



# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: AL/MS/FL

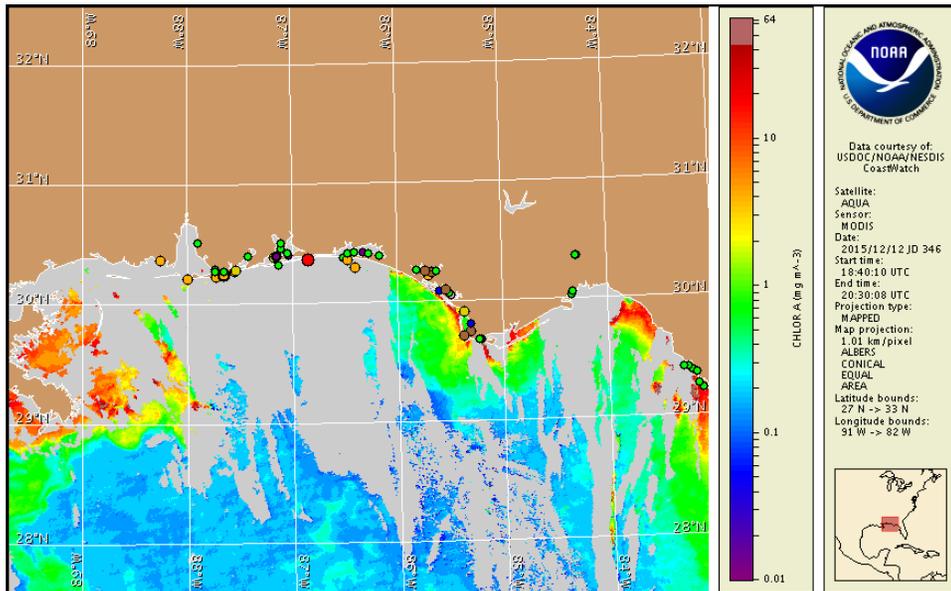
Monday, 14 December 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, December 10, 2015



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from December 4 to 10: 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](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 high concentrations of *Karenia brevis* (commonly known as Florida red tide) are present along- and offshore Harrison and Jackson counties in Mississippi; Mobile and Baldwin counties in Alabama; and portions of northwest Florida from Escambia to Franklin 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 Mississippi, Alabama, and northwest Florida Monday, December 14 to Thursday, December 17 is listed below:

**County Region: Forecast (Duration)**

**Harrison County: High (M-Th)**

**Jackson County: High (M, W), Low (Tu), Moderate (Th)**

**Mobile County: Moderate (M, W-Th), Low (Tu)**

**Baldwin County: Low (M-Tu), High (W), Moderate (Th)**

**Baldwin County, bay regions: Moderate (M, W-Th), Low (Tu)**

**Escambia County: Low (M-Tu), High (W-Th)**

**Escambia County, bay regions: Moderate (M, W-Th), Low (Tu)**

**Santa Rosa County: Low (M-Tu), High (W-Th)**

**Santa Rosa County, bay regions: Moderate (M, W-Th), Low (Tu)**

**Okaloosa County: Very Low (M-Tu), Moderate (W-Th)**

**Walton County, bay regions: Very Low (M-Th)**

**Bay County, bay regions: Moderate (M-Th)**

**Gulf County: Moderate (M, Th), Very Low (Tu-W)**

**Gulf County, west bay regions-St. Joseph Bay area: Low (M-Th)**

**Gulf County, east bay regions-Indian Lagoon area: Very Low (M-Th)**

**Franklin County, bay regions: Very 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](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](http://tidesandcurrents.noaa.gov/hab/hab_health_info.html). Reports of respiratory irritation have been received from Escambia, Okaloosa, and Gulf counties in northwest Florida over the past several days. Reports of dead fish and discolored water have been received from Jackson County, Mississippi, Mobile and Baldwin counties in Alabama, and Escambia, Okaloosa, and Gulf counties in northwest Florida.

