



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

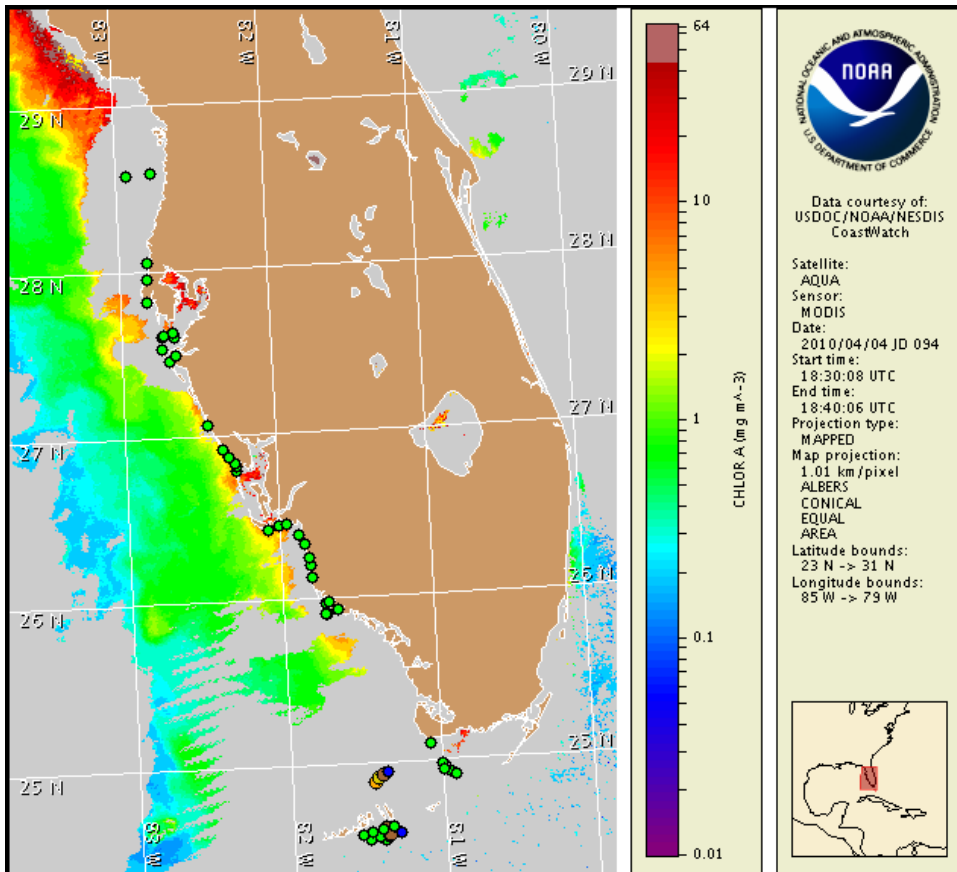
5 April 2010

NOAA Ocean Service

NOAA Satellites and Information Service

NOAA National Weather Service

Last bulletin: April 1, 2010



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from March 26 to April 1 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 HABFS bulletin guide:

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

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.

Conditions Report

A patchy harmful algal bloom continues alongshore and offshore in the ocean side region of the lower Florida Keys and offshore in the gulfside region of the lower Florida Keys. Patchy low impacts are possible today through Sunday along south facing coasts of the lower Florida Keys. No impacts are expected at the coast in the gulfside regions of the lower Florida Keys or elsewhere in southwest Florida through Wednesday, April 7.

Analysis

Florida Keys: A harmful algal bloom continues both alongshore and offshore south of the Lower Florida Keys. No new samples have been received for the area approximately 4-5 miles south of the Newfound Harbor Keys, where 'very low b' to 'low a' *Karenia brevis* concentrations were identified on 3/30 (MML). Recent imagery is cloudy; however, MODIS imagery from 4/2 (not shown) indicates that chlorophyll levels in this region remain elevated (2-3 $\mu\text{g/L}$) in a band south of the Keys stretching from approximately Summerland Key northeast to Islamorada. As satellite imagery is cloudy, it's possible that the extents of this patch of elevated chlorophyll may continue farther southward and northward than indicated. Continued sampling in this region is recommended.

New samples have been received for the harmful algal bloom identified north of the lower Florida Keys, indicating *K. brevis* concentrations ranging from 'very low b' to 'medium' in an area approximately 5-10 miles north-northeast of Upper Harbor Key (MML; 3/31). Imagery continues to be obscured by clouds in the sample region, limiting analysis. MODIS imagery from 4/2 (not shown) indicates elevated chlorophyll (3-4 $\mu\text{g/L}$) levels north Big Pine Key; no additional chlorophyll information is available in this region. One sample containing background *K. brevis* concentrations was identified at Boca Chica Bridge, approximately 5-6 miles south of Sandy Key (MML; 3/29); all other samples collected in this region indicated that *K. brevis* is not present (FWRI, MML; 3/29-31).

