



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

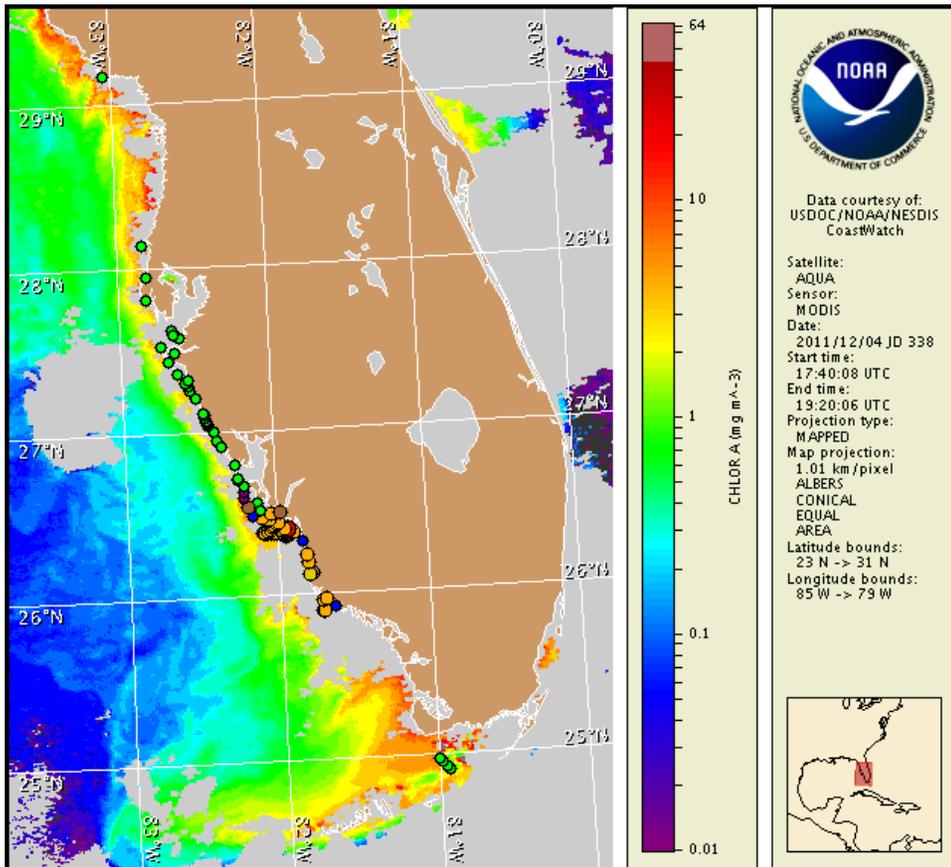
Monday, 05 December 2011

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, December 1, 2011



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from November 26 to December 4 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 southern Pine Island Sound/San Carlos Bay region of Lee County, and alongshore and offshore central and southern Lee County and northern and central Collier County. Patchy harmful algae have been confirmed in the northern Pine Island Sound region of Lee County. In the northern Pine Island Sound region of Lee County, patchy very low impacts are possible today through Wednesday. In the southern Pine Island Sound/San Carlos Bay region of Lee County, patchy moderate impacts are possible today through Wednesday. In southern and eastern Sanibel Island in central Lee County, patchy high impacts are possible today through Wednesday. In southern Lee County, patchy low impacts are possible today and Tuesday and patchy high impacts are possible Wednesday. In northern and central Collier County, patchy very low impacts are possible today and Tuesday and patchy moderate impacts are possible Wednesday. No additional impacts are expected at the coast in southwest Florida today through Wednesday, Dec. 7. Dead fish and respiratory irritation have been reported in the bloom area.

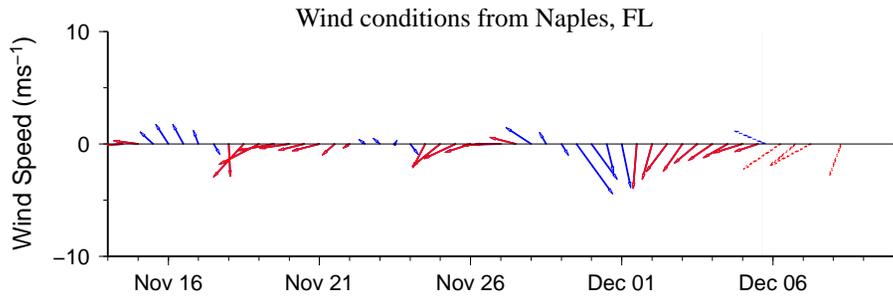
Analysis

The harmful algal bloom persists in the southern Pine Island Sound/San Carlos Bay region of Lee County, and alongshore and offshore central and southern Lee County and northern and central Collier County. Patchy harmful algae have been confirmed in the northern Pine Island Sound region of Lee County. The most recent satellite imagery is obscured by clouds alongshore most of southwest Florida except for a small region south of Sanibel Island in central Lee County. Chlorophyll levels in this region are elevated to high and range from $\sim 7 \mu\text{g/L}$ to $\sim 11 \mu\text{g/L}$.

The most recent samples indicate 'low a' concentrations of *Karenia brevis* in Naples and 'medium' concentrations of *K. brevis* in South Marco Beach in Collier County (FWRI 12/1). Additionally, in Collier County there are 'very low a' and 'very low b' concentrations of *K. brevis* in Vanderbilt Beach and Barefoot Beach, respectively (FWRI 12/1). Samples collected from Pinellas and Sarasota counties all indicate that *K. brevis* is not present (FWRI 12/1; SCHD 11/28).

