



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

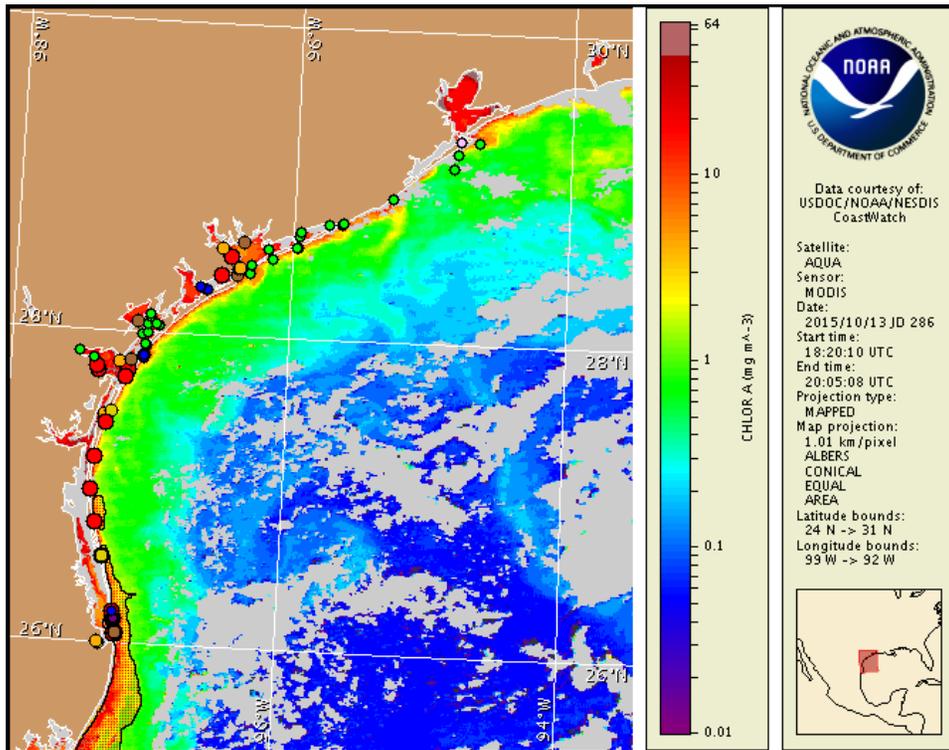
Thursday, 15 October 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Tuesday, October 13, 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 5 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 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

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 Galveston 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 Thursday, October 15 through Monday, October 19 is listed below:

Region: Forecast (Duration)

Bay region-Matagorda Bay: High (Th-M)

Bay region-San Antonio Bay to Espiritu Santo Bay: High (Th-M)

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

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

Aransas Pass to PINS region: Moderate (Th-F, M), High (Sa-Su)

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

Padre Island National Seashore region: High (Th-M)

Bay region-Lower Laguna Madre to Laguna Vista: Moderate (Th-M)

Mansfield Pass to Beach Access 6 region: High (Th-M)

Beach Access 6 to Rio Grande region: High (Th-M)

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

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations. Dead fish and discolored water have been reported in Corpus Christi Bay.

Analysis

Karenia brevis concentrations range from 'not present' to 'high' from Galveston Bay to the Rio Grande, with the highest concentrations in the following regions: Matagorda Bay, San Antonio Bay to Espiritu Santo Bay, Corpus Christi Bay, and Padre Island National Seashore (TPWD; 10/12-14). Recent samples indicate that up to 'high' *K. brevis* concentrations are present in Matagorda Bay and the San Antonio Bay to Espiritu Santo Bay regions (TPWD; 10/13-14). Samples collected along Padre Island National Seashore identified up to 'high' *K. brevis* concentrations, with the highest concentrations collected from the 0 mile marker south to the 45 mile marker (TPWD; 10/13). *K. brevis* samples collected along the coast of South Padre Island and in the Lower Laguna Madre indicate a recent decrease in concentration and now range between 'very low a' and 'medium', with the highest samples collected from Brazos Santiago Pass, N Jetty (TPWD; 10/13-14). 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.

