



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

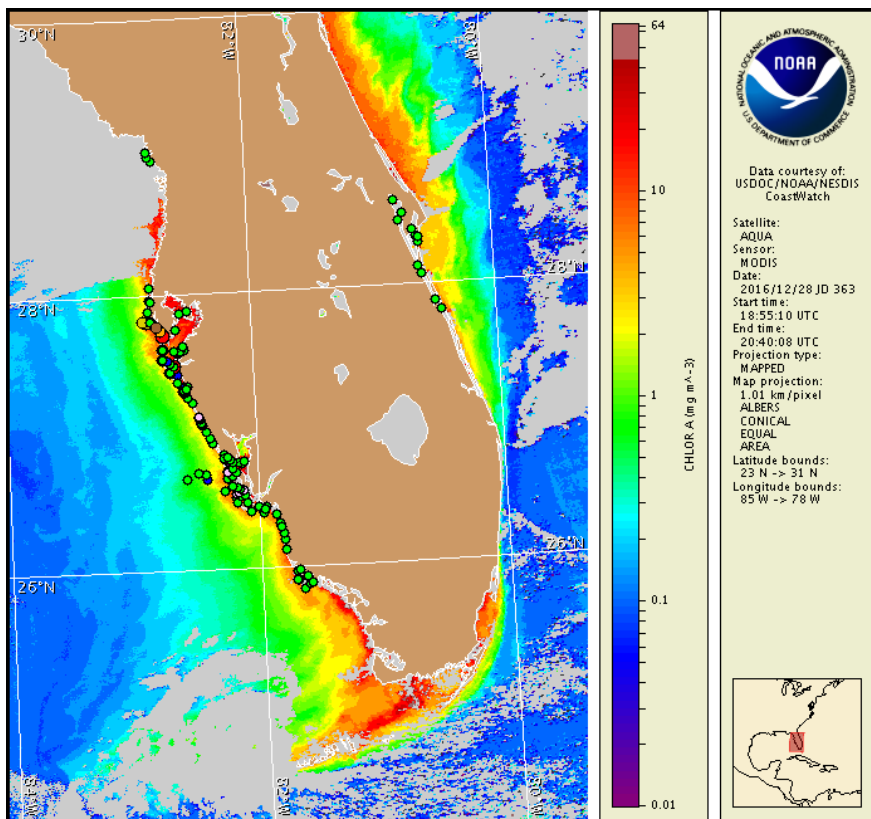
Thursday, 29 December 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Tuesday, December 27, 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 19 to 28: 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 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 Thursday, December 29 through Tuesday, January 3 is listed below:

County Region: Forecast (Duration)

Southern Pinellas: Moderate (Th-Tu)

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

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

Southern Manatee: Low (Th-Tu)

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

Northern Sarasota: Low (Th,Tu), Very Low (F-M)

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

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

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

Northern Collier: Very Low (Th-F, Tu), None (Sa-M)

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

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. Since Tuesday there have been no reports of respiratory irritation but dead fish were reported in Pinellas and Lee counties.

Analysis

****Due to the upcoming federal holiday, the next bulletin will be issued on Tuesday, January 3.****

Recent 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 'low a' concentrations observed in the southern Pinellas County and up to 'very low b' in the bay regions of southern Manatee County (FWRI, MML, SCHD; 12/19-12/28). 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, 12/28, shown left) shows a patch of elevated to high chlorophyll (2-12 $\mu\text{g/L}$) with some of the optical characteristics of *K. brevis*, stretching from approximately 27°46'59"N, 82°51'24"W southeast to 27°41'41"N, 82°46'10"W in southern Pinellas County.

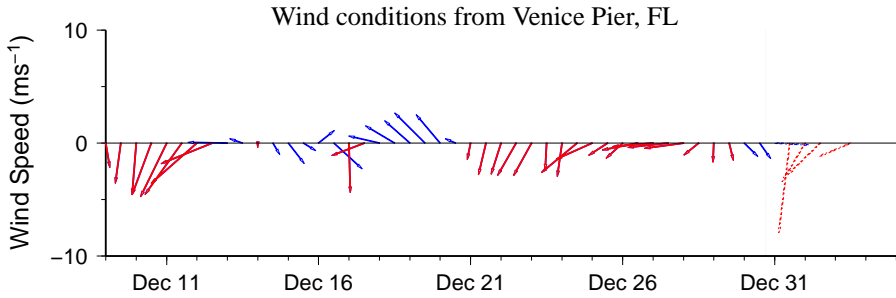
Predominantly offshore winds forecast today through Saturday (12/29-1/2) may reduce the potential for respiratory irritation at the coast.

