



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

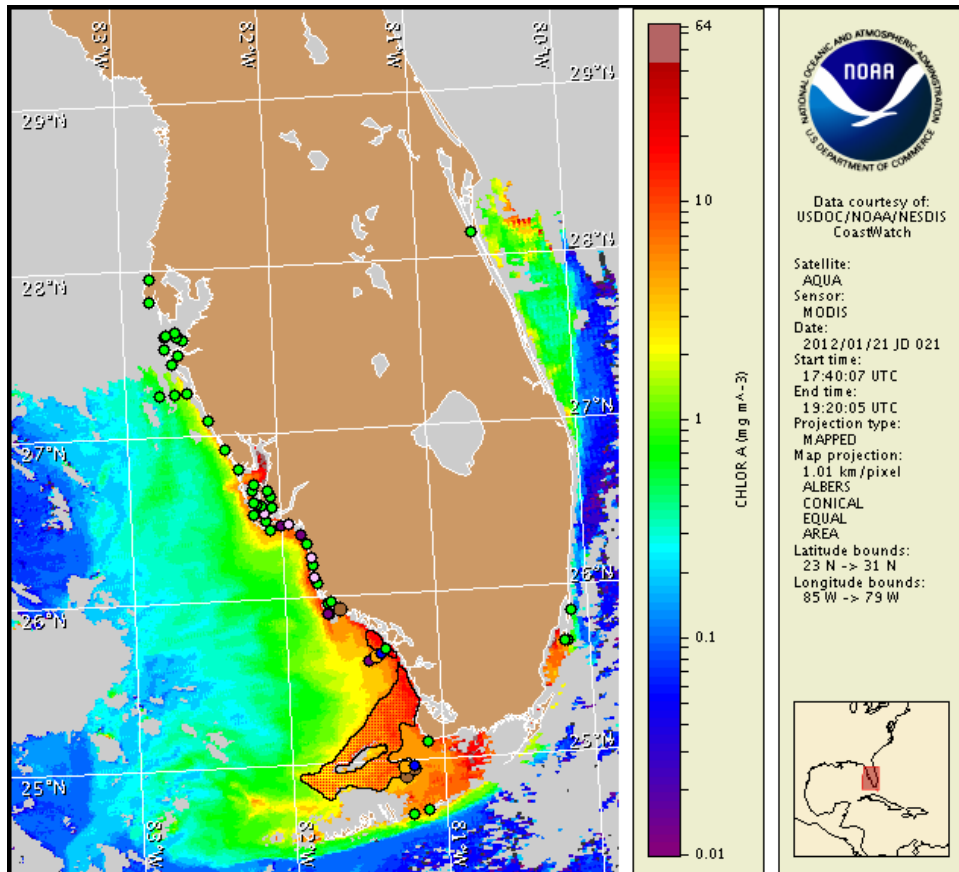
Monday, 23 January 2012

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, January 19, 2012



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from January 13 to 20 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 HAB-OFS bulletin guide:

[http://tidesandcurrents.noaa.gov/hab/habfs\\_bulletin\\_guide.pdf](http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf)

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:  
<http://tidesandcurrents.noaa.gov/hab/bulletins.html>

## Conditions Report

A patchy harmful algal bloom persists in the southern Pine Island Sound/San Carlos Bay & coastal Sanibel Island regions of Lee County, alongshore southern Lee and Collier counties, and offshore northern Monroe County. A harmful algal bloom has also been identified offshore the Gulf side of the Florida Keys. Patchy low impacts are possible in the San Carlos Bay and coastal Sanibel Island regions of Lee County and in the Marco Island region of central Collier County today through Wednesday. Patchy very low impacts are possible alongshore southern Lee County today through Wednesday. No other impacts are expected elsewhere at the coast in southwest Florida or in the Florida Keys today through Wednesday, January 25.

## Analysis

**Southwest Florida:** A harmful algal bloom persists in patches in the Pine Island Sound/San Carlos Bay and coastal Sanibel regions of Lee County, and alongshore southern Lee to northern Monroe counties. *Karenia brevis* samples collected late last week identified 'very low a' to 'medium' concentrations approximately 3-9 miles offshore Pavilion Key in northern Monroe County, with one 'not present' sample collected alongshore (1/18; MML). Background (Lynn Hall Park) to 'very low a' (Lighthouse Beach, Lover's Key State Park) concentrations were reported in Lee County (1/18; FWRI). 'Very low a' *K. brevis* concentrations were also identified in Collier County at South Marco Beach, with background concentrations reported at the Naples Pier and Vanderbilt Beach (1/19; FWRI, CCPCPD). No *K. brevis* was detected in samples collected alongshore Pinellas, Manatee, Sarasota or Charlotte counties over the last week; however, blooms of various non-toxic algal blooms have been reported throughout the region (1/14-19; CCPCPD, FWRI, MML, SCHD). There have been no recent reports of respiratory irritation or dead fish in Southwest Florida.

