



Gulf of Mexico Harmful Algal Bloom Bulletin

6 December 2004

National Ocean Service

National Environmental Satellite, Data, and Information Service

Last bulletin: December 2, 2004

Conditions: A harmful algal bloom has been identified offshore between Cape Romano and Cape Sable. No beach impacts are expected through Thursday.

Analysis:

A confirmed *K. brevis* bloom is presently located northwest of Cape Sable. This bloom expanded offshore to the northwest and progressed slightly farther southward over the weekend. The bloom extends from 81°22' to 82°24' east to west and from 25°34' to 25°12' north to south, respectively, with a center at approximately 81°49'W, 25°18'N. Satellite imagery shows maximum chlorophyll levels up to 9 µg/L at 82° 19'W, 25° 30'N offshore and 81° 24'W, 25° 28'N closer to shore. Chlorophyll levels remain lower than 5 µg/L throughout the remaining bloom region.

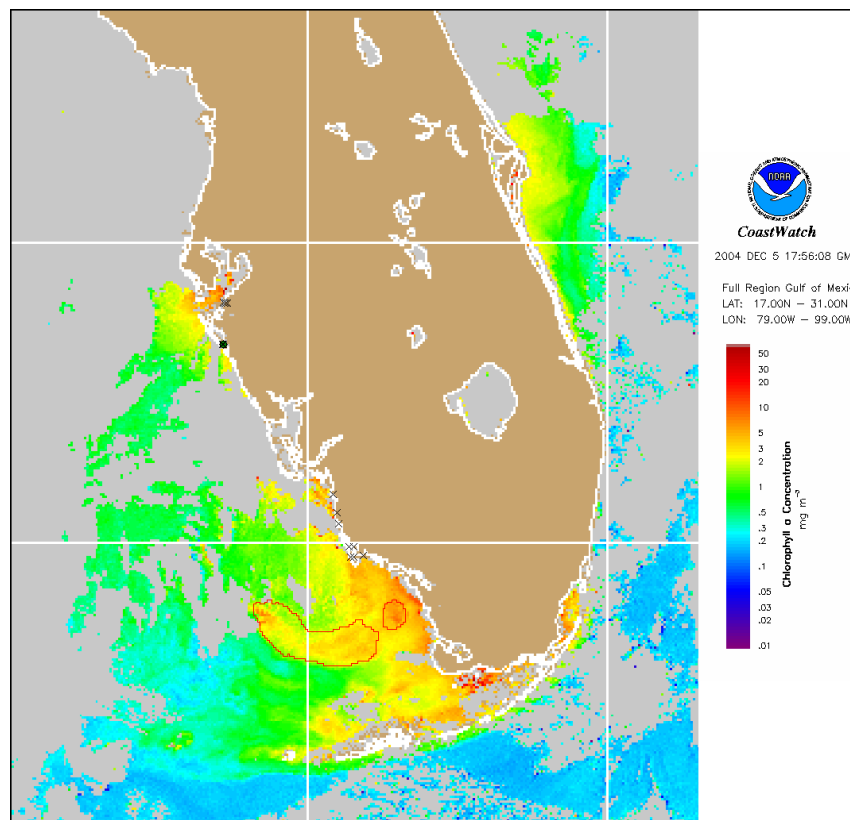
Mass fish kills and several crab and dolphin mortalities have been reported offshore from Shark River. Although both events seem to be located within the same general region offshore of Cape Sable, a precise location of this sighting in relation to the HAB is presently unknown. No *K. brevis* was identified in onshore or offshore (south of 25° 12'N) samples taken 11/27-12/2 by Mote Marine Lab and FWRI.

Beach impacts through Thursday are unlikely. Conditions should minimize further southerly transport and intensification of the bloom, however offshore expansion is possible.

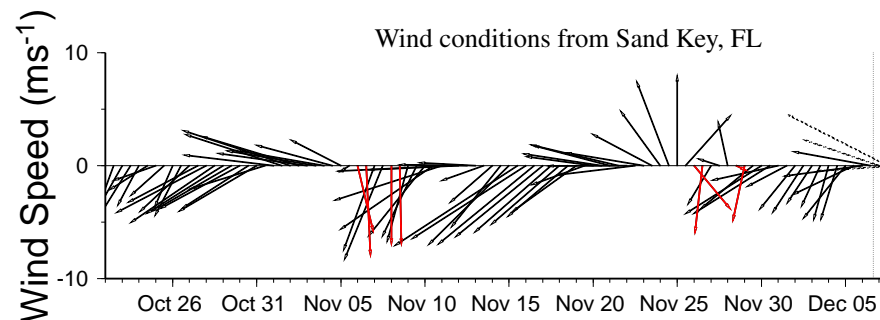
~Fisher, Bronder

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.

