



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

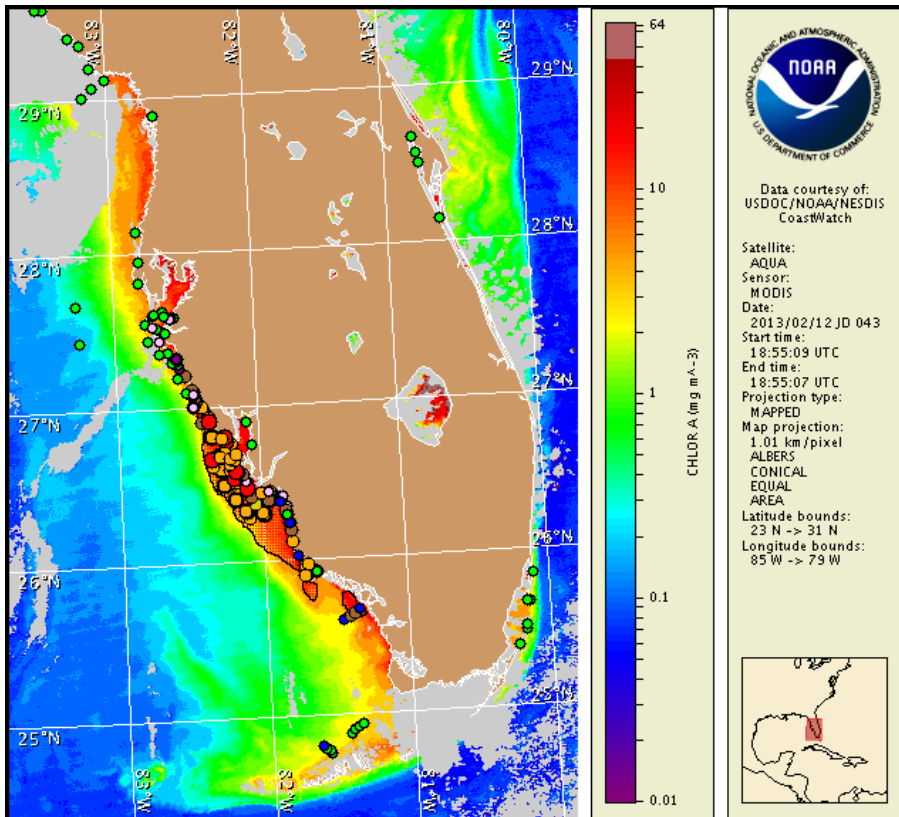
Thursday, 14 February 2013

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, February 11, 2013



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s). Cell concentration sampling data from February 4 to 12 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 northern Sarasota County, patchy very low respiratory impacts are possible today, Friday, Sunday and Monday, with patchy low respiratory impacts possible Saturday. Alongshore southern Sarasota, Charlotte and northern and central Lee counties, patchy low respiratory impacts are possible today, Friday, Sunday and Monday, with patchy high respiratory impacts possible Saturday. In the bay regions of southern Charlotte and northern and central Lee counties, patchy high respiratory impacts are possible today through Monday. Alongshore southern Lee County, patchy moderate respiratory impacts are possible today, patchy low respiratory impacts are possible Friday, Sunday and Monday, and patchy high respiratory impacts are possible Saturday. Alongshore northern and central Collier County, patchy low respiratory impacts are possible today, patchy very low respiratory impacts are possible Friday, Sunday and Monday, and patchy moderate respiratory impacts are possible Saturday. In the bay regions of central Collier County, patchy moderate respiratory impacts are possible today through Monday. Alongshore northern Monroe County, patchy low respiratory impacts are possible today and Saturday, with patchy very low respiratory impacts possible Friday, Sunday and Monday. No respiratory impacts are expected elsewhere alongshore southwest Florida, including the Florida Keys, today through Tuesday, February 19. 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 Charlotte, Lee and Collier counties.

