Experimental
Lake Erie Harmful Algal Bloom Bulletin

2010-009
05 August 2010
National Ocean Service
Great Lakes Environmental Research Laboratory
Last bulletin: 29 July 2010

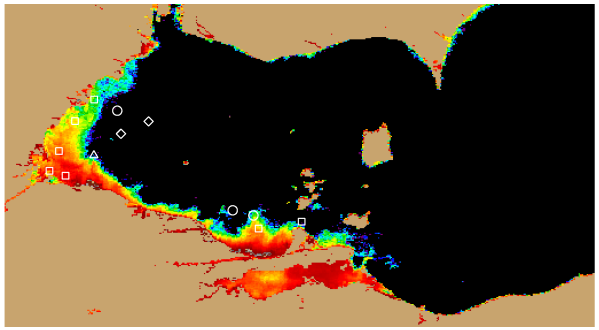


Figure 1. MERIS image from the European Space Agency. Imagery shows the spectral shape at 681 nm from July 30, where colored pixels indicate the likelihood of the last known position of the *Microcystis* spp. bloom (with red being the highest concentration). *Microcystis* spp. abundance data from shown as white squares (very high), circles (high), diamonds (medium), triangles (low) , + (very low) and X (not present).

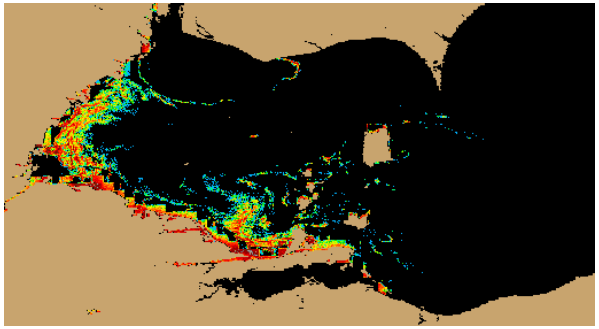


Figure 2. Nowcast position of *Microcystis* spp. bloom for August 05 using GLCFS modeled currents to move the bloom from the July 30 image.

Conditions: A bloom of Microcystis cyanobacteria has been identified from Maumee Bay to Catawba Island.

Analysis: Imagery and field samples indicate very high concentrations of Microcystis in Maumee Bay and north along the coast to La Plaisance Bay. Very high concentrations of Microcystis are also present east of Catawba Island. Models indicate an eastward offshore transport of the bloom area north of Maumee Bay. Additionally, no transport is predicted for the area east of Catawba Island. Winds are forecasted to decrease into the weekend.

-Briggs

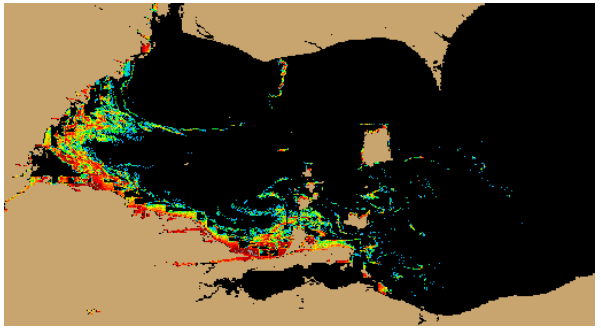
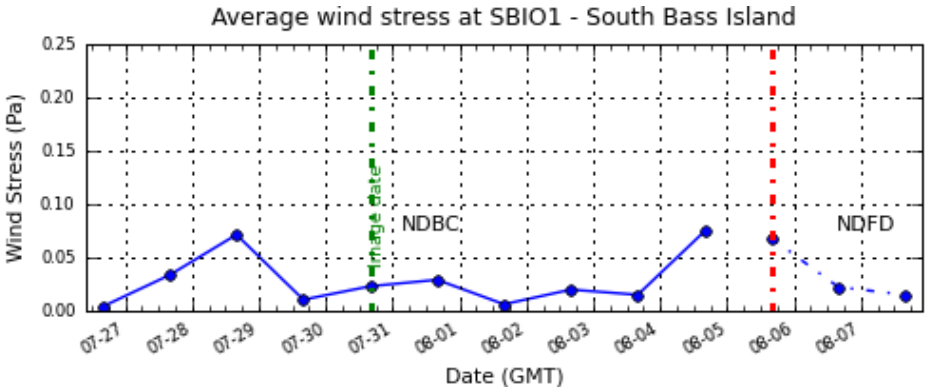
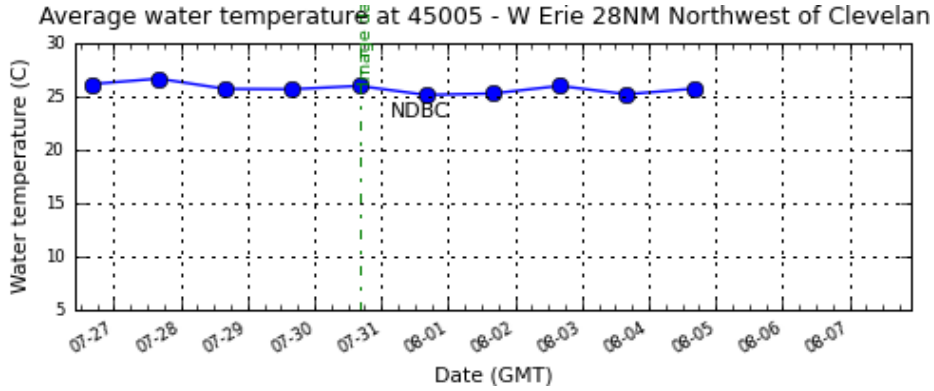


Figure 3. Forecast position of *Microcystis* spp. for August 08 using GLCFS modeled currents to move the bloom from July 30 image.

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 wind stress at SBIO1 - South Bass Island
Wind Stress (Pa)
0.25
0.20
0.15
0.10
0.05
0.00
Image date
NDBC
NDFD
07-27
07-28
07-29
07-30
07-31
08-01
08-02
08-03
08-04
08-05
08-06
08-07
Date (GMT)


Average water temperature at 45005 - W Erie 28NM Northwest of Clevelan
Water temperature (C)
30
25
20
15
10
5
Image date
NDBC
07-27
07-28
07-29
07-30
07-31
08-01
08-02
08-03
08-04
08-05
08-06
08-07
Date (GMT)