

# Experimental Lake Erie Harmful Algal Bloom Bulletin

National Centers for Coastal Ocean Science and Great Lakes Environmental Research Laboratory

22 July 2014, Bulletin 7.1

The feature near the Maumee River has been confirmed as a cyanobacteria bloom and has intensified since last week's bulletin. Some scum was present about 1-4 miles offshore off Maumee State Park. Over the weekend the bloom was present near the Ohio coast between Maumee Bay and the Davis Besse Power Plant. University of Toledo has confirmed the presence of Microcystis along the Ohio coast east of Maumee Bay. Bloom patches may have developed near the Michigan coast, close to Maumee Bay and to Brest Bay.

A moderate bloom may also be present northwest of Pelee Island, OSU detected Microcystis in this area, northwest of North Bass Island and near the US/Canada border, on Friday July, 18th. Slight mixing with a north wind is possible Wed, reducing scum formation.

- Dupuy, Stumpf

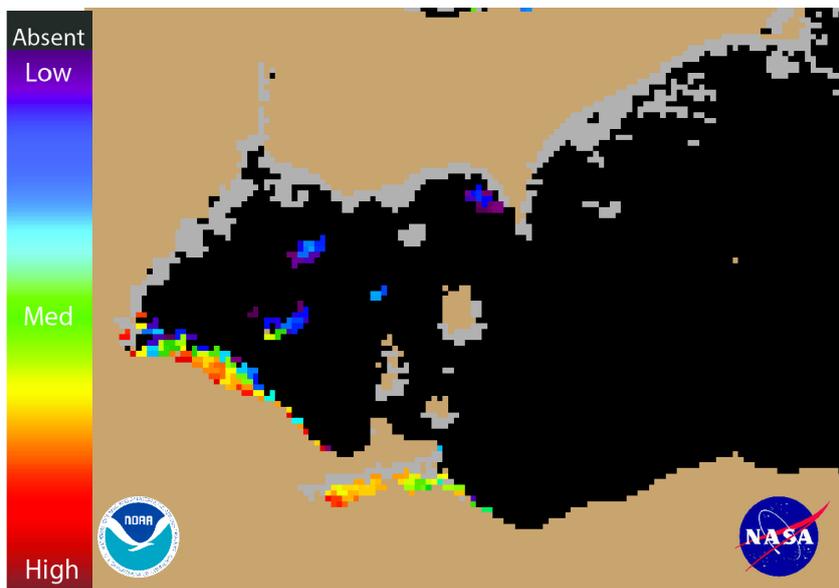


Figure 1. Cyanobacterial Index from NASA's MODIS-Aqua data collected 17 July 2014 at 2:15 pm. Grey indicates clouds or missing data. Black represents no cyanobacteria detected. Colored pixels indicate the presence of cyanobacteria. Cooler colors (blue and purple) indicate low concentrations and warmer colors (red, orange, and yellow) indicate high concentrations. The estimated threshold for cyanobacteria

