



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

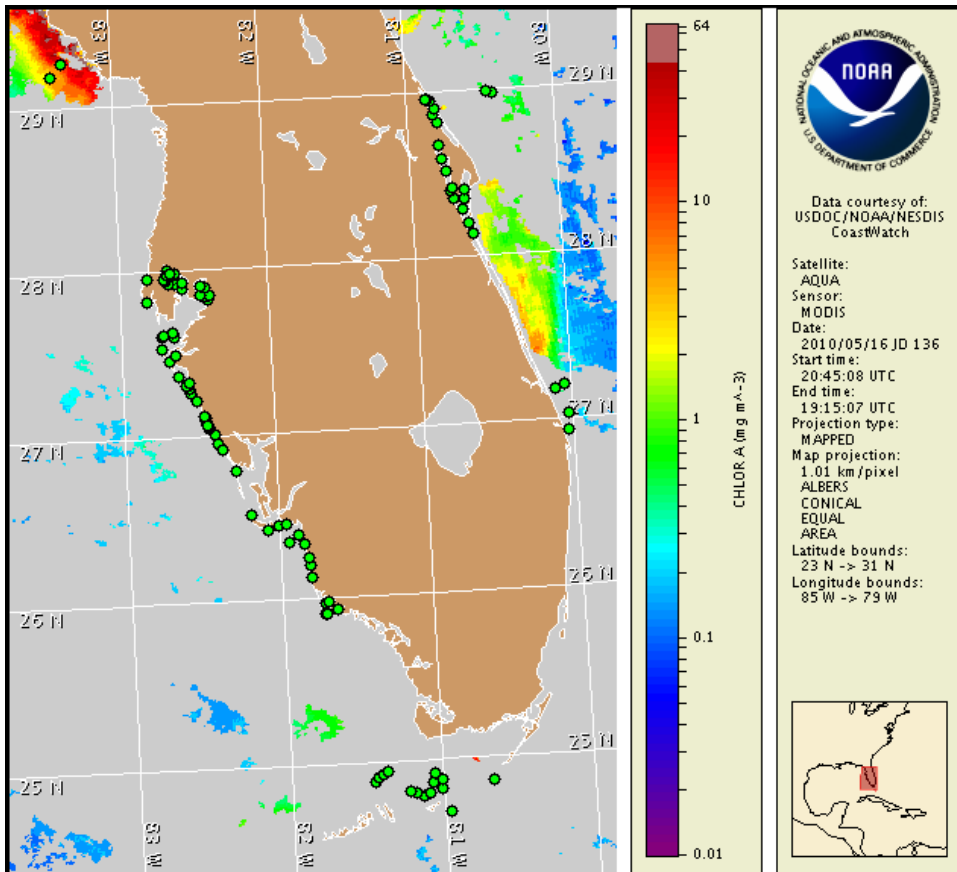
17 May 2010

NOAA Ocean Service

NOAA Satellites and Information Service

NOAA National Weather Service

Last bulletin: May 13, 2010



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from May 7 to 12 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 at the coast in southwest Florida. Harmful algae were last identified in the gulfside region of the lower Florida Keys on May 4. No impacts are expected alongshore southwest Florida today through Sunday, May 23.

## Analysis

**Florida Keys:** There are currently no reports of harmful algae in the Florida Keys. *Karenia brevis* was last detected in the lower Florida Keys approximately 7.3 miles northwest of Sawyer Key on 5/4 ('very low a'; FWRI). No new samples have been received for this region. Several samples collected throughout the Keys, including offshore east of Rabbit Key and north of Harbor Key on the gulfside, and nearshore southeast of both Marathon and Lower Matecumbe Key on the Oceanside, all indicated that *K. brevis* was not present (MML; 5/5-10).

Recent satellite imagery is almost completely obscured by clouds, limiting analysis. As previously reported, elevated to high (4 to >10  $\mu\text{g/L}$ ) chlorophyll levels were present throughout much of the area surrounding the lower Florida Keys and north of the middle Florida Keys. Sample results indicate that elevated chlorophyll levels in much of the area surrounding the Keys are not associated with harmful algae. This region will continue to be monitored as imagery becomes available. Continued sampling throughout the lower Florida Keys region is recommended.

