



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

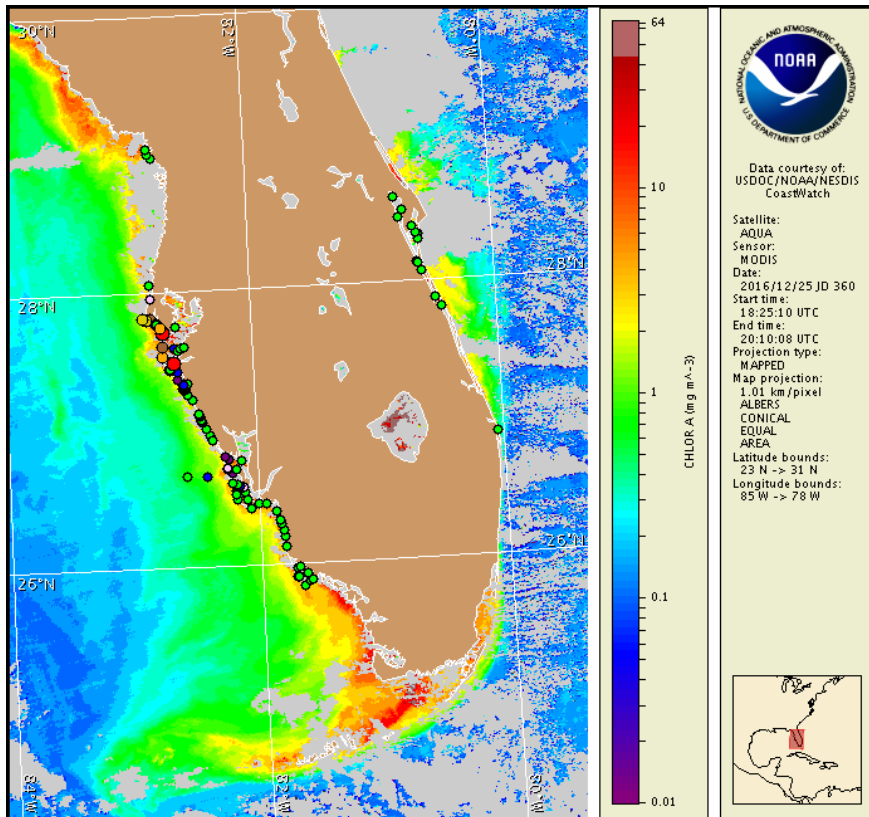
Tuesday, 27 December 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, December 22, 2016



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from December 17 to 22: 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 Tuesday, December 27 through Thursday, December 29 is listed below:

**County Region: Forecast (Duration)**

**Southern Pinellas: Moderate (Tu-Th)**

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

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

**Southern Manatee: Low (Tu-Th)**

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

**Northern Sarasota: Low (Tu-Th)**

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

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

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

**Northern Collier: Very Low (Tu-Th)**

**All Other SWFL County Regions: None expected (Tu-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 last few days, respiratory irritation has been reported from Manatee and Sarasota counties. Dead fish have been reported from Sarasota and Lee counties.

## Analysis

Samples collected along- and offshore the coast of southwest Florida continue to indicate *Karenia brevis* concentrations are present from Pinellas to Lee counties, with up to 'high' concentrations located in the southern Pinellas County and up to 'very low b' alongshore and in the bay regions of southern Charlotte and northern Lee counties (FWRI, MML, SCHD; 12/22-12/24). 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, 12/25, shown left), elevated to high chlorophyll (2-14  $\mu\text{g/L}$ ) is visible but does not indicate the presence of chlorophyll anomalies with the optical characteristics of *K. brevis* alongshore southwest Florida from Pinellas to Monroe counties, including the Florida Keys.

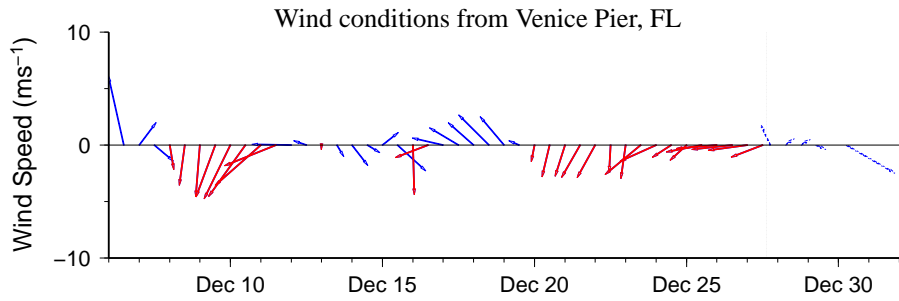
Offshore winds forecast today through Thursday (12/27-29) may reduce the potential for respiratory irritation at the coast.

