



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

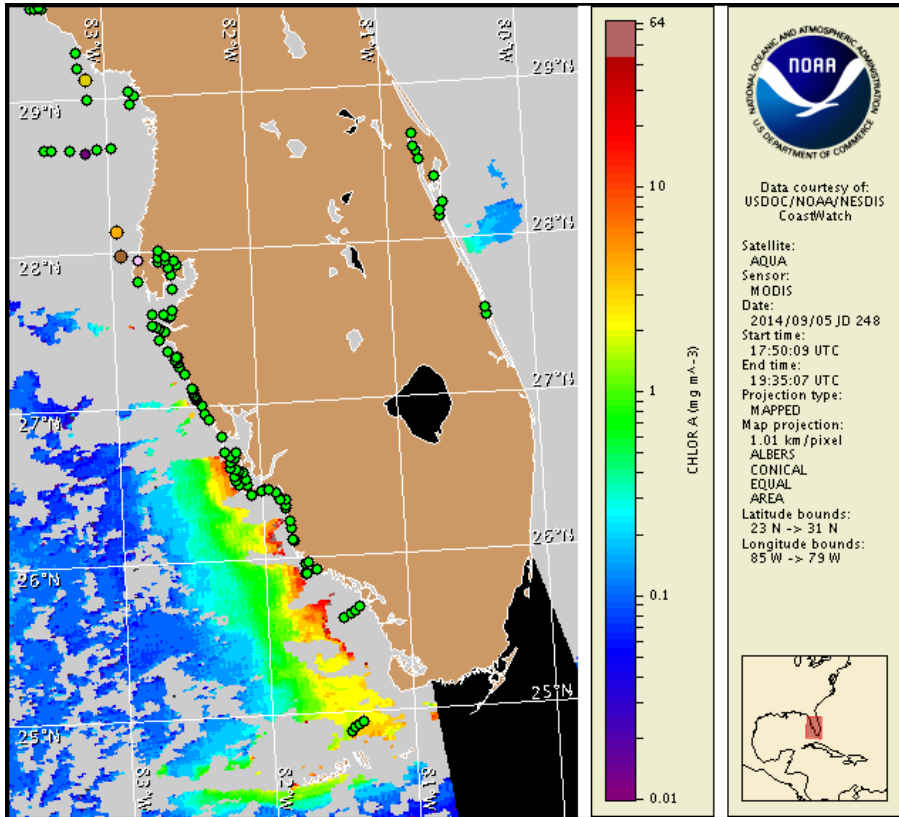
Monday, 08 September 2014

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Tuesday, September 2, 2014



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from August 29 to September 4: 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

Karenia brevis (commonly known as Florida red tide) ranges from not present to background concentrations along the coast of southwest Florida and is not present in the Florida Keys. *K. brevis* ranges from not present to medium concentrations offshore the coast of west Florida. No respiratory irritation is expected alongshore west Florida Monday, September 8 through Thursday, September 11. If field observations confirm *K. brevis* concentrations at the coast, this forecast will be updated prior to September 11.

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations. Over the past several days, reports of dead fish have been received from offshore Levy, Citrus and Pasco counties and offshore and alongshore some portions of northern Pinellas County.

Analysis

As of today, September 8, southwest Florida bulletins will be issued twice weekly on Mondays and Thursdays due to the presence of *Karenia brevis* concentrations nearshore.

Dixie to Pinellas County: Recent samples collected along- and offshore west Florida over the past ten days identified not present to 'medium' concentrations of *Karenia brevis*. The highest *K. brevis* concentrations identified were 'low b' approximately 3 miles west of Cedar Key in Levy County and 'medium' approximately 7 miles west of Anclote Key in northern Pinellas County (FWRI; 8/29-9/4). Samples collected between August 28 and September 2 offshore west Florida identified up to 'high' *K. brevis* concentrations 15-50 miles offshore Hernando and Pasco counties, with the highest concentrations collected at depth approximately 18 miles west of Bayonet Point in southern Pasco County (FWRI). Several samples collected alongshore Dixie, Levy and Pinellas counties all indicate that *K. brevis* is not present at the coast, with the exception of one sample indicating background concentrations at Clearwater Pass in northern Pinellas County (FWRI; 8/28-9/4).

Dead fish continue to be observed in the sampling area of the bloom and have been reported offshore Levy, Citrus and Pasco counties and offshore and alongshore some portions of northern Pinellas County (FWRI; 9/1-5). Some reports of dead fish received last week from Pasco and northern Pinellas counties were accompanied by reports of respiratory irritation (FWRI; 9/3-4). However, no observations of respiratory irritation have been reported from the Pinellas County stations within Mote Marine Laboratory's Beach Conditions Reporting System (9/1-8).

