



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

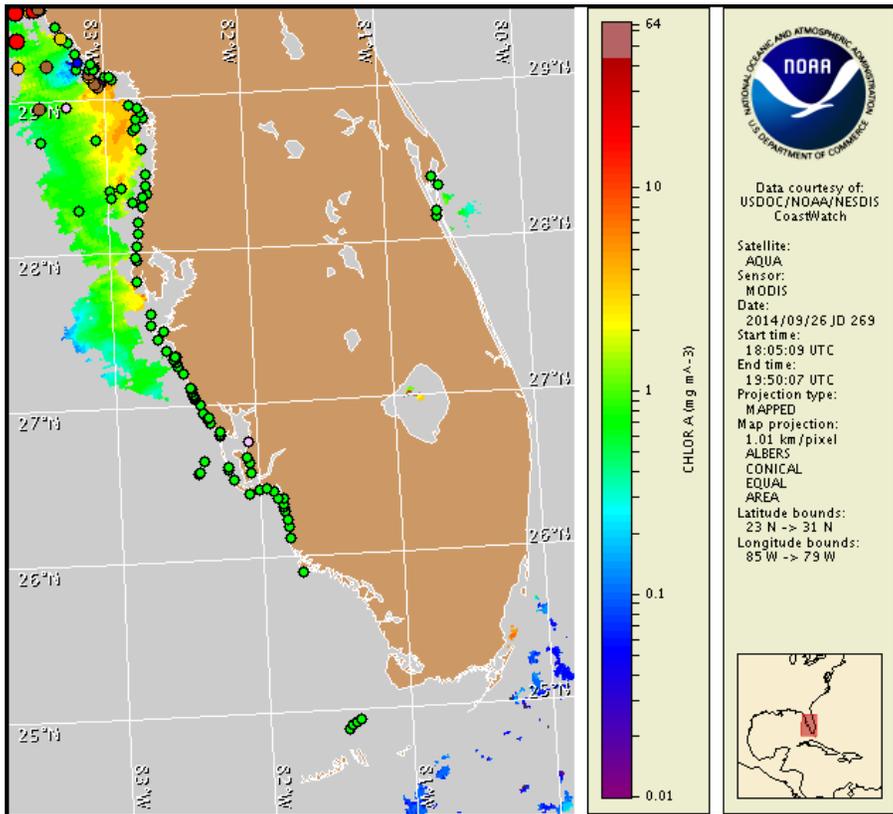
Monday, 29 September 2014

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, September 25, 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 19 to 26: 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 Hernando to Monroe counties, including the Florida Keys. No respiratory irritation is expected alongshore from Hernando to Monroe counties Monday, September 29 through Thursday, October 2.

Not present to high concentrations of *K. brevis* are present along- and offshore portions of the coast from Taylor to Citrus 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 Citrus counties Monday, September 29 through Thursday, October 2 is listed below:

County Region: Forecast (Duration)

Dixie: Moderate (M), Very Low (Tu, Th), Low (W)

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

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

Analysis

Taylor to Citrus counties: Recent samples collected along- and offshore west Florida over the past week identified not present to 'high' concentrations of *Karenia brevis*. In Dixie County, recent samples collected offshore continued to indicate up to 'high' concentrations of *K. brevis*, with the highest concentrations collected 20 miles west of Horsehoe Beach (FWRI; 9/22). Along- and offshore 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 and 28 miles west of Suwannee (Cedar Key) (FWRI; 9/23-24). Offshore Citrus County, recent samples have identified up to 'low a' concentrations of *K. brevis*, with the highest concentrations collected 28 miles southwest of Cedar Key (FWRI; 9/22-23). Sampling alongshore Taylor and Citrus County and offshore Hernando and Pasco County continues to indicate that *K. brevis* is not present (FWRI; 9/20-25). Over the past several days, no reports of dead fish associated with *K. brevis* were received (FWRI; 9/26-29).

