



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

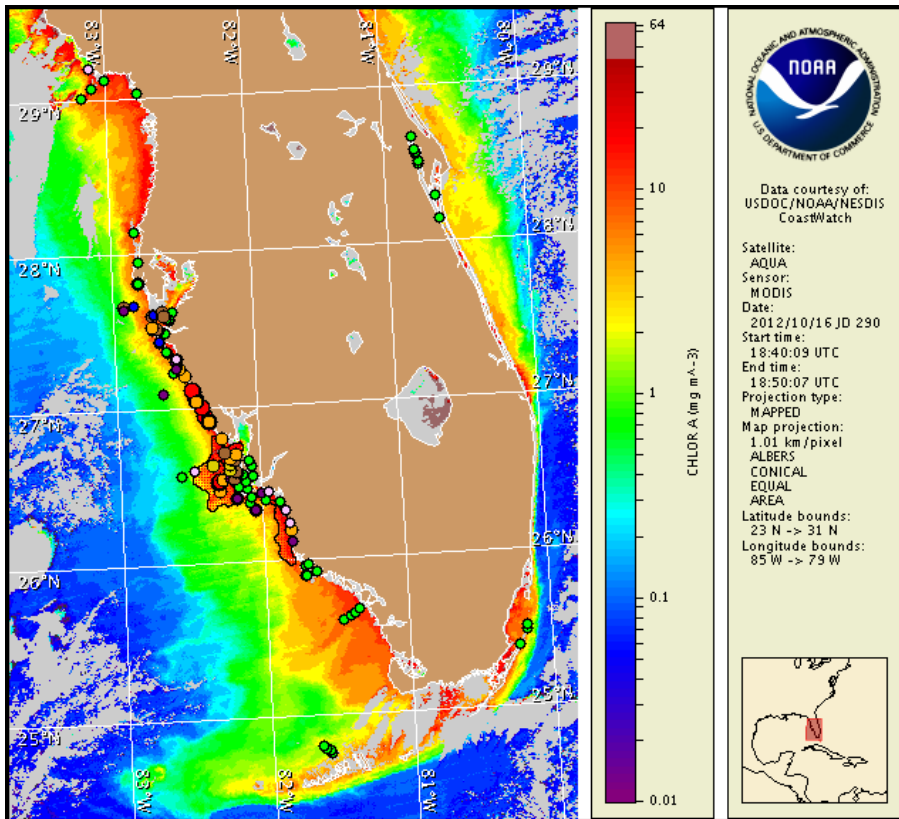
Thursday, 18 October 2012

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, October 15, 2012



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s). Cell concentration sampling data from October 8 to 17 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 at the coast of southern Pinellas, Manatee, Sarasota, Charlotte, in the Gasparilla Pass and northern Pine Island Sound regions of Charlotte and northern Lee, and offshore Lee and along- and offshore Collier counties. Bloom concentrations of *K. brevis* are present offshore southern Pinellas County. In southern Pinellas County, patchy low respiratory impacts are possible today through Monday. In northern Manatee County and the Gasparilla Pass and northern Pine Island Sound regions of Charlotte and northern Lee, patchy moderate respiratory impacts are possible today through Monday. In northern Sarasota County, patchy moderate respiratory impacts are possible today and Friday, with patchy very low respiratory impacts possible Saturday through Monday. In southern Sarasota County, patchy high respiratory impacts are possible today and Friday, with patchy low respiratory impacts possible Saturday through Monday. In Charlotte County, and patchy low impacts are possible today, with patchy high impacts possible Friday, and patchy low impacts possible Saturday through Monday. In northern Collier County, patchy low impacts are possible today, with patchy moderate impacts possible Friday, and patchy very low impacts possible Saturday through Monday. Over the past few days, reports of respiratory irritation have been received in Sarasota County and fish kills have been reported in southern Sarasota, the Pine Island Sound region of northern Lee, and Collier counties. No impacts are expected elsewhere alongshore southwest Florida today through Monday, October 22.

