



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

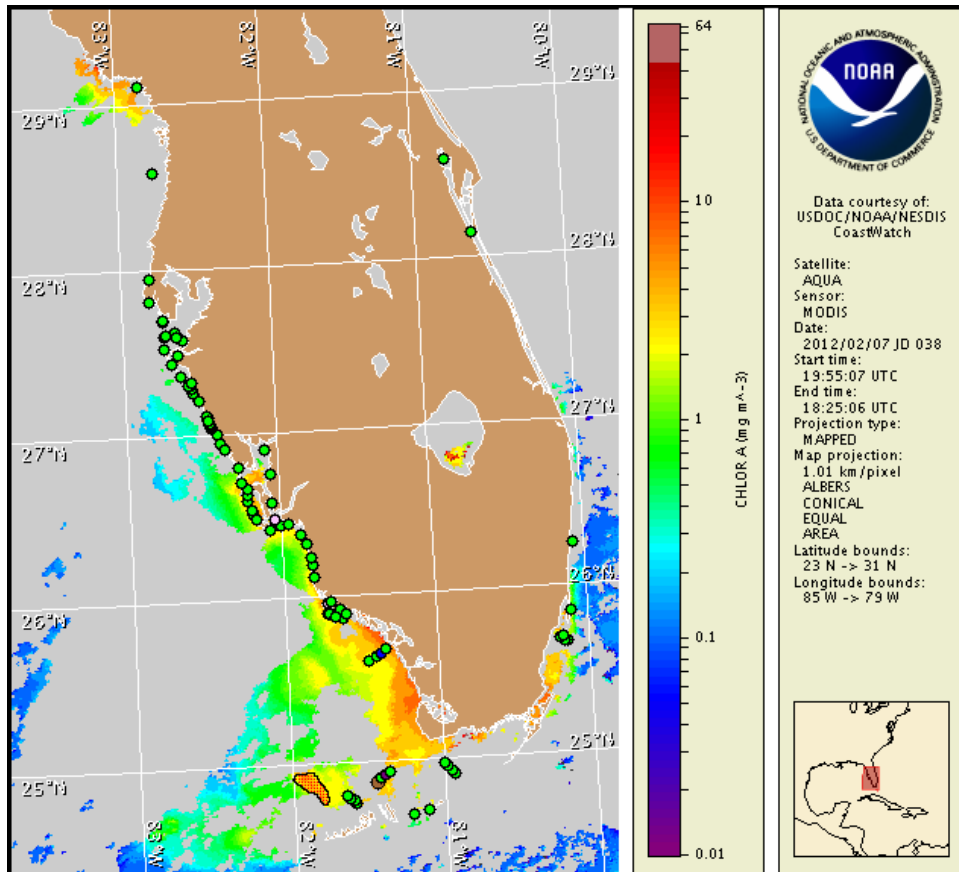
Thursday, 09 February 2012

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, February 6, 2012



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from January 30 to February 8 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 harmful algal bloom has been identified offshore in the Gulf side region of the Florida Keys. Although there is no indication of a harmful algal bloom at the coast in southwest Florida, patchy harmful algae have been identified offshore northern Monroe County. Patchy low impacts are possible in the Gulf side region of the Lower Florida Keys today through Sunday. No additional respiratory impacts are expected alongshore southwest Florida, today through Sunday, February 12.

## Analysis

**Florida Keys:** A harmful algal bloom remains present offshore in the Gulf side region of the Lower Florida Keys. 'Very low' to 'low a' concentrations of *Karenia brevis* were identified on 2/8 approximately 5-9 miles north and northeast of Harbor Key (MML). Concentration changes within this region suggest that the bloom may have transported westward over the past week. Samples collected approximately 2-8 miles northwest of Sawyer Key (2/7) and alongshore southern Cape Sable (2/4-2/6) contained no *K. brevis* (MML, FWRI).

Recent MODIS imagery in the Florida Keys region is predominantly obscured by clouds, limiting analysis. However, portions of an elevated chlorophyll feature (2-5 µg/L) remain visible in imagery (2/7, shown left) approximately 12 miles north to northwest of Key West. Imagery indicates this feature has transported west since last reported on 2/6 with a southernmost point located at 24°45'29"N 81°48'53"W. Clouds obscure imagery north of Harbor Key, where *K. brevis* concentrations have been detected. Continued sampling throughout the Gulf side regions of the Lower and Middle Keys is recommended. Southward to westward transport of the bloom is possible through Sunday. Strong north winds forecasted for Saturday night and Sunday may transport the bloom closer to shore in the Lower Florida Keys and increase impacts in the offshore region.

**Southwest Florida:** There is currently no indication of a harmful algal bloom present at the coast in southwest Florida. However, 'very low' *K. brevis* concentrations were identified approximately 3 miles southwest of Pavilion Key in northern Monroe County on 2/2. Additional samples collected southwest of Pavilion Key contained no *K. brevis*. Remnant background concentrations of *K. brevis* continued to be identified in the Marco Island region of Collier County this week (FWRI, CCPCPD; 2/6). No additional *K. brevis* has been identified alongshore from Pinellas to Monroe counties (FWRI, MML, CCPCPD; 2/5-2/8). Additional sample information can be obtained through FWRI at <http://myfwc.com/research/redtide/events/status/statewide/>.

