



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

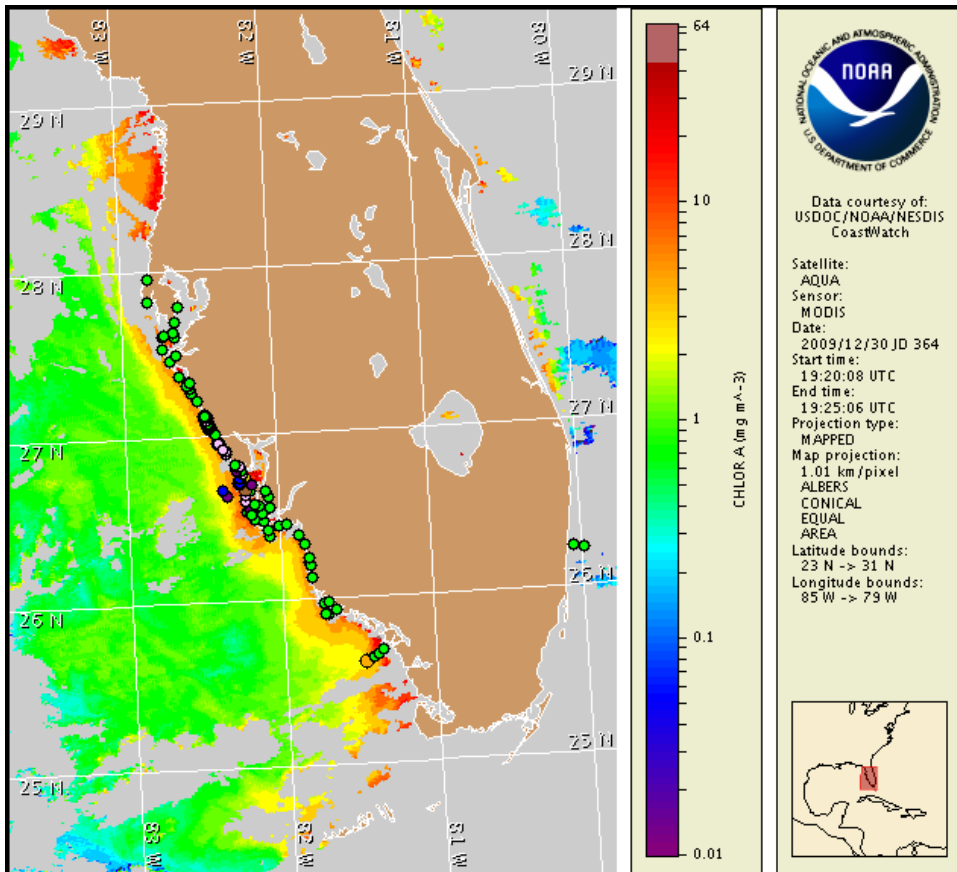
31 December 2009

NOAA Ocean Service

NOAA Satellites and Information Service

NOAA National Weather Service

Last bulletin: December 28, 2009



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from December 21 to 29 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 Sarasota, Charlotte and northern Lee Counties and offshore Sarasota, northern Lee and northern Monroe Counties. Today, patchy moderate impacts are possible in Sarasota and northern Lee Counties, and patchy very low impacts are possible in Charlotte County. On Friday, patchy moderate impacts are possible in Sarasota, patchy high impacts are possible in northern Lee County, and patchy very low impacts are possible in Charlotte County. On Saturday and Sunday, patchy very low impacts are possible in Sarasota and northern Lee Counties, and no impacts are expected in Charlotte County. No additional impacts are expected at the coast in southwest Florida today through Sunday, January 3.

Analysis

The harmful algal bloom in southwest Florida is located in patches alongshore Sarasota, Charlotte and northern Lee Counties, inside the Sarasota Bay System and inside the Charlotte Harbor, Pine Island Sound and Gasparilla Sound regions; as well as offshore northern Lee County (FWRI, SCHD, MML; 12/21-12/28). Recent sampling indicates decreasing concentrations overall, with background to 'Low a' concentrations of *Karenia brevis* in Lee County and background to 'Very Low' concentrations in Charlotte and Sarasota Counties (FWRI; 12/28-29).

