



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

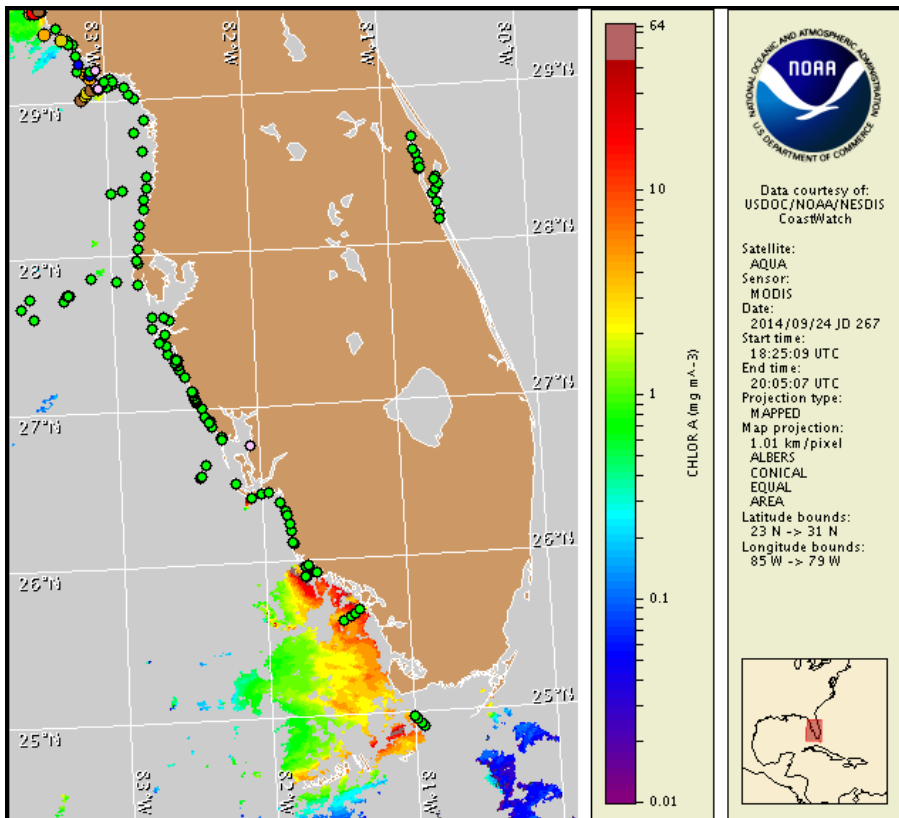
Thursday, 25 September 2014

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, September 22, 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 15 to 24: 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

There is currently no indication of *Karenia brevis* (commonly known as Florida red tide) along the coast of west Florida from Pinellas to Monroe counties, including the Florida Keys. No respiratory irritation is expected alongshore from Pinellas to Monroe counties Thursday, September 25 through Monday, September 29.

Not present to high concentrations of *K. brevis* are present along- and offshore portions of the coast from Taylor to Pasco 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 Taylor to Pasco counties Thursday, September 25 through Monday, September 29 is listed below:

County Region: Forecast (Duration)

Dixie: Very Low (Th-Su), Moderate (M)

Levy: Very Low (Th-Sa), Low (Su), Moderate (M)

All Other West FL County Regions: None expected (Th-M)

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.

Analysis

Taylor to Pasco County: Recent samples collected along- and offshore west Florida over the past several days identified not present to 'high' concentrations of *Karenia brevis*. In Dixie County, recent samples collected alongshore identified up to 'low b' concentrations of *K. brevis*, with the highest concentrations collected from Marker #9 in the HB Channel (Horseshoe Beach) (FWRI; 9/22). Samples collected offshore Dixie County now indicate up to 'high' concentrations of *K. brevis*, with the highest concentrations collected 5.4 miles southwest of Bird Island (FWRI; 9/22). Alongshore Levy County, recent samples continue to indicate not present to 'medium' concentrations of *K. brevis*, with the highest concentrations identified at Shark Hole, #4 Channel (Cedar Key) (FWRI; 9/20-22). Sampling alongshore Taylor County, offshore Citrus and Hernando County and along- and offshore Pasco County continues to indicate that *K. brevis* is not present (FWRI; 9/22). Over the past several days, no reports of dead fish associated with *K. brevis* were received (FWRI; 9/22-25). However, a fish kill approximately 40 miles off Keaton Beach was reported on 9/14 (FWRI; 9/25).

