



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

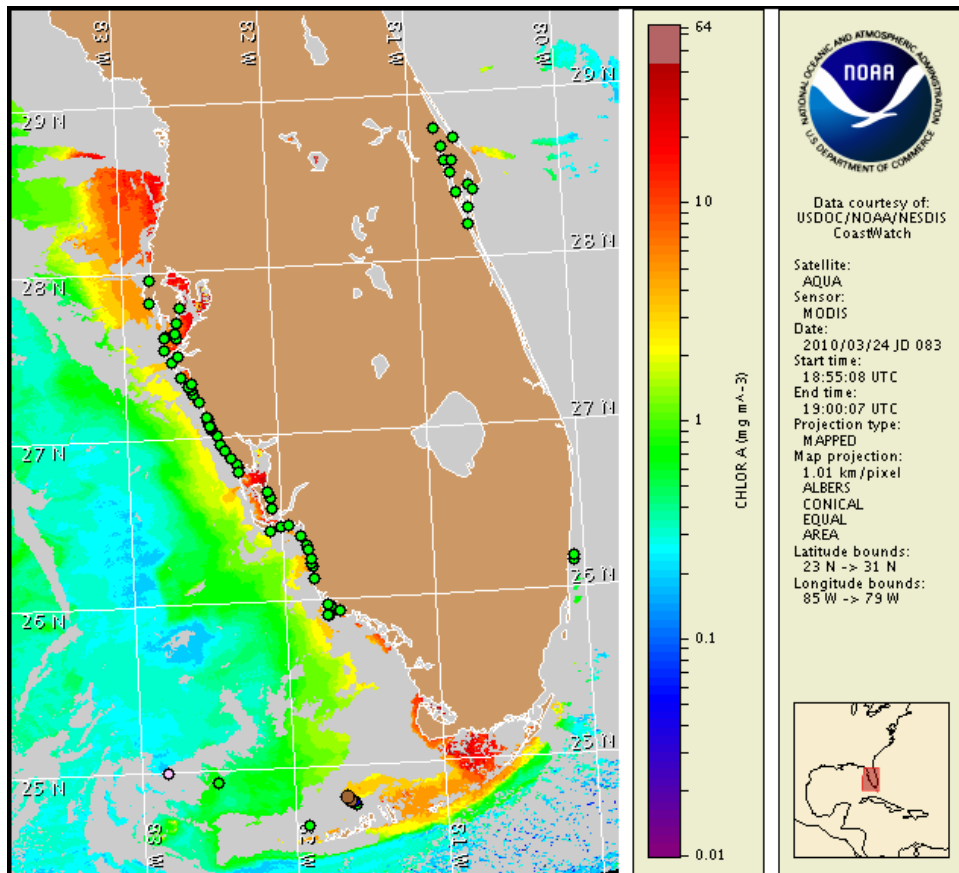
25 March 2010

NOAA Ocean Service

NOAA Satellites and Information Service

NOAA National Weather Service

Last bulletin: March 22, 2010



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from March 15 to 24 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

There is currently no indication of a harmful algal bloom onshore southwest Florida including the Florida Keys. A harmful algal bloom was last identified offshore central Monroe County on 3/11 and north of the Lower Florida Keys on 3/17. No impacts are expected at the coast in southwest Florida today through Sunday, March 28.

## Analysis

There is currently no indication of a bloom at the coast in southwest Florida, including the Florida Keys. A harmful algal bloom was last identified offshore Cape Sable in central Monroe County on 3/11 (up to 'medium' *Karenia brevis* concentrations), and north of the Lower Florida Keys on 3/17 (up to 'low a' *K. brevis* concentrations). No new samples have been received for these regions. Continued sampling is recommended. One sample collected approximately 26 miles north of Dry Tortugas in the Lower Florida Keys contained background concentrations of *K. brevis* (FWRI; 3/16). Additional samples collected alongshore Pinellas, Hillsborough, Manatee, Sarasota, Charlotte, Lee, Collier, and Monroe counties, all indicate that *K. brevis* is not present (FWRI, MML, SCHD; 3/15-24).

Satellite imagery indicates continued elevated (2-6  $\mu\text{g/L}$ ) chlorophyll levels alongshore and offshore Pinellas County, a slight decrease in the elevated to high levels last reported. Sampling in this region indicates that elevated chlorophyll levels are most likely due to numerous other species of algae identified in the samples. We will continue to monitor this feature; however, as it is unlikely to contain *K. brevis*, we will discontinue reporting on it at this time.

