



Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Southwest Florida

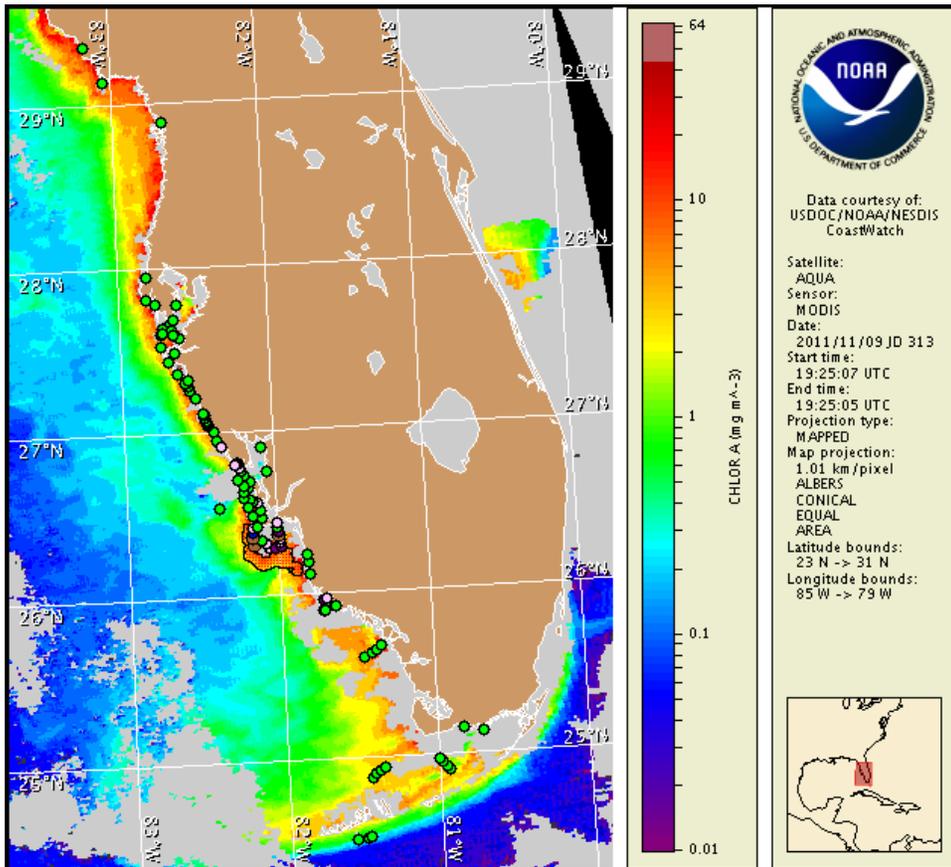
Thursday, 10 November 2011

NOAA Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Monday, November 7, 2011



Satellite chlorophyll image with possible HAB areas shown by red polygon(s). Cell concentration sampling data from October 31 to November 9 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 harmful algal bloom is present alongshore and offshore central to southern Lee County, including south of Sanibel Island, and offshore northern Collier County. Harmful algae is also present alongshore central Collier County in the Marco Island region and in the Gasparilla Sound region of Charlotte and northern Lee counties. Patchy very low impacts are possible alongshore central Collier County and in the Gasparilla Sound region today through Sunday. No other impacts are expected along the coasts of Charlotte, Lee and Collier counties or elsewhere alongshore southwest Florida today through Sunday, November 13.

Analysis

The harmful algal bloom first identified on 9/26 has continued to move south and appears to be located largely offshore central Lee to northern Collier County, south of Sanibel Island. However, 'very low' concentrations of *Karenia brevis* are also now present alongshore Collier County at Big Marco Pass (FWRI, 11/7). No *K. brevis* was found alongshore northern Collier County as of 11/7 (FWRI, CCPCPD). Samples collected last week contained 'low a' *K. brevis* concentrations approximately 6-9 miles south of Sanibel Island and 'very low a' *K. brevis* concentrations approximately 10-13 miles offshore northern Collier County (FWRI, 11/3). 'Very low a' concentrations remain present in the Gasparilla Sound region (FWRI, 11/1). No recent sample information is available west of Sanibel Island where 'medium' concentrations were last identified on 10/26 (FWRI). Recent imagery and wind conditions indicate that these higher concentrations may have transported south over the past two weeks. All other samples collected alongshore from Pinellas through northern Monroe counties, offshore northern Lee and northern Monroe counties and north of the Lower Keys indicate that *K. brevis* is not present (FWRI, MML, SCHD; 10/31-11/8). No reports of impacts have been received alongshore southwest Florida this week.

