

Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

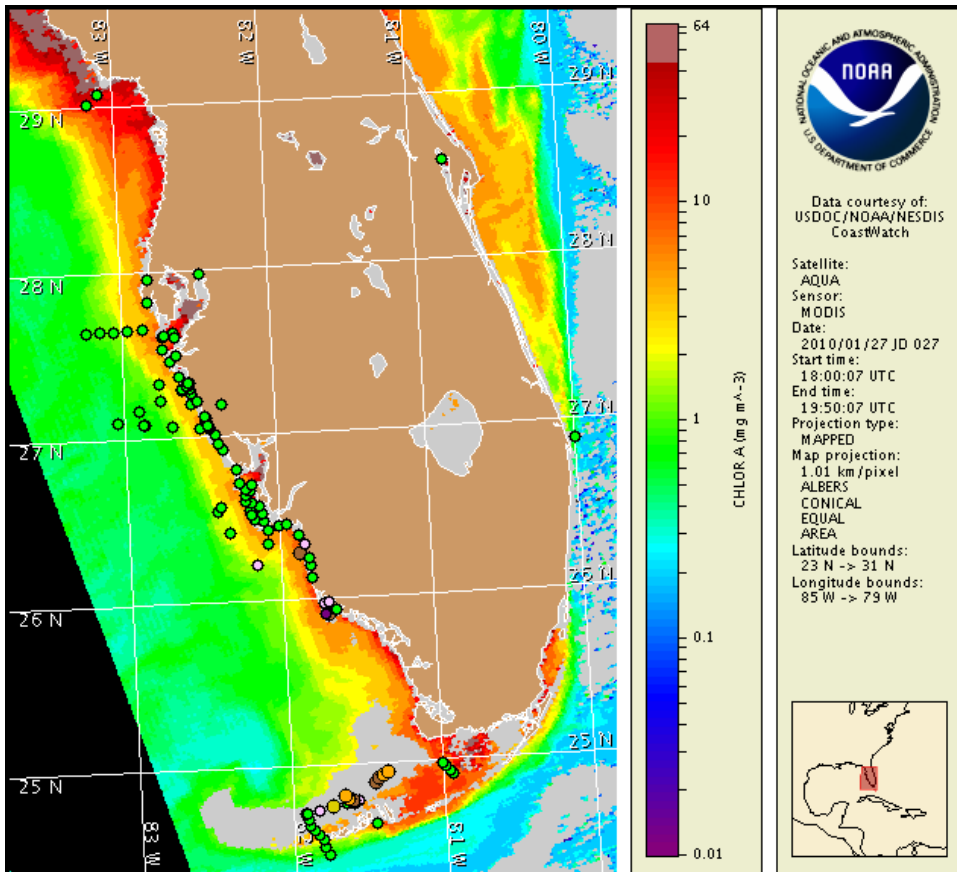
28 January 2010

NOAA Ocean Service

NOAA Satellites and Information Service

NOAA National Weather Service

Last bulletin: January 25, 2010



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from January 18 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

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 has been identified in patches in northern to central Collier County and offshore in the gulfside region of the lower Florida Keys. Respiratory irritation has been reported in the northern to central Collier County region. Patchy low impacts are possible today through Sunday in northern to central Collier County. Patchy very low to moderate impacts are possible today through Sunday in the lower Florida Keys region. No impacts are expected elsewhere alongshore southwest Florida today through Sunday, January 31.

Analysis

Patchy harmful algal blooms have been confirmed in northern to central Collier County and north of the lower Florida Keys. 'Low a' *Karenia brevis* concentrations were previously identified at Caxambas Pass in central Collier County on 1/19 (CCPCPD, FWRI). New samples at Clam Pass indicate that *K. brevis* concentrations have diminished to background levels. (FWRI, 1/25). A 'very low a' concentration was identified at South Marco Beach in northern Collier County. (FWRI, 1/21). Also, *K. brevis* concentrations ranging from 'very low a' to 'medium' were previously identified 3-10 miles north of the lower Florida Keys (MML, 1/18-20).

Recent samples in Lee County near Sanibel Island and in the Pine Island Sound region in Lee County indicate that the previously identified harmful algal bloom is no longer present. (FWRI, 1/20).

