



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

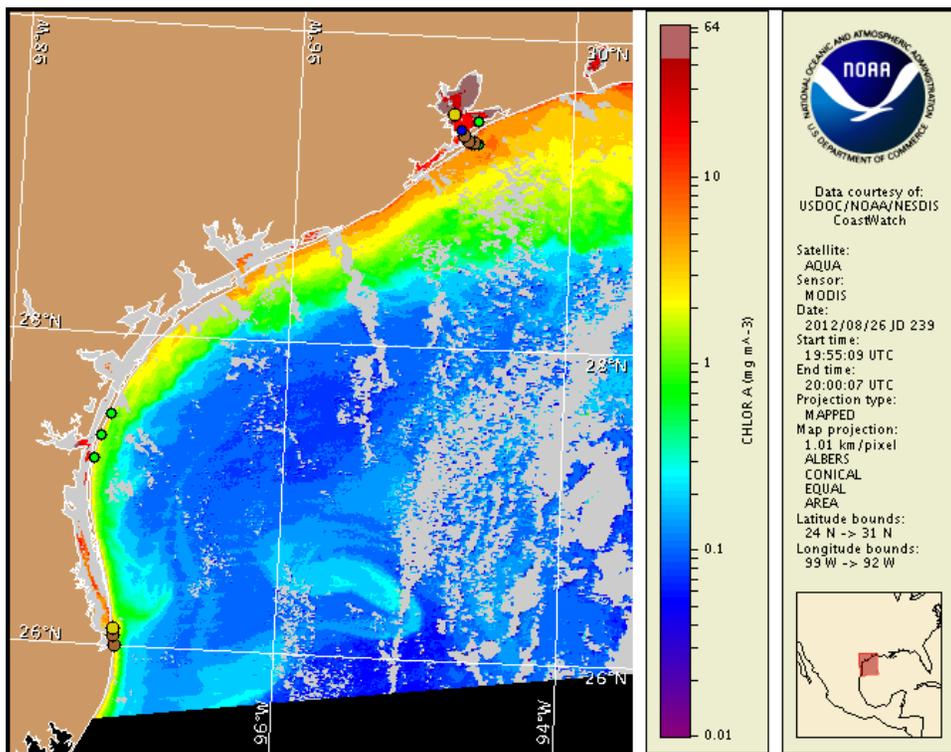
Monday, 27 August 2012

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Friday, August 24, 2012



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from August 18 to 24 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/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

A patchy harmful algal bloom of *Karenia brevis* (commonly known as Texas red tide) has been identified along the Texas coast, in the South Padre Island region and is also present in the Galveston region. Patchy very low respiratory impacts are possible in the Galveston region today through Wednesday. In the South Padre Island area, patchy moderate respiratory impacts are possible today, with patchy very low impacts possible Tuesday through Wednesday. No additional respiratory impacts are expected at the coast in Texas today through Wednesday, August 29. For information on area shellfish restrictions, contact the Texas Department of State Health Services.

Analysis

A harmful algal bloom of *Karenia brevis* remains present in the South Padre Island region, both on the gulfside and within the lower Laguna Madre. Samples collected on Friday (8/24) indicate a 'low a' concentration of *K. brevis* at the Sea Ranch Marina in the lower Laguna Madre and a 'low b' concentration at Gay Dawn Circle on the gulfside of South Padre Island (TPWD; 8/24). No fish kills or other impacts were reported from the South Padre Island area over the weekend.

No recent samples have been received from the Galveston region where previous samples indicated 'very low b' to 'medium' concentrations of *K. brevis* (TPWD; 8/20-8/24).

Recent MODIS imagery (8/26; shown left) is partially obscured by clouds alongshore the Matagorda Peninsula to the Padre Island region, limiting analysis. Elevated chlorophyll (3 to $10 \mu\text{g/L}$) is visible stretching along- and offshore from Sabine Pass to Cavallo Pass. 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 <math><10 \text{ km}</math> (negligible transport) from the Galveston region, 50 km north from the Boca Chica Beach region, and a potential transport of <math><10 \text{ km}</math> (negligible transport) from the Port Aransas region from August 24-30.

