



Experimental Lake Erie Harmful Algal Bloom Bulletin

National Centers for Coastal Ocean Science and Great Lakes Environmental Research Laboratory
 27 August 2014, Bulletin 17

The most severe area of the bloom remains in the western basin, however, the edge has moved south past the Bass Islands and Pelee Island toward Sandusky.

Winds around 10 knots have kept partial mixing, reducing the surface concentration as seen from satellite. Northeast winds today and tomorrow will continue to transport the bloom Southeast towards Sandusky, and become more concentrated towards Kellys and South Bass Islands, with partial mixing. Winds are expected to shift southeasterly Friday, reducing the impact along the southern coast. Some mixing is expected Thursday through Saturday. We forecast a slight southeast transport over 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.

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

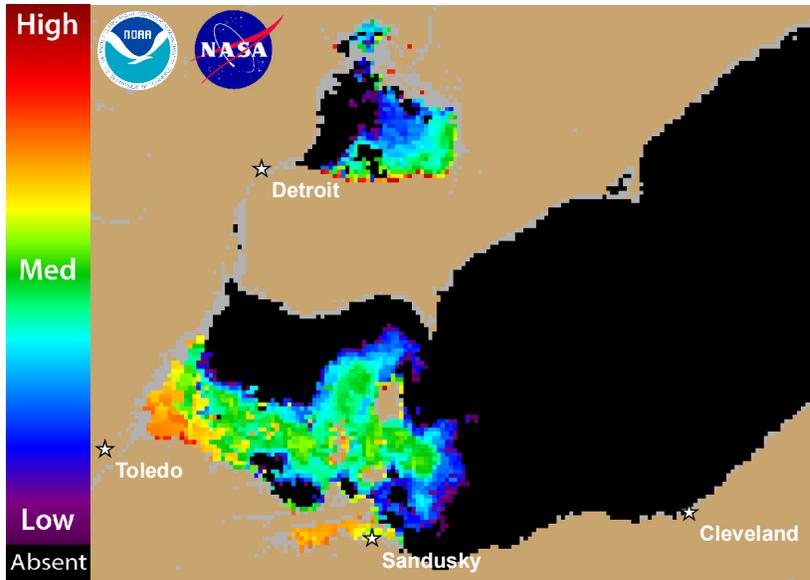


Figure 1. Cyanobacterial Index from NASA's MODIS 26 August 2014. Grey indicates clouds or missing data. Black represents no cyanobacteria detected. Colored pixels indicate the presence of cyanobacteria. Cooler colors (blue and purple) indicate low concentrations and warmer colors (red, orange, and yellow) indicate high concentrations. The estimated threshold for cyanobacteria detection is 35,000 cells/mL.

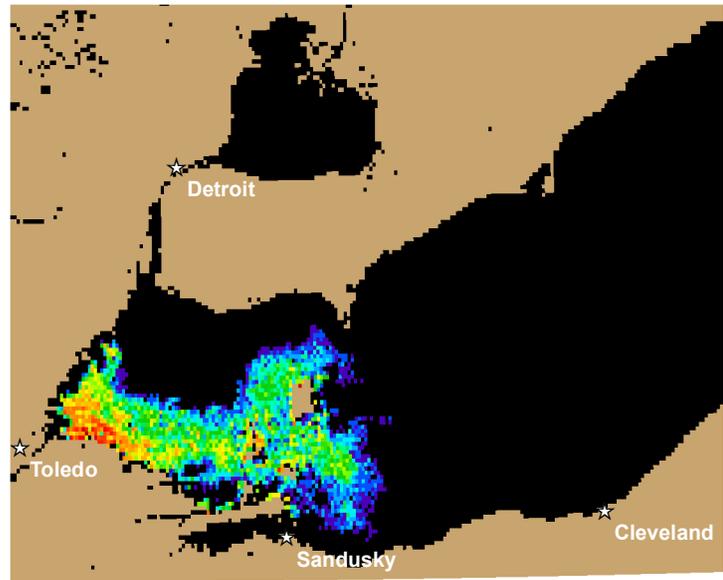


Figure 2. Nowcast position of bloom for 27 August 2014 using GLCFS modeled currents to move the bloom from the 26 August 2014 image.

