Gulf of Mexico Harmful Algal Bloom Bulletin

28 November 2005

National Ocean Service

National Environmental Satellite, Data, and Information Service

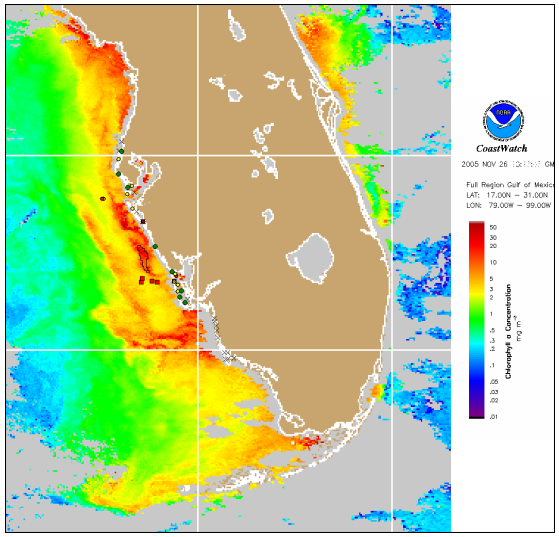
Last bulletin: November 23, 2005

Conditions: Harmful algal blooms have been identified in patches along SW Florida from Pinellas to Lee County and from Dixie to Levy County. Patchy low to moderate impacts are possible in Sarasota, Charlotte, Lee and Levy Counties on Tuesday, with patchy very low to low impacts today and Wednesday. Patchy very low to low impacts possible in Pinellas, Manatee and Dixie Counties today through Wednesday. A second bloom has been identified in patches from Wakulla to Okaloosa County. Patchy moderate impacts possible from Okaloosa to Bay County on Tuesday, with very low impacts likely from Gulf to Wakulla County. Patchy very low to low impacts possible from Wakulla to Okaloosa County today and Wednesday. No reports of dead fish have been received over the past few days. Dead fish smell, while unpleasant, does not produce the same respiratory irritation as harmful algal blooms.

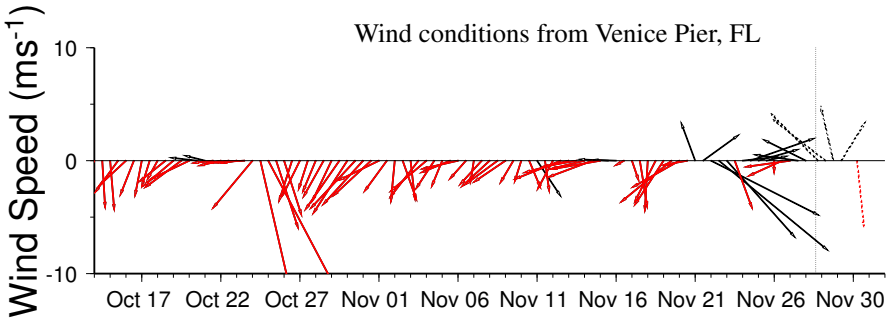
Analysis: A bloom continues to extend along the SW Florida coast from Pinellas to Collier County in varying intensities. Samples reported by FWRI early last week confirmed patchy very low to low concentrations of *K. brevis* onshore from Pinellas to Lee County. The bloom appears to have intensified over the weekend. Satellite imagery on 11/26 indicates elevated chlorophyll concentrations offshore of Tampa Bay at 27°35N, 82°55W (12-33μg/L) stretching south to Boca Grande at 26°44N, 82°27W and onshore between Sarasota and Venice (up to 45μg/L). Chlorophyll levels are additionally high just south of Sanibel (up to 30μg/L), stretching south to 25°53N, 81°51W and offshore Big Marco Pass to 26°3N, 82°41W. Sampling, both onshore and offshore, recommended. Wind transport model analyses indicate northward bloom movement up to 25-40km since the date of this imagery. Impacts will be greatest on Tuesday as winds shift onshore. Reports of dead fish are possible. Southerly expansion and/or transport of the bloom is possible through Thursday.

The bloom persists along Dixie and Levy Counties. Medium concentrations of *K. brevis* were identified by FWRI on 11/23 offshore northern Levy County. Chlorophyll concentrations greater than 20μg/L are visible via satellite imagery (11/26) alongshore southern Dixie and northern Levy Counties. Continued sampling recommended.

