



Experimental Lake Erie Harmful Algal Bloom Bulletin

National Centers for Coastal Ocean Science and Great Lakes Environmental Research Laboratory

5 September 2013; Bulletin 18

The area of most intense bloom remains in the far western part of Lake Erie and Maumee Bay. Scum may be seen in pockets near land in the southwestern portion of the western basin, more likely on Friday. Other areas where cyanobacteria are present should have moderate to low concentration of cyanobacteria.

A slight eastward transport is forecasted for the next three days. The weekend may have winds of 10-15 knots, which will cause mixing of the bloom resulting in a reduction of the bloom presence at the surface and limiting scum.

- Dupuy, Stumpf

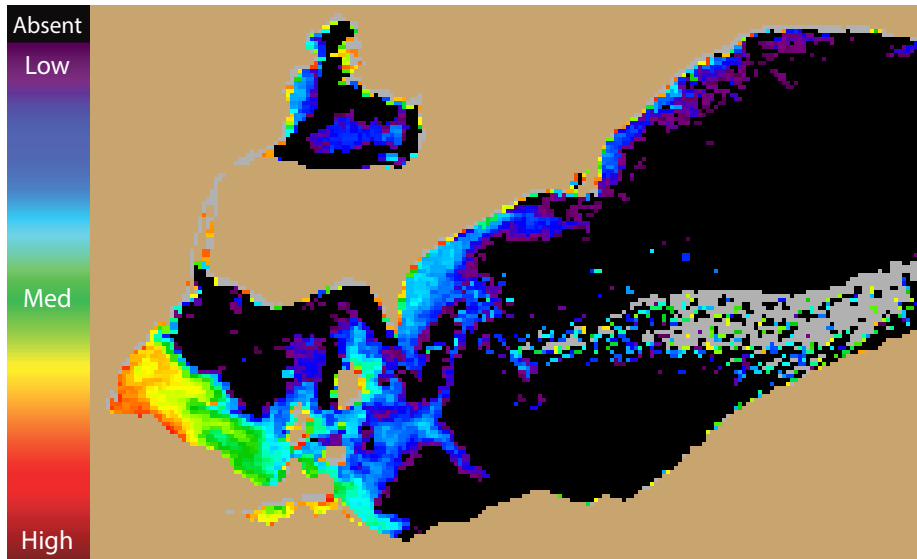


Figure 1. MODIS Cyanobacterial Index from 4 September 2013. Grey indicates clouds or missing data. Black represents no cyanobacteria detected. Colored pixels indicate the presence of cyanobacteria. Cooler colors (blue and purple) indicate low concentrations and warmer colors (red, orange, and yellow) indicate high concentrations. The estimated threshold for cyanobacteria detection is 35,000 cells/mL.

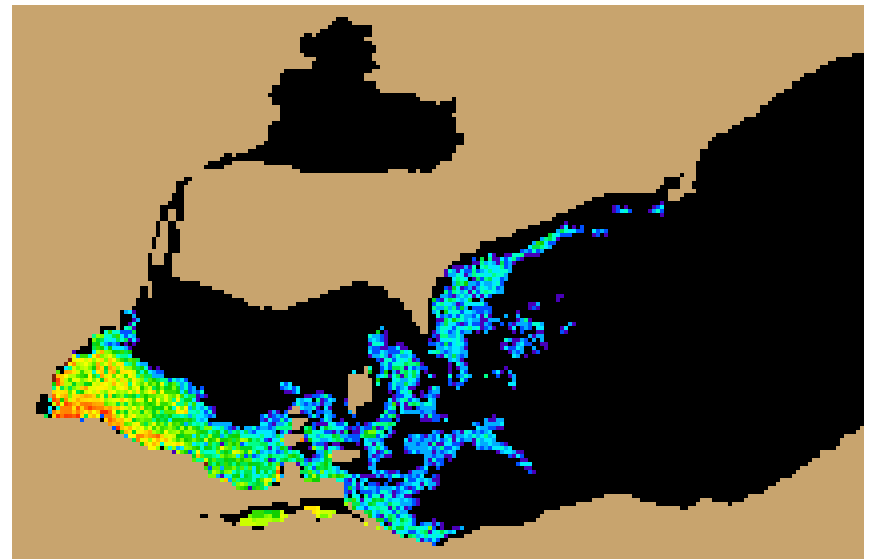


Figure 2. Nowcast position of bloom for 5 September 2013 using GLCFS modeled currents to move the bloom from the 4 September 2013 image.

