



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: South Florida

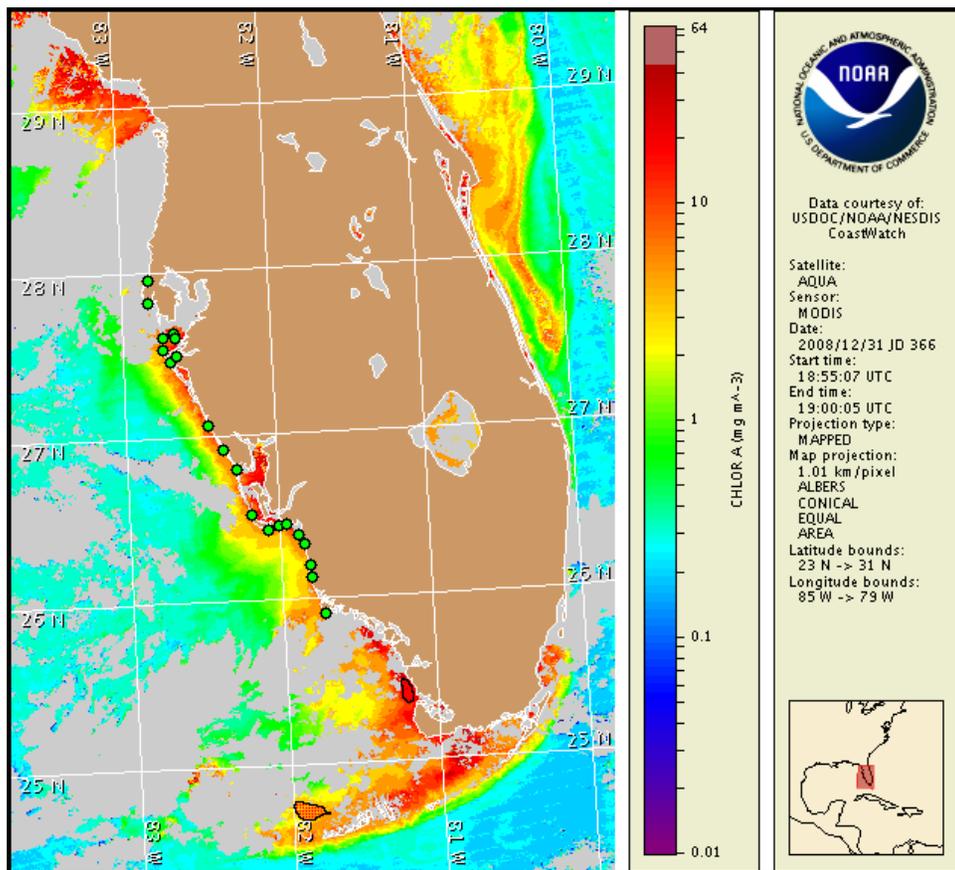
2 January 2009

NOAA Ocean Service

NOAA Satellites and Information Service

NOAA National Weather Service

Last bulletin: December 29, 2008



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from December 23 to 30 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 was last identified on the gulf side of the Lower Florida Keys in Monroe County on December 19. This bloom is likely still present. Very low impacts are possible on the gulf side of the Lower Florida Keys today through Sunday. No additional impacts are expected elsewhere in southwest Florida today through Sunday, January 4.

Analysis

An elevated chlorophyll feature persists north of the Lower Florida Keys in Monroe County where very low to medium concentrations were previously identified on 12/17-12/19 (MML). MODIS satellite imagery (12/31, displayed at left) indicates that the elevated chlorophyll patch (up to 5 $\mu\text{g/L}$) associated with this bloom continues to move westward to approximately 24°42'7"N, 82°1'18"W on its western edge. The chlorophyll feature (up to 8 $\mu\text{g/L}$), still approximately 57 miles northwest of the Marquesas Keys, continues to dissipate although satellite imagery is cloudy over the feature's southern edge.

