Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

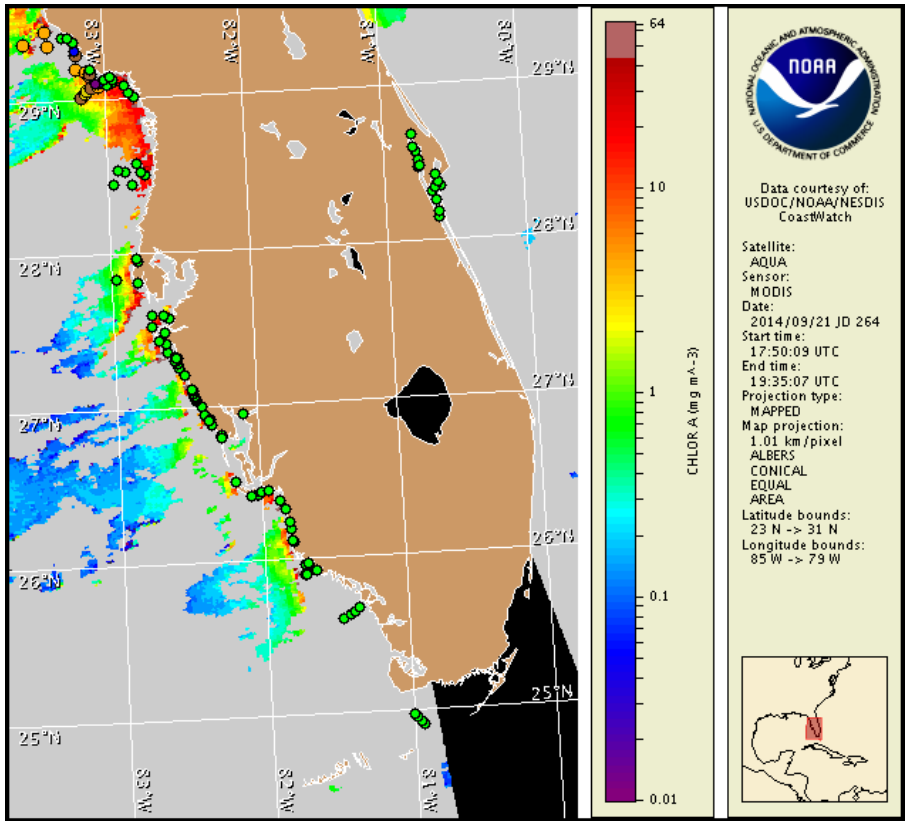
Monday, 22 September 2014

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, September 18, 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 12 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

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 southwest Florida from Pinellas to Monroe County, including the Florida Keys. No respiratory irritation is expected alongshore from Pinellas to Monroe County Monday, September 22 through Thursday, September 25.

Not present to medium concentrations of *K. brevis* are present along- and offshore portions of the coast from Dixie 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 Dixie and Levy County Monday, September 22 through Thursday, September 25 is listed below:

County Region: Forecast (Duration)
Dixie: Low (M), Very Low (Tu-Th)
Levy: Moderate (M), Very Low (Tu-Th)

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 Taylor County.

Analysis

Dixie to Pasco County: Recent samples collected along- and offshore west Florida over the past several days continue to identify not present to 'medium' concentrations of *Karenia brevis*. In Dixie County, recent samples collected alongshore identified up to 'background' concentrations of *K. brevis*, with the highest concentrations collected from the end of McGriff Channel (FWRI; 9/11-17). Samples collected nearshore now indicate up to 'low a' concentrations of *K. brevis*, with the highest concentrations collected 2.68 miles west of Suwannee River East Pass, while samples collected offshore continued to indicate up to 'medium' concentrations of *K. brevis*, with the highest concentrations collected West of Drum Point (Horseshoe Beach) (FWRI; 9/12-17). Along- and offshore Levy County, recent samples continued to indicate not present to 'medium' concentrations of *K. brevis*, with the highest concentrations identified 7.93 miles west of Hog Island (FWRI; 9/12-18). Sampling offshore Hernando County continued to indicate that *K. brevis* is not present (FWRI; 9/12-9/14). Over the past several days, dead fish were reported approximately 9-12 miles offshore of Keaton Beach, Taylor County (FWRI; 9/17-19).

