



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

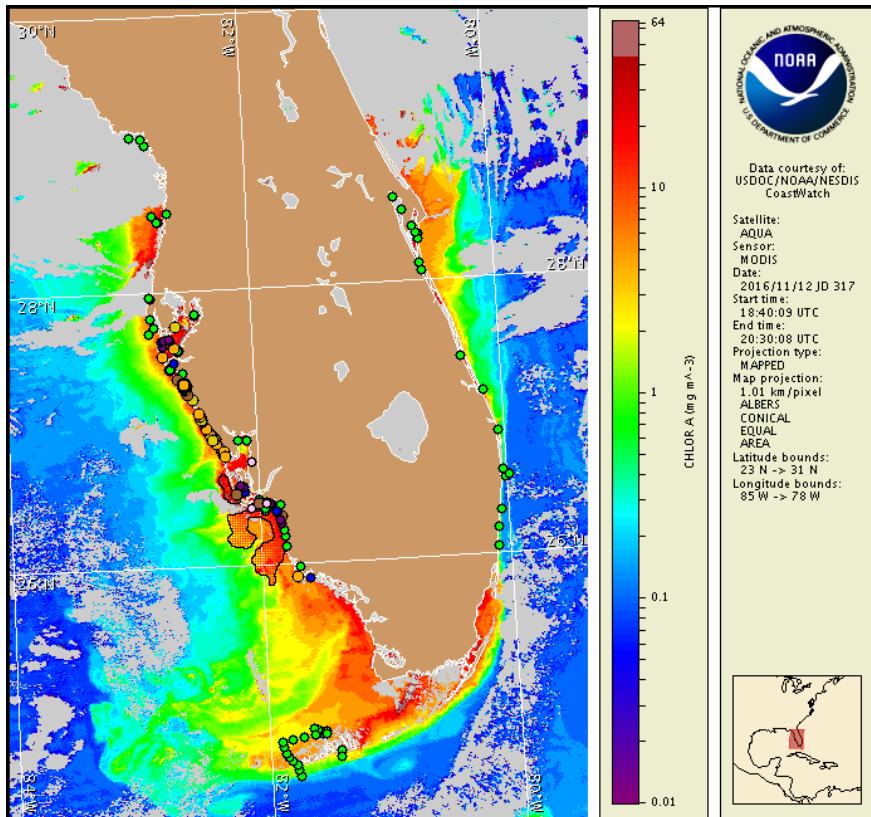
Monday, 14 November 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, November 10, 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 4 to 11: 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, November 14 through Thursday, November 17 is listed below:

County Region: Forecast (Duration)

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

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

Southern Manatee: Very 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)

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

Northern Charlotte: Low (M-Th)

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

Southern Charlotte: Very Low (M-Th)

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

Northern Lee: Very Low (M-Th)

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

Central Lee: Low (M), Very Low (Tu-Th)

Central Lee, bay regions: Very Low (M-Th)

Southern Lee: Very Low (M-Th)

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

Northern Collier: Very Low (M-Th)

Central Collier: Moderate (M), Very Low (Tu-Th)

Central Collier, bay regions: 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 Sarasota County, with dead fish reported from Sarasota and Lee counties.

Analysis

Recent samples collected along- and offshore the coast of southwest Florida confirm up to 'high' concentrations of *Karenia brevis* from Pinellas to Monroe counties, with the highest concentrations located in the bay regions of Sarasota County (FWRI, MML, SCHD, CCENRD; 11/4/11/11). 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, Venice North Jetty, and Manasota Beach in Sarasota County. (MML; 11/10-11/14).

Recent ensemble imagery (MODIS Aqua, 11/12) indicates the presence of elevated to very high (2 to $>20\mu\text{g/L}$) chlorophyll with the optical characteristics of *K. brevis* is visible along- and offshore from Pinellas to Monroe counties, extending up to 30 miles offshore from Sanibel Island in Lee County to Marco Island in Collier County.

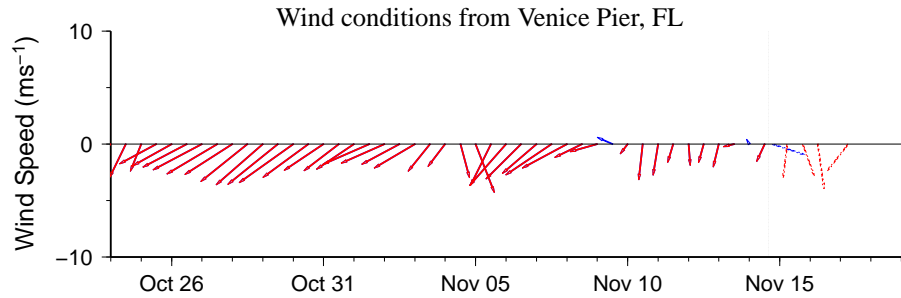
Forecasted winds today through Thursday (11/14-11/17) may promote southerly transport of surface *K. brevis* concentrations alongshore southwest Florida.

