

# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

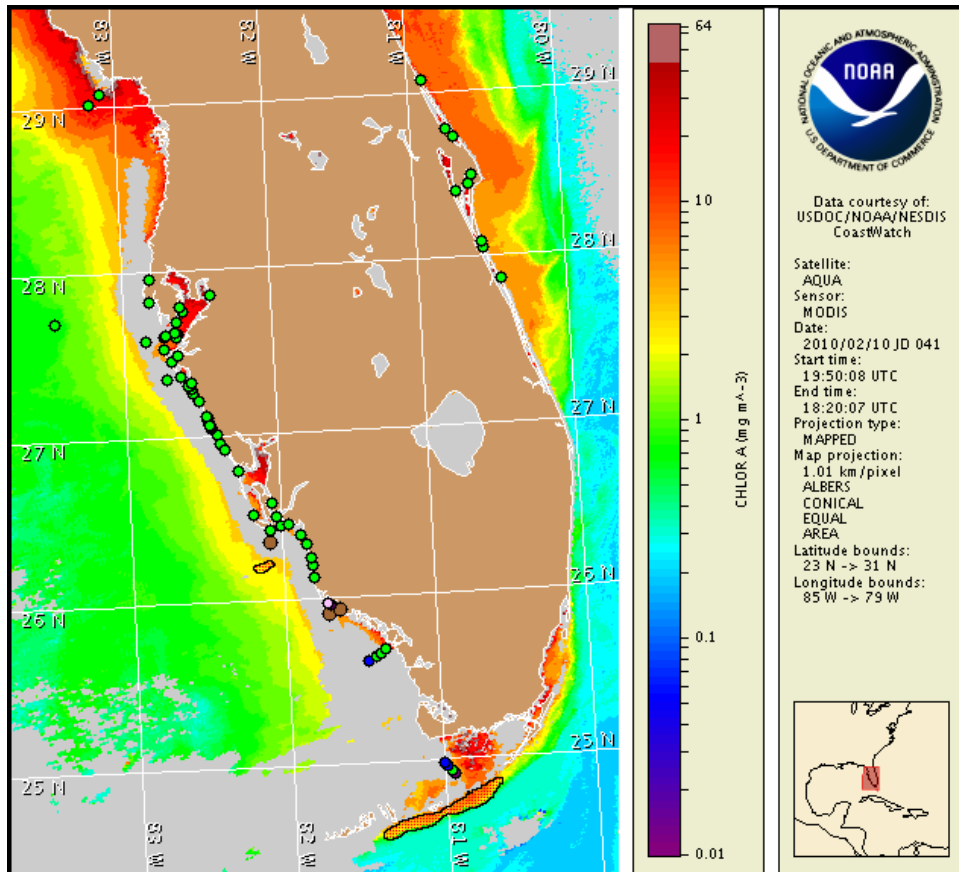
12 February 2010

NOAA Ocean Service

NOAA Satellites and Information Service

NOAA National Weather Service

Last bulletin: February 4, 2010



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from February 2 to 11 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 HABFS bulletin guide:

[http://tidesandcurrents.noaa.gov/hab/habfs\\_bulletin\\_guide.pdf](http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf)

Please note the following restrictions on all SeaWiFS imagery derived from CoastWatch.

1. Data are restricted to civil marine applications only; i.e. federal, state, and local government use/distribution is permitted.
2. Image products may be published in newspapers. Any other publishing arrangements must receive GeoEye approval via the CoastWatch Program.

## Conditions Report

A localized harmful algal bloom continues at the coast in central Collier County. Off-shore blooms have been identified south of Sanibel Island in southern Lee County and northern Monroe County. A harmful algal bloom has also been identified offshore in the gulfside region of the middle Florida Keys and was last identified offshore in the gulfside region of the lower Florida Keys on January 20. In central Collier County, patchy low impacts are possible today through Monday. In the gulfside region of the lower and middle Florida Keys, patchy low to moderate impacts are possible today through Monday. No impacts are expected elsewhere alongshore southwest Florida today through Monday, February 15.

