Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

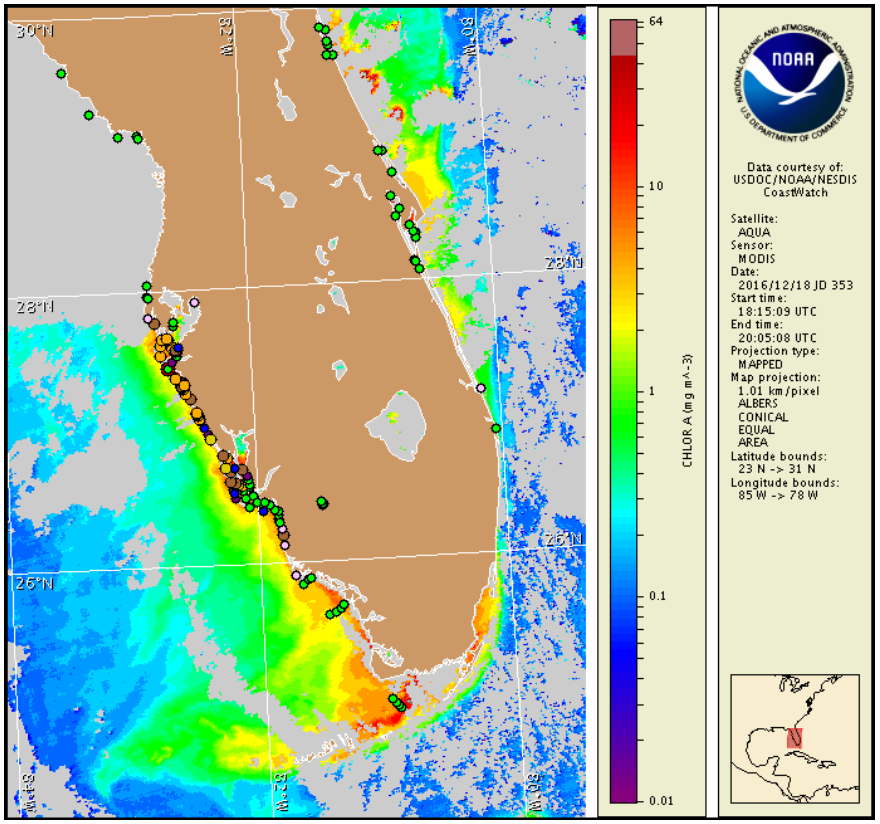
Monday, 19 December 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, December 15, 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 9 to 15: 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 Monday, December 19 through Thursday, December 22 is listed below:

County Region: Forecast (Duration)
Southern Pinellas: Moderate (M), Very Low (Tu-Th)
Southern Pinellas, bay regions: Moderate (M-Th)
Northern Manatee, bay regions: Moderate (M-Th)
Southern Manatee: Low (M-Th)
Southern Manatee, bay regions: Moderate (M-Th)
Northern Sarasota: Low (M-Th)
Northern Sarasota, bay regions: Moderate (M-Th)
Southern Sarasota: Low (M-Th)
Northern Charlotte: Low (M), Very Low (Tu-Th)
Southern Charlotte: Low (M), Very Low (Tu-Th)
Southern Charlotte, bay regions: Moderate (M-Th)
Northern Lee: Moderate (M), Low (Tu-Th)
Northern Lee, bay regions: Moderate (M-Th)
Central Lee: Very Low (M-Th)
Central Lee, bay regions: Low (M-Th)
Southern Lee: Very Low (M-Th)
Northern Collier: Very Low (M-Th)
All Other SWFL County Regions: None expected (M-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. Over the last few days, respiratory irritation has been reported from Manatee and Sarasota counties. Dead fish have been reported from Sarasota, Lee and Charlotte counties.

Analysis

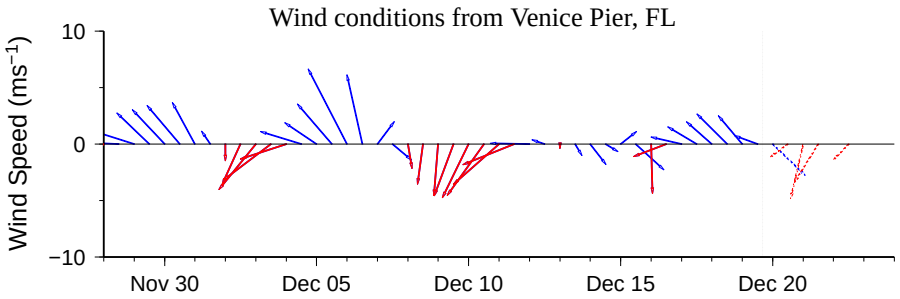
Recent samples collected along- and offshore the coast of southwest Florida continue to indicate *Karenia brevis* concentrations are present from Pinellas to Collier counties, with up to 'high' concentrations located in the bay regions of Manatee and Sarasota counties (FWRI, MML, SCHD, CCENRD; 12/9-12/15). Recent sampling continues to indicate up to 'medium' *K. brevis* concentrations alongshore Manatee and Sarasota counties where respiratory irritation has been reported (FWRI; 12/12). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: http://myfwc.com/redtidestatus. Respiratory irritation has been reported from several locations in Manatee and Sarasota counties (MML; 12/15-12/19).

