



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

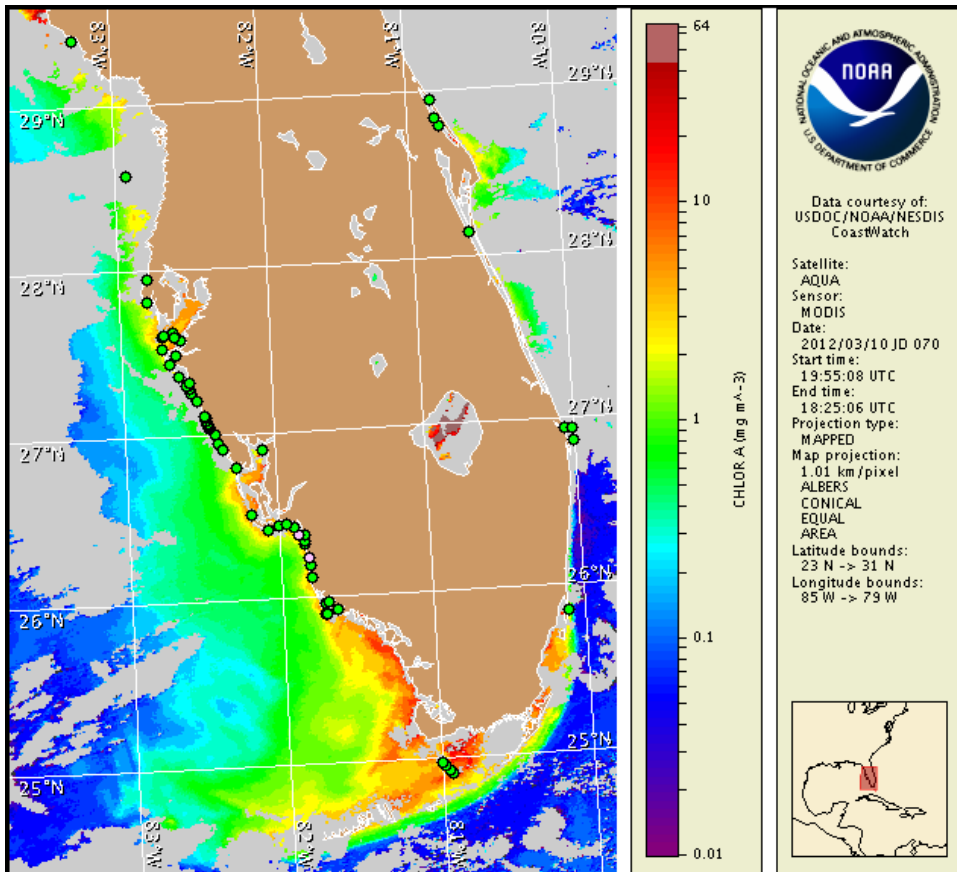
Monday, 12 March 2012

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, March 8, 2012



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from March 2 to 9 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 was last identified alongshore Monroe County in the Pavilion Key region and nearshore to offshore central to southern Monroe County on March 1. Patchy very low impacts remain possible alongshore northern Monroe County today and Tuesday, with patchy moderate impacts possible on Wednesday. A patchy harmful algal bloom was also last identified offshore in the Gulf side region of the Lower Florida Keys on February 23. No reports of impacts in association with this bloom have recently been reported, however, impacts remain possible in this region. No additional impacts are expected alongshore southwest Florida today through Wednesday, March 14.

Analysis

Southwest Florida: A patchy *Karenia brevis* bloom was last identified on 3/1 alongshore northern Monroe County in the Pavilion Key area (MML) and also 1-3 miles offshore central to southern Monroe County (NOAA, FWRI; not shown). At that time, *K. brevis* concentrations in the Pavilion Key region and 1-3 miles west of Ponce de Leon Bay were up to 'medium', and concentrations 3 miles southwest of Highland Beach and 3-5 miles offshore Wood Key were up to 'low'. More recent samples are presently unavailable in the coastal Monroe County region. Recent samples collected alongshore Manatee and Charlotte counties indicate that *K. brevis* is not present (FWRI, 3/5-3/6). Background *K. brevis* concentrations were detected 7 miles offshore Pinellas, and alongshore Sarasota, Lee, and Collier counties last week (FWRI, MML, CCPCPD; 3/3-3/7). Detailed sampling information can be obtained through FWRI at <http://myfwc.com/research/redtide/events/status/statewide/>.

