



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

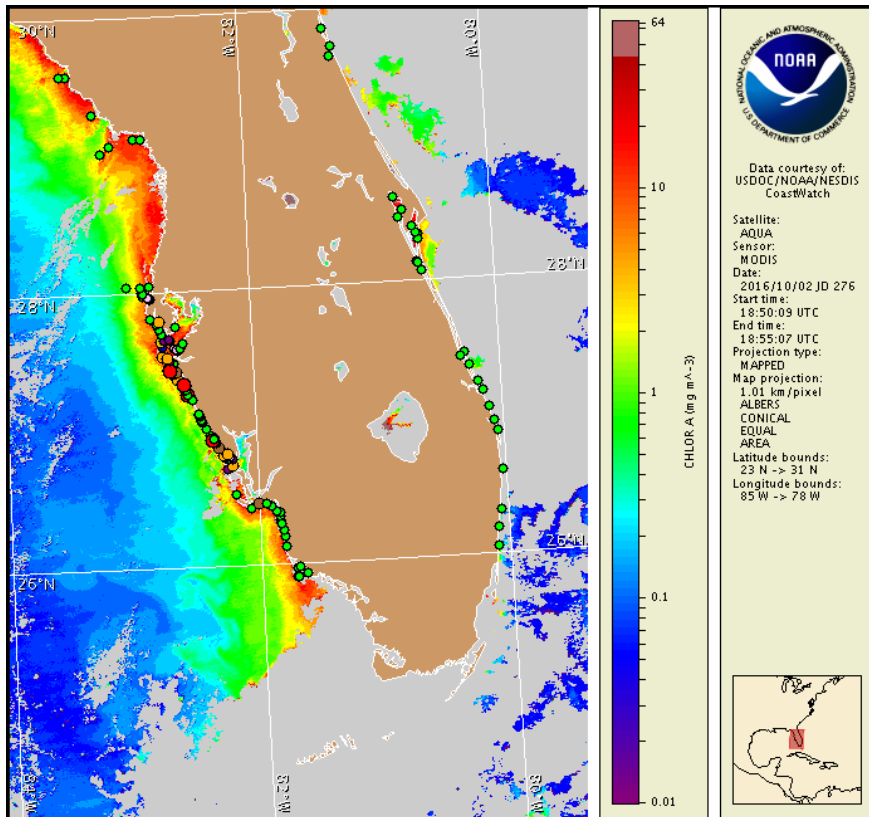
Monday, 03 October 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, September 29, 2016



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from September 23 to 30: 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, October 3 through Thursday, October 6 is listed below:

County Region: Forecast (Duration)

Southern Pinellas: Very Low (M-Th)

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

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

Southern Manatee: Moderate (M-Th)

Southern Manatee, bay regions: High (M-Th)

Northern Sarasota: Moderate (M-Th)

Northern Sarasota, bay regions: High (M-Th)

Southern Sarasota: Low (M-Th)

Southern Sarasota, bay regions: Very Low (M-Th)

Northern Charlotte: Low (M-Th)

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

Southern Charlotte: Low (M-Th)

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

Northern Lee: Very Low (M-Th)

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

Central 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. Reports of fish kills and respiratory irritation have been received from Pinellas, Manatee, Sarasota, Charlotte, and Collier counties. Reports of fish kills have been received from Lee County.

Analysis

A bloom of *Karenia brevis* is present along- and offshore southwest Florida from Pinellas to northern Collier County, with the highest concentrations identified alongshore northern Charlotte County (FWRI, MML, SCHD, CCENRD; 9/22-9/29). New sampling continues to indicate 'high' *K. brevis* concentrations along Manatee, Sarasota, and Charlotte counties, where up to intense respiratory irritation and heavy fish kills continue to be reported (FWRI, MML; 9/26-10/2). Samples collected alongshore northern Collier County indicate *K. brevis* is not present although reports of respiratory irritation and dead fish have been received (FWRI, CCENRD; 9/26-9/29). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: <http://myfwc.com/redtidestatus>. Reports of slight to intense respiratory irritation and up to heavy associated fish kills have been reported throughout southwest Florida from Manatee to Collier counties (FWRI, MML; 9/29-10/3).

Recent ensemble imagery (MODIS Aqua, 10/2) indicates the presence of elevated to very high (2 to >20 $\mu\text{g/L}$) patches of chlorophyll with the optical characteristics of *K. brevis* along- and offshore from Pinellas to Manatee, and from southern Charlotte to northern Collier counties.

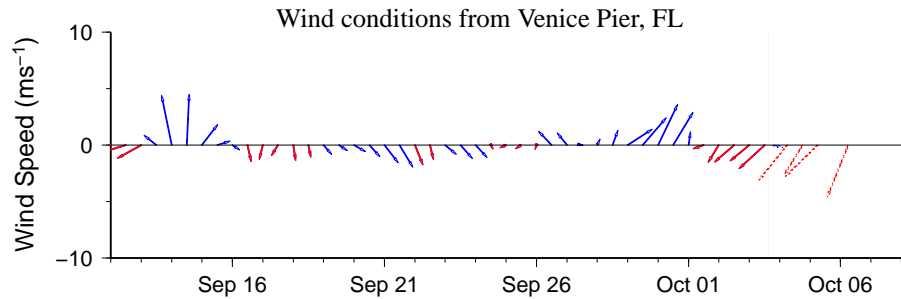
Northeast to north winds forecast today through Thursday (9/3-9/6), may promote the potential for southerly transport of *K. brevis* concentrations alongshore southwest Florida and will decrease the potential for respiratory irritation at the coast.

