



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

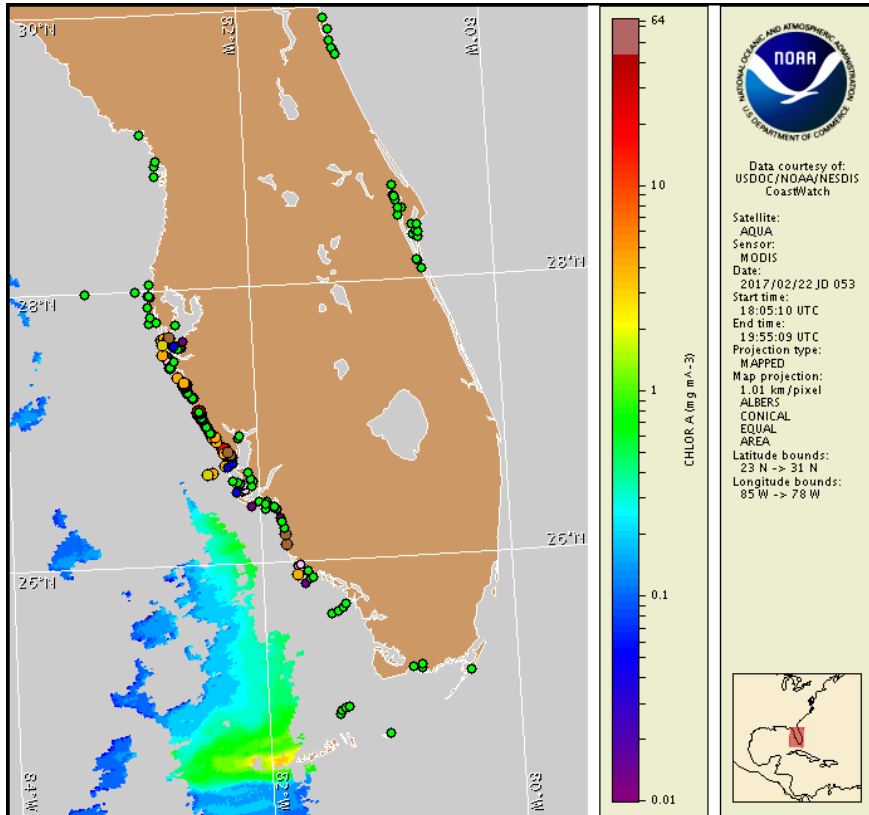
Thursday, 23 February 2017

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Tuesday, February 21, 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 13 to 21: 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 23 through Monday, February 27 is listed below:

County Region: Forecast (Duration)

Southern Pinellas: Low (Th, Su), Moderate (F-Sa, M)

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

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

Southern Manatee: Moderate (Th-M)

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

Northern Sarasota: Moderate (Th-F, Su), High (Sa, M)

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

Southern Sarasota: Moderate (Th-M)

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

Northern Charlotte: Moderate (Th-M)

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

Southern Charlotte: Moderate (Th-M)

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

Northern Lee: Moderate (Th-Sa), Low (Su-M)

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

Central Lee: Very Low (Th-M)

South Lee: Very Low (Th-M)

South Lee, bay regions: Very Low (Th-M)

Northern Collier: Low (Th-M)

Central Collier: Moderate (Th-Sa), Low (Su-M)

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

Check https://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 https://tidesandcurrents.noaa.gov/hab/hab_health_info.html. Over the last few days, reports of respiratory irritation have been received from Manatee, Sarasota, Charlotte, and Collier counties. Dead fish have been reported in Sarasota, Charlotte, and Lee counties.

Analysis

Recent samples collected along- and offshore the coast of southwest Florida from Pinellas to Monroe counties identified not present to 'high' concentrations of *Karenia brevis*, with 'high' concentrations present alongshore Nokomis and Venice beach in Sarasota County, and north of Placida in the bay regions of southern Charlotte County (FWRI, MML, SCHD, CCENRD; 2/13-2/21). 'Medium' *K. brevis* concentrations have been newly identified near Lemon Bay Aquatic Preserve in the bay regions of northern Charlotte County. Samples collected from north of Caxambas Pass alongshore central Collier County indicate an increase from background to 'medium' concentrations (FWRI;

2/20-2/21). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: <http://myfwc.com/redtidestatus>.

Recent ensemble imagery (MODIS Aqua, 2/22) is completely obscured by clouds alongshore southwest Florida, preventing analysis. In previous ensemble imagery (MODIS Aqua, 2/20; not shown) patches of elevated chlorophyll (2-9 $\mu\text{g/L}$) with some of the optical characteristics of *K. brevis* were visible alongshore southwest Florida from southern Pinellas to Monroe counties.

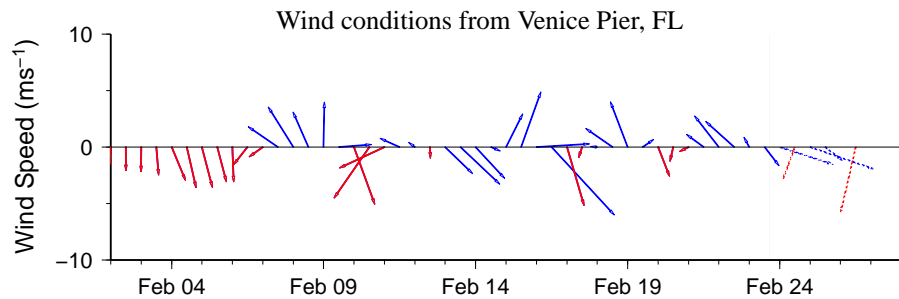
Alongshore winds forecasted today through Sunday have the potential to promote southerly transport of surface *K. brevis* concentrations alongshore southwest Florida.