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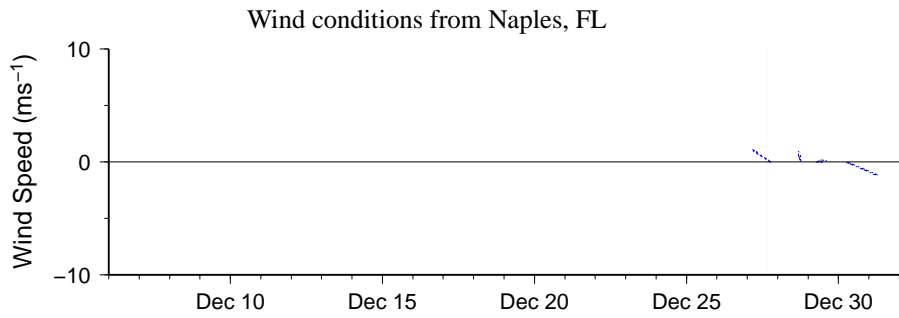
## Wind Analysis

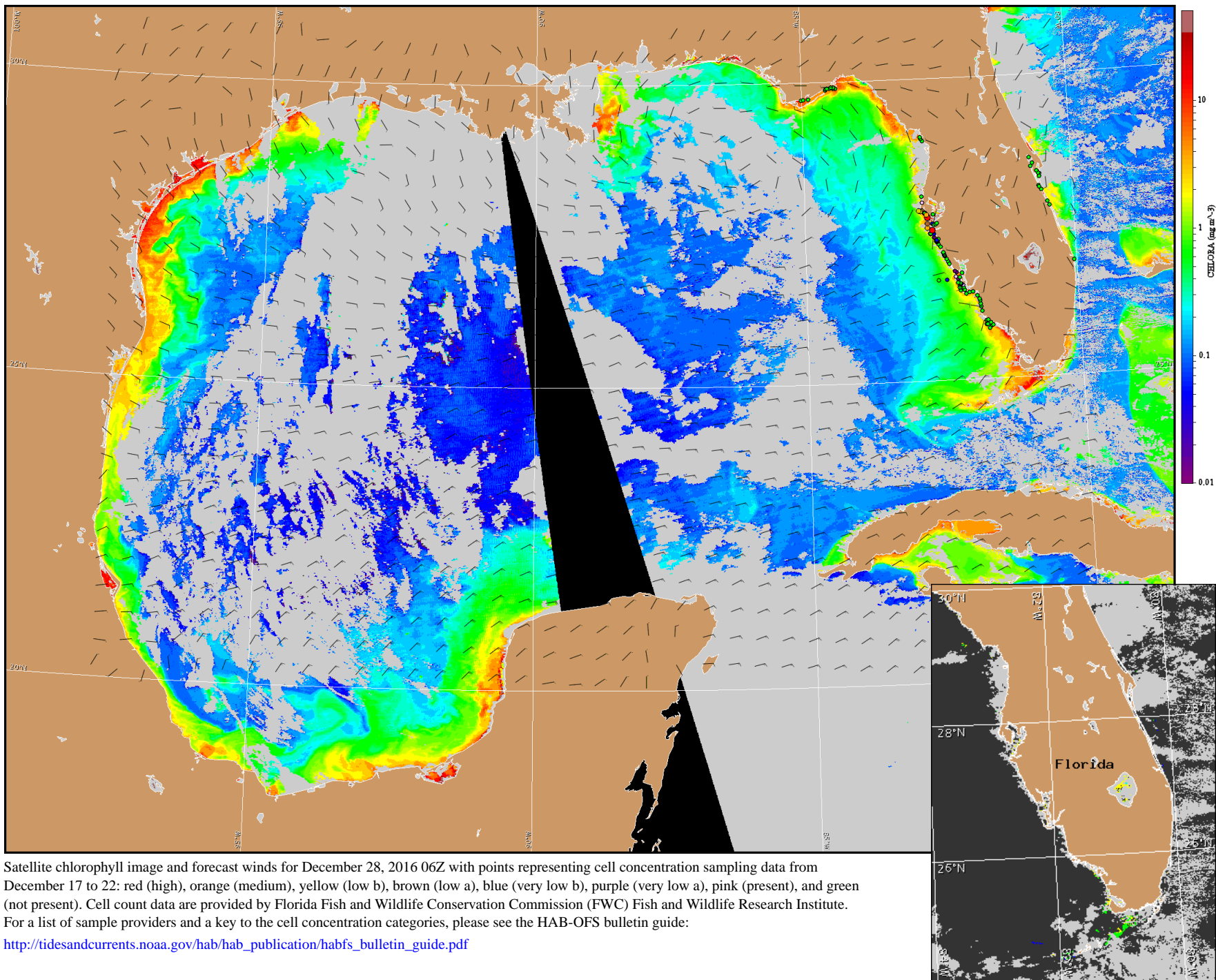
**Englewood to Tarpon Springs (Venice):** Variable winds (5kn, 3m/s) today. Northwest to northeast winds (5-10kn, 3-5m/s) today through Thursday.

**Chokoloskee to Bonita Beach:** East to northeast winds (5-10kn, 3-5m/s) today through Wednesday night. Variable winds (5kn) Thursday morning.



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 December 28, 2016 06Z with points representing cell concentration sampling data from December 17 to 22: 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.

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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).