



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

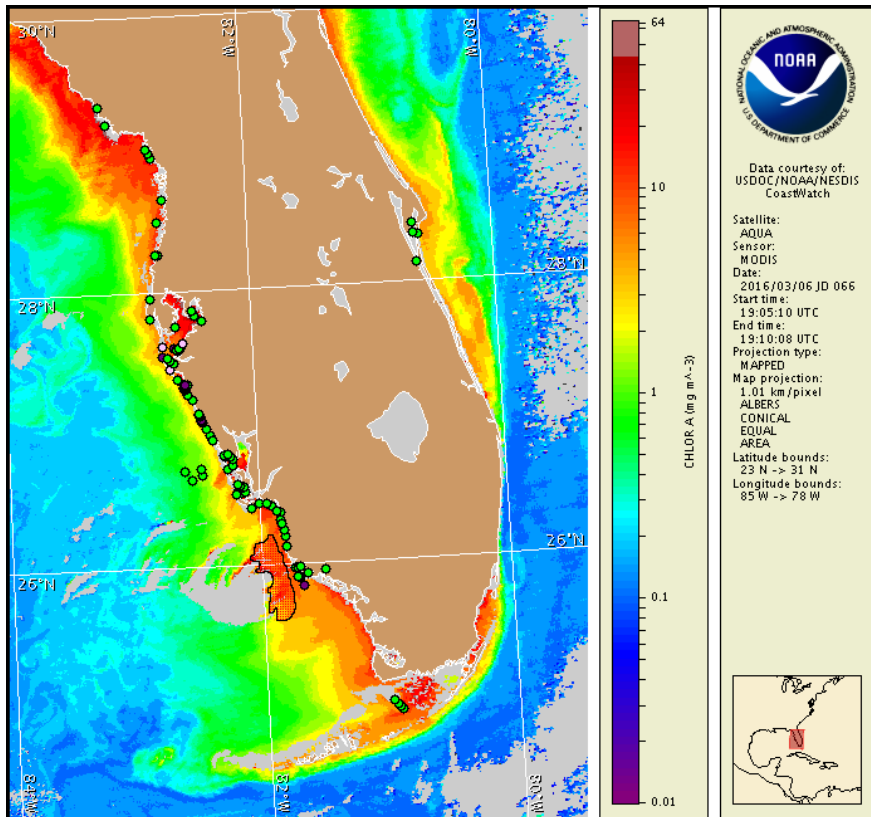
Monday, 07 March 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, March 3, 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 26 to March 3: 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](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 very low concentrations along the coast of southwest Florida and is not present 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 Monday, March 7 through Thursday, March 10 is listed below:

**County Region: Forecast (Duration)**

**Southern Manatee, bay regions:** Very Low (M-Th)

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

**Northern Monroe:** Very Low (M-Th)

**Southern Monroe:** Very Low (M-Th)

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

Check [http://tidesandcurrents.noaa.gov/hab/beach\\_conditions.html](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](http://tidesandcurrents.noaa.gov/hab/hab_health_info.html). Dead fish and respiratory irritation have been reported in Sarasota and Monroe Counties. Dead fish were reported in Collier County.

## Analysis

Recent samples collected along-and offshore southwest Florida indicate *Karenia brevis* concentrations range from background to 'very low b' from Pinellas to Sarasota counties, and in Collier County, and is not present in Charlotte and Lee counties (FWRI; 2/26-3/3). In Sarasota County respiratory irritation has been reported at Lido Key and fish kills have been reported at Nokomis (MML; 3/4-5). Fish kills were reported in the Ten Thousands Islands region of southern Collier County, and fish kills and respiratory irritation were also reported alongshore Monroe County at Highland Beach in the Florida Everglades (FWRI; 3/3-7). No new samples have been received from this region since 'medium' concentrations of *K. brevis* were sampled at Pavilion Key on 2/23. Additional sampling of this region is recommended. 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, 3/6), patches of elevated to high chlorophyll (2-13  $\mu\text{g/L}$ ) are visible offshore the southwest Florida coast from Pinellas to northern Collier County. A patch of elevated to very high chlorophyll (5 to  $>20\mu\text{g/L}$ ) with the optical characteristics of *K. brevis* is visible 6-35km (4-22mi) offshore central Collier County, extending south to southern Monroe County where respiratory irritation and fish kills have been reported.

