



Experimental Lake Erie Harmful Algal Bloom Bulletin

21 July, 2016, Bulletin 04

Cyanobacteria (*Microcystis*) is detectable in far western Lake Erie, extending from Maumee Bay along the Michigan coast in low to moderate concentrations. Scum areas have not been observed. Measured toxin levels are below recreational thresholds.

The central basin bloom of *Dolichospermum* remains below detection for satellite. However, there are pockets of higher concentration east of the islands. OSU Stone Lab has observed localized areas of scum during calm weather. This is typically an early to mid-July bloom, although it is much weaker than past years.

Winds are expected to be mild over the next few days. Eastward transport is expected due to south to southwesterly winds, with a brief shift to mild northerlies late in the weekend.

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

Dupuy, Stumpf

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

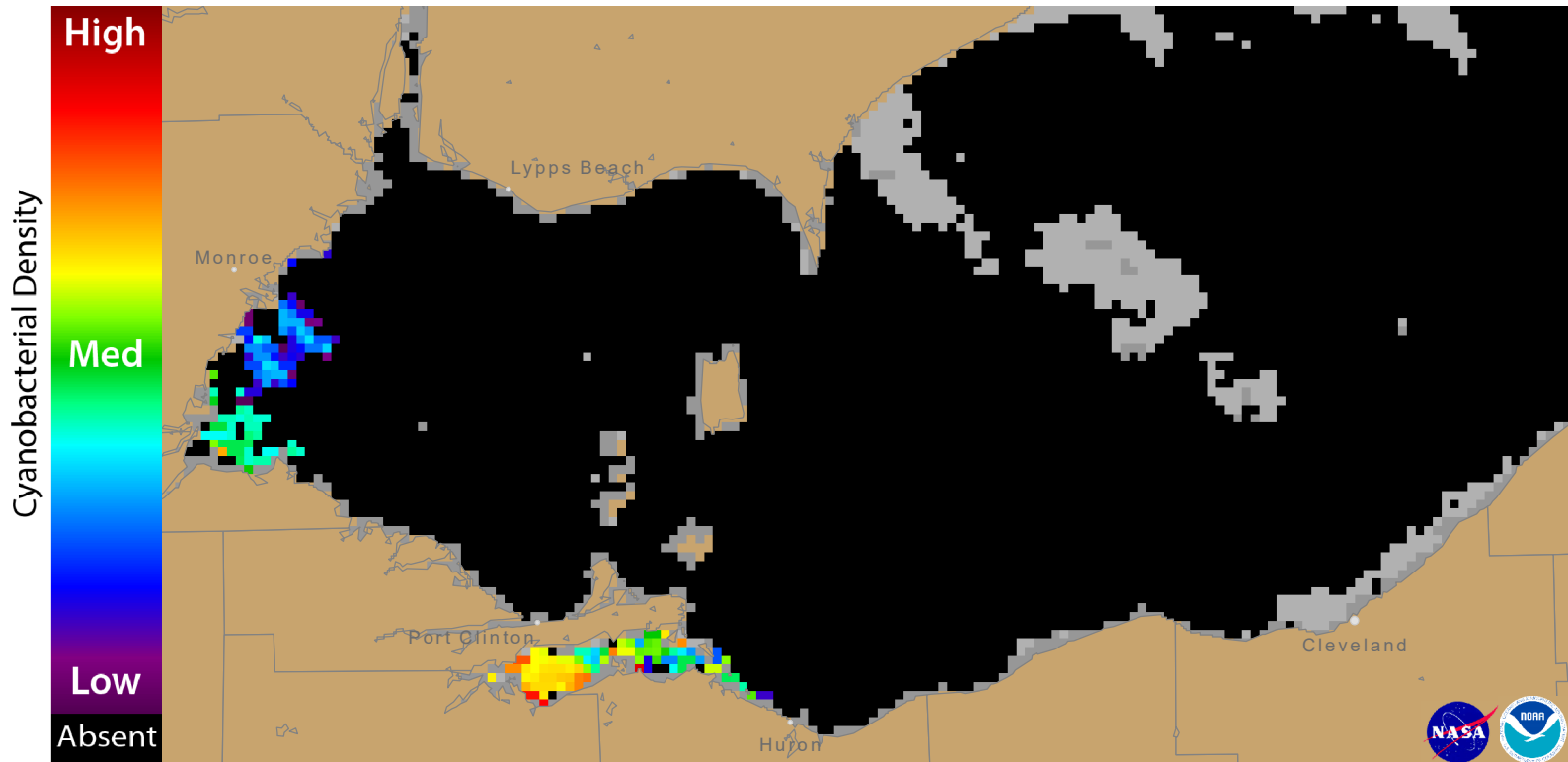


Figure 1. Cyanobacterial Index from NASA's MODIS-Terra data collected 20 July, 2016 at 14:20 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

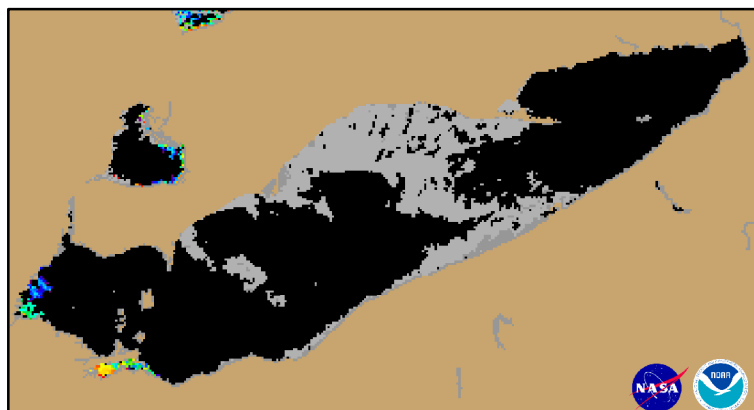
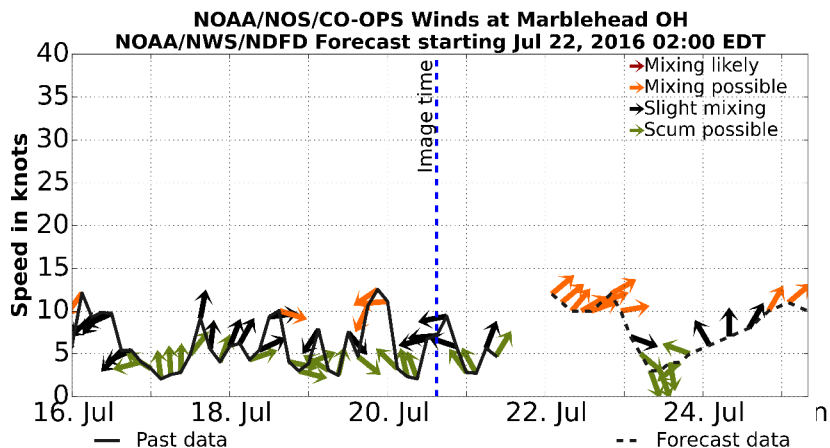


Figure 2. Cyanobacterial Index from NASA's MODIS-Terra data collected 20 July, 2016 at 14:20.



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).

