



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

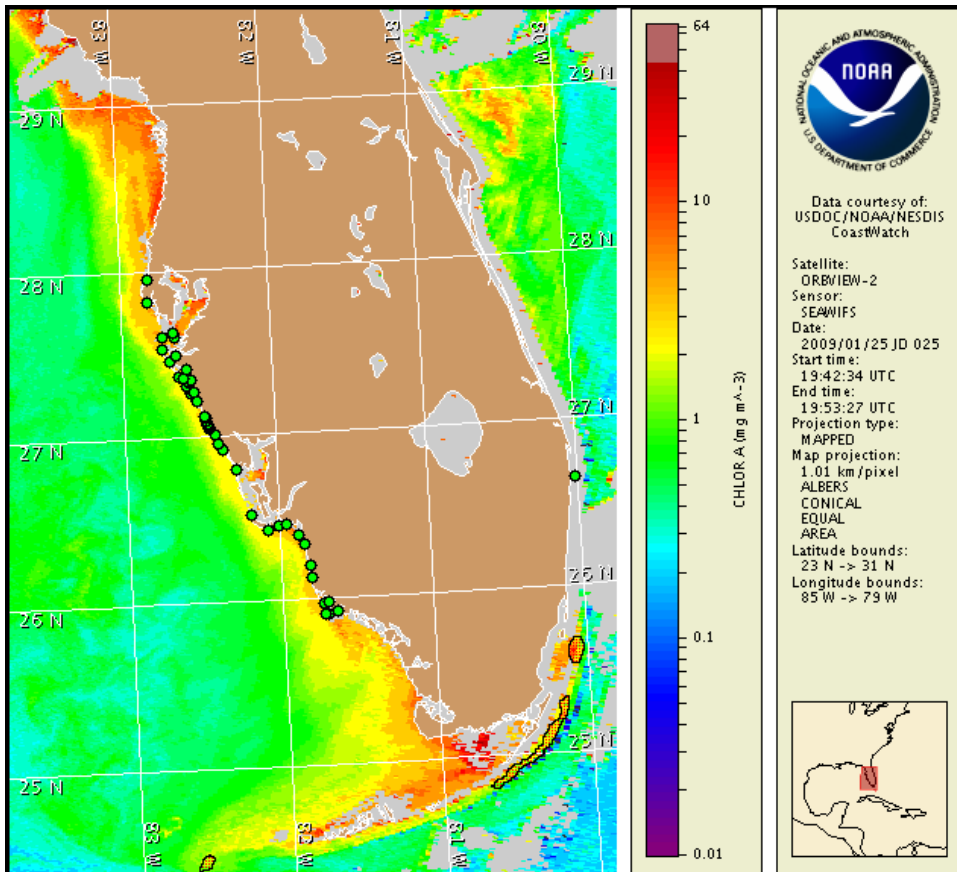
26 January 2009

NOAA Ocean Service

NOAA Satellites and Information Service

NOAA National Weather Service

Last bulletin: January 21, 2009



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from January 17 to 22 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

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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 January 9 onshore and offshore the gulf side of the lower Florida Keys in Monroe County. The harmful bloom may still be present in this region. On the gulf side of the lower Florida Keys, patchy moderate impacts are possible today and tomorrow and patchy very low impacts are possible Wednesday. No impacts are expected elsewhere along southwest Florida today through Wednesday, January 28.

Analysis

A harmful algal bloom was last identified on Jan. 9 onshore and offshore the gulf side of the lower Florida Keys in Monroe County. At that time, satellite imagery indicated the presence of a feature with elevated to high levels of chlorophyll in the vicinity of samples that contained up to medium concentrations of *Karenia brevis* (MML). Recent satellite imagery (Jan. 25) indicates that the majority of the feature has diminished in size and intensity and moved southwestward. However, the imagery is partially obscured by clouds along the lower Florida Keys, potentially masking portions of the feature. One remaining portion of the feature is centered at 24°35'40"N, 81°51'27"W (~3 miles northwest of Key West) where the chlorophyll levels are greater than 10 $\mu\text{g/L}$, a second larger portion of the feature is centered at 24°27'48"N, 82°36'12"W where the chlorophyll levels are ~1.5 $\mu\text{g/L}$, and a final remaining portion is centered at 24°37'41"N, 82°51'18"W where the chlorophyll levels are ~1.9 $\mu\text{g/L}$. No new samples have been received from this region in recent weeks. Sampling is highly recommended alongshore of the lower Florida Keys and in the regions identified above.

Satellite imagery also indicates the presence of an elevated chlorophyll feature (> 2 $\mu\text{g/L}$) extending from the ocean side of the middle Florida Keys (Lower Matecumbe Key) northeastward along east Florida to Key Biscayne. Reporting on this feature will continue as samples warrant or as requested.

