



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

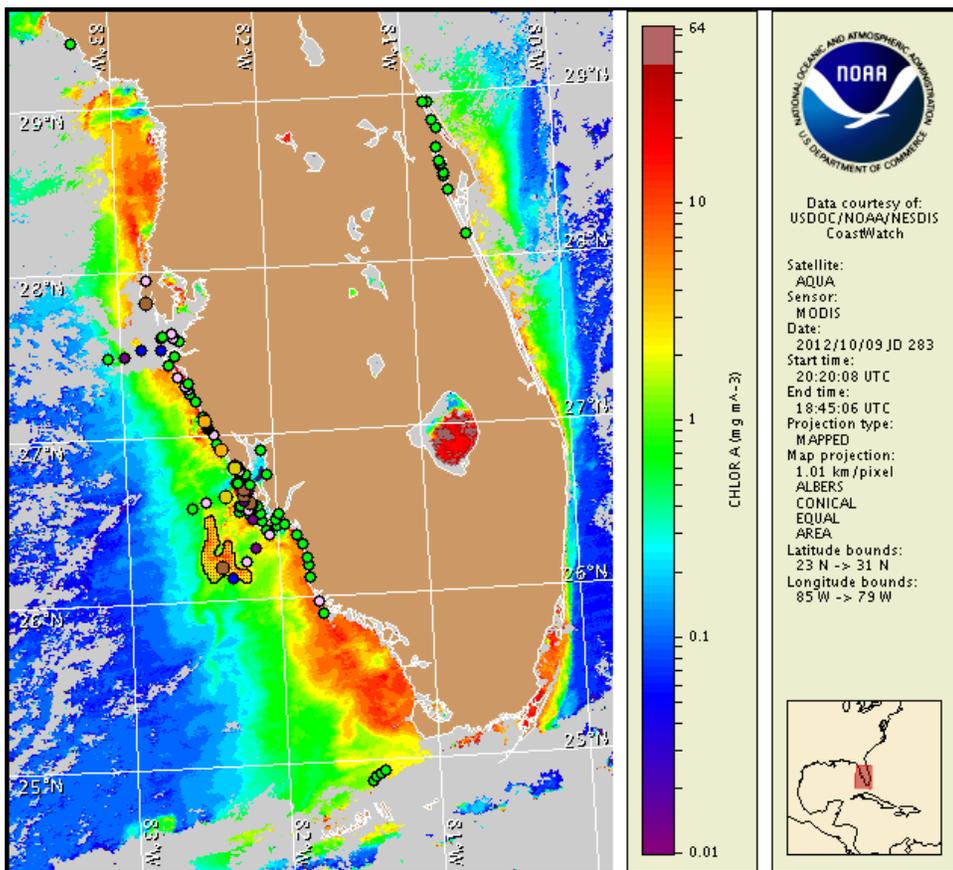
Thursday, 11 October 2012

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Tuesday, October 9, 2012



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from October 1 to 9 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). For a list of cell count data 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

