



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

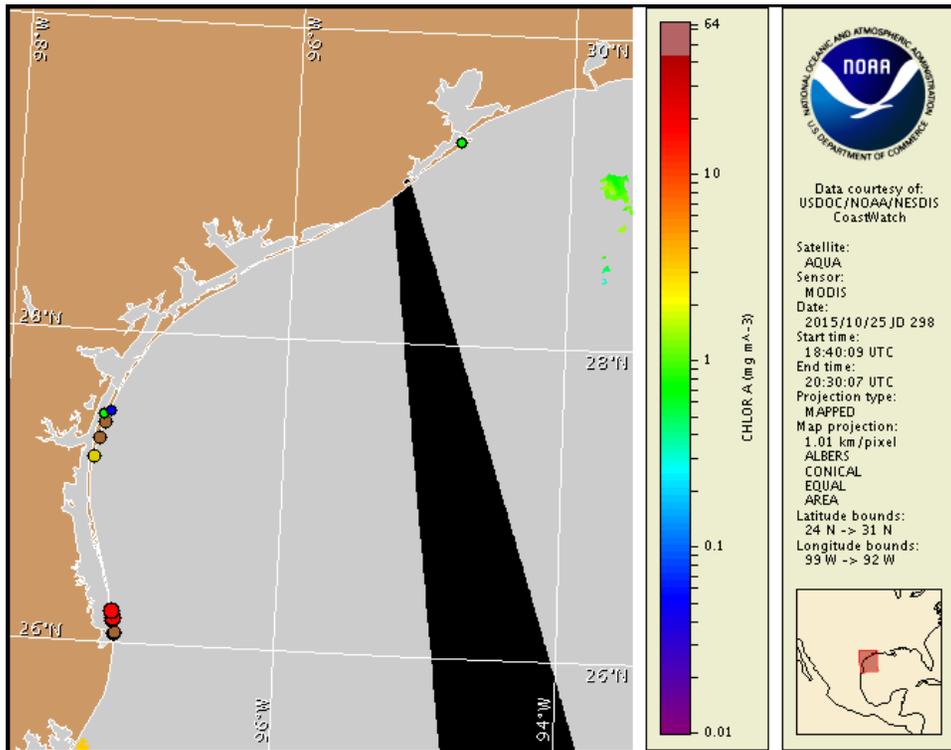
Monday, 26 October 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, October 22, 2015



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from October 16 to 23: 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 Texas Parks and Wildlife Department. 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/habfs\\_bulletin\\_guide.pdf](http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf)

Detailed sample information can be obtained through the Texas Parks and Wildlife Department at:

<http://www.tpwd.state.tx.us/landwater/water/enviroconcerns/hab/redtide/status.phtml>

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:

<http://tidesandcurrents.noaa.gov/hab/bulletins.html>

## Conditions Report

*Karenia brevis* (commonly known as Texas red tide) ranges from not present to high concentrations along the Texas coast from Matagorda Bay to the Rio Grande. *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 26 through Thursday, October 29 is listed below:

**Region:** Forecast (Duration)

**Bay region-Matagorda Bay:** Moderate (M-Th)

**Bay region-San Antonio Bay to Espiritu Santo Bay:** High (M), Moderate (Tu-Th)

**Bay region-Aransas Bay:** Moderate (M-Th)

**Bay region-Corpus Christi Bay:** High (M-Th)

**Aransas Pass to PINS region:** Very low (M), Moderate (Tu-Th)

**Bay region-Upper Laguna Madre:** Moderate (M-Th)

**Padre Island National Seashore region:** Very low (M), Moderate (Tu-Th)

**Bay region-Lower Laguna Madre to Laguna Vista:** High (M, Th), Moderate (Tu, W)

**Mansfield Pass to Beach Access 6 region:** Low (M, W, Th), High (Tu)

**Beach Access 6 to Rio Grande region:** Low (M, W, Th), High (Tu)

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

Check [http://tidesandcurrents.noaa.gov/hab/beach\\_conditions.html](http://tidesandcurrents.noaa.gov/hab/beach_conditions.html) for recent, local observations. Reports of respiratory irritation have been received from Corpus Christi Bay and the Lower Laguna Madre. Reports of dead fish and discolored water have been received from Corpus Christi Bay and the Upper Laguna Madre.