Recent MODIS Aqua imagery (9/5, shown left) is obscured by clouds along- and offshore from Dixie to Pinellas counties, limiting analysis. A distinct bloom feature has not been visible in satellite imagery (9/2-4, not shown) and confirmed by cell concentrations, most likely due to increasing patchiness and the presence of concentrations below 100,000 cells/L.

Over the past few days, observed winds may have promoted northerly transport of the offshore surface *K. brevis* concentrations. Forecasted southeast to east winds over the next several days may continue to promote northerly transport of the surface *K. brevis*

concentrations. Predominantly offshore winds forecasted through Thursday will minimize the potential for respiratory irritation impacts at the coast, even if *K. brevis* concentrations have moved closer to shore than recent water samples have confirmed.

Manatee to Monroe County: Recent samples collected over the past ten days along- and offshore the coast of southwest Florida indicate that *K. brevis* is not present from Manatee to Monroe County, and are not present in the Florida Keys (FWRI, MML, SCHD, CCPCPD; 8/29-9/4).

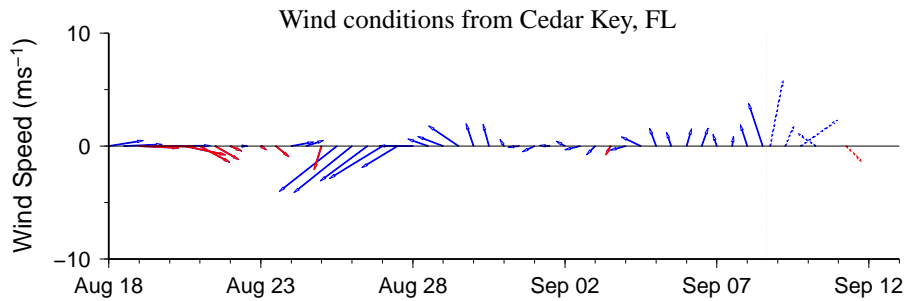
MODIS Aqua imagery from (9/5, shown left; 9/4, not shown) is obscured by clouds along- and offshore from Manatee to Charlotte counties, limiting analysis. Patches of elevated to very high chlorophyll (3 to >20 $\mu\text{g/L}$) are visible along- and offshore from Charlotte to Collier counties. Elevated chlorophyll along the coast may be the result of various algal species that have been reported throughout the region and not due to *K. brevis*.

