



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

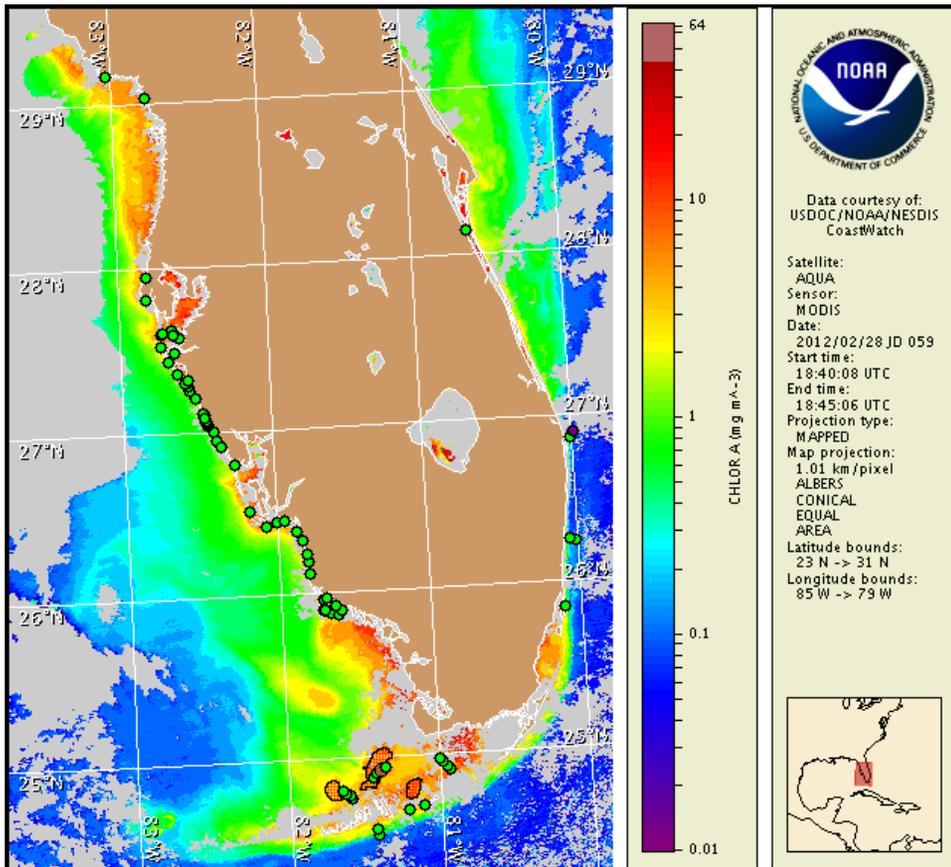
Thursday, 01 March 2012

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, February 27, 2012



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from February 20 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). For a list of cell count data 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](http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf)

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:

<http://tidesandcurrents.noaa.gov/hab/bulletins.html>

## Conditions Report

A patchy harmful algal bloom has been identified offshore in the Gulf side region of the Lower Florida Keys. No reports of impacts in association with this bloom have been received; however, impacts remain possible in this region. No additional respiratory impacts are expected alongshore southwest Florida today through Sunday, March 4.

## Analysis

**Florida Keys:** A patchy harmful algal bloom remains present offshore the Gulf side region of the Lower Florida Keys. Recent samples identified a 'low a' concentration of *Karenia brevis* approximately 12 miles north of Big Pine Key (MML; 2/23). Other samples collected from both the Gulf and ocean sides of the Keys indicate that *K. brevis* is 'not present' (MML; 2/21-29).

Recent MODIS imagery (2/28; shown left) is partially obscured by clouds, limiting analysis. Elevated chlorophyll (2-5  $\mu\text{g/L}$ ) remains visible north of the Lower Keys, with two patches centered north of Boca Chica Key and Big Pine Key at approximately 24°49'28.0"N 81°42'52.8"W and 24°57'55.4"N 81°25'33.8"W, respectively. Recent imagery from both 2/28 and 2/29 (not shown) also shows a band of elevated chlorophyll (3 to >10  $\mu\text{g/L}$ ) stretching along- and offshore the Gulf side of the Lower to Middle Keys. East to southeast winds forecasted over the next few days may maintain bloom location through Sunday.

