



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

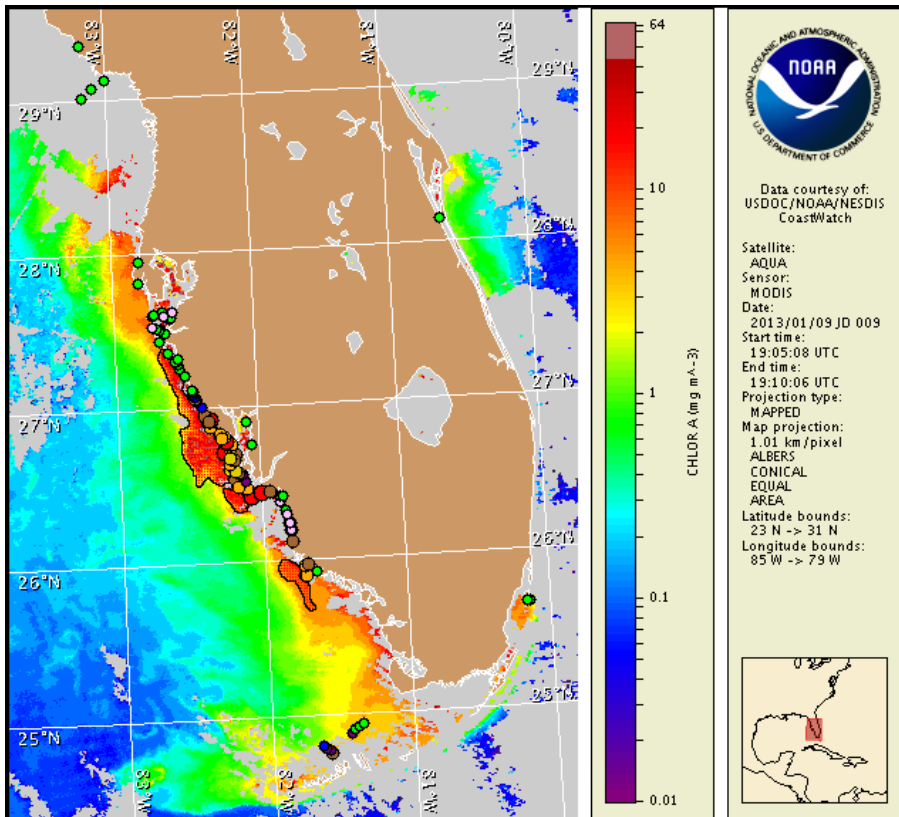
Thursday, 10 January 2013

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, January 7, 2013



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s). Cell concentration sampling data from December 31 to January 8 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). Cell count data are provided by Florida FWC Fish and Wildlife Research Institute. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Detailed sample information can be obtained through the Florida FWC Fish and Wildlife Research Institute at:

<http://myfwc.com/research/redtide/events/status/statewide/>

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit at: <http://tidesandcurrents.noaa.gov/hab/bulletins.html>

Conditions Report

Very low to high concentrations of *Karenia brevis* (commonly known as Florida Red Tide) are present along- and offshore from southern Pinellas to Collier counties, as well as offshore the gulfside of the lower Florida Keys. Alongshore southern Sarasota County, patchy very low respiratory impacts are possible today through Monday. Alongshore northern Charlotte County, patchy low respiratory impacts are possible today through Monday. In the bay regions of Charlotte and Lee County, and in central Lee County, patchy high respiratory impacts are possible today through Monday. Alongshore northern Collier County, patchy very low respiratory impacts are possible today through Monday. In the bay regions of central Collier County, patchy high respiratory impacts are possible today through Sunday, with patchy moderate respiratory impacts possible Monday. No respiratory impacts are expected elsewhere alongshore southwest Florida, including the Florida Keys, today through Monday, January 14. Over the past few days, reports of respiratory irritation were received from Charlotte and Collier counties. Reports of dead fish were received from Lee, Charlotte, and Collier counties.

