

## Pacific Climate Update Coral Bleaching Thermal Stress Analysis and Seasonal Guidance through May 2016

(Released February 3, 2016)

### *Current conditions:*

NOAA Coral Reef Watch's (CRW) near-real-time satellite monitoring shows persistent widespread positive sea surface temperature (SST) anomalies throughout the central and eastern equatorial Pacific Ocean, consistent with the El Niño advisory (Figure 1). The Federated States of Micronesia in the western equatorial Pacific Ocean continues to experience negative SST anomalies (Figure 1), consistent with El Niño conditions. The southwestern Pacific is experiencing positive SST anomalies around Fiji, New Caledonia, and the Great Barrier Reef. The long-lasting warm blob in the northeastern Pacific Ocean has diminished and has given way to negative SST anomalies (Figure 1).

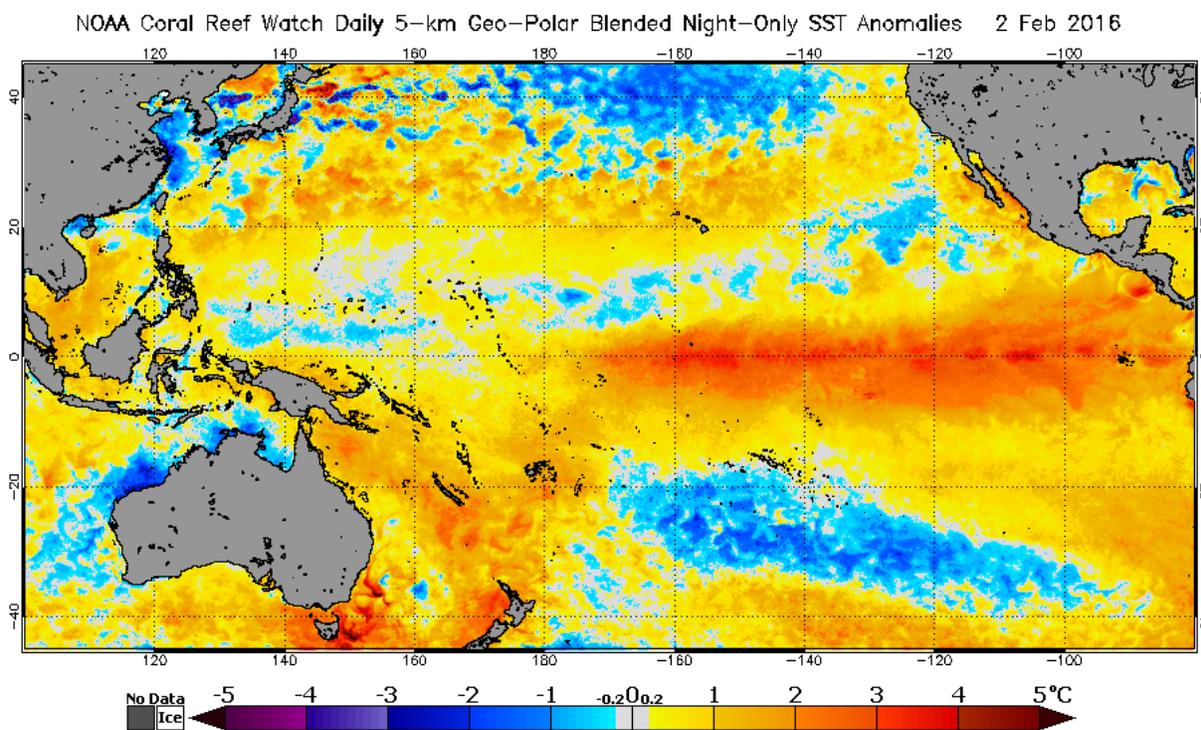


Figure 1: NOAA Coral Reef Watch's Satellite Sea Surface Temperature (SST) Anomaly product for the Pacific region.

Coral Bleaching HotSpots are concentrated in the central equatorial Pacific Ocean and in the southeastern and southwestern portions of the Pacific along the South American coast and Australia. HotSpots have diminished throughout most of the northeastern Pacific Ocean and areas north of the equator (Figure 2). Alert Levels 1 and 2 have persisted over reefs in the central

equatorial Pacific around Kiribati (Gilbert, Phoenix, and Line Islands) and Howland and Baker Islands (Figure 3), and widespread, severe bleaching has been reported from islands in this region. Bleaching Warning conditions are also being seen throughout much of the region from the Great Barrier Reef to Fiji.