In recent ensemble imagery (MODIS Aqua, 12/18, shown left), elevated chlorophyll (2-8μg/L) is visible but does not indicate the presence of chlorophyll anomalies with the optical characteristics of *K. brevis* alongshore southwest Florida from Pinellas to Monroe

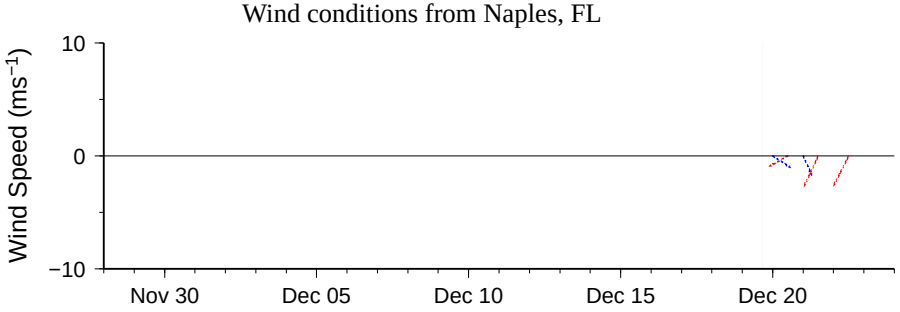
counties, including the Florida Keys.

Offshore winds forecast tonight through Thursday (12/19-12/22) may reduce the potential for respiratory irritation at the coast.

Davis, Lalime



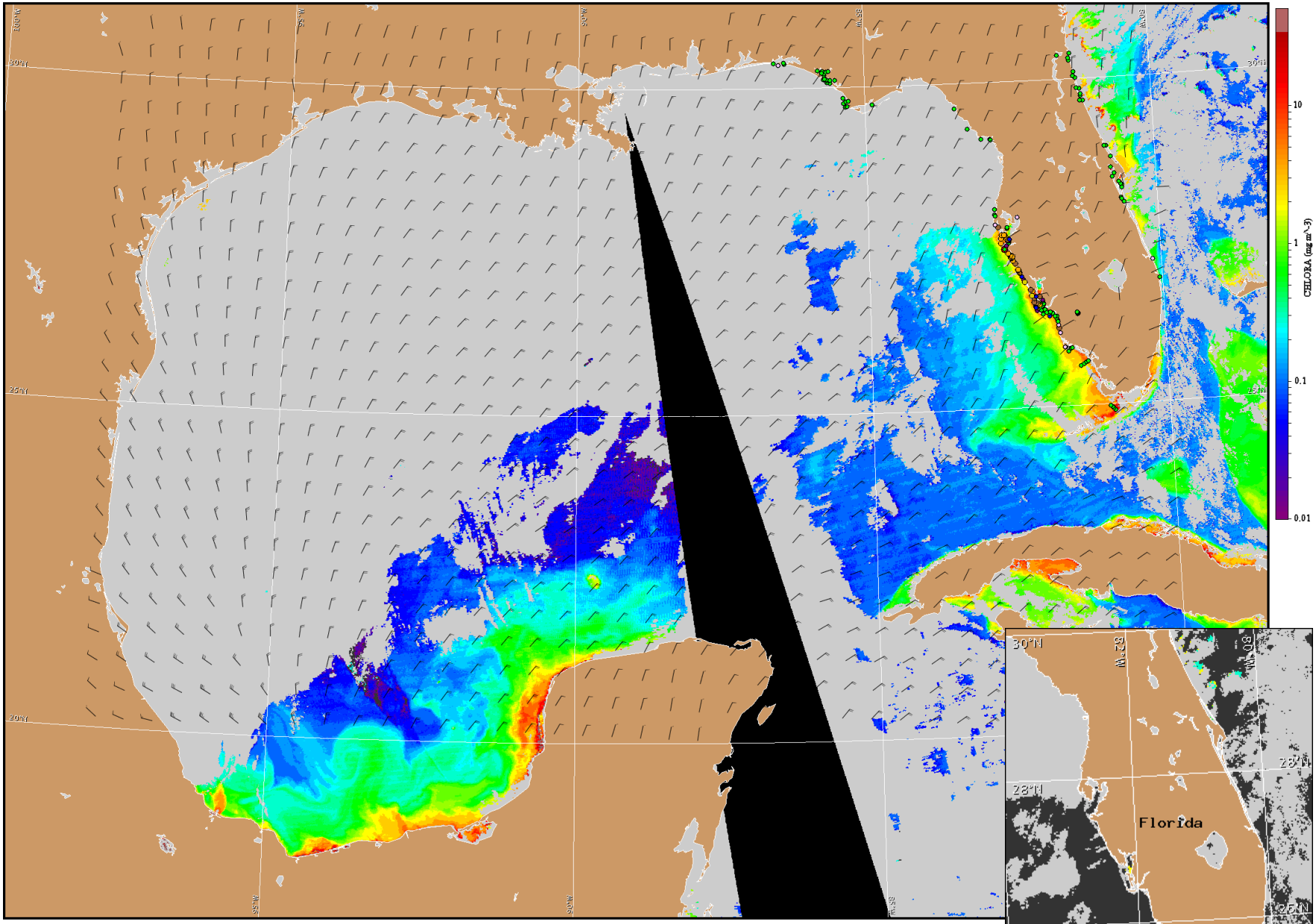
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. 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 northwest winds (10kn, 5m/s) this afternoon. Northeast winds (5-15kn, 3-8m/s) tonight through Wednesday becoming north winds (5-15kn) Wednesday night and Thursday.

Chokoloskee to Bonita Beach: East winds (5-10kn, 3-5m/s) today becoming northeast winds (5-15kn) tonight through Wednesday. North northeast winds (5-10kn) Thursday.



Satellite chlorophyll image and forecast winds for December 20, 2016 12Z with points representing cell concentration sampling data from December 9 to 15: 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).