



## Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

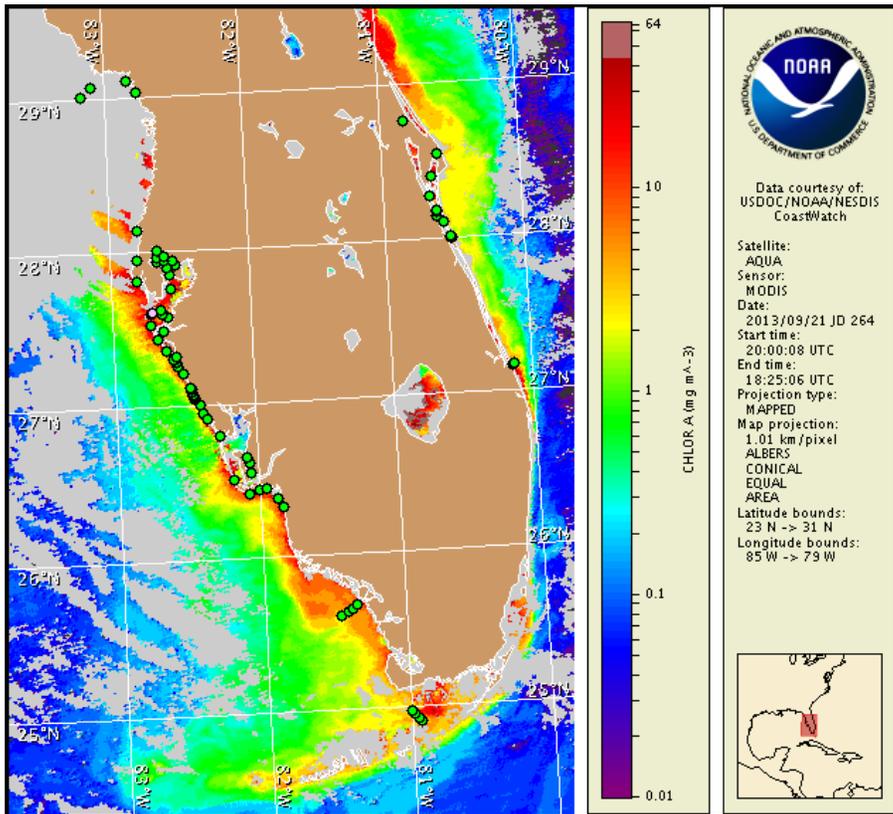
Monday, 23 September 2013

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, September 16, 2013



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from September 13 to 19: 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](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 background concentrations along the coast of southwest Florida, including the Florida Keys. No respiratory irritation is expected Monday, September 23 through Monday, September 30. Check [http://tidesandcurrents.noaa.gov/hab/beach\\_conditions.html](http://tidesandcurrents.noaa.gov/hab/beach_conditions.html) for recent, local observations.

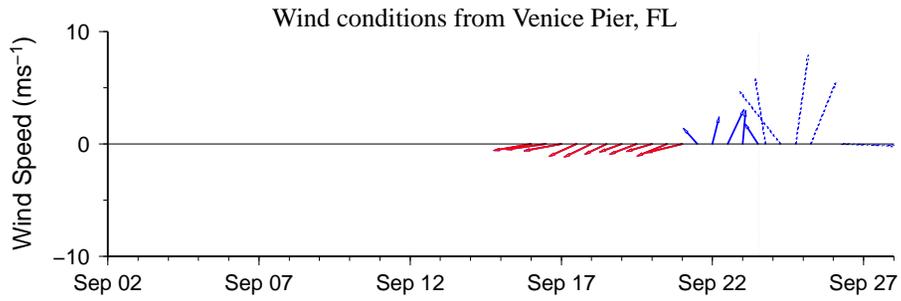
## Analysis

Background concentrations of *Karenia brevis* were identified in one sample collected inshore Pinellas County at Mullet Key last week (FWRI; 9/16). All other samples collected along- and offshore southwest Florida from Pinellas to Monroe County and the Florida Keys indicate *K. brevis* is not present (FWRI, SCHD, MML; 9/12-19). No dead fish or respiratory irritation associated with *K. brevis* have been reported in the past week (FWRI, MML; 9/16-22).

In recent MODIS Aqua imagery (9/21, shown left), patches of elevated to very high chlorophyll (3 to > 20  $\mu\text{g/L}$ ) are visible along- and offshore the coast of southwest Florida from Pinellas to Monroe counties, with the highest levels stretching alongshore Manatee, Sarasota, and Charlotte counties. Imagery throughout most of the Florida Keys is obscured by clouds, limiting analysis, however patches of elevated chlorophyll (3 to 6  $\mu\text{g/L}$ ) are visible offshore the lower and middle Keys. Elevated chlorophyll at the coast is likely the result of mixed non-harmful algal blooms that continue to be reported in many southwest Florida counties.

