



Experimental Lake Erie Harmful Algal Bloom Bulletin

04 August, 2016, Bulletin 08

Cyanobacteria (*Microcystis*) 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 observed. 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. There have not been substantial changes in the bloom severity over the last week.

Winds will be shifting direction through the weekend. Some eastward movement of the bloom is expected over the next few days with westerly winds, then slight southward movement with the shift to light northerly winds. Winds are expected to be mild over the next few days, with slight mixing expected.

The persistent cyanobacteria bloom continues in Sandusky Bay. No blooms have been observed 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>

Dupuy, Stumpf

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

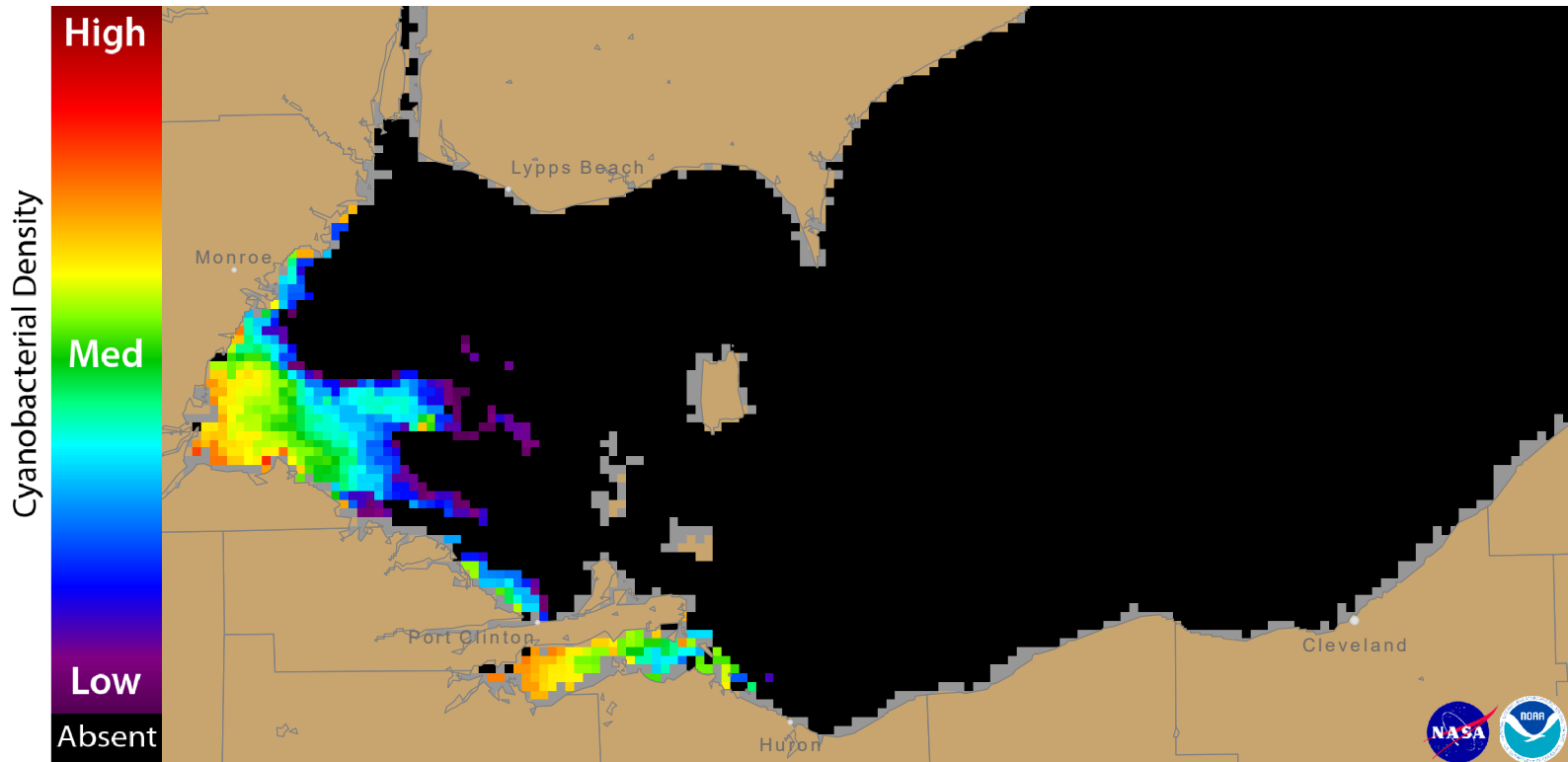


Figure 1. Cyanobacterial Index from NASA's MODIS-Terra data collected 03 August, 2016 at 11:12 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