Imagery at the coast south of Lee County and in the Florida Keys region continues to be cloudy, limiting analysis; however, elevated (4-10  $\mu\text{g/L}$ ) to high (>10  $\mu\text{g/L}$ ) chlorophyll levels are visible alongshore Cape Sable from central to southern Monroe County. Elevated chlorophyll in this region is common and not necessarily indicative of a harmful algal bloom. Elevated chlorophyll (2 to >5  $\mu\text{g/L}$ ) also continues to be visible in the Keys in a band south of Marathon, stretching from approximately 24°45'45"N 80°50'15"W northeast to 24°57'49"N 80°30'51"W. Chlorophyll levels in this band appear to have decreased since last reported. No chlorophyll information is available in the region where *K. brevis* samples were identified north of the Florida Keys on 3/17.

Variable wind conditions throughout the remainder of the week at the coast in southwest Florida and in the Florida Keys minimize the potential for bloom transport or expansion.

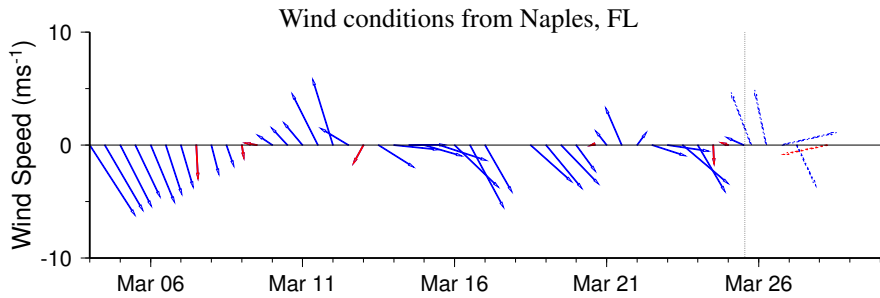
Due to technical difficulties SeaWiFS imagery is currently unavailable for display. MODIS imagery is shown on this bulletin.

Derner, Fisher

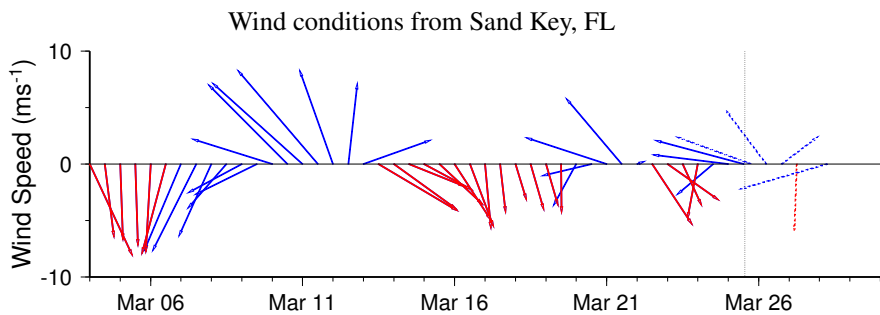
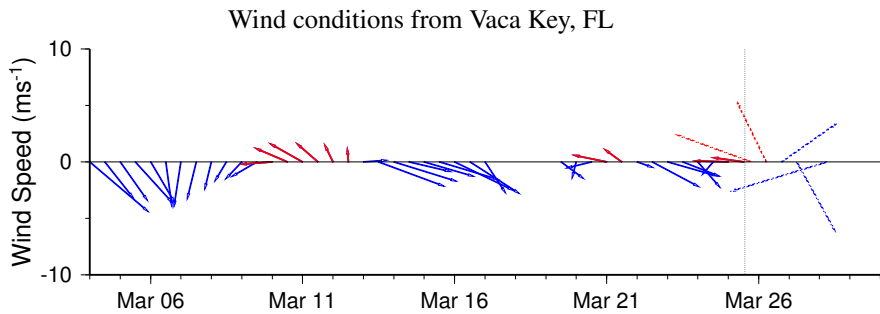
## Wind Analysis

