Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

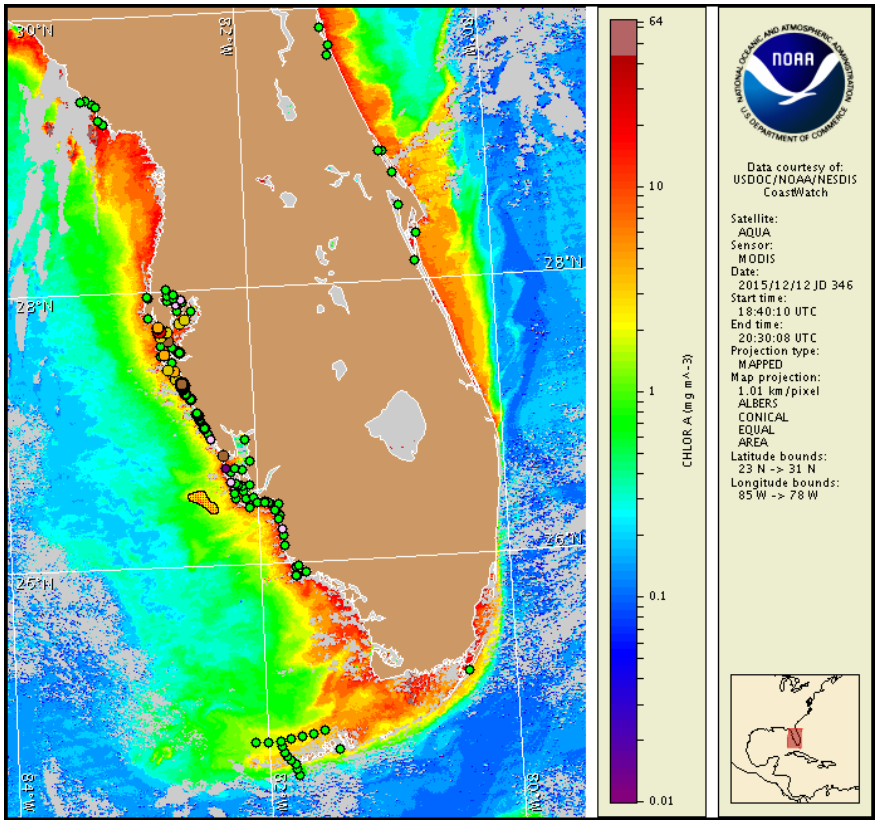
Monday, 14 December 2015

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). Cell count data are provided by Florida Fish and Wildlife Conservation Commission (FWC) Fish and Wildlife Research Institute. 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 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

Karenia brevis (commonly known as Florida red tide) ranges from not present to high concentrations along the coast of southwest Florida, and is not present in the Florida Keys. *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 Monday, December 14 through Thursday, December 17 is listed below:

County Region: Forecast (Duration)
Southern Pinellas: Moderate (M, Th), Low (Tu-W)
Southern Pinellas, bay regions: High (M-Th)
Northern Manatee, bay regions: Moderate (M-Th)
Southern Manatee, bay regions: Moderate (M-Th)
Northern Sarasota: Moderate (M-Th)
Northern Sarasota, bay regions: High (M-Th)
Southern Sarasota: Low (M-Tu, Th), Very Low (W)
Southern Charlotte, bay regions: Low (M-Th)
All Other SWFL County Regions: None expected (M-Th)
All Other NWFL County Regions: Visit http://tidesandcurrents.noaa.gov/hab/#nwfl

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. Respiratory irritation has been reported in Pinellas and Sarasota counties. Dead fish have been reported in Pinellas, Manatee, and Sarasota counties.

Analysis

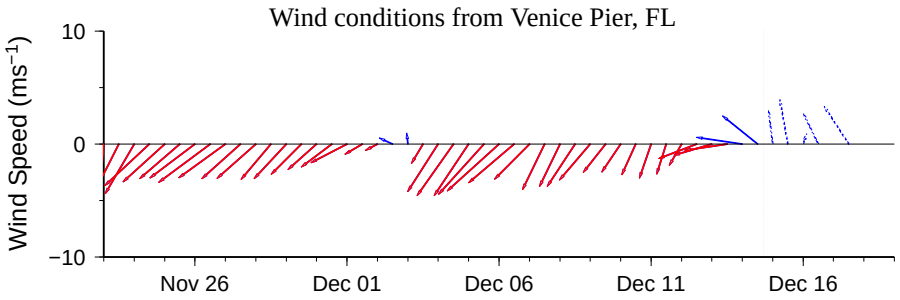
Recent samples collected along- and offshore southwest Florida indicate background to 'high' *Karenia brevis* concentrations from southern Pinellas to northern Collier counties, with the highest concentrations present alongshore the bay regions of southern Pinellas and northern Sarasota counties (FWRI, MML, SCHD, CCPCPD; 12/4-12/10). Recent samples indicate that *K. brevis* concentrations have decreased from 'high' to 'medium' alongshore Manatee County (FWRI; 12/9-10). Additional sampling identified up to 'low b' *K. brevis* concentrations within Tampa Bay, 'low a' concentrations within Gasparilla Sound, and background concentrations alongshore Englewood Beach in Charlotte County (FWRI; 12/9). All samples collected alongshore southern Lee County indicated that *K. brevis* is not present (FWRI; 12/9). Respiratory irritation has been reported in Pinellas and Sarasota counties (MML; 12/10-13). Dead fish continue to be reported from several locations in Pinellas, Manatee, and Sarasota counties. (FWRI; 12/9-11). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: http://myfwc.com/redtidestatus.

