



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

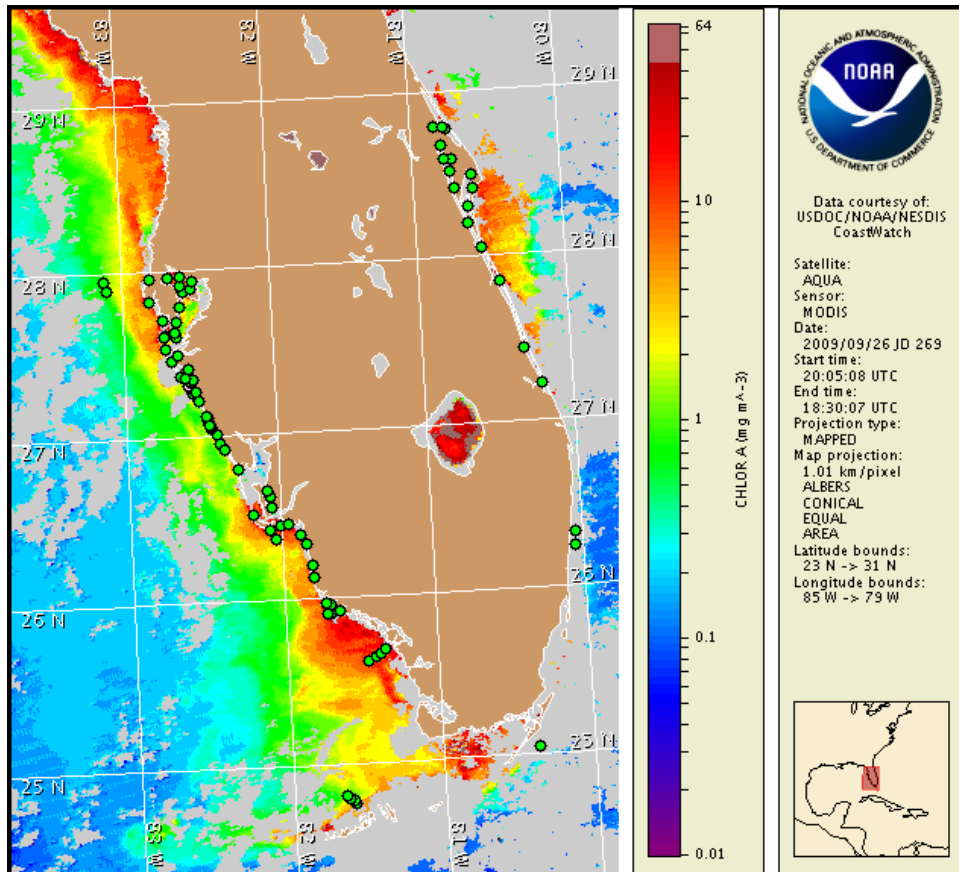
28 September 2009

NOAA Ocean Service

NOAA Satellites and Information Service

NOAA National Weather Service

Last bulletin: September 21, 2009



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from September 19 to 24 shown as red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HABFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

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

1. Data are restricted to civil marine applications only; i.e. federal, state, and local government use/distribution is permitted.
2. Image products may be published in newspapers. Any other publishing arrangements must receive GeoEye approval via the CoastWatch Program.

Conditions Report

There is currently no indication of a harmful algal bloom of *Karenia brevis* (Florida red tide) at the coast in southwest Florida, including the Florida Keys. Cloudy, brown discolored water has been reported alongshore Naples Pier in northern Collier County and St. Petersburg Beach in southern Pinellas County over the past week. Dead fish have also been reported in the Naples Pier region over the past week due to low dissolved oxygen levels. These events are associated with blooms of the non-toxic algae *Guinardia flaccida*, which does not produce respiratory irritation impacts associated with the Florida red tide caused by *Karenia brevis*. No impacts due to Florida red tide are expected alongshore southwest Florida today through Sunday, October 4.

Analysis

There is currently no indication of a *Karenia brevis* bloom at the coast in southwest Florida. Background concentrations of *K. brevis* were identified last week in Sarasota County samples collected at North Lido Beach, Manasota Beach (SCHD; 9/21), and New Pass (MML; 9/21). Additional samples taken alongshore Pinellas, Manatee, Sarasota, Charlotte, Lee, Collier, and Monroe counties, and offshore Pinellas, Sarasota, Lee, and Monroe counties, all indicate that *K. brevis* is not present (FWRI, MML, SCHD; 9/21-9/25).

