



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

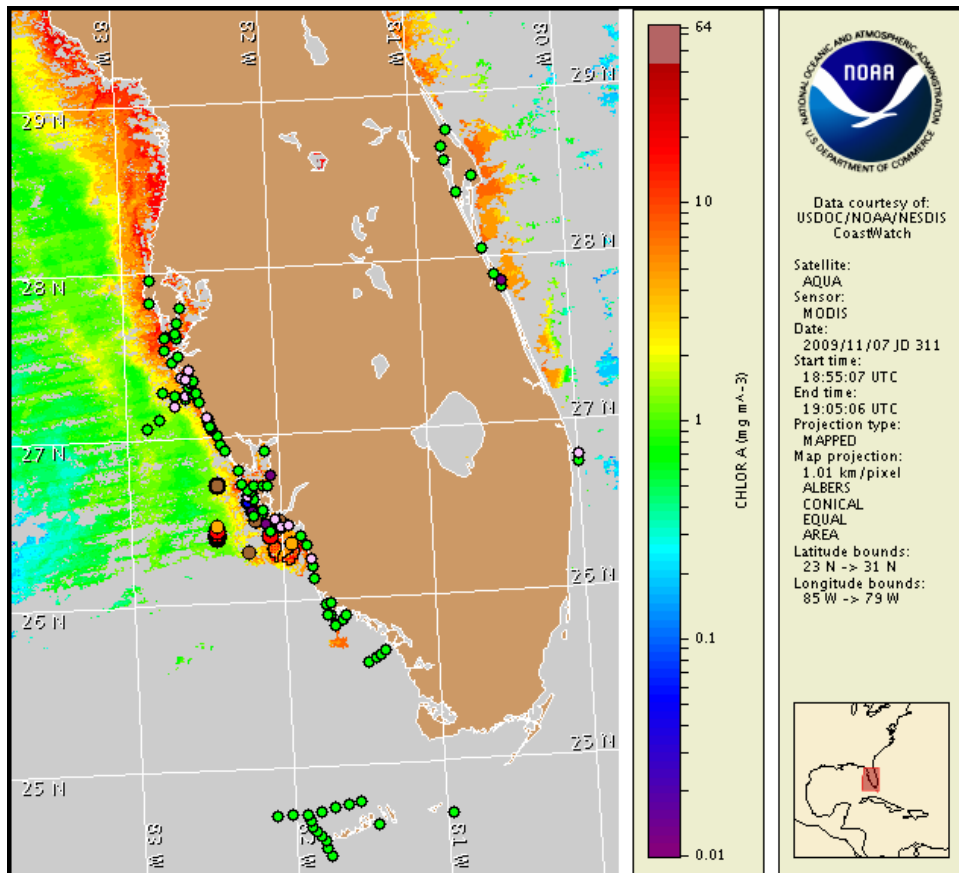
9 November 2009

NOAA Ocean Service

NOAA Satellites and Information Service

NOAA National Weather Service

Last bulletin: November 5, 2009



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from October 30 to November 6 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

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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

A harmful algal bloom has been identified onshore northern and central Lee County, in the Pine Island Sound/San Carlos Bay region in Lee County, and offshore southern Lee and northern Collier counties. In central Lee County, patchy high impacts are possible today through Tuesday and patchy low impacts are possible on Wednesday. In the Pine Island Sound/San Carlos Bay region patchy very low to high impacts are possible today through Wednesday. No impacts are expected elsewhere alongshore southwest Florida today through Wednesday, November 11. Dead fish were reported offshore Sanibel Island in central Lee County and offshore Naples in northern Collier County early last week.

Analysis

A harmful algal bloom has been identified onshore northern and central Lee County, in the Pine Island Sound/San Carlos Bay region in Lee County, and offshore southern Lee and northern Collier counties. Sample reports received late last week identified background concentrations of *K. brevis* in northern Collier County at Vanderbilt Beach and in southern Lee County east of Sanibel Island (11/4-11/5; FWRI, CCPCPD). Background concentrations were also identified at various locations in Sarasota County early last week (11/2; SCHD). Additional samples collected alongshore Monroe County, central Lee County and northern to central Collier County contained no *K. brevis* (11/1-11/5; MML, FWRI).

