



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

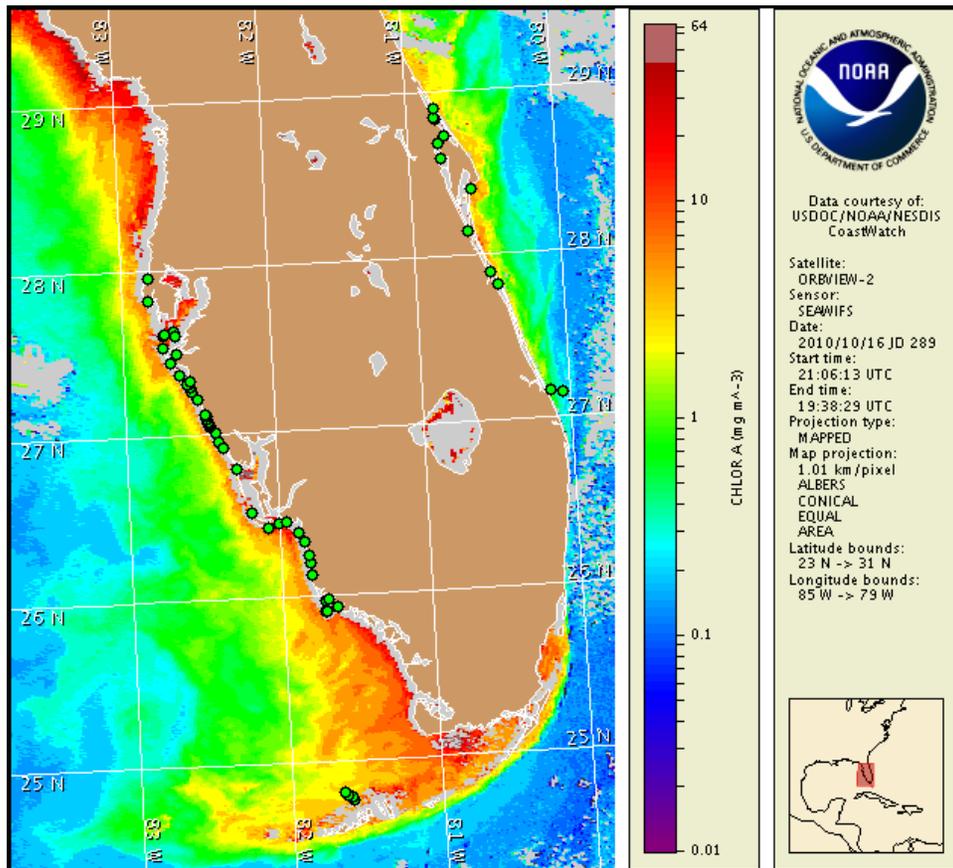
18 October 2010

NOAA Ocean Service

NOAA Satellites and Information Service

NOAA National Weather Service

Last bulletin: October 12, 2010



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from October 9 to 14 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

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, including the Florida Keys. Harmful algae have been identified offshore Collier County. No impacts are expected alongshore southwest Florida today through Sunday, October 24.

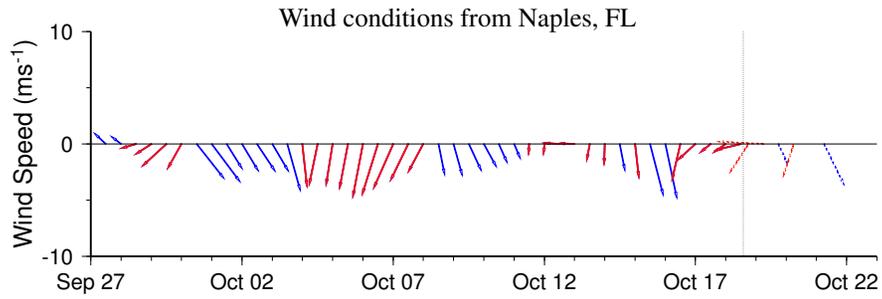
Analysis

There is currently no indication of a harmful algal bloom in southwest Florida, including the Florida Keys. Harmful algae has been identified offshore Collier County west of Wiggins Island ('very low'; FWRI; 10/14; sample not shown at left). One other sample collected on 10/14 offshore Lee County west of Lovers Key contained background concentrations *Karenia brevis* (FWRI). All other samples collected last week alongshore between Pinellas and Monroe counties, offshore Manatee, Sarasota, and Charlotte counties, and in the Florida Keys indicate that *K. brevis* is not present (CCPCPD, FWRI, MML, SCHD; 10/11-15).

Elevated chlorophyll remains visible in recent satellite imagery along and offshore much of the southwest Florida coastline and in the Florida Keys. A narrow band of elevated chlorophyll (2-6 $\mu\text{g/L}$) stretches along the coast from Pinellas to Lee County where it broadens, with elevated to high chlorophyll (3 to $>10 \mu\text{g/L}$) extending along and offshore Lee, Collier, and Monroe counties. Elevated to high chlorophyll (3 to $>10 \mu\text{g/L}$) is also visible in the Florida Keys, surrounding much of the Lower Keys region. A region of high chlorophyll ($>10 \mu\text{g/L}$) is visible in the Sanibel Island area and alongshore southern Lee County, including the area where the 'very low' *K. brevis* concentration was collected west of Wiggins Island. Other samples collected throughout this area do not indicate the presence of *K. brevis*. A previously reported patch of elevated chlorophyll that may have transported south from Sanibel Island is now located at $25^{\circ}44'20''\text{N } 81^{\circ}54'30''\text{W}$ (3-4 $\mu\text{g/L}$). Elevated chlorophyll along the coast is likely the result of confirmed non-harmful algal blooms that continue to be reported throughout southwest Florida (FWRI; 10/13-14). A bloom of *Takayama cf. acrotrocha*, first reported on 9/9, continues to bloom in Collier County and has extended into southern Collier as far as South Marco Beach; no impacts have been reported due to this bloom in the past week (CCPCPD, FWRI; 10/11-12).

