

Experimental Lake Erie Harmful Algal Bloom Bulletin

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

7 August 2014, Bulletin 11

The bloom has maintained position from Monday, except for some spread eastward along the coast south and east of Toledo. Winds over 10 knots caused some mixing to reduce the apparent concentration in yesterday's image. Slight amounts of scum were seen near Maumee Bay yesterday.

A slight westward transport is expected over the weekend, with some mixing possible Saturday and Sunday.

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

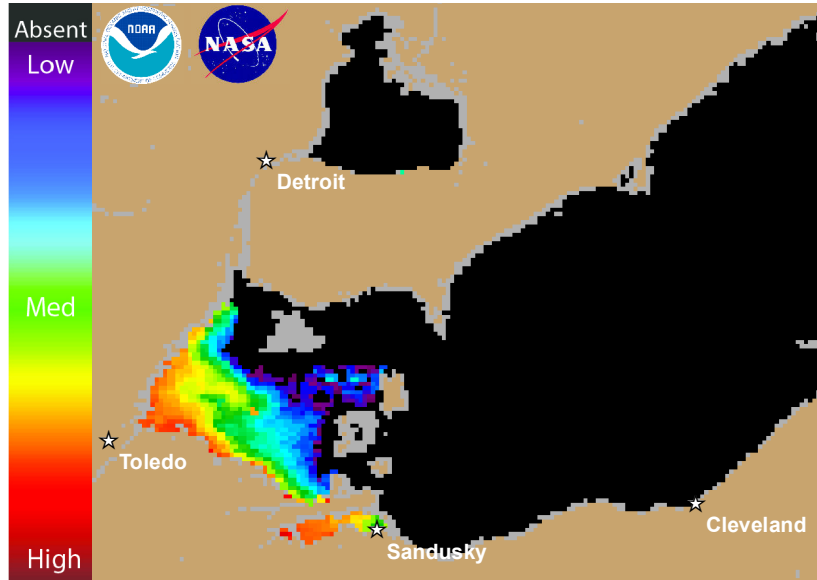


Figure 1. Cyanobacterial Index from NASA's MODIS-Terra data collected 6 August 2014 at 1:35 pm. Grey indicates clouds or missing data. Black represents no cyanobacteria detected. Colored pixels indicate the presence of cyanobacteria. Cooler colors (blue and purple) indicate low concentrations and warmer colors (red, orange, and yellow) indicate high concentrations. The estimated threshold for cyanobacteria detection is 35,000 cells/mL.

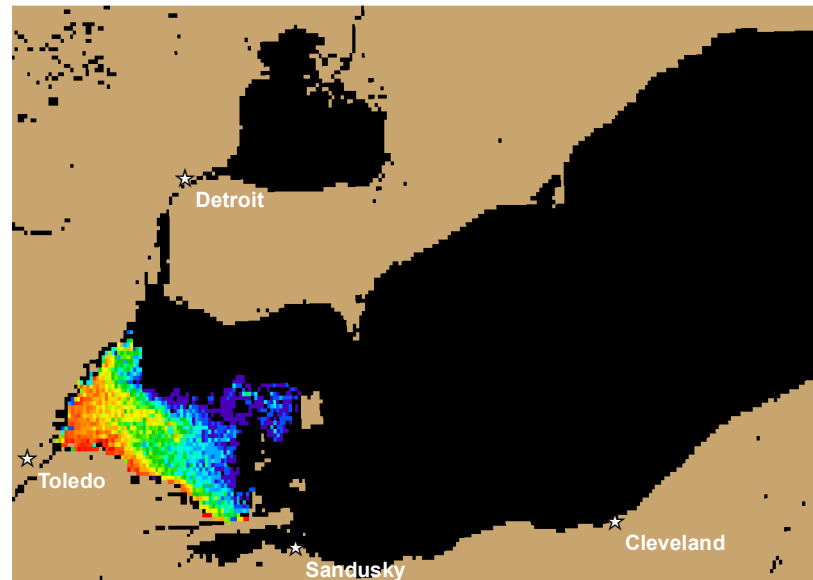


Figure 2. Nowcast position of bloom for 7 August 2014 using GLCFS modeled currents to move the bloom from the 6 August 2014 image.

