



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

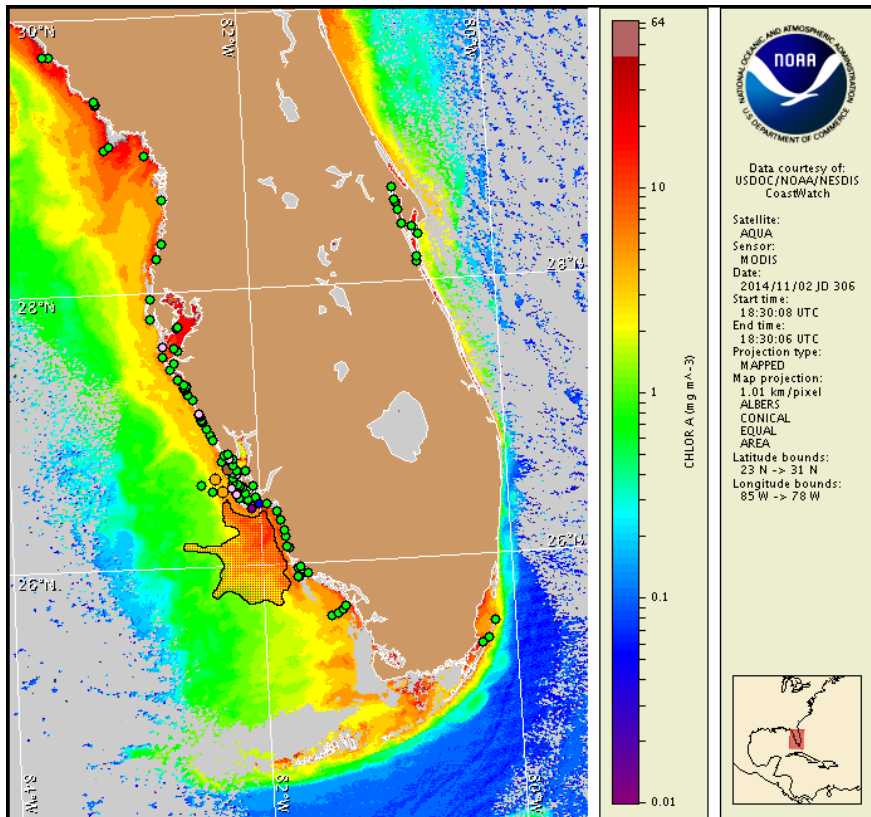
Monday, 03 November 2014

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, October 30, 2014



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from October 24 to 30: 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/habfbs_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, November 3 to Thursday, November 6 is listed below:

County Region: Forecast (Duration)

Northern Lee: None expected (M-W), Very Low (Th)

Northern Lee, bay regions: Moderate (M-W), Low (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. Over the past few days, no reports of dead fish or respiratory irritation have been received from southwest Florida.

Visit <http://tidesandcurrents.noaa.gov/hab/#nwfl> for the most recent northwest Florida conditions report.

Analysis

Not present to medium concentrations of *Karenia brevis* (commonly known as Florida red tide) are present along- and offshore portions of southwest Florida from Pinellas to Lee counties (FWRI, MML; 10/27-30). In the bay regions of southern Charlotte County, 'not present' to 'background' concentrations of *K. brevis* were identified (FWRI; 10/29-30). Offshore northern Lee County, *K. brevis* concentrations continue to range from 'not present' to 'medium', with the highest concentrations identified 6.3 miles west of Captiva Island (FWRI; 10/30). Along the coast of northern Lee County, *K. brevis* concentrations increased from 'very low b' to 'low a' at Boca Grande Pass (FWRI; 10/29-30). In the bay regions of northern Lee County, southeast of Boca Grande Pass, recent samples identified 'not present' to 'background' concentrations of *K. brevis* (FWRI; 10/28). Along the coast of central Lee, recent samples indicate that *K. brevis* concentrations have decreased and now range up to 'very low b' at Lighthouse Beach (FWRI; 10/29) near where 'low a' concentrations were previously identified on 10/23 (FWRI). Samples collected elsewhere along- and offshore southwest Florida indicate that *K. brevis* is not present in the following county regions: Dixie, Levy, Hernando, Pasco, Manatee, Sarasota, northern Charlotte, southern Lee and Collier (FWRI, MML; 10/27-31). Over the past few days, no reports of dead fish or respiratory irritation have been received (FWRI, MML; 10/30-11/3).

In MODIS Aqua imagery (11/2, shown left), patches of elevated to high (2-12 $\mu\text{g/L}$) levels of chlorophyll are visible stretching approximately 2-4 miles offshore from southern Charlotte to Collier County. At its widest point, the feature extends over 50 miles from the coast of northern Collier County.

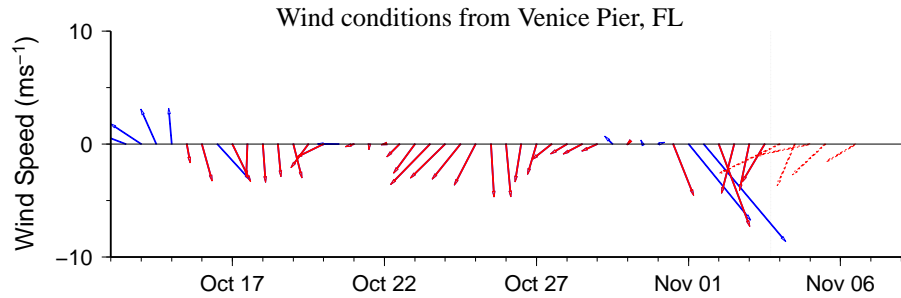
Winds observed over the past several days may have minimized onshore transport and

avored southerly transport of surface *K. brevis* concentrations confirmed along the coast and offshore southwest Florida. Forecasted winds may increase the potential for northerly transport of surface *K. brevis* concentrations Tuesday through Thursday and continue to favor upwelling conditions that may intensify *K. brevis* concentrations at the coast today through Thursday.

