



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

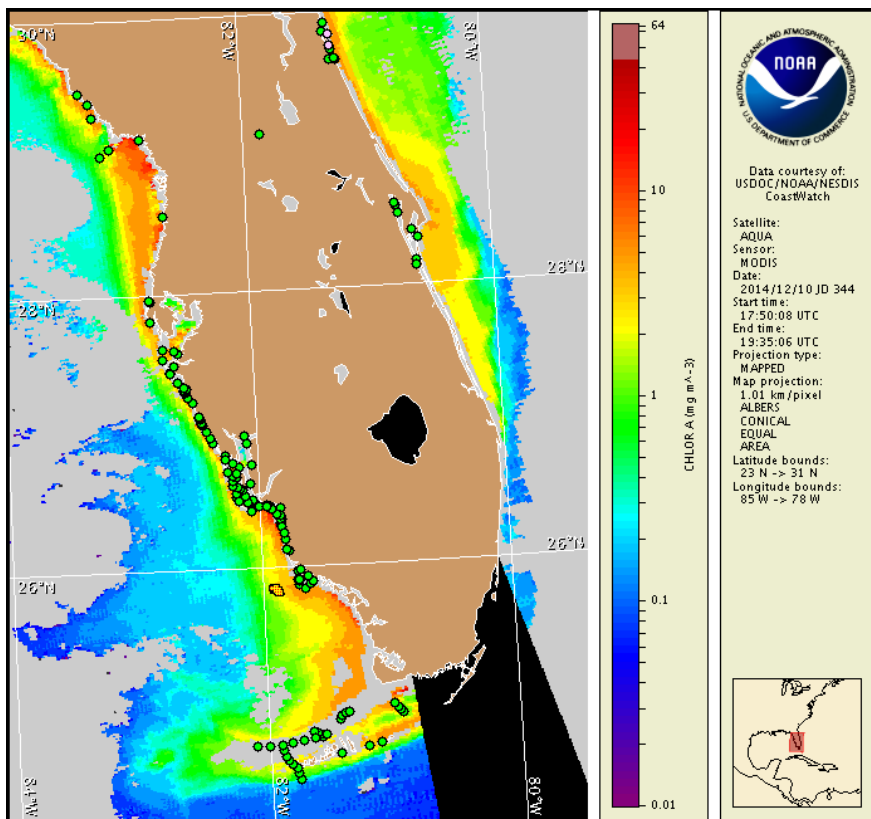
Thursday, 11 December 2014

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, December 8, 2014



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from December 1 to 9: 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

There is currently no indication of *Karenia brevis* (commonly known as Florida red tide) along the coast of southwest Florida, including the Florida Keys. No respiratory irritation is expected Thursday, December 11 through Monday, December 15.

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations.

Analysis

Samples collected over the past ten days alongshore northern Pinellas to southern Collier counties, including several recent samples collected throughout the Marco Island region of central Collier County, all indicate that *Karenia brevis* is not present (FWRI, SCHD, CCPCPD; 12/1-8). All samples collected south of Marco Island in the Gullivan Bay region, as well as offshore the Florida Keys, also indicated that *K. brevis* is not present (FWRI, MML; 12/3-8). No additional reports have been received for the Pavilion Key region of Monroe County, where the most recent samples identified 'low b' to 'medium' *K. brevis* concentrations 3-9 miles offshore Pavilion Key (MML; 11/25). No reports of respiratory irritation or fish kills have been received over the last several days (FWRI, MML; 12/8-12/11).

Recent MODIS Aqua imagery (12/10, shown left) is obscured by clouds within a mile alongshore much of southwest Florida, limiting analysis at the coast and in the Florida Keys. Elevated chlorophyll (2-10 $\mu\text{g/L}$) is visible in patches just offshore the coastline from Pinellas to Monroe counties, including the Florida Keys. A patchy feature of anomalously elevated chlorophyll is visible greater than 10 miles southwest of central to southern Collier County.

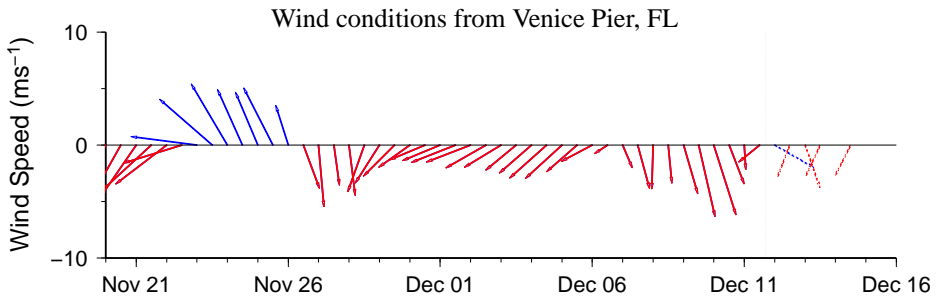
Observed winds over the past few days as well as forecast winds over the next several days may continue to promote southerly transport of any remaining surface *K. brevis* concentrations. Since it is possible that *K. brevis* concentrations have transported southward, the Florida Keys region will continue to be monitored. Additionally, conditions are not favorable for bloom intensification at the coast over the next several days.