Analysis

A harmful algal bloom of *Karenia brevis* (commonly known as Florida Red Tide) is present at the coast of southern Pinellas, Manatee, Sarasota, Charlotte, in the Gasparilla Pass and northern Pine Island Sound regions of Charlotte and northern Lee, and offshore Lee and along- and offshore Collier counties. Bloom concentrations of *K. brevis* are present offshore southern Pinellas County. One sample collected from offshore Pinellas County identified a 'low a' concentration of *K. brevis* (FWRI; 10/9). Samples collected from Mullet Key (Gulf Pier), Skyway Fishing Pier (north), and offshore St. Pete Beach in southern Pinellas County indicate 'low a' concentrations of *K. brevis* (FWRI; 10/9-15). Sampling continues to indicate 'medium' to 'high' concentrations of *K. brevis* along the coastline of Manatee, Sarasota, Charlotte, in the Gasparilla Pass and northern Pine Island Sound regions of Charlotte and northern Lee, and alongshore northern Collier counties (FWRI, MML, CCPCPD; 10/16). Recent samples collected in Manatee County identified 'medium' *K. brevis* concentrations at Anna Maria Island (Rod and Reel Pier), 'low a' concentrations at the Skyway Fishing Pier (south) and School Key (lower Tampa Bay), and 'very low b' concentrations at Longboat Pass (FWRI; 10/16). Samples collected last week from Lighthouse Beach (Sanibel Island) and Lynn Hall Park alongshore southern Lee County indicated 'very low a' and 'background' *K. brevis* concentrations, respectively (FWRI; 10/10). No *K. brevis* was identified in samples collected from the southern Pine Island Sound region of Lee County, within the Marco Island region of Collier County, or alongshore Pavilion Key in Monroe County (FWRI, MML; 10/9-15)

Recent MODIS Aqua imagery (10/16, shown left) indicates elevated to very high chlorophyll (3 to >20 $\mu\text{g/L}$) stretching alongshore Southwest Florida from northern Pinellas to southern Collier County and extending up to 25 miles offshore Charlotte and Lee counties. Patches of very high chlorophyll (>20 $\mu\text{g/L}$) are particularly visible alongshore the

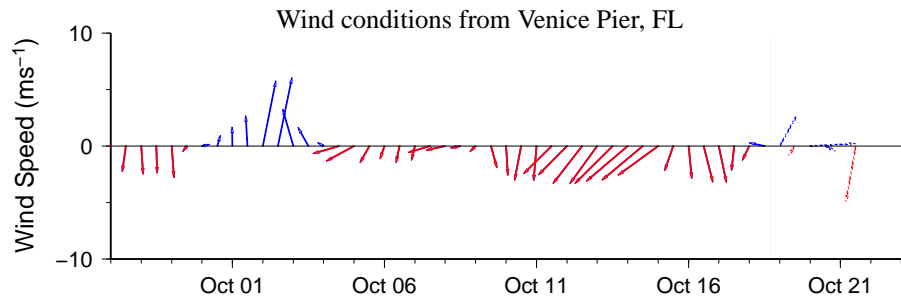
Gaparilla, Cayo Costa, and Captiva Islands of Charlotte and northern Lee counties from approximately 26°46'43"N 82°17'33"W to 26°33'52"N 82°17'31"W, extending 1-7 miles offshore, as well as along- and offshore northern Collier County from the Vanderbuilt Beach to Naples Pier area. Continued sampling throughout these regions is recommended.

Forecasted onshore winds will promote the potential for increased respiratory impacts along much of the southwest Florida coast today and Friday. Forecasted offshore winds over the weekend will minimize the potential for respiratory impacts, except in the Gasparilla and Pine Island Sound regions of Charlotte and Lee Counties, and reduce the potential for further bloom formation at the coast Saturday through Monday, October 22.

