Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

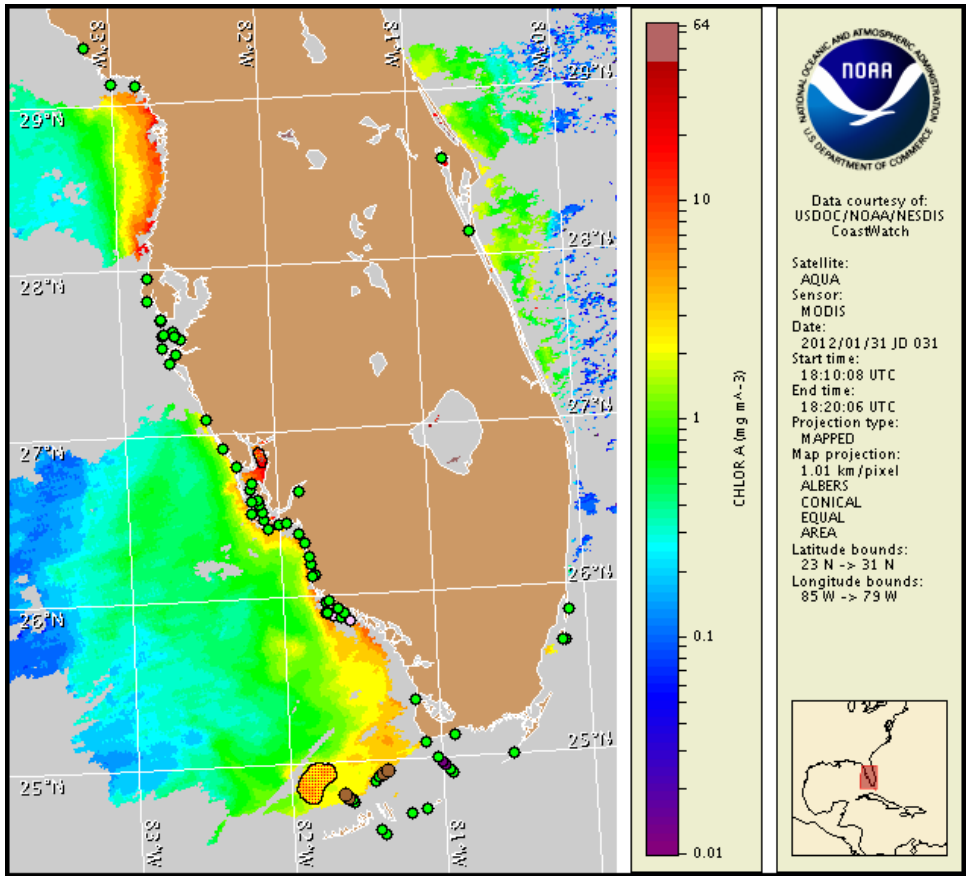
Thursday, 02 February 2012

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, January 30, 2012



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from January 23 to February 1 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 HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive: http://tidesandcurrents.noaa.gov/hab/bulletins.html

Conditions Report

A harmful algal bloom has been identified offshore in the Gulf side region of the Florida Keys. Patches of harmful algae may also remain present alongshore and offshore central to southern Collier County in the Marco Island regions and Monroe County. Patchy low impacts are possible in the Gulf side region of the Lower Keys today through Sunday. No respiratory impacts are expected at the coast in central to southern Collier County, Monroe County or elsewhere alongshore southwest Florida, including the Florida Keys region today through Sunday, February 5. Reports of respiratory irritation were received last week offshore of the Marco Island region in southern Collier County.