## Analysis

\*Due to the upcoming Federal Holiday, the next bulletin will be issued on Tuesday, February 16.\*

**SW Florida:** Localized harmful algal blooms are currently present in central Collier County, offshore southern Lee County, and offshore northern Monroe County. A patchy harmful algal bloom was reconfirmed in central Collier County on 2/8 (FWRI; 'low a' at Caxambas Pass and Goodland Bridge; 'very low a' at Big Marco Pass and South Marco Island). Bloom concentrations of *Karenia brevis* ('low a') were also identified last week on 2/3 approximately 5 miles south of Sanibel Island (FWRI), and 'very low b' *K. brevis* concentrations were identified on 2/9 approximately 9 miles southwest of Pavilion Key in Monroe County (MML). No *K. brevis* was detected in samples collected alongshore southwest Florida this week between Pinellas and northern Collier County (FWRI, SCHD; 2/8-10). No reports of impacts due to harmful algal blooms have been received.

Clouds obscure recent imagery alongshore Collier County and in northern Monroe County. An elevated chlorophyll feature (~2-3 µg/L) is visible in recent MODIS imagery (2/10; shown left) west of Sanibel Island from 26°34'45"N 82°29'10"W to 26°19'10"N 82°22'41"W. Elevated chlorophyll features (~2-3 µg/L) are also partially visible south of Sanibel Island near 26°13'35"N 82°7'11"W and 26°6'52"N 82°3'19"W. Clouds obscure imagery just north of these features where 'low a' *K. brevis* concentrations were identified on 2/3. Strong north to northwest winds observed this week likely transported this bloom further south. Sampling is recommended.

Strong and variable north winds tonight through Sunday may promote resuspension of sediment at the coast and intensification of the bloom in central Collier County. Southward transport of the bloom offshore southern Lee County is possible through Sunday.

**Florida Keys:** A patchy harmful algal bloom (up to 'very low b' *K. brevis* concentrations) was identified approximately 10-16 miles north of the middle Florida Keys on 2/8. No recent sample information is available north of the lower Florida Keys where 'medium' *K. brevis* concentrations were identified on 1/20. Continued sampling is recommended.

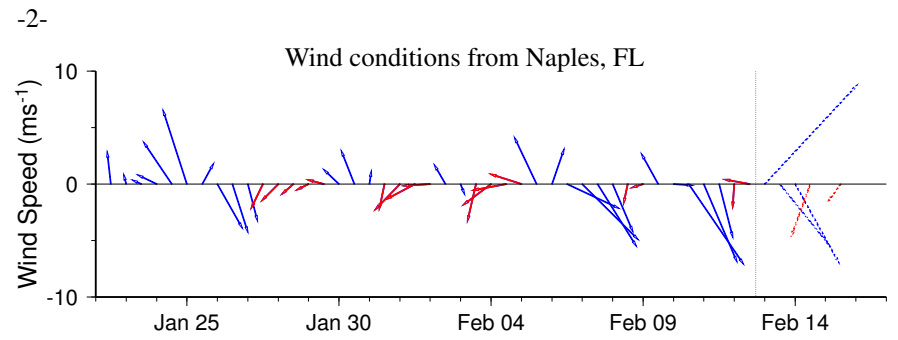
Recent satellite imagery north of the lower Florida Keys is predominantly obscured by clouds; however a large band of elevated chlorophyll continues to be visible from south of Cudjoe Key in the lower Florida Keys region to south of Matecumbe, in the upper

Florida Keys region. Sampling is recommended in this region as *K. brevis* may have transported here from the Gulf of Mexico. Strong north to northwest winds forecasted tonight through Sunday will increase the potential for southward transport of the bloom north of the Keys.