Analysis

Southwest Florida: A harmful algal bloom of *Karenia brevis* is present along- and offshore southwest Florida from southern Pinellas to Collier counties, with *K. brevis* concentrations ranging from 'not present' to 'high'. In the bays of Pinellas and Manatee counties, and alongshore Manatee County, recent sampling indicates *K. brevis* concentrations between 'not present' and 'background' (FWRI; 1/7-8). In northern Sarasota County, recent sampling indicates *K. brevis* is not present while sampling in southern Sarasota indicates 'low a' concentrations (FWRI; 1/7). In the bay regions of Charlotte and Lee County, sampling continues to indicate 'medium' to 'high' concentrations of *K. brevis* (FWRI; 1/7-8). In the central Collier County, recent sampling indicated 'medium' concentrations of *K. brevis* (FWRI; 1/7). Over the past few days, reports of respiratory irritation were received from the Boca Grande area of Charlotte County and Marco Island in Collier County (MML, CCPCPD; 1/8-9).

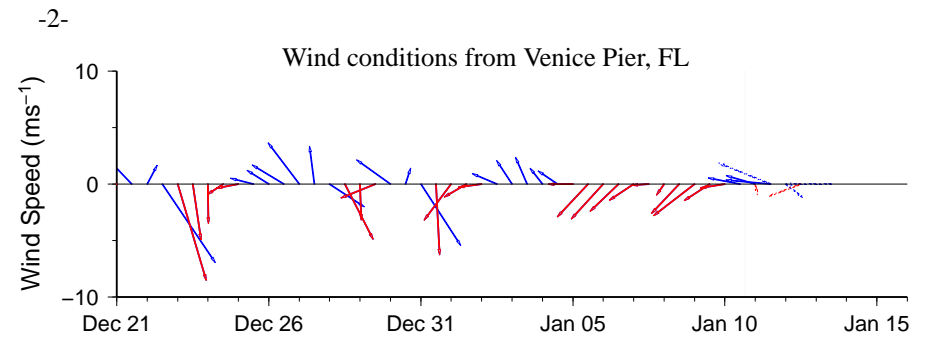
Recent MODIS Aqua imagery (1/9, shown left) is partially obscured by clouds along- and offshore the southwest Florida coast. Elevated chlorophyll (2-6 $\mu\text{g/L}$) is visible stretching along- and offshore the coast of southwest Florida from Pinellas to Monroe counties. Patches of elevated to very high chlorophyll (3 to $>20 \mu\text{g/L}$) are also visible stretching along- and offshore northern Sarasota to southern Lee County, and offshore central Collier County. A defined area of anomalously high chlorophyll is visible along- and offshore southern Charlotte and Lee counties from 26°56'04"N 82°28'29"W to 26°19'30"N 82°11'15"W. Continued sampling of this area is recommended.

Offshore winds forecast today through Monday may decrease the potential for onshore transport of the bloom and decrease the likelihood of respiratory impacts alongshore southwest Florida, except for in the bays regions of Charlotte, Lee and Collier counties.

