



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

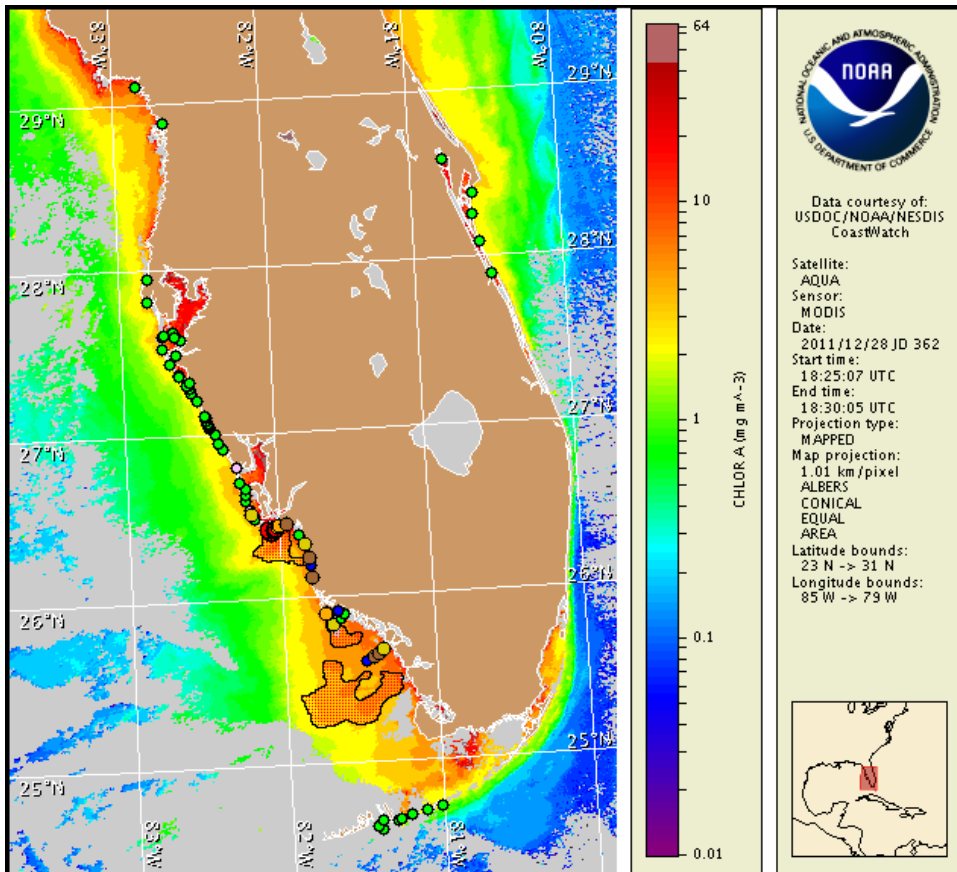
Thursday, 29 December 2011

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Tuesday, December 27, 2011



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from December 19 to 28 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/habofs_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 off shore 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; associated very low respiratory impacts are possible in this region through Monday. In the coastal Sanibel Island region of Lee County, patchy very low impacts are possible today and Saturday through Monday, with patchy moderate impacts possible Friday. In the San Carlos Bay region of Lee County, patchy low are possible today through Saturday, patchy moderate impacts are possible Saturday night and Sunday, and patchy high impacts are possible Sunday night and Monday. In southern Lee County, patchy very low impacts are possible today through Monday. In northern Collier County moderate impacts are possible today and very low impacts are possible Friday through Monday. In central Collier County patchy moderate impacts are possible today through Monday. In northern Monroe County patchy moderate impacts are possible today, and patchy very low impacts are possible Friday through Monday. No additional respiratory impacts are expected in northern Collier County or elsewhere at the coast in southwest Florida and the Florida Keys today through Monday January 2.

Analysis

Due to the upcoming Federal Holiday, the next regularly scheduled bulletin will be issued on Tuesday, January 3.

Southwest Florida: A patchy harmful algal bloom persists in the San Carlos Region of Lee County and alongshore and offshore central and southern Lee and Collier counties, and northern Monroe County. Samples this week continue to identify very low to 'low a' concentrations of *K. brevis* alongshore northern Collier County and medium concentrations in the Marco Island region (FWRI, CCPCPD, 12/27). 'Low a' *K. brevis* concentrations were also detected along the eastern edge of San Carlos Bay last week (FWRI, 12/22). No additional sample information is available this week for southwest Florida. No reports of bloom related impacts have been received over the last week. Recent MODIS imagery (12/28, shown left) continues to indicate elevated to high levels of chlorophyll (3 to >10 µg/L) alongshore and offshore southwest Florida from Sanibel Island in central Lee County to Cape Sable in Monroe County. However, in general, chlorophyll levels appear to have weakened throughout the region since Monday. Chlorophyll levels remain high (>10 µg/L) alongshore Estero Island in southern Lee County. An elevated chlorophyll feature seen earlier this week offshore southern Lee and northern Collier Counties appears to have weakened greatly (now 4-6 µg/L), but remains present approximately 10-15 miles offshore Bonita Beach. Continued sampling is recommended throughout the bloom region