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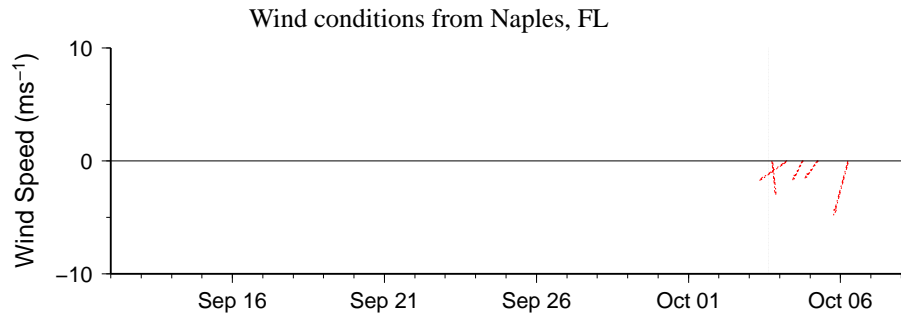
Wind Analysis

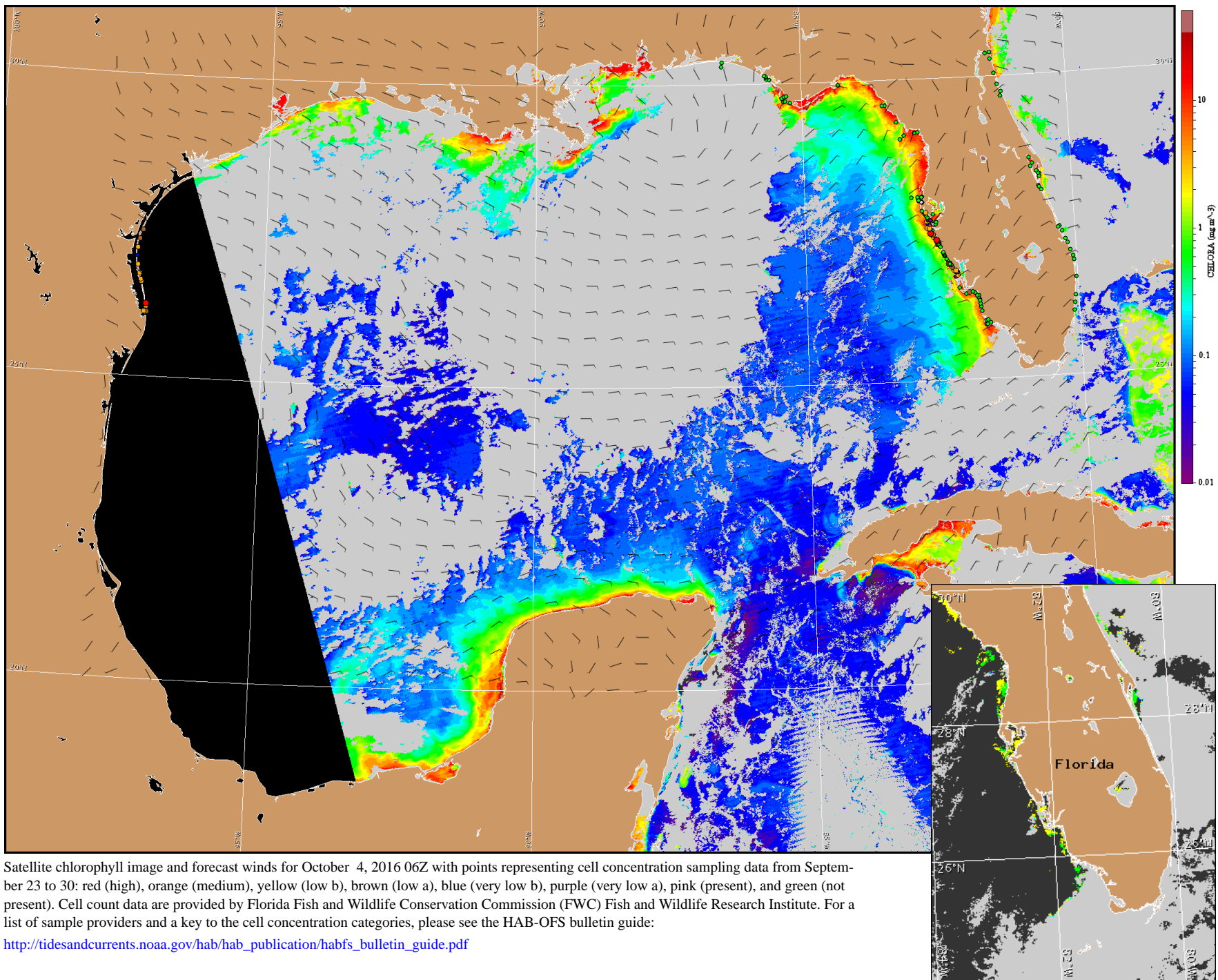
Englewood to Tarpon Springs (Venice): East winds (10kn, 5m/s) today becoming north winds this afternoon. Northeast to north winds (5-20kn, 3-10m/s) this evening through Thursday.

Chokoloskee to Bonita Beach: Northeast to east northeast winds (5-10kn, 3-5m/s) today through Tuesday becoming north northeast to north winds (5-20kn) Tuesday night 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 October 4, 2016 06Z with points representing cell concentration sampling data from September 23 to 30: 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).