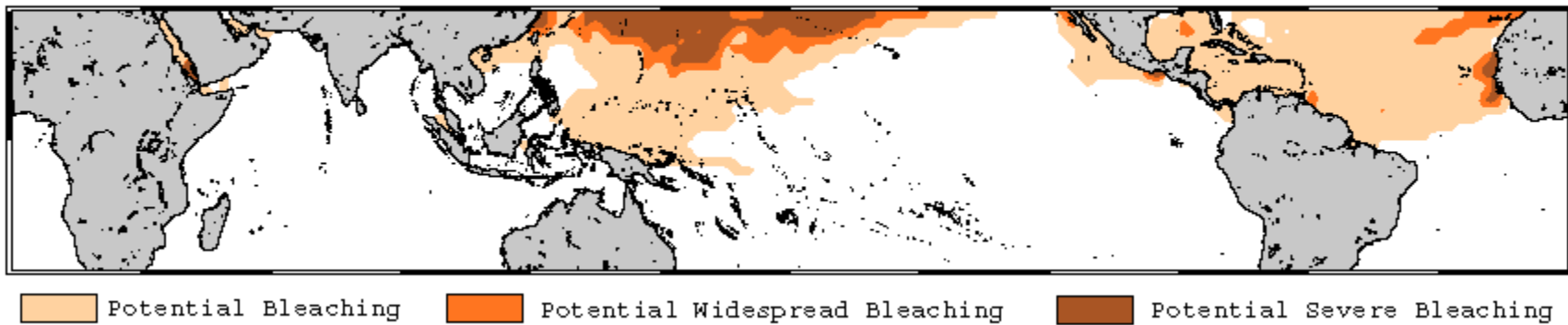


NOAA Coral Reef Watch
Seasonal Coral Bleaching Thermal Stress Outlook
(Experimental product, 2x2 degree spatial resolution)

July NOAA Coral Reef Watch Bleaching Outlook Guidance Through October 2008

A new NOAA coral bleaching prediction system indicates that there will be some bleaching in the Caribbean later this year, but bleaching will probably not be severe. There is a potential for widespread bleaching in the Northwestern Hawaiian Islands but this is less certain than the Caribbean forecast because of variable winds in this area. Some bleaching is also expected around Papua-New Guinea, the Philippines, and Japan but little bleaching potential elsewhere during the northern hemisphere summer. The following figure shows the Global 4-month Coral Bleaching Outlook for the northern hemisphere summer/fall of 2008 (through October).