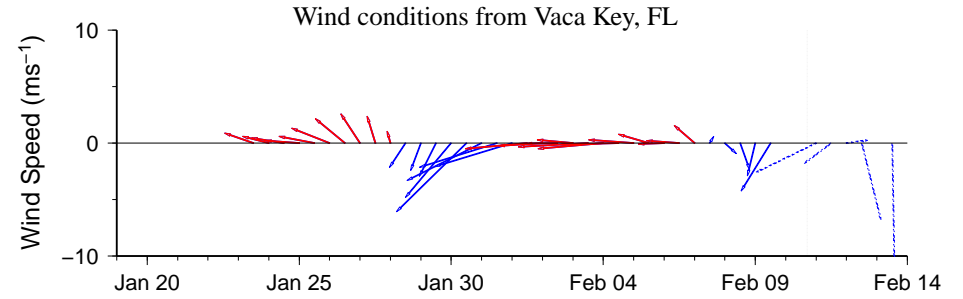
Recent MODIS imagery does not indicate the presence of a harmful algal bloom at the coast in southwest Florida. Chlorophyll levels remain elevated up to 2-3 µg/L along southwest Florida from Pinellas to Collier County. This is likely due to the presence of non-harmful algae. An elevated chlorophyll feature that may contain *K. brevis* remains visible approximately 20-30 miles southwest of Cape Romano. This feature continues to dissipate. Chlorophyll levels also remain slightly elevated (2-3 µg/L) offshore of Pavilion Key in northern Monroe County where 'very low' concentrations of *K. brevis* were identified on 2/8 (MML). However, 'very low' concentrations are below detectable imagery levels and therefore may not be fully visible in recent imagery.

Forecasted northeast to northwest winds may promote southward transport of remaining bloom patches through Sunday. Bloom formation at the coast is unlikely.

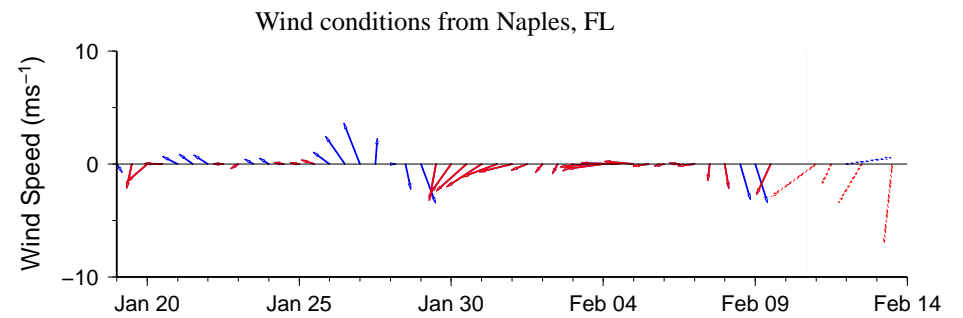
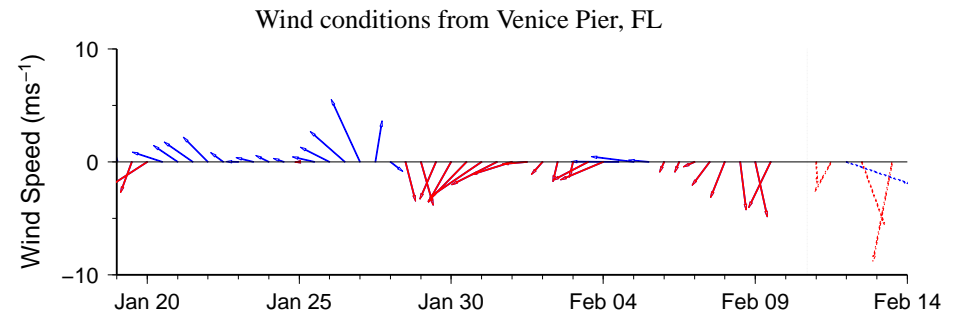
Fisher, Yang

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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).

