



Experimental Lake Erie Harmful Algal Bloom Bulletin

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

11 August 2014, Bulletin 12

The bloom has maintained position from the last bulletin. Winds 10-15 knots this past weekend caused some mixing to reduce the concentration from last week, especially for the eastern area near the islands. Winds above 10 knots will continue mixing through Thursday. Eastward transport is expected 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

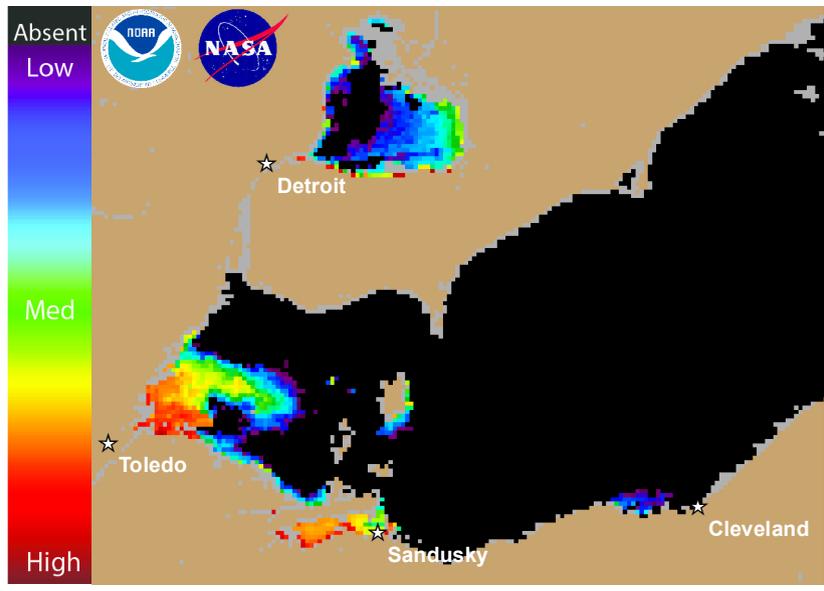


Figure 1. Cyanobacterial Index from NASA's MODIS-Aqua data collected 10 August 2014 at 1:20 pm. Grey indicates clouds or missing data. Black represents no cyanobacteria detected. Colored pixels indicate the presence of cyanobacteria. Cooler colors (blue and purple) indicate low concentrations and warmer colors (red, orange, and yellow) indicate high concentrations. The estimated threshold for cyanobacteria detection is 35,000 cells/mL.

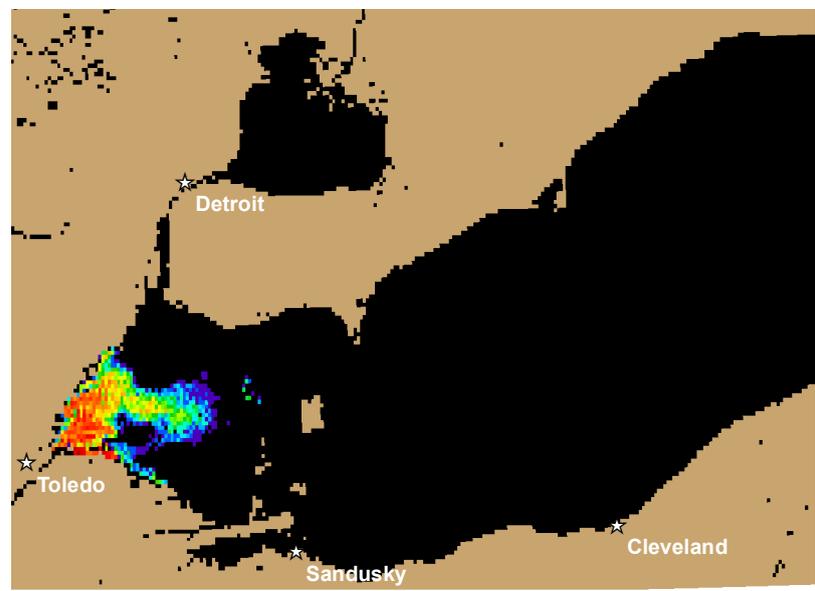


Figure 2. Nowcast position of bloom for 11 August 2014 using GLCFS modeled currents to move the bloom from the 10 August 2014 image.