Two recent samples offshore of Lee County did not detect *K. brevis* (FWRI; 12/26). The bloom was also last identified offshore Sarasota County on 12/14-12/15 (FWRI, MML); more current information is not available in this offshore region.

No reports of respiratory irritation or dead fish have been received over the past week. A localized *K. brevis* bloom also continues to be present 9 miles offshore of Pavilion Key in northern Monroe County ('medium' concentrations, MML, 12/22).

Recent MODIS imagery indicates that chlorophyll levels have decreased slightly from ~3-4 $\mu\text{g/L}$ alongshore Sarasota County, ~4-5 $\mu\text{g/L}$ alongshore Charlotte County and remain elevated up to 7 $\mu\text{g/L}$ alongshore to offshore northern Lee County. Distinct patches of elevated chlorophyll continue to extend offshore of northern Lee County with centerpoints at: 26°39'13"N, 82°18'35"W and 26°31'26"N, 82°15'21"W. There are currently no high chlorophyll patches offshore of Sarasota County and although clouds limit analysis, there appears to be a patch of elevated chlorophyll offshore of Lee County (northern extent: 26°37'33"N, 82°44'15"W).

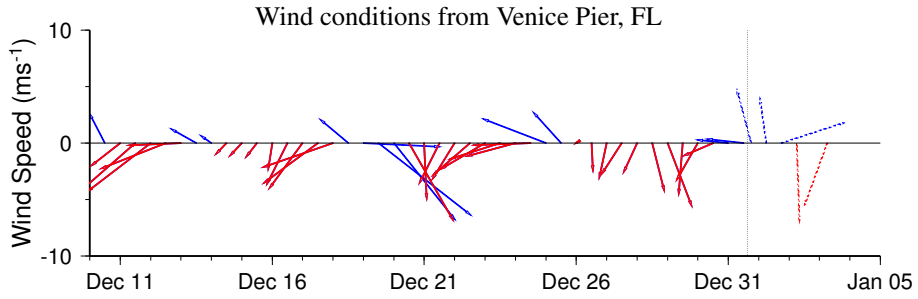
Bloom intensification at the coast is unlikely through Monday. Northerly winds over the weekend may promote further southward bloom expansion. Southwesterlies today and strong northwest winds on Friday, will increase the potential for coastal impacts.

Due to technical difficulties SeaWiFS imagery is currently unavailable for display. MODIS imagery is shown on this bulletin.

