



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

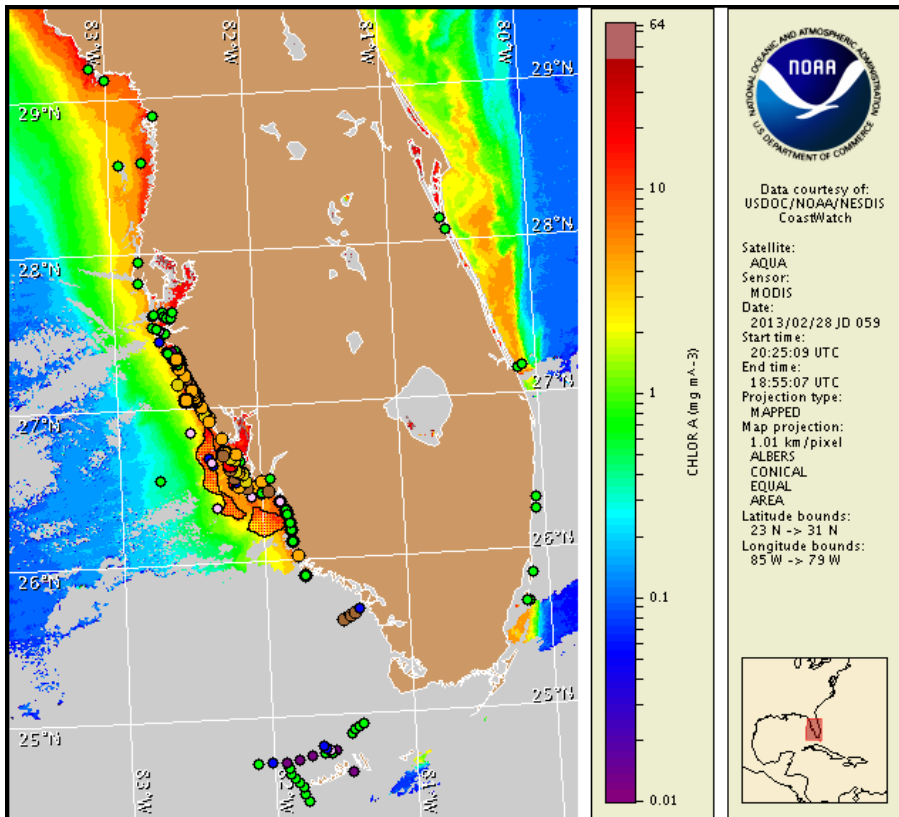
Friday, 01 March 2013

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, February 28, 2013



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s). Cell concentration sampling data from February 19 to 28 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, as well as offshore the lower Florida Keys. In the bay regions of southern Manatee County, patchy very low respiratory impacts are possible today through Sunday. In the bay regions of Sarasota, Charlotte, and Lee counties, patchy moderate respiratory impacts are possible today and Monday, with patchy high respiratory impacts possible Saturday and Sunday. Alongshore Sarasota, Charlotte, and Lee counties, patchy moderate respiratory impacts are possible today, with patchy high respiratory impacts possible Saturday and Sunday, and patchy very low respiratory impacts possible Monday. Alongshore northern Collier County, patchy moderate respiratory impacts are possible today through Monday. Alongshore and in the bay regions of central Collier County, patchy moderate respiratory impacts are possible today and Monday, with patchy high respiratory impacts possible on Saturday and Sunday. Alongshore southern Collier and northern Monroe counties, patchy low respiratory impacts are possible today through Monday. No respiratory impacts are expected elsewhere alongshore southwest Florida, including the Florida Keys, today through Monday, March 4. Yesterday and today, reports of respiratory irritation were received from Sarasota, Charlotte, and Lee counties. Reports of dead fish were received from Sarasota and Lee counties.

Analysis

****This is a supplemental bulletin. The next regular bulletin will be issued Monday, March 4.****

Concentrations of *Karenia brevis* are present along- and offshore southwest Florida from Manatee to Monroe counties, with *K. brevis* concentrations ranging from 'not present' to 'high'. Harmful algae is also present offshore the lower Florida Keys.

