



## Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

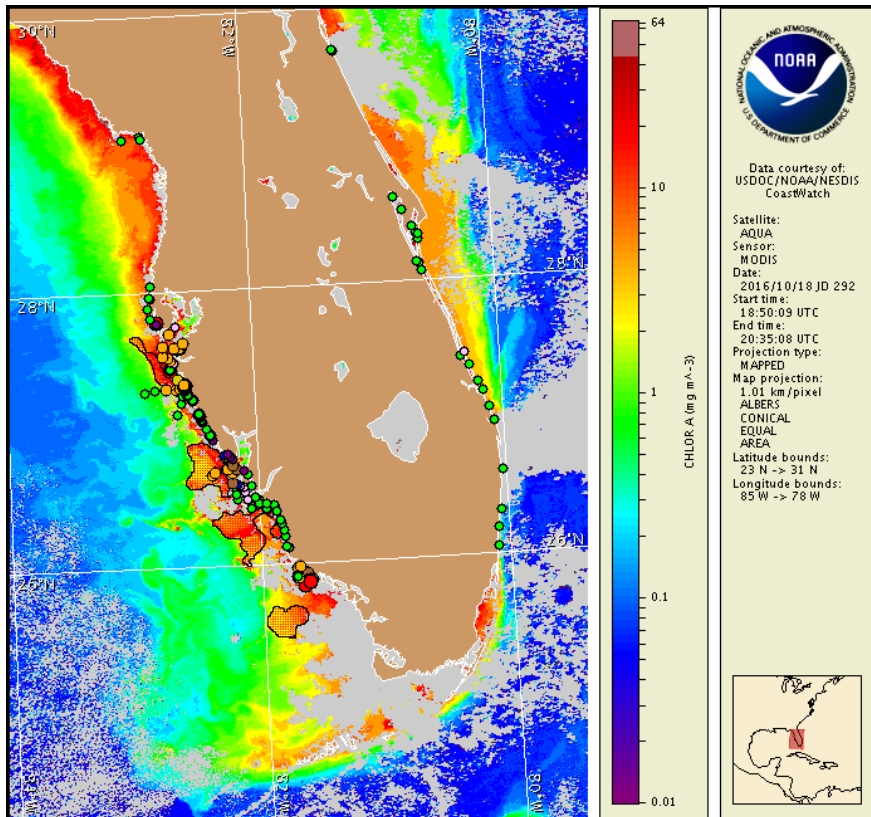
Thursday, 20 October 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, October 17, 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 10 to 19: 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](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 Thursday, October 20 through Monday, October 24 is listed below:

### County Region: Forecast (Duration)

**Southern Pinellas:** Low (Th-M)

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

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

**Southern Manatee:** Low (Th-M)

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

**Northern Sarasota:** Low (Th-M)

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

**Southern Sarasota:** Very Low (Th-M)

**Northern Charlotte:** Low (Th-M)

**Southern Charlotte:** Low (Th-M)

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

**Northern Lee:** Low (Th, Sa-M), Moderate (F)

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

**Central Lee:** Very Low (Th-M)

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

**Southern Lee:** Very Low (Th-M)

**Northern Collier:** Very Low (Th-M)

**Central Collier:** Low (Th-M)

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

**Southern Collier:** Very Low (Th-M)

**All Other SWFL County Regions:** None expected (Th-M)

Check [http://tidesandcurrents.noaa.gov/hab/beach\\_conditions.html](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](http://tidesandcurrents.noaa.gov/hab/hab_health_info.html). Reports of dead fish and respiratory irritation have been received from Manatee, Sarasota, Charlotte, Lee, and Collier counties.

