



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

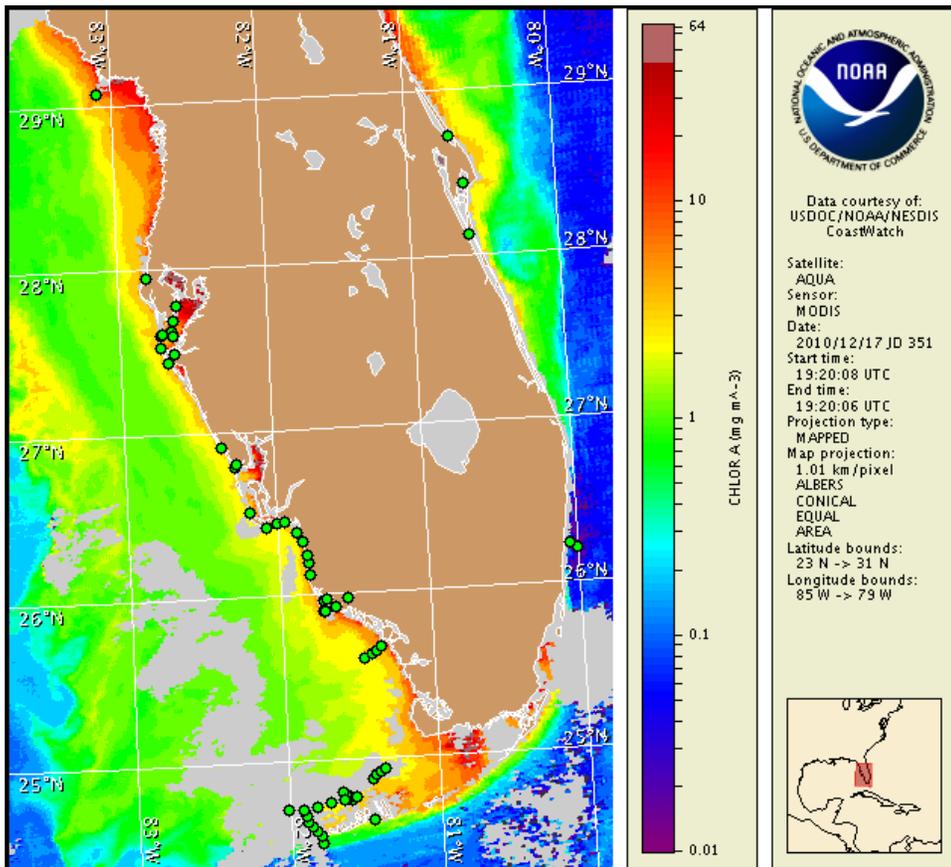
20 December 2010

NOAA Ocean Service

NOAA Satellites and Information Service

NOAA National Weather Service

Last bulletin: December 13, 2010



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from December 10 to 16 shown as red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HABFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Please note the following restrictions on all SeaWiFS imagery derived from CoastWatch.

1. Data are restricted to civil marine applications only; i.e. federal, state, and local government use/distribution is permitted.
2. Image products may be published in newspapers. Any other publishing arrangements must receive GeoEye approval via the CoastWatch Program.

Conditions Report

There is currently no indication of a harmful algal bloom at the coast in southwest Florida, including the Florida Keys. No impacts are expected alongshore southwest Florida today through Sunday, December 26.

Analysis

There is currently no indication of a harmful algal bloom alongshore southwest Florida, including the Florida Keys. *Karenia brevis* was not present in samples collected last week alongshore southwest Florida from Pinellas to Collier County and in the Florida Keys region (FWRI, MML; 12/11- 12/16).

Recent MODIS imagery (12/17) continues to indicate slightly elevated chlorophyll levels (approximately $2\mu\text{g/L}$) along much of the southwest Florida coast, extending up to 11 miles offshore. These elevated levels are likely associated with resuspended benthic material following high winds last week.

An extensive elevated chlorophyll feature (approximately $2\mu\text{g/L}$) continues to be visible in imagery on 12/17 offshore southwest Florida (approximately 37-84 miles from the coast) stretching from the Cape San Blas region to the southern Gulf of Mexico. This feature is associated with normal central Gulf of Mexico processes, in which higher chlorophyll levels are common in winter due to diatom blooms. Within this feature, chlorophyll levels are slightly more elevated (approximately $2.5\text{-}3\mu\text{g/L}$) offshore Pinellas, Manatee, and Sarasota counties from $27^{\circ}37'34''\text{N } 83^{\circ}41'24''\text{W}$ to $27^{\circ}4'53''\text{N } 83^{\circ}33'40''\text{W}$ to $27^{\circ}4'53''\text{N } 83^{\circ}44'36''\text{W}$.

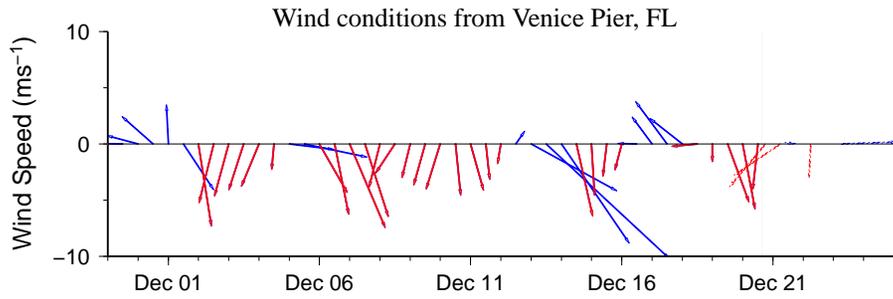
Forecasted wind conditions through Friday do not promote bloom formation this week.

