



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

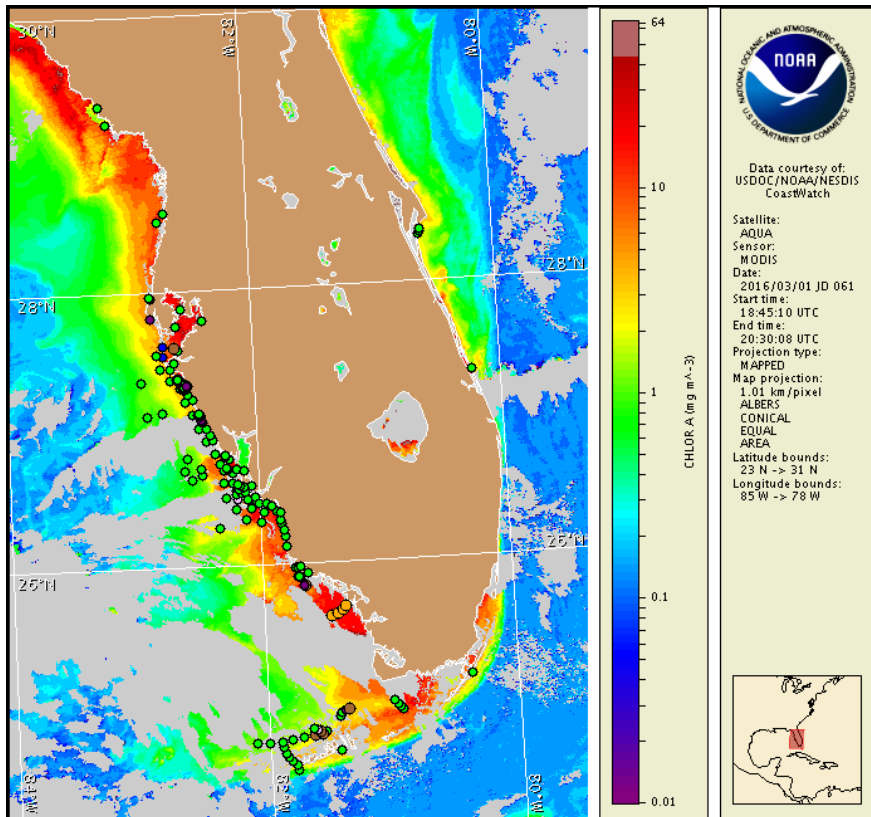
Thursday, 03 March 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, February 29, 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 22 to March 1: 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 and offshore of 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, March 3 through Monday, March 7 is listed below:

County Region: Forecast (Duration)

Northern Sarasota: Low (Th-Sa), Very Low (Su-M)

Northern Sarasota, bay regions: Low (M-Su), Very Low (M)

Southern Sarasota: Very Low (Th, F, M), None (Sa-Su)

Central Collier: Very Low (M, Sa-M), Low (F)

Northern Monroe: Low (Th-Sa), Very Low (Su-M)

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

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 has been reported in Sarasota County.

Analysis

Samples collected along- and offshore southwest Florida indicate background to 'medium' *Karenia brevis* concentrations from northern Sarasota to northern Monroe counties and up to 'low a' concentrations offshore the Florida Keys (FWRI, MML, SCHD, CCENRD; 2/23-3/1). In Lee County, recent sampling throughout Pine Island Sound, the Estero Bay region, and offshore Costa Cayo continue to indicate that *K. brevis* is not present (FWRI; 2/29-3/1). In Collier County, sampling from Naples to Big Marco Pass indicated *K. brevis* is not present while sampling at Cape Romano indicated *K. brevis* concentrations have decreased to 'very low a' from 'low a' (FWRI, CCENRD; 2/26-2/29). In the Florida Keys, sampling offshore Oxfoot Key indicated *K. brevis* was not present (MML; 2/29). Over the last few days respiratory irritation has been reported from Manasota Beach in Sarasota County (FWRI, MML; 2/29-3/3). 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, 3/1), a patch of elevated to high chlorophyll (2 to 17 $\mu\text{g/L}$) with the optical characteristics of *K. brevis* is visible 2-30km offshore northern and central Collier County, where sampling has indicated up to 'very low a' *K. brevis* concentrations.

