

# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

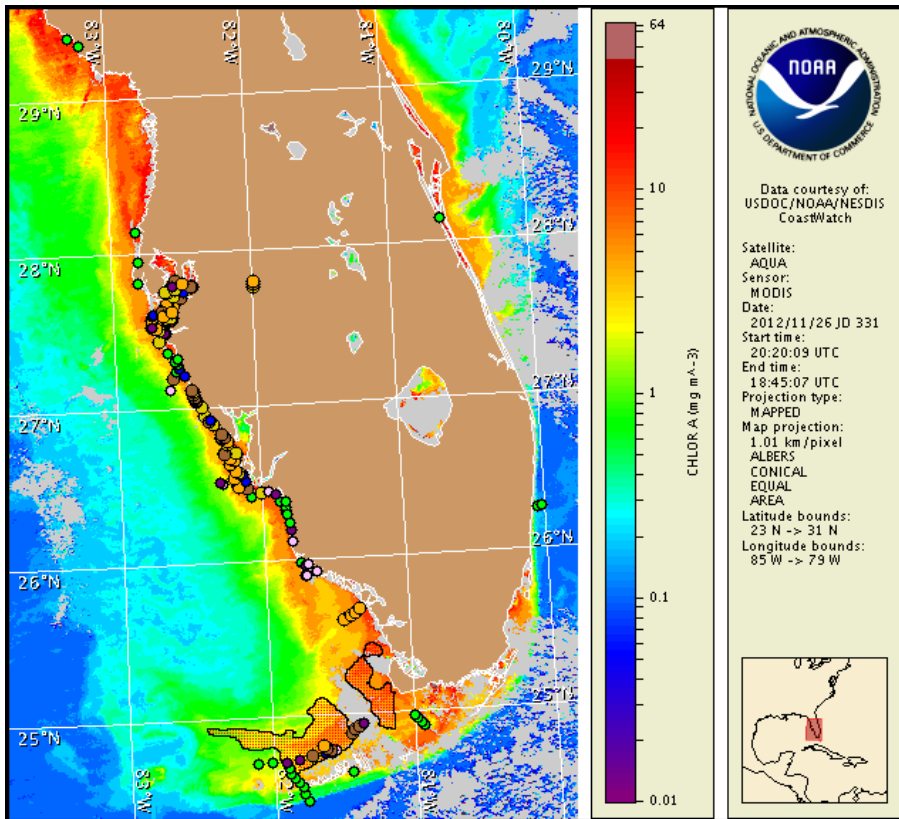
Thursday, 29 November 2012

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, November 26, 2012



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s). Cell concentration sampling data from November 19 to 28 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). Cell count data are provided by Florida FWC Fish and Wildlife Research Institute. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

[http://tidesandcurrents.noaa.gov/hab/habfs\\_bulletin\\_guide.pdf](http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf)

Detailed sample information can be obtained through the Florida FWC Fish and Wildlife Research Institute at:

<http://myfwc.com/research/redtide/events/status/statewide/>

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit at: <http://tidesandcurrents.noaa.gov/hab/bulletins.html>

## Conditions Report

Very low to high concentrations of *Karenia brevis* (commonly known as Florida Red Tide) are present along- and offshore from southern Pinellas to northern Monroe counties as well as offshore the gulf side of the lower Florida Keys. Patchy high respiratory impacts are possible today through Monday in the bay regions of southern Pinellas/northern Manatee counties. Patchy moderate respiratory impacts are possible today through Monday in the bay regions of southern Manatee and northern Sarasota counties. Patchy moderate respiratory impacts are possible Friday through Monday, with high respiratory impacts possible Thursday, in the bay regions of southern Charlotte and Lee counties. Patchy very low respiratory impacts are possible today through Monday in southern Sarasota, northern Charlotte, and northern Monroe counties, as well as the bay region of central Collier County. No respiratory impacts are expected elsewhere alongshore southwest Florida, including the Florida Keys, today through Monday, December 3. Over the past few days, reports of dead fish have been received from central Collier central Monroe counties.

## Analysis

**Southwest Florida:** A harmful algal bloom of *Karenia brevis* is present along- and offshore southwest Florida from southern Pinellas to northern Monroe counties, with *K. brevis* concentrations ranging from 'very low' to 'high'. Recent samples identified *K. brevis* concentrations from 'very low' to 'medium' in the bay regions of southern Pinellas/northern Manatee counties and the bay regions of southern Charlotte/Lee counties, from 'not present' to 'low b' along- and offshore southern Manatee County to northern Collier County, and from 'not present' to 'very low' in the bay regions of central Collier County (FWRI, SCHD, CCPCPD; 11/24-27). No *Karenia brevis* was detected alongshore Pinellas County (FWRI; 11/25-26). Over the past few days, dead fish were reported in central Collier County and central Monroe County (FWRI; 11/26-27).

