



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

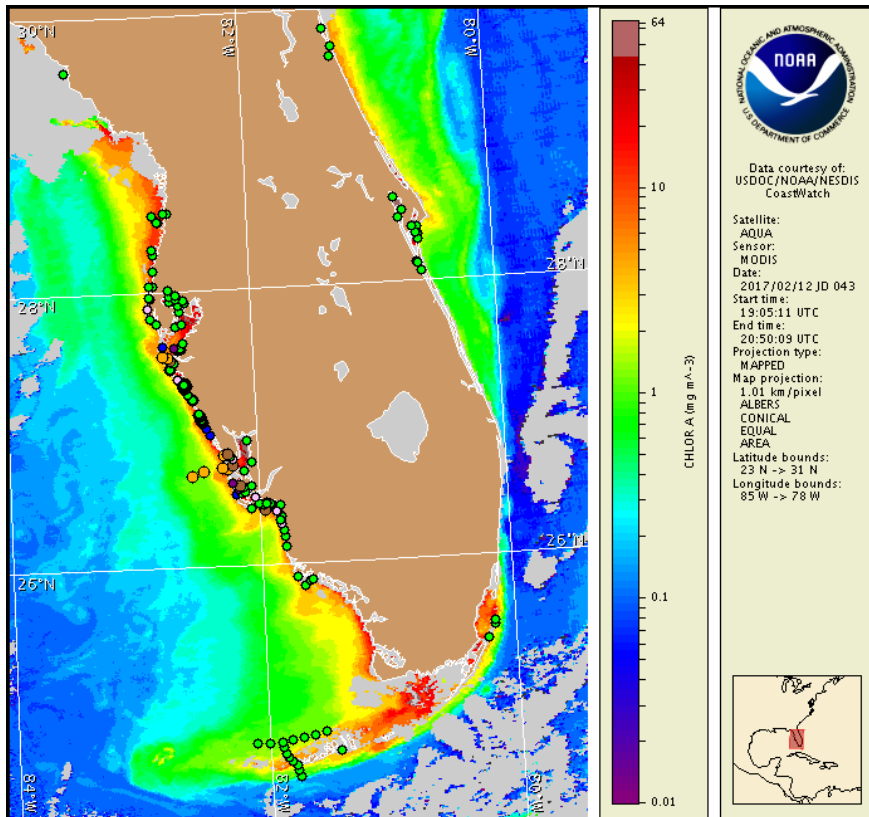
Monday, 13 February 2017

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, February 9, 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 3 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

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 Monday, February 13 through Thursday, February 16 is listed below:

**County Region: Forecast (Duration)**

**Southern Pinellas:** None (M), Very Low (T-Th)

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

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

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

**Northern Sarasota:** Moderate (M-Th)

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

**Southern Sarasota:** Moderate (M-Th)

**Northern Charlotte:** Low (M-Th)

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

**Southern Charlotte:** Moderate (M-Th)

**Southern Charlotte, bay regions:** Moderate (M-Th)

**Northern Lee:** Moderate (M-Th)

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

**Central Lee:** Very Low (M-Th)

**Southern Lee:** 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). Over the past several days, reports of respiratory irritation and dead fish have been received from Sarasota and Lee counties.

## Analysis

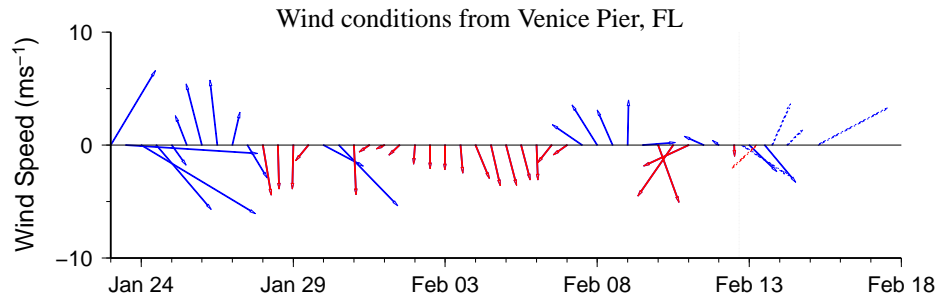
*Karenia brevis* ranges between not present to 'high' concentrations along- and offshore southwest Florida from Pinellas to Lee counties, with the highest concentrations still present alongshore and in the bay regions from southern Manatee to northern Lee counties (FWRI, MML, SCHD, CCENRD; 2/3-2/10). Recent sampling 2 to 17 miles offshore northern Lee County confirms up to 'medium' concentrations of *K. brevis* (FWRI; 2/8). 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, 2/12), patches of elevated to high chlorophyll (4 to 17  $\mu\text{g/L}$ ) with some of the optical characteristics of *K. brevis* are visible alongshore southwest Florida from Sarasota to southern Charlotte counties. Offshore southwest Florida, patches of elevated chlorophyll (3-5  $\mu\text{g/L}$ ) with some of the optical characteristics of *K. brevis* are visible from Lee County.