Note: SeaWiFS imagery is presently unavailable for analysis, MODIS imagery is shown at left and on page 3.

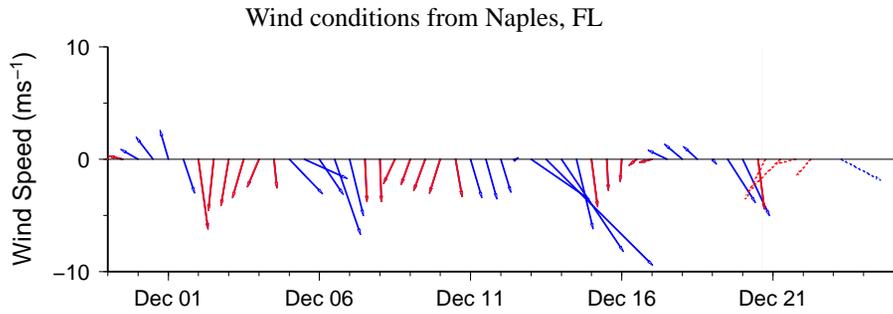
-Fisher, Yang, Kavanaugh

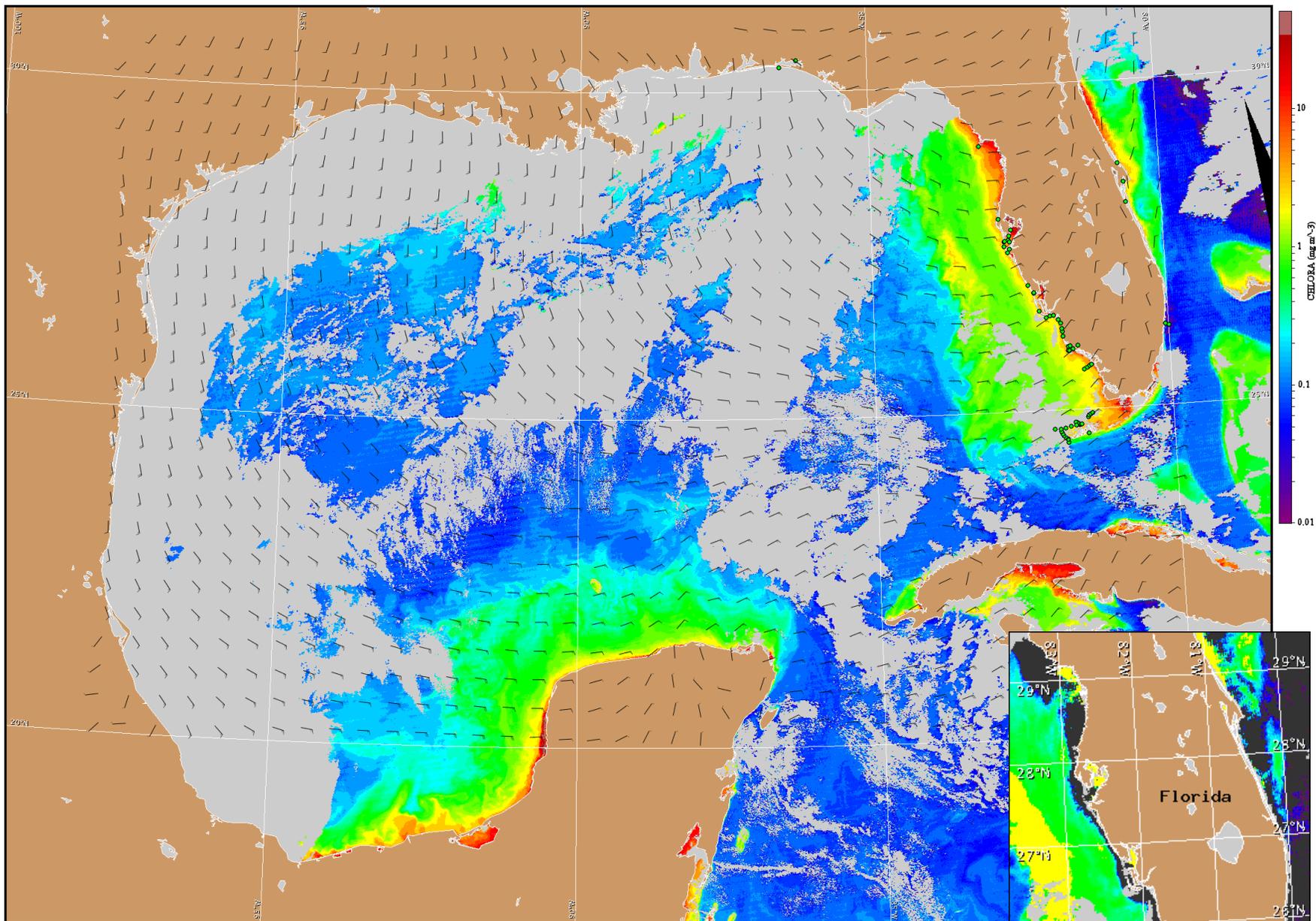
Wind Analysis

Northeast winds today (15kn, 8m/s), shifting east tonight (10kn, 5m/s). South to southwest winds Tuesday (5-10kn, 3-5m/s), becoming west (10kn, 5m/s) Tuesday night. Northwest winds Wednesday (10kn, 5m/s), shifting north Wednesday night through Thursday (15kn, 8m/s). East winds Thursday night (10kn, 5m/s). Southeast to southwest winds Friday (10kn, 5m/s).



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).





Satellite chlorophyll image and forecast winds for December 21, 2010 12Z with Cell concentration sampling data from December 10 to 16 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HABFS bulletin guide:

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Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).