Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

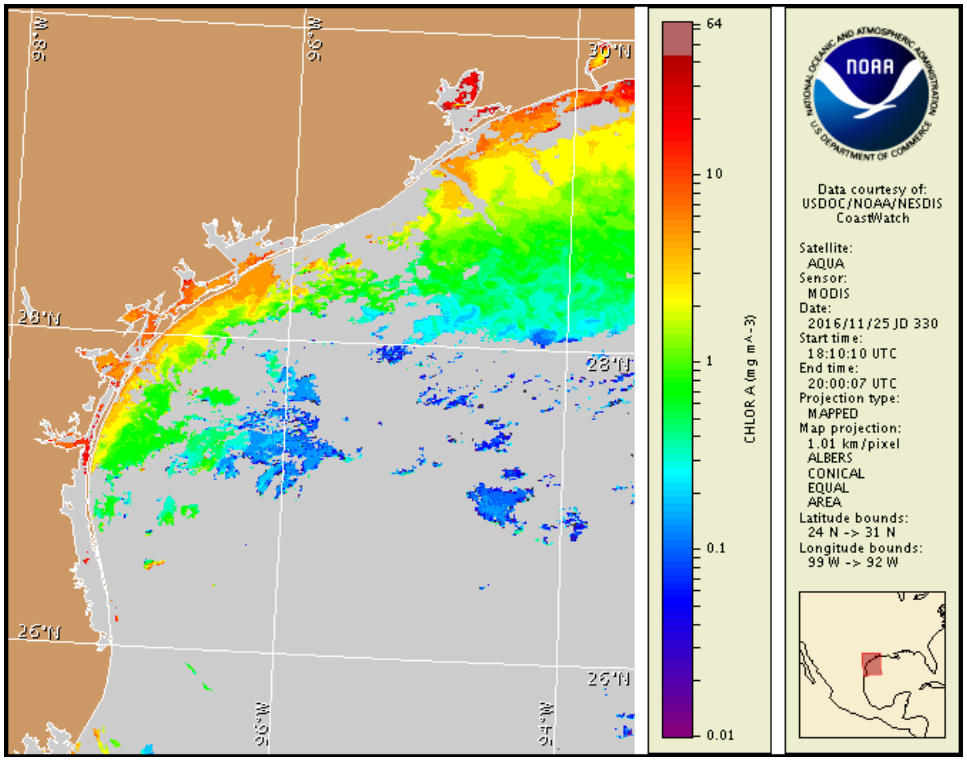
Monday, 28 November 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, November 21, 2016



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from November 18 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

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

Karenia brevis (commonly known as Texas red tide) ranges from not present to low concentrations along the coast of Texas. No respiratory irritation is expected alongshore Texas Monday, November 28 through Monday, December 5.

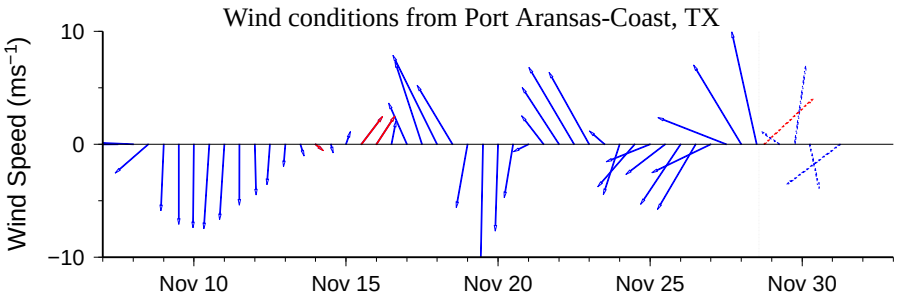
Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations.

Analysis

Data from Texas A&M University's Imaging FlowCytobot (IFCB), located on the Port Aransas ship channel, is currently unavailable. However, previous sampling indicated *Karenia sp.* concentrations ranging from 'not present' to 'low a' (TAMU; 11/14-11/21). The IFCB estimates *Karenia brevis* concentrations as well as *K. mikimotoi* and *K. papilionacea*. For information on area shellfish restrictions, contact the Texas Department of State Health Services.

Recent ensemble imagery (MODIS Aqua, 11/25; shown left) is partially obscured by clouds along the Texas coast limiting analysis. Elevated to high chlorophyll (2-19μg/L) is visible along- and offshore from Sabine Pass to the Padre Island National Seashore region. Elevated chlorophyll is not indicative of the presence of *K. brevis* and is most likely due to the resuspension of benthic chlorophyll and sediments along the coast.

