









Heat Outlook for September 2021 to February 2022

Frequent excessive heat from August to October

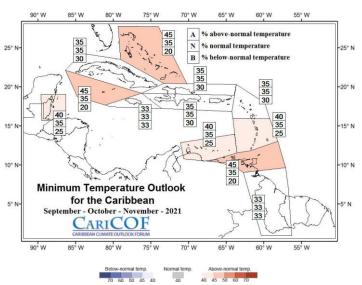
Dr. Cedric J. VAN MEERBEECK¹ (<u>cmeerbeeck@cimh.edu.bb</u>), Dr. Simon MASON², Dr. Hannah Nissan², Dr. Teddy ALLEN², Wazita Scott¹

¹Caribbean Institute for Meteorology and Hydrology (CIMH), Barbados ²International Research Institute for Climate and Society (IRI), USA

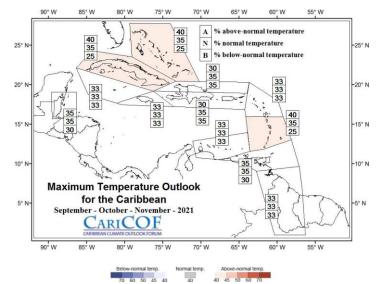


How hot will the next three to six months be?

Night time



Day time

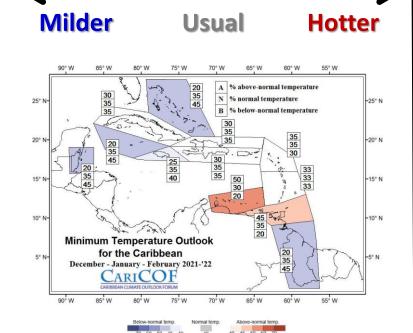


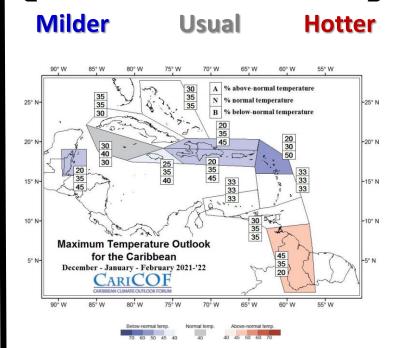
FORECAST:

- Overall, at least as warm as usual in most areas through October (November in the Guianas) when the 2021 Heat Season should subside.
- Temperatures should quickly cool to become seasonably comfortable in November

