Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

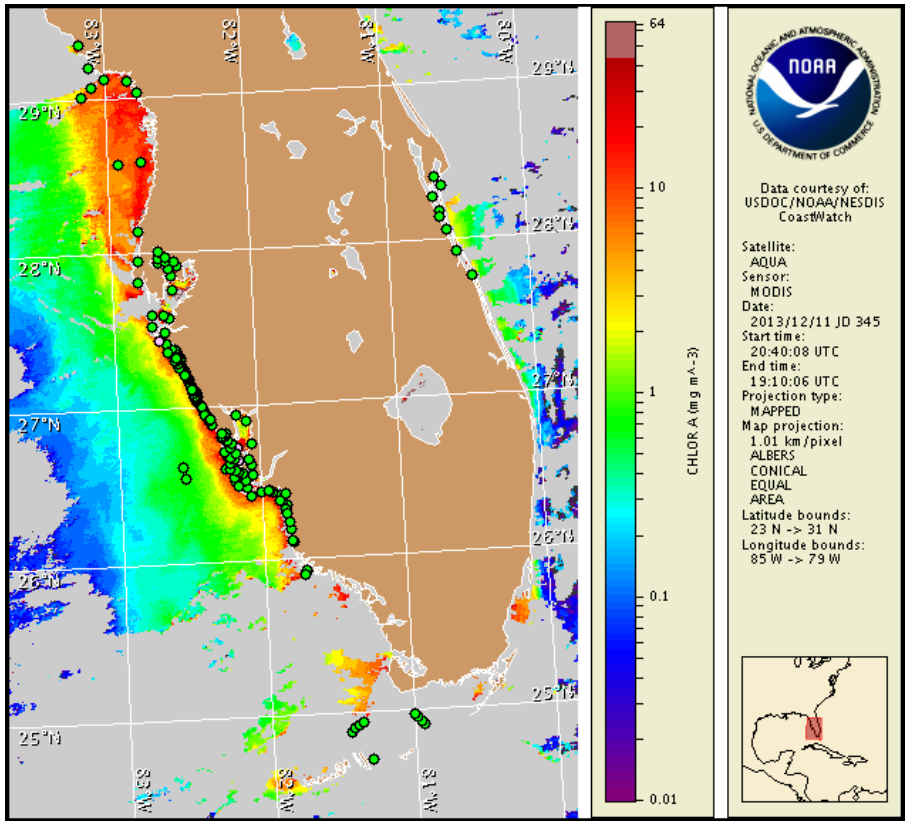
Thursday, 12 December 2013

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, December 9, 2013



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from December 2 to 10: 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 very low concentrations of *Karenia brevis* (commonly known as Florida red tide) are present alongshore 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, December 12 to Monday, December 16 is listed below:

County Region: Forecast (Duration)
Central Collier, 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 fish kills associated with *K. brevis* have been received from alongshore southwest Florida.

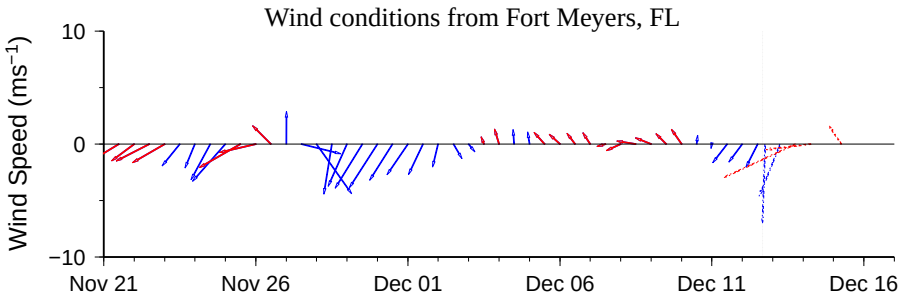
Analysis

Samples collected over the past ten days alongshore southwest Florida indicate that *Karenia brevis* concentrations range from 'not present' to 'very low b', and are not present in the Florida Keys (FWRI, MML, SCHD, CCPCPD; 12/2-12/10). Alongshore central Lee County, recent sampling indicated *K. brevis* is 'not present' where previous sampling indicated 'medium' concentrations on November 26 (FWRI; 12/4-12/10). Alongshore Collier County, sampling continues to indicate *K. brevis* is not present from Barefoot Beach to Naples Pier, while samples from the Marco Island region contained 'very low a' concentrations of *K. brevis* (FWRI, CCPCPD; 12/9).

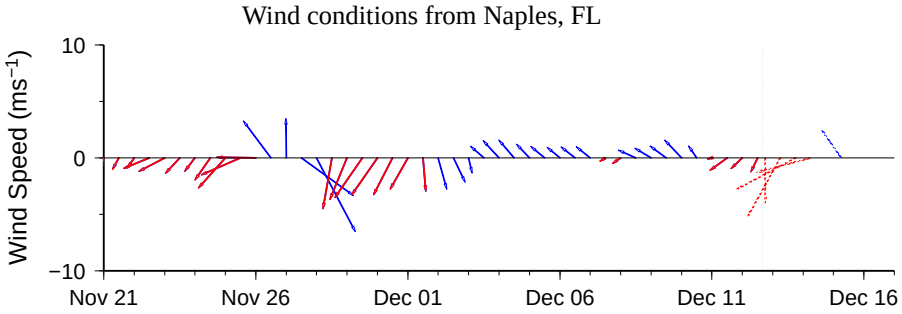
MODIS Aqua imagery has been cloudy over the past several days, limiting analysis. In MODIS Aqua imagery from 12/11 (shown left), elevated chlorophyll (2-10 μg/L) is visible alongshore southwest Florida. A feature of high chlorophyll (3 to >20 μg/L) is visible in the southern Charlotte County and northern Lee County bay areas; however, recent sampling indicates *K.brevis* is 'not present' to 'present' only. The anomalous feature noted in the previous bulletin south of Marco Island is obscured by clouds but will continue to be monitored.