Recent MODIS imagery (3/10; shown left) continues to indicate elevated to high chlorophyll levels (5 to $>10\mu\text{g/L}$) in the Pavilion Key area and south along the Monroe County coast to Cape Sable. A more distinct feature is located at $25^{\circ}29'59''\text{N } 81^{\circ}20'36''\text{W}$, approximately 15 miles northwest of Cape Sable. The elevated chlorophyll feature previously reported approximately 30 miles south of Cape Romano in northern Monroe County remains present and is currently located approximately 33 miles west of Cape Sable. Forecasted winds may transport the bloom slightly south through Wednesday.

Florida Keys: A patchy harmful algal bloom was last identified offshore in the Gulf side region of the Lower Florida Keys on 2/23 (MML). No additional sample information is presently available in this region where 'low a' concentrations of *K. brevis* were previously detected. Continued sampling is recommended. Recent MODIS imagery indicates elevated chlorophyll features extending from the eastern end of the Lower Keys to the western side of Florida Bay ($4-8\mu\text{g/L}$), from Cape Sable southwest approximately 28 miles ($4-7\mu\text{g/L}$), and approximately 6 miles north of Key West ($2\mu\text{g/L}$). East to northeast winds may transport these features and the previously identified bloom north of the Lower Keys westward through Sunday.

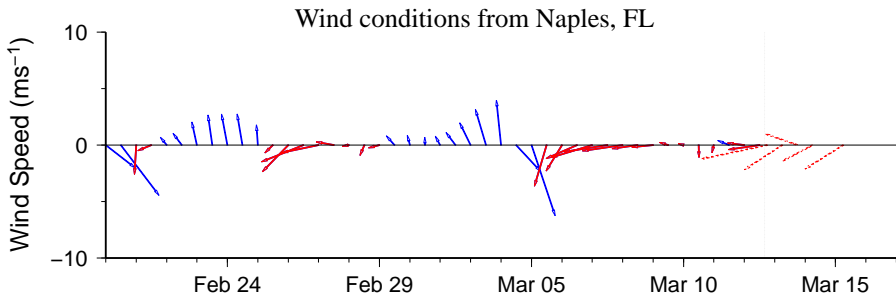
Fisher, Yang

Wind Analysis

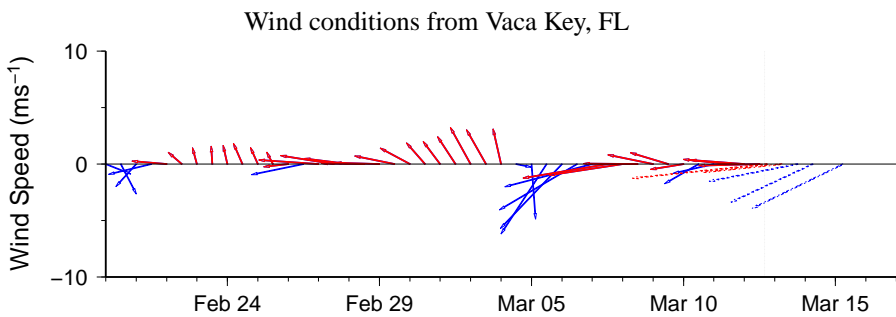
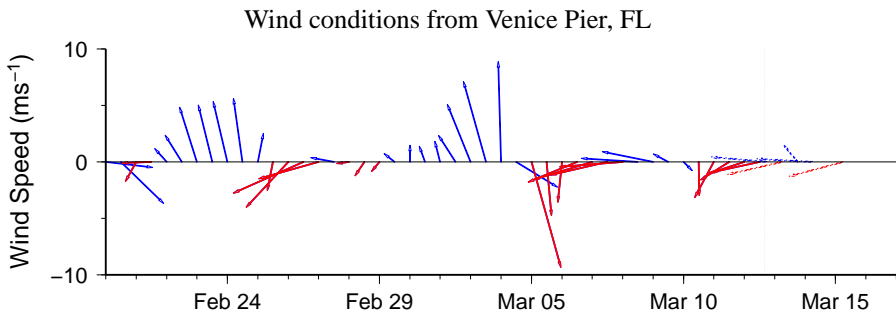
Collier and Monroe Counties: East winds (11-19kn, 6-10m/s) today through Tuesday. North winds Tuesday night shifting east northeast (11-15kn, 6-8m/s) Tuesday night. East northeast winds Wednesday becoming southwest in the afternoon (8-12kn, 4-6m/s). Northeast winds Wednesday night (12-15kn, 6-8m/s).

