



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

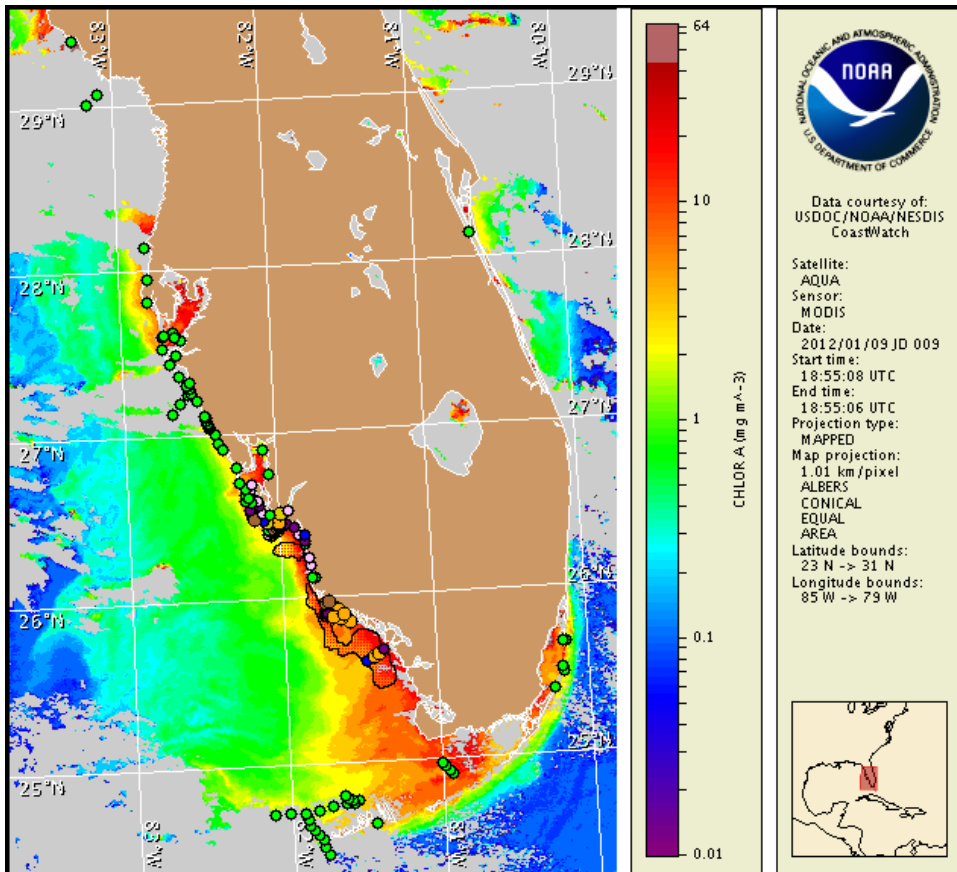
Thursday, 12 January 2012

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, January 9, 2012



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from January 2 to 11 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 HAB-OFS bulletin guide:

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

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:
<http://tidesandcurrents.noaa.gov/hab/bulletins.html>

Conditions Report

A patchy harmful algal bloom persists in the San Carlos Bay region of Lee County and alongshore and offshore central and southern Lee County, Collier County, and northern Monroe County. A harmful algal bloom was also last identified on 12/12 on the Atlantic side of the Florida Keys. In the San Carlos Bay region of Lee County, patchy high impacts are possible today through Monday. On the south coast of eastern Sanibel Island region and in the Estero Bay region of Lee County, patchy very low impacts today through Monday. In northern Collier County, patchy moderate impacts possible today with patchy very low impacts possible Friday through Monday. In the Marco Island region of central Collier County, patchy high impacts possible today through Monday. In northern Monroe County, patchy very low impacts possible today with patchy very low impact possible Friday to Monday. No other impacts are expected throughout southwest Florida today through to Monday, January 16. Respiratory irritation and dead fish have been reported in northern and central Collier County over the past few days.

Analysis

Due to the upcoming Federal Holiday, the next regularly scheduled bulletin will be issued on Tuesday, January 17.

Southwest Florida: A patchy harmful algal bloom persists in the San Carlos Bay region of Lee County and alongshore and offshore central and southern Lee County, Collier County, and northern Monroe County. Recent samples show a general decrease of *Karenia brevis* concentrations in the San Carlos Bay and offshore eastern Sanibel Island region, where highest concentrations measured since last week were 'medium' (FWRI, 12/31-1/11). 'Not present' to 'low' concentrations of *K. brevis* were also detected in Pine Island Sound (FWRI, 1/8-1/10). 'Very low' to 'medium' concentrations of *K. brevis* were detected in the Marco Island region, Cape Romano and several keys east of Cape Romano of central and southern Collier County (FWRI, CCPCPD, 1/9-1/10). No *K. brevis* was detected in samples collected alongshore Pinellas, Manatee, Sarasota, Charlotte and northern Collier counties (FWRI, CCPCPD, MML, 1/8-1/10). Additional sample information can be obtained through FWRI at <http://myfwc.com/research/redtide/events/status/statewide/>.

