



## Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

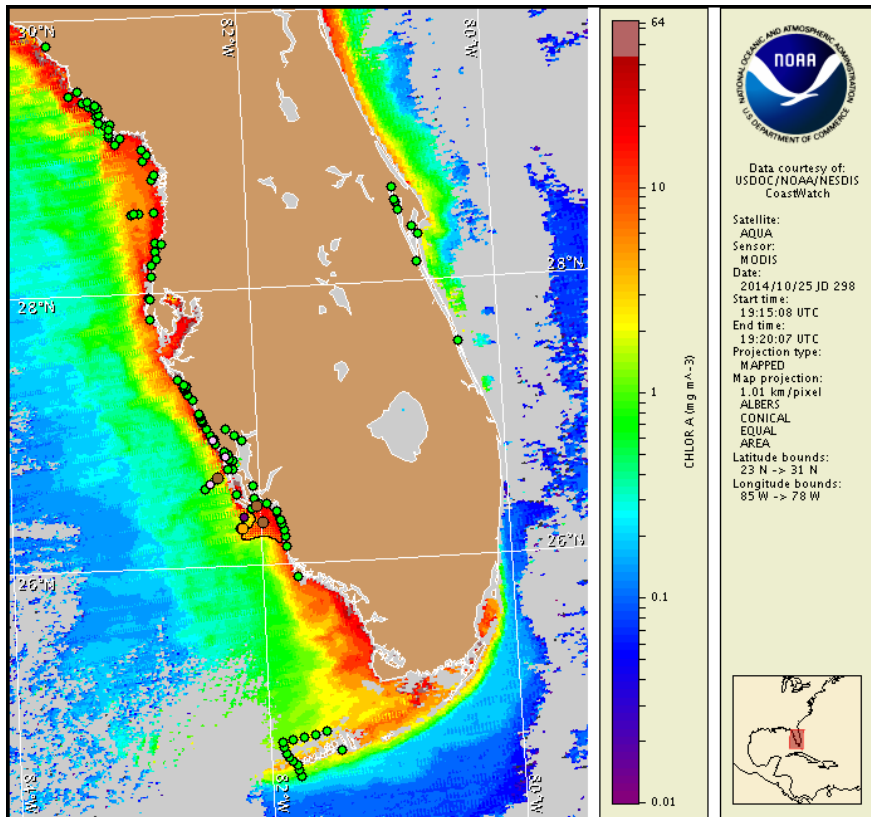
Monday, 27 October 2014

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, October 23, 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 17 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/habfbs\\_bulletin\\_guide.pdf](http://tidesandcurrents.noaa.gov/hab/habfbs_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 medium concentrations of *Karenia brevis* (commonly known as Florida red tide) are present along- and offshore portions of southwest Florida and 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, October 27 to Thursday, October 30 is listed below:

**County Region:** Forecast (Duration)

**Central Lee:** Low (M-W), Very Low (Th)

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

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). Over the past several days, dead fish were reported in central Lee County. No reports of respiratory irritation have been received from southwest Florida.

Visit <http://tidesandcurrents.noaa.gov/hab/#nwfl> for the most recent northwest Florida conditions report.

## Analysis

Not present to medium concentrations of *Karenia brevis* (commonly known as Florida red tide) are present along- and offshore portions of southwest Florida from Charlotte to Lee counties (FWRI; 10/22-23). On 10/23, samples collected alongshore central Lee County, at Donax Beach and Shell Harbor Beach, indicate 'very low b' and 'low a' concentrations of *K. brevis*, respectively (FWRI). Samples collected approximately 4.9 miles south of Sanibel Island, offshore central Lee County, indicate that *K. brevis* is at 'very low a' concentrations at the surface and not present at the bottom (FWRI; 10/23). Samples collected approximately 8.9 miles south of Sanibel Island, offshore central Lee County, indicate that *K. brevis* is at 'medium' concentrations at the surface and 'low a' concentrations at the bottom (FWRI; 10/23). And samples collected approximately 10.75 and 10.9 miles south of Sanibel Island, offshore central Lee County, indicate that *K. brevis* is at 'medium' concentrations at the surface and bottom (FWRI; 10/23). Six additional samples collected alongshore central and southern Lee County and two additional samples collected in bay regions of central Lee County all indicated that *K. brevis* is not present (FWRI; 10/22). In bay regions of Charlotte County, three samples indicated that *K. brevis* is not present while alongshore Charlotte County at Englewood Beach and Boca Grande Pier, background concentrations of *K. brevis* were identified (FWRI; 10/22). Alongshore Sarasota County, sixteen samples collected on 10/20 all indicate that *K. brevis* is not present (SCHD). Additional samples collected along- and offshore Levy, Hernando and Pasco counties all indicate that *K. brevis* is not present (FWRI; 10/21-23). Dead dead fish have been reported alongshore Lynn Hall Beach Park, in central Lee County (MML; 10/24). No reports of respiratory irritation have been reported over the past several days (FWRI, MML; 10/23-27).