Forecast winds increase the potential for impacts in the Pine Island Sound/San Carlos Bay region as well as in southern and eastern Sanibel Island in Lee County today through Wednesday. Additionally, forecast winds decrease the potential for bloom intensification today through Wednesday. Southerly transport of the bloom is possible today and tomorrow.

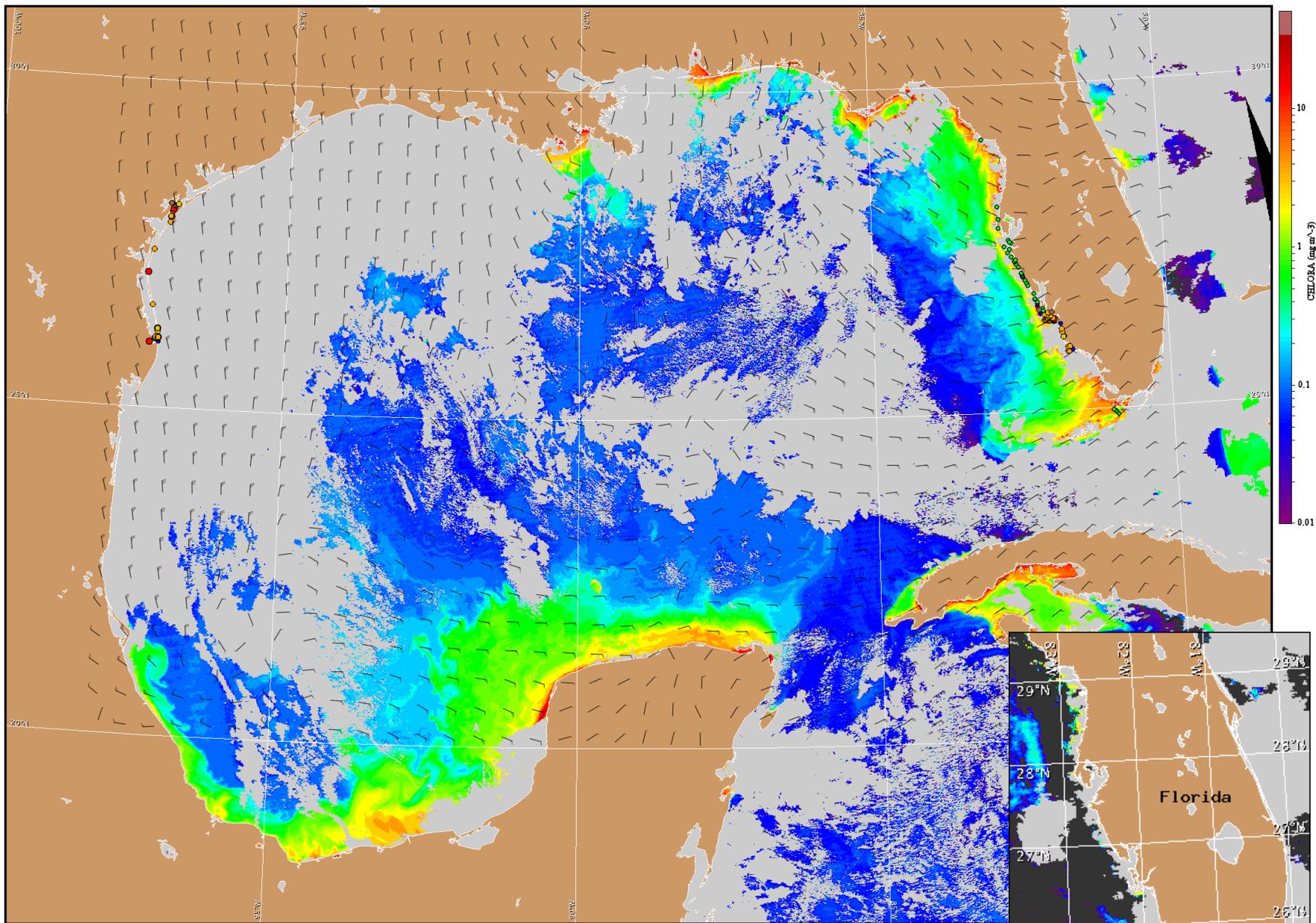
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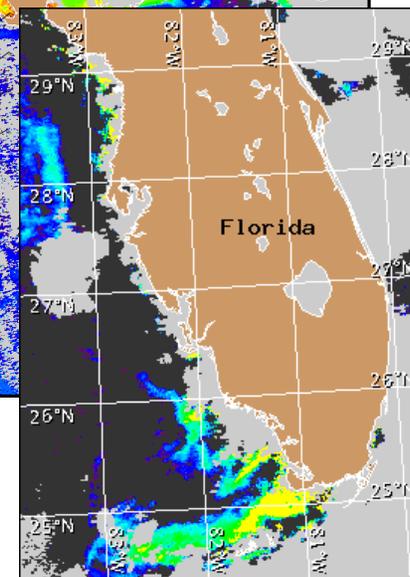
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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

Wind Analysis

SW Florida: Easterly winds (10-15 kn, 5-8 m/s) today and Tuesday. Southeasterly to southwesterly winds (10-15 kn) Wednesday.



Satellite chlorophyll image and forecast winds for December 6, 2011 12Z with cell concentration sampling data from November 26 to December 4 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



Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).