Most recent clear MODIS imagery (1/9, shown left) continue to indicate elevated to very high chlorophyll levels ($>3\mu\text{g/L}$ to $>20\mu\text{g/L}$) alongshore southwest Florida from northern Lee County to Cape Sable in Monroe County. Distinctly very high chlorophyll levels ($>20\text{ mg/L}$) are continually visible within the San Carlos Bay region, alongshore southern Lee, Collier and Monroe counties, and offshore northern Monroe County. Continued sampling in the San Carlos Bay region and alongshore and offshore of central and southern Lee, Collier and northern Monroe counties is recommended.

Florida Keys: Sampling from this week indicated background *K. brevis* at Sawyer Key of lower Florida Keys and Oxfoot Key in the Florida Bay (MML, 1/9-1/10). A very patchy bloom containing up to 'medium' *K. brevis* concentrations was detected along the Atlantic side of the Middle to Upper Florida Keys on 12/11-12/12 (FWRI, NOAA).

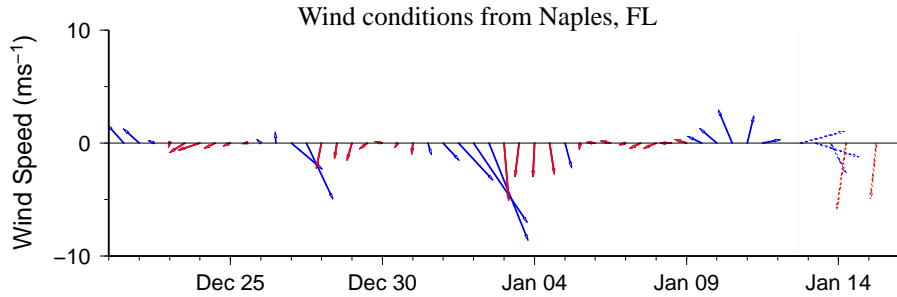
Forecasted winds may transport the bloom concentrations southwards alongshore Lee, Collier and Monroe counties.

Wind Analysis

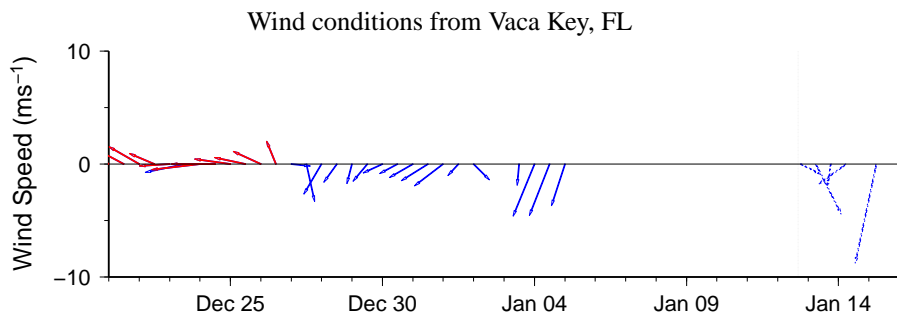
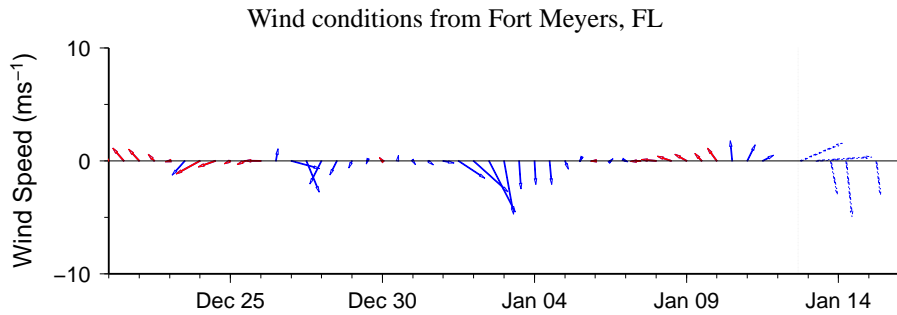
Pinellas to Lee Counties: Southwest winds (10kn, 5m/s) becoming west (15kn, 8m/s) tonight and then northwest toward morning. North winds (15-20kn, 8-10m/s) Friday through Saturday. Northeast winds (15-20kn) Saturday night through Sunday. East winds (20kn) Monday.

