



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: South Florida

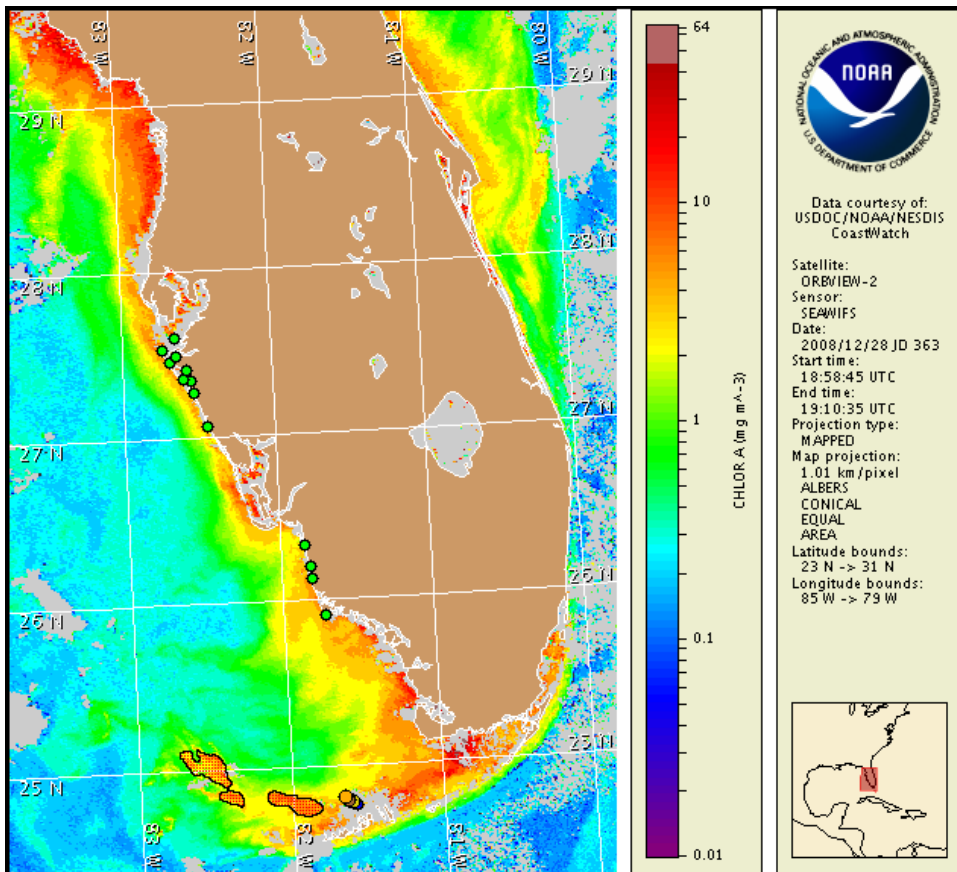
29 December 2008

NOAA Ocean Service

NOAA Satellites and Information Service

NOAA National Weather Service

Last bulletin: December 22, 2008



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from December 19 to 22 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 on the gulf side of the lower Florida Keys in Monroe County. Patchy moderate impacts are possible on the gulf side of the lower Florida Keys today through Thursday. Harmful algae has been identified in the Ten Thousand Islands region of northern Monroe County. No impacts are northern Monroe County or elsewhere in southwest Florida today through Thursday, January 1.

Analysis

** Due to the federal holiday on January 1, the next bulletin will be issued on Friday, January 2, 2009.**

A harmful algal bloom persists north of the lower Florida Keys in Monroe County. Satellite imagery is cloudy directly over the chlorophyll patch associated with this bloom. However elevated chlorophyll levels to the west and north indicate continued westward movement of the elevated chlorophyll patch (up to $6 \mu\text{g/L}$) to approximately $24^{\circ}36'22''\text{N}$, $82^{\circ}0'24''\text{W}$ on its western edge. The chlorophyll feature ($> 8 \mu\text{g/L}$) now seen approximately 57 miles northwest of the Marquesas Keys appears to be dissipating.

