



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

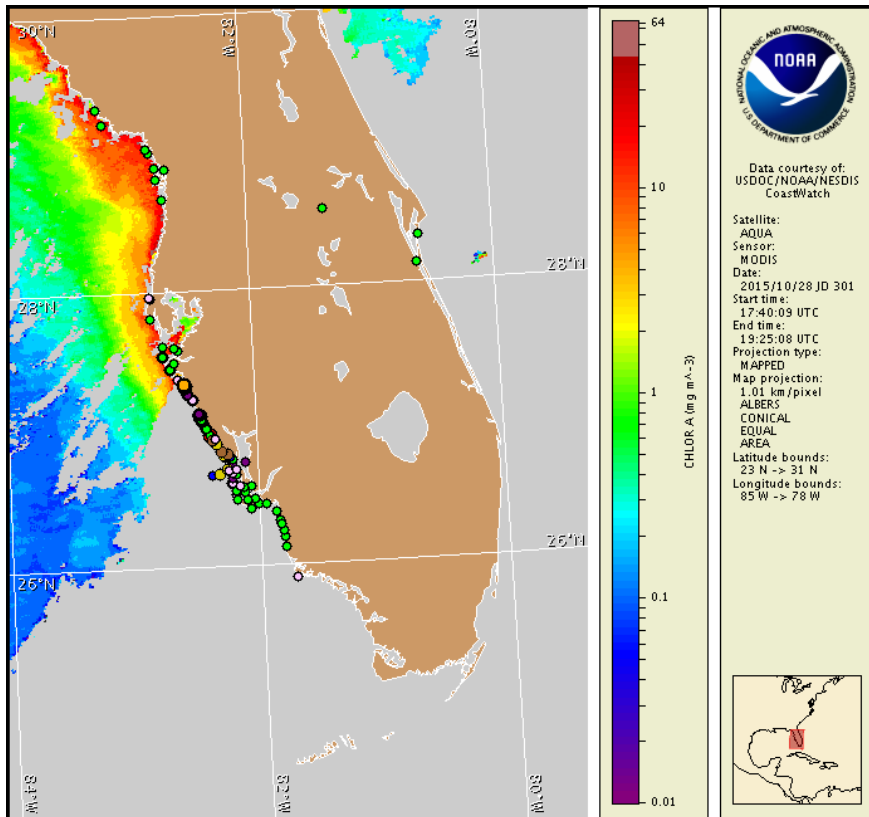
Thursday, 29 October 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, October 26, 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 19 to 28: 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

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 Thursday, October 29 through Monday, November 2 is listed below:

County Region: Forecast (Duration)

Northern Manatee, bay regions: Very Low (Th-Su), None (M)

Southern Manatee, bay regions: Moderate (Th-M)

Northern Sarasota: High (Th, Su), Low (Fr-Sa, M)

Northern Sarasota, bay regions: High (Th-M)

Southern Sarasota: High (Th, Su), Low (Fr-Sa, M)

Northern Charlotte: Moderate (Th, Su), Very Low (Fr-Sa, M)

Northern Charlotte, bay regions: Moderate (Th-Su), Low (M)

Southern Charlotte, bay regions: Moderate (Th-M)

Northern Lee: Moderate (Th), Very Low (Fr-M)

Northern Lee, bay regions: Low (Th-M)

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

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

Check 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. Reports of respiratory irritation and dead fish have been received from alongshore Sarasota County. Fish kills have been reported alongshore Sarasota and Charlotte counties.

Analysis

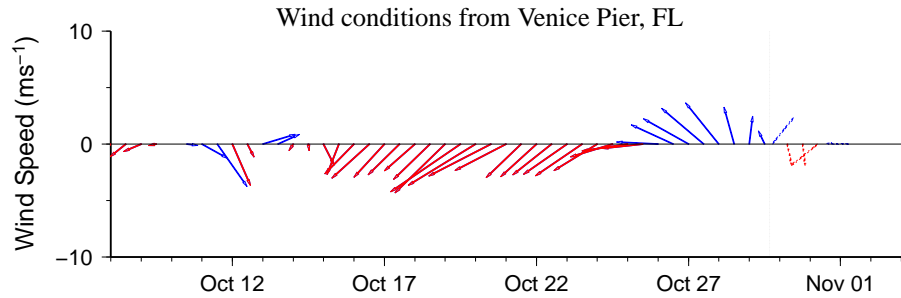
Recent samples collected along- and offshore southwest Florida from Pinellas to Collier counties indicate background to 'high' *Karenia brevis* concentrations from Manatee to Collier counties, with the highest concentrations present alongshore Sarasota County and within Sarasota Bay (FWRI, SCHD, MML, CCENRD; 10/19-27). Samples received this week have identified background to 'low b' *K. brevis* concentrations alongshore and within Lemon and Gasparilla bays in Charlotte County, a decrease from 'medium' concentrations previously identified at Englewood Beach and the Boca Grande Pier (FWRI; 10/27). Recent sampling also continues to indicate that background to 'low' *K. brevis* concentrations are present within the Pine Island Sound region of northern Lee County, and one background concentration was identified at South Marco Beach in Collier County (FWRI; 10/23-27). Slight respiratory irritation has been reported at Mansota Beach, Siesta Key, Nokomis, and Venice North Jetty in Sarasota County over the past several days (MML; 10/26-28). Fish kills have been reported alongshore Caspersen Beach in Sarasota County and in Lemon Bay near Stumps Pass in Charlotte County (FWRI; 10/28). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: <http://myfwc.com/redtidestatus>.

