Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

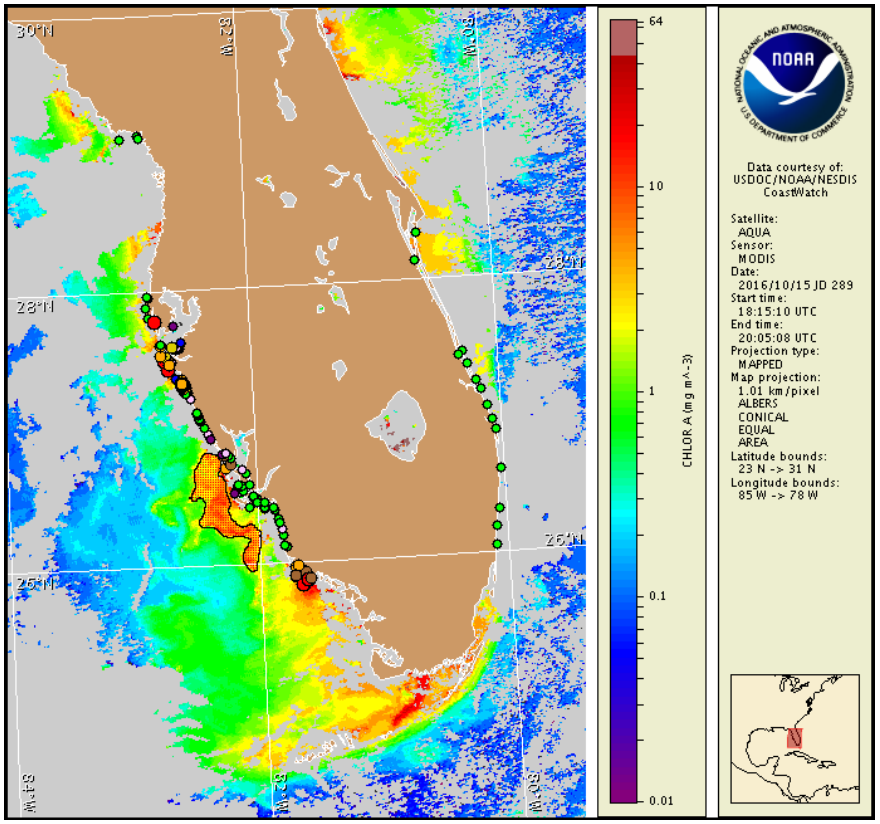
Monday, 17 October 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, October 13, 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 7 to 14: 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 17 through Thursday, October 20 is listed below:

County Region: Forecast (Duration)
Southern Pinellas: Low (M-Th)
Southern Pinellas, bay regions: High (M-Th)
Northern Manatee; bay regions: Moderate (M-Th)
Southern Manatee: Low (M-Th)
Southern Manatee, bay regions: High (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: Low (M-Th)
Southern Charlotte, bay regions: Low (M-Th)
Northern Lee: Low (M-Th)
Northern Lee, bay regions: Low (M-Th)
Central Lee: Low (M-Th)
Southern Lee: Low (M-Th)
Southern Lee, bay regions: Very Low (M-Th)
Northern Collier: Low (M-Th)
Central Collier: Low (M-Th)
Central Collier, bay regions: Moderate (M-Th)
Southern 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 dead fish and respiratory irritation have been received from Pinellas, Manatee, Sarasota, Charlotte, and Lee counties.

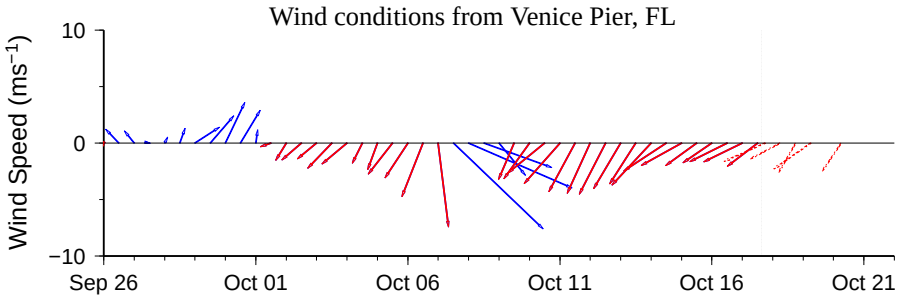
Analysis

Karenia brevis is present along- and offshore southwest Florida from Pinellas to southern Collier County, with the highest concentrations identified in the bay regions of southern Pinellas, southern Manatee, northern Sarasota, and central Collier counties (FWRI, MML, SCHD, CCENRD; 10/7-10/16). In the Ten Thousand Islands region of southern Collier County, new sampling detected up to 'low a' *K. brevis* concentrations where previous sampling indicated *K. brevis* was not present (FWRI; 10/12). 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 respiratory irritation and associated fish kills have been reported along southwest Florida from Pinellas to Lee counties over the past few days (FWRI, MML; 10/13-10/17).

