



Gulf of Mexico Harmful Algal Bloom Bulletin

6 December 2007

NOAA Ocean Service

NOAA Satellites and Information Service

Last bulletin: December 3, 2007

Conditions Report

SW Florida: There is currently no harmful algal bloom along the southwest Florida coast. Harmful algae has been identified in Collier County. No impacts are expected today through Sunday, December 9.

NE Florida: A harmful algal bloom has been identified from southern Flagler to northern Indian River County. In southern Flagler County, patchy very low impacts are possible today through Sunday. In northern Volusia County, patchy low impacts are possible today through Sunday. In southern Volusia, southern Brevard and northern Indian River Counties, patchy moderate impacts are possible today through Sunday. No other impacts are expected elsewhere along northeast Florida through Sunday, December 9.

Analysis

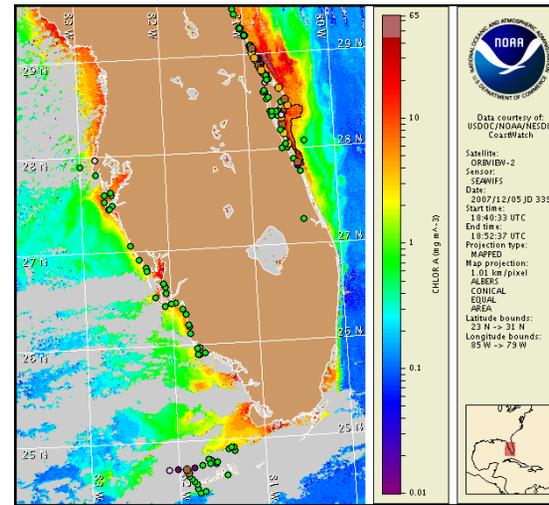
SW Florida: Very low concentrations of *Karenia brevis* have been identified in northern Collier County and offshore of Sarasota County, with low concentration north of the Lower Keys in Monroe County (FWRI; 12/03). Chlorophyll levels are approx. $<3 \mu\text{g/L}$ along the coast of Sarasota County and $<5 \mu\text{g/L}$ along Collier County. Satellite imagery at the Lower Keys has been obscured by clouds. Elevated chlorophyll levels continue to be visible south and southwest of Cape Romano, in particular at $25^{\circ}35'8''\text{N } 81^{\circ}44'6''\text{W}$ ($>6 \mu\text{g/L}$) and offshore of northern Monroe County at $25^{\circ}15'25''\text{N } 81^{\circ}53'35''\text{W}$ ($>3 \mu\text{g/L}$). Upwelling-favorable winds along the southwest Florida coast may increase potential for intensification over the weekend, though impacts at the coast are not expected. Easterly winds in the Keys will likely continue westward transport of the harmful algae.

NE Florida: A harmful algal bloom persists from southern Flagler to northern Indian River County. Chlorophyll levels have increased in concentration ($\sim 6 \mu\text{g/L}$) through much of northeast Florida over the past few days, with patches of high chlorophyll ($>10 \mu\text{g/L}$) along the coast from southern Volusia to northern Brevard Counties (approx. $29^{\circ}1'53''\text{N } 80^{\circ}47'39''\text{W}$ to $28^{\circ}41'27''\text{N } 80^{\circ}35'40''\text{W}$) and offshore from approx. $28^{\circ}58'36''\text{N } 80^{\circ}33'25''\text{W}$ to $28^{\circ}49'22''\text{N } 80^{\circ}27'26''\text{W}$. A patch of high chlorophyll ($>10 \mu\text{g/L}$) is located alongshore southern Brevard County centered at $27^{\circ}59'41''\text{N } 80^{\circ}28'56''\text{W}$. Continued sampling is recommended alongshore and offshore of these areas. Respiratory irritation and dead fish have been reported in Brevard County and dead fish have been reported in Indian River County over the past few days. Onshore winds

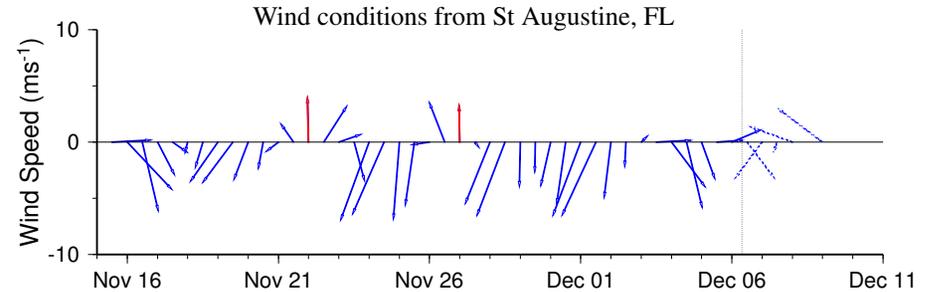
Please note the following restrictions on all SeaWiFS imagery derived from CoastWatch.