Recent MODIS Aqua imagery (9/26, shown left; 9/27-28, not shown) has been partially obscured by clouds along- and offshore the coast from Taylor to Citrus counties, limiting analysis. Patches of elevated chlorophyll ($1-5 \mu\text{g/L}$) are visible offshore Levy to Pasco counties. Elevated chlorophyll in this region is not necessarily indicative of the presence of *K. brevis*, and it 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.

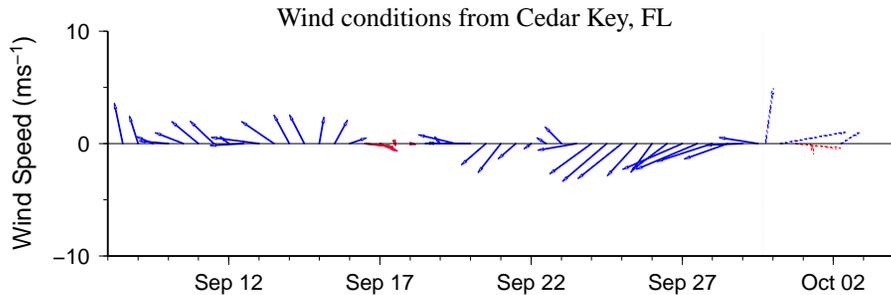
Potentially upwelling favorable winds observed over the past few days may have promoted the onshore transport of offshore *K. brevis* concentrations. Forecasted winds this afternoon through Wednesday may promote the onshore and slight southerly transport of

surface *K. brevis* concentrations.

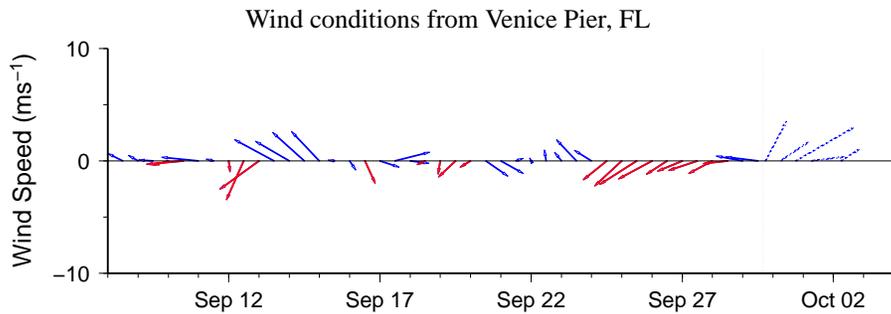
Hernando to Monroe counties: Recent samples collected alongshore Sarasota, Charlotte and Lee counties and offshore the Florida Keys continue to indicate that *K. brevis* is not present (FWRI, MML, SCHD; 9/18-26).

Recent MODIS Aqua imagery (9/26, shown left) has been obscured by clouds along- and offshore the coast of west Florida from Pinellas to Collier counties, preventing analysis. In MODIS imagery from 9/27 (not shown) patches of elevated to high chlorophyll (2 to >10µg/L) are visible stretching alongshore to approximately 5 miles offshore Charlotte and Lee County.

Kavanaugh, Derner



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).