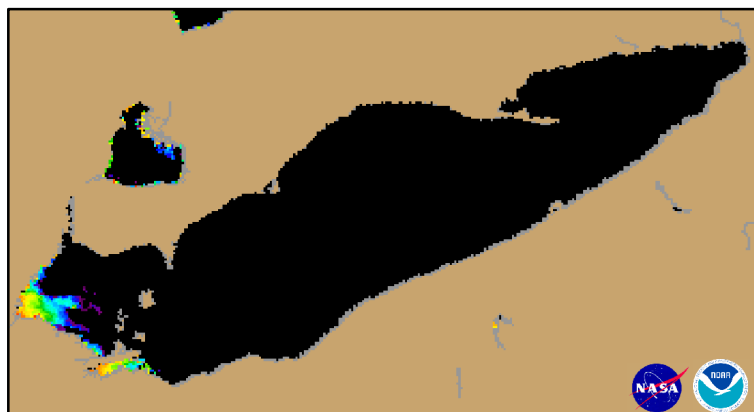
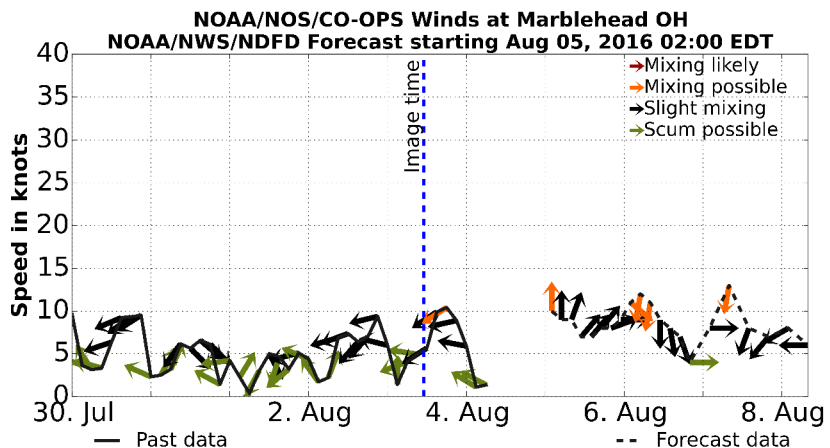


Figure 2. Cyanobacterial Index from NASA's MODIS-Terra data collected 03 August, 2016 at 11:12.



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).

