



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: South Florida

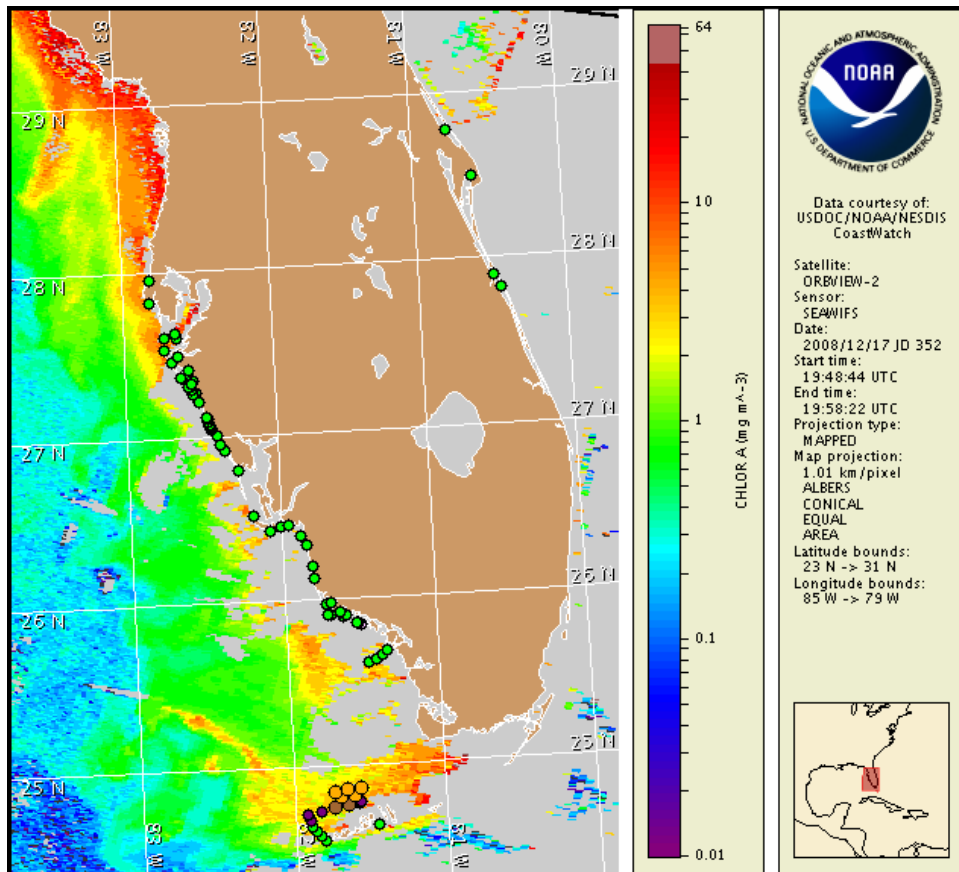
18 December 2008

NOAA Ocean Service

NOAA Satellites and Information Service

NOAA National Weather Service

Last bulletin: December 15, 2008



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from December 8 to 16 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 the gulf side of the lower Florida Keys, Monroe County. Patchy, moderate impacts are possible today through Friday, with patchy, very low impacts possible on Saturday and Sunday. Harmful algae has been identified in the Ten Thousand Islands area of southern Collier County. No impacts are expected in southern Collier County today through Sunday, December 21.

Analysis

A harmful algal bloom was reported approximately 5-16 miles offshore of the gulf side lower Florida Keys, Monroe County. *Karenia brevis* concentrations ranged from not present to medium north of the lower Keys (12/16; MML). *K. brevis* concentrations were also reported in the Ten Thousand Islands area, from Tripod Key to Shell Key, Collier County (not present to Very Low; 12/08; FWRI).

A distinct elevated chlorophyll feature (up to $7 \mu\text{g/L}$) coincides with the lower Keys samples and is located from $24^{\circ}48'37.72''\text{N}$, $81^{\circ}48'19.87''\text{W}$ western extent to $24^{\circ}53'44.4''\text{N}$, $81^{\circ}29'24.96''\text{W}$ eastern extent. There is also an elongated elevated chlorophyll feature extending north and approximately 19 miles offshore of the Marquesas Keys. Generally, chlorophyll levels north of the Keys have dissipated slightly ($<3 \mu\text{g/L}$).

The small patch of elevated chlorophyll (up to $5 \mu\text{g/L}$) located approximately 18 miles offshore of Collier County continues to move south and is centered at $25^{\circ}41'20.51''\text{N}$, $81^{\circ}54'25.38''\text{W}$.

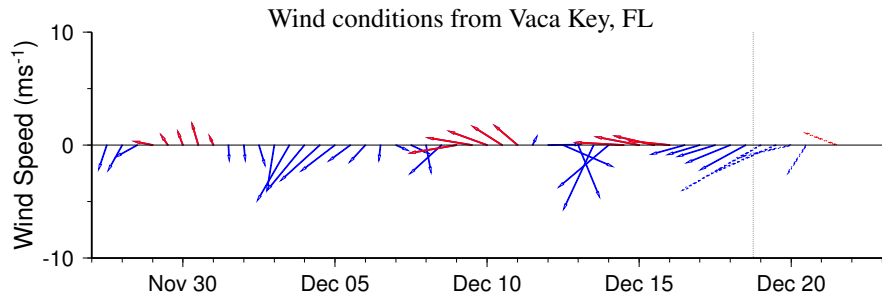
Northeast to easterly winds will increase likelihood of impacts in the gulf side of the lower Keys today and Friday. Westerly transport is possible for the Keys area, today through Sunday.

