



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

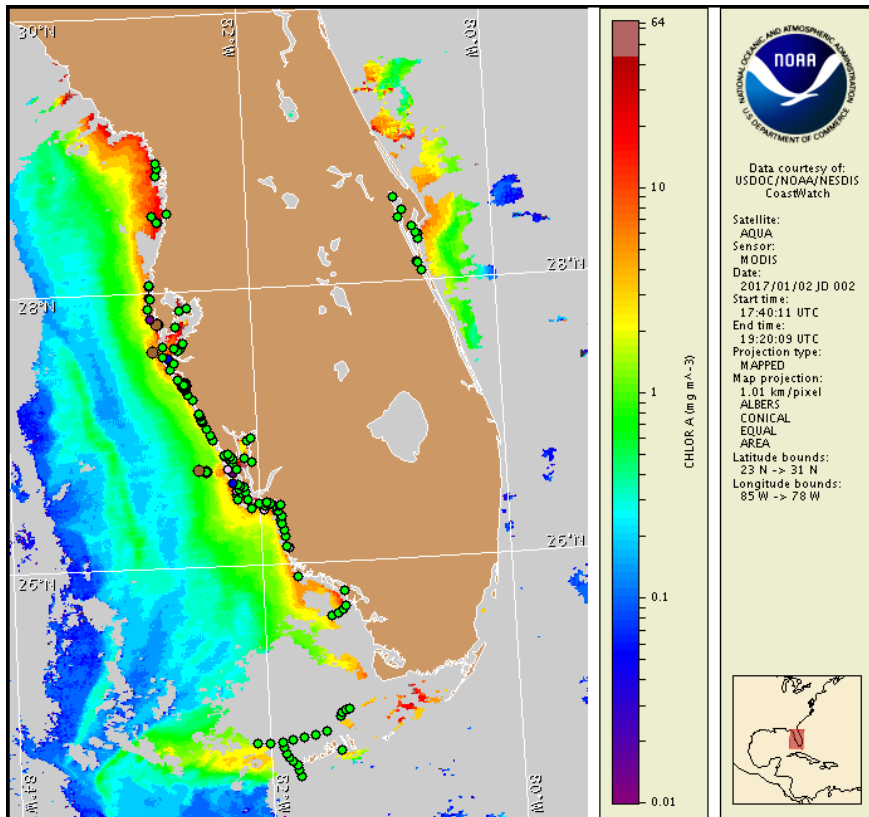
Thursday, 05 January 2017

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Tuesday, January 3, 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 26 to January 4: 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

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 medium 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 Thursday, January 5 through Monday, January 9 is listed below:

County Region: Forecast (Duration)

Southern Pinellas: Low (Th-M)

Southern Pinellas, bay regions: Low (Th-M)

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

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

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

Northern Lee, bay regions: None (Th), Very Low (F-M)

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

Check 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. There have been no reports of respiratory irritation this week. Dead fish have been reported from Pinellas and Lee counties.

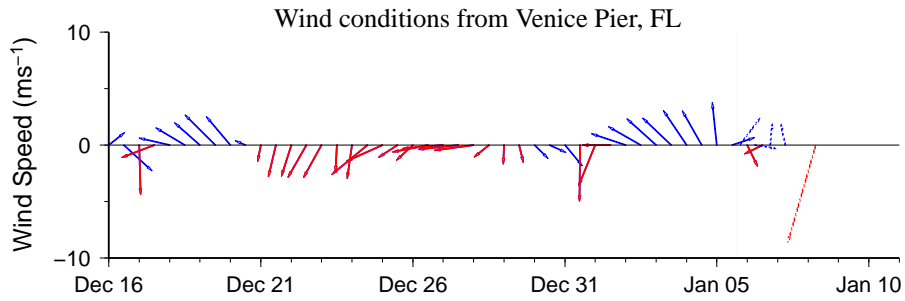
Analysis

Recent samples collected along- and offshore the coast of southwest Florida indicate *Karenia brevis* is present from Pinellas to Lee counties, with the highest concentrations of *K. brevis* still present in 'medium' concentrations alongshore southern Pinellas County. Not present to 'very low b' concentrations of *K. brevis* are present from Charlotte to Lee counties, with 'low a' concentrations present offshore from northern Manatee and Lee counties (FWRI, MML, SCHD; 12/26-1/4). 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, 1/2) indicates the presence of elevated to high chlorophyll (2-13 $\mu\text{g/L}$), but does not indicate the presence of chlorophyll anomalies with the optical characteristics of *K. brevis* alongshore from southern Pinellas to northern Lee counties.

