Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

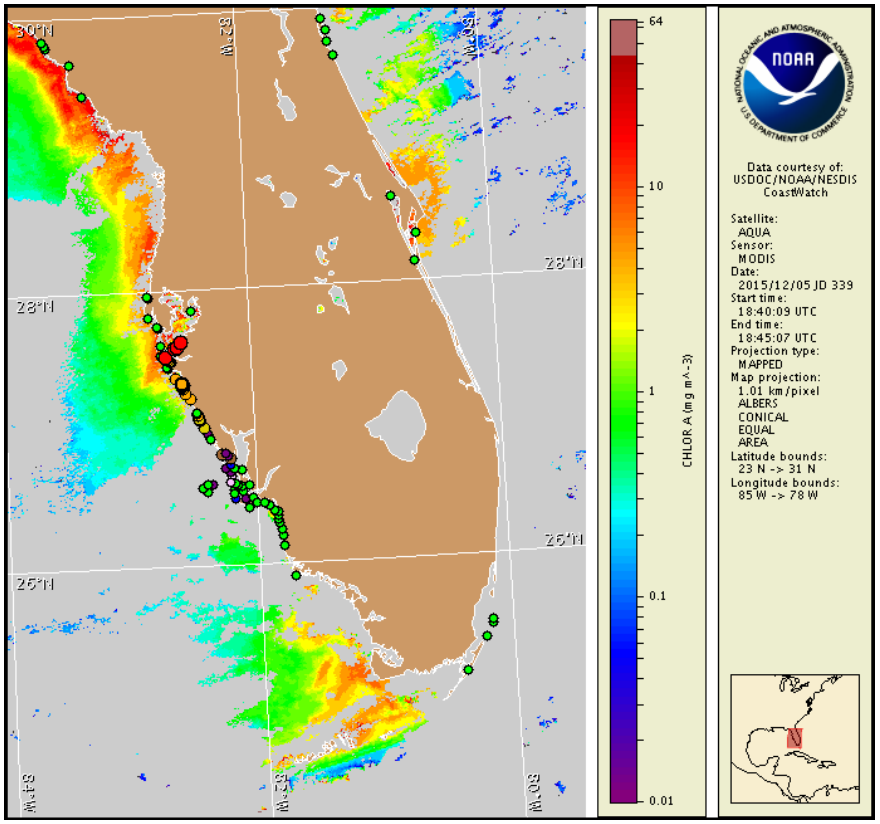
Monday, 07 December 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, December 3, 2015



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from November 27 to December 4: 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 7 through Thursday, December 10 is listed below:

County Region: Forecast (Duration)
Southern Pinellas: Very Low (M-Th)
Northern Manatee, bay regions: High (M-Th)
Southern Manatee: Very Low (M-Th)
Southern Manatee, bay regions: High (M-Th)
Northern Sarasota: Very Low (M-Th)
Northern Sarasota, bay regions: High (M-Th)
Southern Sarasota: Very Low (M-Th)
Southern Charlotte, bay regions: Low (M-Th)
Northern Lee, bay regions: Very Low (M-Th)
Central Lee, bay regions: Very 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. Dead fish have been reported in Pinellas, Manatee, and Sarasota counties.

Analysis

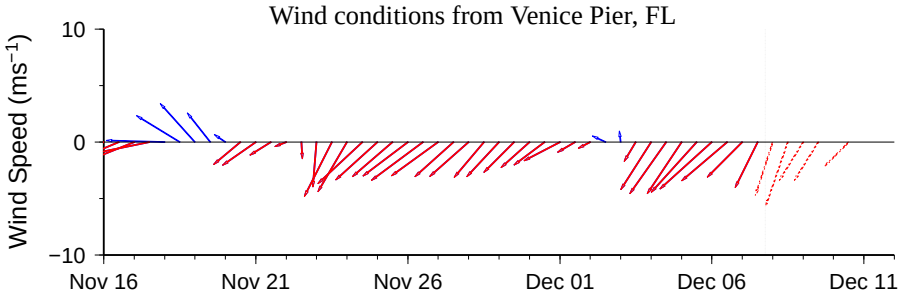
Recent samples collected along- and offshore southwest Florida from Pinellas to Monroe Counties indicate background to 'high' *Karenia brevis* concentrations from southern Pinellas to central Lee County (FWRI; 11/27-12/3). In Manatee county 'high' concentrations were observed northwest of Redfish Creek south near Joe Island, the South Skyway Causeway and rest area, School Key, and around to Anna Maria Island (FWRI; 11/30-12/01). 'High' concentrations of *K. brevis* continue to be observed in Sarasota Bay in northern Sarasota County (FWRI, MML; 12/3). Recent samples indicate 'medium' concentrations of *K. brevis* are present along the coast of Sarasota County from Longboat Key Beach to Venice Beach (SCDH; 11/30). 'Low b' concentrations are present along the coast of southern Sarasota County and 'low a' concentrations have been identified in the bay regions of southern Charlotte County (FWRI; 11/30-12/2). Background to 'very low a' concentrations are present in northern and central bay regions of Lee County (FWRI; 11/28-11/30). Reports of dead fish have been received from various locations in Manatee and Pinellas counties and at Siesta Key in northern Sarasota County. (FWRI, 12/7; MML, 12/7). 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, 12/5) is partially obscured by clouds from southern Sarasota County to Monroe County preventing analysis in this region. Patches

of elevated to high chlorophyll (2-11 μg/L) with some of the optical characteristics of *K. brevis* are visible along- and offshore Pinellas to Sarasota counties.