East to southeast winds forecast alongshore southwest Florida today through Thursday may promote the potential for northerly transport of surface *K. brevis* concentrations at the coast and offshore the lower Keys.

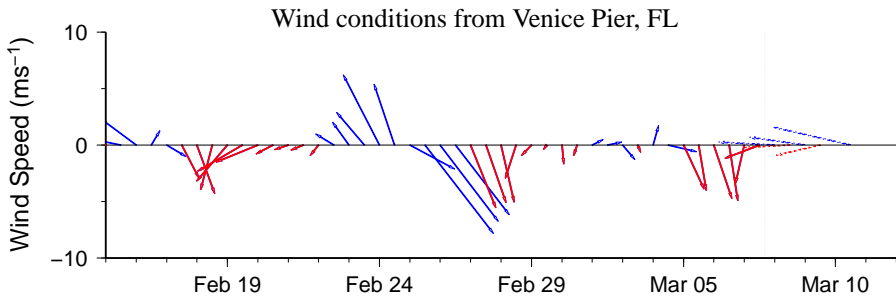
Lalime, Davis

## Wind Analysis

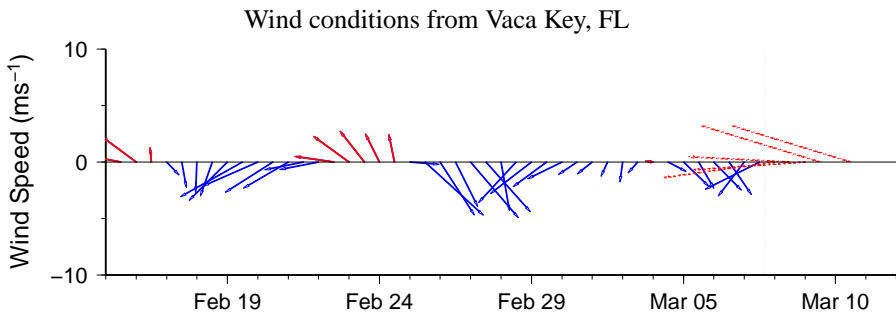
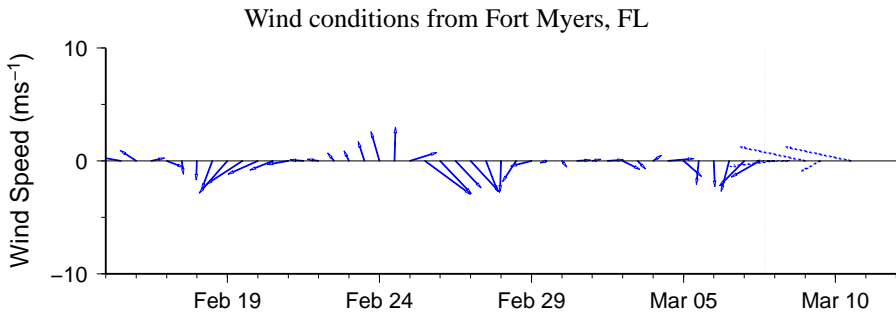
**Englewood to Tarpon Springs (Venice):** Southeast winds (10kn, 5m/s) today. East to southeast winds (5-15kn, 3-8m/s) tonight through Tuesday night. Southeast winds (10-20kn, 5-10m/s) Wednesday through Thursday night.

