



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

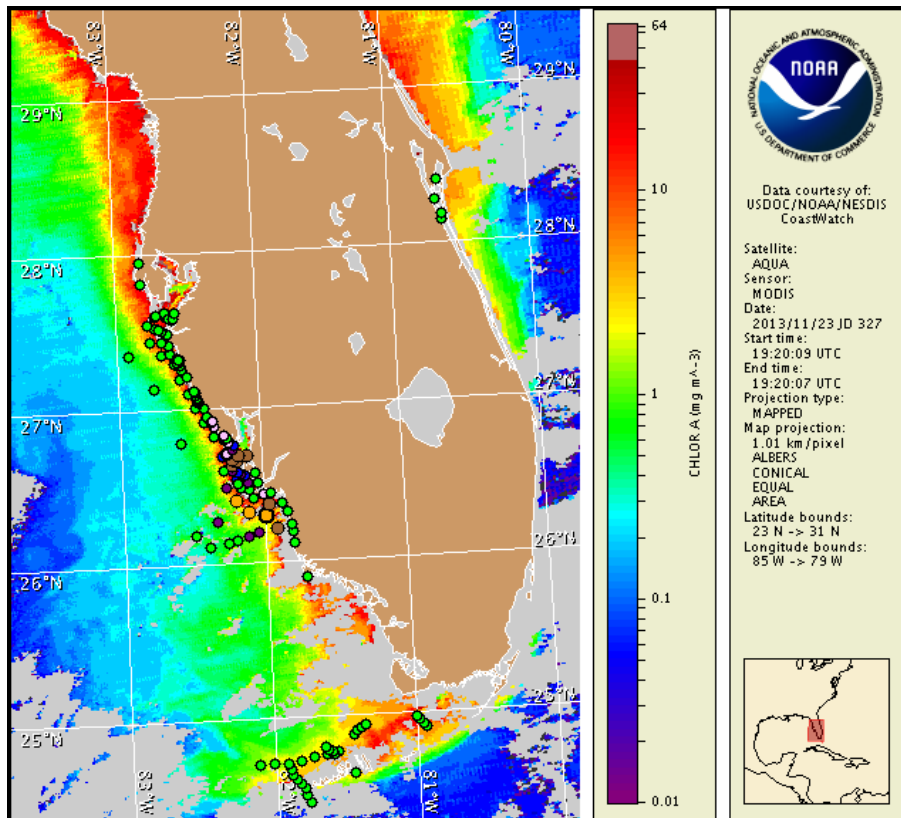
Monday, 25 November 2013

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, November 21, 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 15 to 22: 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 Monday, November 25 to Wednesday, November 27 is listed below:

County Region: Forecast (Duration)

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

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

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

Central Lee: Very Low (M), Low (T-W)

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

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 Charlotte and Lee counties.

Analysis

****Due to the upcoming federal holiday, the next bulletin will be issued on Wednesday, November 27.****

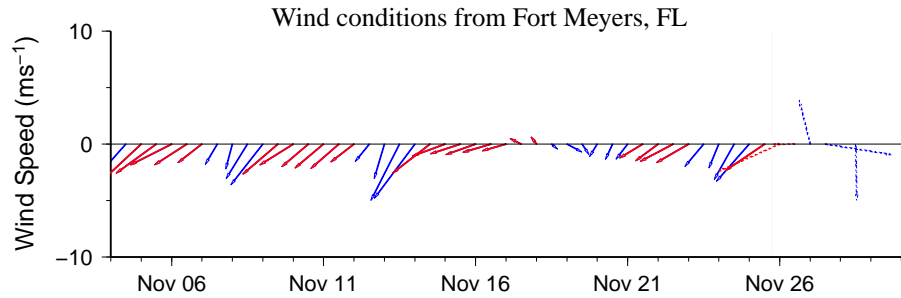
Recent samples collected along- and offshore southwest Florida indicate that *Karenia brevis* concentrations range from 'not present' to 'high' (FWRI, MML; 11/18-22). Several samples collected early last week identified 'not present' to 'very low a' *K. brevis* concentrations along- and offshore northern Sarasota County, 'not present' to 'very low b' concentrations in the Gasparilla Sound and Bull Bay region of Charlotte County, and 'low a' concentrations alongshore Boca Grande Pass and within the northern Pine Island Sound region of Charlotte and northern Lee counties. 'Very low a' to 'low a' concentrations were also identified offshore and within the Pine Island Sound region of northern to central Lee County. Several 'low a' to 'high' *K. brevis* concentrations were identified 4-10 miles offshore Sanibel and Estero Islands in central and southern Lee County, while 'very low a' to 'low a' concentrations were identified 6-20 miles offshore northern Collier County. One sample collected alongshore central Lee County (Lighthouse Beach, southern Sanibel Island) indicated background concentrations; all samples collected alongshore southern Lee and Collier counties currently indicate that *K. brevis* is not present (FWRI, MML; 11/18-21). Samples collected offshore the lower Florida Keys also continue to indicate that *K. brevis* is not present in this region (MML; 11/22). Reports of respiratory irritation and dead fish have been received from Charlotte (Gasparilla Island State Park, South Lighthouse) and Lee counties (Captiva and Sanibel Islands) over the past several days (MML, FDOH; 11/22-24).