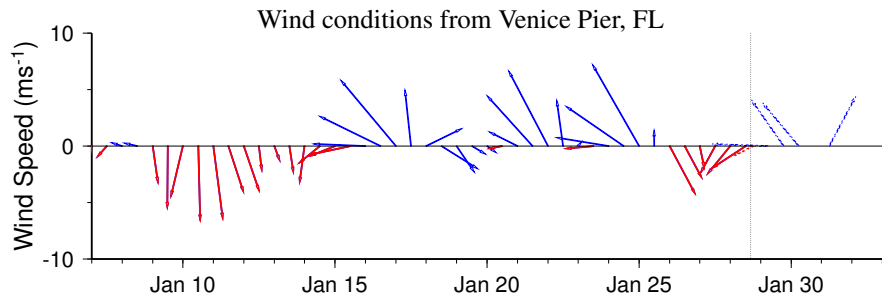
An elevated chlorophyll feature ($5-7 \mu\text{g/L}$) has become visible in MODIS imagery (1/27, shown) alongshore northern to central Collier County. This feature stretches approximately 1.5-2 miles offshore between the Naples region ($26^{\circ}6'19''\text{N } 81^{\circ}51'12''\text{W}$) and Marco Island ($25^{\circ}56'16''\text{N } 81^{\circ}46'19''\text{W}$). A slightly elevated chlorophyll feature ($2-3 \mu\text{g/L}$) is also visible offshore Gasparilla Island, northern Lee County, at approximately $26^{\circ}44'27''\text{N } 82^{\circ}26'14''\text{W}$.

Recent satellite imagery is obscured to the north of the lower Keys. Elevated chlorophyll ($4->10 \mu\text{g/L}$) continues to be visible in MODIS imagery (shown) east of Harbor Key stretching to the Florida Bay and south to approximately 6 miles south of the eastern lower and middle Florida Keys. Elevated chlorophyll features in the Florida Bay region are not necessarily indicative of harmful algae presence.

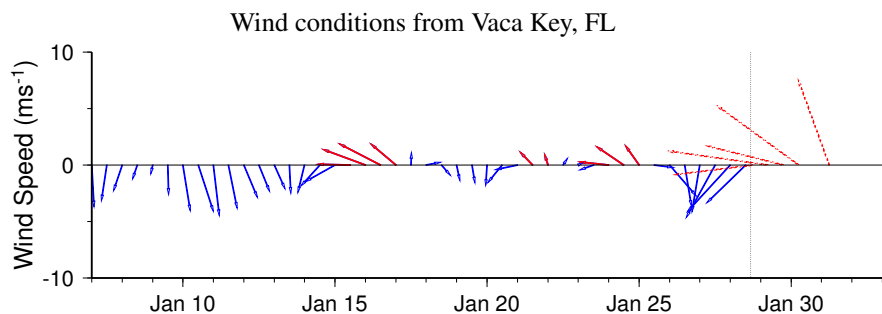
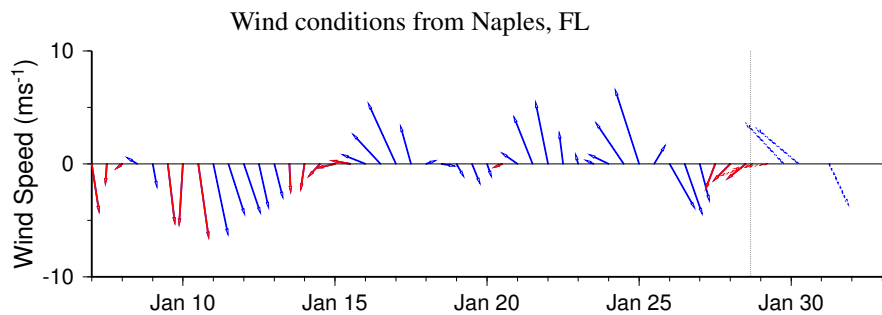
Variable winds forecasted for the Collier County region and the Florida Keys region suggest that transport of the blooms will be minimized. Westward to northwestward transport of the bloom located north of the lower Florida Keys is possible through Sunday, January 31. Intensification of these blooms is not expected through Sunday.

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

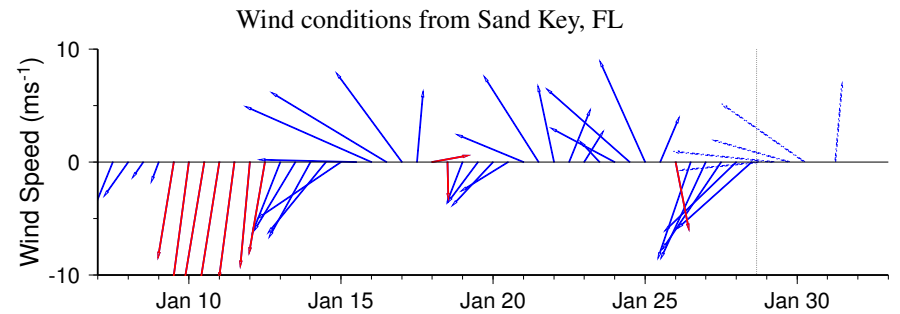
-Lindley, Fisher



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).