Variable winds forecast alongshore southwest Florida today through Monday may minimize the potential for transport of surface *K. brevis* concentrations at the coast. North to east winds forecasted today through Monday along the Florida Keys may promote the potential for westerly transport of surface *K. brevis* concentrations offshore of the lower Keys.

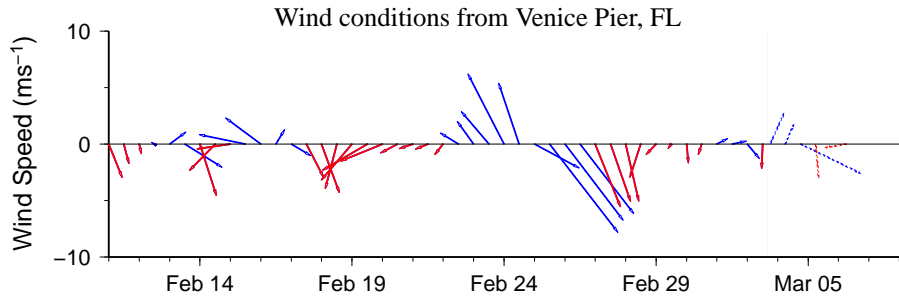
Davis, Keeney

Wind Analysis

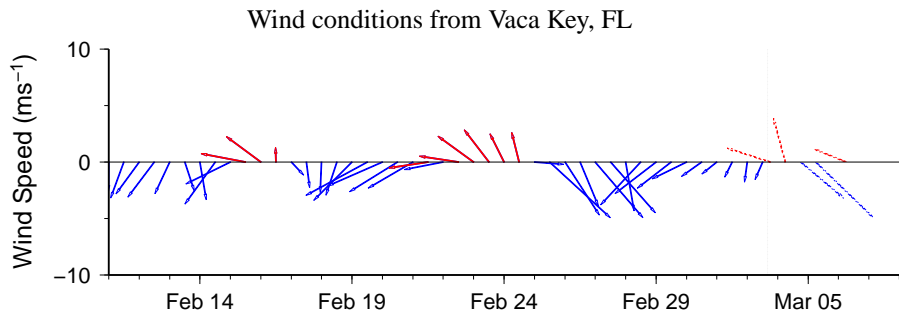
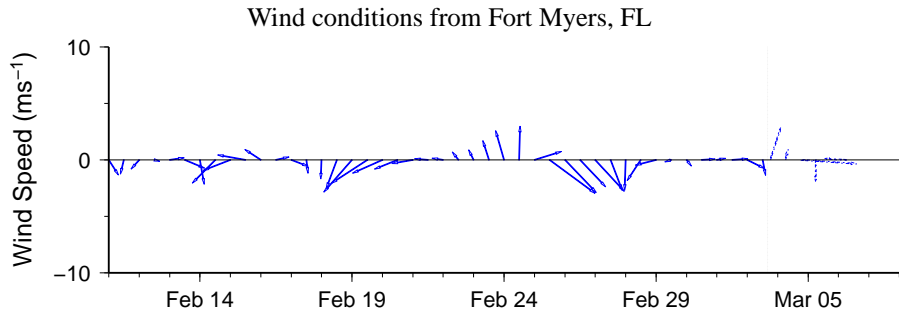
Englewood to Tarpon Springs (Venice): Variable winds (5-15kn, 3-8m/s) today through Monday.

