



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

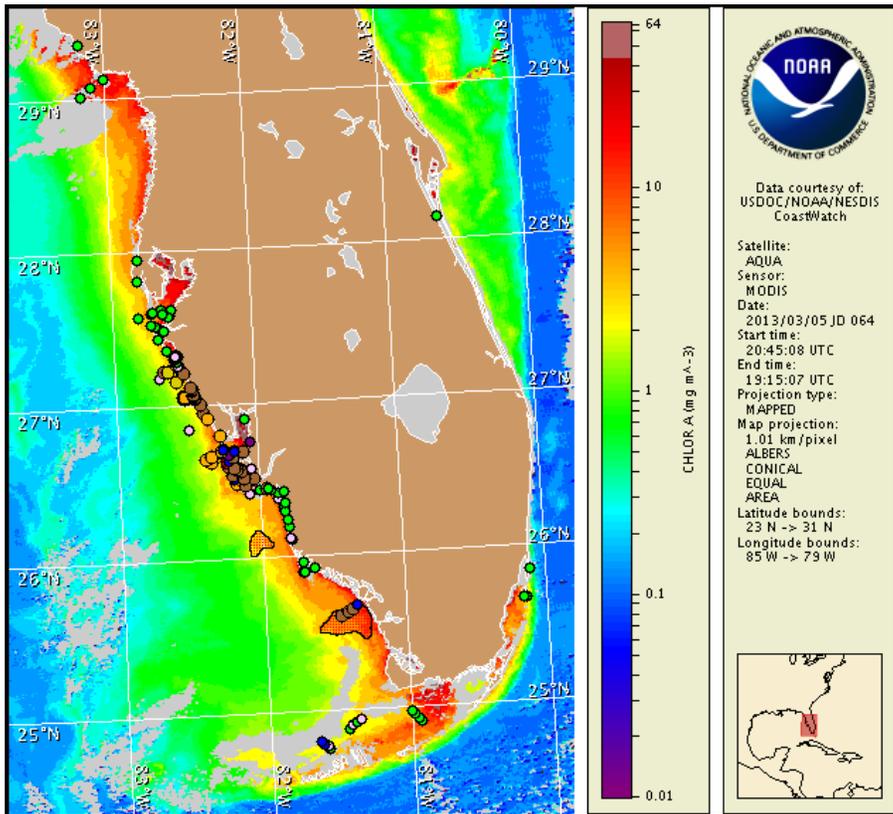
Thursday, 07 March 2013

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, March 4, 2013



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s). Cell concentration sampling data from February 25 to March 6 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 medium concentrations of *Karenia brevis* (commonly known as Florida Red Tide) are present along- and offshore southwest Florida, as well as offshore the lower Florida Keys. In the bay regions of northern Sarasota County, patchy low respiratory impacts are possible today through Monday. Alongshore northern Sarasota County, patchy very low respiratory impacts are possible today and Saturday through Monday, with patchy low respiratory impacts possible Friday. Alongshore southern Sarasota and Charlotte counties, patchy very low respiratory impacts are possible today and Saturday through Monday, with patchy moderate respiratory impacts possible Friday. In the bay regions of Charlotte and Lee counties, patchy moderate respiratory impacts are possible today through Monday. Alongshore central and southern Lee County, patchy very low respiratory impacts are possible today and Saturday through Monday, with patchy low respiratory impacts possible Friday. In southern Collier and northern Monroe counties, patchy low respiratory impacts are possible today and Friday, with patchy very low respiratory impacts possible Saturday through Monday. No respiratory impacts are expected elsewhere alongshore southwest Florida, including the Florida Keys, today through Monday, March 11. Over the last several days, reports of respiratory irritation were received from Charlotte and Lee counties. Reports of dead fish were received from Lee and Collier counties.

Analysis

Concentrations of *Karenia brevis* are present along- and offshore southwest Florida from Sarasota to Monroe counties, and range from 'not present' to 'medium'. Harmful algae is also present offshore the lower Florida Keys.