Upwelling favorable variable north and east winds are expected through Friday, increasing the potential for bloom formation at the coast.

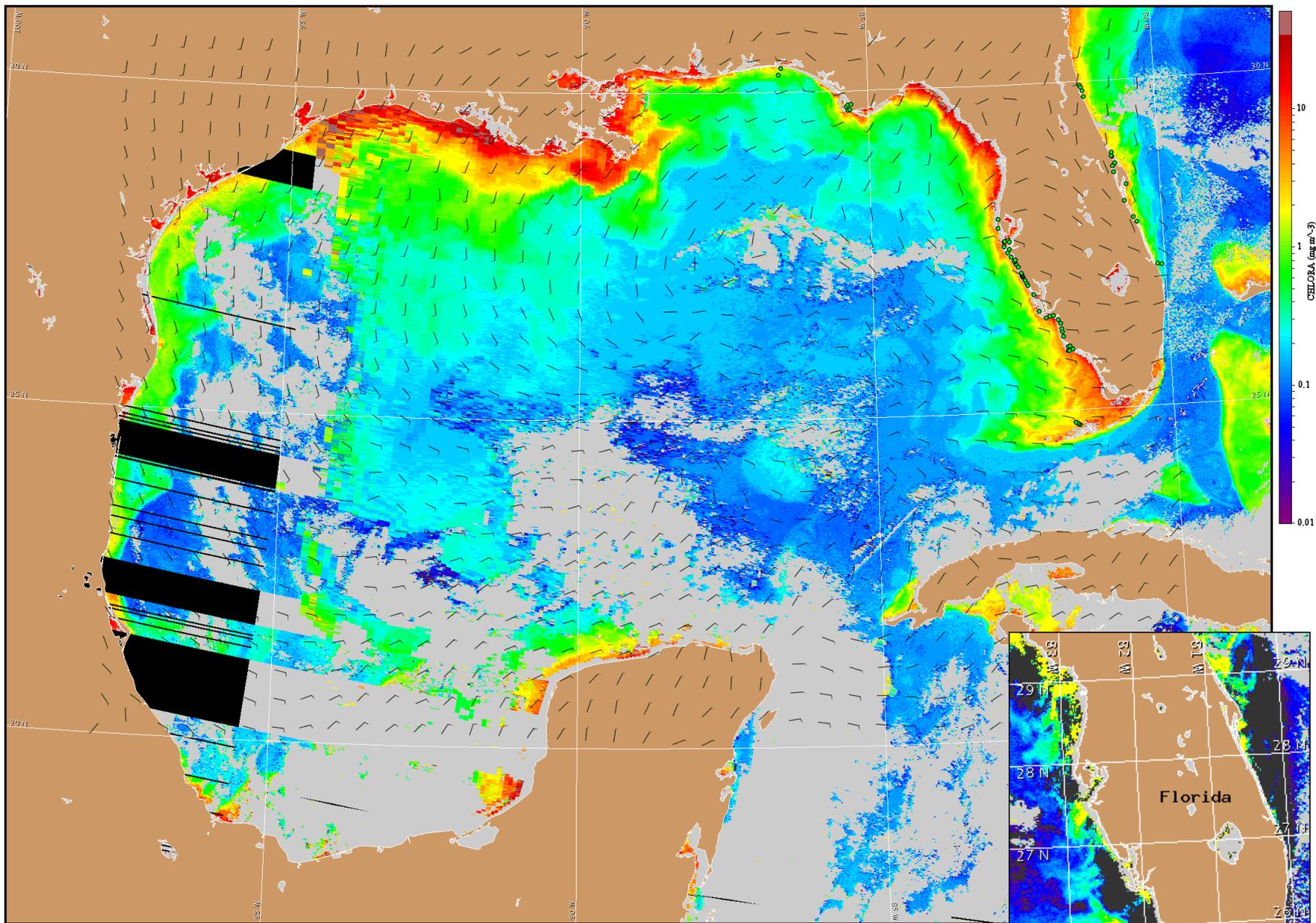
Derner, Urizar



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).

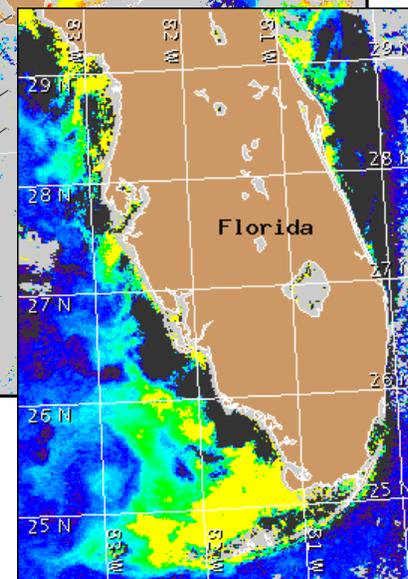
Wind Analysis

Southwest Florida: East winds today (10kn, 5m/s) becoming northwest (5kn, 3m/s) in the afternoon. East winds (10kn) tonight. Variable northeast (10kn) and west (5kn) winds Tuesday. North winds (15kn, 8m/s) Wednesday. Northwest winds (10kn) Thursday shifting north (10kn) into Friday.



Satellite chlorophyll image and forecast winds for October 19, 2010 06Z with Cell concentration sampling data from October 9 to 14 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



Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).