

# Heat Outlook for July to December 2024

**Near-record heat causing significant heat stress can be expected until October (particularly in August and September)**

## Participating countries and territories

Antigua & Barbuda, Aruba, Bahamas, Barbados, Belize, Cayman Islands, Cuba, Curaçao, Dominica, Dominican Republic, French Guiana, Grenada, Guadeloupe, Guyana, Haïti, Jamaica, Martinique, Puerto Rico, St. Barth's, St. Kitts & Nevis, St. Lucia, St. Maarten/St. Martin, St. Vincent & the Grenadines, Suriname, Trinidad & Tobago and the US Virgin Islands



[caricof@cimh.edu.bb](mailto:caricof@cimh.edu.bb)

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# Health: Greater frequency of heat symptoms due to excessive heat, peaking in August & September (& October in the Guianas)

## Public health:

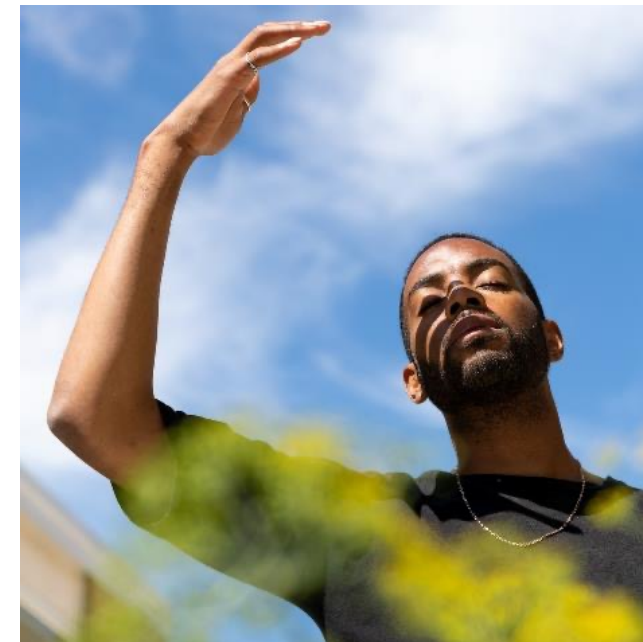
- *strong* increase in mild heat symptoms
- *significant* increase in heat illnesses, fainting episodes, hospitalisations, health services
- *likely* increase in biological risk (e.g. Aedes mosquito borne diseases, gastrointestinal disease)
- *exacerbation* of vulnerability in patients with chronic illness, children, pregnant women and the elderly

## Occupational health:

- *probable* increase in exhaustion during intense outdoor activity
- *significantly* reduced labour performance and productivity if unprotected

## Well-being:

- *significantly* increased sweating and water consumption
- snacking/binge eating leading to acute negative health impacts (hypertension, diabetes) and weight gain
- *increased* fatigue, irritability and aggression during prolonged heatwaves



# Agriculture:

Expect impacts from near-record heat, peaking in August to October

## Livestock:

- *increased* cooling and ventilation need to mitigate heat stress in small and large livestock
- stunted growth rate of broilers and egg production of layers
- *likely* reduced dairy production

## Crop agriculture:

- *exacerbation* of any evolving drought conditions leading to increased wilting
- *strongly* reduced productivity between 10 AM and 3 PM

## Fisheries:

- *increased* water temperatures potentially reducing catch of reef fish, die-off and migration of pelagic fish
- *significant* potential for mass coral reef bleaching

## Forestry:

- *exacerbation* of any evolving drought conditions
- increased wildfire potential where fuel stock is dry





# Tourism – Energy – Water:

## Expect impacts from near-record heat, peaking in August & October

### Tourism:

- *Heat adaptation* – significantly increased demand for AC and refrigeration and associated costs in hotels
- *Diving operations* – significant potential for mass coral reef bleaching, resulting in long-term reduction in demand

### Energy:

- *Production* – reduced efficiency of power generation; potential increase in interruptions as a result of spikes in cooling demand
- *Demand and consumption* – strongly increased cooling need in households, hotels, restaurants

### Water:

- *Quantity and quality* – recharge of water reservoirs along the wet season slowed down due to increased evapotranspiration; potential increase in algal blooms
- *Consumption* – likely increase in households, hotels and power utilities



