

# Gulf of Mexico Harmful Algal Bloom Bulletin

Region: South Florida

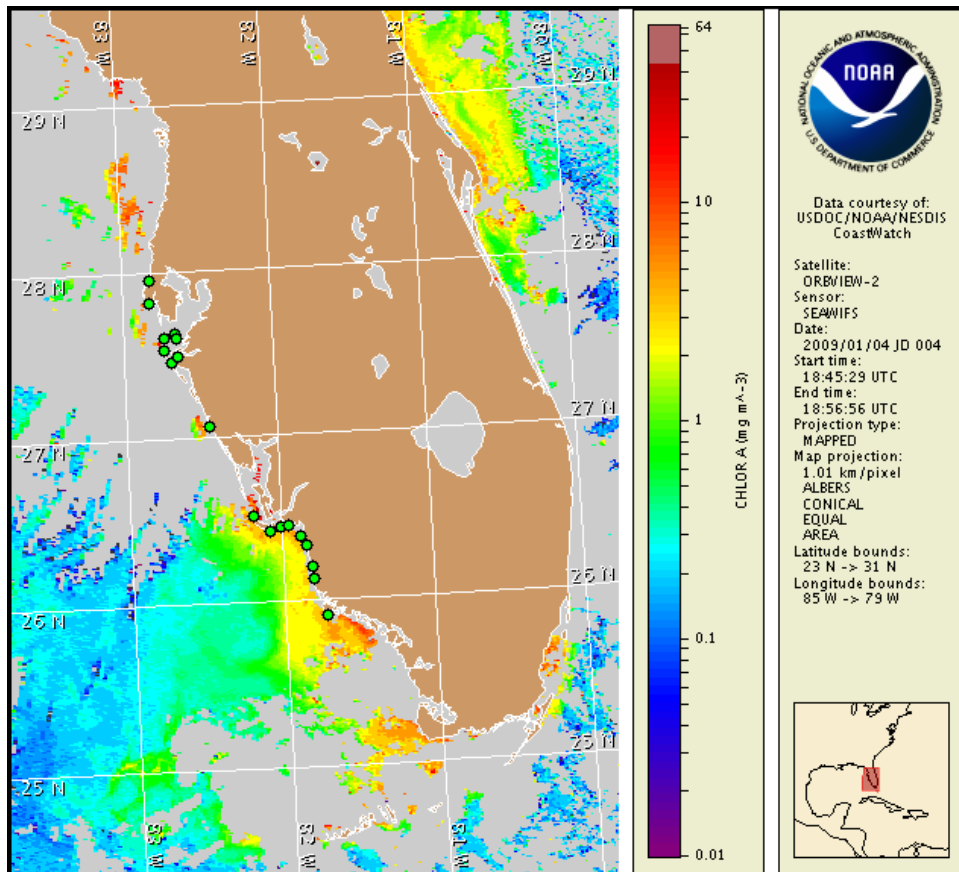
5 January 2009

NOAA Ocean Service

NOAA Satellites and Information Service

NOAA National Weather Service

Last bulletin: January 2, 2009



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from December 29 to 30 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](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 harmful algal bloom was last identified on the gulf side of the lower Florida Keys in Monroe County on December 19. This harmful bloom is likely still present. Patchy very low impacts are possible on the gulf side of the lower Florida Keys today through Tuesday, with up to moderate impacts possible on Wednesday. No additional impacts are expected elsewhere in southwest Florida today through Wednesday, January 7.

## Analysis

No *Karenia brevis* concentrations above background level have been reported over the past two weeks throughout southwest Florida. Satellite imagery continues to indicate the presence of an elevated chlorophyll feature north of the lower Florida Keys in Monroe County where very low to medium concentrations were previously identified on 12/17-12/19 (MML; not displayed). Although recent satellite imagery is predominantly obscured by clouds north of the lower Keys, a small part of this elevated chlorophyll feature (up to  $7 \mu\text{g/L}$ ) remains visible in SeaWiFS imagery as of January 3 (not displayed) just north and northwest of Big Pine Key and Key West. The full extent of the feature can not be analyzed at this time. Westward transport of this feature may continue through Tuesday. Southeasterly and easterly winds today through Tuesday will decrease the potential for impacts at the coast. Continued sampling is highly recommended.

An elevated chlorophyll feature appears to remain present approximately 53 miles northwest of the Marquesas Keys; however its full extent is not visible in recent imagery.

The chlorophyll patch previously reported offshore Collier County has transported slightly south into Monroe County and continues to diminish in size and intensity as of January 4.

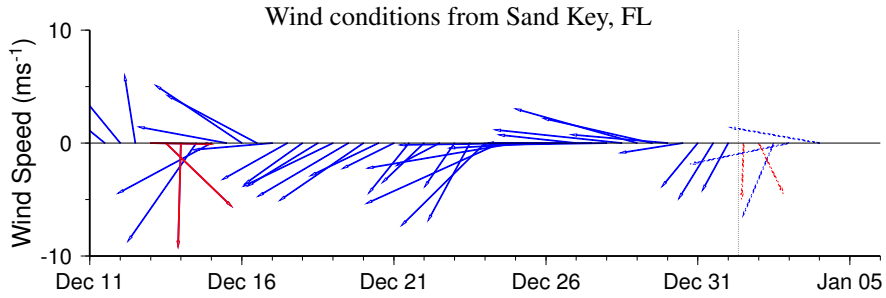
Elevated to high chlorophyll ( $>10 \mu\text{g/L}$ ) also remains visible in patches alongshore northern Monroe County in the Everglades National Park region where background concentrations of *Karenia brevis* were recently identified at Rabbit Key and Huston River (FWRI, 12/22; not displayed). Elevated chlorophyll in this region may not be indicative of a harmful bloom.

