



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

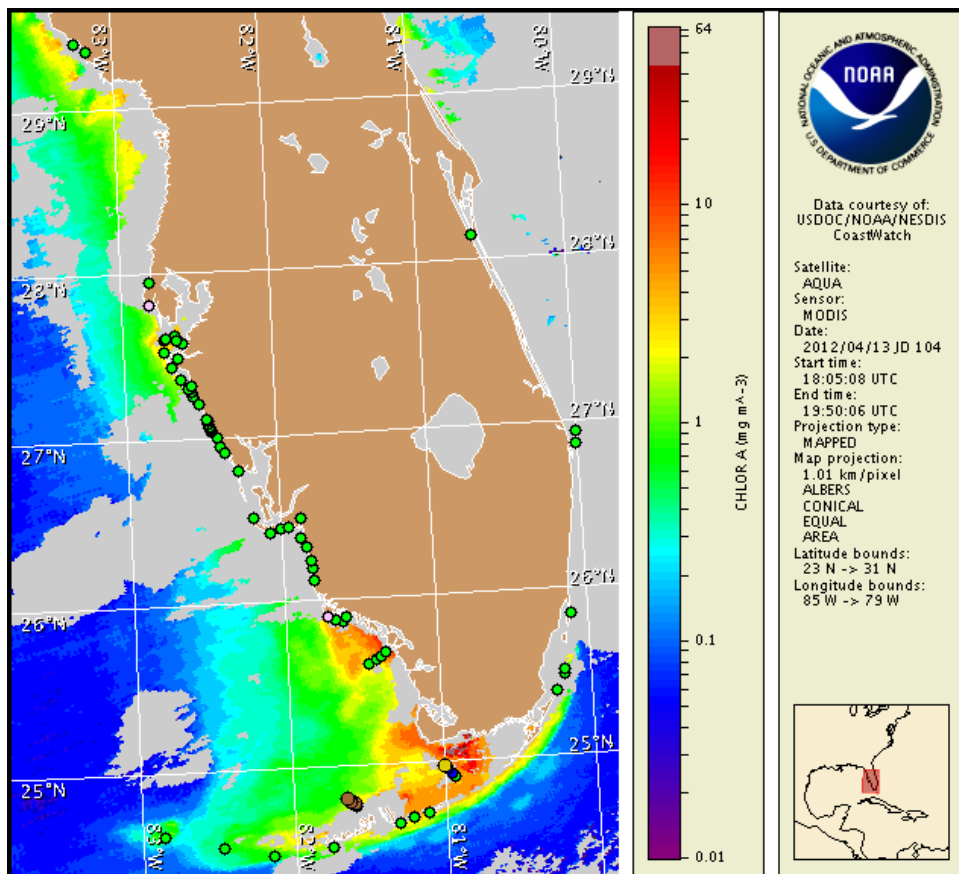
Monday, 16 April 2012

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, April 12, 2012



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from April 6 to 13 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/habfs_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 is present in the Marco Island region of central Collier County and in the Gulfside region of the Lower Florida Keys. Patchy very low impacts are possible in the Marco Island region of central Collier County and in the Gulfside region of the Lower Florida Keys today through Wednesday. No additional impacts are expected alongshore southwest Florida today through Wednesday, April 18.

Analysis

Southwest Florida: A patchy *Karenia brevis* bloom is present in the Marco Island region of central Collier County and was last identified in the Pavilion Key region of northern Monroe County on 3/27 (MML). Recent sampling indicates that *K. brevis* concentrations may be dissipating at South Marco Beach in the Marco Island region of Collier County; background concentrations were detected in this area on 4/11, where 'low a' concentrations had been previously identified on 4/5 (CCPCPD, FWRI). Several samples collected 0.5 to 9 miles southwest of Pavilion Key, where the *K. brevis* bloom was last identified on 3/27 (MML), indicate that *K. brevis* is not present in this region (4/12; MML). *K. brevis* was also not detected in recent samples collected alongshore from Pinellas to Collier counties, or offshore Manatee County, over the last week (4/5-4/12; CCPCPD, FWRI, MML, SCHD). Additional sampling information can be obtained through FWRI at <http://myfwc.com/research/redtide/events/status/statewide/>.

