

Experimental Lake Erie Harmful Algal Bloom Bulletin

2010-001 10 June 2010 National Ocean Service Great Lakes Environmental Research Laboratory Last bulletin: 16 October 2008



Figure 1. MERIS image from the European Space Agency. Imagery shows the spectral shape at 681 nm from June 06, 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 June 08 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 June 10 using GLCFS modeled currents to move the bloom from the June 06 image. Please note: Colored pixels in Sandusky Bay are due to a mixed bloom dominated by *Planktothrix* spp.

Conditions: There are no confirmed harmful algal blooms at this time. No impacts are expected.

Analysis: Imagery has been cloudy over the past week. A potential patch of *Microcystis* may be located hugging the south shore of western Lake Erie (southeast of the Maumee River mouth) however, given the poor image quality this analysis may be unreliable. Cell count data collected on 6/8/2010 shows very low concentrations of *Microcystis* at the Maumee River mouth and to the southeast (at two stations located at 83d 15.362', 41d48.262' and 83d23.171' 41d423.269') and one station further northeast (83d25.426' 41d43.059') and warrants monitoring. Periods of strong wind over the past week may have prevented a bloom from forming. Forecasted winds continue to be variable and should prevent the development of a bloom over the weekend.

-Tomlinson, Wynne



Figure 3. Forecast position of *Microcystis* spp. for June 13 using GLCFS modeled currents to move the bloom from June 06 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

 $^{-\} http://www.glerl.noaa.gov/res/Centers/HABS/lake_erie_hab/lake_erie_hab.html$

⁻ 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