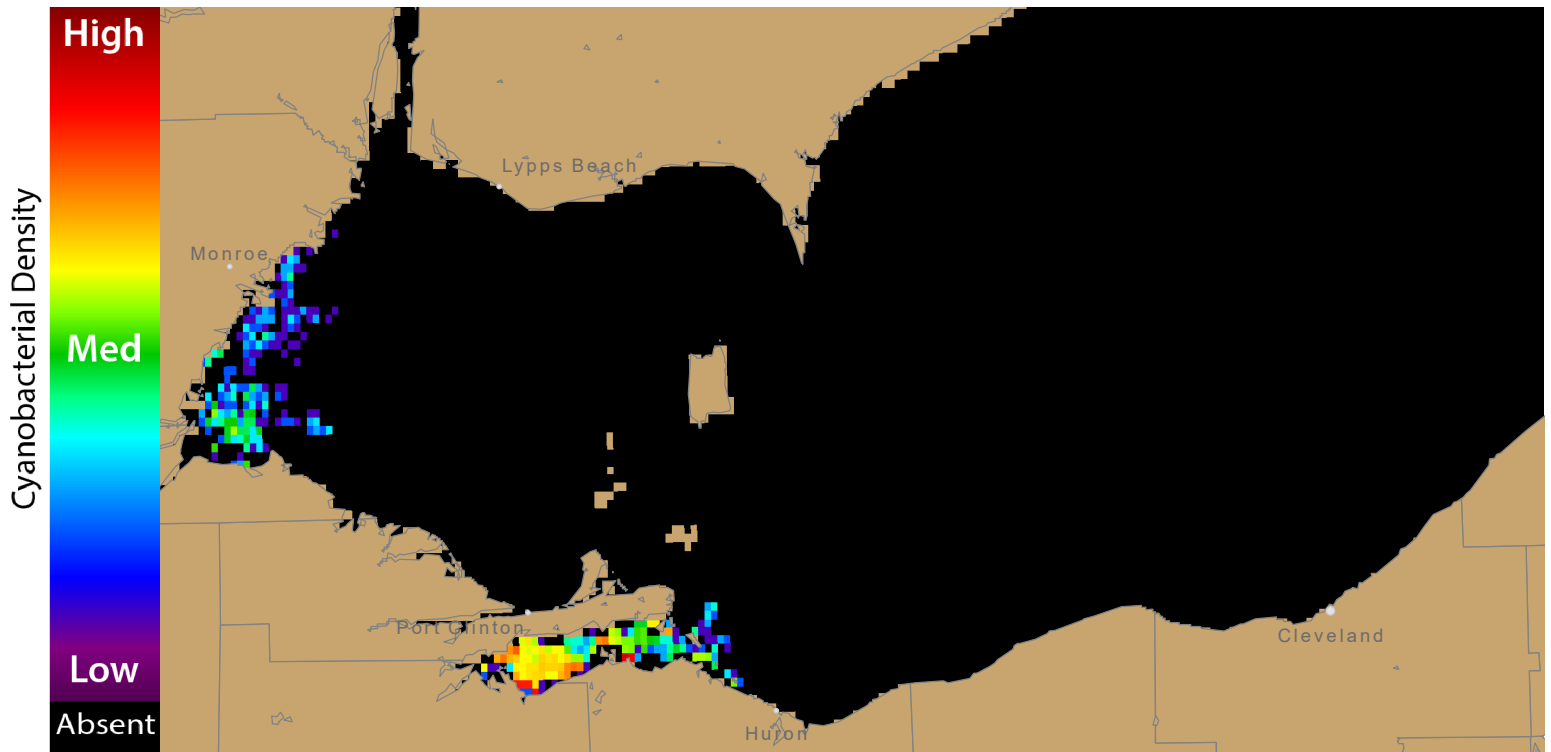


Figure 3. Nowcast position of bloom for 21 July, 2016 using GLCFS modeled currents to move the bloom from the 20 July, 2016 image.