Lalime, Keeney, Ludema

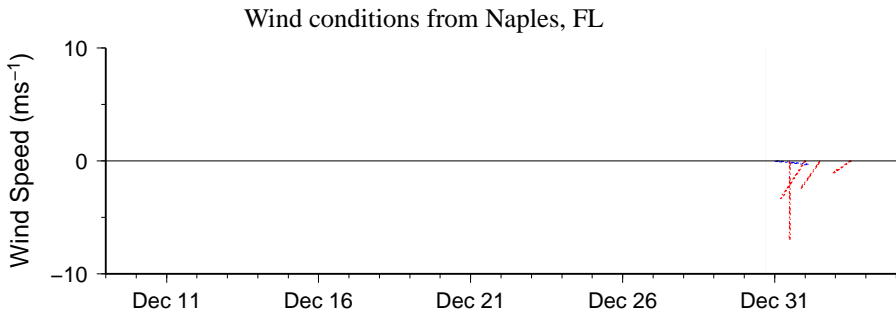
Wind Analysis

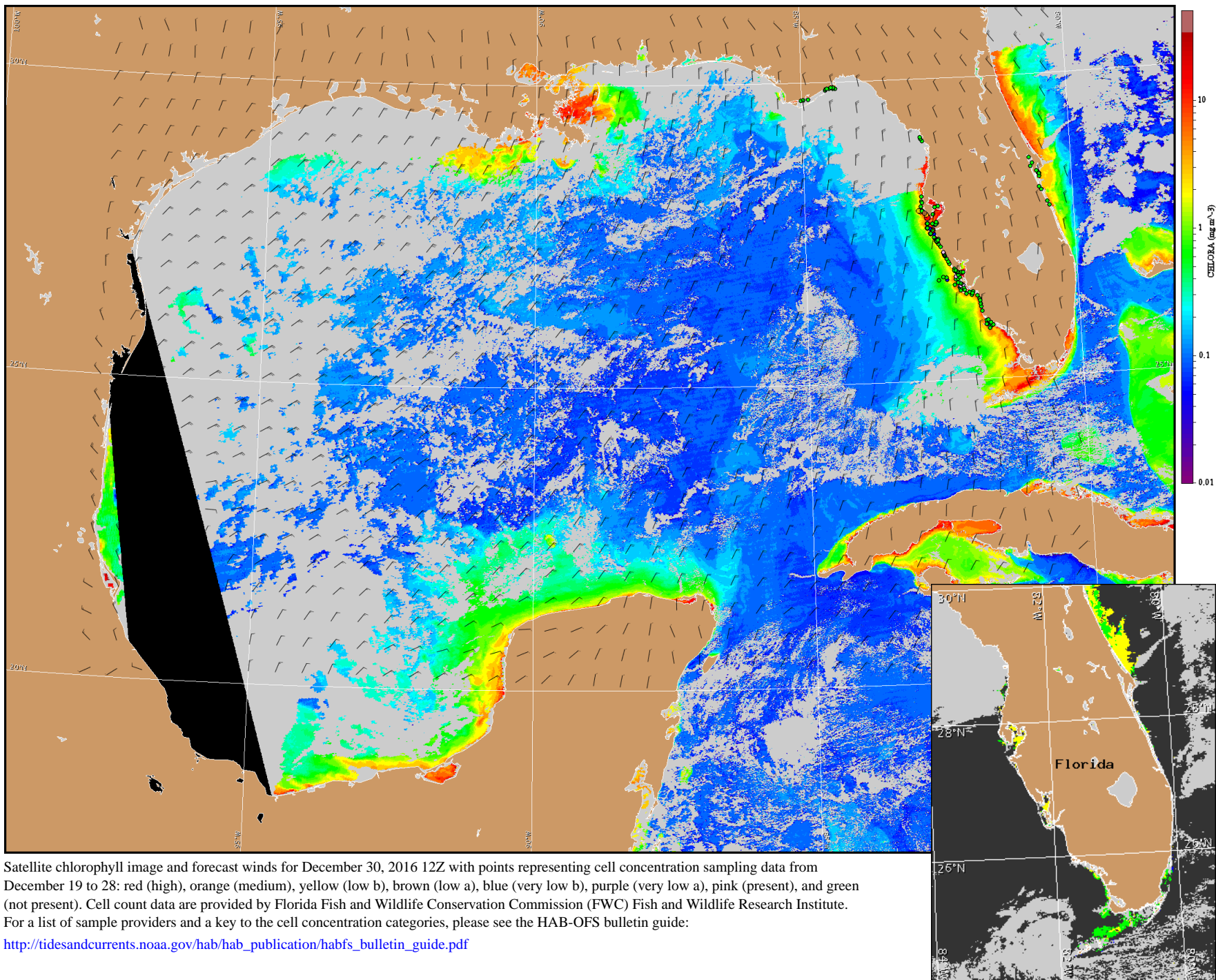
Englewood to Tarpon Springs (Venice): West to northwest winds (5-15kn, 3-8m/s) today and tonight becoming north winds (10-25kn, 5-13m/s) late in the evening through Friday. Northeast winds (10-15kn, 5-8m/s) Friday night. East winds (10-15kn) Saturday becoming southeast (5-15kn) through Monday.

Chokoloskee to Bonita Beach: Southwesterly winds (5kn, 3m/s) today becoming northwesterly (15-30kn, 8-15m/s) in the afternoon and tonight. Northeasterly winds (10-25kn, 5-13m/s) Friday. Southeasterly winds (10-15kn, 5-8m/s) Saturday through 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 December 30, 2016 12Z with points representing cell concentration sampling data from December 19 to 28: 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

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