



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

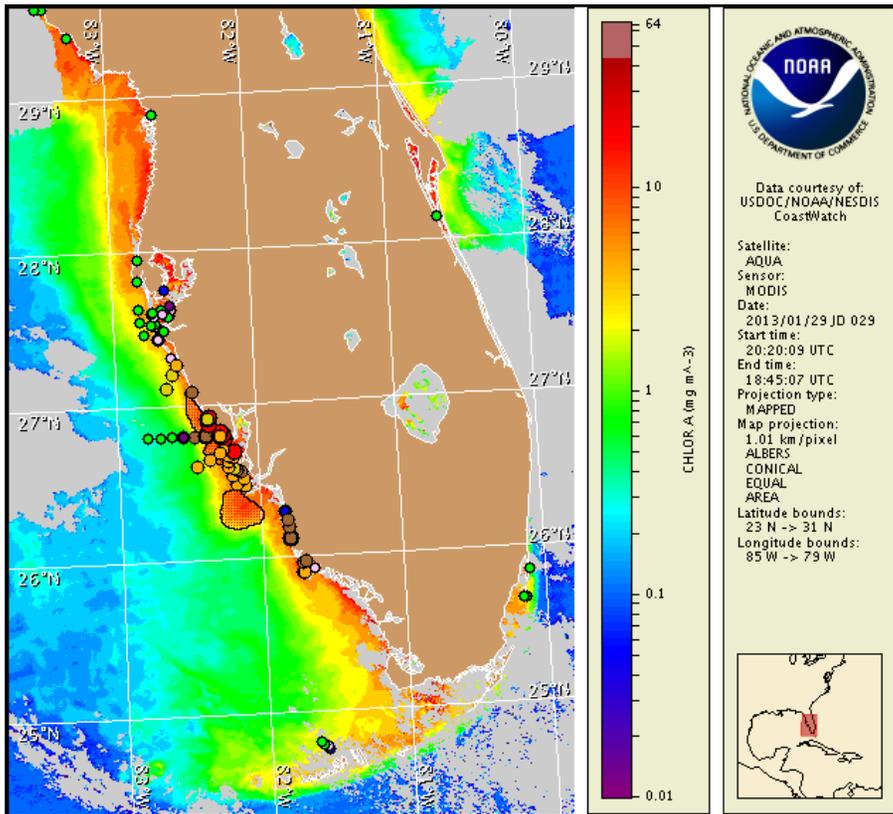
Thursday, 31 January 2013

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, January 28, 2013



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s). Cell concentration sampling data from January 21 to 29 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 from southern Pinellas to Collier County, as well as offshore the gulfside of the lower Florida Keys. In the bay regions of southern Pinellas and northern Manatee counties, patchy very low respiratory impacts are possible today through Monday. In the bay regions of southern Manatee and Sarasota counties, patchy high respiratory impacts are possible today through Saturday with patchy moderate respiratory impacts possible Sunday through Monday. Alongshore Manatee County, patchy low respiratory impacts are possible today with patchy very low respiratory impacts possible Friday through Monday. Alongshore Sarasota County, patchy high respiratory impacts are possible today, with patchy very low respiratory impacts possible Friday through Monday. Alongshore Charlotte County, patchy high respiratory impacts are possible today with patchy low respiratory impacts possible Friday through Monday. In the bay regions of Charlotte and Lee counties, patchy high respiratory impacts are possible today through Monday. Alongshore southern Lee County, patchy high respiratory impacts are possible today, with patchy very low respiratory impacts possible Friday through Monday. Alongshore northern Collier County, patchy low respiratory impacts are possible today with patchy very low respiratory impacts possible Friday through Monday. In the bay regions of central Collier County, patchy high respiratory impacts are possible today through Saturday with patchy moderate respiratory impacts possible Sunday through Monday. No respiratory impacts are expected elsewhere alongshore southwest Florida, including the Florida Keys, today through Monday, February 4. Over the past few days, reports of respiratory irritation were received from Sarasota and Charlotte counties. Reports of dead fish were received from Charlotte and Lee counties.

