



Experimental Lake Erie Harmful Algal Bloom Bulletin

15 August, 2016, Bulletin 11

The cyanobacterial (*Microcystis*) bloom is present in far western Lake Erie, with highest concentrations extending from Maumee Bay along the Michigan coast, and lower concentrations extending to and past West Sister Island. There may be areas of very low concentrations near the islands. Low concentrations are present but variable along the Ohio coast east of Toledo. Clouds obscured the western basin through the weekend. 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) in the far west, the concentration can exceed the threshold for recreational exposure.

Mild southerly winds are expected through most of the week, except for Tuesday night, when stronger northwest winds favor mixing. Otherwise little mixing is expected. The bloom may move northward and stretch eastward over the next few days, with the low concentration possibly extending closer to Ontario. Clouds will likely obscure the lake through Wednesday.

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> Thunderstorms are a greater risk. Boat safely. --Stumpf, Dupuy

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

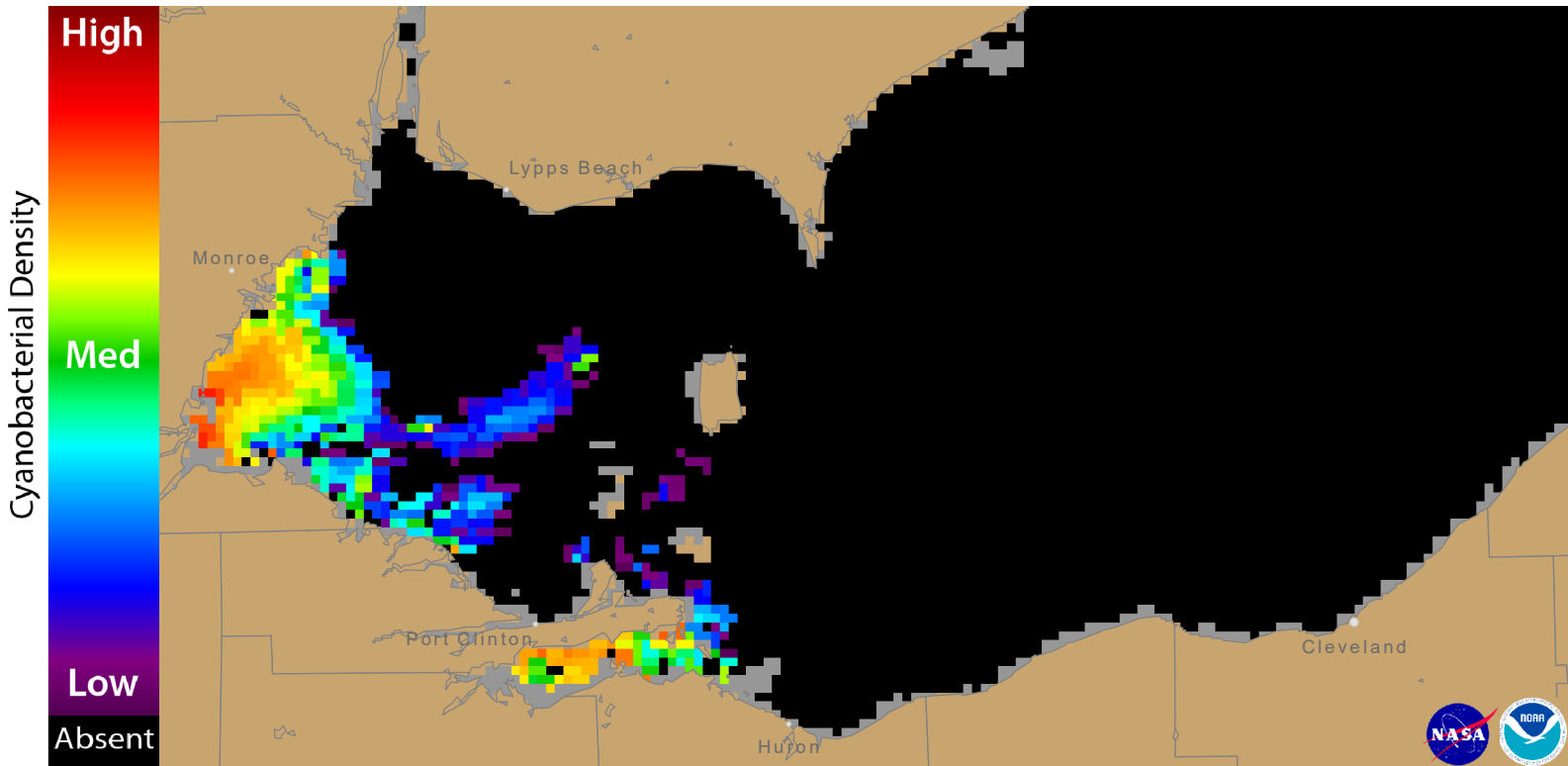
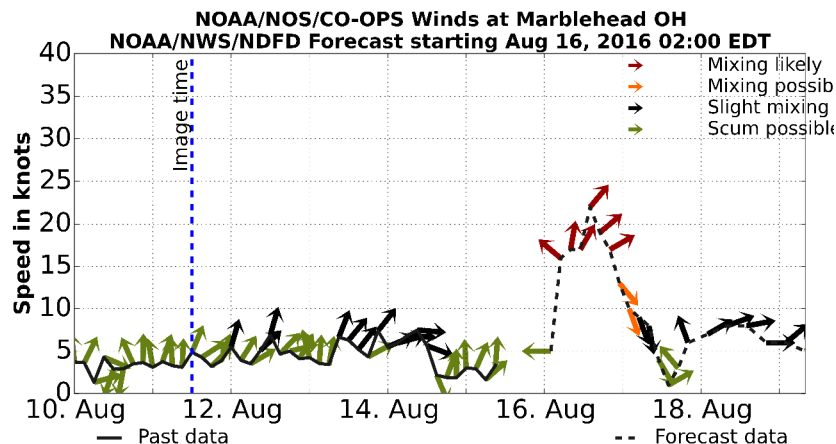


