



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

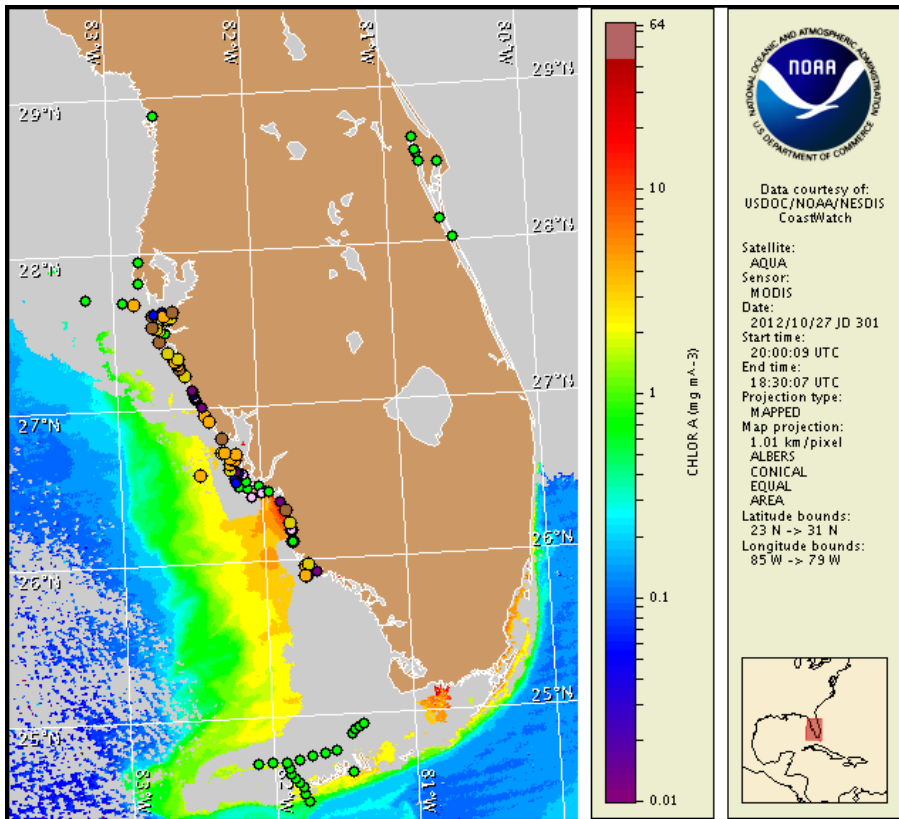
Monday, 29 October 2012

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, October 25, 2012



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s). Cell concentration sampling data from October 19 to 25 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

A harmful algal bloom of *Karenia brevis* (commonly known as Florida Red Tide) is present along- and offshore from southern Pinellas to southern Collier counties. Patchy high respiratory impacts are possible today through Tuesday, with patchy moderate respiratory impacts possible Wednesday through Thursday in the following regions: alongshore southern Pinellas, northern Manatee, Sarasota, Charlotte, in the Gasparilla Sound/Pine Island Sound regions of Charlotte and northern Lee counties, and alongshore southern Collier County. Patchy moderate respiratory impacts are possible today through Thursday alongshore southern Manatee and northern Collier counties. Patchy low respiratory impacts are possible today through Tuesday alongshore southern Lee County, with patchy very low respiratory impacts possible Wednesday through Thursday. Patchy very low respiratory impacts are possible today through Tuesday in the southern Pine Island Sound/San Carlos Bay region of central Lee County, with no respiratory impacts expected Wednesday through Thursday. Over the past several days, respiratory impacts have been reported in southern Manatee and Sarasota counties. Dead fish have been reported in Lee and Collier counties. No impacts are expected elsewhere alongshore southwest Florida today through Thursday, November 1.

