



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

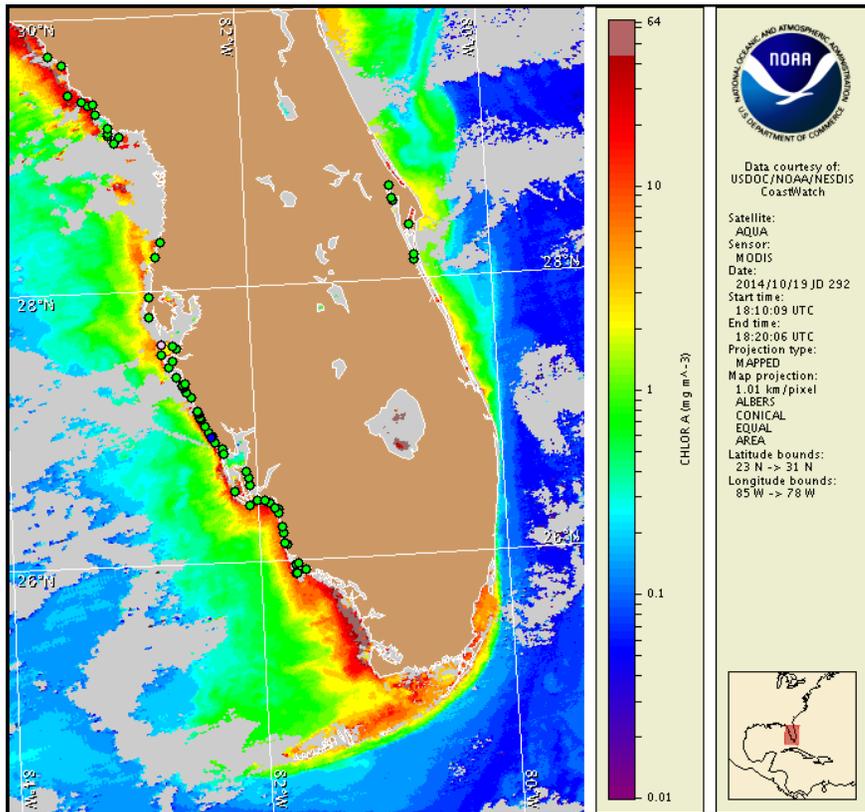
Monday, 20 October 2014

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, October 16, 2014



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from October 12 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](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 very low concentrations of *Karenia brevis* (commonly known as Florida red tide) are present along- and offshore portions of northwest and southwest Florida from Franklin to Charlotte counties. No respiratory irritation is expected alongshore southwest Florida Monday, October 20 through Thursday, October 23.

Check [http://tidesandcurrents.noaa.gov/hab/beach\\_conditions.html](http://tidesandcurrents.noaa.gov/hab/beach_conditions.html) for recent, local observations. Visit <http://tidesandcurrents.noaa.gov/hab/#nwfl> for the most recent northwest Florida conditions report.

## Analysis

**Dixie to Citrus counties:** Samples collected over the past few days along- and offshore Dixie and Pasco counties in southwest Florida continue to indicate that *Karenia brevis* is not present. In Dixie County, five new samples taken along- and offshore indicate that *K. brevis* is not present (FWRI; 10/15). In Pasco County, two new samples taken alongshore continue to indicate that *K. brevis* is not present (FWRI; 10/16). No dead fish or respiratory irritation associated with *K. brevis* have been reported along this portion of the southwest Florida coast over the past several days (FWRI, MML; 10/16-10/20).

In MODIS Aqua imagery from 10/19 (shown left), elevated to very high chlorophyll (6 to >20  $\mu\text{g/L}$ ) patches persist along- and offshore Dixie to Pasco 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 southerly transport of *K. brevis* concentrations. Winds and surface currents forecasted today through Thursday may minimize the transport of surface *K. brevis* concentrations.