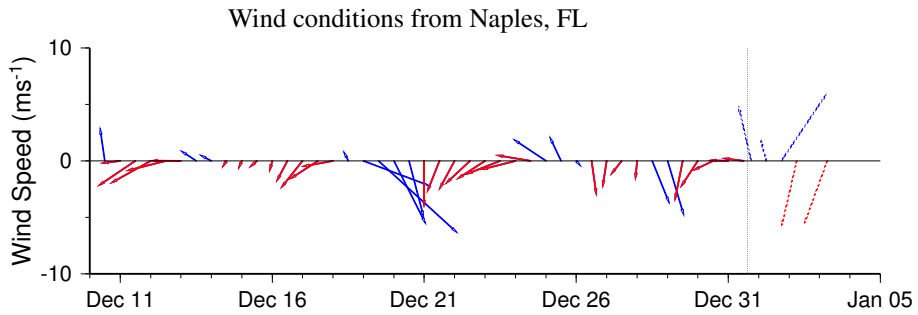
-Fenstermacher, Urizar

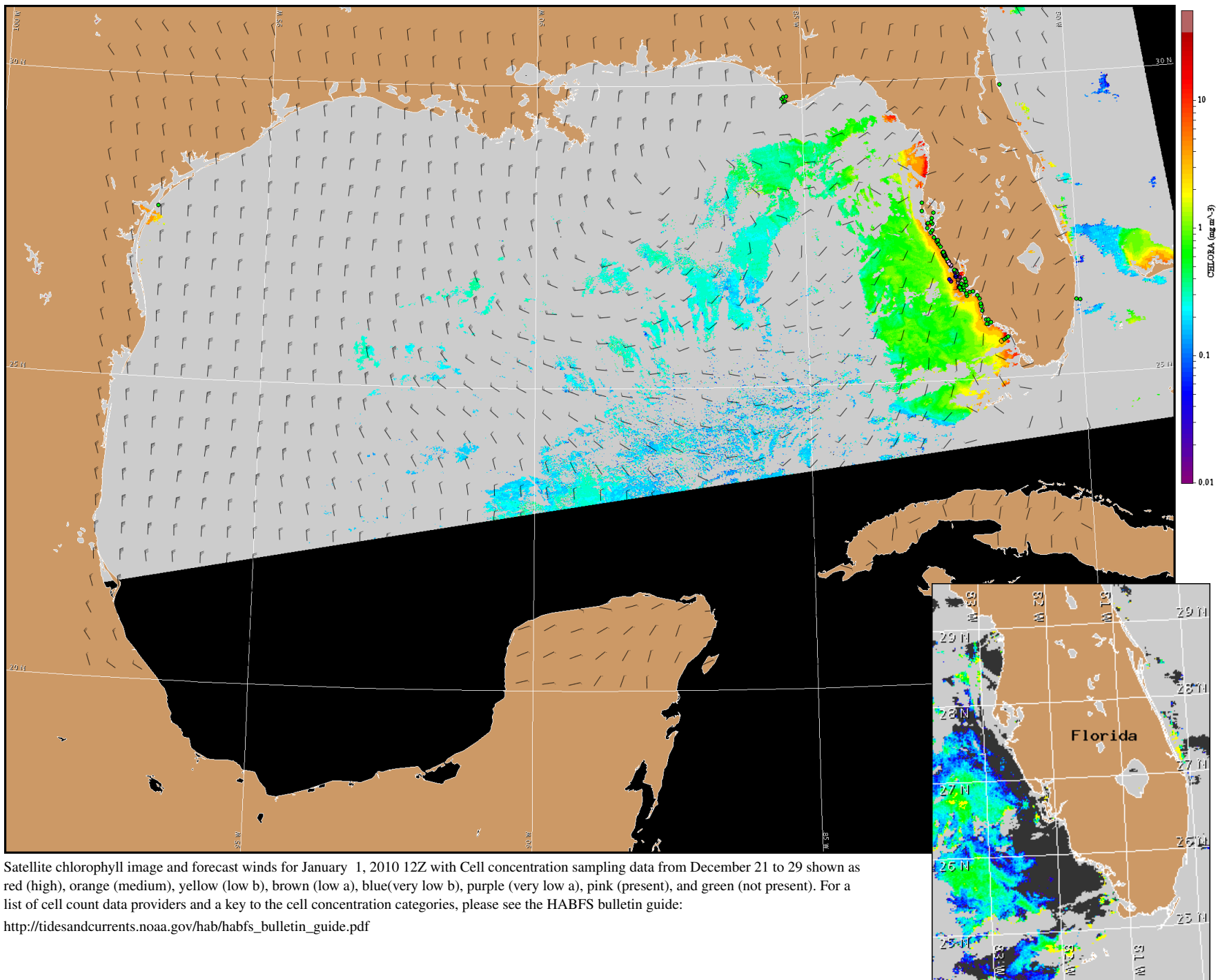
Wind Analysis

South to southwesterlies today (10-15 kn; 5-8 m/s) becoming strong northwesterlies on Friday and northerlies Friday night (20 kn; 10 m/s) through Monday (15 kn).



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 1, 2010 12Z with Cell concentration sampling data from December 21 to 29 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

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