



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

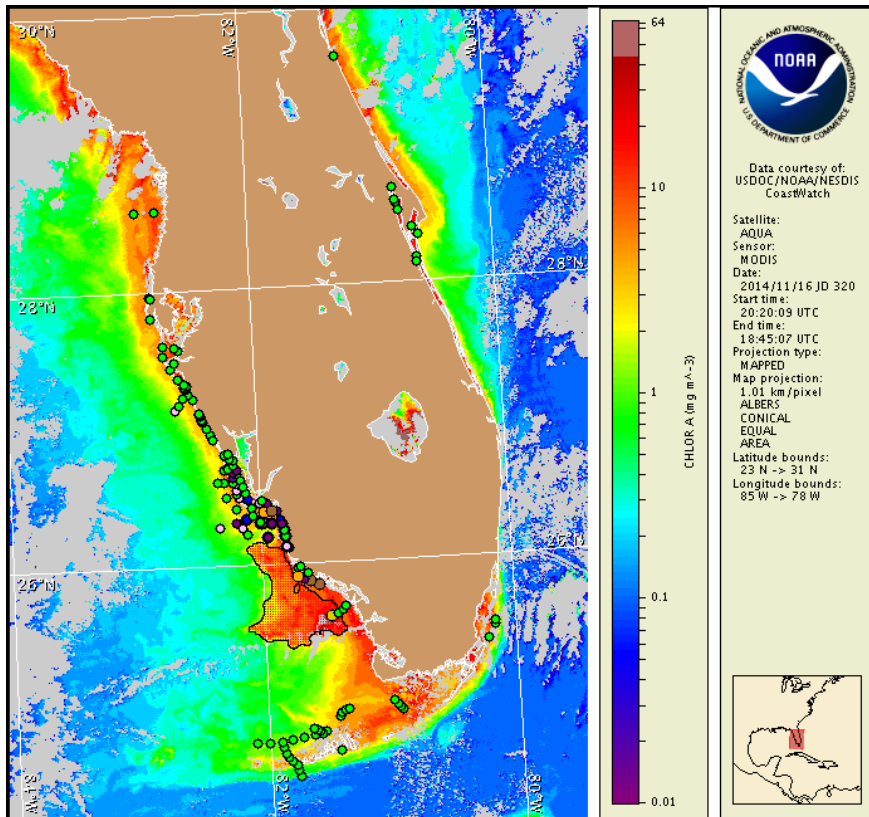
Thursday, 20 November 2014

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, November 17, 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 10 to 18: 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/habofs_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 high 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, November 20 to Monday, November 24 is listed below:

County Region: Forecast (Duration)

Central Lee, bay regions: Very Low (Th-M)

Southern Lee: Very Low (Th-Sa), Moderate (Su-M)

Central Collier: Very Low (Th-Su), Moderate (M)

Central Collier, bay regions: Low (Th-M)

Southern Collier, bay regions: Very Low (Th-Sa), Low (Su-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. Over the past several days, reports of respiratory irritation and fish kills have been received from Collier County. Reports of respiratory irritation have also been received from Lee County.

