

Bleaching Warning

STATUS

Trinidad & Tobago is in the Coral Bleaching Season, and the current status is

“Bleaching WATCH”

as indicated in Figure 1A. The current SST is 29.3°C, below the Bleaching Threshold of 29.4°C. The 7 day SST trend ranges from neutral to +1.0 °C per week.

INDEX SUMMARY:

TABLE 1: T&T INDEX SUMMARY

SST	29.255
SSTA	0.906
SST trend	0 to +1.0
HS	0.000
DHW	0.000

OUTLOOK:

SSTs are expected to increase over the next few months, in the peak of the Bleaching Season, September to October. As indicated in Figures 1B, 1C & 1D, heat stress is expected to increase the alert level from **Watch to Warning** in September and persist throughout October. Further accumulation of heat stress is expected to raise the risk level to **ALERT LEVEL 1** by November. **Notable in the Outlooks, despite the overall low level “Warning”, is the persistence of the area of elevated (Alert level 1) thermal stress immediately surrounding Tobago throughout the 3 months.**

HINT: Click image to go to NOAA’s site

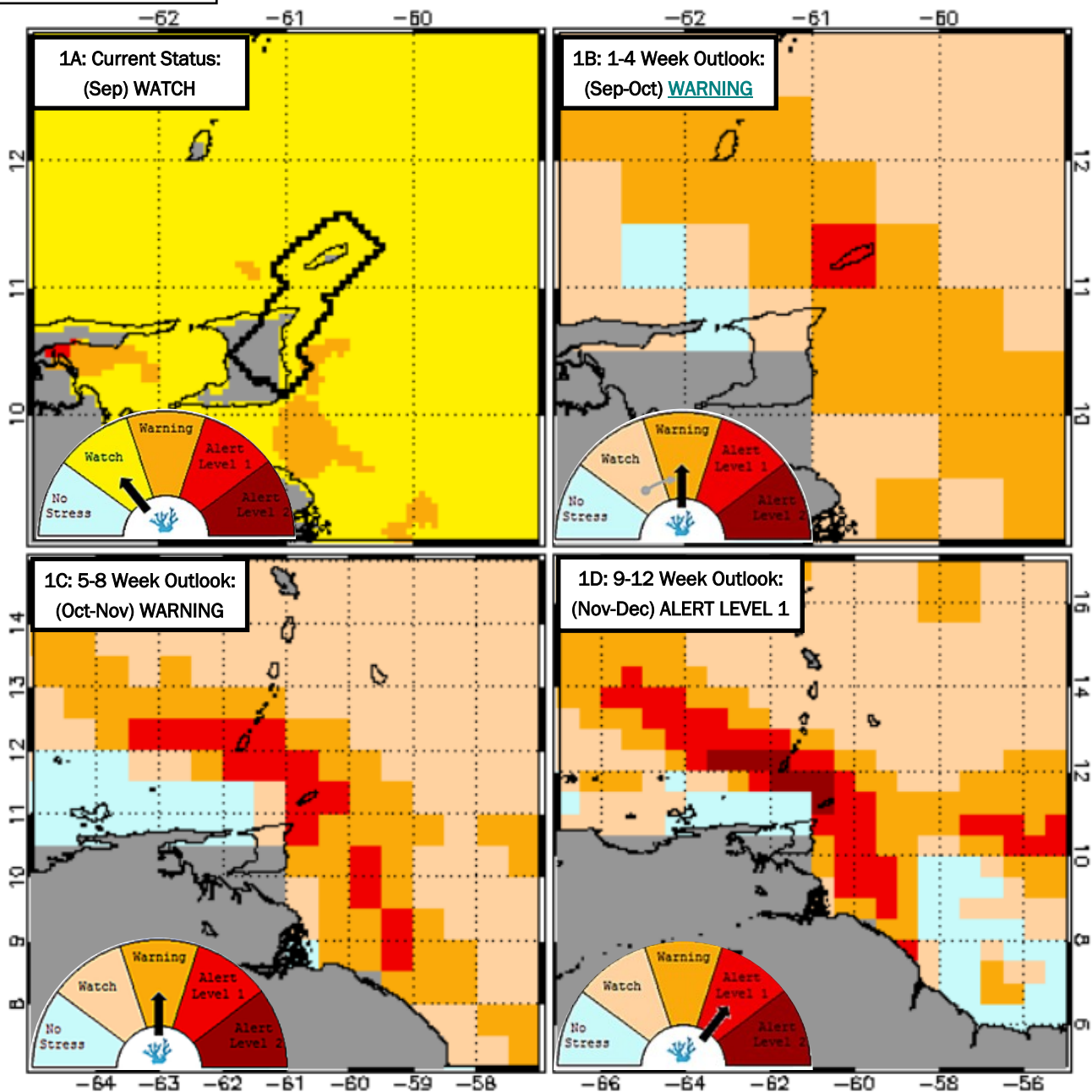


FIG 1: NOAA-CRW TRINIDAD & TOBAGO BLEACHING ALERT AREA AND OUTLOOK ISSUED 3RD SEPTEMBER 2018

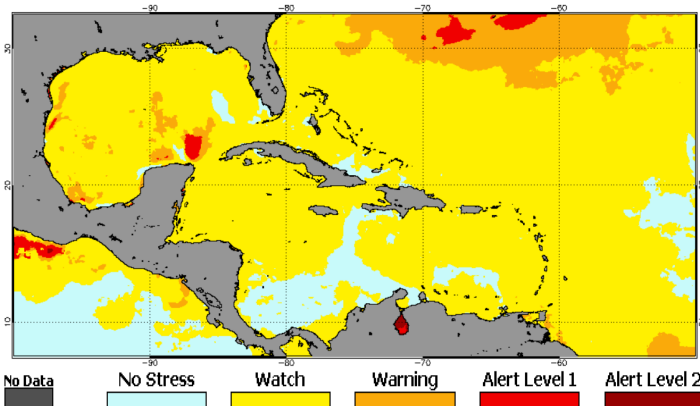


FIGURE 2: NOAA-CRW CARIBBEAN CORAL BLEACHING ALERT AREA ISSUED 4TH SEPTEMBER 2018

REGIONAL STATUS:

The entire Caribbean Region is under **Bleaching Watch** conditions. **Alert Level 1** stress exists in two regions, one north of the Yucatan peninsula & west of Cuba, and the second in Lake Maracaibo.

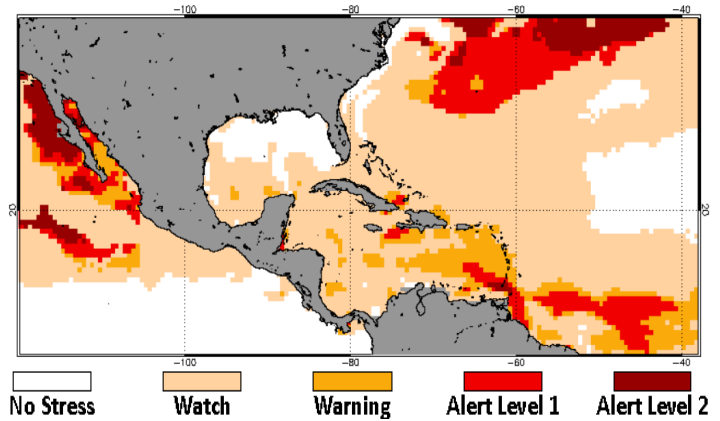


FIGURE 3: NOAA-CRW CARIBBEAN 90% PROBABILITY SEPTEMBER TO DECEMBER BLEACHING OUTLOOK ISSUED 4TH SEPTEMBER 2018

REGIONAL OUTLOOK:

An increase in heat stress is expected. As such, the entire Caribbean region is forecast to transition to **Bleaching Warning** over the next 3-4 months. Notable are the 3 areas of elevated thermal stress (**Alert Level 1**): 1. Trinidad and Tobago; 2. East of Cuba & 3. South-west of Hispaniola.

WHAT DOES IT ALL MEAN?