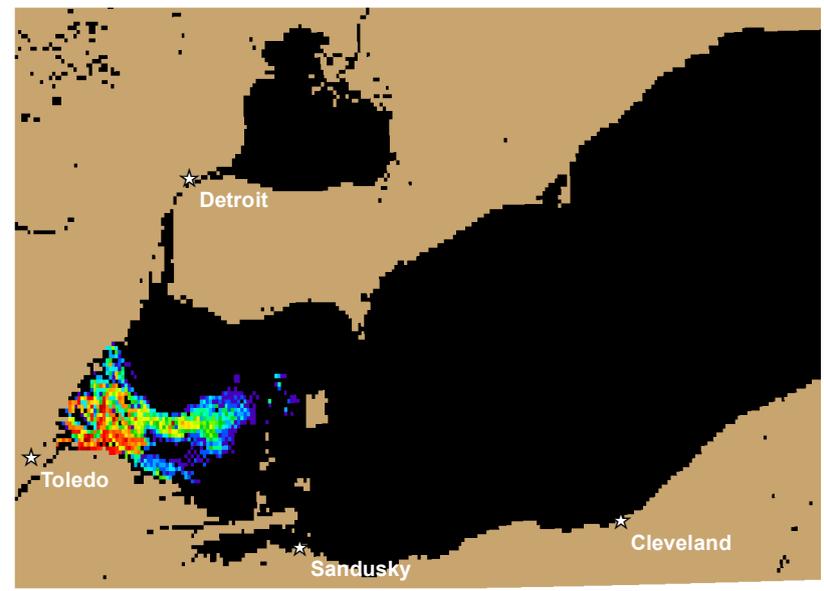
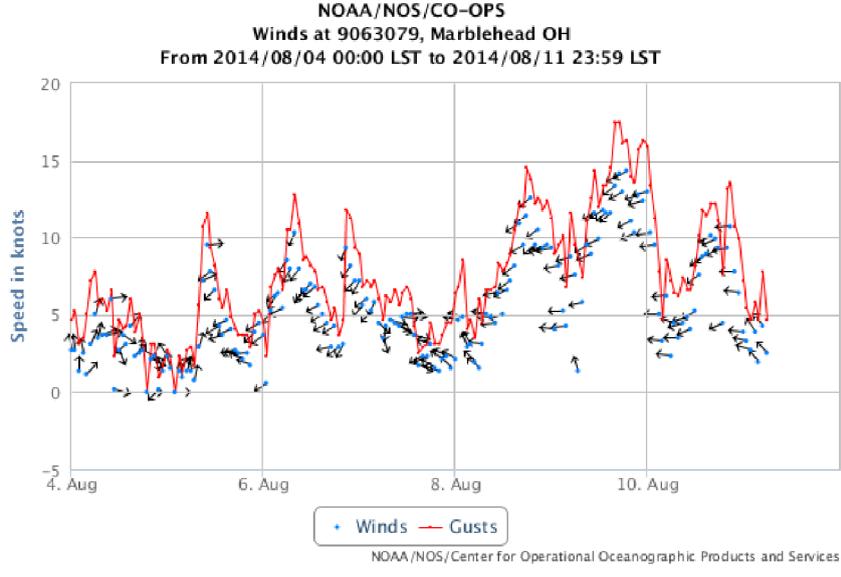
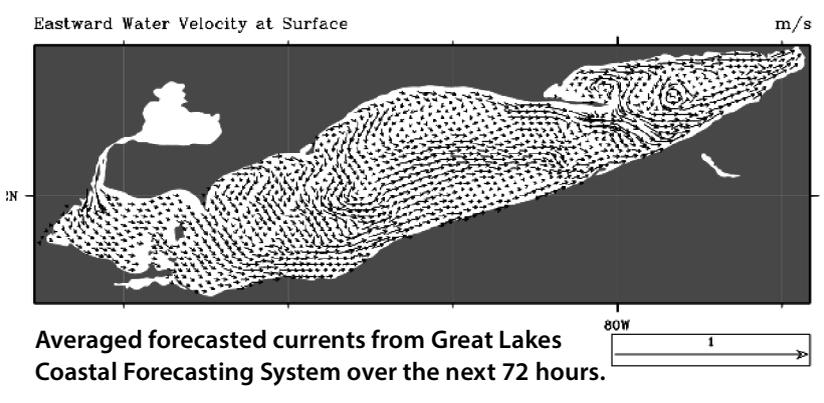


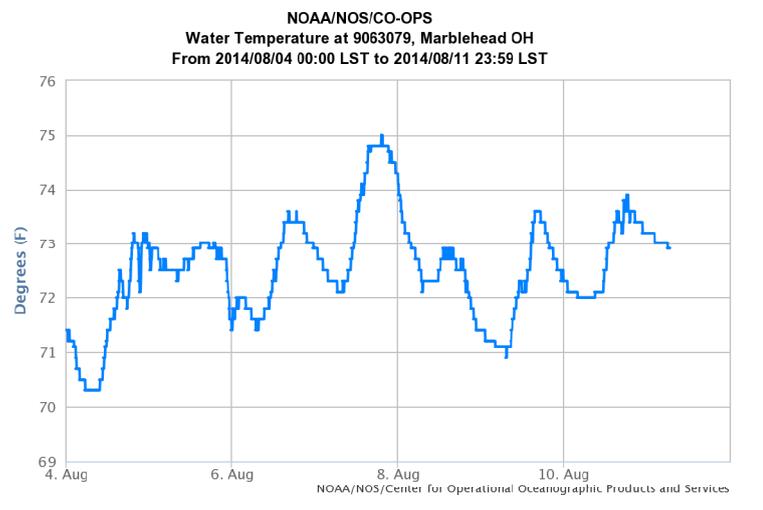
Figure 3. Forecast position of bloom for 14 August 2014 using GLCFS modeled currents to move the bloom from the 10 August 2014 image.



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).