



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

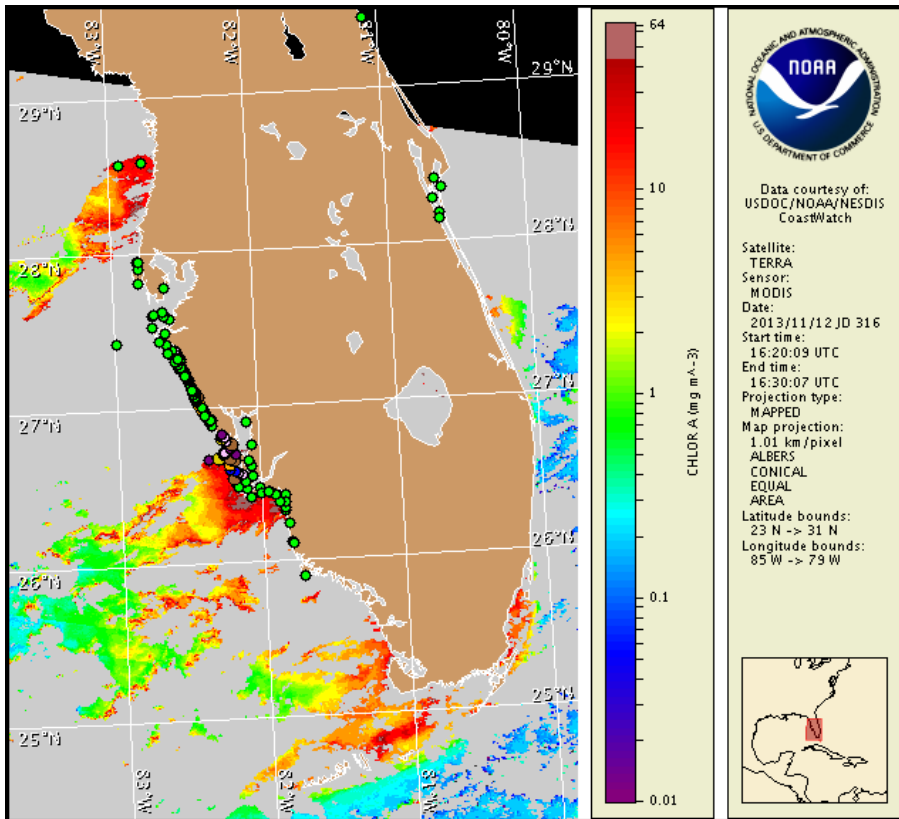
Thursday, 14 November 2013

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Tuesday, November 12, 2013



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from November 4 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/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 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 Thursday, November 14 to Monday, November 18 is listed below:

County Region: Forecast (Duration)

Southern Sarasota, bay regions: Very Low (Th-M)

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

Southern Charlotte, bay regions: Very Low (Th-M)

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

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

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. Over the past several days, no reports of respiratory irritation or dead fish were received from southwest Florida.

Analysis

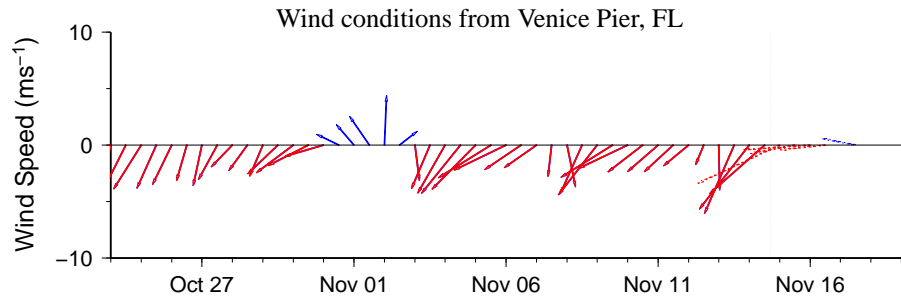
Samples collected over the past ten days along- and offshore southwest Florida indicate that *Karenia brevis* concentrations range from 'not present' to 'medium' (FWRI, MML, SCHD, CCPCPD; 11/4-11/12). Recent samples collected from Sarasota County indicate *K. brevis* is not present where previous samples from southern Sarasota County ranged from background to 'medium' with the highest concentrations identified from Manasota Key and Casperson Beach (FWRI, MML; 11/4-12). Recent samples collected range from 'background' to 'low b' *K. brevis* concentrations in the Lemon Bay and Gasparilla Sound regions of Charlotte County and alongshore northern Charlotte County. 'Background' to 'medium' concentrations have been identified throughout the northern Pine Island Sound region of Lee County, with the highest concentration collected southeast of Cabbage Key (FWRI; 11/4-12). All other samples collected alongshore southwest Florida from Pinellas to Collier counties indicated that *K. brevis* is not present (FWRI; 11/4-12). No dead fish or respiratory irritation associated with *K. brevis* have been reported in the past several days (FWRI, MML; 11/4-14).

MODIS Aqua and Terra imagery has been cloudy over the past several days, limiting analysis. In MODIS Terra imagery from 11/12 (shown left), elevated to very high chlorophyll (2 to >20 $\mu\text{g/L}$) is visible in patches along- and offshore of Lee County. Elevated chlorophyll is not necessarily indicative of the presence of *K. brevis* and could also be an artifact of clouds in the imagery. In situ sampling is necessary to confirm the presence of *K. brevis*. This region will continue to be monitored as imagery becomes available.