Recent MODIS Aqua imagery from 11/27 and 11/28 are almost completely covered by clouds. MODIS imagery from 11/26 (shown left) indicates that chlorophyll remains elevated to high (2 to >10  $\mu\text{g/L}$ ) along- and offshore from Pinellas to Monroe counties, though the concentration of chlorophyll has decreased throughout most of the region as compared to the MODIS 11/24 image (shown on last bulletin). Forecasted offshore winds today through Monday may minimize the potential for onshore transport of the bloom and decrease respiratory impacts along the coast from southern Manatee to Monroe counties, except in the bay regions.

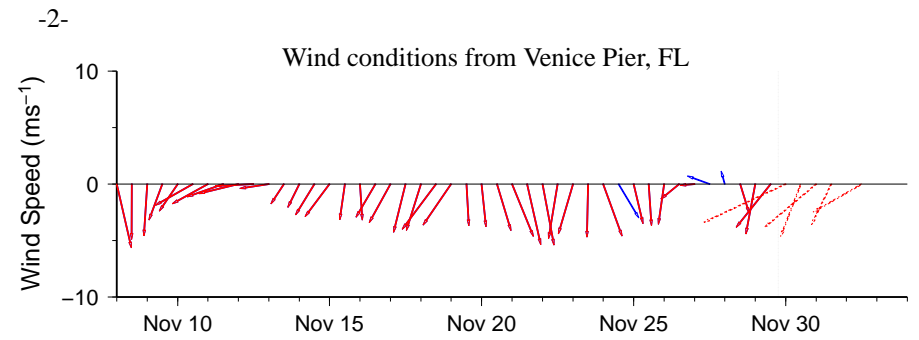
**Florida Keys:** A harmful algal bloom of *Karenia brevis* has been identified offshore the gulf side of the lower Florida Keys, with *K. brevis* concentrations ranging from 'not present' to 'medium' extending from approximately 12.6 miles northwest of Key West to 5-8 miles northeast of Harbor Key (MML; 11/26-29).

MODIS Aqua imagery from 11/26 (shown left) is patchy throughout the Florida Keys, limiting analysis of the region. Elevated to high chlorophyll concentrations (2 to >10  $\mu\text{g/L}$ ) are visible up to 30 miles north of the lower Florida Keys. Northeast to east winds forecasted today through Monday may promote the potential for western transport of the bloom.

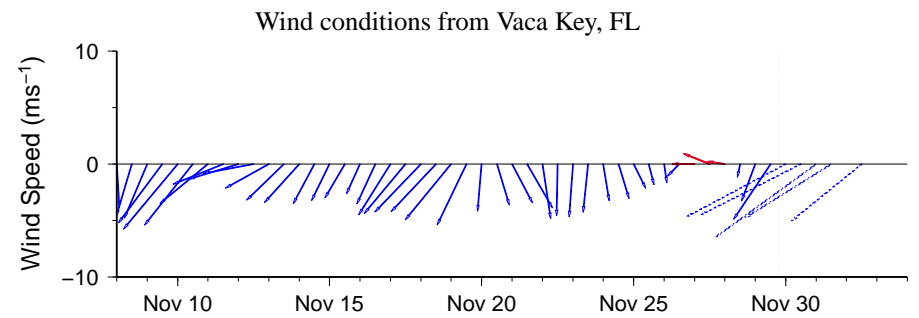
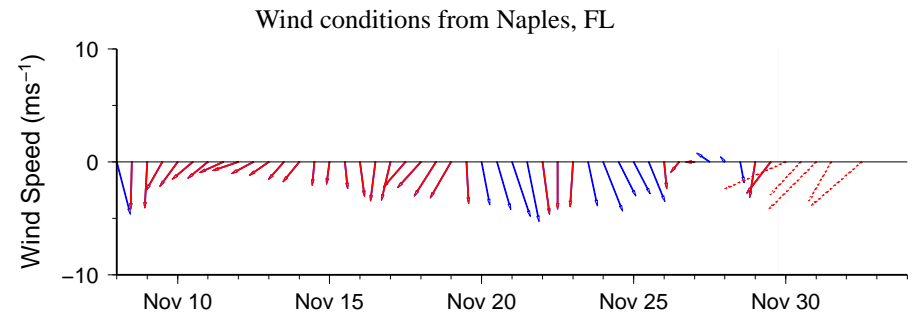
Due to technical issues, four sampling data points are plotted on land about 30 miles east of Tampa Bay on the map. Please disregard these samples.

Yang, Derner

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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).

