

Experimental Lake Erie Harmful Algal Bloom Bulletin

2011-019

13 October 2011

National Ocean Service

Great Lakes Environmental Research Laboratory

Last bulletin: 29 September 2011

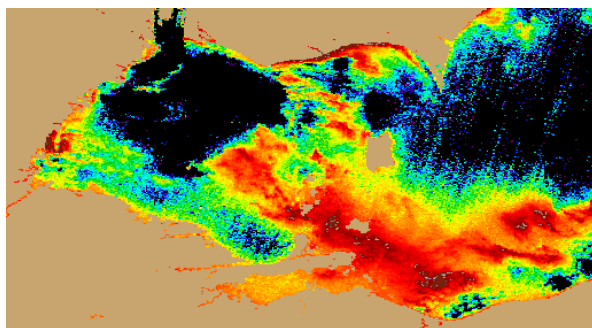


Figure 1. MERIS image from the European Space Agency. Imagery shows the spectral shape at 681 nm from October 11, where colored pixels indicate the likelihood of the last known position of the *Microcystis* spp. bloom (with red being the highest concentration). *Microcystis* spp. abundance data from shown as white squares (very high), circles (high), diamonds (medium), triangles (low), + (very low) and X (not present).

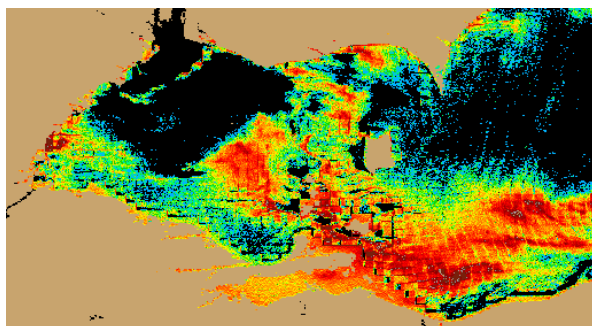


Figure 2. Nowcast position of *Microcystis* spp. bloom for October 13 using GLCFS modeled currents to move the bloom from the October 11 image.

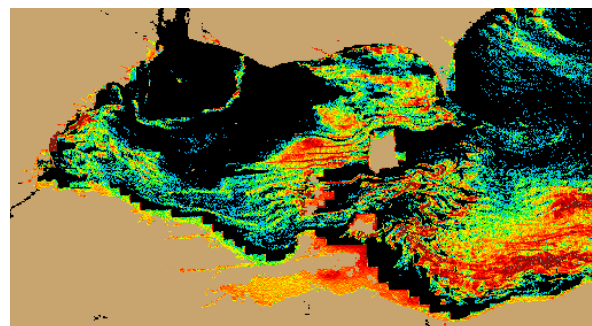


Figure 3. Forecast position of *Microcystis* spp. for October 16 using GLCFS modeled currents to move the bloom from October 11 image.

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
- 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 large *Microcystis* bloom persists in Lake Erie, extending well past Cleveland to the east.

Analysis: Satellite imagery from Tuesday (10/11) indicates that the *Microcystis* bloom has now extended well past Cleveland to the east, and remains offshore. The eastern extent is just past Fairport Harbor. The bloom also hugs the northern shore in Ontario, to the Rondeau Provincial Park region. The forecast over the next three days indicates that the bloom will continue moving eastward as far as Geneva on the Lake, but will remain offshore. However, the northern portion of the bloom will dissipate. The wind stress is expected to increase dramatically on Oct 14, and will likely cause the surface bloom to decrease as mixing occurs. Water temperatures continue to remain stable.

NOTE: Please see pages 3 and 4 of this bulletin, as they show the MERIS image from 10/11/2011 (page 3) for the whole lake and the forecast for 10/16/2011 (page 4).

-Tomlinson, Wynne

