

Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

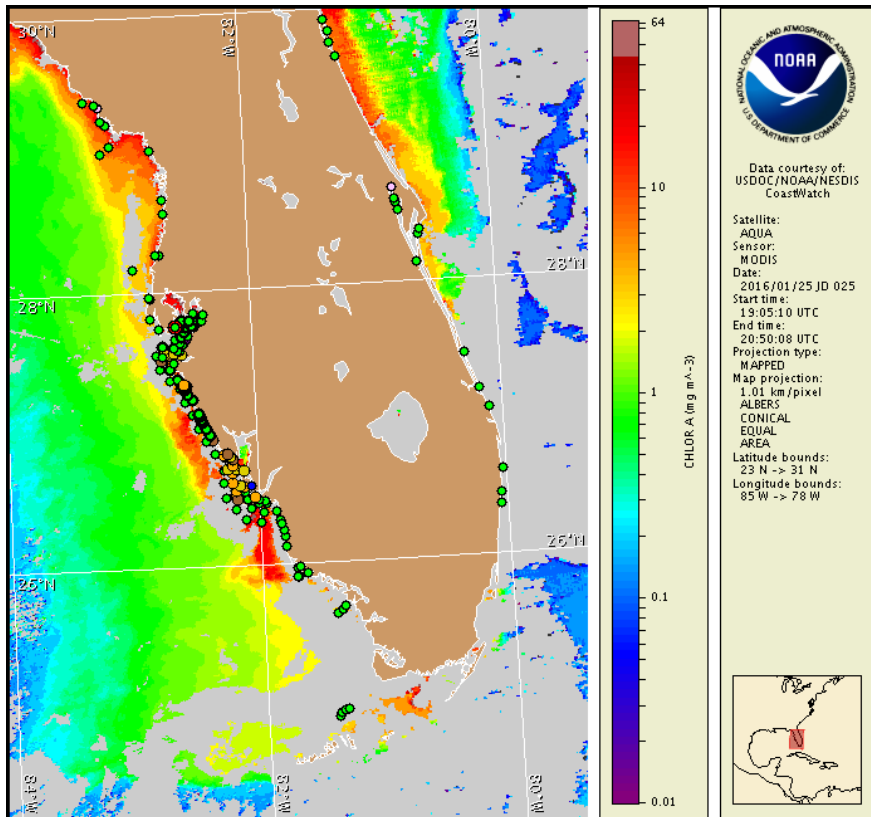
Thursday, 28 January 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, January 25, 2016



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from January 18 to 27: 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/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

Karenia brevis (commonly known as Florida red tide) ranges from not present to high concentrations along the coast of southwest Florida, and is 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 28 through Monday, February 1 is listed below:

County Region: Forecast (Duration)

Southern Pinellas: Moderate (Th), Low (F-M)

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

Northern Manatee, bay regions: Moderate (Th-M)

Southern Manatee: Moderate (Th), Low (F-M)

Southern Manatee, bay regions: Moderate (Th-Sa, M), Low (Su)

Northern Sarasota: Moderate (Th, Sa-Su), Low (F, M)

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

Southern Sarasota: Moderate (Th), Low (F-M)

Northern Charlotte: Low (Th, Sa), Very Low (F, Su-M)

Southern Charlotte: Low (Th, Sa), Very Low (F, Su-M)

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

Northern Lee: Moderate (Th), Low (F-M)

Northern Lee, bay regions: Moderate (Th-M)

Central Lee: Moderate (Th), Low (F-M)

Central Lee, bay regions: Moderate (Th-M)

Southern Lee: Low (Th-M)

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

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

All Other NWFL County Regions: Visit <http://tidesandcurrents.noaa.gov/hab/#nwfl>

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. Respiratory irritation has been reported Sarasota and Lee counties.

Analysis

Recent samples collected along-and offshore southwest Florida indicate background to 'high' *Karenia brevis* concentrations from Pinellas to central Lee counties. One new 'high' sample was identified at the Port of St. Petersburg near Bayboro Harbor in southern Pinellas County (FWRI; 1/27). Background to 'medium' concentrations are still present from the bay regions of southern Pinellas to central Lee counties (FWRI; 1/18-1/27). Slight to intense respiratory irritation was reported earlier in the week from areas within Manatee, Sarasota, and Lee counties, with slight respiratory irritation newly reported from Newton Park and Little Estero Island in southern Lee County (FWRI; 1/23-1/28). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: <http://myfwc.com/redtidestatus>.

Recent ensemble imagery (MODIS Aqua, 1/25) is partially obscured by clouds along-and offshore much of southwest Florida, however patches of elevated to high chlorophyll

(4 to >20 $\mu\text{g/L}$) are visible along- and offshore Sarasota to Collier counties, extending up to 22 miles from the coast.

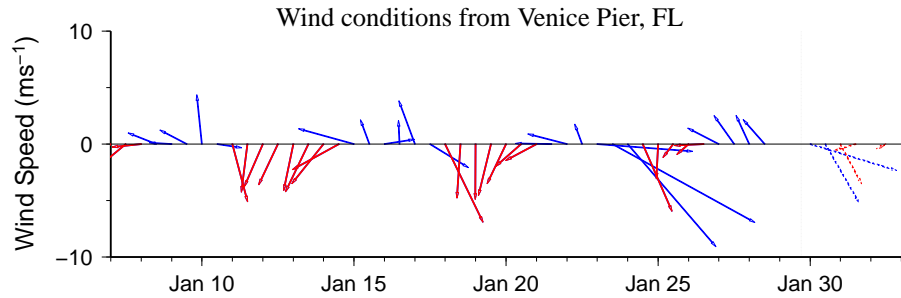
Variable winds today through Monday will decrease the potential for transport of surface *K. brevis* concentrations alongshore southwest Florida.