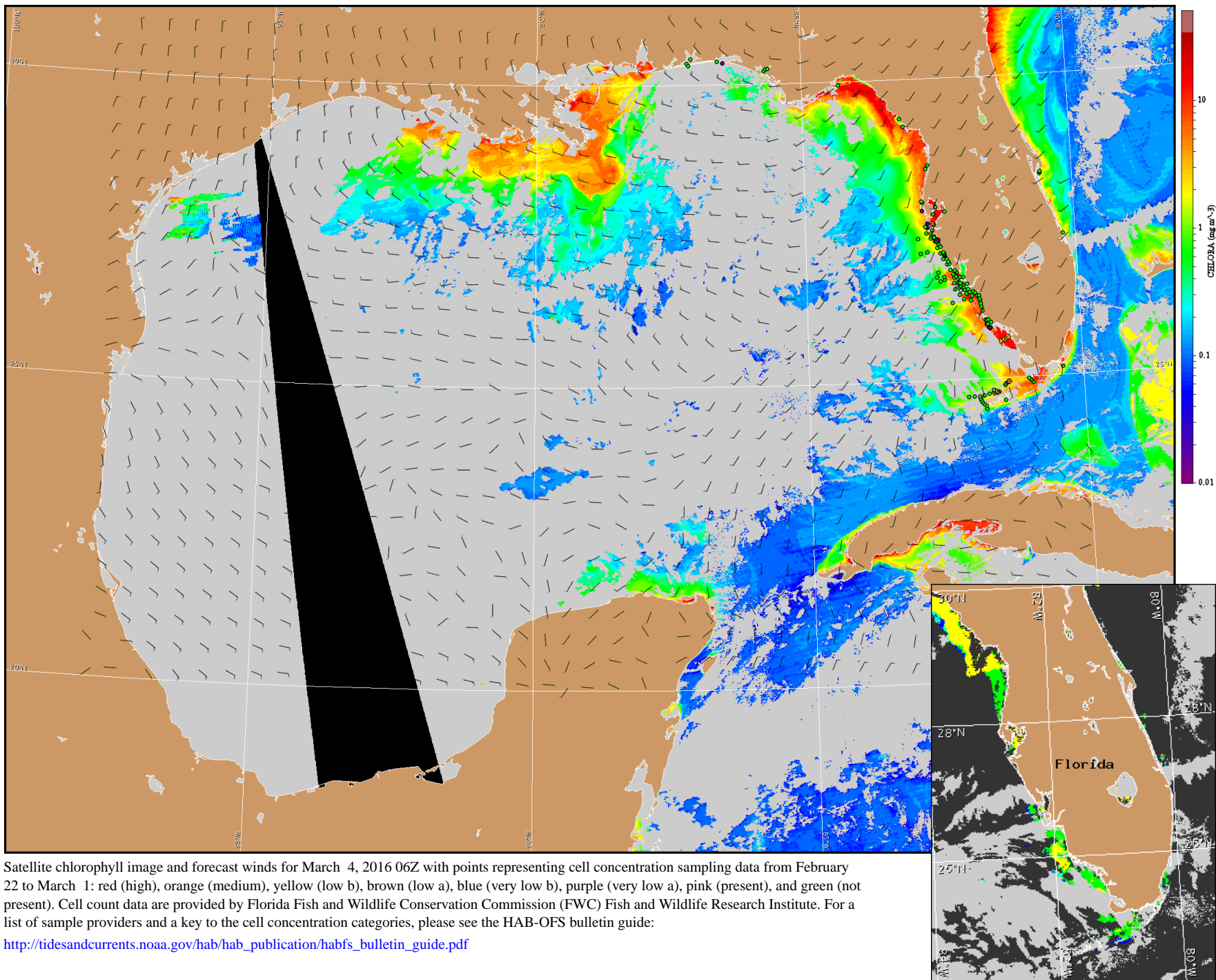
Chokoloskee to Bonita Beach: North winds (5-10kn, 3-5m/s) today becoming west to west southwest (5kn, 3m/s) this evening. West to north northwest winds (5-10kn) Friday. North to east winds (5-15kn) Saturday through Monday.

Gulf of Mexico From West End of Seven Mile Bridge to Halfmoon Shoal: Variable winds (5-10kn) today. Northwest to north winds (5-15kn) Friday. Northeast to east winds (10-20kn, 5-10m/s) Saturday through 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 March 4, 2016 06Z with points representing cell concentration sampling data from February 22 to March 1: 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).