## Analysis

Samples collected along- and offshore Mississippi, Alabama, and northwest Florida indicate background to 'high' *Karenia brevis* concentrations from Harrison County, MS to Franklin County, FL. Recent water samples from Mississippi have confirmed up to 'high' *K. brevis* concentrations along Cat Island and 'medium' concentrations at the Lighthouse Pier in Biloxi (MDMR; 12/10). 'Medium' to 'high' concentrations are also present alongshore Baldwin County, AL to Okaloosa County, FL, within Pensacola Bay, and in the bay region of Bay County, FL (ADPH, FWRI; 12/7-14). Over the past several days, reports of respiratory irritation have been received from Escambia, Okaloosa, and Gulf counties in

northwest Florida (MML, FWRI; 12/12-14). Reports of dead fish have been received from North Point Aux Chenes to Bayou Heron in Jackson County, MS, and Pensacola Beach, Henderson Beach State Park, Fort Walton Beach, and St. Joseph Bay in northwest Florida (FWRI, MDMR; 12/10-14). Discolored water has also been reported along- and offshore the coast of Mississippi (MDMR; 12/10). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: <http://myfwc.com/redtidestatus>.

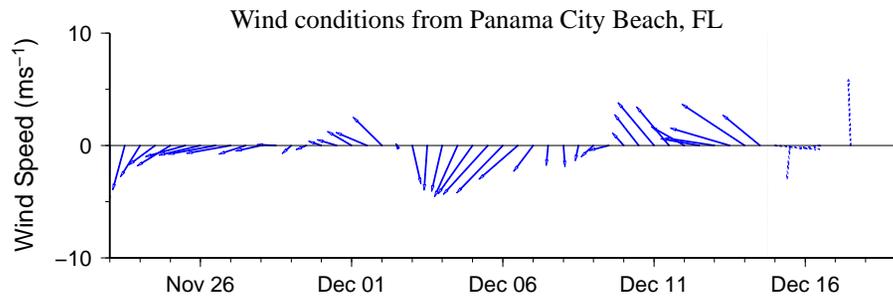
Recent ensemble imagery (MODIS Aqua, 12/12), is obscured by clouds from Louisiana to central Walton County, FL preventing analysis in that region. Patches of elevated to very high chlorophyll (2 to >20  $\mu\text{g/L}$ ) with the optical characteristics of *K. brevis* are visible along- and offshore the coast of northwest Florida from eastern Walton to Franklin counties.

Variable winds forecasted today through Thursday may minimize the potential for transport of surface *K. brevis* concentrations along the coasts of Mississippi, Alabama, and northwest Florida.

