Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

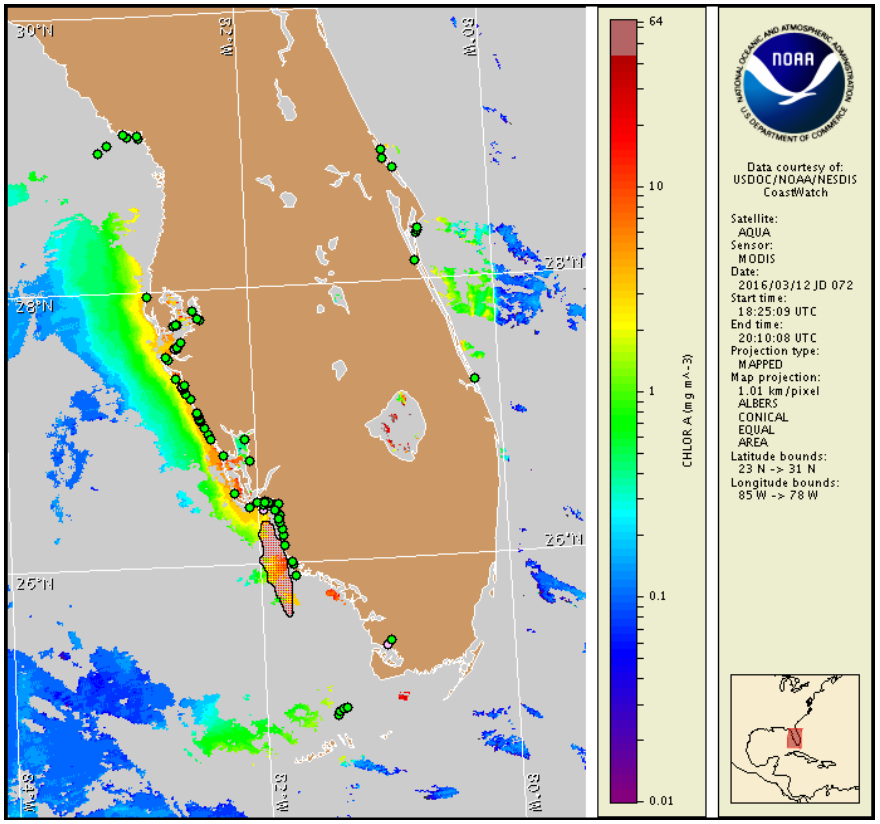
Monday, 14 March 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, March 10, 2016



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from March 4 to 9: 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/hab_publication/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 very low concentrations along the coast of southwest Florida. *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, March 14 to Thursday, March 17 is listed below:

County Region: Forecast (Duration)
Southern Manatee: Very Low (M-Th)
All Other SWFL County Regions: None expected (M-Th)

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 Lee and Manatee counties.

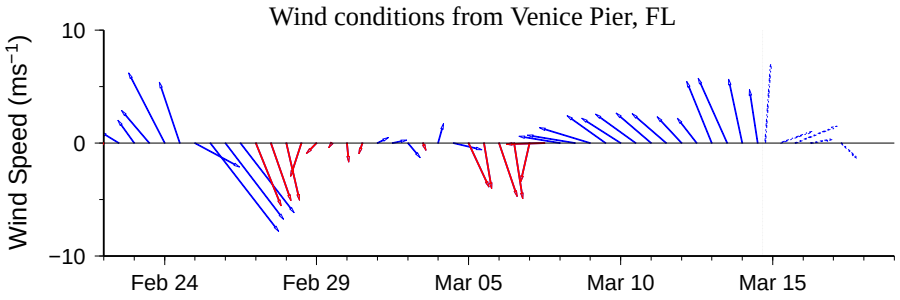
Analysis

Recent samples collected along-and offshore southwest Florida indicate that *Karenia brevis* concentrations range from not present to 'very low a' from Pinellas to Monroe counties, with only up to 'very low a' concentrations present alongshore Sarasota County (FWRI; 3/4-3/10). All samples received from Pinellas, Charlotte, and Lee counties indicate that *Karenia brevis* is not present (FWRI, SCHD; 3/8-3/10). Respiratory irritation has been reported in southwest Florida at Lovers Key State Park in Lee County and Coquina Beach in Manatee County, and from Fort Walton Beach in Okaloosa County and St. George Island in Franklin County in northwest Florida (FWRI; 3/10-14). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: http://myfwc.com/redtidestatus.

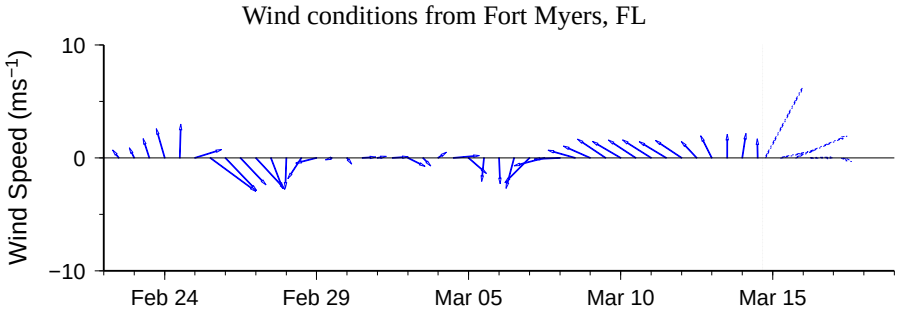
Recent ensemble imagery (MODIS Aqua, 3/12) is partially obscured by clouds south of central Lee County, limiting analysis in this region. Elevated chlorophyll (2-5 μg/L) is visible along- and offshore southwest Florida from Pinellas to Lee County. In MODIS Aqua imagery from 3/10 (not shown), a large patch of elevated to very high chlorophyll (5 to >20 μg/L) with the optical characteristics of *K. brevis* is visible stretching along- and offshore central Collier County southward offshore central Monroe County.

