



## Experimental Lake Erie Harmful Algal Bloom Bulletin

2009-009

17 September 2009

National Ocean Service

Great Lakes Environmental Research Laboratory

Last bulletin: 10 September 2009

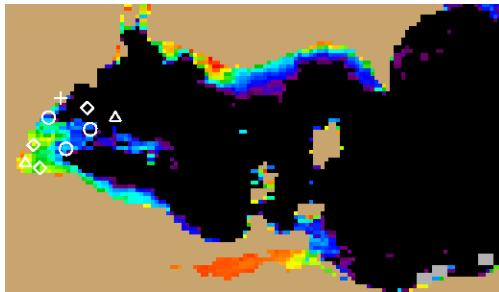


Figure 1. MERIS image from the European Space Agency. Imagery shows the spectral shape at 681 nm from September 12, where colored pixels indicate the likelihood of the last known position of the *Microcystis* spp. bloom (with red being the highest concentration). *Microcystis* spp. abundance data from September 14 shown as white squares (very high), circles (high), diamonds (medium), triangles (low), + (very low) and X (not present). Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

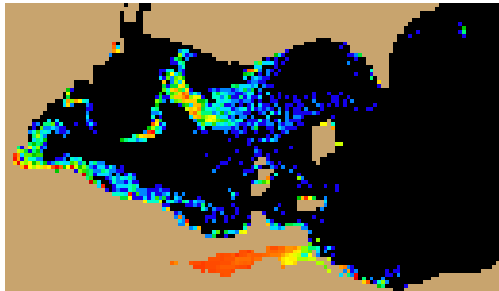


Figure 2. Nowcast position of *Microcystis* spp. bloom for September 17 using GLCFS modeled currents to move the bloom from the September 12 image. Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

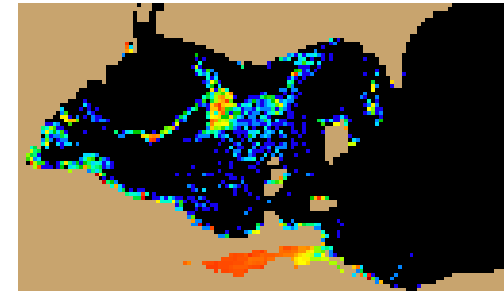


Figure 3. Forecast position of *Microcystis* spp. for September 20 using GLCFS modeled currents to move the bloom from September 12 image. Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

Please note:

- MERIS imagery was distributed by the NOAA CoastWatch Program and provided by the European Space Agency
- 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

*Conditions:* A *Microcystis* spp. bloom is present in much of the western basin of Lake Erie, Maumee Bay and adjacent waters. A mixed cyanobacterial bloom is also present in Sandusky Bay.

*Analysis:* Imagery from September 12 indicates that the bloom continues in Maumee Bay and along the south shore of western Lake Erie. Although the the surface appearance of the bloom seems to have decreased, wind data indicates that it is most likely mixed into the water column. Forecasts indicate that the bloom position should not change substantially over the weekend. Strong wind conditions today may further mix the bloom into the water column. In addition, a large feature extends along the entire north shore east of the Detroit River. Based on nowcast/forecast information this feature may have moved into the middle of the Lake northwest of the Bass Islands. Sampling is recommended.

-Tomlinson, Wynne

