



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

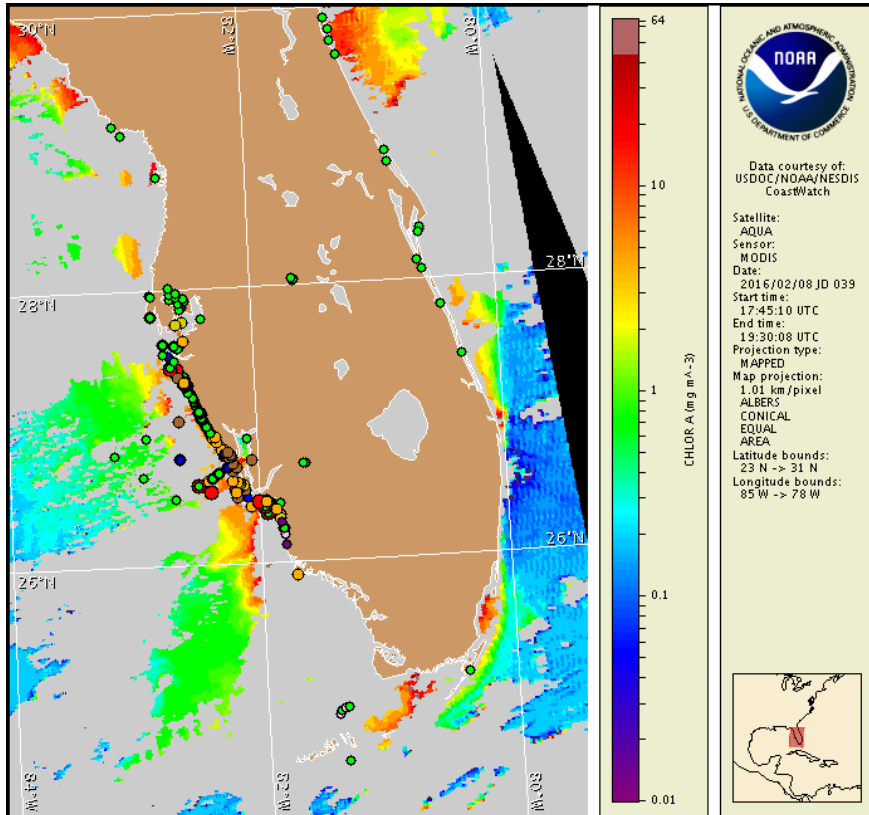
Thursday, 11 February 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, February 8, 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 1 to 10: 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 high concentrations along the coast of southwest Florida, and up to background concentrations offshore 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 11 through Tuesday, February 16 is listed below:

### County Region: Forecast (Duration)

**Southern Pinellas:** Moderate (Th-Sa, Tu), Very Low (Su-M)

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

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

**Southern Manatee:** Moderate (Th-F, Tu), Low (Sa-M)

**Southern Manatee, bay regions:** High (Th-Tu)

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

**Northern Sarasota, bay regions:** High (Th-Tu)

**Southern Sarasota:** Moderate (Th-Sa, M-Tu), Very Low (Su)

**Northern Charlotte:** Moderate (Th-Sa, M-Tu), Very Low (Su)

**Northern Charlotte, bay regions:** Moderate (Th, Sa-Tu), Low (F)

**Southern Charlotte:** Very Low (Th, Su), Moderate (F-Sa, Tu), Low (M)

**Southern Charlotte, bay regions:** High (Th-Tu)

**Northern Lee:** Very Low (Th, Su), Moderate (F-Sa, Tu), Low (M)

**Northern Lee, bay regions:** High (Th-Tu)

**Central Lee:** Low (Th, Su), Moderate (F-Sa), High (M-Tu)

**Central Lee, bay regions:** High (Th-Tu)

**Southern Lee:** Very Low (Th, Su), Moderate (F-Sa, M-Tu)

**Southern Lee, bay regions:** Moderate (Th-Tu)

**Northern Collier:** Very Low (Th-F, Su), Moderate (Sa, M-Tu)

**Central Collier:** Very Low (Th-Su), Moderate (M-Tu)

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

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). Respiratory irritation and dead fish have been reported in Manatee, Sarasota, Charlotte, Lee, and Collier counties.

