



## Experimental Lake Erie Harmful Algal Bloom Bulletin

2010-018

30 September 2010

National Ocean Service

Great Lakes Environmental Research Laboratory

Last bulletin: 23 September 2010

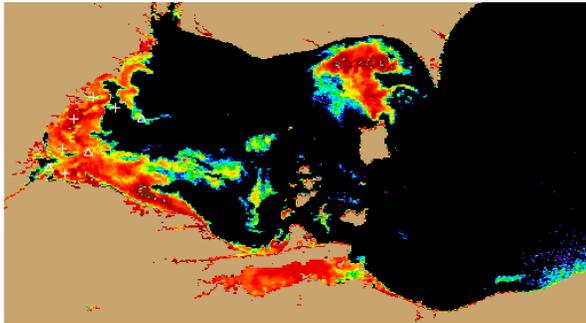


Figure 1. MERIS image from the European Space Agency. Imagery shows the spectral shape at 681 nm from September 29, where colored pixels indicate the likelihood of the last known position of the *Microcystis* spp. bloom (with red being the highest concentration). *Microcystis* spp. abundance data from shown as white squares (very high), circles (high), diamonds (medium), triangles (low), + (very low) and X (not present).

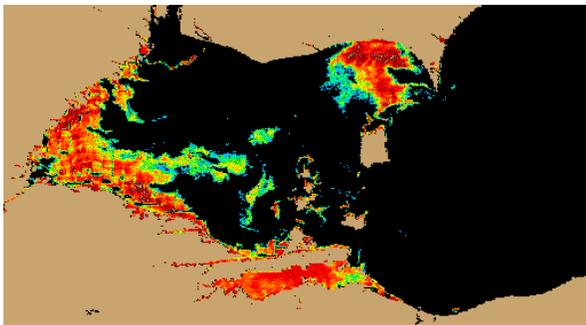


Figure 2. Nowcast position of *Microcystis* spp. bloom for September 30 using GLCFS modeled currents to move the bloom from the September 29 image.

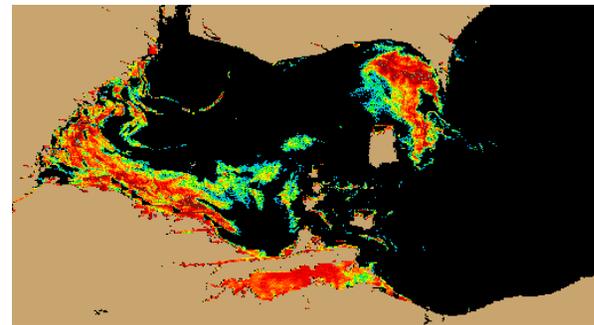


Figure 3. Forecast position of *Microcystis* spp. for October 03 using GLCFS modeled currents to move the bloom from September 29 image.

*Conditions:* A *Microcystis* bloom has been indentified in Maumee Bay, extending north to Brest Bay

*Analysis:* Imagery indicates a large cyanobacterial bloom persists in western Lake Erie. Field counts suggest the bloom is dominated by *Anabaena* with low to very low concentrations of *Microcystis* present. Strong winds over the past week may account for subsurface mixing of the bloom and some cells may still be submerged and undetectable by satellite. Winds are forecast to increase into the weekend, which may account for further mixing and possible weakening of the bloom. Forecast currents show the bloom transporting slightly west southwest. Current water temperature conditions favor continued growth.

-Briggs, Wynne

Please note:

- MERIS imagery was distributed by the NOAA CoastWatch Program and provided by the European Space Agency
- [http://www.glerl.noaa.gov/res/Centers/HABS/lake\\_erie\\_hab/lake\\_erie\\_hab.html](http://www.glerl.noaa.gov/res/Centers/HABS/lake_erie_hab/lake_erie_hab.html)
- Cell counts were collected by the Great Lakes Environmental Research Laboratory
- The wind data is available through the National Data Buoy Center and the National Weather Service
- Modeled currents were provided through the Great Lakes Coastal Forecasting System

