



Gulf of Mexico Harmful Algal Bloom Bulletin

15 March 2007

NOAA Ocean Service

NOAA Satellites and Information Service

Last bulletin: March 12, 2007

Conditions Report

A harmful algal bloom has been identified in patches in southern Lee County and northern Collier County and in the Lower Florida Keys in Monroe County. In southern Lee County, patchy moderate impacts are possible today and Friday and patchy very low impacts are possible Saturday and Sunday. In northern Collier County, very low impacts are possible tonight and Friday and no impacts are expected Saturday and Sunday. In the Lower Florida Keys, no impacts are expected today through Sunday.

Analysis

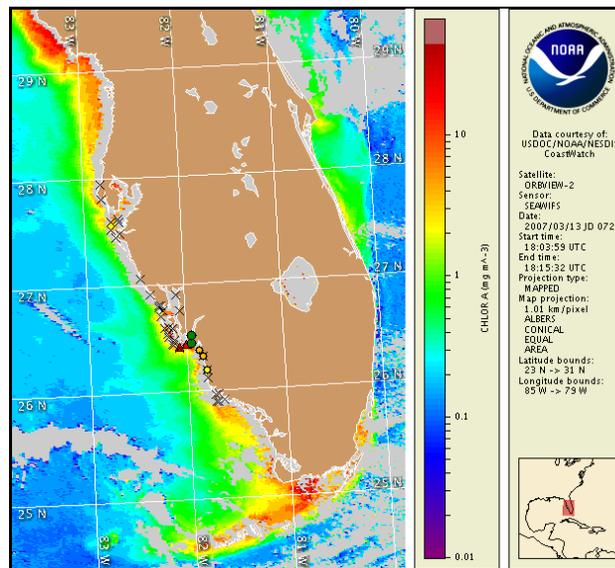
The harmful algal bloom is again present onshore in northern Collier County and persists in southern Lee County and in the western portion of the Lower Florida Keys. Satellite imagery (3/13) is obscured at the coast from southern Lee to Monroe County; however portions of an elevated chlorophyll patch east of Sanibel Island remain visible. Elevated chlorophyll levels ($>10 \mu\text{g/L}$) are present in this region centered at about $26^{\circ}25.8' \text{N}$ 82°W . Reports of dead fish have been received in this region. Recent samples identified "very low a" and "very low b" concentrations of *Karenia brevis* in northern Collier County (FWRI; 3/12). Chlorophyll levels appear elevated up to $8 \mu\text{g/L}$ in unclouded patches slightly offshore (up to 7nm) of northern Collier County. Continued sampling is recommended. Slight southerly transport of the bloom on Friday night through Sunday is possible. Forecasted winds are favorable for upwelling beginning Saturday night.

The harmful algal bloom persists in the Lower Florida Keys in Monroe County. Satellite imagery indicates a patch of elevated chlorophyll levels ($>5 \mu\text{g/L}$) centered about $24^{\circ}35.8' \text{N}$ $81^{\circ}54.4' \text{W}$ whose maximum chlorophyll levels ($>10 \mu\text{g/L}$) are found around $24^{\circ}34.3' \text{N}$ $81^{\circ}57.5' \text{W}$. Continued sampling in the western end of the Lower Keys is recommended. Variable winds today through Sunday are not favorable for continued westward transport of the bloom north of the Lower Florida Keys. High concentrations of *K. brevis* were identified northwest of the Marquesas Keys on 2/25 and 3/1 where an elevated chlorophyll feature had previously been reported (FWRI). Imagery is presently obscured in this region.

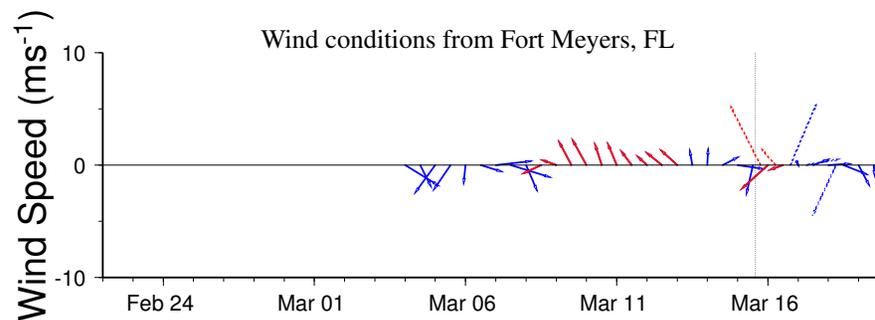
Urizar, Fisher

Please note the following restrictions on all SeaWiFS imagery derived from CoastWatch.

1. Data are restricted to civil marine applications only; i.e. federal, state, and local government use/distribution is permitted.
2. Image products may be published in newspapers. Any other publishing arrangements must receive GeoEye approval via the CoastWatch Program.



