



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

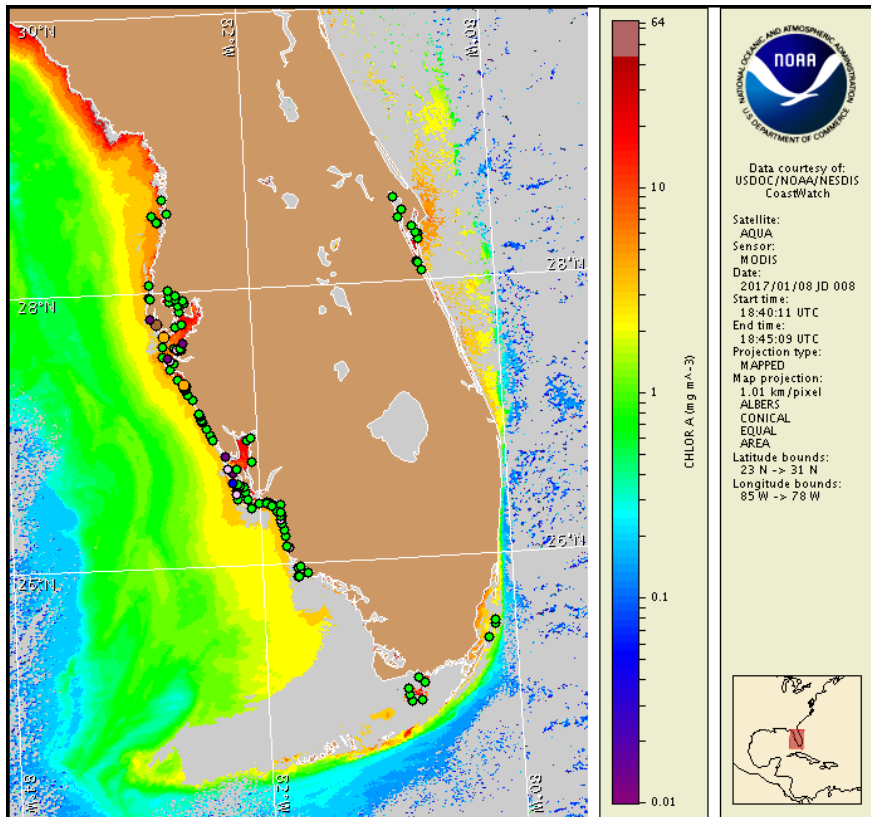
Monday, 09 January 2017

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, January 5, 2017



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from December 30 to January 6: 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, January 9 through Thursday, January 12 is listed below:

**County Region: Forecast (Duration)**

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

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

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

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

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

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

**Northern Lee, bay regions: 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). There were no reports of respiratory irritation over the weekend. Dead fish were reported from Lee County.

## Analysis

Recent samples collected along- and offshore the coast of southwest Florida indicate *Karenia brevis* is present from Pinellas to Collier counties (FWRI, MML, SCHD; 12/30-1/6). Recent sampling continues to confirm the highest *K. brevis* concentrations are located in the bay regions of southern Pinellas with up to 'high' concentrations at Tierra Verde (FWRI; 1/5-1/6). Recent sampling alongshore northern Sarasota identified up to 'very low b' *K. brevis* concentrations at Lido Key (SCHD; 1/3). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: <http://myfwc.com/redtidestatus>.

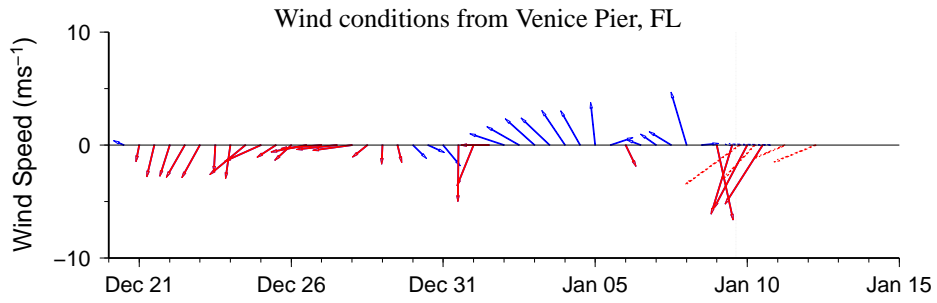
Recent MODIS ensemble imagery (MODIS Aqua, 1/8) indicates the presence of elevated chlorophyll (2-7  $\mu\text{g/L}$ ), but does not indicate the presence of chlorophyll anomalies with the optical characteristics of *K. brevis* alongshore from southern Pinellas to Collier counties.