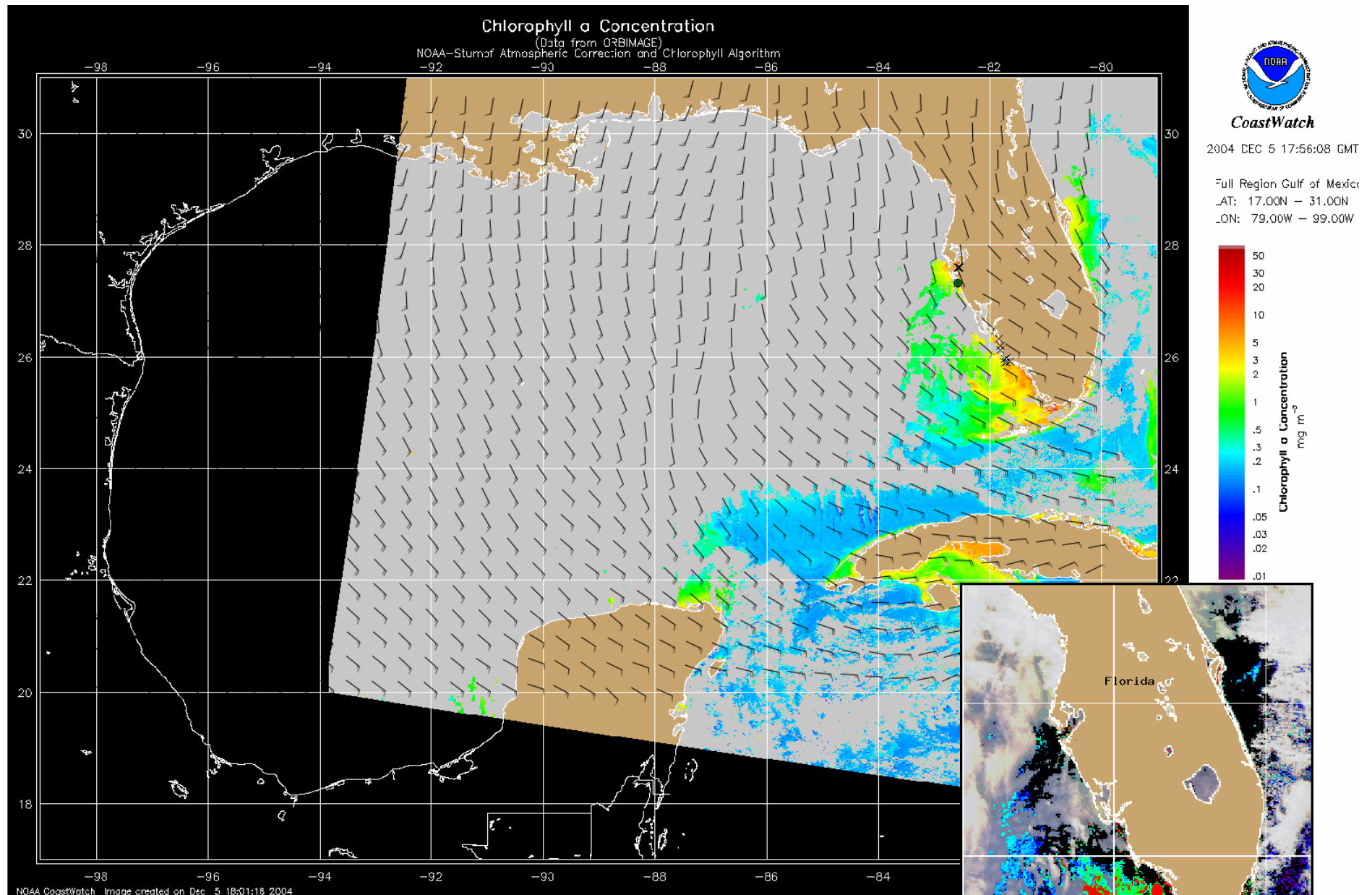


Chlorophyll concentration from satellite with possible HAB areas shown by red polygon(s). Cell concentration sampling data from November 30, 2004 shown as red squares (high), red triangles (medium), red diamonds (low b), red circles (low a), orange circles (very low b), yellow circles (very low a), green 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.

Continued east to southeast winds at 10-15 knots (5-7 m/s) are forecasted today through Thursday for Cape Romano to the Keys.



Chlorophyll concentration from satellite and forecast winds for December 7, 2004 12Z with cell concentration sampling data from November 30, 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)

