



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

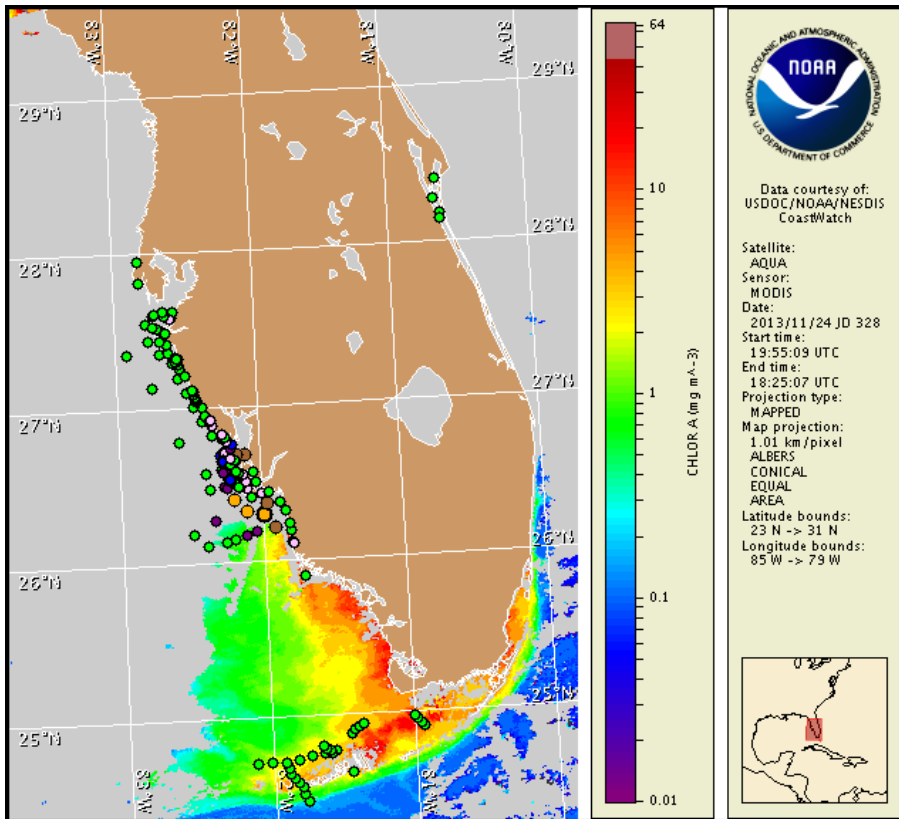
Wednesday, 27 November 2013

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, November 25, 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 17 to 25: 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 high 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 Wednesday, November 27 to Monday, December 2 is listed below:

County Region: Forecast (Duration)

Southern Charlotte, bay regions: Low (W-M)

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

Central Lee, bay regions: Low (W-M)

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

Northern Collier: Low (W,M), Very Low (Th-Su)

All Other SWFL County Regions: None (W-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, reports of respiratory irritation and dead fish associated with *K. brevis* have been received from Sarasota, Charlotte, Lee, and Collier counties.

Analysis

****Due to the upcoming federal holiday, the next regularly scheduled bulletin will be issued on Monday, December 2. If bloom conditions change, a conditions update will be issued on Friday, November 29.****

Recent samples collected along- and offshore southwest Florida indicate that *Karenia brevis* concentrations range from 'not present' to 'high' (FWRI, MML, CCPCPD; 11/18-25). Samples collected on Monday identified 'background' *K. brevis* concentrations throughout the Pine Island Sound region of Lee County (11/25; FWRI), while samples collected late last week identified 'background' to 'low a' concentrations 1-12 miles offshore central Lee County, with the highest concentrations identified 1.7 miles offshore Redfish Pass (11/22; FWRI). 'Background' *K. brevis* concentrations were also identified alongshore northern Manatee County and within Naples Bay in Collier County (FWRI, CCPCPD; 11/25). All other samples received from Pinellas to Collier counties indicate that *K. brevis* is not present (FWRI, CCPCPD; 11/22-25). Respiratory irritation and dead fish have been reported at the Delnor-Wiggins State Park area of northern Collier County (CCPCPD; 11/26). Respiratory irritation has also been reported from Siesta Key in Sarasota County and Gasparilla Island State Park (South Lighthouse) in southern Charlotte County (MML; 11/26), and dead fish have been reported in Charlotte and Lee counties (FWRI; 11/24-26).

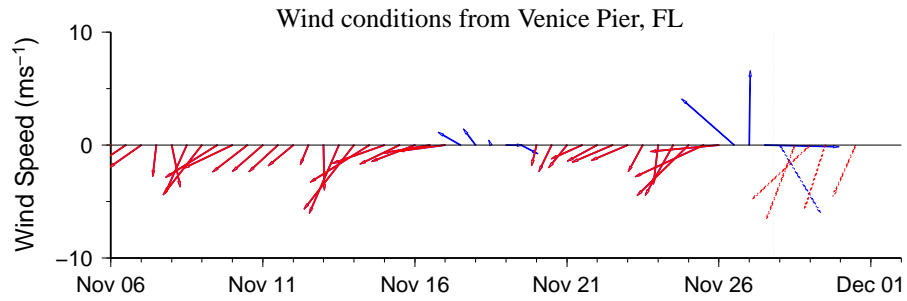
MODIS Aqua imagery has been completely obscured by clouds along the coast of southwest Florida over the last several days, preventing analysis. In MODIS Aqua imagery from 11/24 (shown left), patches of elevated to high chlorophyll (5 to >20 $\mu\text{g/L}$) are visible along- and offshore Collier County.