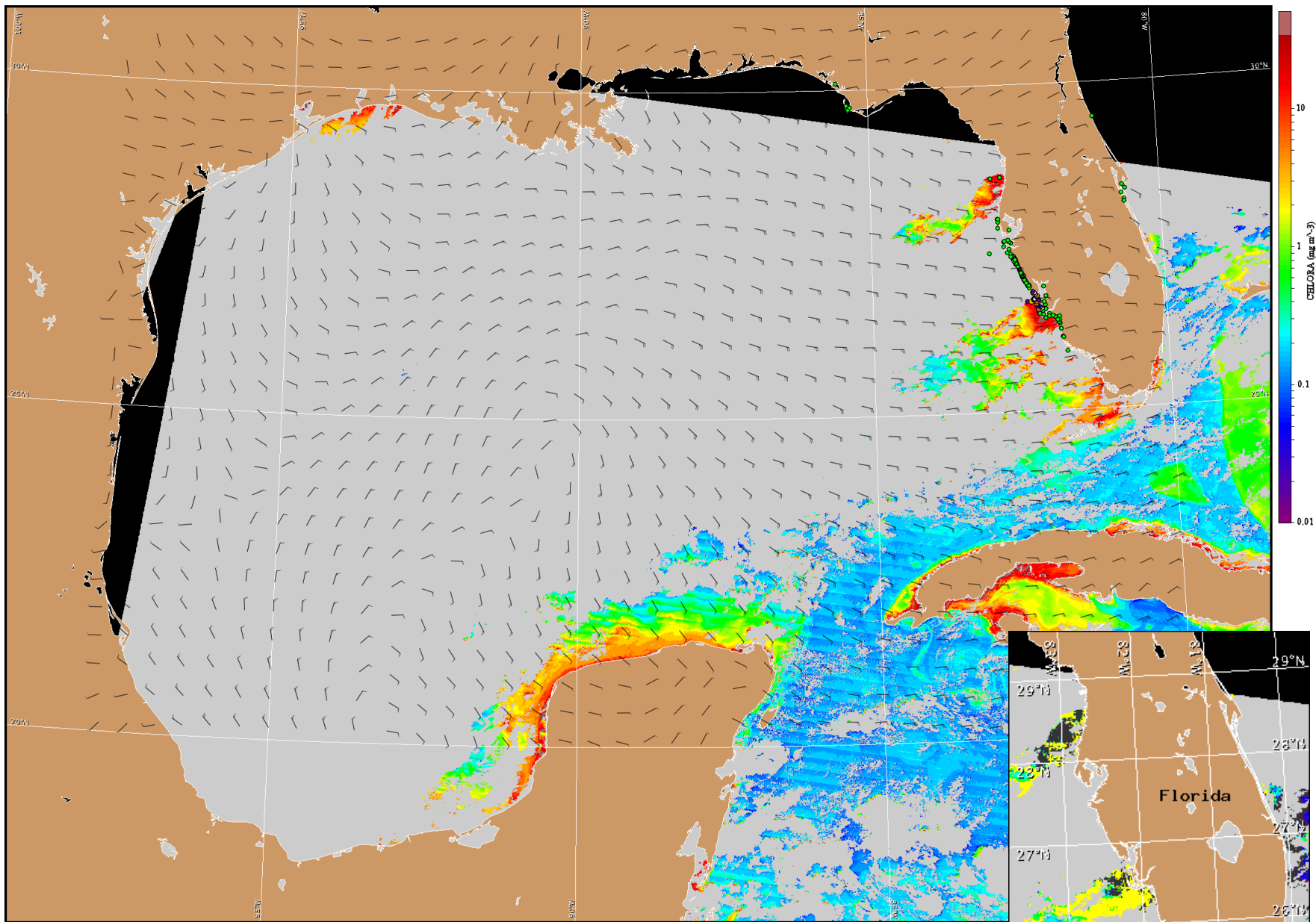
Continued offshore winds forecasted over the next few days may decrease the potential for *K. brevis* bloom formation at the coast, and will also decrease the potential for respiratory irritation alongshore southwest Florida.

Wind Analysis

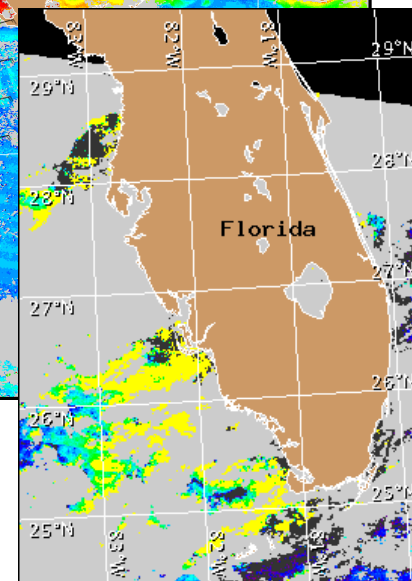
Southwest Florida: East winds (15-20kn, 8-10m/s) today. East winds (10-15kn, 5-8m/s) Friday through Sunday, diminishing to 5-10kn (3-5m/s) Sunday afternoon. Southeast winds (10kn, 5m/s) Sunday night. Southeast to south winds (10kn) Monday.



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 November 15, 2013 12Z with points representing cell concentration sampling data from November 4 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/habfs_bulletin_guide.pdf



Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).