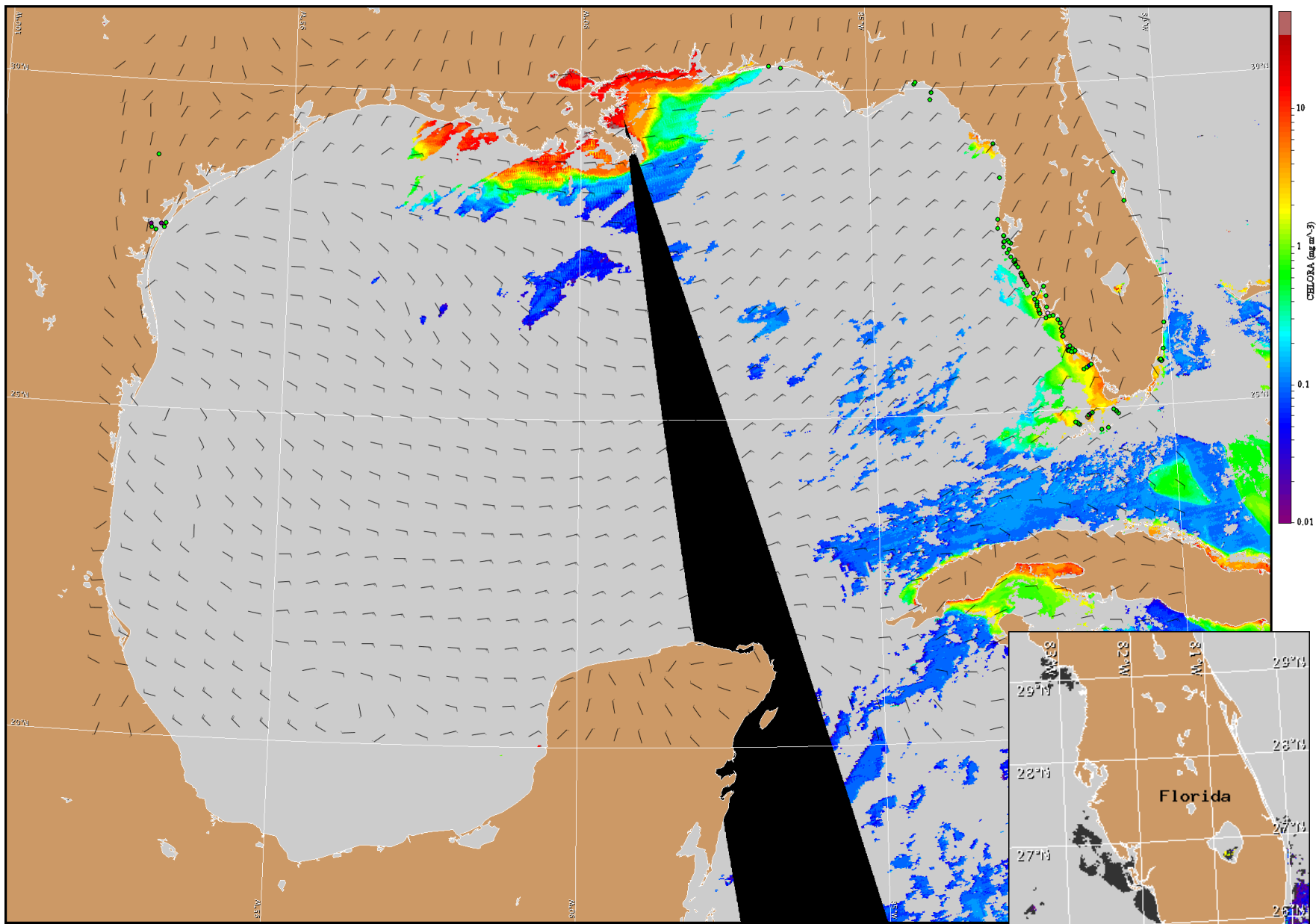


## Wind Analysis

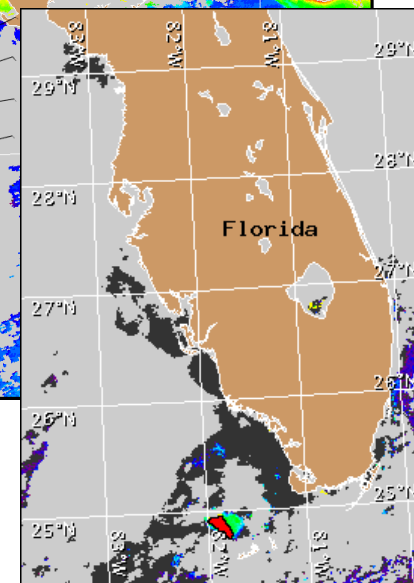
**Florida Keys:** North to northeast winds (10-15kn, 5-8m/s) today. East winds (5-10kn, 3-5m/s) Friday becoming variable by noon. Northwest to north winds Saturday increasing to 15kn Saturday afternoon. North winds (up to 20kn, 10m/s) Saturday night through Sunday.

**Pinellas to Lee Counties:** Northeast winds (10-15kn, 5-8m/s) today. North winds (5-10kn, 3-5m/s) Friday. Northwest winds (5-10kn) Friday night becoming north (15-20kn, 8-10m/s). North winds (15-20kn) Saturday and Sunday becoming northeast (10-15kn) Sunday night.

**Collier and Monroe Counties:** North northeast to northeast wind (6-14kn, 3-7m/s) today and Friday becoming west northwest (5-7kn, 3-4m/s) Friday afternoon. Northwest to north northwest winds (14-20kn, 7-10m/s) Friday night through Saturday night. North northeast to northeast winds (13-18kn, 7-9m/s) Sunday.



Satellite chlorophyll image and forecast winds for February 10, 2012 12Z with cell concentration sampling data from January 30 to February 8 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)



Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).