



# Experimental Lake Erie Harmful Algal Bloom Bulletin

08 August, 2016, Bulletin 09

There has been a slight increase in concentration nearest the Maumee River, otherwise there has not been a substantial change in the bloom severity over the last week. The cyanobacterial (*Microcystis*) bloom continues to be detectable in moderate concentrations in far western Lake Erie, extending from Maumee Bay along the Michigan coast, and extending east into the western basin to near West Sister Island at low concentrations. Low concentrations of cyanobacteria are found on the Ohio coast east of Toledo. Scum areas have not been detected. Measured toxin concentrations are below recreational thresholds over most of the bloom, however, in areas of dense bloom (which would look green from a boat), the concentration can exceed the threshold.

A shift to southerly winds tomorrow (Tuesday) will lead to northward movement of the bloom. Mixing may occur through tonight. The mild southerly winds over the next few days will lead to less mixing.

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

Please check Ohio EPA's site on harmful algal blooms for safety information. <http://epa.ohio.gov/habalgae.aspx>

Stumpf, Tomlinson

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

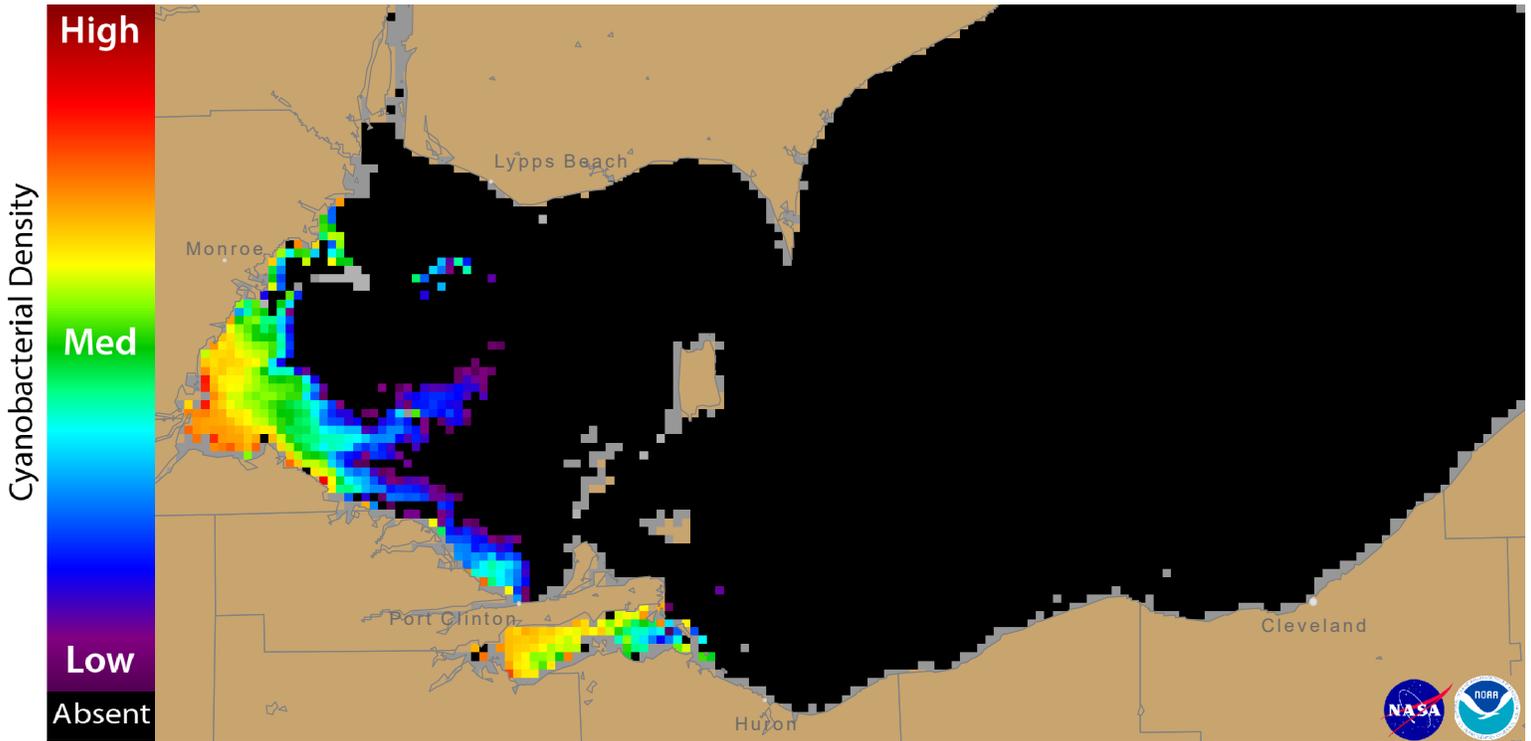
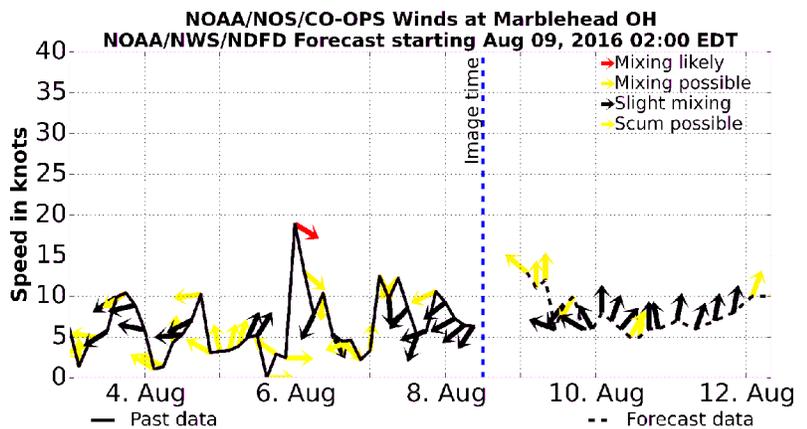


