



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

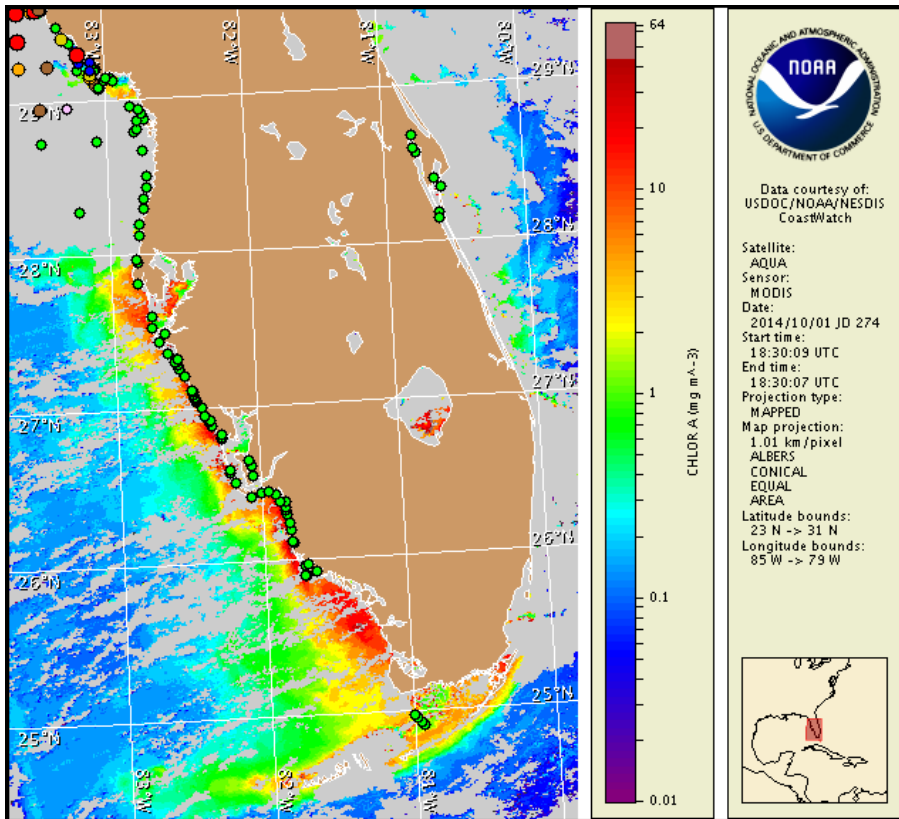
Thursday, 02 October 2014

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, September 29, 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 22 to October 1: 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

Not present to high concentrations of *Karenia brevis* (commonly known as Florida red tide) are present along- and offshore portions of northwest and southwest Florida 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 southwest Florida Thursday, October 2 through Monday, October 6 is listed below:

County Region: Forecast (Duration)

Dixie: Low (Th, Su-M), High (F-Sa)

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

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

NWFL County Regions: Visit <http://tidesandcurrents.noaa.gov/hab/#nwfl>

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

As of today, October 2, bulletins will be issued twice weekly, on Mondays and Thursdays, for both the northwest and southwest Florida regions due to the presence of Karenia brevis concentrations nearshore. Northwest Florida bulletins will report on conditions between Escambia and Taylor counties. Southwest Florida bulletins will report on conditions between Dixie and Monroe counties.

Dixie to Citrus counties: Recent samples collected along- and offshore southwest Florida over the past several days identified not present to 'high' concentrations of *Karenia brevis*. In Dixie County, recent samples identified 'high' concentrations of *K. brevis* 1.72 miles west of Little Bradford Island, Dixie County (FWRI; 9/27). 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 (FWRI; 9/29). Over the past several days, no reports of dead fish associated with *K. brevis* were received (FWRI; 9/29-10/01).

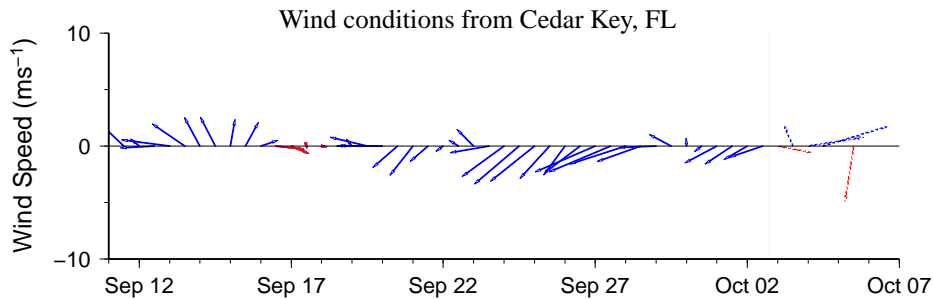
Recent MODIS Aqua imagery (10/1, shown left; 9/29-30, not shown) has been partially or completely obscured by clouds along- and offshore the coast from Dixie to Citrus counties, limiting analysis. Patches of elevated chlorophyll (1-5 $\mu\text{g/L}$) are visible along- and offshore Dixie and Levy counties. 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.

