



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

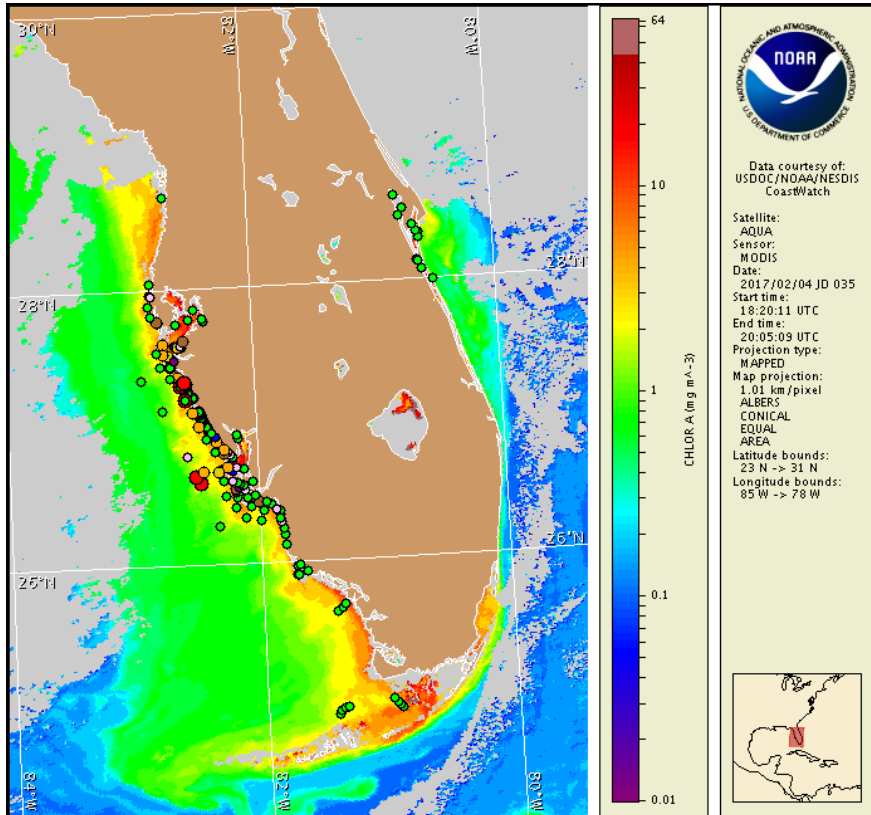
Monday, 06 February 2017

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, February 2, 2017



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from January 27 to February 3: 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 Fish and Wildlife Conservation Commission (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/hab_publication/habfs_bulletin_guide.pdf

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

<http://myfwc.com/redtidestatus>

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

Conditions Report

Not present to high concentrations of *Karenia brevis* (commonly known as Florida red tide) are present along- and offshore portions of southwest Florida, and not present in the Florida Keys. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction. The highest level of potential respiratory irritation forecast for Monday, February 6 through Thursday, February 9 is listed below:

County Region: Forecast (Duration)

Southern Pinellas: Low (M), Moderate (Tu-Th)

Southern Pinellas, bay regions: Low (M-Th)

Northern Manatee, bay regions: Moderate (M-Th)

Southern Manatee: Low (M), Moderate (Tu-Th)

Southern Manatee, bay regions: Moderate (M-Th)

Northern Sarasota: Low (M), Moderate (Tu-Th)

Northern Sarasota, bay regions: Moderate (M-Th)

Southern Sarasota: Low (M), Moderate (Tu-Th)

Northern Charlotte: Low (M), Moderate (Tu-Th)

Northern Charlotte, bay regions: Moderate (M-Th)

Southern Charlotte: Low (M), Moderate (Tu-Th)

Southern Charlotte, bay regions: Moderate (M-Th)

Northern Lee: Low (M), Moderate (Tu-Th)

Northern Lee, bay regions: Low (M-Th)

Central Lee: Low (M-Th)

Central Lee, bay regions: Low (M-Th)

All Other SWFL County Regions: None expected (M-Th)

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations. Health information, from the Florida Department of Health and other agencies, is available at http://tidesandcurrents.noaa.gov/hab/hab_health_info.html. Over the past few days, dead fish have been reported from Sarasota and Lee counties. Respiratory irritation was reported in Sarasota County.

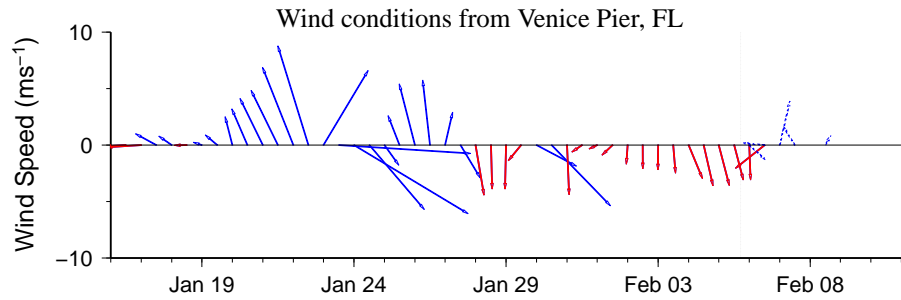
Analysis

Karenia brevis ranges between not present to 'high' concentrations along- and offshore southwest Florida from northern Pinellas to northern Collier counties (FWRI, MML, SCHD; 1/27-2/3). Recent sampling identified 'high' *K. brevis* concentrations 2-4 miles offshore northern Sarasota County and 15-16 miles offshore Cayo Costa in northern Lee County (FWRI; 2/1-2/3). 'Medium' *K. brevis* concentrations were detected 16 miles southwest of Bowman's Beach in central Lee County (FWRI; 2/1). Sampling alongshore central Lee County identified up to 'low a' *K. brevis* concentrations at Lighthouse Beach on Sanibel Island where sampling on 1/25 indicated *K. brevis* was not present (FWRI; 2/1). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: <http://myfwc.com/redtidestatus>.

