



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: South Florida

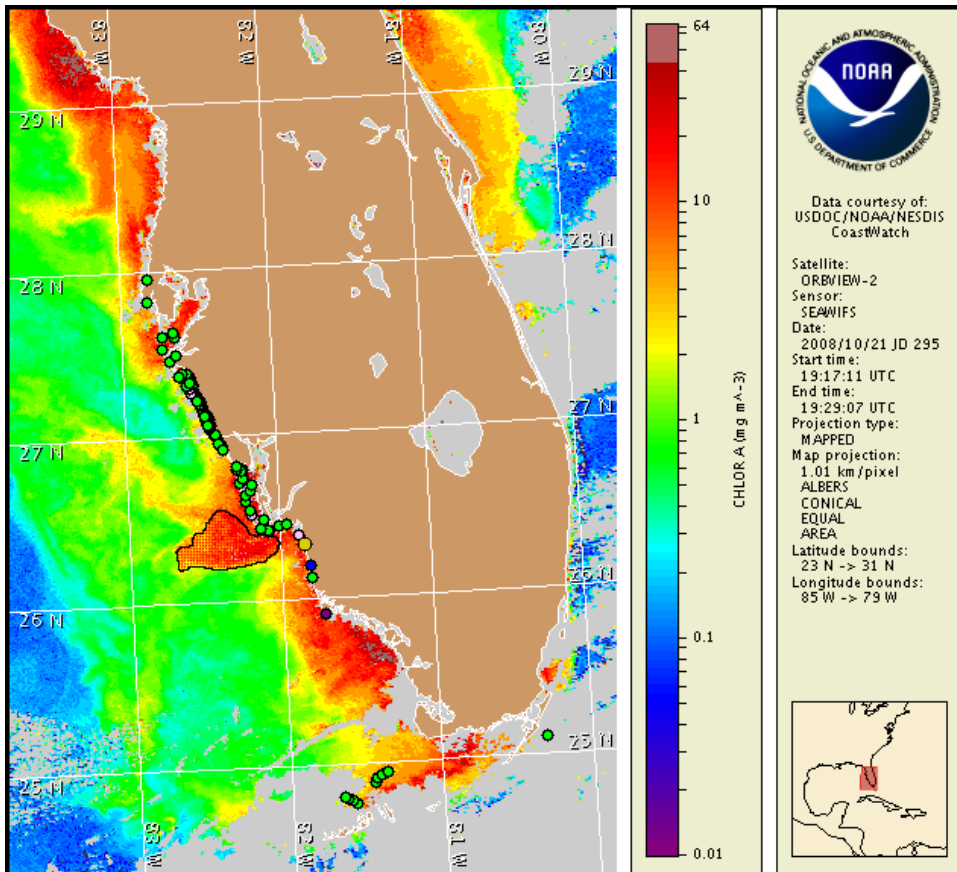
23 October 2008

NOAA Ocean Service

NOAA Satellites and Information Service

NOAA National Weather Service

Last bulletin: October 21, 2008



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from October 13 to 22 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)

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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

SW Florida: A harmful algal bloom has been identified in patches in the southern Lee/northern Collier County region and in northern Lee County. Patchy very low impacts are possible today, Friday, Saturday night and Sunday in northern Lee County and the southern Lee/northern Collier County region. Patchy moderate impacts are possible in northern Lee County and patchy low impacts are possible in the southern Lee/northern Collier County region Friday night and Saturday. Additionally, harmful algae have been identified in central Collier County. No impacts are expected in central Collier County or elsewhere alongshore southwest Florida today through Sunday, October 26.

## Analysis

A harmful algal bloom has been identified in the southern Lee/northern Collier County region and persists from Cayo Costa State Park to Captiva Island in northern Lee County. Samples taken along Sarasota County indicate that *Karenia brevis* is either not present or at background concentrations (FWRI 10/14, 10/20, 10/21). Additionally, samples taken at Boca Grande, Captiva and Redfish Passes, in the Pine Island Sound and along the southern portion of Sanibel Island in Lee County indicate that *K. brevis* is not present but that various species of non-harmful algae remain at elevated levels (FWRI 10/15, 10/21). Satellite imagery (10/19-21) indicates that chlorophyll levels have remained constant in the past few days. Also, the imagery (10/21) indicates that the elevated chlorophyll features have remained in place; although they have increased in size. The northern patch of elevated chlorophyll ( $> 5 \mu\text{g/L}$ ) extends from  $27^{\circ}7'57''\text{N}$ ,  $83^{\circ}22'29''\text{W}$  southeastward to  $26^{\circ}14'\text{N}$ ,  $82^{\circ}16'53''\text{W}$  with the bottom half of the patch located next to Lee County. The patches ( $6-10 \mu\text{g/L}$ ) seen previously offshore central to southern Collier County currently extend from  $25^{\circ}49'30''\text{N}$ ,  $81^{\circ}53'22''\text{W}$  southeastward to  $25^{\circ}26'48''\text{N}$ ,  $81^{\circ}35'19''\text{W}$ . High levels of chlorophyll ( $> 10 \mu\text{g/L}$ ) are visible at the coast in northern Collier County. Continued sampling throughout these regions is highly recommended. In the Florida Keys, samples collected north of Sawyer and Harbor Keys indicate that *K. brevis* is not present (MML 10/16-18).