Figure 1. Cyanobacterial Index from NASA's MODIS-Terra data collected 07 August, 2016 at 12:26 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.



Figure 2. Cyanobacterial Index from NASA's MODIS-Terra data collected 07 August, 2016 at 12:26.



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>

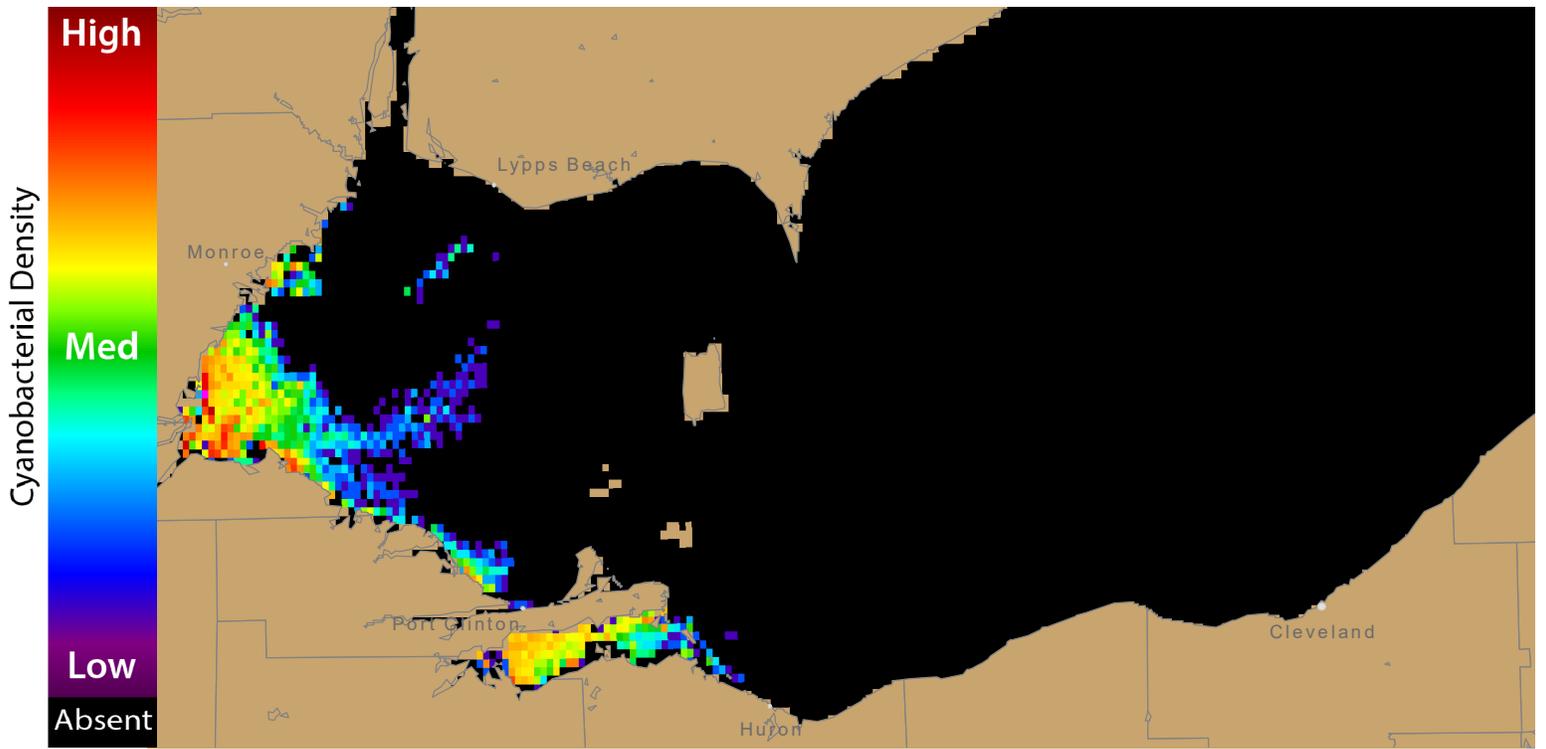


Figure 3. Nowcast position of bloom for 08 August, 2016 using GLFS modelled currents to move the bloom from the 07 August, 2016 image.

