



## Experimental Gulf of Mexico Harmful Algal Bloom Bulletin

21 November 2003

National Ocean Service/NCCOS and CSC

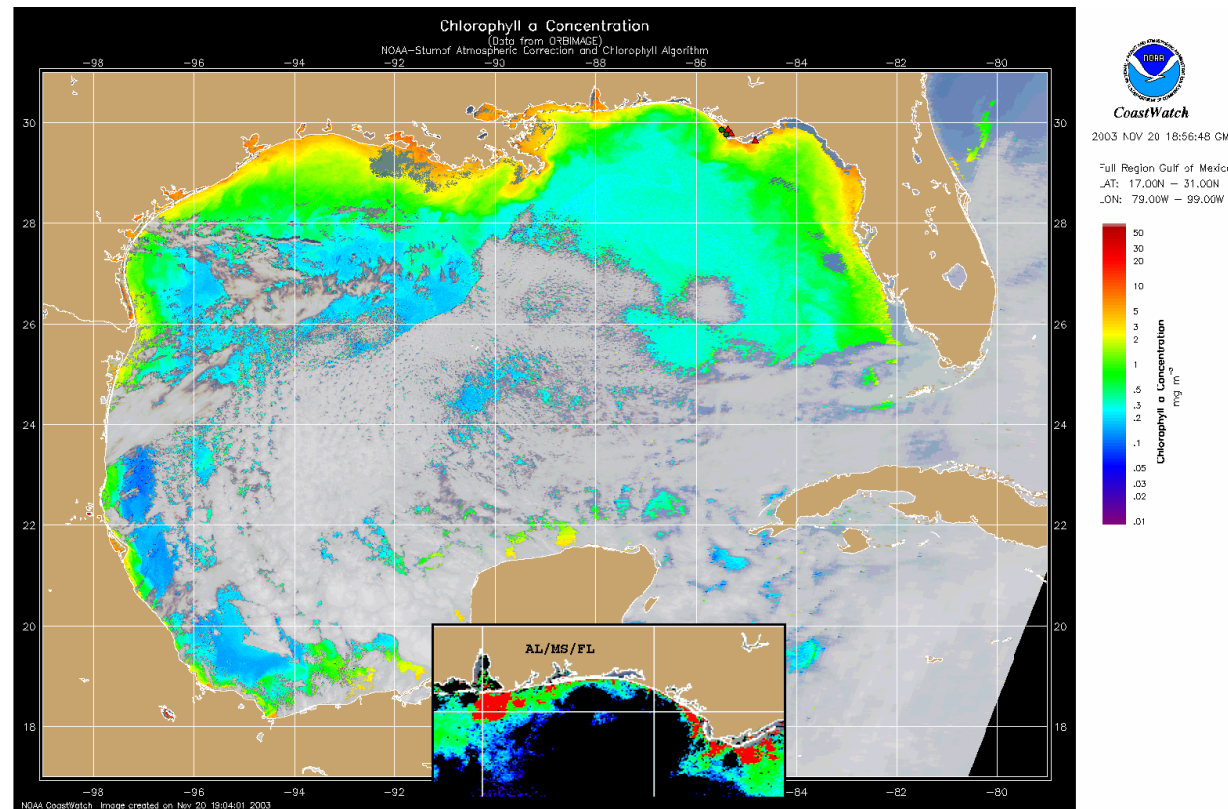
NESDIS/CoastWatch and NDBC

Last bulletin: November 20, 2003

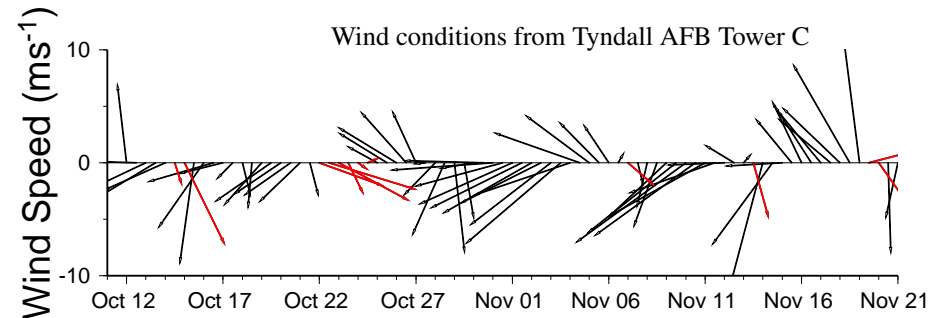
### Analysis

NW Florida: Imagery indicates a bloom from Panama City (85d43'W 30d1'N) to St. Joseph Bay (85d32'W 29d37'N) and extending offshore from St. Vincent and St. George's islands (from 85d24'W 29d34'N to 84d33'W 29d23'N). Chlorophyll levels have reached 5 ug/L in both areas. The state reported respiratory irritation and fish kills in St. Joseph Bay on Nov. 17. Medium levels of *K. brevis* have been observed in both areas, with above normal levels extending to Panama City. Southeasterly winds over the weekend will keep the bloom and its effects along the coast.

-Tomlinson



Chlorophyll concentration (above) and possible HAB areas shown in red (inset). Cell concentration sampling data from November 18, 2003 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 NOAA buoys. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast.

Northerly winds are expected to shift southeasterly by Saturday.

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