



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

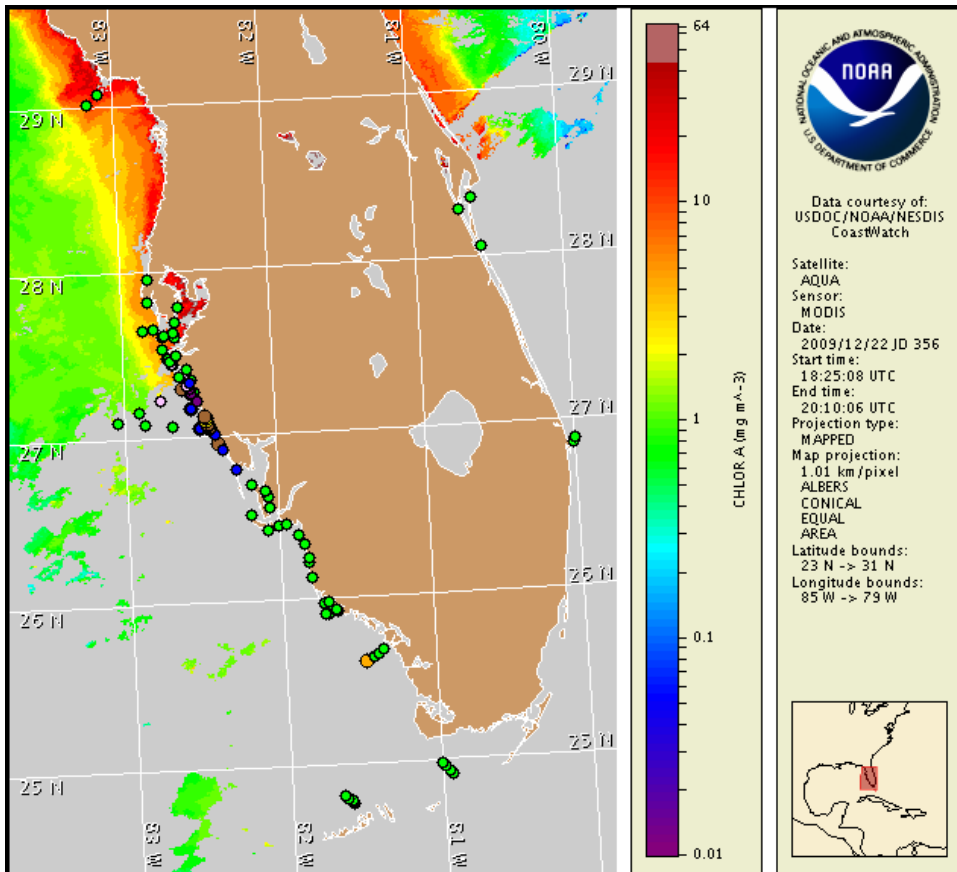
24 December 2009

NOAA Ocean Service

NOAA Satellites and Information Service

NOAA National Weather Service

Last bulletin: December 22, 2009



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from December 14 to 22 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 and alongshore Charlotte County. Today, Saturday and Sunday, patchy very low impacts are possible in Sarasota County and no impacts are expected in Charlotte County. On Friday, patchy moderate impacts are possible in Sarasota County and patchy very low impacts are possible in Charlotte County. No additional impacts are expected at the coast in southwest Florida today through Sunday, December 27.

Analysis

A harmful algal bloom continues to be present alongshore and offshore Sarasota County and has expanded onshore into Charlotte County as of this week. *Karenia brevis* concentrations alongshore Sarasota County increased slightly this week at many sample sites likely due to upwelling favorable conditions as forecasted in the previous bulletin issued on 12/22. Concentrations currently range from 'not present' to 'low b' alongshore Sarasota County (12/14-12/21; SCHD, FWRI, MML) and from 'very low b' to 'low a' approximately 3-5 miles offshore Sarasota County (12/15; FWRI, MML). 'Very low b' concentrations were identified alongshore Charlotte County on 12/22 (FWRI). No reports of respiratory irritation or dead fish have been received over the past week.

A harmful algal bloom has also been reconfirmed offshore northern Monroe County. 'Medium' *K. brevis* concentrations were identified approximately 10 miles southwest of Pavilion Key on 12/22 (MML).

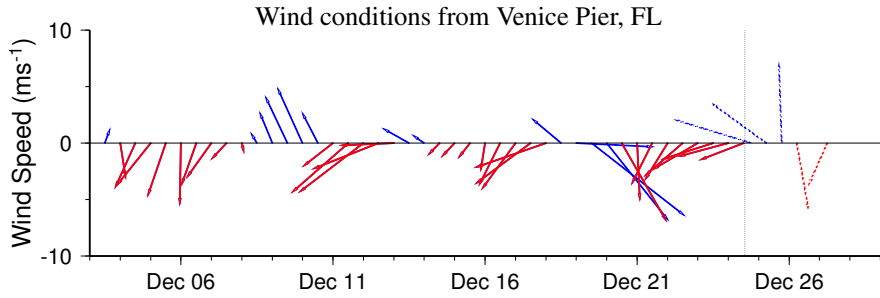
Satellite imagery has been predominantly obscured by clouds over the past two days, limiting bloom analysis. Recent SeaWiFS imagery (12/22, not shown) indicates that chlorophyll levels remain elevated at approximately 3-4 $\mu\text{g/L}$ nearshore to offshore Sarasota County; portions alongshore are not presently visible in imagery. Clouds continue to hinder the ability to distinguish any distinct features in this region, either onshore or offshore.

