

Experimental Lake Erie Harmful Algal Bloom Bulletin

19 August, 2016, Bulletin 12

The cyanobacterial (*Microcystis*) bloom is present in far western Lake Erie, with highest concentrations extending from Maumee Bay along the Michigan coast and offshore to West Sister Island. We identified patches of scum within Maumee Bay on Thursday. Regions of low bloom concentrations extend eastward and north of the islands, and have also moved east of the islands and Pelee Point into the central basin. Toxin concentrations remain below the recreational threshold outside of Maumee Bay.

Winds are expected to increase through Sunday, causing mixing Saturday and Sunday, then decreasing on Monday to lead to mild or no mixing. Westerly winds favor eastward movement of the bloom.

In areas of dense bloom (orange and red in the image), particularly in Maumee Bay, the toxin concentration can exceed the threshold for recreational exposure. This is particularly a risk in water that looks green from a boat.

The persistent cyanobacteria bloom continues in Sandusky Bay. No other blooms have been detected in the central basin or the eastern basin.

Keep yourself and your pets out of scums. Please check Ohio EPA's site on harmful algal blooms for safety information. <http://epa.ohio.gov/habalgae.aspx> Thunderstorms remain a greater risk. --Stumpf, Dupuy

The images below are "GeoPDF". To see the longitude and latitude under your cursor, select "Tools > Analyze > Geospatial Location Tool".

