



# Gulf of Mexico Harmful Algal Bloom Bulletin

3 November 2005

National Ocean Service

National Environmental Satellite, Data, and Information Service

Last bulletin: October 31, 2005

**Conditions:** Harmful algal blooms have been identified in patches in Levy, southern Pinellas, Sarasota and southern Collier counties. A second bloom has been identified in patches along the Florida panhandle and Alabama from Franklin County to Mobile County. None to very low impacts are expected in Franklin, Levy, Sarasota and Collier Counties through Monday. Low to moderate impacts are possible in Bay County on Friday and Saturday followed by very low impacts on Sunday and Monday. Dead fish have been reported in Okaloosa County, Bay, and Hernando counties over the past few days. Dead fish smell, while unpleasant, doesn't produce the same respiratory irritation as harmful algal blooms.

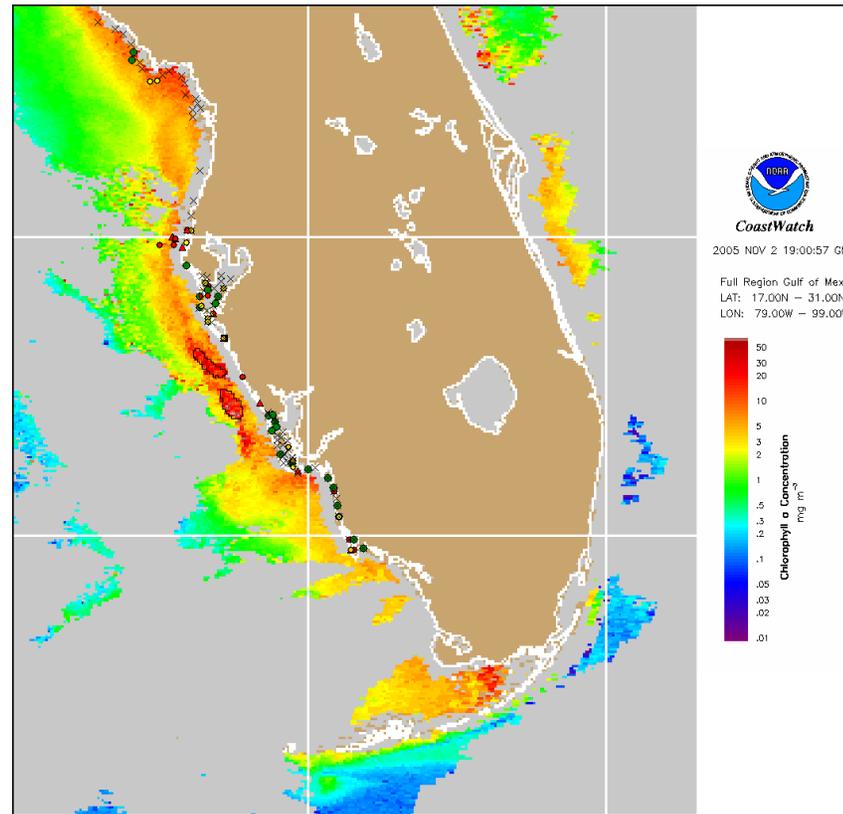
**Analysis:** The bloom continues to weaken along southwest Florida coastline. Strong, consistent northeasterlies may have caused bloom transport offshore. Upwelling favorable conditions favor intensification of *K. brevis*. An elevated chlorophyll band (8- 50  $\mu\text{g/l}$ ) is located approximately 10 miles offshore and parallel to coastline, from Sarasota Bay ( $27^{\circ}18'$ ,  $82^{\circ}48'$ ) to Captiva Island ( $26^{\circ}32'$ ,  $82^{\circ}25'$ ). Hot spots are offshore of Venice ( $\sim 43 \mu\text{g/l}$ ;  $27^{\circ}8'$ ,  $82^{\circ}41'$ ) and Boca Grande ( $\sim 30 \mu\text{g/l}$ ;  $26^{\circ}36'$ ,  $82^{\circ}25'$ ). Recommend sampling offshore. Some resuspension due to Hurricane Wilma remains. Wind transport model indicates possible bloom expansion of 7 km north-westward since last bulletin. Northeasterlies and easterlies will continue offshore and northern transport and will minimize coastal impacts. Upwelling favorable conditions persist.

Chlorophyll remains elevated near Marco Island ( $\sim 10 \mu\text{g/L}$ ). This is likely due to an ongoing diatom bloom.

