Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

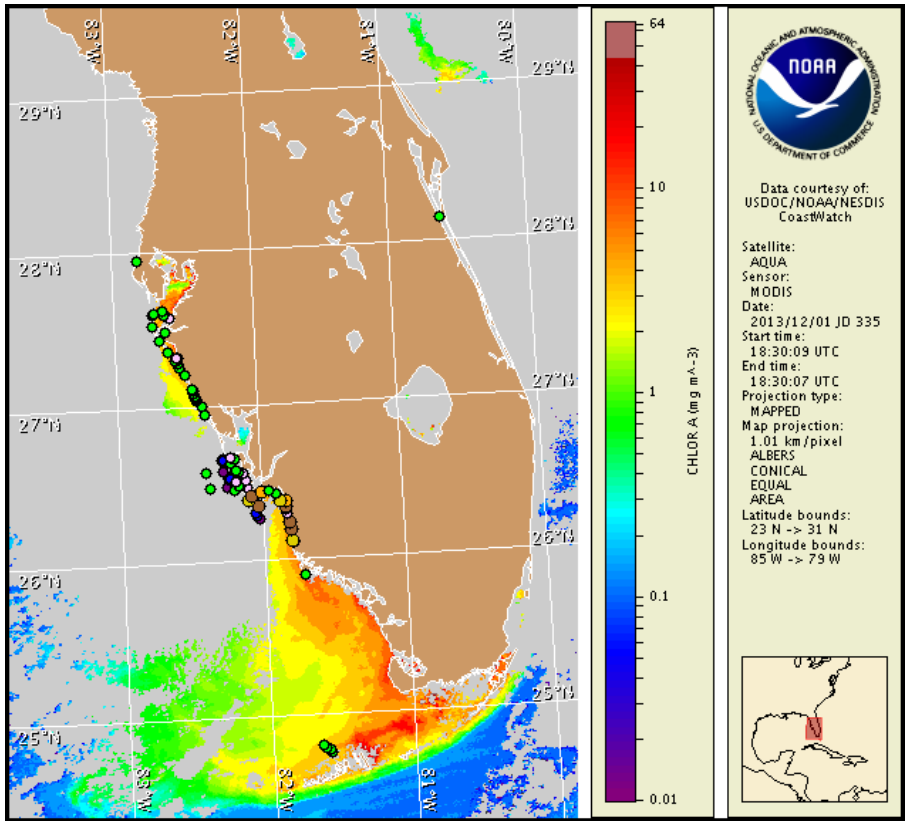
Monday, 02 December 2013

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Wednesday, November 27, 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 22 to 27: 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 Monday, December 2 to Thursday, December 5 is listed below:

County Region: Forecast (Duration)
Central Lee: Very Low (M), Moderate (Tu-Th)
Southern Lee, bay regions: Moderate (M, W-Th), Low (Tu)
Southern Lee: Moderate (M), Low (Tu), Very Low (W-Th)
Northern Collier: Moderate (M), Very Low (Tu-Th)
All Other SWFL County Regions: None (M-Th)

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 dead fish associated with *K. brevis* have been received from central and southern Lee County.