**Southwest Florida:** There is currently no indication of a harmful algal bloom at the coast in southwest Florida. No *K. brevis* has been identified in recent samples collected alongshore southwest Florida from Pinellas to Collier County or offshore Lee County (FWRI, MML, SCHD, CCPCPD; 5/6-5/14). Recent imagery is completely obscured by clouds both along and offshore southwest Florida, limiting analysis. Recent elevated chlorophyll levels visible along much of the southwest Florida coastline are likely a result of mixed diatom blooms that continue to be reported in many southwest Florida counties (FWRI; 5/3-5/14).

Harmful bloom formation is not expected at the coast through Sunday, May 23.

SeaWiFS imagery is not currently being displayed on the bulletin. MODIS imagery is shown at left and on page 3.

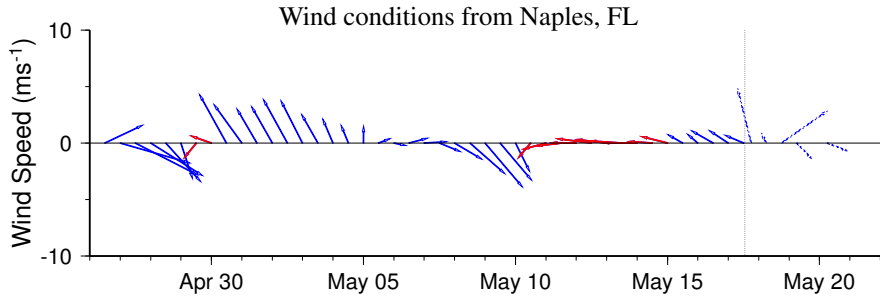
*\*Note: As of today, southwest Florida bulletins will be issued once weekly on Mondays due to current harmful algal bloom inactivity. Twice weekly bulletins will resume as conditions warrant. The next bulletin will be sent on Monday, May 24.*

Derner, Urizar, Yang

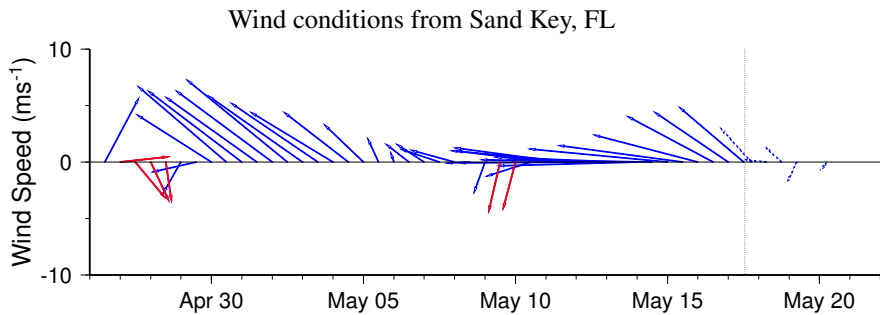
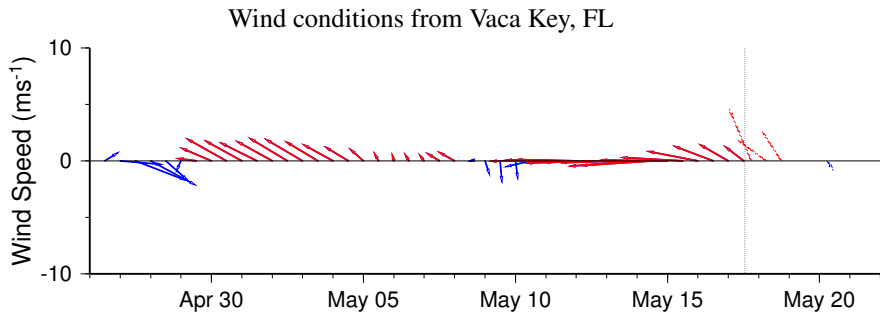
## Wind Analysis

