



Experimental Lake Erie Harmful Algal Bloom Bulletin

National Centers for Coastal Ocean Science and Great Lakes Environmental Research Laboratory
21 August 2014, Bulletin 15

The bloom moved eastward since Saturday (16 Aug) extending past the Bass Islands yesterday (20 Aug). High winds (10-15 knots) kept the bloom mixed in the water column yesterday, reducing the surface concentration seen by satellite.

Light winds with an easterly flow are predicted for the next few days, favoring the development of scum in areas of the western basin having higher concentrations. We forecast an easterly transport by the end of the weekend.

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

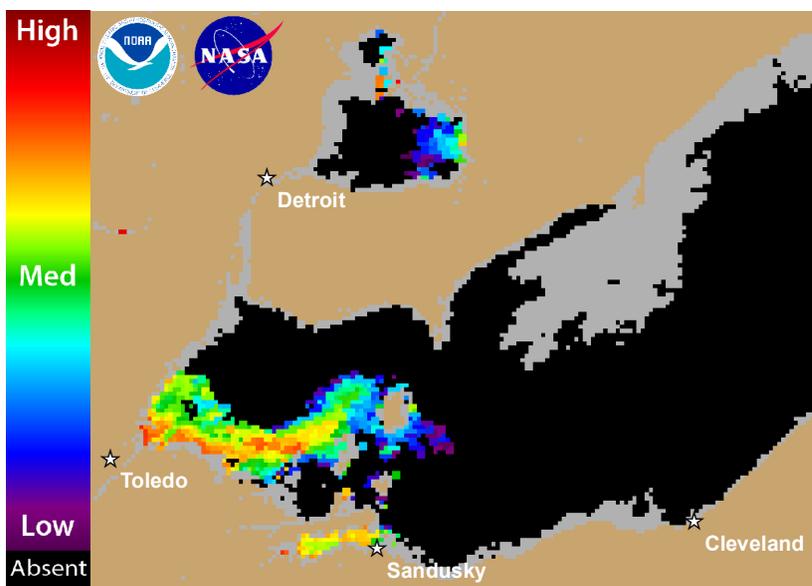


Figure 1. Cyanobacterial Index from NASA's MODIS data collected 20 August 2014. Grey indicates clouds or missing data. Black represents no cyanobacteria detected. Colored pixels indicate the presence of cyanobacteria. Cooler colors (blue and purple) indicate low concentrations and warmer colors (red,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

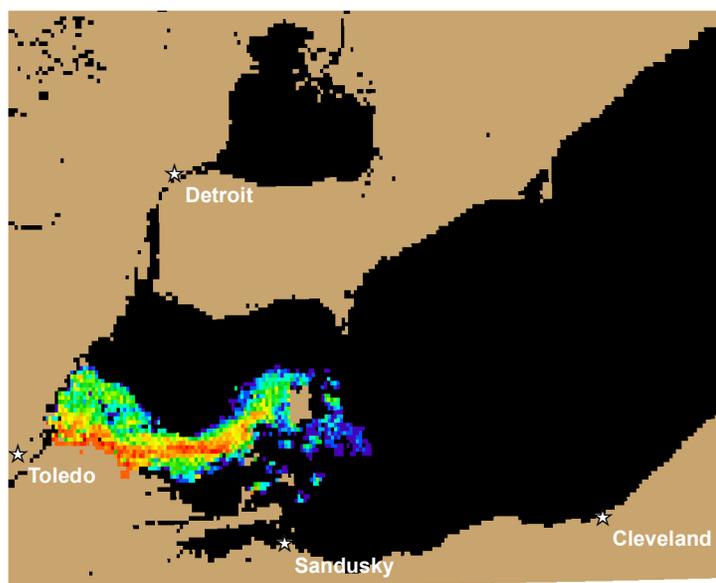


Figure 2. Nowcast position of bloom for 21 August 2014 using GLCFS modeled currents to move the bloom from the 20 August 2014 image.