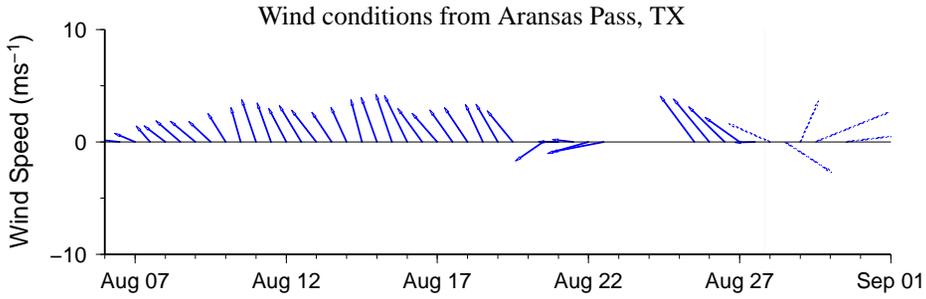
Davis, Kavanaugh

Wind Analysis

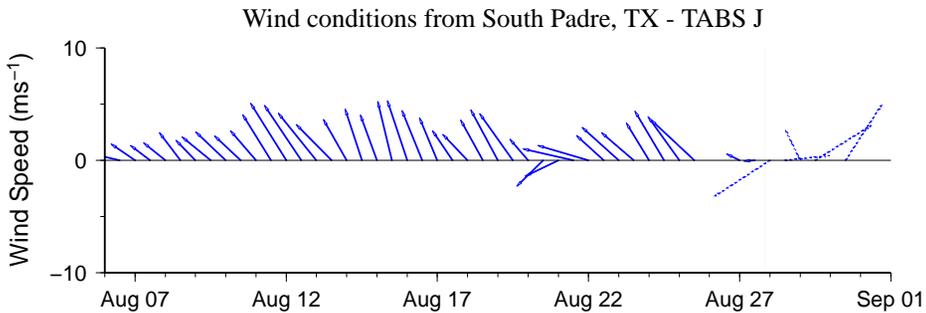
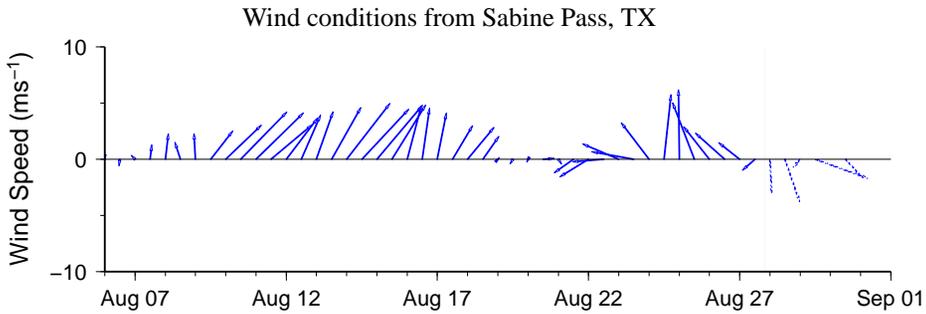
Galveston: Northeast winds (5-10kn, 3-5 m/s) today becoming north winds (5-10 kn) tonight increasing to 10-15 kn (5-8 m/s) after midnight. North winds (10-15 kn) Tuesday becoming northwest winds (5-10 kn) in the afternoon. West winds (10-15 kn) Tuesday night becoming northwest after midnight. Northwest to west winds (10-15 kn) Wednesday.

