

USAID
FROM THE AMERICAN PEOPLE



Heat Outlook for June to November 2018

Frequent excessive heat in August and September

Dr. Cedric J. VAN MEERBEECK¹ (cmeerbeek@cimh.edu.bb), Dr. Simon MASON²,
Dr. Hannah Nissan², Dr. Teddy ALLEN², Wazita Scott¹

¹Caribbean Institute for Meteorology and Hydrology (CIMH), Barbados

²International Research Institute for Climate and Society (IRI), USA

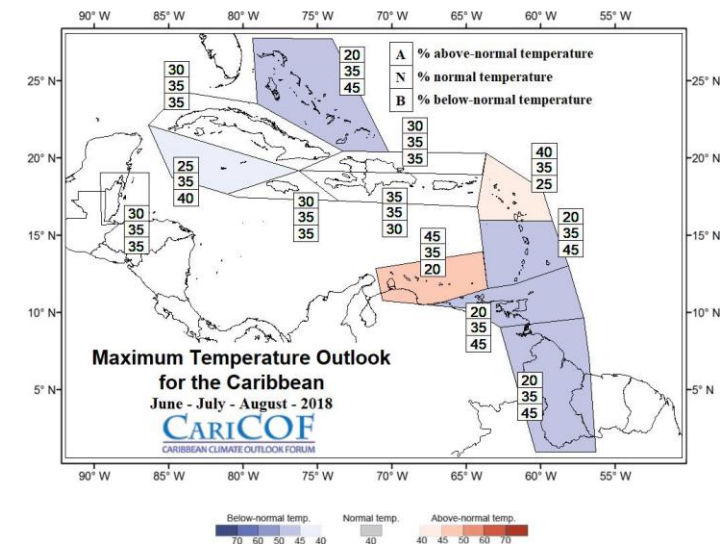
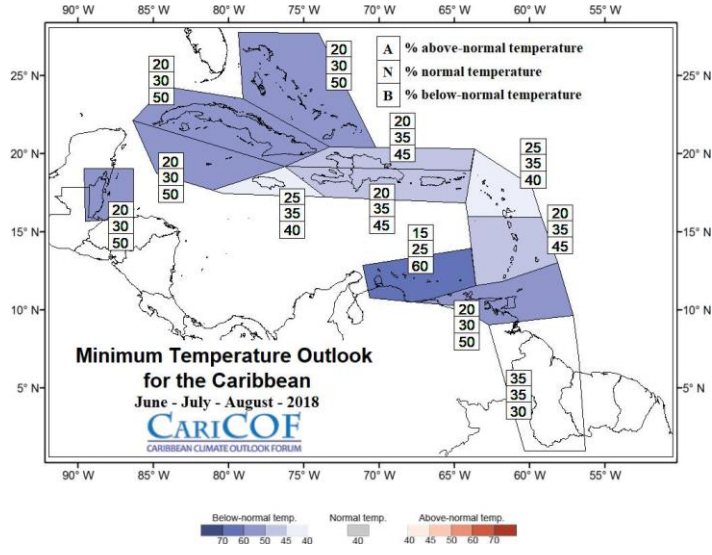


How hot will the next three to six months be?

Jun-Jul-Aug 2018

Night time

Day time

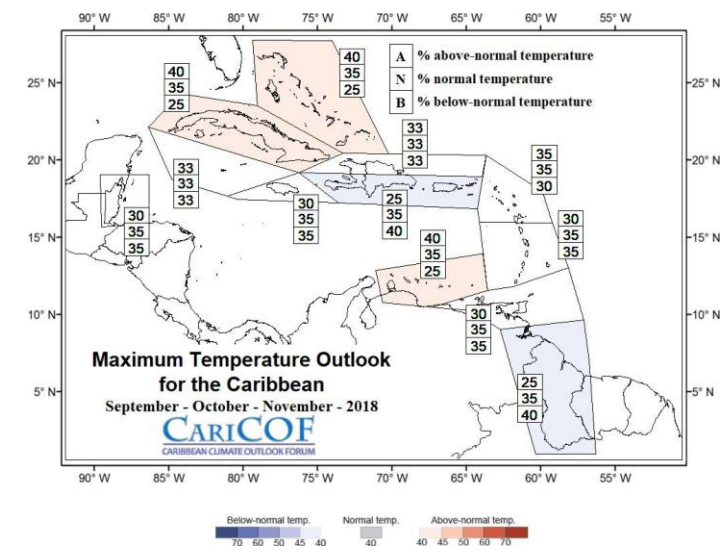
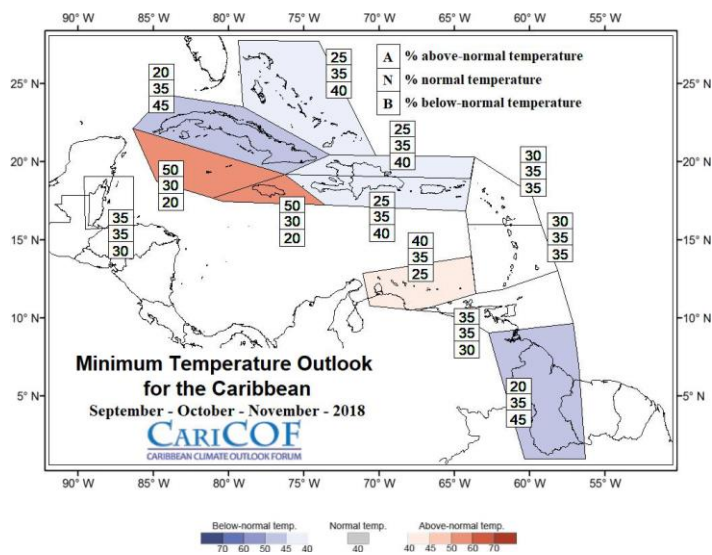