In recent MODIS Aqua imagery (10/13, shown left), patches of elevated to very high chlorophyll (2 to >20 $\mu\text{g/L}$) are present alongshore the Texas coast from the Matagorda Peninsula region to south of the Rio Grande. The largest patch with the highest chlorophyll levels is visible stretching along- and offshore from the Padre Island National Seashore Mile Marker 15 region to over 300 km south of the Rio Grande.

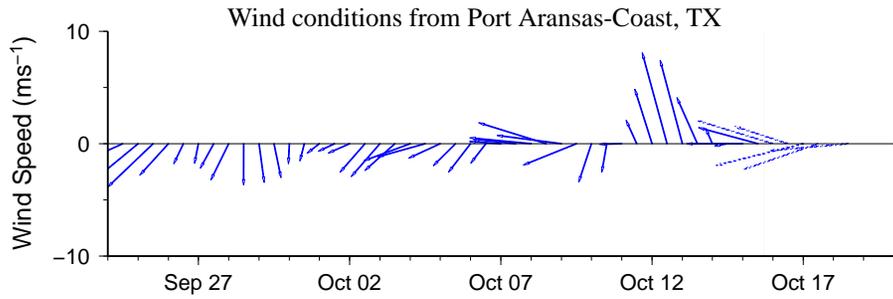
Forecast models based on predicted near-surface currents indicate a maximum bloom transport from coastal sample locations of 70 km south from Pass Cavallo, 60 km south from the Port Aransas region, and 40 km south from Brazos Santiago Pass from October 13 to October 18.

