Gulf of Mexico Harmful Algal Bloom Bulletin
Region: Texas
Monday, 30 September 2013
NOAA National Ocean Service
NOAA Satellite and Information Service
NOAA National Weather Service
Last bulletin: Thursday, September 26, 2013

Conditions Report
Not present to very low concentrations of *Karenia brevis* (commonly known as Texas red tide) are present along the coast of Texas. *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, September 30 to Thursday, October 3 is listed below:

Region: Forecast (Duration)
Port Aransas/Mustang Island to Padre Island National Seashore region: Very Low (M-Th)
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. Health information, from the Texas Department of State Health Services and other agencies, is available at [http://tidesandcurrents.noaa.gov/hab/hab_health_info.html](http://tidesandcurrents.noaa.gov/hab/hab_health_info.html). No reports of respiratory irritation or dead fish have been received over the past few days.

There are currently patches of a bloom of the algae *Aureoumbra lagunensis* in the upper Laguna Madre region. This algae species does not produce the respiratory irritation associated with the Texas red tide caused by *Karenia brevis*, but it may cause discolored water and fish kills.

Analysis
No new samples have been received from the Galveston Island, Galveston Bay, and Bolivar Peninsula regions since September 19, when samples indicated that *K. brevis* concentrations were ‘not present’ (TPWD). Texas A&M University’s Imaging Flow Cytobot continues to indicate *K. brevis* concentrations ranging between ‘not present’ and ‘very low’ a at Port Aransas (TAMU, TPWD; 9/30). No new samples have been received from the PINS region since September 18, when samples collected indicated that *K. brevis* concentrations ranged between ‘not present’ and ‘very low b’ (TPWD). No impacts have been reported from anywhere along the Texas coast over the last few days (TPWD; 9/27-30).

Recent MODIS Aqua imagery (9/28, shown left) is partially obscured by clouds along- and offshore from the Sabine Pass region to Port Aransas, limiting analysis. Elevated chlorophyll (2 to 10 µg/L) is visible in patches along- and offshore from the Matagorda Peninsula region to the Rio Grande, with patches of high to very high chlorophyll (10 to >20 µg/L) visible along- and offshore from the Matagorda Peninsula region to Port Aransas. Elevated chlorophyll is most likely not indicative of the presence of *K. brevis* and is probably due to the resuspension of benthic chlorophyll and sediments along the coast.

Forecast models based on predicted near-surface currents indicate a maximum transport of *K. brevis* concentrations from coastal sample locations of 20 km south from the Port Aransas region from September 28 to October 3.

Derner, Urizar
Wind Analysis

**Port Aransas**: North winds (5kn, 3m/s) today shifting east in the afternoon. South winds (5-10kn, 3-5m/s) tonight through Tuesday shifting southeast (5-15kn, 3-8m/s) Tuesday night through Thursday.
Satellite chlorophyll image and forecast winds for October 1, 2013 12Z with points representing cell concentration sampling data from September 20 to 27: 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

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