Karenia brevis (commonly known as Texas red tide) ranges from not present to high concentrations along the Texas coast in the Port Aransas/Mustang Island to Rio Grande regions. 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 26 through Thursday, September 29 is listed below:

**County Region:** Forecast (Duration)
**Aranas Pass to PINS region:** Low (M-Th)
**Padre Island National Seashore region:** Moderate (M-Th)
**Mansfield Pass to Beach Access 6 region:** Moderate (M-Th)
**Beach Access 6 to Rio Grande region:** High (M-Th)
**Bay region-Lower Laguna Madre to Laguna Vista:** High (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. Over the past few days, reports of dead fish have been received from the Lower Laguna Madre to Laguna Vista bay region and alongshore the Beach Access 6 to Rio Grande region. Reports of respiratory irritation have been received from the Padre Island National Seashore and Beach Access 6 to Rio Grande regions.

**Analysis**
Karenia brevis concentrations range between ‘not present’ and ‘high’ along the Texas coast (TPWD; 9/21-23). In the Aransas Pass to Padre Island National Seashore (PINS) region, sampling from the Texas A&M University’s Imaging FlowCytobot, located on the Port Aransas ship channel, indicates that K. brevis concentrations have decreased to between ‘not present’ and ‘background’ from ‘very low a’ (TAMU; 9/22-26). Along the PINS region, samples collected between the Malaquite Visitor Center and mile marker 60 indicated K. brevis concentrations range between ‘low a’ and ‘high’ with the highest concentration located along the southern end of PINS at mile marker 60 (TPWD; 9/23). In the Lower Laguna Madre to Laguna Vista Bay region, recent sampling indicated up to ‘medium’ K. brevis concentrations with the highest sample collected at the west end of Queen Isabella Causeway (TPWD; 9/22-23). Alongshore the Beach Access 6 to Rio Grande region, recent sampling indicates K. brevis concentrations range between ‘medium’ and ‘high’ with the highest sample detected at the Brazos Santiago Jetty (TPWD; 9/22-23). 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/environconcerns/hab/redtide/status.phtml](http://www.tpwd.state.tx.us/landwater/water/environconcerns/hab/redtide/status.phtml). For information on area shellfish restrictions, contact the Texas Department of State Health Services.

Recent MODIS Aqua imagery (9/24; shown left) is completely obscured by clouds along the Texas coast from Sabine Pass to Mustang Island, limiting analysis. Patches of elevated to very high chlorophyll (2 to >20 µg/L) are visible along- and offshore from Padre Island National Seashore to approximately 120 km south of the Rio Grande. Along the Texas coast, chlorophyll appears to be highest from Mansfield Pass to the Rio Grande and extending up to 65 km offshore. Continued sampling of this region is recommended.

Satellite chlorophyll image with possible K. brevis HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from September 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/hab_publication/habfs_bulletin_guide.pdf](http://tidesandcurrents.noaa.gov/hab/hab_publication/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/environconcerns/hab/redtide/status.phtml](http://www.tpwd.state.tx.us/landwater/water/environconcerns/hab/redtide/status.phtml)
Forecast models based on predicted near-surface currents indicate a maximum transport of 40 km south from the Port Aransas region, 30 km south from PINS Mile Marker #15, and 30 km north from Brazos Santiago Pass from September 24-29.

Davis, Kavanaugh

**Wind Analysis**

**Baffin Bay to Port Aransas**: Northeast winds (10-15kn, 5-8m/s) this afternoon through tonight. North winds (10-15kn) Tuesday becoming northeast winds (5-15kn, 3-8m/s) Tuesday evening through Thursday night.

**Baffin Bay to Port Mansfield**: Northeast winds (9-17kn, 5-9m/s) today through Thursday night.
Satellite chlorophyll image and forecast winds for September 27, 2016 12Z with points representing cell concentration sampling data from September 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/hab_publication/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).