Forecasted winds today through Thursday will minimize the potential for respiratory irritation at the coast of southwest Florida and may promote southerly transport of surface *K. brevis* concentrations.

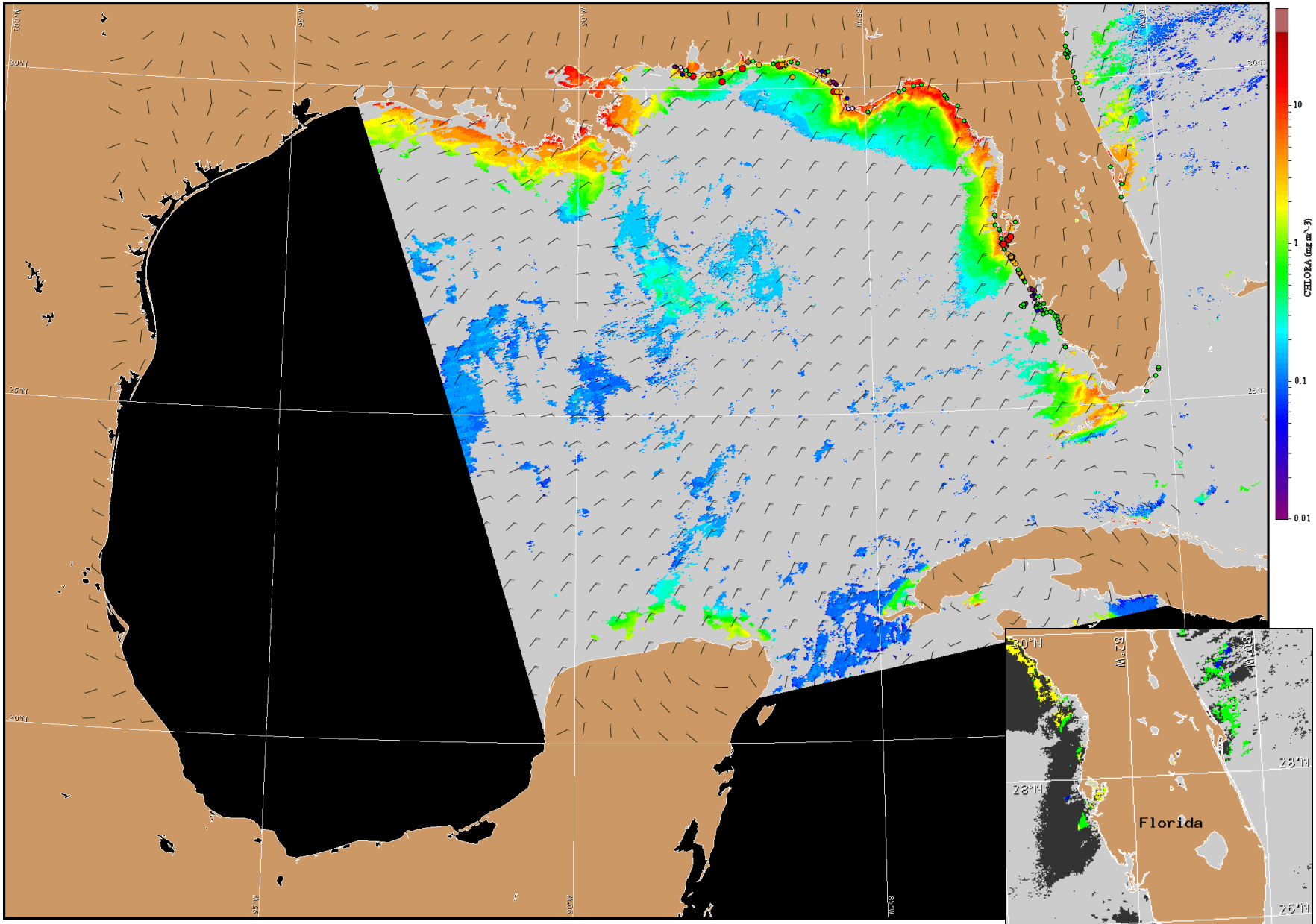
Lalime, Keeney, Kavanaugh



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

Englewood to Tarpon Springs (Venice): North to northeast winds (5-15kn, 3-8m/s) today through Thursday.



Satellite chlorophyll image and forecast winds for December 8, 2015 12Z with points representing cell concentration sampling data from November 27 to December 4: 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).