

Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

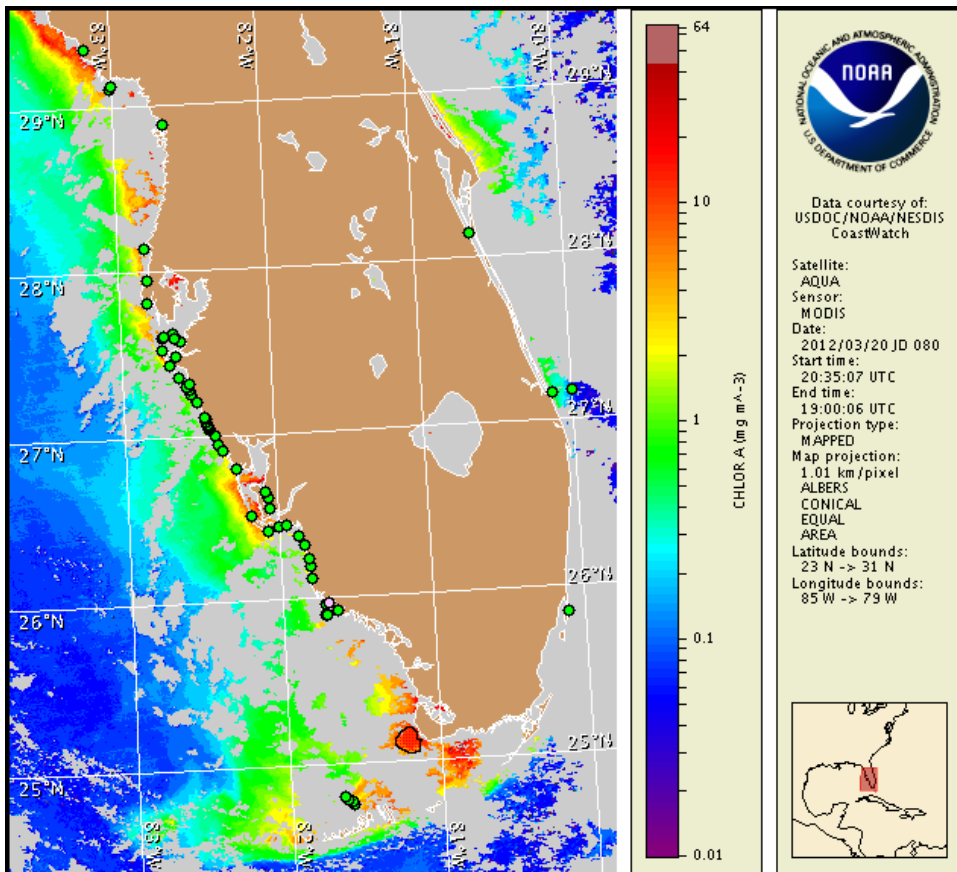
Thursday, 22 March 2012

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Tuesday, February 7, 2012



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from March 12 to 20 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 was last identified alongshore and offshore Monroe County from the Pavilion Key region to western Cape Sable on March 1 to March 2. 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 these blooms have recently been reported, however, impacts remain possible in these regions. No additional impacts are expected alongshore southwest Florida today through Sunday, March 25.

Analysis

Southwest Florida: A harmful algal bloom was last identified on March 1 to March 2 alongshore Monroe County from Pavilion Key to Cape Sable. Samples collected on 3/2 and reported last week alongshore and up to 12 miles offshore Cape Sable in southern Monroe County confirmed the presence of a *Karenia brevis* bloom (NOAA, FWRI). *K. brevis* concentrations ranged from 'medium' at the coast and offshore up to 8 miles, to 'low a' 12 miles offshore Cape Sable.

There are no recent samples for the coastal Monroe County region. Samples collected recently alongshore from Pinellas to Collier counties indicate that *K. brevis* is not present (FWRI, CCPCPD, SCHD; 3/18-3/20). Detailed sampling information can be obtained through FWRI at <http://myfwc.com/research/redtide/events/status/statewide/>.