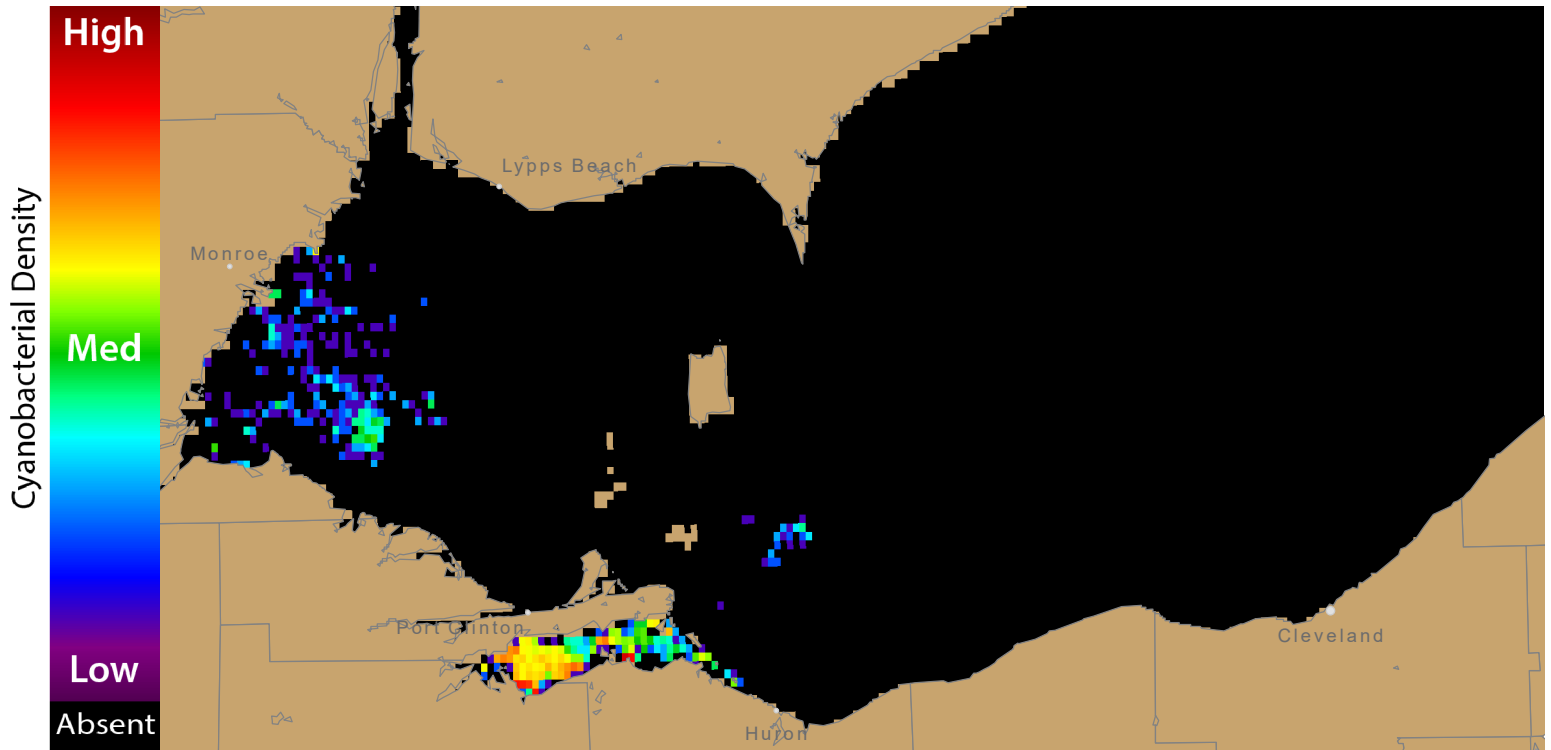
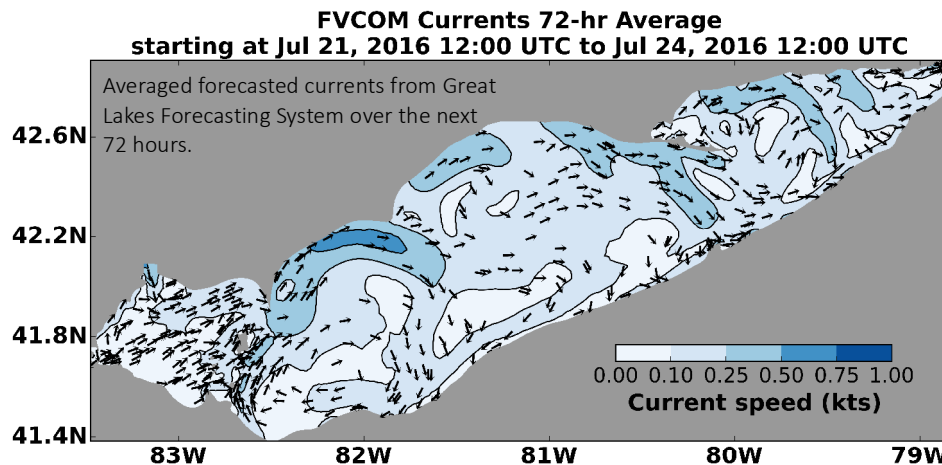


Figure 4. Forecast position of bloom for 24 July, 2016 using GLCFS modelled currents to move the bloom from the 20 July, 2016 image.



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