



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

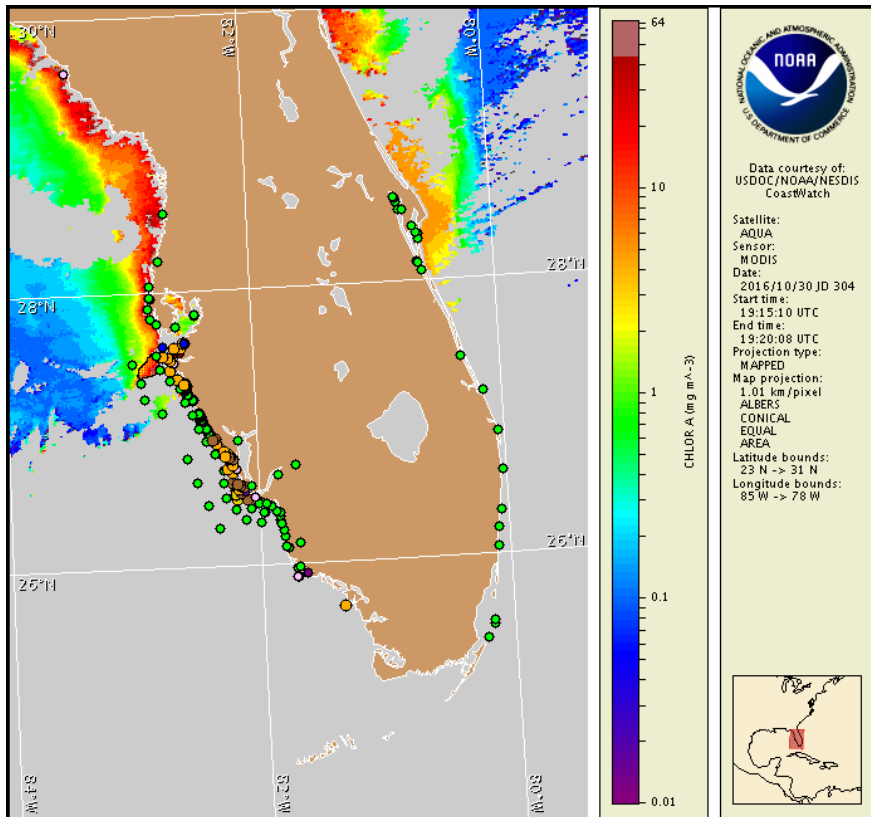
Monday, 31 October 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, October 27, 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 21 to 28: 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 31 through Thursday, November 3 is listed below:

County Region: Forecast (Duration)

Southern Pinellas: Very Low (M-Th)

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

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

Southern Manatee: Very Low (M-Th)

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

Northern Sarasota: Very Low (M-Th)

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

Southern Sarasota: Very Low (M-Th)

Northern Charlotte: Very 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: Moderate (M-Th)

Central Lee: Very Low (M-Th)

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

Southern Lee: Very Low (M-Th)

Northern Collier: Very Low (M-Th)

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

Central Collier: Very Low (M-Th)

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

Southern Collier: Very Low (M-Th)

Northern Monroe: 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. Dead fish have been reported from Lee and Collier counties.

Analysis

Karenia brevis is present along- and offshore southwest Florida from Pinellas to northern Monroe County, with the highest concentrations located in the bay regions of northern Manatee and northern Sarasota counties (FWRI, MML, SCHD, CCENRD; 10/21-10/28). New sampling alongshore Sarasota County continues to indicate up to 'medium' *K. brevis* concentrations (SCHD; 10/24). In the Gasparilla Sound region of southern Charlotte County, sampling identified 'low a' *K. brevis* concentrations (FWRI; 10/26). Alongshore northern Monroe County, where *K. brevis* had not yet been detected, sampling detected 'medium' *K. brevis* concentrations at Pavilion Key (MML; 10/25). Detailed sample

information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: <http://myfwc.com/redtidestatus>. Dead fish were reported in Lee and Collier counties (FWRI, MML; 10/27-10/31).

Recent ensemble imagery (MODIS Aqua, 10/30) has been completely obscured by clouds along- and offshore southwest Florida from southern Manatee County to the Florida Keys, preventing analysis of these regions. Elevated to very high (2 to >20 $\mu\text{g/L}$) chlorophyll with the optical characteristics of *K. brevis* are visible alongshore from Pinellas and northern Manatee County.

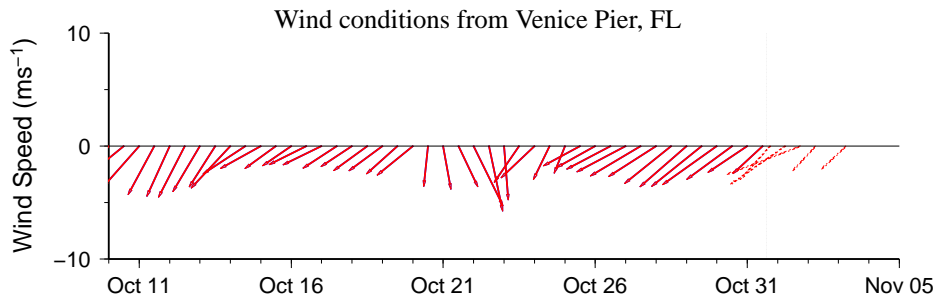
Offshore winds forecasted today through Thursday will reduce the potential for respiratory irritation at the coast.