MODIS Aqua imagery (10/25, shown left) indicates that the patches of elevated to very high chlorophyll levels (2 to >20  $\mu\text{g/L}$ ) also visible in 10/19 imagery remain throughout

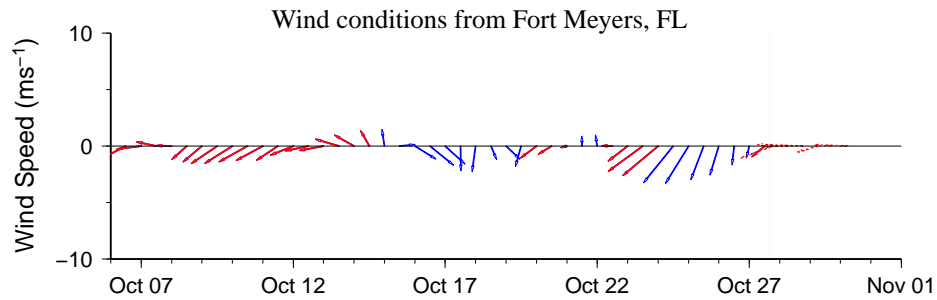
southwest Florida. Along- and offshore central and southern Lee County as well as northern Collier County, anomalously elevated to very high chlorophyll levels (3 to >20  $\mu\text{g/L}$ ) extend up to 25 miles offshore. Continued sampling throughout this region is recommended. A second patch of anomalously elevated to very high chlorophyll levels (2 to >20  $\mu\text{g/L}$ ) extends alongshore southern Manatee to Charlotte counties and as far as 20 miles offshore.

Winds over the past several days may have minimized the transport of *K. brevis* concentrations alongshore Lee County. Forecasted winds today through Wednesday may increase the potential for respiratory irritation and may intensify *K. brevis* concentrations alongshore central Lee County.