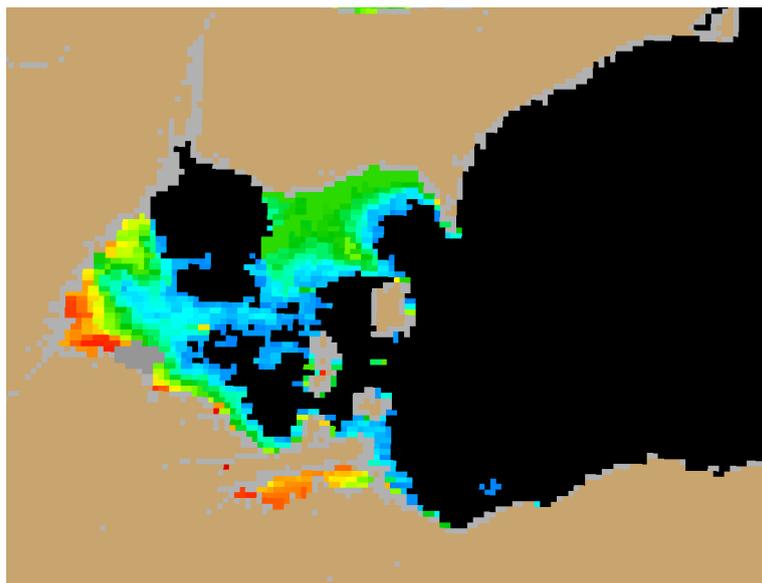
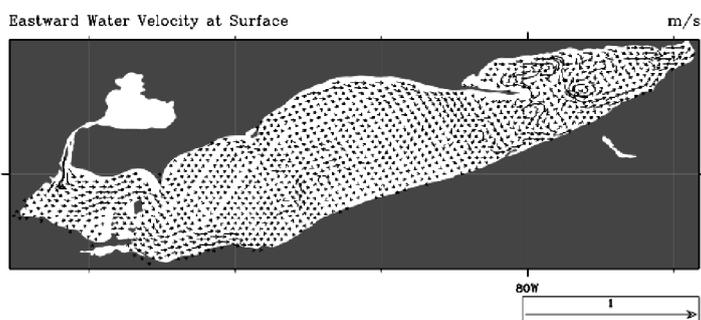
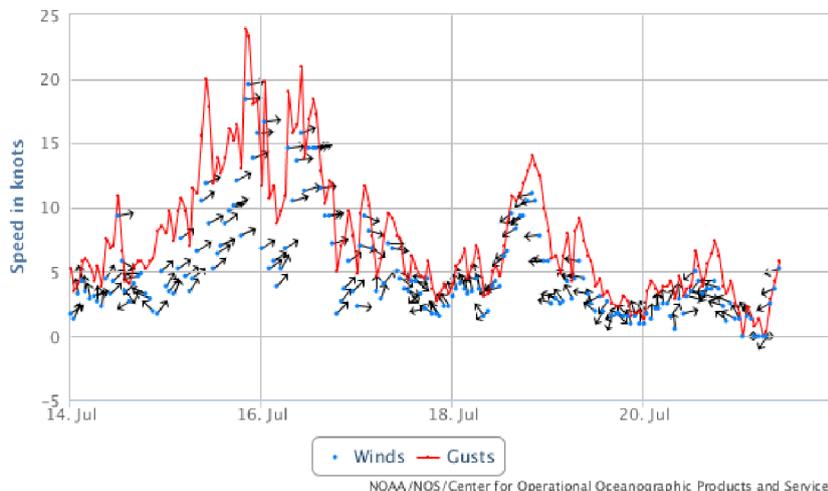


Figure 2. MODIS Terra Cyanobacterial Index from 21 July 2014 at 1:35 pm.



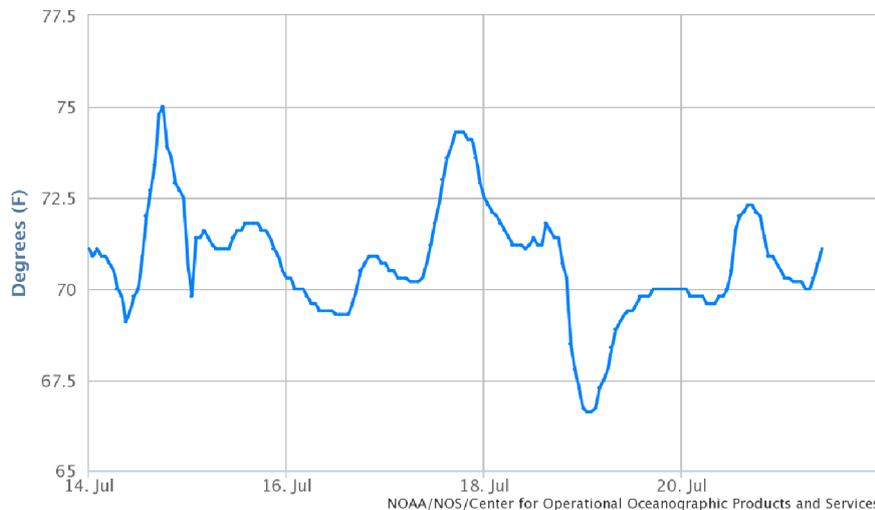
Averaged forecasted currents from Great Lakes Coastal Forecasting System over the next 72 hours.

NOAA/NOS/CO-OPS  
Winds at 9063079, Marblehead OH  
From 2014/07/14 00:00 LST to 2014/07/21 23:59 LST



Wind Speed, Gusts and Direction from Marblehead, OH. From: NOAA/Center for Operational Oceanographic Products and Services (CO-OPS). Note: 1 knot = 0.51444 m/s. Blooms mix through the water column at wind speeds greater than 7.7 m/sec (~ 15 knots).

NOAA/NOS/CO-OPS  
Water Temperature at 9063079, Marblehead OH  
From 2014/07/14 00:00 LST to 2014/07/21 23:59 LST



Water Temperature from Marblehead, OH. From: NOAA/Center for Operational Oceanographic Products and Services (CO-OPS).

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