Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

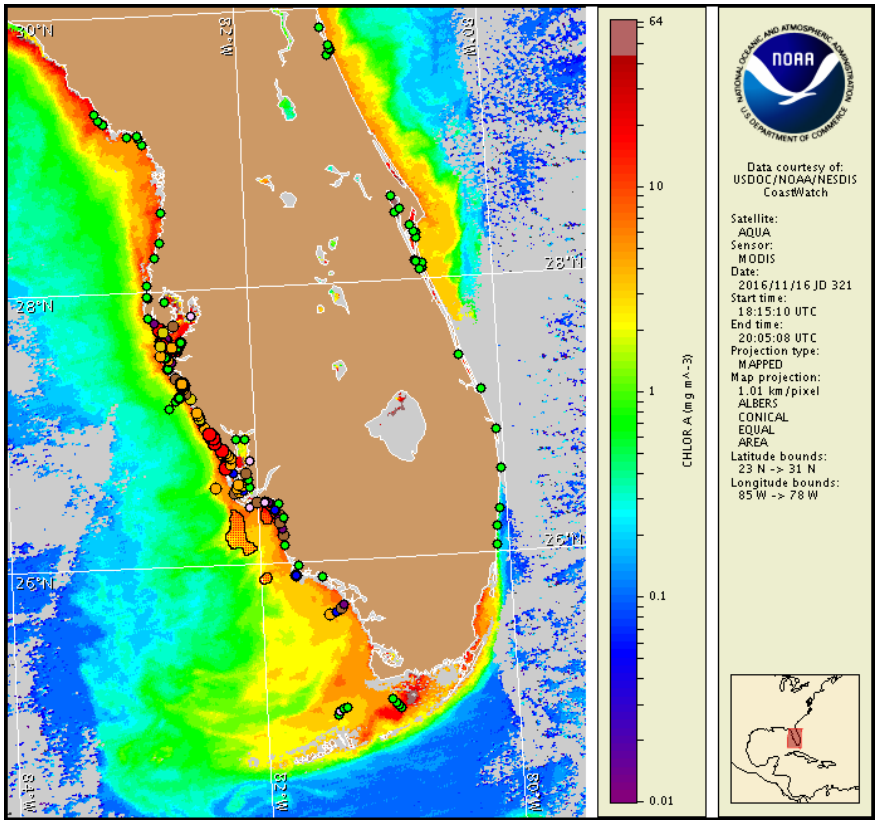
Thursday, 17 November 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, November 14, 2016



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from November 7 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 Thursday, November 17 through Monday, November 21 is listed below:

County Region: Forecast (Duration)
Southern Pinellas: Low (Th-M)
Southern Pinellas, bay regions: Moderate (Th-M)
Northern Manatee, bay regions: High (Th-M)
Southern Manatee: Very Low (Th-M)
Southern Manatee, bay regions: Moderate (Th-F, M), High (Sa-Su)
Northern Sarasota: Moderate (Th-M)
Northern Sarasota, bay regions: High (Th-M)
Southern Sarasota: Low (Th-M)
Southern Sarasota, bay regions: High (Th-M)
Northern Charlotte: Low (Th-M)
Northern Charlotte, bay regions: High (Th-M)
Southern Charlotte: Low (Th-M)
Southern Charlotte, bay regions: High (Th-M)
Northern Lee: Low (Th-M)
Northern Lee, bay regions: Moderate (Th-M)
Central Lee: Low (Th-M)
Central Lee, bay regions: Moderate (Th-M)
Southern Lee: Very Low (M-Th)
Southern Lee, bay regions: Low (Th-M)
Northern Collier: Low (Th-M)
Central Collier: Very Low (Th-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. Over the last few days, respiratory irritation has been reported from Sarasota, Lee, and Collier counties, with dead fish reported from Sarasota, Charlotte, Lee, and Monroe counties.

