



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

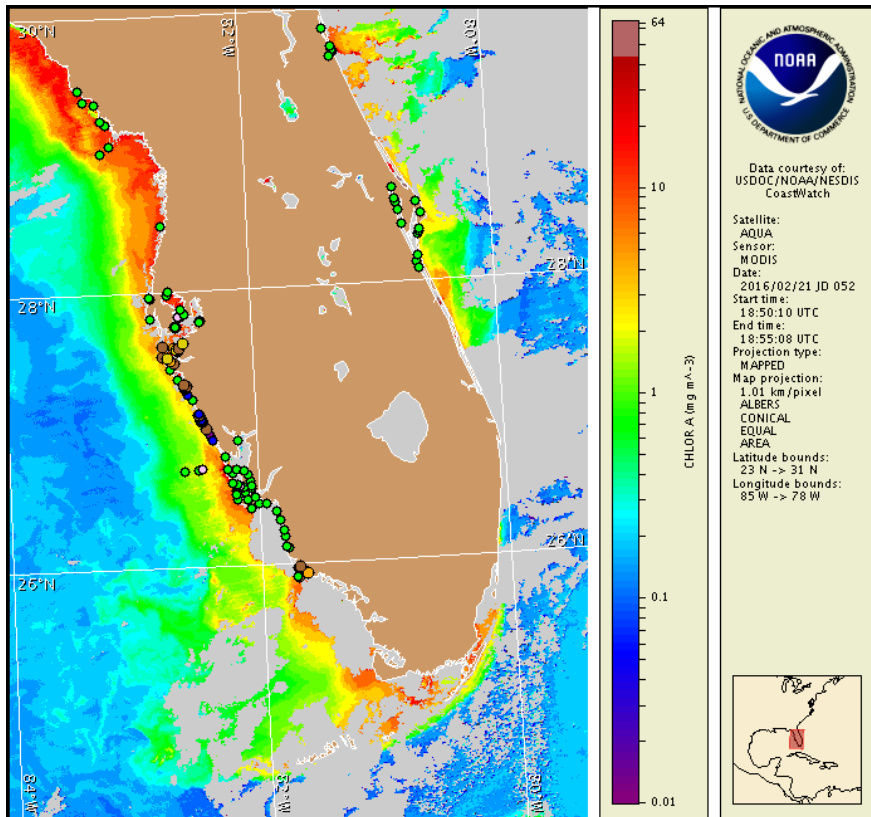
Monday, 22 February 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, February 18, 2016



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from February 12 to 19: 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

Karenia brevis (commonly known as Florida red tide) ranges from not present to medium concentrations along the coast of southwest Florida. *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 22 through Thursday, February 25 is listed below:

County Region: Forecast (Duration)

Southern Pinellas: Low (M-Th)

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

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

Southern Manatee: Low (M-Th)

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

Northern Sarasota: Low (M-Th)

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

Southern Sarasota: Low (M-Th)

Northern Charlotte: Very Low (M-Th)

Southern Charlotte: Low (M-Th)

Northern Lee: Low (M-Th)

Central Lee: Low (M-Th)

Southern Lee: Low (M-Th)

Central Collier: Low (M-Th)

Central Collier, bay regions: Moderate (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. Respiratory irritation and dead fish have been reported in Sarasota County.

Analysis

Recent samples collected along-and offshore southwest Florida indicate background to 'medium' *Karenia brevis* concentrations from northern Pinellas to central Collier counties (FWRI, SCHD, CCENRD; 2/15-20). In the bay regions of southern Pinellas and northern and southern Manatee counties, up to 'medium' *K. brevis* concentrations were detected (FWRI, SCHD; 2/15-17). Alongshore and in the bay regions of Sarasota County and alongshore northern Charlotte County, up to 'Low a' *K. brevis* concentrations were detected (FWRI, SCHD; 2/15-17). All other samples from northern Pinellas to central Collier counties showed *K. brevis* was not present (FWRI, SCHD, CCENRD; 2/15-20). Over the last few days respiratory irritation and dead fish have been reported at various locations in Sarasota County (FWRI, MML; 2/19-22). 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, 2/21), patches of elevated to very high chlorophyll (2 to >20 $\mu\text{g}/\text{L}$) with the characteristics of *K. brevis* are visible along- and offshore from southern Charlotte to central Lee counties and offshore southern Lee to

central Collier counties.

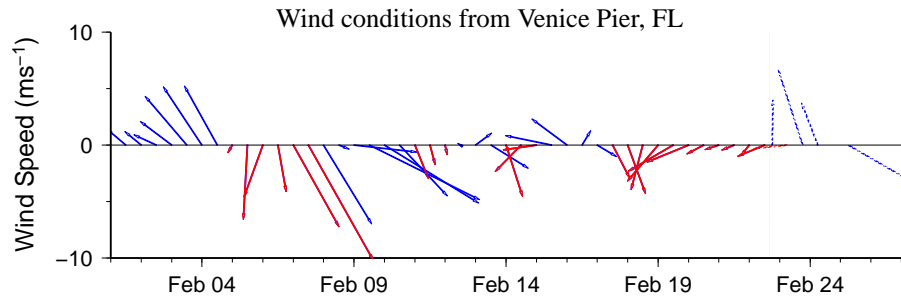
Onshore winds forecast Wednesday through Thursday may increase the potential for respiratory irritation caused by *K. brevis* alongshore southwest Florida. Forecasted winds from Monday to Wednesday may promote northerly transport of surface *K. brevis* concentrations alongshore southwest Florida.

