



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

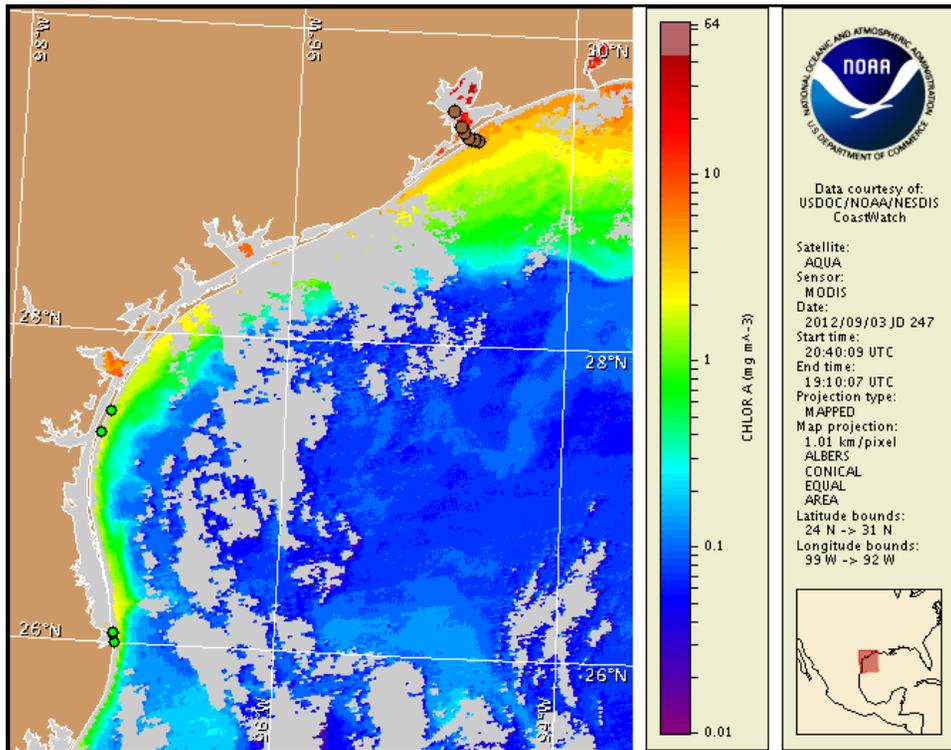
Tuesday, 04 September 2012

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, August 30, 2012



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from August 26 to 30 shown as red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data 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/environconcerns/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

A patchy harmful algal bloom of *Karenia brevis* (commonly known as Texas red tide) is present along the Texas coast, in the Galveston region. Patchy low respiratory impacts are possible in the Galveston region today through Wednesday. No additional respiratory impacts are expected at the coast in Texas today through Wednesday, September 5. For information on area shellfish restrictions, contact the Texas Department of State Health Services.

Analysis

In the Galveston region, a harmful algal bloom of *Karenia brevis* remains, but recent sampling indicates that concentrations may be decreasing from previously identified 'very low b' to 'medium' concentrations (TPWD; 8/20-28). 'Low a' concentrations of *K. brevis* were identified from eight samples collected within the lower Galveston Bay and Bolivar Roads Pass (TPWD; 8/28).

In the Padre Island region, three samples collected last week alongshore Padre Island National Seashore indicate that *K. brevis* is not present in the area (TPWD; 8/27-28).

In the South Padre Island region, a harmful algal bloom of *K. brevis* was last identified, from 'low a' to 'low b' samples collected from both the gulfside and within the lower Laguna Madre, on August 24; however, no *K. brevis* was identified from additional samples collected early last week (TPWD; 8/24-28). Strong near-surface currents over the past week may have contributed to the dissipation of *K. brevis* concentrations alongshore the South Padre Island area.

Recent MODIS imagery (9/3; shown left) is partially obscured by clouds along- and offshore the Texas coast from the Freeport to Matagorda Island regions, limiting analysis. Elevated chlorophyll (2 to 8 $\mu\text{g/L}$) is visible stretching along- and offshore from Sabine Pass to the San Luis Pass region. Elevated chlorophyll is not necessarily indicative of the presence of *K. brevis* and could also be due to the resuspension of benthic chlorophyll and sediments along the coast. In situ sampling is necessary to confirm the presence of *K. brevis*.