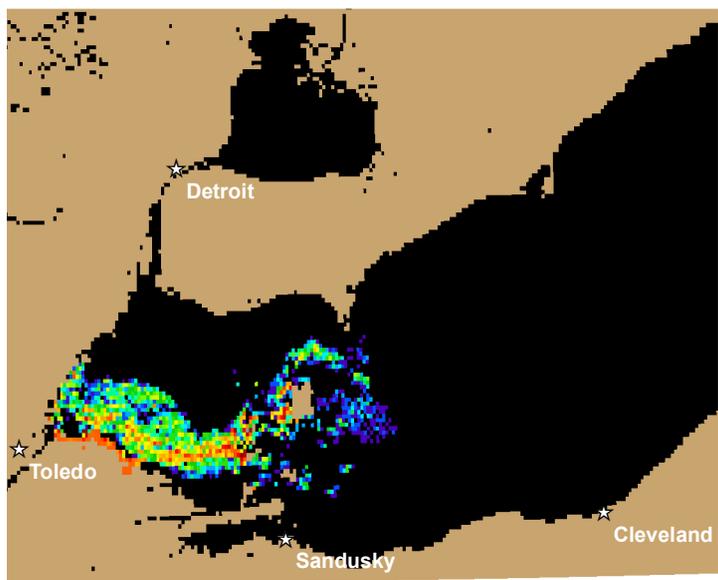
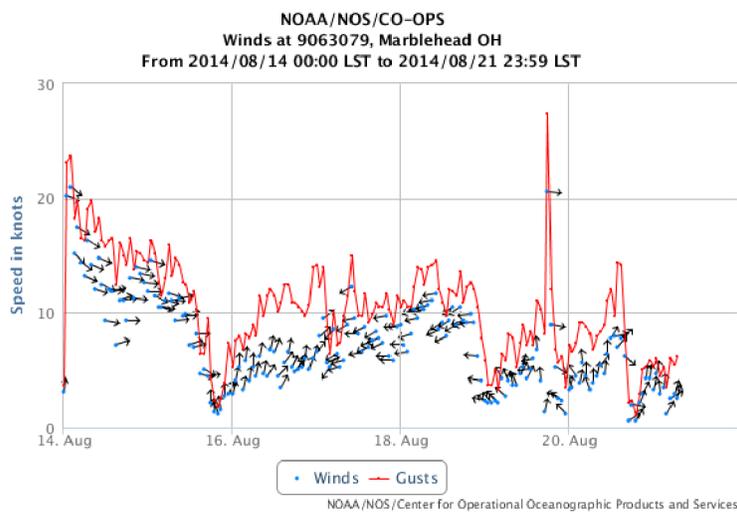
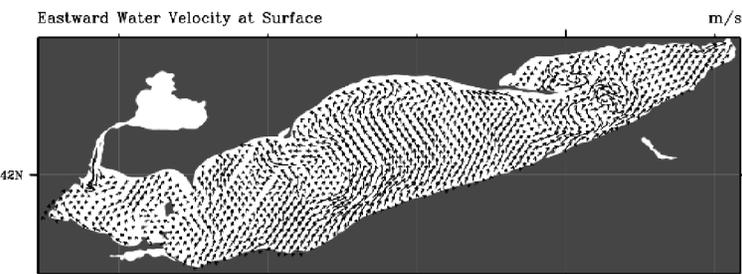


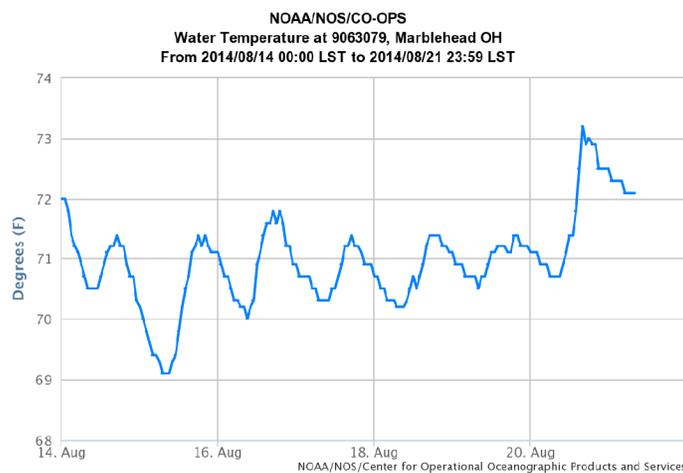
Figure 3. Forecast position of bloom for 24 August 2014 using GLCFS modeled currents to move the bloom from the 20 August 2014 image.



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).

Supported by the NASA Applied Sciences Health and Air Quality Program.

For more information and to subscribe to this bulletin, go to:
<http://www.glerl.noaa.gov/res/waterQuality/?targetTab=habs>