



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

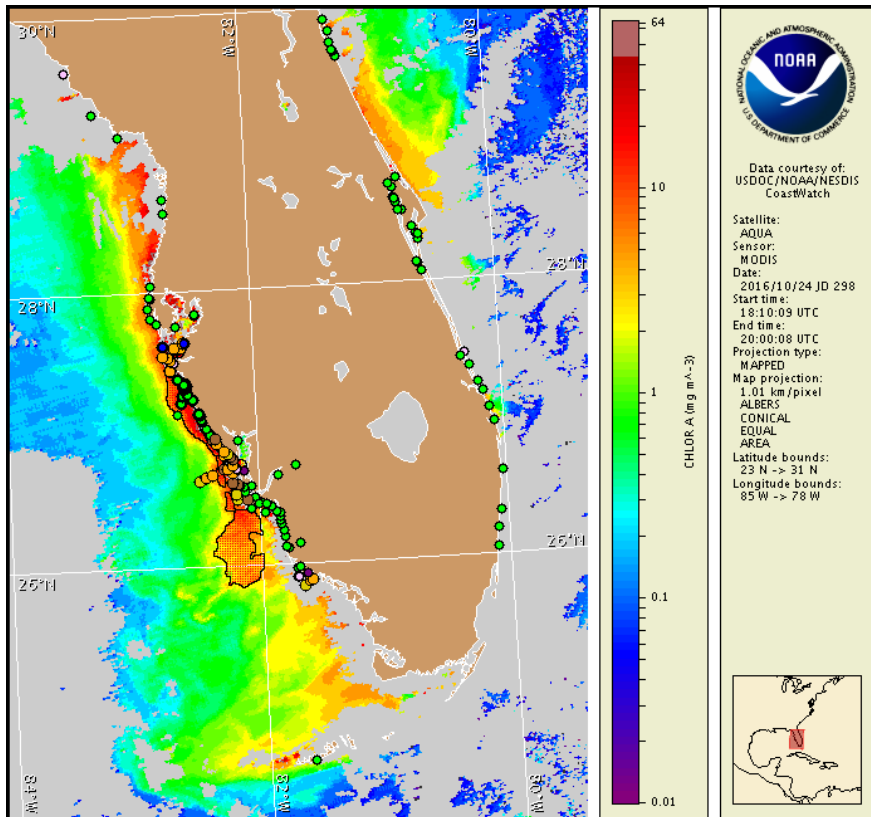
Thursday, 27 October 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, October 24, 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 17 to 26: 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 27 through Monday, October 31 is listed below:

**County Region: Forecast (Duration)**

**Southern Pinellas: Very 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: Moderate (Th-M)**

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

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

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

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

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

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

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

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

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

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

**Central Lee, bay regions: Moderate (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: 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 respiratory irritation have been received from Pinellas and Sarasota County. Reports of dead fish have been received from Sarasota and Lee counties.

## Analysis

*Karenia brevis* is present along- and offshore southwest Florida from Pinellas to southern Collier County, with up to 'high' concentrations identified north of Terra Ceia Aquatic Preserve in the bay regions of northern Manatee County, and in the bay regions of northern Sarasota County (FWRI, MML, SCHD; 10/17-10/26). *K. brevis* concentrations have increased to 'medium' from 'low a' at Stump Pass in the bay regions of northern Charlotte County, and near Punta Blanca and at Boca Grande alongshore and in the bay regions of northern Lee County (FWRI; 10/25). Up to 'low b' concentrations have been identified at Captiva in the bay regions of central Lee County (FWRI; 10/24-10/25). Detailed sample information and a summary of impacts can be obtained through FWC

Fish and Wildlife Research Institute at: <http://myfwc.com/redtidestatus>. Slight respiratory irritation was reported at Venice Beach in northern Sarasota County and at Treasure Island alongshore northern Pinellas County, with reports of dead fish received from Sarasota and Lee counties (FWRI, MML; 10/24-10/27).

Recent ensemble imagery (MODIS Aqua, 10/24) 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 southern Charlotte 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 still visible, extending up to 37 miles offshore from Sanibel to Marco Island in central Collier County.

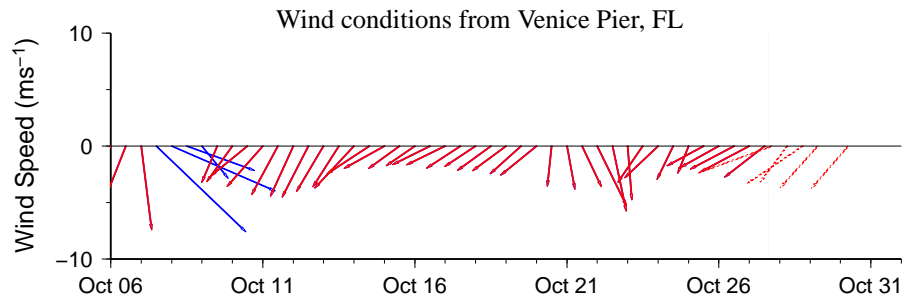
Offshore winds forecasted today through Monday will reduce the potential for respiratory irritation at the coast.