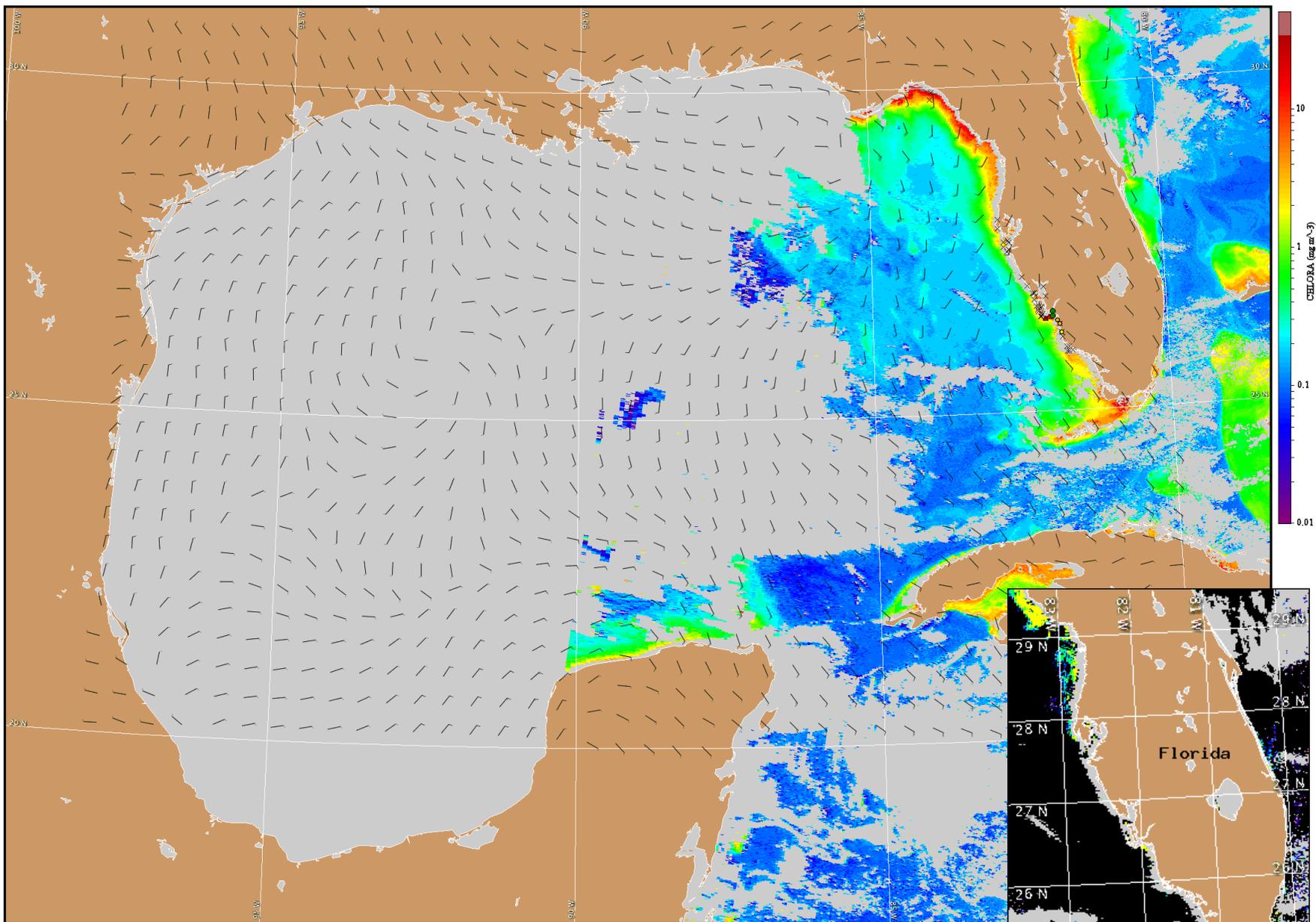
Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from March 5-13 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HABFS bulletin guide: http://www.csc.noaa.gov/crs/habf/habfs_bulletin_guide.pdf



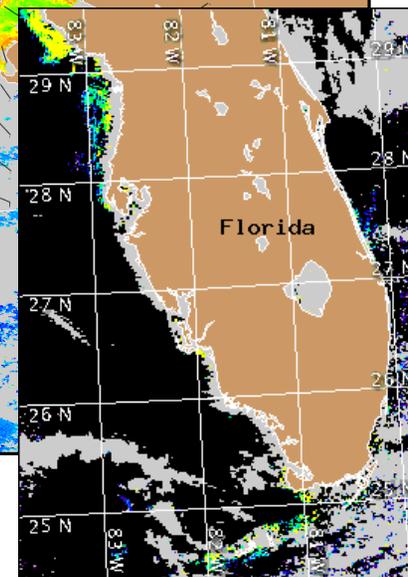
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.

SW Florida: Southeasterly winds (10-15 kt, 5-8 m/s) today. Southerly winds (15-20 kt, 8-10 m/s) tonight and Friday becoming westerly and then northwesterly winds by Friday night (20 kts). Northerly winds (15-20 kt) on Saturday becoming northeasterly winds Saturday night (15 kt) and Sunday (10-15 kt).

Lower Keys: Southeasterly winds (10-20 kt, 5-10 m/s) today and tonight becoming southerly winds (10-15 kt, 5-8 m/s) Friday. Southwesterly winds (10-15 kt) Friday night becoming westerly and then northwesterly winds by Saturday (15 kt). Northeasterly winds (15-20 kt) Sunday.



Satellite chlorophyll image and forecast winds for March 16, 2007 06Z with cell concentration sampling data from March 5-13 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HABFS bulletin guide: http://www.csc.noaa.gov/crs/habf/habfs_bulletin_guide.pdf



Verified HAB areas shown in red. Other bloom areas shown in yellow (see p. 1 analysis for interpretation).

Wind conditions from Sand Key, FL

