



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

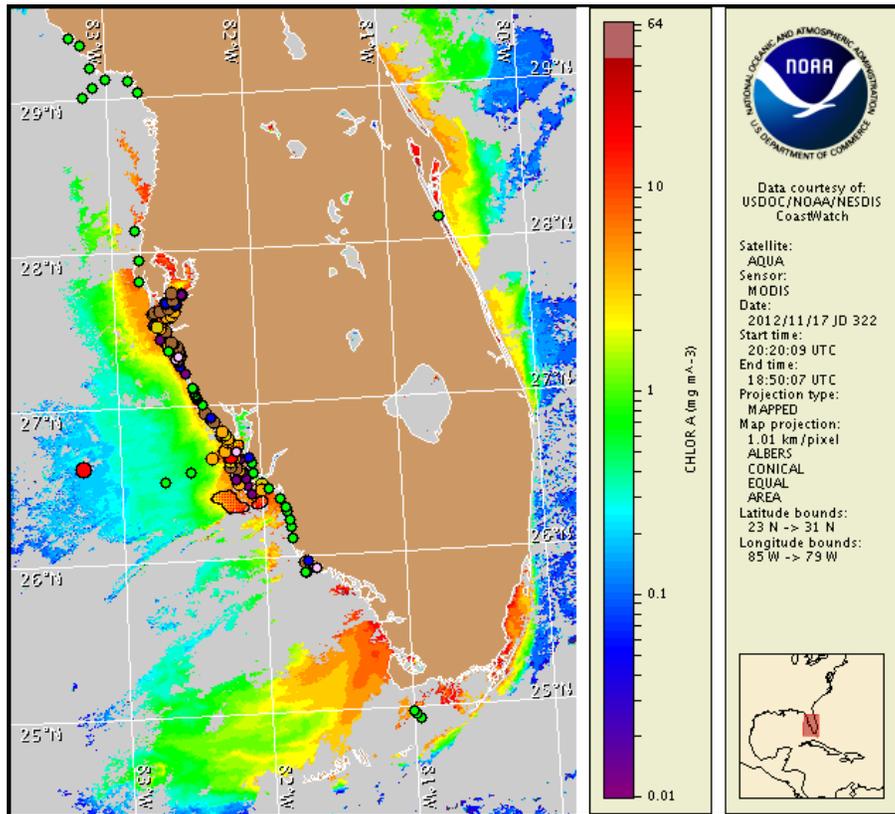
Monday, 19 November 2012

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, November 15, 2012



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s). Cell concentration sampling data from November 9 to 15 shown as 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 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 the Florida FWC Fish and Wildlife Research Institute at:

<http://myfwc.com/research/redtide/events/status/statewide/>

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit at: <http://tidesandcurrents.noaa.gov/hab/bulletins.html>

Conditions Report

Very low to high concentrations of *Karenia brevis* (commonly known as Florida Red Tide) are present along- and offshore from southern Pinellas to Collier counties. Patchy moderate respiratory impacts are possible today, Tuesday, Thursday and Friday in the bay regions of southern Pinellas, Manatee and northern Sarasota counties, with patchy high respiratory impacts possible on Wednesday. Today through Friday, patchy very low respiratory impacts are possible alongshore Sarasota and northern Charlotte counties, patchy high respiratory impacts are possible in the bay regions of Charlotte and Lee counties, and patchy low respiratory impacts are possible in the bay regions of central Collier County. Over the past few days, reports of dead fish and respiratory irritation have been received from the affected regions. No impacts are expected elsewhere alongshore southwest Florida today through Friday, November 23.

Analysis

****Due to the upcoming federal holiday, the next bulletin will be issued on Friday, November 23.****

A harmful algal bloom of *Karenia brevis* is present along- and offshore southwest Florida from southern Pinellas to Collier counties, with concentrations ranging from very low to high. Recent samples collected within the bay regions of southern Pinellas, Manatee and northern Sarasota counties continue to indicate *K. brevis* concentrations ranging from 'very low a' to 'medium' (FWRI; 11/9, 11/14-15). Samples collected within the bay regions of Charlotte and Lee counties and alongshore central Lee County indicate *K. brevis* concentrations ranging from not present to 'medium' (FWRI; 11/14-15). 'Medium' concentrations were also identified from a sample collected 6.36 miles west of the Cayo Costa region of Lee County; samples collected further offshore indicate that *K. brevis* is not present (FWRI; 11/13). Recent samples collected both alongshore northern Collier County and offshore the Florida Keys indicate that *K. brevis* is not present in either region (FWRI, CCPCPD, MML; 11/14).

