



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

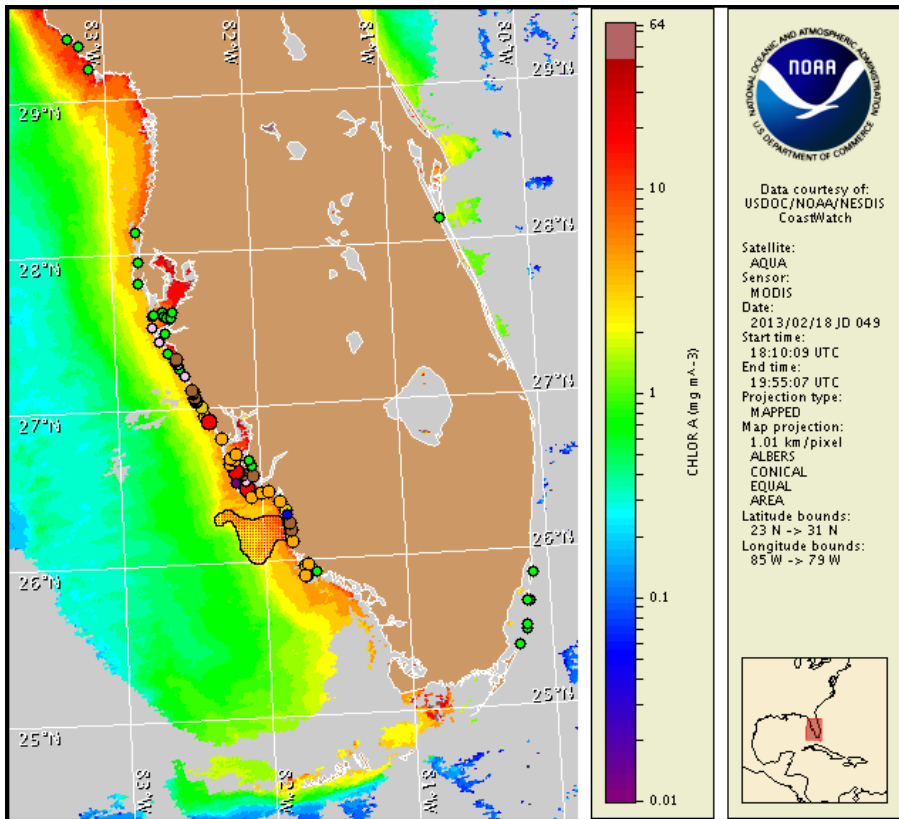
Tuesday, 19 February 2013

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, February 14, 2013



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s). Cell concentration sampling data from February 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 southwest Florida. Alongshore Sarasota County, patchy low respiratory impacts are possible today, with patchy very low respiratory impacts possible Wednesday and Thursday. Alongshore Charlotte County, patchy high respiratory impacts are possible today, with patchy moderate respiratory impacts possible Wednesday and patchy low respiratory impacts possible Thursday. Alongshore northern and central Lee County, patchy low respiratory impacts are possible today, with patchy very low respiratory impacts possible Wednesday and patchy moderate respiratory impacts possible Thursday. In the bay regions of southern Charlotte and northern and central Lee counties, patchy moderate respiratory impacts are possible today through Thursday. In the bay regions of central Lee County, patchy high respiratory impacts are possible today through Thursday. Alongshore southern Lee County, patchy low respiratory impacts are possible today, with patchy moderate respiratory impacts possible Wednesday and patchy very low respiratory impacts possible Thursday. Alongshore northern and central Collier County, patchy low respiratory impacts are possible today and Wednesday with patchy very low respiratory impacts possible Thursday. In the bay regions of central Collier County, patchy moderate respiratory impacts are possible today through Thursday. No respiratory impacts are expected elsewhere alongshore southwest Florida, including the Florida Keys, today through Thursday, February 21. Over the past few days, reports of respiratory irritation were received from Sarasota, Charlotte, Lee and Collier counties. Reports of dead fish were also received from Lee and Collier counties.