Samples collected alongshore and in the bay regions of Pinellas and Manatee county continue to indicate *K. brevis* is 'not present' (FWRI; 3/4, 5). Sampling alongshore northern Sarasota County indicated 'not present' to 'low a' concentrations of *K. brevis* with the highest levels detected at Nokomis Beach (FWRI; 3/4). Alongshore southern Sarasota, sampling indicated 'very low a' to 'low b' concentrations of *K. brevis* with the highest levels detected at the Venice Fishing Pier (FWRI; 3/4). Sampling this week from Englewood Beach and Gasparilla Sound in Charlotte County indicated 'medium' *K. brevis* concentrations (FWRI; 3/5). Offshore Boca Grande Pass in Lee County, three samples from 5 to 8 miles offshore indicated 'medium' *K. brevis* concentrations (FWRI; 3/5). Sampling in the Pine Island Sound region of Lee County indicates that *K. brevis* concentrations have decreased from 'medium' to between 'very low a' and 'low a' while sampling in the Estero Bay region of southern Lee County indicated *K. brevis* is 'not present' (FWRI; 3/4-5). Sampling alongshore Collier County, from Barefoot Beach to Marco Island indicated *K. brevis* is 'not present' (CCPCPD; 3/4) Over the past several days, reports of respiratory irritation was limited to Gasparilla Island in Charlotte and Lee Counties. Dead fish were reported between Captiva Island in Lee County and Keeywadin Island in Collier County.

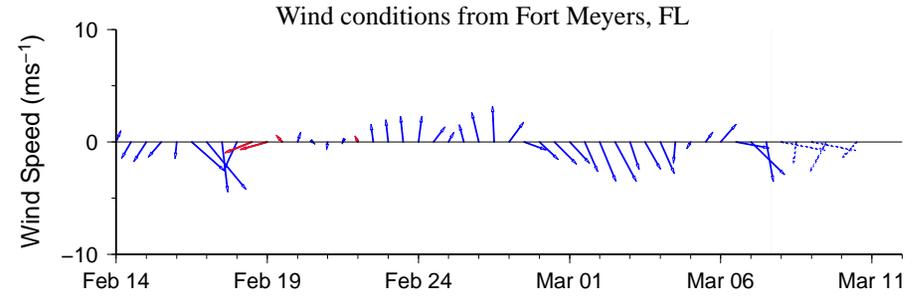
MODIS Aqua imagery (3/5; shown left) shows elevated chlorophyll stretching along- and offshore the southwest Florida coastline from Sarasota to Monroe counties, with patches of high chlorophyll (10 to 20 $\mu\text{g/L}$) visible alongshore the Ten Thousands Islands region of Collier and Monroe counties. While sampling along the beaches of Lee and Collier counties continues to indicate *K. brevis* concentrations are 'not present', two patches of

high chlorophyll are still present offshore southern Lee and Collier counties extending north to south from 26°15'40"N 81°59'16"W to 26°3'30"N 81°56'13"W up to 18 miles offshore and from 25°41'59"N 81°31'32"W to 25°21'35"N 81°16'32"W extending up to 25 miles offshore.

