Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

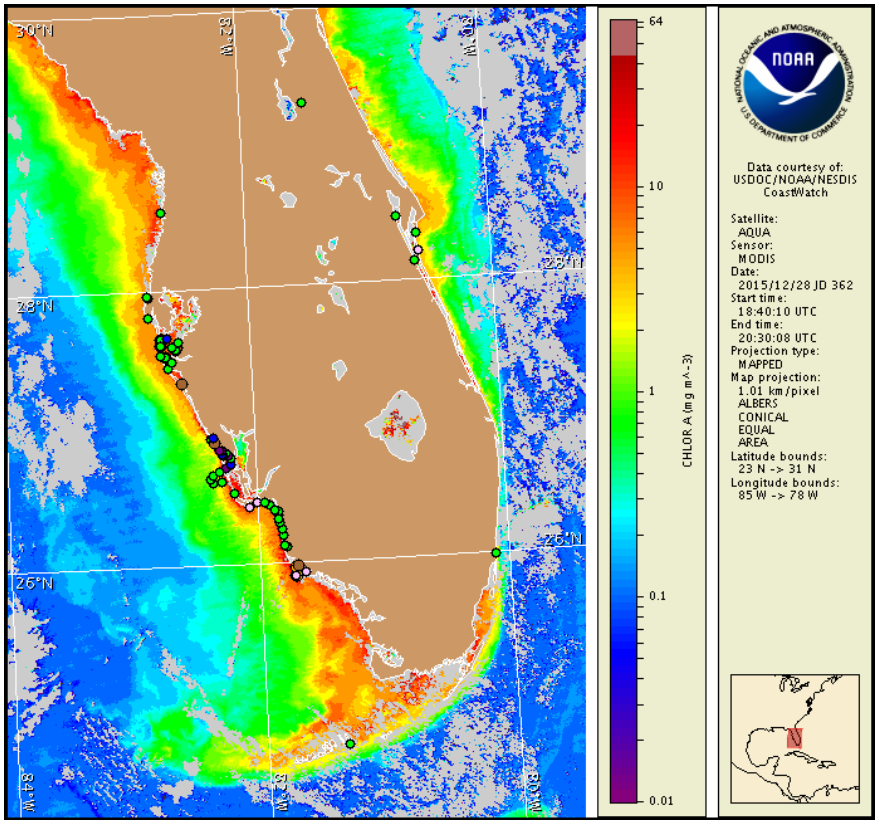
Thursday, 31 December 2015

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, December 28, 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 21 to 30: 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 low 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 Thursday, December 31 through Monday, January 4 is listed below:

County Region: Forecast (Duration)
Southern Pinellas: Low (Th), Very Low (F-M)
Southern Pinellas, bay regions: Moderate (Th-M)
Northern Manatee, bay regions: Moderate (Th-M)
Southern Manatee, bay regions: Moderate (Th-M)
Northern Sarasota: Low (Th), Very Low (F-M)
Northern Sarasota, bay regions: Moderate (Th-M)
Northern Charlotte, bay regions: Low (Th-M)
Southern Charlotte, bay regions: Very Low (Th-M)
Northern Lee: Very Low (Th)
Northern Lee, bay regions: Very Low (Th-M)
Northern Collier: Very Low (Th-F)
Central Collier: Low (Th-F), Very Low (Sa-M)
Central Collier, bay regions: Moderate (Th-M)
All Other SWFL County Regions: None expected (Th-M)
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 have been reported in Pinellas, Manatee and Sarasota counties; Dead fish have been reported in Pinellas and Manatee counties.

Analysis

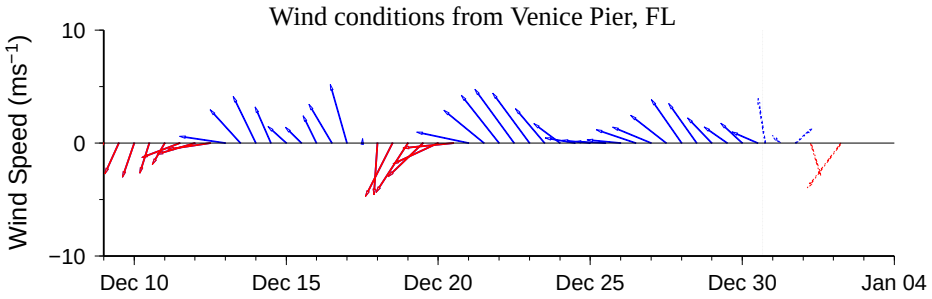
Recent samples collected along- and offshore southwest Florida indicate background to 'low b' *Karenia brevis* concentrations from Pinellas to central Collier counties, with the highest concentrations present in the bay regions of northern Sarasota, northern and southern Charlotte, (FWRI, CCENRD, SCHD, MML; 12/28-30).Respiratory irritation have been reported in Pinellas, Manatee and Sarasota counties (FWRI; 12/29-30). Dead fish have been reported in Pinellas and Manatee counties (FWRI; 12/28-29). 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, 12/28), patches of elevated to very high chlorophyll (4 to >20 μg/L) with some of the optical characteristics of *K. brevis* are visible along- and offshore from Pinellas to central Collier counties. The highest chlorophyll concentrations are along- and offshore from northern Sarasota to central Lee counties, and central Collier County.

