



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

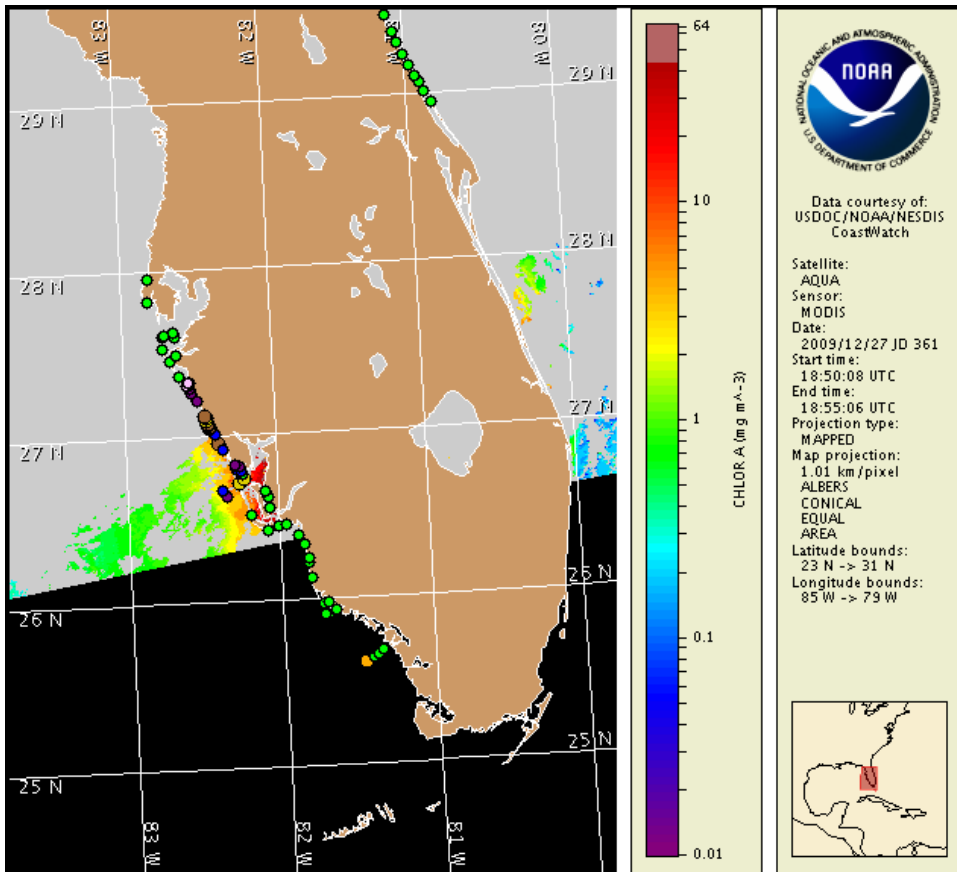
28 December 2009

NOAA Ocean Service

NOAA Satellites and Information Service

NOAA National Weather Service

Last bulletin: December 24, 2009



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from December 18 to 24 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 County, patchy high impacts are possible in northern Lee County, and patchy very low impacts are possible in Charlotte County. On Tuesday and Wednesday, 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 Wednesday, December 30.

Analysis

The harmful algal bloom in southwest Florida expanded both onshore and offshore into northern Lee County as of late last week. 'Very low a' to 'medium' concentrations of *Karenia brevis* and *Karenia sp.* were identified at Boca Grande Pass and in the Charlotte Harbor and Gasparilla Sound region on 12/24 (FWRI). The bloom's present extent as confirmed by samples over the past 10 days is located alongshore Sarasota, Charlotte and northern Lee Counties, inside the Sarasota Bay System and inside the Charlotte Harbor and Gasparilla Sound region; as well as offshore northern Lee County (FWRI, SCHD, MML; 12/21-12/24). 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).

Satellite imagery has been predominantly obscured by clouds over the past several days, limiting bloom analysis. Recent MODIS imagery (shown) indicates that chlorophyll levels are elevated from 4-6 µg/L alongshore Charlotte County up to 7 µg/L nearshore to offshore northern Lee County. Distinct patches of elevated chlorophyll are visible offshore northern Lee County at 26°43'36"N, 82°18'57"W and 26°30'55"N, 82°16"W and in a band stretching from Boca Grande Pass offshore to 26°37'38"N, 82°19'53"W where 'very low a' to 'medium' concentrations of *Karenia brevis* and *Karenia sp.* were identified (12/23-12/24, FWRI).

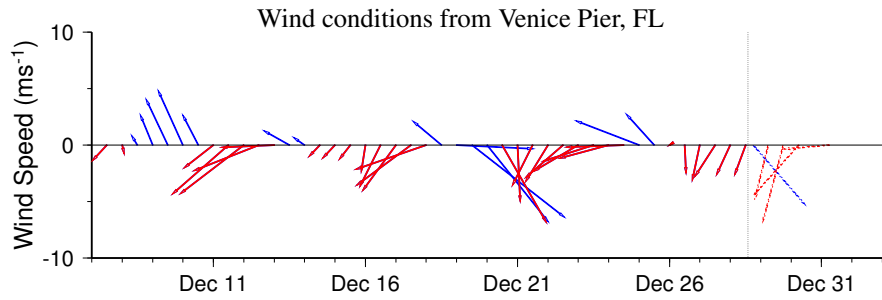
Bloom intensification at the coast is unlikely through Wednesday. Northerly winds over the weekend may have promoted further southward bloom expansion. Continued southward expansion is possible through Tuesday. Moderate to strong northwest winds will increase the potential for coastal impacts this afternoon and tonight.

