



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

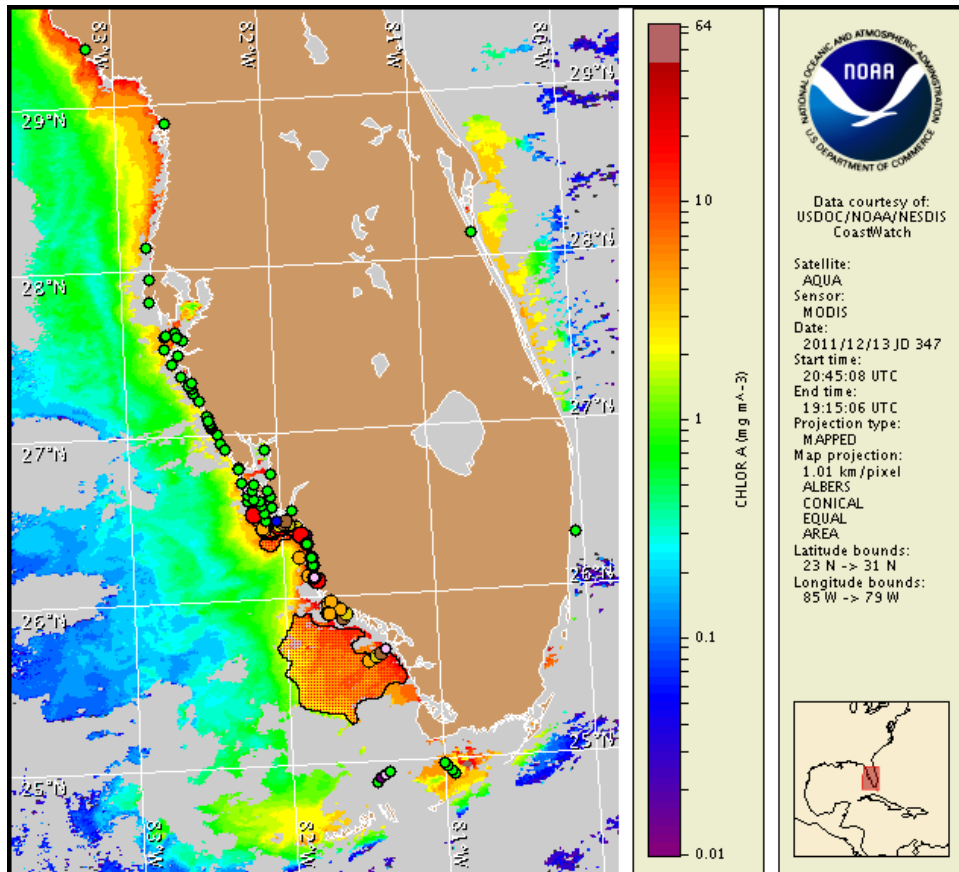
Thursday, 15 December 2011

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, December 12, 2011



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from December 5 to 14 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 HAB-OFS bulletin guide:

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

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:

<http://tidesandcurrents.noaa.gov/hab/bulletins.html>

Conditions Report

A patchy harmful algal bloom persists in the southern Pine Island Sound/San Carlos Bay region of Lee County, and alongshore and offshore central and southern Lee County, Collier County and northern Monroe County. Patchy harmful algae have also been confirmed in the northern Pine Island Sound region of Lee County and offshore, north of the lower Florida Keys. In northern Monroe County and the northern Pine Island Sound region of Lee County, patchy very low impacts are possible today through Sunday. In the southern Pine Island Sound/San Carlos Bay and coastal Sanibel regions of Lee County, patchy high impacts are possible today through Sunday. In southern Lee County and along the coast in Collier County, patchy low impacts are possible today through Sunday, with patchy high impacts possible in southern Lee County on Friday. In the Marco Island region of Collier County, patchy high impacts are possible on Thursday and Sunday and patchy moderate impacts are possible Friday and Saturday. No additional respiratory impacts are expected elsewhere at the coast in southwest Florida or in the Florida Keys today through Sunday, December 18. Dead fish and respiratory irritation have been reported in the bloom area.