Forecast models based on predicted near-surface currents indicate a maximum bloom transport from coastal sample locations of 60 km north from both the Galveston and Boca Chica Beach regions and a potential transport of 40 km north from the Port Aransas region from September 3-7.

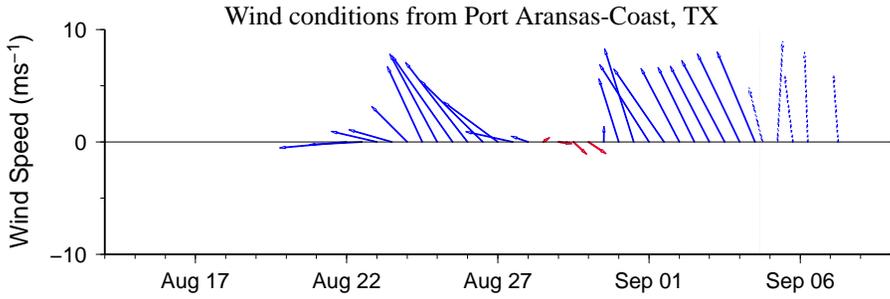
Kavanaugh, Davis

Wind Analysis

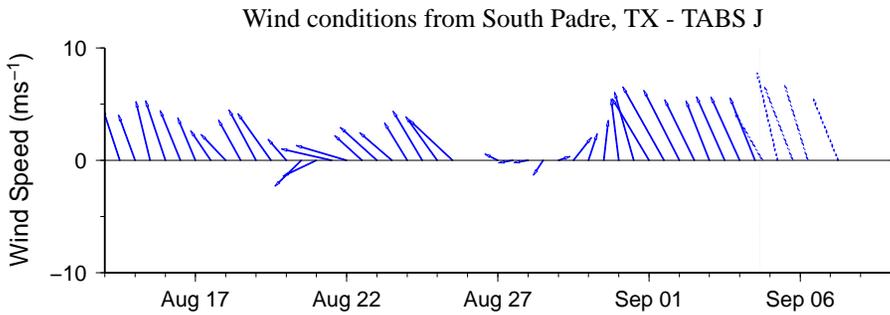
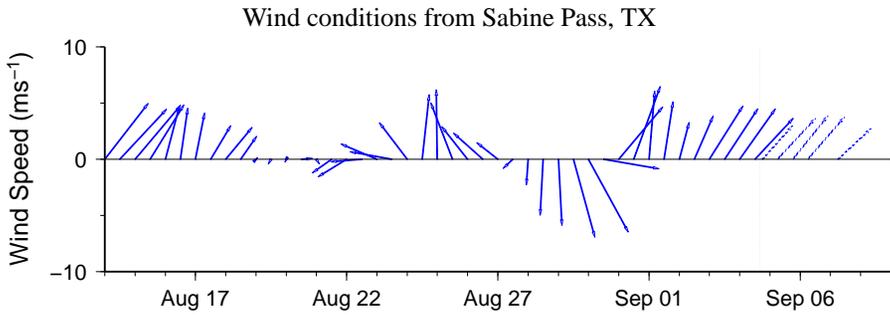
Galveston: South winds (5-15 kn, 3-8 m/s) today through Wednesday becoming southwest winds (10-15 kn, 5-8 m/s) Wednesday night.