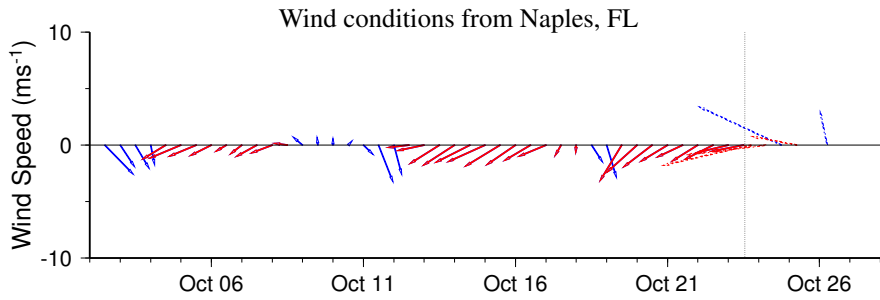
Onshore winds will increase the potential for impacts at the coast Friday night and Saturday. Bloom intensification is possible today and tomorrow in the southern Lee/northern Collier County region. Also, conditions are favorable for additional bloom formation in southwest Florida today and tomorrow. Alongshore transport of the blooms is not expected today through Sunday, October 26.

Urizar, Lindley

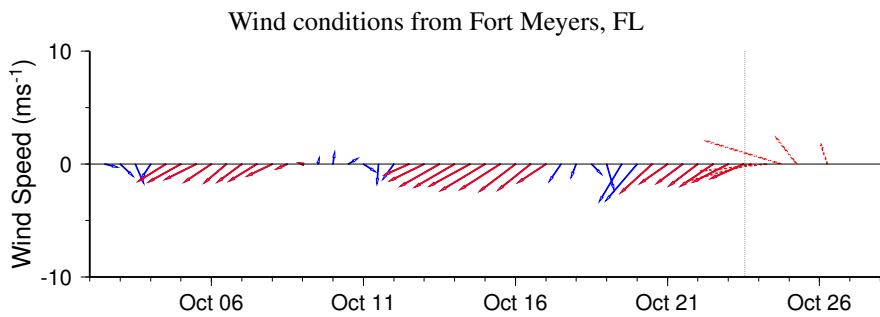
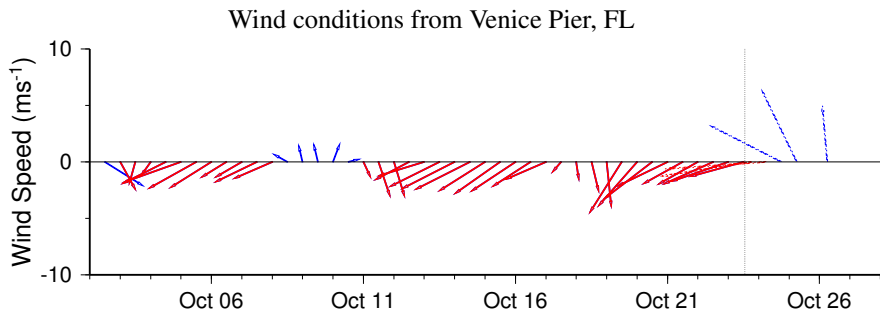
## Wind Analysis