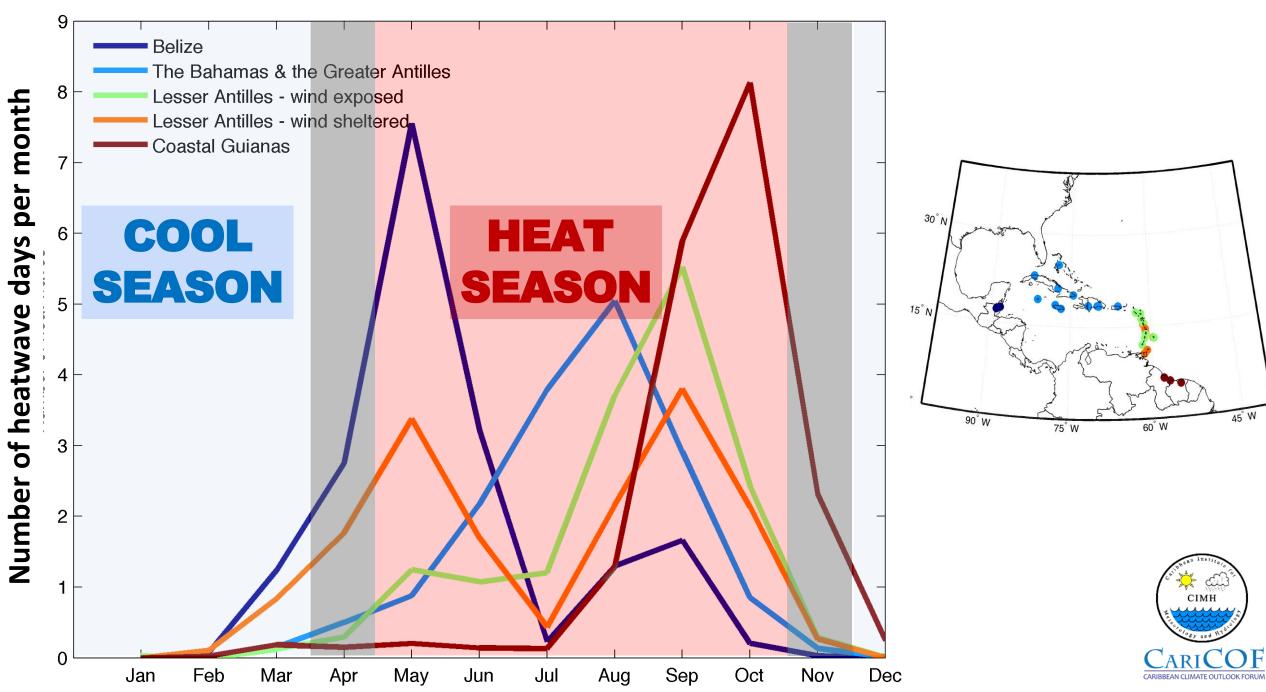
IMPLICATIONS:

- Annual peak in heat stress in the vulnerable population & small livestock through September (Bahamas and Greater Antilles), October (ABC Is. and Lesser Antilles) or November (Guianas).
- High temperatures combined with high humidity means higher cooling need until October.