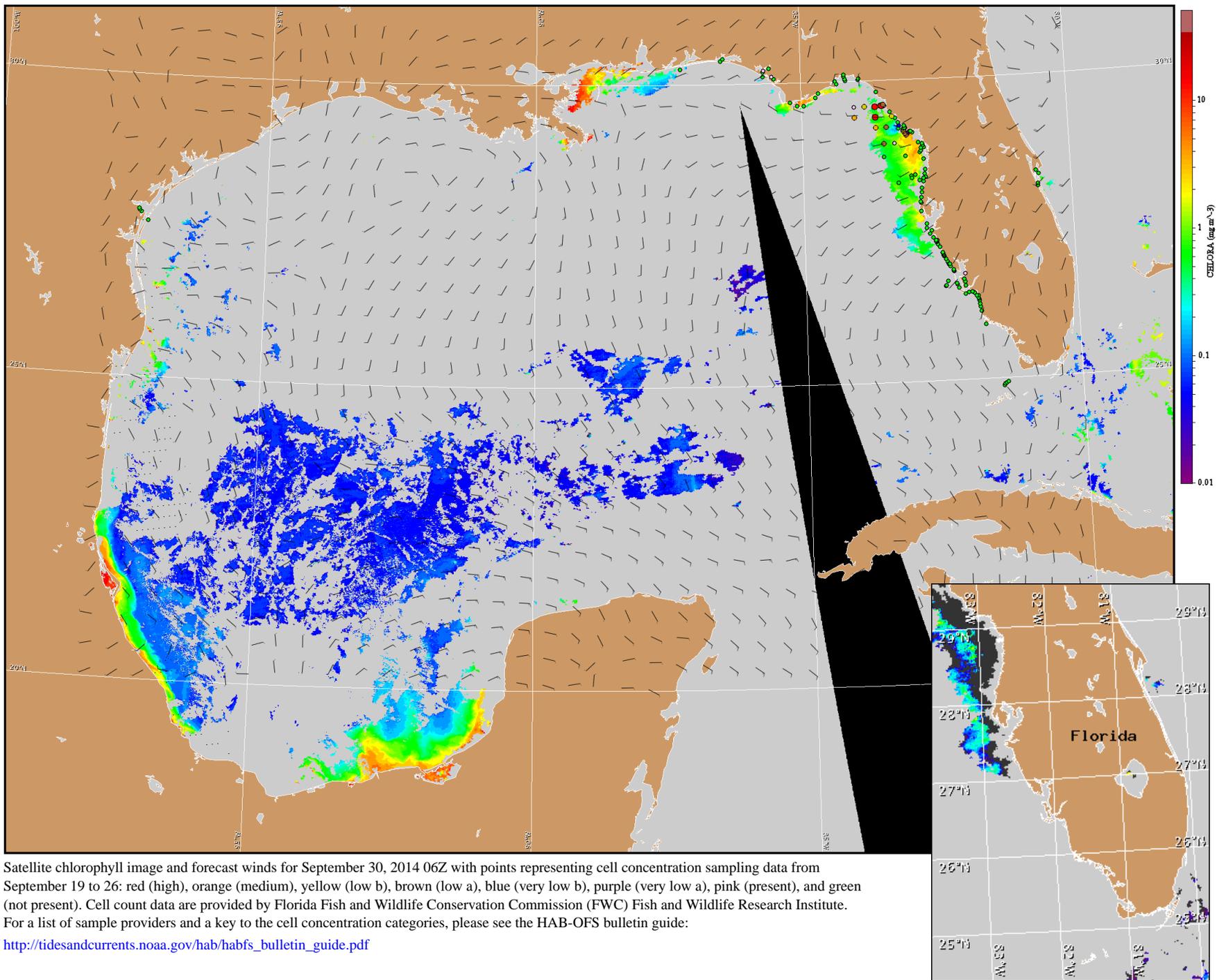


Wind Analysis

Suwannee River to Keaton Beach: East to northeast winds (10kn, 5m/s) today becoming southwest winds this afternoon. Northwest winds (10kn) tonight. North winds (10kn) Tuesday. East winds (5-10kn, 3-5m/s) Tuesday night through Thursday becoming southeast winds (5kn, 3m/s) Thursday night.

Tarpon Springs to Suwannee River (Cedar Key Buoy): South winds (10kn, 5m/s) today becoming southwest winds this afternoon through tonight. West winds (10kn) Tuesday becoming southwest winds (10kn) Tuesday night. West winds (10-15kn, 5-8m/s) Wednesday becoming east winds (5kn) after midnight. East winds (5kn) Thursday.

Englewood to Tarpon Springs (Venice Pier Buoy): South winds (10kn) today becoming southwest winds (10-15kn) tonight. West winds (10-15kn) Tuesday through Wednesday. Southwest winds (10kn) Wednesday night becoming southeast winds (5kn) after midnight. East winds (5kn) Thursday becoming north winds in the afternoon. Northwest winds (5kn) Thursday night.



Satellite chlorophyll image and forecast winds for September 30, 2014 06Z with points representing cell concentration sampling data from September 19 to 26: 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).