Milder Usual Hotter



Milder Usual Hotter

Sep-Oct-Nov 2018



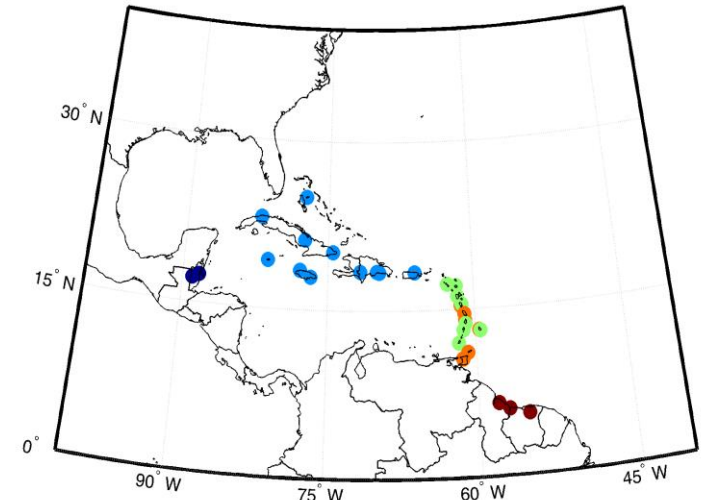
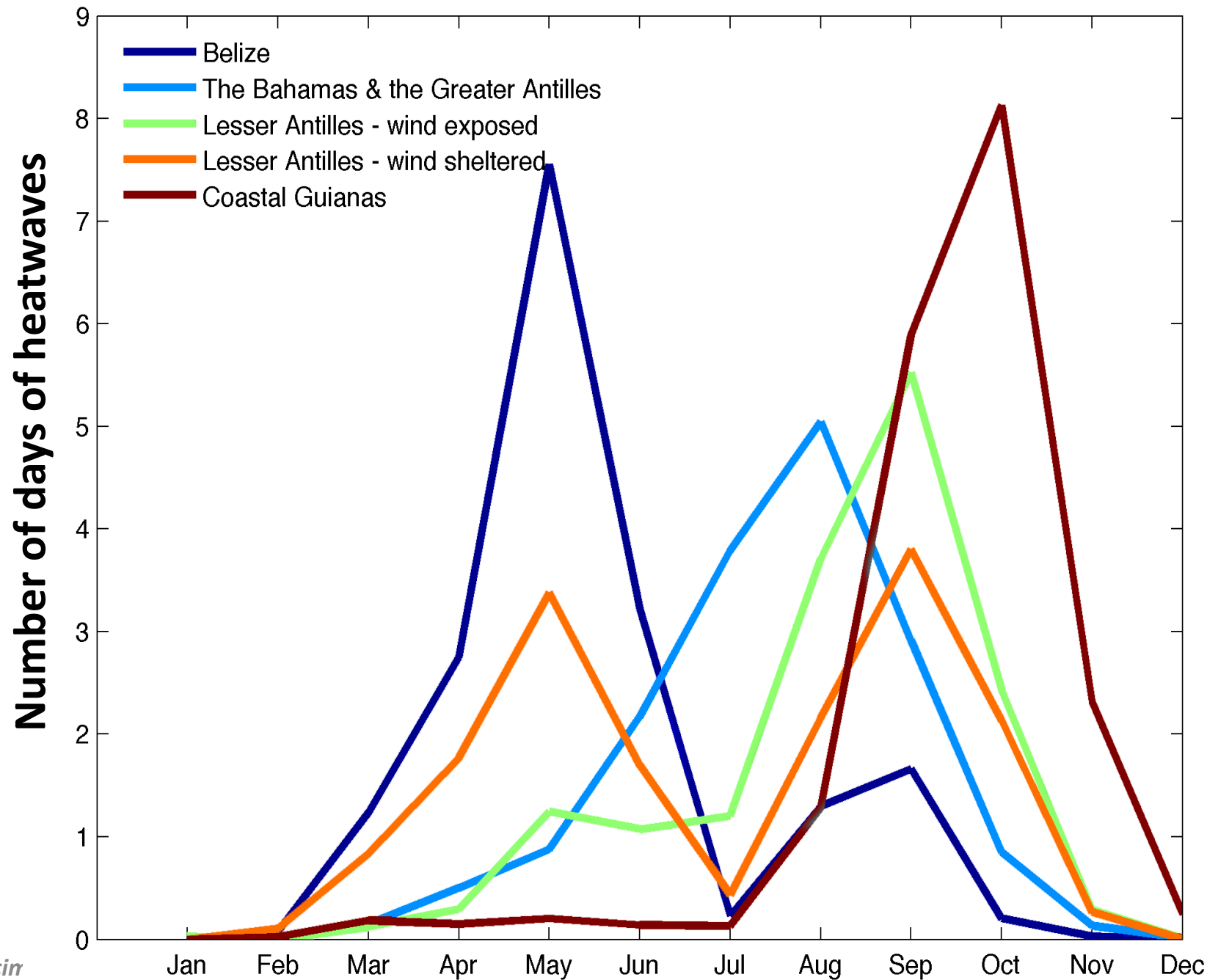
FORECAST:

1. For the first time since a number of years, the forecast does not suggest significant chances for warmer than usual conditions between June and November.
2. Night-time temperatures between June and August in particular may turn out cooler than usual.