**Hernando to Monroe counties:** Recent samples collected along- and offshore from Pinellas to Lee counties indicate that *K. brevis* ranges from not present to 'very low b' (FWRI, SCHD, MML; 10/13-15). In southern Pinellas County, one background concentration of *K. brevis* was identified alongshore Mullet Key (FWRI; 10/13). In northern Charlotte County, a 'very low b' concentration of *K. brevis* was identified alongshore Englewood Beach (FWRI; 10/15). All other samples collected along- and offshore Pinellas, Manatee, Sarasota, Charlotte and Lee counties indicate that *K. brevis* is not present (FWRI, SCHD, MML; 10/13-15). No dead fish or respiratory irritation associated with *K. brevis* have been reported along this portion of the southwest Florida coast over the past several days (FWRI, MML; 10/16-10/20).

MODIS Aqua imagery (10/19, shown left) is only partially obscured by clouds. Patches of elevated to very high chlorophyll levels (3 to >20  $\mu\text{g/L}$ ) persist throughout the region. In 10/16 MODIS imagery (not shown) the patches extended as far as 20 miles offshore, while in imagery from 10/19, they only extend as far as 10 miles offshore. 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*.

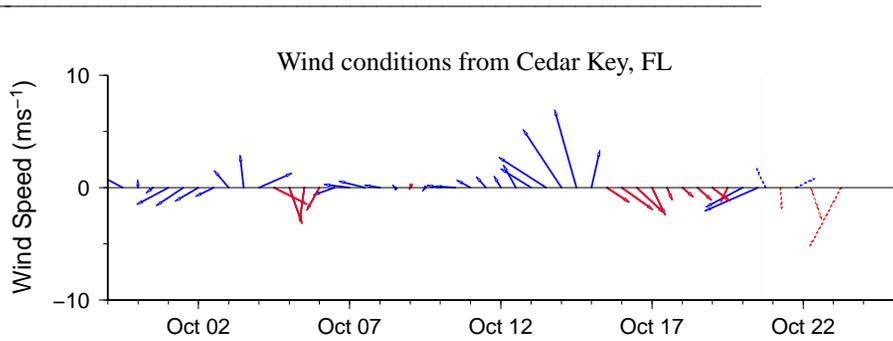
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## Wind Analysis

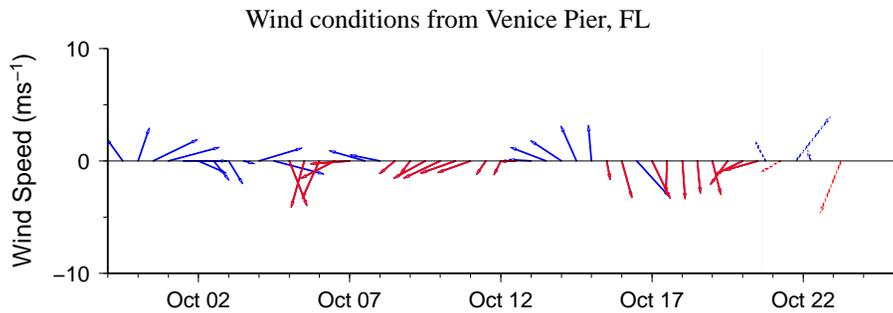
**Suwannee River to Keaton Beach** Southeasterly winds (10kn, 5m/s) today. Northerly winds (5-15kn, 3-8m/s) tonight and Tuesday. Northeasterly winds (5-15kn) Wednesday with northerly winds in the late morning and afternoon. Northeasterly winds (5-15kn) Thursday.