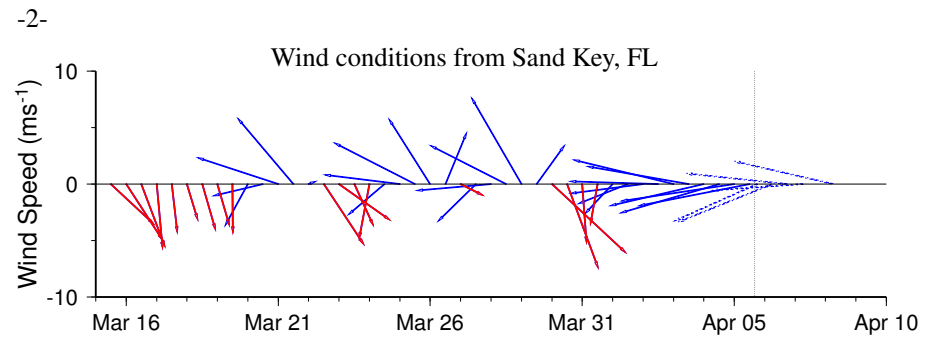
Forecasted winds favor slight northwestward transport of the bloom south of the Florida Keys through Wednesday. Prevailing currents will likely minimize westward movement. Westward to northwestward transport of the bloom north of the lower Florida Keys is possible through Wednesday.

Southwest Florida: Recent samples collected alongshore southwest Florida from Pinellas to Monroe County indicate that *K. brevis* is not present (FWRI, MML, SCHD; 3/26-4/1).

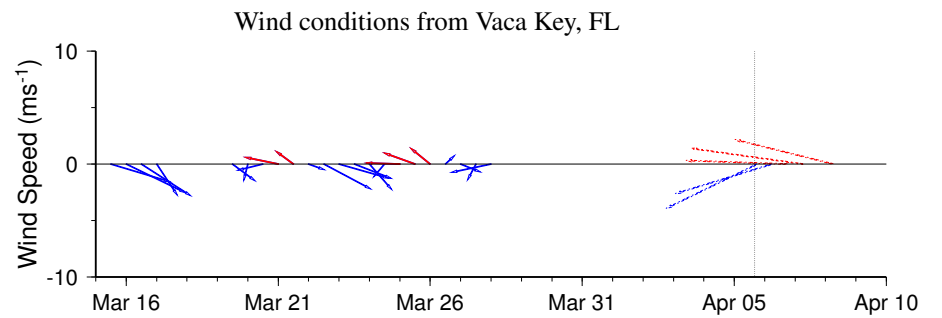
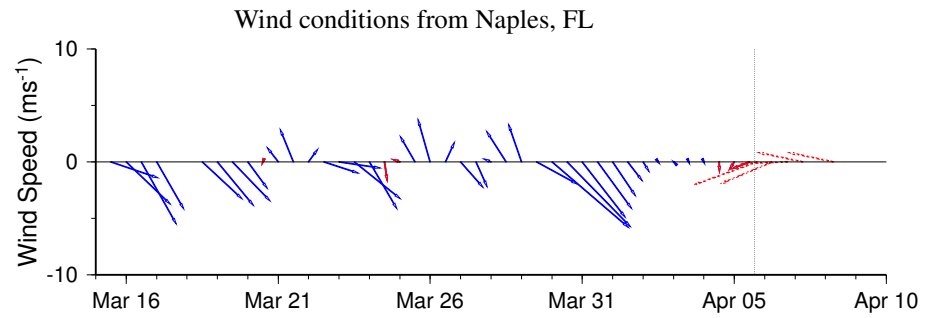
Recent imagery is cloudy at the coast in southwest Florida, limiting analysis. MODIS imagery from 4/2 (not shown) suggests that chlorophyll levels alongshore and offshore southern Lee and northern Collier counties may have dissipated slightly since last reported, though still remain elevated (2-7 $\mu\text{g/L}$). Though cloudy imagery partially obscures the full extents of the feature, the patch of elevated chlorophyll last reported 18-27 miles offshore Naples in northern Collier County remains visible in current imagery 7.5-12 miles offshore Naples, centered at 26°7'9"N 81°57'14"W (3-4 $\mu\text{g/L}$). These features are likely associated with non-harmful diatom blooms that have been identified in recent samples (FWRI; 3/29-30), and not *K. brevis*. Strong east and southeast winds over the next several days may promote northwestward transport of these features through Wednesday.

Due to technical difficulties SeaWifs imagery is currently unavailable for display. MODIS imagery is shown on this bulletin.

