

# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

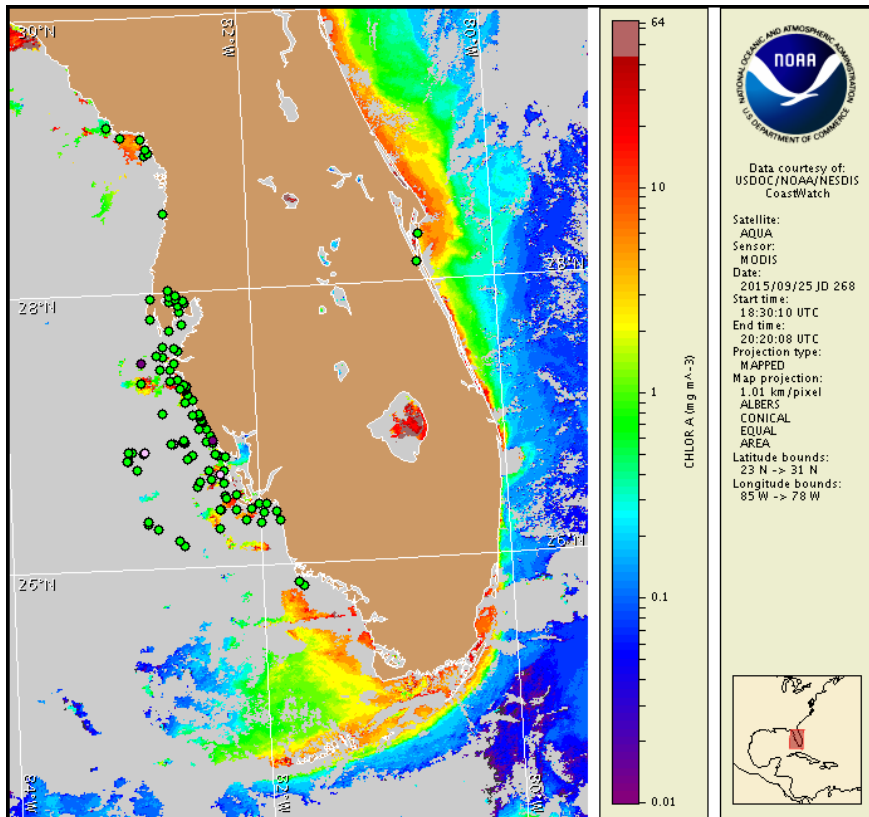
Monday, 28 September 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, September 24, 2015



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from September 18 to 24: 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

*Karenia brevis* (commonly known as Florida red tide) ranges from not present to very low 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 Monday, September 28 through Thursday, October 1 is listed below:

**County Region: Forecast (Duration)**

**Northern Sarasota: Very Low (M-Th)**

**Northern Charlotte: Very Low (M-Th)**

**All Other SWFL County Regions: None expected (M-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). No reports of dead fish or respiratory irritation were received over the past several days.

## Analysis

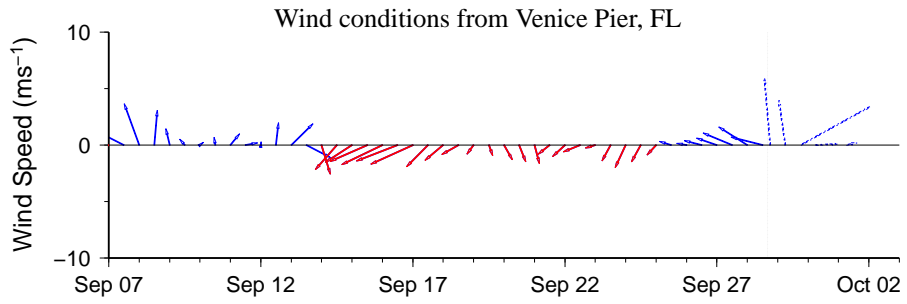
Recent samples collected along- and offshore the coast of southwest Florida from Pinellas to Collier counties indicated not present to 'very low a' concentrations of *Karenia brevis* (FWRI, MML, SCHD; 9/21-9/24).

In Sarasota County, one sample collected at Nokomis Beach in northern Sarasota indicated 'very low a' concentrations of *K. brevis* while three other samples alongshore Sarasota County indicated background *K. brevis* concentrations (SCHD; 9/21). In northern Charlotte County, one sample collected at Englewood Beach also indicated 'very low a' concentrations of *K. brevis* (FWRI; 9/23). In northern Lee County, sampling 3.4 miles offshore Costa Cayo indicated background concentrations of *K. brevis* (SCHD, FWRI; 9/24). All other sampling along- and offshore southwest Florida, from Pinellas to Collier counties indicated that *K. brevis* was not present (FWRI, MML, SCHD; 9/21-9/24). No reports of respiratory irritation or dead fish were received from alongshore southwest Florida over the last several days (FWRI, MML; 9/24-9/28).

Recent ensemble imagery (MODIS Aqua, 9/25) is mostly obscured by clouds along- and offshore southwest Florida from Pinellas to Collier counties, limiting analysis in this region. Patches of elevated to very high chlorophyll (2 to >20  $\mu\text{g/L}$ ) with the optical characteristics of *K. brevis* are visible offshore from southern Manatee to northern Sarasota counties and offshore from northern Lee to northern Collier counties.