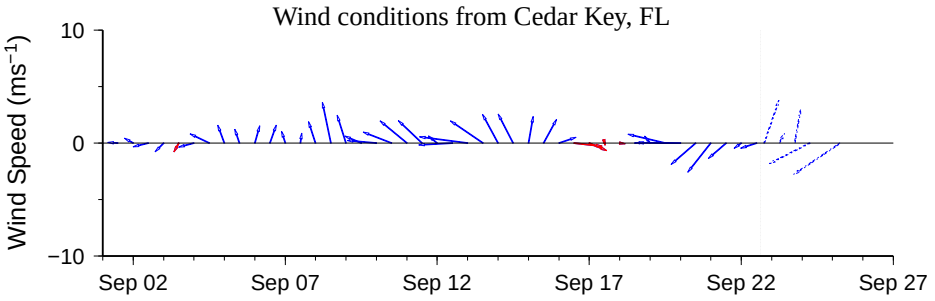
Recent MODIS Aqua imagery (9/21, shown left; 9/20, not shown) has been partially obscured by clouds along- and offshore portions of Dixie and Levy County, limiting analysis. MODIS Aqua imagery along- and offshore Taylor County and from Dixie to Hernando counties indicate patches of elevated to very high levels of chlorophyll (2 to >20 μg/L). Elevated chlorophyll in this region is not necessarily indicative of the presence of *K. brevis* and could be an artifact of clouds in the imagery. 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, and forecasted winds Monday through Thursday may continue to promote northerly transport. Offshore winds forecasted Tuesday through Thursday will decrease the potential for respiratory irritation at the coast of Dixie and Levy County.

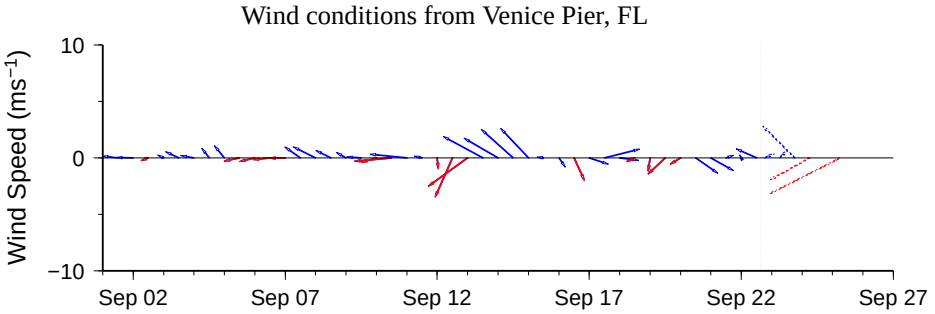
Pinellas to Monroe County: Recent samples collected along- and offshore the coast of southwest Florida indicate that *K. brevis* is not present from Pinellas to Monroe counties and is not present offshore the Florida Keys (FWRI, MML, SCHD; 9/15-9/18).

Recent MODIS Aqua imagery (9/21, shown left; 9/20, not shown) has been partially obscured by clouds along- and offshore from Pasco to Collier counties, limiting analysis. MODIS Aqua imagery along- and offshore Pinellas to Collier counties indicate patches of elevated to very high levels of chlorophyll (2 to >20 μg/L). Elevated chlorophyll in this region is most likely not due to *K. brevis* and could be an artifact of clouds in the imagery or due to mixed algal blooms that were identified in the area last week (FWRI; 9/19).

