



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

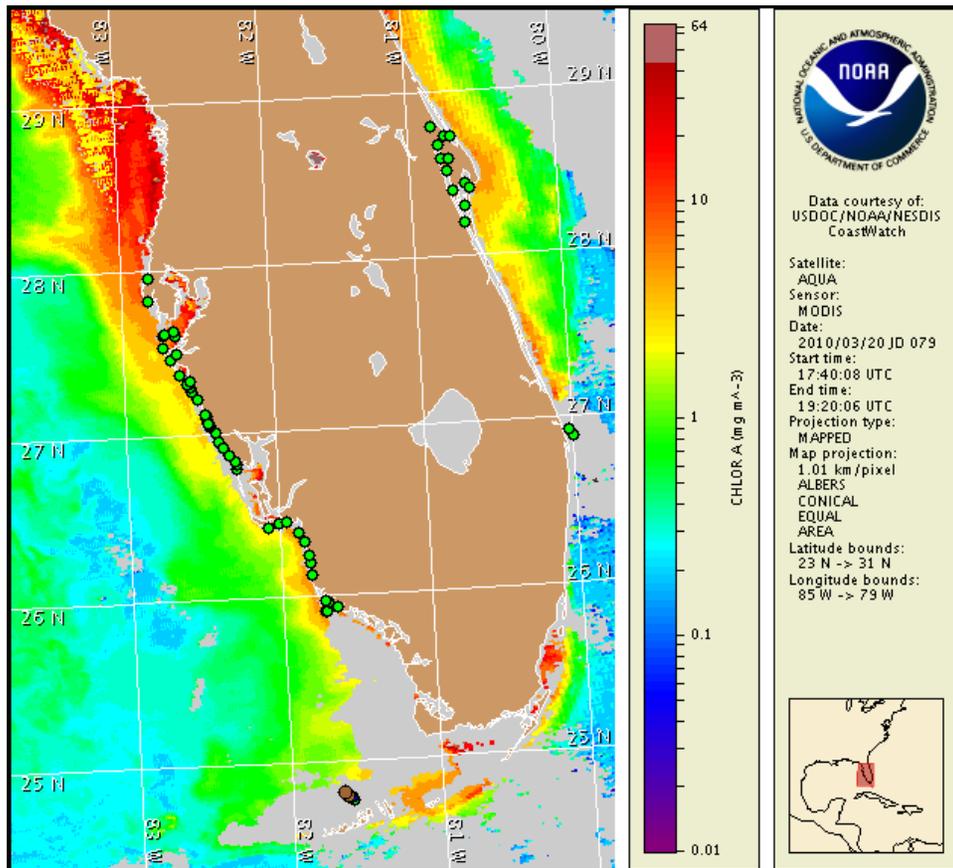
22 March 2010

NOAA Ocean Service

NOAA Satellites and Information Service

NOAA National Weather Service

Last bulletin: March 18, 2010



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from March 14 to 17 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 has been identified offshore central Monroe County and north of the Lower Florida Keys. No impacts are expected at the coast in southwest Florida today through Wednesday, March 24.

## Analysis

There is currently no indication of a bloom at the coast in southwest Florida, including the Florida Keys; however, a harmful algal bloom has been identified offshore central Monroe County and north of the lower Florida Keys. No additional samples have been received for Monroe County where *Karenia brevis* concentrations ranging from 'very low a' to 'medium' were identified offshore Cape Sable on 3/11 (FWRI), or the Lower Florida Keys, where three samples ranging from 'very low b' to 'low a' were identified 2-6 mi north of Sawyer Key on 3/17 (MML). Continued sampling in these regions is recommended. Background concentrations of *K. brevis* were detected in one out of 27 samples collected alongshore of Sarasota County last week (New Pass; MML; 3/15). Additional samples taken alongshore Pinellas, Hillsborough, Manatee, Sarasota, Charlotte, Lee, Collier, and Monroe counties, all indicate that *K. brevis* is not present (FWRI, MML, SCHD; 3/9-19).

Imagery over the past several days indicates the continued southward transport of elevated (1-10  $\mu\text{g/L}$ ) to high (>10  $\mu\text{g/L}$ ) chlorophyll patches from the Big Bend region of Florida alongshore northern Pinellas County and extending southward offshore southern Manatee and northern Sarasota counties to approximately 27°19'54"N 82°51'20"W. Elevated chlorophyll in the Big Bend region is common and not necessarily indicative of a harmful algal bloom.