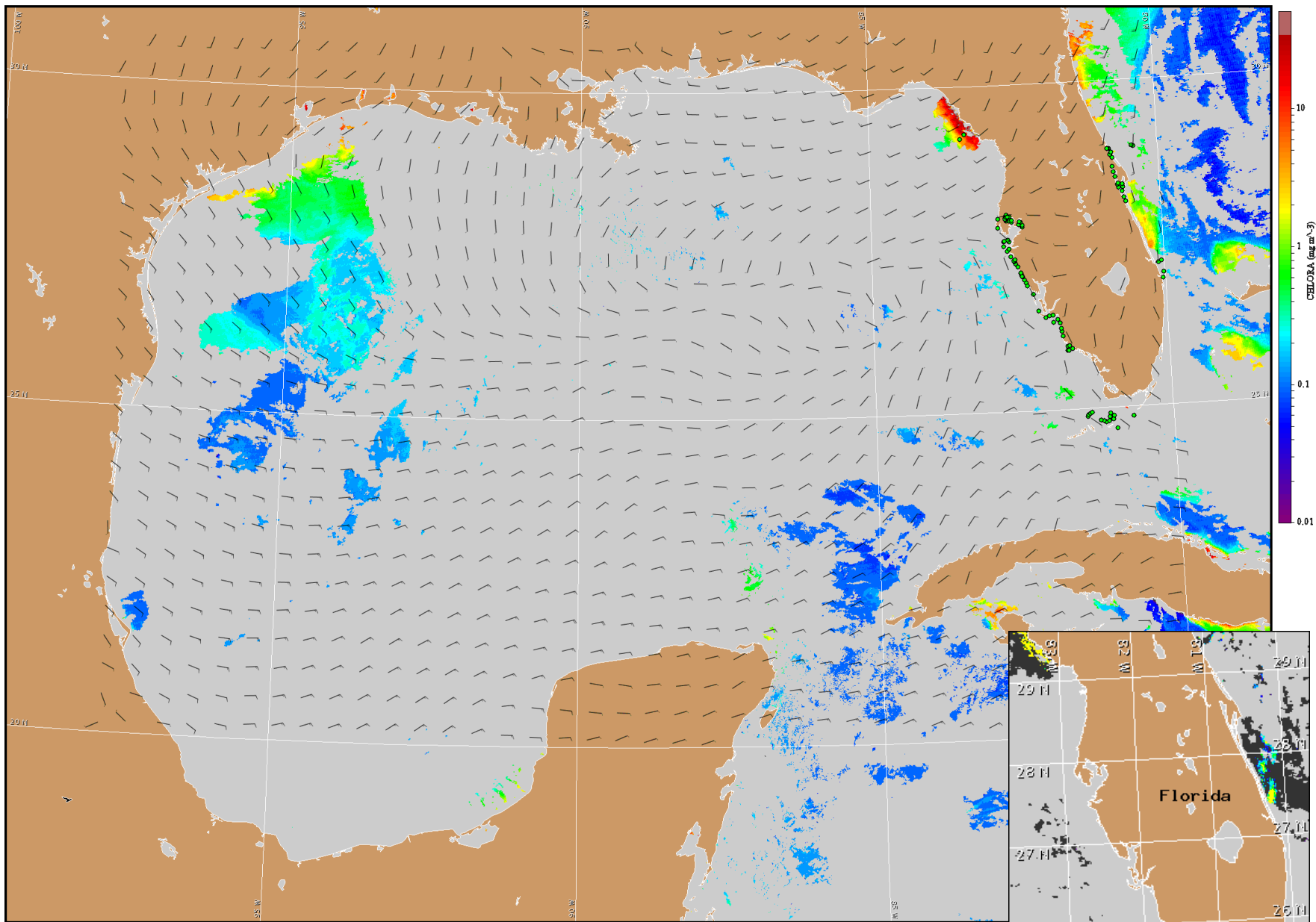
**Florida Keys:** Southeast winds (5-15kn, 3-8m/s) today. Variable winds (5-10kn, 3-5m/s) Tuesday. East to southeast winds (5-10kn) Wednesday. Southeast winds (5-10kn) Thursday. East winds (10kn, 5m/s) Friday.

**Southwest Florida:** South winds (10kn, 5m/s) today becoming southwest to southeast (5kn, 3m/s) tonight. Southeast to west winds (5kn) Tuesday. North winds (5kn) Tuesday night, becoming southeast (5kn) after midnight. Northeast to northwest winds (5kn) Wednesday. West winds (10kn), becoming easterly Wednesday night. East winds (10kn) Thursday and Friday.



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 May 18, 2010 06Z with Cell concentration sampling data from May 7 to 12 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).