

## Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

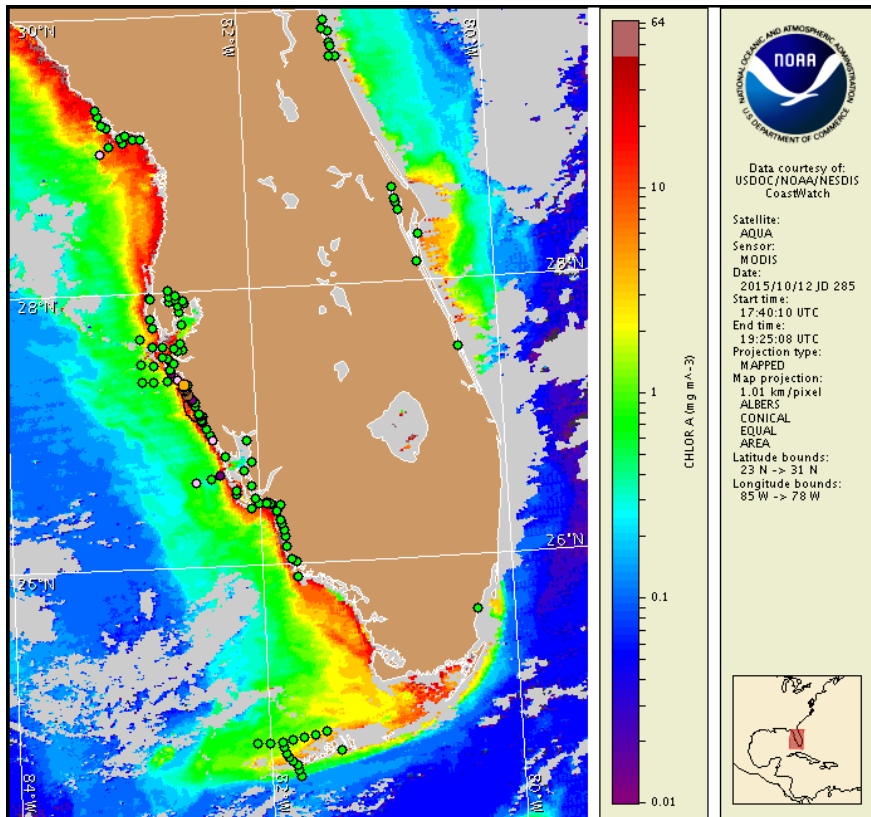
Tuesday, 13 October 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, October 8, 2015



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from October 3 to 12: 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/habofs\\_bulletin\\_guide.pdf](http://tidesandcurrents.noaa.gov/hab/habofs_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

*Karenia brevis* (commonly known as Florida red tide) ranges from not present to high concentrations along the coast of southwest Florida, and is not present in the Florida Keys. *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 Tuesday, October 13 through Thursday, October 15 is listed below:

**County Region: Forecast (Duration)**

**Northern Manatee:** Very Low (Tu-W), None (Th)

**Northern Sarasota:** Low (Tu-W), Very Low (Th)

**Northern Sarasota, bay regions:** High (Tu-Th)

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

**All Other 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). Reports of respiratory irritation and dead fish were received from alongshore Sarasota County.

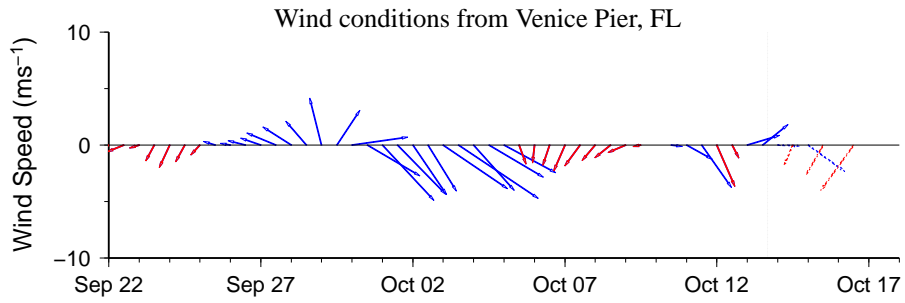
## Analysis

Recent samples collected alongshore southwest Florida from Pinellas to Collier counties indicate background to 'high' *Karenia brevis* concentrations from southern Manatee to northern Charlotte counties, with the highest concentrations present within Sarasota Bay near Mote Marine Laboratory (FWRI, MML, SCHD; 10/4-10/12). Samples received from Sarasota County indicate an increase from 'low a' to 'high' *K. brevis* concentrations within Sarasota Bay (FWRI, MML; 10/12). Offshore sampling identified background to 'low' *K. brevis* concentrations 3-17 miles offshore Manatee, Sarasota, and Lee counties (FWRI; 10/6-7). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: <http://myfwc.com/redtidestatus>. Slight respiratory irritation and dead fish have been reported within Sarasota County at Nokomis, Siesta Key, and Venice North Jetty (MML; 10/12-13).