South to southwest winds forecasted alongshore southwest Florida today through Monday may promote northerly transport of *K. brevis* concentrations alongshore southwest Florida.

Keeney, Derner



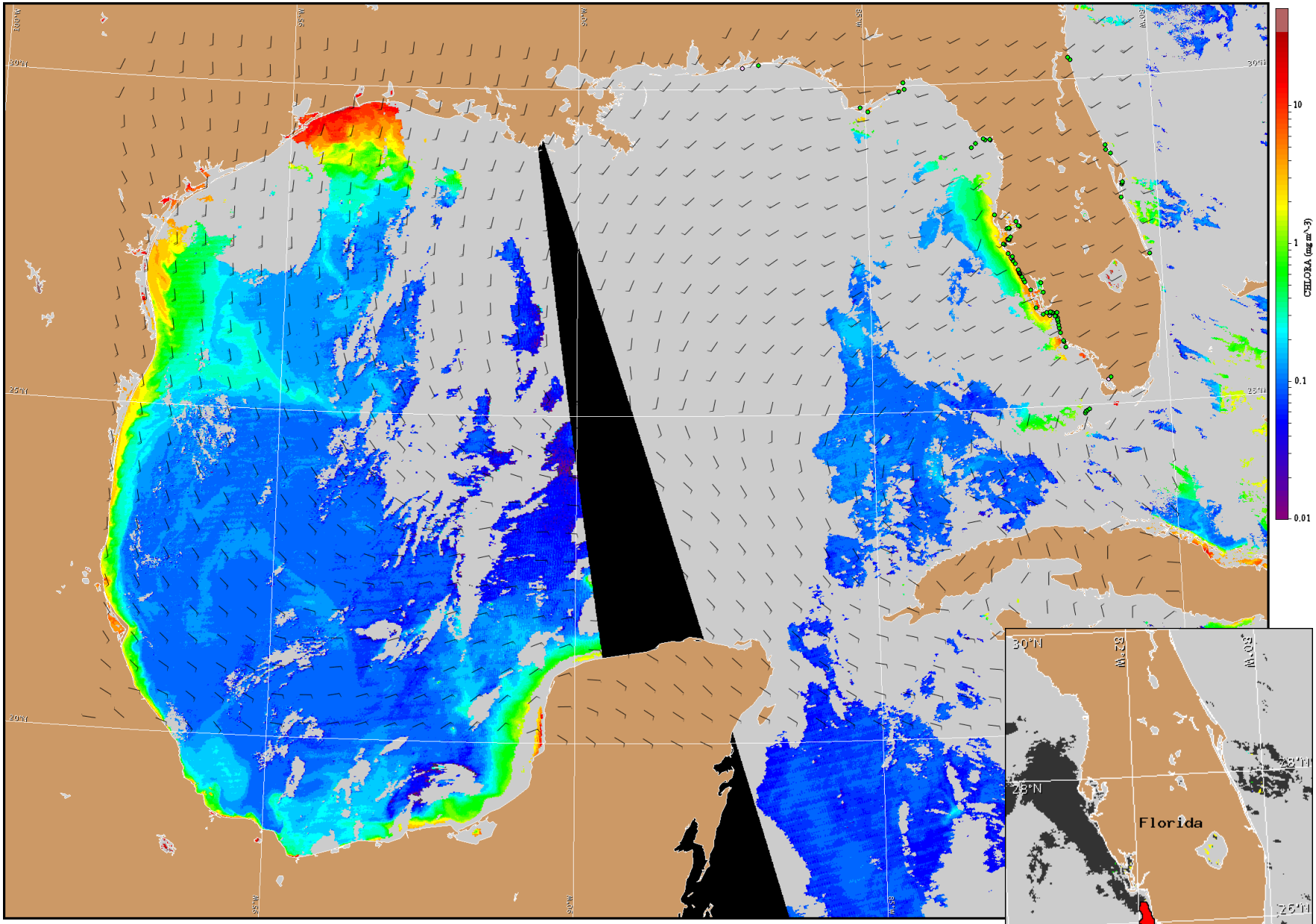
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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



Wind Analysis

Englewood to Tarpon Springs (Venice): South winds (5-15kn, 3-8m/s) today becoming southwest (10kn, 5m/s) tonight. West winds (5kn, 3m/s) Tuesday becoming southwest (5kn) Tuesday night through Wednesday. South winds (5kn) Thursday.

Chokoloskee to Bonita Beach: South southwest winds (5-10kn, 3-5m/s) today through Tuesday. West northwest winds (5kn) Tuesday night. Variable northerly winds (5kn) Wednesday becoming southwest (5kn) Wednesday afternoon. Variable southerly winds (5kn) Wednesday night. South winds (5-10kn) Thursday.



Satellite chlorophyll image and forecast winds for March 15, 2016 06Z with points representing cell concentration sampling data from March 4 to 9: 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/hab_publication/habfs_bulletin_guide.pdf

Verified and suspected HAB areas shown in red. Other areas with *K. brevis* optical characteristics shown in yellow (see p. 1 analysis for interpretation).