Observed winds over the past several days may have promoted northerly transport of *K. brevis* concentrations. Variable winds and surface currents forecasted over the next several days may maintain the location of surface *K. brevis* concentrations or promote slight southerly transport.

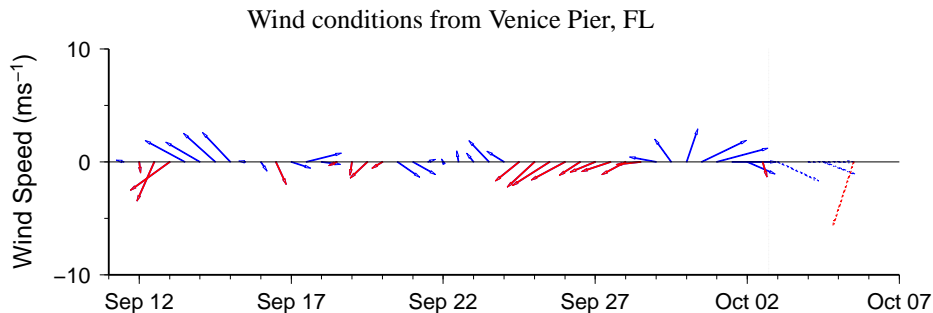
Hernando to Monroe counties: Recent samples collected alongshore from Pinellas to Collier counties and offshore the Florida Keys continue to indicate that *K. brevis* is not present (FWRI, MML, SCHD; 9/27-30).

Recent MODIS Aqua imagery (10/1, shown left) has been partially obscured by clouds along- and offshore the coast of west Florida from Pinellas to Monroe counties, limiting analysis. Patches of elevated to very high chlorophyll (2 to >20µg/L) are visible stretching alongshore to approximately 5 miles offshore Pinellas to Collier counties. Elevated chlorophyll levels along the coast may be the result of various algal species that have been reported throughout the region and not due to *K. brevis*.

Yang, 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).