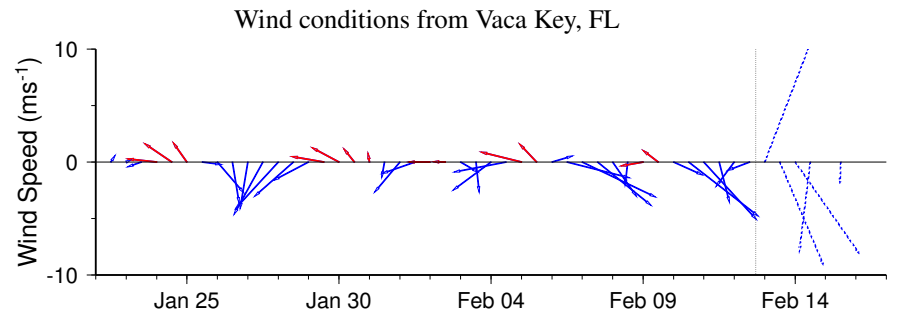
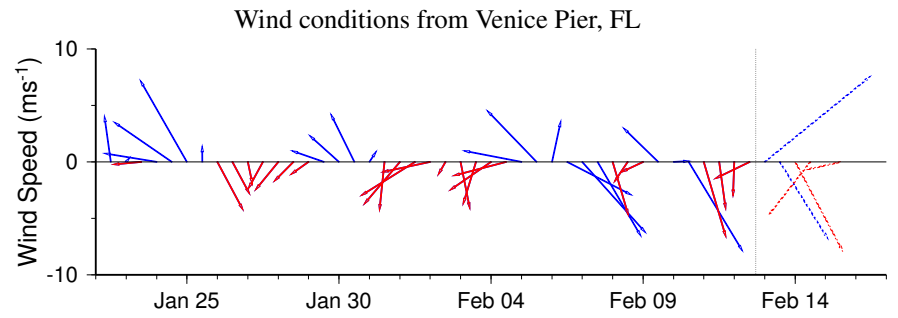
Due to technical difficulties SeaWiFS imagery is currently unavailable for display. MODIS imagery is shown on this bulletin.

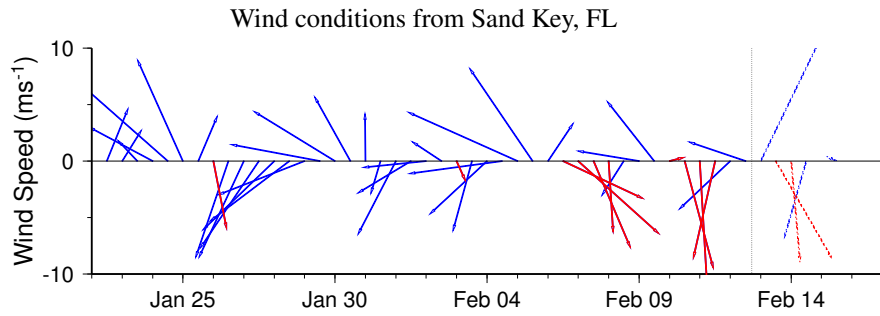
-Fisher, Derner

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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).