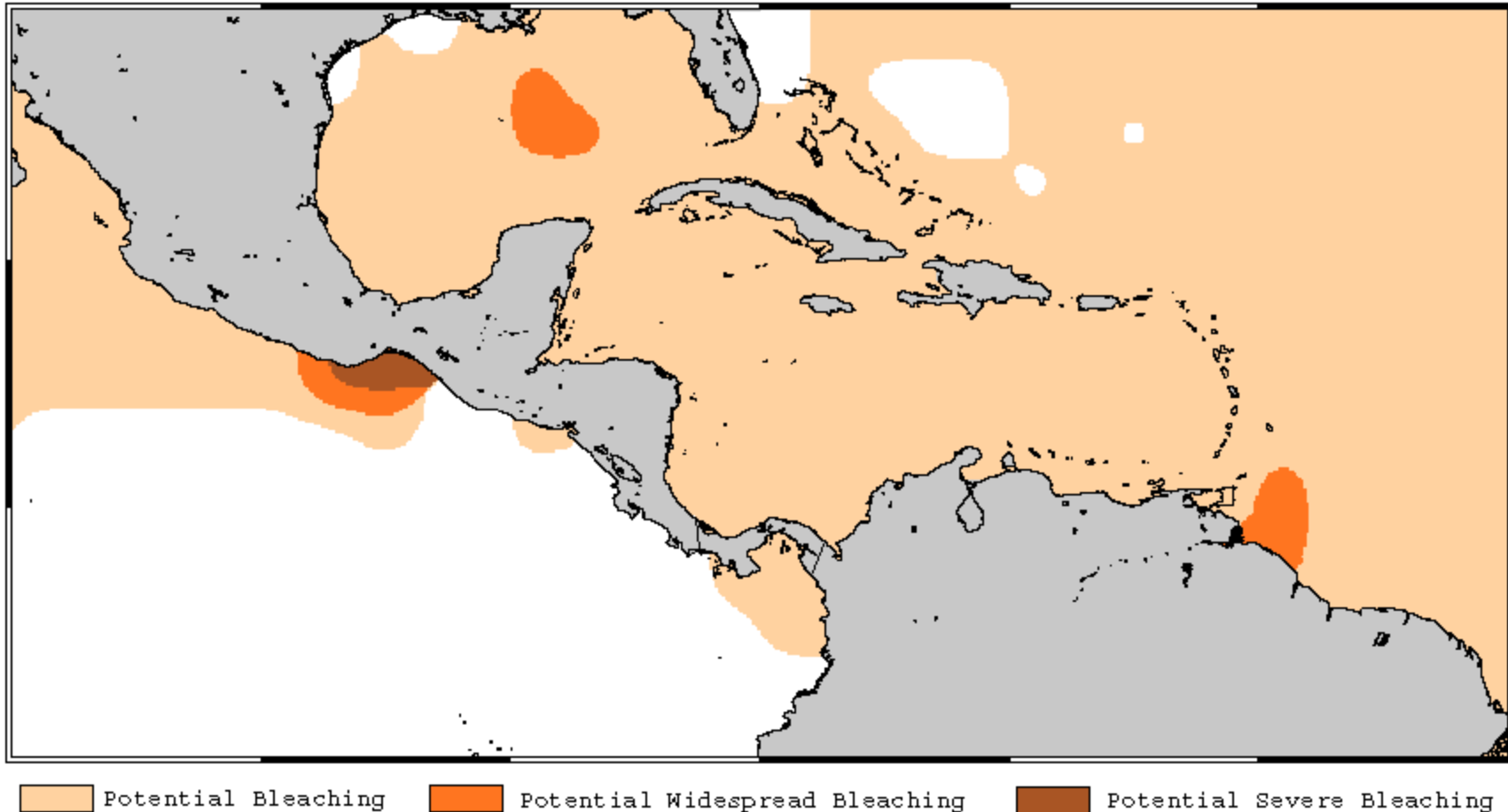
2008 July 1 NOAA Coral Reef Watch Coral Bleaching Thermal Stress Outlook for Jul–Oct 2008



In a normal year, the model will forecast no potential for bleaching. When sea surface temperature forecasts exceed bleaching thresholds and continue long enough to cause bleaching, the outlook products display the bleaching potential during the upcoming warm season. Actual conditions may vary due to subsequent changes in climatic conditions or weather patterns.

Caribbean Bleaching Outlook:

The forecast system indicates that there is a potential for bleaching across the Caribbean basin in 2008, but it is not likely to be severe. The strongest warming forecast by the SST model is in the northern Gulf of Mexico that might impact the Flower Garden Banks. Note that if this system had been operating in 2005, it would have predicted severe bleaching (see forecast system discussion below). The following figure shows the current outlook for this year's Caribbean bleaching season (through October).



Pacific Bleaching Outlook:

The most significant concern for bleaching this season is in the Northwestern Hawaiian Islands (NWHI). The current outlook suggests severe bleaching is possible in the westernmost islands. This comes with important caveats. Warm anomalies in the North Pacific are not geographically constrained in the way they are in the Caribbean. We are not confident that this warming will remain over the NWHI. A slight move to the north or west that could result from a change in the track of the trade winds could completely eliminate the potential for bleaching.

There is also a potential for some bleaching elsewhere in the North Pacific that may influence reefs from Papua-New Guinea, through along the eastern Philippines, up through Japan. Bleaching is likely to be mild, similar to that expected in the Caribbean this year.

The following figure shows the Global 4-month Coral Bleaching Outlook for the northern hemisphere summer/fall of 2008 (through October).

2008 July 1 NOAA Coral Reef Watch Coral Bleaching Thermal Stress Outlook for Jul–Oct 2008

