



Experimental Lake Erie Harmful Algal Bloom Bulletin

National Centers for Coastal Ocean Science and Great Lakes Environmental Research Laboratory
 25 August 2014, Bulletin 16

The most severe area of the bloom remains in the western basin, however, the edge has moved eastward between Bass Islands and Pelee Island, and around Pelee Island.

Winds were strong enough to keep scum formation relatively low yesterday, reducing the surface concentration as seen from satellite. Generally, southwest winds today and tomorrow shifting to northeasterly late Tuesday after the front passes through.

We forecast a slight northeast transport over the next few days. Some mixing will be possible Wednesday to Thursday with the northerly winds.

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.

As a reminder, the images below are "GeoPDF". Selecting "Tools, Analyze, Geospatial Location Tool", will allow you to view longitude and latitude under your cursor.
 -Dupuy, Stumpf

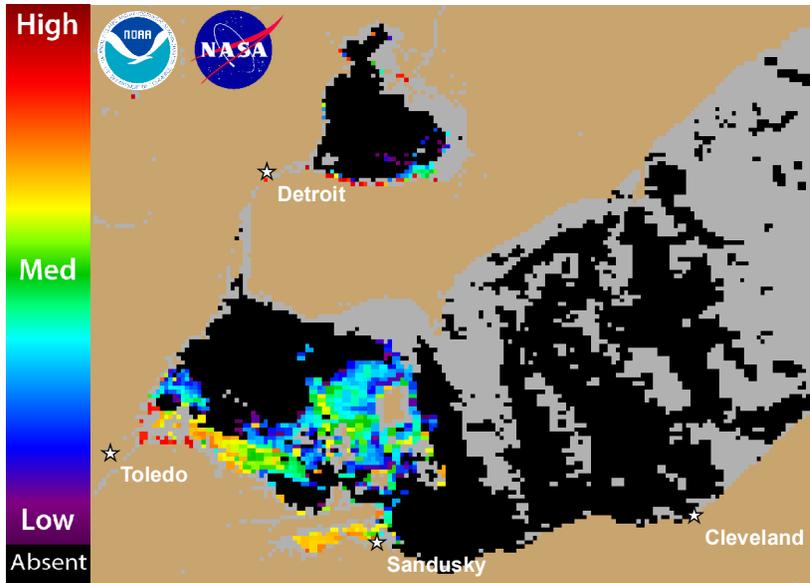


Figure 1. Cyanobacterial Index from NASA's MODIS Aqua composite of data collected 23 & 24 August 2014. Grey indicates clouds or missing data. Black represents no cyanobacteria detected. Colored pixels indicate the presence of cyanobacteria. Cooler colors (blue and purple) indicate low concentrations and warmer colors (red, orange, and yellow) indicate high concentrations. The estimated threshold for cyanobacteria detection is 35,000 cells/mL.

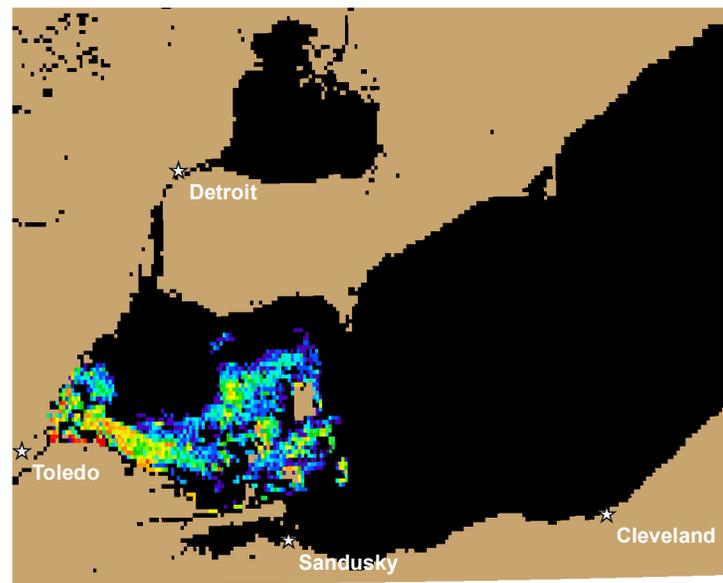


Figure 2. Nowcast position of bloom for 25 August 2014 using GLCFS modeled currents to move the bloom from the 23 & 24 August 2014 image.