Keeney, Yang

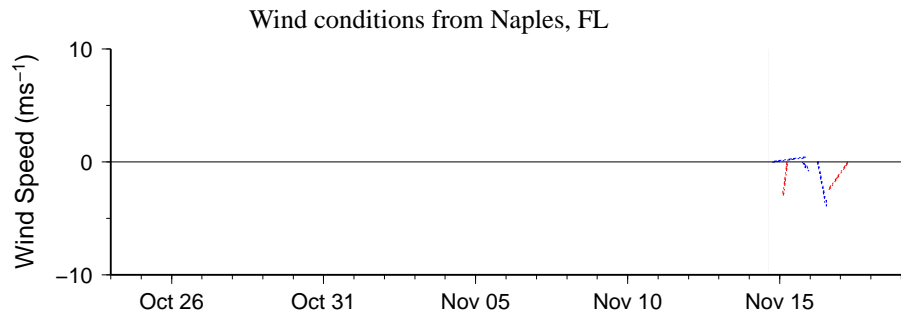
Wind Analysis

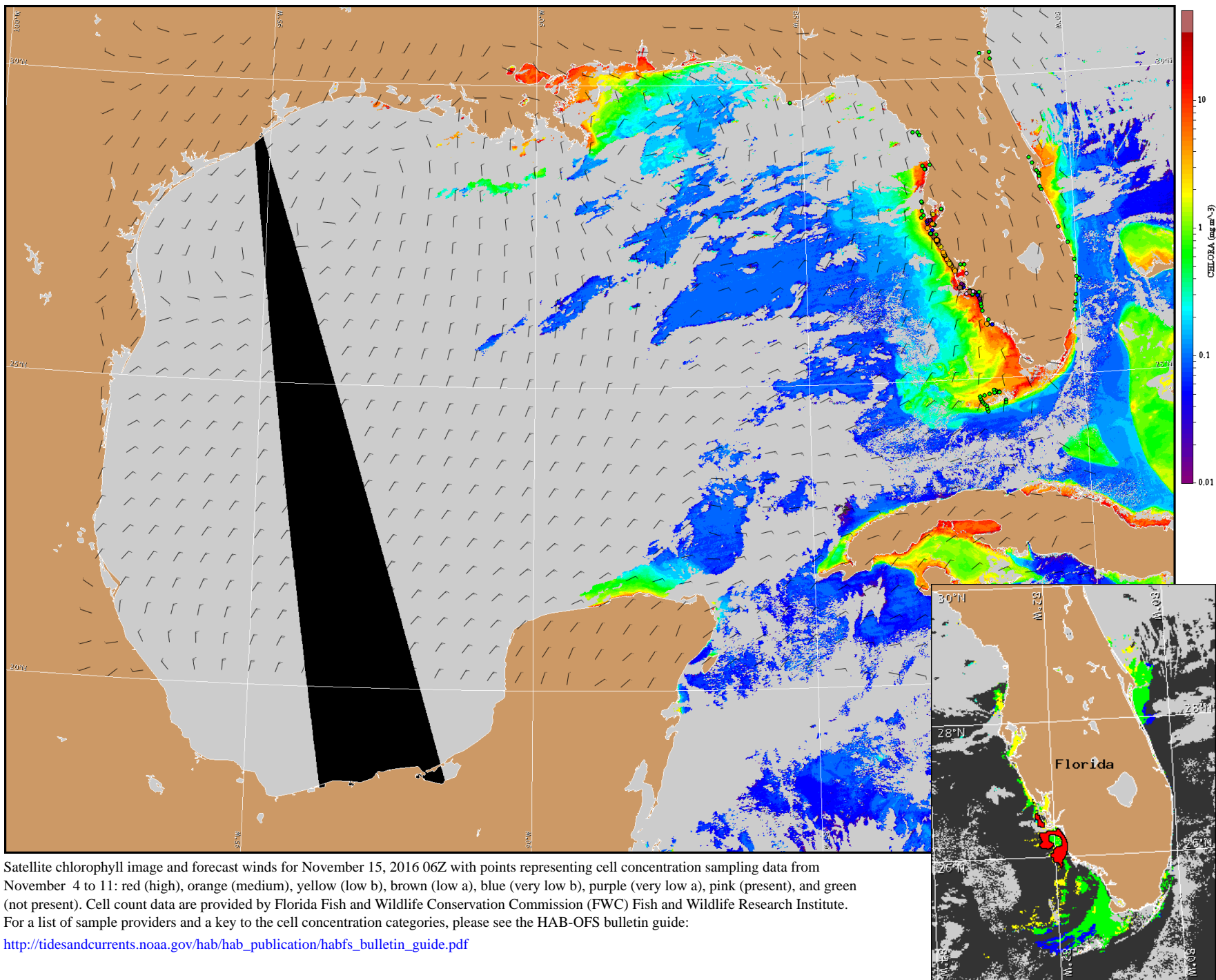
Englewood to Tarpon Springs (Venice): North to northeast winds (5-15kn, 3-8m/s) today through Thursday. East winds (10kn, 5m/s) Thursday evening.

Chokoloskee to Bonita Beach: North to northeast winds (5-15kn, 3-8m/s) today through Thursday.



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 15, 2016 06Z with points representing cell concentration sampling data from November 4 to 11: 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).