Analysis

New samples collected along-and offshore the coast of southwest Florida confirm up to 'high' concentrations of *Karenia brevis* from Pinellas to Monroe counties. 'High' concentration of *K. brevis* were newly identified at Three Palms Point, Mullet Key, and Terra Ceia Aquatic Preserve in the bay regions of northern and southern Pinellas County; in Lemon Bay near Blind Pass Beach in the bay regions of southern Sarasota County, near Manasota Key and Stump Pass in the bay regions of northern Charlotte County, northwest of Placida and east of Sandfly Key in the bay regions of southern Charlotte County, and Boca Grande Pass alongshore northern Lee County. 'Medium' concentrations of *K. brevis* have been newly identified in the bay regions of northern and central Lee County (FWRI,

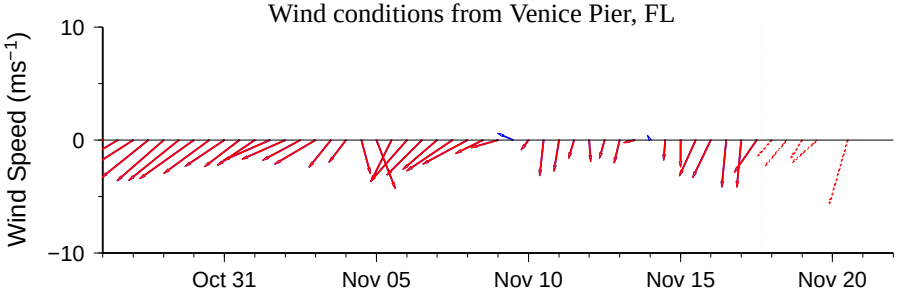
MML, SCHD, CCENRD; 11/7-11/15). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: http://myfwc.com/redtidestatus. Slight to moderate respiratory irritation has been reported from several locations in Sarasota County, from Light House Beach at Sanibel Island in southern Lee County, and from alongshore northern Collier County (MML; 11/14-11/17). Fish kills were reported from Sarasota, Charlotte, Lee, and Monroe counties (FWRI; 11/12-11/16).

Recent ensemble imagery (MODIS Aqua, 11/16) indicates the presence of elevated to very high (2 to >20 μg/L) chlorophyll with the optical characteristics of *K. brevis* is visible along- and offshore from Pinellas to Monroe counties, extending up to 27 miles offshore from Sanibel Island in northern Lee County to Naples in central Lee County.

Forecasted winds today through Monday (11/17-11/21) may promote southerly transport of surface *K. brevis* concentrations alongshore southwest Florida.

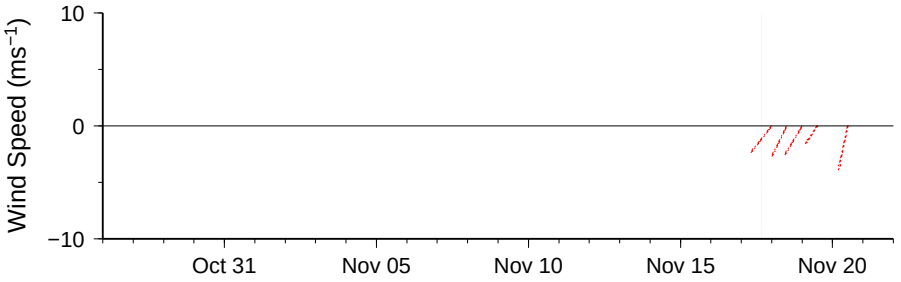
Keeney, Yang

Wind conditions from Venice Pier, FL



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).

