



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

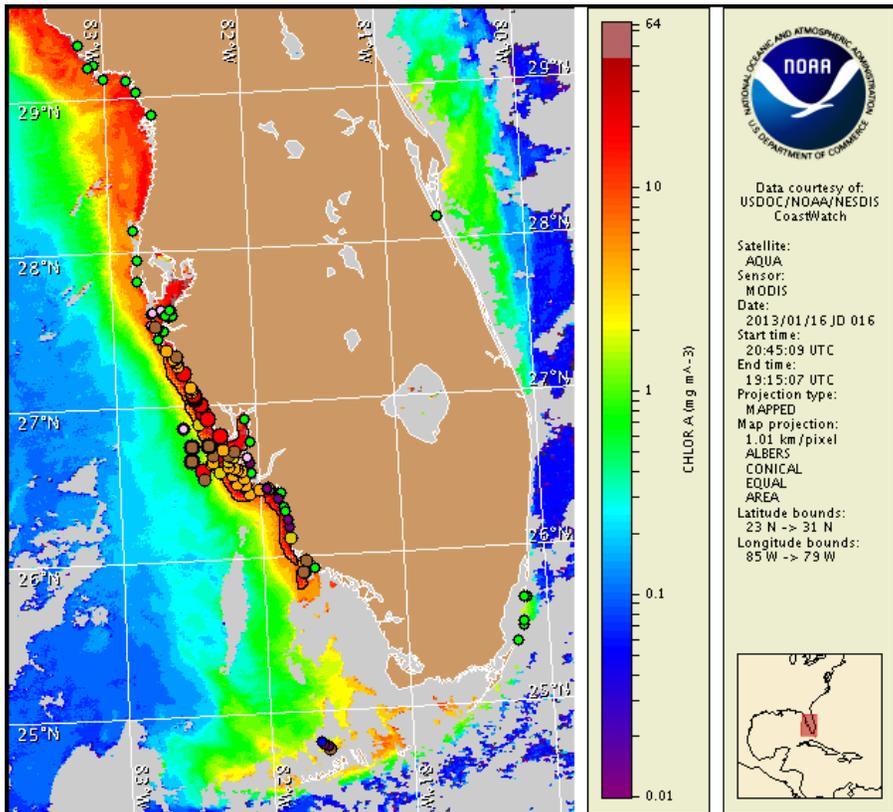
Thursday, 17 January 2013

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, January 14, 2013



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s). Cell concentration sampling data from January 7 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, as well as offshore the gulfside of the lower Florida Keys. In the bay regions of southern Manatee and northern Sarasota counties, patchy low respiratory impacts are possible today through Monday. Alongshore Sarasota and northern Charlotte counties, patchy high respiratory impacts are possible today, with patchy moderate respiratory impacts possible Friday through Monday. In the bay regions of Charlotte, Lee, and Collier counties, patchy high respiratory impacts are possible today through Monday. Alongshore southern Lee County, patchy low respiratory impacts are possible today, with patchy very low respiratory impacts possible Friday through Monday. Alongshore northern Collier County, patchy moderate respiratory impacts are possible today, with patchy very low respiratory impacts possible Friday through Monday. No respiratory impacts are expected elsewhere alongshore southwest Florida, including the Florida Keys, today through Tuesday, January 22. Over the past few days, reports of respiratory irritation were received from Manatee, Sarasota and Charlotte counties. Reports of dead fish were received from Manatee, Sarasota, Lee, and Collier counties.

Analysis

Due to the upcoming federal holiday, the next bulletin will be issued on Tuesday, January 22.

Southwest Florida: A harmful algal bloom of *Karenia brevis* is present along- and offshore southwest Florida from southern Pinellas to Collier counties, with *K. brevis* concentrations ranging from 'not present' to 'high'. Samples received this week indicate that *K. brevis* concentrations have increased along the coast of Sarasota County, with 'medium' to 'high' concentrations identified alongshore northern to southern Sarasota, and 'low a' concentrations identified at the Ringling Causeway and Lido Beach (SCHD, FWRI; 1/14). Samples also indicated increased *K. brevis* concentrations in Charlotte County, with 'high' concentrations identified at Englewood Beach and at the northern end of Gasparilla Sound (FWRI; 1/15). Samples collected throughout the Pine Island Sound region of Lee County identified 'low a' to 'medium' *K. brevis* concentrations, with background to 'very low a' concentrations identified alongshore central Lee County (FWRI; 1/14). 'Very low a' to 'low b' concentrations were identified alongshore northern Collier County, and one 'low a' sample was collected along South March Beach in southern Collier (FWRI; 1/14). One 'low a' sample was collected alongshore School Key in Manatee County, and samples continue to indicate not present to background concentrations in Pinellas County (FWRI; 1/13-1/15). Respiratory irritation continues to be reported at several beaches along Sarasota County; reports were also received from Manatee (Manatee Beach, Coquina Beach) and Charlotte (GI South Bridge) counties (MML; 1/13-1/17). Numerous fish kills have also been reported over the last several days in Manatee, Sarasota, Lee, and Collier counties (FWRI; 1/13-1/16).