In central Collier County, there is a small elevated chlorophyll feature (~5 $\mu\text{g/L}$) located approximately 8 miles south of Goodland Bay. Recent samples collected at the coast along central Collier County (Big Marco Pass, Caxambas Pass and Goodland), all indicate that *K. brevis* is not present (FWRI 1/21). Continued sampling is recommended.

Previously reported patches of elevated to high levels of chlorophyll (> 10 $\mu\text{g/L}$) located alongshore northern Monroe county in the Everglades National Park region are no longer visible. Satellite imagery indicates that chlorophyll levels have declined throughout this region over the past week.

Additional samples received from Pinellas, Sarasota, Lee and Collier counties indicate that *K. brevis* is not present at the coast in these regions (SCHD 1/20, FWRI 1/21).

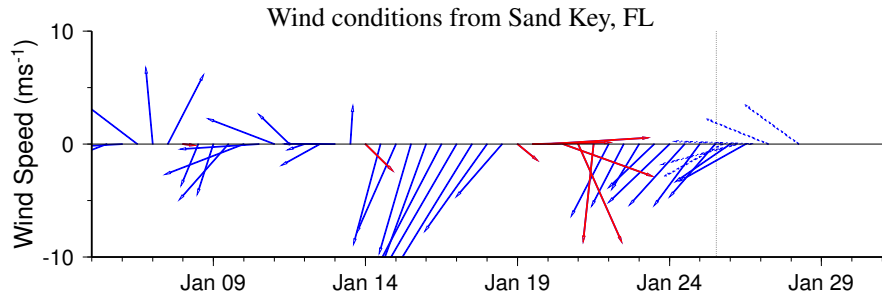
Conditions are favorable for continued westerly transport of elevated to high chlorophyll patches in the lower Florida Keys today through Wednesday. Northeasterly winds today and tomorrow will increase the potential for impacts on the gulf side of the lower Florida Keys.

Urizar, Fisher

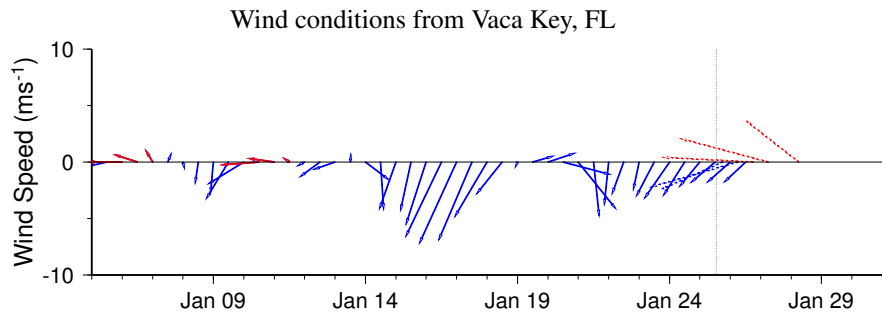
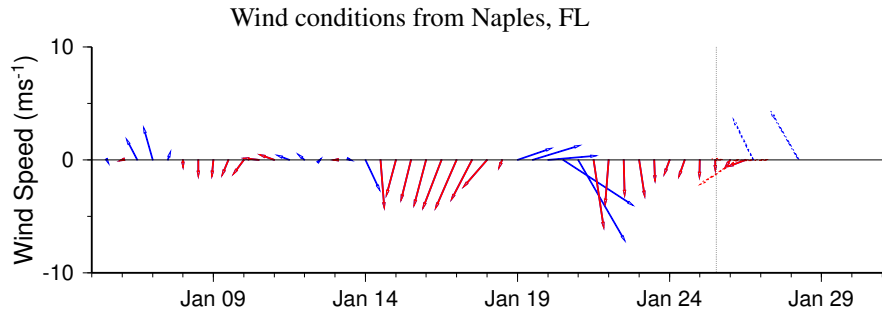
Wind Analysis

