



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

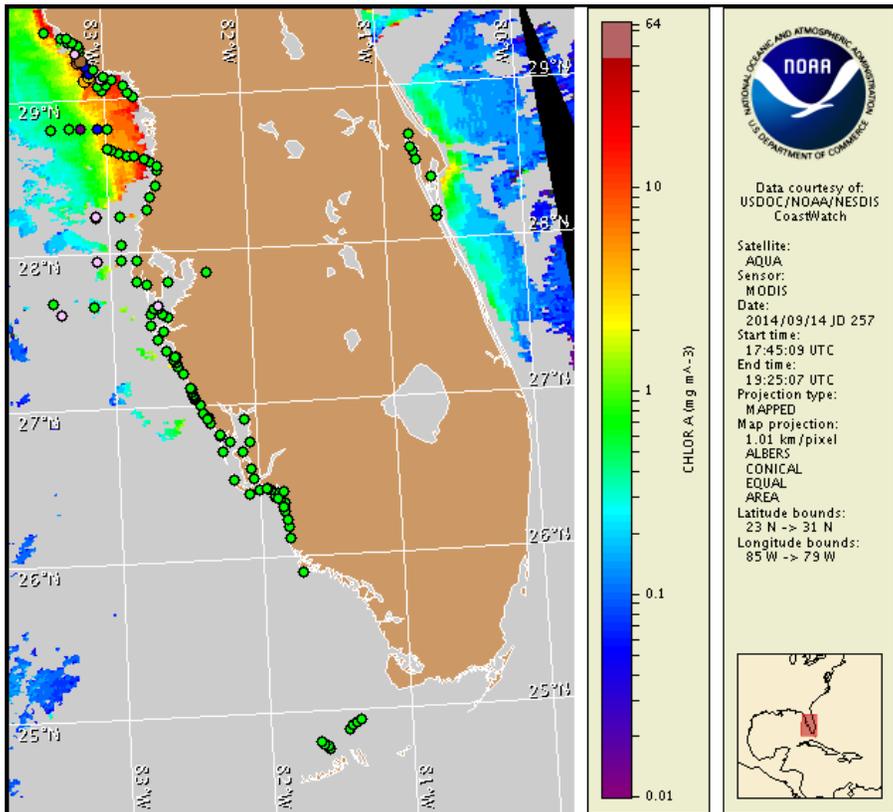
Monday, 15 September 2014

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, September 11, 2014



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from September 5 to 12: 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 background concentrations along the coast of southwest Florida from Manatee to Monroe County and is not present in the Florida Keys. No respiratory irritation is expected alongshore from Manatee to Monroe County Monday, September 15 through Thursday, September 18.

Not present to medium concentrations of *K. brevis* are present along- and offshore portions of the coast from Dixie to Pinellas counties. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction. The highest level of potential respiratory irritation forecast for alongshore Levy County Monday, September 15 through Thursday, September 18 is listed below:

County Region: Forecast (Duration)

Levy: Moderate (M-W), Very Low (Th)

Two weeks ago, officials at the Florida Fish and Wildlife Conservation Commission received reports of respiratory irritation on shore in some parts of northern Pinellas County (<http://www.myfwc.com/redtidestatus>) and continued respiratory irritation in this area could be possible. However, no additional reports of respiratory irritation were received last week as of Friday, 9/12. Our forecast will be updated if field observations confirm elevated concentrations of *K. brevis* along the coast this week.

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations. Health information, from the Florida Department of Health and other agencies, is available at http://tidesandcurrents.noaa.gov/hab/hab_health_info.html. Over the past several days, reports of dead fish were received from offshore Dixie County.

Analysis

Dixie to Pinellas County: Recent samples collected along- and offshore west Florida over the past ten days continue to identify not present to 'medium' concentrations of *Karenia brevis*. Along- and offshore Levy County, not present to 'low b' concentrations of *K. brevis* were identified with the highest concentrations at Shark Hole Channel #4 near Cedar Key (FWRI; 9/10-9/11). Offshore Dixie County, recent sampling identified not present to 'low a' concentrations of *K. brevis* near East Pass (FWRI; 9/11). Alongshore and offshore Pinellas County, sampling continues to indicate *K. brevis* concentrations range between not present and background (FWRI; 9/8-9/10). All other samples collected along- and offshore in this region indicated that *K. brevis* is not present (FWRI; 9/8-9/11).

Over the past several days, dead fish were reported offshore Dixie County (FWRI; 9/14). However, as of Friday, 9/12, no reports of respiratory irritation were received last week (FWRI, MML; 9/11-9/15).