Imagery at the coast south of central Collier and in the Florida Keys region is cloudy, limiting analysis; however, an elevated chlorophyll patch is visible alongshore southern Lee to central Collier County (2-5  $\mu\text{g/L}$ ). This patch is likely due to confirmed diatom blooms in the region and not the result of *K. brevis*. Elevated to high chlorophyll is also visible in the Keys south of Marathon (2 to >10  $\mu\text{g/L}$ ) stretching from approximately 24°39'25"N 81°5'4"W northeast to 24°49'11"N 80°42'50"W. As imagery in the Florida Keys is cloudy, it's possible that the extents of this patch of elevated chlorophyll may continue farther southward and northward than indicated. No chlorophyll information is available in the region where *K. brevis* samples have been identified north of the Florida Keys.

Variable wind conditions early this week minimize the potential for bloom transport in Monroe County. Northerly winds in the Florida Keys over the next several days may promote south to southwestward bloom transport or expansion.

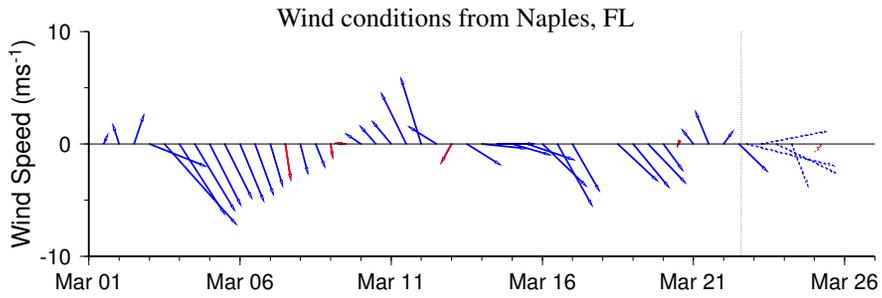
Due to technical difficulties SeaWiFS imagery is currently unavailable for display. MODIS imagery is shown on this bulletin.

Derner, Fisher

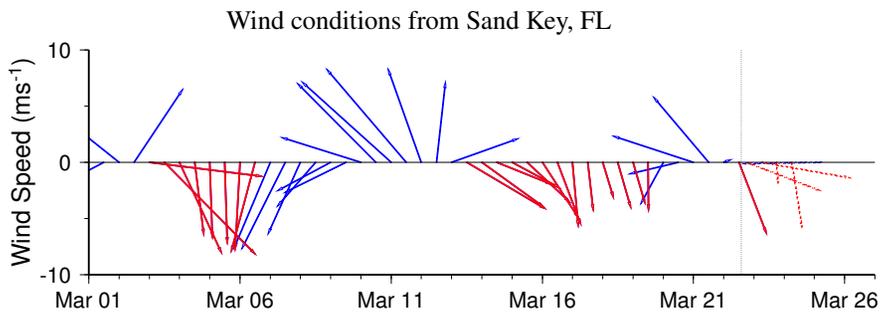
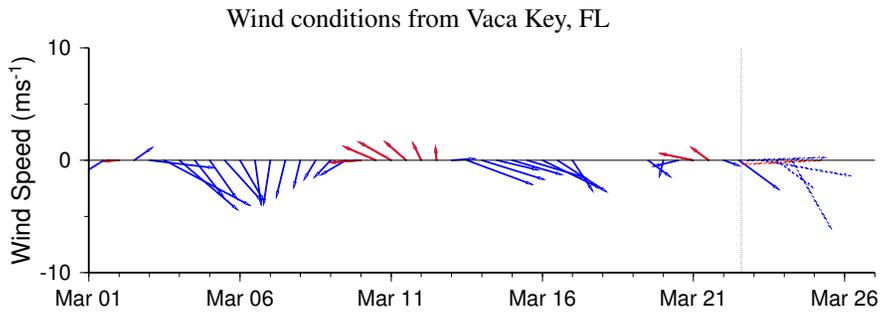
## Wind Analysis