Satellite imagery over the past several days has been predominantly obscured by clouds throughout the bloom region; however, MODIS imagery (11/7) continues to show a large elevated to high chlorophyll feature (5 to $>10\mu\text{g/L}$) extending just south of Sanibel Island to northern Collier County. This feature appears to have become patchier since last reported on 11/5. Within this region, high chlorophyll levels ($>10\mu\text{g/L}$) are visible in a band extending 7-17 miles offshore Vanderbilt Beach in northern Collier County ($26^{\circ}15'19''\text{N } 81^{\circ}55'24''\text{W}$ to $26^{\circ}14'35''\text{N } 82^{\circ}4'42''\text{W}$), and extending alongshore from the Lee and northern Collier County border south to the Vanderbilt Beach region. High chlorophyll is also visible at the coast in the Boca Grande region of northern Lee County, extending offshore approximately 4 miles. Strong winds may have transported these features further south to southwest since 11/7. Sampling is recommended in these locations.

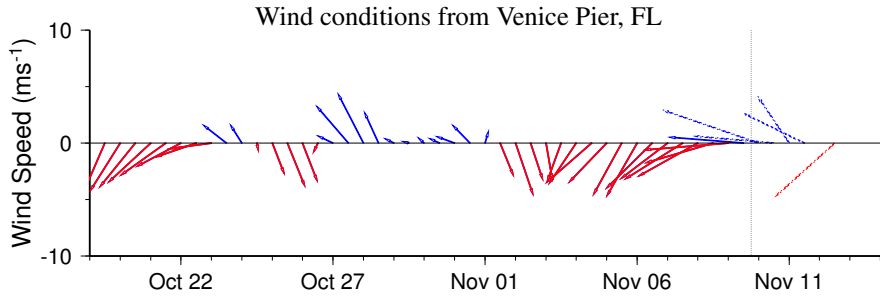
MODIS imagery on 11/7 also indicates the appearance of a large offshore elevated chlorophyll feature ($\sim 2\mu\text{g/L}$) located approximately 21-50 miles offshore southern Pinellas, Manatee and northern Sarasota Counties ($27^{\circ}47'39''\text{N } 83^{\circ}27'35''\text{W}$ to $27^{\circ}14'27''\text{N } 83^{\circ}6'48''\text{W}$). This feature will continue to be monitored.

Observed winds have been strongly upwelling favorable along the southwest Florida coastline and throughout the bloom region. Further bloom formation and intensification may have occurred over the weekend. Strong offshore winds are expected to continue today. Northward transport of the bloom is possible today, followed by northeastward transport Tuesday and southward transport Wednesday.

