



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

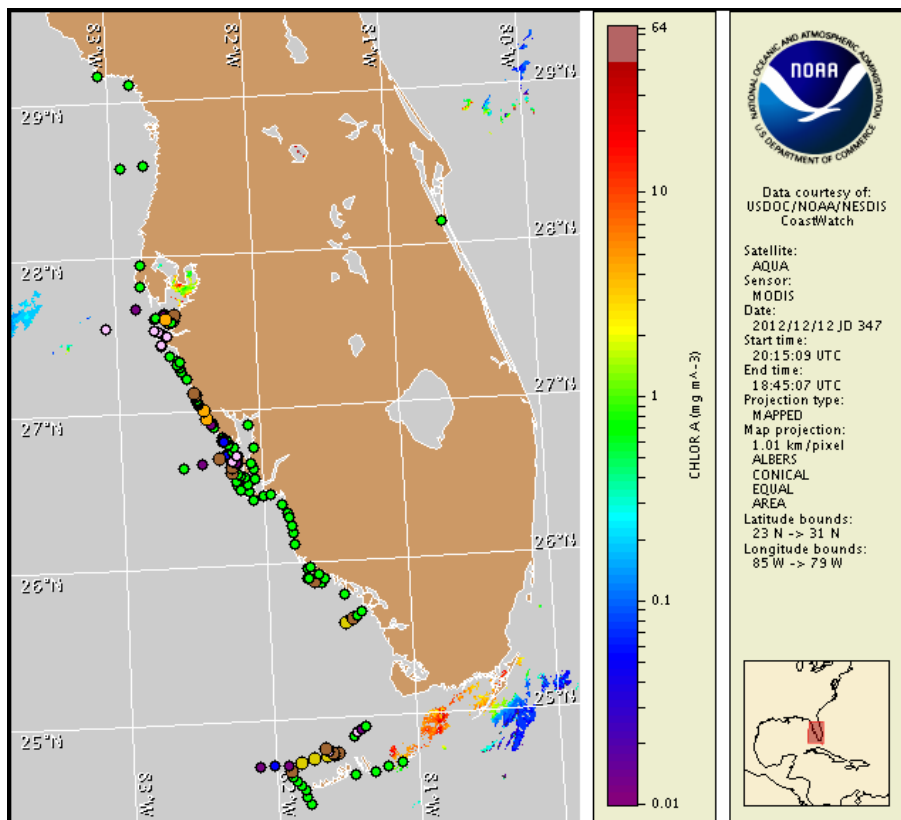
Thursday, 13 December 2012

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, December 10, 2012



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s). Cell concentration sampling data from December 3 to 12 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 medium 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 high respiratory impacts are possible today in the bay regions of southern Pinellas/northern Manatee counties and moderate respiratory impacts are possible Friday through Monday. Very low respiratory impacts are possible today through Saturday alongshore Sarasota County and moderate respiratory impacts are possible Sunday and Monday. Very low respiratory impacts are possible Sunday and Monday in northern Charlotte County. Low respiratory impacts are possible today through Monday in the bay regions of southern Charlotte/Lee counties. Moderate respiratory impacts are possible in the gulfside of the lower Florida Keys today through Saturday and very low respiratory impacts are possible Sunday and Monday. No respiratory impacts are expected elsewhere alongshore southwest Florida, including the Florida Keys, today through Monday, December 17.

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 'medium'. Recent samples indicate 'very low a' concentrations at Mullet Key and Skyway Fishing Pier in Pinellas County (FWRI; 12/10), 'low b' concentrations at Sunshine Skyway, 'low a' concentrations at Harbor Key and Joe Island, and one 'medium' concentration at Skyway Fishing Pier in Manatee County (FWRI; 12/11), three 'medium' concentrations in Sarasota County (FWRI; 12/10-11), 'very low a' to 'low a' concentrations in bay regions of Charlotte and Lee counties (FWRI; 12/10), and background concentration at South Marco Beach in central Collier County (FWRI; 12/10).

Recent MODIS imagery from 12/12 (shown left) is patchy alongshore much of southwest Florida preventing analysis in this region. Forecasted winds today through Monday may most likely decrease the potential for southerly transport of the bloom. And forecasted winds Sunday and Monday may increase respiratory impacts along the coast from Pinellas to Monroe counties.