IMPLICATIONS:

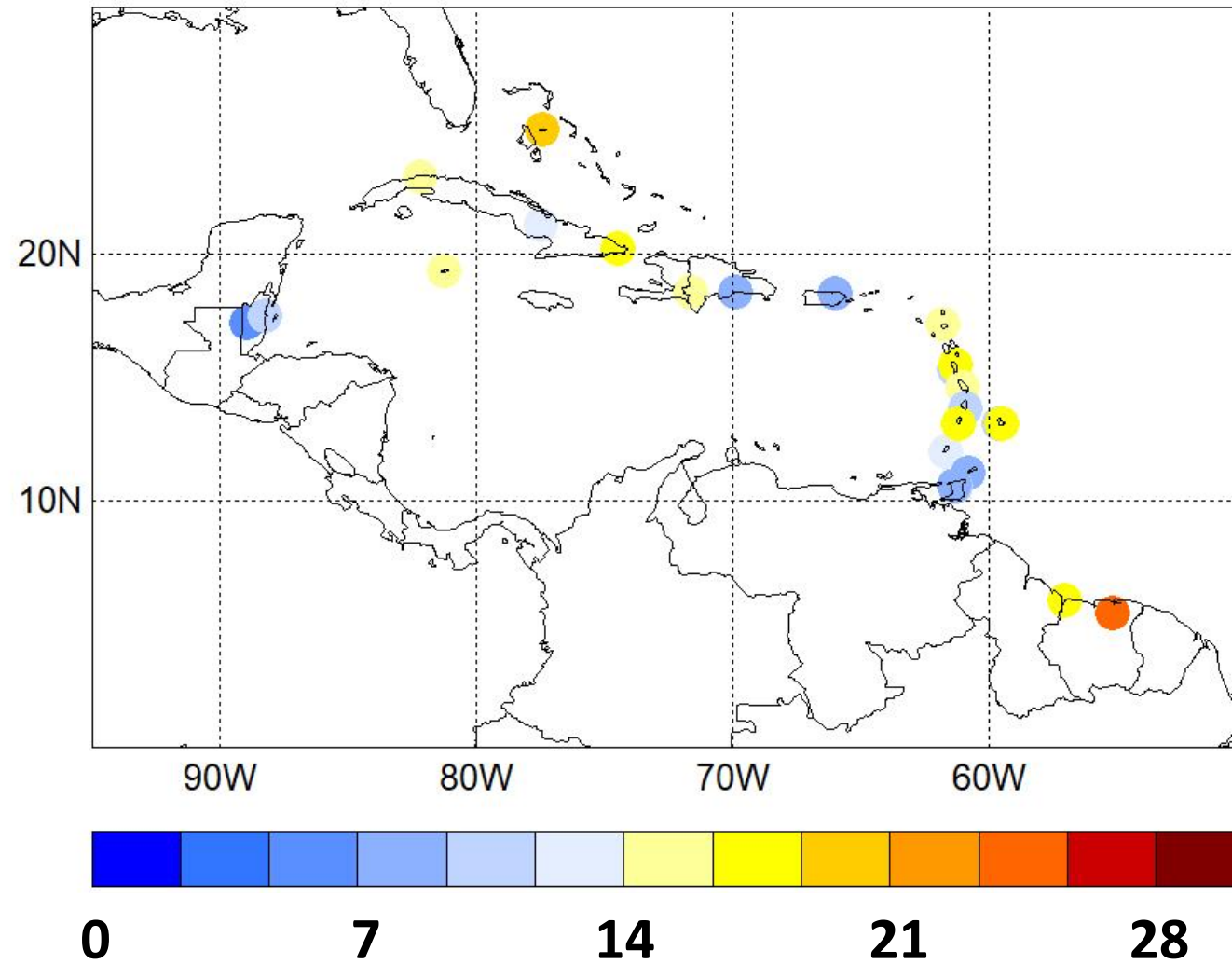
- Heat stress in the vulnerable population & small livestock between August and October, but likely to a more limited extent than in recent years.
- Cooling need until October reduced compared to most recent years.

HEATWAVES: SEASONALITY



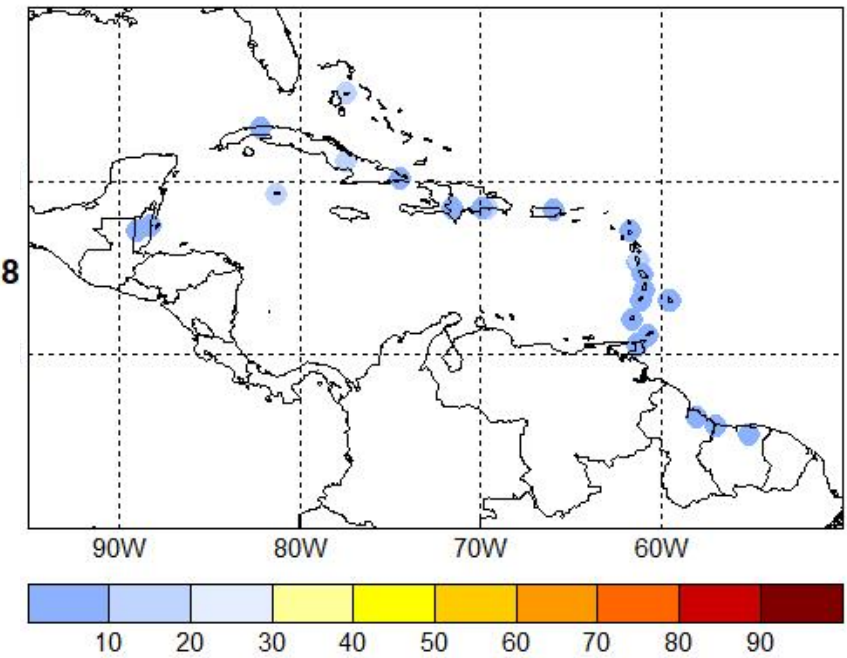
How many heatwave days do we historically get on average from Jun to Nov?