Onshore winds today through Saturday may increase the potential for respiratory irritation at the coast.

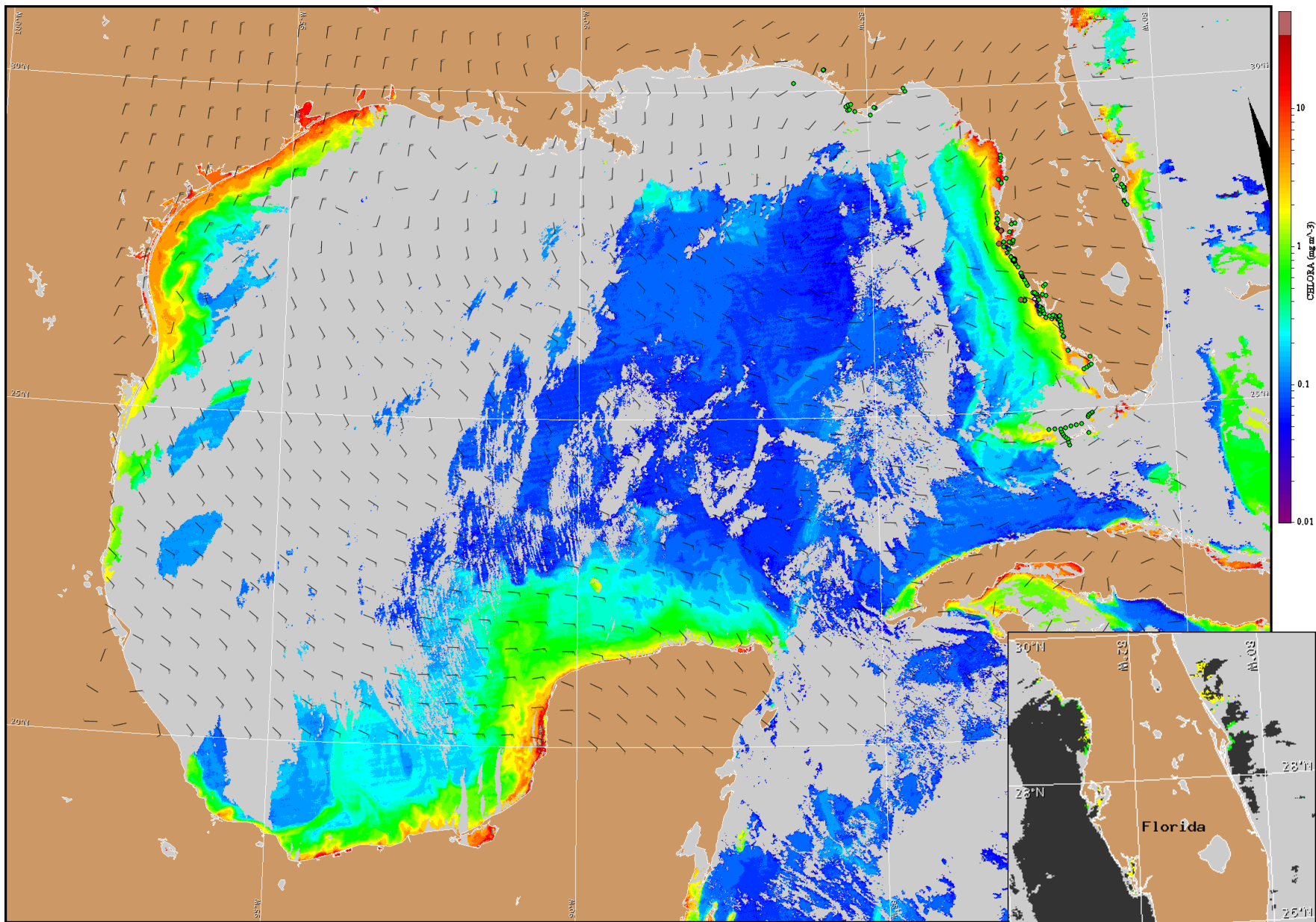
Keeney, Davis, Ludema



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 winds (5kn, 3m/s) today becoming south-west winds (5kn) this evening. South to southeast winds (5-15kn, 3-8m/s) Friday. West winds (20-25kn, 10-13m/s) Saturday afternoon, becoming north to northeast winds (15-25kn, 8-13m/s) Saturday night through Monday.



Satellite chlorophyll image and forecast winds for January 6, 2017 06Z with points representing cell concentration sampling data from December 26 to January 4: 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).