**Southwest Florida:** There is currently no indication of a harmful algal bloom present at the coast in Southwest Florida. Recent samples collected alongshore Pinellas, Manatee, Sarasota, Charlotte and Collier counties indicate that *K. brevis* is not present (CCPCPD, FWRI; 2/27-29). Additional sampling information can be obtained through FWRI at <http://myfwc.com/research/redtide/events/status/statewide/>.

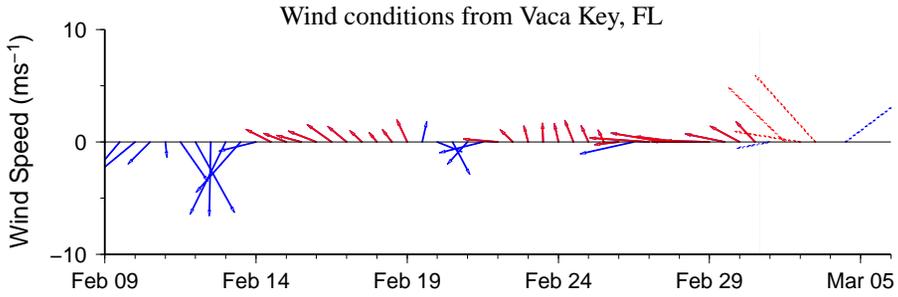
In southwest Florida, patches of elevated chlorophyll (2-6  $\mu\text{g/L}$ ) are visible stretching alongshore Pinellas County and from Lee to Collier counties. A slightly elevated chlorophyll (2-4  $\mu\text{g/L}$ ) feature that may contain *K. brevis* remains visible approximately 30 miles south of Cape Romano. Due to forecasted southwest to south winds over the next few days, the elevated chlorophyll feature offshore Cape Romano may transport slightly north through Saturday. Bloom formation at the coast remains unlikely through Sunday.

