

# Experimental Lake Erie Harmful Algal Bloom Bulletin

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

3 October 2014, Bulletin 29

There has been no clear imagery since our last bulletin. The image below is the forecast for today based on Monday's image.

We expect the bloom to continue northeastward movement, with part of the bloom spreading into the central basin. This spread should lead to some dilution. The bloom may also move close to the Canadian coast, just west of Point Pelee. Over the weekend, strong winds from the west may promote mixing through the water, reducing the concentration at the surface and near the Ohio coast.

Because part of our computer system is down, we are unable to provide new forecast images at this time.

-Dupuy, Stumpf

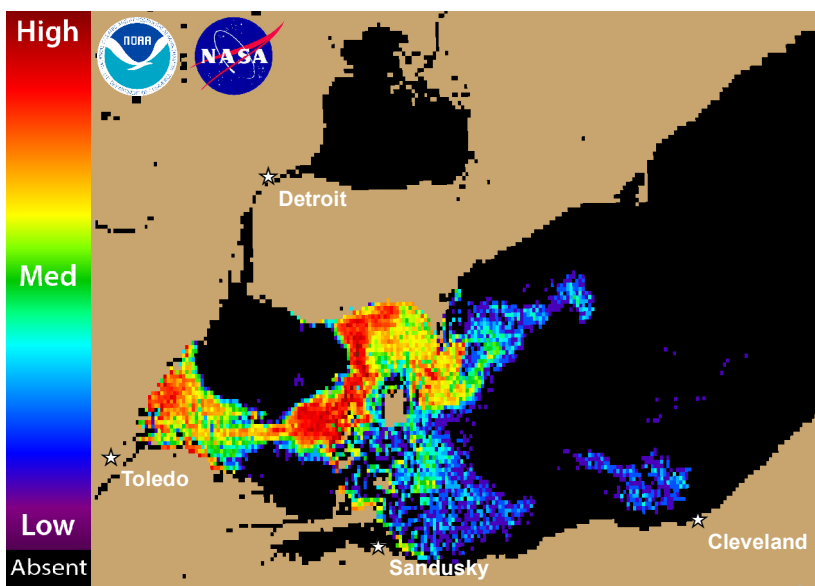
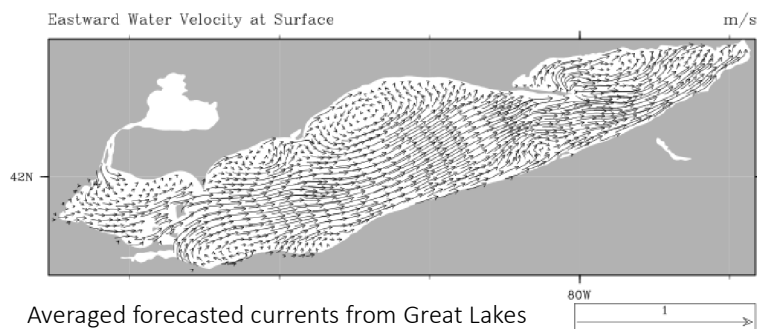
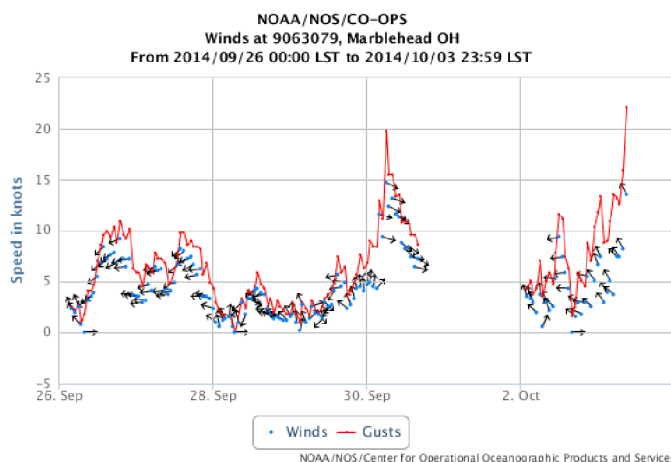


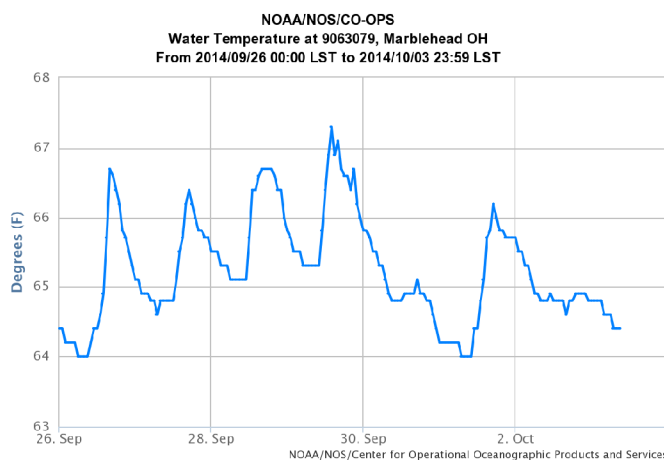
Figure 1. Forecast position of bloom for 3 October 2014 using GLCFS modeled currents to move the bloom from the 29 September 2014 image. Grey indicates clouds or missing data. Black represents no cyanobacteria detected. Colored pixels indicate the presence of cyanobacteria. Cooler colors (blue and purple) indicate low concentrations and warmer colors (red, orange, and yellow) indicate high concentrations. The estimated threshold for cyanobacteria detection is 35,000 cells/mL.



Averaged forecasted currents from Great Lakes Coastal Forecasting System over the next 72 hours.



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).



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. Wind forecasts derived from NOAA/National Weather Service in Cleveland.

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