## Analysis

**\*\*Due to the upcoming federal holiday, the next bulletin will be issued on Tuesday, February 16.\*\***

Recent samples collected along-and offshore southwest Florida indicate background to 'high' *Karenia brevis* concentrations from Pinellas to central Collier counties (FWRI, MML, CCENRD; 2/4-2/10). 'High' concentrations of *K. brevis* remain in portions of southwest Florida from Manatee to Lee counties (FWRI; 2/1-4). Up to 'medium' *K. brevis* concentrations have been observed in central Collier County at South Marco Beach indicating the bloom is moving south (CCENRD; 2/8). Over the last few days respiratory irritation and dead fish have been reported at various locations in Manatee, Sarasota,

Charlotte, Lee, and Collier counties (FWRI, MML, CCENRD; 2/8-11). 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, 2/8) is almost totally obscured by clouds along- and offshore portions of southwest Florida, limiting analysis. Patches of elevated to high chlorophyll (2-12  $\mu\text{g/L}$ ) are visible offshore Manatee to central Collier counties.

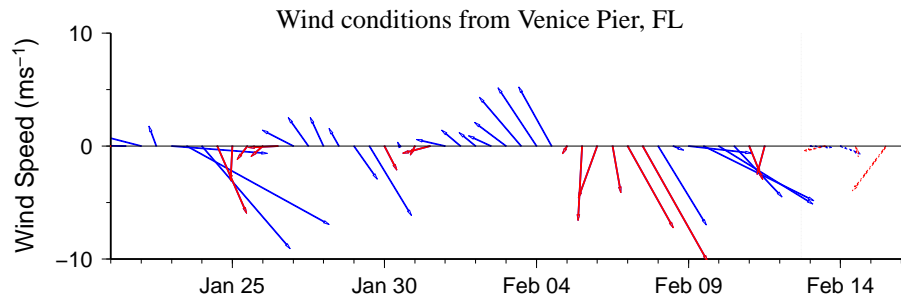
Variable winds forecast tonight through Monday may decrease the potential for transport of surface *K. brevis* concentrations alongshore southwest Florida.

