



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

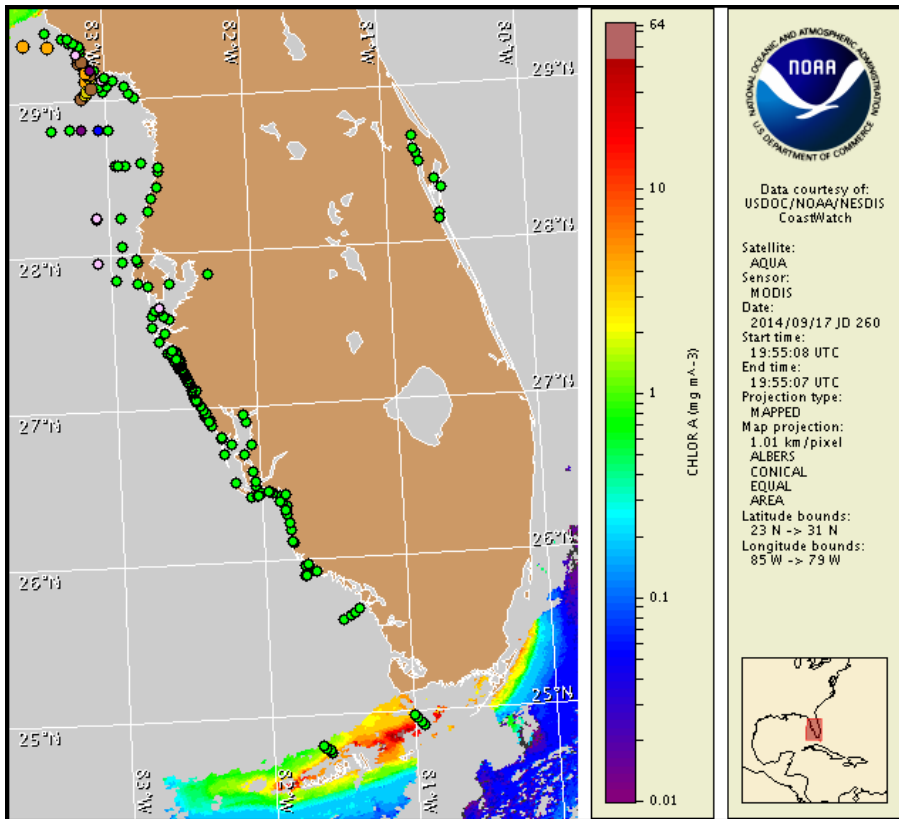
Thursday, 18 September 2014

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, September 15, 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 8 to 16: 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 Manatee to Monroe County, including the Florida Keys. No respiratory irritation is expected alongshore from Manatee to Monroe County Thursday, September 18 through Monday, September 22.

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 Thursday, September 18 through Monday, September 22 is listed below:

County Region: Forecast (Duration)

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

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 several days continue to identify not present to 'medium' concentrations of *Karenia brevis*. Along- and offshore Levy County, 'very low a' to 'medium' concentrations of *K. brevis* were identified with the highest concentrations 3.59 miles west of Derrick Key (FWRI; 9/15). Offshore Dixie County, recent sampling identified 'medium' concentrations of *K. brevis* 12.39 miles west of Crutchman Island and 23.19 miles west of Big Pine Island (FWRI; 9/12). Sampling offshore Hernando County and along- and offshore Pinellas County indicated *K. brevis* was not present (FWRI; 9/11-9/16).

Over the past several days, dead fish were reported offshore Horseshoe Beach in Dixie County (FWRI; 9/15-9/17). No reports of respiratory irritation have been received at the coast from Dixie to Pinellas counties (FWRI, MML; 9/15-9/18).

Recent MODIS Aqua imagery from 9/17 (shown left) is obscured by clouds along- and offshore from Dixie to Pinellas counties, preventing analysis. MODIS Aqua imagery along- and offshore Taylor County indicate patches of elevated to very high levels of chlorophyll (2 to >20 $\mu\text{g/L}$). Due to the optical characteristics that are typical in the area, elevated chlorophyll in this region is not necessarily indicative of the presence of *K. brevis* and 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 southerly transport of the offshore surface *K. brevis* concentrations. Forecasted winds Saturday through Monday may promote northerly transport of offshore surface *K. brevis* concentrations. Forecasted winds will increase the potential for respiratory irritation today and Monday at the coast

of Levy County.

Manatee to Monroe County: Recent samples collected alongshore the coast of south-west Florida indicate that *K. brevis* is not present from Manatee to Monroe County, including the Florida Keys (FWRI, MML, SCHD; 9/12-9/16).

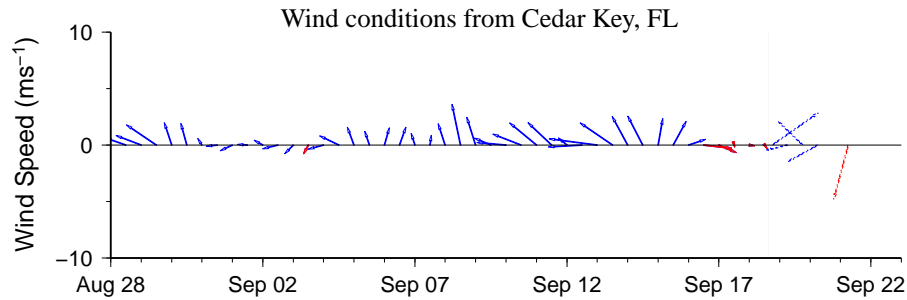
MODIS Aqua imagery from (9/14, shown left) is obscured by clouds along- and offshore from Manatee County to the Florida Keys, preventing analysis.