Analysis

A patchy harmful algal bloom persists in the southern Pine Island Sound/San Carlos Bay region of Lee County, and alongshore and offshore central and southern Lee County, Collier County and northern Monroe County. Patchy harmful algae have also been confirmed in the northern Pine Island Sound region of Lee County and offshore, north of the lower Florida Keys. While chlorophyll levels along- and offshore southwest Florida appeared to have dissipated in MODIS imagery from 12/12, in imagery from 12/13 (MODIS; shown left), patches of elevated to very high chlorophyll (5 to >20 $\mu\text{g/L}$) remain visible along- and offshore from southern Lee County to Monroe County. Sample reports continue to verify *Karenia brevis* presence throughout this region.

Recent reports identified several samples with 'medium' to 'high' *Karenia brevis* concentrations stretching along- and offshore the southern edge of Sanibel Island from approximately Lighthouse Beach to 4-5 miles west of Algier's Beach (12/9; FWRI). 'Low a' to 'medium' concentrations also continue to be identified in the Marco Island region of Collier County (12/12-14; TPWD). Samples collected from Pinellas, Manatee, Sarasota, Charlotte, and within the northern Pine Island Sound region of Lee County indicate that *K. brevis* is not present (12/10-13; SCHD). Dead fish have been reported near Big Marco Pass in Collier County and in the City of Naples at Hurricane Harbor (12/13; CCPCPD).

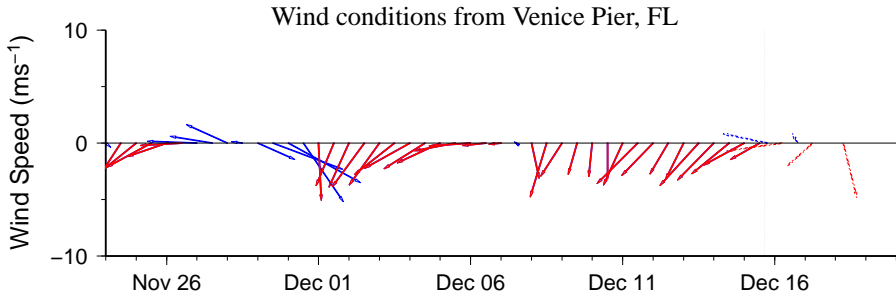
Forecast winds increase the potential for impacts in the Pine Island Sound/San Carlos Bay and coastal Sanibel regions of Lee County over the next few days, and decrease the potential for impacts alongshore southern Lee, Collier, and northern Monroe counties. Southerly transport of the bloom is possible today through Sunday.