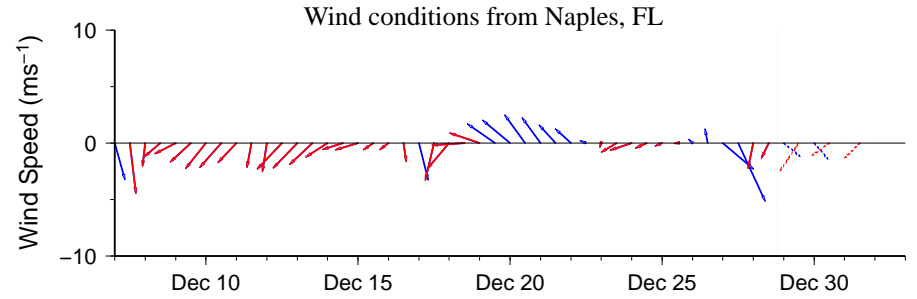
Florida Keys: Late last week FWRI reported a very patchy *K. brevis* bloom on the Atlantic side of the Florida Keys on 12/11-12/12. The bloom was located from Munson Key in Monroe County to Biscayne Key in Miami-Dade County, with concentrations ranging from 'background' to 'medium' concentrations. Samples collected by MML on 12/28 along the Atlantic side of the Lower Florida Keys from south of Summerland Key to the east end of Sevenmile Bridge indicated *K. brevis* was not present. No additional samples are available within the bloom boundary identified over two weeks ago. An elevated chlorophyll feature (3-7 µg/L) remains visible in recent MODIS imagery within the

Gulf side region of the Middle to Lower Keys, extending from Florida Bay to the eastern edge of the Lower Keys. No significant elevated chlorophyll features are visible south of the Upper Keys. Continued sampling both in the Gulf side and Atlantic side of the Keys is highly recommended.

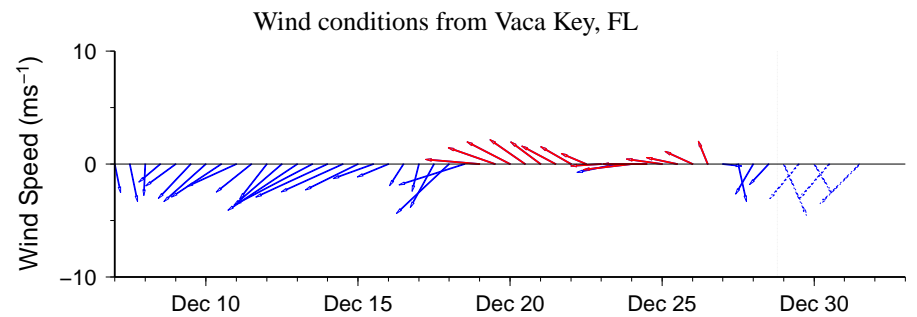
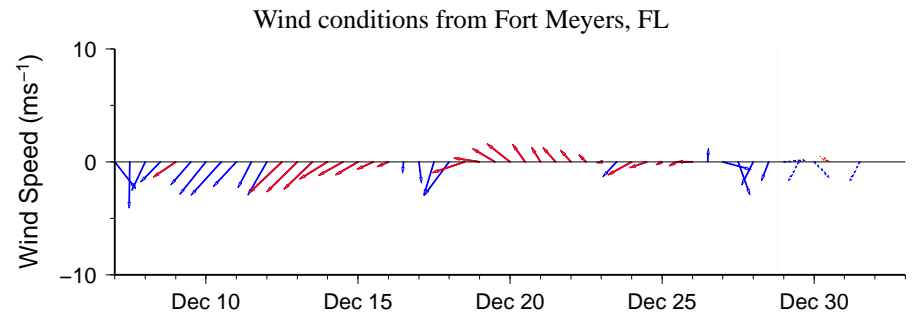
Forecasted winds will decrease the potential for impacts Friday through Sunday throughout the blooms regions in coastal areas of southwest Florida and the Keys. Conditions through Monday may promote slight bloom intensification in southwest Florida early next week. Continued southerly transport of the bloom along the southwest Florida coast is possible today through Monday, January 2.