Analysis

A harmful algal bloom of *Karenia brevis* is present along- and offshore southwest Florida from southern Pinellas to southern Collier counties. Recent samples collected alongshore Manatee County indicate *K. brevis* concentrations range from 'low a' to 'medium', with the highest concentration within the lower Tampa Bay region (FWRI; 10/17-10/23). Recent samples collected along the gulf-side of central and southern Lee County indicate *K. brevis* concentrations range from 'not present' to 'very low b', with the highest concentration in the Captiva region (FWRI; 10/24). In Collier County, recent samples continue to indicate a range from 'not present' to 'medium' *K. brevis* concentrations, with the highest concentration in southern Collier County (FWRI, CCPCPD; 10/25).

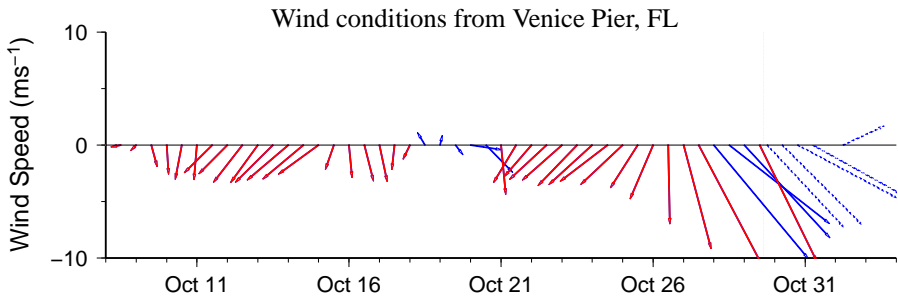
Recent MODIS Aqua imagery (10/27; shown page 1) is obscured along- and offshore much of southwest Florida, limiting analysis. A patch of elevated to very high chlorophyll (5 to >20 $\mu\text{g/L}$) continues to be visible stretching alongshore southern Lee and northern Collier counties, with elevated chlorophyll (2-5 $\mu\text{g/L}$) extending from offshore southern Charlotte to Monroe County.

Forecasted winds today through Thursday may increase the potential for respiratory impacts in southwest Florida and bloom transport south.