In recent ensemble imagery (MODIS Aqua, 12/12), patches of elevated to high chlorophyll (3-15 μg/L) with the optical characteristics of *K. brevis* are visible along- and offshore Pinellas to Collier counties, including a patch approximately stretching from approximately 12-23 miles offshore southern Captiva Island.

Forecasted winds today through Thursday may promote northerly transport of surface *K.*

brevis concentrations alongshore southwest Florida.

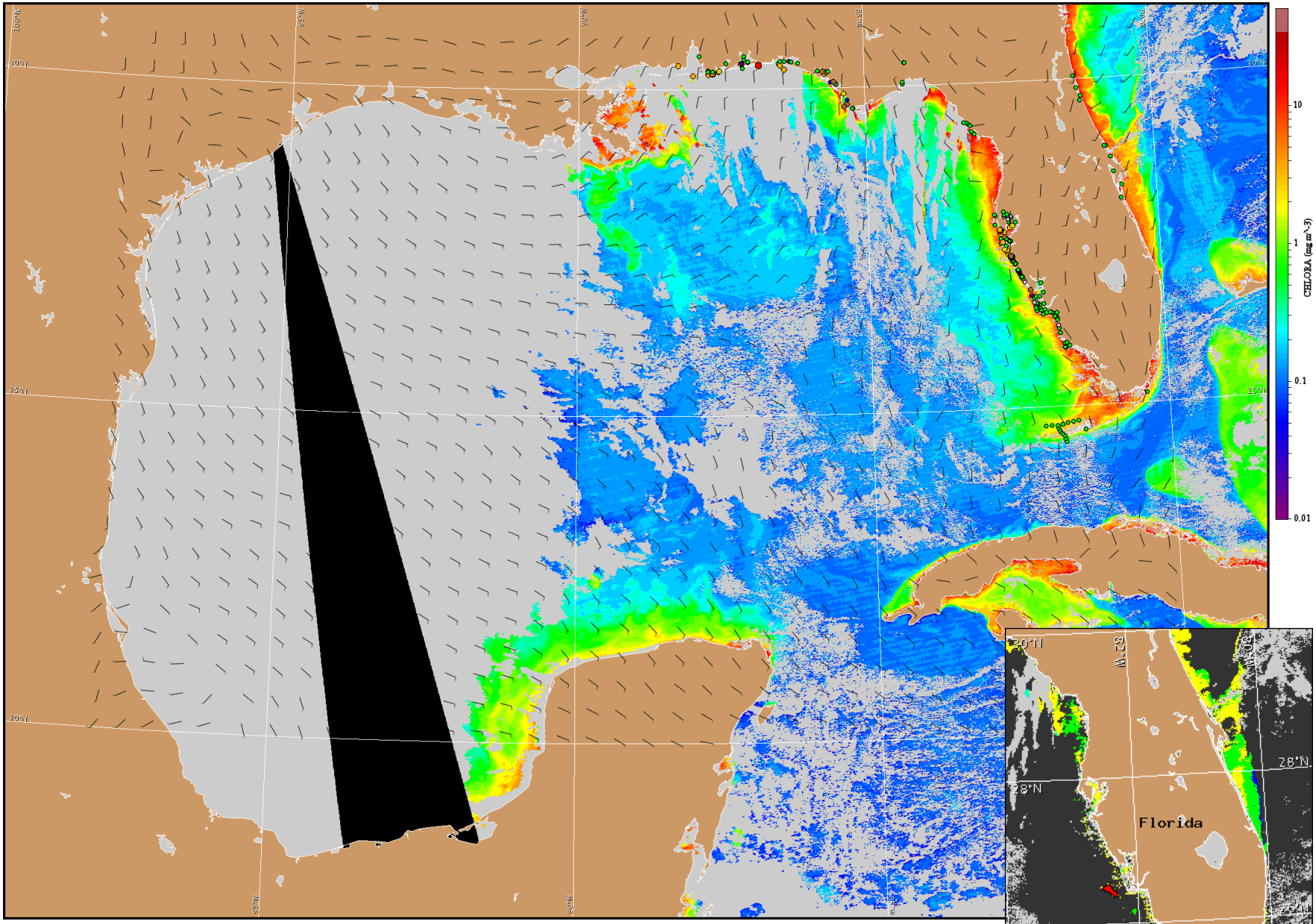
Derner, Lalime



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

Englewood to Tarpon Springs (Venice): South winds (10kn, 5m/s) today through Tuesday becoming east (5-10kn, 3-5m/s) Tuesday night. Southeast winds (5kn) Wednesday becoming south (5kn) Wednesday night. South winds (10kn) Thursday.



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). Cell count data are provided by Florida Fish and Wildlife Conservation Commission (FWC) Fish and Wildlife Research Institute. 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).