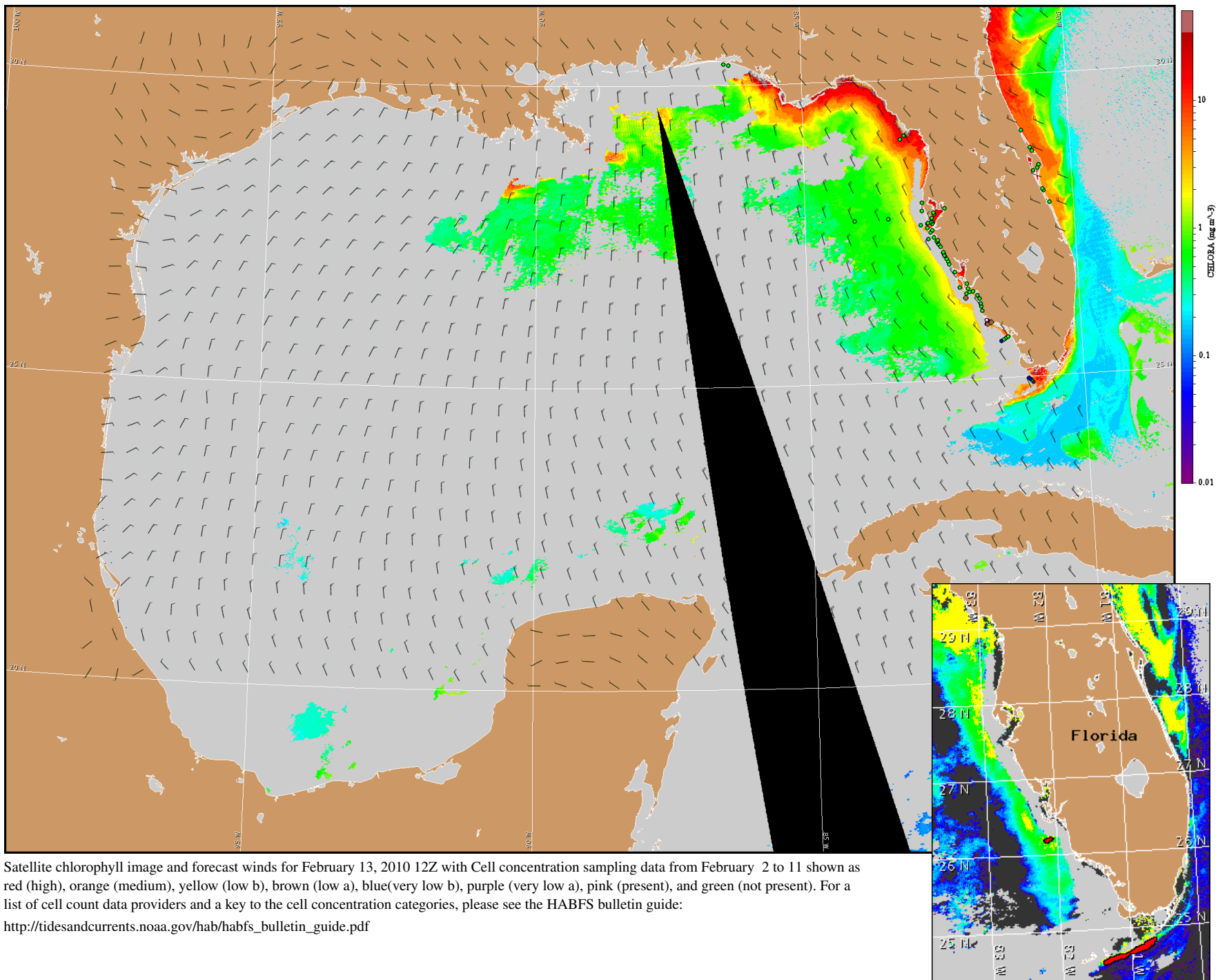




## Wind Analysis

Southwest Florida: Strong south to southeast and southwest winds today (20-35kn, 10-18m/s). Strong northwest winds tonight through Saturday (20-32kn, 10-16m/s), shifting north into Saturday night (13-18kn, 7-9m/s). North to northeast winds Sunday (10-15kn, 5-8m/s), shifting southeast north of Collier County Sunday night. West to southwest winds Monday (5-20kn, 3-10m/s). Northwest to north winds Monday night (7-12kn, 4-6m/s).

Florida Keys (gulfside): East to southeast winds, becoming south today (10-25kn, 5-13m/s). Southwest winds tonight, shifting west to northwest by midnight (30-40kn, 15-20m/s). Northwest to north winds Saturday (20-25kn, 10-13m/s). North winds Sunday (15-20kn, 8-10m/s). Northwest to north winds Monday (10kn, 5m/s).



Satellite chlorophyll image and forecast winds for February 13, 2010 12Z with Cell concentration sampling data from February 2 to 11 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 HABFS 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).