Kavanaugh, Yang

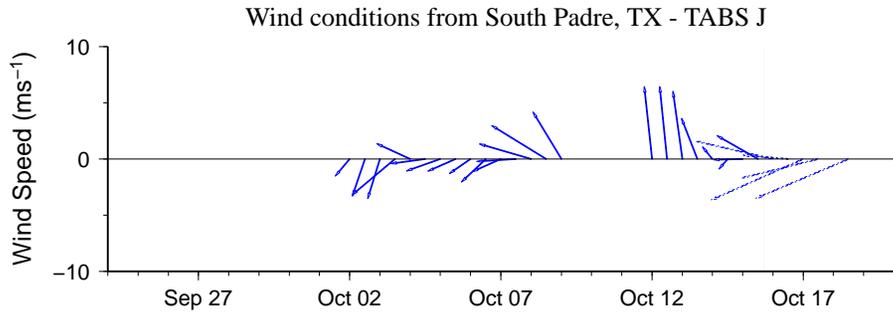
Wind Analysis

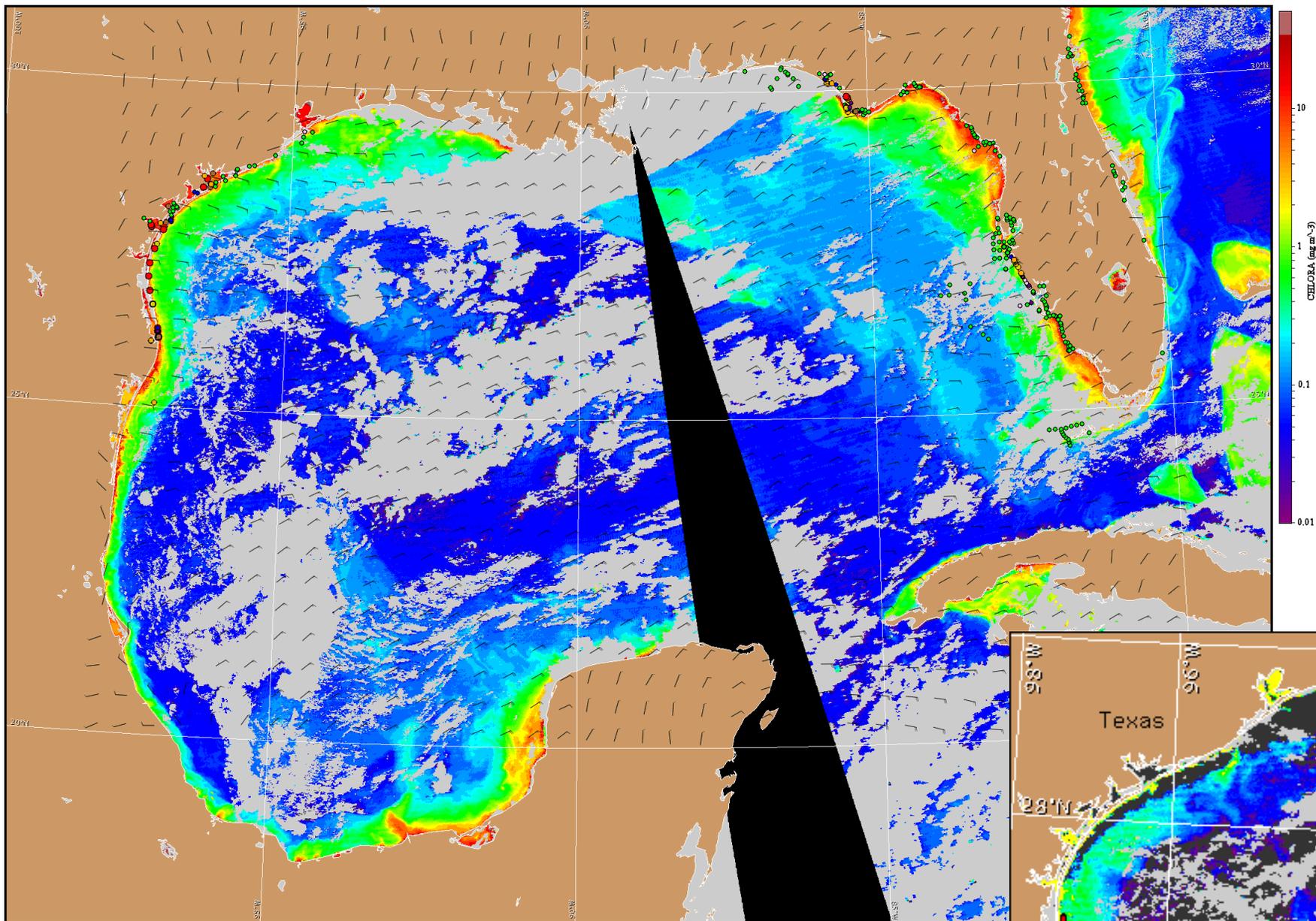
Port Aransas to Baffin Bay: East winds (10-20kn, 5-10m/s) today through Monday night.

Port Mansfield to the Rio Grande: East winds (7-17kn, 4-9m/s) today through Monday.



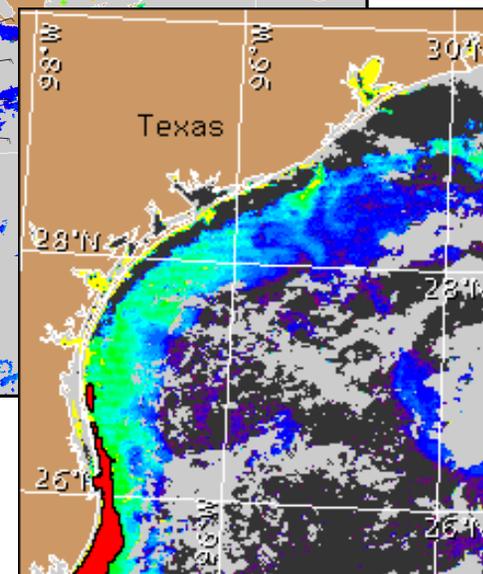
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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





Satellite chlorophyll image and forecast winds for October 16, 2015 12Z with points representing cell concentration sampling data from October 5 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 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:

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