# DRM – Child Care & Education

Expect impacts from near-record heat, peaking in August & October



## DRM:

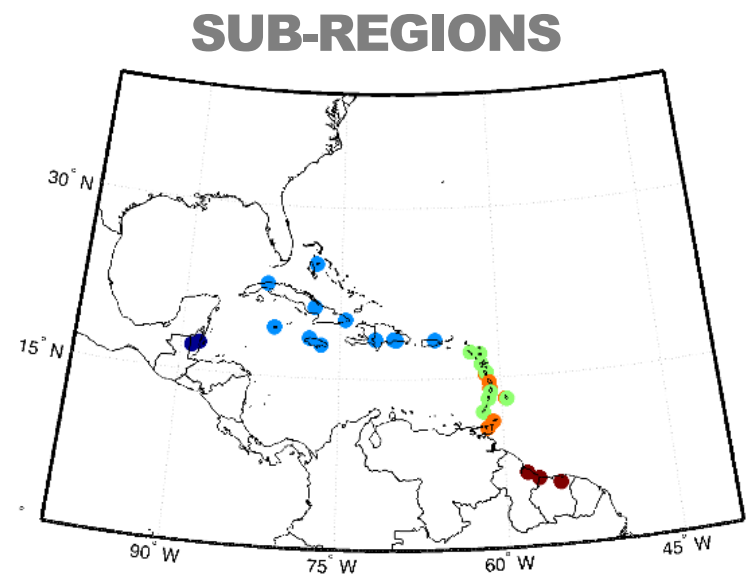
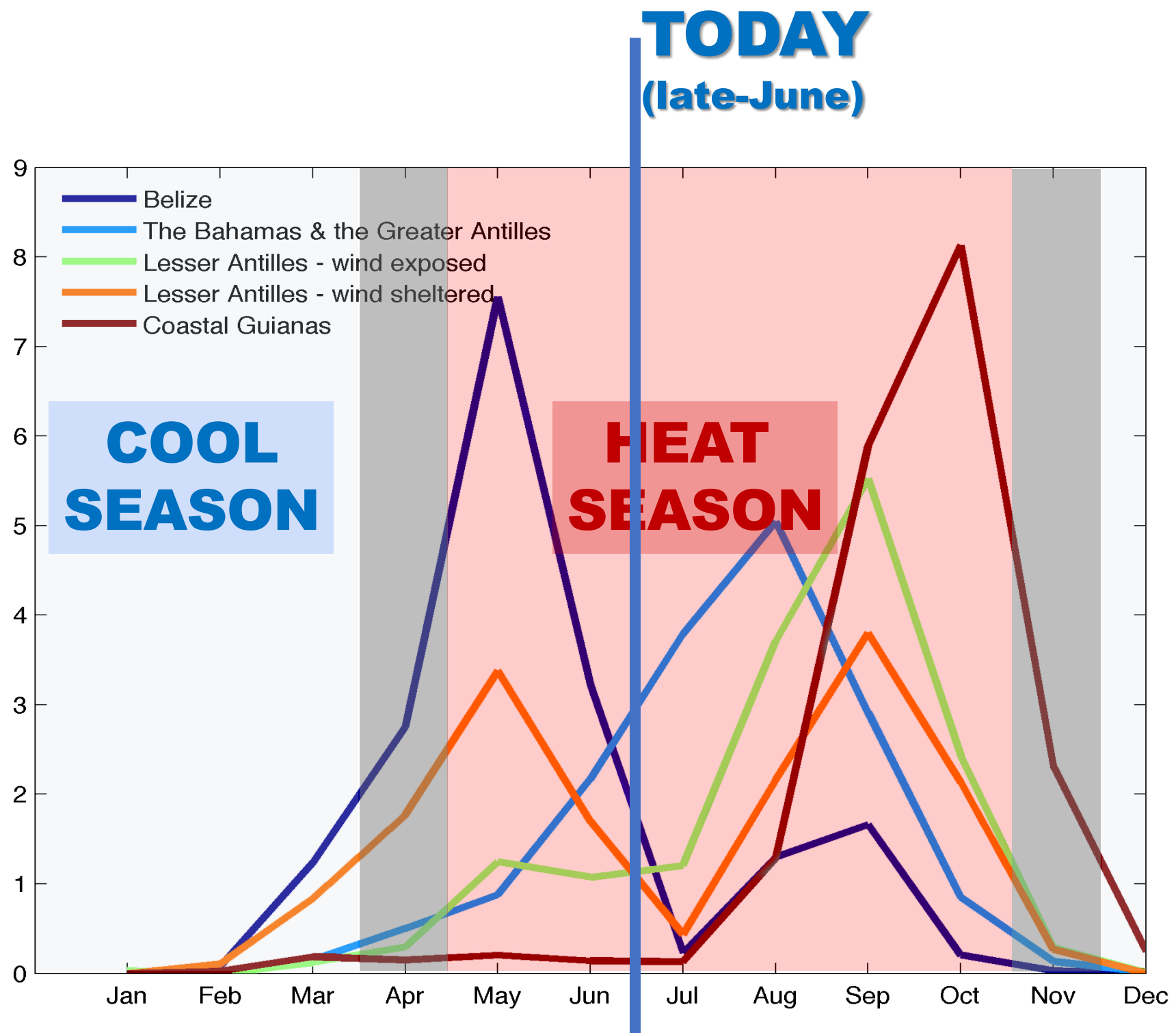
- *Risk:* potentially increased mortality and increased need for cooling strategies immediately post disaster (e.g. intense heat after passage of tropical cyclone); increased wildfire potential (where fuel stock is dry)
- *Operations:* likely reduced productivity of warehouse staff if unprotected



## Child care and education:

- *Learning:* significantly reduced productivity and reduced learning ability of students during the summer semester and at the start of the 2024-2025 school year
- *Child Protection:* potential increase in aggression during prolonged heatwaves