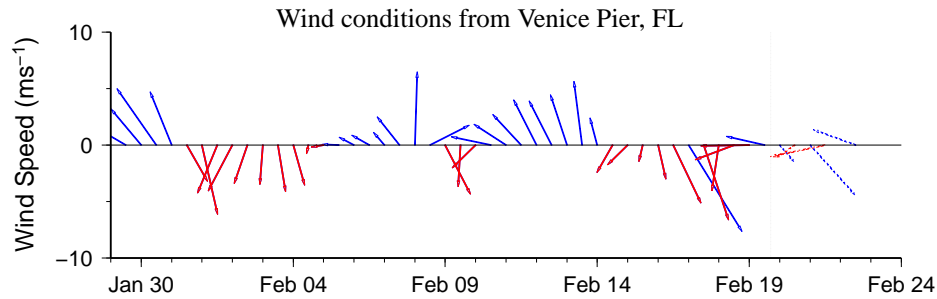
Analysis

A harmful algal bloom of *Karenia brevis* is present along- and offshore southwest Florida from Sarasota to Collier counties, with *K. brevis* concentrations ranging from 'not present' to 'high'. Recent samples collected alongshore and in the bay regions of Pinellas and Manatee counties indicate that *K. brevis* ranges from 'not present' to background concentrations (FWRI; 2/12-14). Samples collected in the bay regions of southern Manatee and northern Sarasota counties indicate that *K. brevis* concentrations range from 'not present' to 'low' (FWRI, 2/11-15). Alongshore northern Collier County, recent samples indicate *K. brevis* concentrations range from 'very low b' to 'medium' (FWRI, CCPCPD; 2/14-15). Alongshore and in the bay regions of central Collier County, 'medium' concentrations of *K. brevis* were identified (FWRI, CCPCPD; 2/15). Over the past few days, reports of respiratory irritation were received from southern Sarasota County, Charlotte County, southern Lee County, and Collier (CCPCPD, MML; 2/14-17). Reports of dead fish were also received from Lee and Collier counties (MML, CCPCPD, FWRI; 2/14-17).

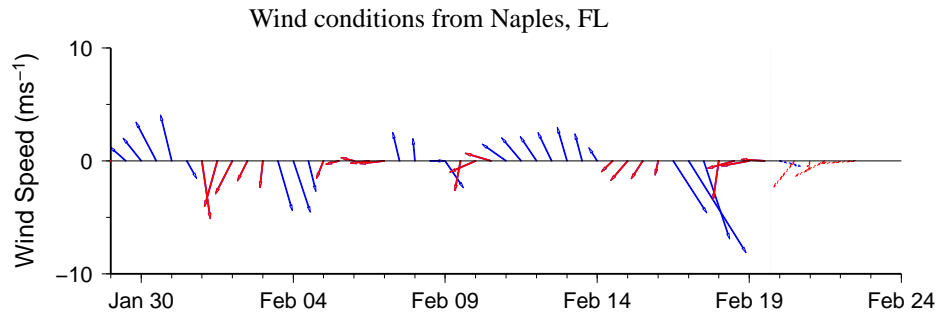
In recent MODIS Aqua imagery from 2/17 to 2/18 (2/18, shown left), the chlorophyll level has generally decreased alongshore and offshore southwest Florida, although elevated chlorophyll (2-9 $\mu\text{g/L}$) continues to be visible stretching along- and offshore the coast of southwest Florida from Pinellas to Monroe counties and offshore the gulf-side of the Lower and Middle Keys. MODIS Aqua imagery indicates that the bloom may have been transported south, with a few very small patches of high chlorophyll (>10 $\mu\text{g/L}$) visible alongshore from southern Lee to northern Monroe counties. The widest elevated chlorophyll patch extends between 10-20 miles offshore northern Collier County. Continued sampling of these areas is recommended.

Forecasted variable winds today through Thursday may minimize the transport of the bloom.