MODIS imagery (9/26) indicates that chlorophyll remains elevated (3 to >10 $\mu\text{g/L}$) alongshore Pinellas County and extending alongshore and offshore southern Lee County to southern Monroe County (Cape Sable). Distinct elevated chlorophyll features are also visible 26 miles west of Cape Sable (3-5 $\mu\text{g/L}$) extending from 25°21'25"N 81°48'54"W to 25°20'47"N 81°35'4"W, 19 miles west of northern Charlotte County (2 $\mu\text{g/L}$; centered at 26°47'36.9"N 82°36'26.3"W), and alongshore southern Sanibel Island in southern Lee County (7 to >10 $\mu\text{g/L}$). These features are likely associated with non-harmful blooms of various algal species that continue to be detected alongshore southwest Florida. Samples from these regions did not contain *K. brevis* (FWRI, MML, SCHD; 9/21-9/25).

Discolored water reported alongshore Naples Pier in Collier County and St. Petersburg Beach in southern Pinellas County is associated with blooms of the non-toxic algae *Guinardia flaccida*. Dead fish have also been reported in the Naples Pier region over the past week due to low dissolved oxygen levels likely associated with the *G. flaccida* bloom. No elevated chlorophyll features are presently visible in the Naples Pier region.

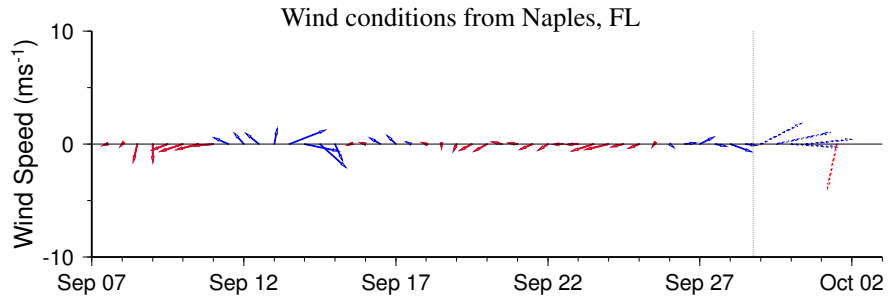
Wind conditions are favorable for upwelling Wednesday through Friday, increasing the potential for *K. brevis* bloom formation at the coast later this week.

Due to technical difficulties SeaWiFS imagery is currently unavailable. MODIS imagery is displayed on this bulletin.

