



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

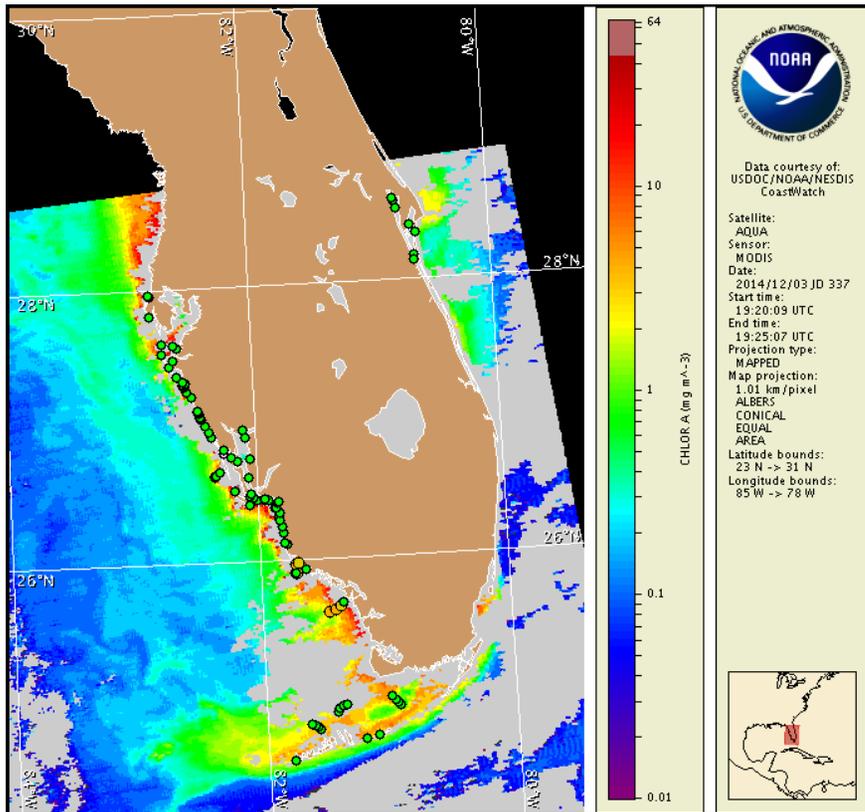
Thursday, 04 December 2014

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, December 1, 2014



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from November 24 to December 3: 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 Thursday, December 4 to Monday, December 8 is listed below:

County Region: Forecast (Duration)

Central Collier: Very Low (Th-M)

Central Collier, Bay Regions: Low (Th-M)

All Other SWFL County Regions: None expected (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. No reports of respiratory irritation or dead fish due to *K. brevis* have been received over the past few days.

Analysis

Not present to medium concentrations of *Karenia brevis* are present along- and offshore portions of southwest Florida from Pinellas to Monroe counties (FWRI, SCHD, MML, CCPCPD; 11/24-12/3). Background *K. brevis* concentrations were identified at Boca Grande Pass in Charlotte County and approximately 7 miles offshore Cayo Costa in northern Lee County (FWRI; 11/26 & 11/30). Recent samples collected alongshore northern and central Collier County indicate that *K. brevis* is not present (FWRI; 12/1). While a sample collected at South Marco Beach on 12/1 indicated that *K. brevis* is not present, this location is near Caxambas Pass where 'medium' concentrations were identified on 11/24 (FWRI). All other samples collected along- and offshore Pinellas, Manatee, Charlotte, and Lee counties, as well as offshore the Florida Keys, continue to indicate that *K. brevis* is not present (FWRI, MML; 11/26-12/3). No reports of respiratory irritation or recent fish kills have been received over the last several days (FWRI, MML; 12/1-12/4).

Recent MODIS Aqua imagery (12/3, shown left) is obscured by clouds throughout southwest Florida, limiting analysis. Small patches of elevated to very high levels of chlorophyll (5 to >20 $\mu\text{g/L}$) are visible offshore Pinellas, Lee, Collier and Monroe counties; however, a complete analysis of the chlorophyll anomalies is not possible.

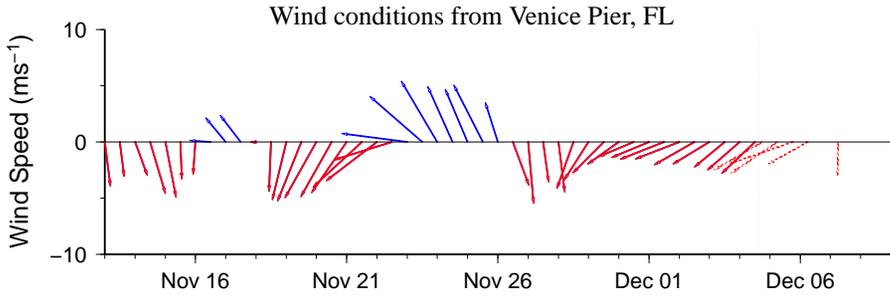
Observed winds over the past few days as well as forecast winds over the next several days may continue to promote southerly transport of surface *K. brevis* concentrations. Additionally, conditions are not favorable for bloom intensification at the coast over the next several days.