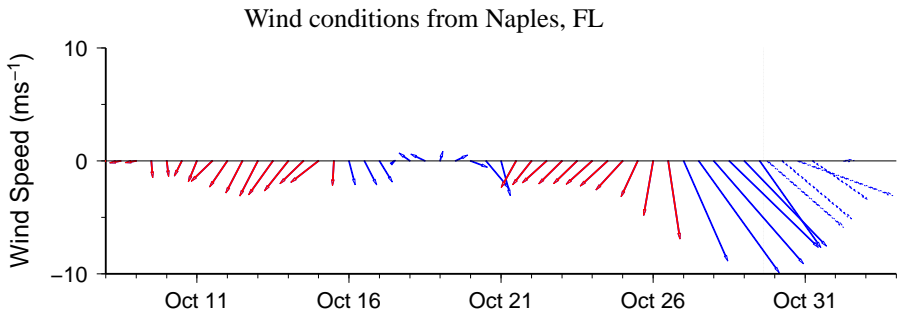
Kavanaugh, Davis

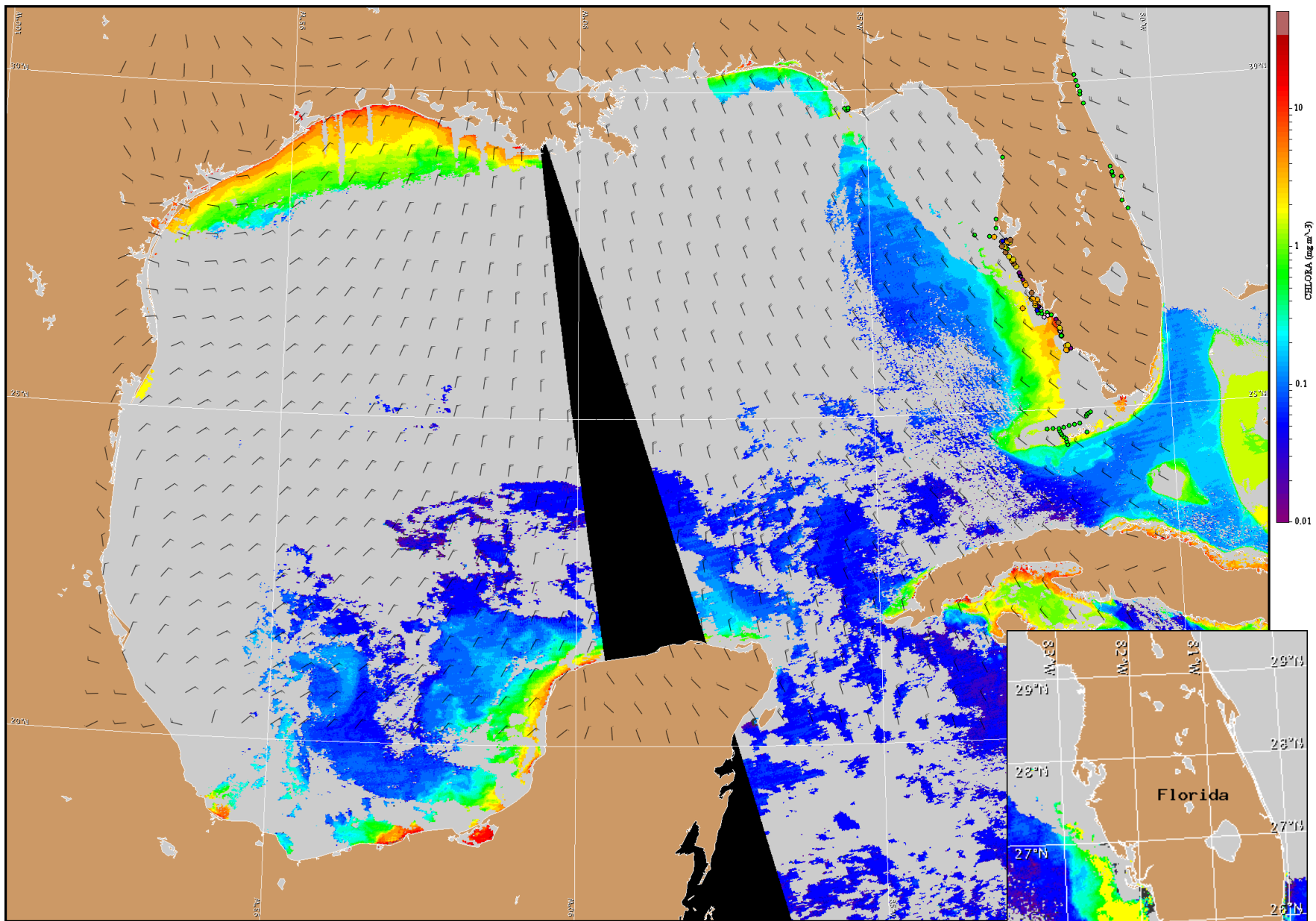
Wind Analysis

Southwest Florida: Northwest winds (15-25 kn, 8-13 m/s) today through Wednesday. West winds (5-15 kn, 3-8 m/s) Wednesday night and into Thursday. Northwest winds (10 kn, 5 m/s) Thursday night.



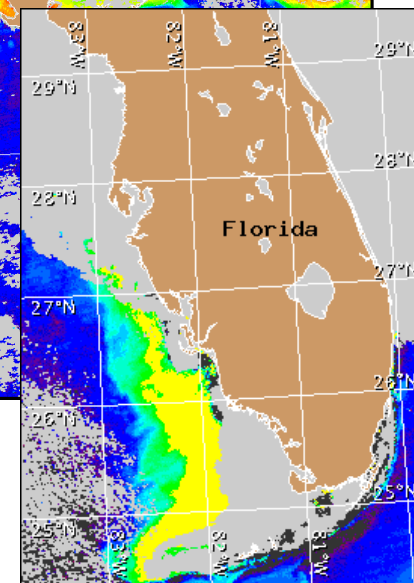
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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





Satellite chlorophyll image and forecast winds for October 30, 2012 06Z with cell concentration sampling data from October 19 to 25 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).