Avg. # heatwave days between June & November

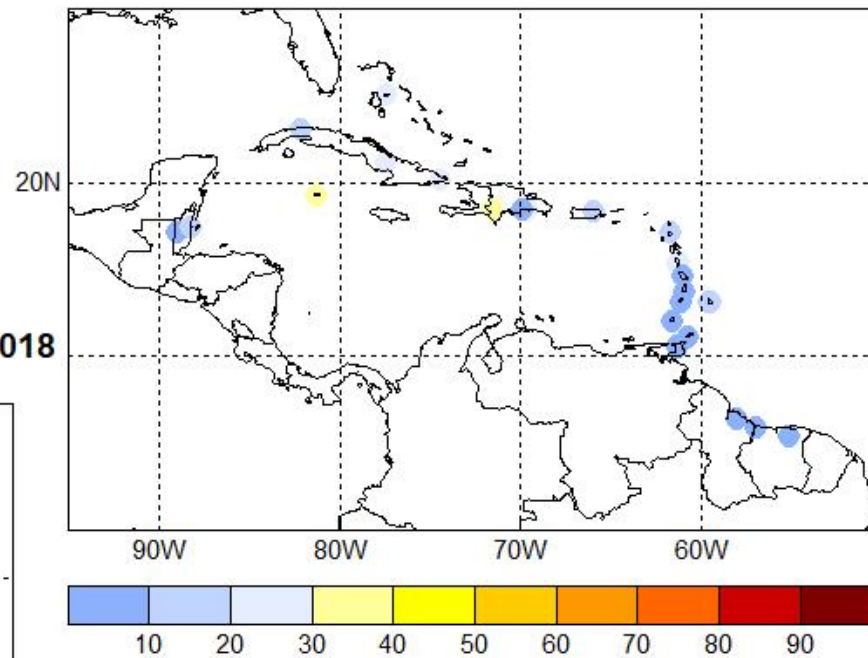


What's the chance of having at least ... heatwave days from June to August 2018?

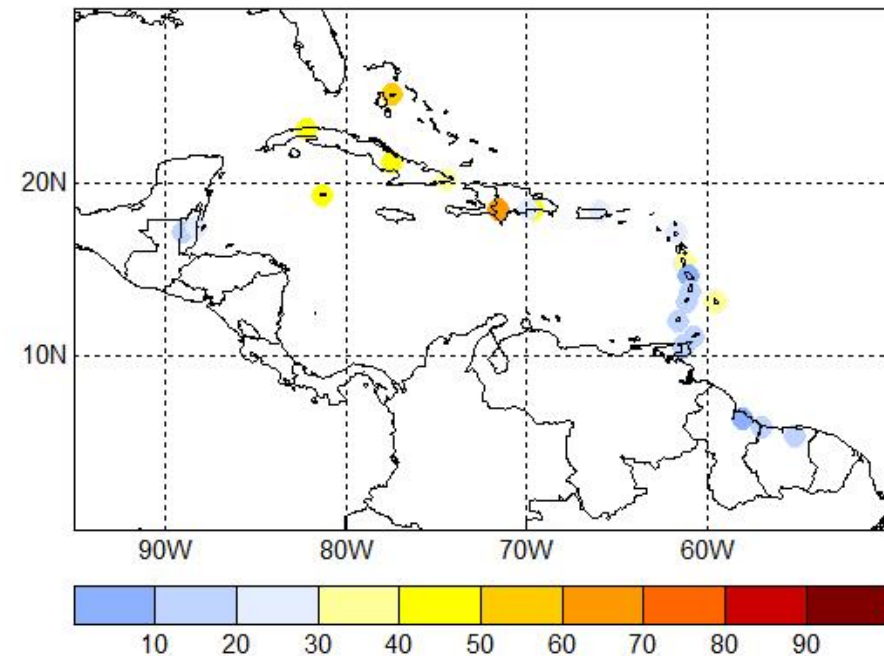
Prob. at least 30 heatwave days between Jun & Aug 2018



Prob. at least 14 heatwave days between Jun & Aug 2018



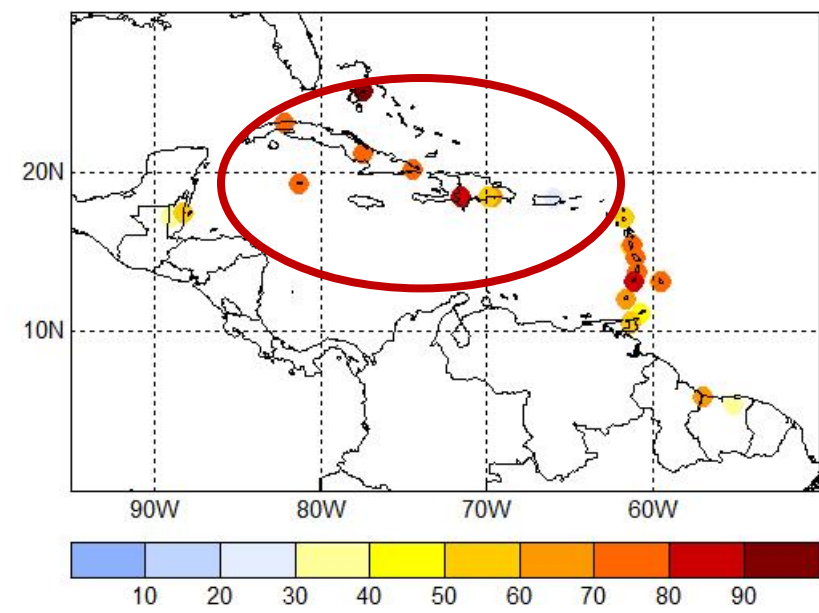
Prob. at least 7 heatwave days between Jun & Aug 2018