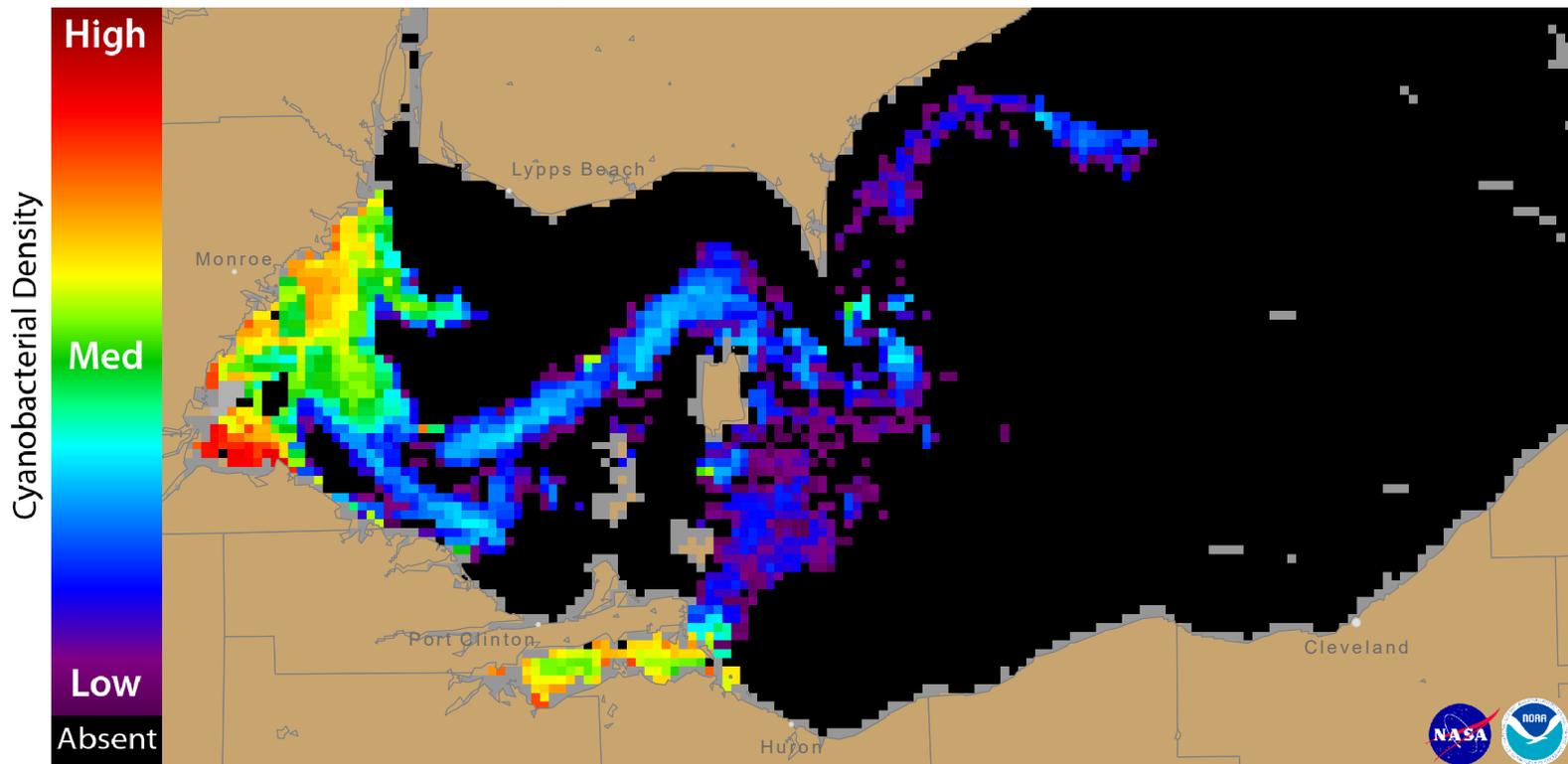


Figure 1. Cyanobacterial Index from NASA's MODIS-Terra data collected 18 August, 2016 at 12:08 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

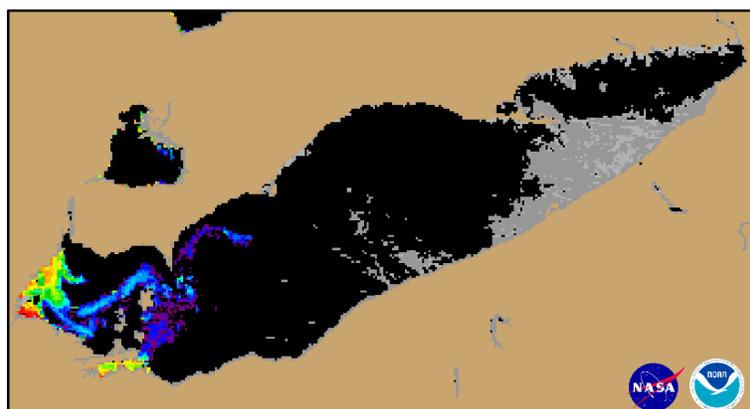
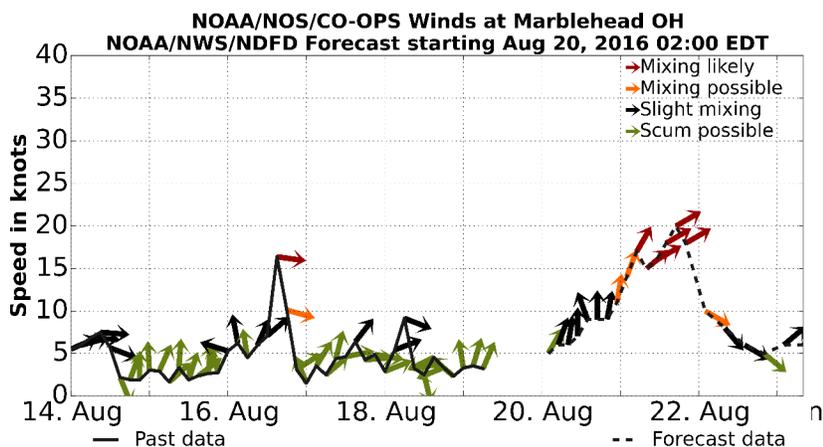


Figure 2. Cyanobacterial Index from NASA's MODIS-Terra data collected 18 August, 2016 at 12:08.



Wind speed and direction from Marblehead, OH. Blooms mix through the water column at wind speeds greater than 15 knots (or 7.7 m/s).

For more information and to subscribe to this bulletin, go to: <http://coastalscience.noaa.gov/research/habs/forecasting>