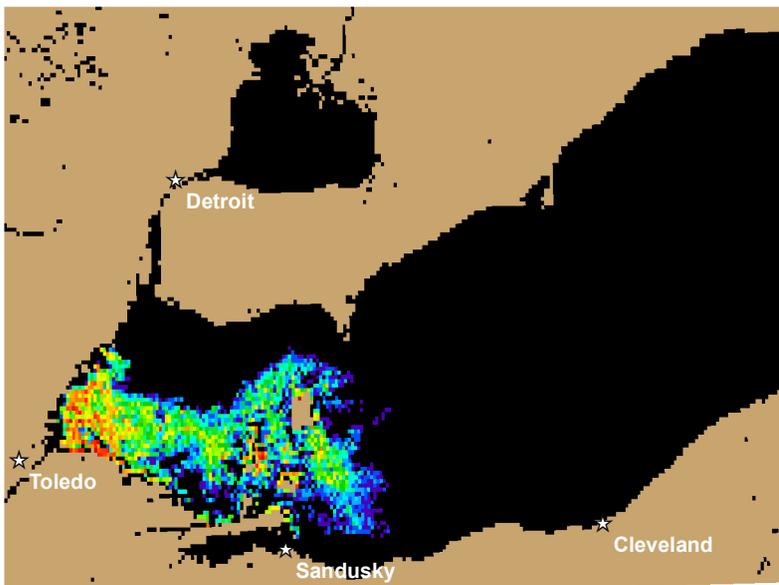
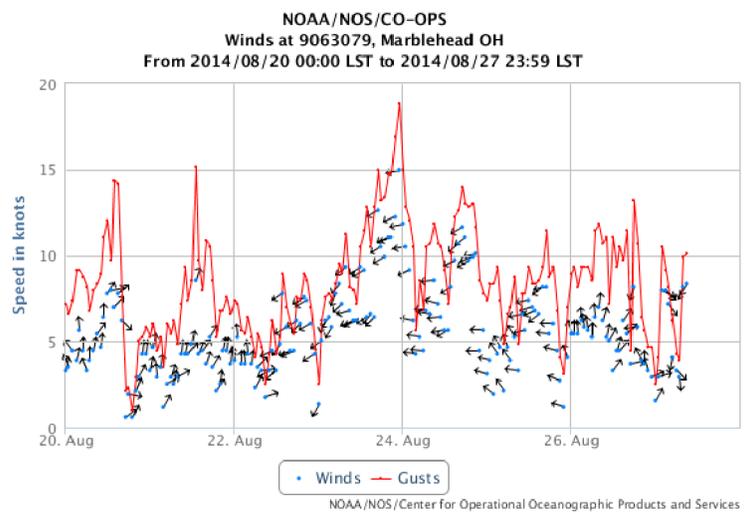
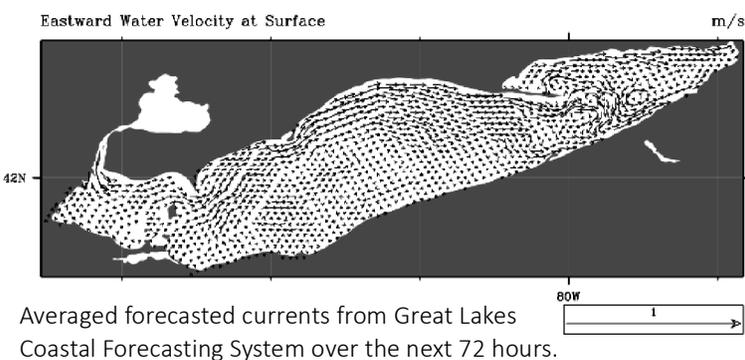


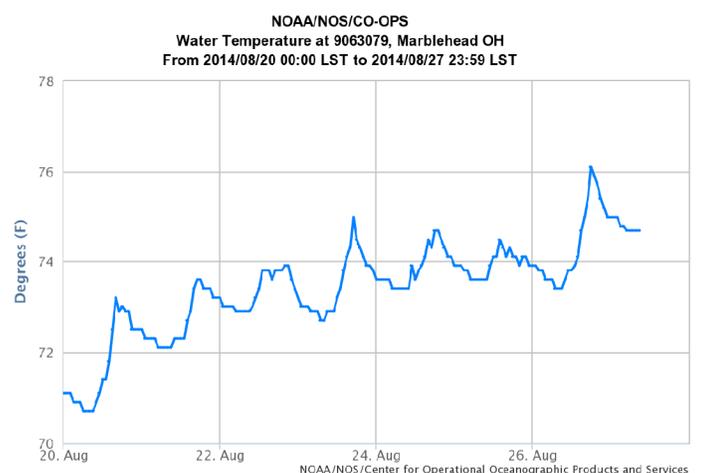
Figure 3. Forecast position of bloom for 30 August 2014 using GLCFS modeled currents to move the bloom from the 26 August 2014 image.



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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