Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

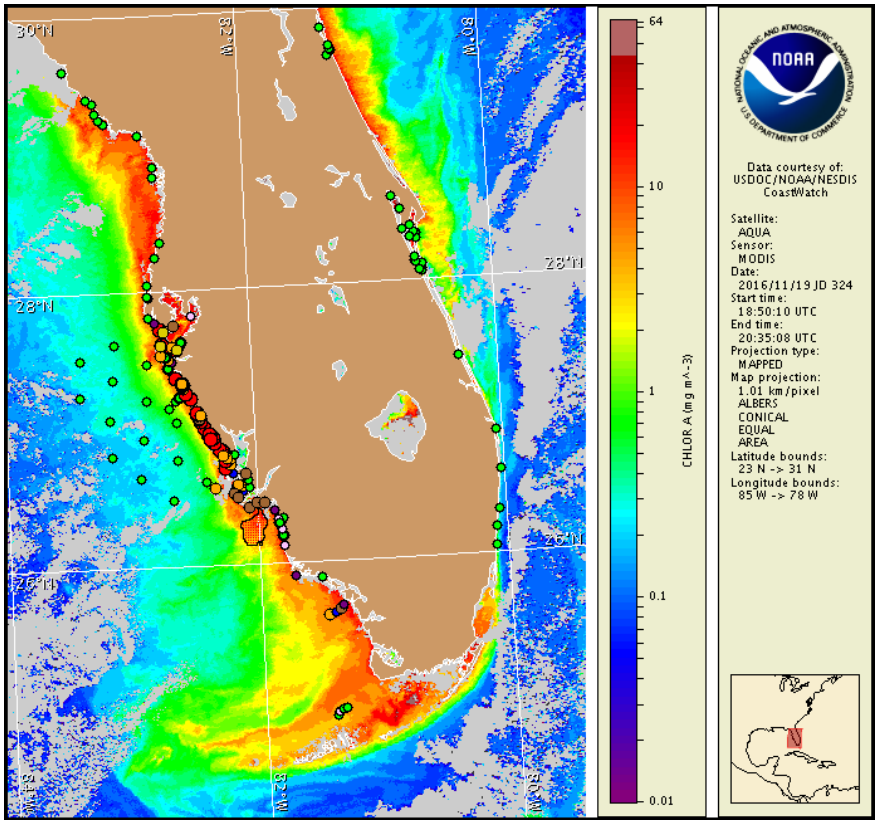
Monday, 21 November 2016

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, November 17, 2016



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from November 11 to 18: 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 high 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, November 21 through Wednesday, November 23 is listed below:

County Region: Forecast (Duration)
Southern Pinellas: Low (M-W)
Southern Pinellas, bay regions: Moderate (M-W)
Northern Manatee, bay regions: Moderate (M-W)
Southern Manatee: Low (M-W)
Southern Manatee, bay regions: Moderate (M-W)
Northern Sarasota: Low (M-Tu), Moderate (W)
Northern Sarasota, bay regions: High (M-W)
Southern Sarasota: Low (M-W)
Southern Sarasota, bay regions: High (M-W)
Northern Charlotte: Low (M-W)
Northern Charlotte, bay regions: Moderate (M-W)
Southern Charlotte: Low (M-W)
Southern Charlotte, bay regions: Moderate (M-W)
Northern Lee: Low (M-W)
Northern Lee, bay regions: Moderate (M-W)
Central Lee: Low (M-W)
Central Lee, bay regions: Low (M-W)
Southern Lee: Low (M-W)
Southern Lee, bay regions: Very Low (M-W)
Northern Collier: Low (M-W)
Central Collier: Very Low (M-W)
Central Collier, bay regions: Very Low (M-W)
All Other SWFL County Regions: None expected (M-W)

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. Over the last few days, respiratory irritation has been reported from Sarasota and Lee counties, with dead fish reported from Pinellas, Sarasota, Lee and Collier counties.