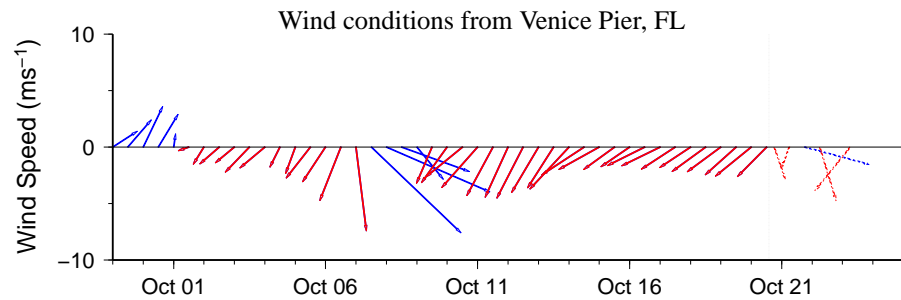
## Analysis

Recent sampling still confirms the presence of *Karenia brevis* along- and offshore southwest Florida from Pinellas to southern Collier County, with the highest concentrations identified in the bay regions of southern Manatee and central Collier counties, and the Ten Thousand Islands region of southern Collier County (FWRI, MML, SCHD; 10/10-10/20). 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 Manatee to Collier County over the past few days (FWRI, MML; 10/17-10/20).

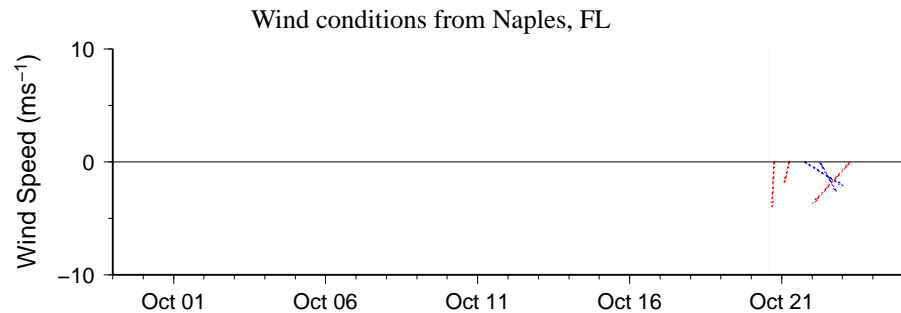
Recent ensemble imagery (MODIS Aqua, 10/18) indicates the presence of elevated to very high (2 to >20  $\mu\text{g/L}$ ) patches of chlorophyll with the optical characteristics of *K. brevis* alongshore from southern Pinellas to northern Collier counties and 20 miles offshore the Ten Thousand Islands region of southern Collier County and Everglades National Park of northern Monroe County.

Northwest to northeast winds forecast today through Monday will promote the potential for southern transport of *K. brevis* concentrations alongshore southwest Florida. Offshore winds forecasted today through Monday will reduce the potential for respiratory irritation at the coast.

