



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

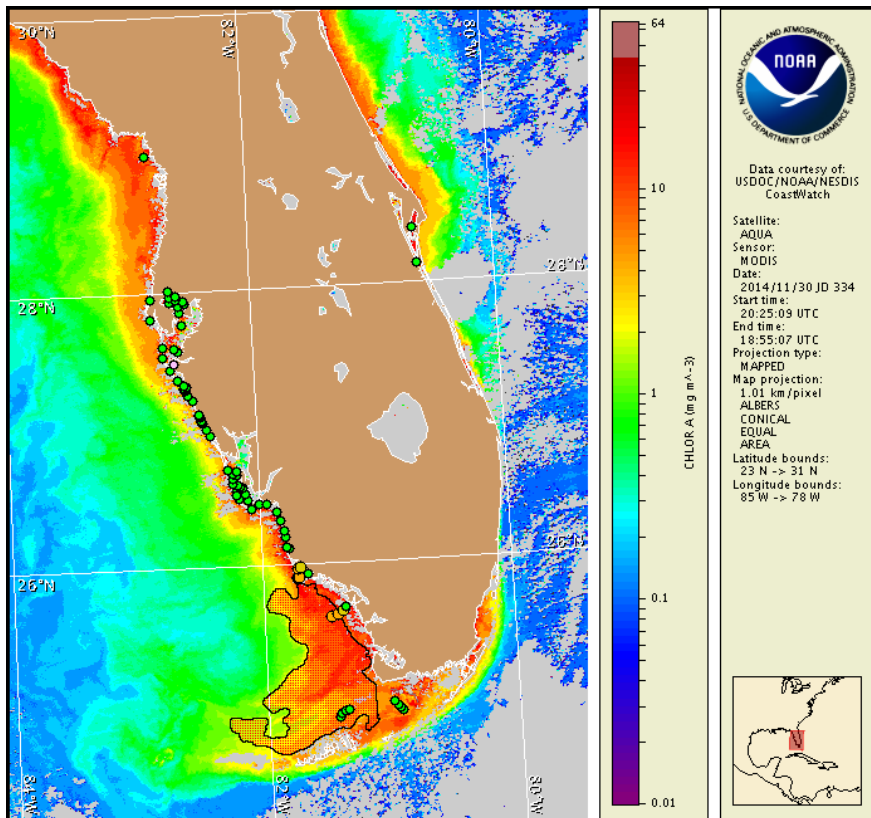
Monday, 01 December 2014

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Wednesday, November 26, 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 21 to 26: 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 1 to Thursday, December 4 is listed below:

County Region: Forecast (Duration)

Central Collier: Very Low (M-Th)

Central Collier, Bay Regions: High (M-W), Moderate (Th)

All Other SWFL County Regions: None expected (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. No reports of respiratory irritation or dead fish due to *K. brevis* have been received over the past several 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; 11/21-26). Over the past few days, the only samples received were from along-shore central and southern Lee County and they all indicate that *K. brevis* is not present (FWRI; 11/25). Presently, alongshore and in bay regions of central Collier County and offshore Monroe County, *K. brevis* concentrations range from not present to medium (FWRI, MML, CCPCPD; 11/21-26). Elsewhere along- and offshore southwest Florida, including the Florida Keys, *K. brevis* concentrations range from not present to background (FWRI, SCHD, MML, CCPCPD; 11/21-26). No reports of respiratory irritation or fish kills have been received over the last several days (FWRI, MML; 11/26-12/1).

Recent MODIS Aqua imagery (11/30, shown left) indicates elevated to high levels of chlorophyll (3-16 $\mu\text{g/L}$) alongshore most of southwest Florida. The highest levels of chlorophyll (>20 $\mu\text{g/L}$) are visible south of Seagate in northern Collier County. Anomalous elevated chlorophyll is visible along- and offshore from central Lee to Monroe counties (including the Florida Keys).

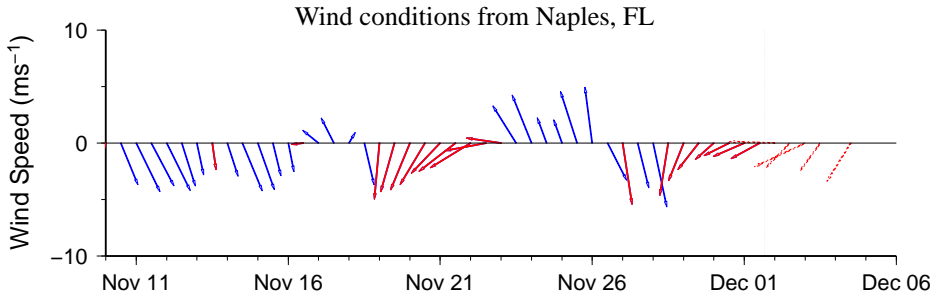
Observed winds over the past few days as well as forecast winds over the next several days may promote southerly transport of surface *K. brevis* concentrations. Additionally, conditions are not favorable for bloom intensification at the coast over the next several days.