Analysis

Due to the upcoming federal holiday, the next bulletin will be issued on Wednesday, November 23.

New samples collected along-and offshore the coast of southwest Florida indicate up to 'high' concentrations of *Karenia brevis* from Pinellas to Collier counties. 'High' and 'Medium' concentration of *K. brevis* have continued to be identified in the bay regions from northern Sarasota to northern Lee counties and alongshore from northern Sarasota to northern Charlotte counties (FWRI, MML, SCHD, CCENRD; 11/14-11/18). 'Very low

a' concentrations of *Karenia brevis* are present alongshore northern Monroe County, extending out to 'Medium' concentrations 13 miles offshore (FWRI; 11/17). Detailed sample information and a summary of impacts can be obtained through FWC Fish and Wildlife Research Institute at: http://myfwc.com/redtidestatus. Slight respiratory irritation has been reported from several locations in Sarasota and Lee counties (MML; 11/17-11/20). Dead fish have been reported from Pinellas, Sarasota, Lee and Collier counties (FWRI, MML; 11/17-11/19).

Recent ensemble imagery (MODIS Aqua, 11/19) indicates the presence of elevated to very high (2 to >20 μg/L) chlorophyll with the optical characteristics of *K. brevis* is visible along- and offshore from Pinellas to Monroe counties, extending up to 22 miles offshore from central and southern Lee county and northern Collier county.

Forecasted winds today through Wednesday (11/21-11/23) may promote southerly transport of surface *K. brevis* concentrations alongshore southwest Florida.

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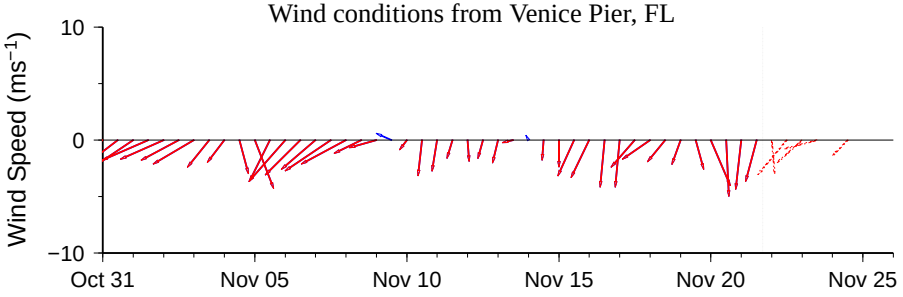
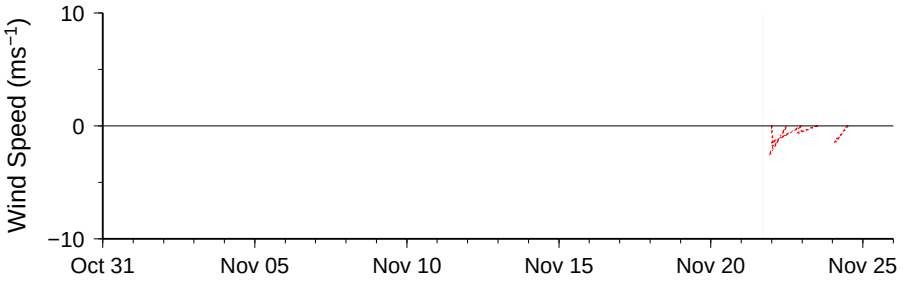
Wind conditions from Venice Pier, FL



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).