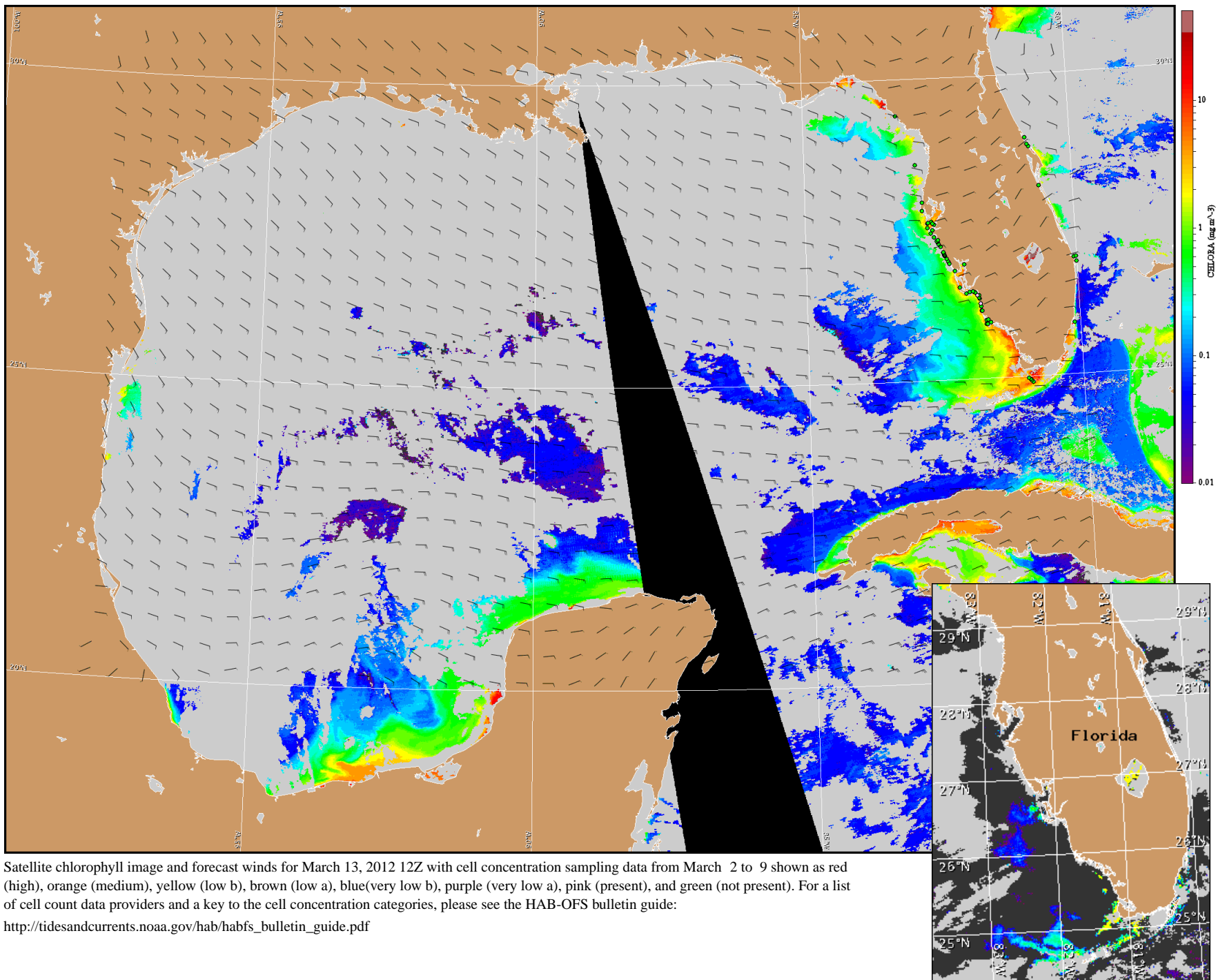
Florida Keys: East today through Tuesday (15-20kn, 8-10m/s). Northeast to east winds Tuesday night and Wednesday (10-15kn, 5-8m/s).

Pinellas to Lee Counties: East winds today (15kn, 8m/s) becoming northwest in the afternoon (5-10kn, 3-5m/s). North winds tonight (5-10kn, 3-5m/s) shifting east. East winds Tuesday (10kn, 5m/s), becoming northwest in the afternoon. Northeast winds Tuesday night and Wednesday (5-10kn, 3-5m/s), becoming northwest Wednesday afternoon and east (10-15kn, 5-8m/s) Wednesday night.



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 March 13, 2012 12Z with cell concentration sampling data from March 2 to 9 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).