



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

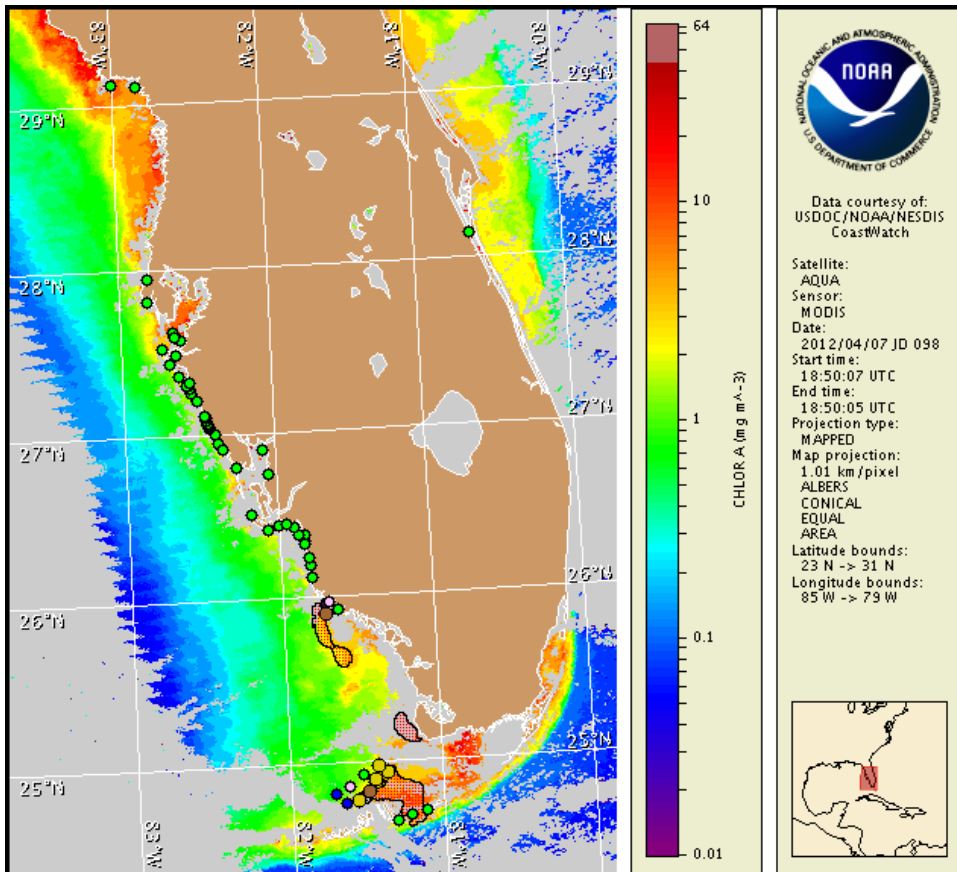
Monday, 09 April 2012

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, April 5, 2012



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from March 30 to April 6 shown as red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habofs_bulletin_guide.pdf

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:
<http://tidesandcurrents.noaa.gov/hab/bulletins.html>

Conditions Report

A patchy harmful algal bloom has been identified in the Marco Island region of southern Collier County, and in the Gulfside region of the Lower Florida Keys. A harmful algal bloom was also last identified in the Pavilion Key region of northern Monroe County on March 27. Today through Wednesday, patchy low impacts are possible in the Marco Island region of central Collier County, patchy very low impacts are possible in northern Monroe County, and patchy moderate impacts are possible in the Gulfside region of the Lower Florida Keys. No additional impacts are expected alongshore southwest Florida today through Wednesday, April 11.

Analysis

Southwest Florida: A harmful *Karenia brevis* bloom was re-identified last week in the Marco Island region of southern Collier County (4/2-4/5; FWRI, CCPCPD) and in the Pavilion Key region of northern Monroe County on 3/27 (MML). Low *K. brevis* concentrations were confirmed at South Marco Beach in southern Collier County on 4/5 (FWRI, CCPCPD). No additional *K. brevis* was detected at the coast in Collier County or alongshore from Pinellas to Lee counties last week (4/2-4/6, FWRI, CCPCPD, MML, SCHD). Additional sampling information can be obtained through FWRI at <http://myfwc.com/research/redtide/events/status/statewide/>. Recent MODIS imagery is predominantly obscured by clouds along the southwest Florida coast, limiting analysis. However, an elevated chlorophyll feature (2-4 $\mu\text{g/L}$) remains partially visible alongshore central Collier County and offshore Monroe County from the Marco Island region extending south to approximately 25°24'37"N 81°35'30"W. No updated information is available in the western Cape Sable region due to cloud presence. As of 4/5, chlorophyll levels in this region were continually high up to 9 miles offshore. Continued sampling in both of these areas is highly recommended. No significant features are visible in recent imagery alongshore or offshore Pinellas through Lee Counties. Forecasted conditions do not favor bloom intensification through Wednesday in Collier and Monroe Counties. Minimal bloom transport is expected through Wednesday.