Number of days per month  
spent in heatwaves

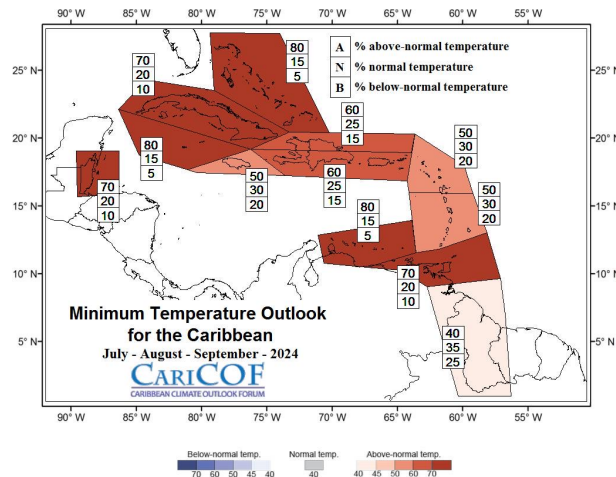




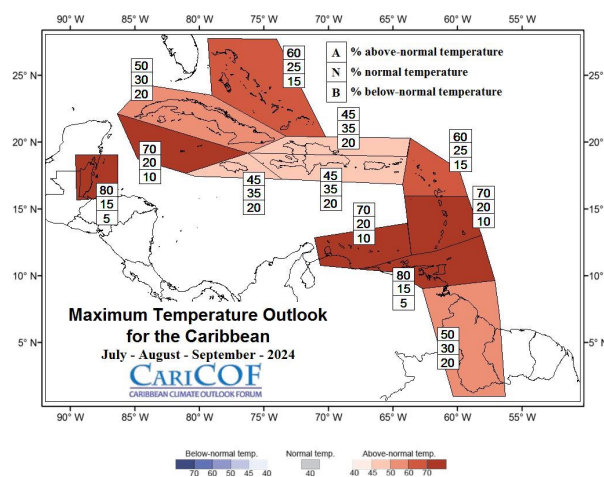
# Overall, how hot will the next three to six months be?

Jul-Aug-Sep 2024

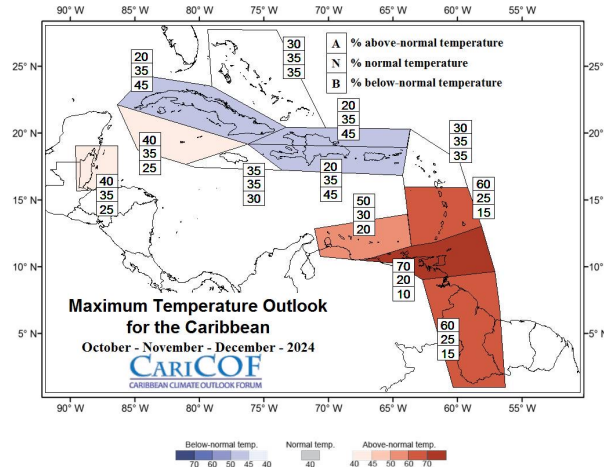
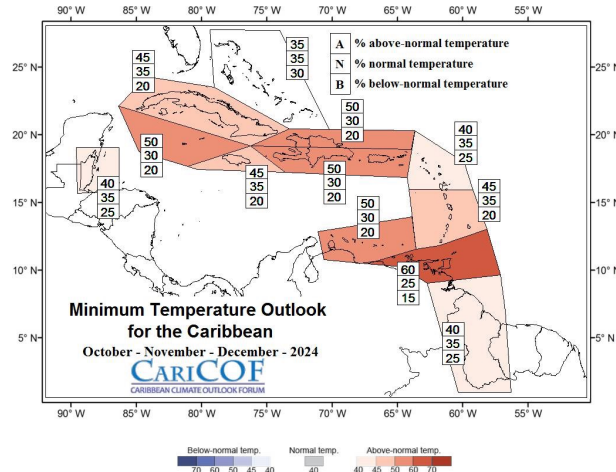
## Night-time



## Daytime



Oct-Nov-Dec 2024



← Milder Usual Hotter →

## FORECAST

1. July to September, the peak of the Caribbean Heat Season in the Caribbean Islands and Belize is forecast to be considerably hotter than usual.
2. Intense, (near-)record night-time and daytime heat, with increasing humidity towards September.
3. Excessive heat should slowly decrease towards November, going into the Cool Season in December.

## IMPLICATIONS

- Frequent, very likely intense (and persistent) episodes of heat stress in the vulnerable population & small livestock because of high temperature and increasing humidity.
- Cooling need may reach record levels, peaking in August and September.



**CARICOF**  
CARIBBEAN CLIMATE OUTLOOK FORUM

*caricof@cimh.edu.bb*

*rcc.cimh.edu.bb*

Caribbean Institute for Meteorology and Hydrology

TEL: (246) 425-1362/3 | FAX: (246) 424-4733