



Experimental Lake Erie Harmful Algal Bloom Bulletin

2009-001

23 July 2009

National Ocean Service

Great Lakes Environmental Research Laboratory

Last bulletin: 16 October 2008

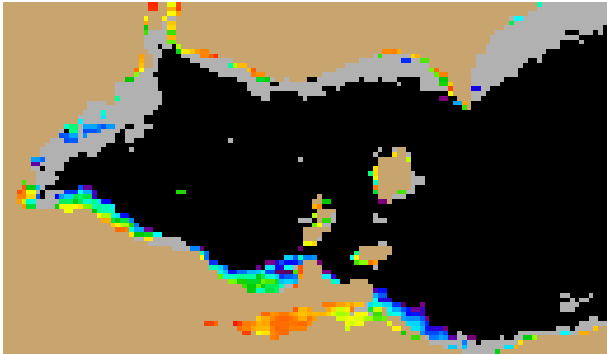


Figure 1 Meris image from European Space Agency. Imagery shows the spectral shape at 681nm from July 20, where colored pixels indicate the likelihood of the last known position of the Microcystis (with red being most likely). Please note: Colored pixels in Sandusky Bay are due to a Planktothrix spp. bloom, and do not indicate Microcystis spp..

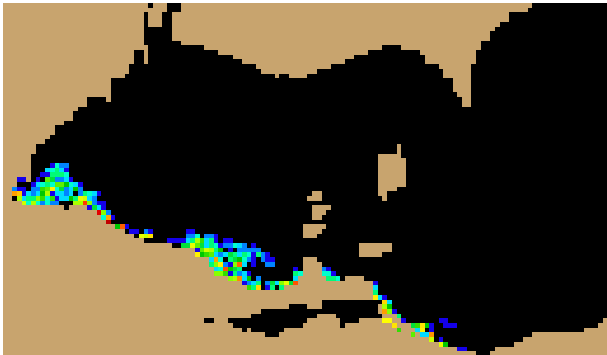


Figure 2 Modeled position of Microcystis bloom for July 23 using GLCFS modeled currents to move the bloom from July 20 image.

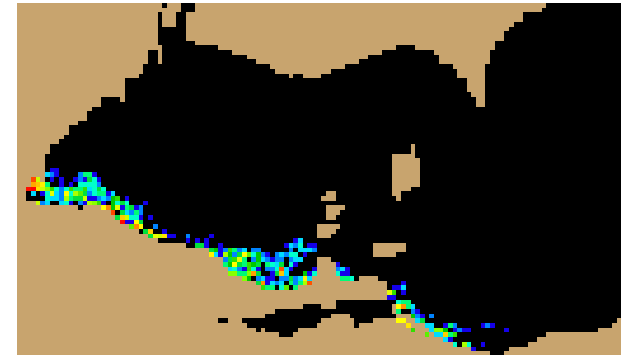


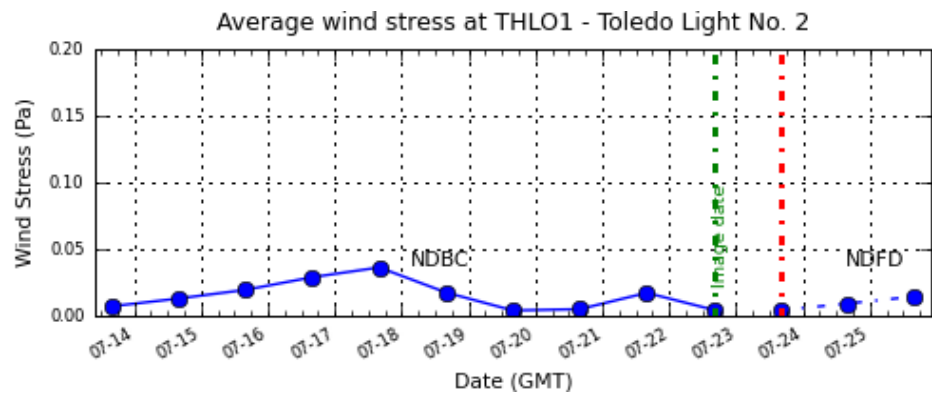
Figure 3 Forecasted position of Microcystis for July 26 using GLCFS modeled currents to move the bloom from July 20 image.

Conditions: A Microcystis spp. bloom has begun to appear in the Southwestern portion of Lake Erie (primarily focused at the Maumee River mouth).

Analysis: A Microcystis spp. bloom appears to be developing at the Maumee River mouth and hugging the southwest shore of Lake Erie. Imagery indicates that the bloom is located from 83d26'50"W and 41d42'43"N to the west and may extend eastward to 82d28'79"W and 41d23'16"N. Samples (not shown) indicate a high abundance of Microcystis spp. at the Maumee River mouth (83d25.427"W, 41d 43.059"N) with medium levels to the south and east. Very slight eastward transport is expected through Sunday. Wind stress is predicted to be low over the weekend and does not indicate a mixing event. Please note, colored pixels in Sandusky Bay most likely represent a Planktothrix spp. bloom and are not due to Microcystis 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



Wind Stress from the Toledo Light Tower 2 buoy.