



Great Lakes Campus of Northwestern Michigan College 715 East Front Street, Traverse City, MI 49686

Updated 07.31.26

Tuesday, September 15, 2026 - **DRAFT** -

1400	Registration Opens, Welcome Packet Pick-up, Sponsors Set Up, Demonstrations Begin
1400	Demonstrations in the Harbor
1700	Opening Reception, Rotary Hall, Great Lakes Campus (outside courtyard, weather permitting)
1830	Close of Day
	Participants Free to Explore Traverse City

PLATINUM SPONSOR



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0745	Breakfast Buffet
0830	Opening Remarks <i>Denver Peters, Director, The Marine Center, Northwestern Michigan College</i>
0845	Keynote Speaker TBD
0915	Industry Panel Discussion: <i>MSU RS&GIS, NV5, Seaworks, and Teledyne Marine</i>
1015	Break
Advanced Marine Technology & Survey Platforms	
1030	ASV Demo <i>David Gates, Seasats</i> Showcases the "Lightfish," a fully fielded Autonomous Surface Vehicle (ASV) built as a modular carrier for seafloor mapping, water sampling, and maritime domain awareness.
1100	Voxometer MultiAspect Survey System <i>Mike Brissette, R2Sonic</i> Introduces an innovative acoustic survey system category capable of capturing multi-angular voxel observations in a single pass to eliminate intense post-processing.
1130	Marine Technology Capstone Project <i>Ed Bailey, Northwestern Michigan College</i> Details undergraduate capstone field projects executing hydrographic surveys across the Thunder Bay Sanctuary boundaries and Lake Michigan.
1200	Lunch
1230	1% in 11 Days – Efficient Uncrewed Bathymetric and Heritage Survey in Lake Erie <i>Michael Scherer, Chance Maritime Technologies</i> Chronicles a rapid 2025 Lake Erie expedition that successfully combined an Uncrewed Surface Vessel (USV) with a Voxometer MA3 survey system and a towed sidescan sonar to target unmapped zones and lay groundwork for automated ROV deployments.
Overarching Policy, Strategic Initiatives & Workforce Development	
1300	Crowdsourced Bathymetry Opportunities on the Great Lakes <i>Lee Shoemaker, IHO Data Center for Digital Bathymetry, University of Colorado Boulder</i> Scaling the recruitment of everyday maritime vessels to supply crowdsourced depth collection data to the global mapping campaign.
1330	Lakebed 2030 Data Accessibility Updates from the International Hydrographic Organization Data Centre for Digital Bathymetry <i>Jessica Nation, Cooperative Institute for Research in Environmental Sciences and NOAA</i> Evaluates infrastructure updates and data packaging tools from the Data Accessibility Working Group to process proprietary lakebed datasets.
1400	Implementing the Michigan Maritime Strategy <i>Simon Belisle, Michigan Department of Environment, Great Lakes, and Energy – Office of the Great Lakes</i> Outlines a 10-year holistic plan capitalizing on extensive Great Lakes maritime assets, including autonomous test zones, clean energy transition, and workforce development.
1430	Break
1445	Models for Workforce Development between Education and Industry for Freshwater and Marine Environments <i>Kristine Beran, Teledyne Marine and John Lutchko, Northwestern Michigan College</i> Discusses the symbiotic relationship between academic tracking paths and industrial equipment providers while leveraging state scholarship investments to fill critical marine technology workforce gaps.
1515	Acquiring High Impact Hydrographic Data: The Quest to Complete the Great Map <i>Michael Stephens, NOAA, Office of Coast Survey</i> Explores how Coast Survey coordinates its contractor and fleet assets, utilizing Hydrographic Health Models, the National Bathymetric Source, and Regional Mapping Plans to systematically acquire high-impact modern bathymetry.
Sensor Fusion, Multi-System Methods & Machine Learning Bathymetry	
1545	Refining The Great Lakes Map through Sensor Fusion and Machine Learning <i>Phillipe Wernette, Michigan State University RS&GIS</i> Details workflows for integrating airborne LIDAR and multibeam dataset collections into a seamless two-meter resolution lakebed mosaic.
1615	Multi-(year, agency, vessel, sonar, and frequency) Multibeam Data from Larsons Reef in Green Bay <i>Samuel Pecoraro, Anthony Arnold, and Dale Hanson, USFWS</i> Examines backscatter differences and data standardization techniques when utilizing disparate vessel and sonar configurations across identical reef habitats.
1645	Student and Employer Networking Event - (Sponsors, employers, and students register here)
1730	Close of Events
1745	Freshwater Research and Innovation Center Facility Tour - (Register here - NOTE: Closed-toe shoes required)