In MODIS Aqua imagery from 11/23 (shown left), elevated to very high chlorophyll (2 to >20 $\mu\text{g/L}$) is visible stretching along- and offshore from Pinellas to Lee counties, and in patches offshore southern Lee and Collier Counties. Imagery is obscured by clouds

alongshore southern Lee and Collier Counties, however; this area will continue to be monitored as imagery becomes available.

Variable winds forecasted for today through Wednesday may minimize the potential for intensification and transport of *K. brevis* concentrations.

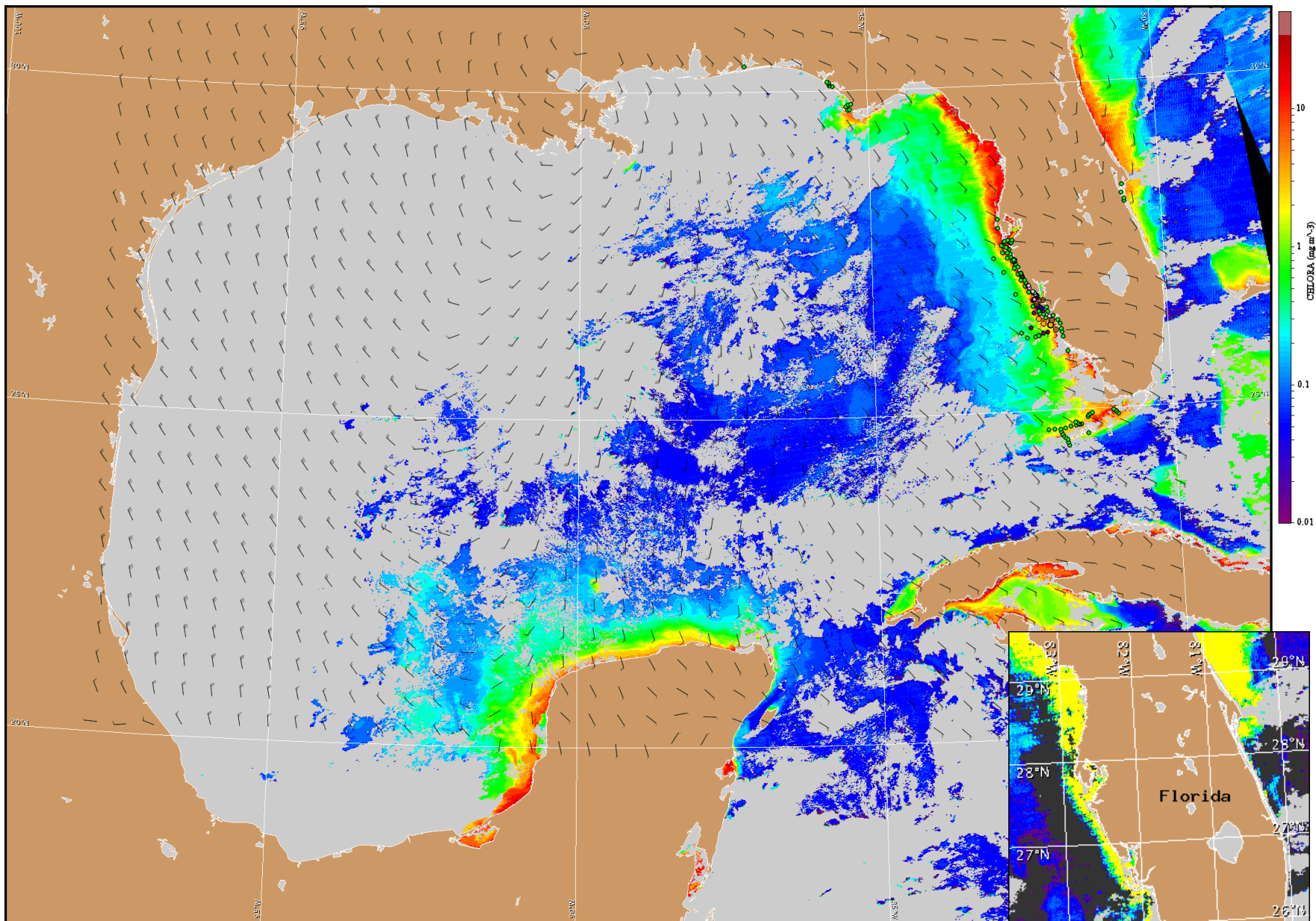
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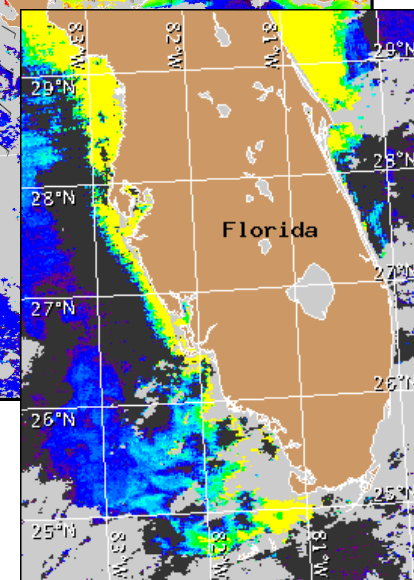
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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

Wind Analysis

Southwest Florida: East winds (20kn, 10m/s) today. South winds (15-20kn, 8-10m/s) Tuesday, becoming southwest after midnight. Northwest to north winds (20kn) Wednesday.



Satellite chlorophyll image and forecast winds for November 26, 2013 12Z with points representing cell concentration sampling data from November 15 to 22: 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).