Forecasted winds over the next several days are unlikely to favor intensification and should minimize transport of *K. brevis* at the coast.

Burrows, Fenstermacher

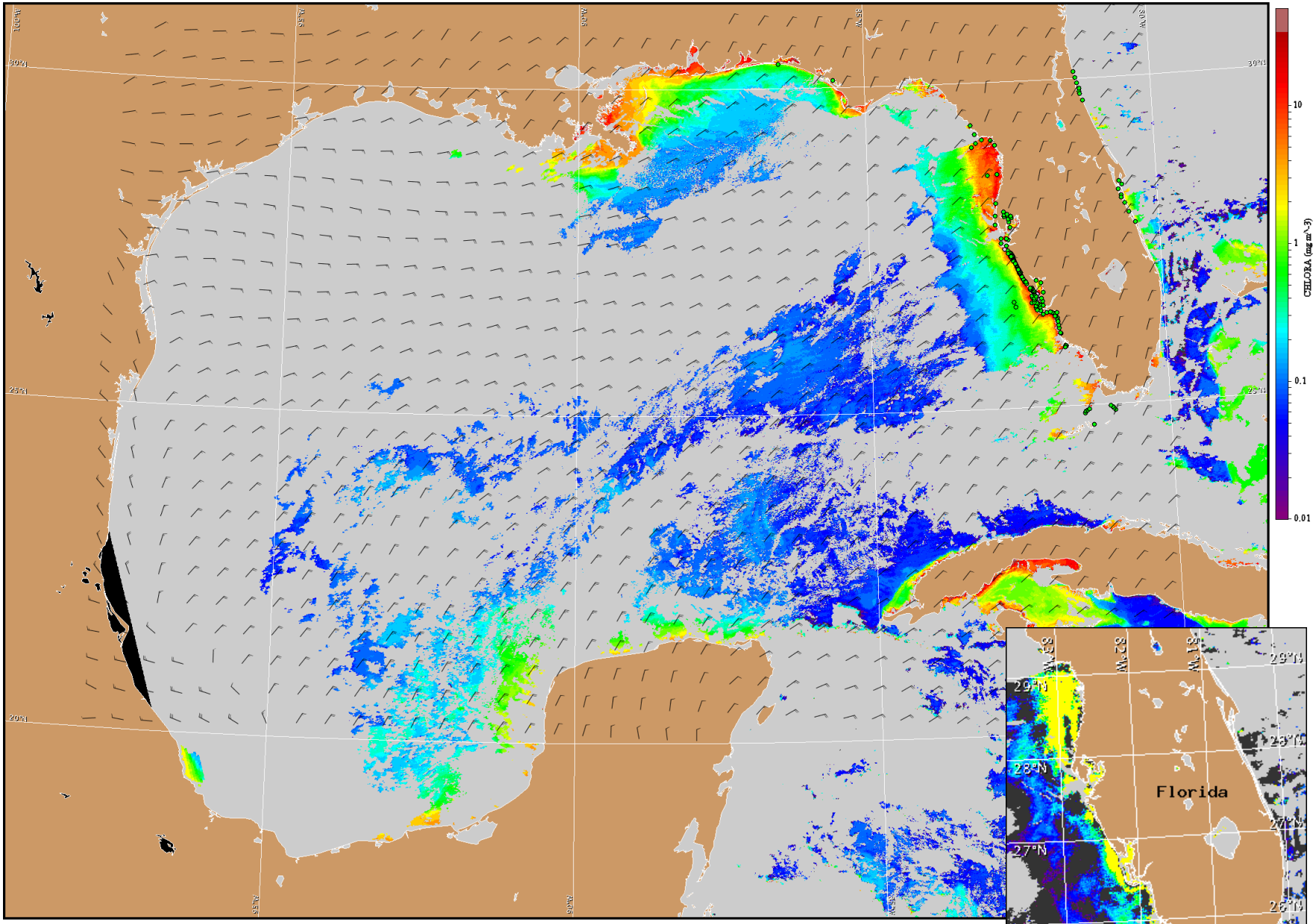


Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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



Wind Analysis

Southwest Florida: Northeast winds 10-20kn (5-10 m/s) today and Thursday afternoon, increasing to 25kn (13 m/s) Thursday night. East winds 15-20 kn (8-10 m/s) Friday decreasing to 15 kn (8 m/s) Friday afternoon and night. Saturday Southeast winds 10-15kn (5-8 m/s) becoming south winds 10kn (5 m/s) to southwest winds 5-10kn (3-5 m/s) Saturday night. Sunday west winds 5-10kn becoming north winds Sunday night and Monday 10-15kn.



Satellite chlorophyll image and forecast winds for December 13, 2013 06Z with points representing cell concentration sampling data from December 2 to 10: 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).