



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

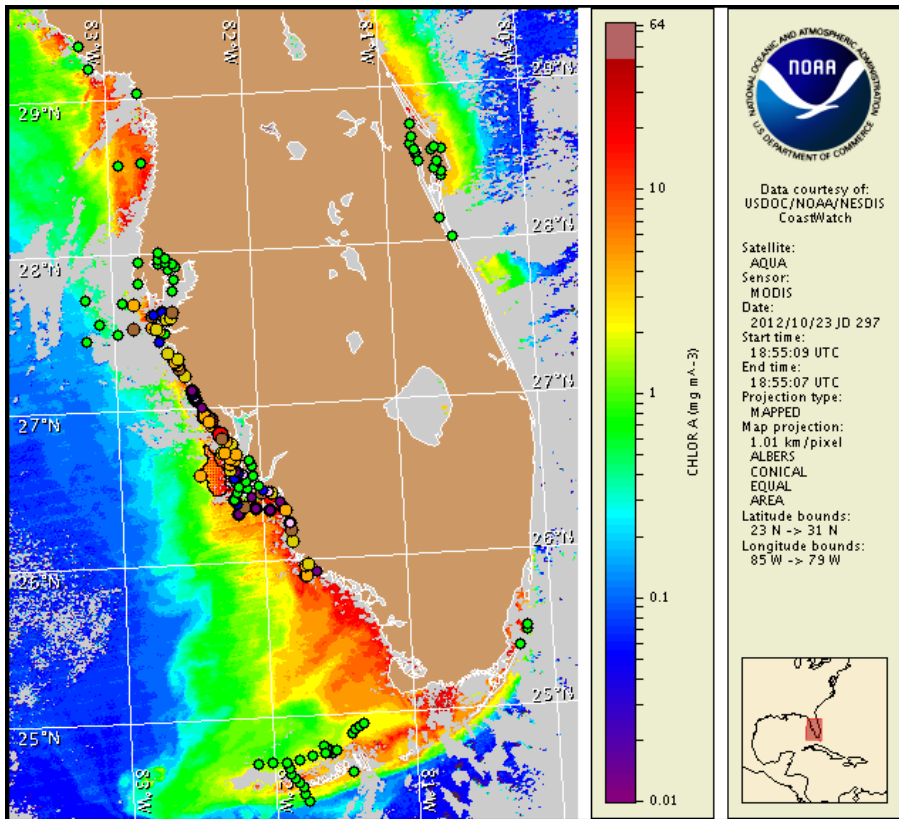
Thursday, 25 October 2012

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, October 22, 2012



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s). Cell concentration sampling data from October 15 to 23 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

A harmful algal bloom of *Karenia brevis* (commonly known as Florida Red Tide) is present along- and offshore southern Pinellas and Manatee, alongshore Sarasota and Charlotte, in the Gasparilla Pass and northern Pine Island Sound regions of Charlotte and northern Lee, along- and offshore Lee and northern Collier, and in the Marco Island region of southern Collier County. Patchy high respiratory impacts are possible today through Monday alongshore northern Manatee, Charlotte, in the Gasparilla Pass and Pine Island Sound regions of Charlotte and northern Lee, and in the Marco Island region of southern Collier County. In southern Pinellas, patchy very low respiratory impacts are possible today and Monday, with patchy low respiratory impacts possible Friday through Sunday. In northern Sarasota and northern Collier counties, patchy very low respiratory impacts are possible today and Monday, with patchy high respiratory impacts possible Friday through Sunday. In southern Sarasota County, patchy low respiratory impacts are possible today and Monday with patchy high respiratory impacts possible Friday through Sunday. In southern Lee County, patchy very low respiratory impacts are possible today and Monday, with patchy moderate respiratory impacts possible Friday through Sunday. In the eastern San Carlos Bay region of southern Lee County, patchy low respiratory impacts are possible today, with patchy very low impacts possible Friday through Monday. Over the past several days, fish kills have been reported in Lee and Collier counties. No impacts are expected elsewhere alongshore southwest Florida today through Monday, October 29.

