



Gulf of Mexico Harmful Algal Bloom Bulletin

10 November 2004

National Ocean Service

National Environmental Satellite, Data, and Information Service

Last bulletin: November 8, 2004

Conditions:

Medium near-coast concentration of harmful algae (*K. brevis*) identified in southern Collier County at Marco Island on November 8. Impacts at the beach are expected to be very low through Sunday. Analysis does not indicate harmful algae presence elsewhere in Florida.

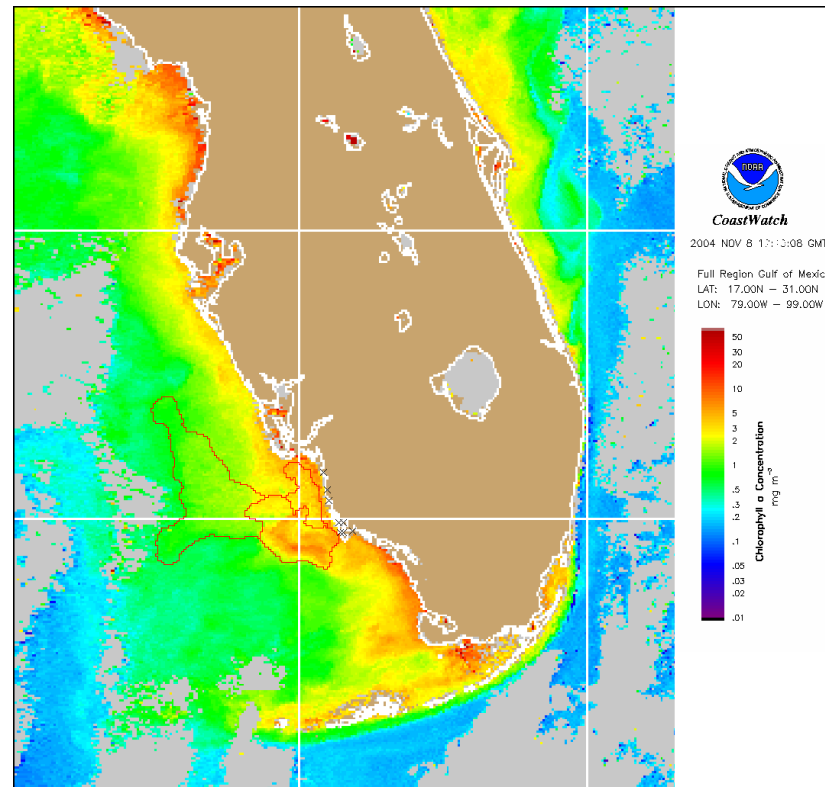
Analysis:

Samples collected Nov. 8 by FWRI confirmed a medium concentration of *K. brevis* at S. Marco Beach, Marco Island. A large region of high chlorophyll continues to persist and intensify near shore from Marco Pass northward to Naples, and intermittently up the coastline to Sanibel. This large feature extends southward offshore to $81^{\circ}49'W$, $25^{\circ}40'N$ and westward to $82^{\circ}16'W$, $25^{\circ}52'N$. Chlorophyll levels have reached up to $10\mu g/L$ along some areas of the shoreline and may be attributed to variable levels of diatoms also identified by sampling. A second area of high chlorophyll has developed offshore just north of the aforementioned feature (center at $82^{\circ}14'W$, $26^{\circ}02'N$). The feature extends intermittently to the northwest where earlier FWRI samples (Nov.1-4) indicated medium counts of *K. brevis*. Further sampling is recommended. Conditions favor very low impacts at the beach through the end of the week; however, further intensification and slight northward transport is probable near the coast. Southerly winds in offshore areas on Friday may transport existing offshore blooms closer to shore.