Florida Keys: A harmful algal bloom of *Karenia brevis* is present offshore the gulf side of the lower Florida Keys. Recent samples collected offshore and on the northern side of the lower Florida Keys indicate 'very low a' to 'low a' concentrations of *K. brevis* (MML; 12/11-13).

MODIS imagery is patchy throughout the Florida Keys, preventing analysis of the region.

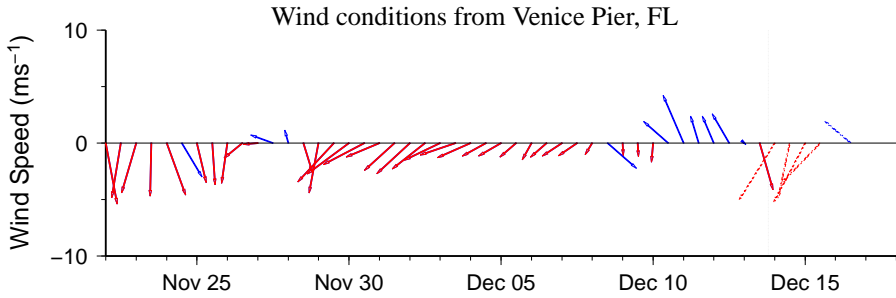
Burrows, Urizar, Kavanaugh

Wind Analysis

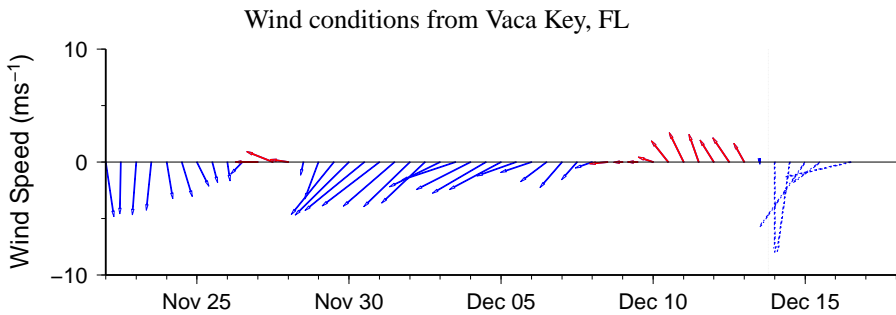
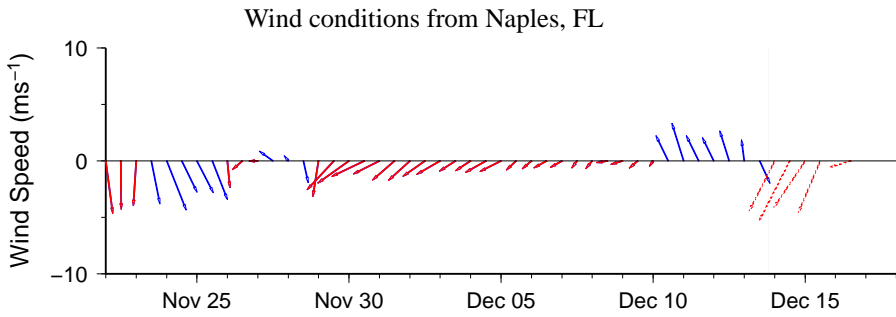
Pinellas to Lee counties: Northerly winds (20kn, 10m/s) today. Northeasterly winds (15kn, 8m/s) tonight through Friday. Easterly winds (15kn) Friday night. Northeasterly to northerly winds (5-10kn, 3-5m/s) Saturday. Northeasterly to easterly winds (10kn, 5m/s) Saturday night. Southeasterly winds (10kn) Sunday, shifting to southerly winds (5-10kn, 3-5m/s) Sunday night. Monday southwesterly winds (15kn).

