



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

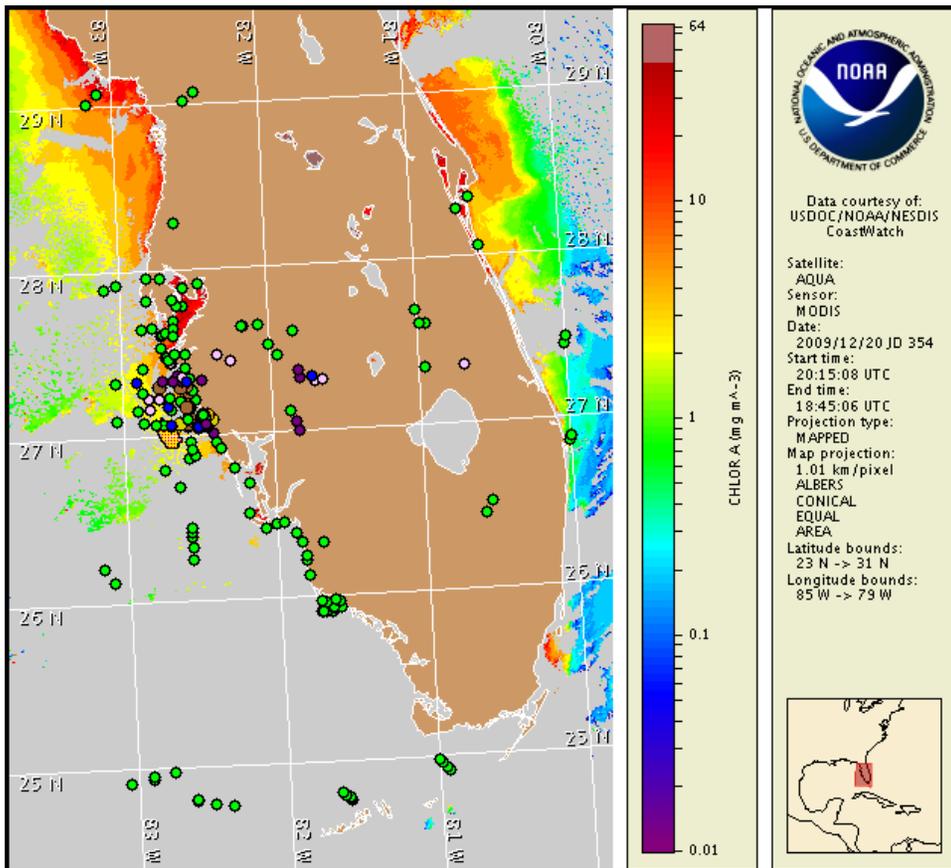
22 December 2009

NOAA Ocean Service

NOAA Satellites and Information Service

NOAA National Weather Service

Last bulletin: December 17, 2009



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from December 12 to 21 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

A harmful algal bloom has been identified in patches alongshore and offshore Sarasota County. Patchy very low impacts are possible today and Wednesday in Sarasota County. No additional impacts are expected at the coast in southwest Florida today through Wednesday, December 23.

Analysis

A harmful algal bloom was identified last week alongshore and offshore Sarasota County. *Karenia brevis* concentrations early last week at the coast were patchy, ranging from 'not present' to 'medium' (SCHD, MML, FWRI; 12/14-12/15). Samples collected again on 12/16 and 12/21 at Venice Pier decreased from 'low a' to 'very low a' and samples collected again on 12/16 at Nokomis Beach decreased from 'medium' to 'not present' (SCHD, FWRI). Thus, the bloom may have transported or weakened in intensity at the coast last week as also indicated in the previous bulletin issued on 12/17. Samples collected last week in the Sarasota Bay system ranged from 'not present' to 'very low b', and 'not present' to 'low b' in both surface and subsurface samples 3 to 36 miles offshore Sarasota County (SCHD, MML, FWRI 12/14-17). No reports of respiratory irritation or dead fish have been received over the past week.

Satellite imagery has been predominantly obscured by clouds over the past several days, limiting bloom analysis. Imagery on 12/20 (shown at left) indicates that chlorophyll remains elevated ($4\text{--}6\mu\text{g/L}$) along the coast of Sarasota County and offshore ($2\text{--}4\mu\text{g/L}$) where 'very low b' concentrations were identified on 12/15-12/16 (approximately $27^{\circ}31'16''\text{N } 82^{\circ}42'27''\text{W}$; outlined in imagery). Clouds hinder the ability to distinguish the full extent of features in this region.

No updated sample or imagery information is currently available offshore northern Monroe County where a 'very low b' concentration of *K. brevis* bloom was identified on 12/8.

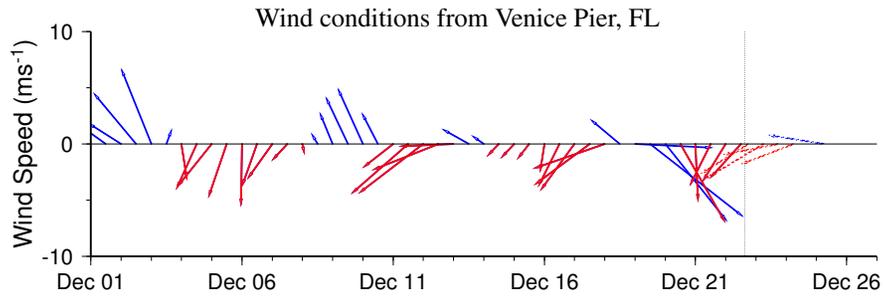
Upwelling favorable winds commenced on Monday after a shift in the winds and are expected to continue through Thursday. Bloom intensification may be observed in patches this week at the coast, as subsurface concentrations of *K. brevis* have been identified offshore. Continued offshore winds will minimize impacts due to the bloom through Thursday.

