



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

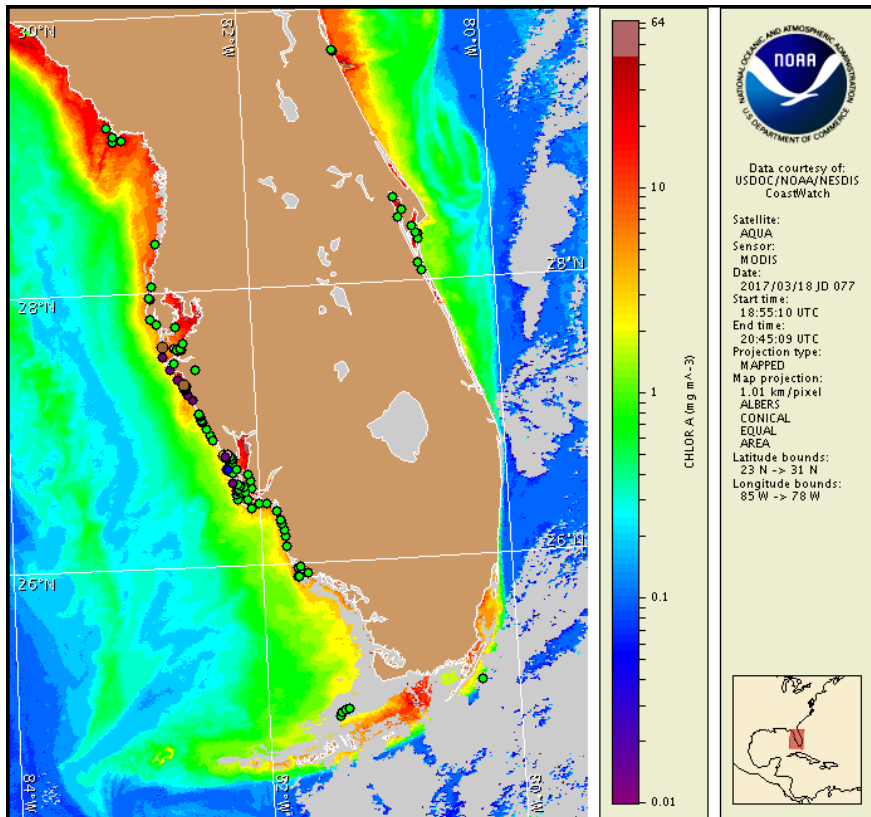
Monday, 20 March 2017

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, March 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 March 10 to 17: 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 low 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, March 20 through Thursday, March 23 is listed below:

**County Region: Forecast (Duration)**

**Southern Pinellas:** Low (M-W), Very Low (Th)

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

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

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

**Northern Sarasota:** Very Low (M, Th), Low (Tu-W)

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

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

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

**Northern Lee:** Moderate (M-W), Low (Th)

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

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

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

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

Check [https://tidesandcurrents.noaa.gov/hab/beach\\_conditions.html](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](https://tidesandcurrents.noaa.gov/hab/hab_health_info.html). Over the past several days, there have been no reports of respiratory irritation. Reports of dead fish have been received from Sarasota and Lee counties.

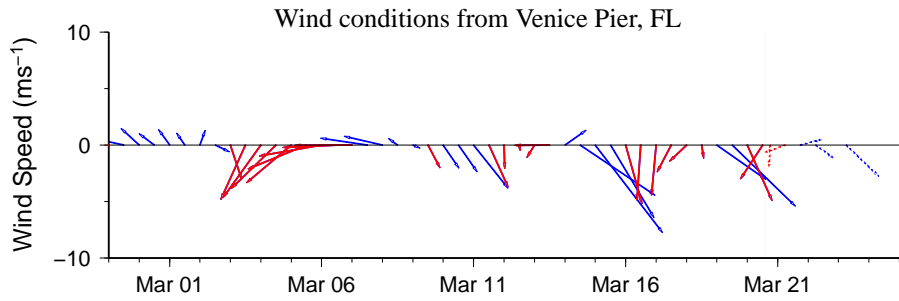
## Analysis

Recent samples collected alongshore the coast of southwest Florida from Pinellas to Collier counties indicate a decrease in concentrations of *Karenia brevis*. Samples from Sarasota and Charlotte counties indicate a decrease from 'medium' concentrations of *K. brevis* to 'low a' in the bay regions of northern Sarasota and to 'low b' in the bay regions of southern Charlotte County (FWRI, MML, SCHD, CCPCD; 3/10-3/17). 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, 3/18), patches of elevated chlorophyll (2-8  $\mu\text{g/L}$ ) are visible with some of the optical characteristics of *K. brevis* are present from Pinellas to Lee counties.

