

TTMS Coral Reef Watch: Reef Referee

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STATUS

- No stress conditions currently exist, as indicated in Figure 1A;
- Transition period towards the coral bleaching season;
- SSTs are trending towards cooling: ranging between 0.0 to -2.0°C per week.

INDEX SUMMARY

SST	27.382 °C
SSTA	0.226 °C
SST trend	0 to -2.0°C
HS	0.000
DHW	0.000

TABLE 1:
T&T INDEX SUMMARY

OUTLOOK:

- Gradual increase in SSTs is expected over the next few months;
- As indicated in Figure 1B, 1C & 1D, heat stress is forecasted to start accumulating during July-August;
- Bleaching Watch conditions by August (5-8 weeks) and continuing in September (9-12 weeks). See Figures 1C&1D.

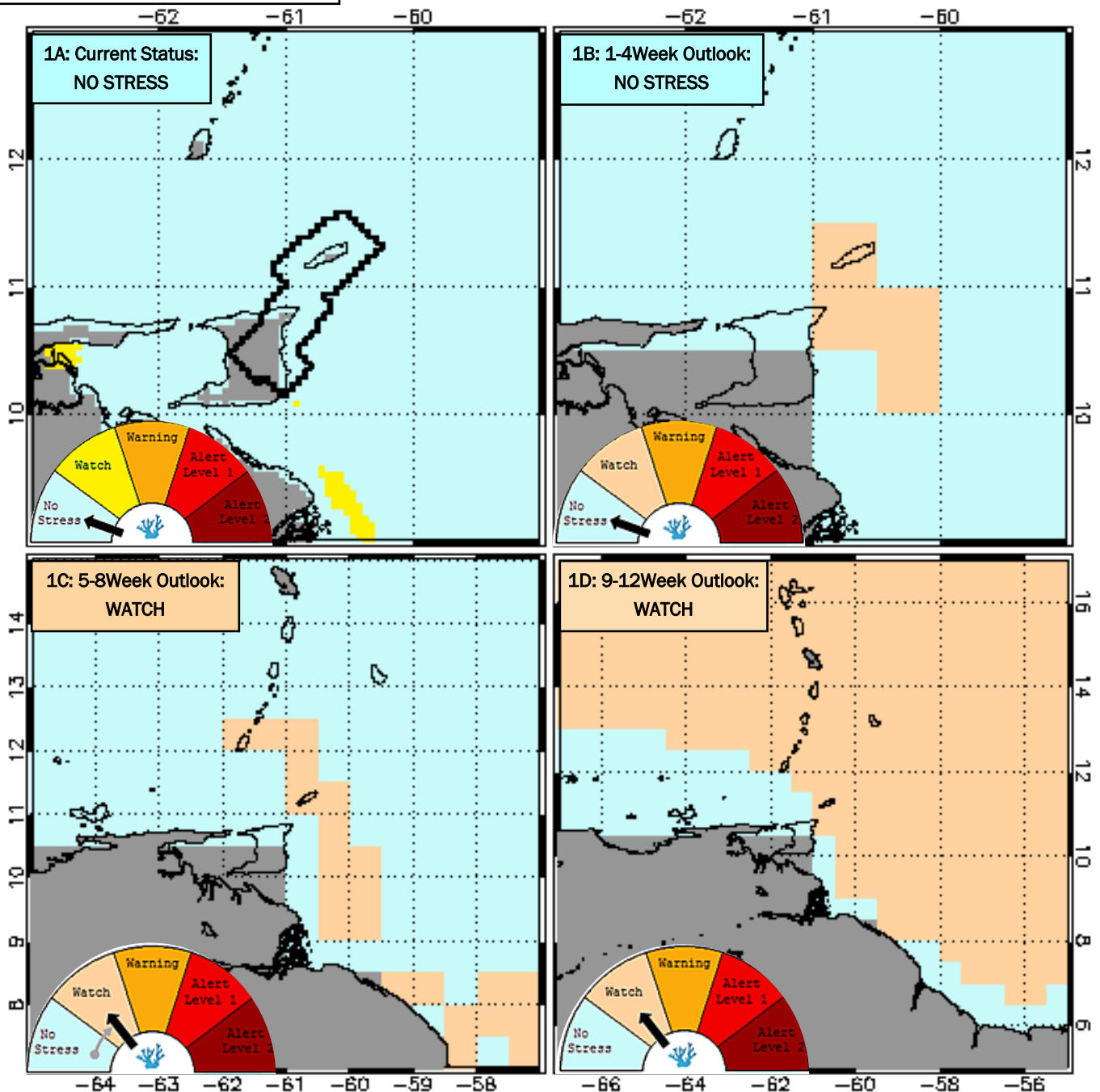


FIG 1: NOAA-CRW BLEACHING ALERT AREA AND OUTLOOK ISSUED 27TH JUNE 2018

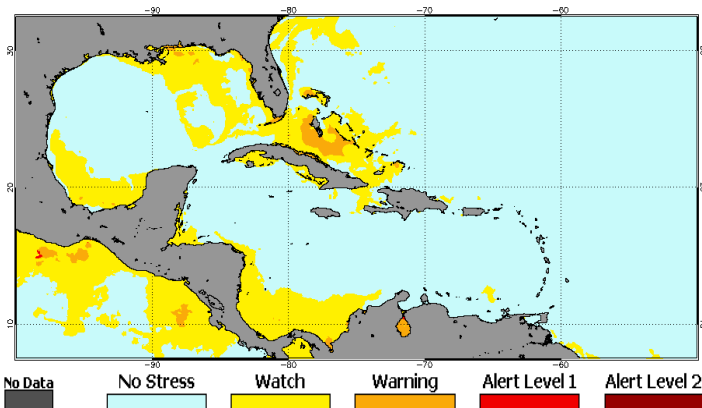


FIGURE 2: NOAA-CRW CARIBBEAN CORAL BLEACHING ALERT AREA

REGIONAL STATUS:

- The Caribbean Region is under mixed heat stress conditions;
- The Lesser Antilles, including Trinidad and Tobago: heat stress free;
- Northern Caribbean, including the Gulf of Mexico, Cuba, Bahamas and Turks & Caicos: Bleaching Watch and/or Bleaching Warning ;
- Central American portion of the Caribbean Sea: Coral Bleaching Watch.

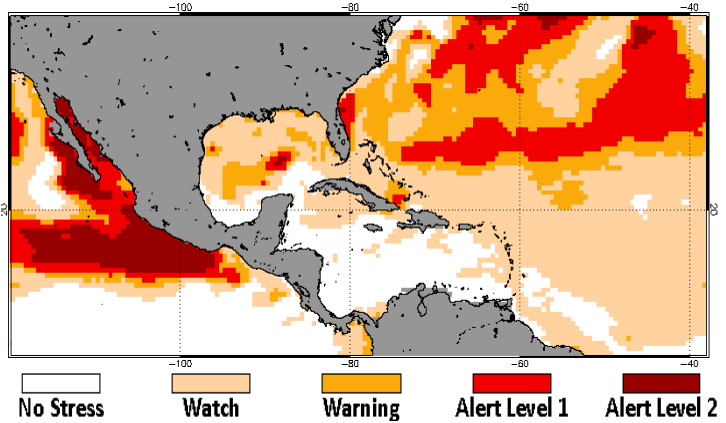


FIGURE 3: NOAA-CRW CARIBBEAN 90% PROBABILITY JULY TO OCTOBER BLEACHING OUTLOOK ISSUED 26TH JUNE 2018

REGIONAL OUTLOOK:

- Heat stress within the Caribbean is expected to accumulate over the next 4 months.
- Northern Caribbean, including southern Cuba, Bahamas and Turks & Caicos: increase to **Bleaching Alert Level 1**;
 - Gulf of Mexico: **Bleaching Watch/Warning**, with some areas of elevated stress with the potential for **Bleaching Alert Level 1/Level 2**.

WHAT DOES IT ALL MEAN?

From Table 2, we see that currently no heat stress is being experienced in the Trinidad and Tobago sub-region. However, low-level heat stress is expected by August.

