



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

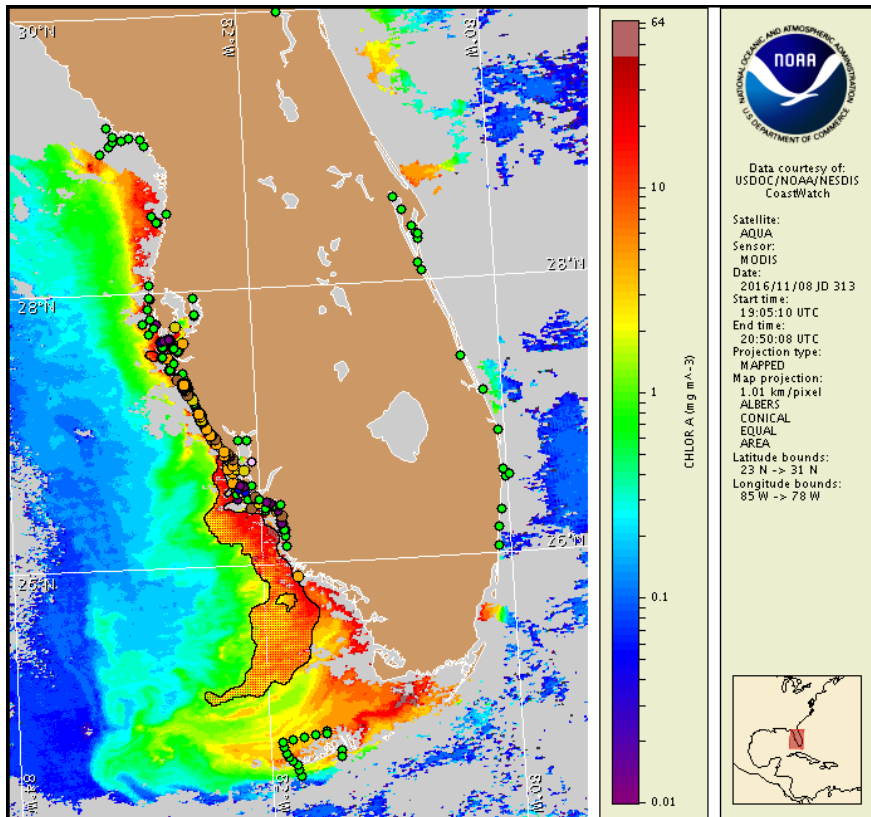
Thursday, 10 November 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, November 7, 2016



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from October 31 to November 9: 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 10 through Monday, November 14 is listed below:

County Region: Forecast (Duration)

Southern Pinellas: Very Low (Th, Sa-M), Low (F)
Southern Pinellas, bay regions: Moderate (Th-M)
Northern Manatee, bay regions: Moderate (Th-M)
Southern Manatee: Very Low (Th, Sa-M), Moderate (F)
Southern Manatee, bay regions: Moderate (Th-M)
Northern Sarasota: Low (Th, Sa-M), Moderate (F)
Northern Sarasota, bay regions: Moderate (Th-M)
Southern Sarasota: Low (Th, Sa-M), Moderate (F)
Southern Sarasota, bay regions: Moderate (Th-M)
Northern Charlotte: Very Low (Th, Sa-M), Low (F)
Northern Charlotte, bay regions: Very Low (Th-M)
Southern Charlotte: Very Low (Th, Sa-M), Low (F)
Southern Charlotte, bay regions: Moderate (Th-M)
Northern Lee: Moderate (Th-F), Very Low (Sa-M)
Northern Lee, bay regions: Moderate (Th-M)
Central Lee: Moderate (Th-F), Very Low (Sa-M)
Central Lee, bay regions: Low (Th-M)
Southern Lee: Very Low (Th, Sa-M), Moderate (F)
Southern Lee, bay regions: Low (Th-Su), Very Low (M)
Northern Collier: Very 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 past several days, reports of respiratory irritation were received from Sarasota County. Dead fish have been reported in Sarasota, Charlotte, and Collier counties.