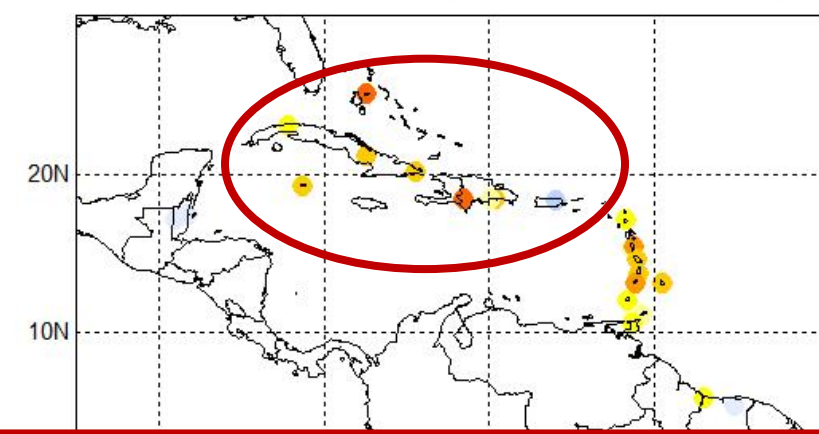
FORECAST: The main area of concern w.r.t. heatwave days is the Bahamas and Greater Antilles, where some locations may see more than 7 heatwave days, though there will likely be fewer heatwave days than in most recent years.

What about the peak of the hot season The Bahamas and Greater Antilles, i.e. July to September?

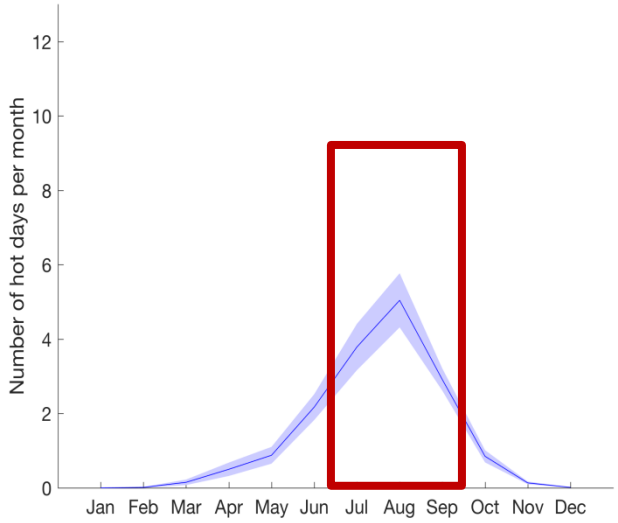
Prob. at least 7 heatwave days between Jul & Sep 2018



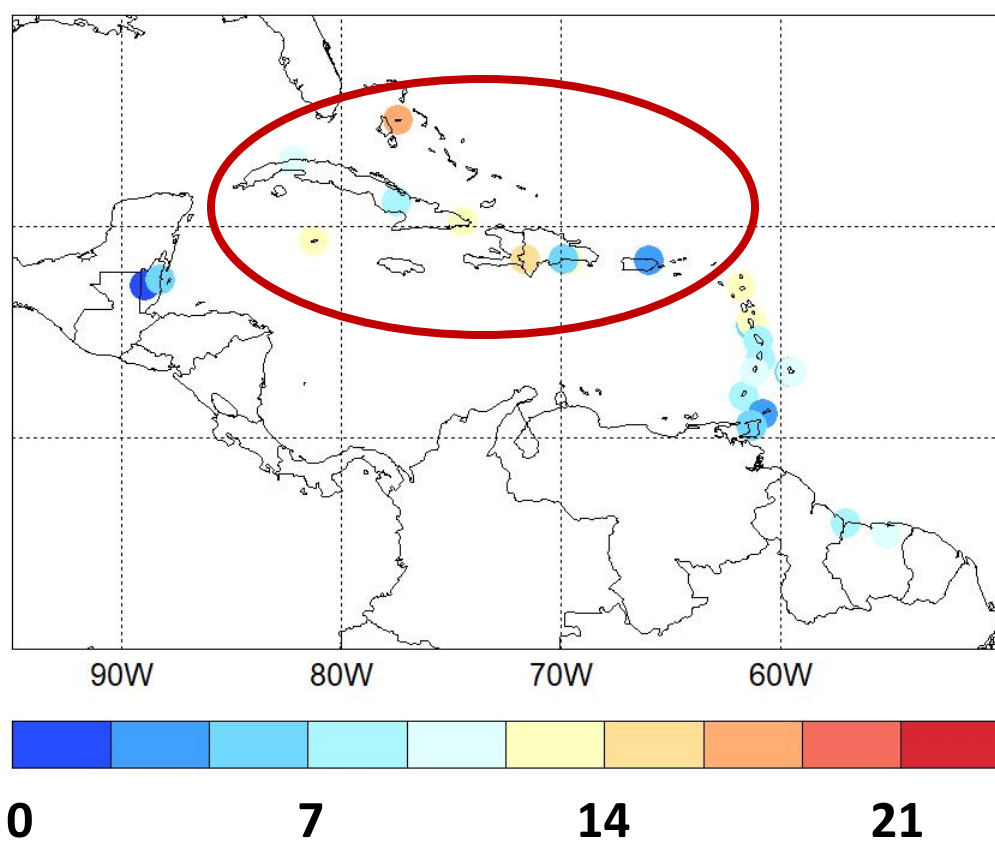
Prob. at least 14 heatwave days between Jul & Sep 2018