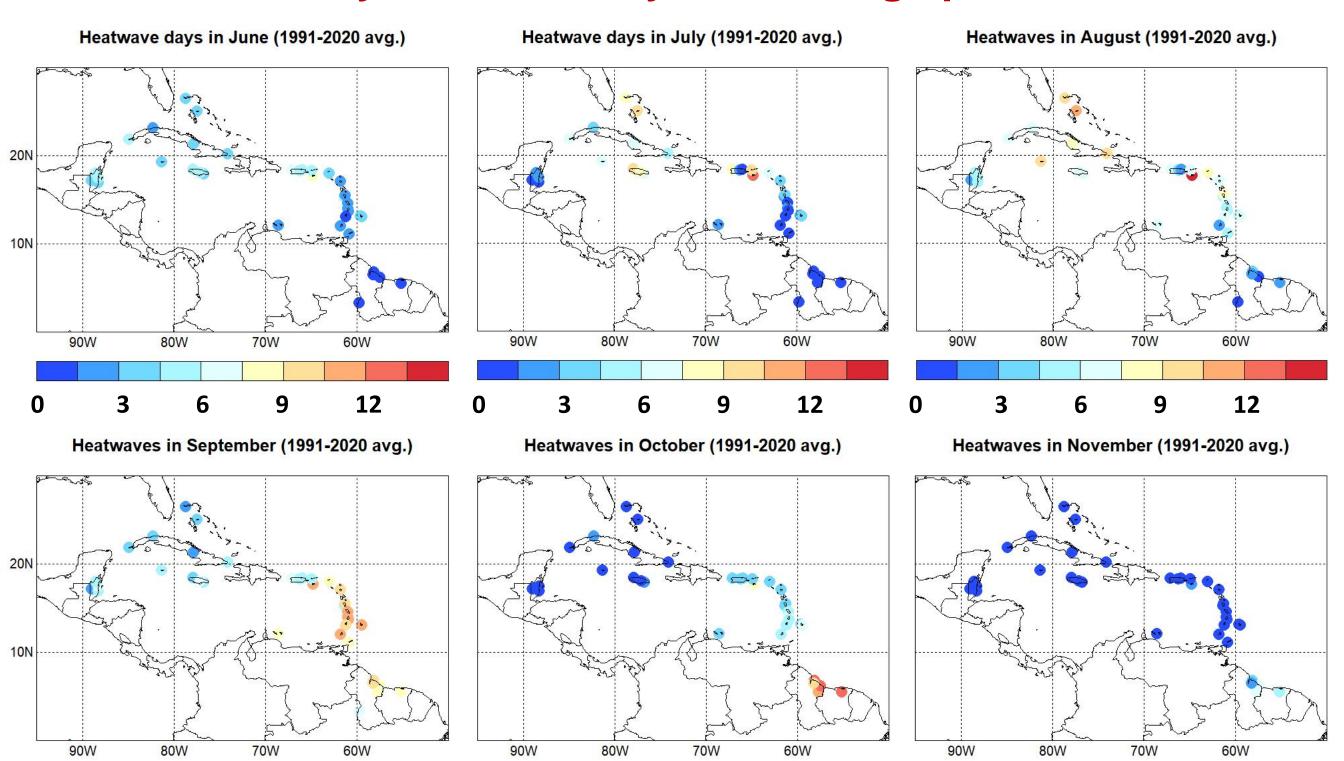




The Caribbean Heat Season: April/May to October

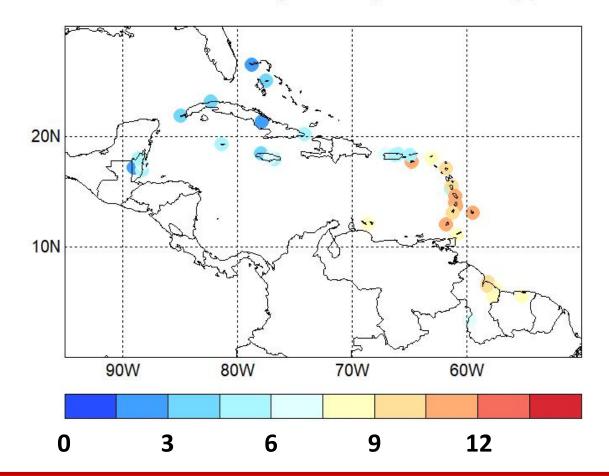


How many heatwave days on average per month?



How many heatwave days to expect in **September 2021**?

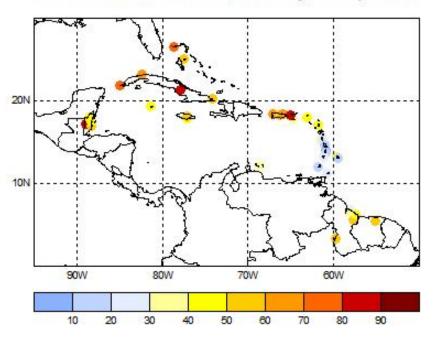
Heatwaves in September (1991-2020 avg.)



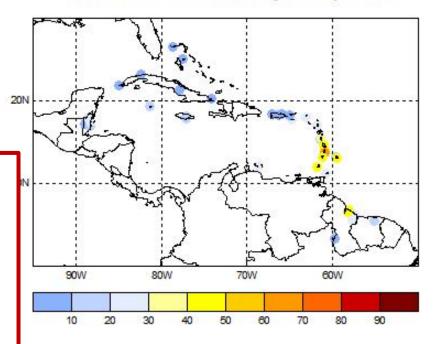
USUALLY: 7-15 heatwave days in September east- and southwards of Puerto Rico, but generally fewer than 7 elsewhere.

