



Gulf of Mexico Harmful Algal Bloom Bulletin

13 December 2007

NOAA Ocean Service

NOAA Satellites and Information Service

Last bulletin: December 13, 2007

Conditions Report

E Florida: A harmful algal bloom has been identified from southern Volusia to southern Indian River County. Patchy moderate impacts are possible today through Sunday from southern Volusia to northern Indian River County, with patchy high impacts possible today through Sunday in southern Brevard and southern Indian River Counties.

SW Florida: A harmful algal bloom has been identified in northern Collier County. Patchy very low impacts are possible in northern Collier County through Saturday, with patchy moderate impacts possible Saturday night through Sunday. No other impacts are expected in southwest Florida through Sunday, December 16.

Analysis

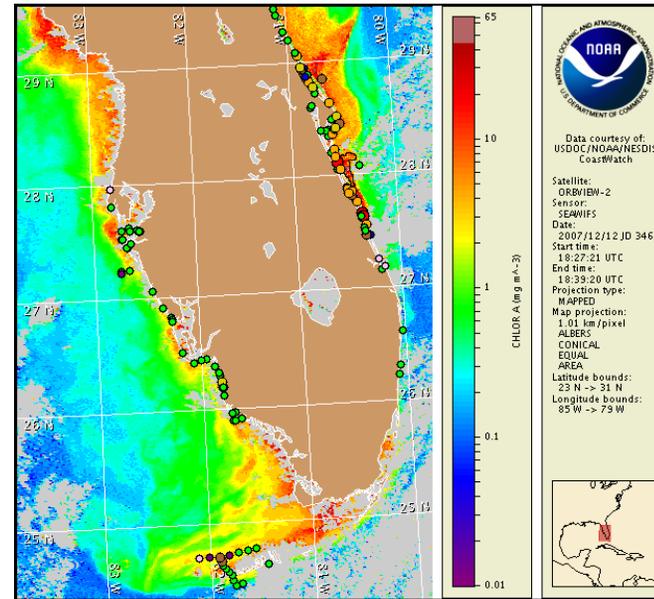
SW Florida: A harmful algal bloom has been identified in northern Collier County, based on confirmed low concentrations of *Karenia brevis* at Vanderbilt Beach in recent samples (12/6, FWRI). Throughout the rest of southwest Florida and the Florida Keys, low concentrations of *K. brevis* were confirmed north and west of Key West last week, as well as background concentrations in Pinellas County near Clearwater (12/3-5, FWRI). No *K. brevis* was detected in samples this week from Sarasota to Collier County, or north and west of Key West. High chlorophyll levels ($>10\mu\text{g/L}$) are visible in satellite imagery from 12/12 at the mouth of Tampa Bay, with a maximum at $27^{\circ}35'42''\text{N } 82^{\circ}49'56''\text{W}$, and extending offshore to $27^{\circ}38'3''\text{N } 82^{\circ}54'8''\text{W}$. Chlorophyll levels remain elevated ($3\text{--}5\mu\text{g/L}$) along the coast of Charlotte and Lee County from $26^{\circ}43'36''\text{N } 82^{\circ}18'58''\text{W}$ to $26^{\circ}22'21''\text{N } 82^{\circ}7'19''\text{W}$, south of Sanibel Island. Both features may be associated with confirmed nonharmful algae presence, but continued sampling is recommended. Several offshore features continue to be visible south of Cape Romano, centered at $25^{\circ}47'49''\text{N } 81^{\circ}40'45''\text{W}$, $25^{\circ}26'24''\text{N } 81^{\circ}38'21''\text{W}$, and $25^{\circ}12'3''\text{N } 81^{\circ}35'34''\text{W}$. Chlorophyll levels remain high ($8\text{--}9\mu\text{g/L}$) north and west of Key West, centered at $24^{\circ}36'23''\text{N } 81^{\circ}55'0''\text{W}$. Continued western transport of this feature is likely through Sunday.

