Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

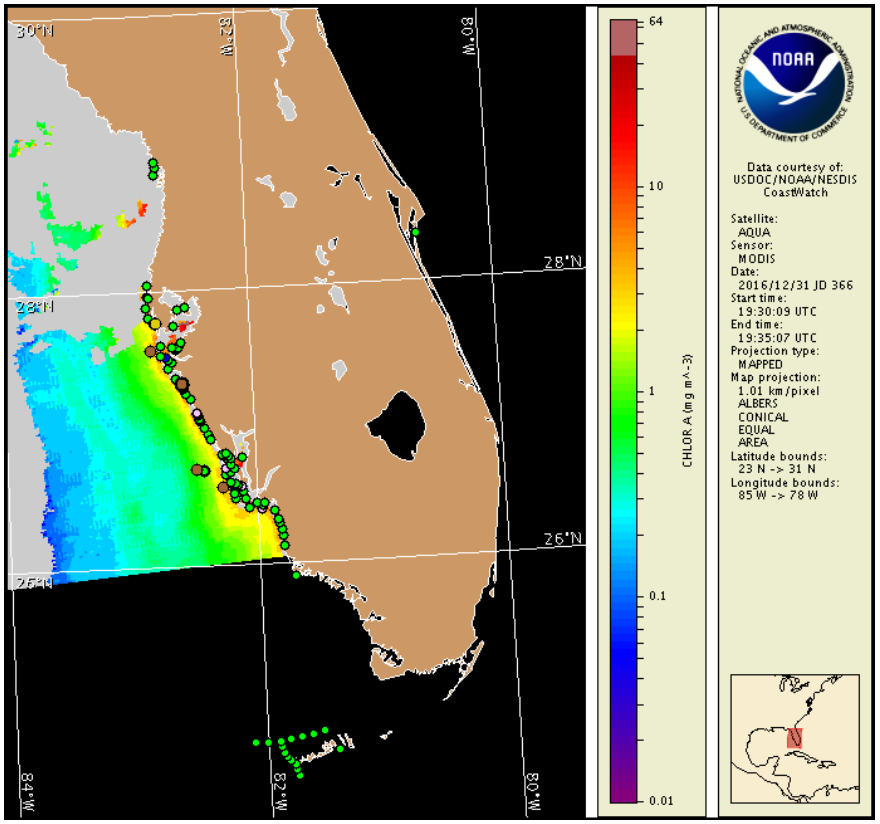
Tuesday, 03 January 2017

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, December 29, 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 25 to 30: 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 'low b' 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, January 3 through Thursday, January 5 is listed below:

County Region: Forecast (Duration)
Southern Pinellas: Low (Tu-Th)
Southern Pinellas, bay regions: Moderate (Tu-Th)
Northern Manatee, bay regions: Low (Tu-Th)
Southern Manatee: Low (Tu-Th)
Southern Manatee, bay regions: Very Low (Tu-Th)
Northern Sarasota: Low (Tu-Th)
Northern Sarasota, bay regions: Low (Tu-Th)
All Other SWFL County Regions: None expected (Tu-Th)

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 were no reports of respiratory irritation over the weekend. Dead fish were reported from Sarasota and Lee counties.

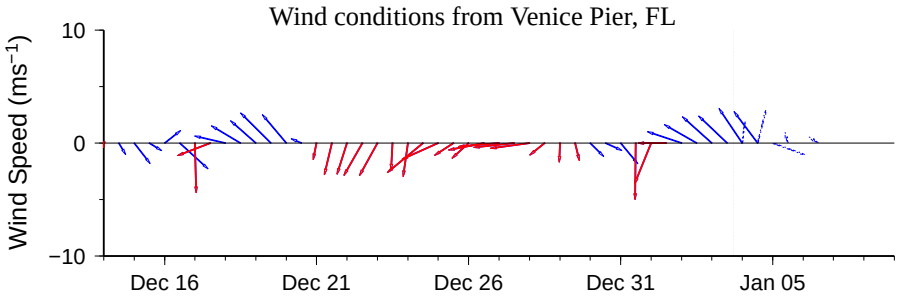
Analysis

Samples collected along- and offshore the coast of southwest Florida indicate *Karenia brevis* is still present from Pinellas to Lee counties, with the highest concentrations of *K. brevis* present in 'low b' concentrations north of Treasure Island in the bay regions of southern Pinellas County (FWRI; 12/25-12/30). *K. brevis* concentrations have decreased to 'low a' from 'high' in the bay regions of Sarasota County (MML; 12/30). Not present to background concentrations of *K. brevis* are present from Charlotte to Lee counties, with 'low a' concentrations present 3 to 12 miles offshore from northern Lee county (FWRI, MML, SCHD; 12/25-12/30). 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 is presently unavailable due to technical difficulties. We apologize for the inconvenience. MODIS Aqua imagery from 12/31 (shown left) indicates the presence of elevated levels of chlorophyll (2-8 μg/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.