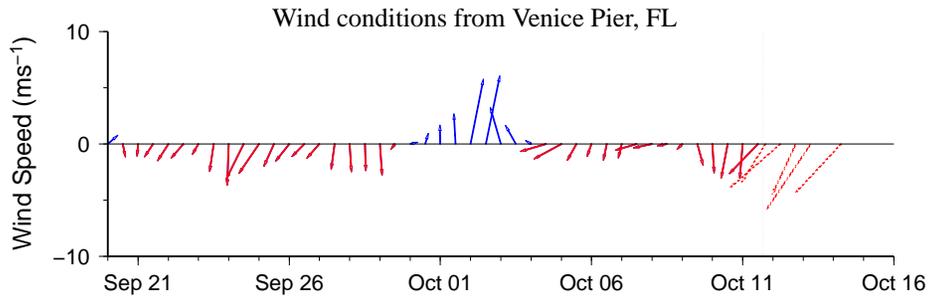
A harmful algal bloom of *Karenia brevis* (commonly known as Florida Red Tide) is present at the coast of Sarasota, Charlotte, in the Gasparilla Pass and northern Pine Island Sound regions of Charlotte and northern Lee, and offshore Lee and Collier counties. Bloom concentrations of *K. brevis* have been identified onshore southern Pinellas County, with harmful algae present onshore southern Manatee County. Today through Sunday, patchy low respiratory impacts are possible in southern Sarasota County, with patchy very low respiratory impacts possible in southern Pinellas, northern Sarasota and Charlotte counties. In the bay regions of Charlotte and northern Lee counties, patchy moderate respiratory impacts are possible today, Friday and Sunday, with patchy high respiratory impacts possible on Saturday. No impacts are expected elsewhere alongshore southwest Florida today through Sunday, October 14. Over the past few days, reports have been received of respiratory irritation and discolored water in southern Sarasota County. Reports of dead fish have also been received alongshore the following county regions: Sarasota, Charlotte, and northern Lee.

Analysis

A harmful algal bloom of *Karenia brevis* is present at the coast of Sarasota, Charlotte, in the Gasparilla Pass and northern Pine Island Sound regions of Charlotte and northern Lee, and offshore Lee and Collier counties. Bloom concentrations of *K. brevis* have been identified onshore southern Pinellas County, with harmful algae present onshore southern Manatee County. One sample collected from alongshore Pinellas County identified a 'low a' concentration of *K. brevis* (FWRI; 10/8). Background to 'very low b' concentrations of *K. brevis* were identified along- and offshore southern Manatee and alongshore northern Sarasota counties (FWRI; 10/4-10). Recent samples alongshore southern Sarasota County indicate *K. brevis* increased to 'medium' to 'high' concentrations (FWRI; 10/8-10). Samples collected from along- and offshore Lee County, offshore northern Collier County and in the Pine Island Sound region of northern Lee County ranged from background to 'low a' (FWRI, CCPCPD; 10/6-8). No *K. brevis* was identified from samples collected alongshore Collier County (FWRI, CCPCPD; 10/8).

Over the past few days, satellite imagery has been partially cloudy alongshore the southwest Florida coastline, limiting analysis. Recent MODIS Aqua imagery (10/10, not shown) shows a patch of elevated to very high chlorophyll (3 to >20 $\mu\text{g/L}$) extending from southern Pinellas to southern Manatee County. Several patches of elevated to very high chlorophyll (3 to >20 $\mu\text{g/L}$) continue to be visible alongshore Sarasota and Charlotte counties. The patches with the highest chlorophyll levels are visible from 27°15'18"N 82°34'15"W to 27°4'52"N 82°30'25"W (MODIS, 10/10) and from 27°6'50"N 82°33'6"W to 26°58'35"N 82°30'1"W (MODIS, 10/9, shown left), extending approximately 10 miles offshore. Patches of elevated to very high chlorophyll (3 to >20 $\mu\text{g/L}$) also continue to be visible alongshore Lee and Collier counties, with a patch of elevated chlorophyll (2 to <10 $\mu\text{g/L}$) located offshore, extending from 26°33'30"N 82°28'42"W to 26°5'13"N 82°14'16"W (MODIS, 10/9).

