



Experimental Lake Erie Harmful Algal Bloom Bulletin

2011-017

29 September 2011

National Ocean Service

Great Lakes Environmental Research Laboratory

Last bulletin: 22 September 2011

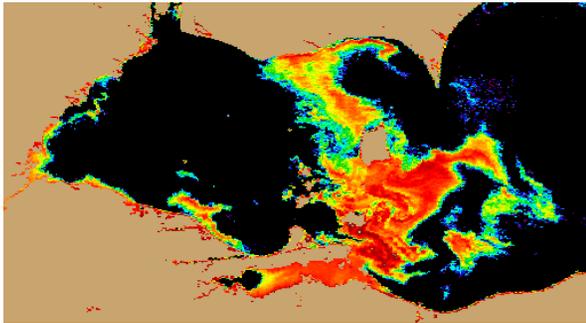


Figure 1. MERIS image from the European Space Agency. Imagery shows the spectral shape at 681 nm from September 27, where colored pixels indicate the likelihood of the last known position of the *Microcystis* spp. bloom (with red being the highest concentration). *Microcystis* spp. abundance data from shown as white squares (very high), circles (high), diamonds (medium), triangles (low), + (very low) and X (not present).

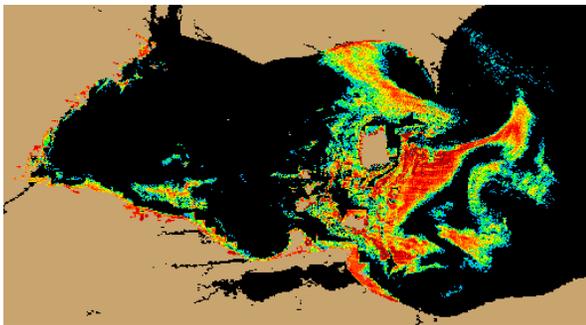


Figure 2. Nowcast position of *Microcystis* spp. bloom for September 29 using GLCFS modeled currents to move the bloom from the September 27 image.

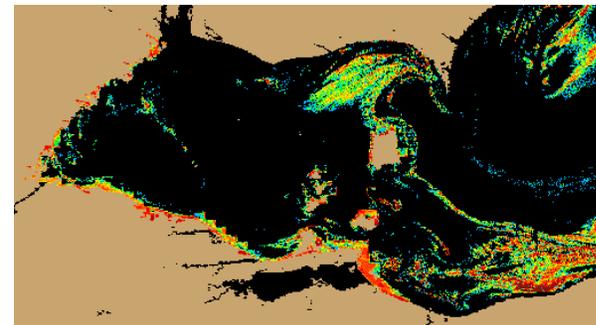


Figure 3. Forecast position of *Microcystis* spp. for October 02 using GLCFS modeled currents to move the bloom from September 27 image.

Conditions: A large *Microcystis* bloom persists in Western Lake Erie.

Analysis: Satellite imagery from Tuesday (9/27/2011) indicates a large *Microcystis* bloom continues to transport to the east of Catawba Island and concentrate to the south and east of Pelee Island. An intensification of the bloom has also been remotely observed and may be the result of a sustained low wind stress that allowed for the predicted resurfacing of submerged cells.

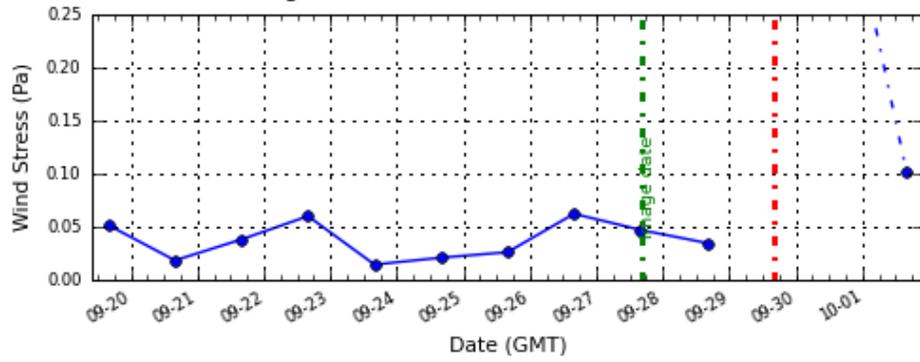
The bloom is forecast to continue an eastern transport in to the weekend and may impact the Cleveland shore. Wind stress is forecast to remain at or below 0.10 Pa and subsurface mixing of cells is not predicted to occur. However, water temperature begins to dip below 20 C and may result in a de-intensification of the bloom.

-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
- 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

Average wind stress at SBIO1 - South Bass Island



Average water temperature at 45005 - W Erie 28NM Northwest of Clevelan