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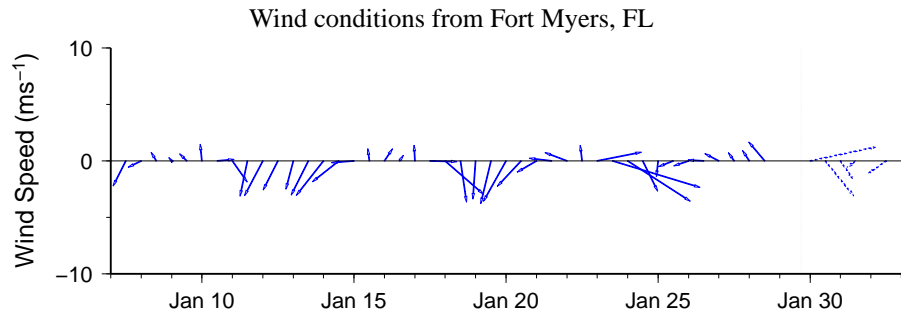
Wind Analysis

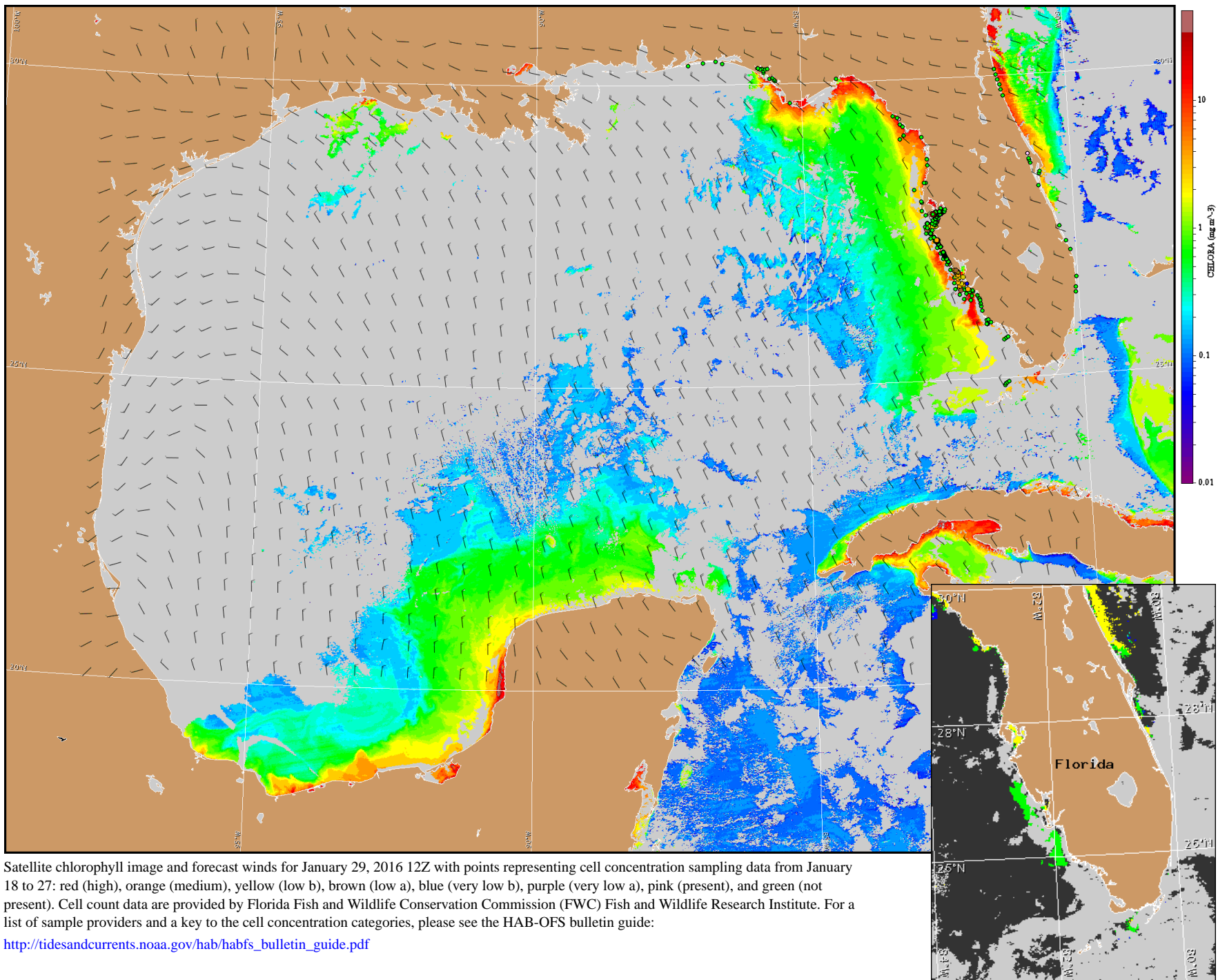
Englewood to Tarpon Springs (Venice): Variable northerly winds (5-15kn, 3-8m/s) this afternoon through Saturday, with east winds (10kn, 5m/s) Saturday morning. Variable south to east winds (5kn, 3m/s) Sunday and Monday.

Bonita Beach to Englewood (Ft. Myers): South winds (10kn, 5m/s) today becoming west in the afternoon. Northwest to north winds (5-15kn) tonight through Friday. North to northeast winds (5-15kn) Friday night through Saturday. East winds (5kn) Sunday and Monday.



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 29, 2016 12Z with points representing cell concentration sampling data from January 18 to 27: 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).