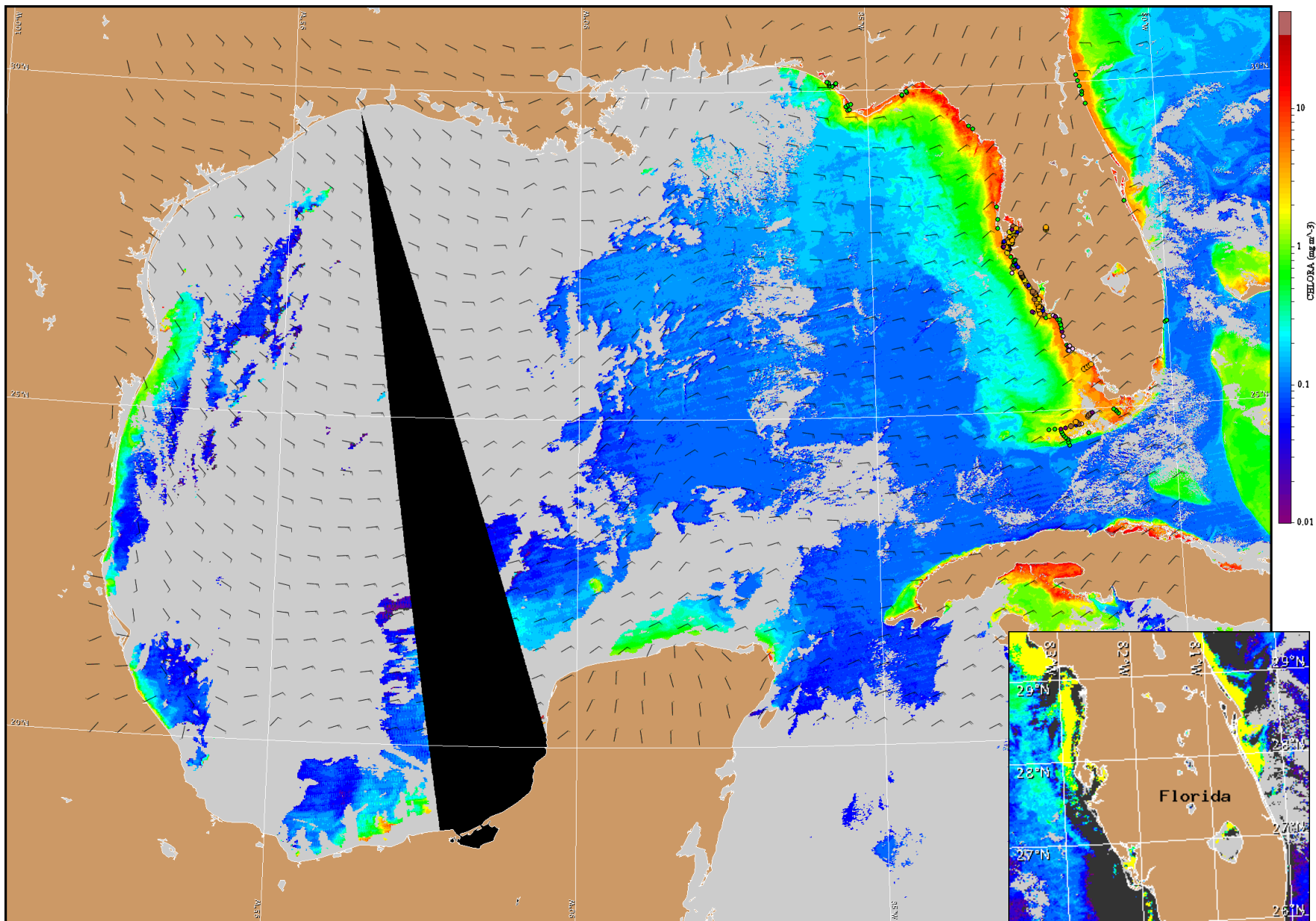


## Wind Analysis

**Venice:** Northeast winds (10-15kn, 5-8m/s) today becoming east (10-20kn, 8-10m/s) tonight. East winds (15kn) Friday. Northeast winds (15kn) Saturday through Sunday. East winds (15kn) Sunday night and Monday.

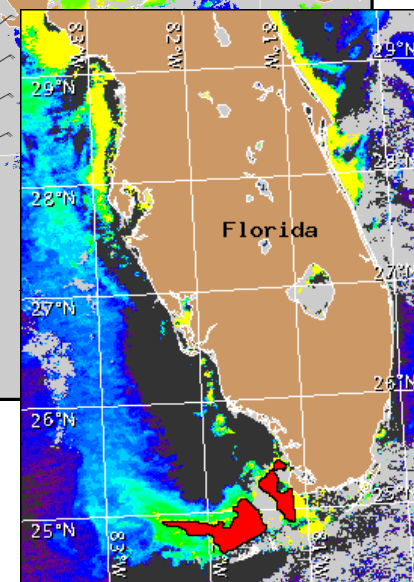
**Naples:** East northeast or northeast winds (14-20kn, 7-10m/s) today through Monday.

**Vaca Key:** Northeast winds (15-20kn, 8-10m/s) today. Northeast to east winds (15-20kn) tonight through Monday.



Satellite chlorophyll image and forecast winds for November 30, 2012 12Z with cell concentration sampling data from November 19 to 28 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). Cell count data are provided by Florida FWC Fish and Wildlife Research Institute. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS 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).