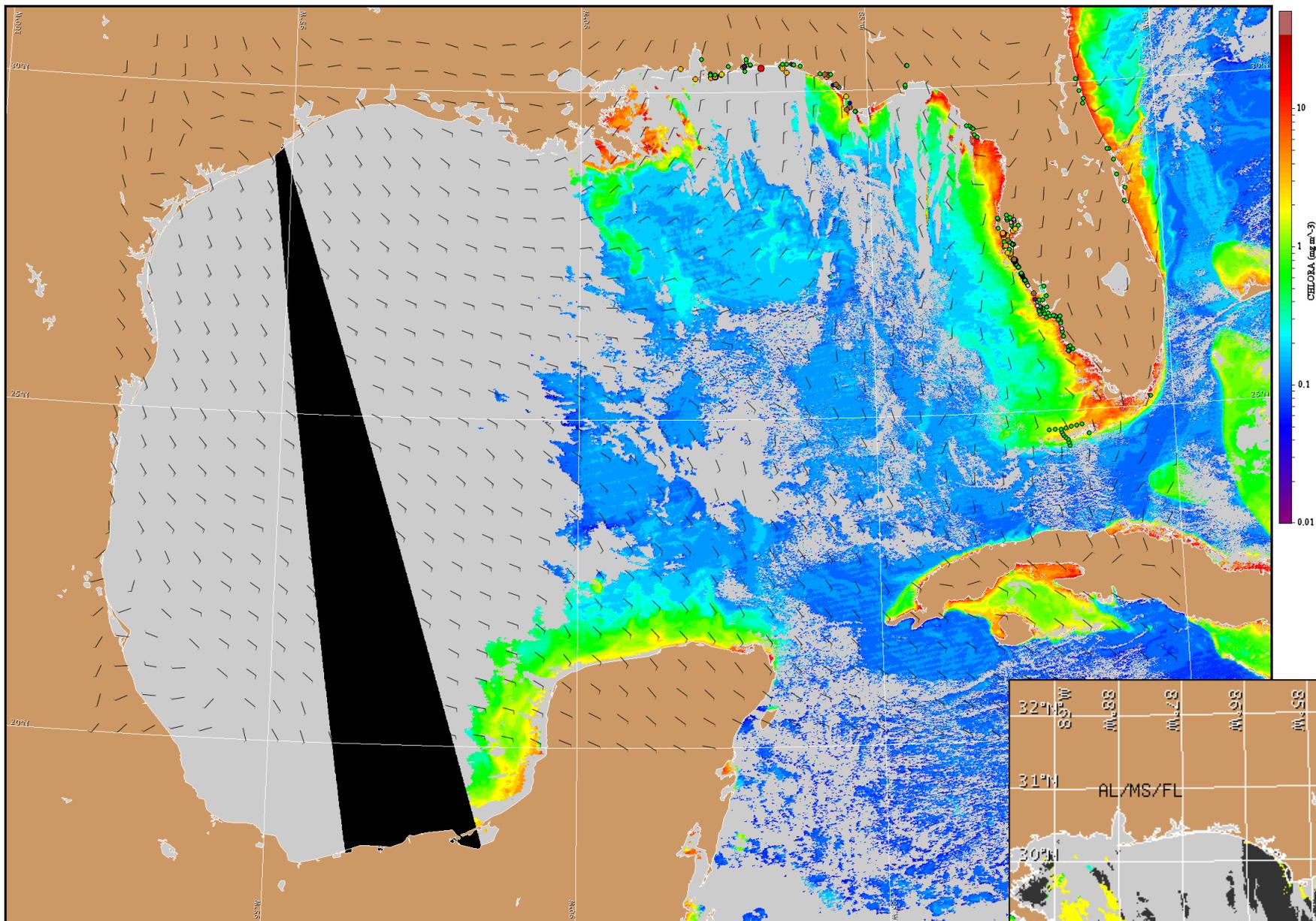
Lalime, Derner

## Wind Analysis

**Escambia to Gulf counties:** South winds (15-20kn, 8-10m/s) today becoming west (10-15kn, 5-8m/s) in the late morning and afternoon. Northwest to north winds (5-10kn, 3-5m/s) tonight. Northeast to east winds (5-10kn) Tuesday. Southeast winds (5-10kn) Tuesday night. South winds (10-15kn) Wednesday. Southwest winds (10-15kn) Thursday shifting northwest Thursday afternoon.

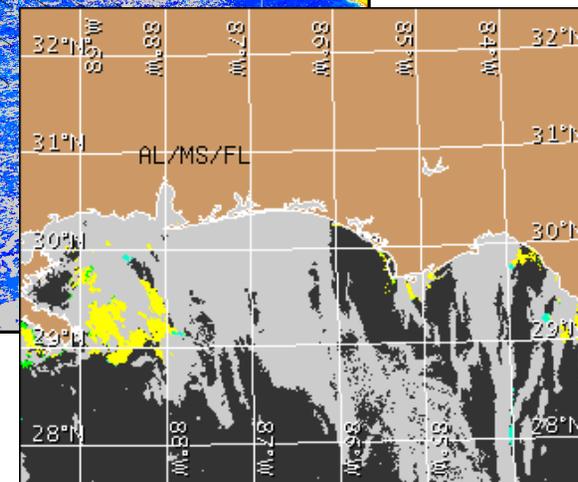


Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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



Satellite chlorophyll image and forecast winds for December 15, 2015 12Z with points representing cell concentration sampling data from December 4 to 10: 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).