Recent MODIS Aqua imagery from 9/14 (shown left) and 9/13 (not shown) is obscured by clouds along- and offshore from Hernando to Pinellas County, limiting analysis.

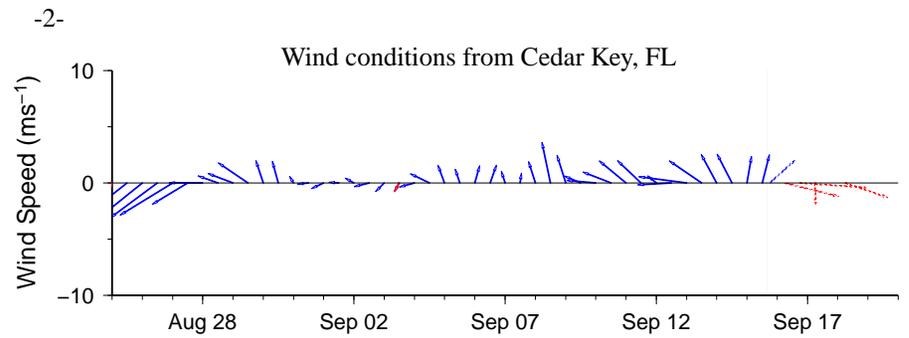
MODIS Aqua imagery from 9/14 continues to indicate patches of elevated to very high levels of chlorophyll (2 to >20 $\mu\text{g/L}$) along- and offshore from Dixie to Hernando counties.

Over the past few days, observed winds may have promoted northerly transport of the offshore surface *K. brevis* concentrations. Forecasted winds today through Wednesday may promote southerly transport of offshore surface *K. brevis* concentrations. Forecasted winds will increase the potential for respiratory irritation today through Wednesday at the coast of Levy County and northern Pinellas County.

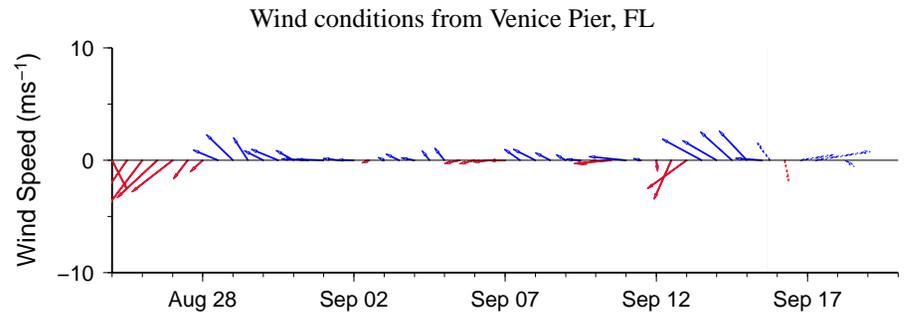
Manatee to Monroe County: Recent samples collected over the past ten days along-shore the coast of southwest Florida continue to indicate that *K. brevis* ranges from not present to background concentrations from Manatee to Monroe County, and is not present in the Florida Keys (FWRI, MML, SCHD, CCPCPD; 9/8-15).

MODIS Aqua imagery from (9/14, shown left) is obscured by clouds along- and offshore from Manatee County to the Florida Keys, preventing analysis.