Bloom intensification may continue at the coast into today due to strong upwelling conditions over the past several days, however further intensification of the bloom at the coast should be minimized through the weekend. Northerly winds will increase the potential for southward bloom transport and/or expansion Friday night through Sunday, and also increase the potential for impacts inside the southern Sarasota Bay System. Forecasted moderate to strong onshore winds will increase the potential for coastal impacts throughout the bloom region on Friday.

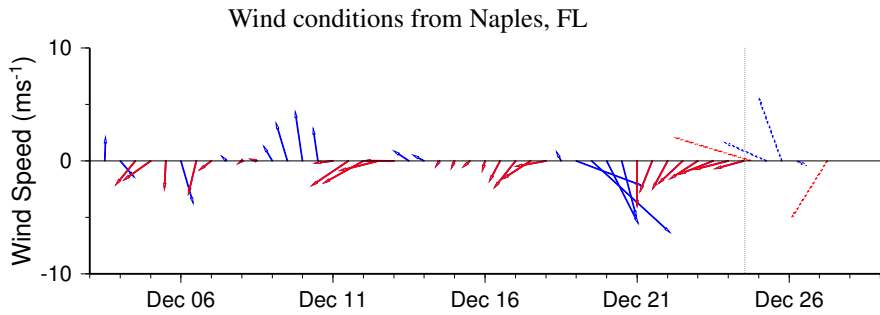
-Fisher, Fenstermacher

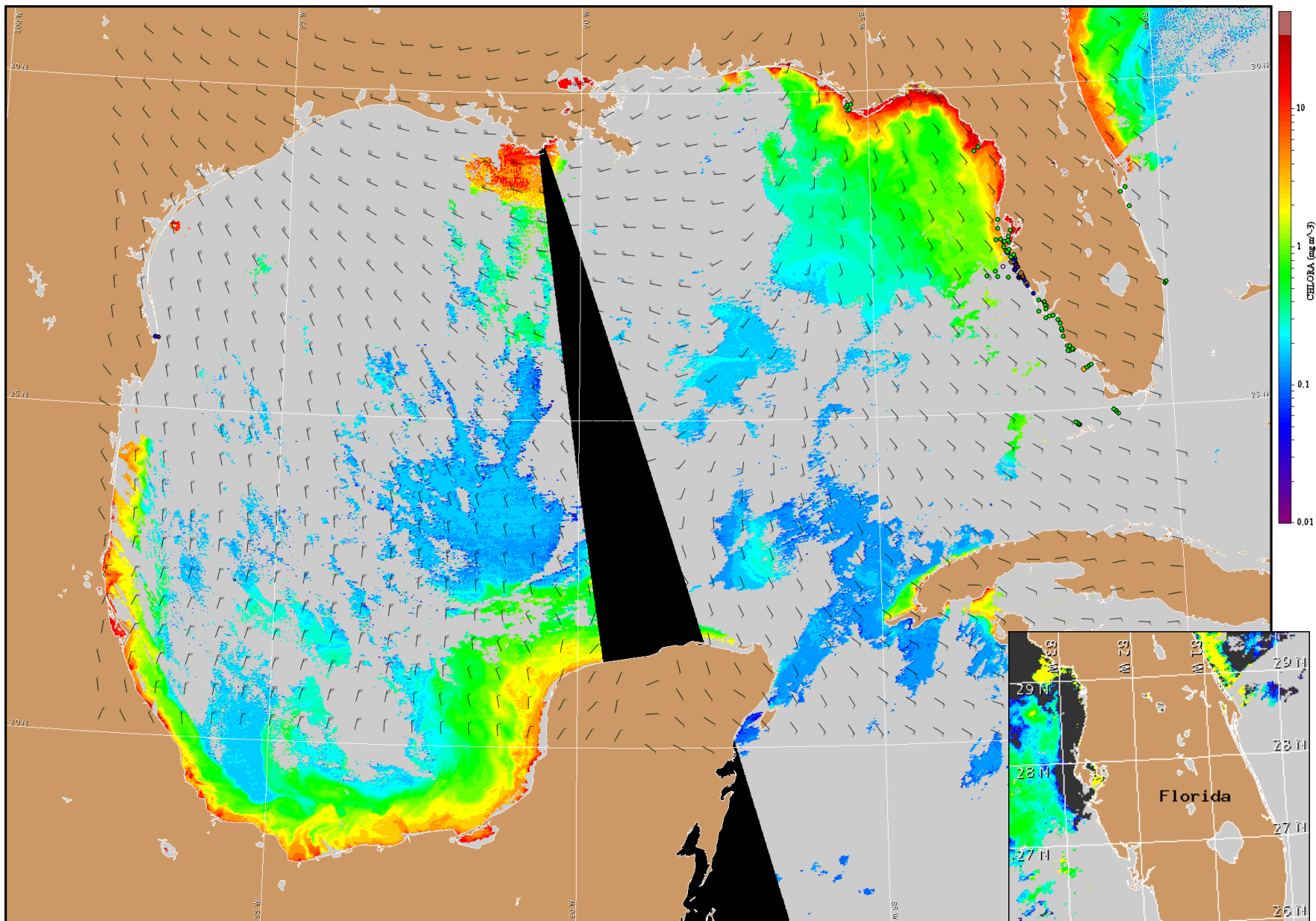
Wind Analysis

Southeast to east winds today (15-20kn, 8-10m/s). Southwest winds Friday (15-20kn), becoming north to northwest (15kn) Friday afternoon and night. North to northeast winds on Saturday and Sunday (10-15kn, 5-8m/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 25, 2009 06Z with Cell concentration sampling data from December 14 to 22 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).