Present concentrations of *Karenia brevis* were found in samples taken at Rabbit Key and Huston River in Everglades National Park (FWRI, 12/22). Present concentrations of *K. brevis* were also found in samples taken 10 and 16 miles southwest of Sanibel Island in Lee County (FWRI, 12/20). Satellite imagery does not indicate elevated levels of chlorophyll associated with *K. brevis* in either of these regions at this time.

The chlorophyll patch previously reported on offshore Collier County has diminished in size and remains in the same general location. Satellite imagery indicates that it is centered at $25^{\circ}43'31''\text{N}$, $82^{\circ}6'24''\text{W}$.

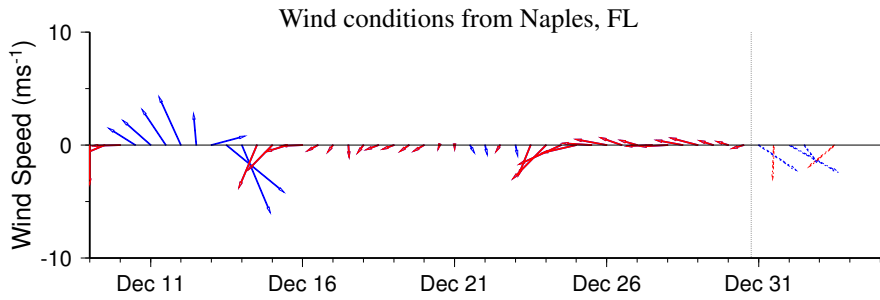
Continued sampling in all regions is recommended.

Conditions are favorable for continued westerly transport of elevated chlorophyll patches in the Florida Keys. North and northeasterly winds today through Thursday will increase the potential for impacts on the gulf side of the lower Florida Keys.

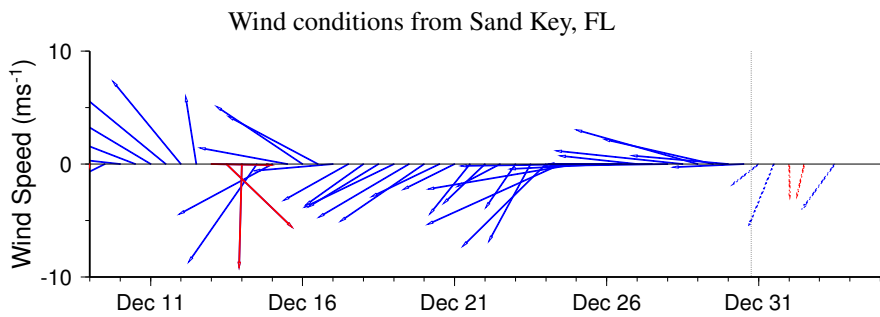
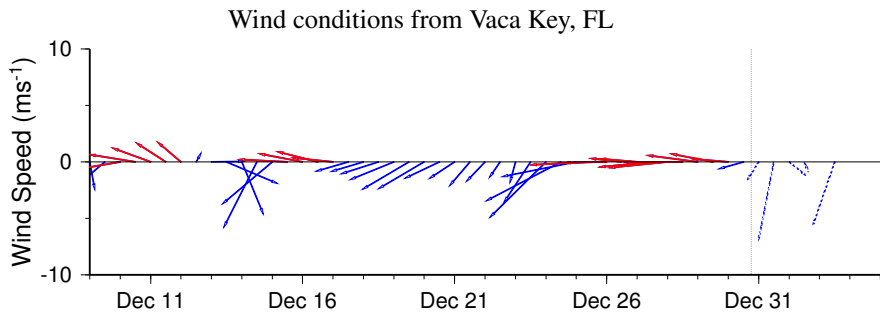
-Lindley, Fenstermacher