Recent sampling indicates that *K. brevis* concentrations have increased from 'low b' to 'medium' alongshore northern Sarasota County at Siesta Beach, Turtle Beach, and Nokomis Beach (FWRI, SCHD; 2/25). Offshore Sarasota County, samples collected 4 miles west of Brohard Beach indicated 'high' *K. brevis* concentrations at the surface and 'medium' concentrations at depth, while 5.2 mile northwest of Casey Key 'low a' concentrations were identified at the surface with up to 'low b' concentrations at depth (FWRI; 2/28). Additional sampling alongshore southern Sarasota County continues to indicate 'medium' *K. brevis* concentrations. In the bays of Lee County, one sample near Narrows Key indicated 'high' *K. brevis* concentrations while 'very low b' to 'medium' *K. brevis* concentrations were present elsewhere in the Pine Island Sound region. High respiratory irritation was reported along the Causeway Islands yesterday in Lee County and slight to moderate respiratory irritation was reported along several beaches in Sarasota, Charlotte and northern Lee counties yesterday and today (MML; 2/28-3/1), with dead fish also being reported alongshore beaches in Sarasota and Lee counties (FWRI, MML; 2/28).

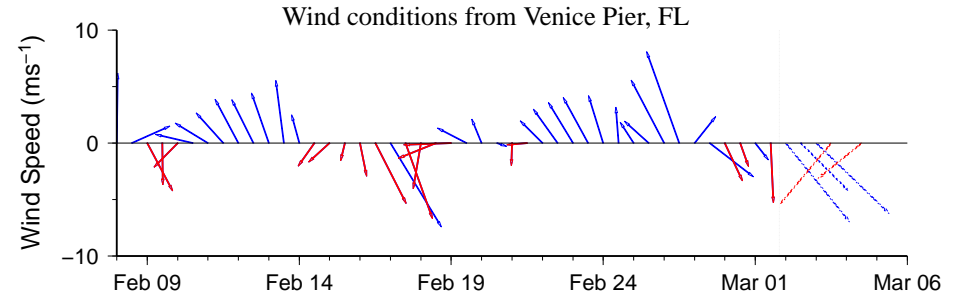
MODIS Aqua imagery (2/28; shown left) continues to show elevated chlorophyll stretching along- and offshore the southwest Florida coastline from Sarasota to Collier counties, with patches of high to very high chlorophyll (11 to >20 $\mu\text{g/L}$) visible alongshore from northern Sarasota to northern Lee counties, extending from 27°14'19"N 82°34'1"W to

26°12'7"N 81°49'51"W.