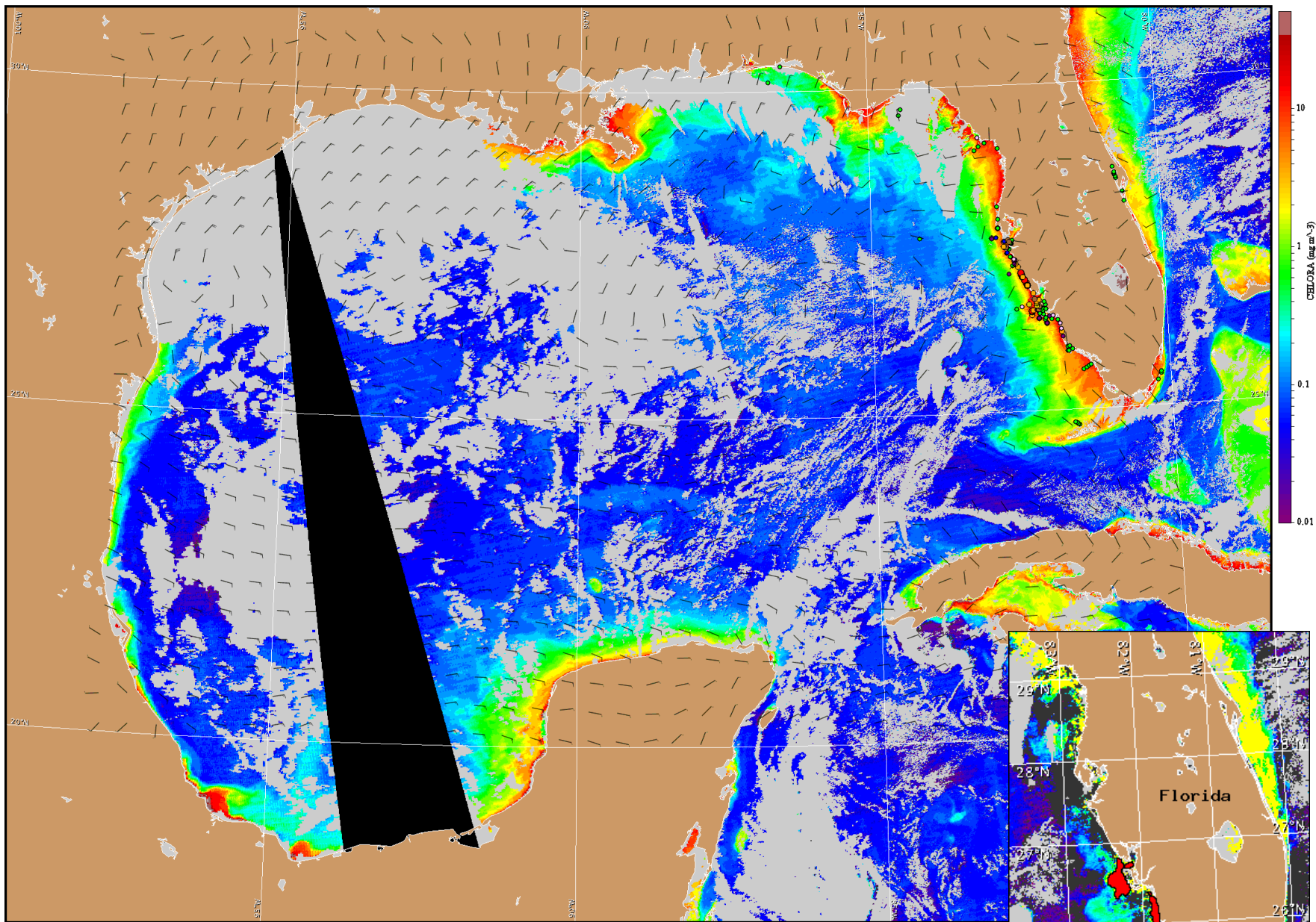
Davis, Derner

Wind Analysis

Southwest Florida: Southeast winds (5 kn, 3 m/s) today becoming southwest winds late. Variable winds tonight becoming southwest to west winds (5-10 kn, 3-5 m/s) Friday. Northwest winds (10-15 kn, 5-8 m/s) Friday night. North to northeast winds (10-15 kn) Saturday through 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 October 19, 2012 12Z with cell concentration sampling data from October 8 to 17 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).