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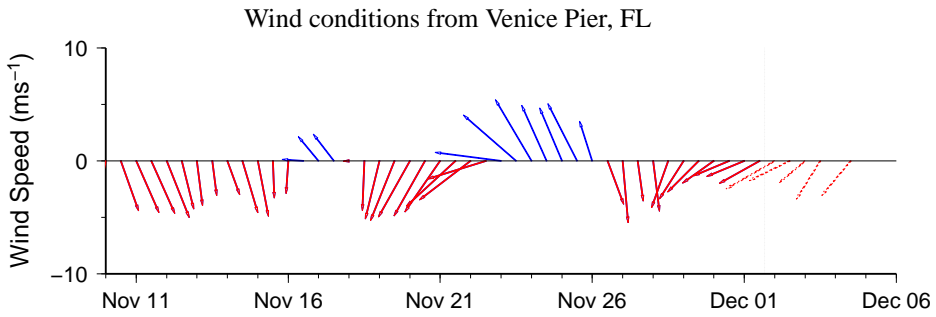
Wind Analysis

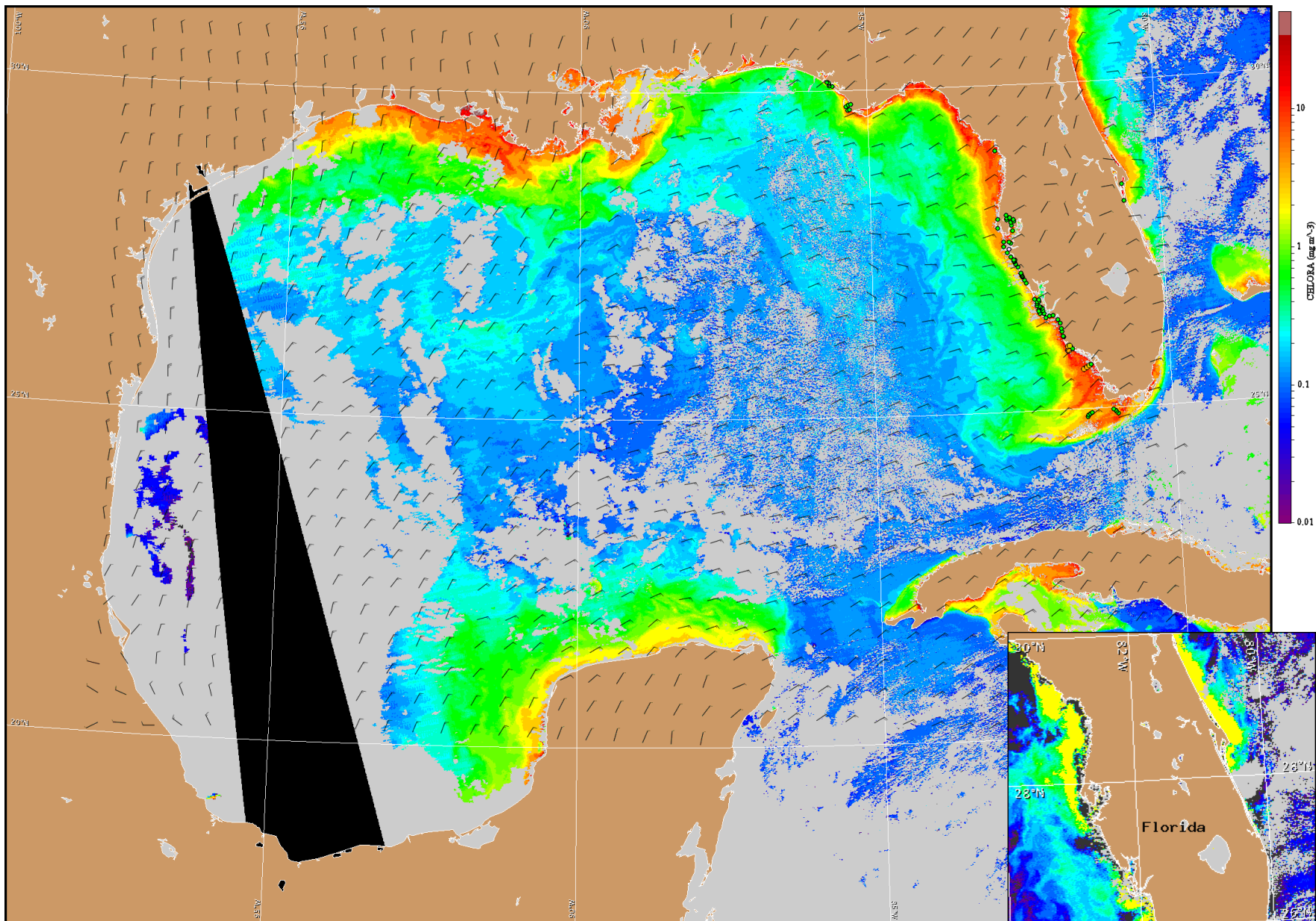
Englewood to Tarpon Springs (Venice): Northeasterly winds (5-15kn, 3-8m/s) today through Thursday.

Chokoloskee to Bonita Beach (Naples): Easterly to northeasterly winds (10-20 kn, 5-10 m/s) today through Tuesday. Northeasterly winds (15-20 kn, 8-10 m/s) Wednesday. Easterly to northeasterly winds (10-15 kn, 5-8 m/s) Thursday.



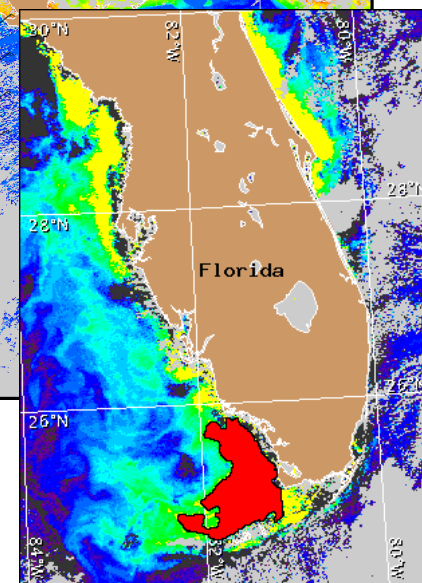
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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





Satellite chlorophyll image and forecast winds for December 2, 2014 12Z with points representing cell concentration sampling data from November 21 to 26: 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).