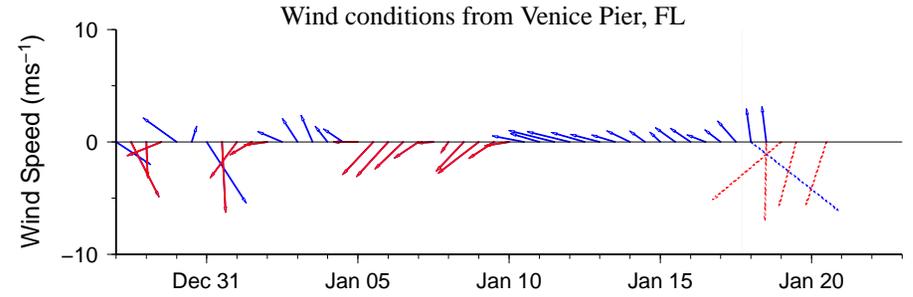
In recent MODIS Aqua imagery (1/16, shown left), elevated to high chlorophyll (4-20 $\mu\text{g/L}$) is visible stretching along- and offshore the southwest Florida coastline from Pinellas to Collier counties, with patches of very high chlorophyll ($>20 \mu\text{g/L}$) visible alongshore Sarasota and southern Lee to Collier counties. Imagery is obscured by clouds along- and offshore Monroe County, limiting analysis in this region.

Upwelling favorable winds forecast over the next several days may increase the potential for bloom intensification along the coast. Offshore winds forecast Friday through Monday may decrease the likelihood of respiratory impacts alongshore southwest Florida, except for the bay regions of Charlotte, Lee, and Collier counties.

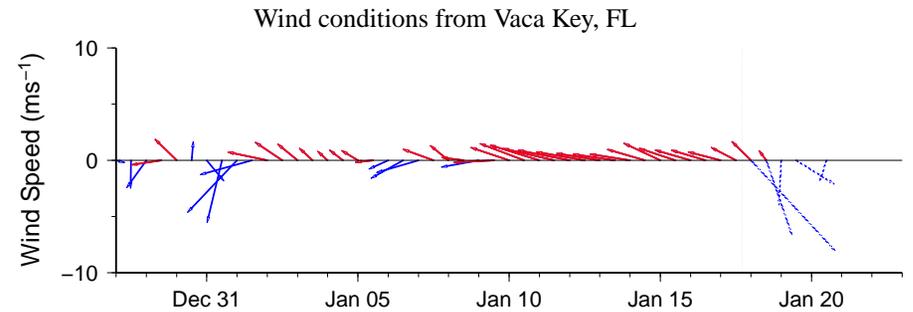
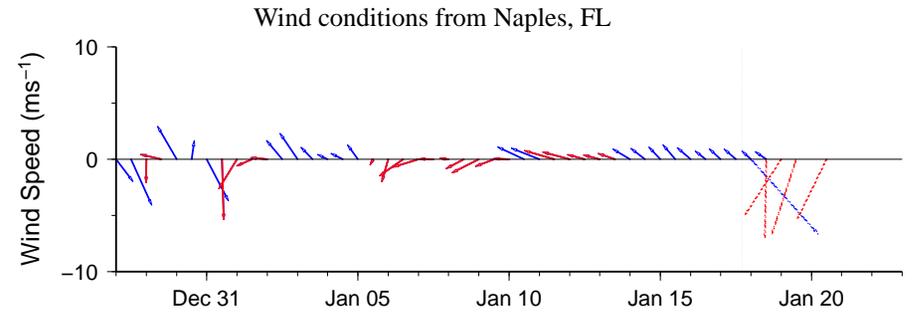
Florida Keys: A harmful algal bloom of *Karenia brevis* is present offshore the gulf side of the lower Florida Keys. The most recent samples received indicate 'very low a' to 'low a' *K. brevis* concentrations offshore Sawyer Key and not present to 'very low a' concentrations offshore Harbor Key (MML; 1/4-7). MODIS Aqua imagery (1/16; shown page 1) is obscured by clouds along- and offshore the Florida Keys, limiting analysis. Elevated chlorophyll (2-7 $\mu\text{g/L}$) is visible in patches along- and offshore the lower and middle Keys. Forecasted winds Friday through Monday may promote onshore transport of the bloom.

Derner, Burrows

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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).

