



Experimental Lake Erie Harmful Algal Bloom Bulletin

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

27 August 2013; Bulletin 16

The area of most intense bloom remains in the far western part of Lake Erie and Maumee Bay, with less scum than previously observed. The moderate winds have caused some mixing of the bloom in the rest of the western basin, keeping down the surface concentration. Scum may be seen in pockets near land.

Slight eastward transport is forecasted for the next three days. Low winds (<8 knots) could allow the bloom to intensify at the surface and produce patchy areas of scum.

- Dupuy, Stumpf

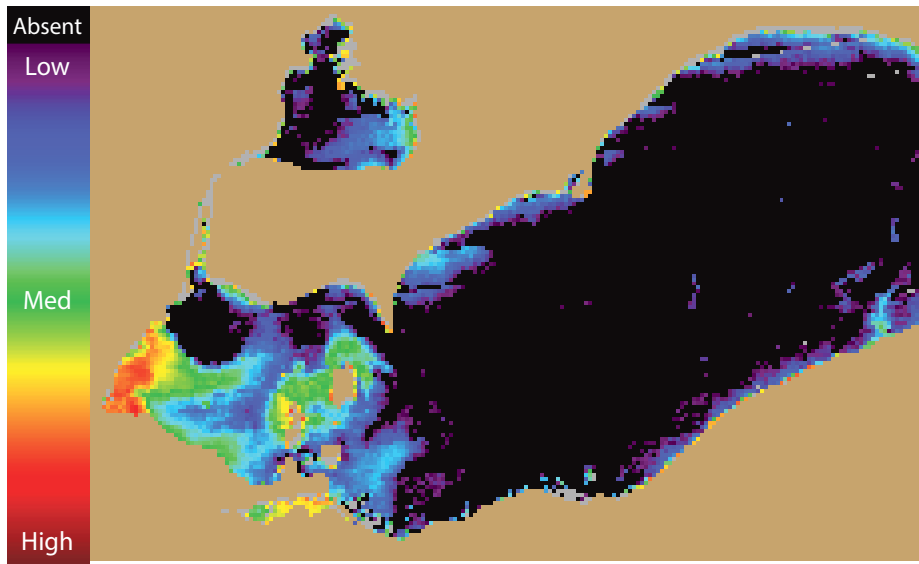


Figure 1. MODIS Cyanobacterial Index from 25 August 2013. Grey indicates clouds or missing data. Black represents no cyanobacteria detected. Colored pixels indicate the presence of cyanobacteria. Cooler colors (blue and purple) indicate low concentrations and warmer colors (red, orange, and yellow) indicate high concentrations. The estimated threshold for cyanobacteria detection is 35,000 cells/mL.

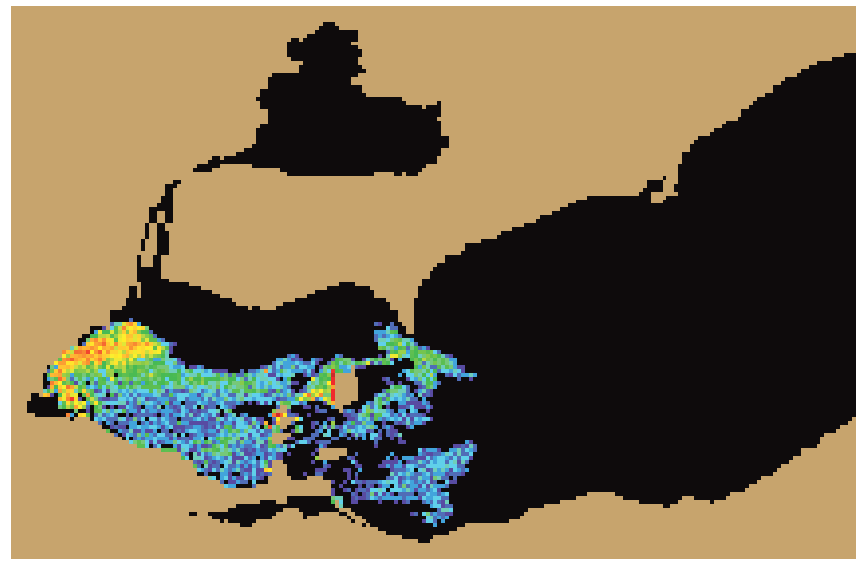


Figure 2. Nowcast position of bloom for 27 August 2013 using GLCFS modeled currents to move the bloom from the 25 August 2013 image.