Winds forecasted today through Monday may maintain the locations of surface *K. brevis*

concentrations alongshore southwest Florida.

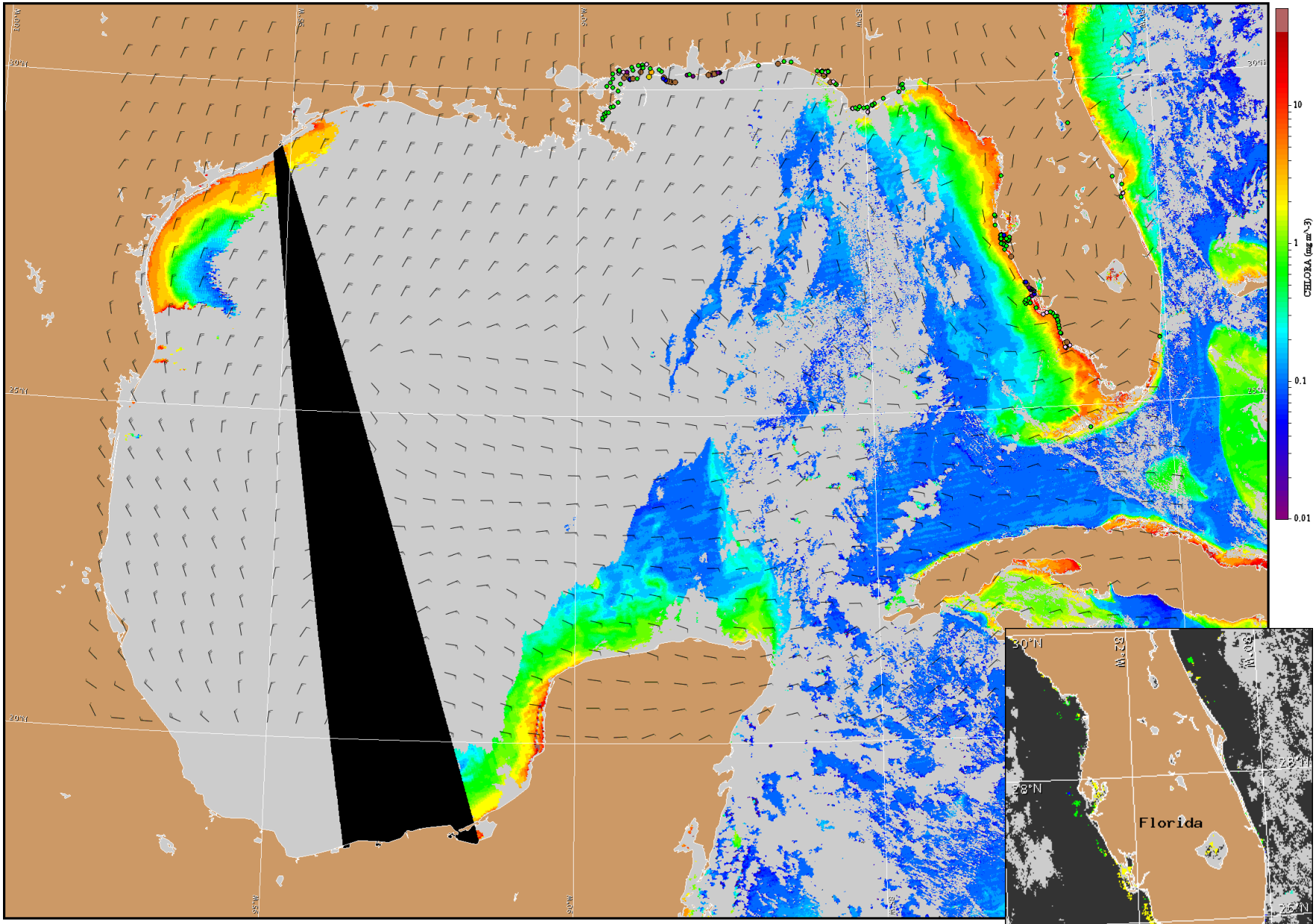
Yang, Davis



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 (5-10kn, 3-5m/s) Thursday afternoon and night. East wind becoming southwest (5kn, 3m/s) Friday. North winds (15kn, 8m/s) Friday night. Northeast winds (5-15kn, 3-8m/s) Saturday through Sunday. North winds (15kn) Monday.



Satellite chlorophyll image and forecast winds for January 1, 2016 12Z with points representing cell concentration sampling data from December 21 to 30: 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).