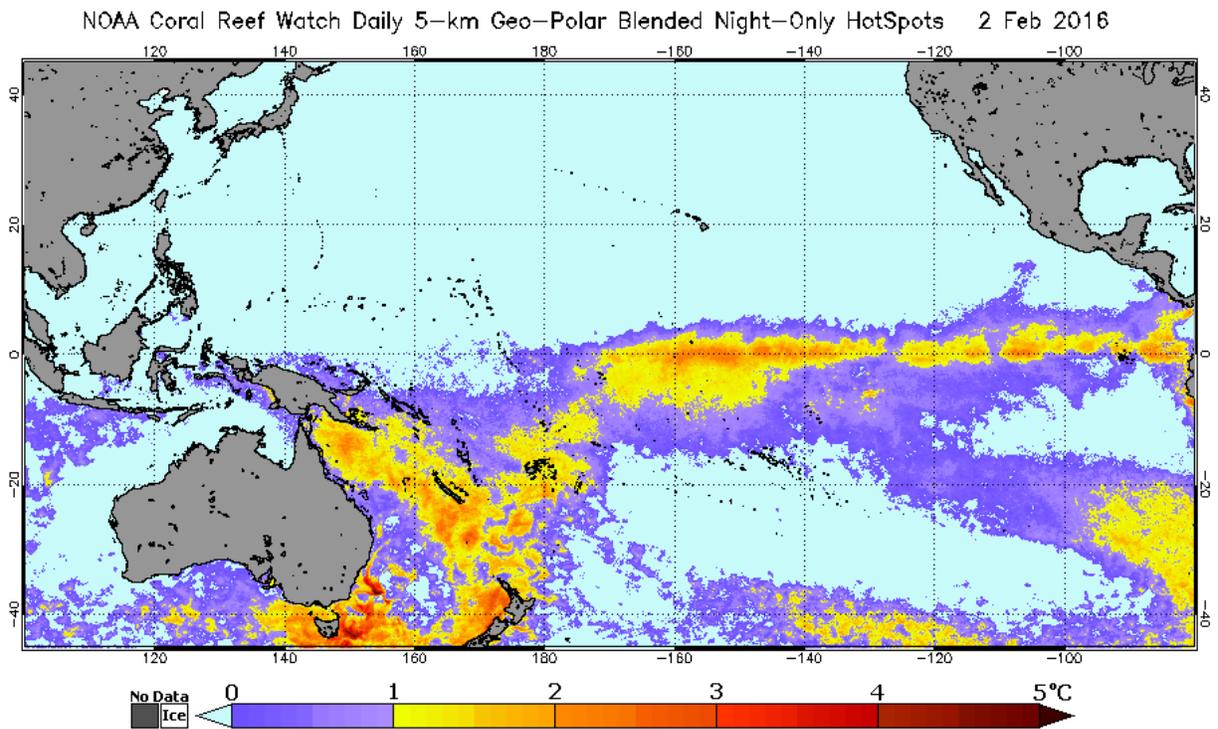


Figure 2: NOAA Coral Reef Watch's Satellite Coral Bleaching HotSpot product for the Pacific region.

NOAA Coral Reef Watch Daily 5-km Geo-Polar Blended Night-Only Bleaching Alert Area 7d Max 2 Feb 2016

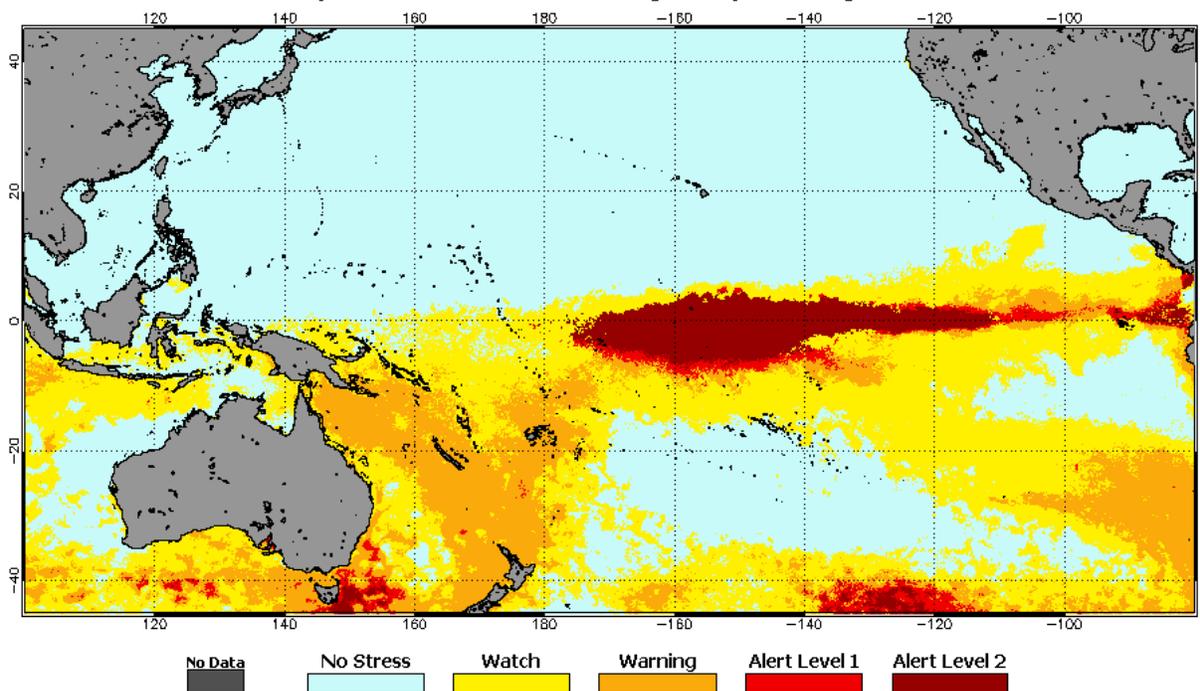


Figure 3: NOAA Coral Reef Watch's Satellite Bleaching Alert Area (7-day maximum) product for the Pacific region.