Analysis

Southwest Florida: A harmful algal bloom of *Karenia brevis* is present along- and offshore southwest Florida from southern Pinellas to Collier County, with *K. brevis* concentrations ranging from 'not present' to 'high'. Recent sampling alongshore Pinellas County indicated *K. brevis* concentrations from 'not present' to 'background' (FWRI; 1/28). One sample taken from the Port of St. Petersburg indicated 'very low b' *K. brevis* concentrations while all other samples taken from the bay regions of Pinellas and Manatee counties indicated *K. brevis* concentrations ranging from 'not present' to 'background' (FWRI; 1/28-29). Recent sampling alongshore Sarasota County continues to indicate 'very low a' to 'medium' concentrations of *K. brevis* while two samples collected 5 and 10 miles offshore northern Sarasota indicated 'low b' concentrations of *K. brevis* (FWRI; 1/26-28). Sampling 2-14 miles offshore northern Lee County detected 'medium' concentrations of *K. brevis* (FWRI; 1/27). Sampling alongshore Collier County identified 'low a' concentrations of *K. brevis* from Vanderbilt Beach to Naples Pier while one sample from Caxambas Pass in the Marco Island region indicated 'medium' concentrations of *K. brevis* (FWRI; 1/28). Over the past few days, respiratory irritation was reported at Siesta Key and Nokomis Beach in Sarasota County and in Charlotte County at the Gasparilla Island South Bridge (MML; 1/28-31). Fish kills have also been reported over the last several at Englewood Beach in Charlotte County and the Gasparilla Island area of Charlotte and Lee counties (FWRI, MML; 1/28-30).

In recent MODIS Aqua imagery (1/29, shown left), elevated chlorophyll (2-6 $\mu\text{g/L}$) is

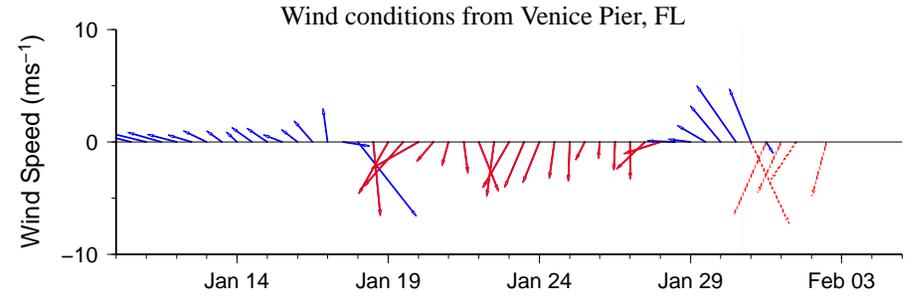
visible stretching along- and offshore the coast of southwest Florida from Pinellas to Monroe counties. A defined area of anomalously high chlorophyll continues to be visible along- and offshore northern Sarasota to Collier County from (27°08'45"N 82°30'53"W to 26°11'39"N 81°54'26"W). Continued sampling of this area is recommended.

Onshore winds today from Pinellas to Collier County may increase the likelihood of respiratory impacts alongshore southwest Florida. Northerly to northeasterly winds today through Monday from Pinellas to Collier County may promote the potential for southerly transport of the bloom.