Kavanaugh, Burrows

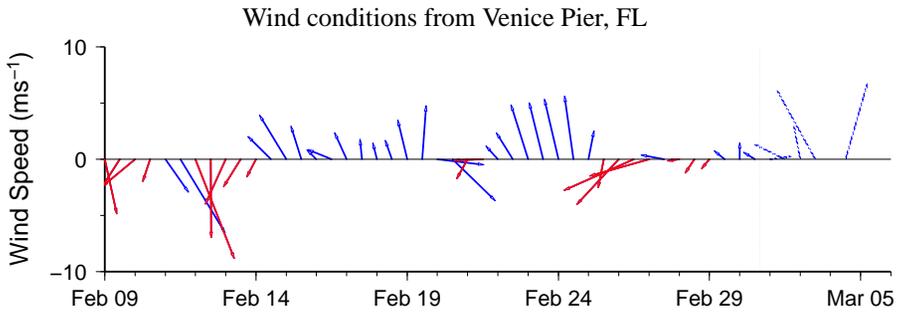
## Wind Analysis

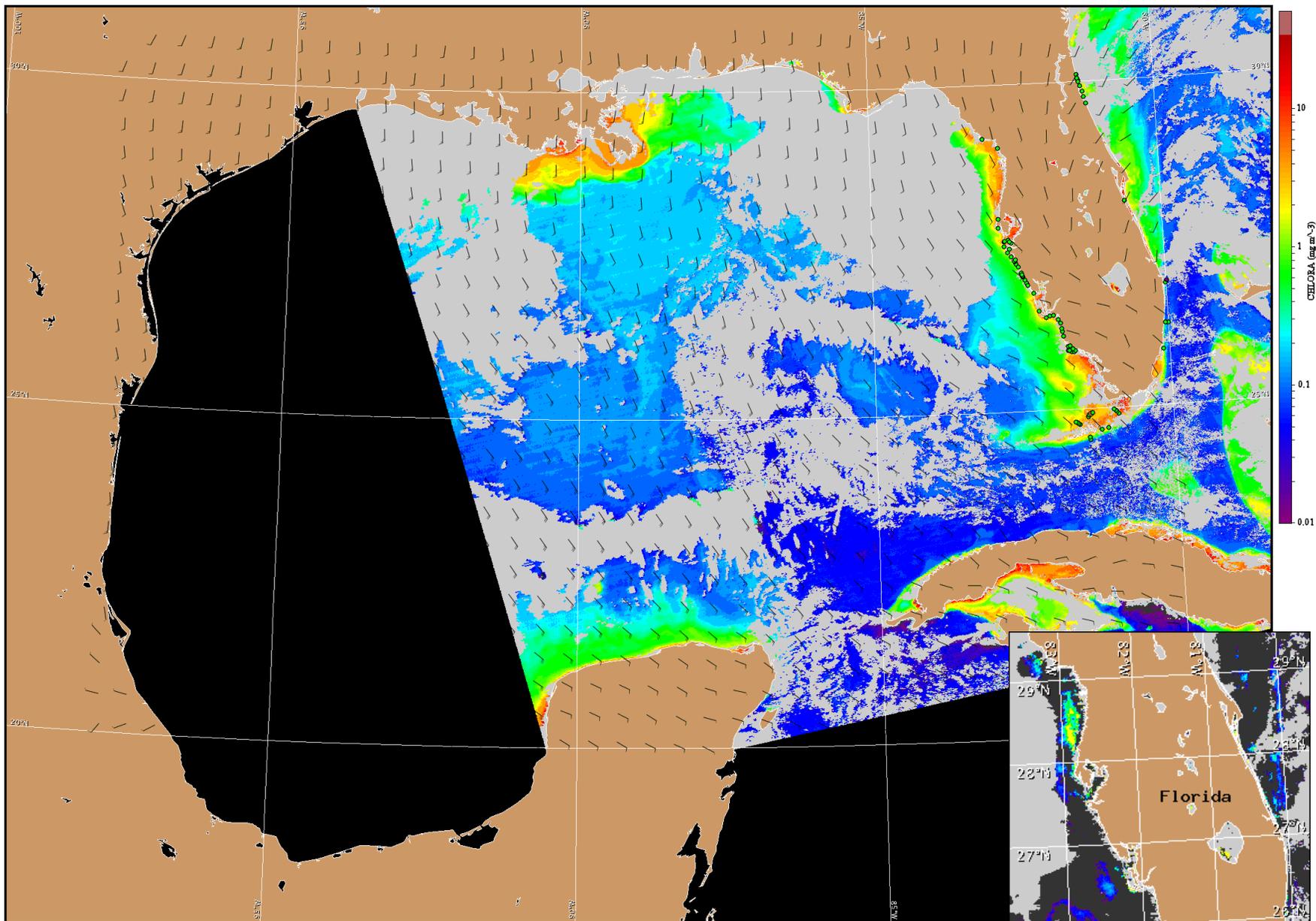
**Gulf side of Florida Keys:** East to southeast winds (10-15 kn, 5-8 m/s) today and Friday. Southeast to south winds (10-15 kn) Saturday. Southwest winds (10 kn) Sunday becoming north to northeast winds (15-20 kn, 8-10 m/s).

**Southwest Florida:** Southwest winds (10 kn, 5 m/s) today becoming south winds (10-15 kn) tonight through Saturday. West winds (10-15 kn) Saturday night becoming north winds (10-25 kn, 5-13 m/s) Sunday.



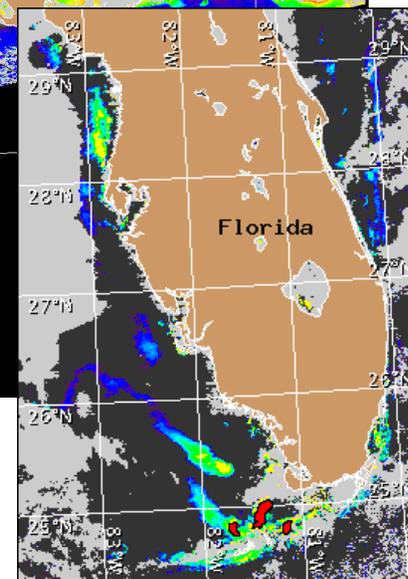
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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





Satellite chlorophyll image and forecast winds for March 2, 2012 12Z with cell concentration sampling data from February 20 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). For a list of cell count data 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).