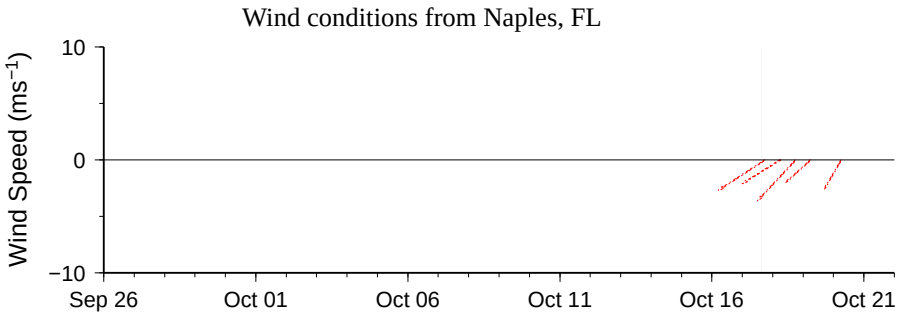
Recent ensemble imagery (MODIS Aqua, 10/15) indicates the presence of a large feature of elevated to high (2 to 19 μg/L) chlorophyll with the optical characteristics of *K. brevis* extending alongshore southwest Florida from northern Charlotte to central Lee County and up to 18 miles offshore southern Lee to central Collier County.

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

Davis, Keeney



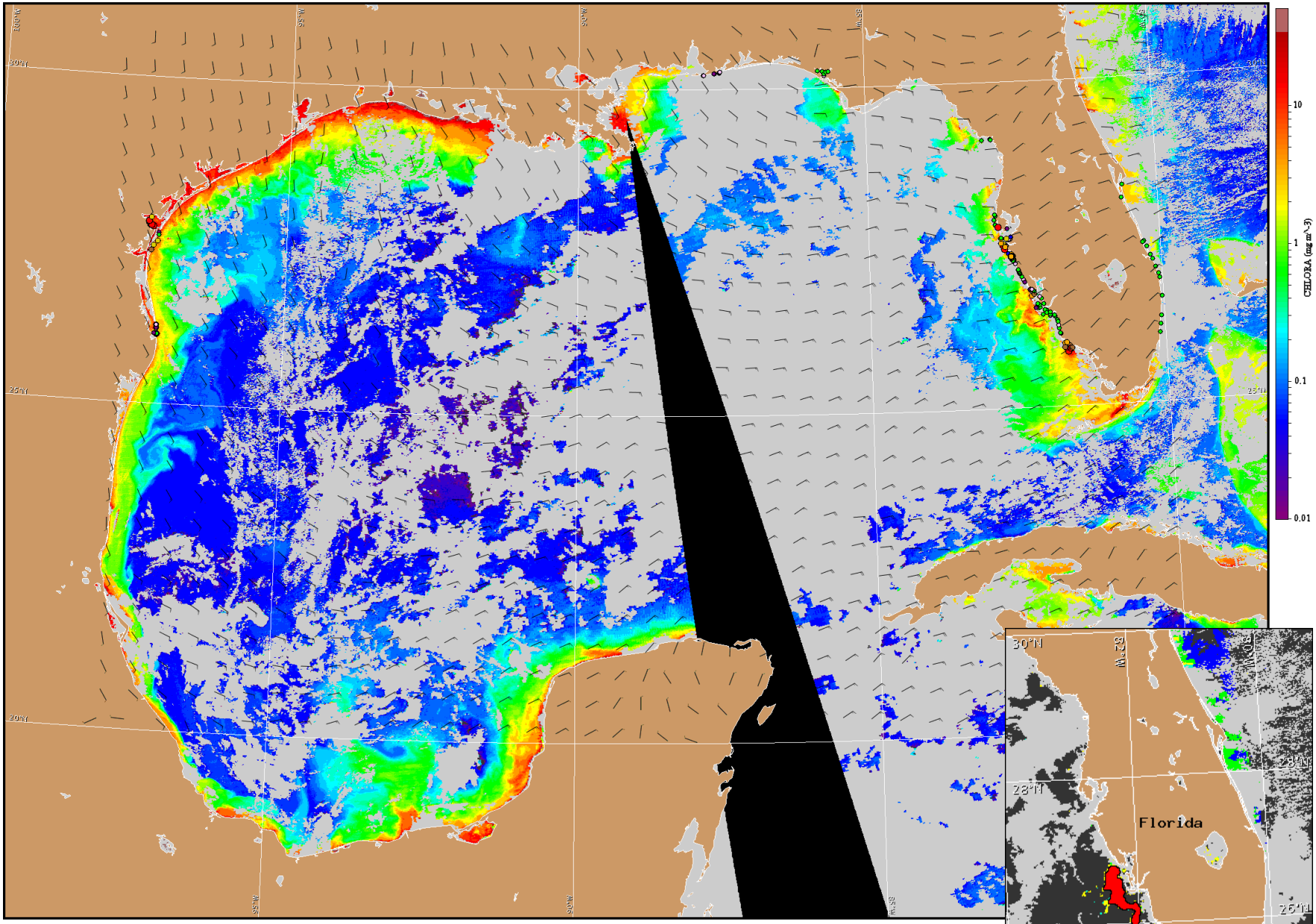
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).



Wind Analysis

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

Chokoloskee to Bonita Beach: Northeasterly winds (5-15kn) today through Thursday.



Satellite chlorophyll image and forecast winds for October 18, 2016 06Z with points representing cell concentration sampling data from October 7 to 14: 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).