



Gulf of Mexico Harmful Algal Bloom Bulletin

15 November 2004

National Ocean Service

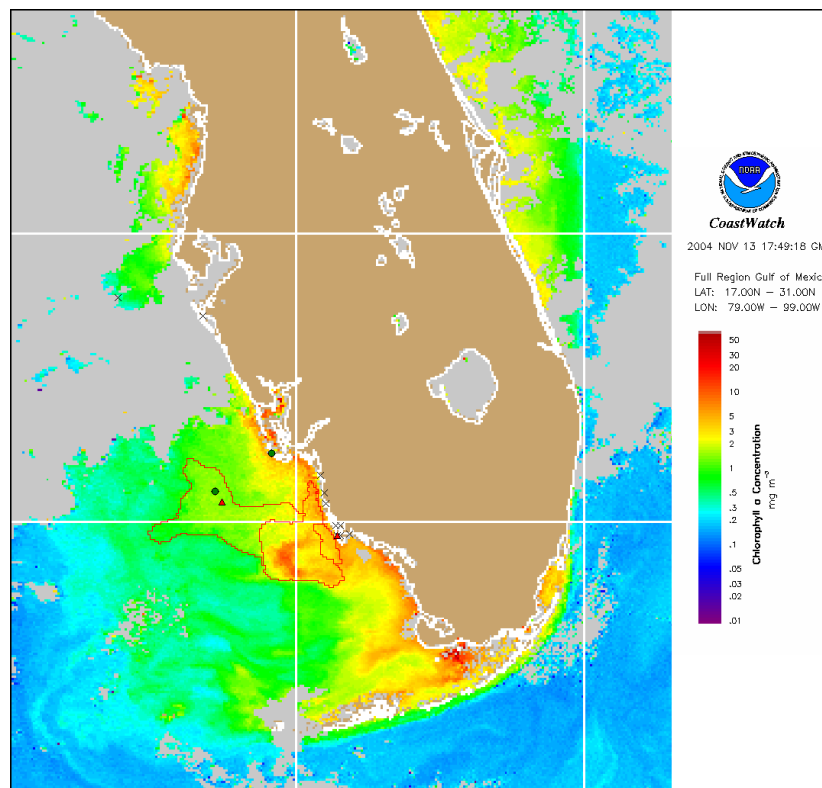
National Environmental Satellite, Data, and Information Service

Last bulletin: November 10, 2004

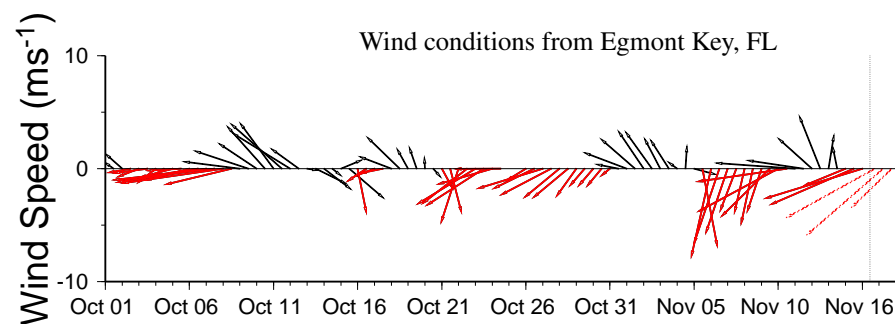
Conditions: Concentration of the harmful algae *Karenia brevis* was medium at South Marco Beach in Collier County on November 11. Impacts at the beach are expected to be very low through Thursday. Analysis doesn't indicate harmful algae presence elsewhere in Florida.

Analysis: Samples from November 8-11 taken at Sarasota, Barefoot Beach, and Naples showed no presence of *K. brevis* while a sample at Sanibel showed presence of *K. brevis* and a sample at Marco Island showed medium concentration. Imagery shows a feature off of Cape Romano with chlorophyll over 13 $\mu\text{g}/\text{liter}$ ($82^{\circ}5'W$, $25^{\circ}44'N$). Samples from a research cruise in this area last week show medium to high levels of *K. brevis*. Northeast winds should push the bloom offshore, causing very low beach impact. These winds favor upwelling, which could cause the bloom to intensify. Samples indicate that the two small near-shore blooms north of $26^{\circ}N$ are non-harmful, consisting mostly of diatoms. The bloom off of Cape Sable contains *Rhizosolenia*, and is non-harmful as well. Imagery shows very high chlorophyll counts south of Cape Sable, so reports of discolored water is likely.

Bronder, Stolz



Chlorophyll concentration from satellite with possible HAB areas shown by red polygon(s). Cell concentration sampling data from November 10, 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).