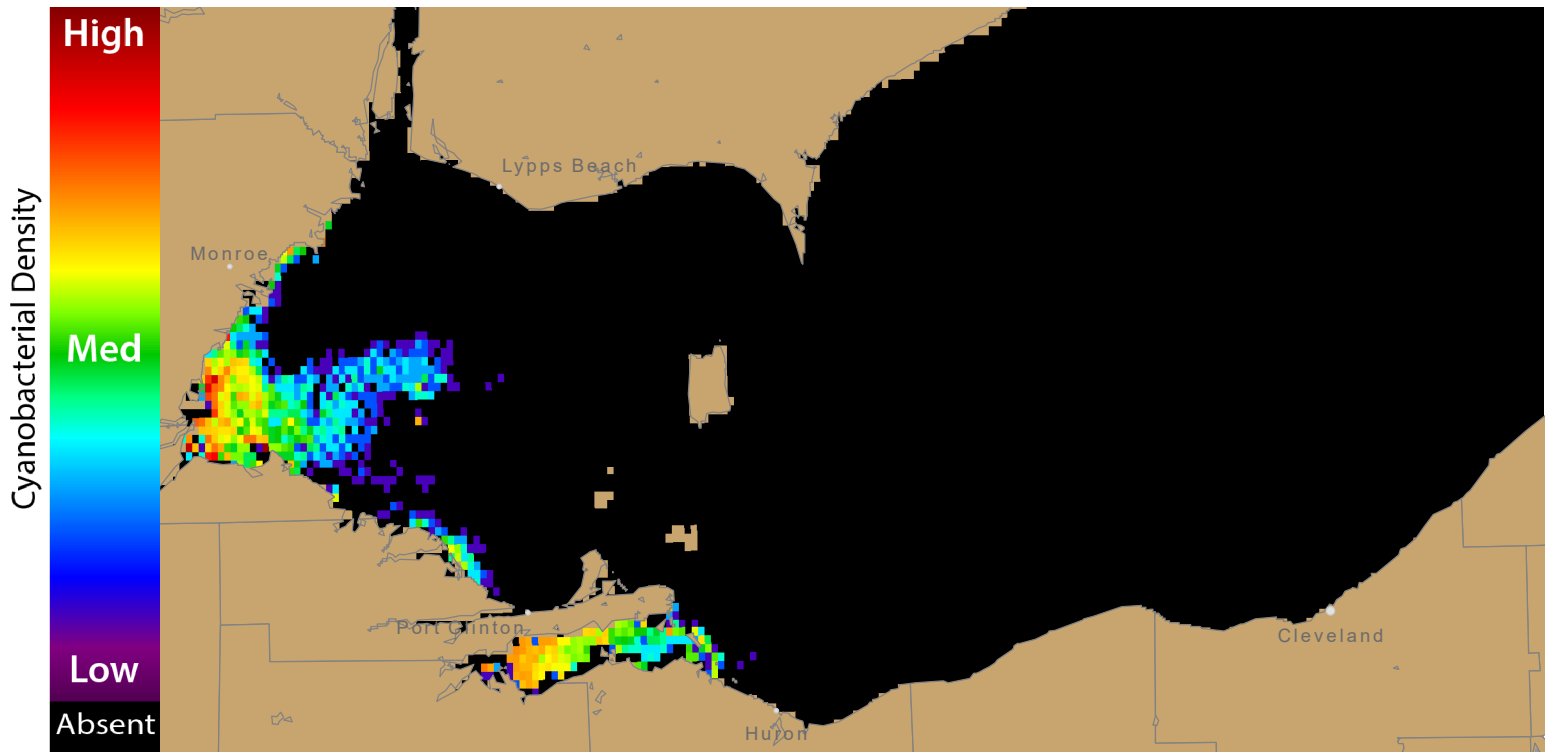


Figure 3. Nowcast position of bloom for 04 August, 2016 using GLFS modelled currents to move the bloom from the 03 August, 2016 image.

