Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

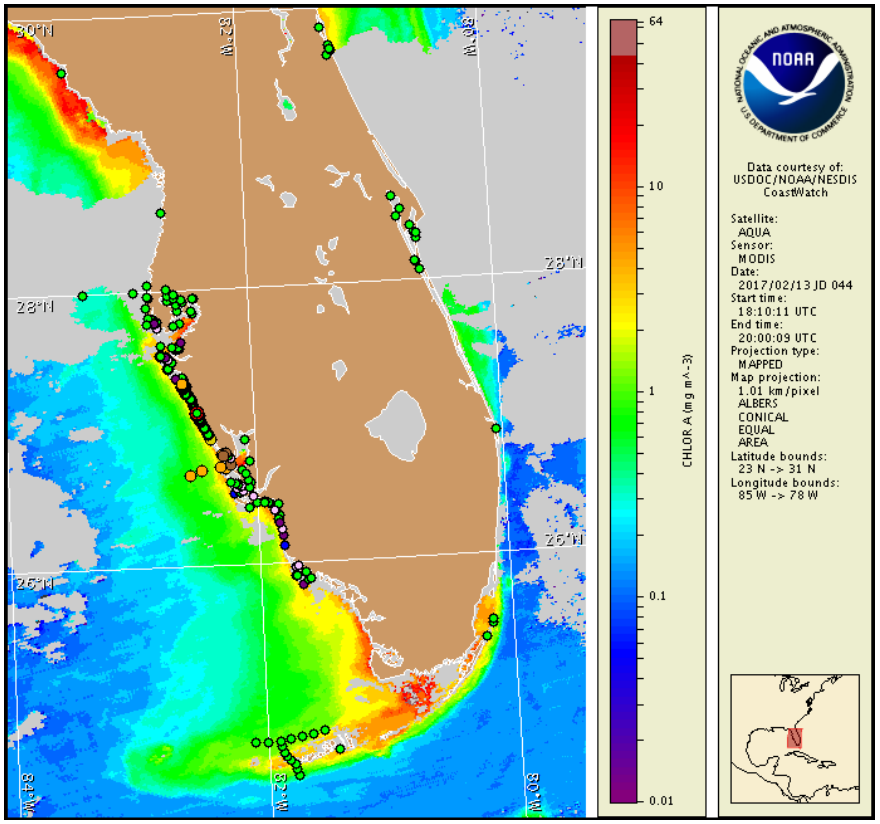
Thursday, 16 February 2017

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, February 13, 2017



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from February 6 to 15: 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 Thursday, February 16 through Tuesday, February 21 is listed below:

County Region: Forecast (Duration)
Southern Pinellas: None (Th, M-Tu), Very Low (F-Su)
Northern Manatee, bay regions: Very Low (Th-Tu)
Southern Manatee: Low (Th-F, Su-Tu), Moderate (Sa)
Southern Manatee, bay regions: Moderate (Th-Tu)
Northern Sarasota: Moderate (Th, Su), High (F-Sa), Low (M-Tu)
Northern Sarasota, bay regions: Moderate (Th-Tu)
Southern Sarasota: Low (Th, M-Tu), Moderate (F-Su)
Northern Charlotte: Low (Th, M-Tu), Moderate (F-Su)
Southern Charlotte: Low (Th, M-Tu), Moderate (F-Su)
Southern Charlotte, bay regions: Moderate (Th-Tu)
Northern Lee: Low (Th), Moderate (F, Su), Very Low (Sa, M-Tu)
Northern Lee, bay regions: Moderate (Th), Low (F-Tu)
Central Lee: Very Low (Th-Tu)
All Other SWFL County Regions: None expected (Th-Tu)

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 several days, reports of respiratory irritation were received from Manatee, Sarasota, and Charlotte counties. Reports of dead fish were received from Charlotte, Sarasota, and Lee counties.

Analysis

Due to the upcoming federal holiday, the next bulletin will be issued on Tuesday, February 21.

Recent samples collected along- and offshore the coast of southwest Florida from Pinellas to Collier counties identified not present to 'high' concentrations of *Karenia brevis*, with the highest concentrations collected from alongshore northern Sarasota County (FWRI, MML, SCHD, CCENRD; 2/6-2/15). Samples collected alongshore northern Sarasota County indicate an increase from 'medium' to 'high' concentrations of *K. brevis* (FWRI; 2/13). 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, 2/13), patches of elevated chlorophyll (2 to 5 μg/L) are visible but do not indicate the presence of chlorophyll anomalies with the characteristics of *K. brevis* alongshore southwest Florida from Pinellas to Monroe counties, including the Florida Keys.

Alongshore winds forecasted today through Saturday may promote southward transport of surface *K. brevis* concentrations alongshore southwest Florida. Variable winds forecasted Sunday through Tuesday may minimize the potential for respiratory irritation alongshore southwest Florida.