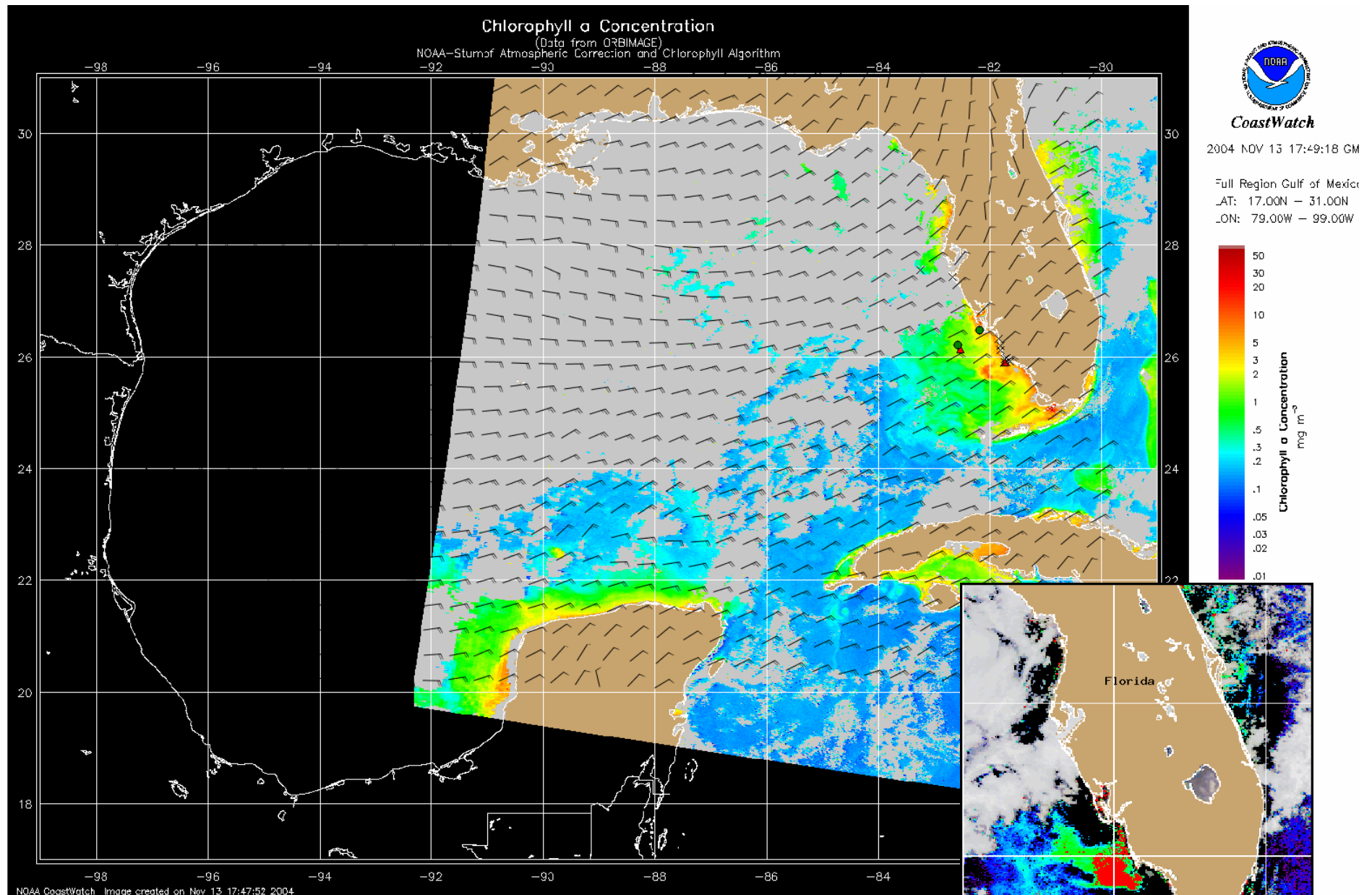


Wind speed and direction are averaged over 12 hours from measurements made on buoys. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right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

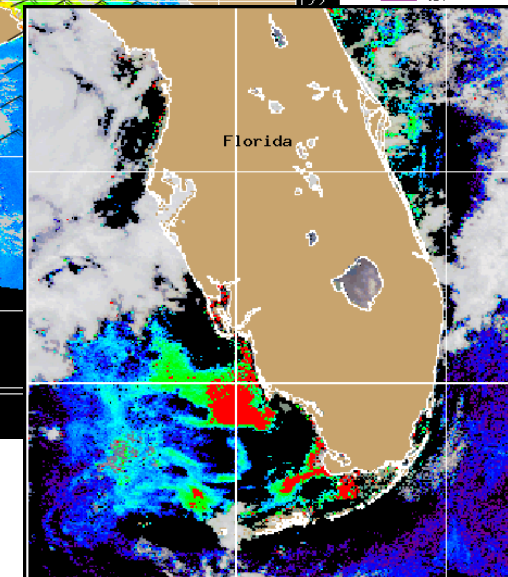
Southwest Florida: Winds have been from the northeast for the past couple of days, and are forecasted to remain northeasterly through Wednesday. Winds will be strong: 10 to 13 meters per second today, decreasing to 5 to 8 m/s on Wednesday.

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4. Image products may be published in newspapers. Any other publishing arrangements must receive OrbImage approval via the CoastWatch Program.



Chlorophyll concentration from satellite and forecast winds for November 16, 2004 12Z with cell concentration sampling data from November 10, 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)