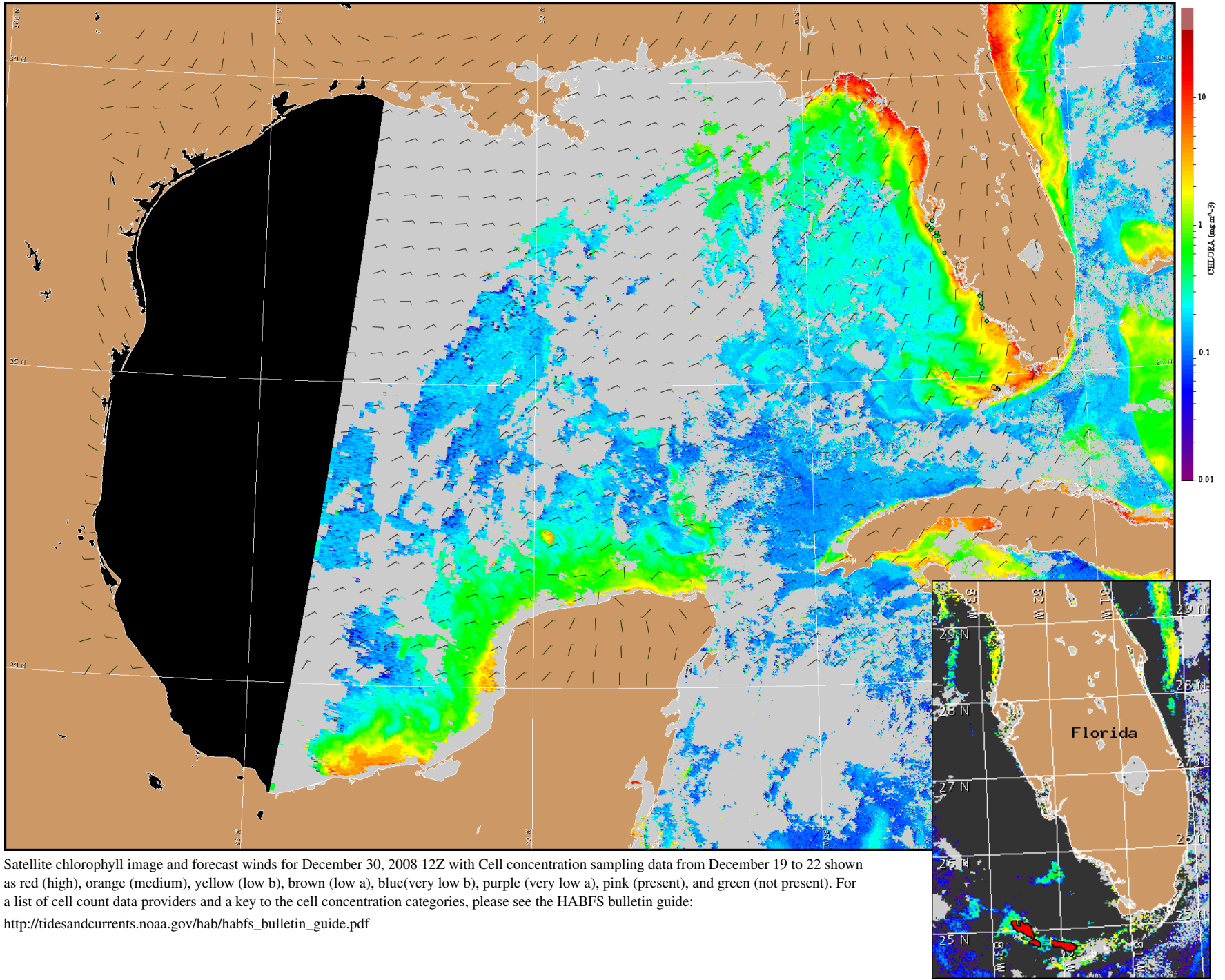
Wind Analysis

Southwest Florida & Florida Keys: Northeast and north winds (5-10 kn, 3-5 m/s) this afternoon and tonight. Northeast winds (5-10 kn, 3-5 m/s) tonight through Thursday except for north winds on Wednesday (5-10 kn, 3-5 m/s).



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 30, 2008 12Z with Cell concentration sampling data from December 19 to 22 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).