Figure 1. Cyanobacterial Index from NASA's MODIS-Terra data collected 10 & 11 Aug, 2016 at 12:01 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.



Figure 2. Cyanobacterial Index from NASA's MODIS-Terra data collected 10 & 11 Aug, 2016 at 12:01.



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).

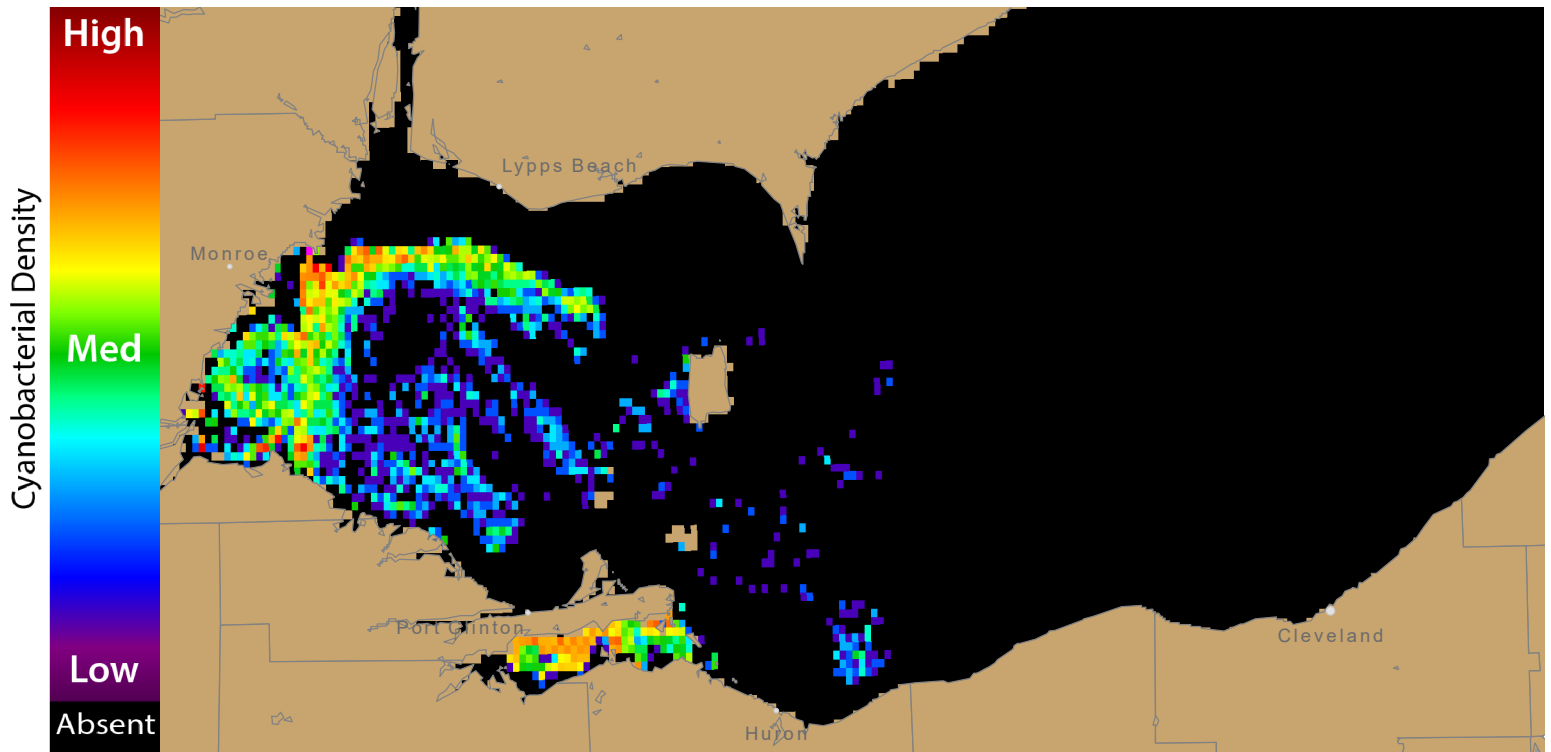


Figure 3. Nowcast position of bloom for 15 August, 2016 using GLFS modelled currents to move the bloom from the 10 & 11 Aug, 2016