Keeney, Yang, Ludema

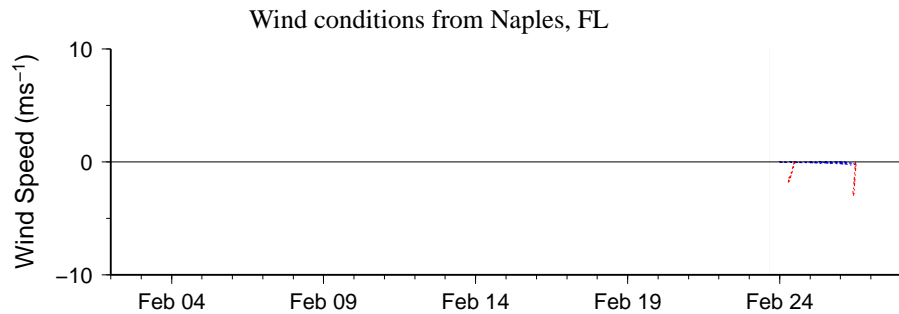
Wind Analysis

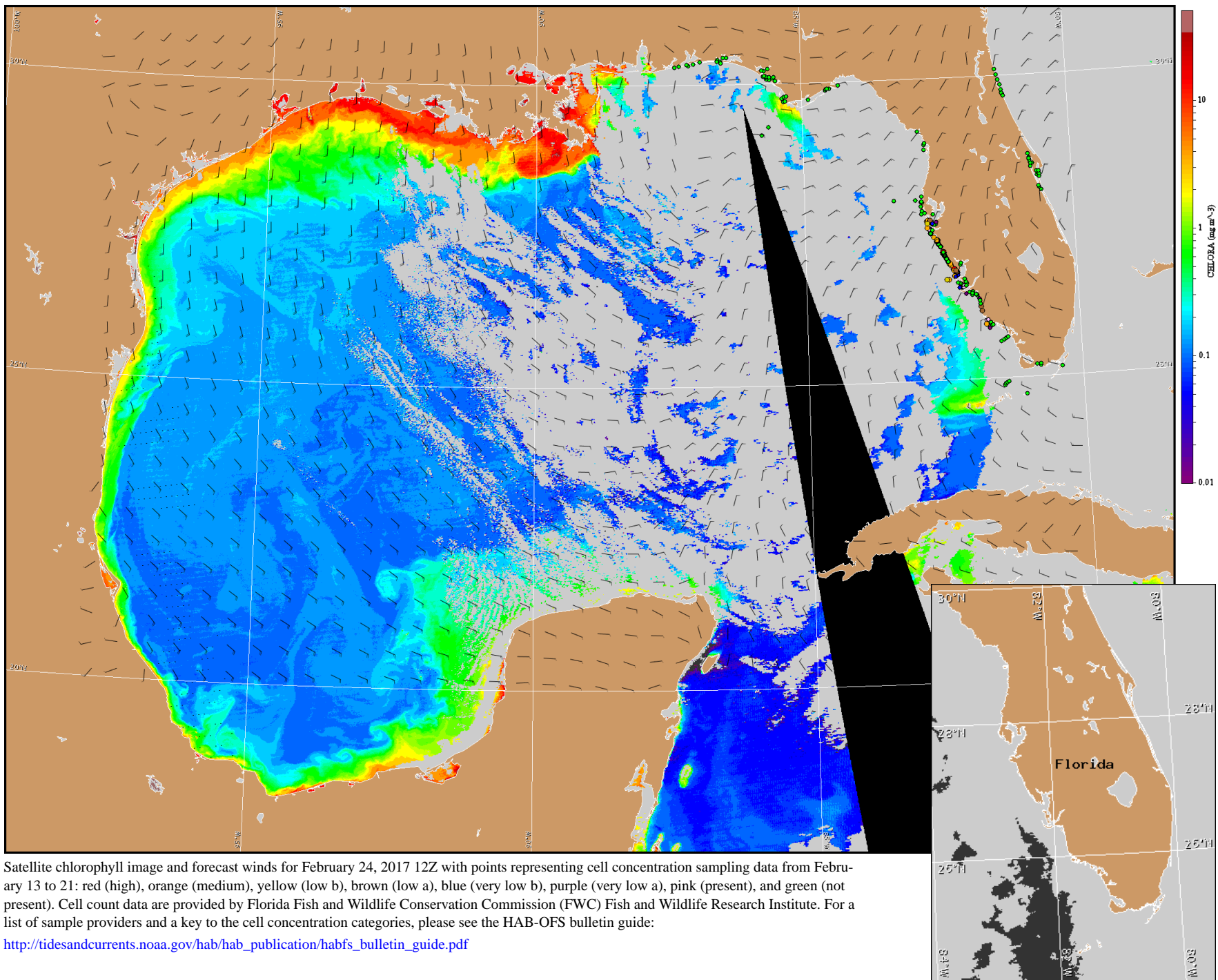
Englewood to Tarpon Springs (Venice): North to northeast winds (5-15kn, 3-8 m/s) today through Saturday. Northeast winds (15-20kn, 8-10m/s) Sunday will become east winds (15kn, 8m/s) Sunday evening. Southeast winds (10-15kn, 5-8m/s) Monday.

Chokoloskee to Bonita Beach: North to northwest winds (5-15kn, 3-8m/s) today through Friday. Southeast to west winds (5kn, 3m/s) Saturday. North to northeast winds (10-20kn, 5-10m/s) Sunday. Southeast winds (10-15kn, 5-8m/s) Monday.



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 February 24, 2017 12Z with points representing cell concentration sampling data from February 13 to 21: 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).