Davis, Lalime

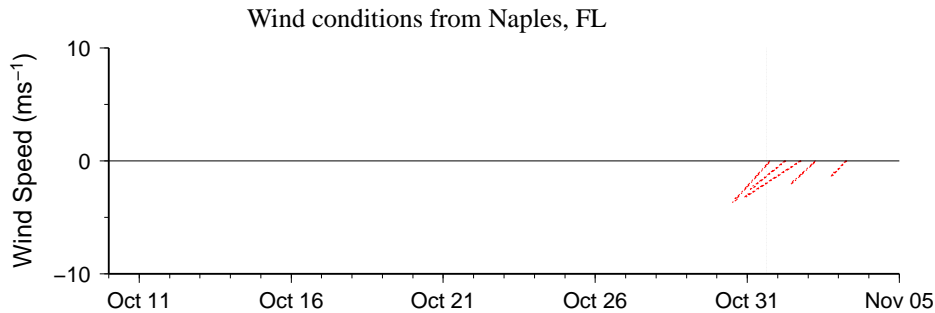
Wind Analysis

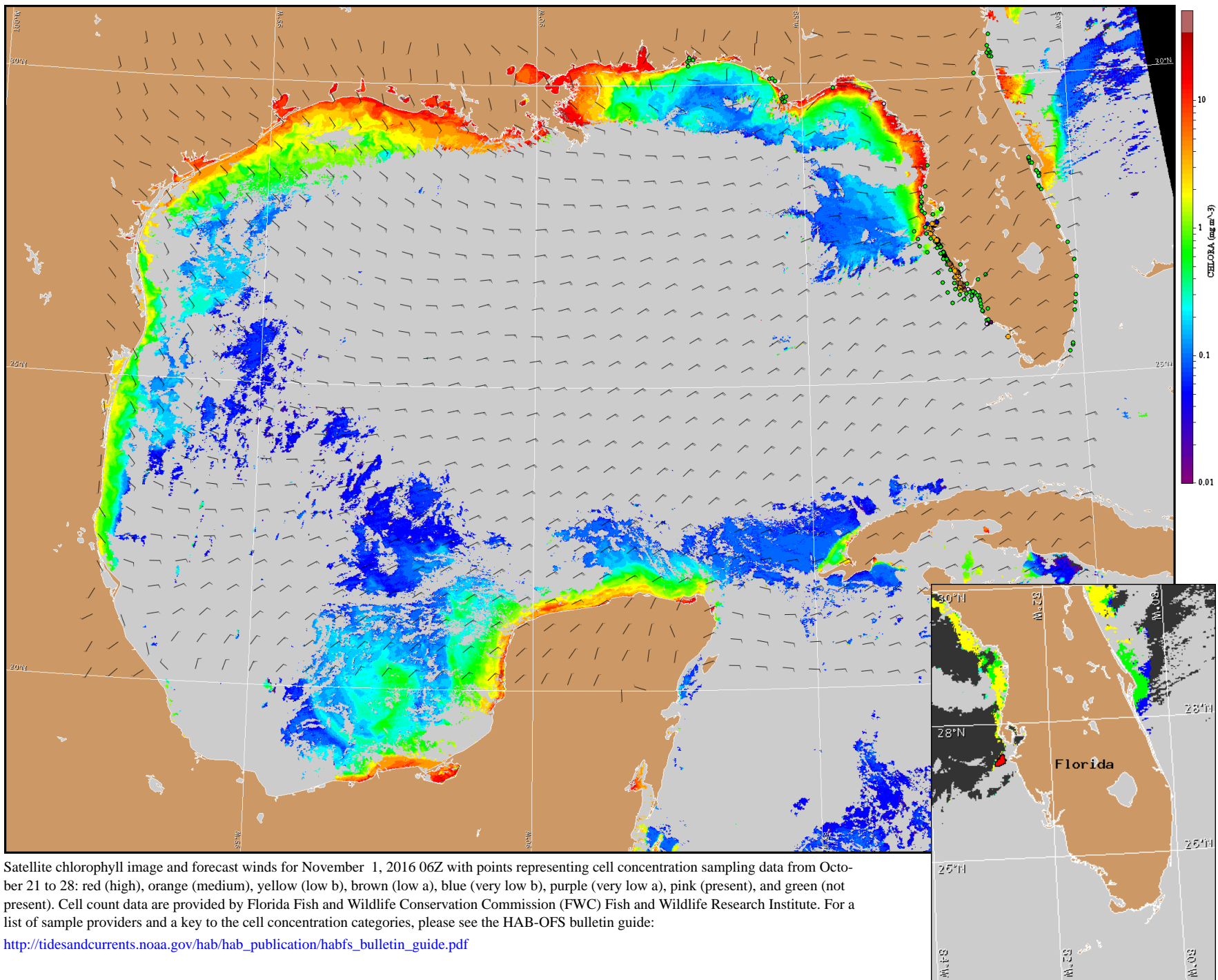
Englewood to Tarpon Springs (Venice): Northeast winds (15kn, 8m/s) today becoming east winds (15kn) tonight. Northeast winds (5-15kn, 3-8m/s) Tuesday through Wednesday. North winds (10kn, 5m/s) Thursday.

Chokoloskee to Bonita Beach: Northeast to east northeast winds (10-25kn, 5-13m/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 1, 2016 06Z with points representing cell concentration sampling data from October 21 to 28: 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).