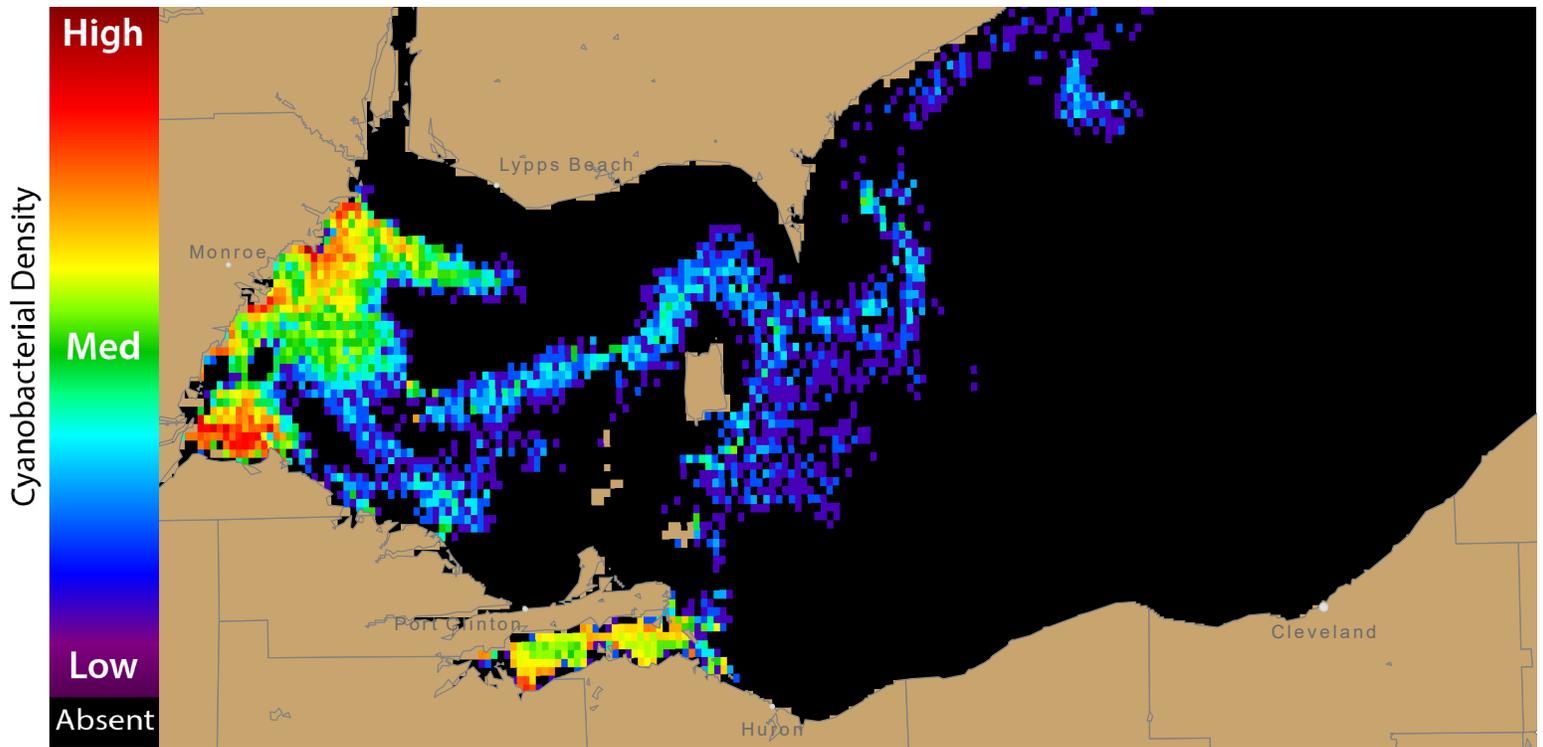


Figure 3. Nowcast position of bloom for 19 August, 2016 using GLFS modelled currents to move the bloom from the 18 August, 2016 image.

