

Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

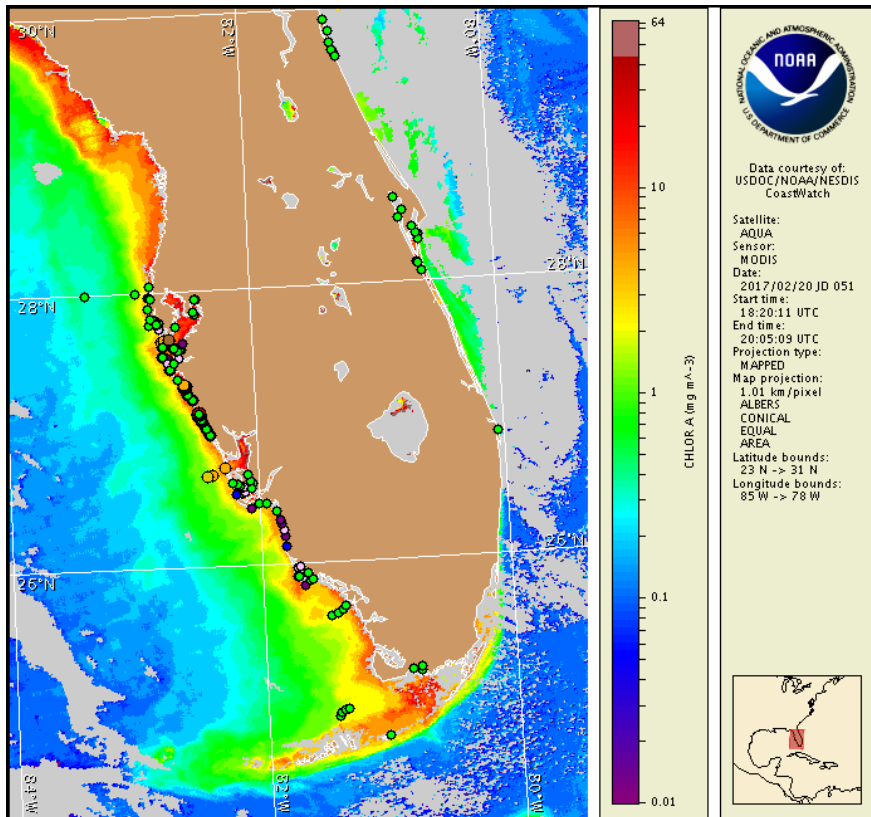
Tuesday, 21 February 2017

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, February 16, 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 11 to 20: 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 Tuesday, February 21 through Thursday, February 23 is listed below:

County Region: Forecast (Duration)

Southern Pinellas: Low (Tu-Th)

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

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

Southern Manatee: Moderate (Tu-Th)

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

Northern Sarasota: Moderate (Tu-Th)

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

Southern Sarasota: Moderate (Tu-Th)

Northern Charlotte: Low (Tu-Th)

Southern Charlotte: Moderate (Tu-Th)

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

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

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

Central Lee: Very Low (Tu-Th)

South Lee: Very Low (Tu-Th)

Northern Collier: Very Low (Tu-Th)

Central Collier: Very Low (Tu-Th)

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

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 past several days, reports of respiratory irritation have been received from Manatee, Sarasota, and Charlotte counties. Dead fish have been reported from Sarasota, Charlotte, and Lee counties.

Analysis

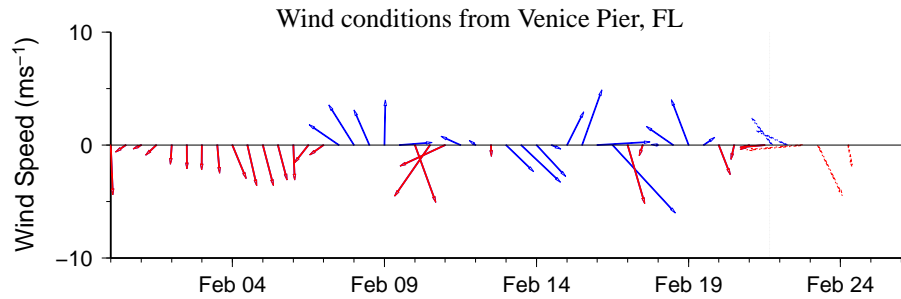
Samples collected along- and offshore the coast of southwest Florida, including the Florida Keys, continue to identify not present to 'high' concentrations of *Karenia brevis* from Pinellas to Monroe counties, with the highest concentrations present alongshore southern Manatee to southern Charlotte counties (FWRI, MML, SCHD, CCENRD; 2/11-2/20). 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, 2/20), patches of elevated chlorophyll (2-9 $\mu\text{g/L}$) with some of the optical characteristics of *K. brevis* are visible alongshore southwest Florida from southern Pinellas to Monroe counties.