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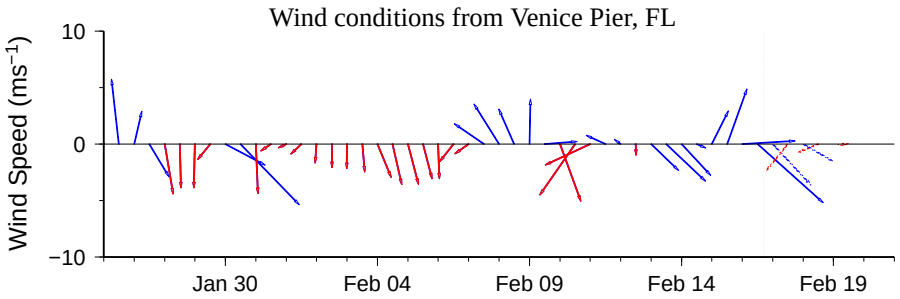
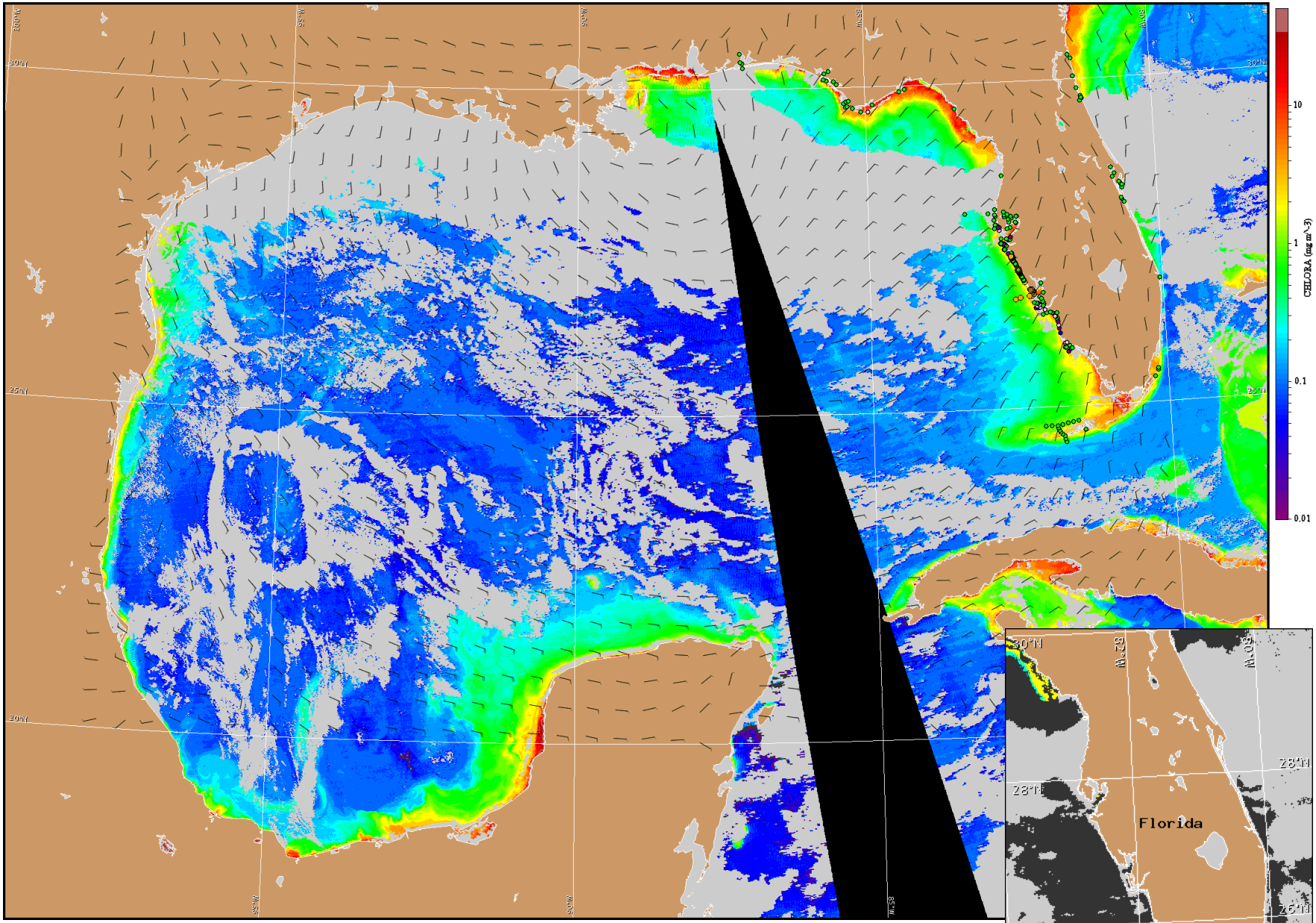


Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).

Wind Analysis

Englewood to Tarpon Springs (Venice): North winds (15kn, 8m/s) today and tonight becoming northeast (5-10kn, 3-5m/s) after midnight. East winds (10kn, 5m/s) Friday becoming variable (5kn, 3m/s) in the afternoon through the night. South to southwest winds (10kn) Saturday. West to northwest winds (5kn) Sunday. North winds (10kn) Sunday night becoming northeast to east (10kn) Monday.



Satellite chlorophyll image and forecast winds for February 17, 2017 12Z with points representing cell concentration sampling data from February 6 to 15: 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).