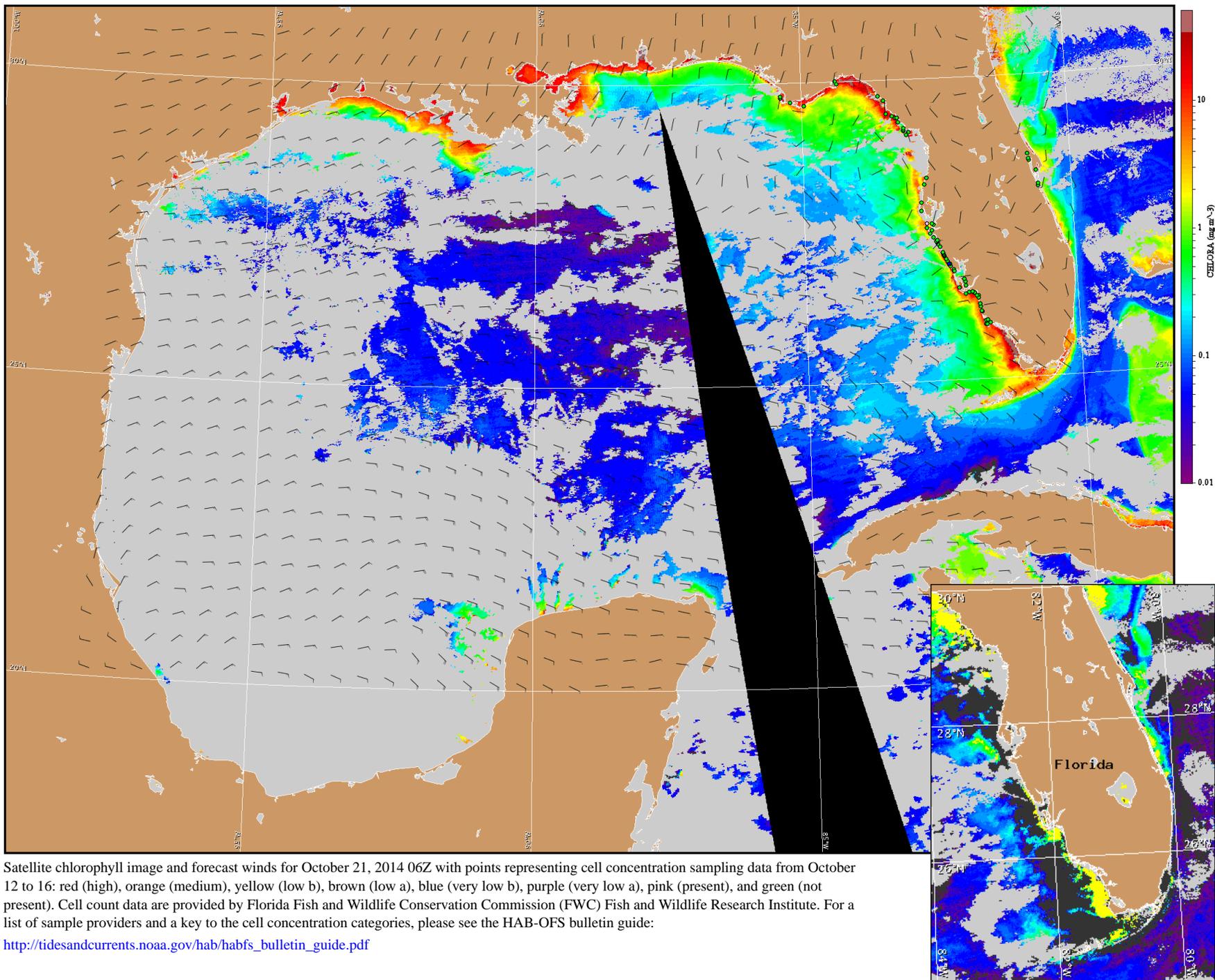
**Tarpon Springs to Suwannee River (Cedar Key Buoy):** Easterly winds (10kn) today becoming southerly in the afternoon. Northwesterly winds (5kn, 3m/s) tonight. Easterly winds (5kn) Tuesday becoming westerly in the afternoon. Northwesterly winds (10kn) Tuesday night. Northeasterly winds (10-15kn, 5-8m/s) Wednesday and Thursday with northerly winds Wednesday afternoon.

**Englewood Beach to Tarpon Springs (Venice Buoy):** Easterly winds (10-15kn) becoming southeasterly in the afternoon. Westerly winds (5kn) tonight. Easterly winds (5kn) Tuesday becoming southerly in the afternoon. Westerly winds (5kn) Tuesday night. Northerly winds (10-15kn) Wednesday. Northeasterly winds (10-20kn, 5-10m/s) Thursday.



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 21, 2014 06Z with points representing cell concentration sampling data from October 12 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:

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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).