Analysis

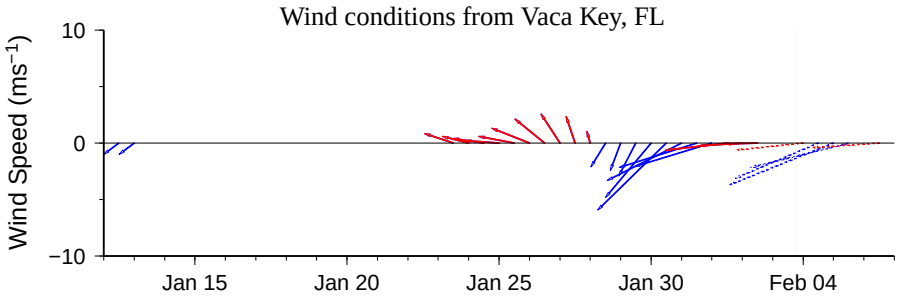
Florida Keys: A harmful algal bloom was identified in patches offshore northwest of Sawyer Key and at Oxfoot Key in the Gulf side region of the Lower to Middle Keys last week. No additional sample information is presently available in these areas. In samples collected this week no *K.brevis* was identified approximately 1 mile southwest of East Cape, and Sandy Key in southern Monroe County (1/28; FWRI). Background concentrations of *K. brevis* were identified at the east and west end of the 7-Mile Bridge (2/1; MML). Recent MODIS imagery is cloudy throughout much of the Florida Keys region limiting analysis. However, a large patch of elevated chlorophyll (2 μg/L) is visible north of the Lower Keys (1/31, shown left) with a southernmost point located at 24°46'27''N 81°49'34''W and extending north approximately 17 miles. Sampling is recommended. Small chlorophyll patches visible among the clouds in 2/1 imagery (not shown) remain elevated to high (3 to >10 μg/L) within the areas reported in the HAB Bulletin issued on 1/30.

East winds will increase the potential for westward transport of the bloom in this region through Sunday.

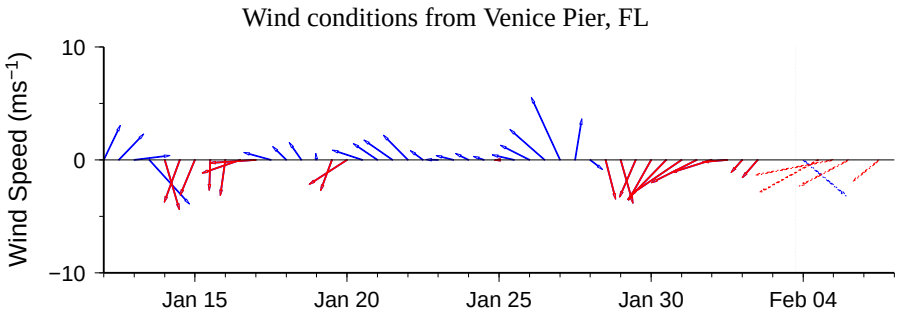
Southwest Florida: Recent samples indicate that the bloom continues to dissipate at the coast in Lee and Collier counties. Samples collected this week show no signs of *K. brevis* along the coast from Pinellas County to the Big Marco Pass region of Collier County. (1/23-1/31; FWRI,CCPCPD), with the exception of a single background concentration identified alongshore Sarasota County (FWRI). Patchy remnants of the bloom may still remain nearshore to offshore central to southern Collier County and Monroe County. Respiratory irritation reports were received offshore Marco Island in central to southern Collier County last week. In recent MODIS imagery (1/31, shown left) imagery does indicate that chlorophyll levels have decreased substantially south of Sanibel Island and south along the coasts of Lee and Collier counties where it is consistently 2-4 μg/L. In the San Carlos Bay region of southern Lee County, chlorophyll levels are slightly more elevated (5-7 μg/L), however this is not necessarily indicative of harmful algae. No significant elevated chlorophyll features are presently visible along the southwest coast, however, a distinct elevated chlorophyll feature (2-3 μg/L) was visible 20-44 miles southwest of Cape Ramano from 25°40'27''N 81°53'33''W to 25°31'8''N 82°5'13''W on 2/1.

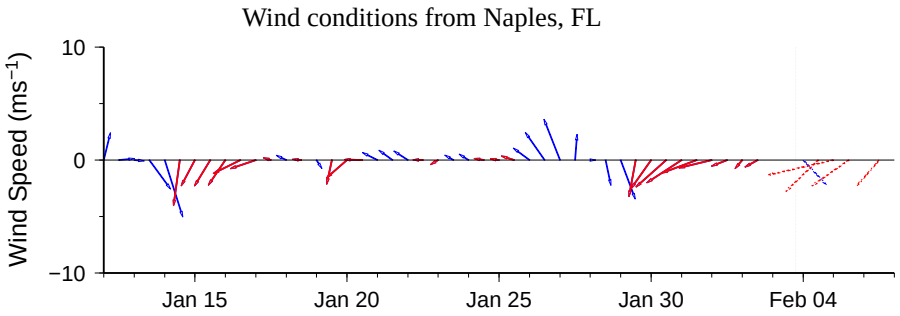
Easterly winds forecasted for Thursday through Sunday will minimize southerly transport and decrease the potential for respiratory impacts along the southwest coast of Florida.

Burrows, Fisher



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).