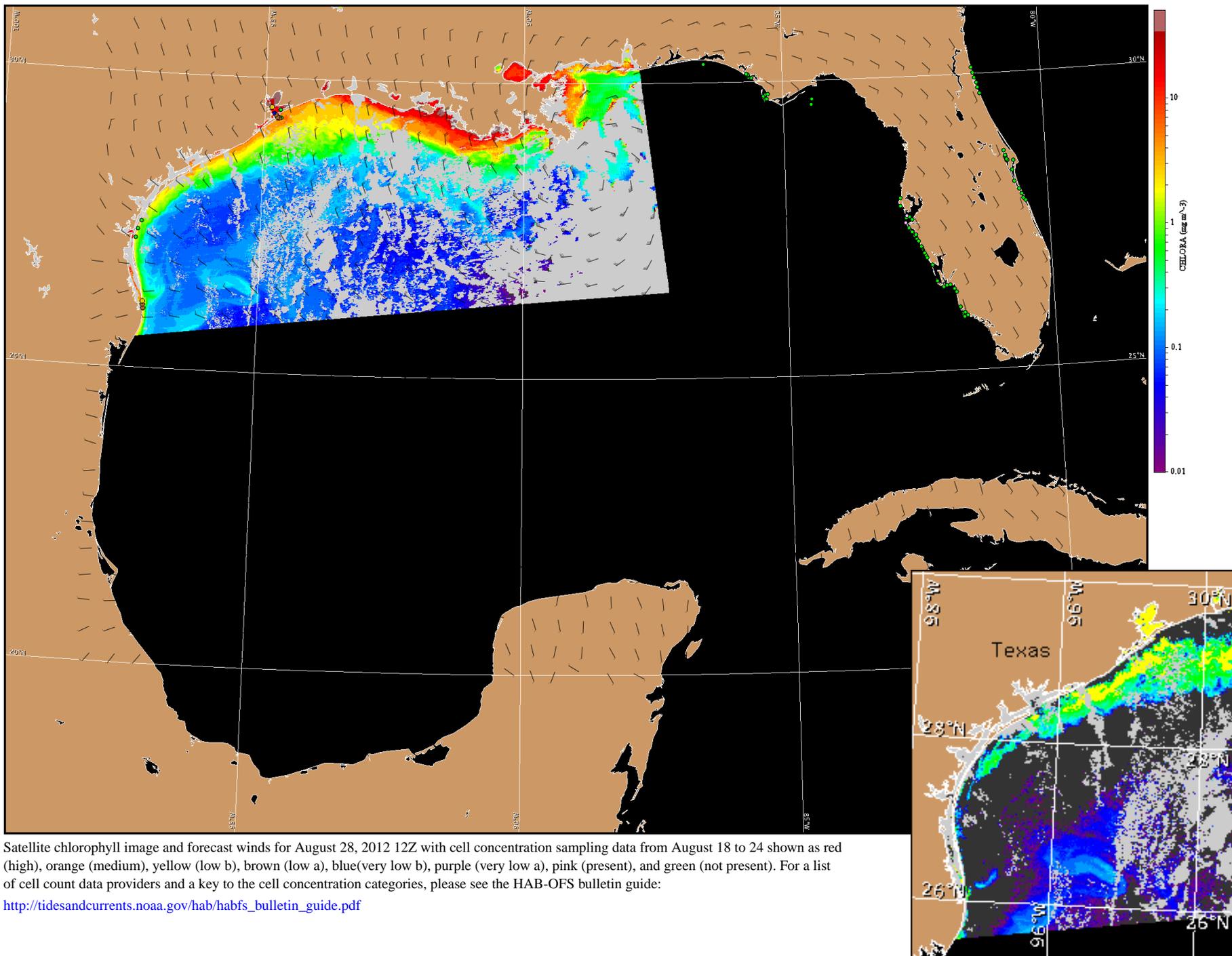
Port Aransas: Northeast winds (5-10 kn) today becoming east winds (5-10 kn) this afternoon. Southeast winds (5-10 kn) tonight becoming west winds after midnight. North winds (5-10) Tuesday becoming northwest (5-10 kn) Tuesday evening. North winds (10-15 kn) Wednesday. Northwest winds (5-10 kn) Wednesday night.

South Padre: Light winds becoming northeast winds (10 kn, 5 m/s) today. East winds (10 kn) tonight becoming light winds. North winds (10 kn) on Tuesday becoming light winds in the evening. West winds (10 kn) on 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 August 28, 2012 12Z with cell concentration sampling data from August 18 to 24 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).