CRW's most recent Four-Month Coral Bleaching Thermal Stress Outlook (Figure 4) projects continued thermal stress to last through at least the end of May in the central equatorial Pacific Ocean. Alert Level 2 conditions are expected to be widespread in the central to eastern Pacific while the western Pacific, around the Great Barrier Reef, Vanuatu, and Fiji, should reach Alert Level 1.

2016 Feb 2 NOAA Coral Reef Watch 60% Probability Coral Bleaching Thermal Stress for Feb–May 2016  
Experimental, v3.0, CFSv2–based, 28–member Ensemble Forecast

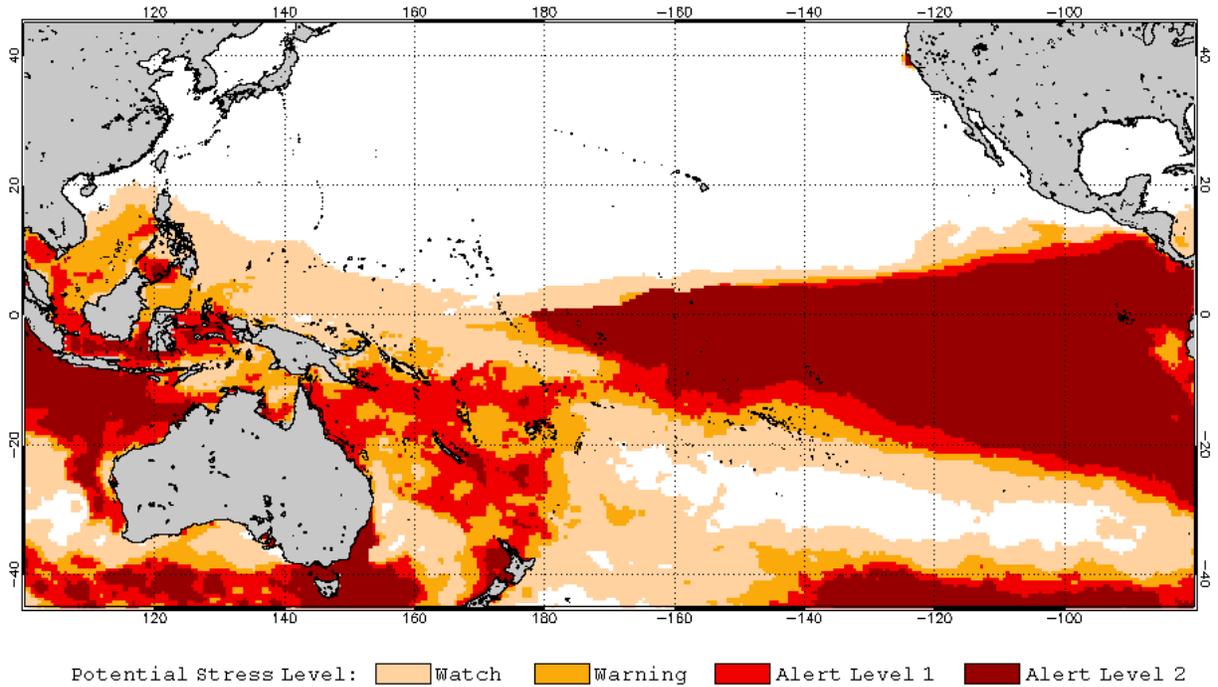


Figure 4: NOAA Coral Reef Watch's Four-Month Coral Bleaching Thermal Stress Outlook for February–May 2016 for the Pacific region.

**NOTE: This report focuses on NOAA Coral Reef Watch's new [5-km satellite-based coral bleaching thermal stress products](#) and v3.0 [Four-Month Coral Bleaching Thermal Stress Outlook](#). The 5-km satellite products presented here use CRW's new color scales, which are already implemented in the images posted on the [CRW website](#).**

To monitor the intensity and location of coral bleaching thermal stress, please follow NOAA CRW's satellite monitoring and Outlook closely in the coming weeks at:

<http://coralreefwatch.noaa.gov/satellite/bleaching5km/index.php> and

[http://coralreefwatch.noaa.gov/satellite/bleachingoutlook\\_cfs/outlook\\_cfs.php](http://coralreefwatch.noaa.gov/satellite/bleachingoutlook_cfs/outlook_cfs.php).

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