The Bahamas & the Greater Antilles

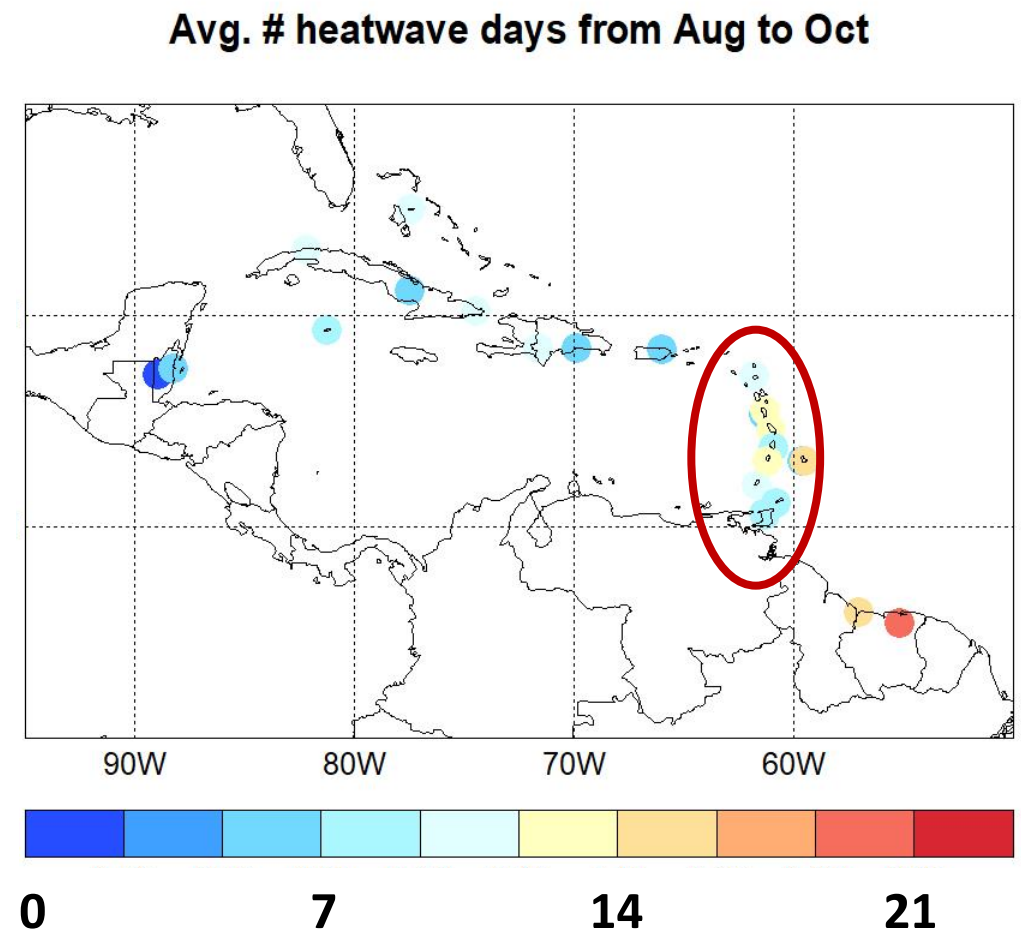
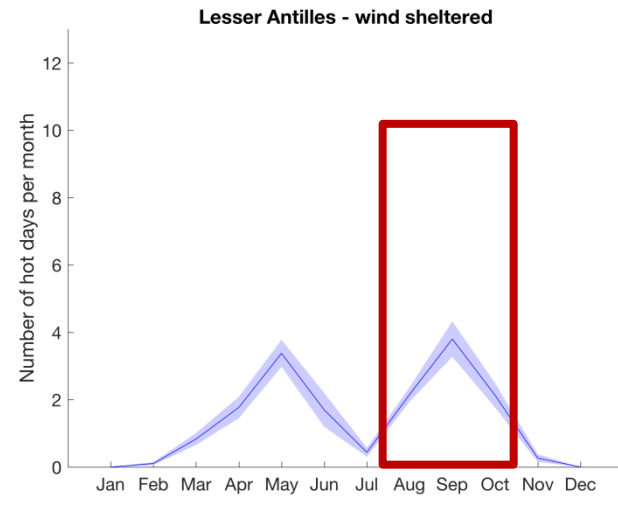
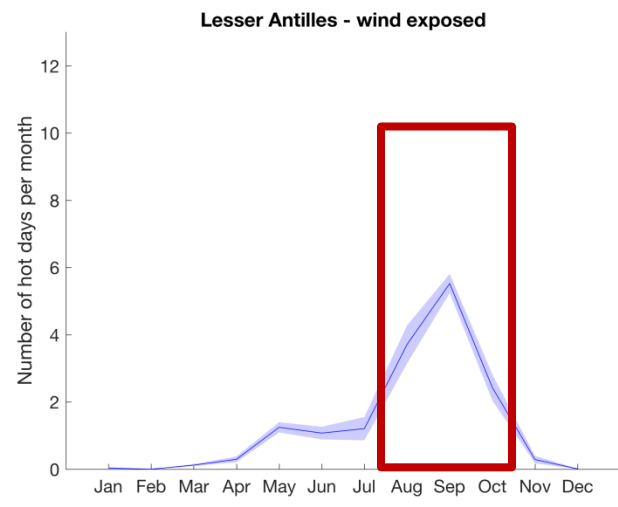