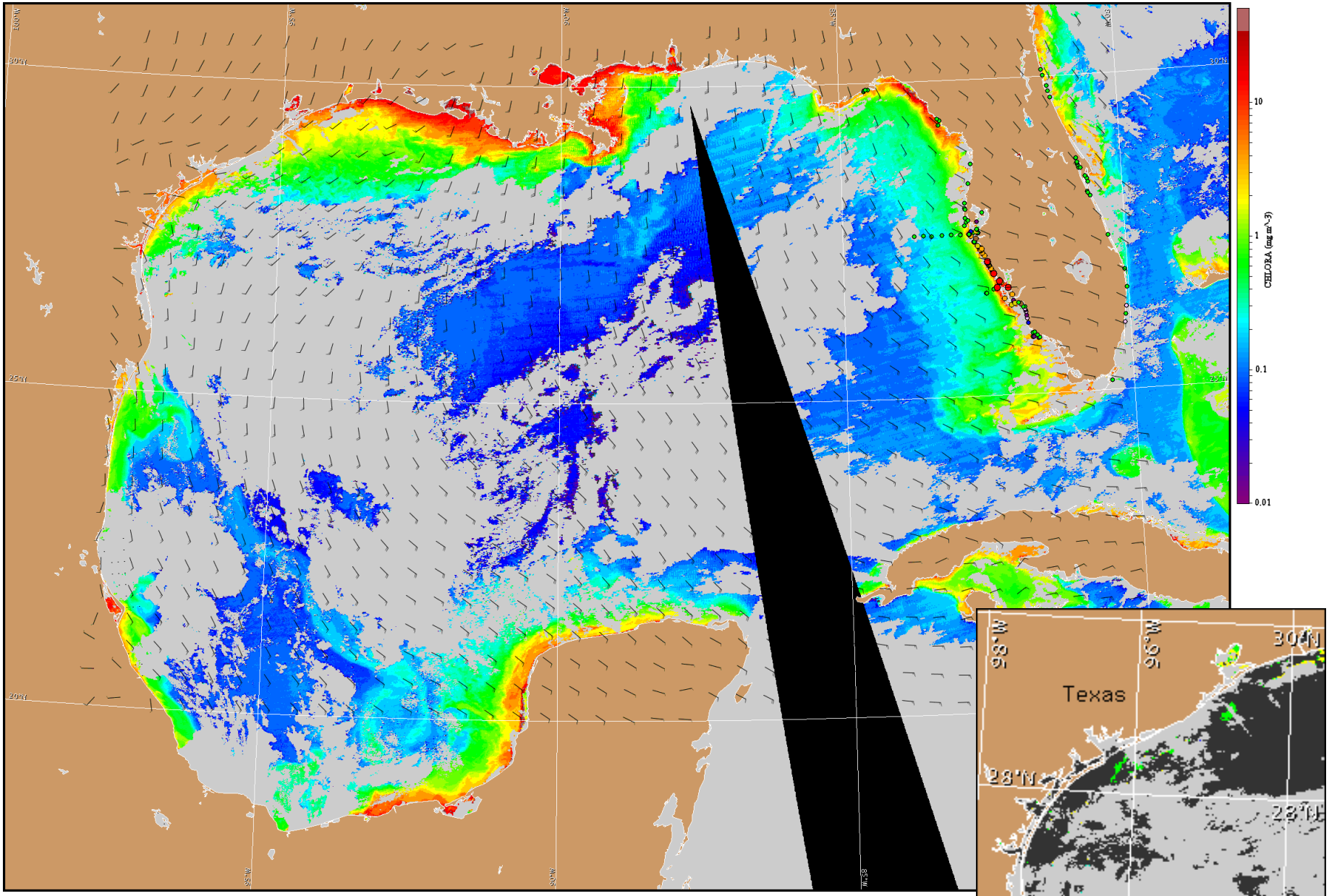
Forecast models based on predicted near-surface currents indicate a potential maximum transport of 75 km south from the Port Aransas region from November 25 to December 1. Lalime, Kavanaugh



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).

Wind Analysis

Port Aransas to Matagorda Ship Channel: South winds (20-25kn, 10-13m/s) today becoming southwest (5-20kn, 3-10m/s) this afternoon through tonight. Southeast to south winds (10-15kn, 5-8m/s) Tuesday. West winds (5-10kn, 3-5m/s) Tuesday night becoming northwest (20-25kn) after midnight. North to northeast winds (10-25kn, 5-13m/s) Wednesday. East winds (10-25kn) Thursday through Friday night.



Satellite chlorophyll image and forecast winds for November 29, 2016 06Z with points representing cell concentration sampling data from November 18 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 with *K. brevis* optical characteristics shown in yellow (see p. 1 analysis for interpretation).