Upwelling favorable winds forecasted Thursday through Sunday will increase the potential for intensification of *K. brevis* concentrations over the next several days; however, offshore winds will decrease the potential for respiratory irritation at the coast.

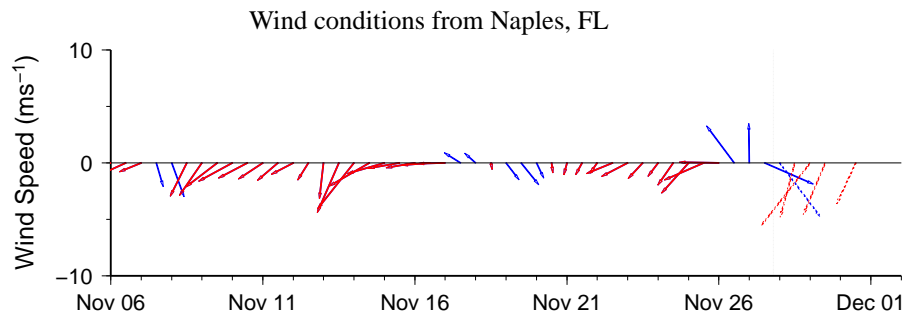
Wind Analysis

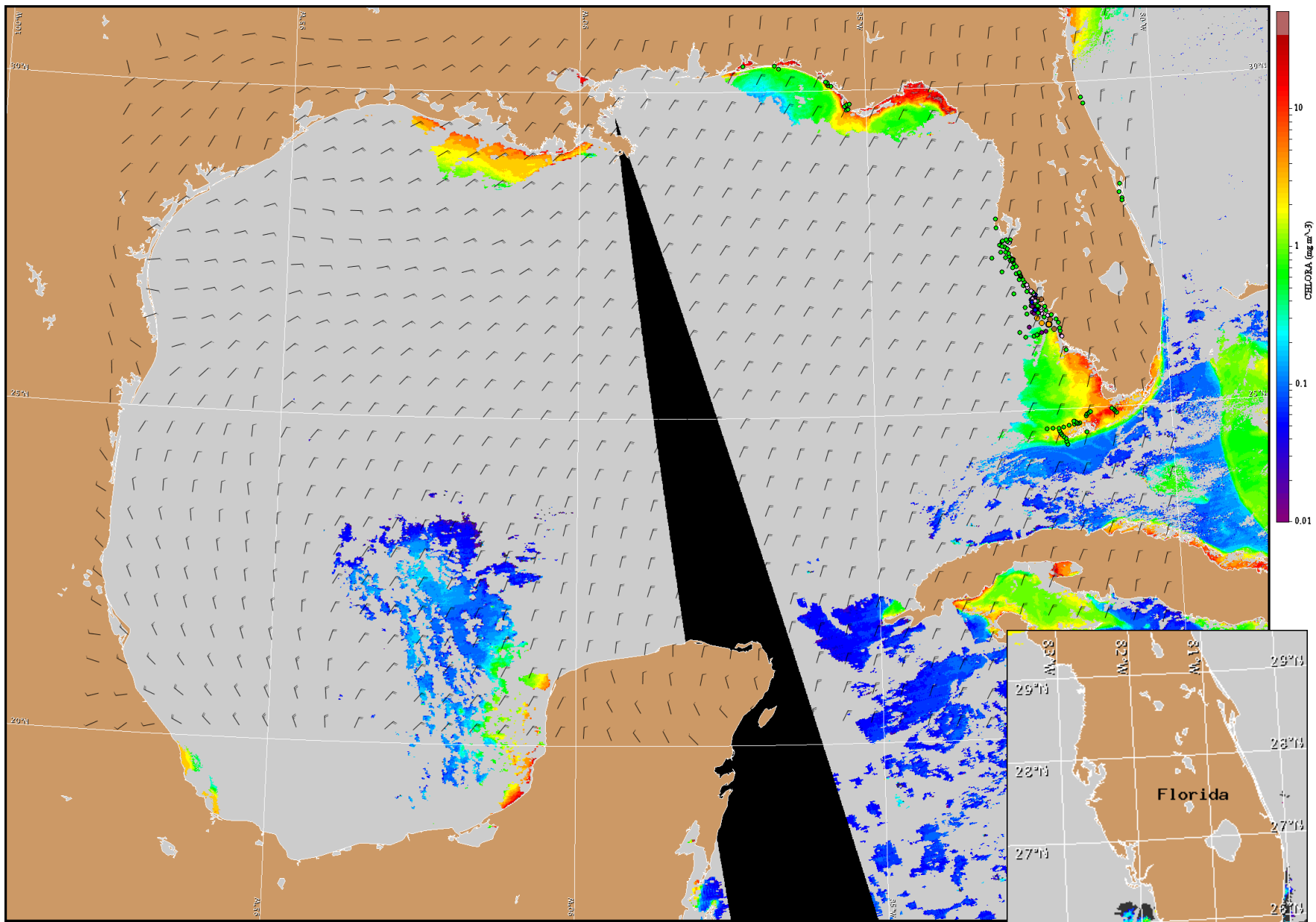
Southwest Florida: Northwest winds (20-25kn, 10-13m/s) today becoming north to northeast (20kn, 10m/s) tonight. Northeast winds (10-20kn, 5-10m/s) Thursday through Sunday.

Derner, Fenstermacher



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 28, 2013 12Z with points representing cell concentration sampling data from November 17 to 25: 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).