associated spikes in heat stress occur between April or May and October in the Caribbean

**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.

**Caribbean Cool Season** - occurs between December and February or March when the Caribbean experiences comfortably cool weather

**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/>