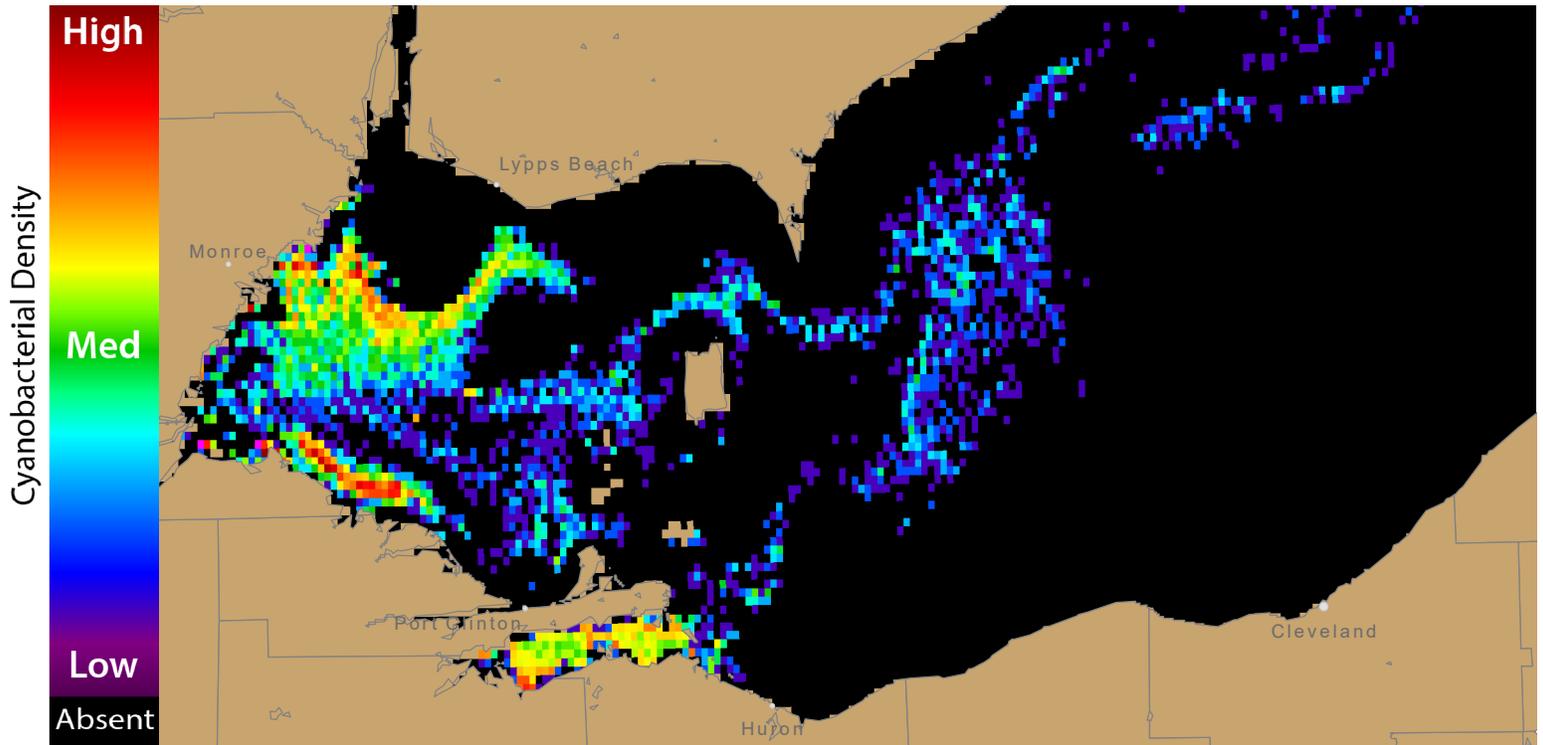
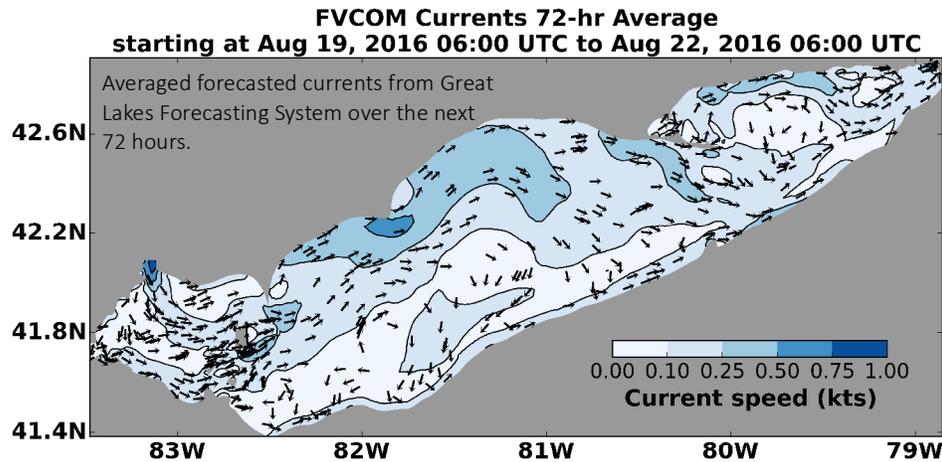


Figure 4. Forecast position of bloom for 22 August, 2016 using GLFS modelled currents to move the bloom from the 18 August, 2016 image.



Produced with Information from NOAA's:
 National Centers for Coastal Ocean Science
 Great Lakes Environmental Research Laboratory
 National Weather Service, Cleveland
 Center for Operational Oceanographic Products
 and Services

Additional information from:
 Great Lakes Observing System
 Ohio Environmental Protection Agency

For more information and to subscribe, go to:
<http://coastalscience.noaa.gov/research/habs/forecasting>