Avg. # Heatwave days from Jul to Sep

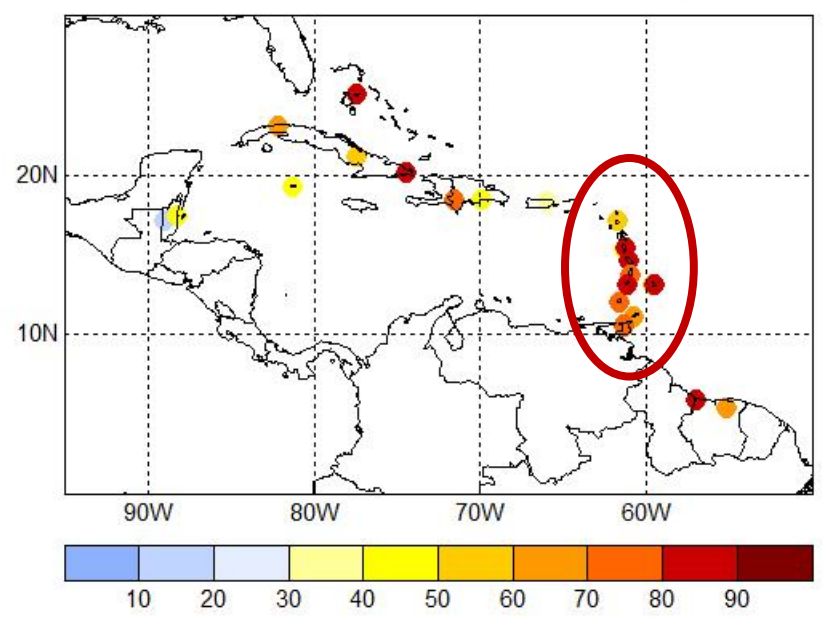


USUALY: around 10-15 heatwave days over 3 months
FORECAST: generally over 60-80% chance for at least 7 heatwave days, and 40-60% chance for at least 14.

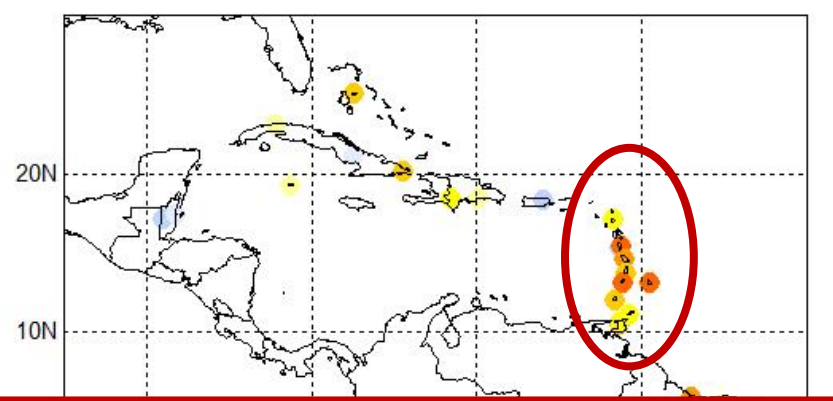
What does the peak of the hot season look like in the Lesser Antilles, i.e. August to October?