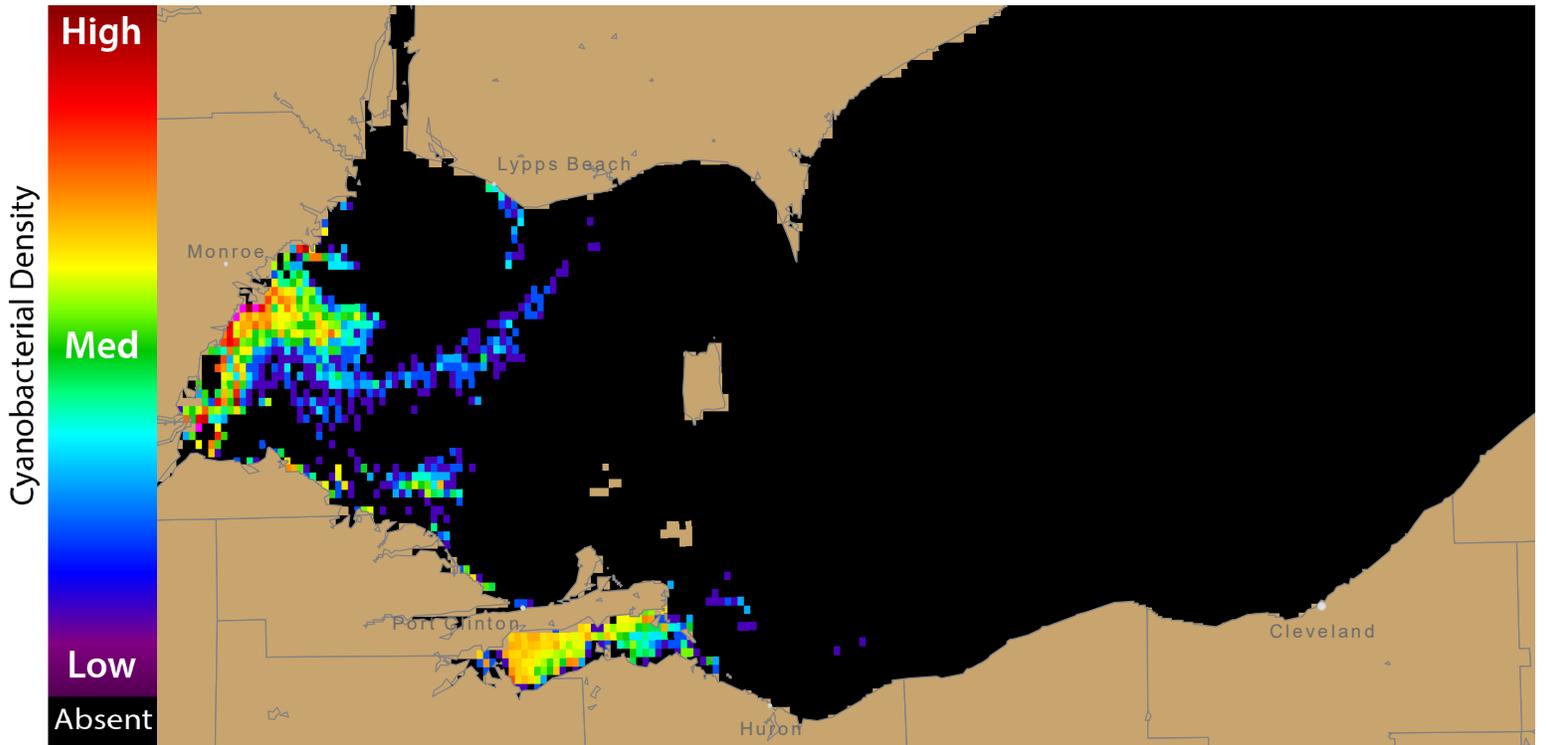
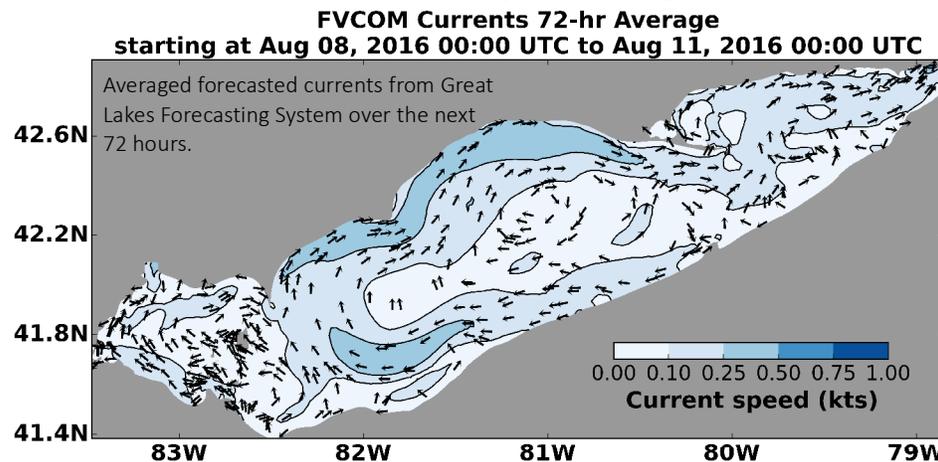


Figure 4. Forecast position of bloom for 11 August, 2016 using GLFS modelled currents to move the bloom from the 07 August, 2016 image.



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