

Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

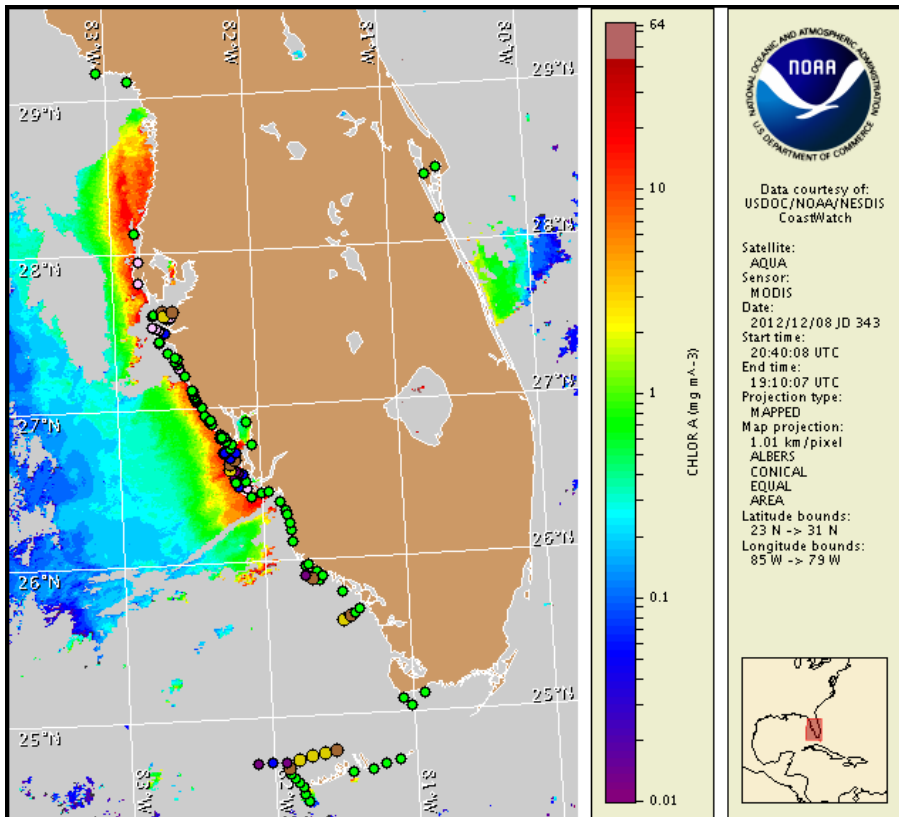
Monday, 10 December 2012

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, December 6, 2012



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s). Cell concentration sampling data from November 30 to December 7 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

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 low concentrations of *Karenia brevis* (commonly known as Florida Red Tide) are present along- and offshore southwest Florida from southern Pinellas to Monroe counties as well as offshore the gulfside of the lower Florida Keys. Patchy moderate respiratory impacts are possible today through Thursday in the bay regions of southern Pinellas/northern Manatee counties and southern Charlotte/northern Lee counties. Patchy very low respiratory impacts are possible today and tomorrow and no impacts are expected Wednesday and Thursday in southern Manatee County. Patchy very low respiratory impacts are possible today through Thursday in bay regions of southern Manatee and northern Sarasota counties and in Monroe County. No respiratory impacts are expected alongshore Sarasota, Lee and northern Collier counties today through Thursday night. Patchy very low respiratory impacts are possible today through Wednesday and no impacts are expected on Thursday in Charlotte County. Patchy low respiratory impacts are possible today through Thursday in bay regions of central Collier County. No respiratory impacts are expected elsewhere alongshore southwest Florida, including the Florida Keys, today through Thursday, December 13.

Analysis

Southwest Florida: A harmful algal bloom of *Karenia brevis* is present along- and offshore southwest Florida from southern Pinellas to Monroe counties, with *K. brevis* concentrations ranging from 'very low' to 'low'. Recent samples continue to indicate decreasing concentrations of *K. brevis* alongshore southwest Florida. Samples indicate that *K. brevis* is not present in Manatee, Charlotte and Lee counties (FWRI; 12/5-6). There were 'very low a' concentrations in Sarasota Bay (FWRI; 12/6), and 'very low a' to 'low a' concentrations in central Collier County (FWRI; 12/5-6). Recent MODIS imagery from 12/8 (shown left) indicates elevated to high chlorophyll (4->10 $\mu\text{g/L}$) levels alongshore Pinellas, Sarasota, Charlotte, and Lee counties. Forecasted winds today through Wednesday may decrease the potential for further southerly transport of the bloom and may also increase respiratory impacts along the coast from Pinellas to Monroe counties.