Recent imagery (MODIS Aqua; 10/28) is completely obscured by clouds along the coast of southwest Florida from Manatee to Monroe counties, preventing analysis. In ensemble

imagery from 10/23 (MODIS Aqua, not shown), patches of elevated to very high chlorophyll (2 to >20 $\mu\text{g/L}$) with the optical characteristics of *K. brevis* were visible along- and offshore from Pinellas to Collier counties.

Variable winds forecasted today through Monday will decrease the potential for transport of surface *K. brevis* concentrations alongshore southwest Florida. Forecasted winds are not favorable for intensification of *K. brevis* concentrations at the coast.

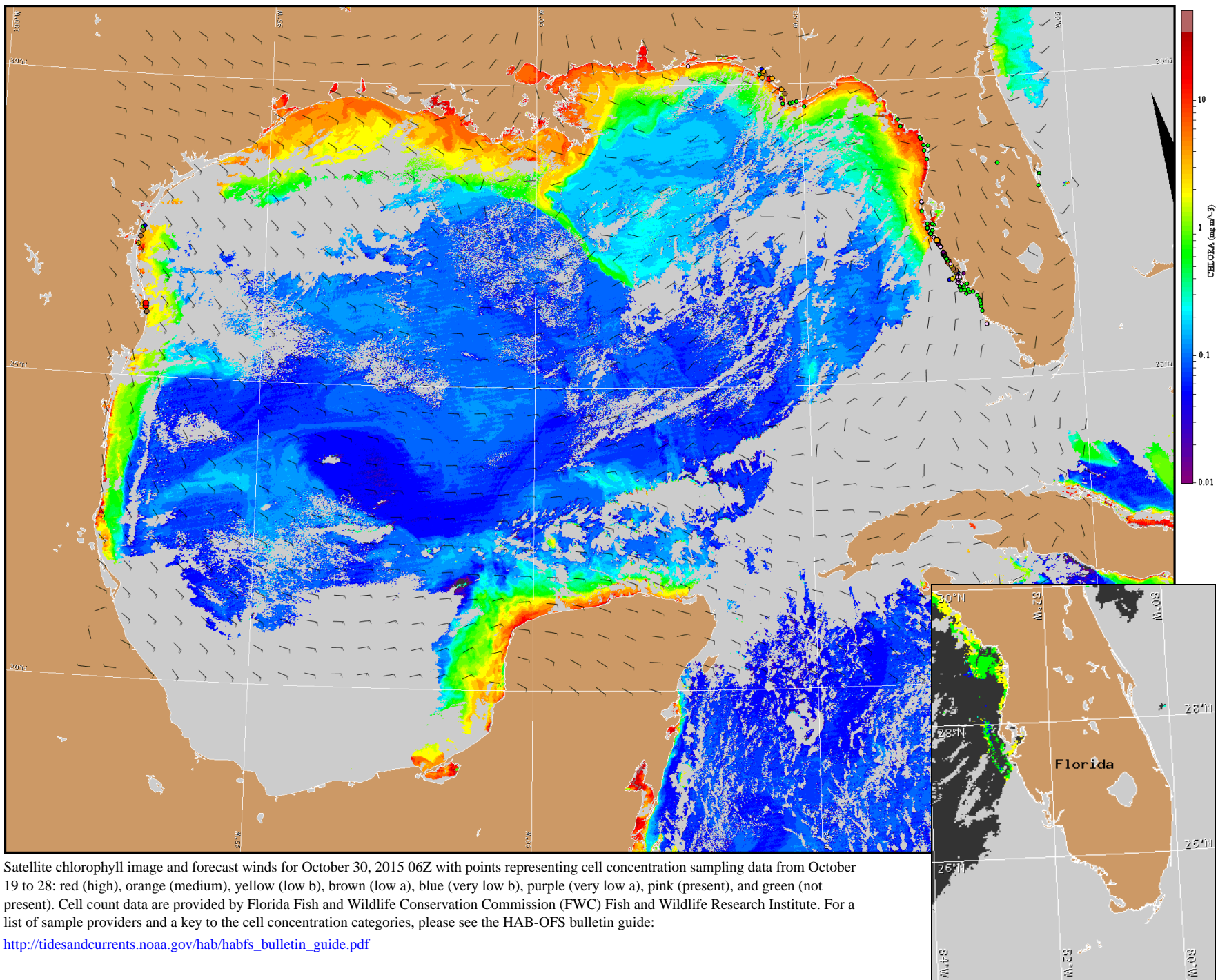
Derner, Lalime



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 (5kn, 3m/s) today, becoming northwest winds (10kn, 5m/s) tonight. North winds (5-10kn, 3-5m/s) Friday. East winds (15kn, 8m/s) Saturday becoming southeast (5-10kn) in the afternoon through Saturday night. South winds (10kn, 5m/s) Sunday and Monday.



Satellite chlorophyll image and forecast winds for October 30, 2015 06Z with points representing cell concentration sampling data from October 19 to 28: 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).