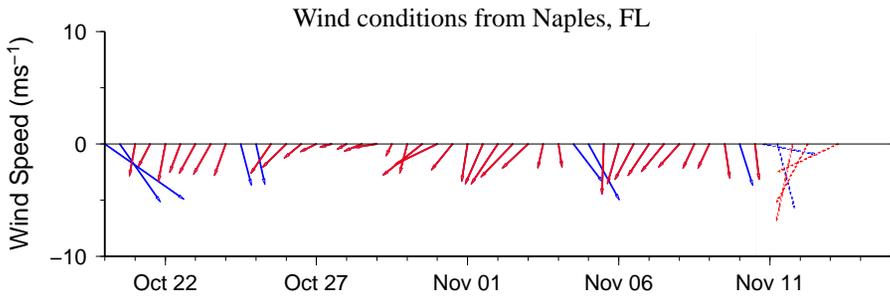
Chlorophyll remains elevated to high (2 to $>10\mu\text{g/L}$) alongshore and offshore Lee County, up to 10 miles west and 18 miles south of Sanibel Island in recent MODIS imagery (11/6-11/9). Chlorophyll is significantly higher ($>20\mu\text{g/L}$) south of Sanibel Island at $26^{\circ}19'59''\text{N } 82^{\circ}3'12''\text{W}$. Chlorophyll levels also appear elevated to high (3 to $>10\mu\text{g/L}$) alongshore to offshore northern to central Collier County, primarily within 10 miles of the coast likely due to the presence of a mixed bloom. Sampling is recommended offshore northern Collier County within 10 miles of the coast and approximately 12-25 miles offshore Vanderbilt Beach. An elevated chlorophyll feature is also visible alongshore Sarasota County from Lido Key to Casey Key (4 to $>10\mu\text{g/L}$); samples collected in this region on 10/31 contained no *K. brevis*. Chlorophyll within this feature appears more elevated than in previous days.

Strong northerly to northeasterly winds may promote southerly transport of the bloom today and Friday. Further alongshore transport should be minimal Saturday and Sunday. Offshore winds will decrease the potential for impacts at the coast through Sunday, November 13.

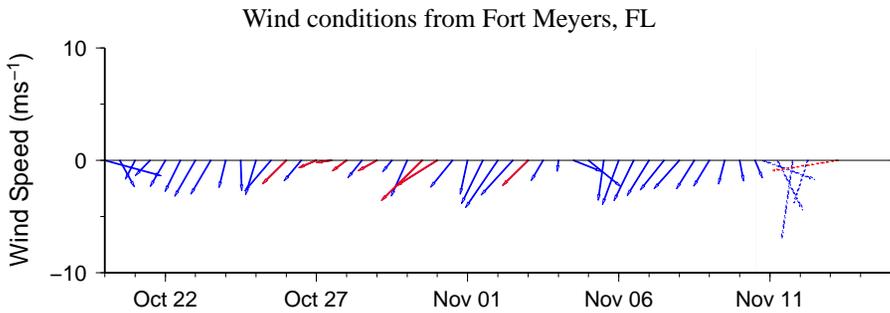
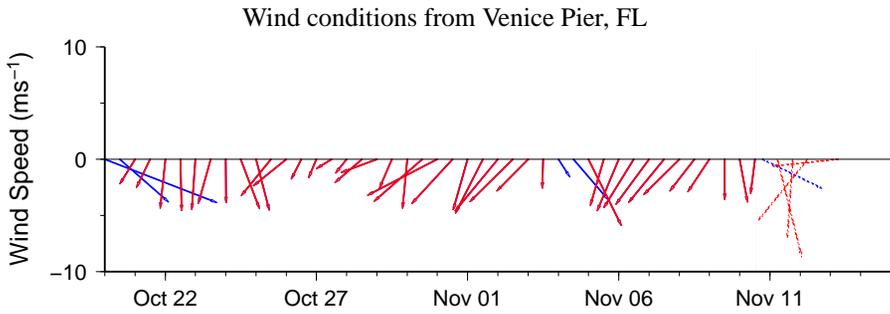
Fisher, Burrows