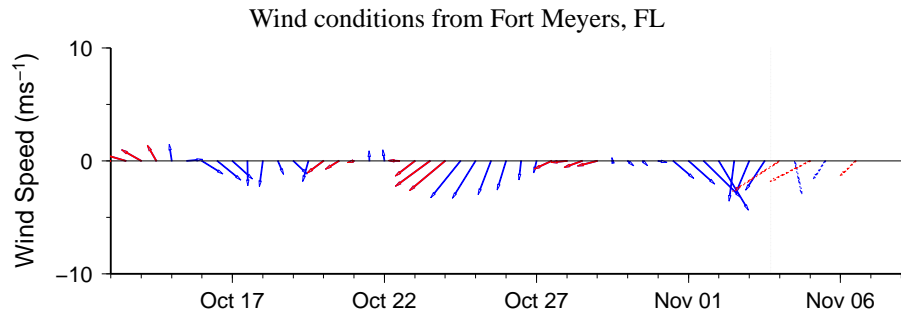
Kavanaugh, Davis

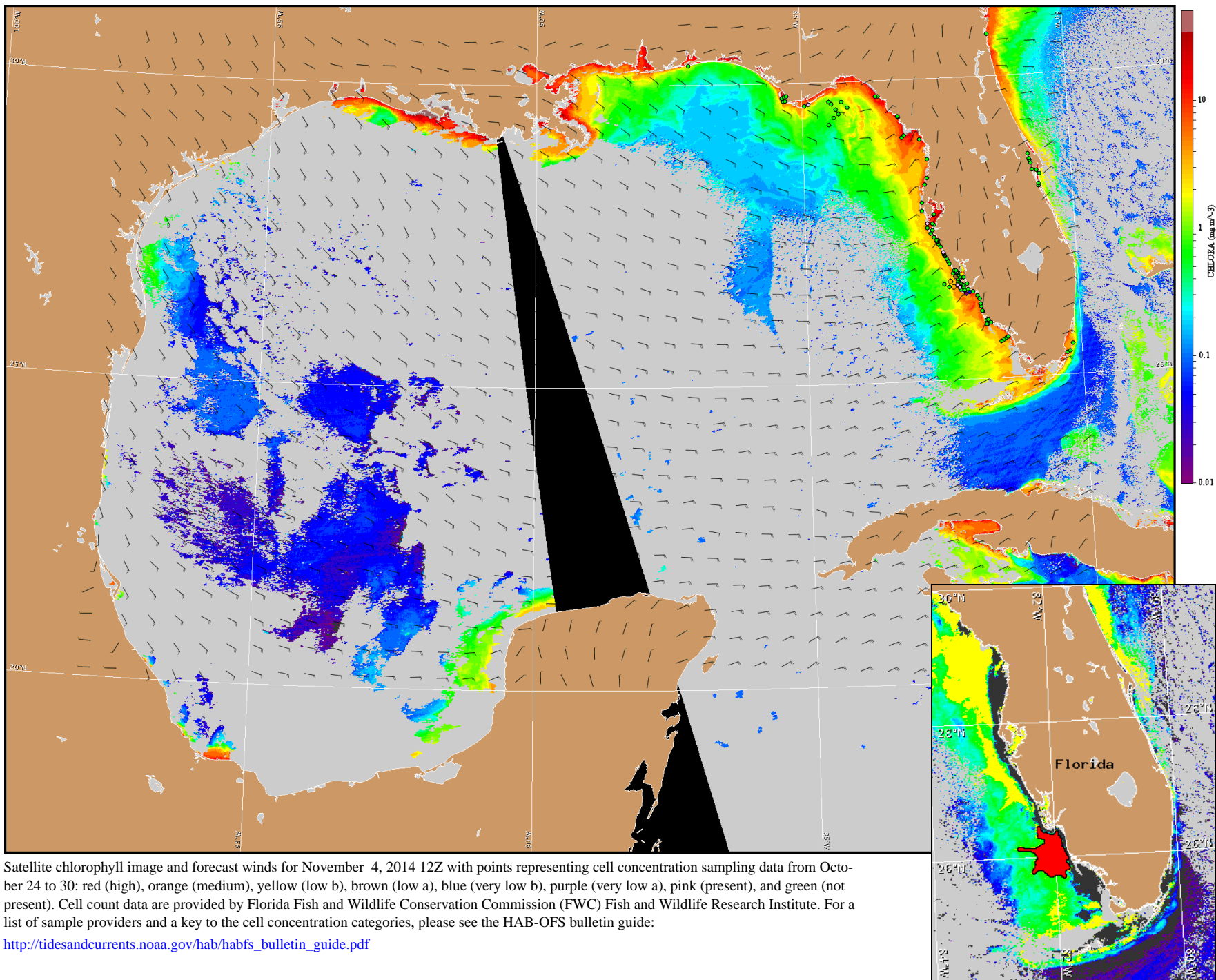
Wind Analysis

Bonita Beach to Englewood (Fort Meyers): Northeast winds (10-15kn, 5-8m/s) today through Tuesday. East winds (10-15kn) Tuesday night through Wednesday diminishing to 5-10kn (3-5m/s) Wednesday afternoon through Wednesday night. Southeast winds (10kn, 5m/s) Thursday becoming southwest winds (10kn) Thursday afternoon. Northwest winds (5-10kn, 3-5m/s) 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 November 4, 2014 12Z with points representing cell concentration sampling data from October 24 to 30: 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).