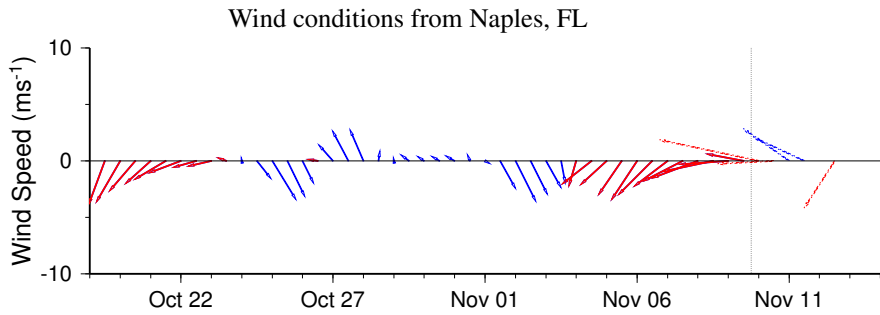
-Fisher, Lindley

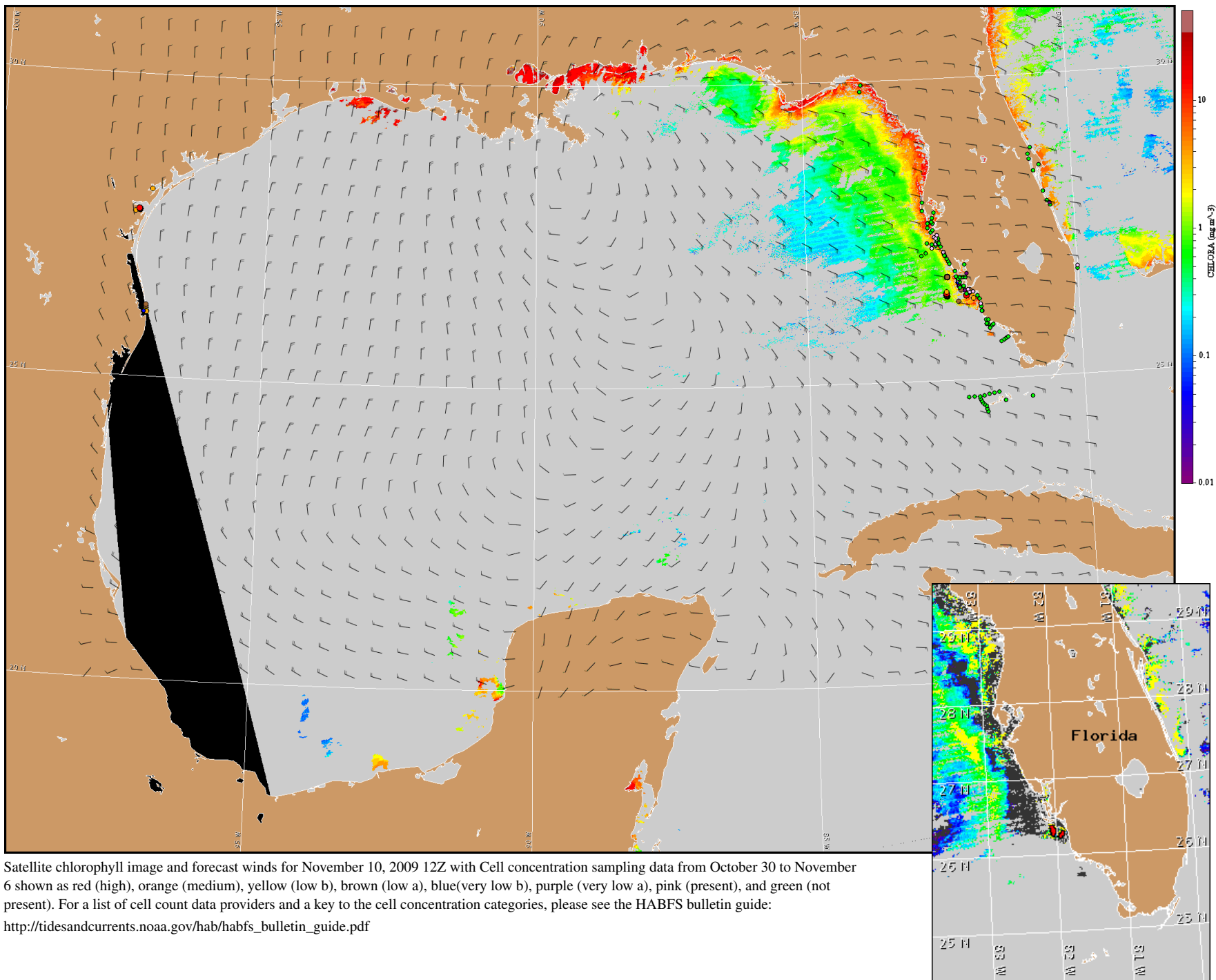
Wind Analysis

Strong easterly winds today (20-25kn, 10-13m/s) shifting southeasterly tonight with gusts up to 35kn (18m/s). Southerly winds Tuesday (20kn, 10m/s), shifting northwesterly Tuesday night (15-20kn, 8-10m/s). Northerly winds Wednesday (20kn). Northerly winds expected Thursday (15kn).



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 November 10, 2009 12Z with Cell concentration sampling data from October 30 to November 6 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).