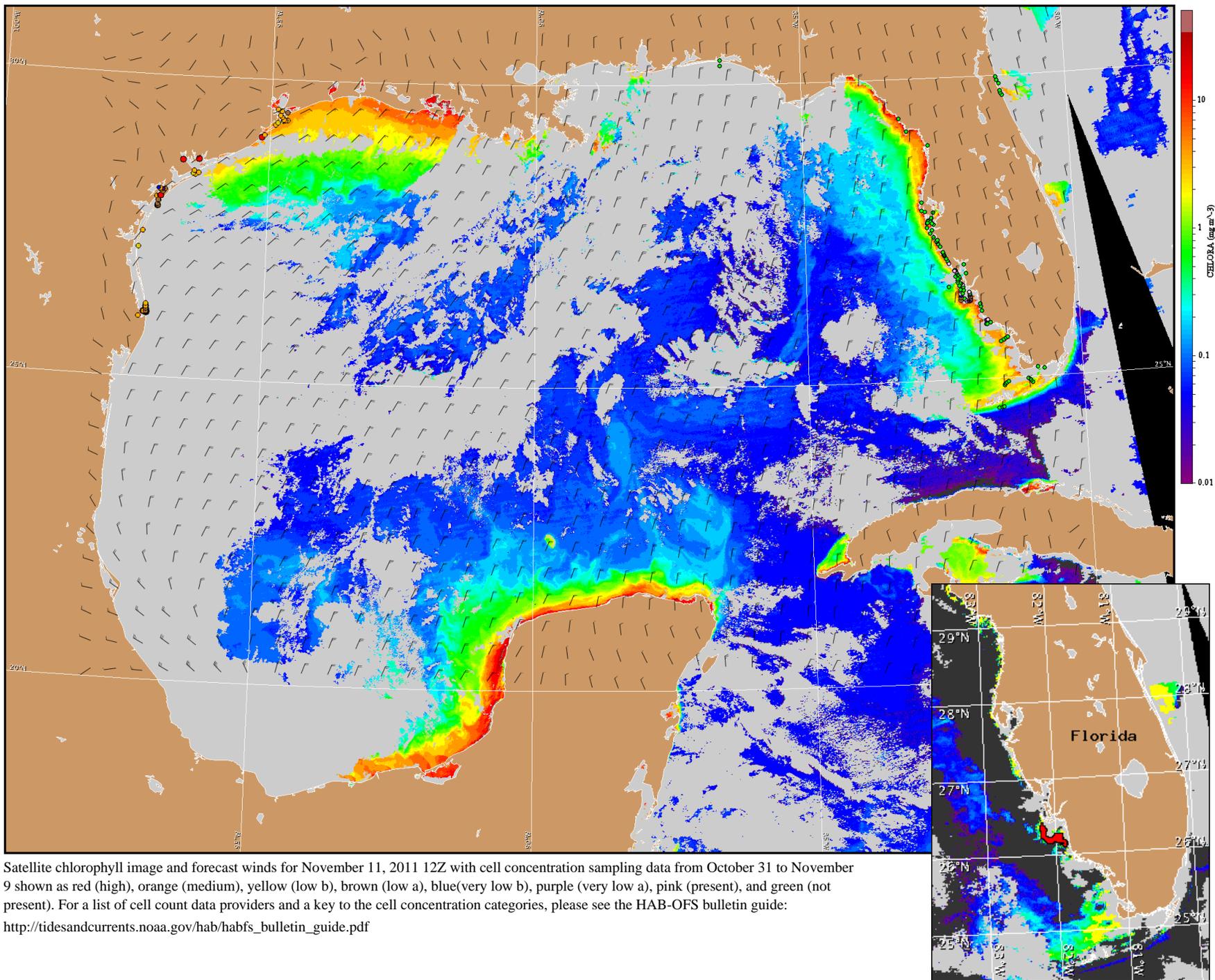
Wind Analysis

Southwest Florida: North to northwest winds today (10-20 kn, 5-10 m/s). North winds tonight (20-25kn, 10-13m/s). North to northeast winds Friday (20kn, 10m/s), diminishing to 15kn (8m/s) Friday night. East to northeast winds Saturday (10-15kn, 5-8m/s). East to southeast winds Sunday (10kn, 5m/s).



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 November 11, 2011 12Z with cell concentration sampling data from October 31 to November 9 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

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