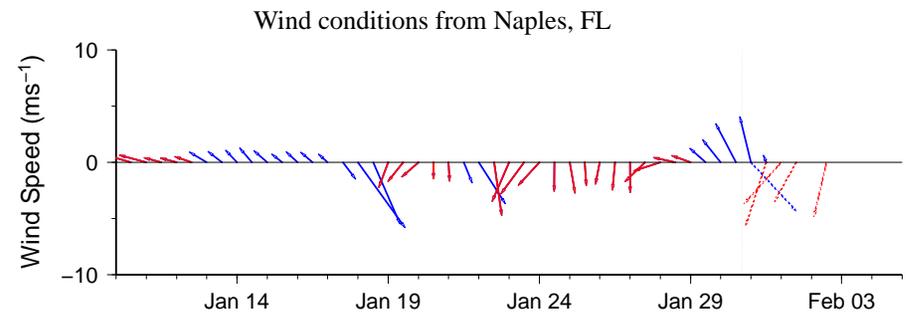
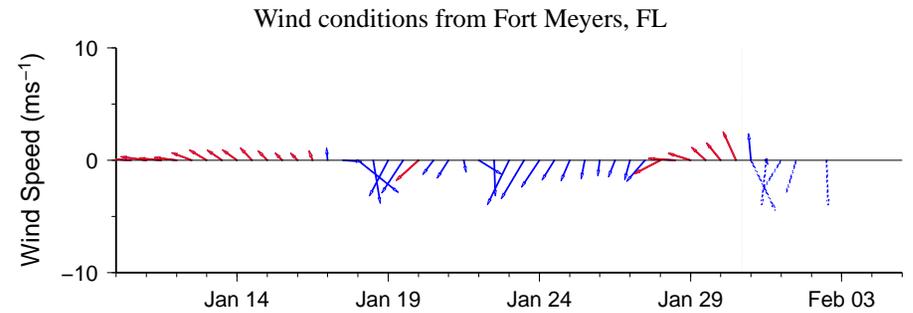
Florida Keys: Recent sampling and MODIS Aqua imagery suggest that bloom concentrations of *Karenia brevis* are no longer present offshore of the Florida Keys. No additional sampling has been received since previous samples indicated 'not present' to 'very low a' *K. brevis* concentrations offshore the lower Florida Keys (MML; 1/21). In MODIS Aqua imagery from 1/29 (page 1) elevated chlorophyll (2-6 $\mu\text{g/L}$) remains visible offshore the gulfside of the Florida Keys; however, there are no anomalously high levels of chlorophyll present.

Davis, Fenstermacher

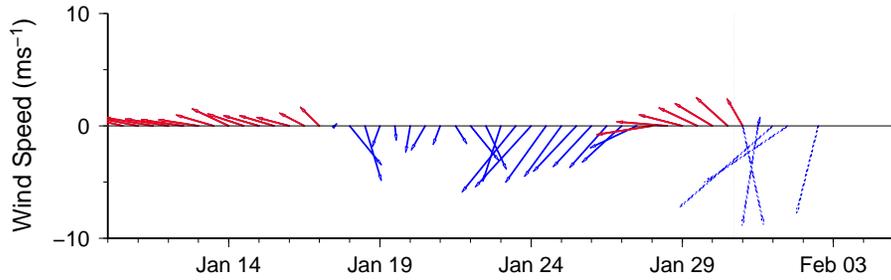
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Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical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