Prob. at least 7 heatwave days between Aug & Oct 2018

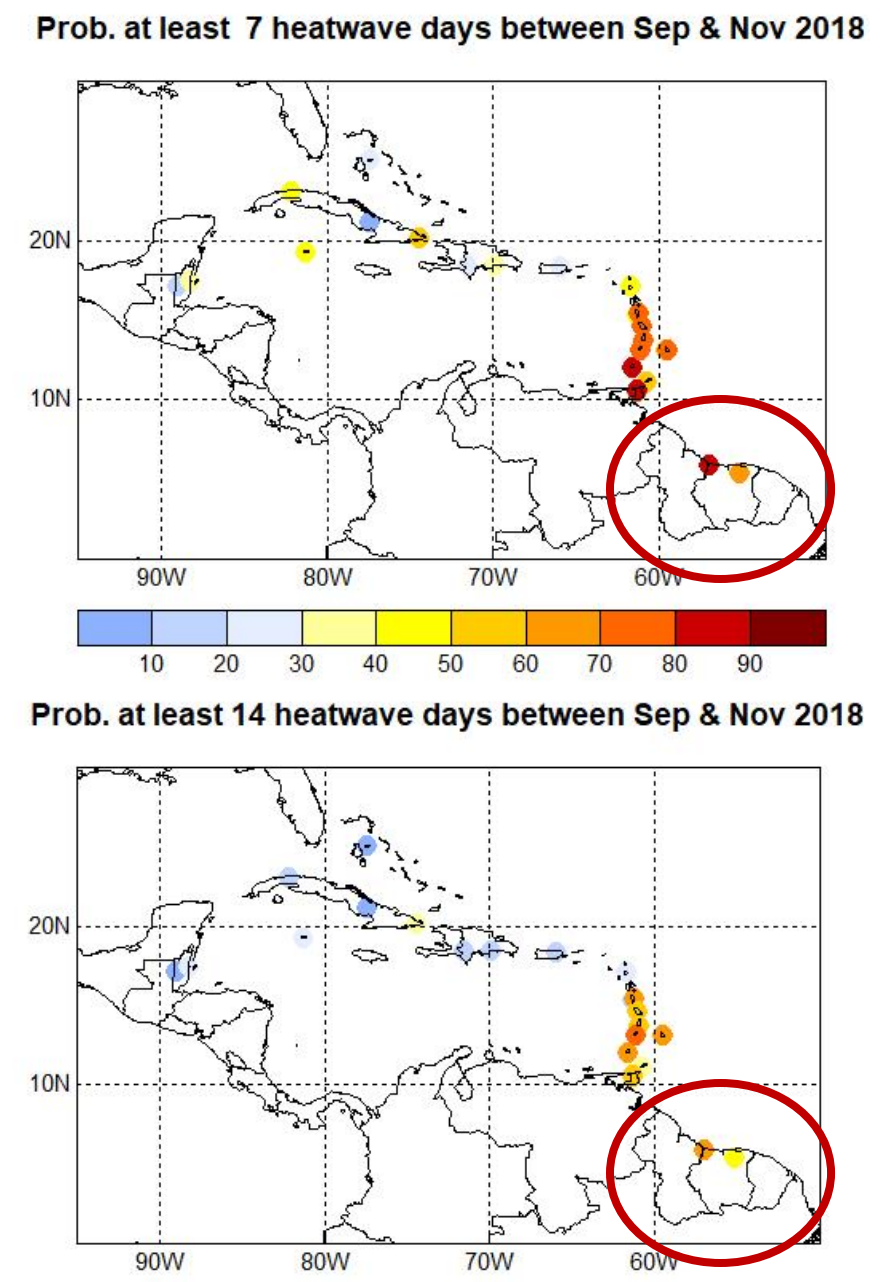
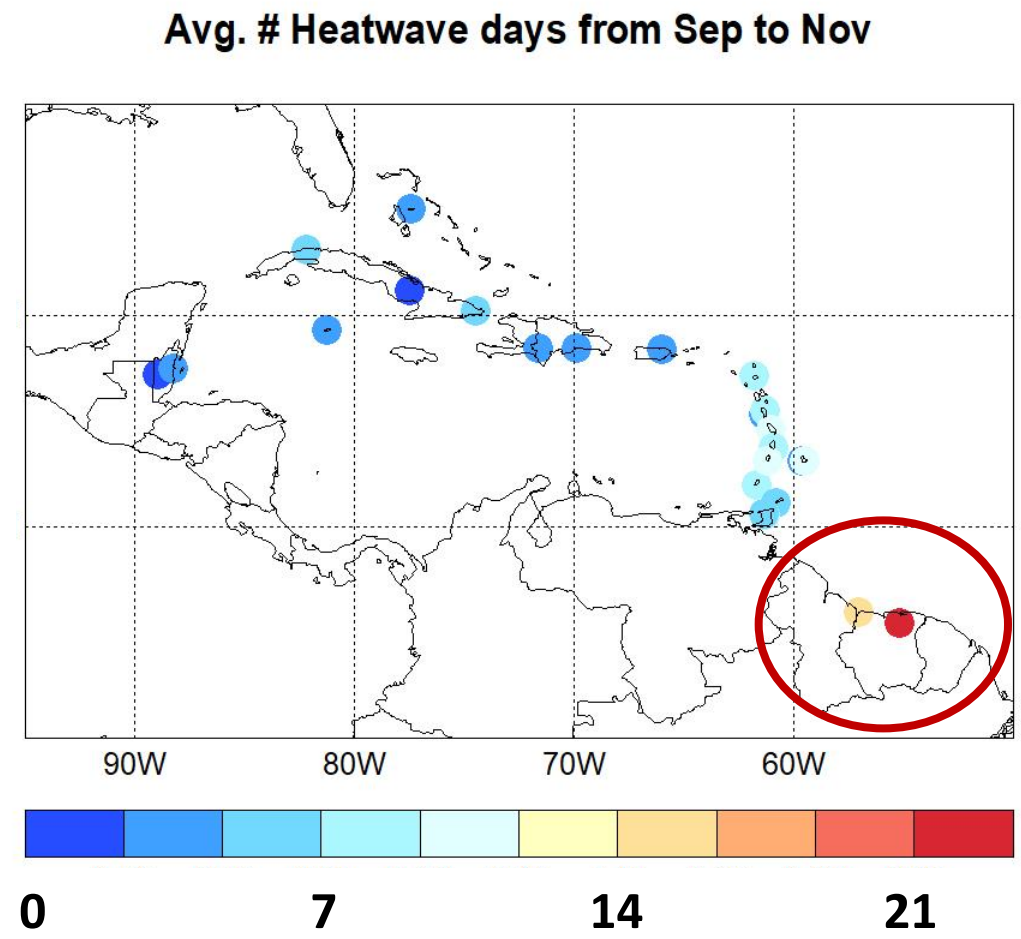
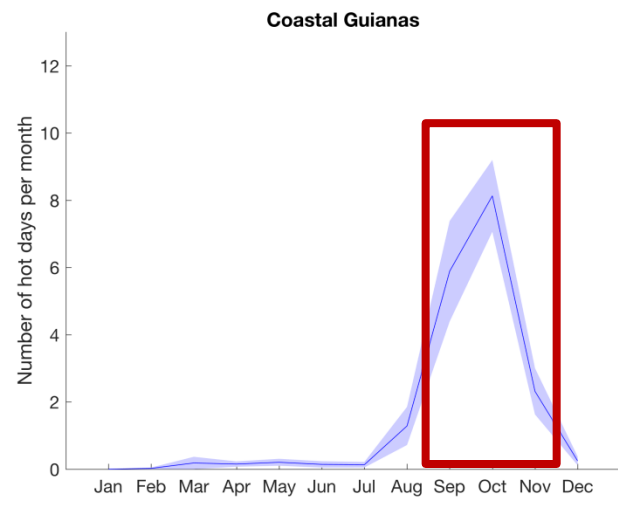


Prob. at least 14 heatwave days between Aug & Oct 2018



USUALY: around 7-14 heatwave days over 3 months
FORECAST: generally 60-90% chance for at least 7 heatwave days, and 40-80% chance for at least 14.

What does the peak of the hot season look like in the Guianas, i.e. September to November?



USUALY: around 14-21 heatwave days over 3 months
FORECAST: generally 60-90% chance for at least 7 heatwave days, and 30-60% chance for at least 14.

How many heatwave days from June till November 2018?

USUALLY:

- 1) In most years, relatively few heatwaves in Belize, Puerto Rico and Trinidad and Tobago. In much of the rest of the region, around 14 and up to 21 heatwave days are the norm.
- 2) The peak season for heatwaves is from July to September in The Bahamas and the Greater Antilles, August to October in the Lesser Antilles and September to November in the Guianas.

FORECAST:

The forecast number of heatwave days is similar to what we usually get, but likely lower than in most recent years during the hotter part of the year.

IMPLICATIONS:

- In the event of heatwaves, of which more than 1 can occur at any location, heat stress in human populations or livestock will sharply increase.
- Nevertheless, the heat stress should be less acute than in most recent years.