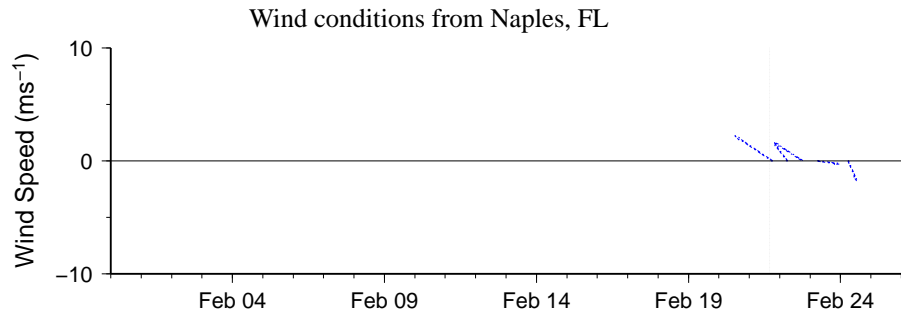
Observed winds over the weekend supported the southerly transport of surface *K. brevis*

concentrations alongshore southwest Florida. Variable winds forecasted Wednesday and Thursday may minimize the potential for respiratory irritation alongshore southwest Florida.

Keeney, Yang



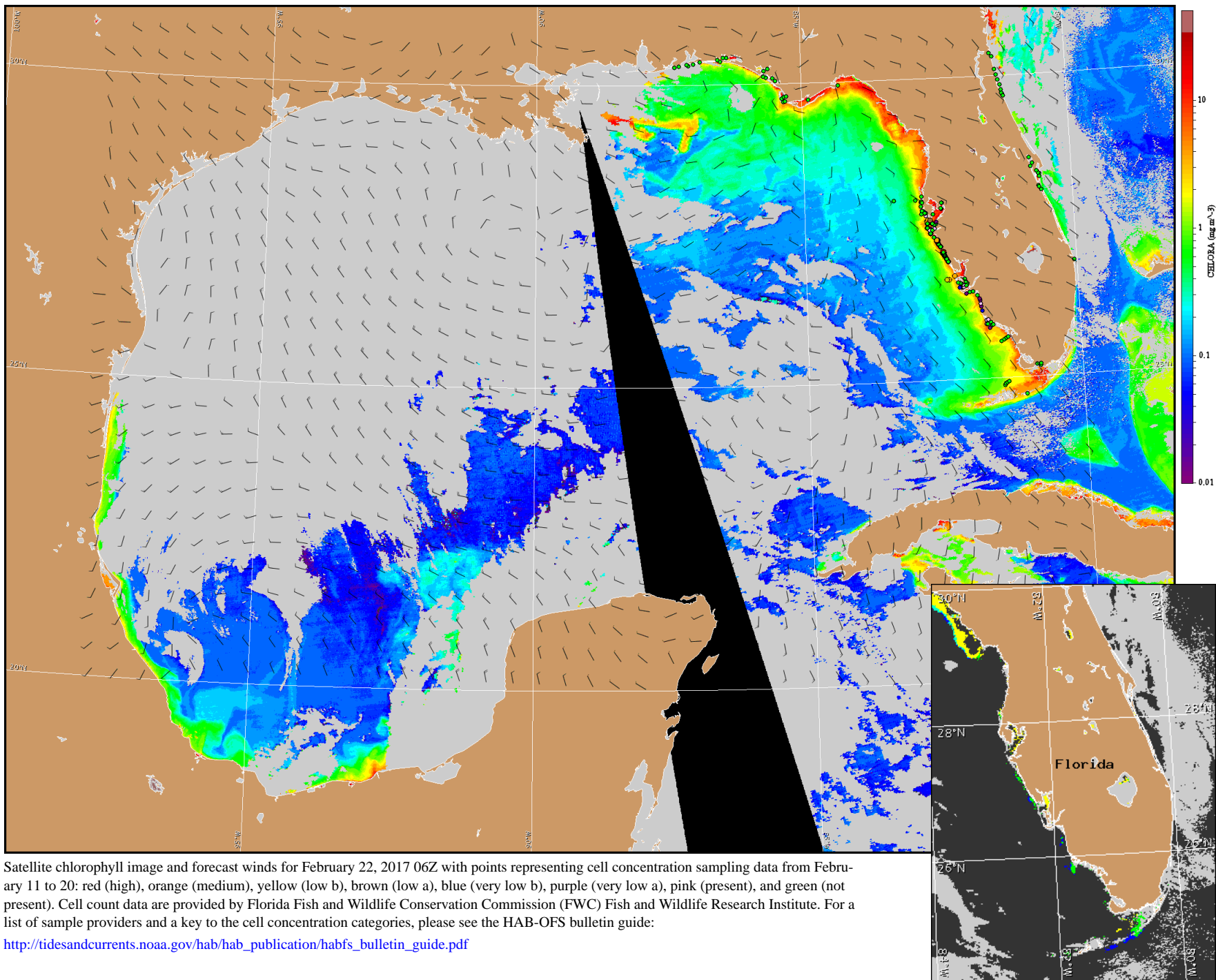
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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



Wind Analysis

Englewood to Tarpon Springs (Venice): Southeast winds (10-15kn, 5-8m/s) today and Wednesday. North to northeast winds (10kn, 5m/s) Wednesday evening through Thursday.

Chokoloskee to Bonita Beach: East to southeast winds (5-20kn, 3-10m/s) today. South winds (15-20kn, 8-10m/s) Wednesday. West to northwest winds (5-10kn, 3-5m/s) late Wednesday evening through Thursday.



Satellite chlorophyll image and forecast winds for February 22, 2017 06Z with points representing cell concentration sampling data from February 11 to 20: 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).