-Burrows, Fisher

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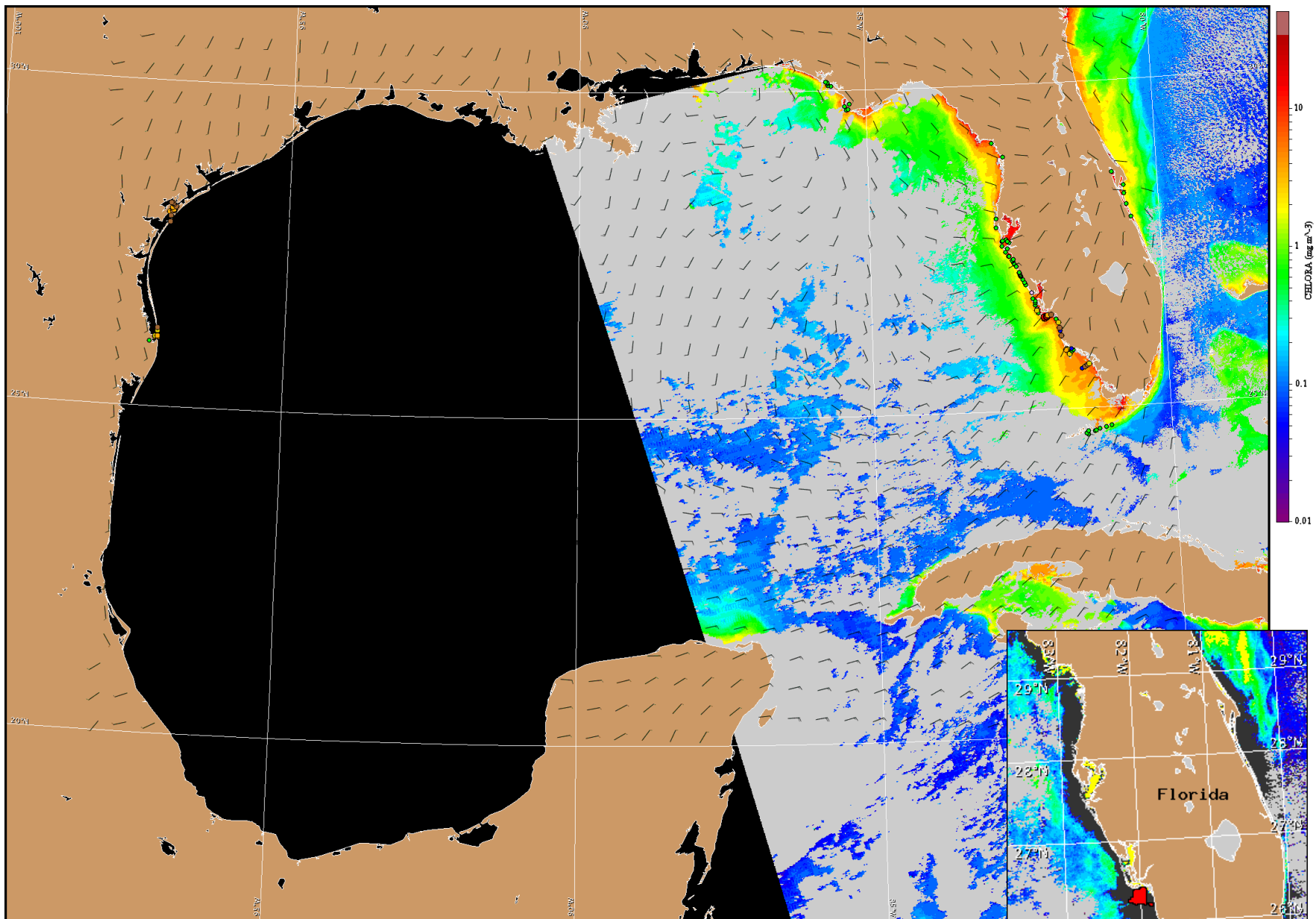


Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).



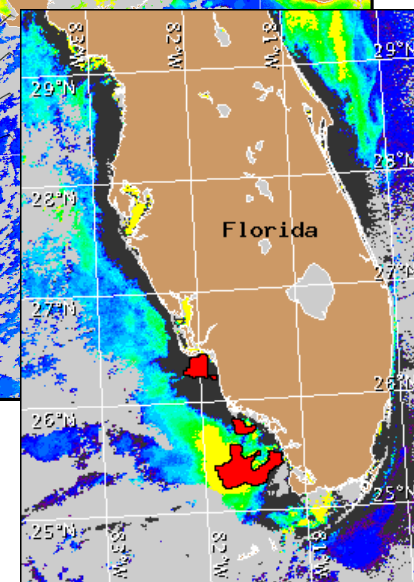
Wind Analysis

PinellasLee Counties: East winds today, becoming northwest this afternoon and tonight 5kn (3 m/s). South winds Friday, becoming west then southeast Friday night (5kn, 3m/s). East to northeast winds Saturday (5-10kn, 3-5m/s). North winds Sunday and Monday (10-20kn, 5-10m/s). Collier and Monroe Counties, Florida Keys: North northwest winds today (5-10kn, 3-5m/s). North to northeast winds Friday through Monday (5-10kn, 3-5m/s today through Saturday, increasing to 16kn, 8m/s Sunday, and 20kn, 10m/s Monday).



Satellite chlorophyll image and forecast winds for December 30, 2011 12Z with cell concentration sampling data from December 19 to 28 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).