



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

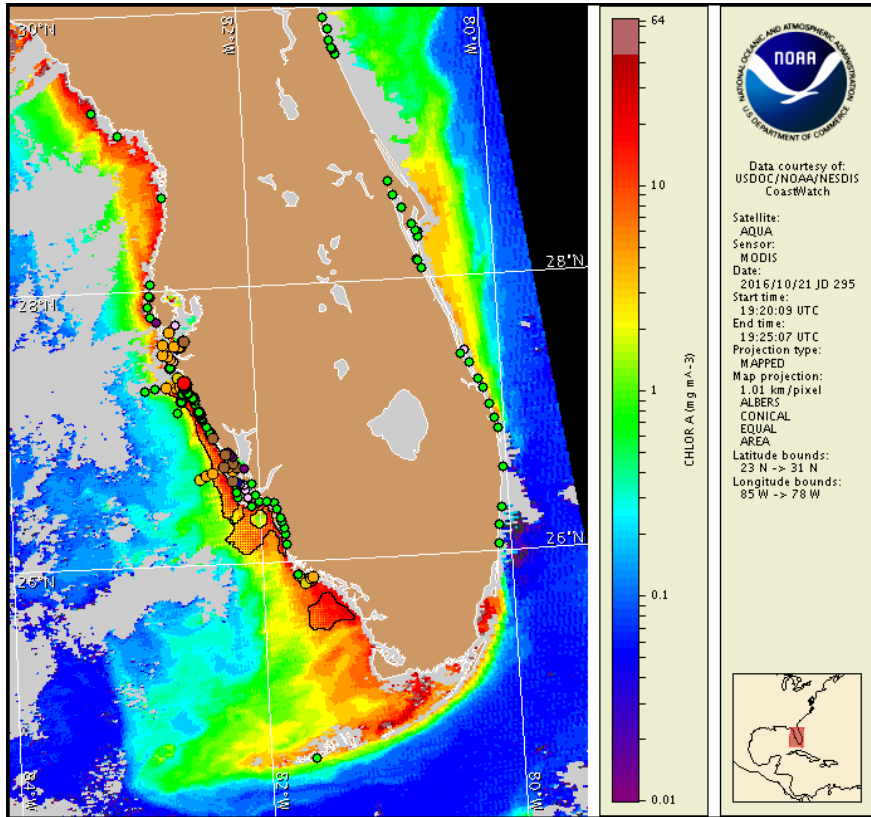
Monday, 24 October 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, October 20, 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 14 to 21: 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 24 through Thursday, October 27 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: Low (M-Th)

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

Northern Sarasota: Low (M-Th)

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

Southern Sarasota: Low (M-Th)

Northern Charlotte: Low (M-Th)

Southern Charlotte: Very Low (M-Th)

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

Northern Lee: Low (M-Th)

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

Central Lee: Very Low (M-Th)

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

Southern Lee: Very Low (M-Th)

Northern Collier: Very Low (M-Th)

Central Collier: Low (M-Th)

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

Southern Collier: 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 respiratory irritation have been received from Manatee and Sarasota counties. Reports of dead fish have been received from Manatee to Lee counties.

Analysis

Karenia brevis is present along- and offshore southwest Florida from Pinellas to southern Collier County, with up to 'high' concentrations identified in the bay regions of northern Sarasota County, and the Ten Thousands Islands region of southern Collier County (FWRI, MML, SCHD; 10/14-10/21). 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 moderate respiratory irritation have been reported at Manatee Beach in Manatee County, Nokomis and Venice North Jetty in Sarasota County, with reports of dead fish received from Manatee to Lee counties (FWRI, MML; 10/21-10/24).

Wind Analysis

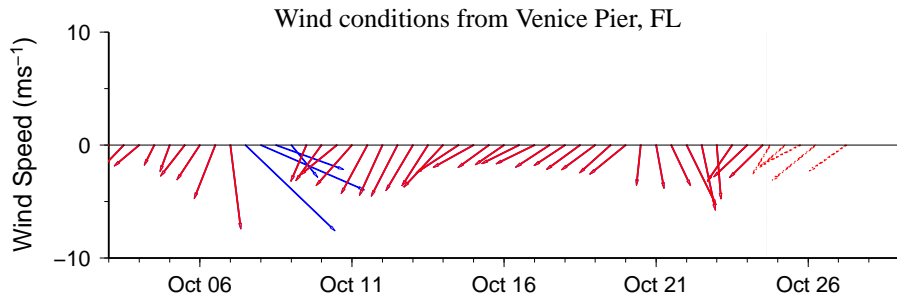
Englewood to Tarpon Springs (Venice): Northeast winds (10-15kn, 5-8m/s) today through Tuesday night. East winds (15-20kn, 8-10m/s) Wednesday and Thursday, becoming northeast winds (15kn, 8m/s) in the evening.