In recent MODIS imagery (1/21; shown left), elevated to high chlorophyll (4 to >20  $\mu\text{g/L}$ ) remains visible stretching alongshore southern Lee to Collier counties and along and offshore Monroe County. A very high chlorophyll patch is also visible in Collier County alongshore the Vanderbilt to Naples Beach area. Continued sampling in this area is recommended.

**Florida Keys:** Recent sampling identified 'very low a' to 'medium' *K. brevis* concentrations approximately 9-14 miles offshore north of Horseshoe Keys (1/20; MML). MODIS imagery (1/21; shown left) is cloudy throughout the Florida Keys; however, elevated to high chlorophyll (3-13  $\mu\text{g/L}$ ) is visible throughout the region north of the lower to middle Keys.

Forecasted winds will decrease the potential for impacts along the coast of southwest Florida through Wednesday.

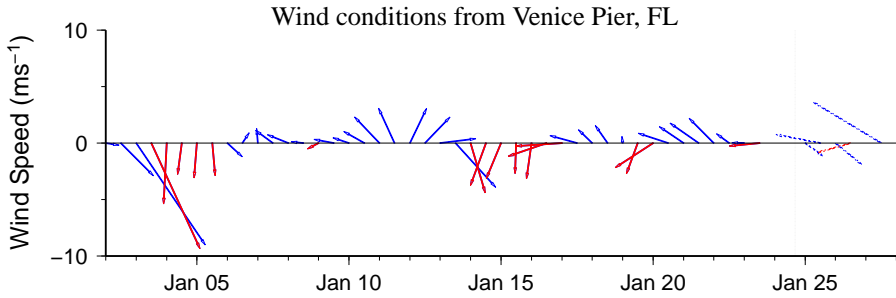
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## Wind Analysis

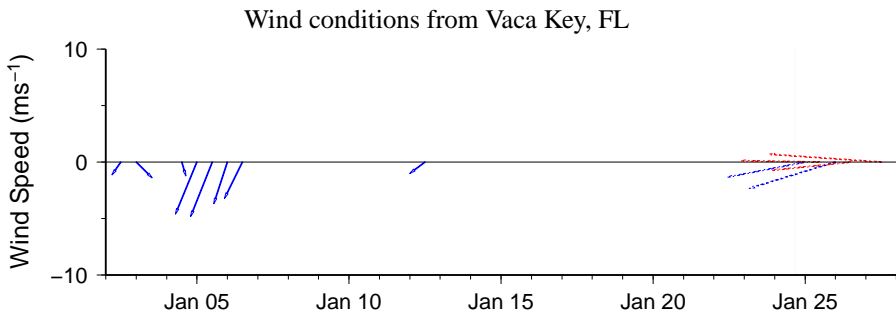
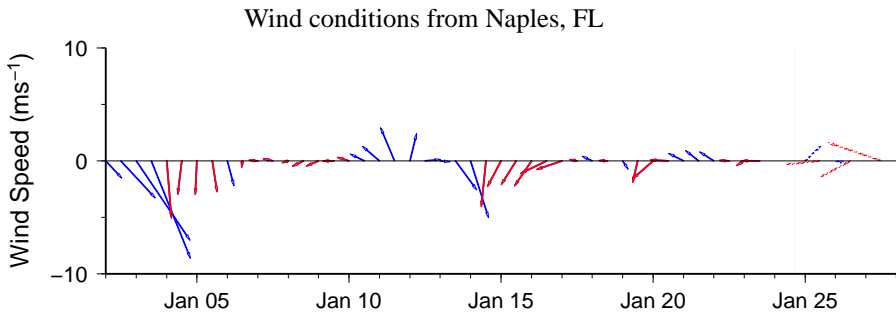
**Pinellas to Lee Counties:** Southeast winds (10-15kn, 5-8m/s) today becoming southwest (5-10kn, 3-5m/s) in the afternoon. Variable to east winds (5-10kn) tonight. Southeast winds (10kn, 5m/s) Tuesday becoming onshore in the afternoon. Variable winds (5kn, 3m/s) Tuesday night becoming east (10-15kn) overnight. Southeast winds (10-15kn) Wednesday.