Yang, Davis

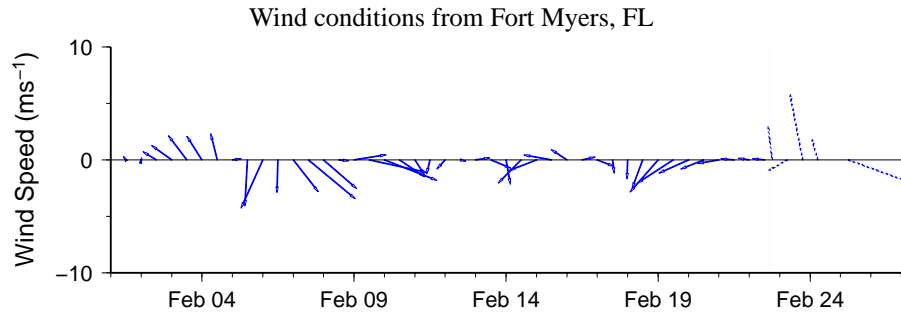
Wind Analysis

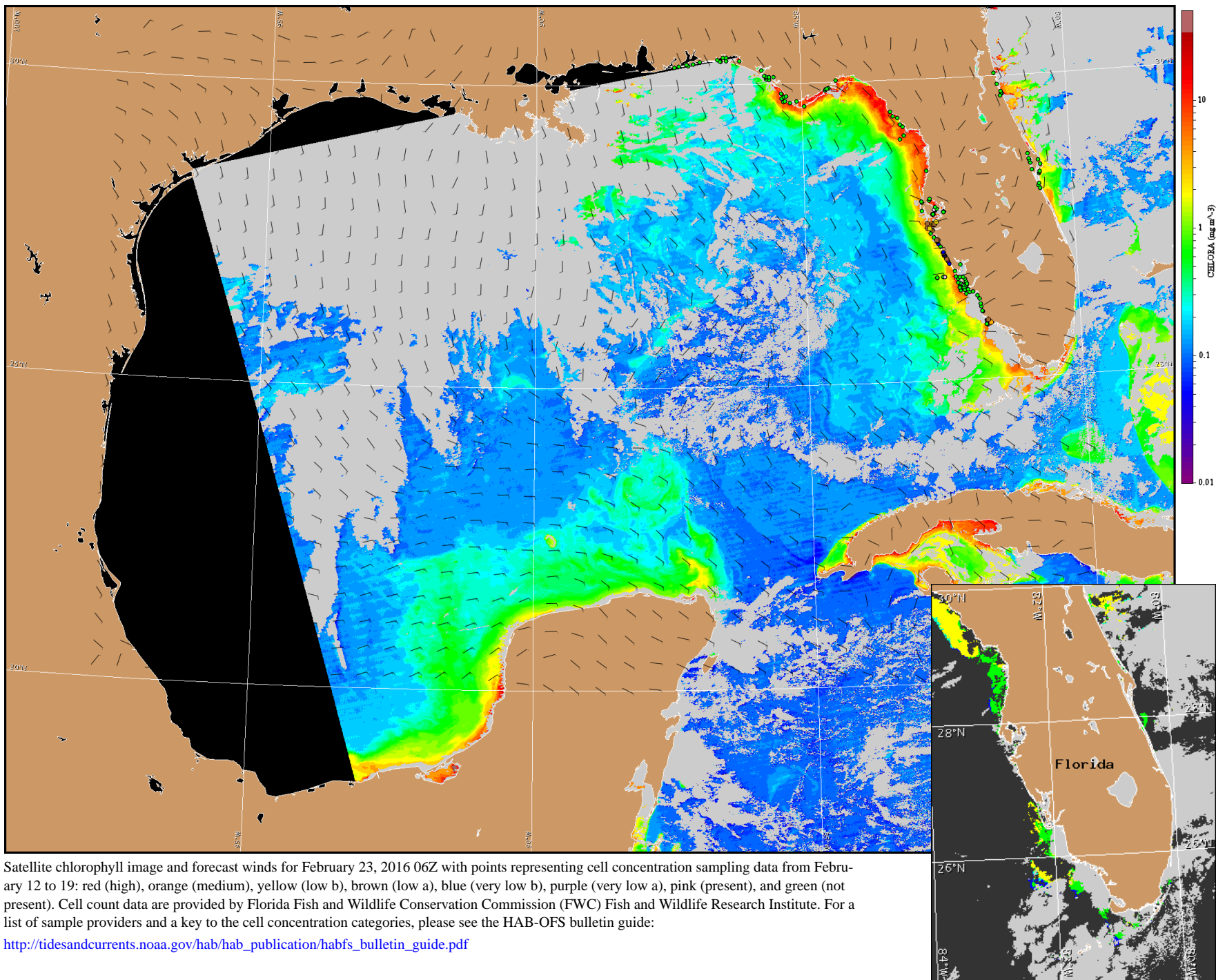
Englewood to Tarpon Springs (Venice): East to South winds (5-15) today through Tuesday. South to west winds (20-25kn, 10-13m/s) Wednesday. Northwest to north winds (15-20kn, 8-10m/s) Thursday.

Chokoloskee to Bonita Beach: Southeast to south southeast winds (5-15kn, 3-8m/s) today through Tuesday. Southwest to west north northwest winds (10-20kn, 5-10m/s) Wednesday through Thursday.



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 23, 2016 06Z with points representing cell concentration sampling data from February 12 to 19: 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).