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

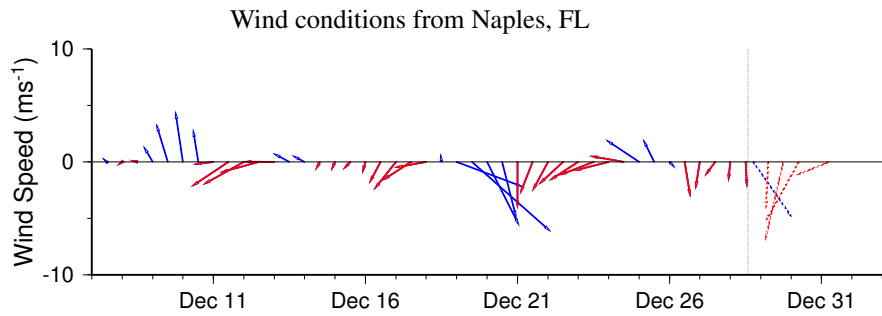
-Fisher, Urizar

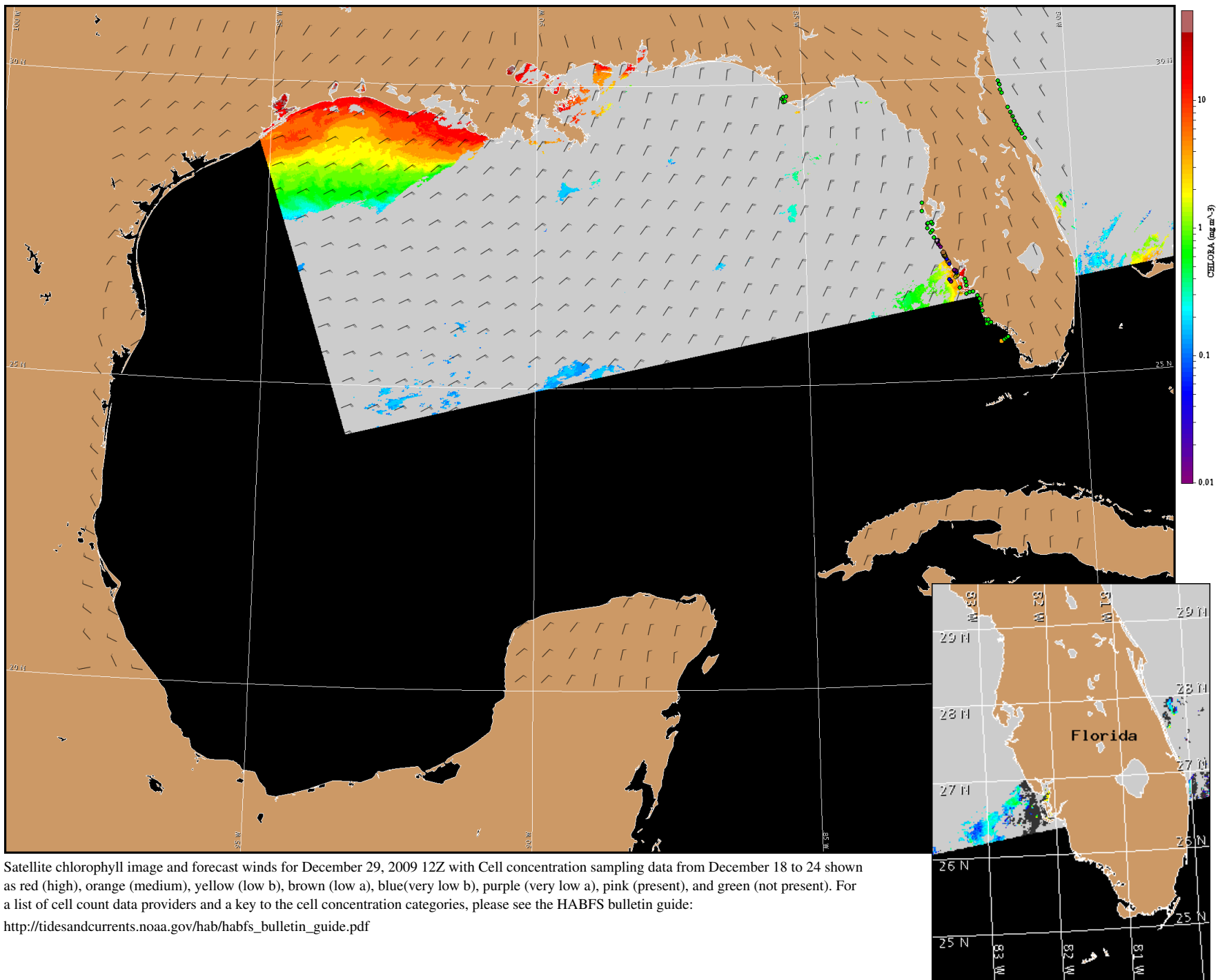
Wind Analysis

Northwest to north winds today (10-20kn, 5-8m/s). Northeast to east winds Tuesday (15kn, 8m/s). Southeast winds to east winds Wednesday (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 29, 2009 12Z with Cell concentration sampling data from December 18 to 24 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).