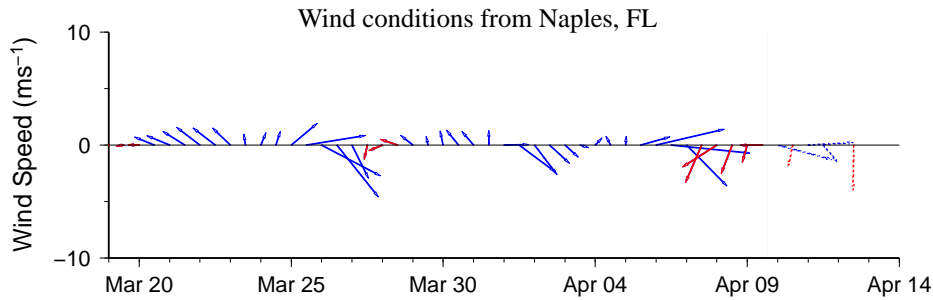
Florida Keys: An extensive harmful algal bloom has been identified north of the Lower Florida Keys. Several 'very low b' to 'medium' *Karenia brevis* concentrations were identified approximately 2-9 miles north of the Lower Keys last week. These nearshore to offshore concentrations extend from the Spanish Keys west to Mud Key (4/3-4/5; MML, FWRI.) No *K. brevis* was detected last week near the 7-Mile Bridge and Spanish Harbor in the Lower Keys (4/6, MML, FWRI). Recent MODIS imagery (4/7, shown left) in the Lower to Middle Keys region is partially obscured by clouds, limiting analysis. Chlorophyll is continually elevated to high (6 to >10 $\mu\text{g/L}$) just east of Little Pine Key and elevated (3-9 $\mu\text{g/L}$) throughout the region between the Lower Keys and Florida Bay. Elevated chlorophyll features northeast of the Lower Keys continue to stretch north in a narrow band to a higher chlorophyll feature alongshore and offshore Cape Sable. No additional imagery analysis is possible for areas northwest of Key West or in the eastern Marquesas Keys region where elevated to high chlorophyll was last reported on 4/5. Strong northeast winds observed over the past few days may have transported the bloom further west and possibly closer to shore. Continued sampling throughout the Lower Keys region is highly recommended. Forecasted winds may continue to transport the bloom further west through Wednesday.

Wind Analysis

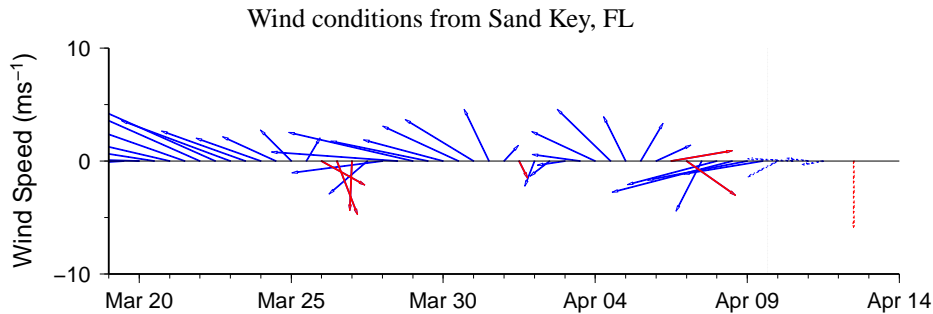
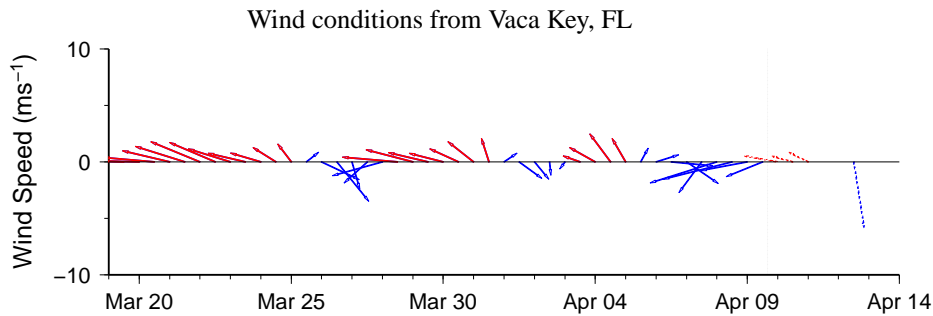
Collier to Monroe Counties: East winds today, becoming east southeast tonight (7-12kn, 4-6m/s). East southeast winds Tuesday, becoming south in the afternoon (7-10kn, 4-5m/s). West northwest winds Tuesday night and Wednesday (5-9kn, 3-5m/s), becoming west northwest (11-14kn, 5-7m/s) Wednesday afternoon. North northeast winds Wednesday night (14-17kn, 7-9m/s).