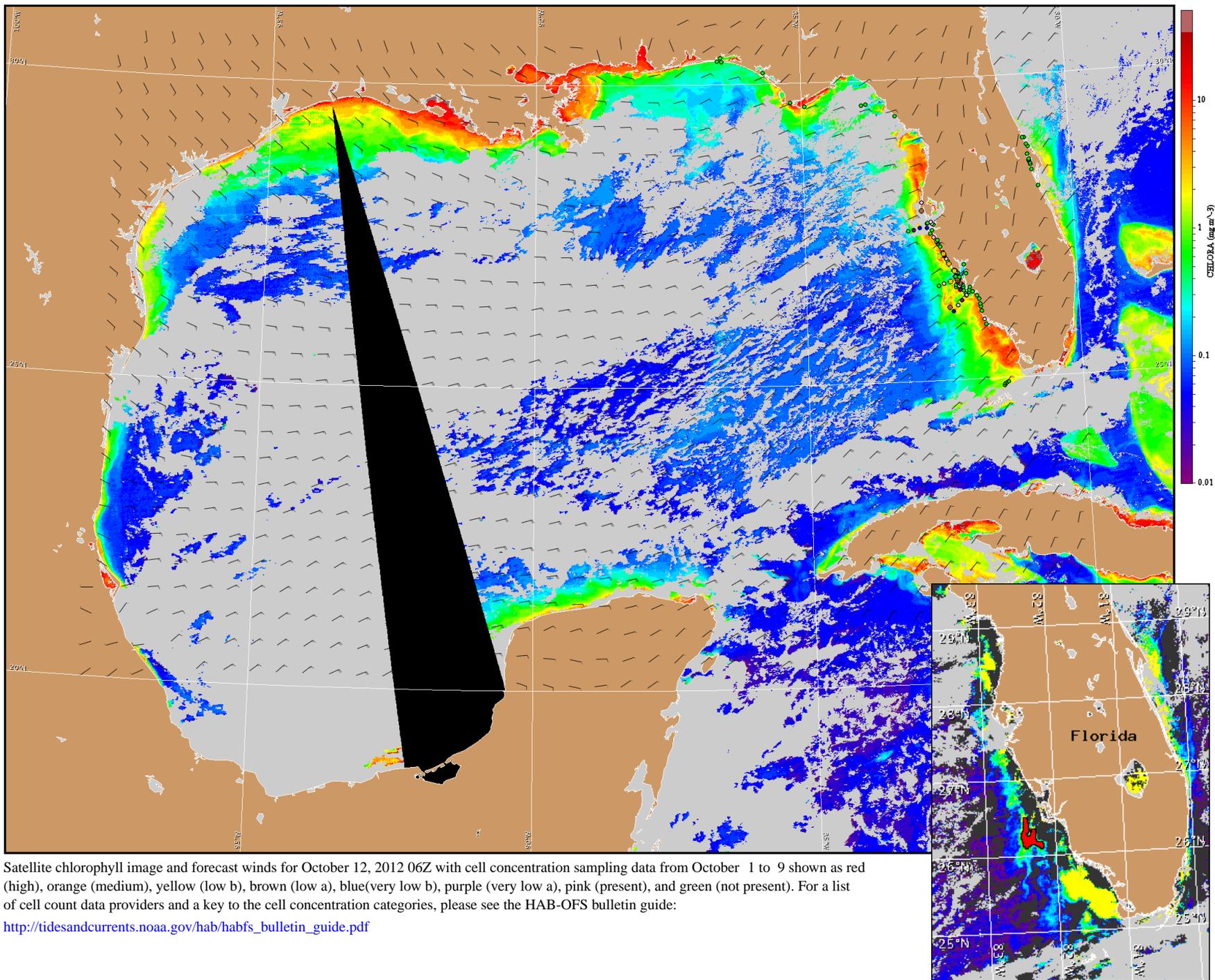
Forecasted offshore winds will minimize the potential for respiratory impacts, except in the bay regions of Charlotte and Lee Counties, and reduce the potential for further bloom formation at the coast through Sunday, October 14. ~Kavanaugh, Davis



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

Southwest Florida: Northeast winds (10-20 kn, 5-10 m/s) today through Saturday. East winds (15-20 kn, 8-10 m/s) Saturday night into Sunday. Northeast winds (5-10 kn, 3-5 m/s) Sunday becoming east winds (10 kn, 5 m/s) Sunday night.



Satellite chlorophyll image and forecast winds for October 12, 2012 06Z with cell concentration sampling data from October 1 to 9 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). For a list of cell count data 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).