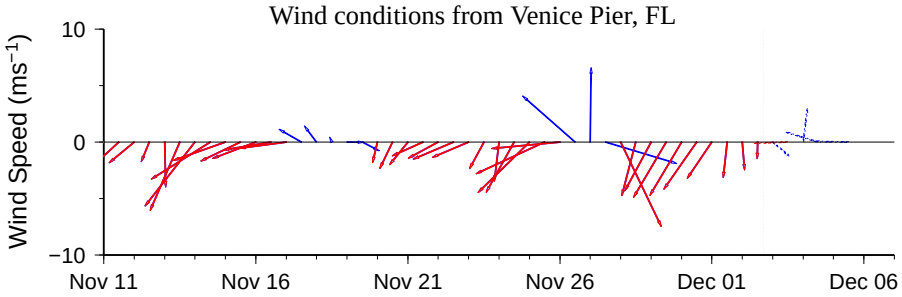
Analysis

Samples collected last week along- and offshore southwest Florida indicate that *Karenia brevis* concentrations range from 'not present' to 'medium' (FWRI, MML, SCHD, CCPCPD; 11/25-26). Samples collected alongshore central Lee County indicate *K. brevis* concentrations range between 'background' and 'medium', with the highest concentrations identified from Lighthouse Beach (FWRI; 11/26). In southern Lee County, *K. brevis* ranges between 'very low a' to 'low b' concentrations alongshore and 'low a' to 'medium' in the bay regions, with the highest concentration identified from Long Key in Estero Bay (FWRI; 11/26). Offshore of central and southern Lee County samples indicate 'very low a' to 'medium' *K. brevis* concentrations, with the highest concentrations identified from a surface sample collected 1.8 miles southwest of Algiers Beach (FWRI, MML; 11/25). Alongshore northern Collier County, *K. brevis* concentrations range between 'background' and 'low b', with the highest concentration collected from Naples Pier (FWRI; 11/25-26). All other samples received from Pinellas to Monroe counties, including the Florida Keys, indicate that *K. brevis* is not present (FWRI, MML, SCHD, CCPCPD; 11/25-26). Last week, respiratory irritation was reported from alongshore central and southern Lee County (MML; 11/27). Dead fish have also been reported from several locations in central and southern Lee County and northern Collier County (FWRI, MML; 11/27-12/1).

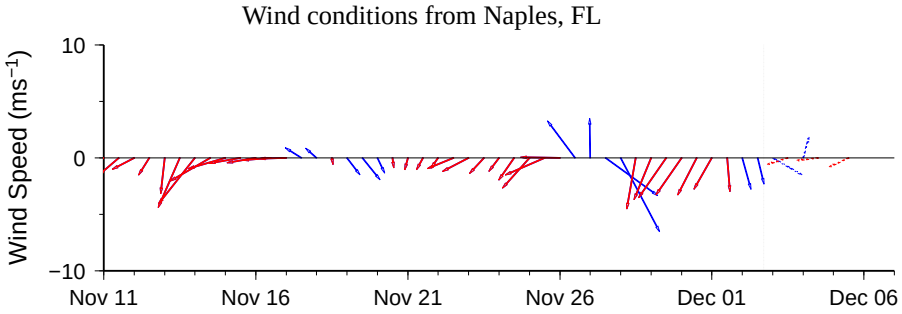
Over the last several days, MODIS Aqua imagery has been partially obscured by clouds along the coast of southwest Florida from Charlotte to Lee counties, preventing analysis. In MODIS Aqua imagery from 12/1 (shown left), elevated chlorophyll (3-6 μg/L) is visible alongshore Collier County, with patches of elevated to high chlorophyll (3-11 μg/L) visible south of central Collier and a patch of elevated chlorophyll (3-6 μg/L) visible offshore approximately 10 miles south of central Collier.

Variable winds forecasted for today through Thursday are unlikely to favor intensification of *K. brevis* concentrations at the coast over the next several days.