-Allen, Keller

Please refer to previous South Florida bulletin (number 2007-087) for analysis and information regarding northeast Florida.

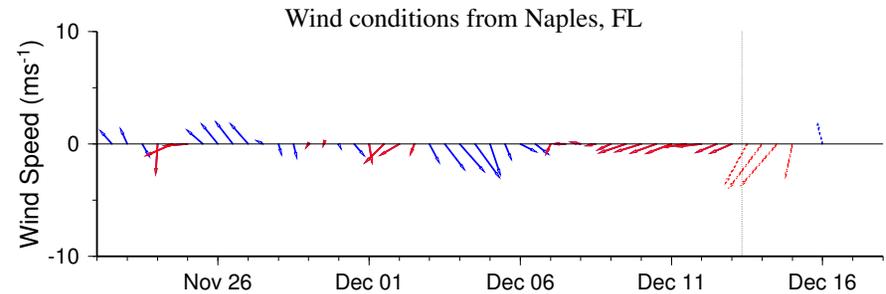
Please note the following restrictions on all SeaWiFS imagery derived from CoastWatch.

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 December 3 to 11 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:

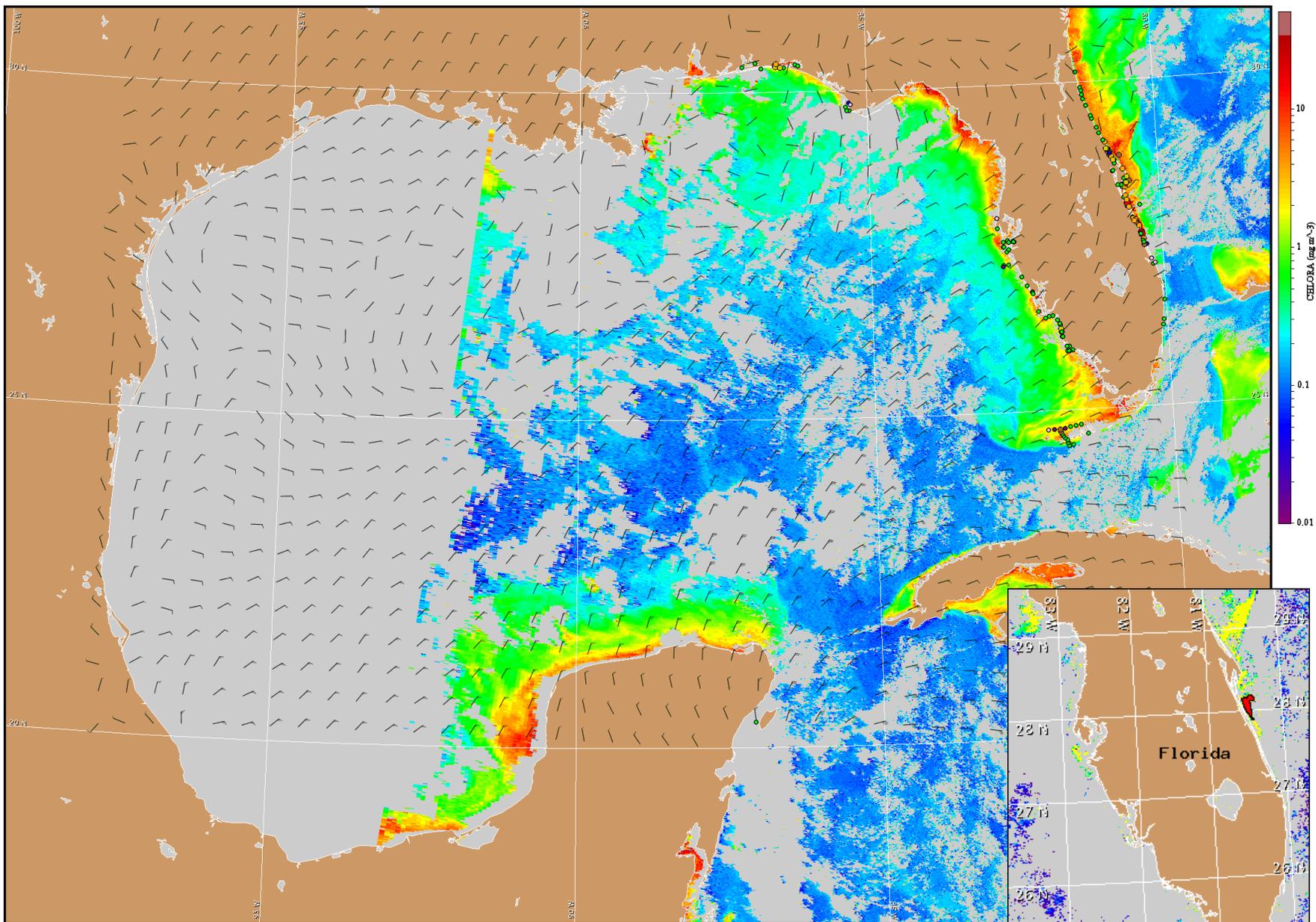
http://www.csc.noaa.gov/crs/habf/habfs_bulletin_guide.pdf



