Gulf of Mexico Harmful Algal Bloom Bulletin

Region: AL/MS/FL

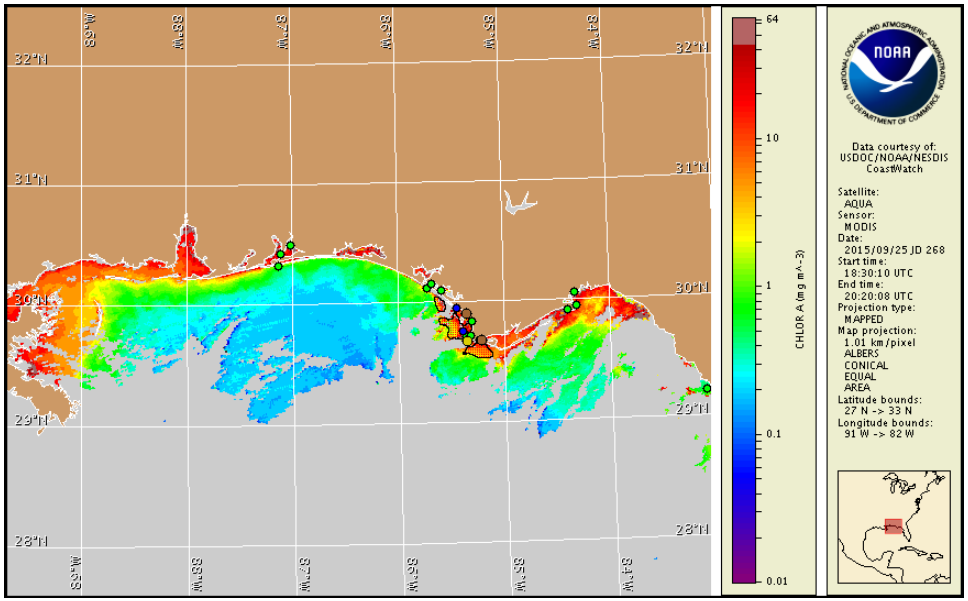
Monday, 28 September 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, September 24, 2015



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from September 18 to 24: 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 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

Detailed sample information for Florida can be obtained through FWC Fish and Wildlife Research Institute at: http://myfwc.com/redtidestatus

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit at: http://tidesandcurrents.noaa.gov/hab/bulletins.html

Conditions Report

Not present to low concentrations of *Karenia brevis* (commonly known as Florida red tide) are present along- and offshore portions of northwest Florida from Escambia to Taylor counties. *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 alongshore northwest Florida Monday, September 28 to Thursday, October 1 is listed below:

County Region: Forecast (Duration)
Bay County: Very Low (Tu-W), None (M, Th)
Gulf County: Moderate (Tu-Th), Very Low (M)
Gulf County, east bay regions-Indian Lagoon area: Low (M-Th)
All Other NWFL County Regions: None expected (M-Th)
SWFL County Regions: Visit http://tidesandcurrents.noaa.gov/hab/#swfl

Check http://tidesandcurrents.noaa.gov/hab/beach_conditions.html for recent, local observations. Health information, from the Florida Department of Health and other agencies, is available at http://tidesandcurrents.noaa.gov/hab/hab_health_info.html. No reports of respiratory irritation or fish kills have been reported over the past several days.

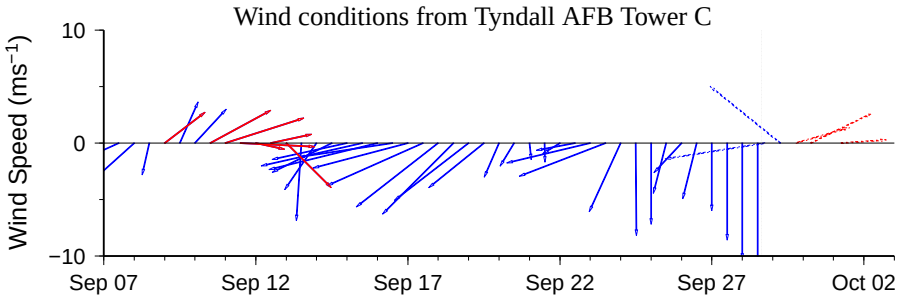
Analysis

Recent samples collected last week from along- and offshore northwest Florida (Escambia to Taylor counties) indicated not present to 'low b' concentrations of *Karenia brevis*. In Bay County, new sampling confirmed the presence of 'very low b' *K. brevis* concentrations on the east end of Crooked Island while sampling throughout St. Andrews Bay continues to indicate that *K. brevis* is not present (FWRI; 9/24). Alongshore Gulf County, sampling at Cape San Blas continues to indicate 'low b' *K. brevis* concentrations while additional sampling at Mexico Beach and on the Gulf coast west of Eagle Harbor indicated 'low a' and 'very low b' *K. brevis* concentrations, respectively (FWRI; 9/23). All other sampling alongshore, and in the bay regions of northwest Florida, continues to indicate *K. brevis* is not present. No reports of respiratory irritation or dead fish were received from alongshore northwest Florida over the weekend (FWRI, MML; 9/24-9/28).