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

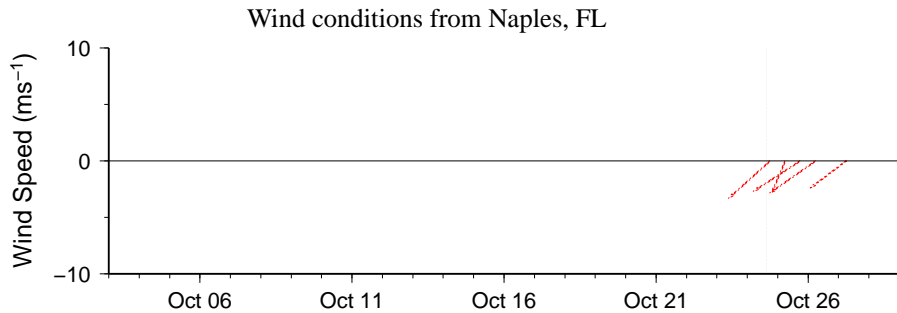
Recent ensemble imagery (MODIS Aqua, 10/21) indicates the presence of elevated to very high (2 to >20 $\mu\text{g/L}$) patches of chlorophyll with the optical characteristics of *K. brevis* alongshore from southern Pinellas to northern Collier counties. A separate patch of elevated to very high (2 to >20 $\mu\text{g/L}$) chlorophyll with the optical characteristics of *K. brevis* is visible extending up to 25 miles offshore from the Ten Thousand Islands Region of southern Collier County and Everglades region of northern Monroe County. Sampling of this region is recommended to determine if *K. brevis* is present.

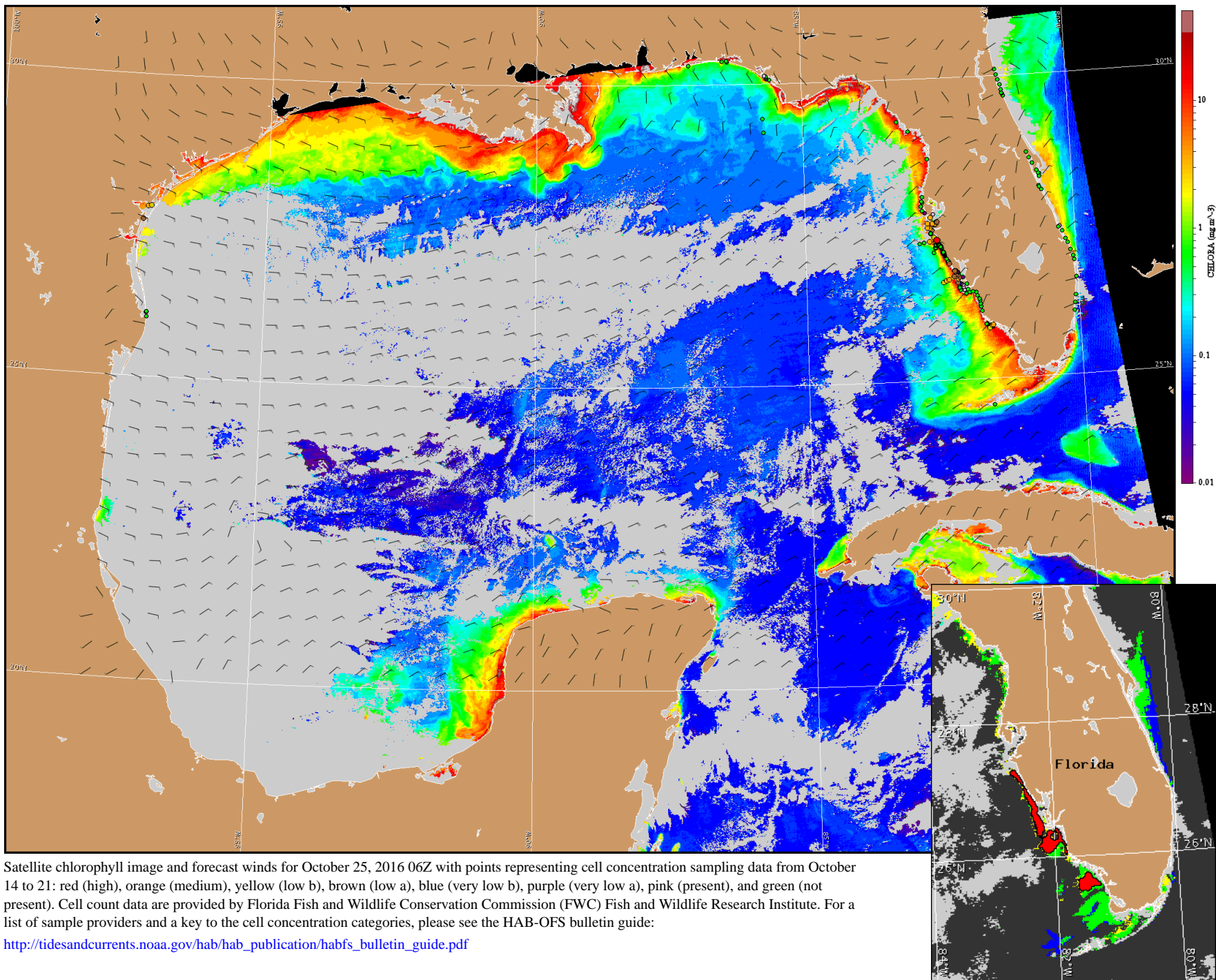
Observed winds over past several days (10/20-10/23) may have promoted the potential for southerly transport of *K. brevis* concentrations alongshore southwest Florida. Offshore winds forecasted today through Thursday will reduce the potential for respiratory irritation at the coast.

Keeney, Davis



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 25, 2016 06Z with points representing cell concentration sampling data from October 14 to 21: 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).