Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

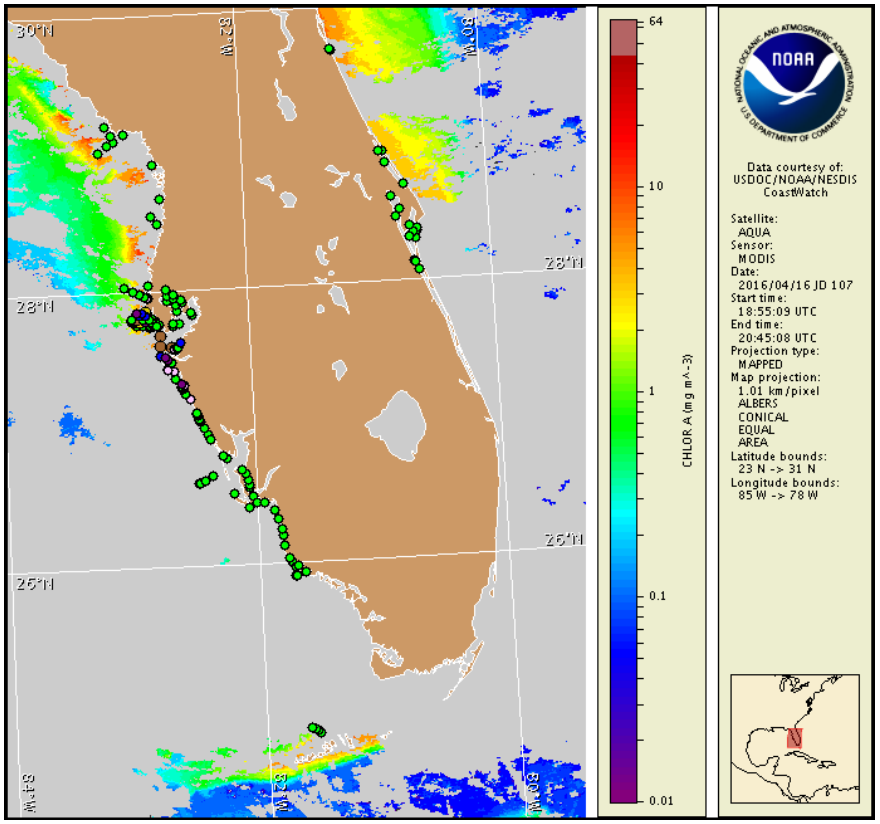
Monday, 18 April 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, April 14, 2016



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from April 8 to 14: 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

Not present to low concentrations of *Karenia brevis* (commonly known as Florida red tide) are present along- and offshore portions of southwest Florida, and 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, April 18 to Thursday, April 21 is listed below:

County Region: Forecast (Duration)
Northern Pinellas: Very Low (M-Th)
Northern Pinellas, bay regions: Very Low (M-Th)
Southern Pinellas: Very Low (M-Th)
Southern Pinellas, bay regions: Moderate (M-Th)
Northern Manatee, bay regions: Low (M-Th)
Southern Manatee, bay regions: 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.

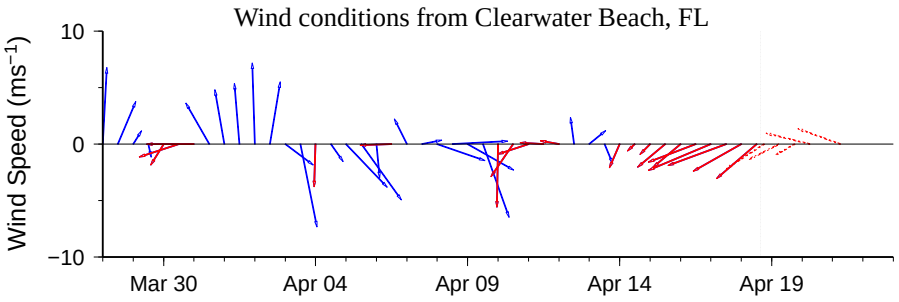
Analysis

Karenia brevis ranges from not present to 'low b' concentrations along- and offshore the coast of southwest Florida from northern Pinellas to southern Charlotte counties, with the majority of concentrations located along- and offshore Pinellas and Manatee counties (FWRI, MML, SCHD, CCENRD; 4/7-14). The most recent samples indicate that *K. brevis* concentrations have decreased overall along the coast of southwest Florida, with 'very low a' to 'low b' concentrations along- and offshore Pinellas County, up to 'very low b' concentrations alongshore Manatee County, and two 'very low a' concentrations along Sarasota and Charlotte counties, where reports otherwise show 'not present' to 'background' concentrations (FWRI, MML, SCHD, CCENRD; 4/7-14). No reports of dead fish or respiratory irritation have been received over the last several days (FWRI, MML; 4/15-17). 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, 4/16) is mostly obscured by clouds alongshore southwest Florida, limiting analysis. In MODIS Aqua imagery from 4/14 (not shown) a patch of elevated to high chlorophyll (3-16 μg/L) with the optical characteristics of *K. brevis* is visible stretching along- and offshore southern Pinellas County.

