



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

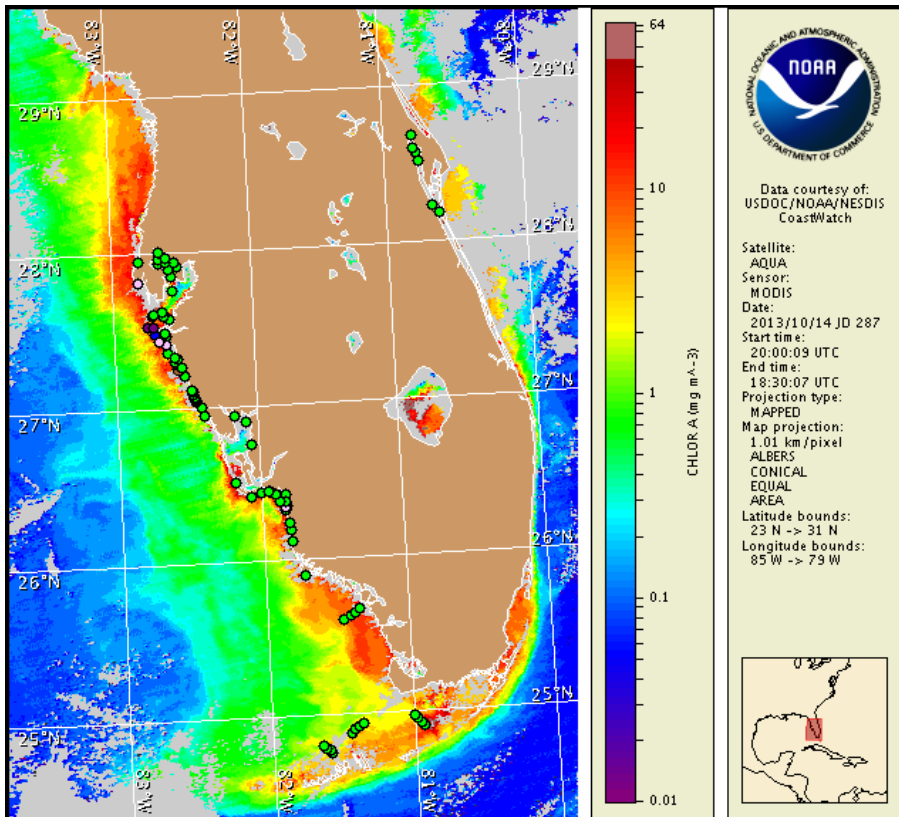
Tuesday, 15 October 2013

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, October 7, 2013



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from October 5 to 14: 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 Fish and Wildlife Conservation Commission (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 FWC Fish and Wildlife Research Institute at:

<http://myfwc.com/redtidestatus>

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit at: <http://tidesandcurrents.noaa.gov/hab/bulletins.html>

Conditions Report

Karenia brevis (commonly known as Florida red tide) ranges from not present to low concentrations along the coast of southwest Florida, including the Florida Keys. No respiratory irritation is expected Tuesday, October 15 through Monday, October 21. Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations.

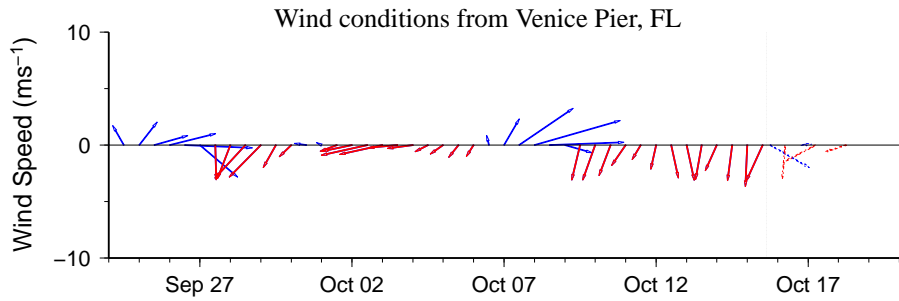
Analysis

Samples collected within the past ten days along- and offshore southwest Florida indicate that *Karenia brevis* concentrations range from 'not present' to 'low a' (FWRI, MML, SCHD; 10/5-11). 'Background' concentrations of *K. brevis* were identified from locations in Pinellas, Charlotte and Lee counties, while concentrations ranged between 'background' and 'very low b' both along- and offshore Manatee County and within the bay regions of southern Manatee County (FWRI, 10/6-9). In Sarasota County, *K. brevis* ranged between 'background' and 'low a' concentrations, with the highest concentration identified from Siesta Beach in northern Sarasota County (FWRI, MML; 10/5-11). All other samples collected alongshore southwest Florida from Pinellas to Monroe County and offshore the Florida Keys indicate *K. brevis* is 'not present' (FWRI, SCHD, MML, CCPCPD; 10/5-11). No dead fish or respiratory irritation associated with *K. brevis* have been reported in the past week (FWRI, MML; 10/7-14).

Recent MODIS Aqua imagery (10/14, shown left) is partially obscured by clouds alongshore southern Pinellas County and alongshore from Sarasota to Collier County, limiting analysis. In MODIS Aqua imagery from 10/12 (not shown) and 10/14, patches of elevated to very high chlorophyll (3 to >20 $\mu\text{g/L}$) are visible stretching along- and offshore from Pinellas to Collier counties, with the highest levels offshore Pinellas County and along- and offshore Sarasota and Lee counties.

Upwelling favorable wind conditions were observed over the past few days and are forecasted to continue through Wednesday. This may have increased the potential for *K. brevis* bloom formation at the coast over the weekend and may continue to do so in the next few days.