Derner, Urizar

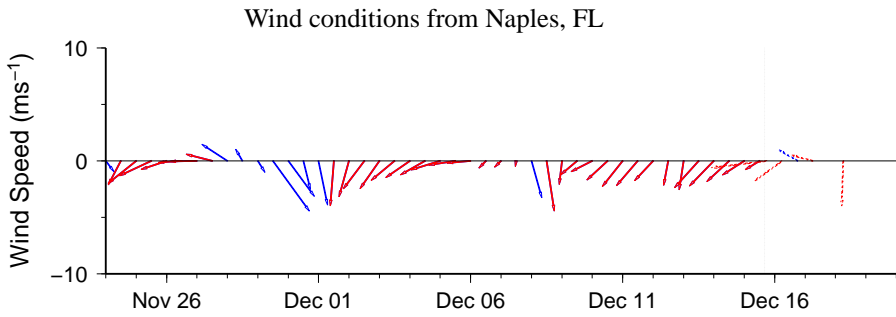
Wind Analysis

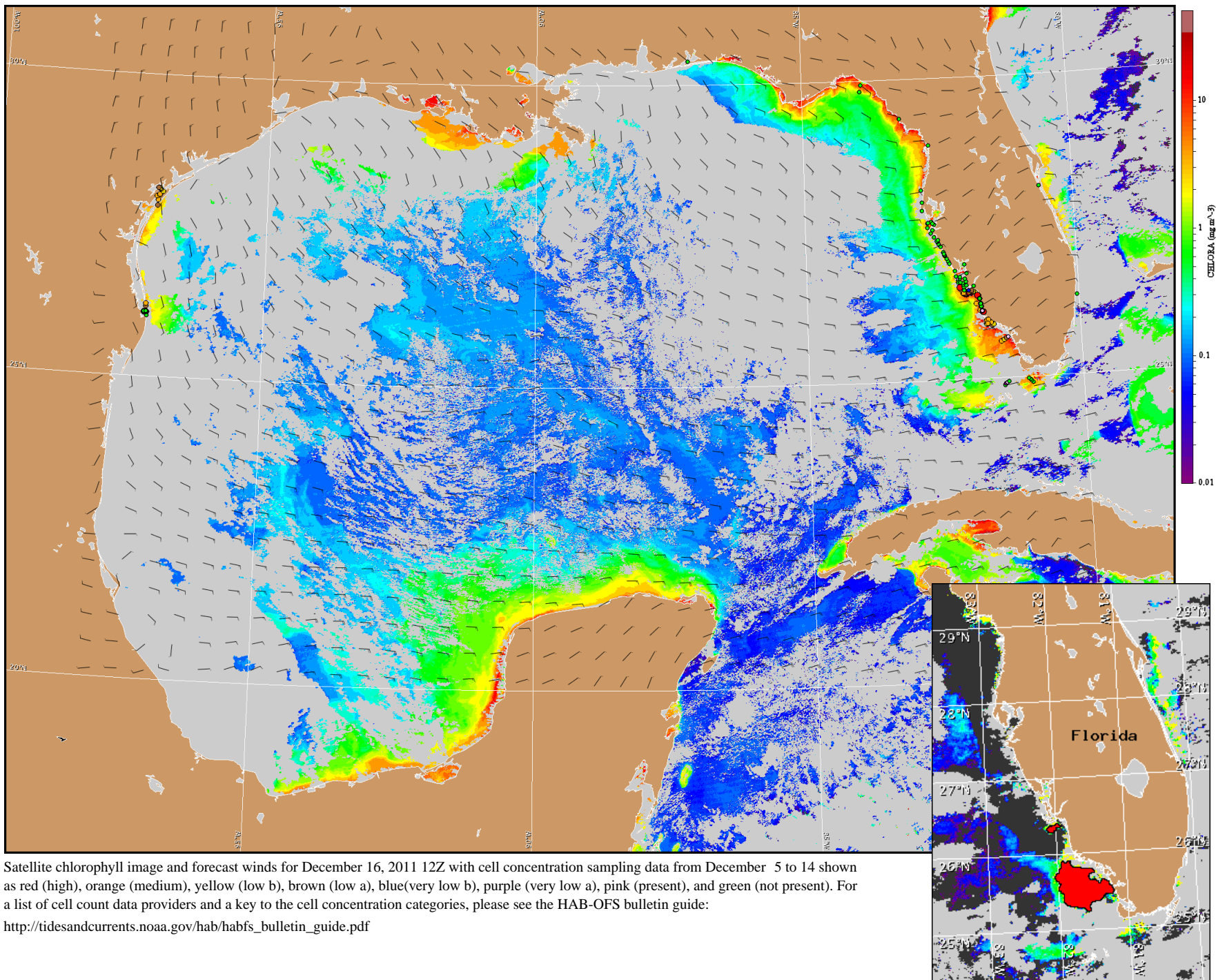
Southwest Florida (Charlotte-Lee County): East winds (10kn, 5 m/s) today becoming north (5kn, 3m/s) this afternoon. East winds (10kn) tonight through Friday becoming northwest Friday afternoon. Northeast winds (10kn) Friday night. North winds (10-15kn, 5-8m/s) Saturday and Sunday, becoming northeast (10kn) Sunday night.

Southwest Florida (Collier County): Variable east-northeast winds (8-18kn, 4-9m/s) today through Sunday.



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 December 16, 2011 12Z with cell concentration sampling data from December 5 to 14 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 HAB-OFS bulletin guide:

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