0745	Breakfast Buffet
0830	Opening Remarks <i>Denver Peters, Director, The Marine Center, Northwestern Michigan College</i>
0845	Keynote Speaker <i>Jérôme Marty, Ph.D., Executive Director, International Association for Great Lakes Research, Science Advisory Board Member, International Joint Commission</i> The International Joint Commission's Great Lakes Science Plan and Plans for Centers of Excellence
0915	Lakebed Steering Committee Panel Discussion
1015	Break
1030	Featured Speaker: <i>Hans VanSumeren, Senior Director, Ocean Enterprise Initiative, Marine Technology Society</i> Ocean Enterprise - The Innovation Engine Driving the Blue Economy
Sensor Fusion, Multi-System Methods & Machine Learning Bathymetry (continued)	
1100	Leveraging Bathymetric Lidar and Sonar in a Coordinated Large-scale Multipurpose Mapping Campaign in Thunder Bay National Marine Sanctuary <i>Rebekah Gossett, NV5</i> Details an integrated survey approach where aerial bathymetric lidar rapidly maps shallow waters to strategically deploy vessel-based multibeam sonar, minimizing data redundancy via a unified management portal.
Sublake Infrastructure & Submarine Hazards	
1130	Identification of Lake Michigan Hazards for Submarine Cable Design <i>Matthew Peramaki, GEI Consultants</i> Explores a 180-mile geophysical route survey mapping lake-bottom sediment stability, ice scour, natural gas pockets, and shipwreck locations for a fiber-optic layout.
1200	Lunch
Benthic Habitat Characterization, GeoAI, & Environmental Risk	
1230	Mapping Glaciogenic Substrates at Scale Using GeoAI and High-Resolution Geophysical Data <i>Leah Hogarth, Fugro</i> Demonstrates scalable GeoAI workflows automating the classification of complex glaciogenic seafloors, boulder fields, and till patterns.
1300	Microplastic Concentration in Non-Native Fish of the Lower Boardman-Ottaway River: Trophic Role vs. Surface Water Concentration <i>Finn Sutherland, Northwestern Michigan College and FishPass</i> Examines whether microplastic burdens within non-native river species correlate more tightly with feeding ecology/trophic level or surface-water baselines.
1330	An Innovative Video Annotation Methodology to Characterize Benthic Habitats in the Great Lakes <i>Ayman Mabrouk, NOAA</i> Details a standardized, multi-agency annotation framework using the cloud platform Tator, integrated with AI detectors to automate and accelerate lakebed classification.
1400	A Reef Mapping Approach and the Importance of Quality Maps for Physical Habitat and Biological Assessments in Eastern Lake Michigan <i>Matt Herbert, The Nature Conservancy</i> Introduces a geoprocessing framework using Topobathy LiDAR, multibeam sonar data, and the Benthic Terrain Modeler to identify, polygon-buffer, and comprehensively map critical fish spawning reef complexes across uninventoried areas of eastern Lake Michigan.
Maritime Archaeology, Cultural Heritage & Submerged Geological Features	
1430	Science in the Great Lakes Sanctuaries: Integrating History, Education and Interdisciplinary Research to Protect Underwater Cultural Resources <i>Andrea Yoxsimer, NOAA</i> Reviews the collective public stewardship, historical heritage assets, and research hurdles across three major sanctuary boundaries.
1500	Break
1530	2026 Great Lakes Blue Tech Challenge FINAL PITCH
1600	Signing of the Presidents for Entrepreneurship Pledge (NACCE)
1615	2026 Great Lakes Blue Tech Challenge ANNOUNCEMENT OF WINNERS - Prize monies of \$55,000 awarded
1700	Close of Event