## Analysis

*Karenia brevis* concentrations range from 'background' to 'high' from Matagorda Bay to the Rio Grande. Within the Aransas Bay region, the Imaging FlowCytobot at UTMSI Pier in Port Aransas indicates *K. brevis* concentrations between 'background' to 'low' (TPWD, TAMU; 10/22-26). In the Corpus Christi Bay region, new sampling continues to indicate 'high' *K. brevis* concentrations and respiratory irritation was observed in the western and southern parts of the bay (TPWD; not shown). In the Lower Laguna Madre, sampling indicates *K. brevis* concentrations have increased to 'medium' from 'low' with respiratory irritation also being reported (TPWD; not shown). Detailed sample information and a summary of impacts can be obtained through Texas Parks and Wildlife Department at:

<http://www.tpwd.state.tx.us/landwater/water/enviroconcerns/hab/redtide/status.phtml>.

For information on area shellfish restrictions, contact the Texas Department of State Health Services.

Recent MODIS Aqua imagery (10/25, shown left) has been completely obscured by clouds along the Texas coast for the last several days, preventing analysis.

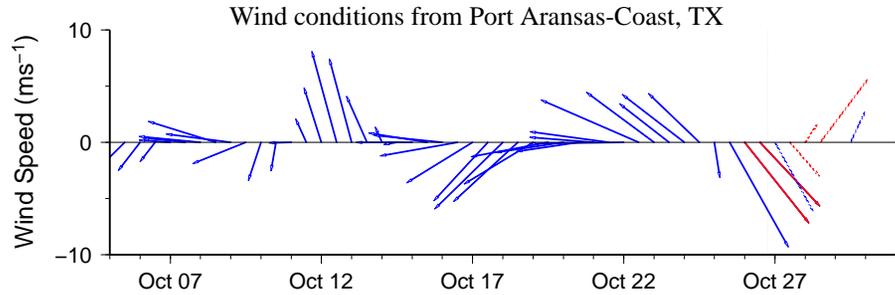
Forecast models based on predicted near-surface currents indicate a maximum bloom transport from coastal sample locations of negligible (<10 km) south from Pass Cavallo, 20km south from the Port Aransas region, and 30km south from Brazos Santiago Pass

