Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

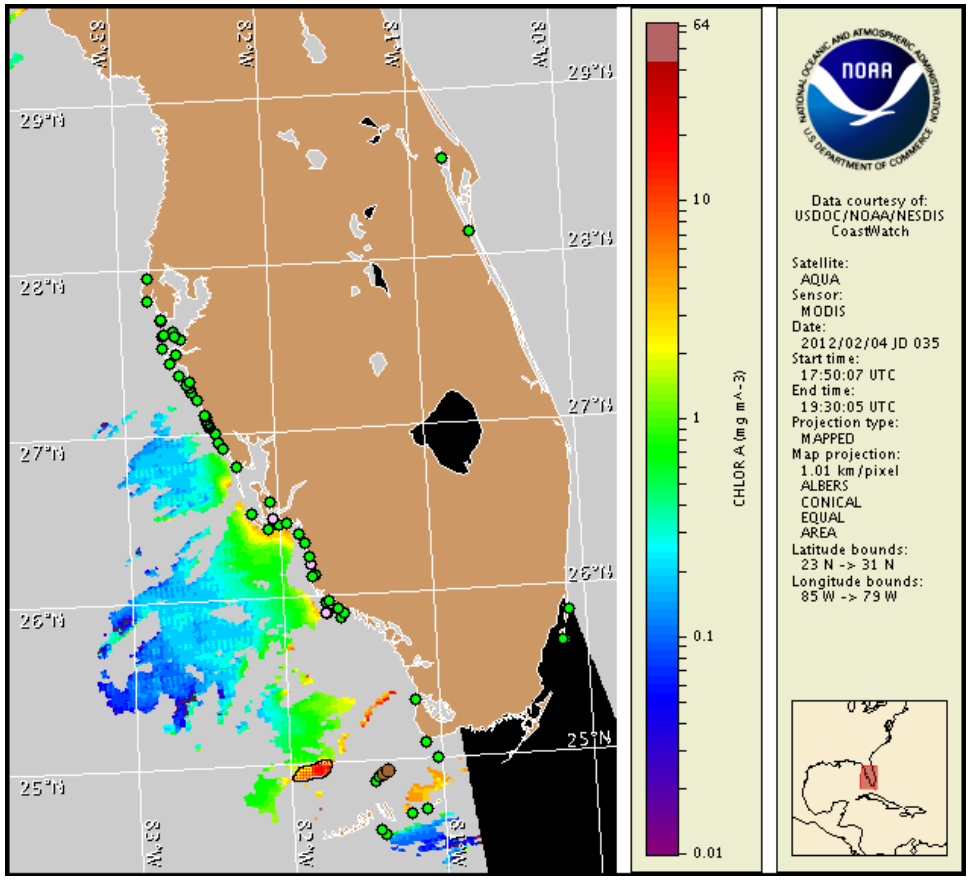
Monday, 06 February 2012

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, February 2, 2012



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from January 27 to February 2 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

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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. Although there is no longer an indication of a harmful algal bloom at the coast in southwest Florida, patches of harmful algae may remain present offshore central to southern Lee County, Collier County and Monroe County. Patchy low impacts are possible in the Gulf side region of the Lower Keys today through Wednesday. No additional respiratory impacts are expected at the coast in southwest Florida, today through Wednesday, February 8.

Analysis

Florida Keys: As of 1/27 a harmful algal bloom containing up to 'low a' concentrations of *Karenia brevis* was present approximately 10 miles north of the Spanish Keys. No additional information is presently available for this bloom. Localized samples collected south of the Lower Keys on 1/27, south of Cape Sable on 1/28, and along the east and west end of the 7-Mile Bridge on 2/1 contained no *K. brevis*.

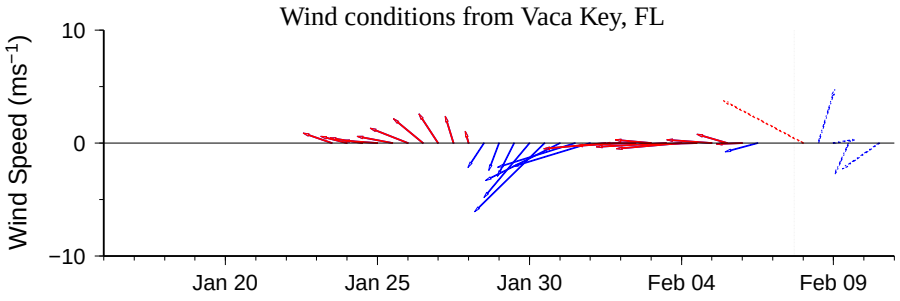
Recent MODIS imagery in the Florida Keys region is predominantly obscured by clouds, limiting analysis. However, portions of a high chlorophyll feature (>10 to 40 μg/L) are visible in imagery (2/4, shown left) well north of the Lower Keys at approximately 24°58'9''N 81°48'18''W. Also, wind conditions observed early last week may have transported previously identified bloom patches north of the Lower and Middle Keys closer to shore; recent imagery is presently cloudy in these regions. Continued sampling throughout the Gulf side regions of the Lower and Middle Keys is recommended. Variably east to northeast winds will promote westward transport of bloom concentrations in the Gulf side region of the Florida Keys today through Wednesday.