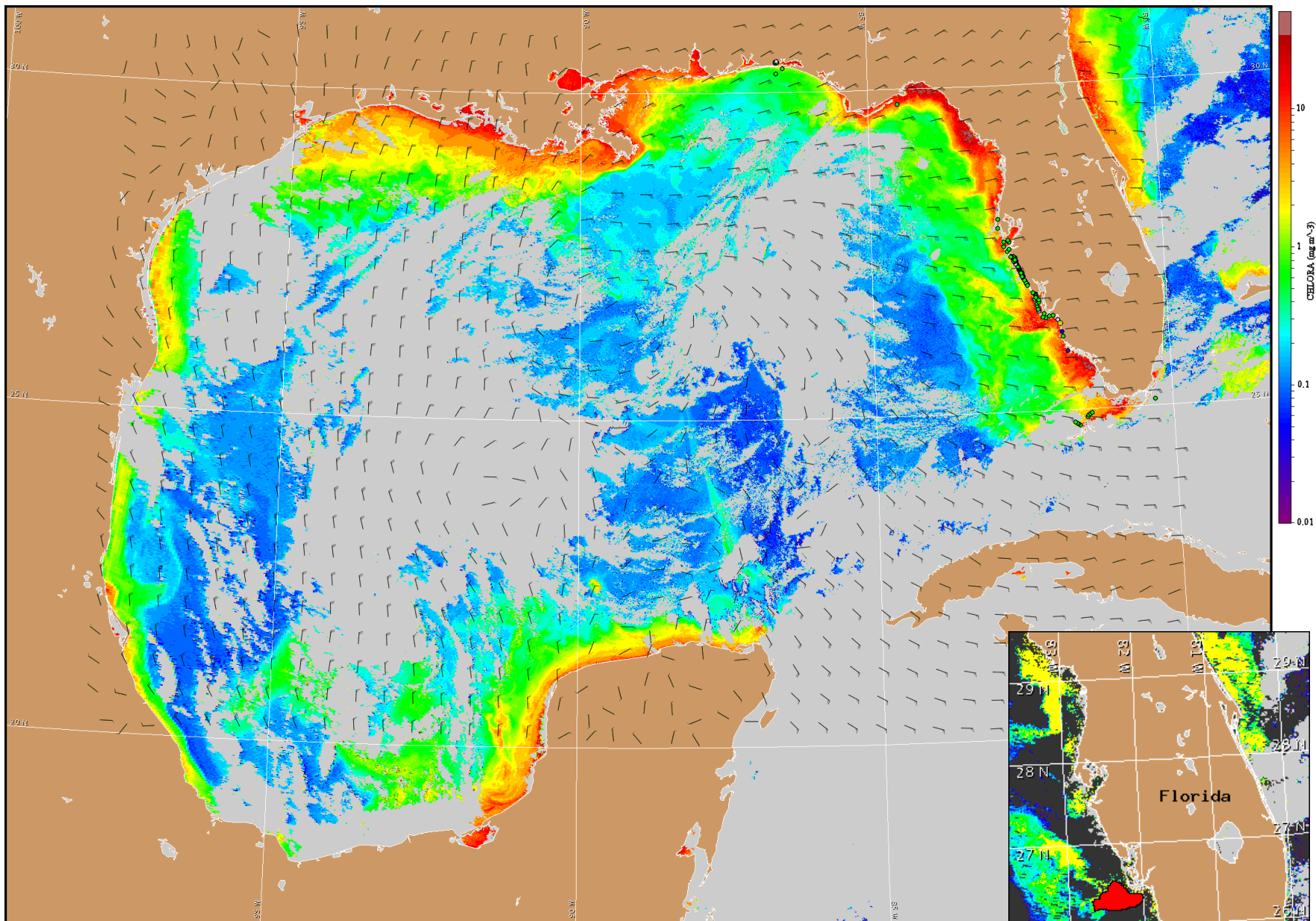
Pinellas to Lee County: Easterly winds (15-20 kn, 8-10 m/s) today. Southeasterly winds (10-20 kn, 5-10 m/s) Friday and southwest to westerly winds (5-10 kn, 3-5 m/s) Friday night. Northwesterly winds (5-15 kn, 3-8 m/s) Saturday. Northerly winds (10-15 kn, 5-8 m/s) Saturday night and Sunday.

Collier County: Easterly winds (10-20 kn) today. Southerly winds (10-15 kn) Friday and southwesterly winds (5-10 kn) Friday night. Westerly winds (5 kn) Saturday. Northerly winds (5-10 kn) Saturday night. Northeasterly winds (5-10 kn) Sunday.



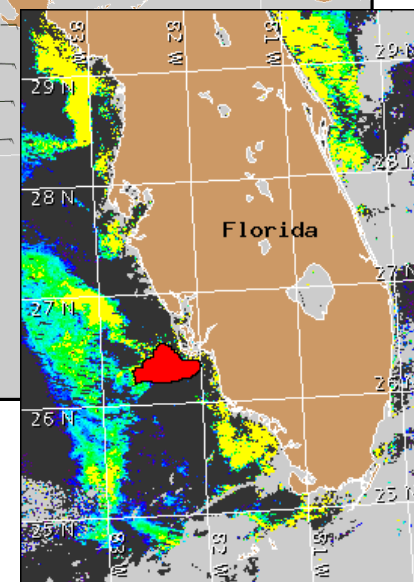
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).





Satellite chlorophyll image and forecast winds for October 24, 2008 06Z with Cell concentration sampling data from October 13 to 22 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).