# Experimental Lake Erie Harmful Algal Bloom Bulletin

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

## 30 September 2014, Bulletin 28

The bloom has continued to grow in the past week. Extensive scum was seen in Maumee Bay and west of the Bass Islands yesterday.

Northern winds (10-20 knots) today may promote mixing. There is a potential for scum development Wednesday in areas of high concentration. Winds will increase again Thursday into Friday promoting mixing. A slight eastern transport is expected for the next few days.

The imagery shows the persistent bloom in Sandusky Bay is present.
There are no reported harmful algal blooms or suspicious features in the Eastern Basin at this time.

-Dupuy, Stumpf

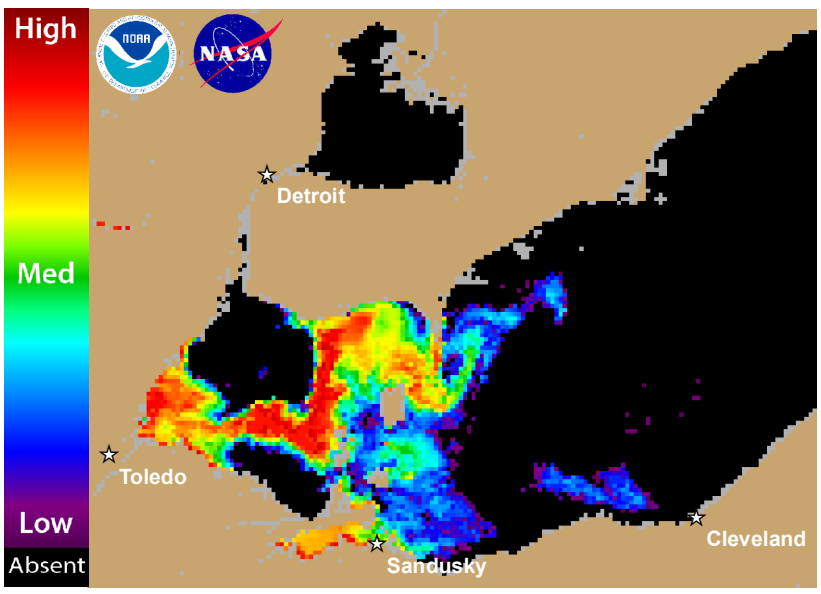



Figure 1. Cyanobacterial Index from NASA's MODIS-Aqua data collected 29 September 2014 at 1:05 pm. Grey indicates clouds or missing data. Black represents no cyanobacteria detected. Colored pixels indicate the presence of cyanobacteria. Cooler colors (blue and purple) indicate low concentrations and warmer colors (red, orange, and yellow) indicate high concentrations. The estimated threshold for cyanobacteria detection is 35,000 cells/mL.

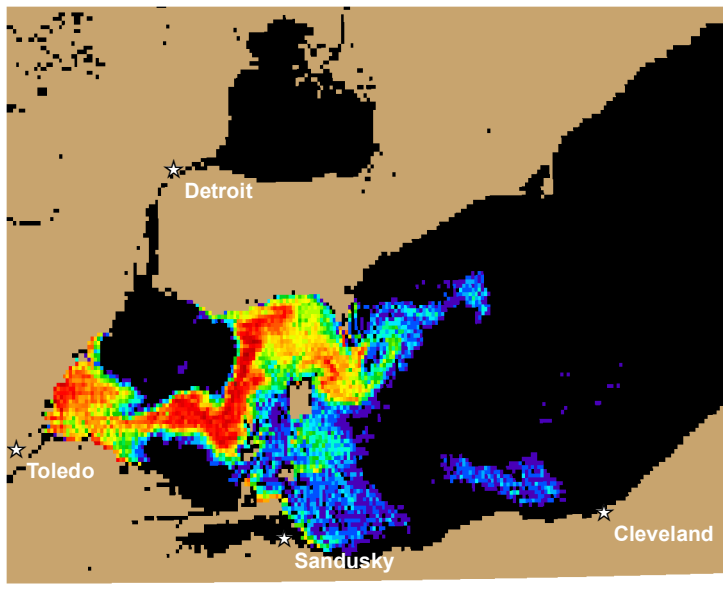



Figure 2. Nowcast position of bloom for 30 September 2014 using GLCFS modeled currents to move the bloom from the 29 September 2014 image.