Southwest Florida: There is no longer an indication of a harmful algal bloom present at the coast in southwest Florida. Remnant background concentrations of *K. brevis* continue to be identified in the San Carlos Bay region of Lee County, and the Clam Pass and Marco Island regions of northern to central Collier County (FWRI, CCPCPD; 2/2). Background concentrations were also detected at New Pass in Sarasota County on 1/31 (FWRI, MML). All other water samples collected along the southwest Florida coast from Pinellas to southern Collier County over the past 10 days contained no *K. brevis* (FWRI, MML, SCHD, CCPCPD; 1/27-2/2). Respiratory irritation was reported two weeks ago offshore of Marco Island (CCPCPD). Additional sample information can be obtained through FWRI at http://myfwc.com/research/redtide/events/status/statewide/.

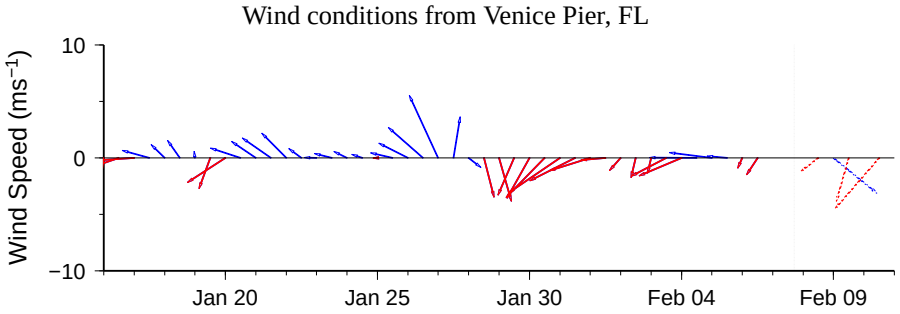
Recent MODIS imagery is obscured by clouds, limiting analysis of any potential bloom patches remaining offshore southwest Florida. As reported in the NOAA HAB Bulletin issued on 2/2, an elevated chlorophyll feature that potentially contains *K. brevis* was visible approximately 20 miles southwest of Cape Romano on 2/1 (not shown). Chlorophyll levels alongshore and south of Sanibel Island in Lee County remain stable at 2-3 μg/L.

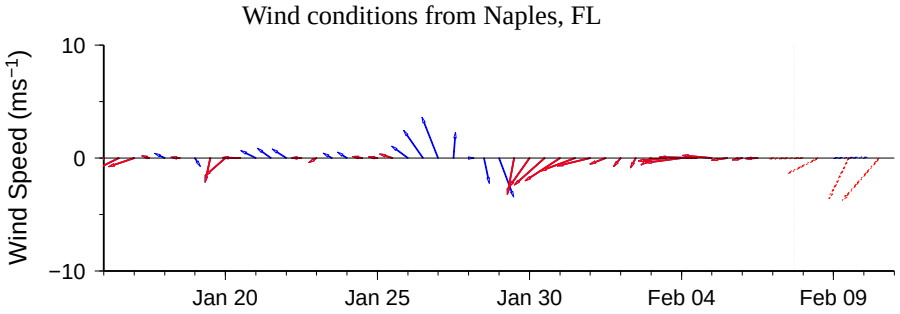
Forecasted east to northeast winds will minimize transport of any remaining bloom patches located near shore in southwest Florida. Bloom formation at the coast is unlikely.

Fisher, Yang



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).