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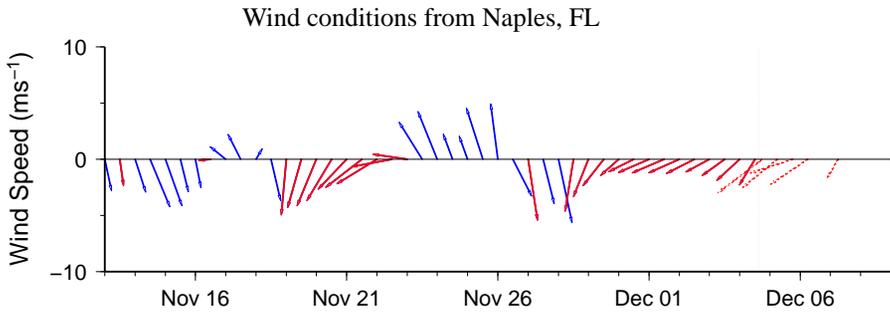
Wind Analysis

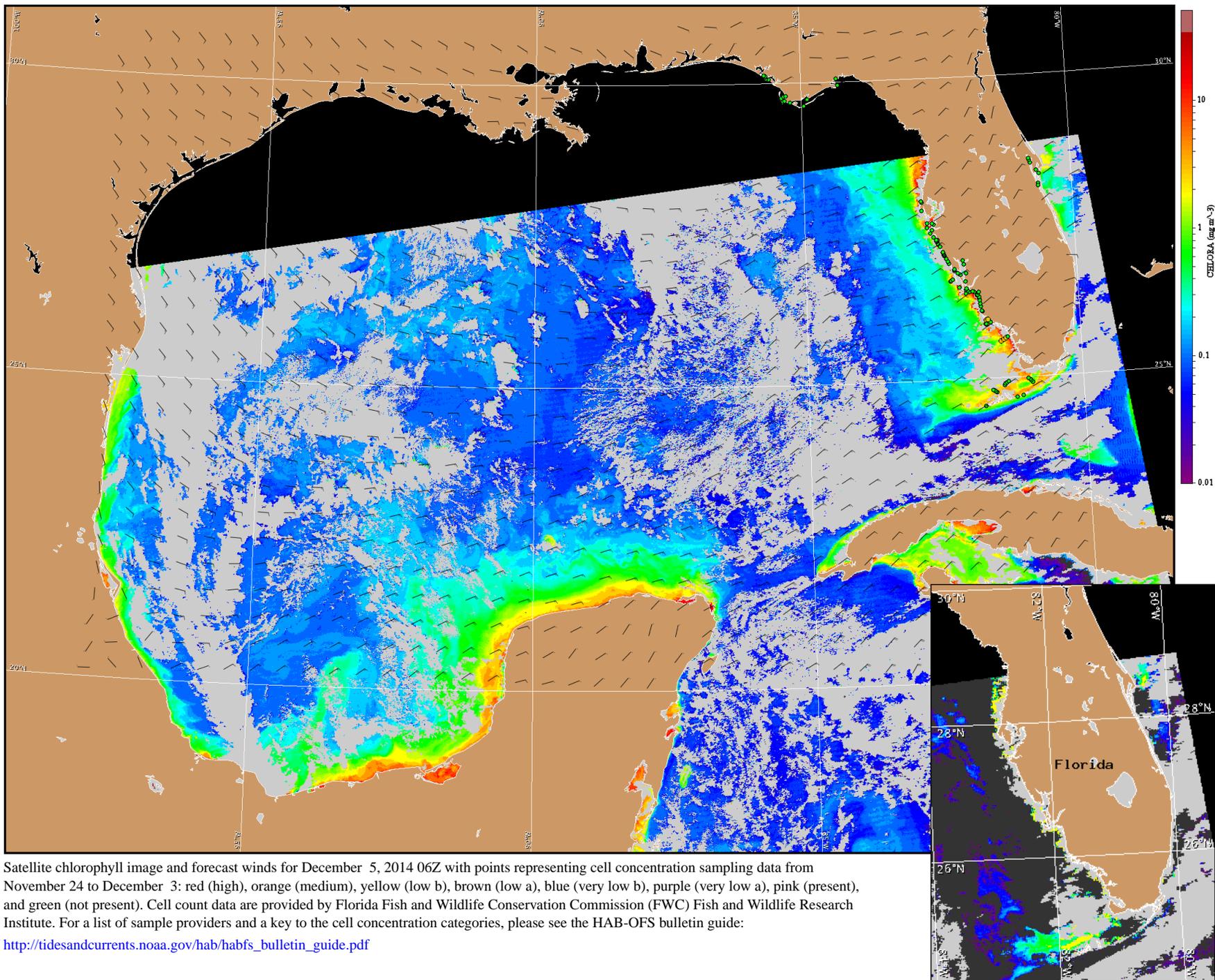
Englewood to Tarpon Springs (Venice): Northeasterly winds (10-15 kn, 5-8 m/s) today through Friday. Easterly winds (10 kn, 5 m/s) Friday night. Northeasterly winds (10 kn) Saturday. Northerly winds (10kn) Saturday night through Sunday. Northeasterly winds (10 kn) Sunday night through Monday.

Chokoloskee to Bonita Beach (Naples): Northeasterly winds (10-15 kn) today. East northeasterly winds (10-15 kn) tonight through Friday. Northeasterly winds (5-15 kn, 3-8 m/s) Saturday 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 5, 2014 06Z with points representing cell concentration sampling data from November 24 to December 3: 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).