



# Experimental Lake Erie Harmful Algal Bloom Bulletin

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

19 September 2013; Bulletin 20

The bloom's intensity has decreased since last week's bulletin. Microcystis concentrations have been steadily decreasing the past few weeks. The lake is well mixed and surface temperatures are beginning to cool which could further decrease growth.

A slight north-eastern transport is forecasted for the next few days.

- Dupuy, Stumpf

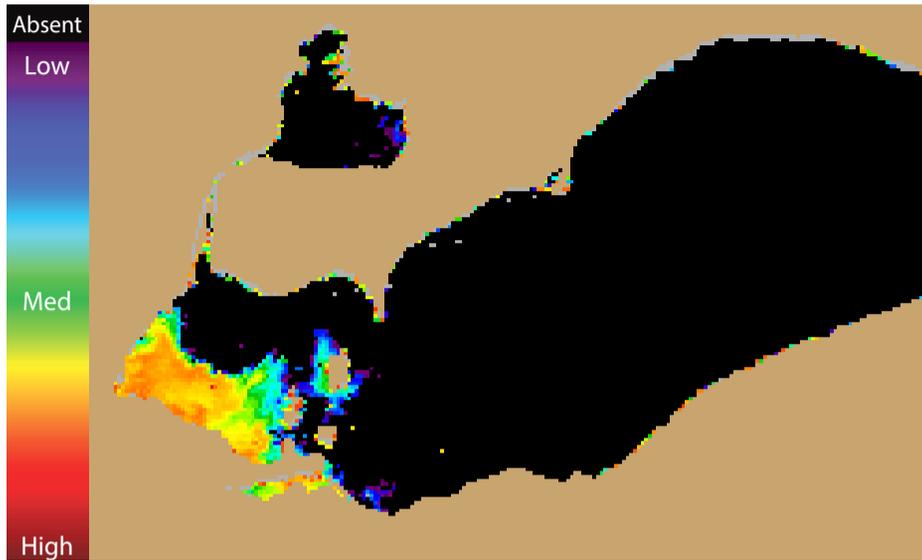


Figure 1. MODIS Cyanobacterial Index from 17 September 2013. Grey indicates clouds or missing data. Black represents no cyanobacteria detected. Colored pixels indicate the presence of cyanobacteria. Cooler colors (blue and purple) indicate low concentrations and warmer colors (red, orange, and yellow) indicate high concentrations. The estimated threshold for cyanobacteria detection is 35,000 cells/mL.

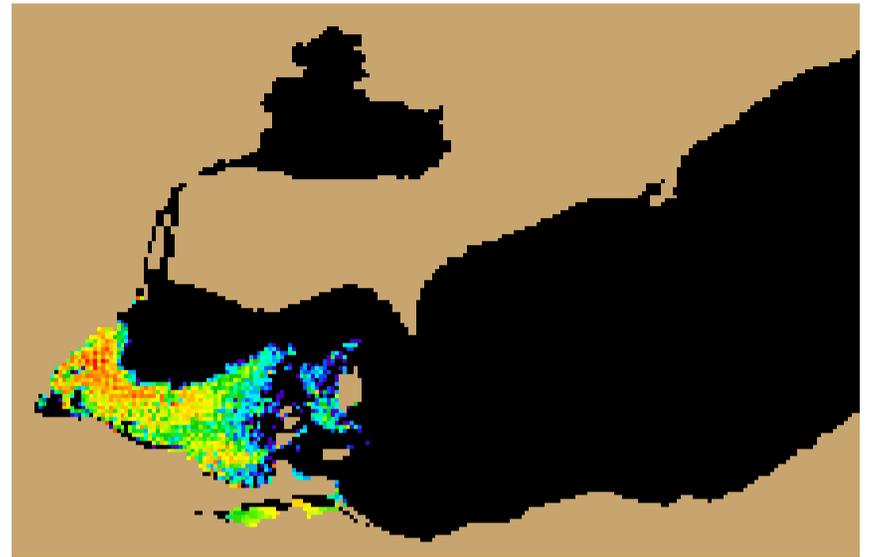


Figure 2. Nowcast position of bloom for 19 September 2013 using GLCFS modeled currents to move the bloom from the 17 September 2013 image.