MODIS imagery, although partially cloudy, suggests that the bloom may still be present alongshore and offshore Monroe County and west of Cape Sable. An elevated chlorophyll feature (6 to >10 $\mu\text{g/L}$) is mostly visible alongshore southern Collier County and Monroe counties, extending 3-9 miles offshore Cape Sable and southwest ~24 miles to 24°58'3"N 81°26'48"W. Patchy elevated chlorophyll features are also visible alongshore southern Pinellas, Manatee, Charlotte and northern Lee counties. These features may be the result of non-harmful algal blooms or resuspended sediments, and are unlikely to contain *K. brevis*. Forecasted variable winds should maintain location of the feature through Sunday. Bloom intensification is not expected.

Florida Keys: No *K. brevis* was detected in the Sawyer Key region (MML, 3/16) of the Lower Key region, both ends of 7-mile Bridge, and Spanish harbor (MML, 3/20) of the Middle Key region. 'Low a' concentrations of *K. brevis* were previously detected on 2/23 offshore in the Gulf side region of the Lower Florida Keys.

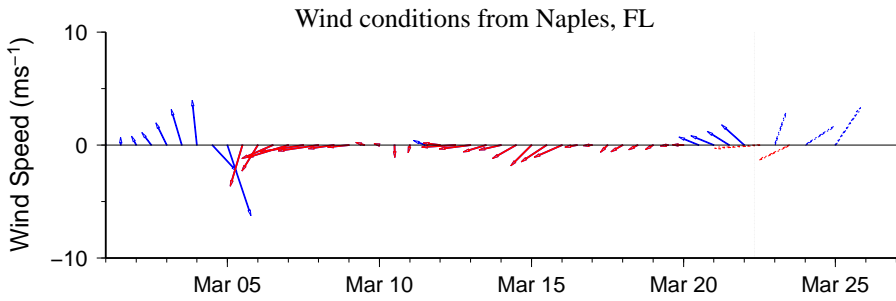
An elevated chlorophyll feature (4 to >10 $\mu\text{g/L}$) remains visible in recent MODIS imagery north of the Lower and Middle Keys, extending from south of Cape Sable to ~13 miles northwest of Key West. Forecasted variable winds may maintain location of the feature through Sunday.

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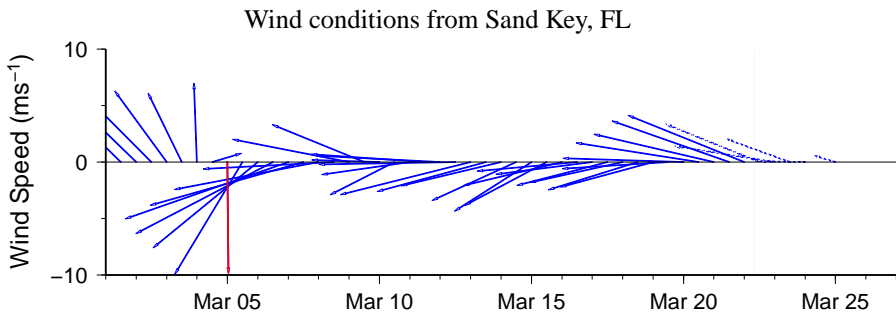
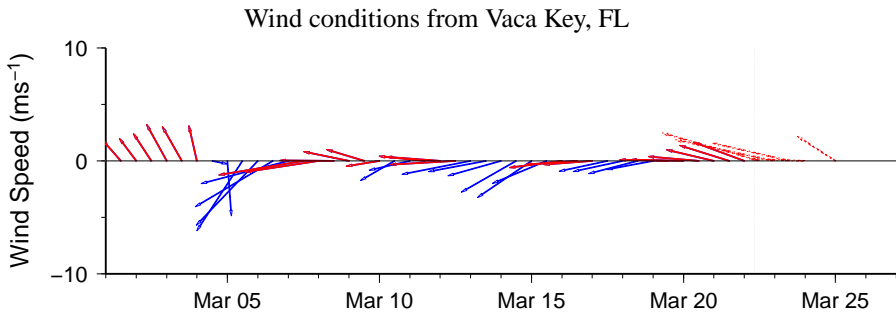
Wind Analysis