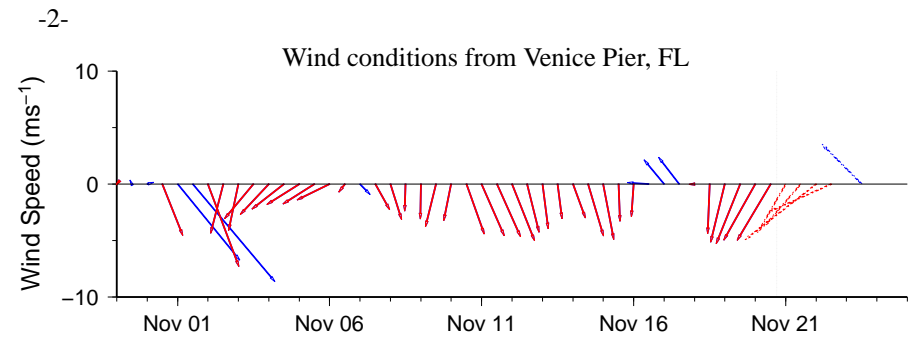
Analysis

Not present to high concentrations of *Karenia brevis* are present along- and offshore portions of southwest Florida from Pinellas to Collier counties (FWRI, MML, CCPCPD; 11/12-11/19). Recent samples continue to indicate that *K. brevis* concentrations in the Gasparilla and Pine Island Sound regions of Charlotte and Lee counties have dissipated, with all samples collected from the bay regions over the past several days indicating that *K. brevis* is not present (FWRI; 11/15-11/17), with the exception of one sample collected west of York Island, which continued to indicate 'very low b' concentrations in the southern Pine Island Sound region (FWRI; 11/12). One sample collected offshore northern Lee County also indicated that *K. brevis* is not present (FWRI; 11/15). Offshore southern Lee County, samples collected 2 miles west of Big Carlos Pass identified 'medium' concentrations at the surface and 'low a' concentrations at a depth of 5.2m (FWRI; 11/16). Offshore northern Collier County, 'low b' and 'medium' concentrations were identified 8.5 miles west of Clam Pass and 5.5 miles west of Wiggins Island, respectively (FWRI; 11/16). While 'medium' *K. brevis* concentrations continue to be identified alongshore South Marco Beach in the Marco Island region of central Collier County, samples collected alongshore northern Collier County early this week indicate that *K. brevis* concentrations have decreased, identifying 'very low a' and 'background' concentrations at Barefoot Beach and the Naples Pier, respectively. All other samples collected alongshore northern Collier, as well as alongshore Pinellas and Manatee counties and offshore the Florida Keys indicated that *K. brevis* is not present (FWRI, MML, CCPCPD; 11/15-19). Over the past several days, reports of dead fish and respiratory irritation have been received from the Marco Island region of Collier County. Reports of respiratory irritation were also received from Lynn Hall Beach Park in southern Lee County (MML, CCPCPD, FWRI; 11/15-19).

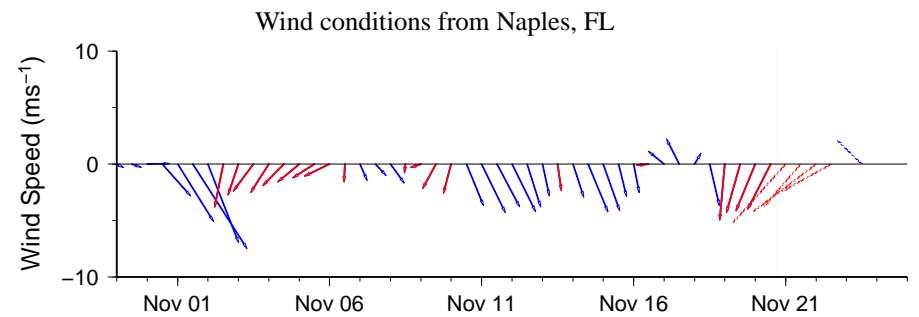
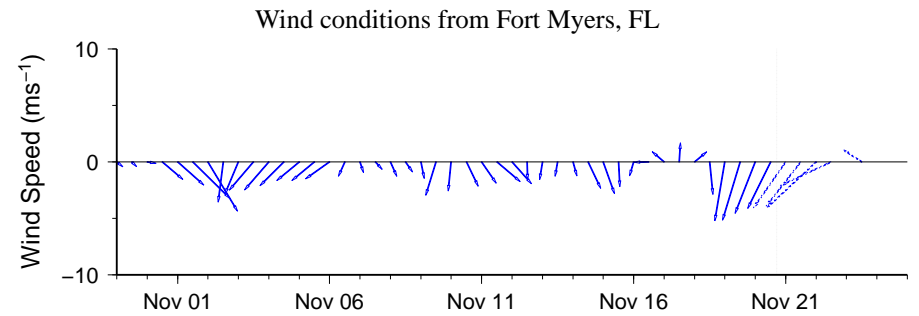
Recent MODIS Aqua imagery has been completely obscured by clouds, preventing analysis. Imagery from 11/16 (shown left and in previous bulletin) indicated that the *K. brevis* bloom may have transported south since last week. See the previous bulletin (HAB20141117_2014056_SFL) for imagery analysis.

Observed winds over the past few days may have continued to promote southerly transport of surface *K. brevis* concentrations. Upwelling favorable winds observed over the past several days and forecast for today through Friday may promote bloom intensification. Winds forecast today through Saturday may minimize onshore transport of surface *K. brevis* concentrations. South winds forecast Sunday through Monday may promote northerly transport. Offshore winds forecast today through Saturday will decrease the potential for respiratory irritation along the coast, except for within the bay regions.