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.

throughout this week may increase impacts along the coast. Fenstermacher, Allen



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from November 26 to December 5 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

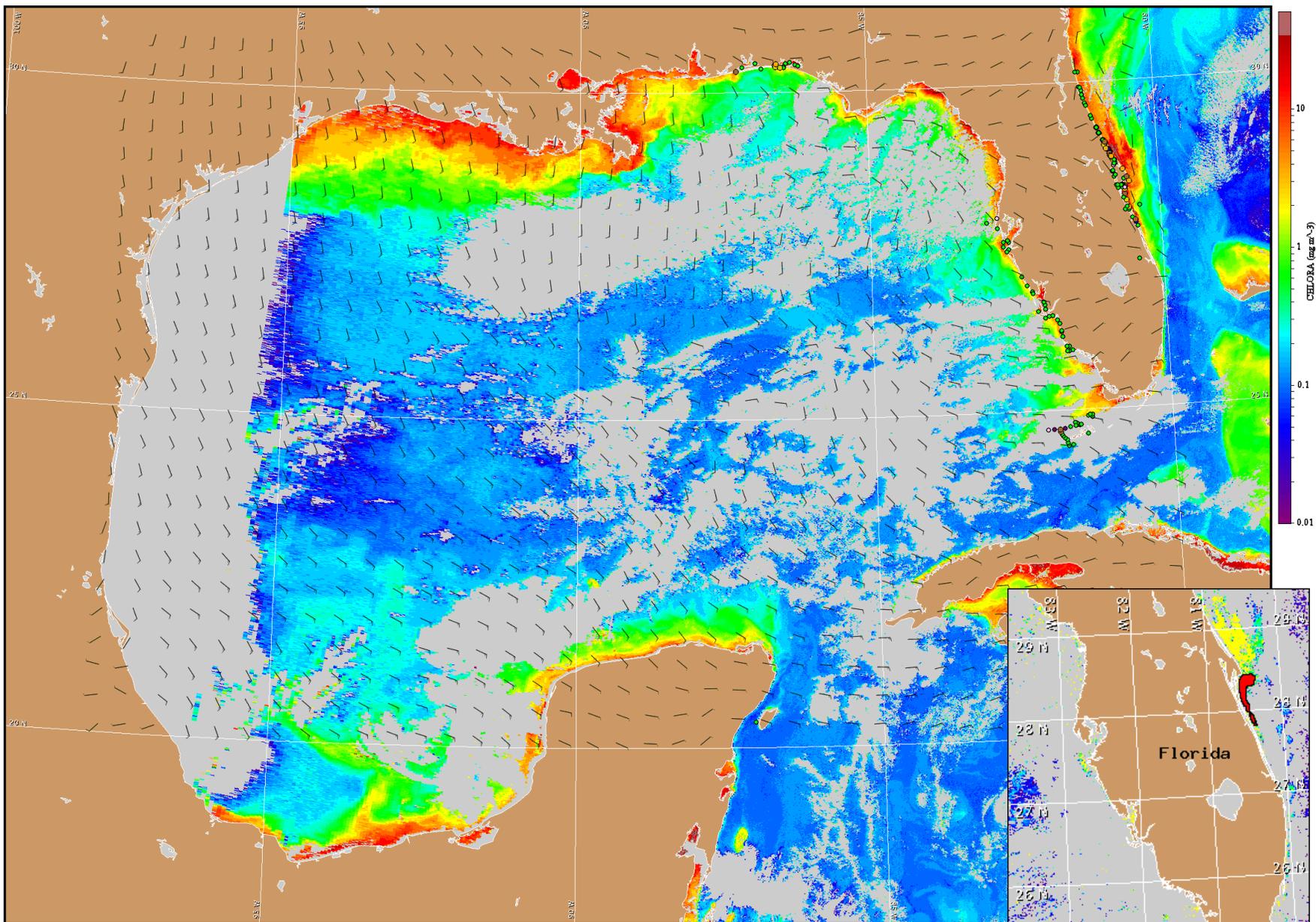


Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts.

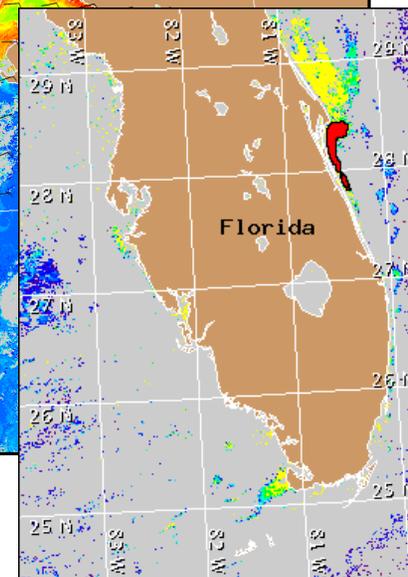
NE Florida: Northwesterlies becoming northeasterlies today (5-15 kts; -8 m/s). Southeasterlies on Friday with south to southeasterlies on Saturday (5-10 kts; 3-5 m/s). Easterlies on Sunday (5-10 kts; 3-5 m/s).

SW Florida: Northerlies today with easterlies tonight, followed by east to southeasterlies on Friday (5-10 kts; 3-5 m/s). Easterlies on Saturday and Sunday (5-10 kts; 3-5 m/s).

Florida Keys: North to northeasterlies tonight and easterlies Friday (10-15 kts) through Sunday (15-20 kts; 8-10 m/s).

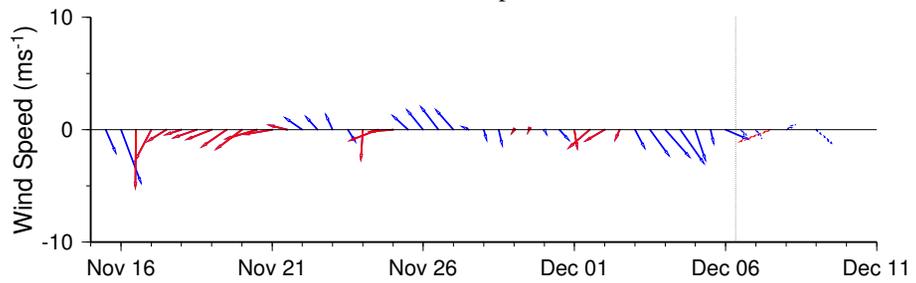


Satellite chlorophyll image and forecast winds for December 7, 2007 12Z with Cell concentration sampling data from November 26 to December 5 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list 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 Naples, FL



Wind conditions from Sand Key, FL