Offshore winds today through Thursday will decrease the potential for respiratory irritation at the coast.

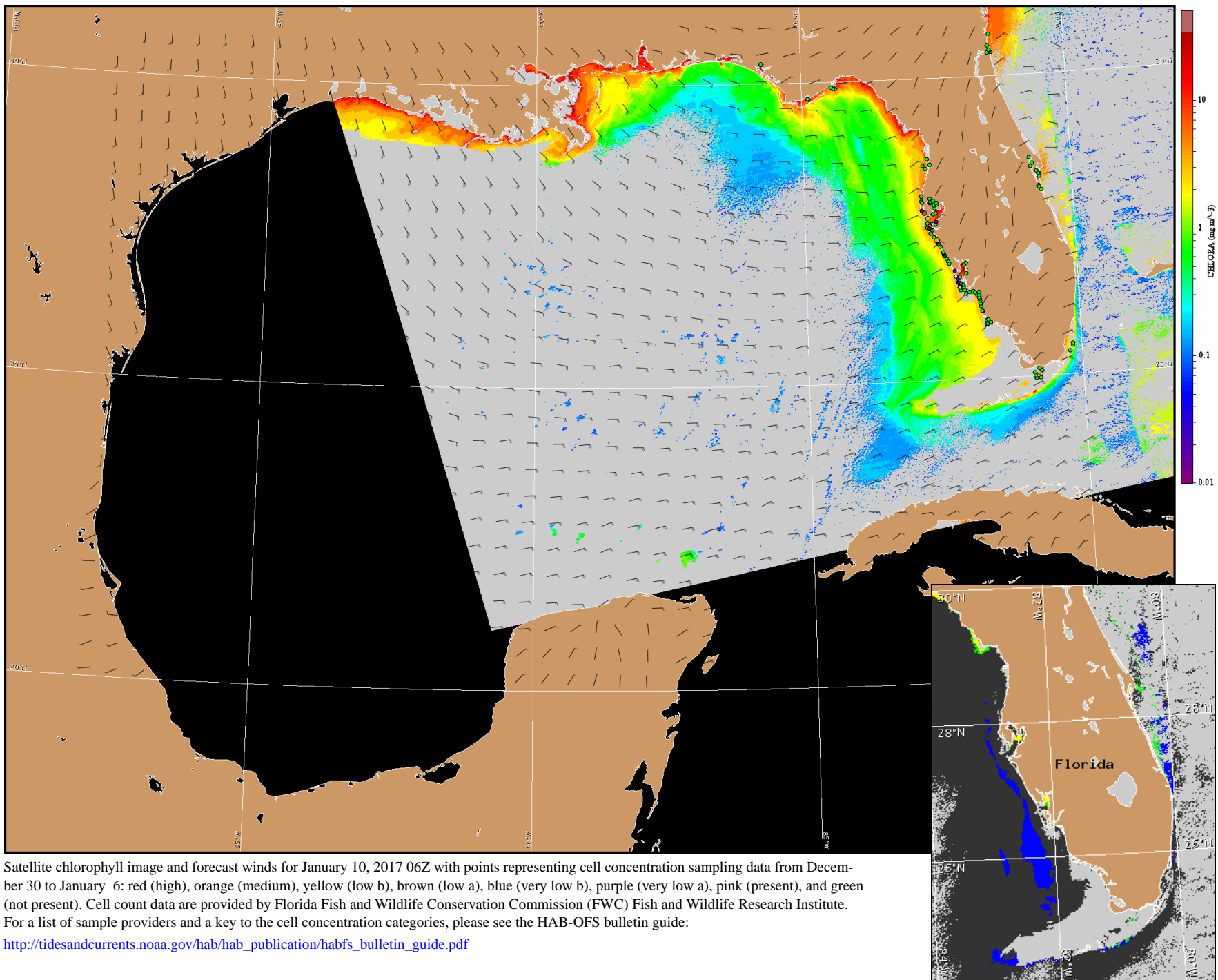
Davis, Keeney, Ludema

## Wind Analysis

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



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 January 10, 2017 06Z with points representing cell concentration sampling data from December 30 to January 6: 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)

Verified and suspected HAB areas shown in red. Other areas with *K. brevis* optical characteristics shown in yellow (see p. 1 analysis for interpretation).