

# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

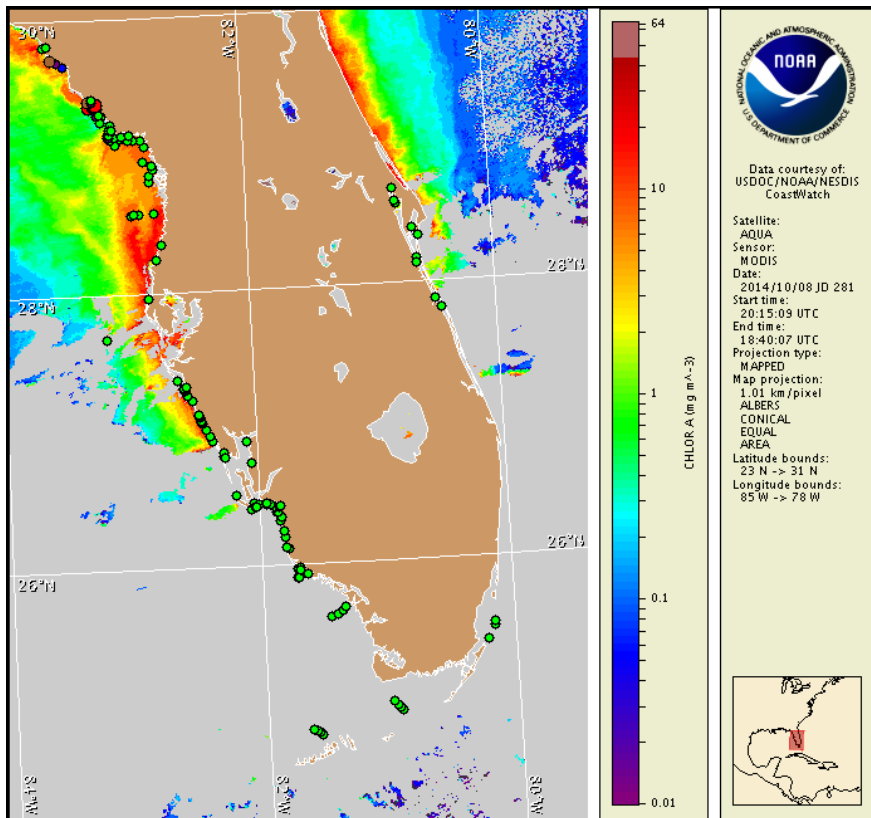
Thursday, 09 October 2014

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, October 6, 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 29 to October 8: 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](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 Bay 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 9 through Tuesday, October 14 is listed below:

**County Region:** Forecast (Duration)

**Dixie:** Low (Th-Su), Moderate (M-Tu)

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

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

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

Check [http://tidesandcurrents.noaa.gov/hab/beach\\_conditions.html](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](http://tidesandcurrents.noaa.gov/hab/hab_health_info.html).

## Analysis

**\*\*Due to the upcoming federal holiday, the next bulletin will be issued on Tuesday, October 14.\*\***

**Dixie to Citrus counties:** Recent samples collected along- and offshore southwest Florida over the past several days identified not present to 'very low a' concentrations of *Karenia brevis*. Samples collected early this week identified 'very low a' *K. brevis* concentrations at Shark Hole, #4 Channel in Levy County (FWRI; 10/7). All other samples collected along- and offshore the Suwannee Sound, Cedar Key, and Waccasassa Bay regions of Dixie and Levy counties indicated that *K. brevis* is not present (FWRI; 10/6-7). The most recent samples received from Citrus County also indicated that *K. brevis* is not present (FWRI; 10/1). No dead fish or respiratory irritation associated with *K. brevis* have been reported along the coast of southwest Florida over the past several days (FWRI, MML; 10/6-10/9).

In Recent MODIS Aqua imagery from 10/8 (shown left), elevated to high chlorophyll (2 to 20  $\mu\text{g/L}$ ) is visible in patches along- and offshore Dixie to Citrus counties. Elevated chlorophyll in this region is not necessarily indicative of the presence of *K. brevis*. Due to the optical characteristics that are typical in the area, some elevated chlorophyll may also be due to the resuspension of benthic chlorophyll and sediments along the coast.