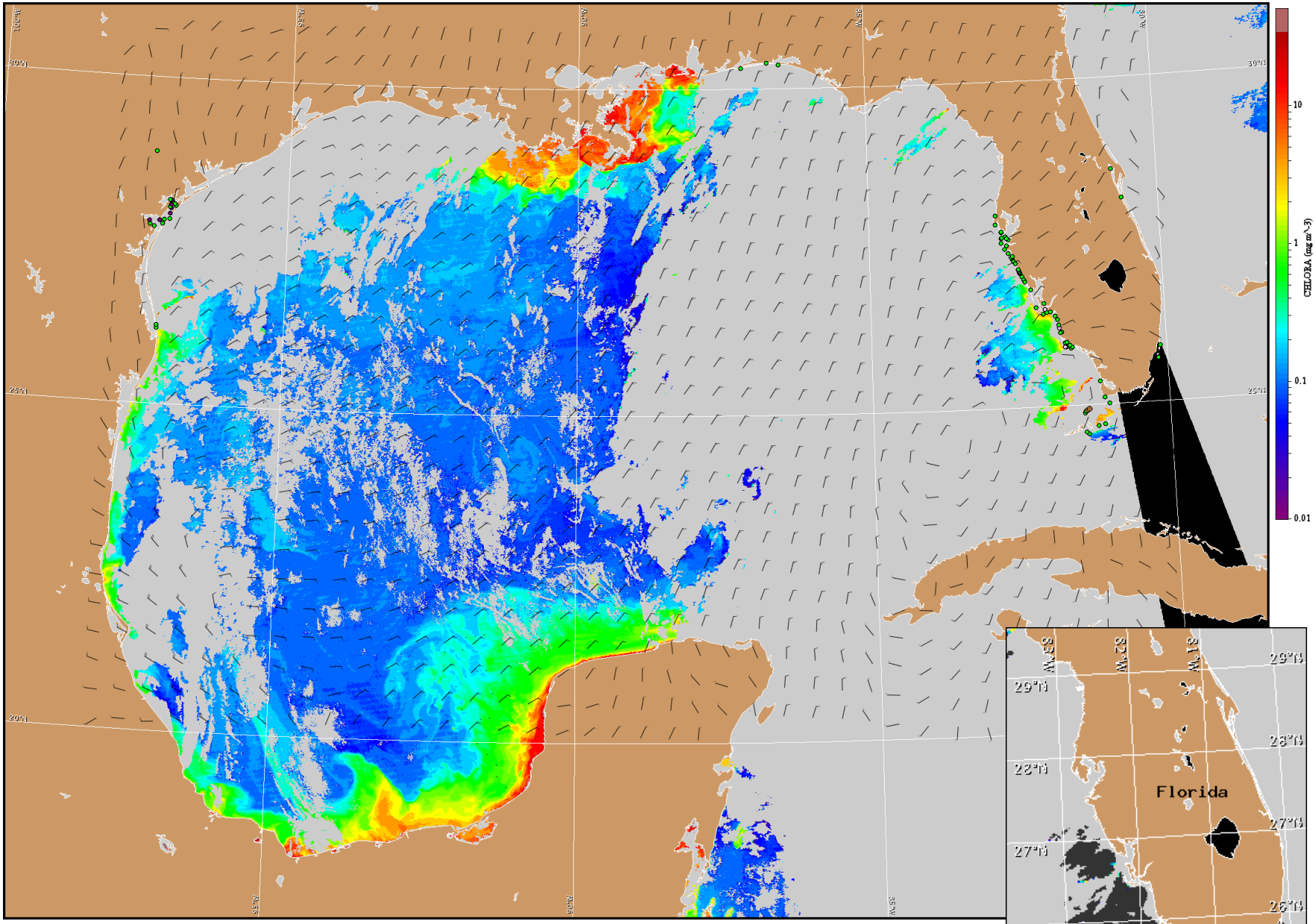


Wind Analysis

Florida Keys: East to southeast winds (10-20kn, 5-10m/s) today. Variable winds (5-10kn, 3-5m/s) Tuesday. Northeast to east winds (10kn) Tuesday night and Wednesday.

Collier and Monroe Counties: East winds (11-17kn, 6-9m/s) today. East northeast winds (7-10kn, 4-5m/s) Tuesday. Northeast winds (7-15kn, 4-8m/s) Wednesday.

Pinellas to Lee Counties: East to northeast winds (5-10kn, 3-5m/s) today. North winds (10kn) Tuesday shifting northeast Tuesday night. North winds (10-15kn, 5-8m/s) Wednesday becoming east (15kn, 8m/s) Wednesday night.



Satellite chlorophyll image and forecast winds for February 7, 2012 12Z with cell concentration sampling data from January 27 to February 2 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).