Observed winds over the weekend (12/30-1/1) may have promoted the potential for northern transport of surface *K. brevis* concentrations alongshore the coast of southwest Florida. Onshore winds today through Thursday may increase the potential for respiratory irritation at the coast.

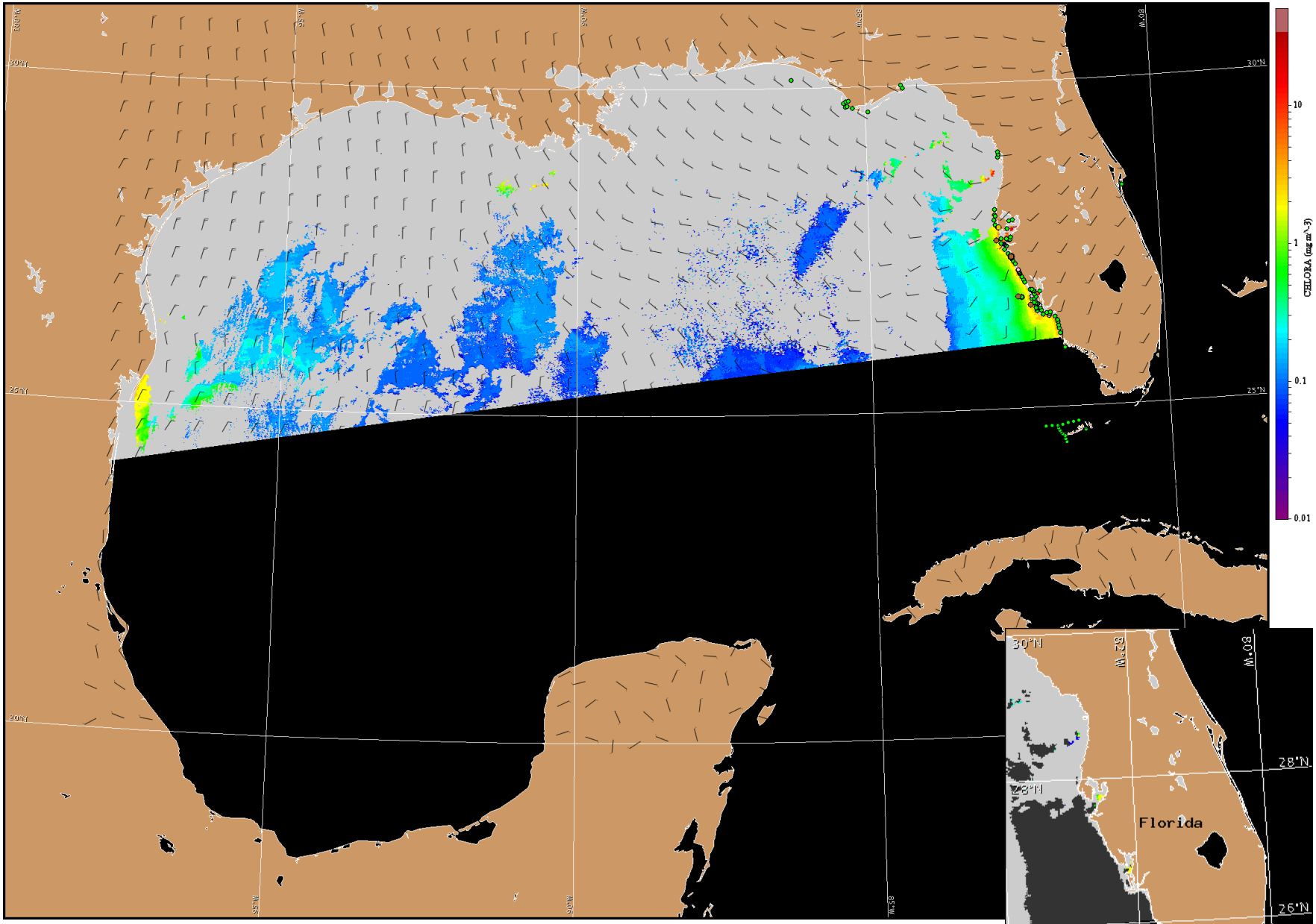
Keeney, Davis, Ludema



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): South to southwest winds (10kn, 5m/s) today through Wednesday afternoon. North to northwest winds (5-10kn, 3-5m/s) Wednesday night through Thursday.



Satellite chlorophyll image and forecast winds for January 4, 2017 12Z with points representing cell concentration sampling data from December 25 to 30: 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).