Recent MODIS Aqua imagery (9/24, shown left; 9/22-23, not shown) has been obscured by clouds along- and offshore the coast of west Florida from Dixie to Pasco counties, limiting analysis. MODIS Aqua imagery along- and offshore Taylor County indicates patches of elevated to high levels of chlorophyll (2 to >10 $\mu\text{g/L}$). However, elevated chlorophyll in this region is not necessarily indicative of the presence of *K. brevis*, and recent water samples collected alongshore Taylor County in the area of the anomalously high chlorophyll did not confirm the presence of *K. brevis* (FWRI; 9/22). Due to the optical characteristics that are typical in the area, elevated chlorophyll may also be due to the resuspension of benthic chlorophyll and sediments along the coast.

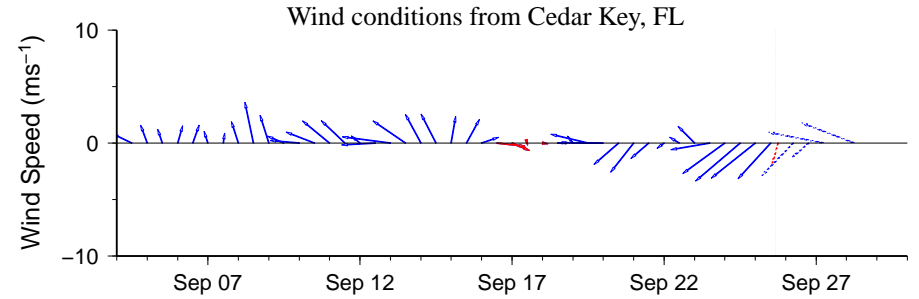
Over the past few days, observed winds may have promoted northerly transport of surface *K. brevis* concentrations. Potentially upwelling favorable winds forecasted over the next several days may promote the onshore transport of *K. brevis* concentrations currently located offshore and at depth. Offshore winds forecasted Thursday through Saturday will decrease the potential for respiratory irritation at the coast of Dixie and Levy County.

Pinellas to Monroe County: Recent samples identified background concentrations in the following three locations: 35 miles west of Treasure Island, offshore Pinellas County (FWRI; 9/16), in the Burnt Store Marina, west of Charlotte Harbor, Lee County (FWRI; 9/19) and 14 miles west of North Captiva Island, offshore Lee County (FWRI; 9/19). All other samples collected along- and offshore from Pinellas to Collier counties continue to indicate that *K. brevis* is not present (FWRI, MML; 9/15-23).

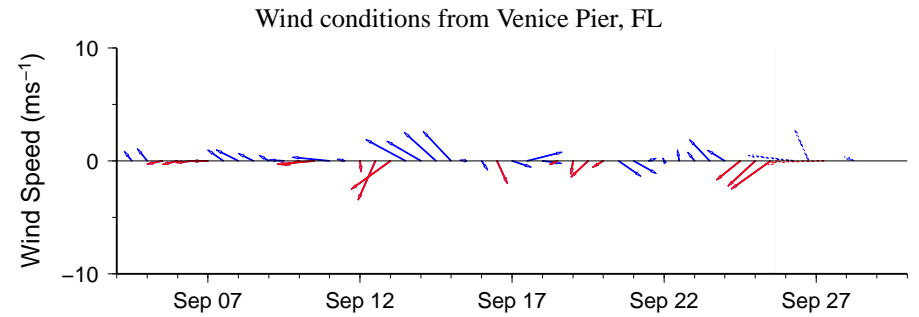
Recent MODIS Aqua imagery (9/24, shown left; 9/22-23, not shown) has been obscured by clouds along- and offshore the coast of west Florida from Pinellas to Collier counties, preventing analysis.