Davis, Keeney



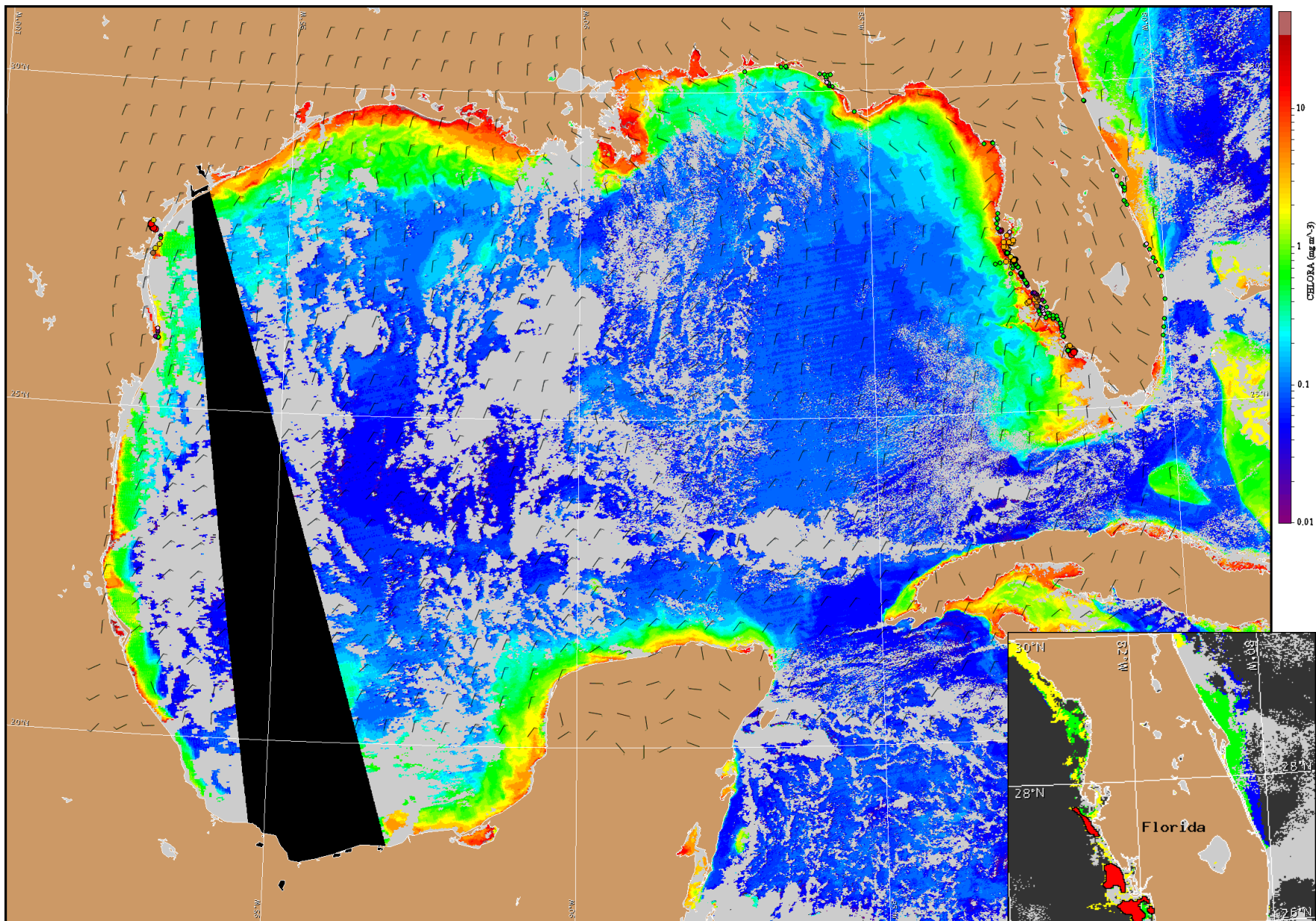
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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



## Wind Analysis

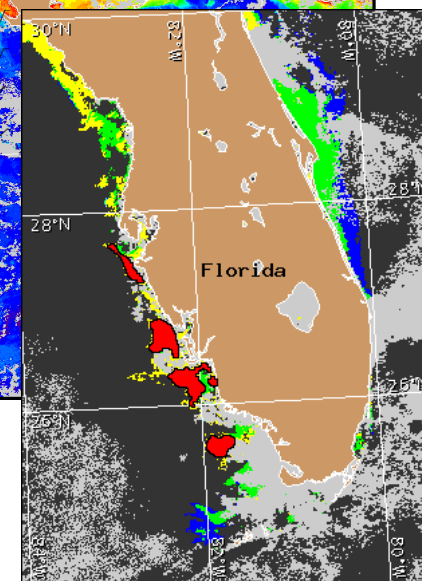
**Englewood to Tarpon Springs (Venice):** North to northeast winds (5-15kn, 3-8m/s) today. North to northwest winds (5-20kn, 3-10m/s) Friday and Saturday becoming north-east winds (15kn, 8m/s) Saturday night. Northeast to east winds (10-15kn, 5-8m/s) Sunday and Monday.

**Chokoloskee to Bonita Beach:** North northeast winds (5-10kn, 3-5m/s) today. North northwest winds (5-15kn) Friday. North to northeast winds (10-15kn) Saturday through Monday.



Satellite chlorophyll image and forecast winds for October 21, 2016 06Z with points representing cell concentration sampling data from October 10 to 19: 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).