Recent MODIS imagery (4/13; shown left) is predominantly obscured by clouds along the southwest Florida coast, limiting analysis. Visible imagery offshore Collier to Monroe counties suggests that chlorophyll may have dissipated slightly in this region over the past several days. Elevated chlorophyll (2-10 $\mu\text{g/L}$) remains visible in patches offshore central Collier and Monroe counties from the Marco Island region to the Pavilion Key region, as well as west of Cape Sable (2-7 $\mu\text{g/L}$), extending approximately 13 miles offshore. Continued sampling in both of these areas is highly recommended. Recent imagery is not available along- or offshore southwest Florida from Pinellas to central Collier counties. Any elevated chlorophyll in this region may be the result of various non-toxic blooms that have been reported throughout the region (4/11; FWRI). Minimal bloom transport is expected through Wednesday based on forecasted wind conditions.

Florida Keys: A harmful *K. brevis* bloom remains present north of the Lower Florida Keys and has also been identified north of the Middle Keys (4/9; MML). Recent samples identified three 'low a' samples 3-8 miles northwest of Sawyer Key in the Gulfside region of the Lower Florida Keys (4/9; MML), and 'very low' to 'low b' *K. brevis* concentrations north of the Middle Keys at Oxfoot Key, 11-13 miles northwest of Duck Key (4/9-10; MML). Recent MODIS imagery (4/13; shown left) in the Lower to Middle Keys region is partially obscured by clouds, limiting analysis. Chlorophyll levels remain elevated (2-6 $\mu\text{g/L}$) north of the Lower to Middle Keys, and elevated to very high (2 to >20 $\mu\text{g/L}$) south of Cape Sable. Forecasted winds may continue to transport the bloom further west and offshore through Wednesday.

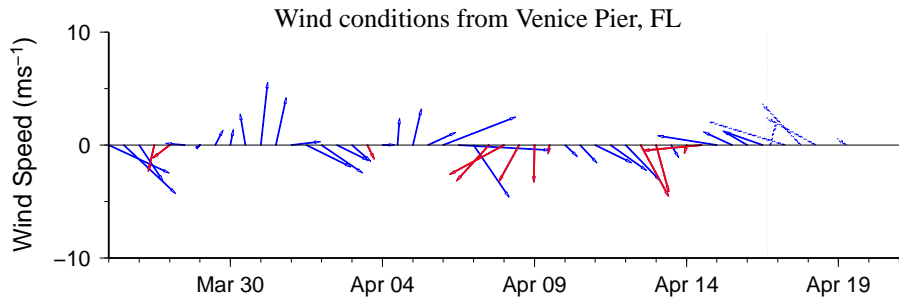
-Derner, Yang

Wind Analysis

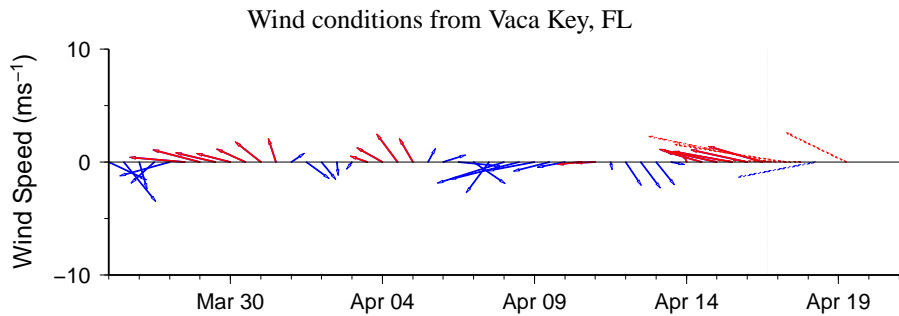
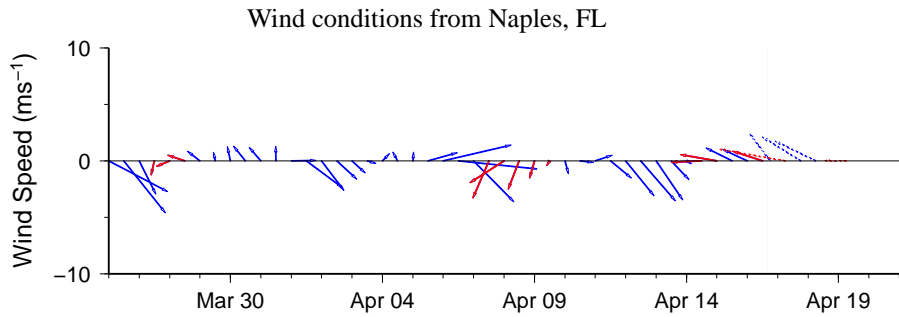
Pinellas to Lee Counties: Southeast winds (10-15kn, 5-8m/s) today becoming onshore (5-10kn, 3-5m/s) later this afternoon. East winds (15kn, 8m/s) tonight. Southeast winds (10-15kn) Tuesday. South winds (10kn, 5m/s) Wednesday becoming west late in the afternoon. South winds (10kn) Wednesday night.