Observed winds and surface currents over the past several days may have promoted northerly transport of *K. brevis* concentrations. Winds and surface currents forecasted over the next several days may continue to promote northerly transport of surface *K. brevis* concentrations. Forecasted winds over the next several days may decrease the potential for respiratory irritation at the coast.

**Hernando to Monroe counties:** Recent samples collected along- and offshore from Pinellas to Collier counties and offshore the Florida Keys continue to indicate that *K.*

*brevis* is not present (FWRI, MML, SCHD; 10/2-8).

Recent MODIS Aqua imagery (10/8, shown left), is partially obscured by clouds from Pinellas to Monroe counties, limiting analysis. Patches of elevated to very high chlorophyll (2 to >20  $\mu\text{g/L}$ ) are visible stretching along- and offshore the coast of Florida from Hernando to Charlotte 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*.

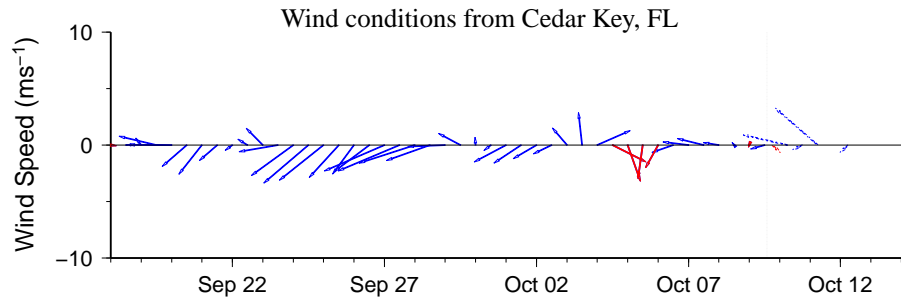
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## Wind Analysis

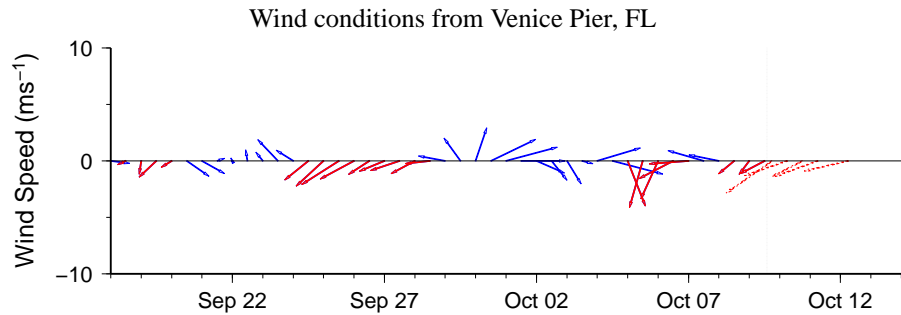
**Suwannee River to Keaton Beach:** Variable south to east winds (5-10kn, 3-5m/s) today through Sunday increasing to 10-15kn (5-8m/s) Sunday night and Monday.

