



## Experimental Lake Erie Harmful Algal Bloom Bulletin

2010-019

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National Ocean Service

Great Lakes Environmental Research Laboratory

Last bulletin: 30 September 2010

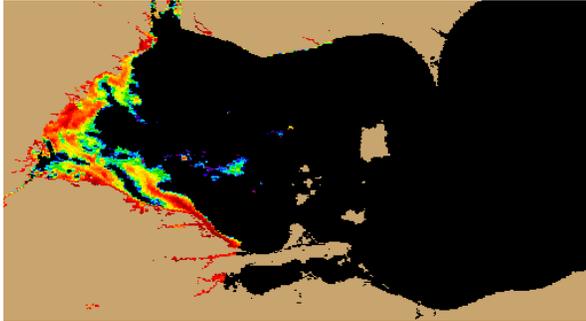


Figure 1. MERIS image from the European Space Agency. Imagery shows the spectral shape at 681 nm from October 01, where colored pixels indicate the likelihood of the last known position of the *Microcystis* spp. bloom (with red being the highest concentration). *Microcystis* spp. abundance data from shown as white squares (very high), circles (high), diamonds (medium), triangles (low), + (very low) and X (not present).

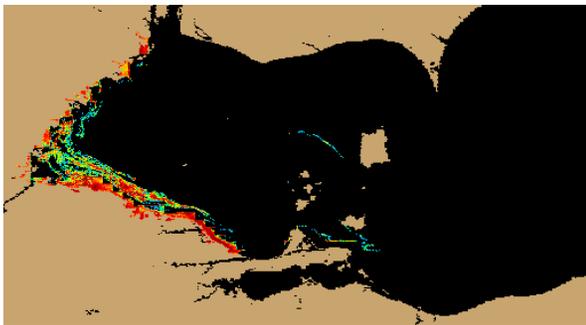


Figure 2. Nowcast position of *Microcystis* spp. bloom for October 07 using GLCFS modeled currents to move the bloom from the October 01 image.

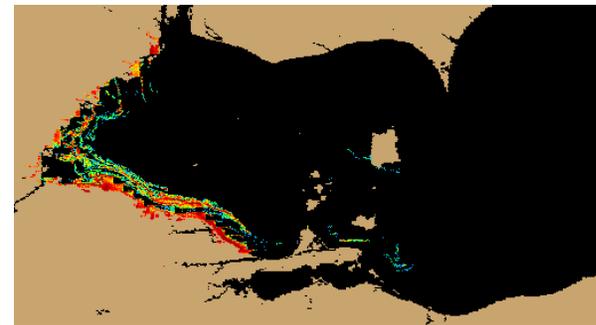


Figure 3. Forecast position of *Microcystis* spp. for October 10 using GLCFS modeled currents to move the bloom from October 01 image.

*Conditions:* A cyanobacterial bloom has been identified in Maumee Bay.

*Analysis:* Imagery indicates the cyanobacteria bloom in Maumee Bay continues to persist. Previous sampling has indicated the bloom is dominated by *Anabaena* with only low concentrations of *Microcystis*. The eastern extent of the bloom is not known as the eastern edge of the satellite swath for this particular image is around Camp Perry and the eastern tip of Sandusky Bay. Transport shows the bloom concentrating slightly along the shore. However, the image used is several days old and since the date of the image there has been a major wind event (October 3 and 4) that most likely mixed the bloom in the water column. Since then calmer winds may have permitted the bloom to resurface.

-Neff, Lopez, Tomlinson

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