Florida Keys: A harmful algal bloom of *Karenia brevis* is present offshore the gulfside of the lower Florida Keys. Recent samples collected offshore the northern side of the lower Florida Keys indicate 'very low a' to 'low b' concentrations of *K. brevis* (MML; 12/6-7). MODIS imagery is patchy throughout the Florida Keys, preventing analysis of the chlorophyll levels in this region.

Burrows, Urizar, Kavanaugh

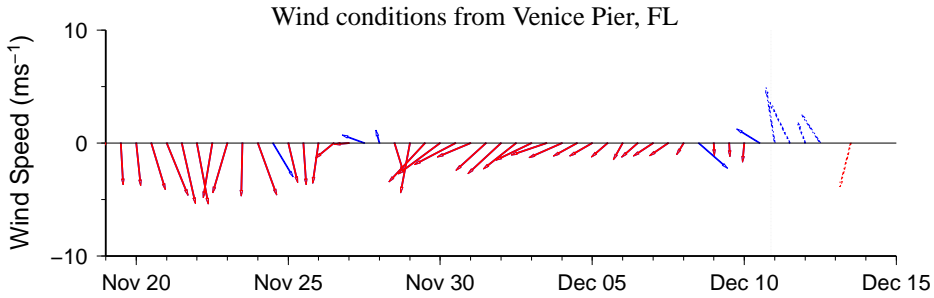
Wind Analysis

Pinellas to Sarasota counties: Southerly winds today (15kn, 8m/s). Southwesterly winds tonight through Tuesday (5-15kn, 3-8m/s). Northerly to northeasterly (winds 5-20 kn, 3-10 m/s) Tuesday night through Thursday.

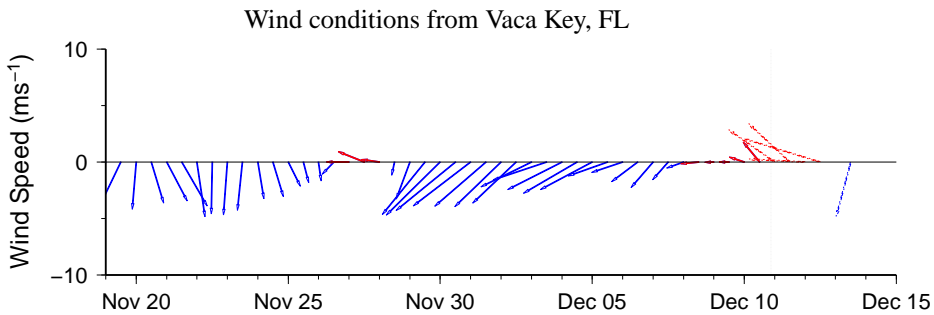
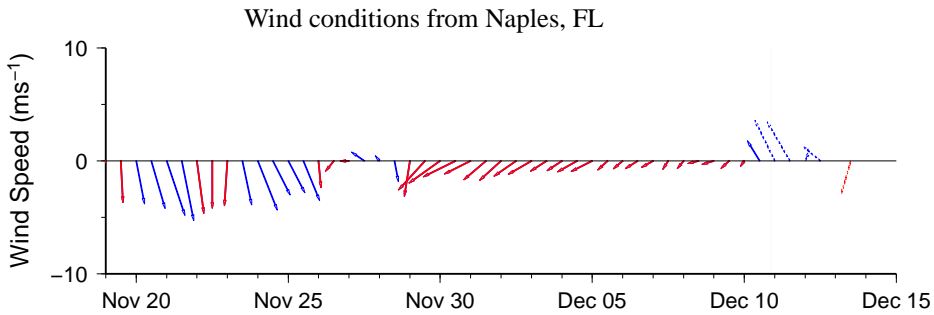
Charlotte and Lee counties: Southerly winds (5-15 kn) today through Tuesday. Southerly to southeasterly winds (5-10 kn, 3-5 m/s) Tuesday night. Southerly winds (5-10 kn) Wednesday becoming westerly (15 kn) in the afternoon. Northerly winds (15 kn) Wednesday night. Northeasterly winds (15 kn) Thursday.