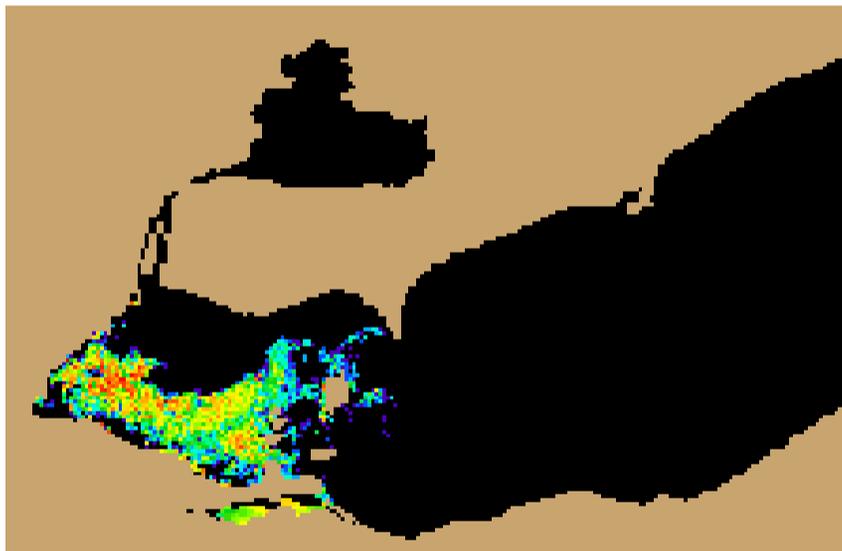
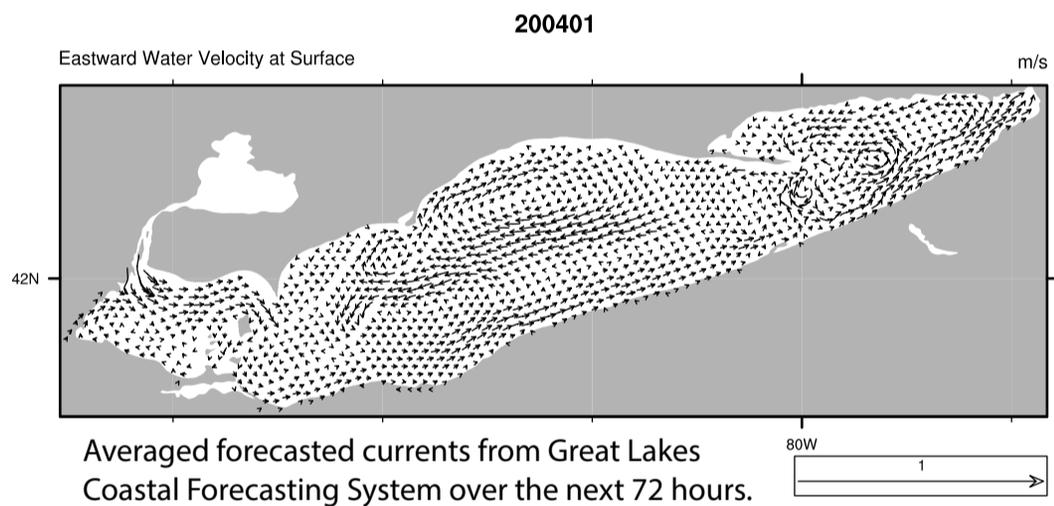
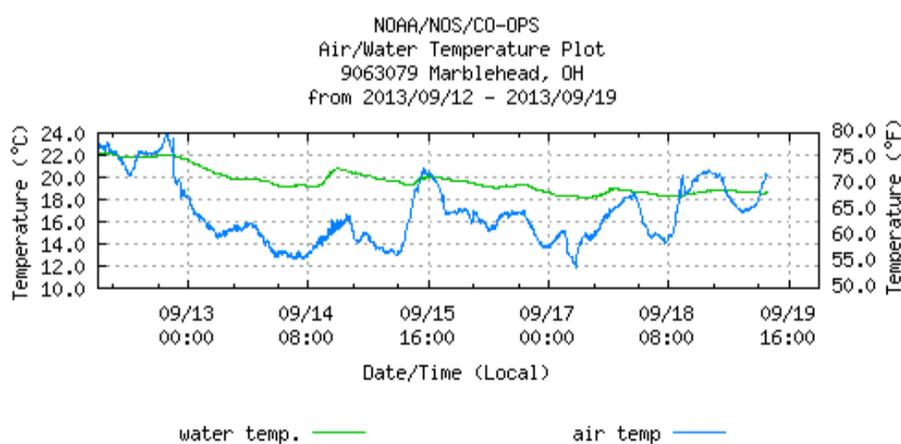


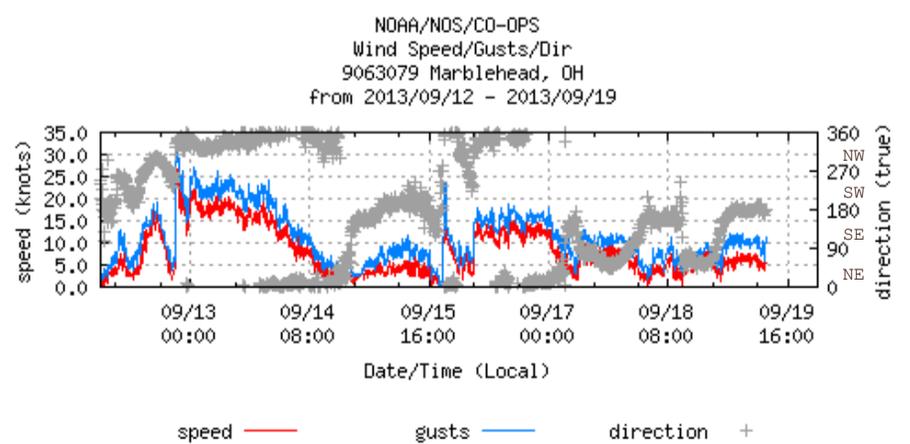
Figure 3. Forecast position of bloom for 22 September 2013 using GLCFS modeled currents to move the bloom from the 17 September 2013 image.



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).