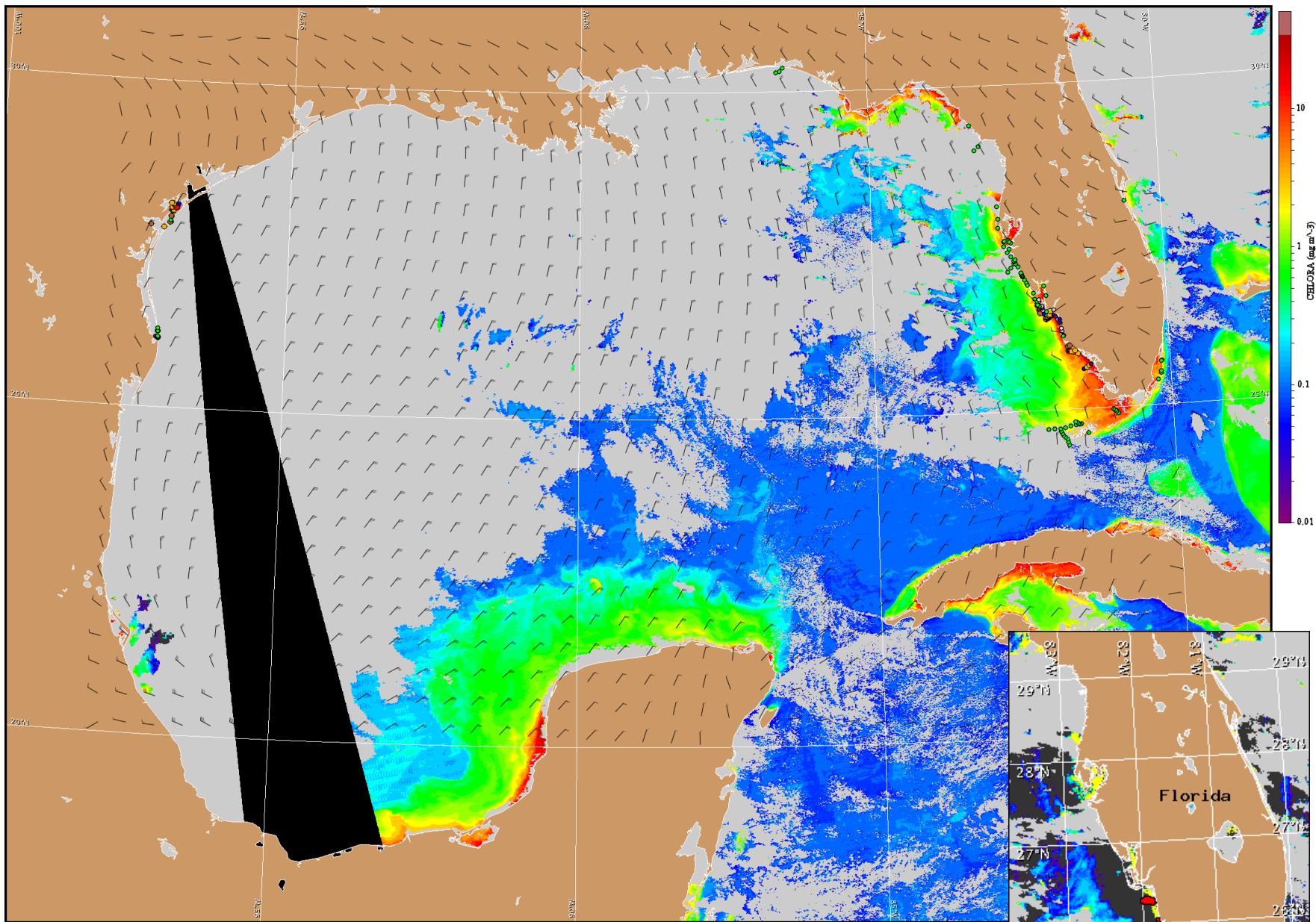
Collier and Monroe Counties: West northwest winds(9-17kn, 5-9m/s) today. North winds (15-18kn, 8-9m/s) Friday. North northeast to east northeast winds (12-19kn,6-10m/s) Friday night through Monday.

Florida Keys: Northwest winds (5-10kn, 3-5m/s) today. North to north winds (10-20kn, 5-10m/s) Friday to Sunday. Northeast to east winds (15-20kn, 8-10m/s) Monday.



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 13, 2012 12Z with cell concentration sampling data from January 2 to 11 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 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).