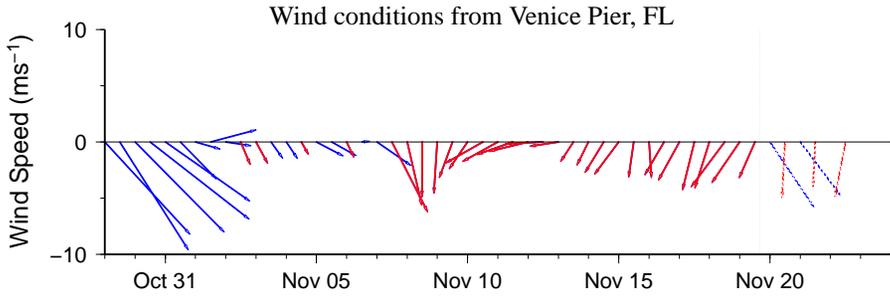
Recent MODIS Aqua imagery (11/17; shown left) is partially obscured by clouds alongshore southern Sarasota, Charlotte, Collier and Monroe counties, limiting analysis. Chlorophyll remains elevated to high (2 to >10 $\mu\text{g/L}$) along- and offshore from Pinellas to Monroe counties (11/17, shown left; 11/15, not shown). A patch of elevated to high chlorophyll (3 to >10 $\mu\text{g/L}$) is visible stretching along- and offshore southern Pinellas County. Chlorophyll remains elevated to high (2 to >10 $\mu\text{g/L}$) along- and offshore Charlotte and Lee counties, with a patch of elevated to very high chlorophyll (3 to >20 $\mu\text{g/L}$) stretching approximately 30 miles from 26°23'59"N 81°58'10"W to 26°24'43"N 82°22'43"W. Although clouds obscure the southern extent of the patch, MODIS Aqua imagery from 11/15 (not shown) indicates that it may extend approximately 45 miles south to central Collier County, 25°43'51"N 81°49'27"W.

Forecasted offshore winds today through Friday may decrease the potential for respiratory impacts along the coast from southern Pinellas to Collier counties, except in the bay regions. North to northeast winds forecasted through Friday may promote the potential for southerly transport of the bloom. Due to upwelling favorable winds, intensification of the bloom may also be possible in southern Lee and Collier counties. ~Kavanaugh, Yang