From Figure 1A and Table 2, we see that the **Trinidad and Tobago sub-region is currently experiencing Warning Level thermal stress**. Although the Bleaching Alert Level is not expected to increase to **Alert Level 1** until November, there is the potential for **Alert Level 1** thermal stress to occur within the next few weeks. The Trinidad and Tobago (4-week, 8-week and 12-week) Outlooks, as well as the Regional 90% Probability Outlook (Figure 3) all support the likelihood of elevated thermal stress affecting Tobago, in particular, in as little as 1-4 weeks.

Table#2 Interpretation of BAA Status

STATUS	INTERPRETATION
No Stress	No thermal stress
Watch	Low-level thermal stress
Warning	Thermal stress is accumulating
Alert Level 1	Coral Bleaching expected
Alert Level 2	Widespread bleaching & mortality expected

Although thermal stress is not yet sufficient to induce Coral Bleaching, it is **possible for thermal stress to rapidly accumulate within the next 1-4 weeks**. Thus it is important to monitor SST and Bleaching Alert Levels at this time, **the peak of the Bleaching Season**.

WHAT CAN WE DO?

- Restrict activities likely to be stressful on the reefs, both during and after a bleaching event.
- These activities include on-site and nearby construction, user access, including sea vessels (boaters), swimmers, snorkelers and divers.
- Artificially shade cool reefs to mitigate the impacts of bleaching.
- Promote the removal of **coral-predators** to facilitate recovery.
- Help new coral recruits to bleached reefs or transplant new (healthy) corals after a bleaching event.
- Reduce pollution, coastal runoff, and overfishing.
- Promote and enhance coral health

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RESOURCES:

1. NOAA. (2018, 09 03). *5 km Regional Virtual Stations (Version 3)*. Retrieved 09 05, 2018, from Coral Reef Watch: <https://coralreefwatch.noaa.gov/vs/map.php>
2. NOAA. (2018, 09 04). *Caribbean 90% Four-Month Coral Bleaching Outlook (Version 5, released on 27 March 2018, updated weekly)*. Retrieved 09 05, 2018, from Coral Reef Watch: https://coralreefwatch.noaa.gov/satellite/bleachingoutlook_cfs/current_image/cur_cfsv2_outlook-4mon_v5_90pct_caribbean.gif
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4. NOAA. (2018, 09 03). *Trinidad and Tobago 5-km Bleaching Heat Stress Gauges (Version 3)*. Retrieved 09 05, 2018, from Coral Reef Watch: https://coralreefwatch.noaa.gov/vs/gauges/trinidad_tobago.php

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