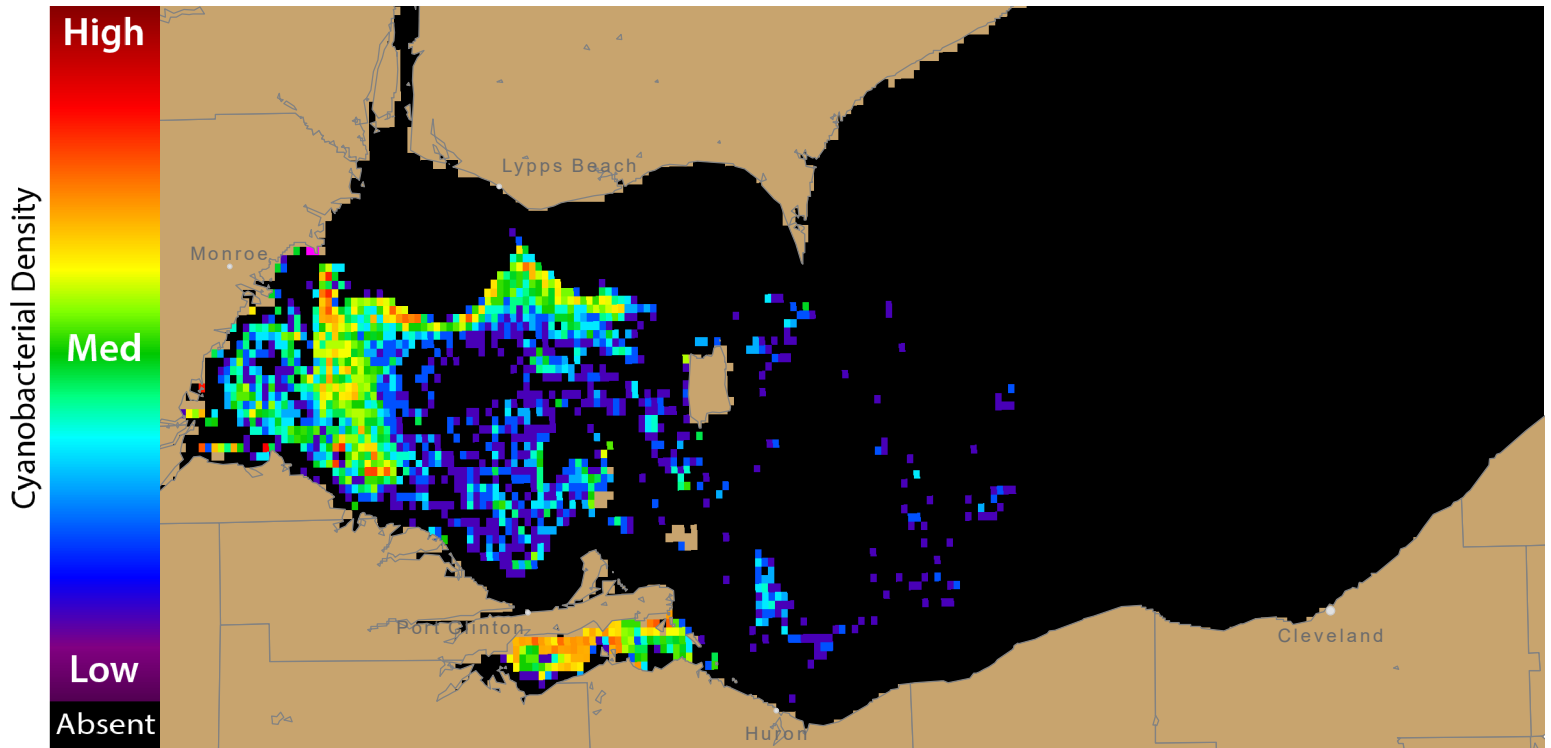
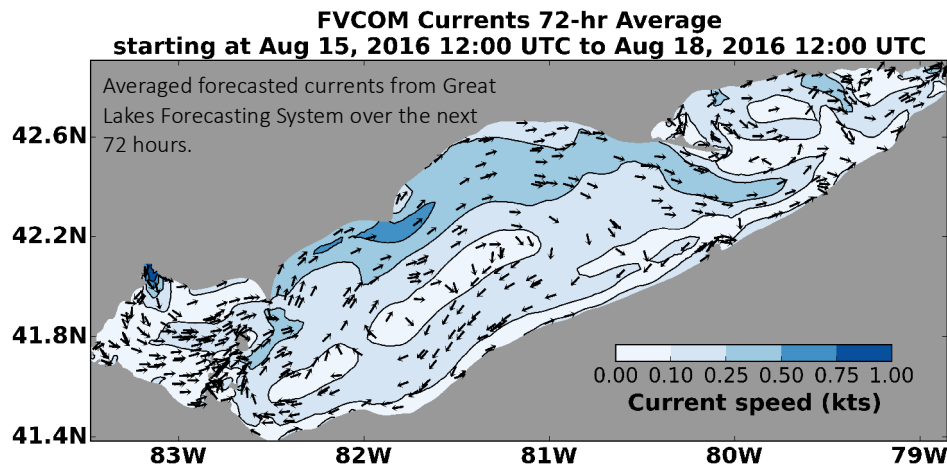


Figure 4. Forecast position of bloom for 18 August, 2016 using GLFS modelled currents to move the bloom from the 10 & 11 Aug, 2016



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