Analysis

Recent samples collected along- and offshore the coast of southwest Florida from Pinellas to Monroe counties identified up to 'high' *K. brevis* concentrations in northern Sarasota County, up to 'medium' concentrations from northern Sarasota to southern Charlotte counties, and central Collier County; and up to 'low a' in southern Lee County (FWRI, MML, SCHD, CCENRD; 11/31-11/9). 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 at Siesta Key, Nokomis, and Venice North Jetty in Sarasota County (MML; 11-9-11/10).

Recent ensemble imagery (MODIS Aqua, 11/8) is partially obscured by clouds from Pinellas to Monroe counties limiting analysis. Elevated to high (2-18 $\mu\text{g/L}$) chlorophyll with the optical characteristics of *K. brevis* is visible alongshore from northern Pinellas to northern Sarasota County. Elevated to very high (2 to >20 $\mu\text{g/L}$) chlorophyll with the optical characteristics of *K. brevis* is visible alongshore southern Sarasota County to central Collier County, extending up to 24 miles from Sanibel Island, and offshore central Collier County to 33 miles north of the Florida Keys.

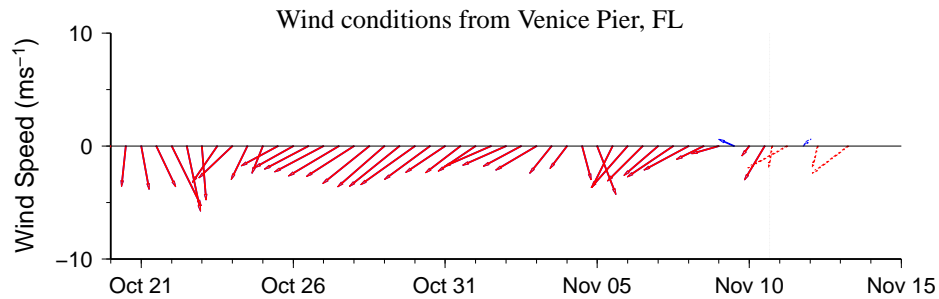
Forecasted winds today through Monday (11/10-11/14) may promote southerly transport of surface *K. brevis* concentrations alongshore southwest Florida.

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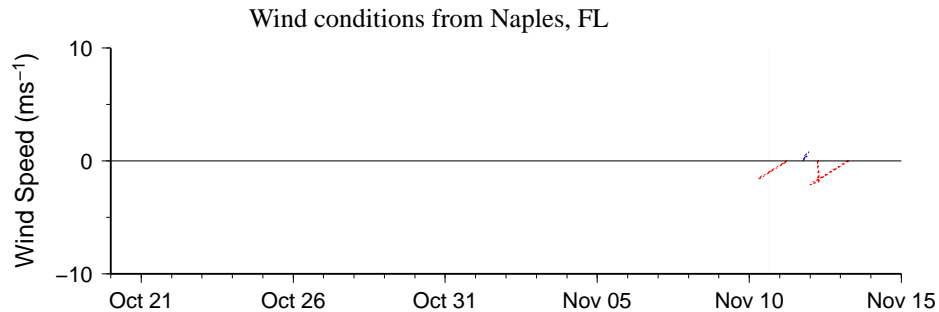
Wind Analysis