Northeast winds observed over the weekend and continuing through Tuesday may increase the potential for intensification of *K. brevis* concentrations at the coast. Observed winds over the last several days may have promoted southerly transport of surface *K. brevis* concentrations along the coast of southwest Florida.

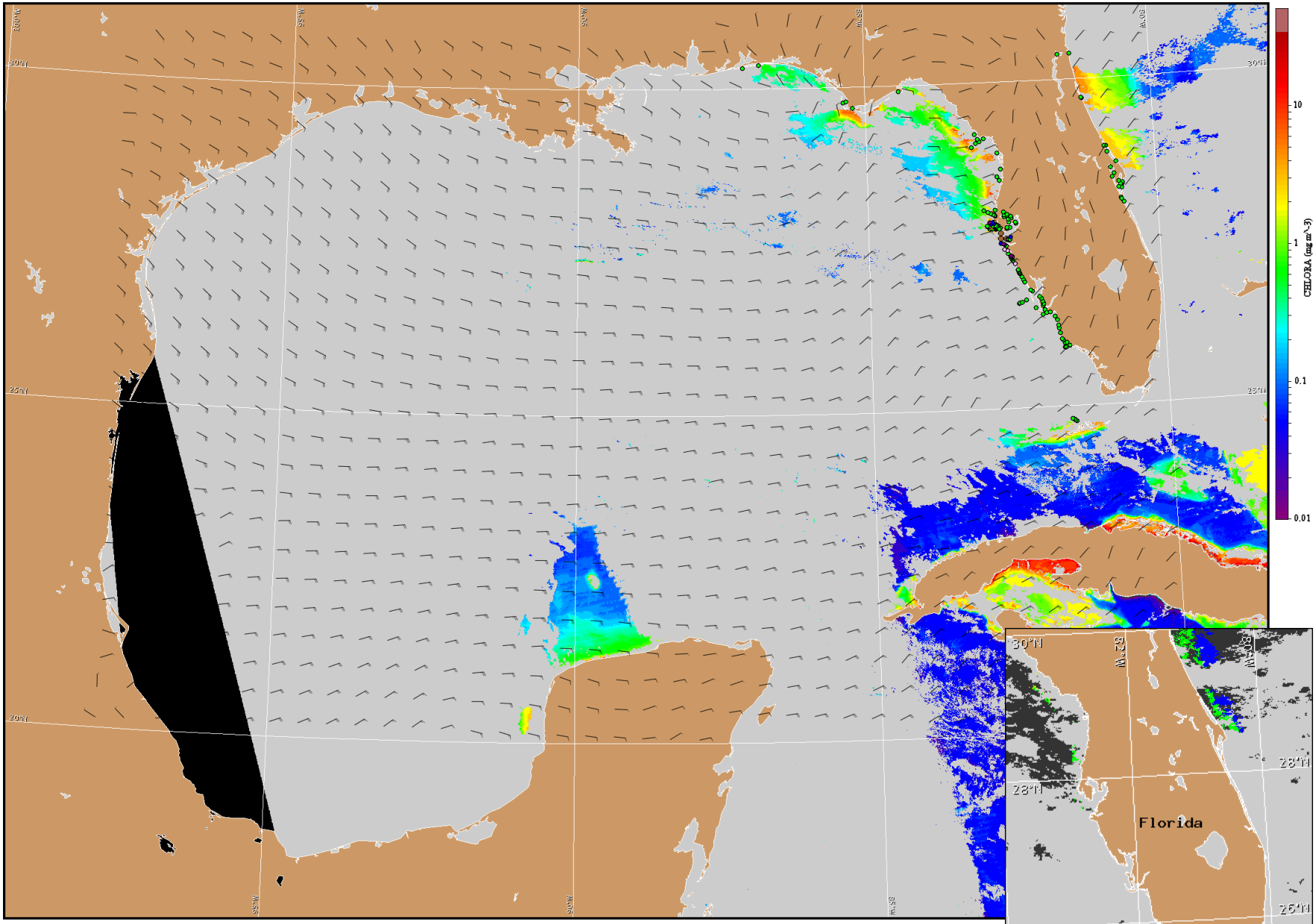
Derner, Davis



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): Northeast winds (5-15kn, 3-8m/s) today through Tuesday becoming north (5-10kn, 3-5m/s) Tuesday night. East winds (10-15kn, 5-8m/s) Wednesday becoming northeast (5kn, 3m/s) in the afternoon. North winds (10kn, 5m/s) Wednesday night. Southeast winds (10kn) Thursday.



Satellite chlorophyll image and forecast winds for April 19, 2016 06Z with points representing cell concentration sampling data from April 8 to 14: 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).