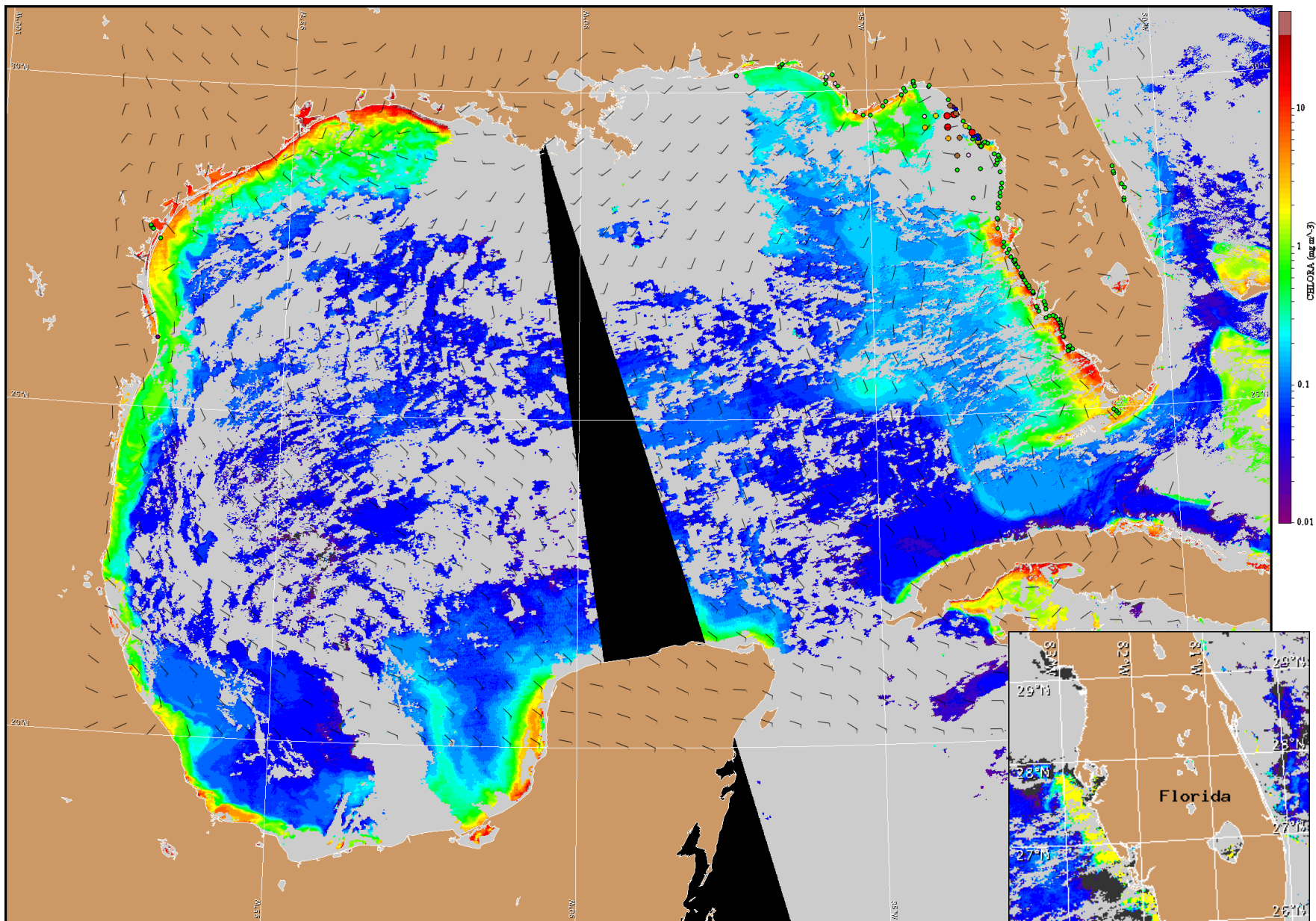


Wind Analysis

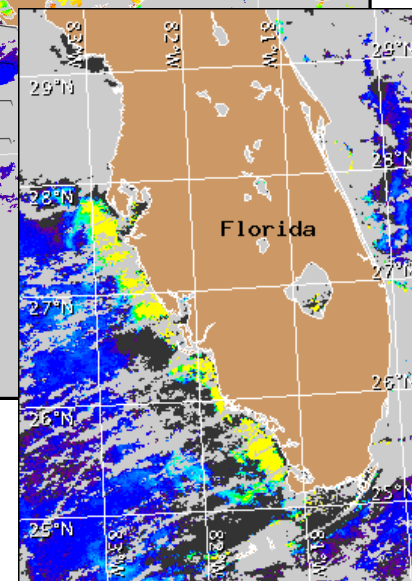
Suwannee River to Keaton Beach: East winds (5-10kn, 3-5m/s) today becoming south-east winds (10kn, 5m/s) tonight. Southwest winds (5-10kn) Friday increasing to 15kn (8m/s) Friday afternoon. West winds (10-15kn, 5-8m/s) Friday night becoming northwest (20kn, 10m/s) after midnight. North winds (20kn) Saturday becoming northwest (10-15kn) Saturday afternoon. North winds (15kn) Saturday night. North winds (5-15kn, 3-8m/s) Sunday becoming northeast (10kn) Sunday night. Southeast winds (5kn, 3m/s) Monday.

Tarpon Springs to Suwannee River (Cedar Key Buoy): Northeast winds (5kn) today becoming northwest (5kn) this afternoon. North winds (5kn) tonight becoming east (10kn) after midnight. Southeast winds (10kn) Friday becoming southwest Friday afternoon. West winds (5-10kn) Friday night increasing to 15kn after midnight. Northwest winds (10-15kn) Saturday becoming north (10-15kn) Saturday night. North winds (10-15kn) Sunday diminishing to 5-10kn Sunday afternoon. North winds (10kn) Sunday night becoming northeast after midnight. East winds (10kn) Monday diminishing to 5kn Monday afternoon.

Englewood to Tarpon Springs (Venice Buoy): Northwest winds (5kn) today becoming north winds (5kn) tonight and east after midnight. South winds (5kn) Friday becoming west (10kn) in the afternoon through Friday night. West winds (10kn) Saturday becoming north (10-15kn) Saturday night. Northeast winds (10-15kn) Sunday becoming north (5-10kn) Sunday afternoon. Northeast winds (10kn) Sunday night through Monday.



Satellite chlorophyll image and forecast winds for October 3, 2014 12Z with points representing cell concentration sampling data from September 22 to October 1: 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).