Analysis

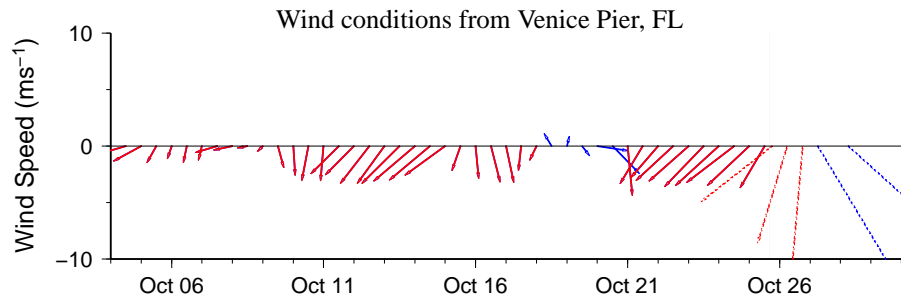
A harmful algal bloom of *Karenia brevis* is present alongshore southwest Florida from southern Pinellas to southern Collier counties, in the Gasparilla Pass and northern Pine Island Sound regions of Charlotte and northern Lee, and offshore southern Pinellas, Manatee, Lee, and northern Collier counties. Recent sampling alongshore the Marco Island region has confirmed an extension of the bloom into southern Collier County, with 'very low a' to 'medium' *K. brevis* concentrations identified throughout the area (FWRI, CCPCPD; 10/22). Samples collected alongshore northern Collier County continue to indicate background to 'low b' *K. brevis* concentrations from Vanderbilt Beach to the Naples Pier, with a decrease in concentrations from 'medium' to 'low a' at Seagate Clam Pass (FWRI; 10/22). While no *K. brevis* was identified in samples collected alongshore northern Pinellas County early this week, 'medium' concentrations were identified ~8 mi offshore St. Pete Beach, and samples collected alongshore the Mullet Key and Skyway Pier area of southern Pinellas continue to indicate 'very low b' to 'low a' concentrations (FWRI; 10/20-22). 'Low a' *K. brevis* concentrations were also identified offshore Manatee County, ~8 mi west of Anna Maria Island, and several 'low a' to 'low b' *K. brevis* concentrations were identified alongshore Manatee County from Mead Point to just offshore Harbor Key (FWRI; 10/18-23). Samples collected alongshore Sarasota County on Monday indicated an increase in *K. brevis* concentrations at the coast in northern Sarasota and a decrease in concentrations alongshore southern Sarasota, with 'low b' to 'medium' concentrations identified from Longboat Key Beach to Turtle Beach, 'very low a' to 'very low b' concentrations from Nokomis Beach to Manasota Beach, and a decrease from 'high' to 'medium' concentrations at Blind Pass (SCHD, FWRI; 10/22). In the Pine Island Sound region of northern Lee County, *K. brevis* concentrations continue to range from 'medium' concentrations at the northern end of the Sound to 'not present' at the southern end (FWRI; 10/22), and up to 'medium' concentrations continue to be identified

several miles offshore Captiva Island (FWRI; 10/20). One 'very low b' sample was identified in eastern San Carlos Bay (FWRI; 10/22). No *K. brevis* was identified in samples collected in the Florida Keys early this week (MML; 10/19).

Recent MODIS Aqua imagery (10/23; shown page 1) is patchy alongshore southwest Florida, limiting analysis. Elevated to very high chlorophyll (3 to >20 $\mu\text{g/L}$) is visible stretching along- and offshore from Charlotte to Monroe counties. Patches of very high chlorophyll (>20 $\mu\text{g/L}$) continue to be visible along- and offshore northern Lee County and alongshore southern Lee to northern Collier counties.

Forecasted winds Friday through Sunday may increase the potential for respiratory impacts at the coast in southwest Florida.