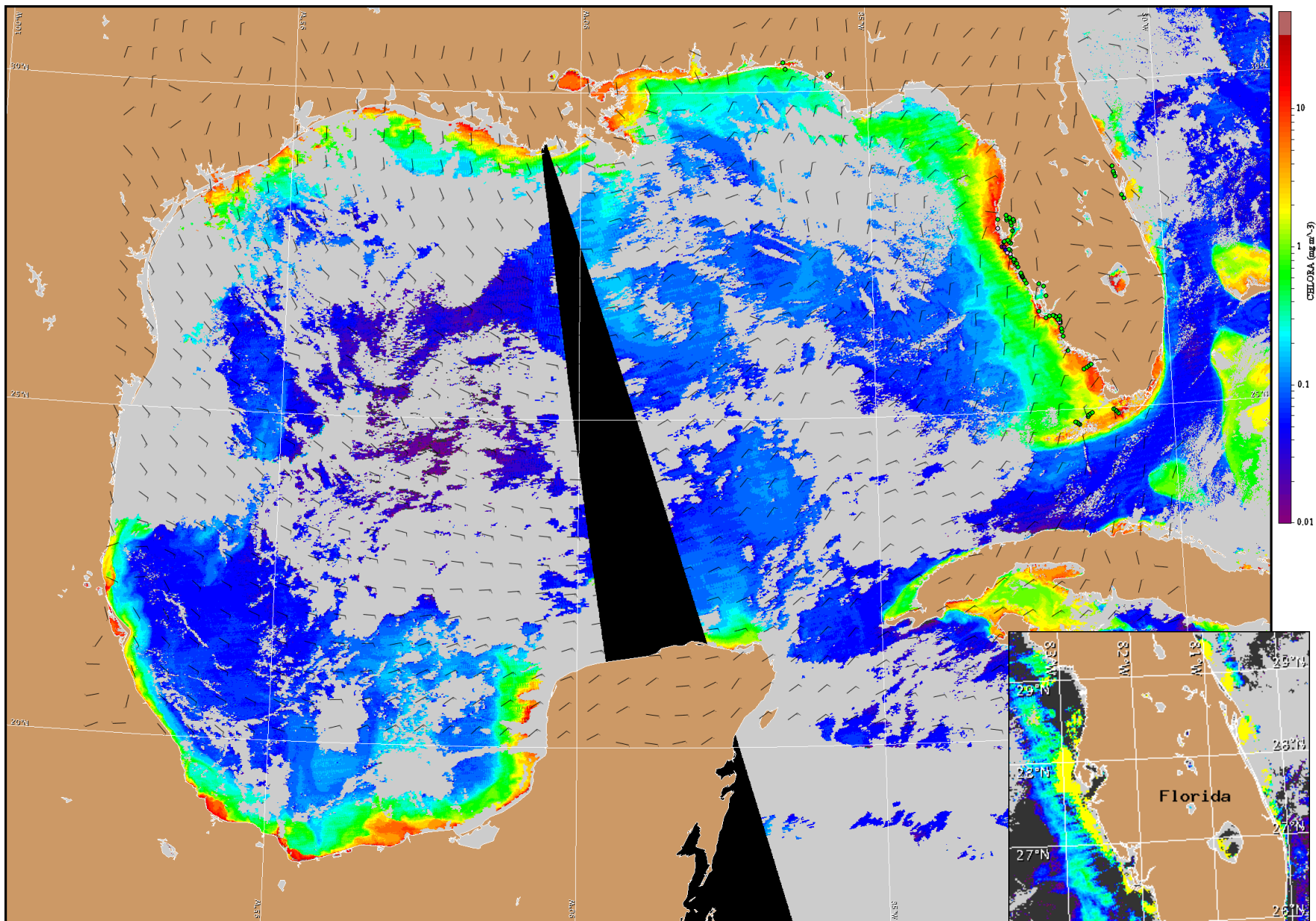
Kavanaugh, Derner



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).

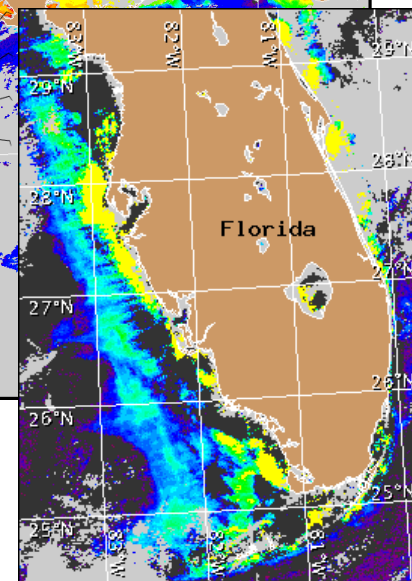
Wind Analysis

Southwest Florida: North to northwest winds (5-10kn, 3-5m/s) today becoming northeast after midnight. East winds (5kn, 3m/s) Wednesday becoming northwest winds (5-10kn) Wednesday afternoon. North winds (5-10kn) Wednesday night becoming east winds after midnight. Southeast winds (5kn) Thursday becoming northwest winds Thursday afternoon. North winds (5-10kn) Thursday night becoming east winds after midnight. Southeast winds (5-10kn) Friday becoming northeast winds (5-10kn) Friday afternoon through Friday night. Southeast winds (5-15kn, 3-8m/s) Saturday becoming southwest winds in the afternoon.



Satellite chlorophyll image and forecast winds for October 16, 2013 06Z with points representing cell concentration sampling data from October 5 to 14: 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 Fish and Wildlife Conservation Commission (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



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