~Fisher, Bronder

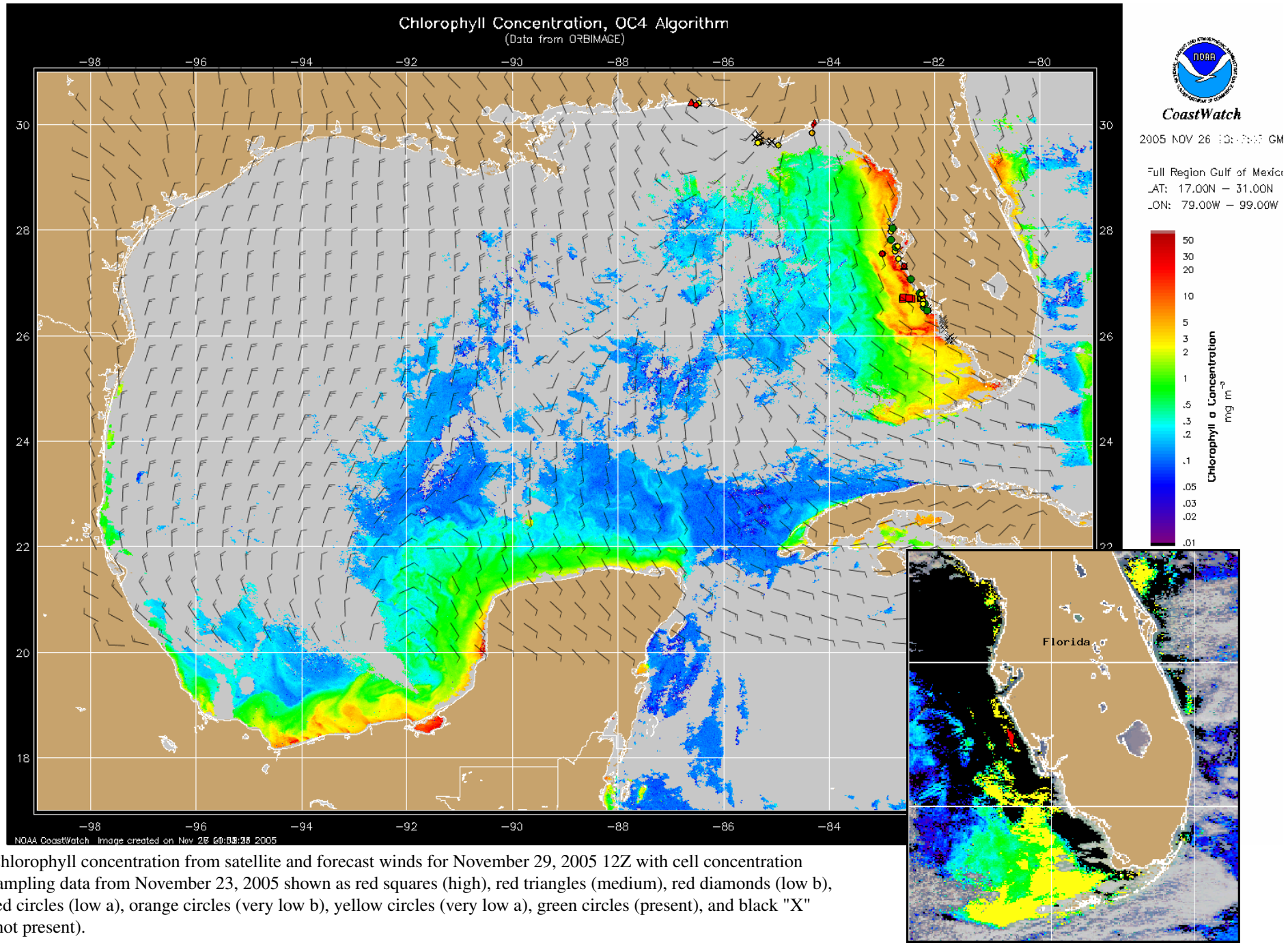


Chlorophyll concentration from satellite with HAB areas shown by red polygon(s). Cell concentration sampling data from November 23, 2005 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).



Wind speed and direction are averaged over 12 hours from measurements made on buoys. 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: Moderate (15kt, 8m/s) southesterlies today will shift westerly on Tuesday. Moderate (10-15kts, 5-8m/s) northerlies expected Tuesday night through Wednesday.



Chlorophyll concentration from satellite and forecast winds for November 29, 2005 12Z with cell concentration sampling data from November 23, 2005 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (present), and black "X" (not present).

Blooms shown in red (see p. 1 analysis)

Wind conditions from Cedar Key, FL