



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

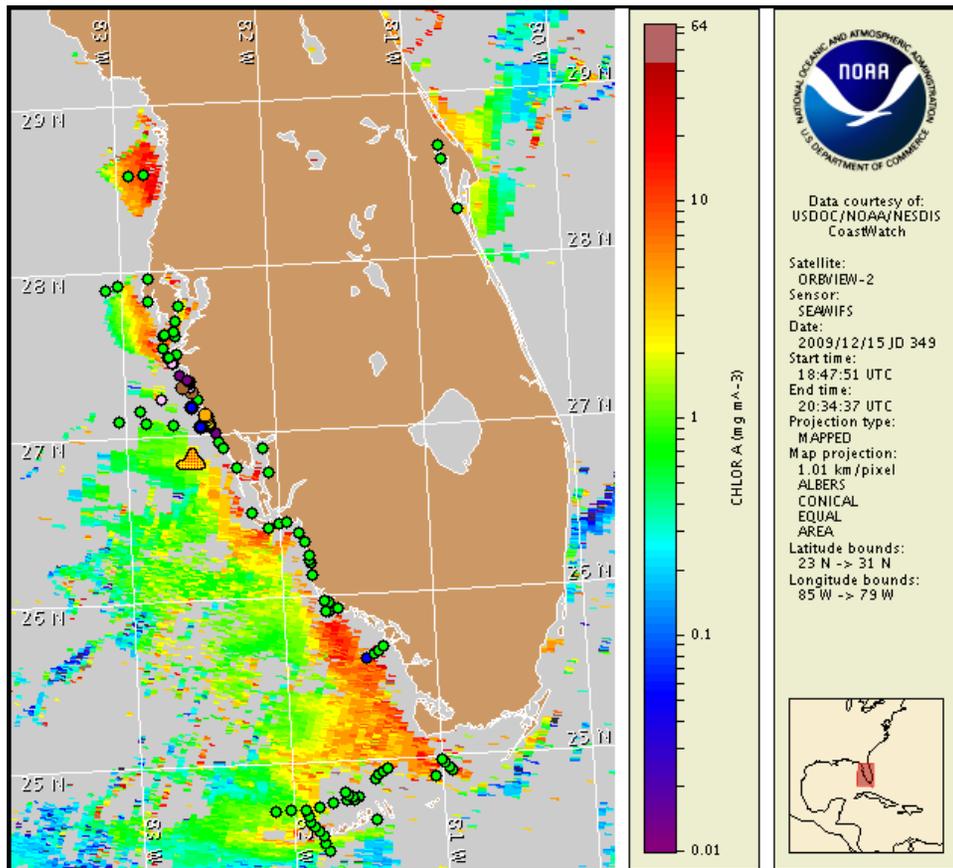
17 December 2009

NOAA Ocean Service

NOAA Satellites and Information Service

NOAA National Weather Service

Last bulletin: December 14, 2009



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from December 7 to 15 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

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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 County. A harmful algal bloom has also been identified offshore northern Monroe County. In Sarasota County, patchy very low impacts are possible today, with patchy, high impacts possible Friday through Sunday, December 20. Reports of dead fish have been received in Manatee County over the past few days. Dead fish smell, while unpleasant, does not produce the same respiratory irritation as a harmful algal bloom. No additional impacts are expected at the coast in southwest Florida today through Sunday, December 20.

Analysis

This is a supplemental bulletin. The next regular bulletin will be issued Monday, December 21.

A harmful algal bloom of *Karenia brevis* has been confirmed alongshore Sarasota County, with concentrations ranging from not present to medium (SCHD, MML, FWRI 12/14-15). A background concentration was also confirmed in Manatee County and fish kills were noted on the Bay Side of Anna Maria Sound. Recent imagery is cloudy alongshore of Sarasota and Manatee Counties and limits analysis.

Imagery from 12/15 (not shown) indicates the overall high chlorophyll levels alongshore have decreased from $> 10 \mu\text{g/L}$ to around $5 \mu\text{g/L}$. The patch of elevated chlorophyll remains offshore of northern Sarasota County, near where a background concentration of *K. brevis* was noted (FWRI, 12/15); centerpoints: $27^{\circ}17'55.96''\text{N}$, $82^{\circ}42'51.38''\text{W}$ and $27^{\circ}12'4.61''\text{N}$, $82^{\circ}46'49.11''\text{W}$. This feature appears to have decreased in extent over the previous couple days (12/13-14).

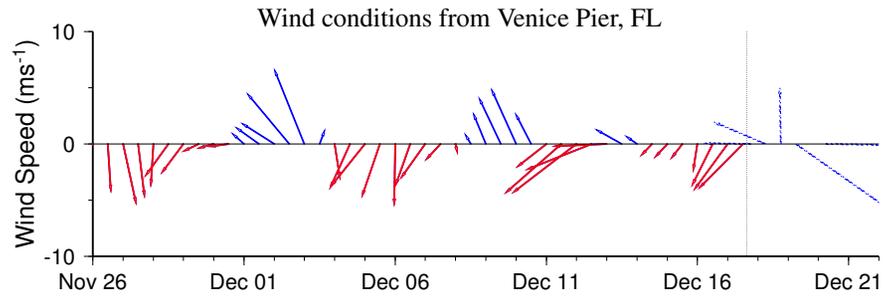
Imagery also indicates an elevated chlorophyll feature over the past week offshore of southern Sarasota County and northern Charlotte County, located at centerpoint $26^{\circ}51'54.21''\text{N}$, $82^{\circ}34'23.42''\text{W}$ (highlighted in imagery).