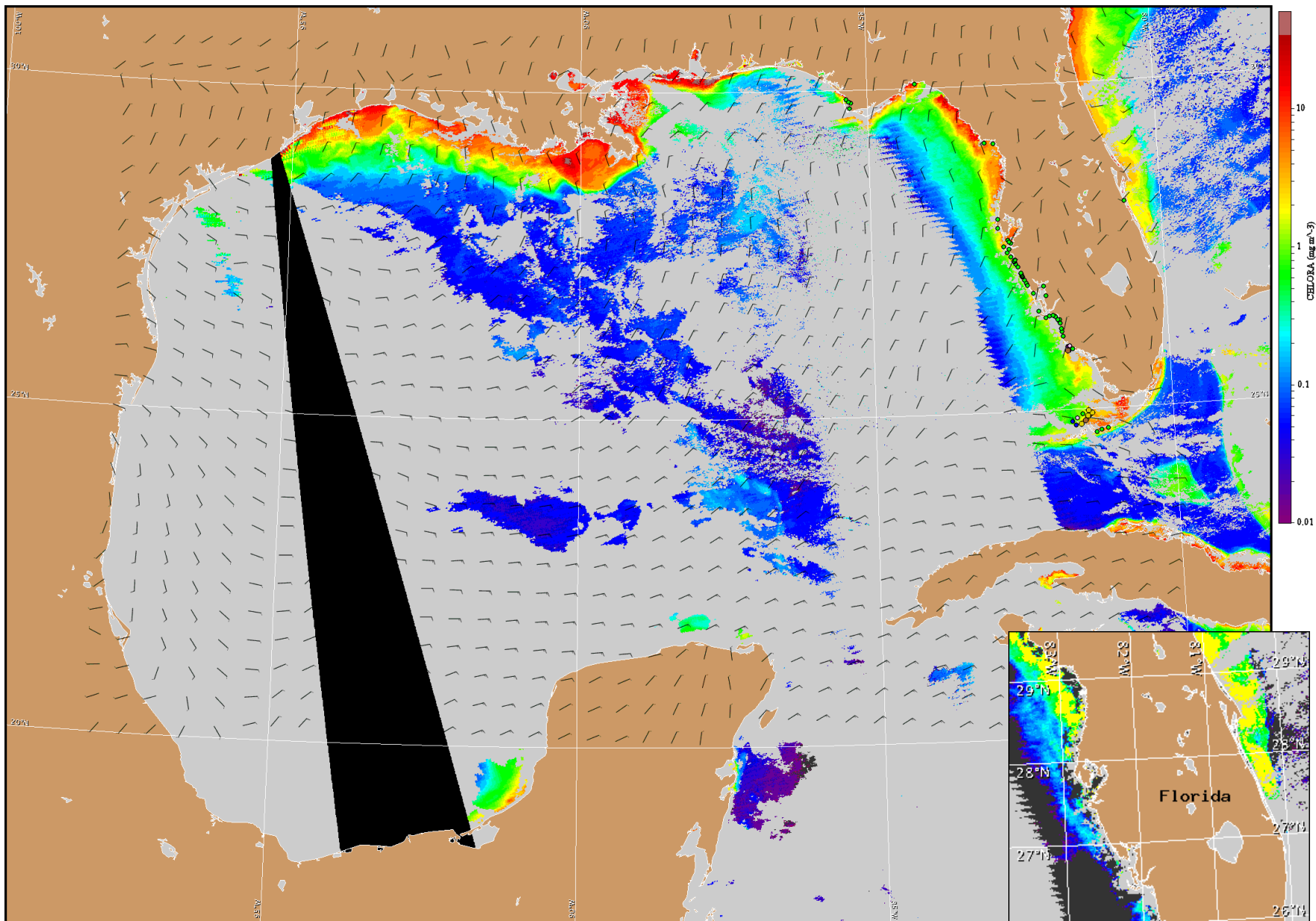
Florida Keys- Gulfside: Northeast to east winds (5-10kn, 3-5m/s) today through Wednesday. Northwest to north winds (10-15kn, 5-8m/s) Wednesday night.

Pinellas to Lee Counties: Variable winds today (10kn, 5m/s). West winds Tuesday, becoming northwest Tuesday night (10kn, 5m/s). Northwest winds Wednesday, shifting northeast Wednesday night (10-15kn, 5-8m/s).



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).





Satellite chlorophyll image and forecast winds for April 10, 2012 12Z with cell concentration sampling data from March 30 to April 6 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data 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 of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).