Forecast winds over the next several days may decrease the potential for bloom formation at the coast; however, upwelling favorable winds forecast for Friday may increase the potential for bloom formation this weekend.

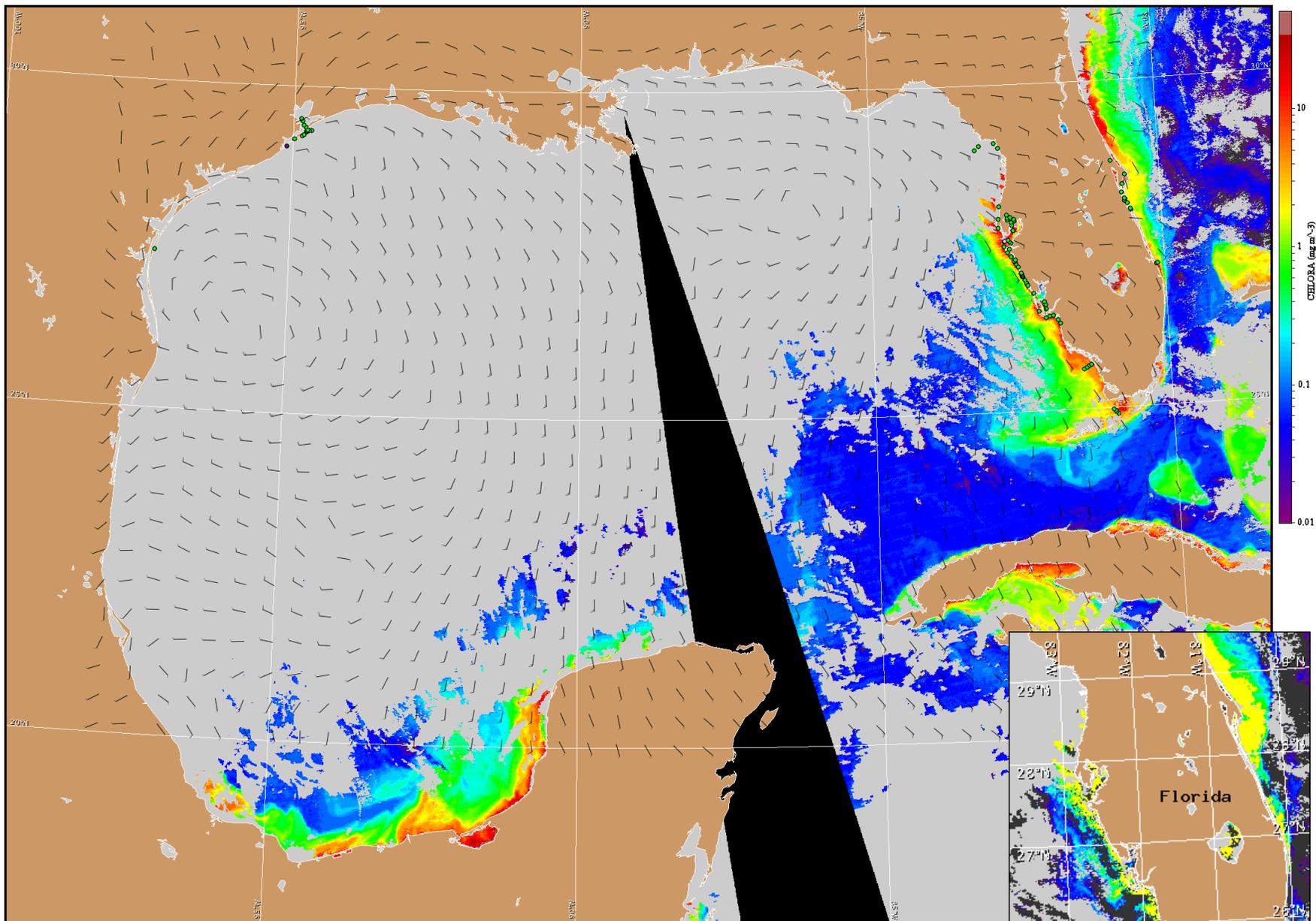
Derner, Burrows



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:** Southeast winds (10-15kn, 5-8m/s) today becoming south (10-15kn) tonight. Southwest winds (5-15kn, 3-8m/s) Tuesday and Wednesday. West winds (10kn, 5m/s) Thursday becoming northwest (10kn) Thursday night. Northeast winds (5-15kn) Friday.



Satellite chlorophyll image and forecast winds for September 24, 2013 06Z with points representing cell concentration sampling data from September 13 to 19: 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:

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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).