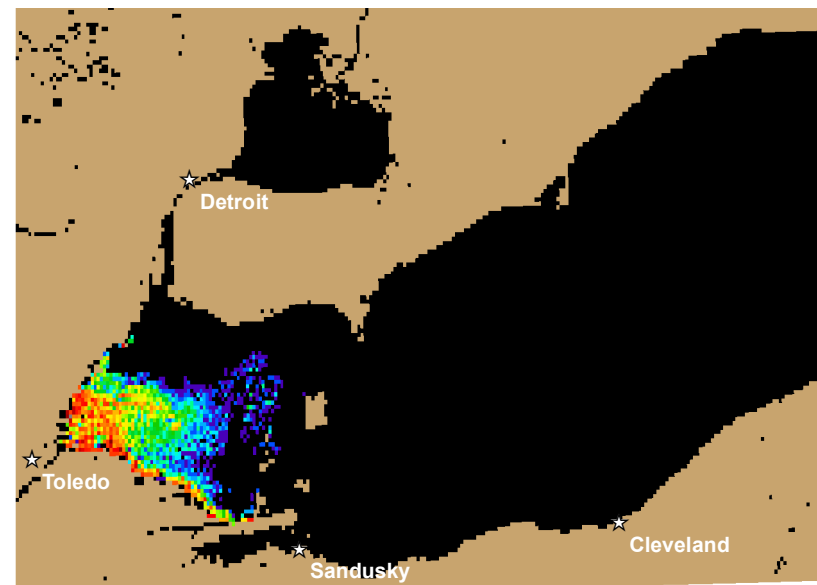
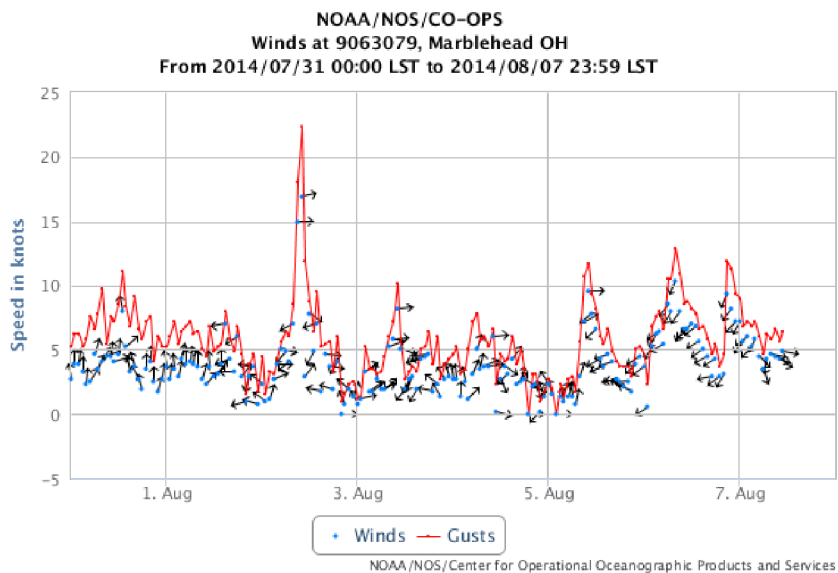
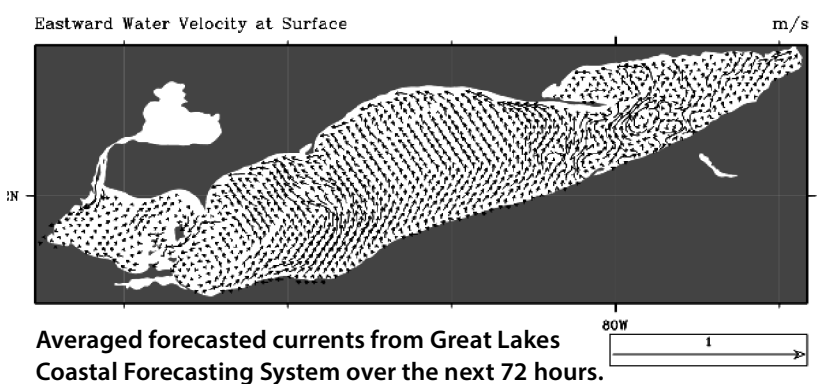


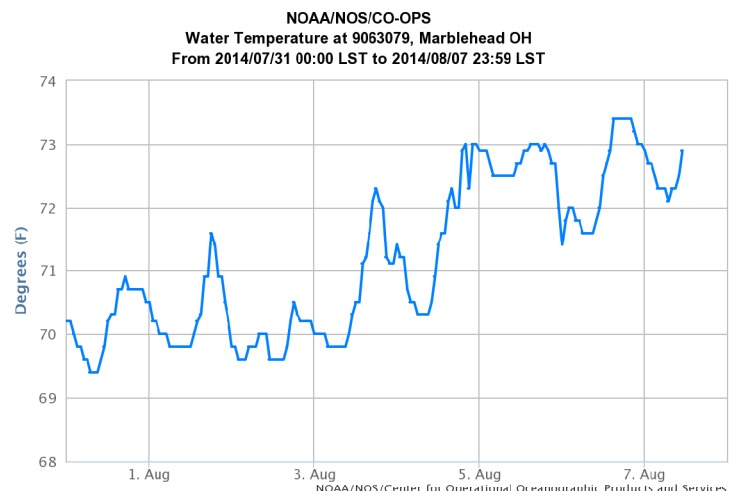
Figure 3. Forecast position of bloom for 10 August 2014 using GLCFS modeled currents to move the bloom from the 6 August 2014 image.



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).