Variable winds forecasted today through Monday may minimize the potential for

transport of surface *K. brevis* concentrations alongshore southwest Florida. Onshore winds forecasted Tuesday through Thursday may increase the potential for respiratory irritation alongshore southwest Florida.

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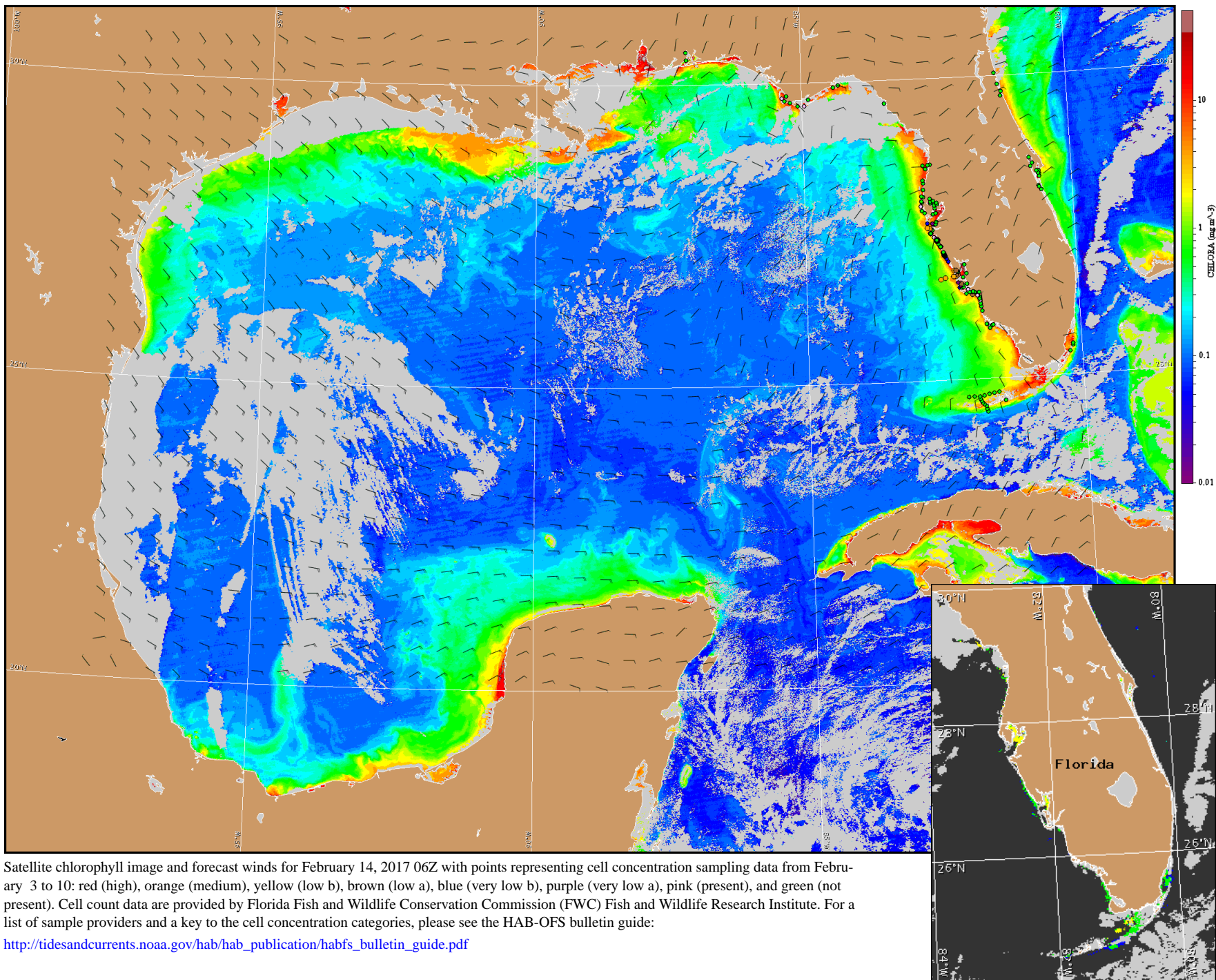


Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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

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## Wind Analysis

**Englewood to Tarpon Springs (Venice):** North winds (10 kn, 5 m/s) today becoming east winds (10 kn) tonight and Tuesday morning. West winds (5 kn, 3 m/s) Tuesday. South to southwest winds (5-15 kn, 3-8 m/s) Wednesday morning and afternoon. North-west to north winds (10-15 kn, 5-8 m/s) Wednesday night through Friday.



Satellite chlorophyll image and forecast winds for February 14, 2017 06Z with points representing cell concentration sampling data from February 3 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).