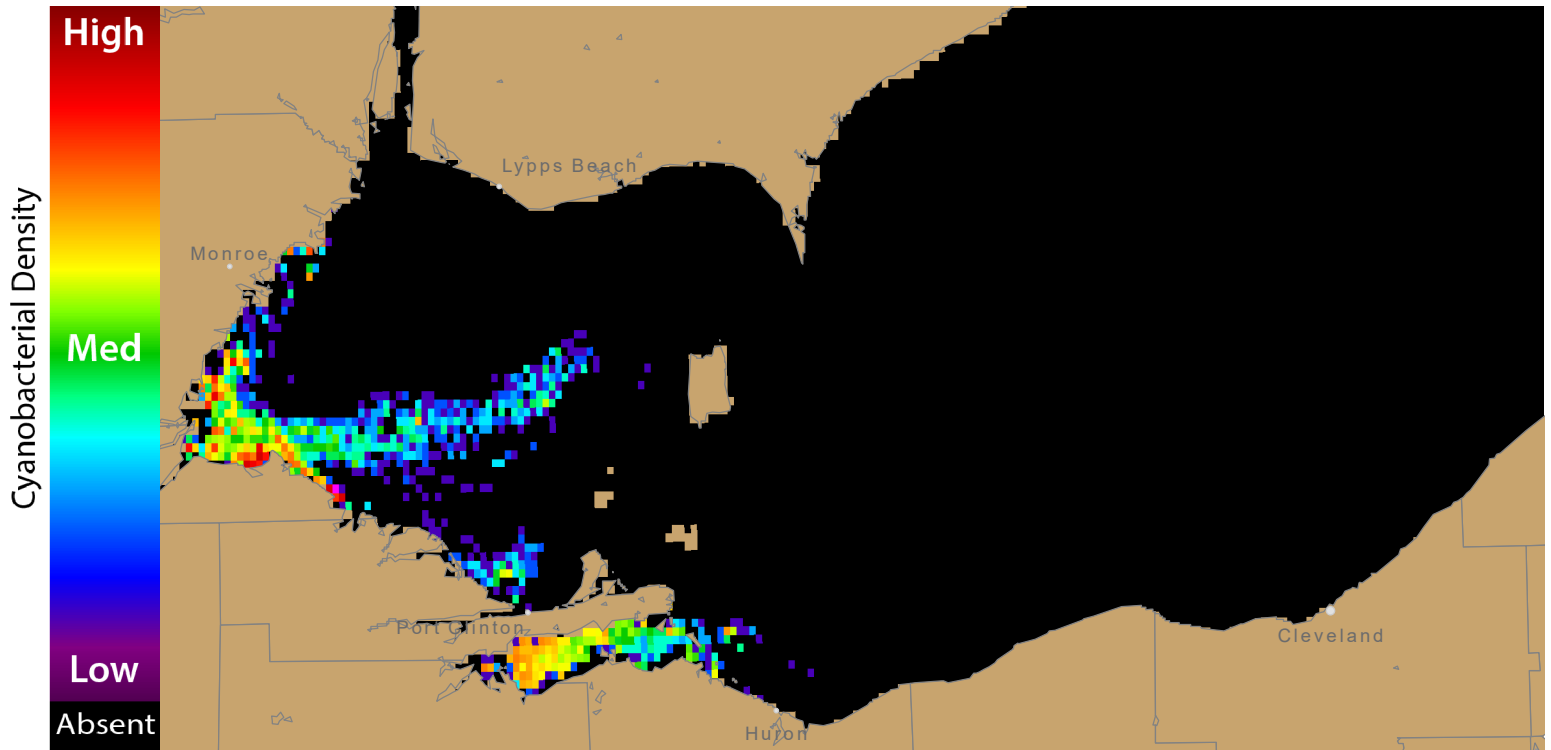
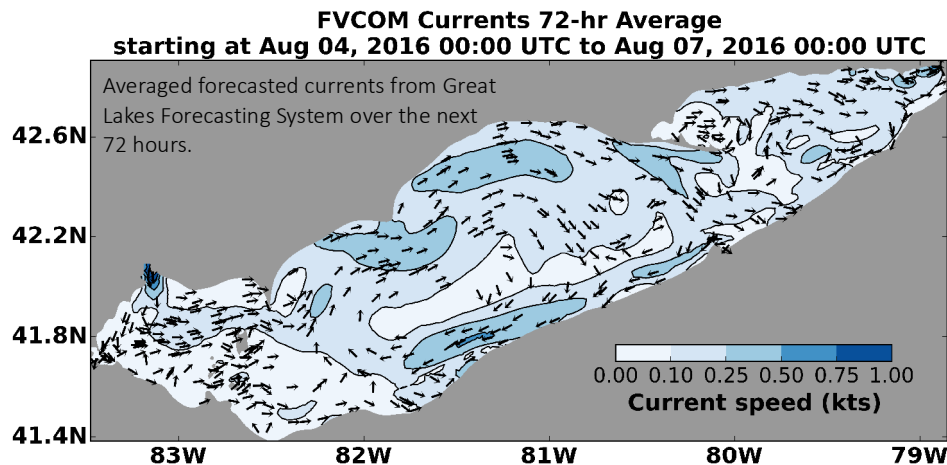


Figure 4. Forecast position of bloom for 07 August, 2016 using GLFS modelled currents to move the bloom from the 03 August, 2016 image.



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