Background concentrations of *Karenia brevis* were found in samples collected at Rabbit Key and Huston River in Everglades National Park (FWRI, 12/22) in northern Monroe County. Recent MODIS satellite imagery indicates high chlorophyll levels in this region (>10 $\mu\text{g/L}$).

The chlorophyll patch previously reported offshore Collier County has diminished in size and remains in the same general location. MODIS satellite imagery indicates that it is centered at 25°53'30"N, 81°57'23"W although satellite imagery is cloudy over the feature's southern edge.

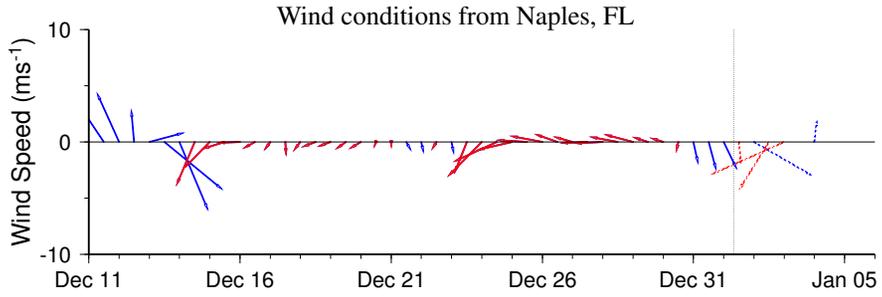
Continued sampling in all regions is recommended.

Conditions are favorable for continued westerly transport of elevated to high chlorophyll patches in the Florida Keys. Southeasterly and easterly winds today through Sunday will decrease the potential for impacts in the gulf side of the Lower Florida Keys.

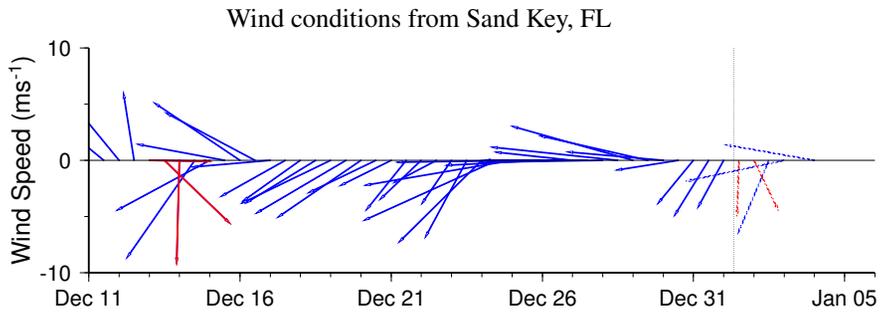
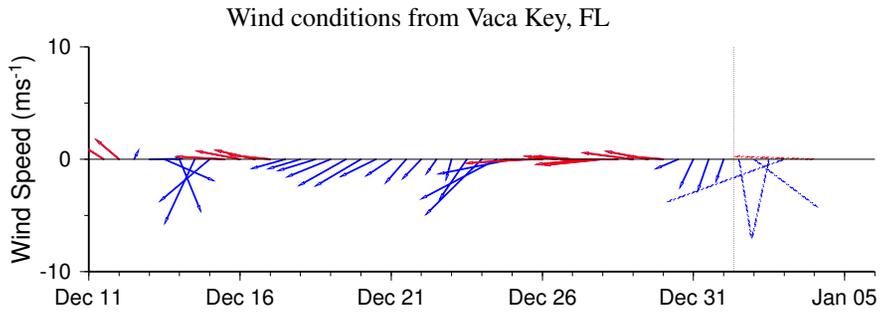
-Lindley, Fisher