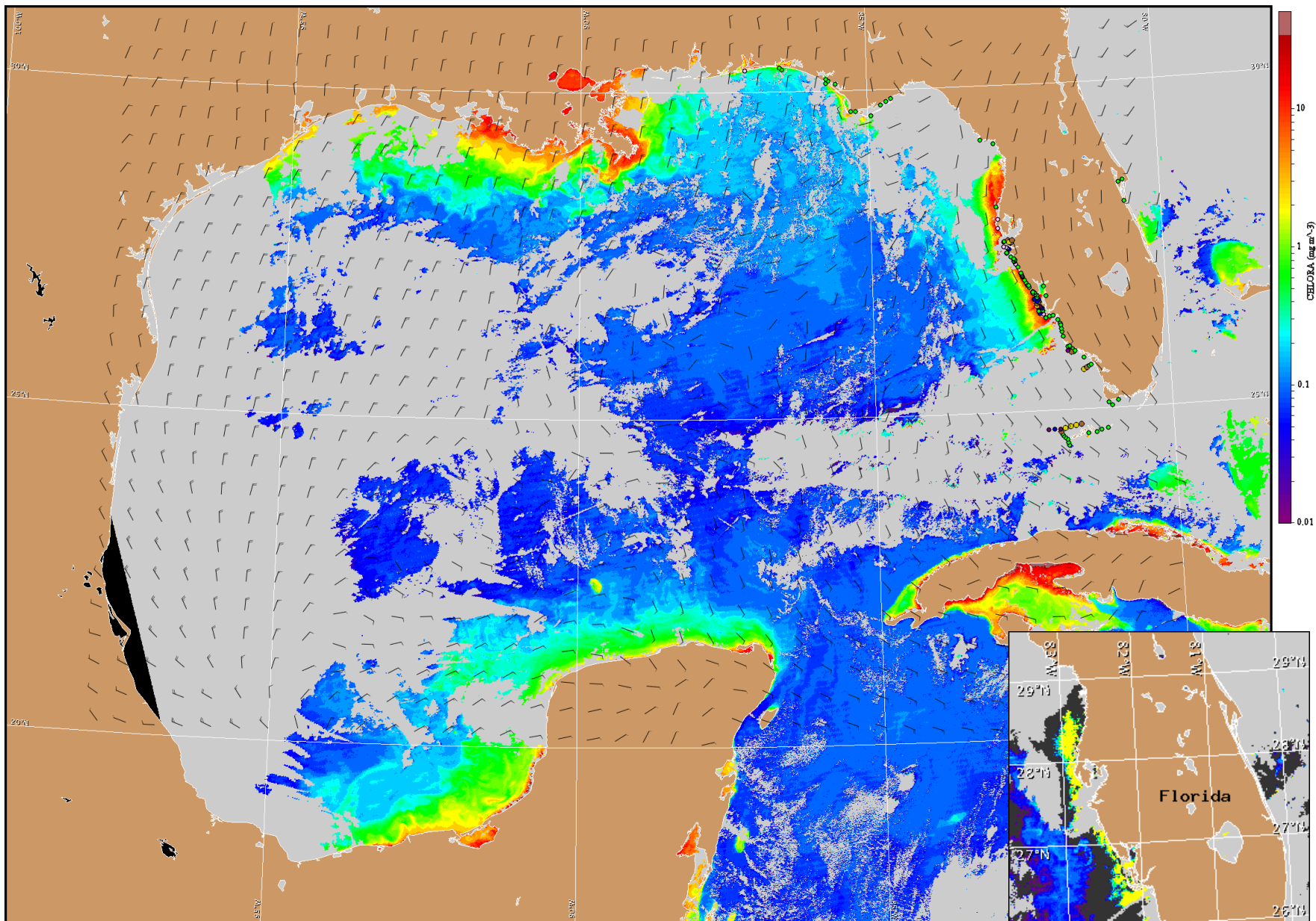
Collier and Monroe counties: Southerly to southeasterly winds (5-14 kn, 3-7 m/s) today through Wednesday. Northeasterly winds (12-17 kn, 6-9 m/s) Wednesday night and Thursday.

Gulfside of lower Florida Keys: Easterly to southeasterly winds today (10-15 kn, 5-8 m/s). Southeasterly winds tonight through Wednesday (10kn, 5 m/s). Variable winds (5-10 kn, 3-5 m/s) Wednesday night becoming northerly to northeasterly (10-15 kn, 5-8 m/s) through Thursday.



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 December 11, 2012 12Z with cell concentration sampling data from November 30 to December 7 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

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