Variable winds observed over the weekend decreased the potential for transport of surface *K. brevis* concentrations alongshore southwest Florida. Onshore winds forecasted Tuesday and Wednesday have the potential to increase respiratory irritation at the coast.

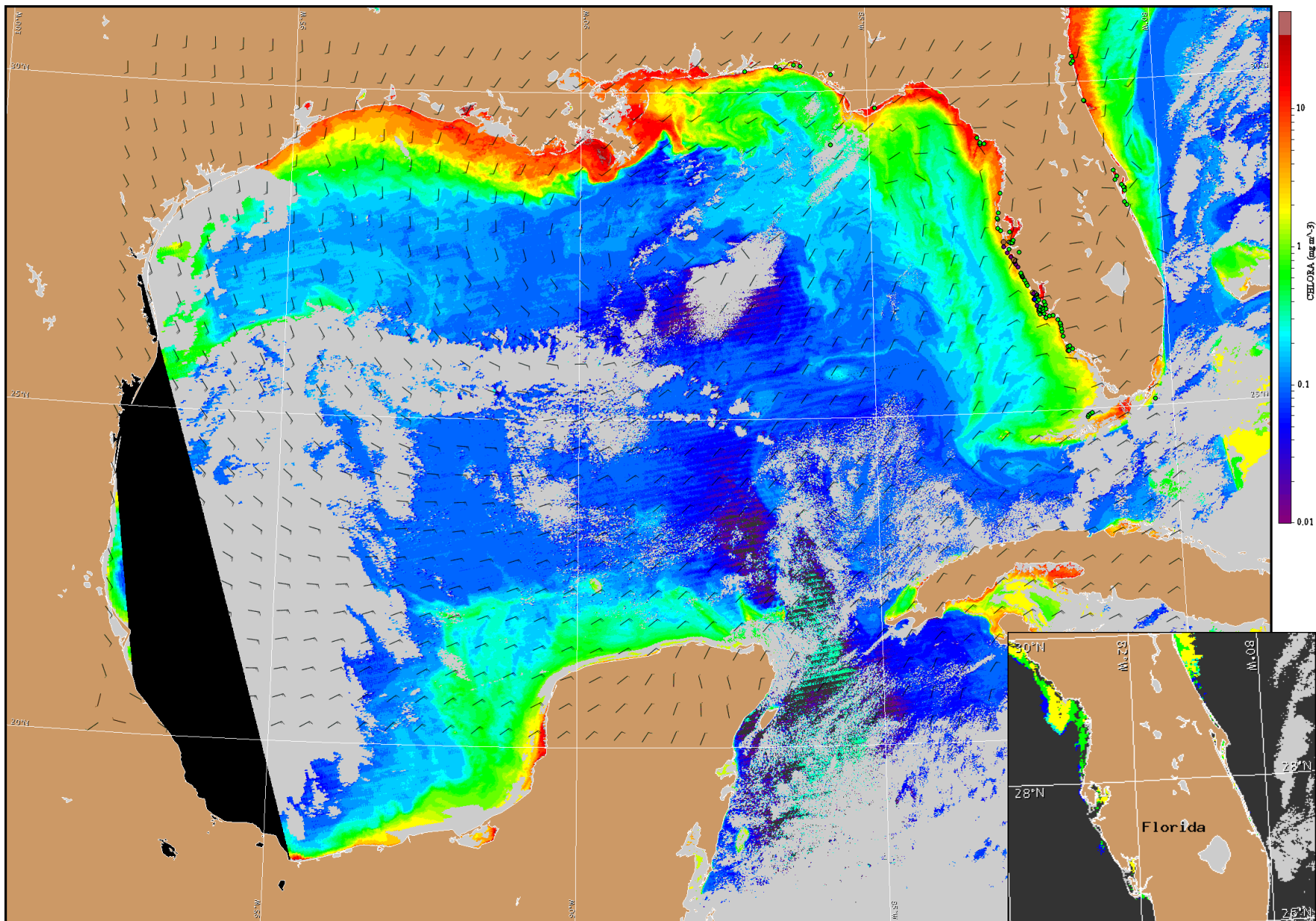
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Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical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

## Wind Analysis

**Englewood to Tarpon Springs (Venice):** East to north winds (5-15kn, 3-8m/s) today, becoming north to northeast winds (5-15kn) tonight. Southeast winds (5-10kn, 3-5m/s) Tuesday morning. Northwest to north winds (5-10kn) Tuesday evening through Wednesday. Northeast winds (10kn, 5m/s) Thursday.



Satellite chlorophyll image and forecast winds for March 21, 2017 06Z with points representing cell concentration sampling data from March 10 to 17: 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).