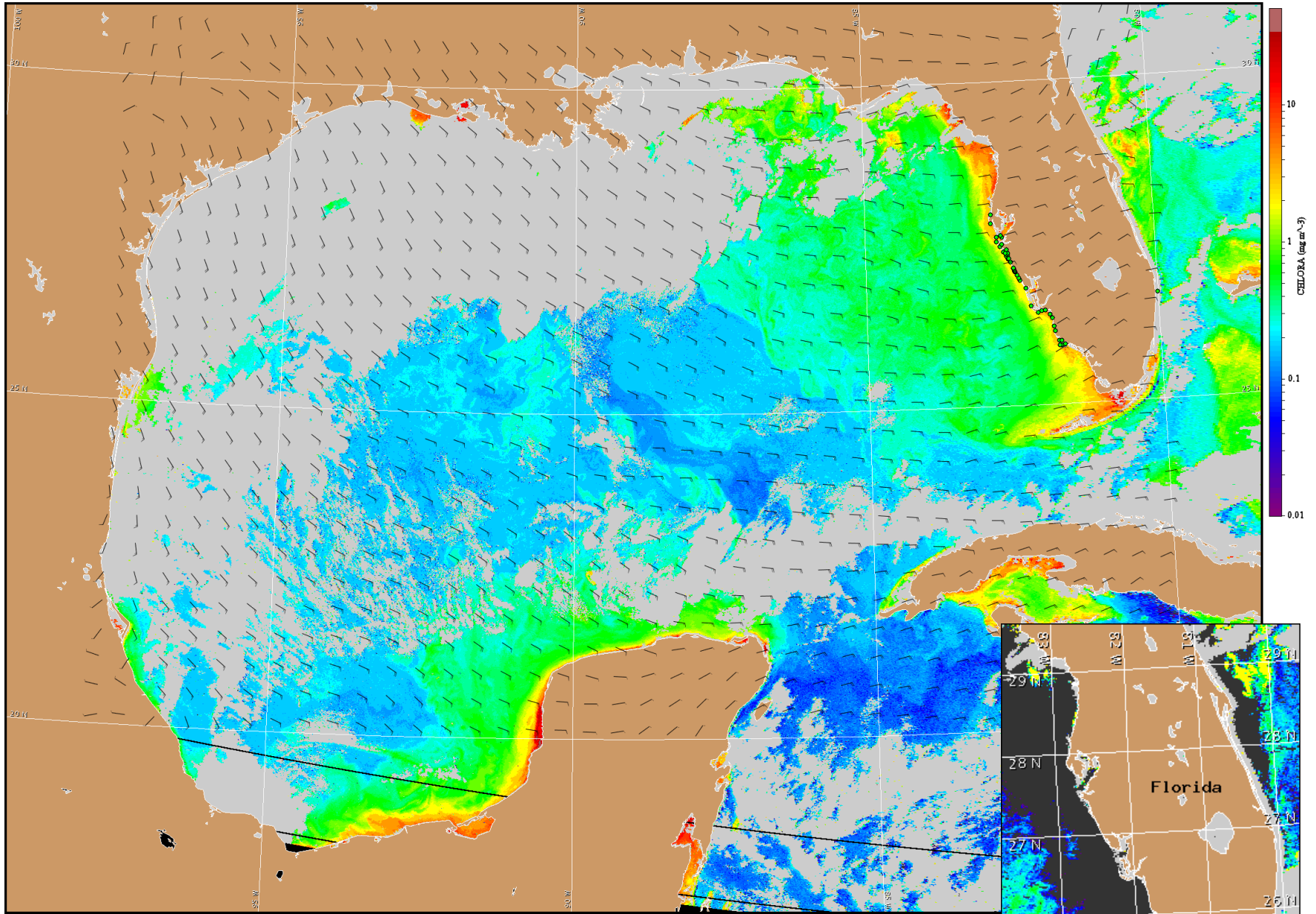
Florida Keys: Northeasterly to easterly winds today (10-15 kn, 5-8 m/s). Tonight and Tuesday, easterly winds near 15 knots (8 m/s). Tuesday night and Wednesday, easterly to southeasterly winds (10-15 kn).

Southwest Florida: Easterly winds today at 10 kn increasing to 15 kn tonight. Southeasterly winds Tuesday (10-15 kn). Southeasterly to southerly winds Wednesday (10-15 kn).

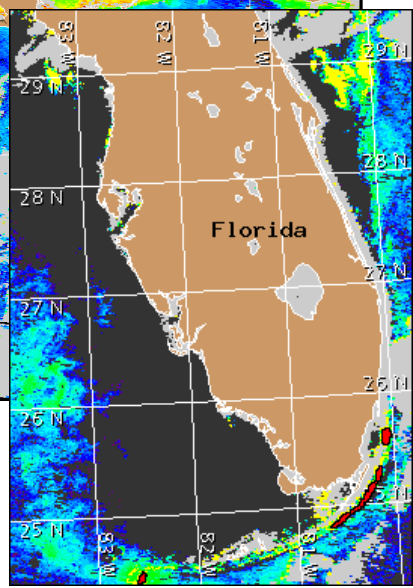


Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.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





Satellite chlorophyll image and forecast winds for January 27, 2009 12Z with Cell concentration sampling data from January 17 to 22 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).