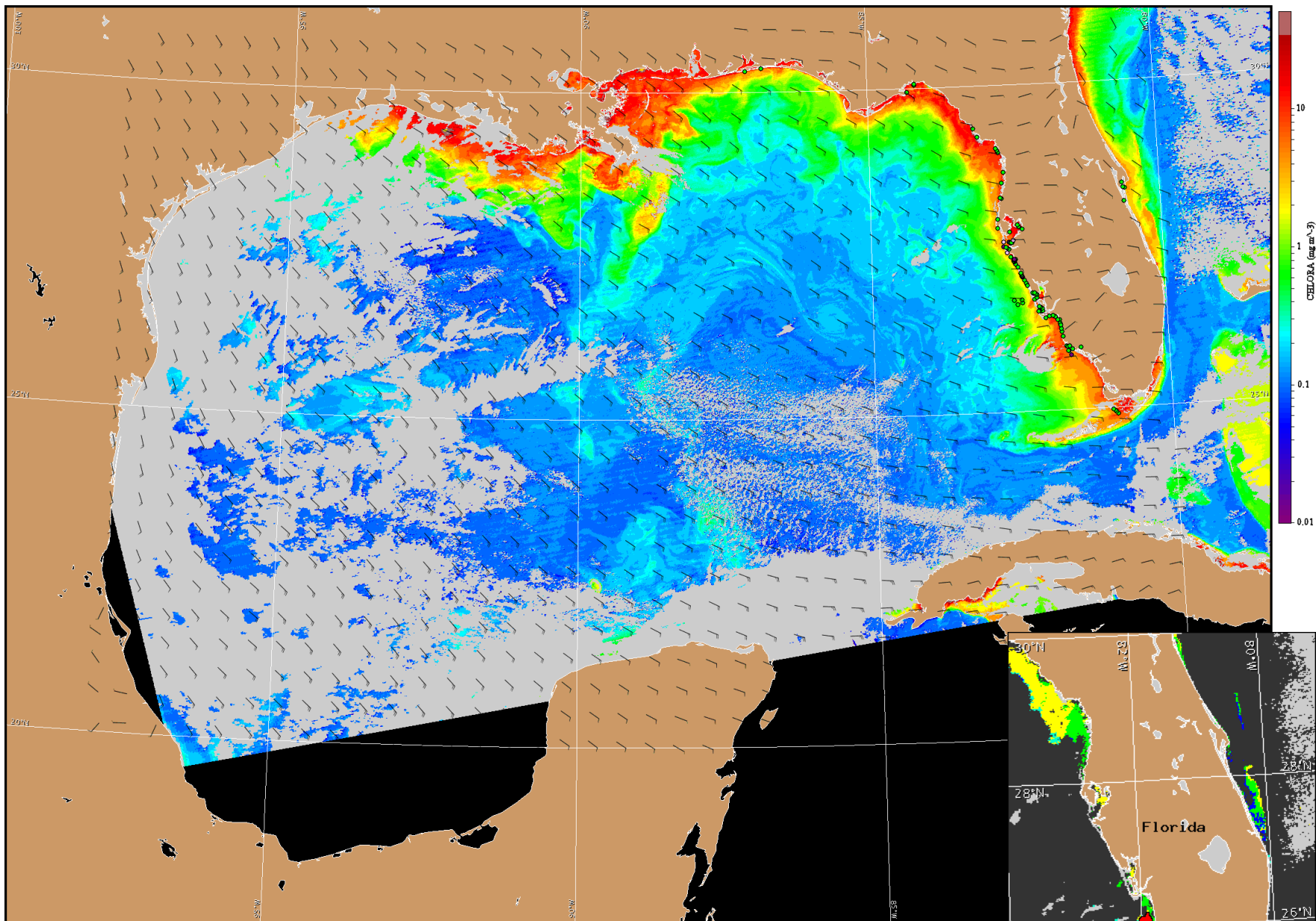
**Chokoloskee to Bonita Beach:** East winds (10-20kn) today and tonight becoming east southeast winds (15-20kn, 8-10m/s) Tuesday through Thursday night.

**Gulf of Mexico from West End of Seven Mile Bridge to Halfmoon Shoal:** Northeast to east winds (20kn, 10m/s) today becoming east (20-25kn, 10-13m/s) tonight through Tuesday. East to southeast winds (20-25kn) Tuesday night through Thursday night.



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 8, 2016 12Z with points representing cell concentration sampling data from February 26 to March 3: 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).