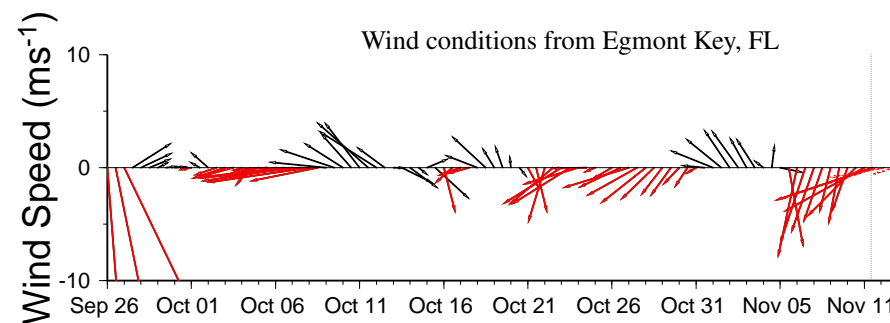
~Fisher, Brondler

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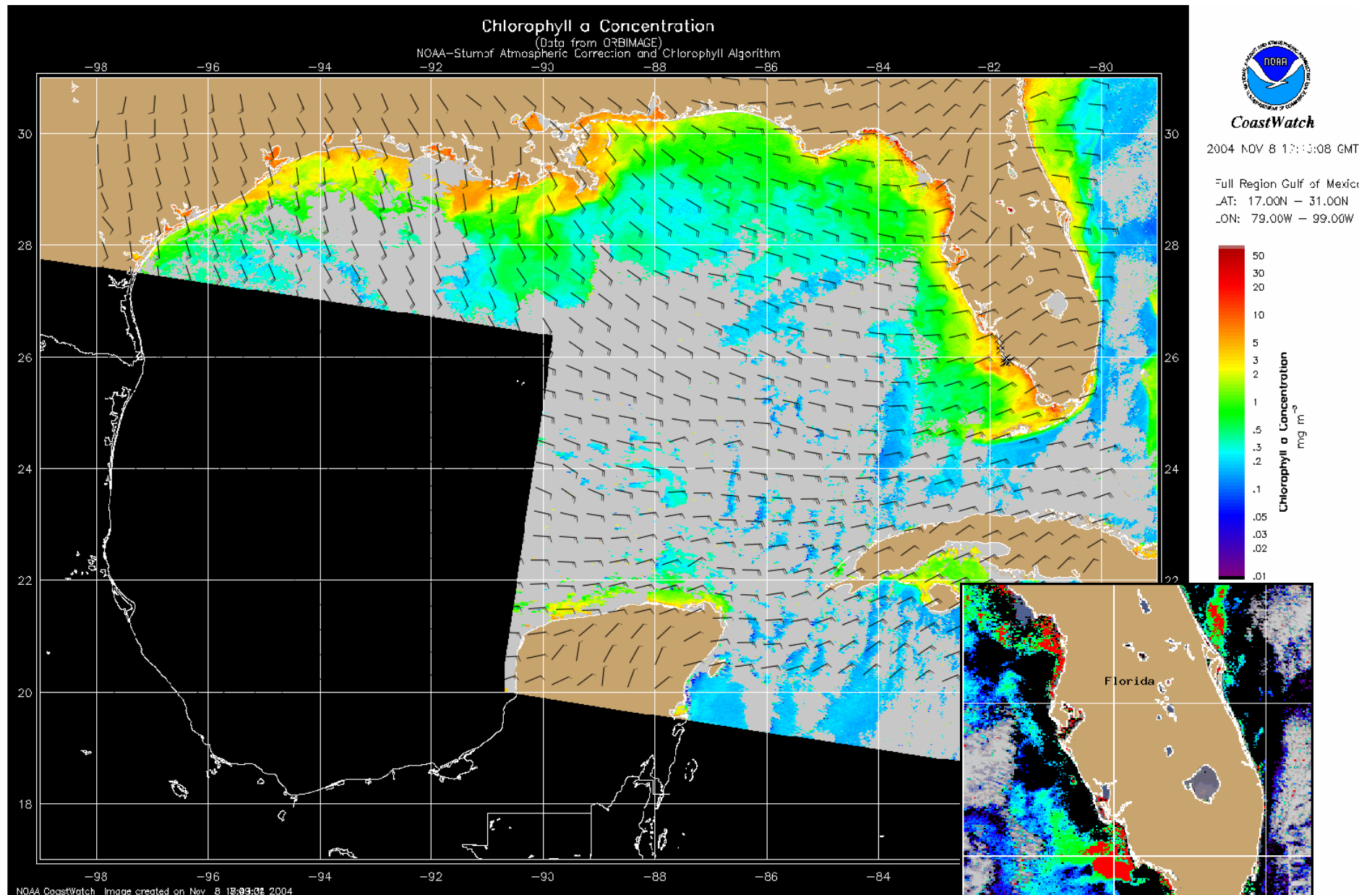


Chlorophyll concentration from satellite with possible HAB areas shown by red polygon(s). Cell concentration sampling data from October 31, 2004 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green 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.

Strong northeasterlies will become easterly today into Thursday night, then southeasterly on Friday. Winds are expected to return to northeasterly over the weekend. Offshore areas beyond 20nm from Englewood to Bonita Beach will encounter south to southwest winds on Friday.



Chlorophyll concentration from satellite and forecast winds for November 11, 2004 06Z with cell concentration sampling data from October 31, 2004 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 and image for interpretation)