Experimental
Lake Erie Harmful Algal Bloom Bulletin

2010-020
14 October 2010
National Ocean Service
Great Lakes Environmental Research Laboratory
Last bulletin: 07 October 2010

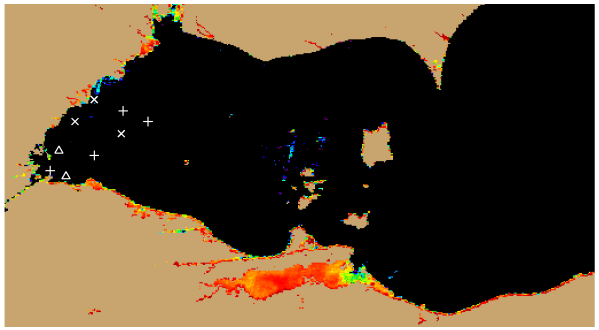


Figure 1. MERIS image from the European Space Agency. Imagery shows the spectral shape at 681 nm from October 12, where colored pixels indicate the likelihood of the last known position of the *Microcystis* spp. bloom (with red being the highest concentration). *Microcystis* spp. abundance data from October 07 shown as white squares (very high), circles (high), diamonds (medium), triangles (low) , + (very low) and X (not present).

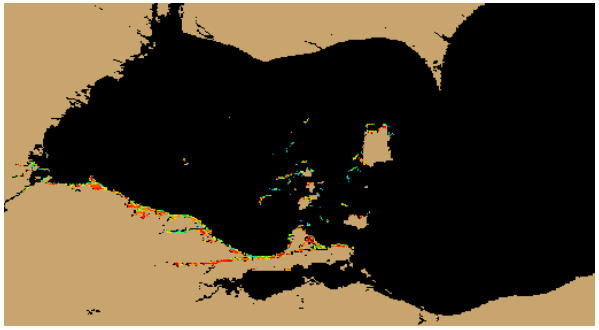


Figure 2. Nowcast position of *Microcystis* spp. bloom for October 14 using GLCFS modeled currents to move the bloom from the October 12 image.

Conditions: The cyanobacterial bloom in western Lake Erie is dissipating.

Analysis: Imagery indicates that the bloom is rapidly dissipating in western Lake Erie. Temperature plots show decreasing temperatures and forecasted consistent temperatures below 15 C indicate the demise of the bloom within the next week.

-Lopez, Neff

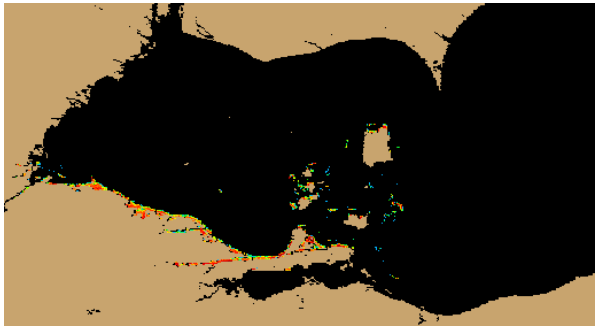
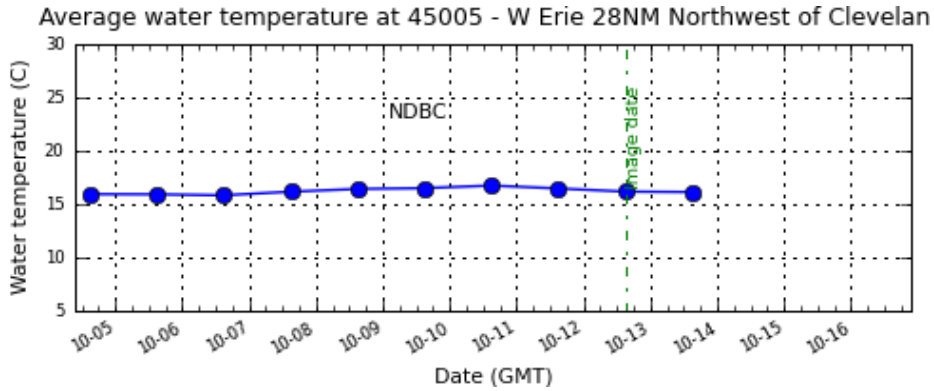
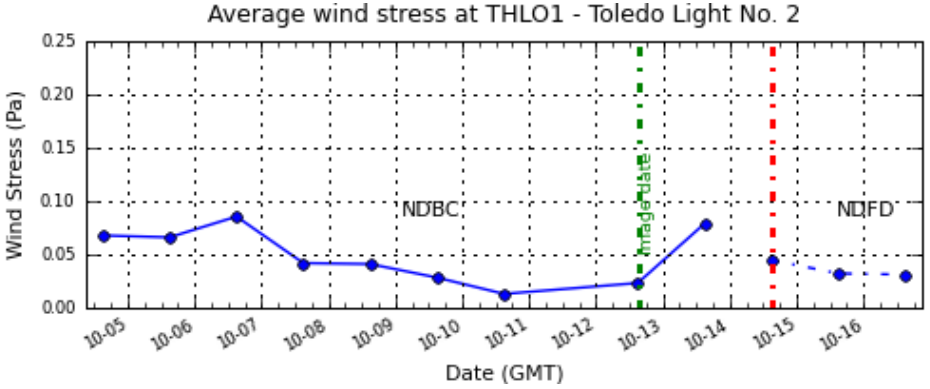


Figure 3. Forecast position of *Microcystis* spp. for October 17 using GLCFS modeled currents to move the bloom from October 12 image.

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


Average water temperature at 45005 - W Erie 28NM Northwest of Clevelan
Water temperature (C)
30
25
20
15
10
5
NDBC
Today
10-05
10-06
10-07
10-08
10-09
10-10
10-11
10-12
10-13
10-14
10-15
10-16
Date (GMT)


Average wind stress at THLO1 - Toledo Light No. 2
Wind Stress (Pa)
0.25
0.20
0.15
0.10
0.05
0.00
NDBC
Today
NDFD
10-05
10-06
10-07
10-08
10-09
10-10
10-11
10-12
10-13
10-14
10-15
10-16
Date (GMT)