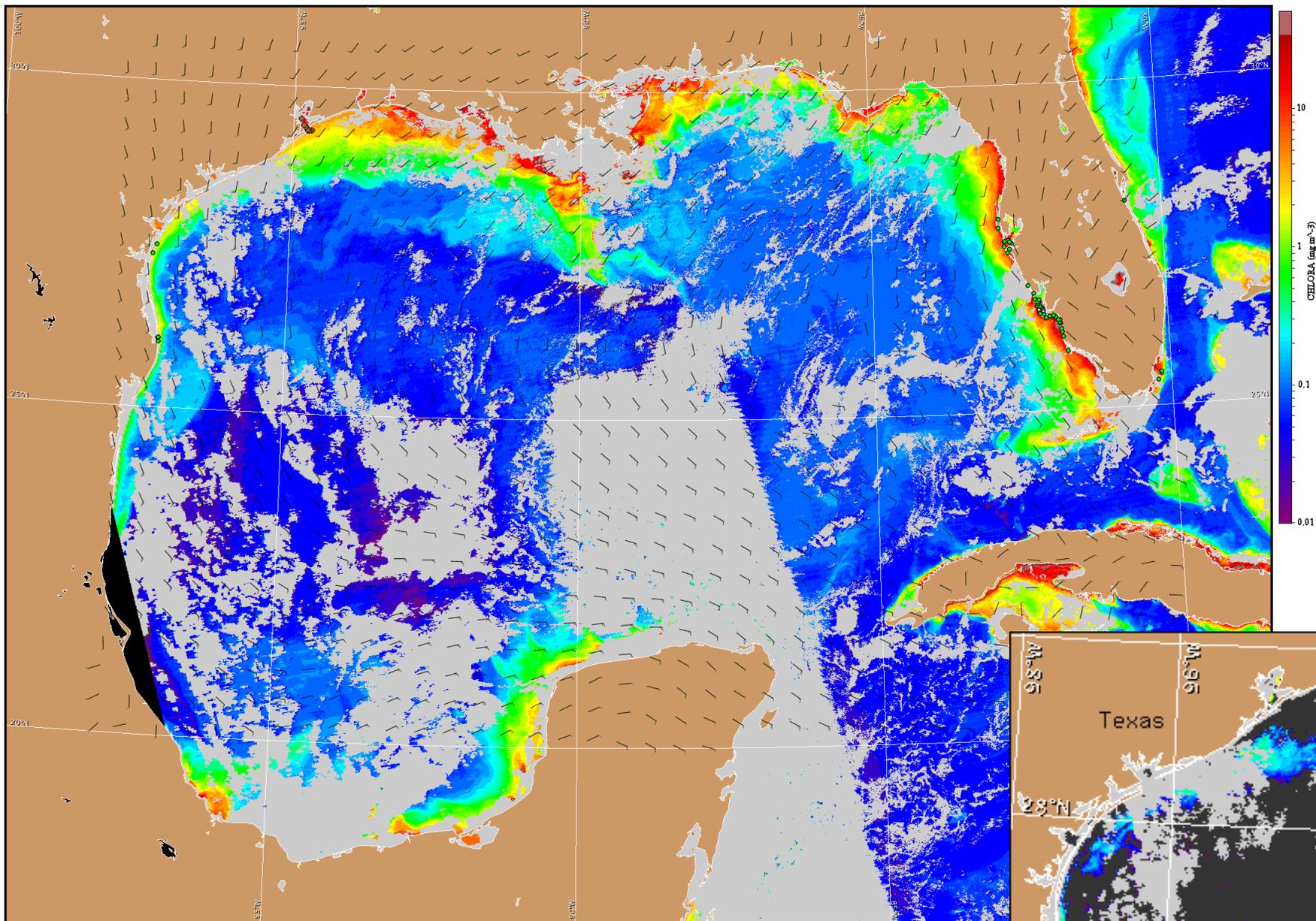
Port Aransas: South winds (10-20 kn, 5-10 m/s) today through Wednesday.

South Padre: Southeast winds (15 kn, 8 m/s) today becoming south winds tonight. Southeast winds (15 kn) Wednesday.



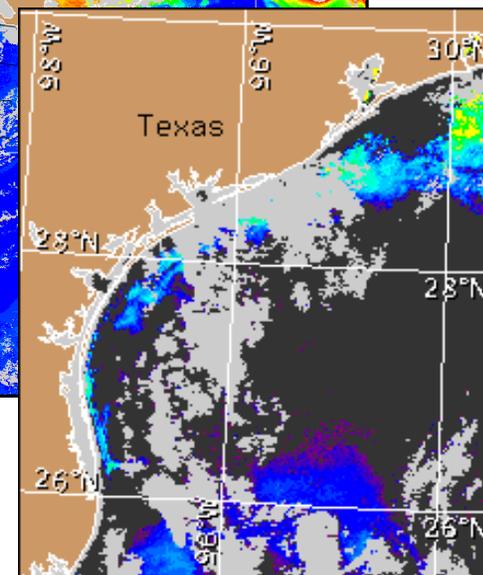
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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





Satellite chlorophyll image and forecast winds for September 5, 2012 06Z with cell concentration sampling data from August 26 to 30 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data 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).