*Please note, several samples are plotted erroneously on the imagery at left and on page 3. This error is being addressed.

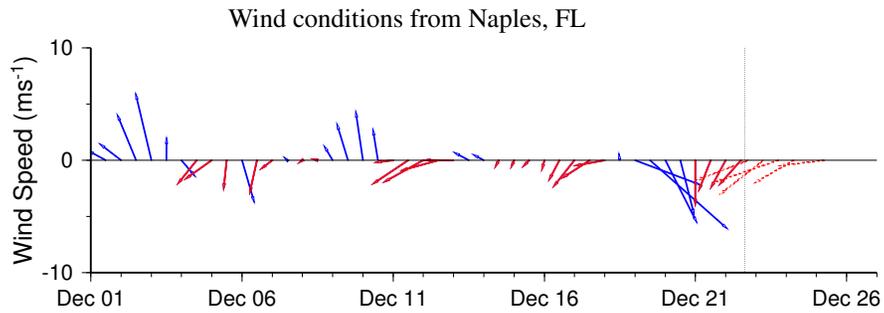
-Fisher, Fenstermacher

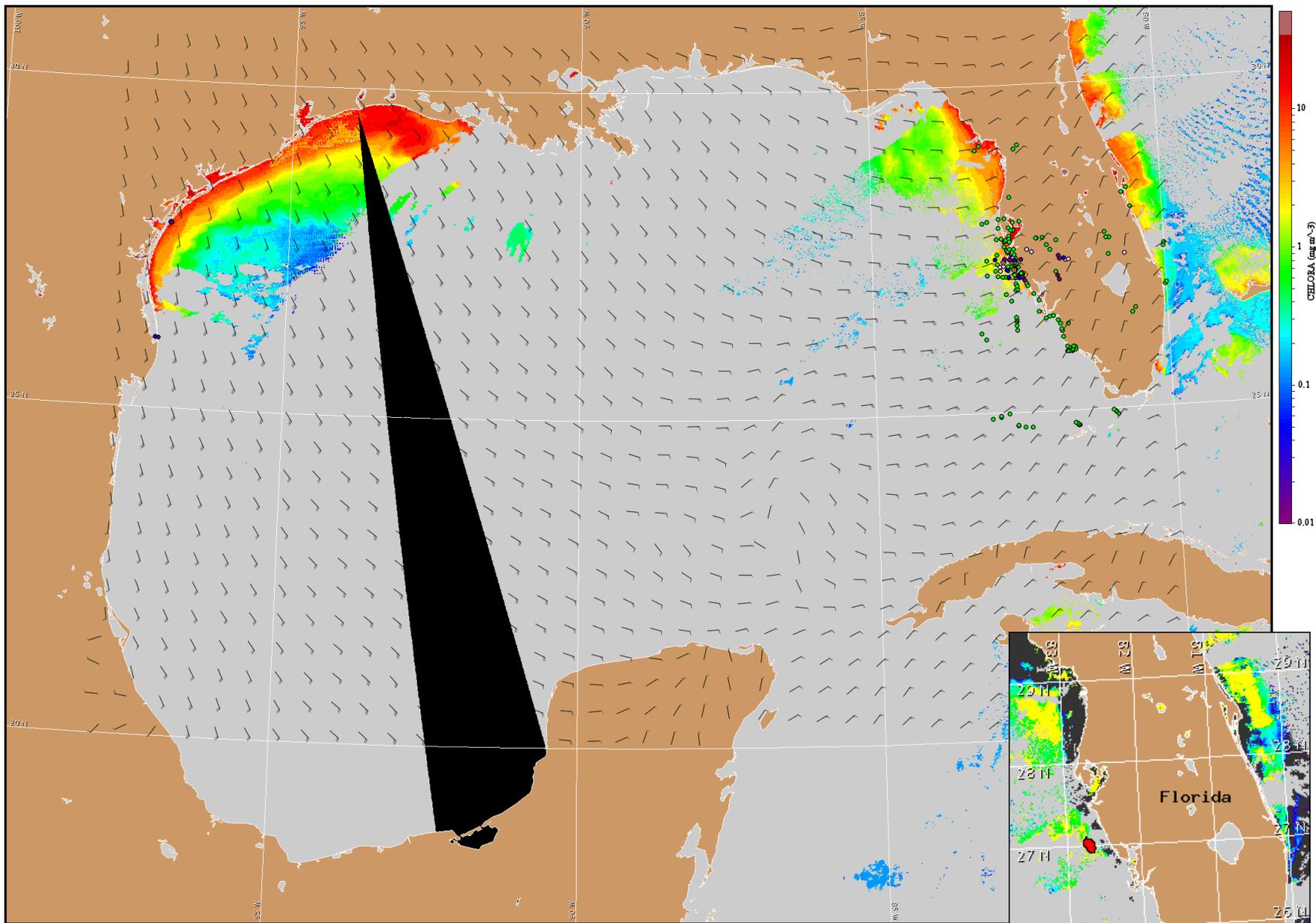
Wind Analysis

Northeast winds today (10-15kn, 5-8m/s). East winds Wednesday and Thursday (10-15kn).



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 23, 2009 12Z with Cell concentration sampling data from December 12 to 21 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).