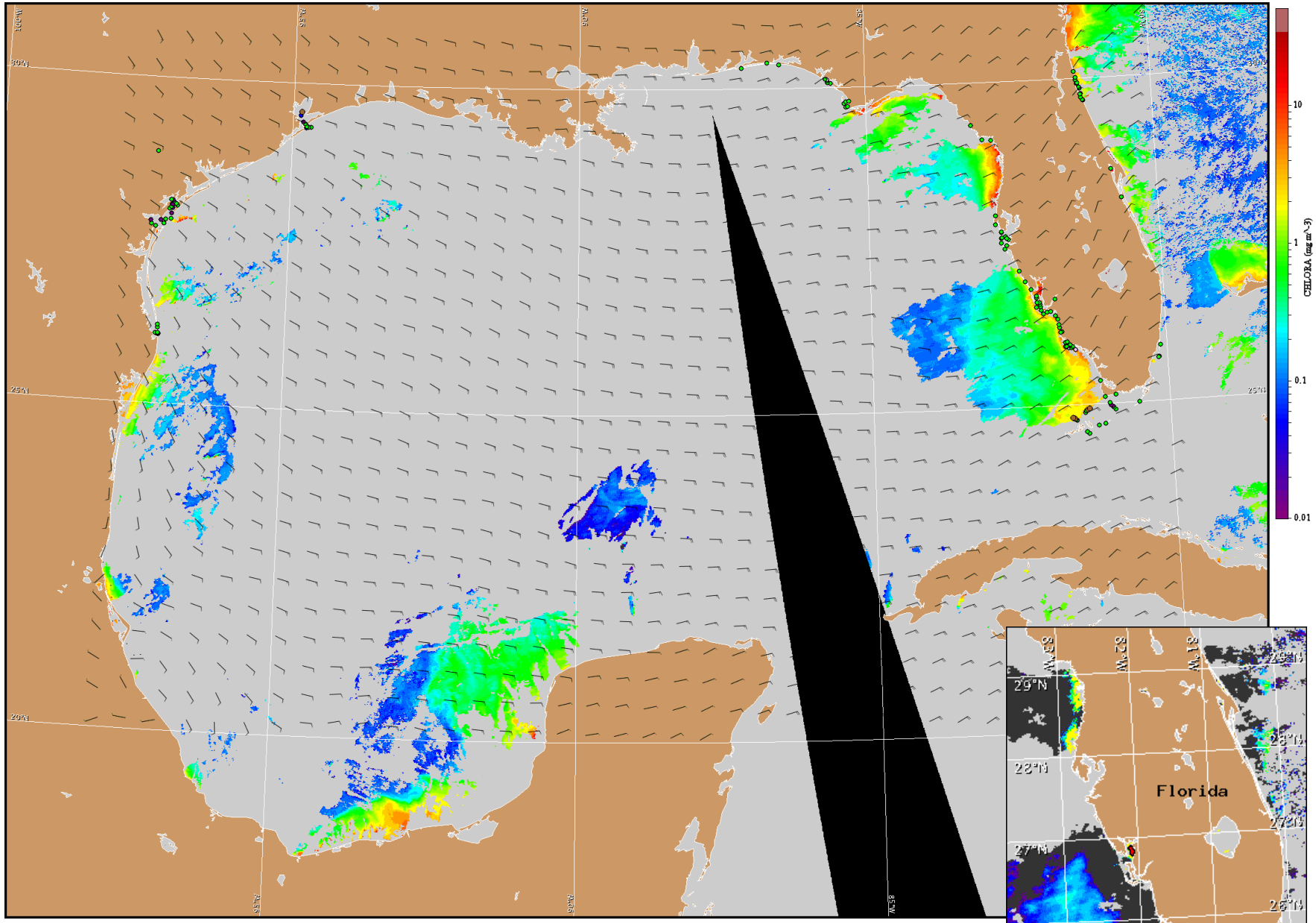


Wind Analysis

Charlotte and Lee counties: East winds 5-15 kn (3-8 m/s) today through Saturday night. Southeast winds Sunday around 10 kn (5 m/s) becoming southwest. Variable to east winds Sunday night (5-10 kn, 3-5 m/s).

Collier and Monroe counties: East winds today and Saturday (8-17 kn, 4-8 m/s). East to northeast winds Friday (14-20 kn, 7-10 m/s). East southeast winds Sunday 9-12 kn (5-6 m/s).

Gulf side of Florida Keys: East winds today through Sunday (10-20 kn, 5-10 m/s).



Satellite chlorophyll image and forecast winds for February 3, 2012 12Z with cell concentration sampling data from January 23 to February 1 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 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).