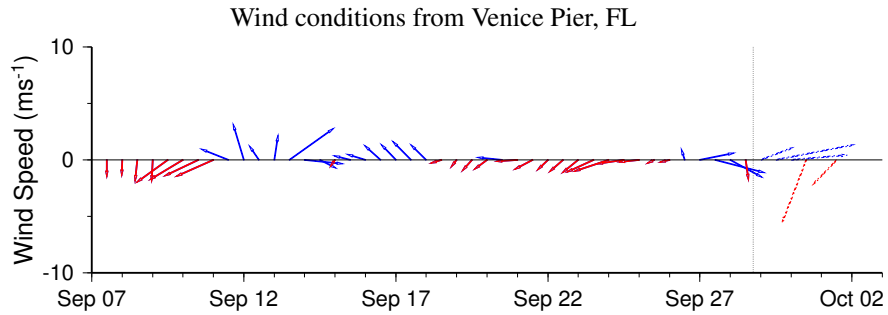
Derner, Fisher

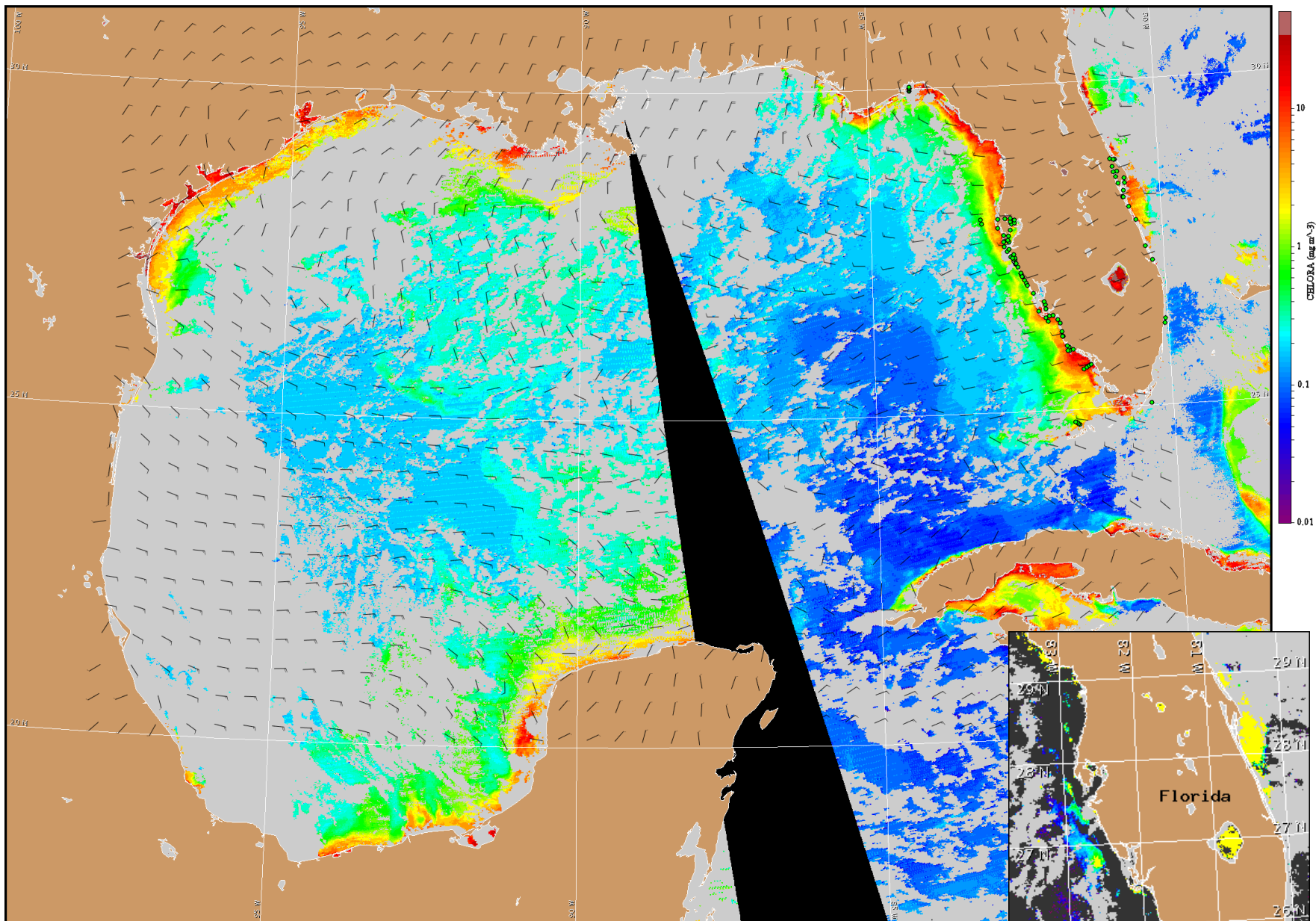
Wind Analysis

Northwest winds (10kn, 5m/s) this afternoon, becoming westerly in the evening (10kn). Northwest winds (10kn) Tuesday. North winds (10kn) Tuesday night through Wednesday evening. Northeast winds (10kn) Wednesday night. North winds (10kn) Thursday. Northeast winds (5kn, 3m/s) on Thursday night shifting east (5kn) on Friday.



Wind speed and direction are averaged over 12 hours from buoy measurements. 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. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).





Satellite chlorophyll image and forecast winds for September 29, 2009 12Z with Cell concentration sampling data from September 19 to 24 shown as red (high), orange (medium), yellow (low b), brown (low a), blue(very low b), purple (very low a), pink (present), and green (not present). For a list of cell count data providers and a key to the cell concentration categories, please see the HABFS bulletin guide:

http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf

Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).