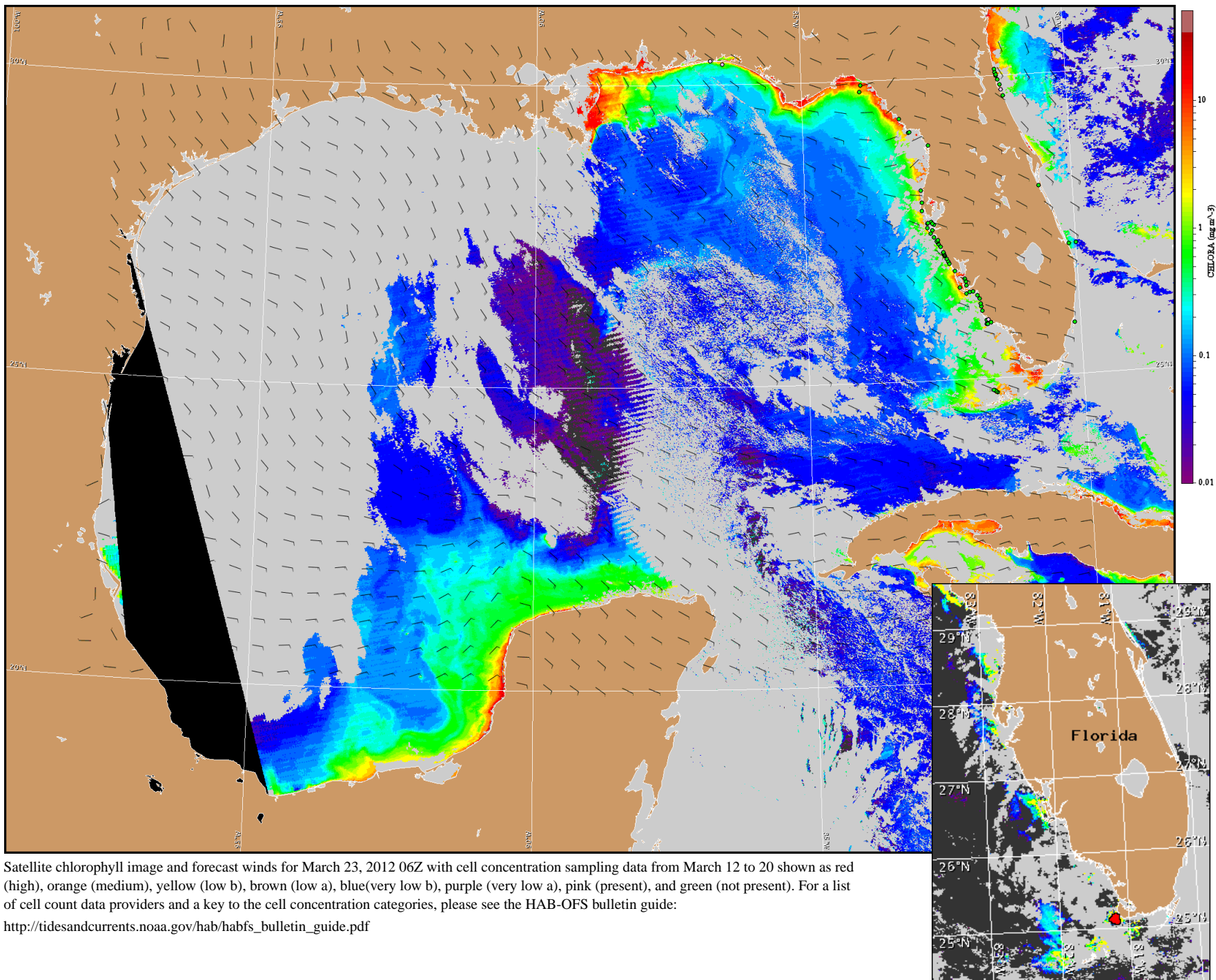
Collier and Monroe Counties: Southeast to east winds (6-18kn, 3-9m/s) today through Saturday. South winds (6-9kn, 3-5m/s) Saturday night. Southwest winds (9-14kn, 5-7m/s) Sunday.

Florida Keys: East to southeast winds (15-20kn, 8-10m/s) today, decreased 10-15kn Friday, and near 10 kn Friday night and Saturday. South winds near 10kn Sunday and becoming west later Sunday.



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 23, 2012 06Z with cell concentration sampling data from March 12 to 20 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).