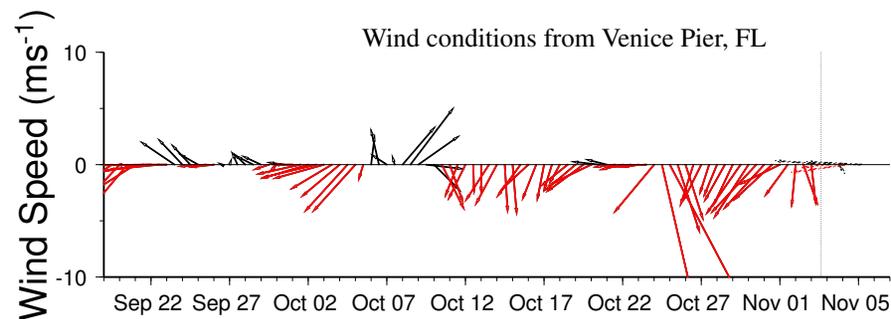
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Fenstermacher, Bronder

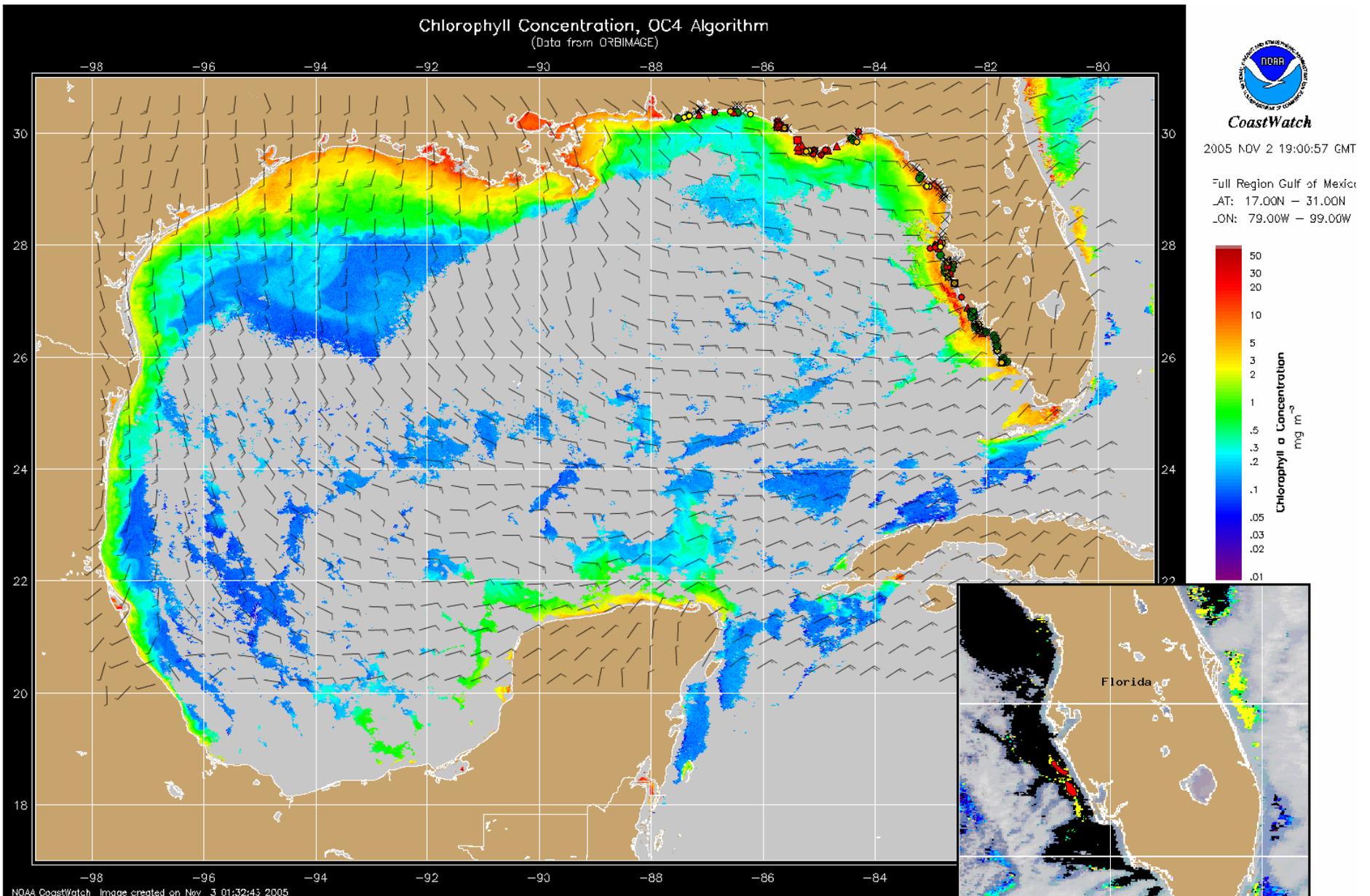


Chlorophyll concentration from satellite with HAB areas shown by red polygon(s). Cell concentration sampling data from October 19, 2005 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green circles (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: Northeasterlies to easterlies through Sunday (10-15 knots; 5-8 m/s).



Chlorophyll concentration from satellite and forecast winds for November 4, 2005 12Z with cell concentration sampling data from October 19, 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)