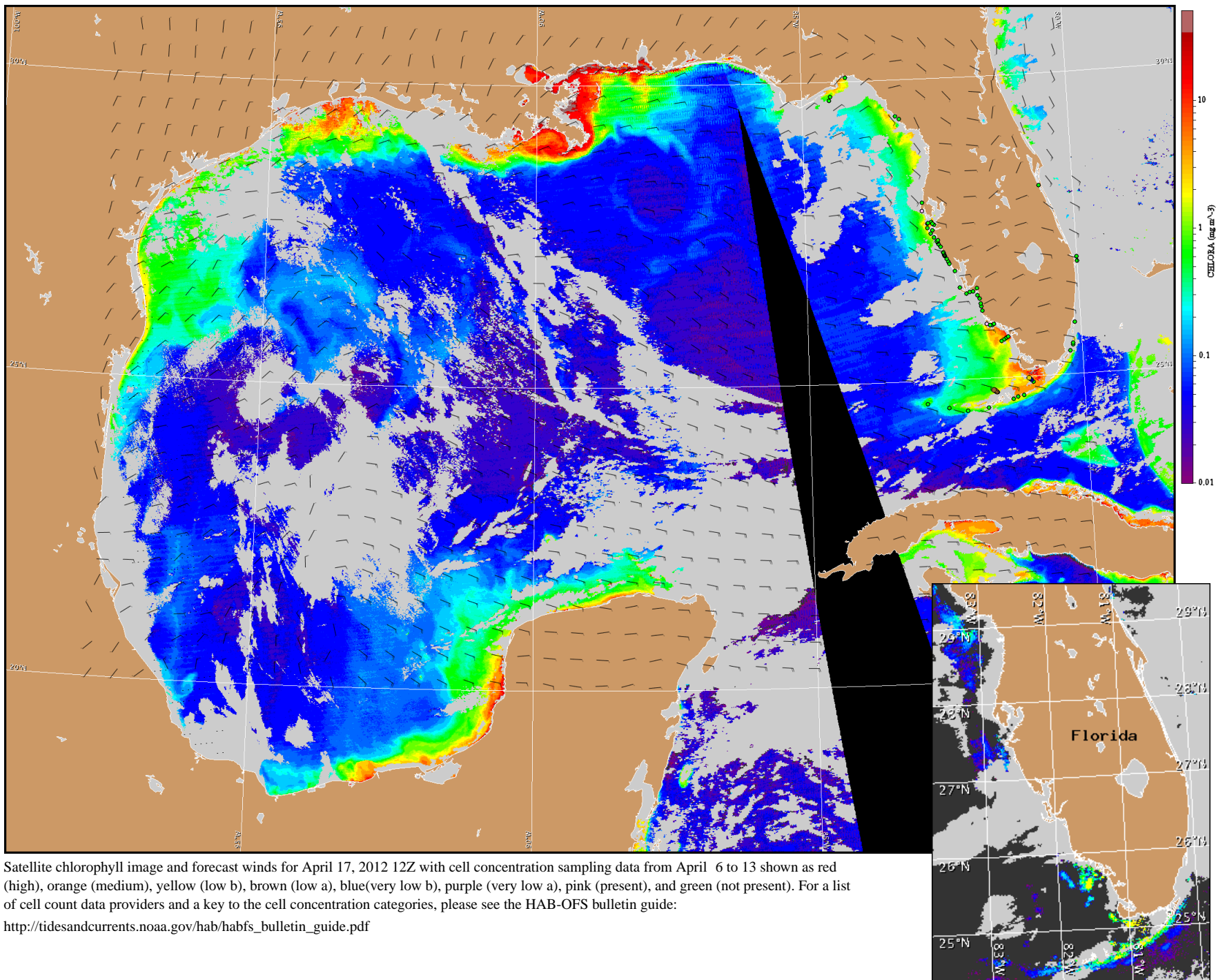
Collier to Monroe Counties: East southeast winds (13-18kn, 7-9m/s) today. East winds (12-16kn, 6-8m/s) tonight through Tuesday. East southeast winds (12-15kn) Tuesday night. Southeast winds (5-13kn, 3-7m/s) Wednesday.

Florida Keys - Gulfside: East to southeast winds (10-20kn, 5-10m/s) today though Wednesday.



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 17, 2012 12Z with cell concentration sampling data from April 6 to 13 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).