



U.S. Coast Guard Great Lakes Oil Spill Center of Expertise

PURPOSE

- The GLCOE's purpose is to operationalize innovative ideas that improve freshwater and arctic oil spill responses.



SITE LOCATIONS

Lake Superior State University (LSSU)

- Why LSSU?
 - Location: St Mary's River, Critical crude oil transportation infrastructure and connecting the Great Lakes
 - Aquatic research laboratory; expertise in Great Lakes aquatic ecology, environmental chemistry, fish/wildlife, and water resources
 - Open to the public



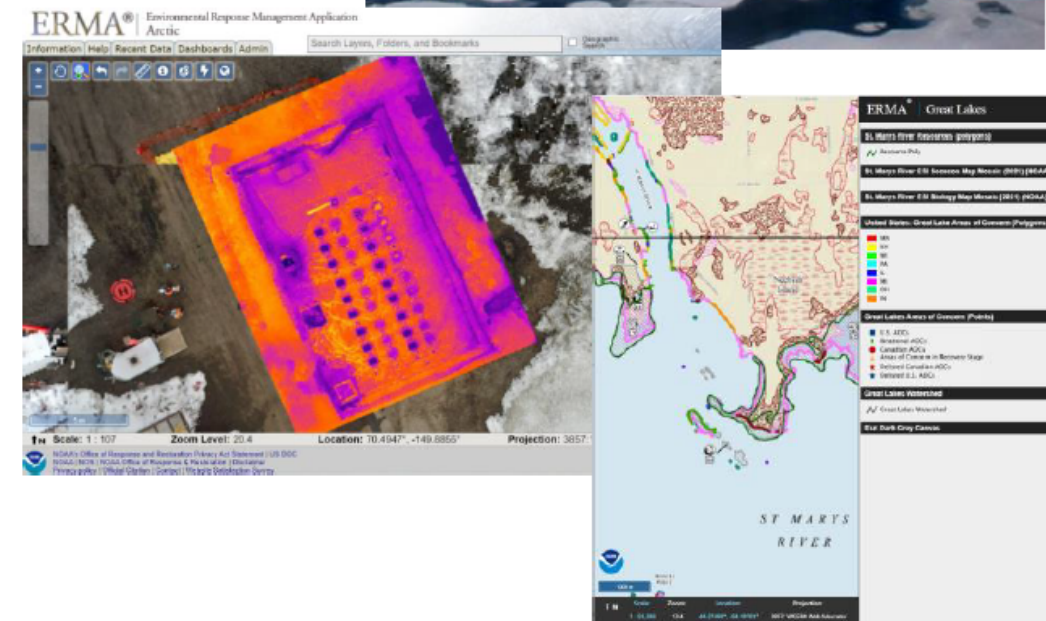
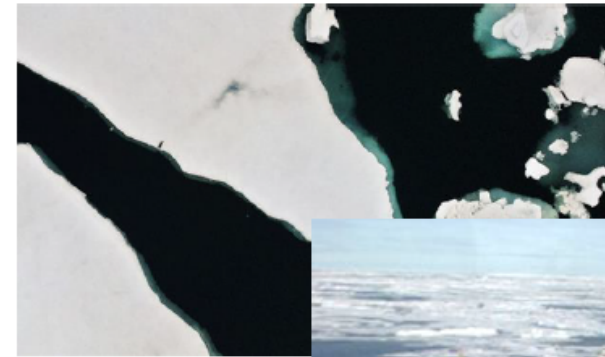
NOAA Great Lakes Environmental Research Laboratory (GLERL)

- Why GLERL?
 - Hosts key partners such as NOAA's National Ocean Service, Marine Sanctuary Program, National Marine Fisheries Service, Great Lakes Regional Collaboration Team, Great Lakes Sea Grant, and the International Association for Great Lakes Research.
 - CIGLR - Cooperative Institute for Great Lakes Research
 - 10 Universities, 2 NGOs, & 3 businesses
 - Lead Collaborator - University of Michigan



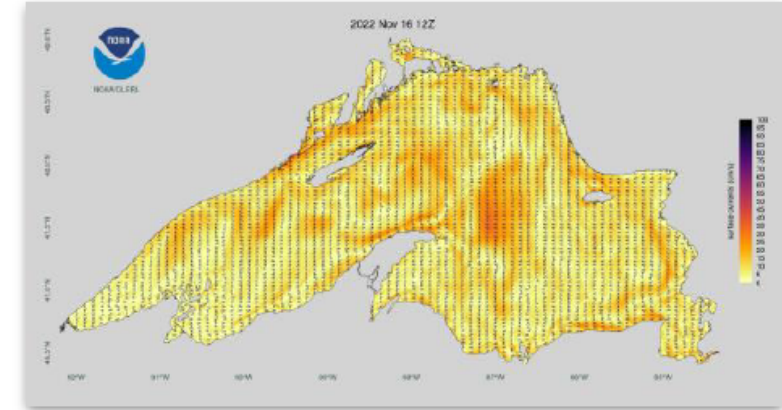
GLCOE Funded NOAA OR&R Projects

- Great Lakes Environmental Sensitivity Index Mapping
- Advancing Detection Capabilities for Monitoring Oil Spills in Great Lakes Ice Environments
- Transitioning Research into Application for Oil Spill Response and Assessments
- Operationalizing use of uncrewed systems (UAS & ROV) for environmental response



GLCOE Currently Funded GLERL-CIGLR Projects

- Oil Spill & Ice Model Development/Improvement to Aid USCG Operations.
 - Evaluate GNOME for Great Lakes freshwater environment, identify gaps for tracking oil spills in freshwater/ice & address gaps.
 - Incorporate GLCFS surface currents forecasts into GNOME including ice-covered trajectory predictions.
 - Conduct research on impact of ice cover on spill trajectories.
- Proof of Concept for oil detection technologies & USCG Polaris/PYXIS Oil Spill Detection System.



USCG Mackinaw in Lake Superior coming into Duluth.

Thank you! Questions?



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