Kavanaugh, Davis



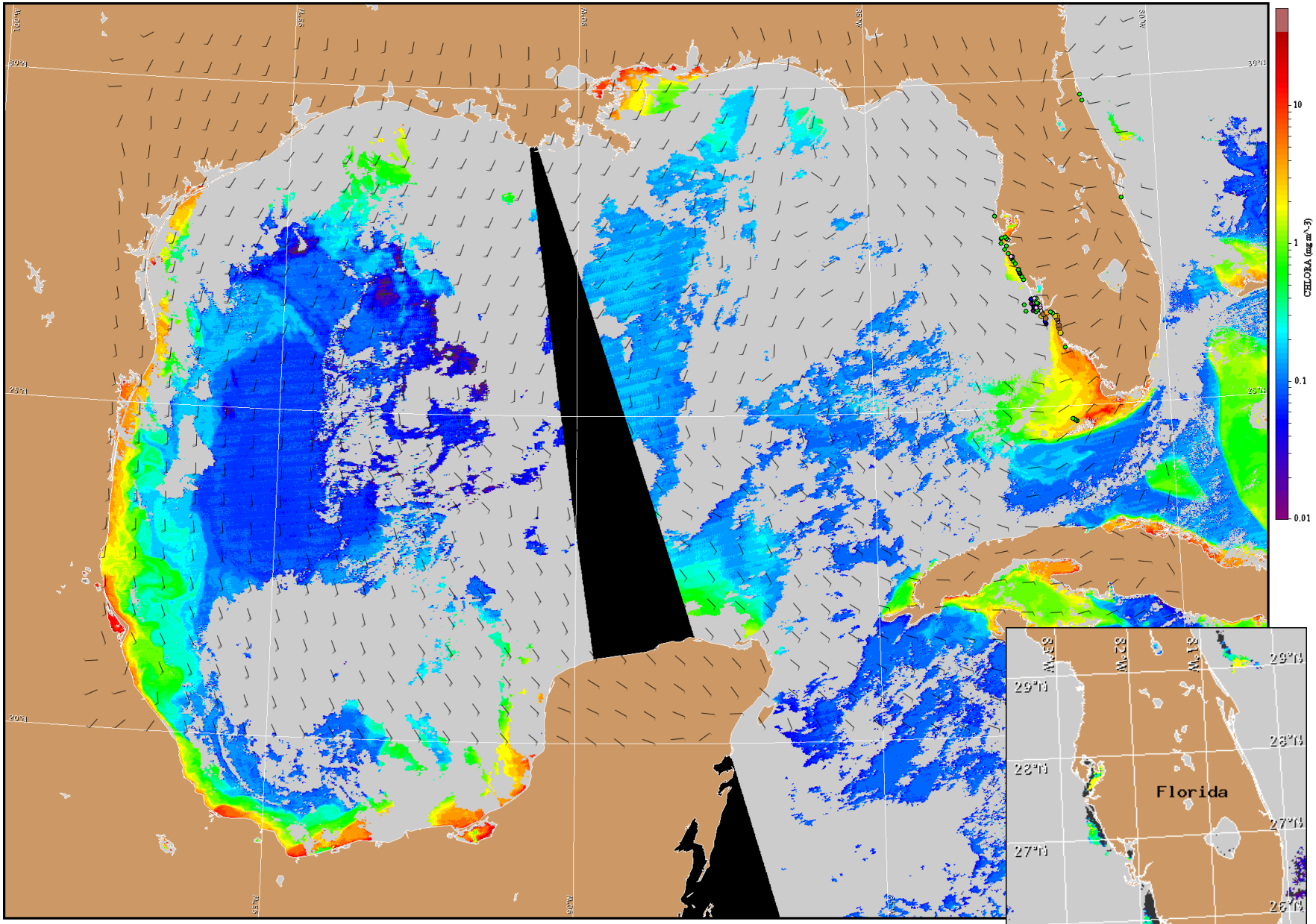
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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



Wind Analysis

Lee County: Northwest winds (5-10 kn, 3-5 m/s) today becoming east winds after midnight. Southeast winds (10 kn, 5 m/s) Tuesday becoming south winds in the afternoon. Southeast winds (5-15 kn, 3-8 m/s) Tuesday night through Thursday.

Collier County: Northwest winds (8-13 kn, 4-7 m/s) today becoming northeast to north (5 kn, 3 m/s) after midnight. East southeast to south winds (5-11 kn, 3-6 m/s) Tuesday to Wednesday. East winds (8-15 kn, 4-8 m/s) Wednesday night to Thursday night.



Satellite chlorophyll image and forecast winds for December 3, 2013 12Z with points representing cell concentration sampling data from November 22 to 27: 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).