-Fisher, Urizar

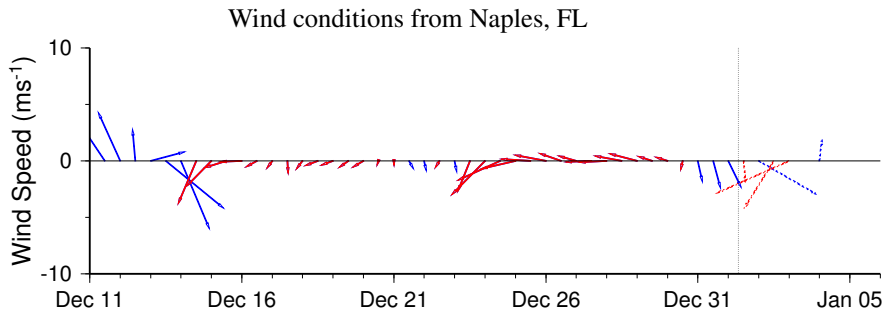
## Wind Analysis

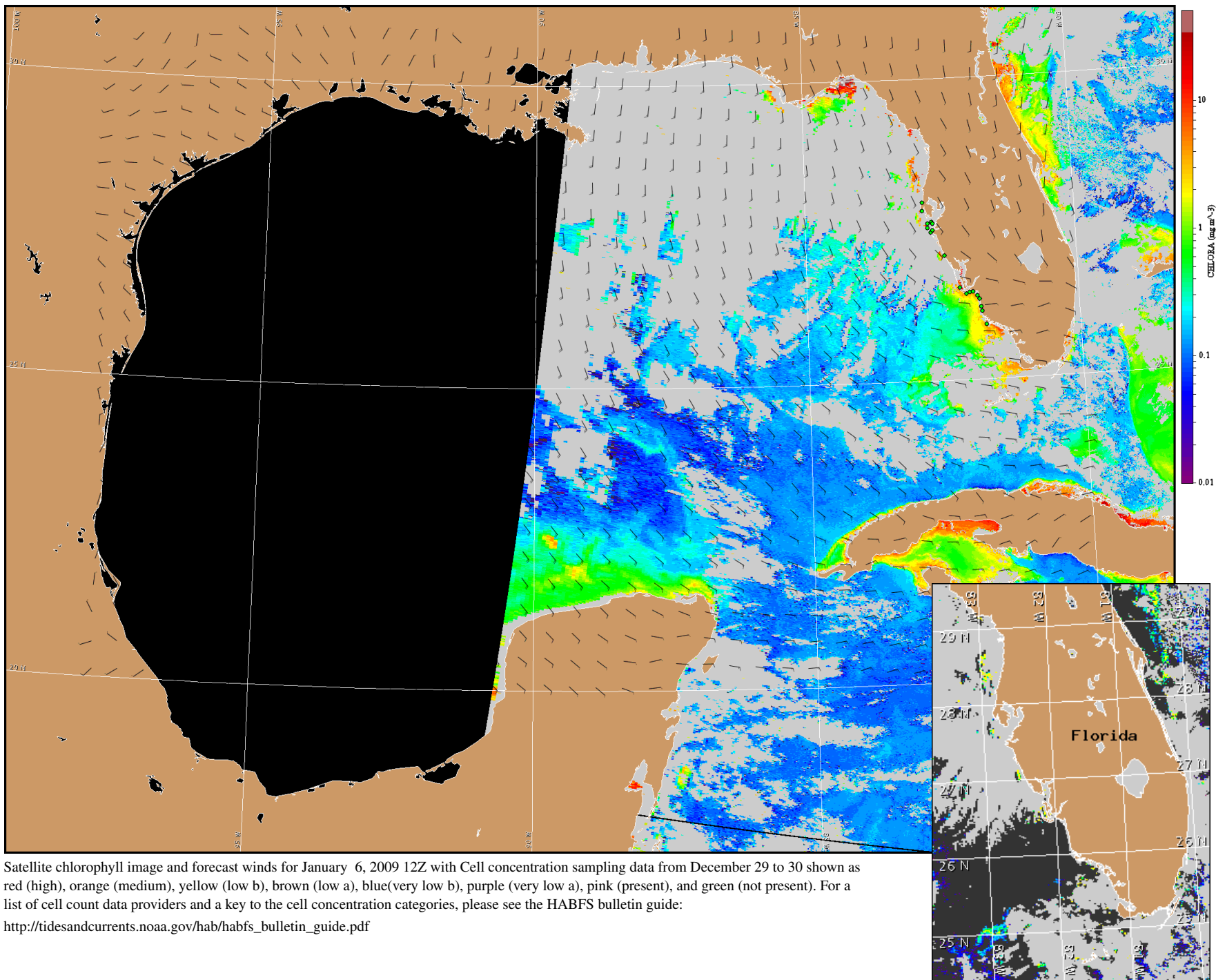
Florida Keys: East winds today (5-10kn, 3-5m/s) shifting southeast tonight through Tuesday night and strengthening up to 15kn (8m/s). Southwest to west winds Wednesday (15-20kn, 8-10m/s). Northwest to north winds Wednesday night (15kn).

SW Florida: East to southeast winds today (10kn, 5m/s), shifting south tonight through Tuesday night and strengthening up to 20kn (10m/s). West to southwest winds Wednesday (20kn). North to northwest winds Wednesday night (15kn, 8m/s).



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 January 6, 2009 12Z with Cell concentration sampling data from December 29 to 30 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).