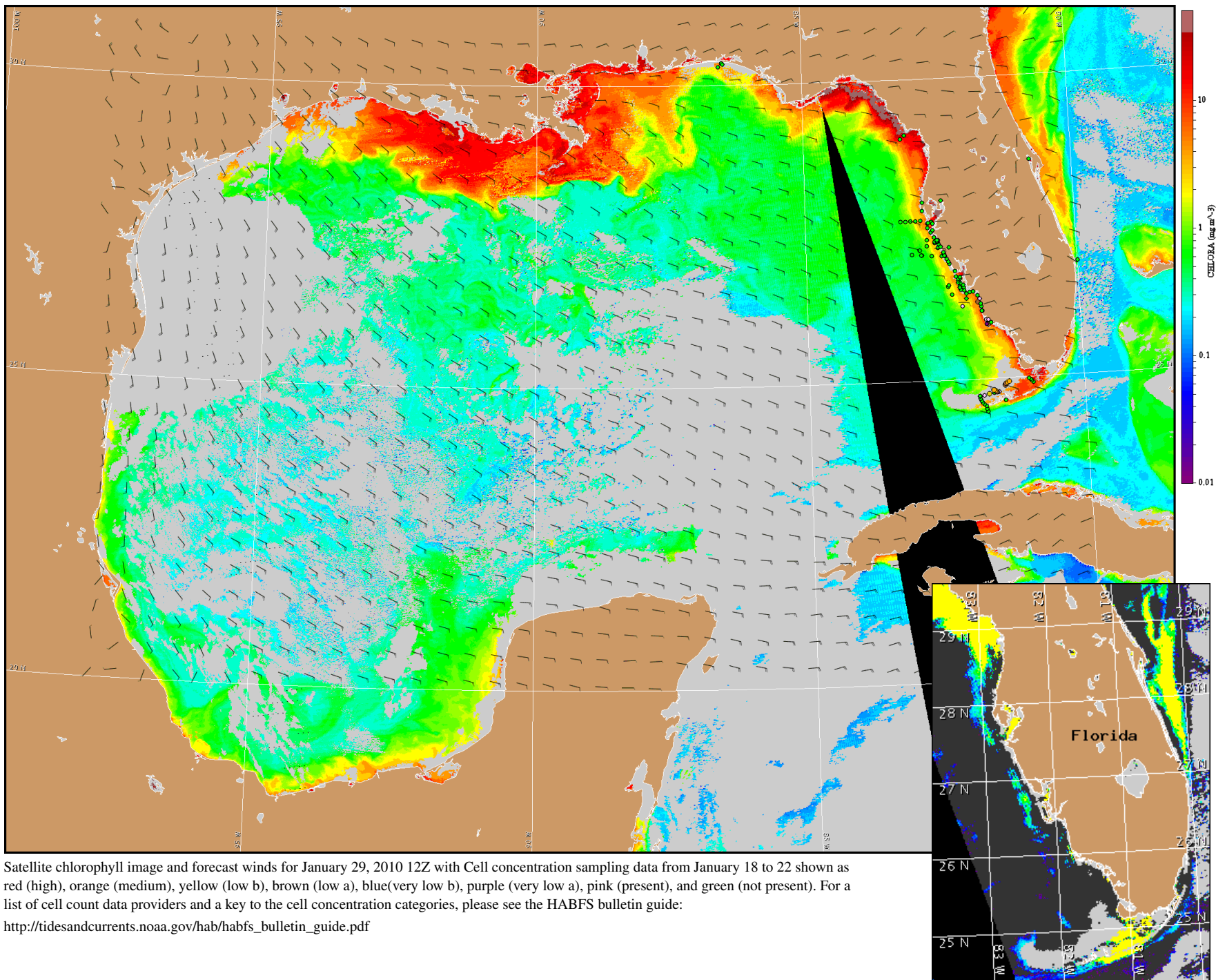
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Wind Analysis

SW Florida: Northeast winds today (15 kn, 8 m/s). East winds tonight (15 kn, 8 m/s). Southeast winds Friday and Friday night (15-20 kn, 8-10 m/s). Southwest winds Saturday becoming northwesterly by Saturday night (20 kn, 10 m/s). Northeast winds Sunday (15-20 kn, 8-10 m/s).

FL Keys (gulfside): Northeast winds today becoming easterly tonight (10-15 kn, 5-8 m/s). East to southeast winds Friday and Friday night (10-15 kn, 5-8 m/s). Southeast winds Saturday becoming southwesterly Saturday night (10-15 kn, 5-8 m/s). North to northeasterly winds on Sunday (15 kn, 8 m/s).



Satellite chlorophyll image and forecast winds for January 29, 2010 12Z with Cell concentration sampling data from January 18 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).