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: Northeasterly winds today at 5-10 knots (3-5 m/s) becoming easterly Friday night and southeasterly Saturday at 10-15 knots (5-8 m/s). Southwesterly winds Saturday night becoming northwesterly to northeasterly by Sunday (20 knots, 10m/s).

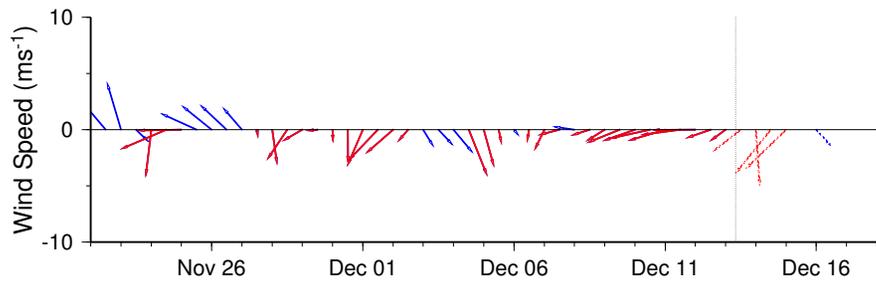
Florida Keys: Northeast to easterly winds today at 15-20 knots (8-10 m/s). Easterly winds Friday becoming southeasterly through Saturday at 10-15 knot (5-8 m/s). Southerly winds Saturday night becoming northwesterly Sunday at 15-20 knots (8-10 m/s).



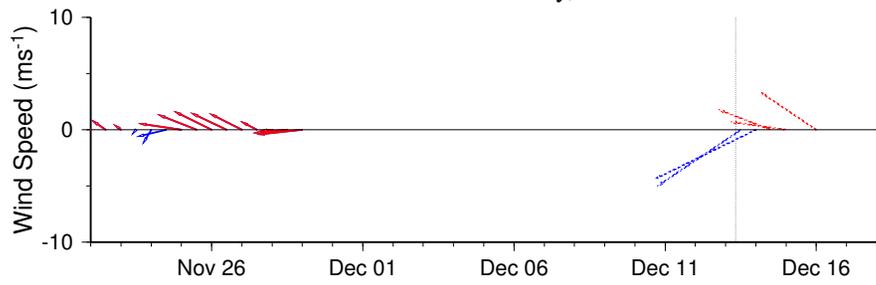
Satellite chlorophyll image and forecast winds for December 14, 2007 12Z with Cell concentration sampling data from December 3 to 11 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HABFS bulletin guide: http://www.csc.noaa.gov/crs/habf/habfs_bulletin_guide.pdf

Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).

Wind conditions from Venice Pier, FL



Wind conditions from Vaca Key, FL



Wind conditions from Sand Key, FL