Yang, Kavanaugh



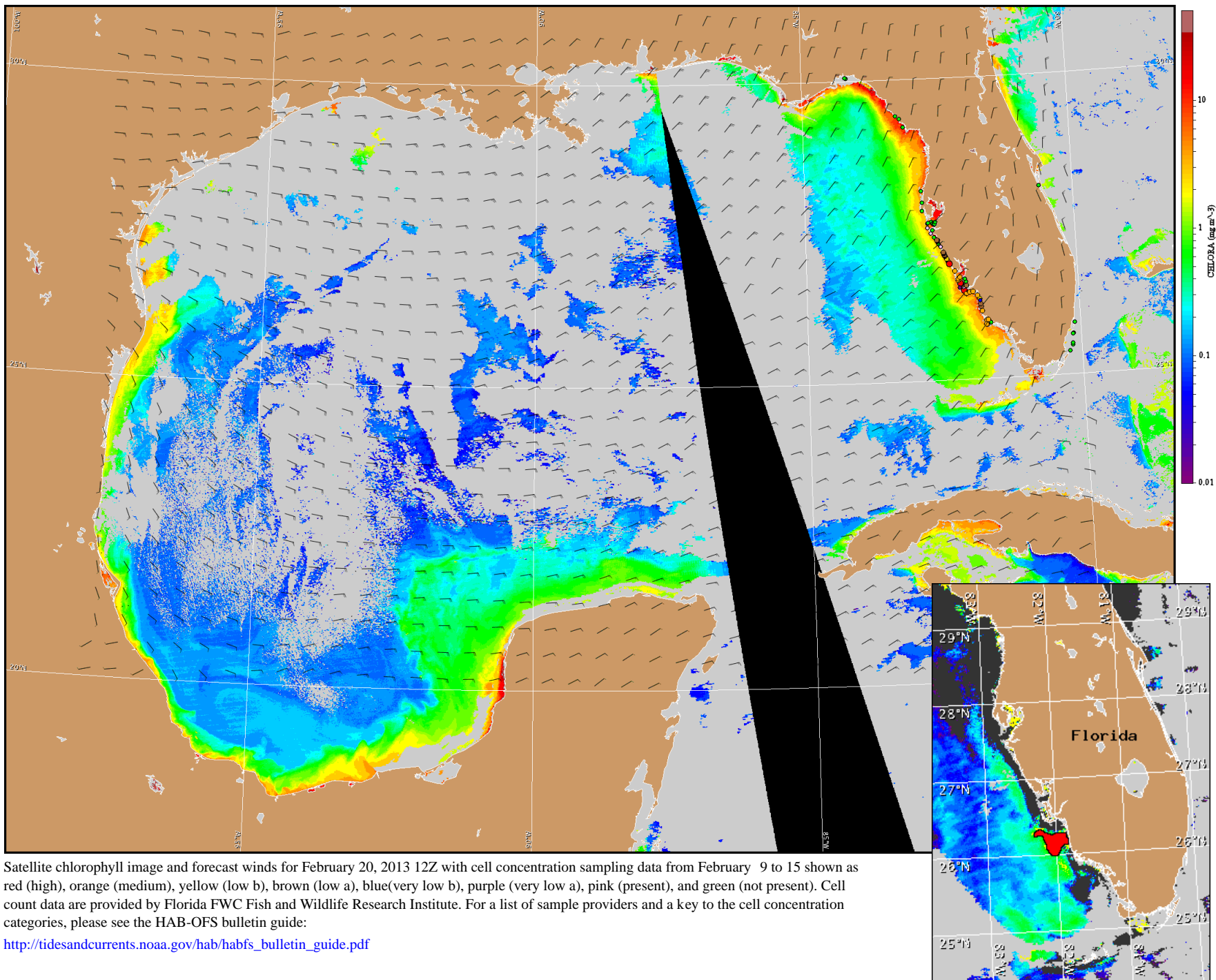
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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



Wind Analysis

Pinellas to Collier County: Southeast winds (5-10kn, 3-5m/s) today becoming south (15kn, 8m/s) in the afternoon and then weak and variable tonight. Northeast winds (5-10kn) Wednesday becoming northwest (10-15kn) Wednesday afternoon. North winds (15kn) Wednesday night becoming east after midnight. East winds (15kn) Thursday becoming southeast (5-15kn, 3-8m/s) Thursday night.

Collier and Monroe counties: East southeast winds (7-12kn, 4-6m/s) today becoming south (6-11kn, 3-6m/s) this afternoon, then northeast (6-11kn) tonight. East northeast winds (7-17kn, 4-9m/s) Wednesday. East southeast winds (11-16kn, 6-8m/s) Thursday.



Satellite chlorophyll image and forecast winds for February 20, 2013 12Z with cell concentration sampling data from February 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).