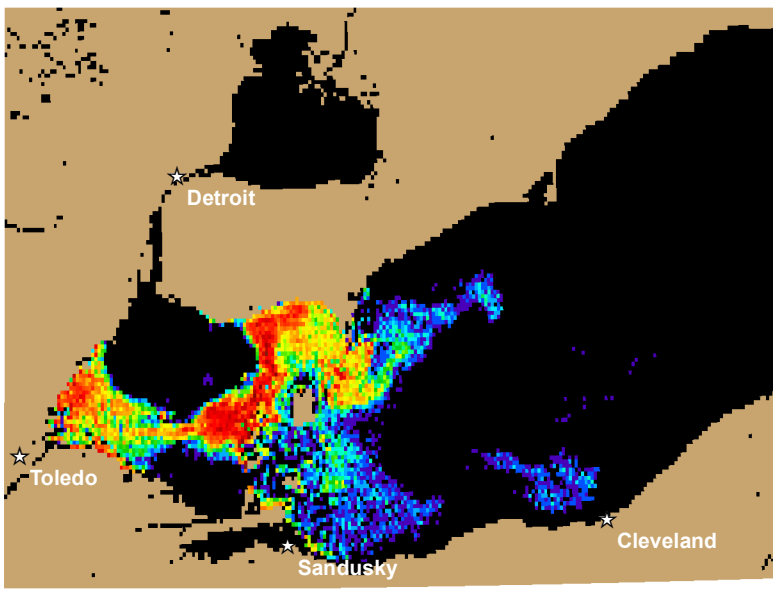
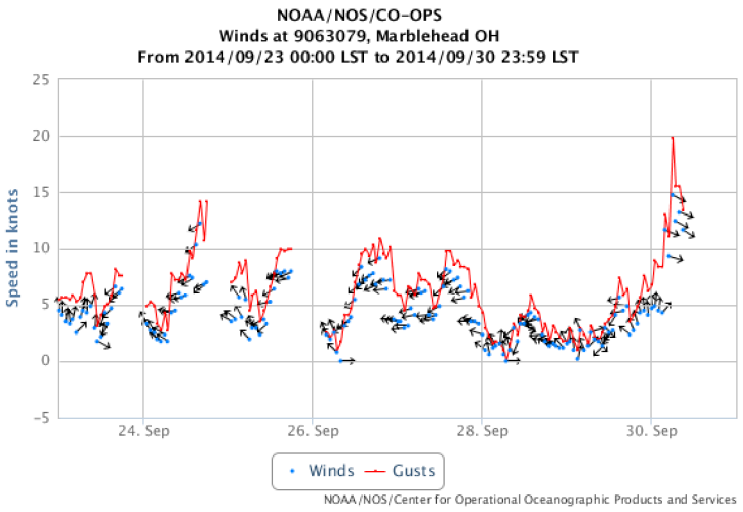
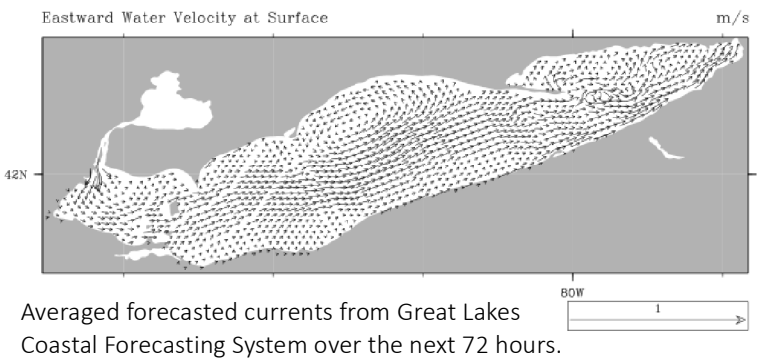


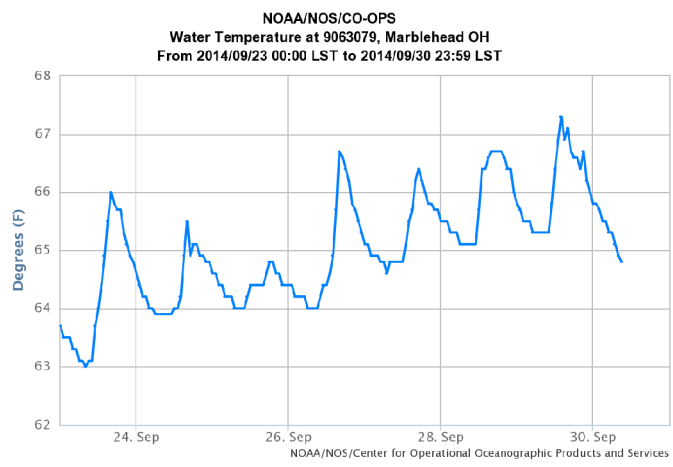

Figure 3. Forecast position of bloom for 3 October 2014 using GLCFS modeled currents to move the bloom from the 29 September 2014 image.




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).




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




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

Supported by the NASA Applied Sciences Health and Air Quality Program.
Wind forecasts derived from NOAA/National Weather Service in Cleveland.

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