Analysis

****Due to the upcoming federal holiday, the next bulletin will be issued on Tuesday, February 19.****

A harmful algal bloom of *Karenia brevis* is present along- and offshore southwest Florida from Sarasota to Monroe 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). Samples collected alongshore Sarasota County indicate that *K. brevis* concentrations range from not present to 'medium' concentrations, with the highest concentrations in southern Sarasota County (FWRI, SCHD; 2/11). Samples collected alongshore northern Charlotte County, in the bay regions of southern Charlotte County and offshore northern Lee County continue to indicate 'medium' to 'high' concentrations of *K. brevis* (FWRI; 2/7-12). Alongshore northern Collier County, recent samples indicate *K. brevis* concentrations range from 'very low b' to 'low a' (FWRI, CCPCPD; 2/11-12). Alongshore and in the bay regions of central Collier County, 'medium' concentrations of *K. brevis* were identified (FWRI, CCPCPD; 2/11-12). Over the past few days, reports of respiratory irritation were received from southern Sarasota County, Charlotte County and in several locations in southern Lee County (MML; 2/11-14). Reports of dead fish were also received from Charlotte, Lee and Collier counties (MML, CCPCPD, FWRI; 2/11-13).

In recent MODIS Aqua imagery from 2/11 to 2/12 (2/12, shown left), elevated chlorophyll (2-7 $\mu\text{g/L}$) 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, with patches of high to very high chlorophyll (>10 to >20 $\mu\text{g/L}$) visible alongshore from southern Sarasota to northern Monroe counties. Patches of anomalously high chlorophyll continue to stretch from alongshore southern Sarasota to along- and off-shore central Collier counties (27°06'31"N 82°28'30"W to 25°50'6"N 81°40'47"W), with a patch also remaining visible along- and offshore northern Monroe County (25°47'30"N 81°27'26"W to 25°36'35"N 81°16'29"W). The widest patch extends between 10-20 miles offshore Lee County. Continued sampling of these areas is recommended.

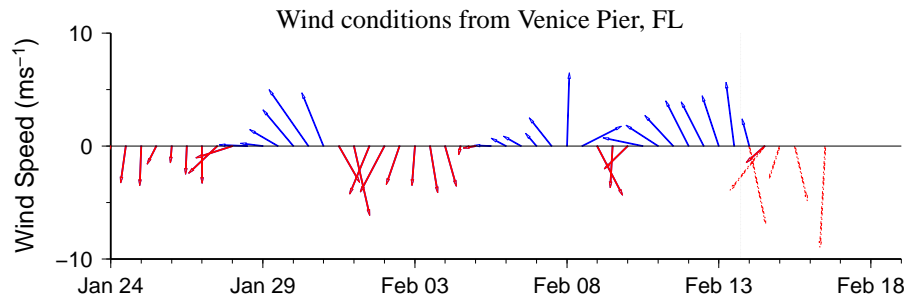
Forecasted onshore winds Saturday may increase the likelihood of respiratory impacts alongshore southwest Florida. Forecasted winds today through Sunday may also promote southerly transport of the bloom.