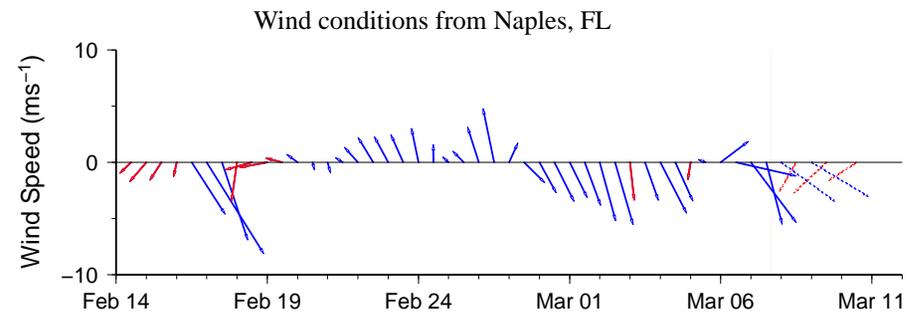
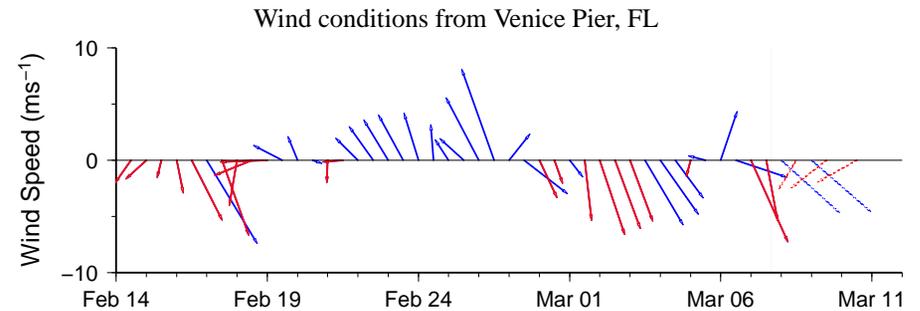
Variable winds forecast today through Monday alongshore southwest Florida may decrease the potential for transport of the bloom. In the lower Florida Keys region, north to east winds today through Monday may promote potential for westward transport of *K. brevis* concentrations.

Davis, Fenstermacher

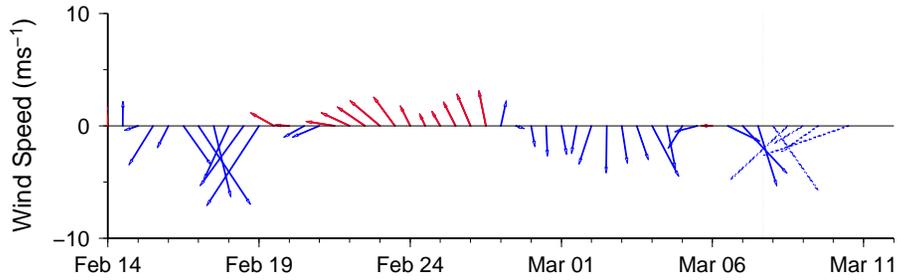
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Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical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