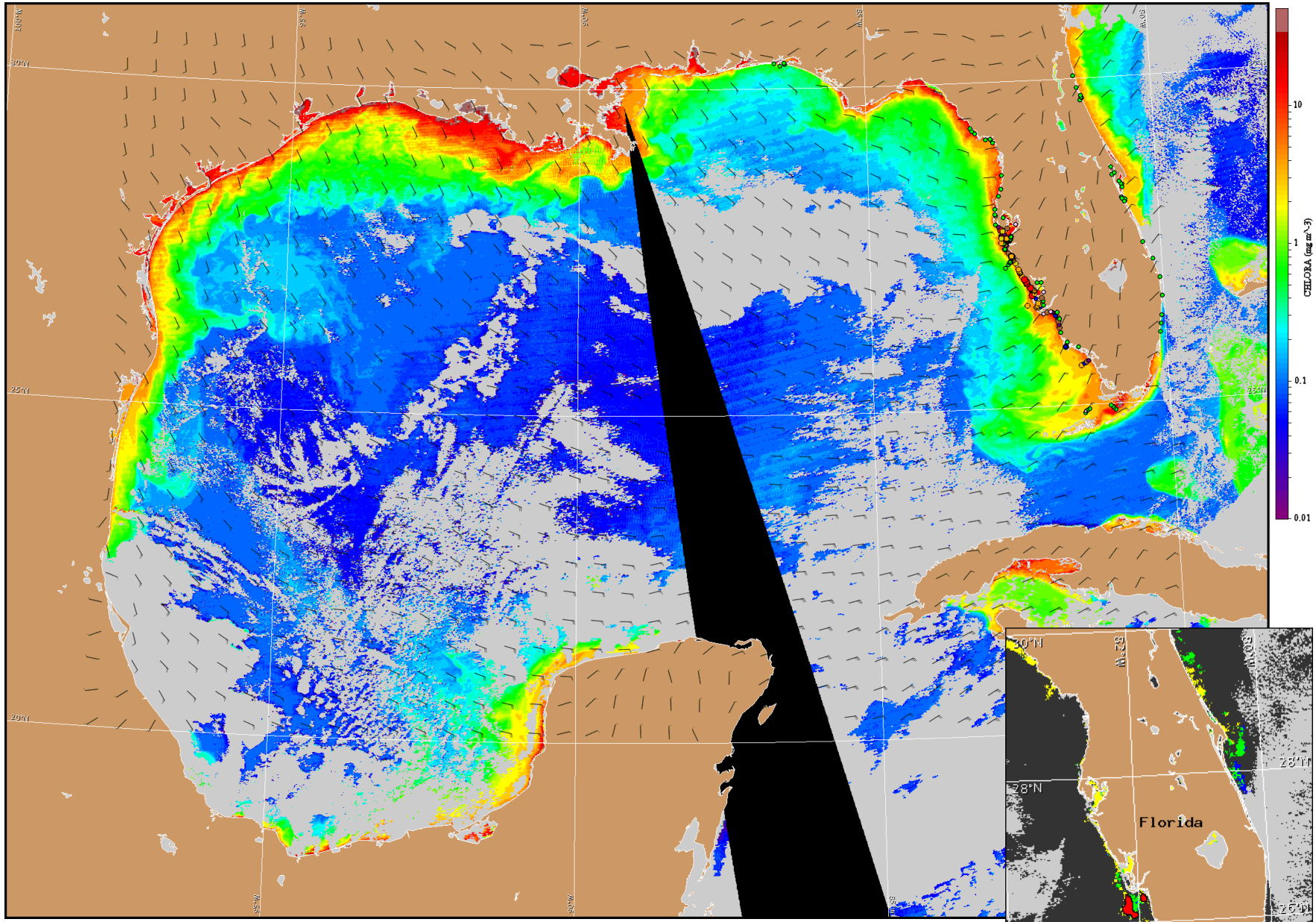
Wind conditions from Naples, FL



Wind Analysis

Englewood to Tarpon Springs (Venice): Northeast to north winds (5-20kn, 3-10m/s) today through Monday.

Chokoloskee to Bonita Beach: Northeast to north winds (10-25kn, 5-13m/s) today through Monday.



Satellite chlorophyll image and forecast winds for November 18, 2016 12Z with points representing cell concentration sampling data from November 7 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).