Due to the identification of a harmful algal bloom in the Florida Keys, the bulletins will be issued twice weekly.

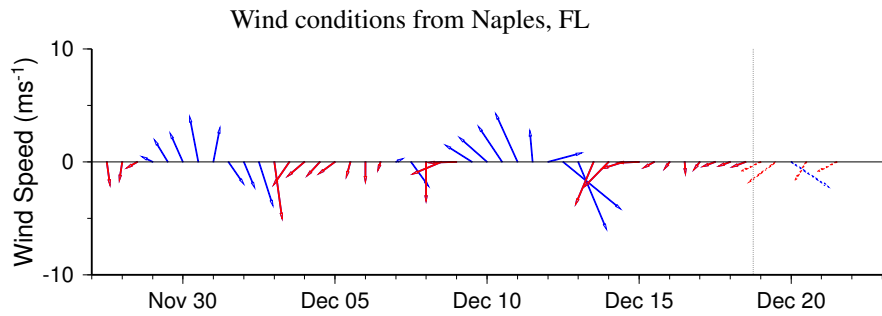
~ Fenstermacher, Urizar

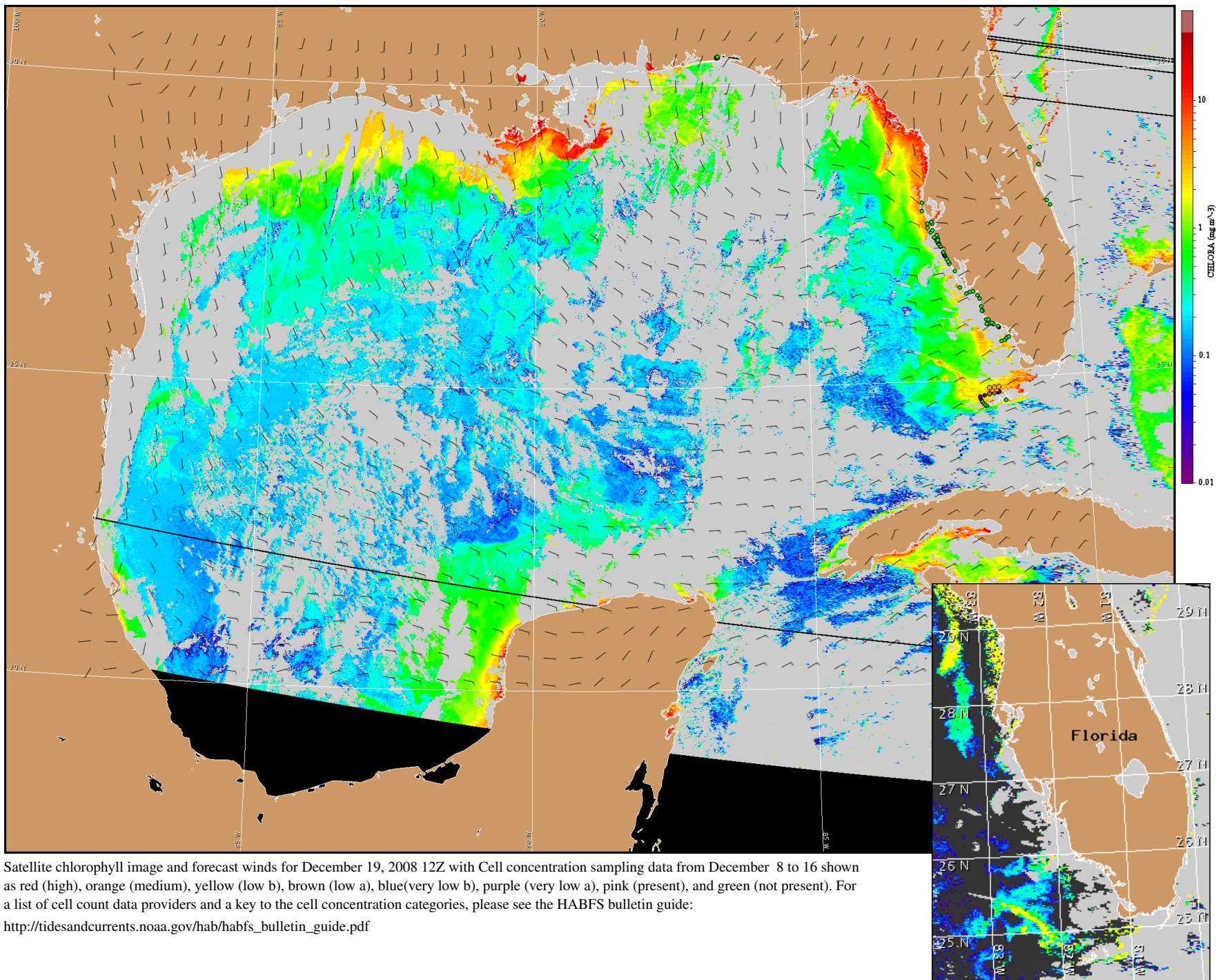
Wind Analysis

SW Florida: Northeast to east winds through Saturday, with higher speeds in the gulf side Keys (5-15 kn; 3-8 m/s). Variable winds on Sunday (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 19, 2008 12Z with Cell concentration sampling data from December 8 to 16 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).