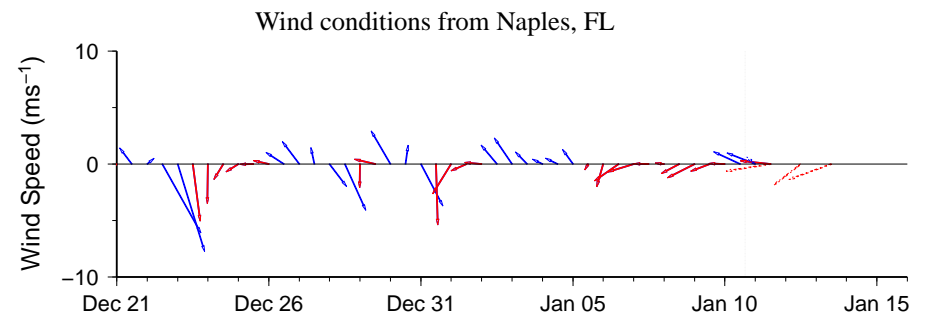
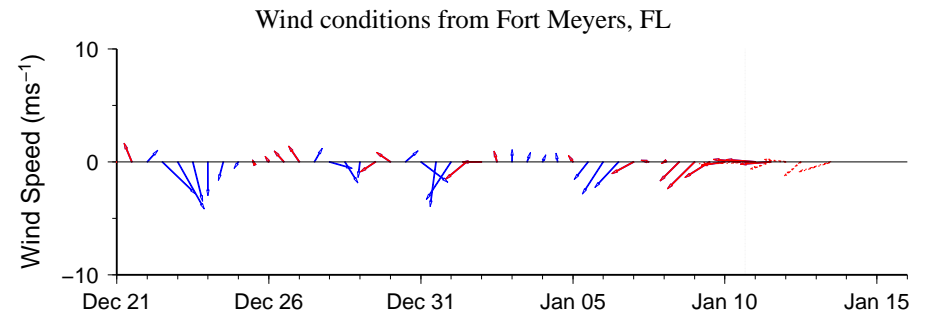
Florida Keys: A harmful algal bloom of *Karenia brevis* is present offshore the gulf side of the lower Florida Keys. Recent sampling indicated *K. brevis* concentrations between 'background' and 'low a' 4-14 miles offshore of the lower Florida Keys where previous sampling indicated 'very low a' to 'medium' (MML; 12/28-29, 1/4).

MODIS Aqua imagery (1/9; shown page 1) is partially obscured by clouds along- and offshore the Florida Keys, limiting analysis. Elevated chlorophyll concentrations (2-7 $\mu\text{g/L}$) are visible along- and offshore the lower and middle Keys. Forecasted winds today through Monday may promote the potential for offshore transport of the bloom.

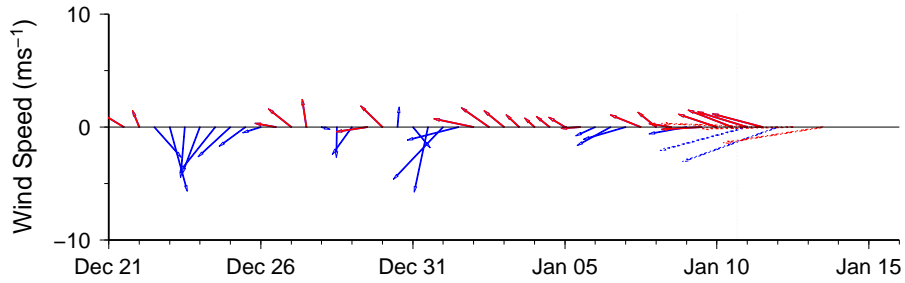
Davis, Urizar



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 conditions from Vaca Key, FL