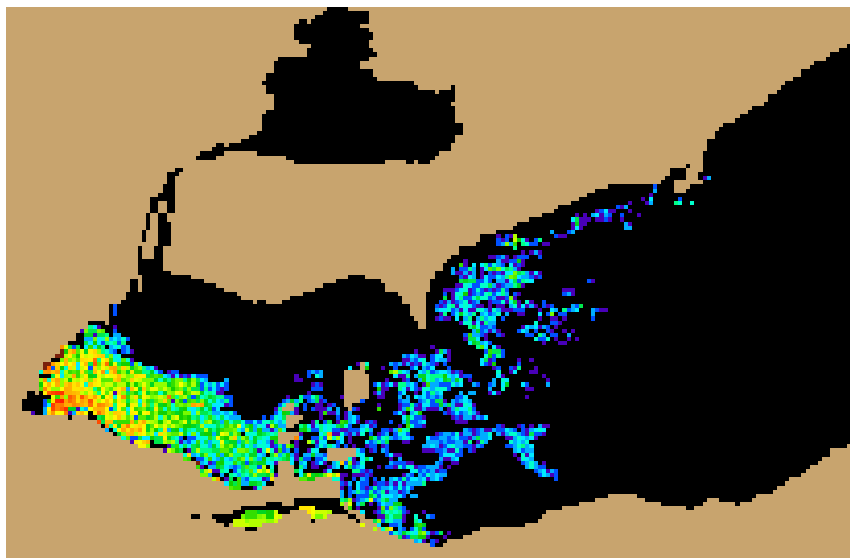
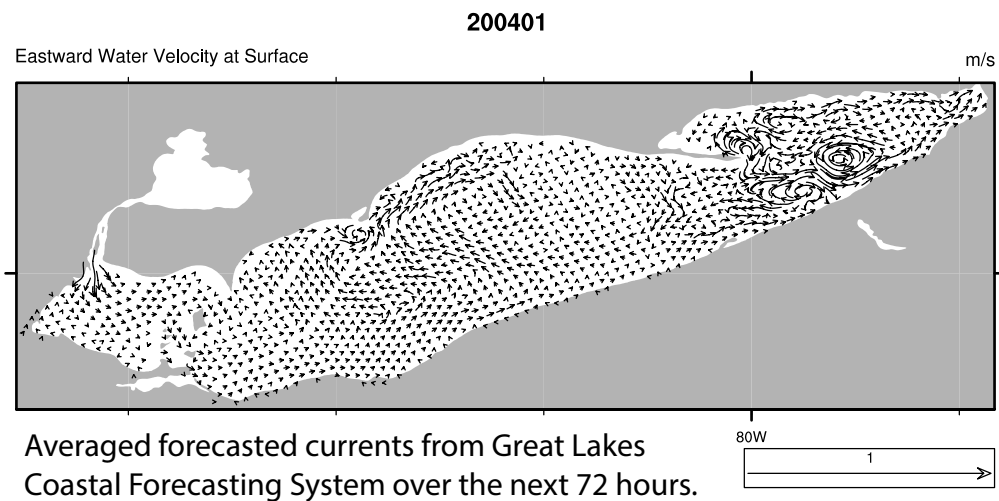
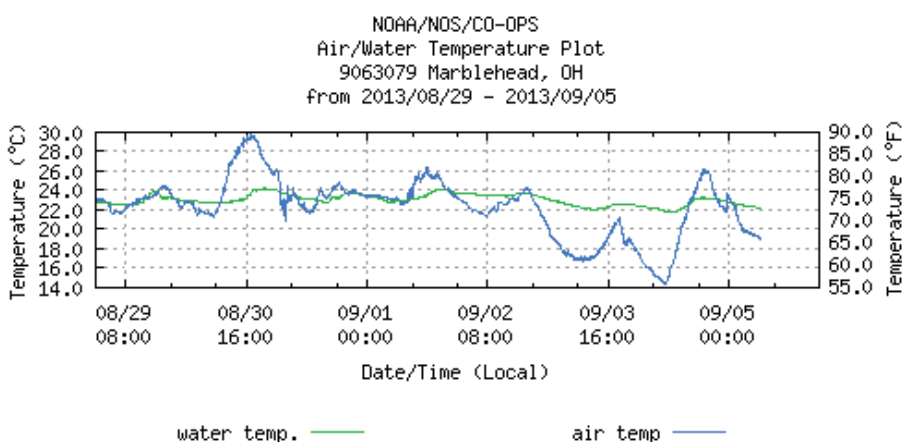


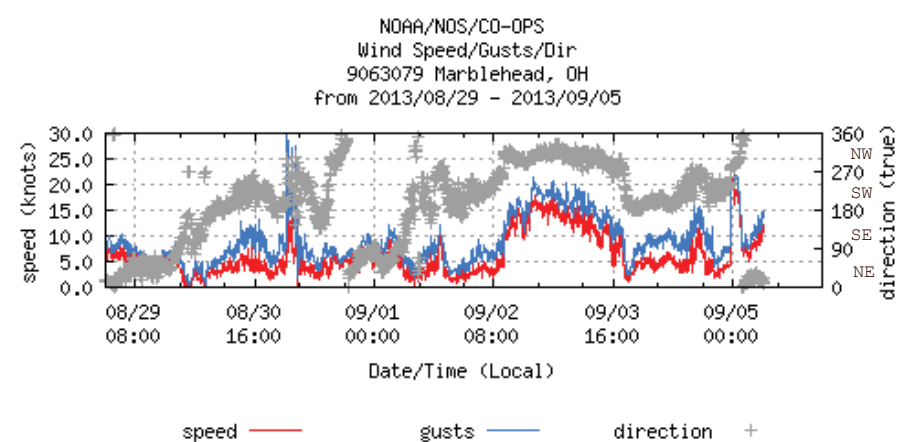
Figure 3. Forecast position of bloom for 8 September 2013 using GLCFS modeled currents to move the bloom from the 4 September 2013 image.



Averaged forecasted currents from Great Lakes Coastal Forecasting System over the next 72 hours.



Air and Water Temperature from Marblehead, OH. From: NOAA/Center for Operational Oceanographic Products and Services (CO-OPS).



Wind Speed, Gusts and Direction from Marblehead, OH. From: NOAA/Center for Operational Oceanographic Products and Services (CO-OPS). Note: 1 knot = 0.51444 m/s. Blooms mix through the water column at wind speeds greater than 7.7 m/sec (~ 15 knots).