



## Gulf of Mexico Harmful Algal Bloom Bulletin

18 November 2004

National Ocean Service

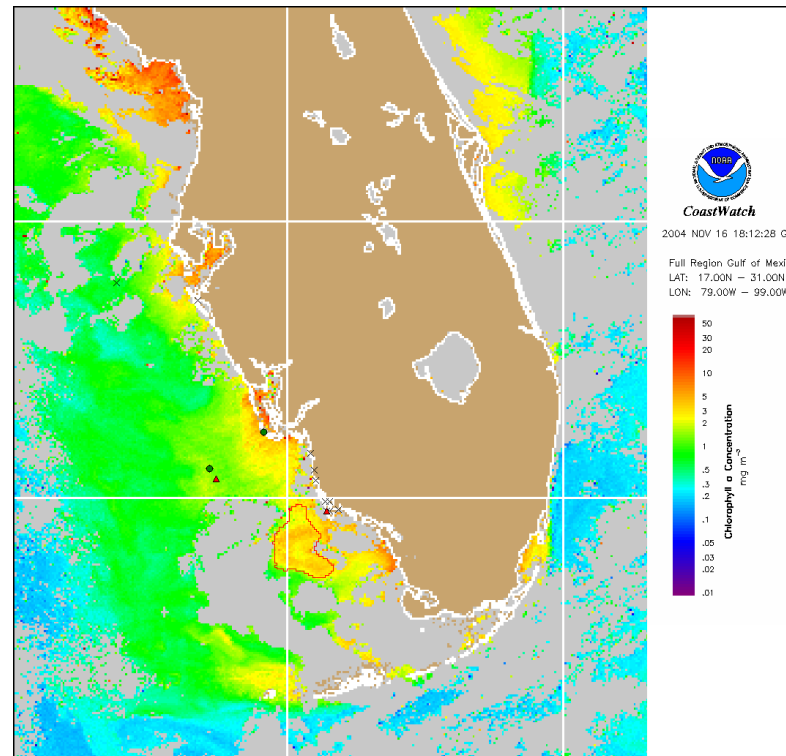
National Environmental Satellite, Data, and Information Service

Last bulletin: November 15, 2004

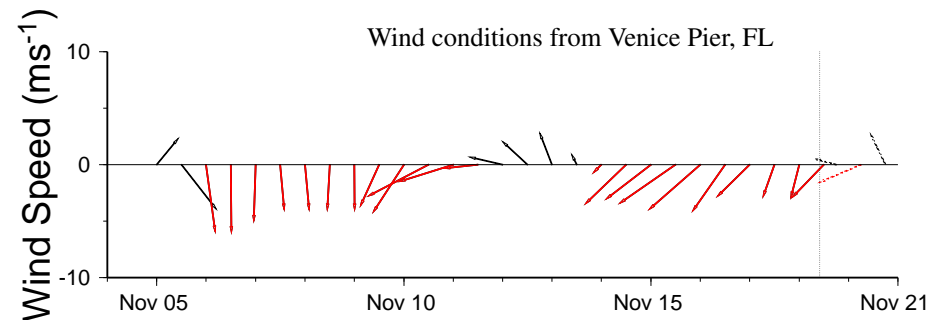
**Conditions:** A harmful algal bloom has been identified off the coast of Cape Romano. A high level of the harmful algae *Karenia Brevis* was found in this area between November 8 and 11. Impacts at the beach are expected to be low through the weekend. Analysis doesn't indicate harmful algae presence elsewhere in Florida.

**Analysis:** A sample with high concentration of *K. brevis* was taken south of Marco Island (81.8105°W, 25.6648°N). Several locations southwest and west of Marco Island had medium concentration of *K. brevis*. Samples along shore from Barefoot Beach to Caxambas Pass showed no *K. brevis*. Imagery shows that the bloom has moved south and has lower chlorophyll concentration since the last bulletin. Between Saturday and Tuesday the bloom moved approximately 15 kilometers south by southeast. The maximum chlorophyll concentration decreased from about 13  $\mu\text{g/liter}$  to about 8  $\mu\text{g/liter}$ . The bloom is expected to move south over the weekend.

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).