Kavanaugh, Davis

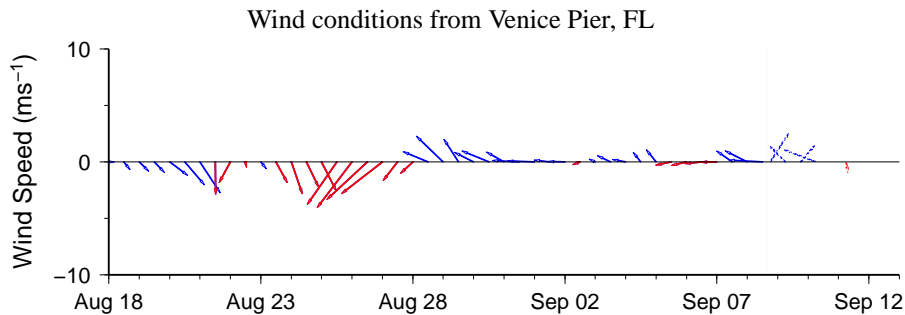
Wind Analysis

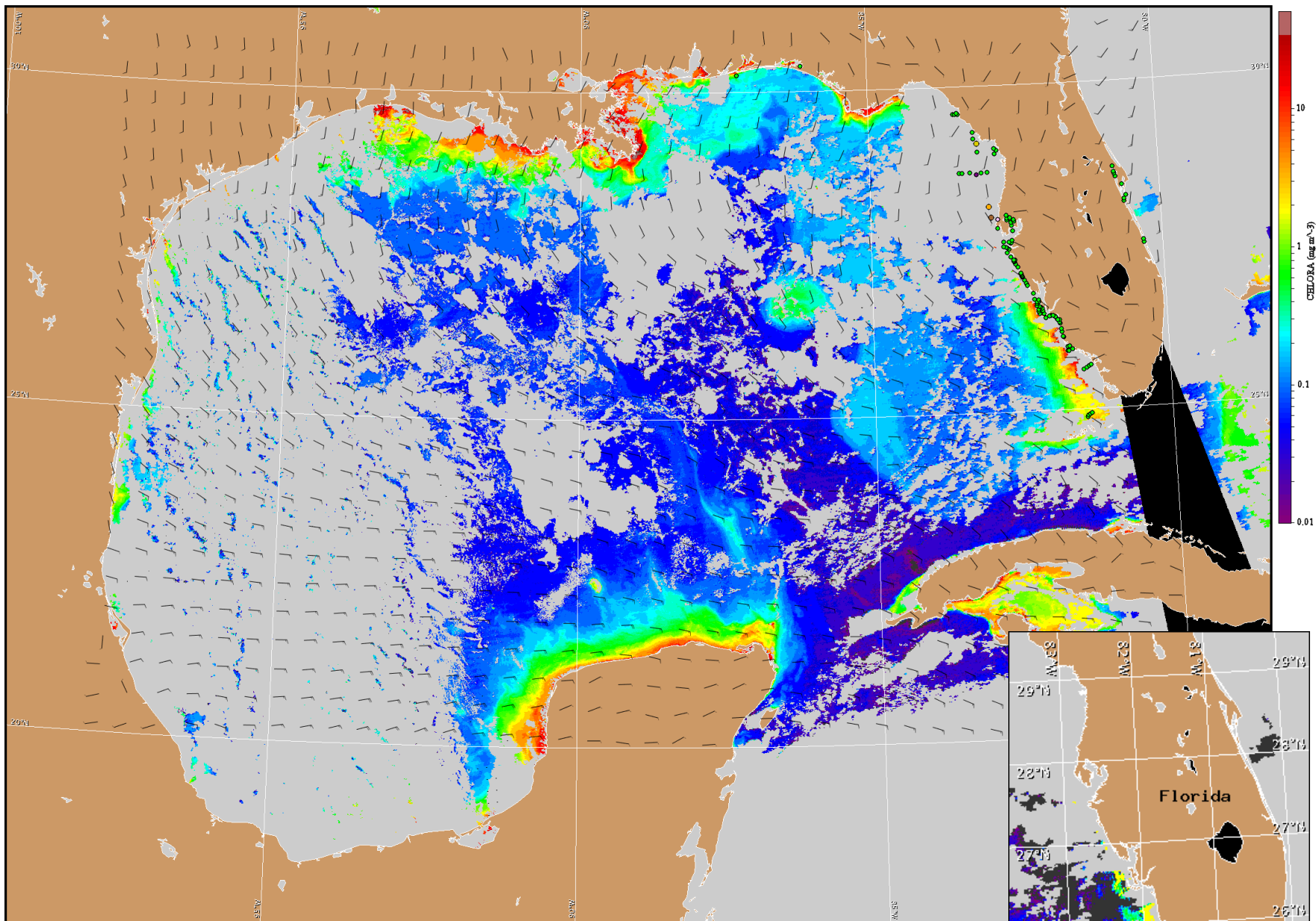
Cedar Key: South winds (10kn, 5m/s) today becoming southwest winds (5kn, 3m/s) tonight and south winds (5kn) after midnight. Variable winds (5kn) Tuesday. Southeast winds (5kn) Tuesday night. South winds (5kn) Wednesday becoming southwest winds (10kn) Wednesday night then southeast winds after midnight. South winds (10kn) Thursday. Southwest winds (5kn) Thursday night becoming southeast winds (5kn) after midnight.

Venice: South winds (5-10kn, 3-5m/s) today becoming southeast winds (10kn) after midnight then east winds (5-10kn) Tuesday afternoon through Tuesday night. Southeast winds (10kn) Wednesday becoming east winds (5-10kn) Wednesday night then southeast winds (10-15kn, 5-8m/s) after midnight through Thursday night.



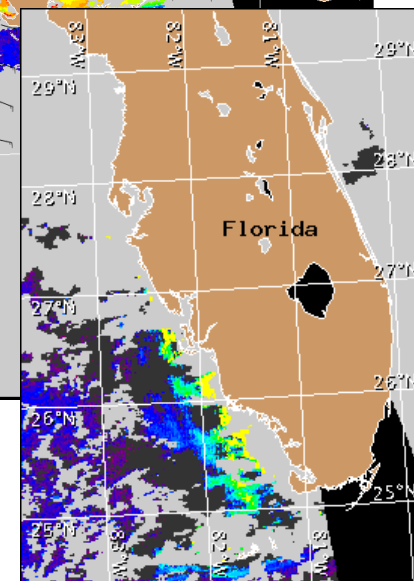
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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





Satellite chlorophyll image and forecast winds for September 9, 2014 06Z with points representing cell concentration sampling data from August 29 to September 4: 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).