from October 25 to October 29. -Davis, Urizar

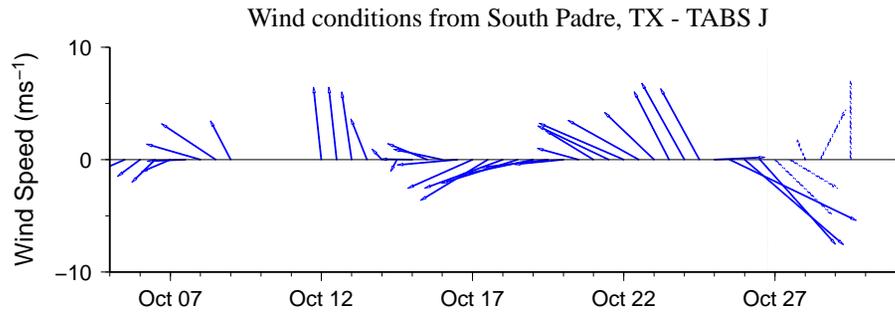
### Wind Analysis

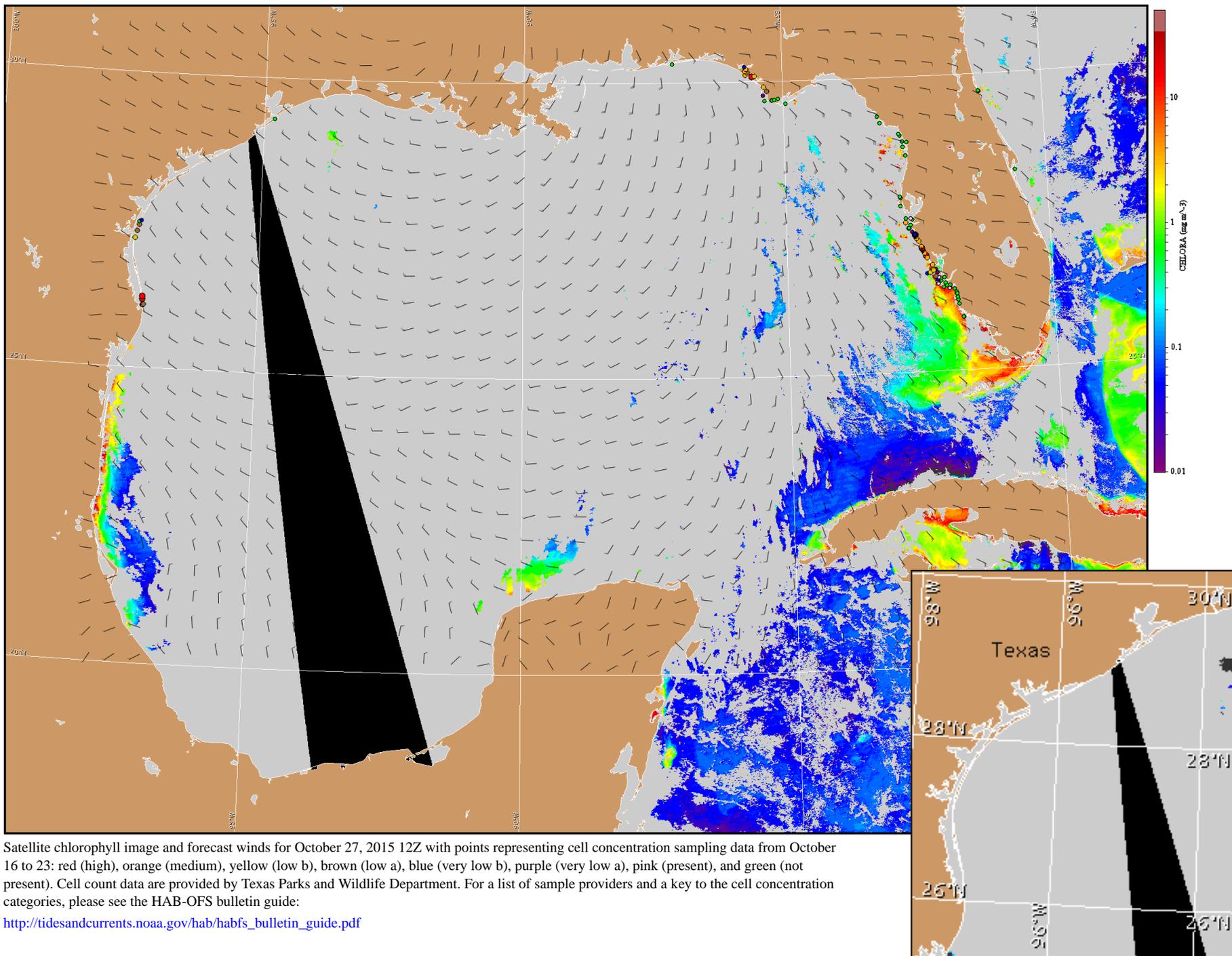
**Port Aransas to Baffin Bay:** Northwest winds (10-25kn, 5-13m/s) today and Tuesday becoming west to southwest winds (5-15kn, 3-8m/s) Tuesday afternoon and evening. Southwest to south winds (10-15kn, 5-8m/s) Wednesday and Thursday becoming south-east winds (15-20kn, 8-10m/s) Thursday night.

**Port Mansfield to the Rio Grande:** Northwest winds (7-21kn, 4-11m/s) today through Tuesday becoming southeast to south winds (7-13kn, 4-7m/s) Tuesday night. South winds (7-22kn, 4-11m/s) Wednesday 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 October 27, 2015 12Z with points representing cell concentration sampling data from October 16 to 23: 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 Texas Parks and Wildlife Department. 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/habfs\\_bulletin\\_guide.pdf](http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf)

Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).