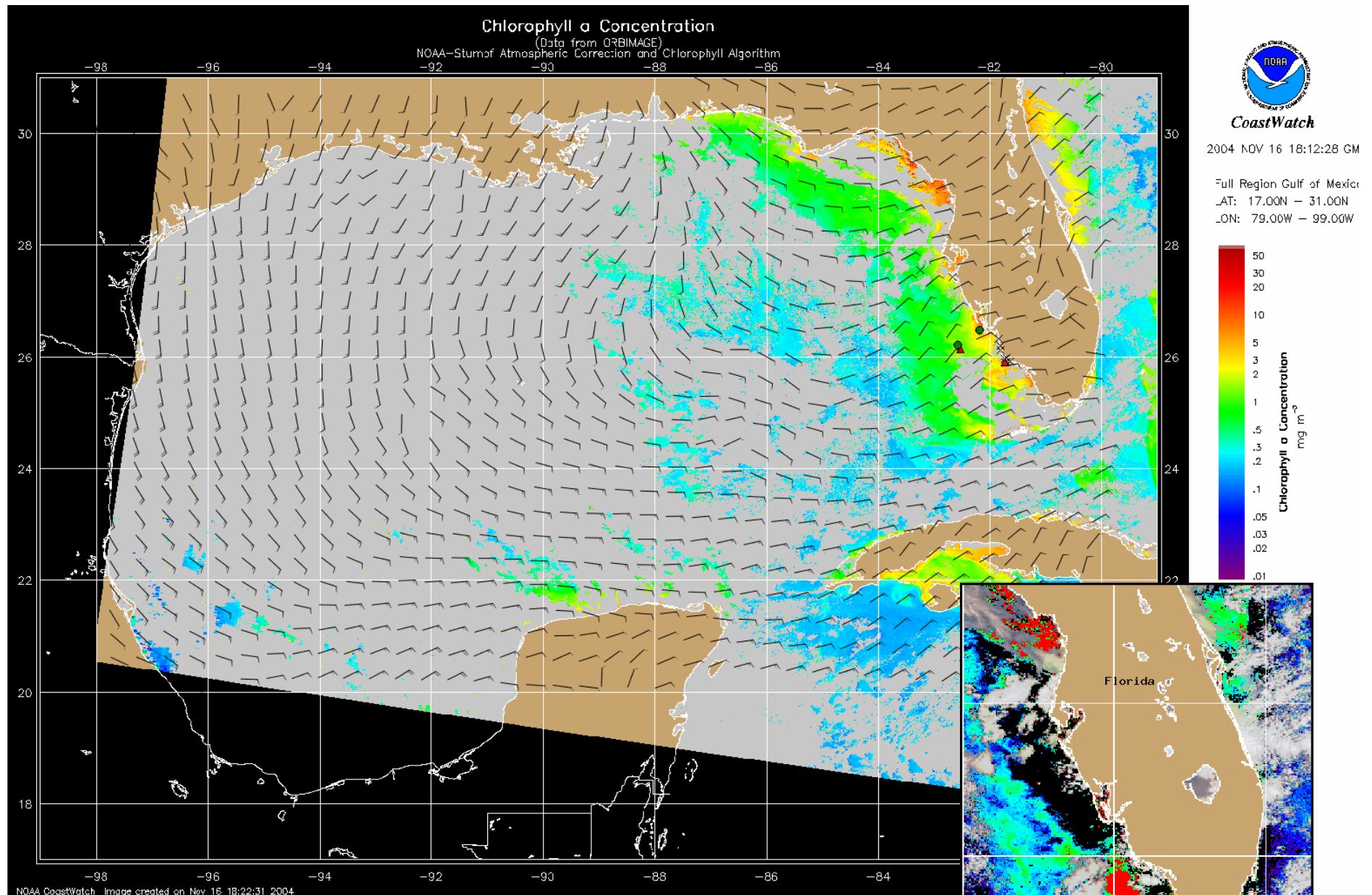


Wind speed and direction are averaged over 12 hours from measurements made on buoys. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right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

**Southwest Florida:** Winds were from the northeast from Sunday until yesterday, when they shifted slightly to north by northeast, then back to northeast. The forecast calls for northeasterly winds up to 5 meters/second today, southeasterly winds up to 5 meters/second tomorrow, and easterly winds up to 7 meters/second this weekend.

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

1. These data are restricted to civil marine applications only; i.e. federal, state, and local government use/distribution is permitted.
2. Distribution for military, or commercial purposes is NOT permitted.
3. There are restrictions on Internet/Web/public posting of these data.
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 19, 2004 06Z 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)