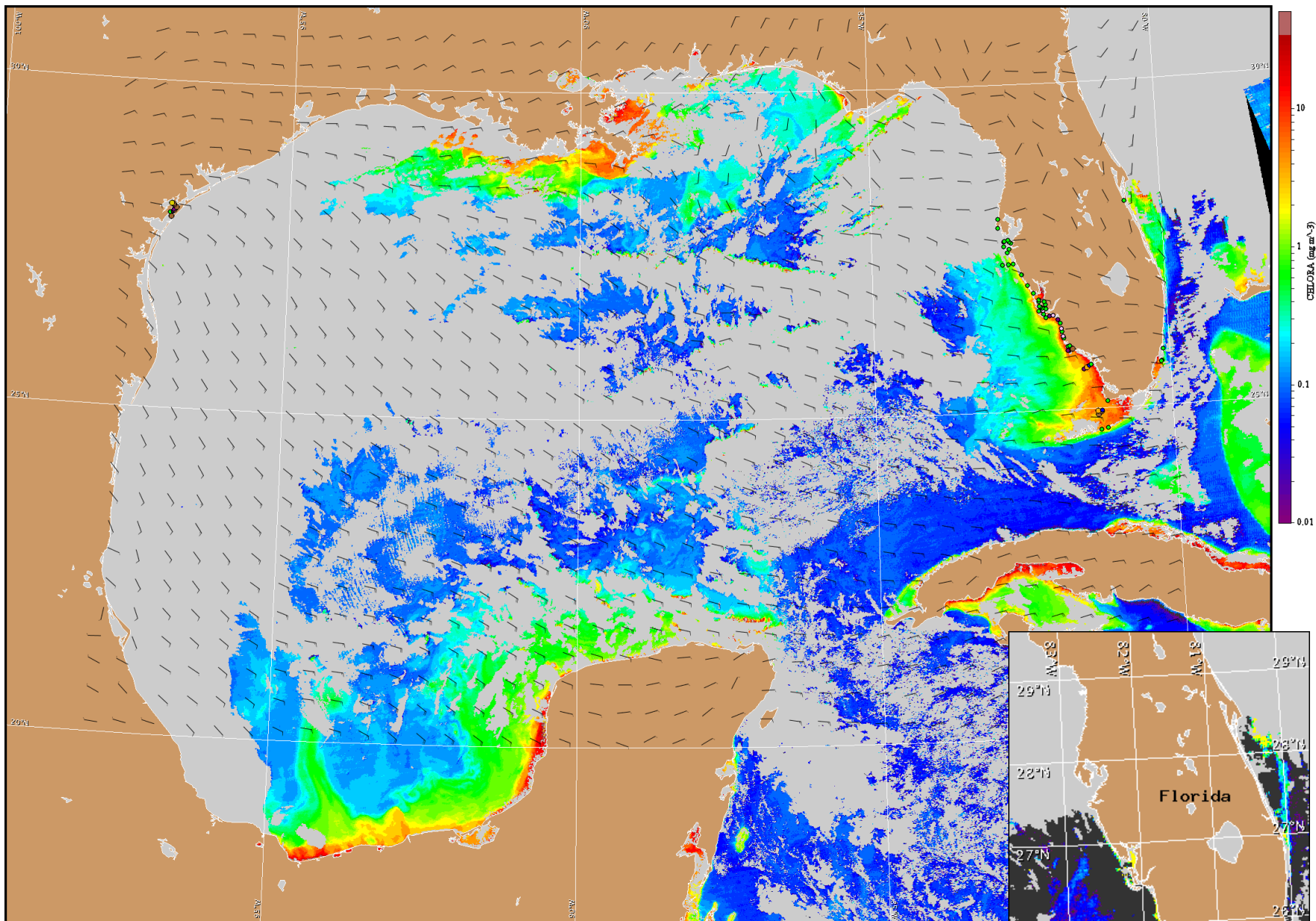
**Collier and Monroe Counties:** Southerly winds (8-12kn, 4-6m/s) today becoming east winds (9-12kn, 5-6m/s) tonight. East southeast winds (10-17kn, 5-9m/s) Tuesday and Wednesday.

**Florida Keys:** East to southeast winds (10-15kn) today becoming east (10-15kn) tonight through Tuesday. East to southeast winds (15kn, 8m/s) Tuesday night and Wednesday.



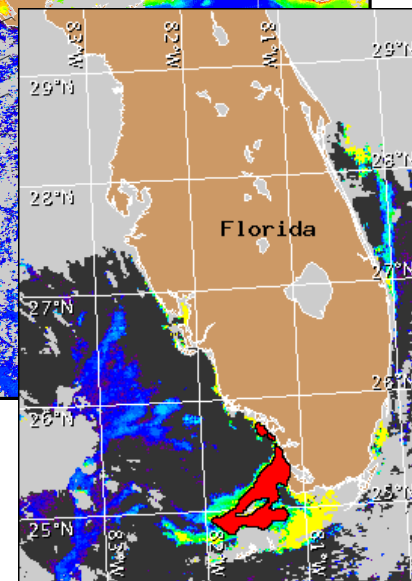
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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





Satellite chlorophyll image and forecast winds for January 24, 2012 12Z with cell concentration sampling data from January 13 to 20 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 HAB-OFS 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).