FORECAST: In the Bahamas and the Greater Antilles, no more than 5 heatwave days are forecast for September 2021. Other areas are likely to observe between 5 and 15 heatwave days, though

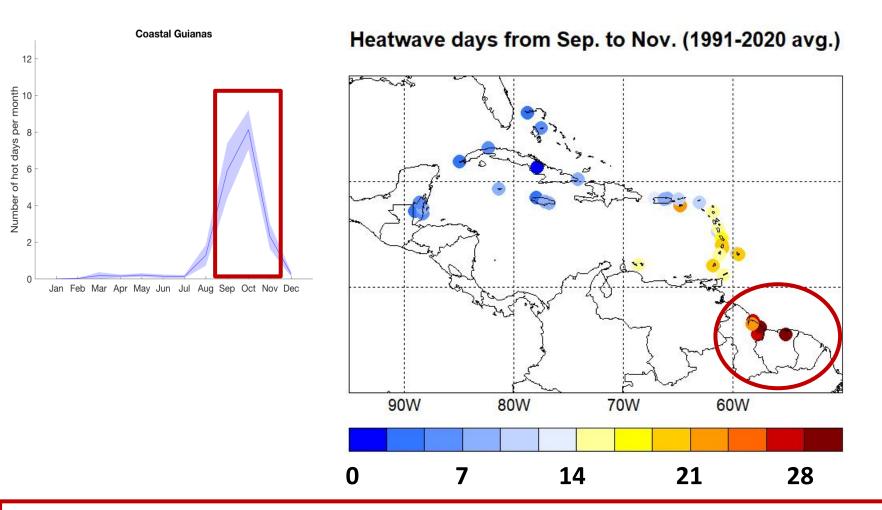
Prob. no more than 5 heatwave days in Sept. 2021

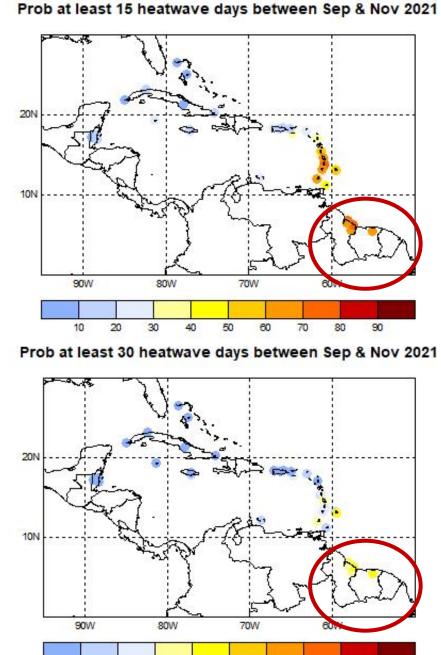


Prob. at least 5 heatwave days in Sept. 2021



What do we expect for September to November 2021, i.e. the **peak of the heat season** in the **Guianas**?





USUALLY: 15-20 heatwave days over 3 months in the Lesser Antilles, 20-30 in the Guianas. FORECAST: 50-80% and 20-40% chance for at least 15 and 30 heatwave days in the Lesser Antilles

and the Guianas between September and November 2021, resp. Likely fewer than 15 elsewhere.

How many heatwave days from August till October 2021?

USUALLY:

- 1) In most years, 15-20 heatwave days over 3 months in the Lesser Antilles, 20-30 in the Guianas, but fewer than 15 elsewhere.
- 2) There are 7-15 heatwave days in September east- and southwards of Puerto Rico, but generally fewer than 7 elsewhere.

FORECAST:

- The number of heatwave days during the peak of the 2021 heat season in the Guianas is expected to be average or fewer.
- Note that areas with more abundant rainfall than usual will see daytime temperatures and the frequency of heatwaves tempered.

IMPLICATIONS:

- In the event of heatwaves, of which more than 5 can occur (especially during dry spells),
 heat stress in human populations or livestock will sharply increase.
- While episodes of heat stress are expected in the Caribbean Islands, particularly in September, it should be less severe than during the hottest years (e.g. 2020).



caricof@cimh.edu.bb rcc.cimh.edu.bb Caribbean Institute for Meteorology and Hydrology TEL: (246) 425-1362/3 | FAX: (246) 424-4733