Kavanaugh, Yang



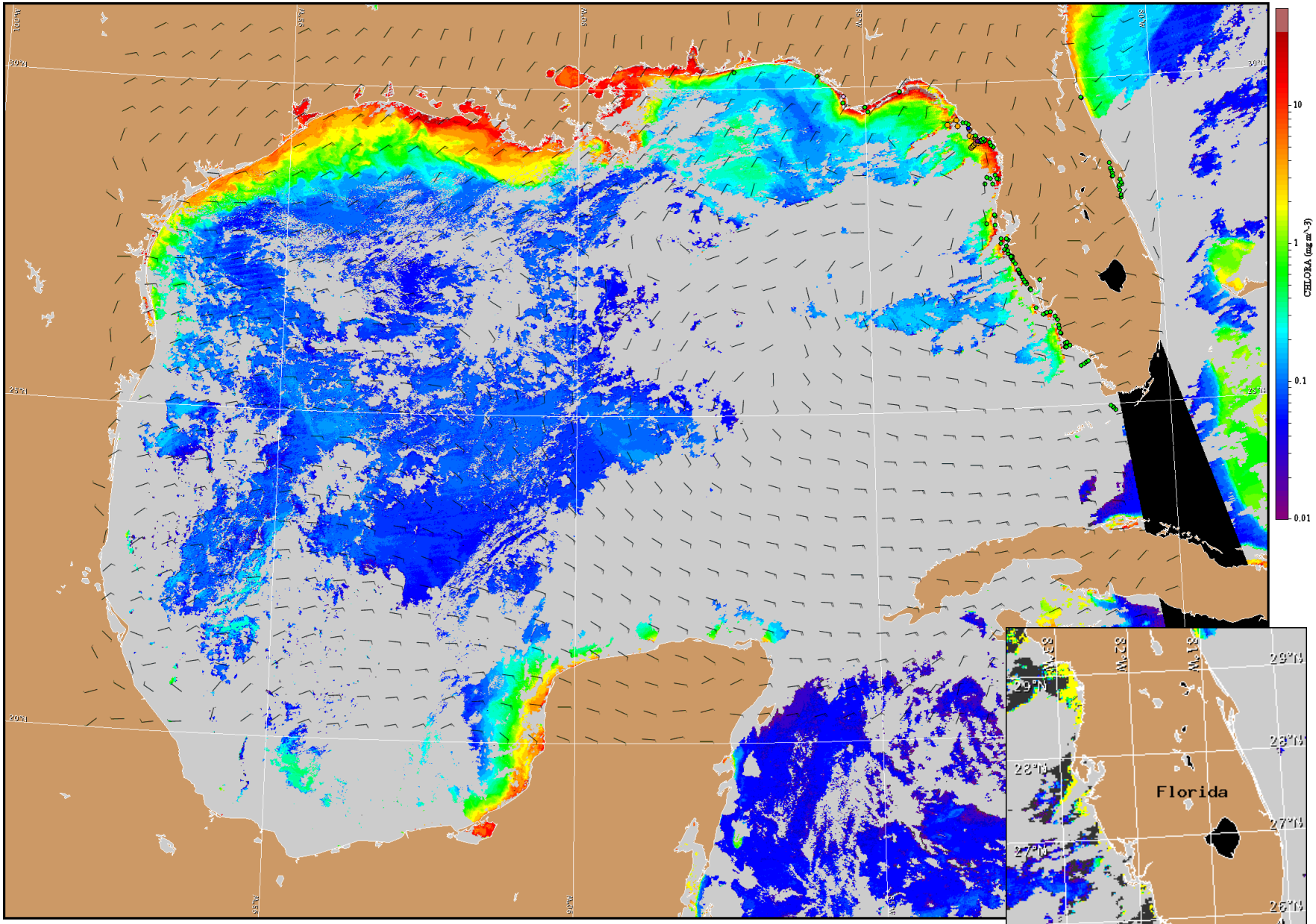
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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



Wind Analysis

Cedar Key: Variable winds (5kn, 3m/s) today becoming southwest winds (5-10kn, 3-5m/s). Variable winds (5kn) tonight becoming east winds (10kn, 5m/s) after midnight. East winds (10-15kn, 5-8m/s) Tuesday becoming northeast winds (10-20kn, 5-10m/s) after midnight through Thursday night.

Venice: Southeast winds (5-10kn) today becoming south winds (5-10kn) this afternoon. Southwest winds (5-10kn) tonight becoming east winds (10kn) after midnight. East winds (10-15kn) Tuesday through Wednesday. Northeast winds (10-15kn) Wednesday night. East winds (10-15kn) Thursday through Thursday night.



Satellite chlorophyll image and forecast winds for September 23, 2014 06Z with points representing cell concentration sampling data from September 12 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).