Kavanaugh, Yang

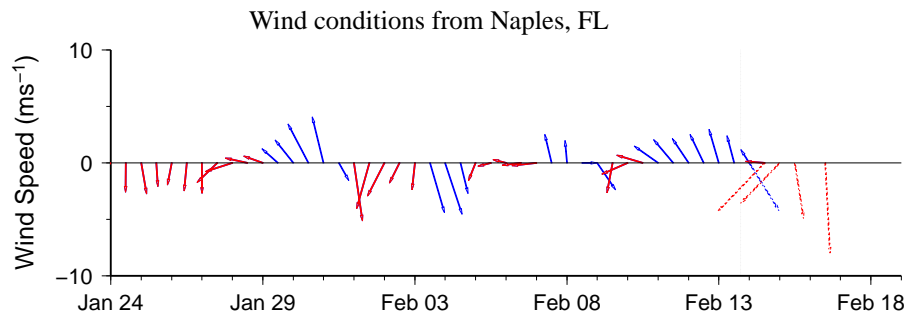
Wind Analysis

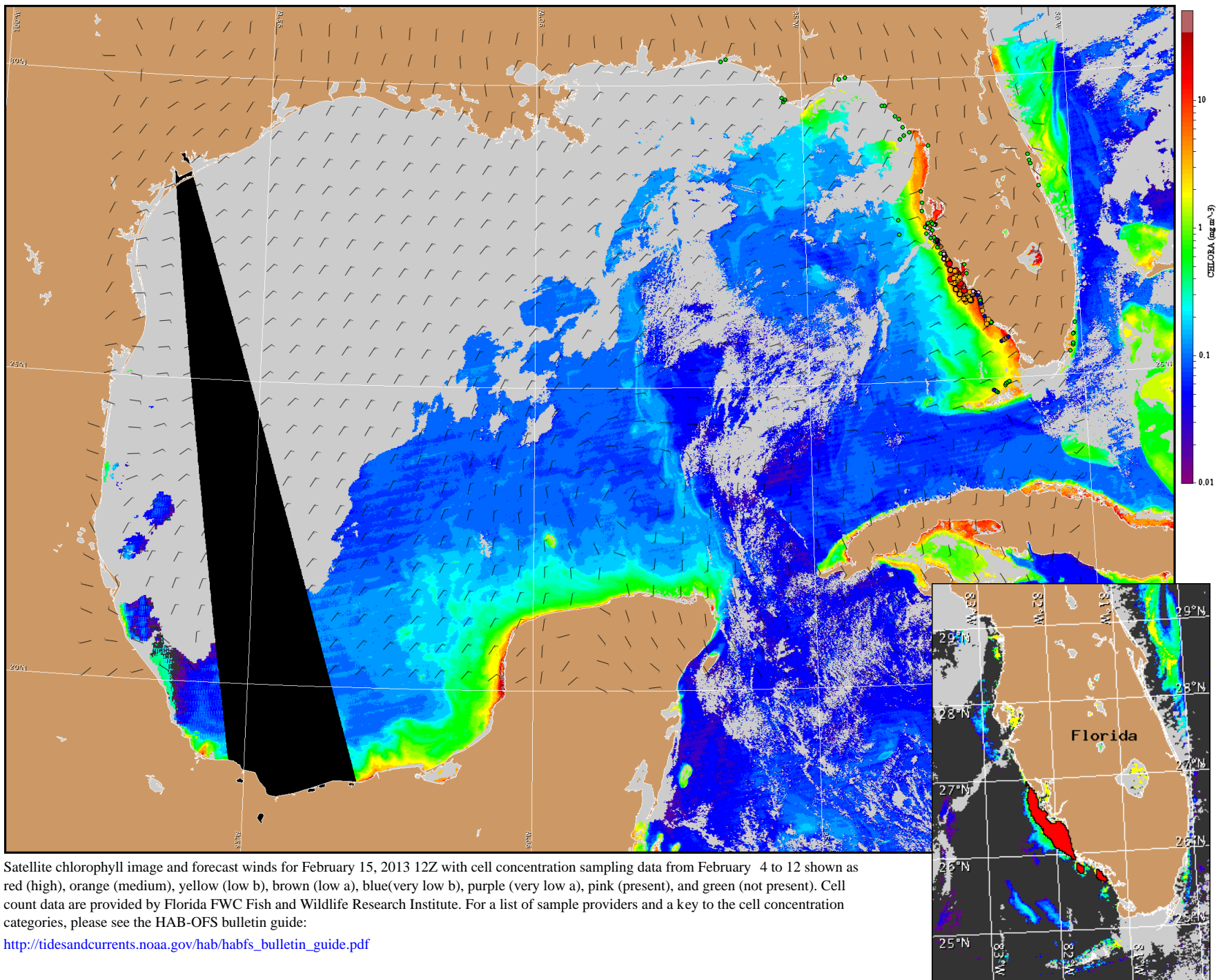
Pinellas to Collier County: Northeast to north winds (10-20 kn, 5-10 m/s) today through Saturday. Northwest winds (20-25 kn, 10-13 m/s) Saturday afternoon becoming north winds (15-20 kn, 8-10 m/s) Sunday. Northeast winds (10-15 kn, 5-8 m/s) Sunday night becoming east winds (10-15 kn) after midnight. East to southeast winds (15 kn, 8 m/s) Monday.

Collier and Monroe counties: South southwest winds (6-11 kn, 3-6 m/s) today. West northwest winds (12-17 kn, 6-8 m/s) tonight becoming north northeast winds (10-15 kn). Northeast to north winds (6-16 kn, 3-8 m/s) Friday. North northwest winds (17-25 kn, 9-13 m/s) Saturday. North northeast to northeast winds (14-22 kn, 7-11 m/s) Sunday. East winds (15-20 kn) Monday.



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 February 15, 2013 12Z with cell concentration sampling data from February 4 to 12 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).