Derner, Kavanaugh



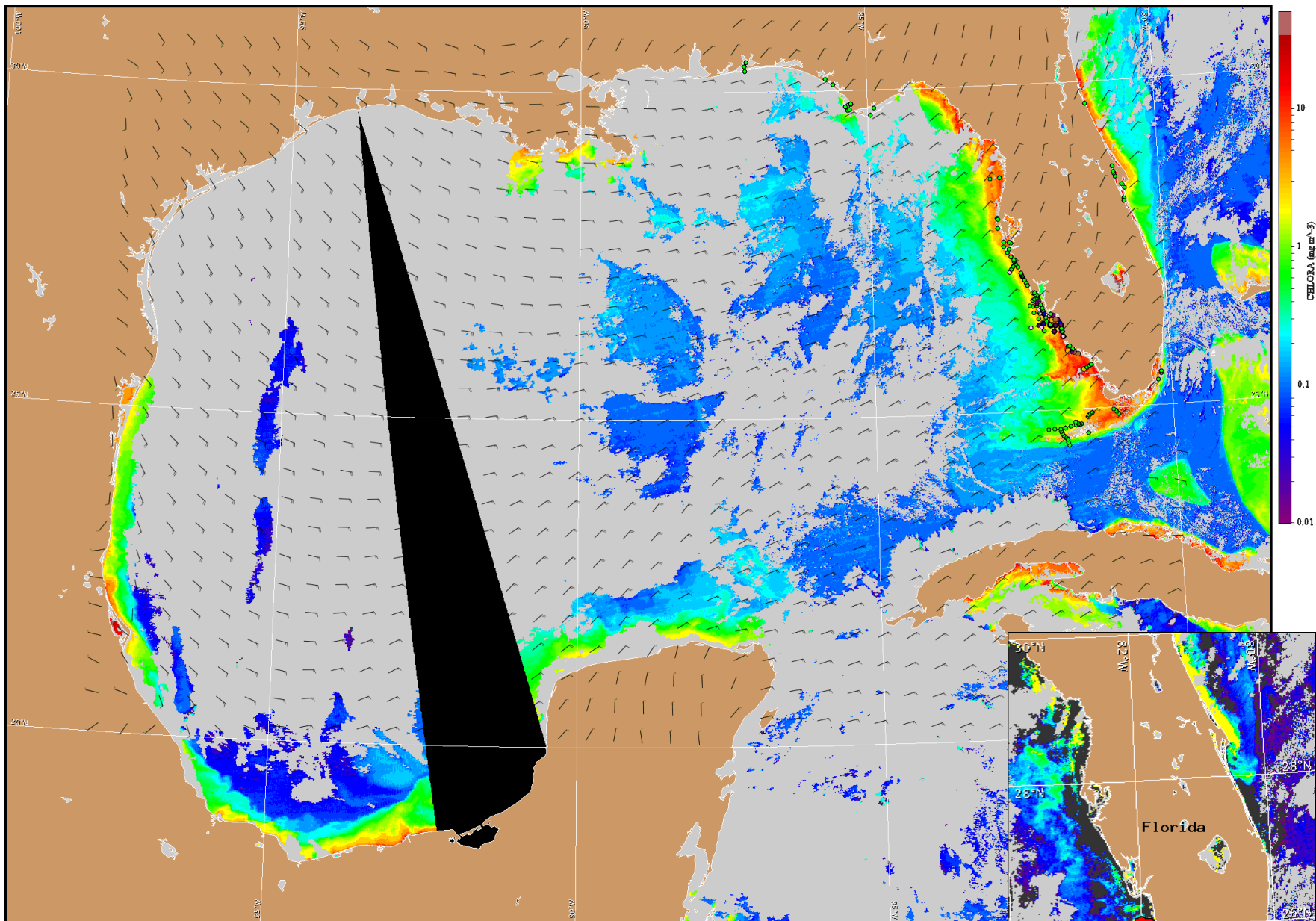
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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



Wind Analysis

Bonita Beach to Englewood (Fort Myers Buoy): Northeast winds (10-15kn, 5-8m/s) today through Friday. East winds (10-20kn, 5-10m/s) Friday night through Saturday. South winds (10-15kn) Sunday through Monday.

Chokoloskee to Bonita Beach (Naples Buoy): Northeast winds (10-20kn) today through Friday. East northeast winds (15-20kn, 8-10m/s) Friday night. East winds (15-20kn) Saturday night becoming south southeast winds (10-20kn) Sunday. South winds (5-10kn, 3-5m/s) Monday.



Satellite chlorophyll image and forecast winds for November 21, 2014 12Z with points representing cell concentration sampling data from November 10 to 18: 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).