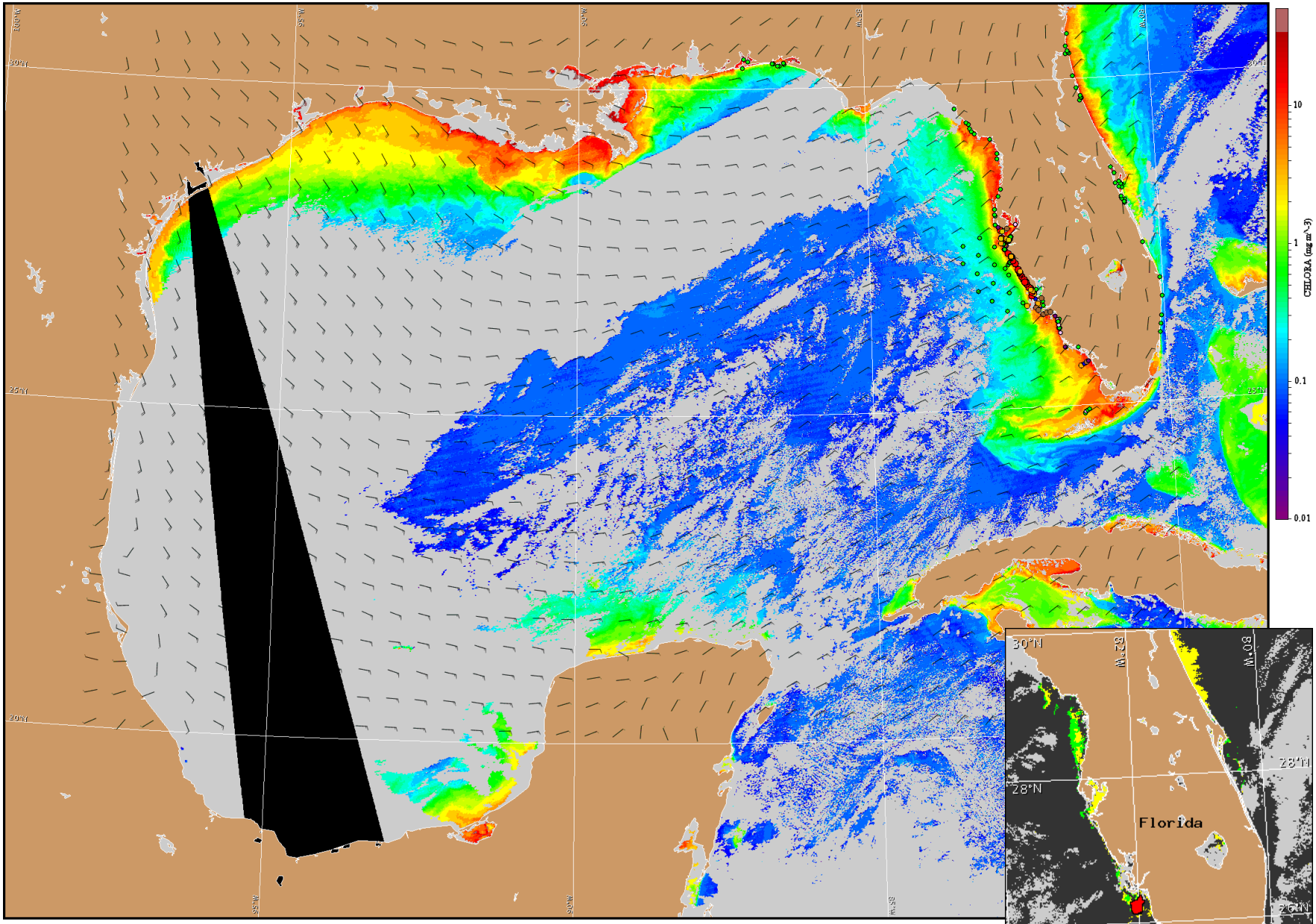
Wind conditions from Naples, FL



Wind Analysis

Englewood to Tarpon Springs (Venice): North to northeast winds (10-15kn, 5-8m/s) today and Tuesday. East to northeast winds (5-10kn, 3-5m/s) Wednesday.

Chokoloskee to Bonita Beach: North to northeast winds (5-15kn, 3-8m/s) today through Tuesday. East to northeast winds (10-15kn, 3-5m/s) Wednesday.



Satellite chlorophyll image and forecast winds for November 22, 2016 12Z with points representing cell concentration sampling data from November 11 to 18: 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).