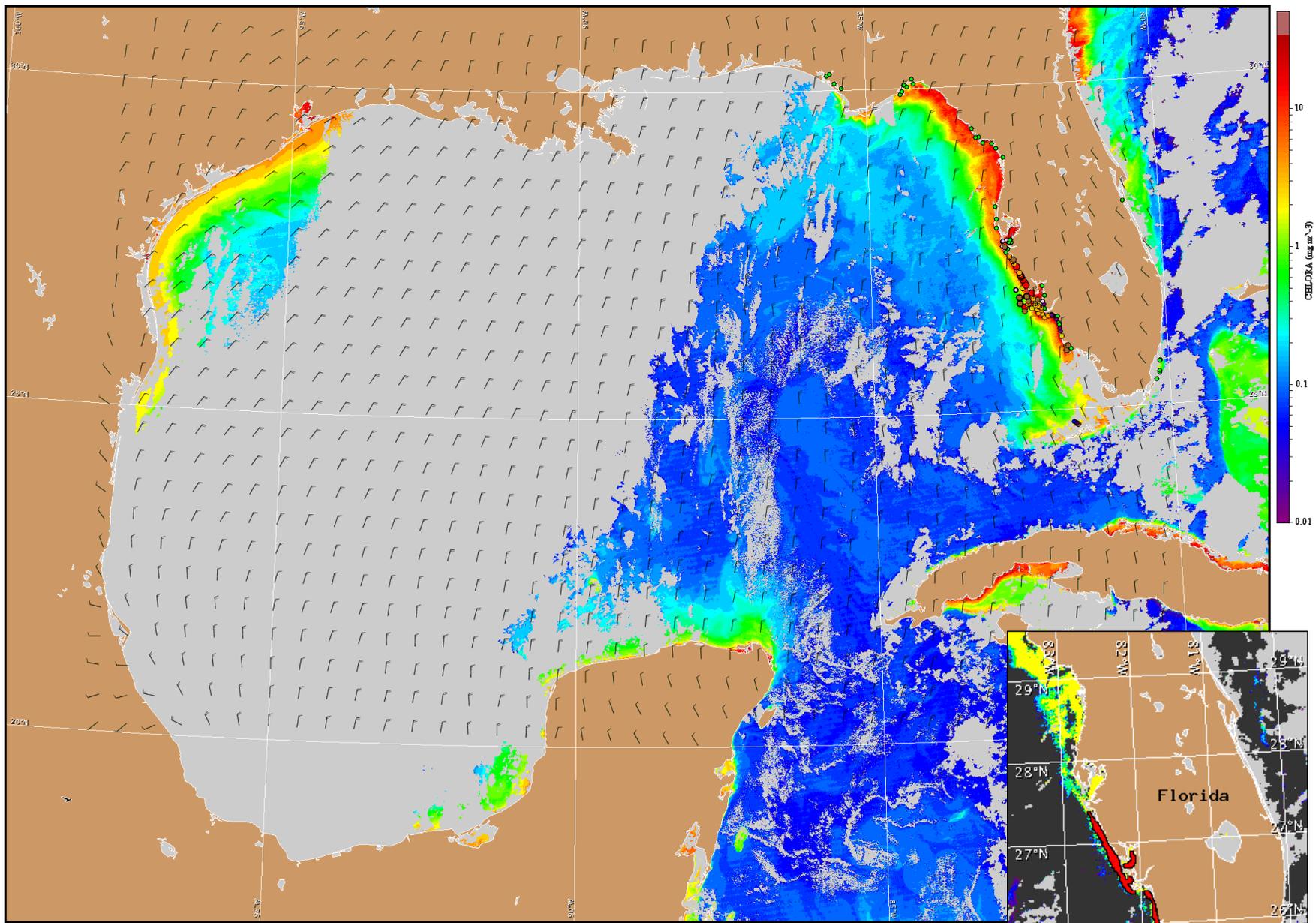


Wind Analysis

Pinellas to Lee counties: West winds (20-30kn, 10-15m/s) today becoming northwest to north winds (20-25kn, 10-13m/s) tonight. Northeast winds (5-20kn, 3-10m/s) Friday through Saturday night. North to northeast winds (5-15kn, 3-8m/s) Sunday and Monday.

Collier and Monroe counties: South southwest winds (5-8kn, 3-4m/s) today becoming west (13-18kn, 7-9m/s) this afternoon. North-northwest winds (21-26kn, 11-13m/s) tonight. North northeast winds (12-17kn, 6-9m/s) Friday. Northeast winds (11-18kn, 6-9m/s) Friday night through Sunday. North winds (7-12kn, 4-6m/s) Monday.

Gulf side of lower Florida Keys: Variable west winds (10-25kn, 5-13m/s) today becoming northwest to north winds (20-25kn) tonight. North winds (15-20kn, 8-10m/s) Friday becoming north to northeast winds (10-15kn) Friday night through Monday.



Satellite chlorophyll image and forecast winds for January 18, 2013 12Z with cell concentration sampling data from January 7 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).