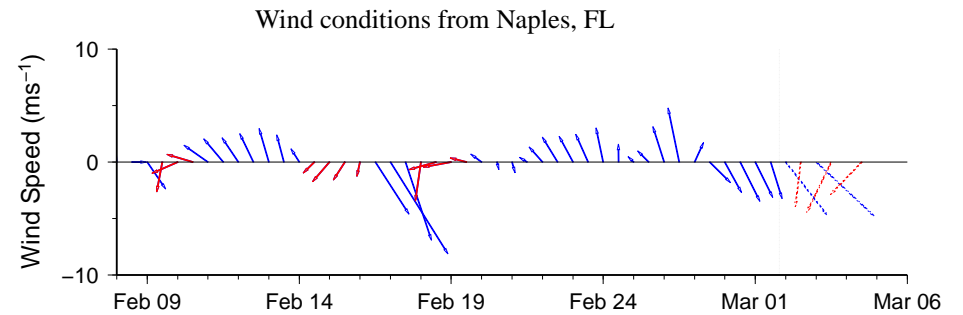
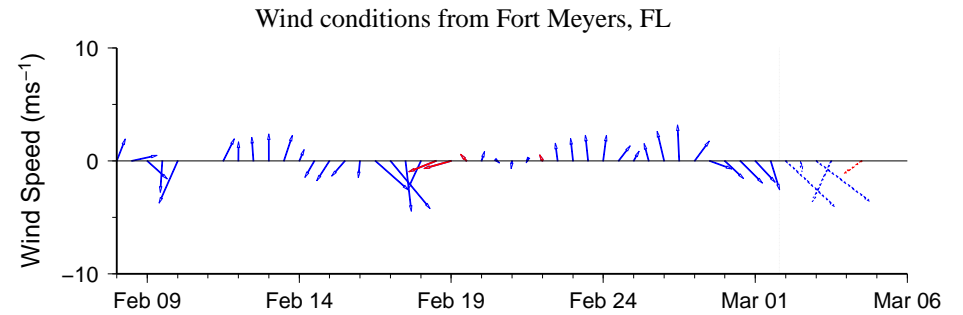
North to northwest winds forecast today through Monday alongshore southwest Florida may increase the potential for onshore transport of the bloom through the weekend and may also promote southerly transport of the bloom. Onshore winds may also increase the potential for respiratory impacts along the coast and in the bay regions of southwest Florida over the next several days. In the lower Florida Keys region, north to northwest winds forecast over the next several days may also increase the potential for onshore transport of harmful algae concentrations.

Davis, Kavanaugh

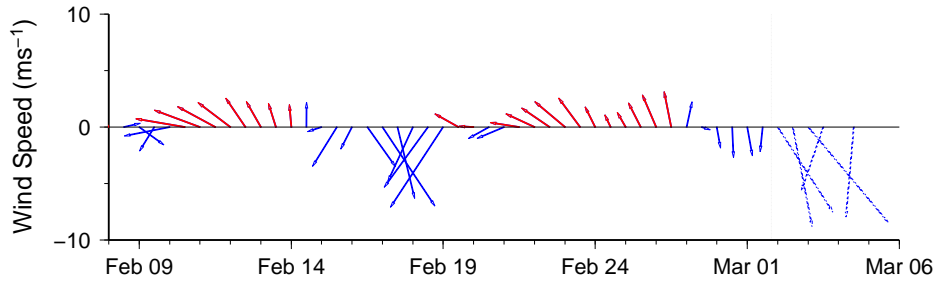
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Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical 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