Keeney, Davis

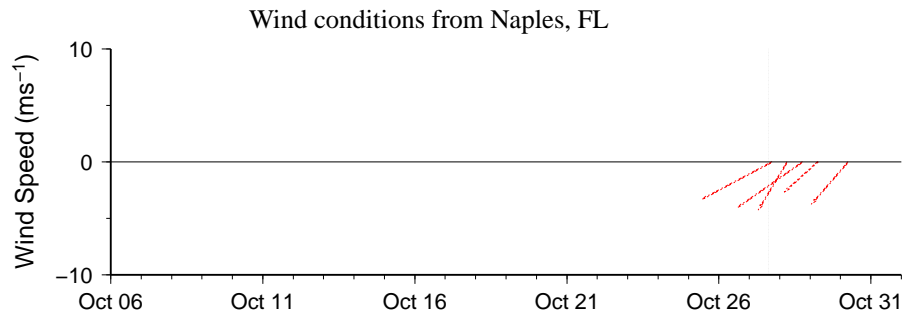
## Wind Analysis

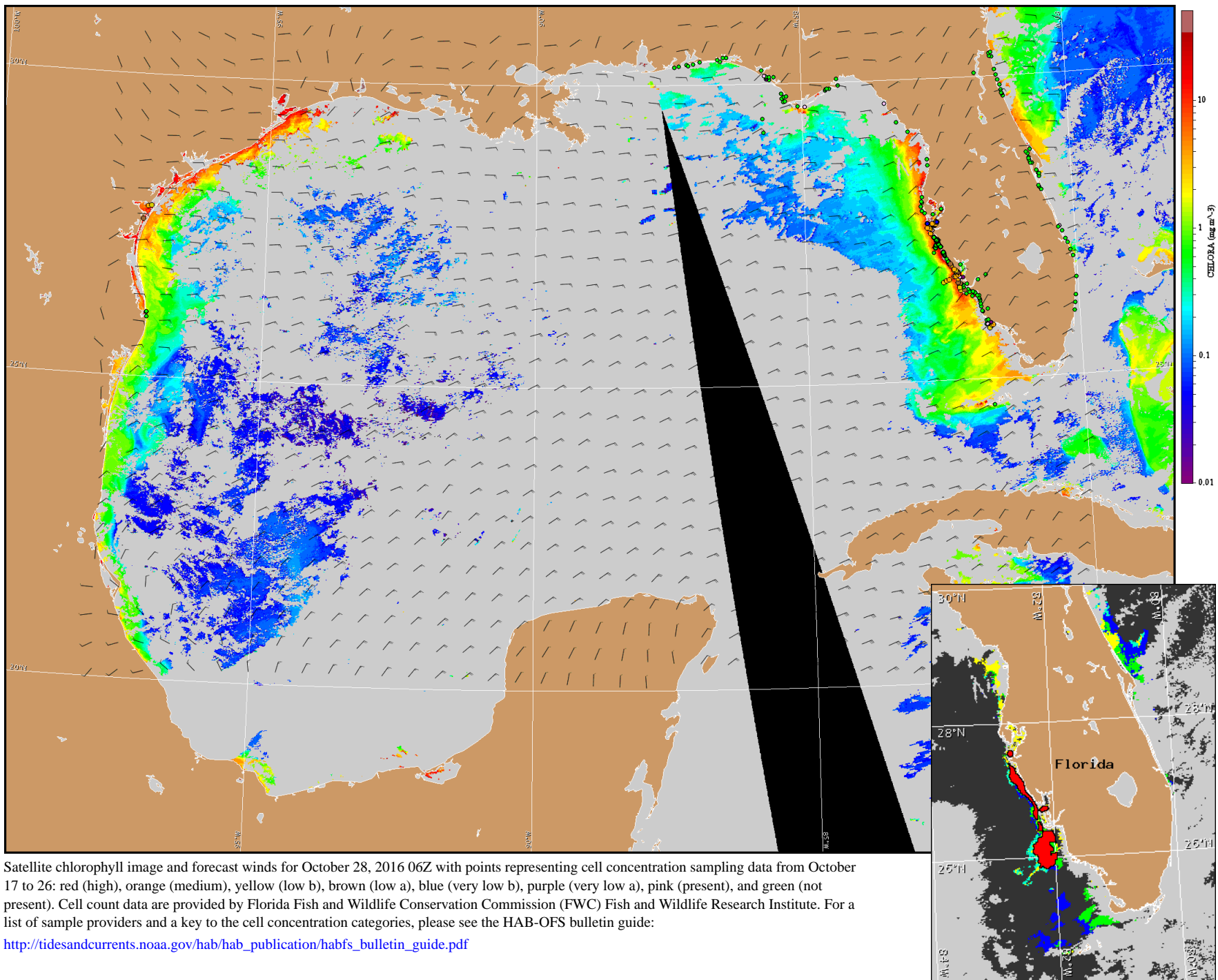
**Englewood to Tarpon Springs (Venice):** East winds (15-20kn, 8-10m/s) today. North-east winds (10-15kn, 5-8m/s) Friday through Monday.

**Chokoloskee to Bonita Beach:** East to northeast winds (10-25kn, 5-13m/s) today through Monday.



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 28, 2016 06Z with points representing cell concentration sampling data from October 17 to 26: 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).