Davis, Kavanaugh

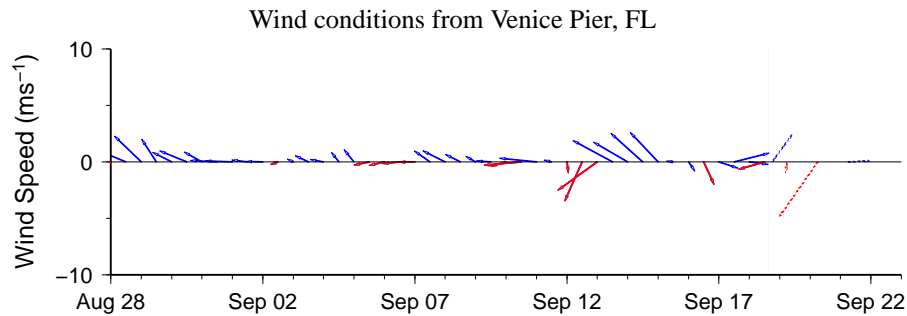
Wind Analysis

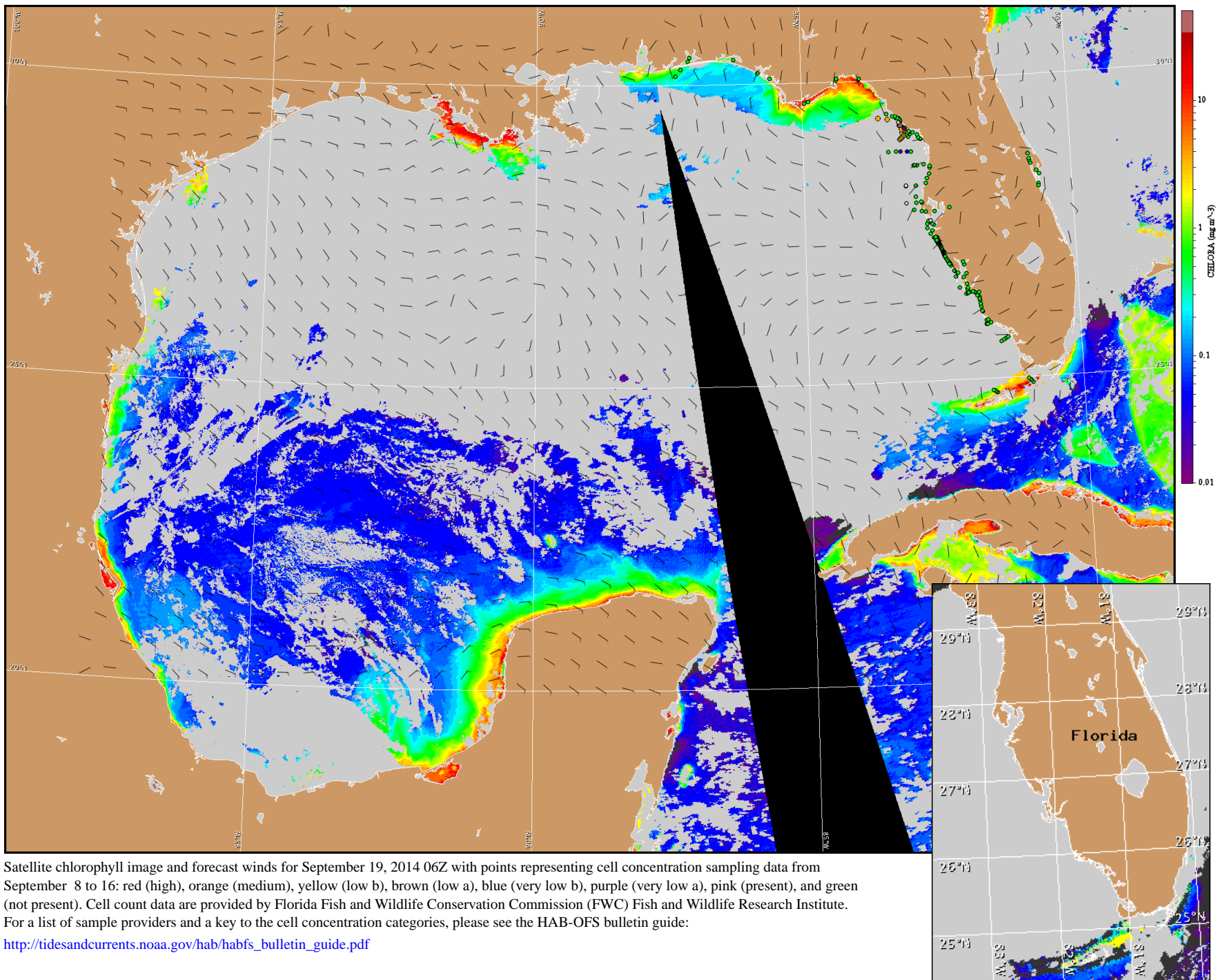
Cedar Key: West winds 10kn (5m/s) today. North winds (5-10kn, 3-5m/s) tonight becoming east winds after midnight. East to northeast winds (5-15kn, 3-8m/s) Friday and Saturday. South to southeast winds (5-10kn) Sunday through Monday.

Venice: North winds (5-10kn) today becoming east winds (10kn) after midnight. East winds (5-15kn, 3-8m/s) Friday and Saturday becoming south to southeast winds (5-10kn) Saturday afternoon through Sunday. Southwest winds (10kn) Monday.



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).





Satellite chlorophyll image and forecast winds for September 19, 2014 06Z with points representing cell concentration sampling data from September 8 to 16: 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).