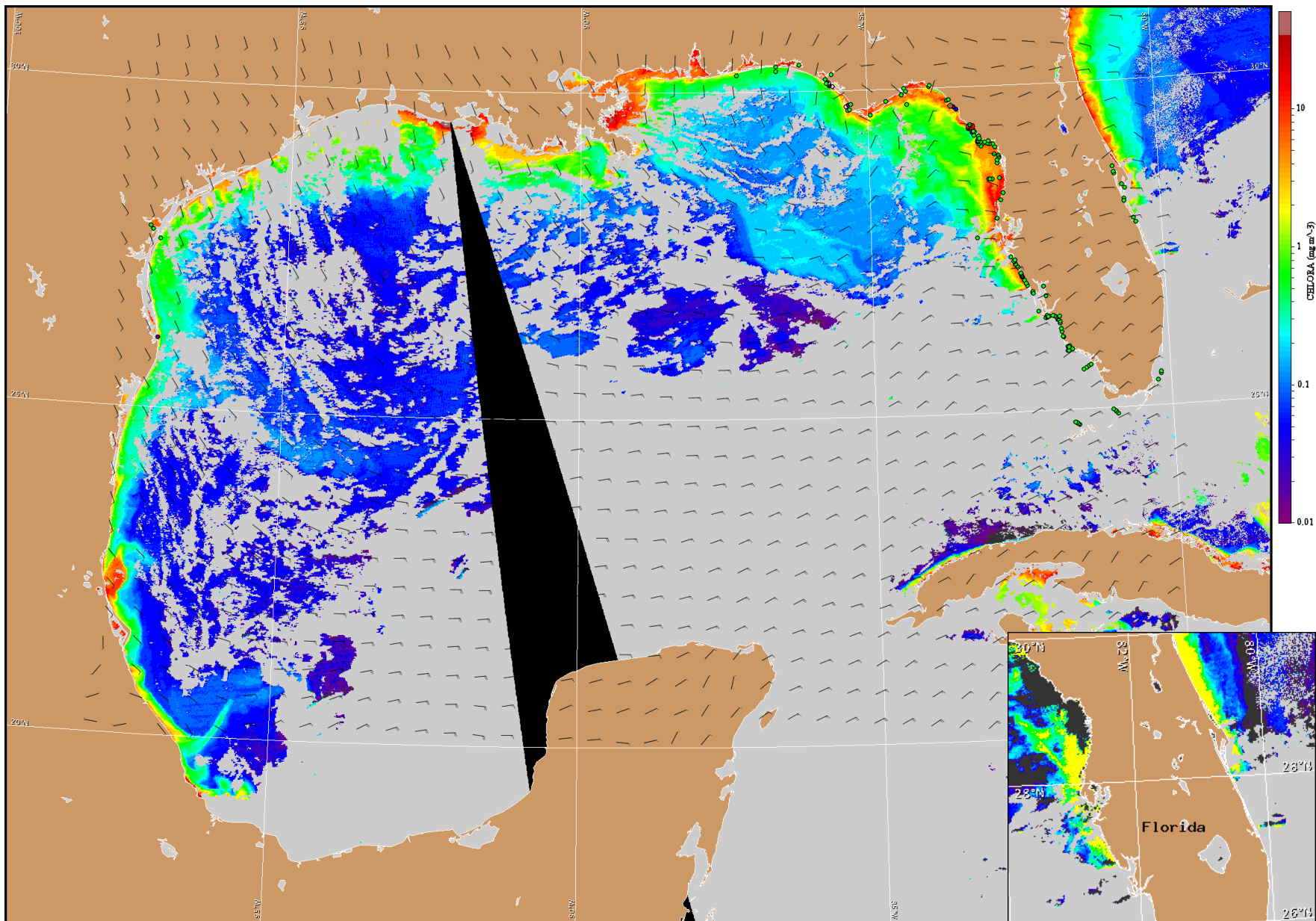
**Tarpon Springs to Suwannee River (Cedar Key Buoy):** Variable north to east winds (10-15kn) today through Saturday. Southeast to north winds (5-10kn) Sunday. Southeast winds (5-15kn, 3-8m/s) Monday.

**Englewood to Tarpon Springs (Venice Buoy):** Variable east to northeast winds (5-15kn) today through Sunday. Southeast winds (10-15kn) Monday.



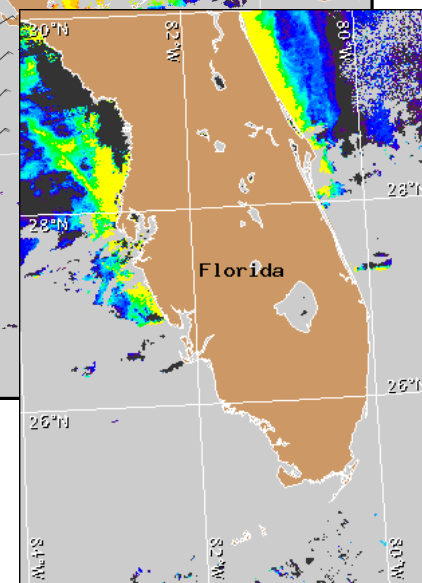
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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





Satellite chlorophyll image and forecast winds for October 10, 2014 06Z with points representing cell concentration sampling data from September 29 to October 8: 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).