Derner, Kavanaugh

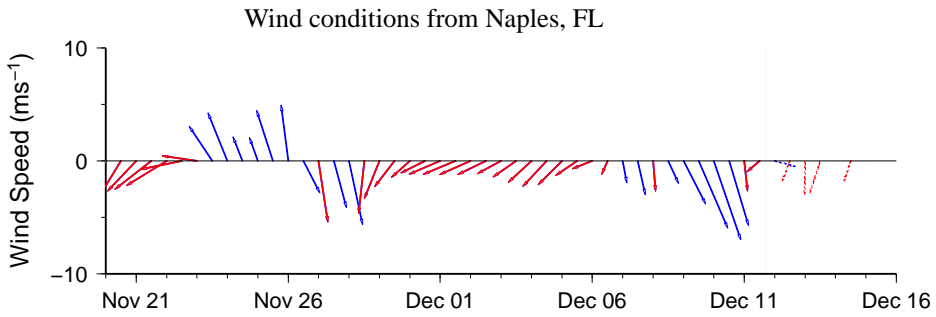
Wind Analysis

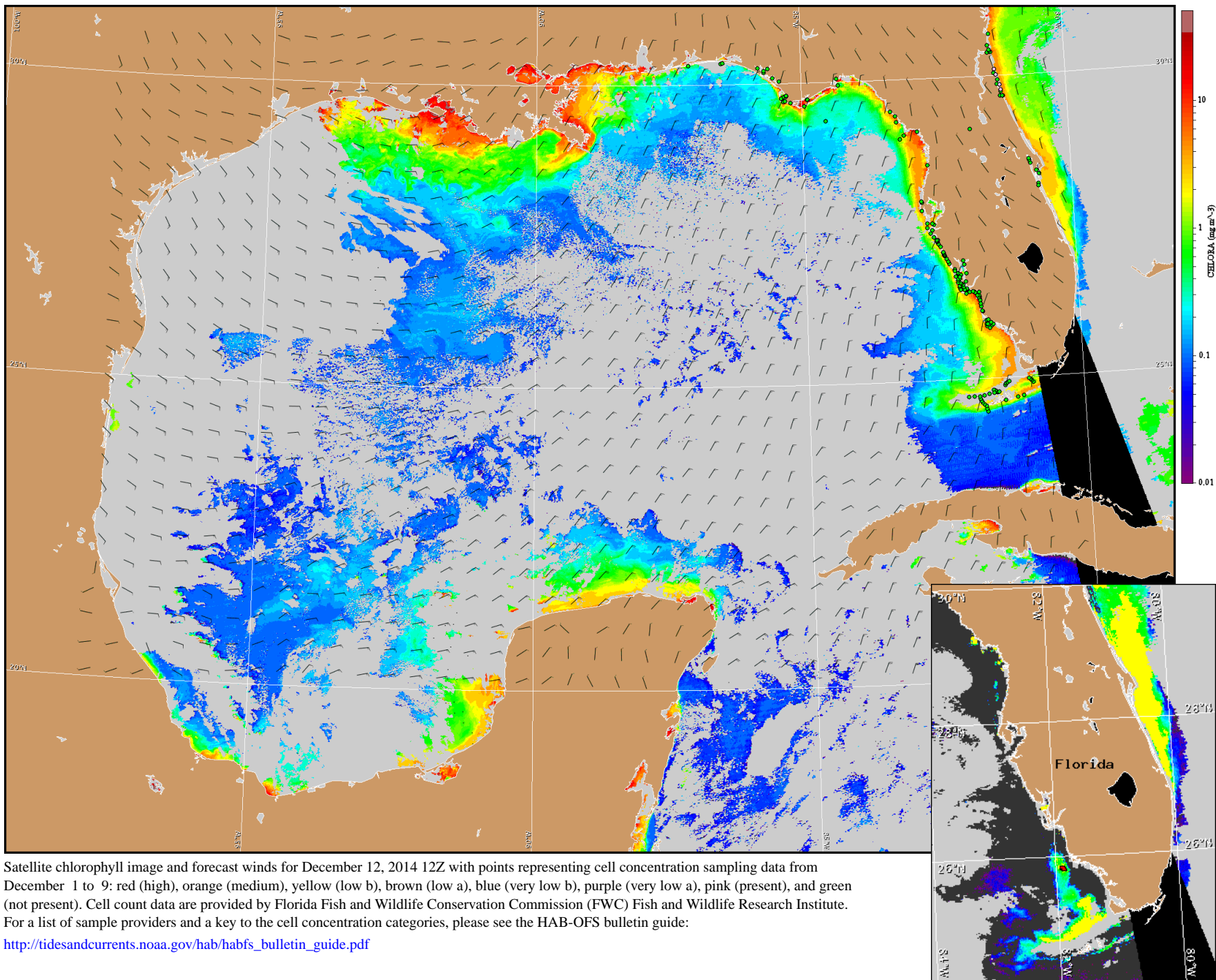
Englewood to Tarpon Springs (Venice): Northwest winds (5-10kn, 3-5m/s) today and tonight becoming north (15kn, 8m/s) after midnight. Northeast winds (5-10kn) Friday becoming north (10-15kn, 5-8m/s) Friday night through Saturday night. Northeast winds (5-10kn) Sunday. East winds (5kn, 3m/s) Monday.

Chokoloskee to Bonita Beach (Naples): North northwest winds (5kn) today becoming north winds (5-10kn) tonight through Friday. North northeast winds (10kn) Friday night becoming north winds (10-15kn) Saturday. North northeast winds (10-15kn) Saturday night through Sunday. Northeast winds (5-10kn) Sunday night through Monday.



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 December 12, 2014 12Z with points representing cell concentration sampling data from December 1 to 9: 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).