Wind conditions from Vaca Key, FL

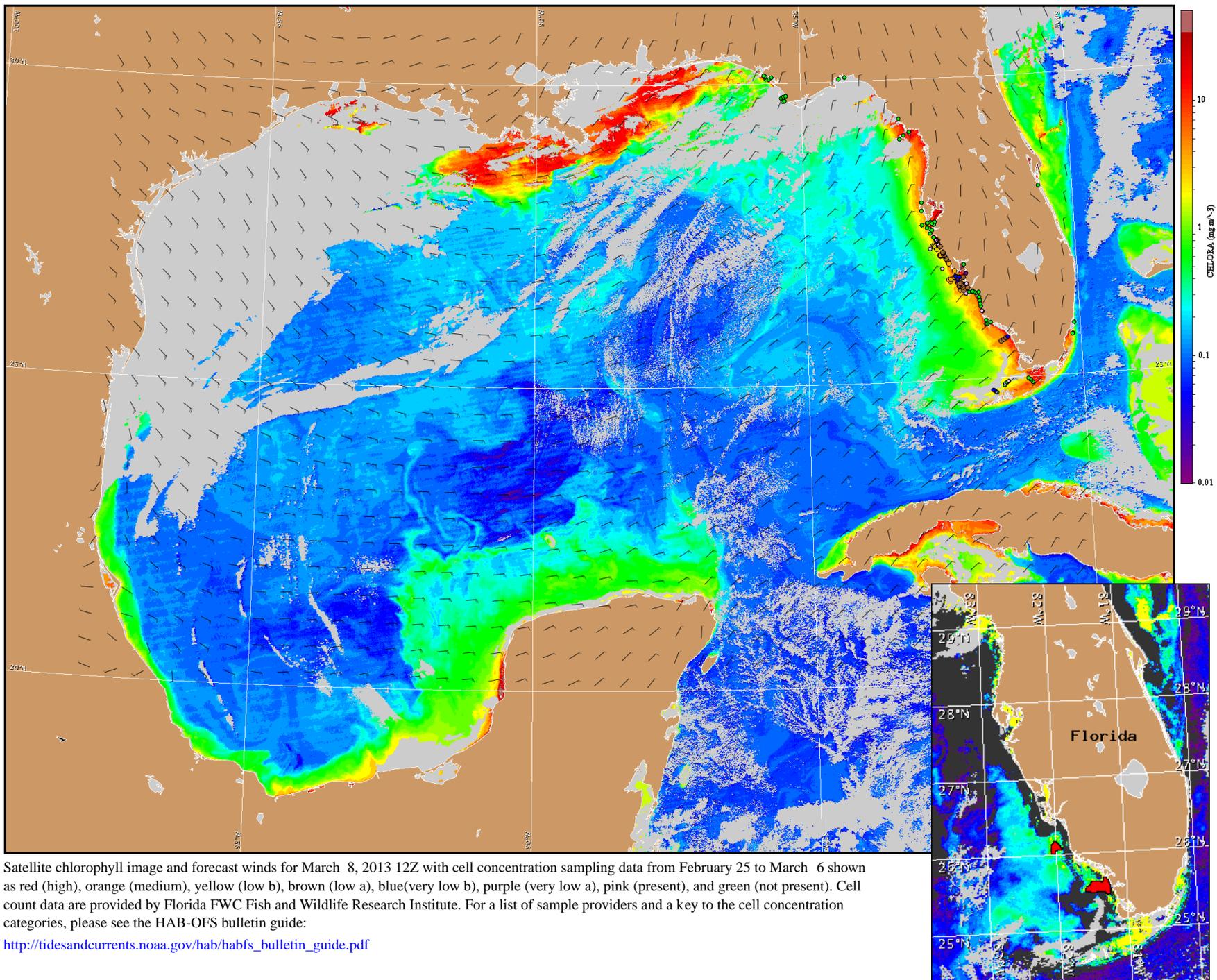


Wind Analysis

Pinellas to Lee counties: North winds (15kn, 8m/s) today becoming northeast winds (15kn) tonight. North winds (10kn, 5m/s) Friday becoming northwest winds (10-15kn, 5-8m/s) Friday afternoon. North winds (15kn) Friday night. Northeast winds (10-15kn) Saturday becoming north winds (10kn) Saturday afternoon. East winds (15-20kn, 8-10m/s) Saturday night. East to southeast winds (10-15kn) Sunday building to 15-20kn Sunday evening. Southeast winds (5-15kn, 3-8m/s) Monday.

Collier and Monroe counties: North northeast winds (8-13kn, 4-7m/s) today becoming northwest winds (10-15kn) in the afternoon. Northwest winds (8-13kn) tonight becoming northeast winds (6-11kn, 3-6m/s). Northeast winds (7-12kn, 4-6m/s) Friday becoming north northwest winds (6-11kn) in the afternoon. North northwest winds (7-12kn) Friday evening becoming northeast winds (10-15kn). East to northeast winds (11-16kn) Saturday through Sunday. East southeast winds (11-16kn) Monday.

Gulf side of lower Florida Keys: North winds (10-15kn) today decreasing to 5-10kn (3-5m/s) this afternoon. North to northeast winds (10-15kn) tonight through Friday. Northeast winds (15-20kn, 8-10m/s) Saturday. East to southeast winds (15-20kn) Saturday night through Monday.



Satellite chlorophyll image and forecast winds for March 8, 2013 12Z with cell concentration sampling data from February 25 to March 6 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).