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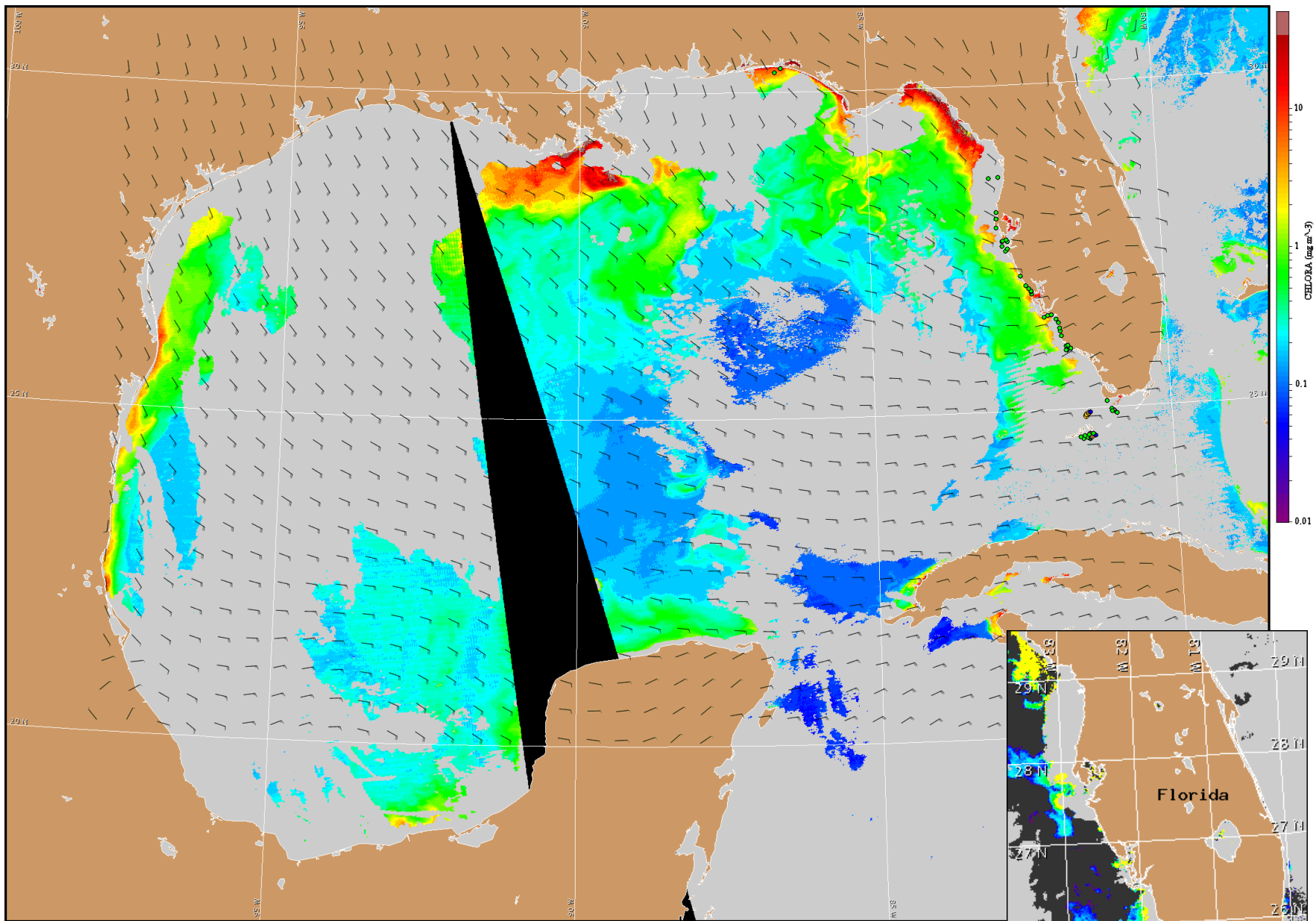
Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).



Wind Analysis

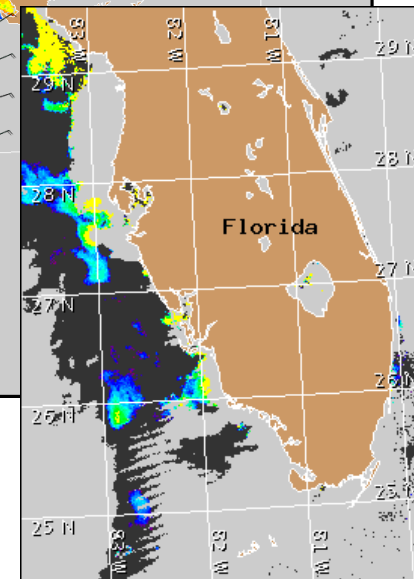
Florida Keys: East winds (15-20kn, 8-10m/s) today through Tuesday night. East to south-east winds (15-20kn) Wednesday.

Southwest Florida: East winds (8-20kn, 4-10m/s) today through Tuesday night. Southeast winds (11-18kn, 6-9m/s) Wednesday.



Satellite chlorophyll image and forecast winds for April 6, 2010 12Z with Cell concentration sampling data from March 26 to April 1 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 HABFS 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).