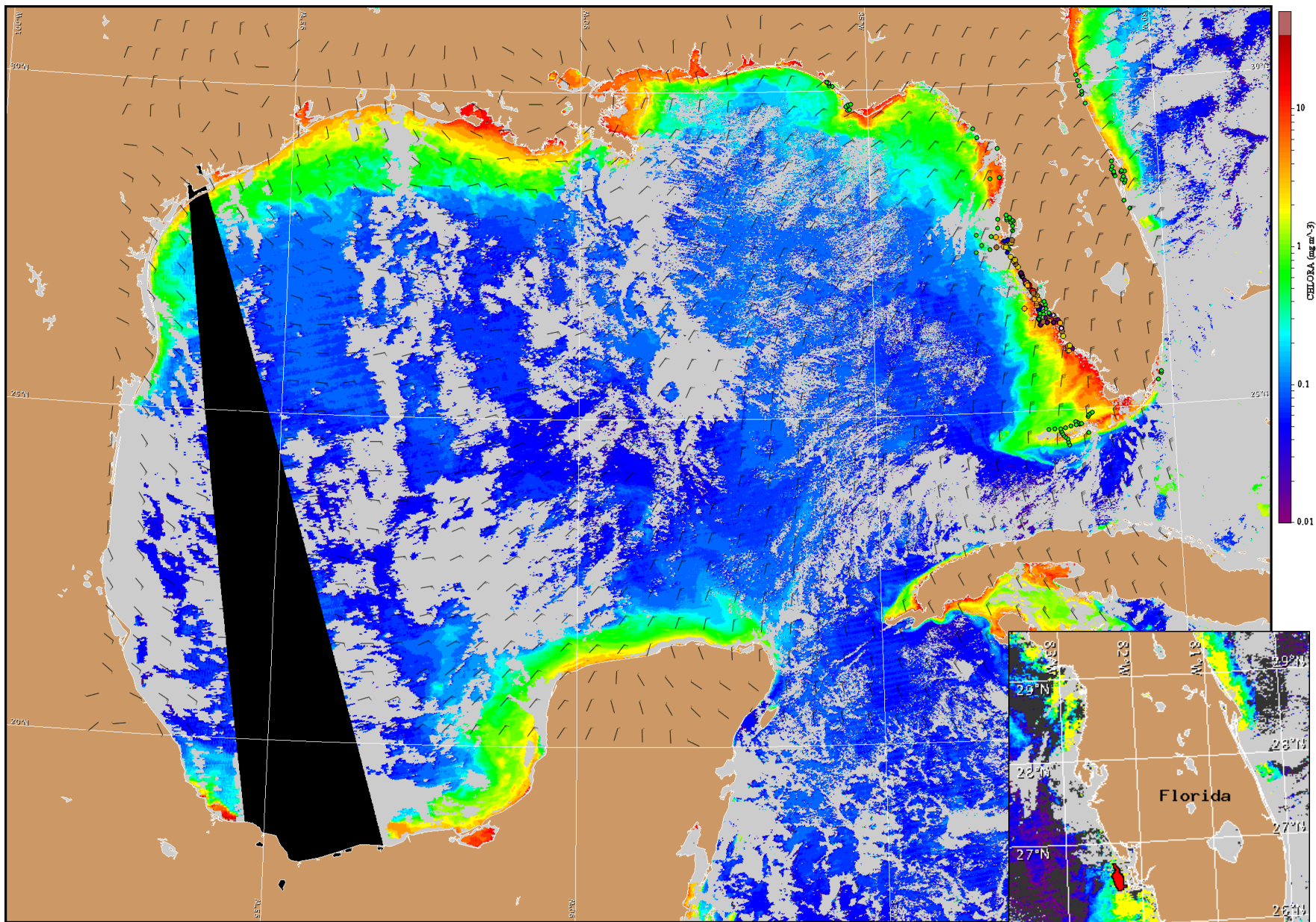
Derner, Burrows



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 (15-25kn, 8-13m/s) today. North winds (20-25kn, 10-13m/s) Friday becoming northwest winds (20-25kn) Friday night through Saturday. North winds (20kn, 10m/s) Saturday night. Northwest winds (15-20kn, 8-10m/s) Sunday becoming north (20kn) Sunday night through Monday.



Satellite chlorophyll image and forecast winds for October 26, 2012 06Z with cell concentration sampling data from October 15 to 23 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).