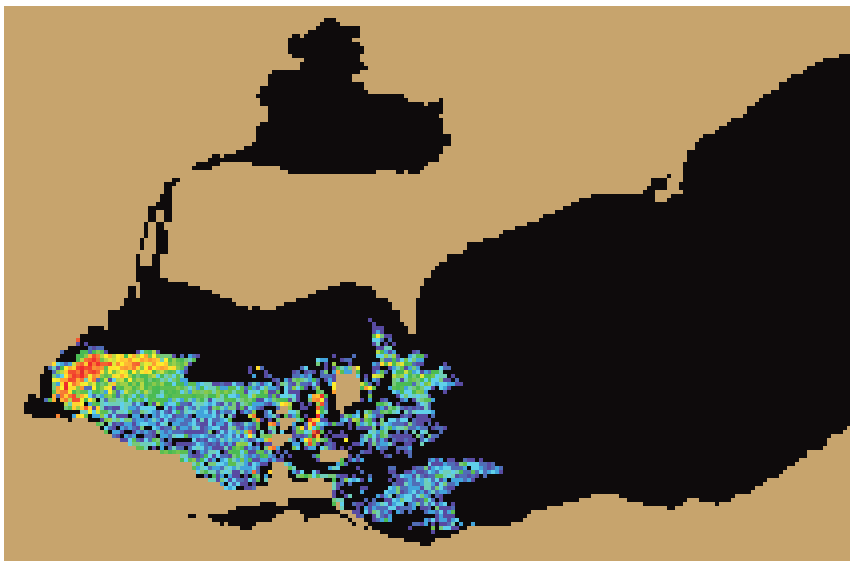
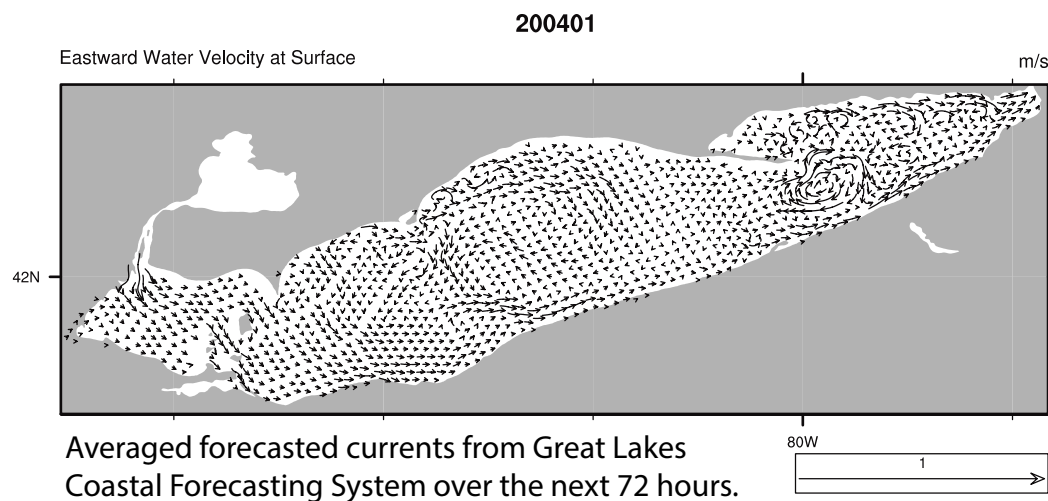
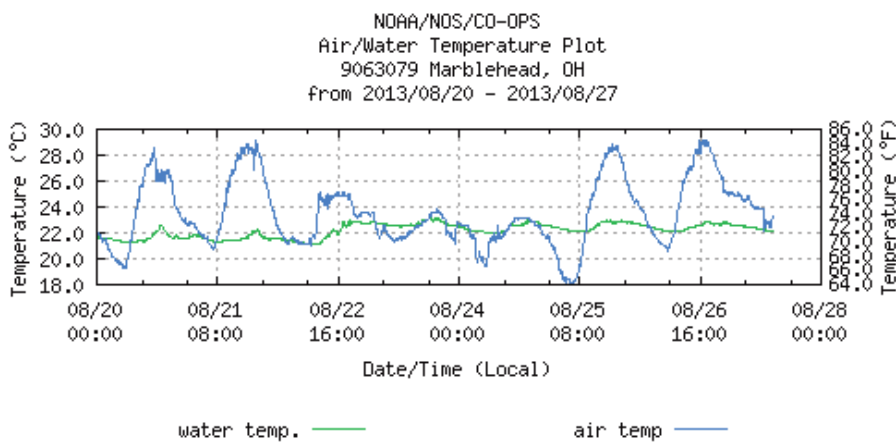


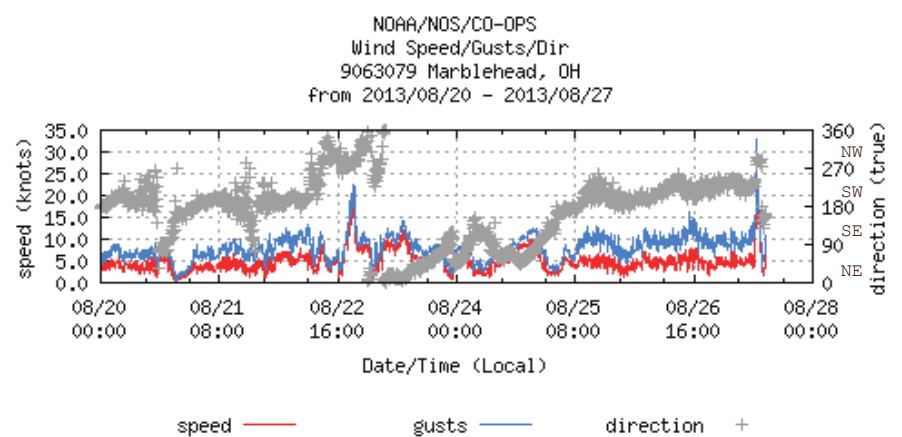
Figure 3. Forecast position of bloom for 30 August 2013 using GLCFS modeled currents to move the bloom from the 25 August 2013 image.



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).