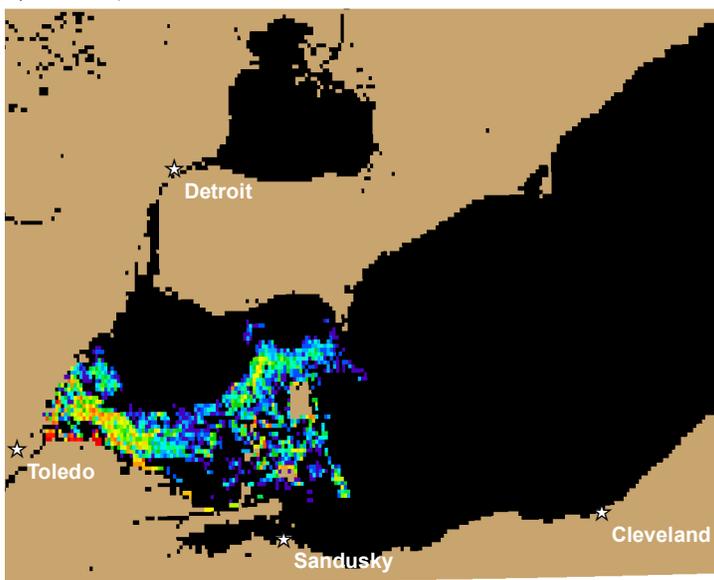
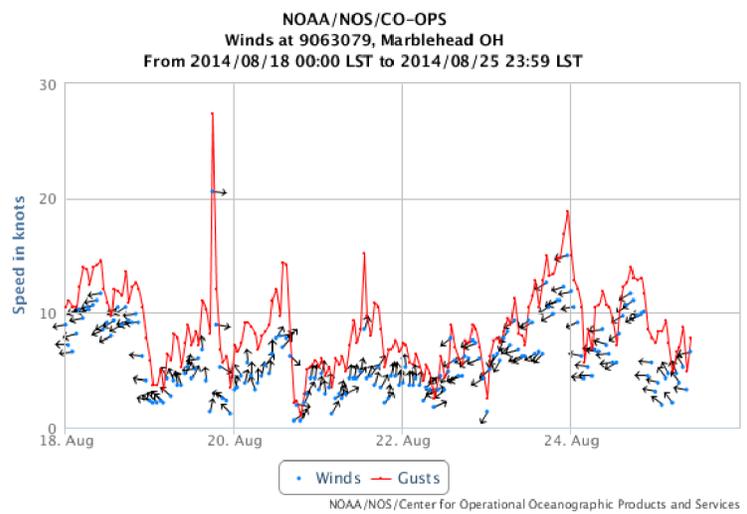
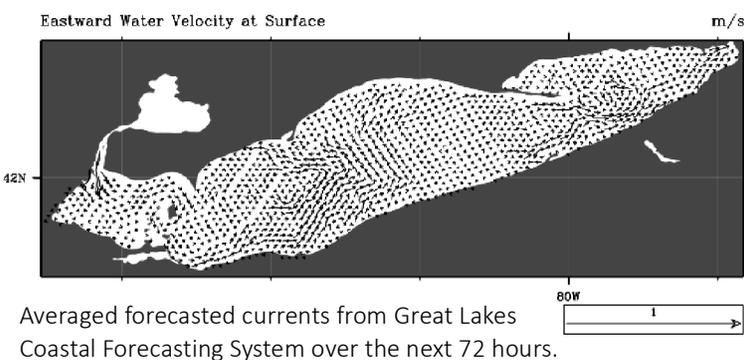


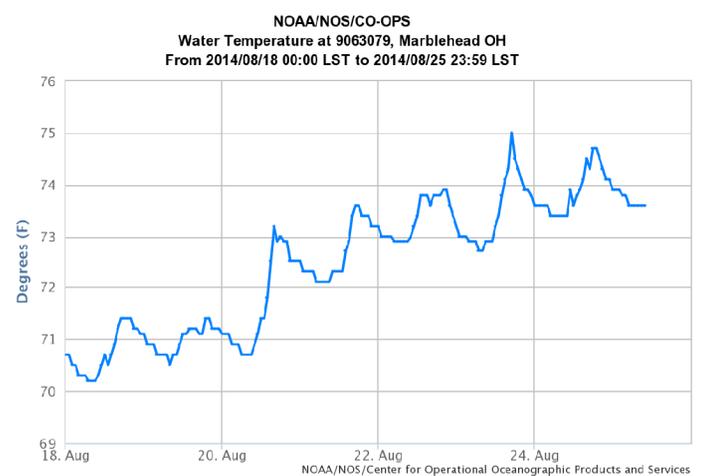
Figure 3. Forecast position of bloom for 28 August 2014 using GLCFS modeled currents to move the bloom from the 23 & 24 August 2014 image.



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).

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