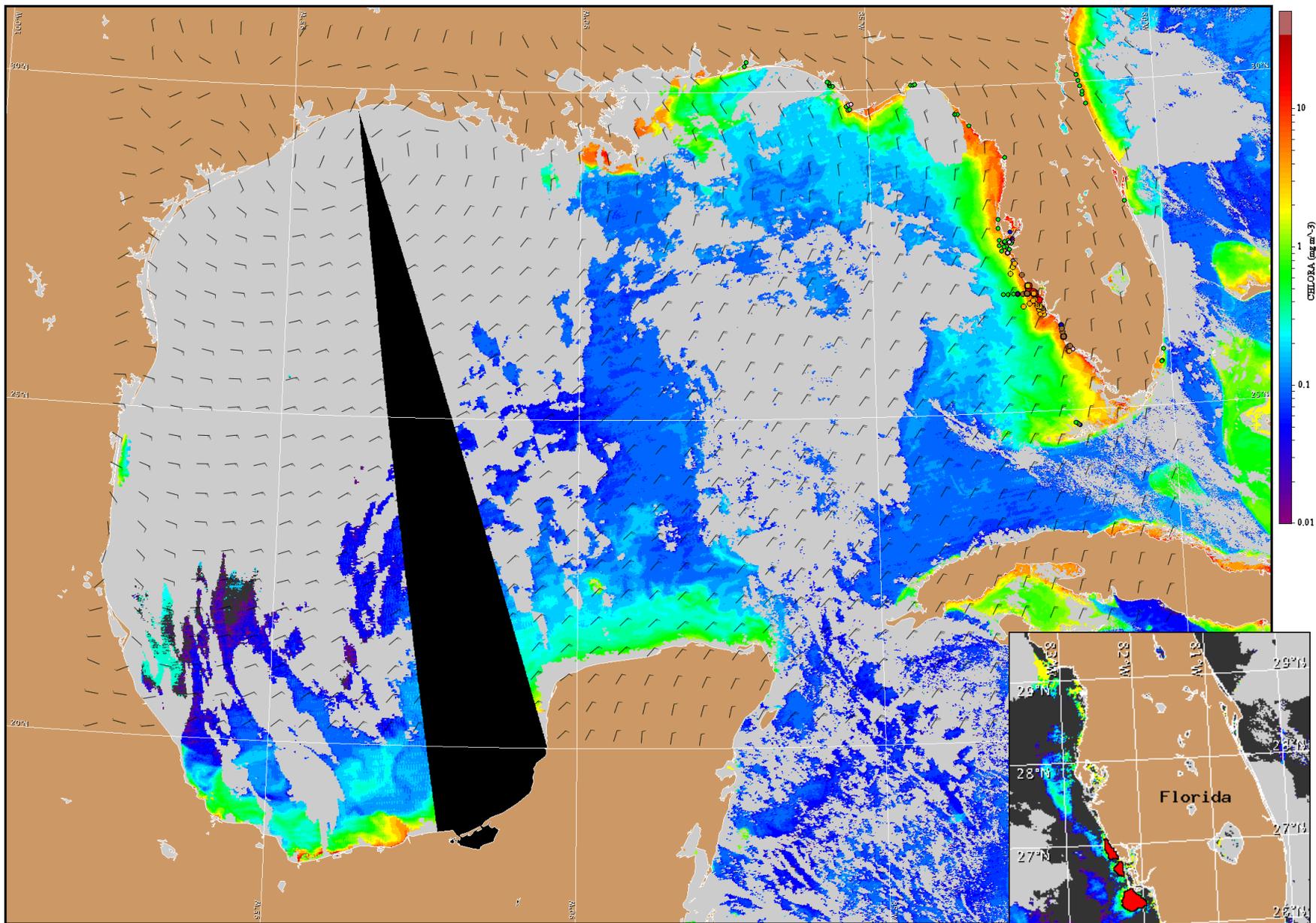
Wind Analysis

Pinellas to Charlotte County: North winds (15-20 kn, 8-10 m/s) today through Friday. Northeast winds (20 kn, 10 m/s) Saturday becoming north winds (5-10 kn, 3-5 m/s) Saturday afternoon through Monday.

Charlotte to Collier County: Northwest winds (20 kn) today. North winds (20 kn) tonight becoming northeast winds (15-20 kn) after midnight. North to northeast winds (15-20 kn) Friday through Saturday. North winds (10 kn, 5 m/s) Saturday night through Monday.

Collier and Monroe counties: North northwest winds (12-17 kn, 6-9 m/s) today. North northeast winds (14-19 kn, 7-10 m/s) tonight and Friday. Northeast winds (15-20 kn) Friday night. Northeast to north winds (9-18kn, 5-9 m/s) Saturday through Monday.

Gulf side of lower Florida Keys: Northwest to north winds (20 kn) today. North to northeast winds (20 kn) tonight through Friday. Northeast to east winds (15-20 kn) Saturday through Monday.



Satellite chlorophyll image and forecast winds for February 1, 2013 12Z with cell concentration sampling data from January 21 to 29 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).