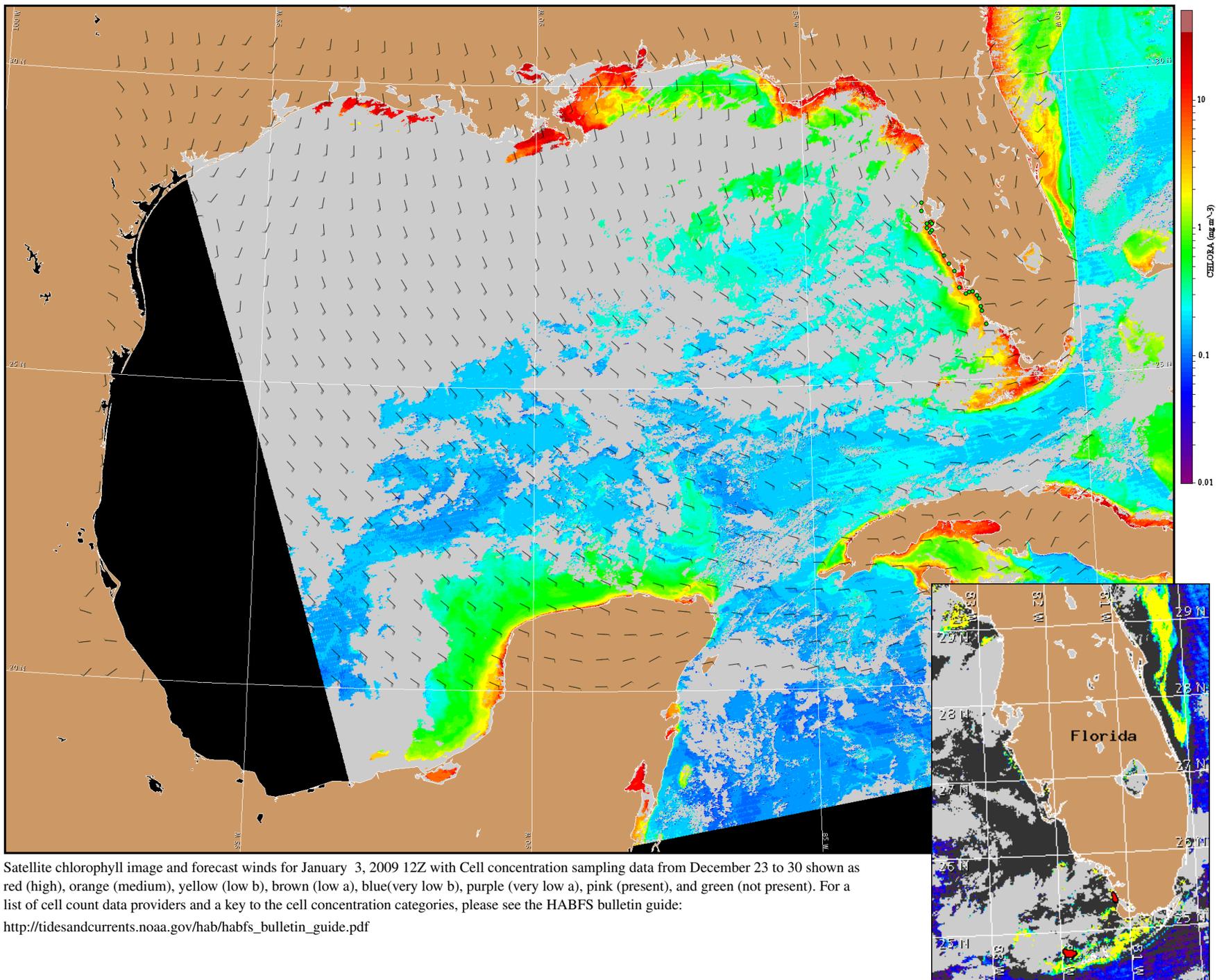
Wind Analysis

Southwest Florida & Florida Keys: East and Southeast winds (15 kn, 8 m/s) today through Sunday.



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 3, 2009 12Z with Cell concentration sampling data from December 23 to 30 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).