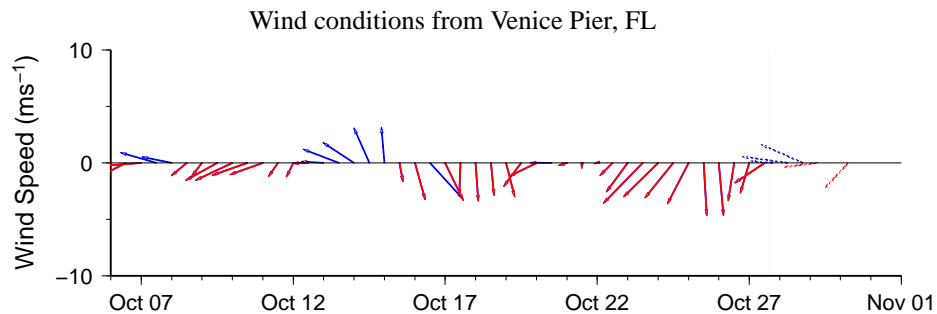
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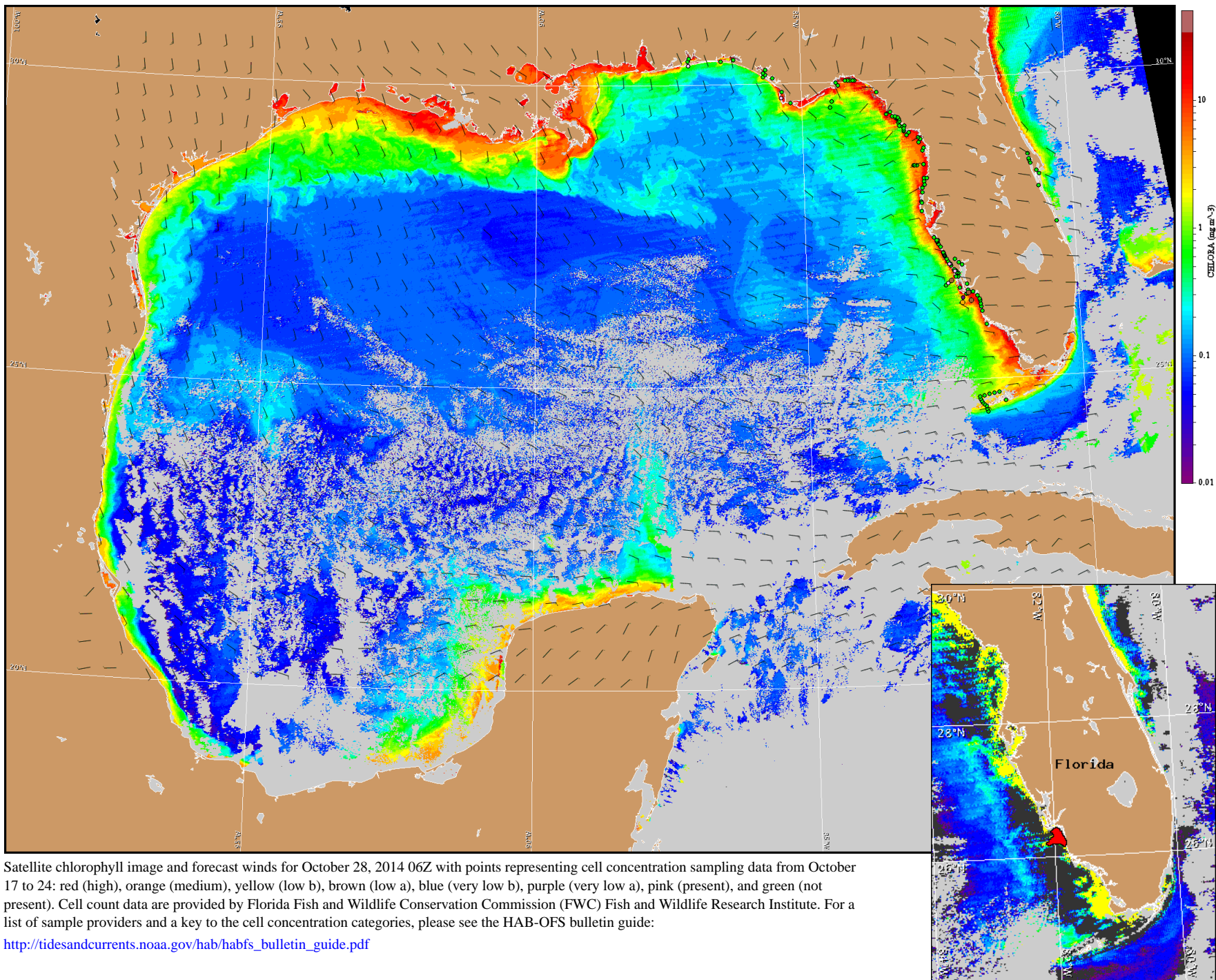
## Wind Analysis

**Bonita Beach to Tarpon Springs (Fort Meyers Buoy):** Easterly winds (5-15kn, 3-8m/s) today and Tuesday. Northeasterly winds (10kn, 5m/s) Tuesday night. Easterly winds (10kn) Wednesday and northerly winds (5kn, 3m/s) Wednesday night. Northeasterly winds (5-10kn, 3-5m/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 28, 2014 06Z with points representing cell concentration sampling data from October 17 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:

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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).