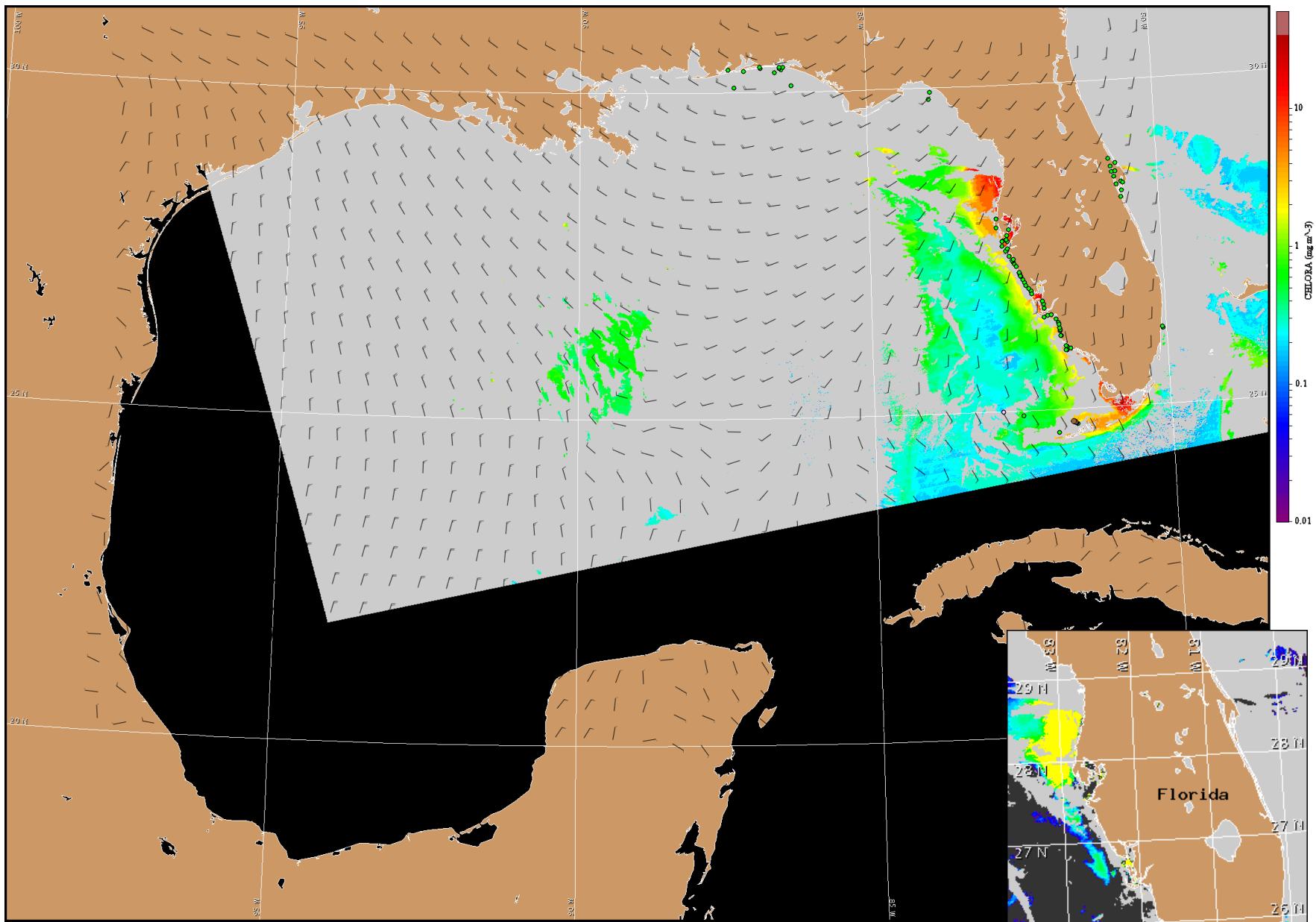
Southwest Florida: South to southwest winds (15kn, 8m/s) today. Northwest winds (10kn, 5m/s) Friday, shifting northeast (10kn) Friday night. Northeast to northwest winds (10kn) Saturday, becoming west (5kn, 3m/s) Saturday night. South winds (15kn) on Sunday, shifting west Sunday night (10kn).

Florida Keys (gulfside): East to southeast winds (10-15kn, 5-8m/s) today. South to southwest winds (10kn, 5m/s) Friday, shifting northwest (10kn) Friday night. Northeast winds (10kn) Saturday, becoming east in the afternoon. East to southeast winds (10-15kn) 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 26, 2010 06Z with Cell concentration sampling data from March 15 to 24 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).