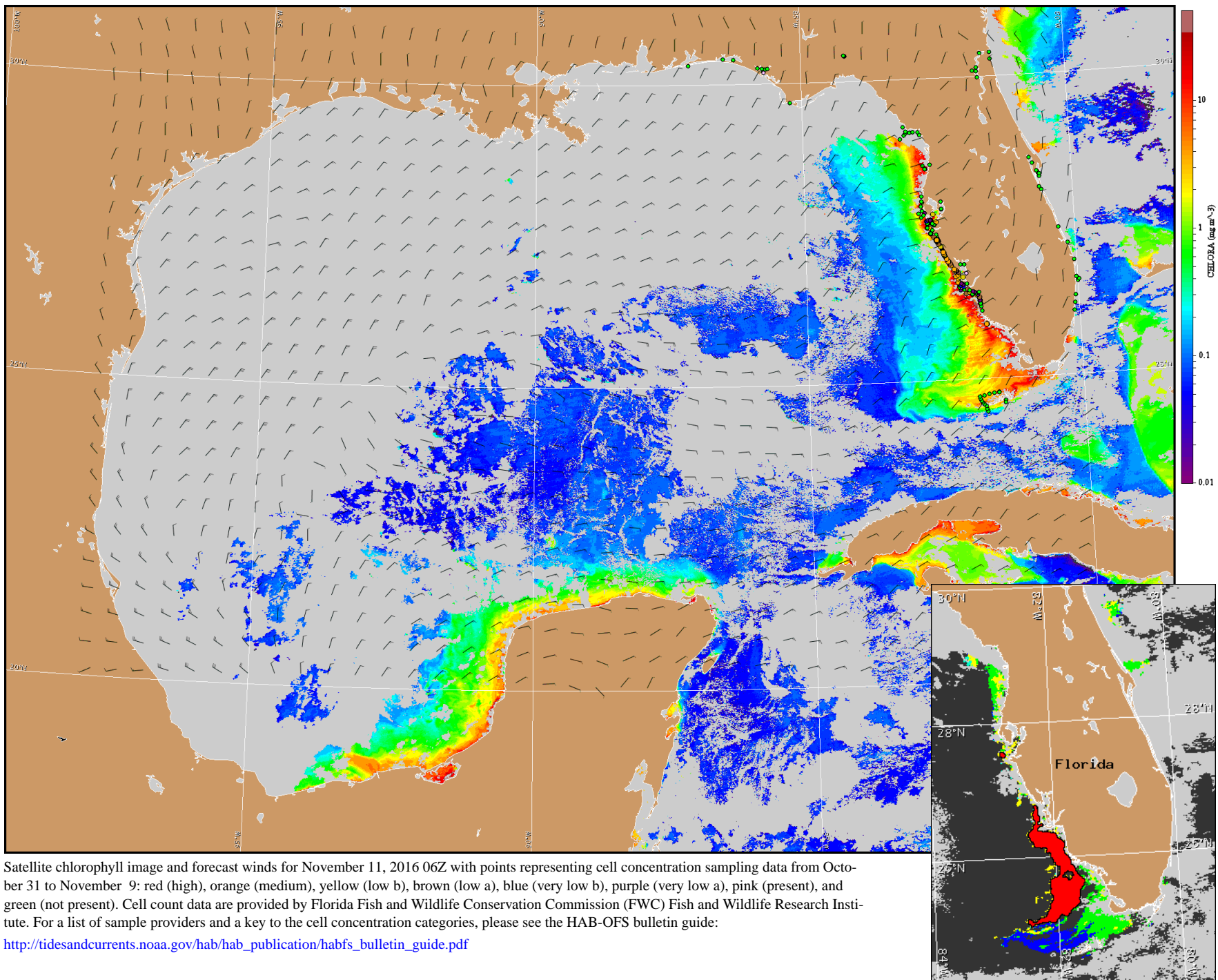
Englewood to Tarpon Springs (Venice): North winds (10kn, 5m/s) today. East winds (10kn) Friday becoming west (5kn, 3m/s) in the afternoon. North to northeast winds (5-15kn, 3-8m/s) Friday night through Monday.

Chokoloskee to Bonita Beach: Northeasterly winds (5-10kn, 3-5m/s) today through Sunday night becoming north winds (5-10kn) 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 November 11, 2016 06Z with points representing cell concentration sampling data from October 31 to November 9: 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).