Davis, Kavanaugh



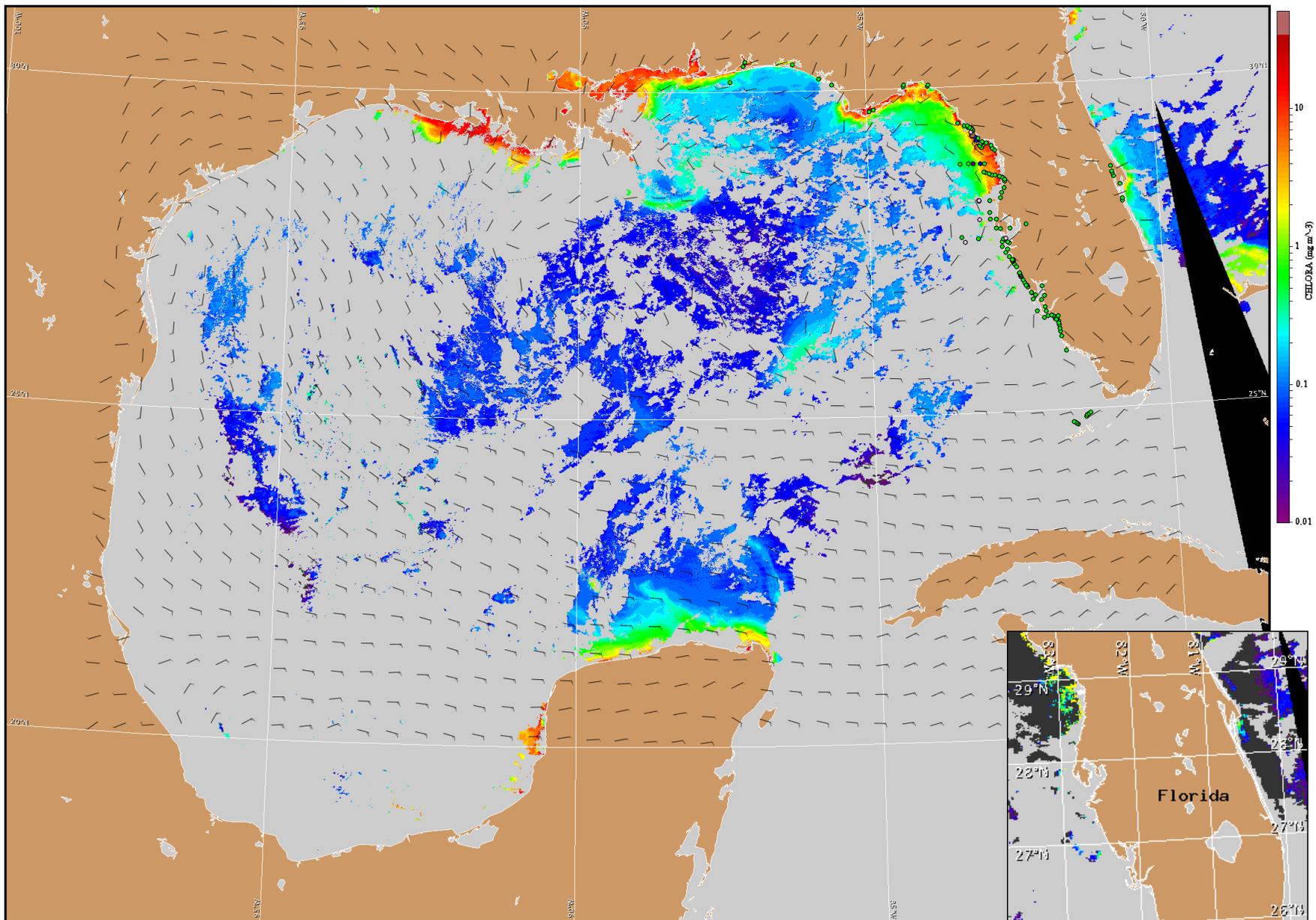
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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



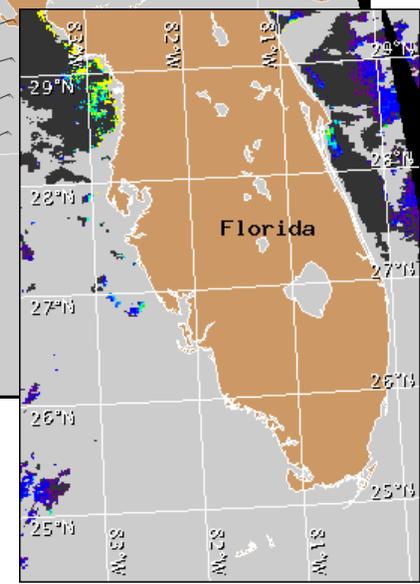
Wind Analysis

Cedar Key: South winds (5-10kn, 3-5m/s) today becoming southwest winds in the afternoon. West winds (5-10kn) tonight through Tuesday night. Northwest winds (5-10kn) Wednesday becoming north winds overnight. Northeast winds (5-10kn) Thursday becoming east winds (10-15kn, 5-8m/s) overnight.

Venice: Southeast winds (10kn, 5m/s) today becoming south winds this afternoon. Variable winds (5kn, 3m/s) tonight. Northwest winds (5-10kn, 3-5m/s) Tuesday afternoon through evening becoming southwest winds (5kn) overnight. Southwest winds (10kn) Wednesday becoming northwest winds (5-10kn) in the afternoon through evening. North to northwest winds (5-10kn) Thursday becoming east winds overnight.



Satellite chlorophyll image and forecast winds for September 16, 2014 12Z with points representing cell concentration sampling data from September 5 to 12: 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).