In recent ensemble imagery (MODIS Aqua, 2/4), patches of elevated chlorophyll (2-6 $\mu\text{g/L}$) with some of the optical characteristics of *K. brevis* are visible alongshore southwest Florida from southern Sarasota to central Lee counties.

Forecasted winds today through Thursday may minimize the potential for transport of surface *K. brevis* concentrations alongshore southwest Florida. Onshore winds forecast Tuesday afternoon through Thursday may increase the potential for respiratory irritation alongshore southwest Florida.

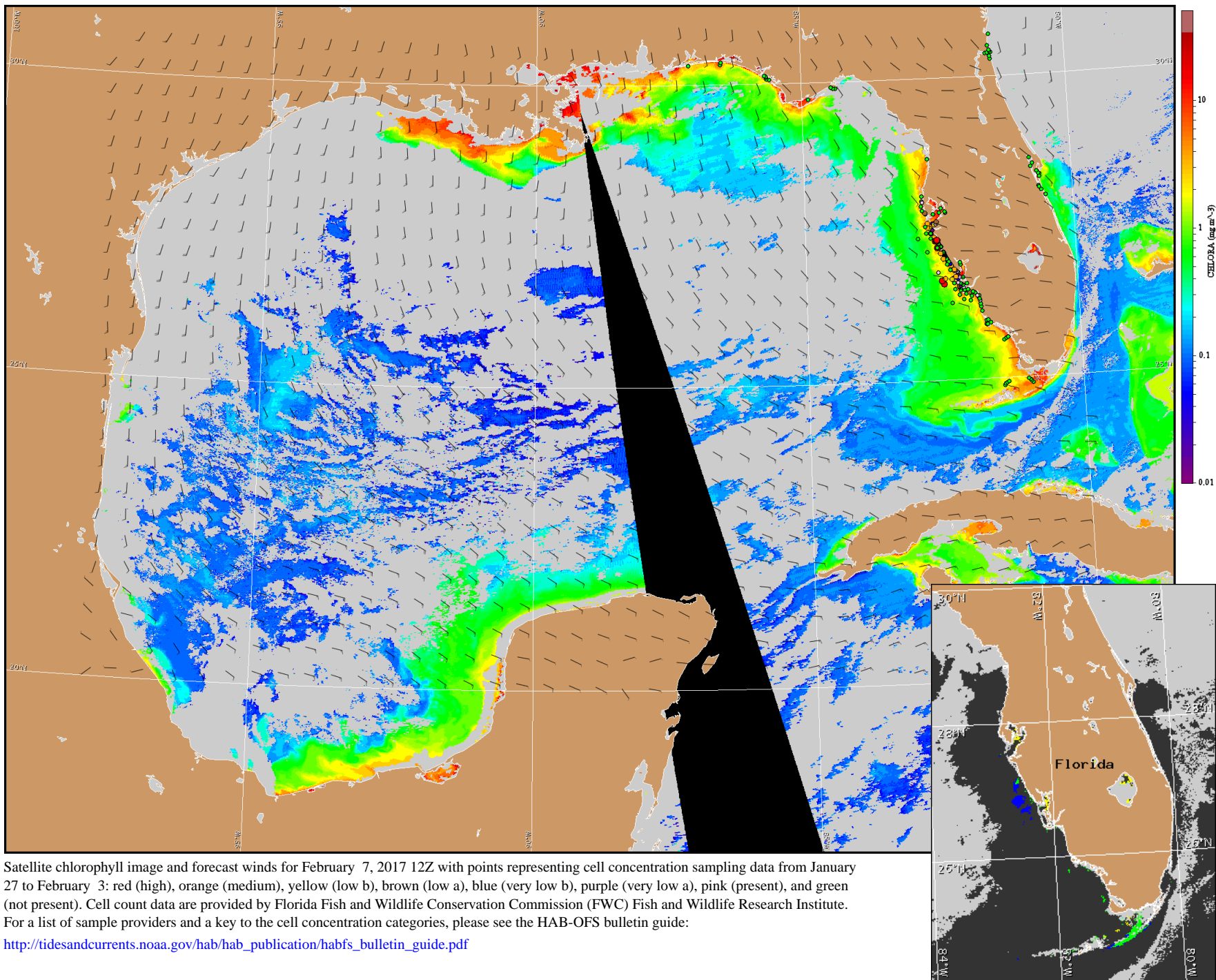
Davis, Lalime



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

Englewood to Tarpon Springs (Venice): Variable winds (5-10kn, 3-5m/s) today. Southeast to south winds (10kn, 5m/s) Tuesday. Southwest winds (5-10kn) Wednesday and Thursday becoming west winds (15kn, 8m/s) Thursday afternoon. North winds (15kn) Thursday night.



Satellite chlorophyll image and forecast winds for February 7, 2017 12Z with points representing cell concentration sampling data from January 27 to February 3: 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 Fish and Wildlife Conservation Commission (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 with *K. brevis* optical characteristics shown in yellow (see p. 1 analysis for interpretation).