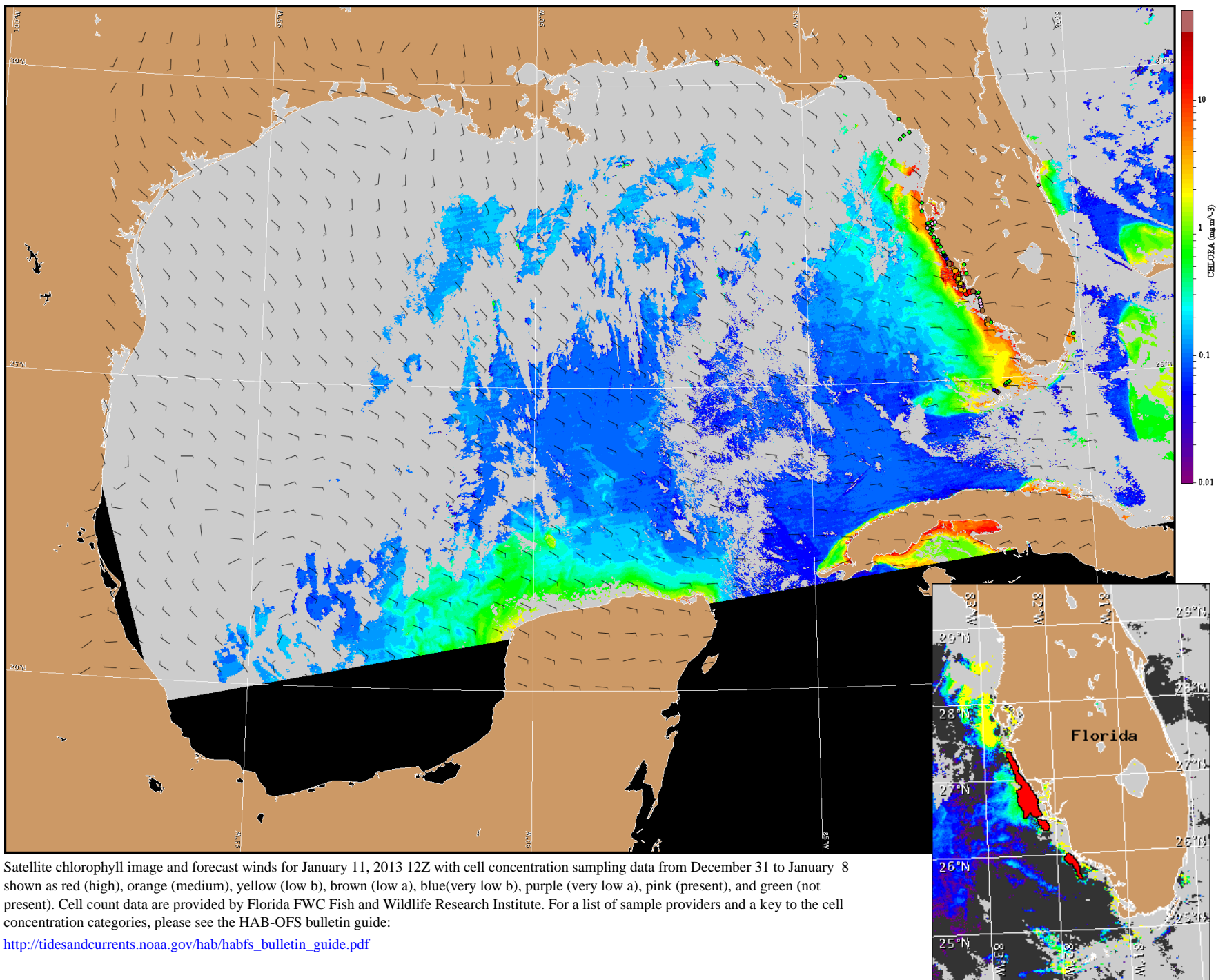


Wind Analysis

Pinellas to Lee counties: East winds (10-15 kn, 5-8 m/s) today. Southeast winds (5-15 kn, 3-8 m/s) Friday becoming east winds (10 kn, 5 m/s) Friday night. Southeast winds (10 kn) Saturday becoming east winds (10-15 kn) Saturday night. Southeast winds (5-15 kn) Sunday through Monday.

Collier and Monroe counties: East winds (14-20 kn, 7-10 m/s) today. East southeast winds (14-19 kn, 7-10 m/s) Friday becoming east winds (12-17 kn, 6-9 m/s) Friday night. East winds (13-18 kn, 7-9 m/s) Saturday through Sunday. East southeast winds (9-14 kn, 5-7 m/s) Monday.

Gulf side of lower Florida Keys: East winds (15-20 kn) today. East to southeast winds (15-20 kn) tonight through Friday. East winds (15 kn) Saturday. East to southeast winds (15-20 kn) Saturday night through Monday.



Satellite chlorophyll image and forecast winds for January 11, 2013 12Z with cell concentration sampling data from December 31 to January 8 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). Cell count data are provided by Florida FWC Fish and Wildlife Research Institute. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS 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).