



**EXPERIMENTAL
Lake Erie Harmful Algal
Bloom Bulletin**

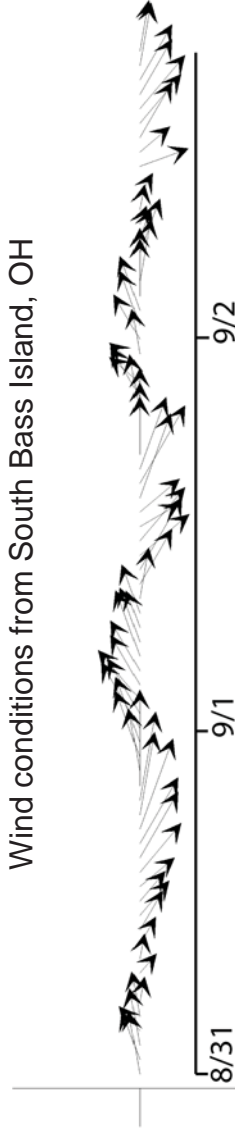
4 September 2008
National Ocean Service
Great Lakes Environmental Research Laboratory
Last bulletin:

Conditions: A *Microcystis aeruginosa* bloom has been identified in western Lake Erie from the Maumee River mouth eastward, along the south shore.

Analysis: A *Microcystis aeruginosa* bloom was identified on August 26, 2008 through the use of MERIS imagery. The bloom was confirmed through sampling on August 28, 2008 and extends from the Maumee Bay eastward and along the southern shore of western Lake Erie. Concentrations range from very high to low, with the greatest concentration at the Maumee Bay in the far SW corner of the basin (41.7919N, -83.3925W) along the southern shoreline almost to the Bass Islands (41.6602N, -83.0780W). Satellite chlorophyll levels have exceeded 40 ug/L. A cyanobacteria bloom is also present in Sandusky Bay, however the majority of the bloom was primarily comprised of *Planktothrix spp.* and some *Anabaena spp.* *M. aeruginosa*, *Anabaena spp.* and *Planktothrix spp.* are known to produce toxins. Strong winds and thunderstorms are expected through Friday, which may cause the bloom to disperse, become mixed within the water column or possibly concentrate along the southern shore of Lake Erie. Further sampling is recommended.

-Tomlinson, Wynne

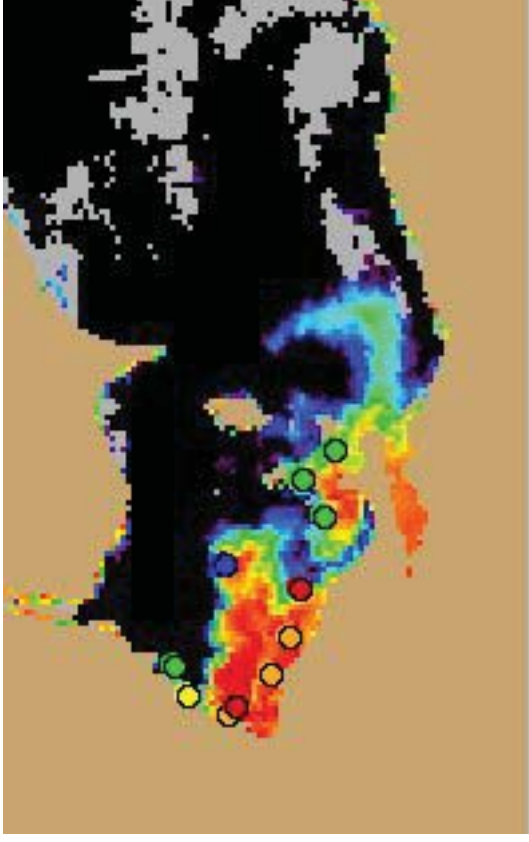
Wind conditions from South Bass Island, OH



Please note:

1. MERIS Imagery was distributed by the NOAA Coastwatch Program and provided by the European Space Agency
2. Cell counts were collected by the Great Lakes Environmental Research Laboratory
3. The wind data is available through the National Data Buoy Center

Lake Erie: Strong northeasterly winds (10-20 knots) are expected through tonight, and are expected to shift southwesterly on Friday. Northwesterly winds of 5-15 knots are expected Saturday and Sunday, with a decrease in storm activity.



Imagery shows the spectral shape at 681 nm from September 2, 2008, where colored pixels indicate the likelihood of *Microcystis* (with red being most likely). *Microcystis* concentration sampling data from August 28, 2008 are shown as red circles (very high), orange circles (high), yellow circles (medium) green circles (low) and blue circles (very low) and purple circles (not present).