In recent ensemble imagery (MODIS Aqua, 10/12), patches of elevated to very high chlorophyll (2 to >20  $\mu\text{g/L}$ ) with the optical characteristics of *K. brevis* are visible along and offshore the coast from Pinellas to Collier counties.

Variable winds forecasted today through Thursday will minimize the transport of *K. brevis* concentrations alongshore southwest Florida. Forecasted winds through Thursday will also minimize the potential for intensification of *K. brevis* concentrations at the coast.

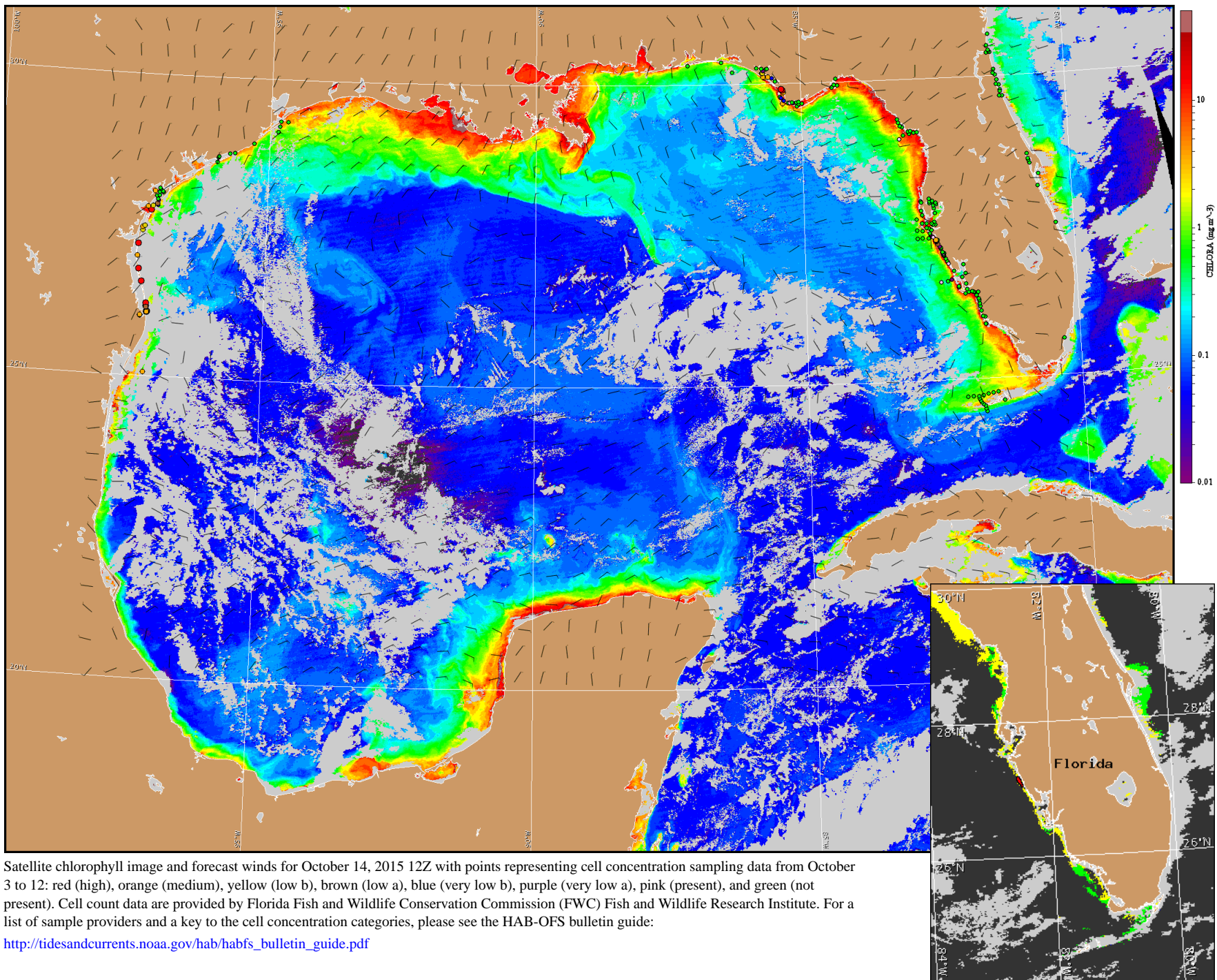
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Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical 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

**Englewood to Tarpon Springs (Venice):** West winds (10kn, 5m/s) today shifting to southwest winds (5kn, 3m/s) this evening. Southeast winds (5kn) Wednesday becoming northwest (5-10kn, 3-5m/s) in the afternoon through Wednesday night. Northeast winds (15kn, 8m/s) Thursday.



Satellite chlorophyll image and forecast winds for October 14, 2015 12Z with points representing cell concentration sampling data from October 3 to 12: 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 with *K. brevis* optical characteristics shown in yellow (see p. 1 analysis for interpretation).