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

Table#2 Interpretation of BAA Status

The Regional Bleaching Alert Area (Figure 2) and the Regional 90% Probability Outlook also support the likelihood of transitioning from no stress to low level stress within the next few months.

WHAT CAN WE DO?

- Restrict activities that are likely to be stressful on the reef, both during and after a bleaching event;
- Activities to restrict may include on-site and nearby construction, users access, including sea vessels (boaters), swimmers, snorkelers and divers;
- Artificially shade or cool reefs to mitigate the impacts of bleaching;
- Promote the removal of coral predators to facilitate recovery;
- Help new tiny drifting coral larvae to attach and establish themselves as members of the reef community;
- Reduce pollution, coastal runoff, and overfishing to promote and enhance coral health.

ACKNOWLEDGEMENT: The Trinidad and Tobago Meteorological Service (TTMS) would like to thank the National Oceanic and Atmospheric Administration (NOAA) & the Caribbean Institute for Meteorology and Hydrology (CIMH)

RESOURCES:

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2. NOAA. (2018, 06 26). *Caribbean 90% Four-Month Coral Bleaching Outlook (Version 5, released on 27 March 2018, updated weekly)*. Retrieved from Coral Reef Watch: https://coralreefwatch.noaa.gov/satellite/bleachingoutlook_cfs/current_image/cur_cfsv2_outlook-4mon_v5_90pct_caribbean.gif
3. NOAA. (2018, 06 28). *Caribbean Daily 5-km Satellite Coral Bleaching Heat Stress Alert Area Product*. Retrieved 06 29, 2018, from Coral Reef Watch: https://coralreefwatch.noaa.gov/satellite/bleaching5km/images_current/cur_b05kmmn_max_r07d_baa_crb_930x580.gif
4. NOAA. (2018, 06 27). *Trinidad and Tobago 5-km Bleaching Heat Stress Gauges (Version 3)*. Retrieved 06 29, 2018, from Coral Reef Watch:

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