Recent ensemble imagery (MODIS Aqua, 9/25), is partially obscured by clouds along- and offshore northwest Florida from Bay to Franklin counties, limiting analysis. A feature of elevated to very high chlorophyll (2 to >20 μg/L) with the optical characteristics of *K. brevis* is visible alongshore, and up to 10 miles offshore, northwest Florida from Bay County to Wakulla County where recent sampling indicated up to 'low b' concentrations of *K. brevis*.

North to northeast winds over the past several days may have promoted westward transport of *K. brevis* concentrations. Southwest to west winds Tuesday and Wednesday may promote eastward transport of *K. brevis* concentrations. Forecasted winds are unfavorable for intensification of *K. brevis* at the coast of northwest Florida this week.

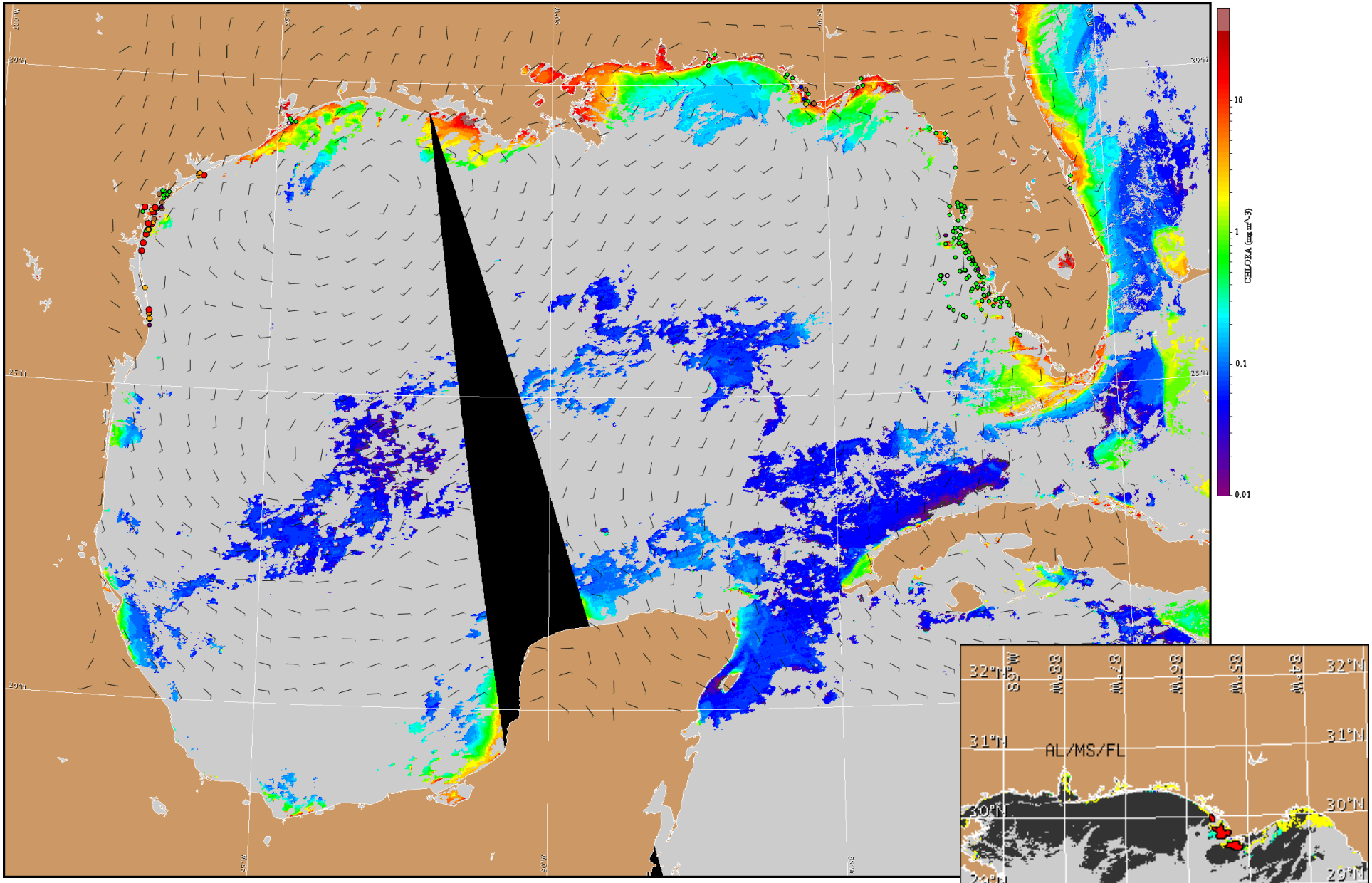
Davis, Yang



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

Escambia to Taylor counties: Southeast winds (15-20kn, 8-10m/s) today. Southwest to west winds (10-15kn, 5-8m/s) Tuesday. West to northwest winds (10kn, 5m/s) Wednesday. Northwest to north winds (10kn) Thursday.



Satellite chlorophyll image and forecast winds for September 29, 2015 06Z with points representing cell concentration sampling data from September 18 to 24: 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 sample 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 with *K. brevis* optical characteristics shown in yellow (see p. 1 analysis for interpretation).