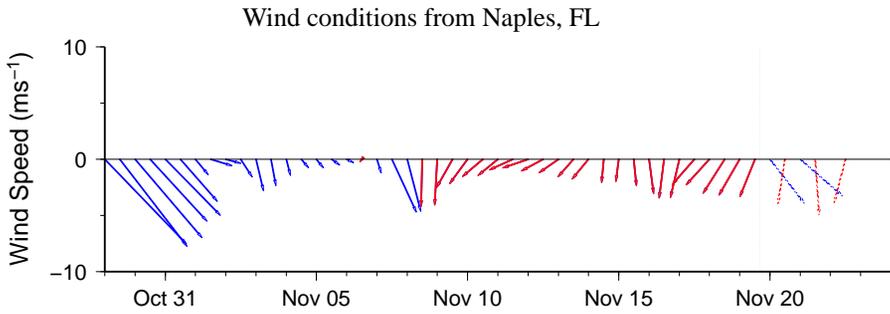
Wind Analysis

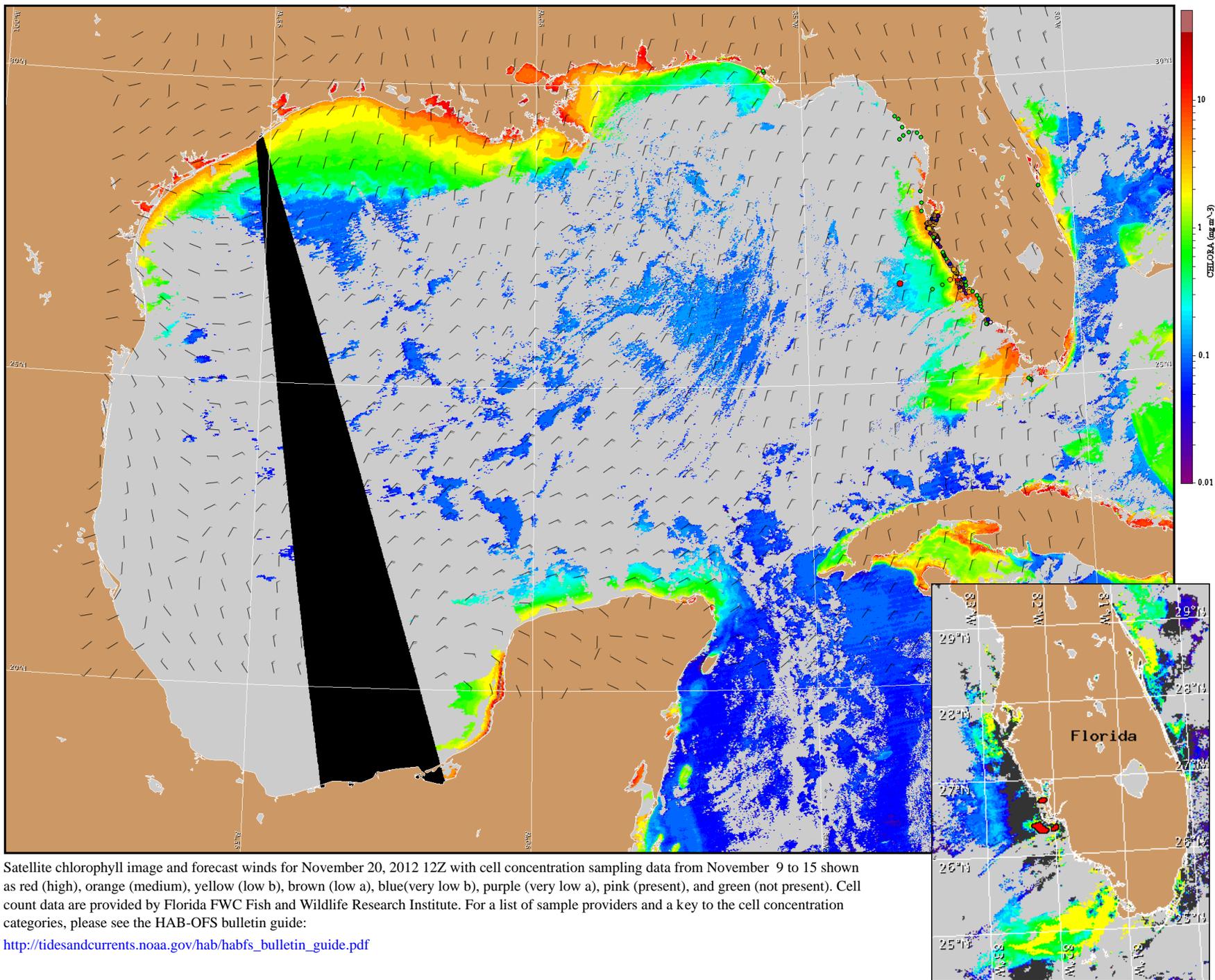
Venice: North winds (10-15 kn, 5-8 m/s) today through Wednesday increasing Wednesday night (15-20 kn, 8-10 m/s). North to northeast winds (10-15 kn) Thursday through Friday.

Naples: North winds (12-17 kn, 6-9 m/s) today becoming north northeast (9-14 kn, 5-7 m/s) tonight. North winds (8-15 kn, 4-8 m/s) Tuesday becoming north to north northeast (12-19 kn, 6-10 m/s) Wednesday through Thursday night. North winds (10-15 kn) Friday.



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 20, 2012 12Z with cell concentration sampling data from November 9 to 15 shown as 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 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).