Kavanaugh, Yang

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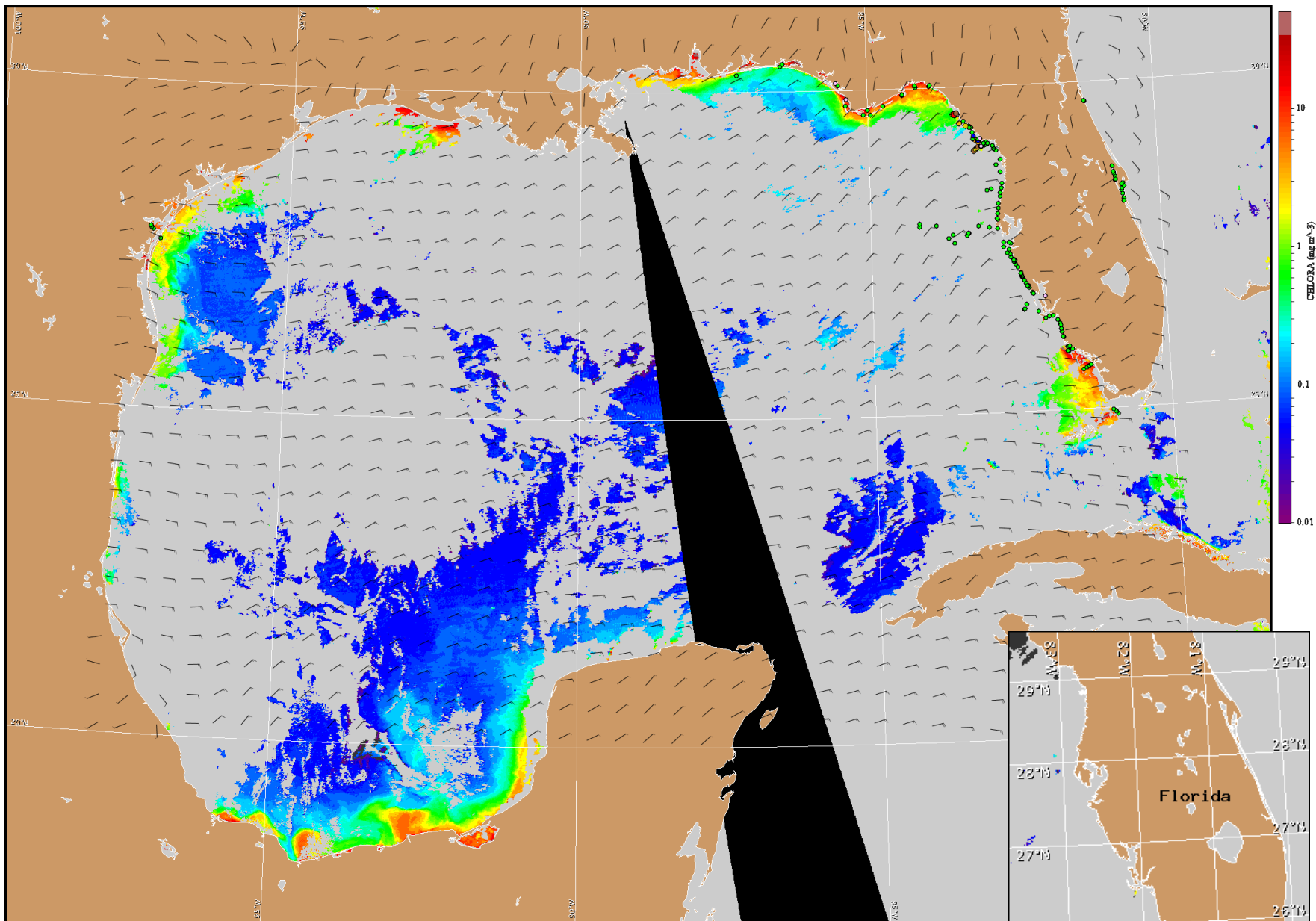
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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



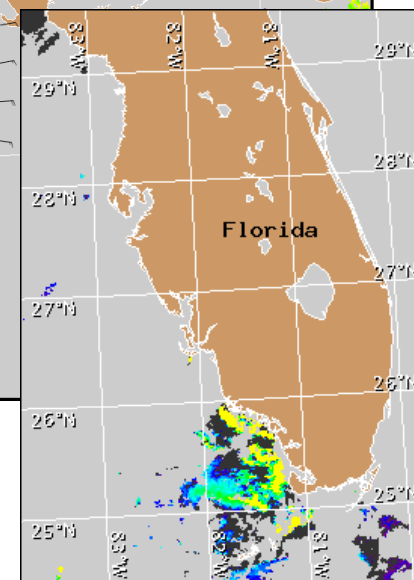
Wind Analysis

Cedar Key: Northeast winds (10-15kn, 5-8m/s) today through Friday becoming east winds (5-15kn, 3-8m/s) Friday afternoon through Saturday night. East winds (10-15kn) Sunday becoming southeast winds (5kn, 3m/s) then east winds (10kn, 5m/s) Sunday night. Southeast to south winds (5-10kn, 3-5m/s) Monday.

Venice: Northeast winds (10-15kn) today becoming east winds (5-15kn) Friday. East to southeast winds (5-15kn) Saturday through Sunday night. Southeast winds (10kn) Monday becoming south winds (5kn) Monday afternoon.



Satellite chlorophyll image and forecast winds for September 26, 2014 06Z with points representing cell concentration sampling data from September 15 to 24: 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).