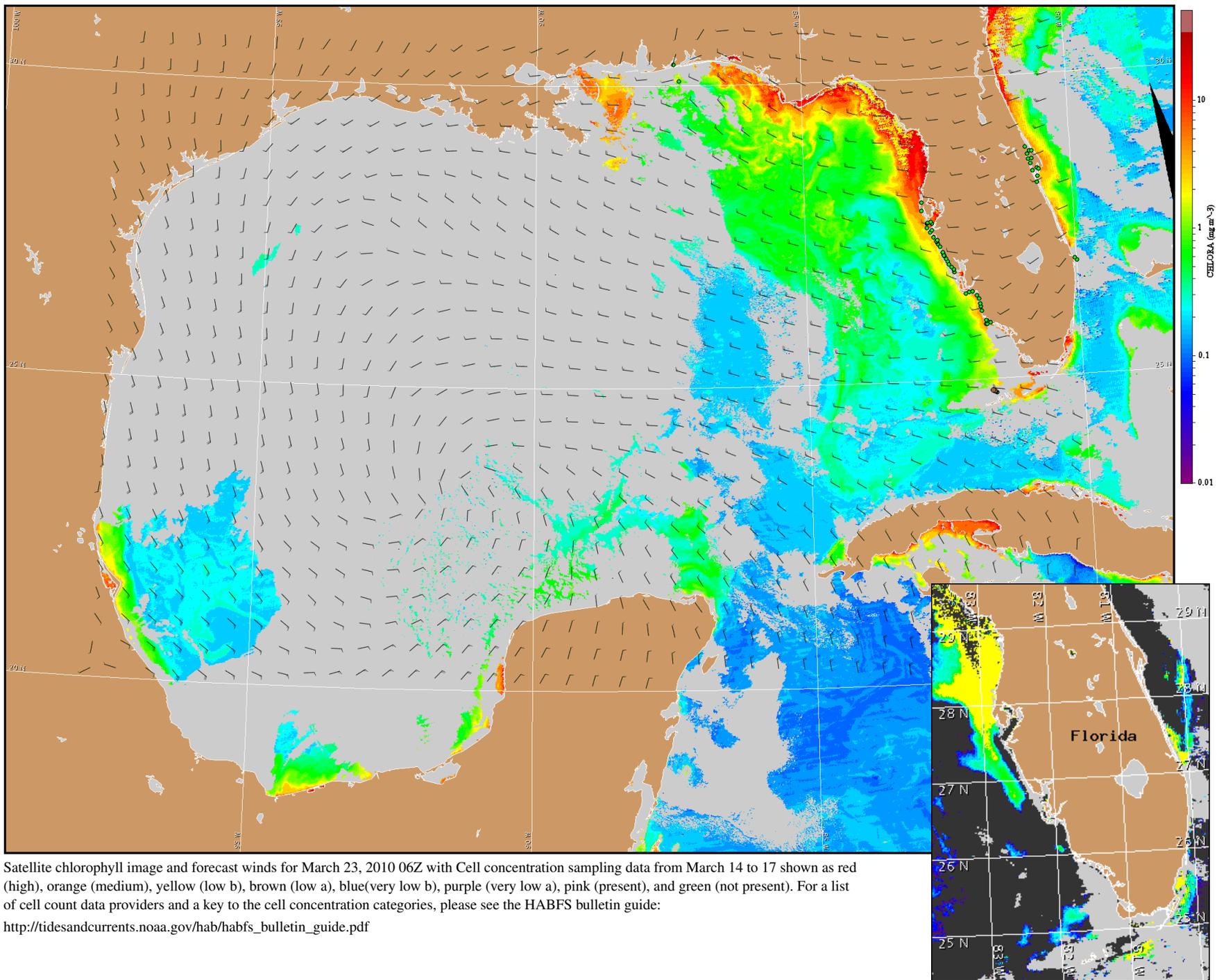
Southwest Florida: West winds today (20kn, 10m/s). Northwest winds Tuesday (10kn, 5m/s), shifting northeast Tuesday night (10kn). East to northeast winds Wednesday (10kn) shifting northwest on Wednesday night (5kn).

Florida Keys (gulfside): Northwest winds (10-15kn, 5-8m/s) today through Tuesday night. North winds Tuesday night (10-15kn). North to northeast winds Wednesday (10kn, 5 m/s).



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 23, 2010 06Z with Cell concentration sampling data from March 14 to 17 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).