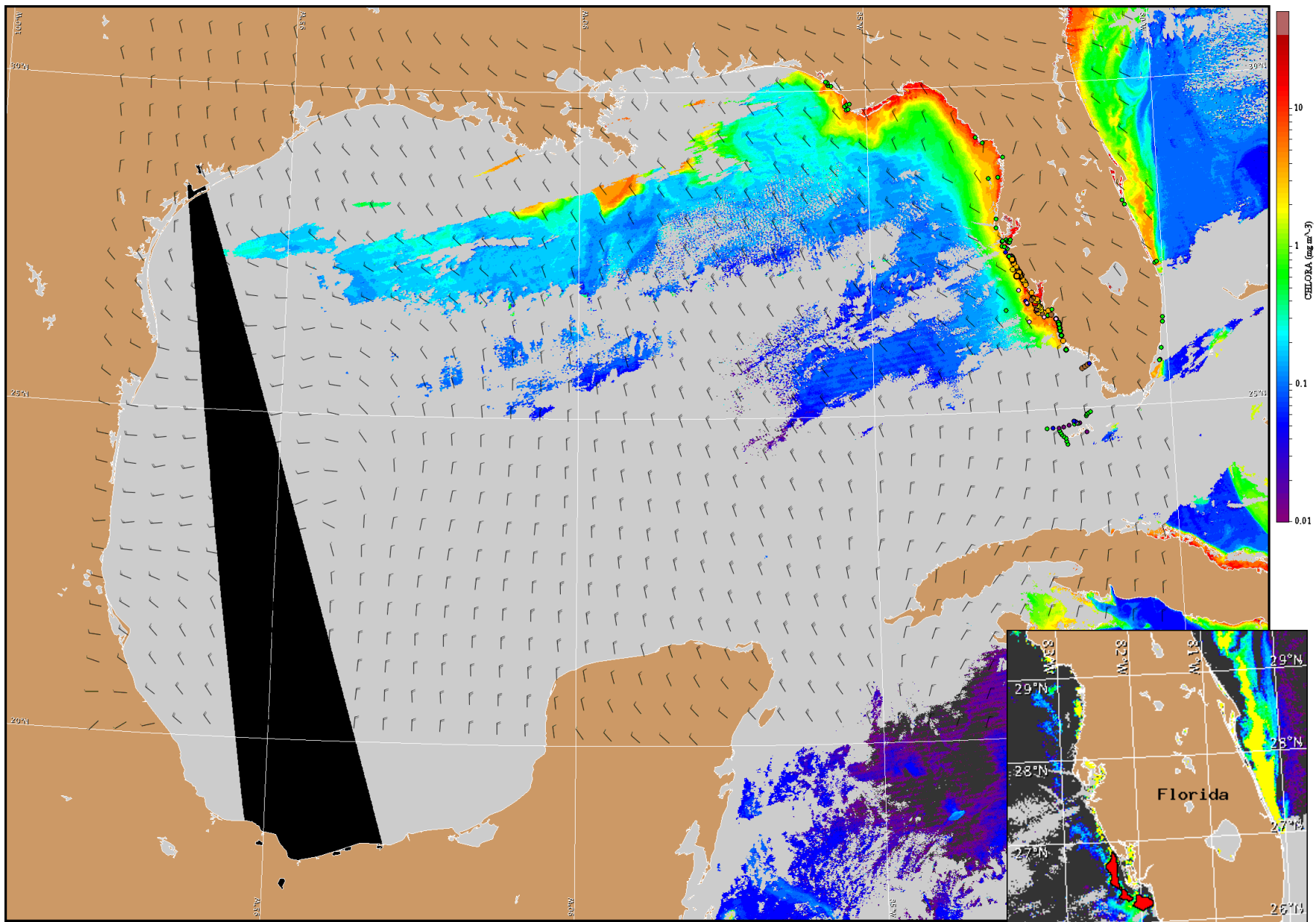


Wind Analysis

Pinellas to Lee counties: North to northwest winds (10-20kn, 5-10m/s) today through Monday.

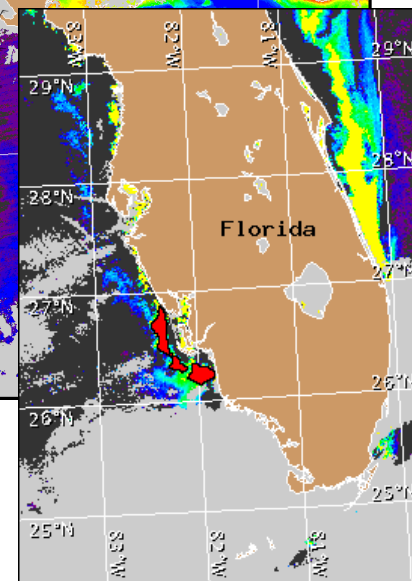
Collier and Monroe counties: North northwest winds (9-14kn, 5-7m/s) today. North northwest winds (9-14kn) tonight. Northwest (16-21kn, 8-11m/s) Saturday becoming north northwest winds (10-19kn, 5-10m/s) Saturday night through Monday morning. North northwest to north winds (5-7kn, 3-5m/s) Monday afternoon through Monday night becoming east winds.

Gulf side of lower Florida Keys: North to northeast winds (5-15kn, 3-8m/s) today. North winds (15-20kn, 8-10m/s) tonight. North to northwest winds (15-20kn) Saturday through Monday afternoon becoming north to northeast winds (15kn, 8m/s) Monday night.



Satellite chlorophyll image and forecast winds for March 2, 2013 12Z with cell concentration sampling data from February 19 to 28 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).