Forecasted winds Tuesday night through Thursday may promote southward transport of *K. brevis* concentrations in southwest Florida. Southeast to west winds forecast today through Thursday will be unfavorable for intensification of *K. brevis* concentrations at the coast.

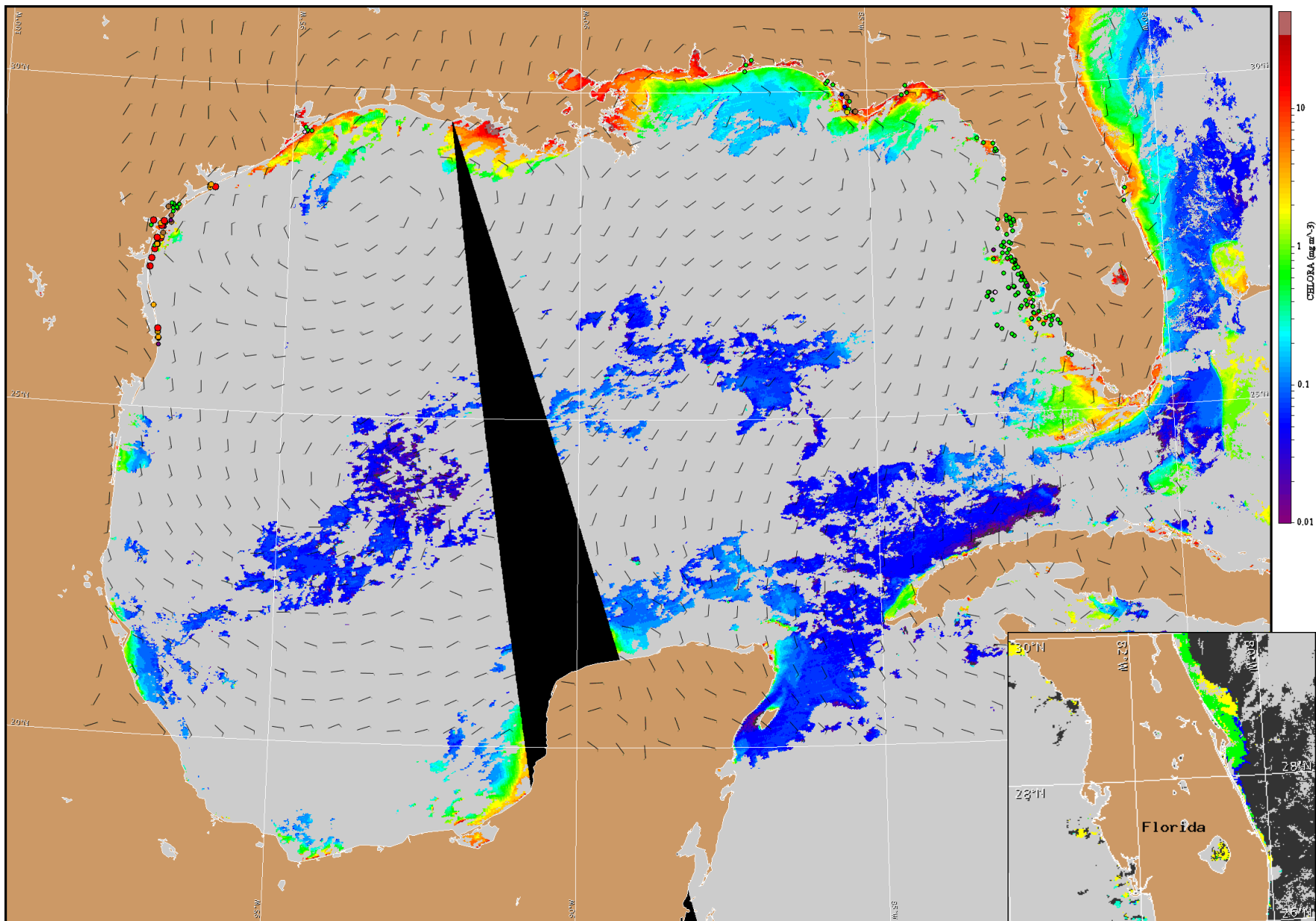
Yang, Davis



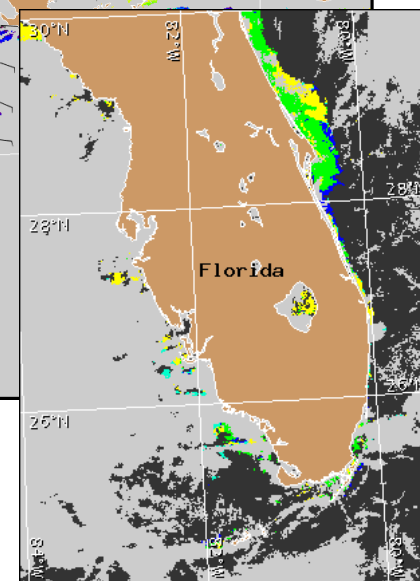
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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

## Wind Analysis

**Englewood to Tarpon Springs (Venice):** Southeast winds (15kn, 8m/s) becoming south today. Southwest winds (10-15kn, 5-8m/s) Tuesday. West winds (10kn, 5m/s) Tuesday through Friday.



Satellite chlorophyll image and forecast winds for September 29, 2015 06Z with points representing cell concentration sampling data from September 18 to 24: 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)



Verified and suspected HAB areas shown in red. Other areas with *K. brevis* optical characteristics shown in yellow (see p. 1 analysis for interpretation).