A *K. brevis* bloom was identified approximately 9 miles offshore Pavilion Key in northern Monroe County on 12/8 (Very Lowb; MML). No additional samples have been received. Chlorophyll levels continue to be elevated in this region.

Winds are expected to be offshore today, with variable onshore winds from Friday afternoon to Sunday (up to 20kn). This may maintain current bloom location.

As of today, December 17, southwest Florida bulletins will be issued twice weekly on Mondays & Thursdays due to current harmful algal bloom activity.

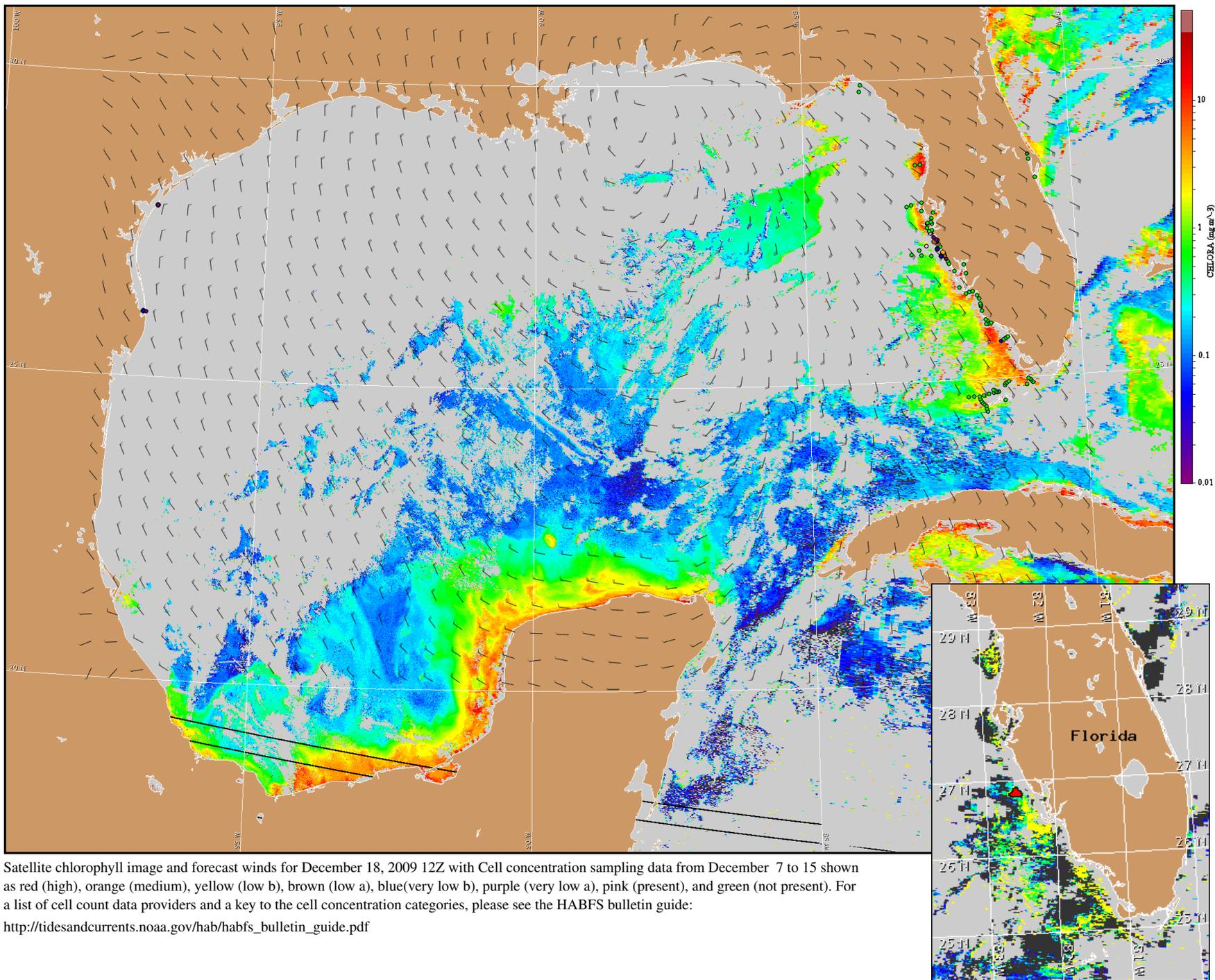
Fenstermacher, Lindley



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).

Wind Analysis

Strong easterlies today (15-20 kn; 8-10 m/s). Strong southerlies clocking around to northwesterlies by Friday night through Saturday (20 kn) and Sunday (10-20 kn).



Satellite chlorophyll image and forecast winds for December 18, 2009 12Z with Cell concentration sampling data from December 7 to 15 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).