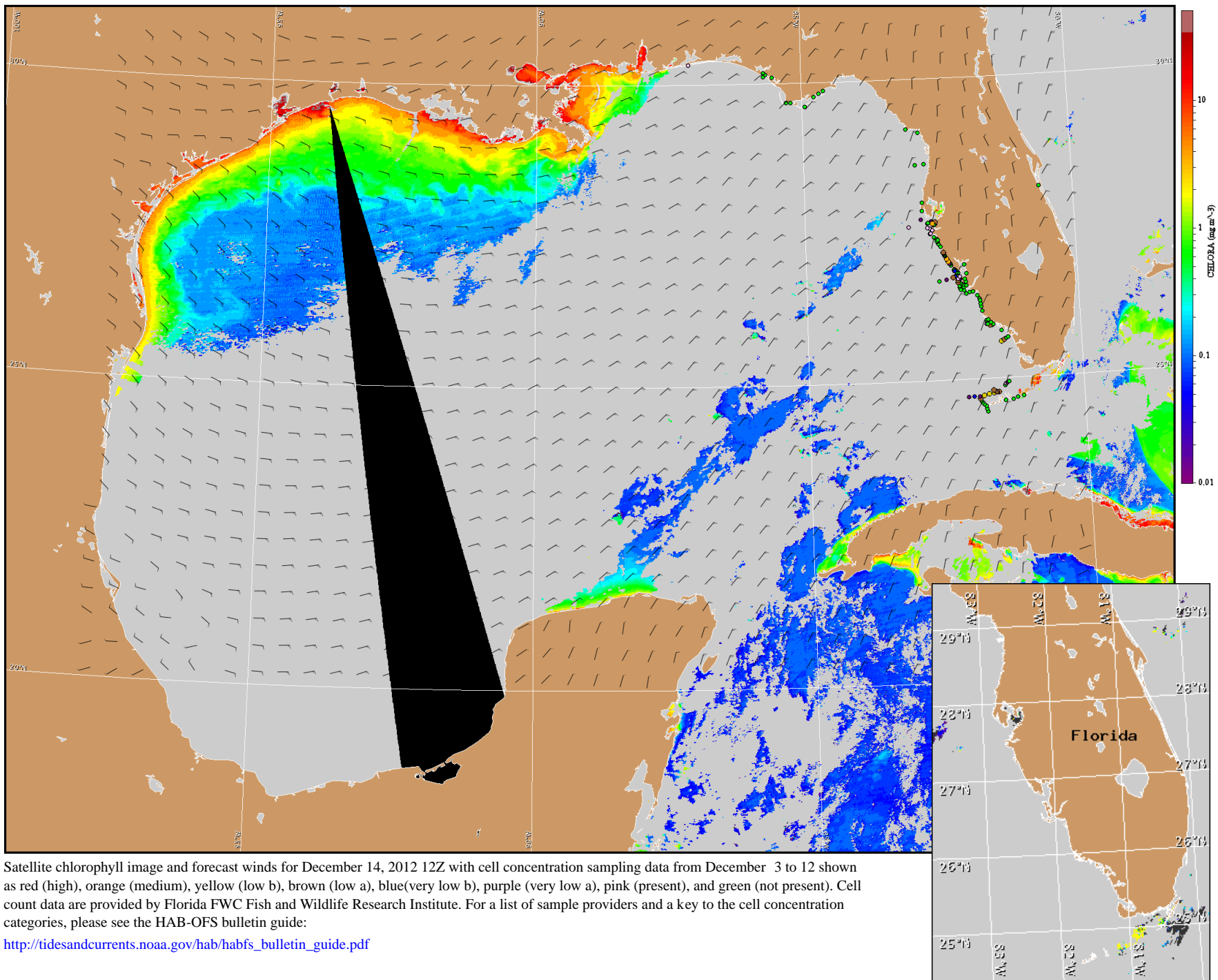
Collier and Monroe counties: Northerly winds 10-15kn (5-8m/s) today becoming northerly to northeasterly (12-17kn, 6-9m/s) through Friday. Easterly to northeasterly winds Friday night (11-16kn 6-8m/s). Easterly winds (7-15kn, 4-8m/s) Saturday through Sunday night. Southerly to southeasterly winds (8-12kn, 4-7m/s) Monday.

Gulfside of lower Florida Keys: Variable to northerly winds 5-15kn today. Northerly to northeasterly winds tonight through Friday (15kn) Northeasterly to easterly winds (15kn) Friday night through Saturday. Easterly winds (10-15kn) Saturday night through Sunday night. Easterly to southeasterly winds Sunday night (10-15kn). Southerly to southwesterly winds Monday (10-15kn).



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 December 14, 2012 12Z with cell concentration sampling data from December 3 to 12 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).