Lalime, Davis

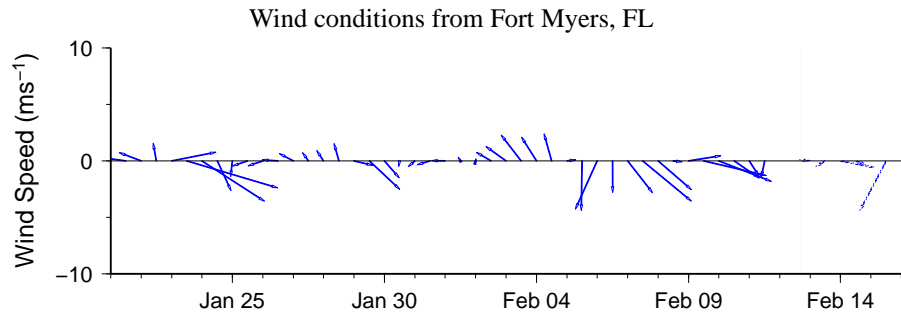
## Wind Analysis

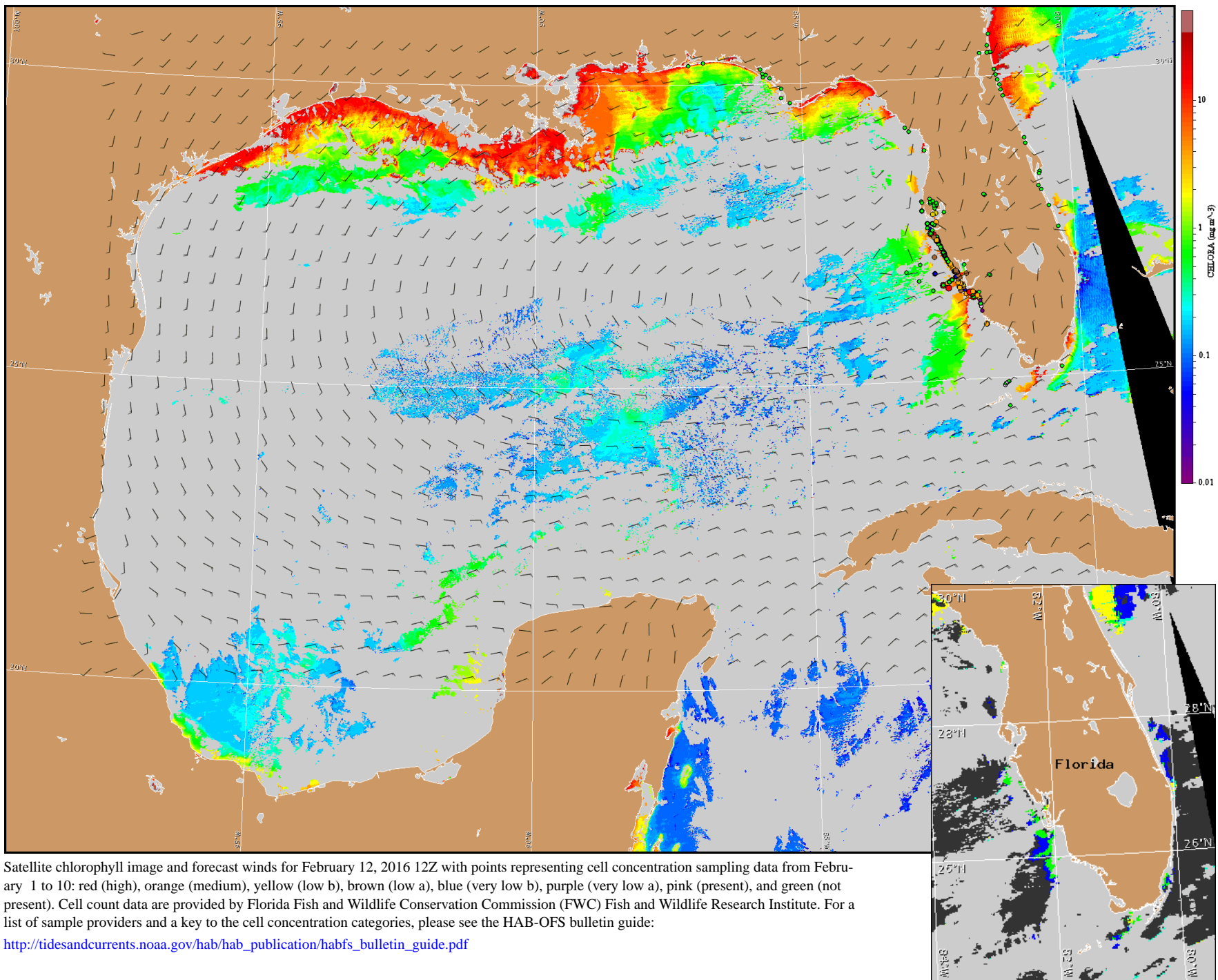
**Englewood to Tarpon Springs (Venice):** Variable winds (5-10kn, 3-5m/s) today through Friday night. North winds (15kn, 8m/s) Saturday. Northeast winds (15kn) Saturday night through Sunday becoming east winds (15kn) Sunday night. Southeast winds (15kn) Monday.

**Chokoloskee to Bonita Beach:** Northeast to east winds (5-10kn) today through Friday. North winds (10-15kn, 5-8m/s) Friday night through Saturday. Northeast to east winds (10-25kn, 5-13m/s) Saturday night through Sunday 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 February 12, 2016 12Z with points representing cell concentration sampling data from February 1 to 10: 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).