Great Lakes Maritime Research Institute

A University of Wisconsin - Superior and University of Minnesota Duluth Consortium

MichiganTech

Great Lakes Maritime Transportation K-12 Education/Outreach Program

January 2006 to September 2010

GOAL:

To increase awareness and knowledge of Great Lakes Maritime Transportation by K12 students and the public, and to encourage its inclusion in the K-12 curriculum and public education programs.

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Year 5 Grant Period: December 2009 – March 2011

1. Conduct a *Great Lakes Maritime Transportation Summer Teacher Institute* in collaboration with the Toledo Maritime Academy and University of Wisconsin Madison in Toledo, OH in summer 2010.

2. Conduct a *Mathematics & Navigation Summer Teacher Institute* at Michigan Technological University in summer 2010 in collaboration with a ship captain and mathematics instructor.

3. Conduct two teacher workshops at: Great Lakes Shipwreck Museum at Whitefish Point Lighthouse in Upper Peninsula, at Michigan State Historical Museum in Lansing, MI, or other similar facility in a Great Lakes state.

4. Conduct presentation on *Great Lakes Maritime Transportation* at one state or national conferences to recruit workshop and summer institute participants and disseminate teaching tools.

5. Assemble EIGHT *Great Lakes Maritime Transportation Education* teaching chests for dissemination to museums and education centers in the Great Lakes region.

6. Regularly update the *Great Lakes Maritime Transportation Education* website and maintain communication with past participants.

1. *Great Lakes Maritime Transportation Summer Institute – 18 participants*

Day One: Teachable Moment--- A Ship Unloads Outside Our Door

Day One: Tour Aboard S.S. Boyer

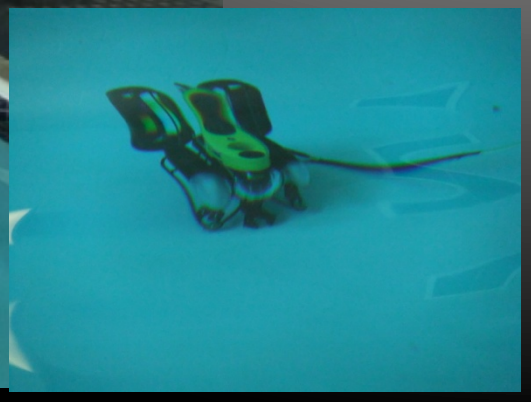
Day Two: Chart Reading & Navigation Simulation

Day Two: Visit Port Facilities

Day Three: History of Maritime Vessels & Boat Building Lab

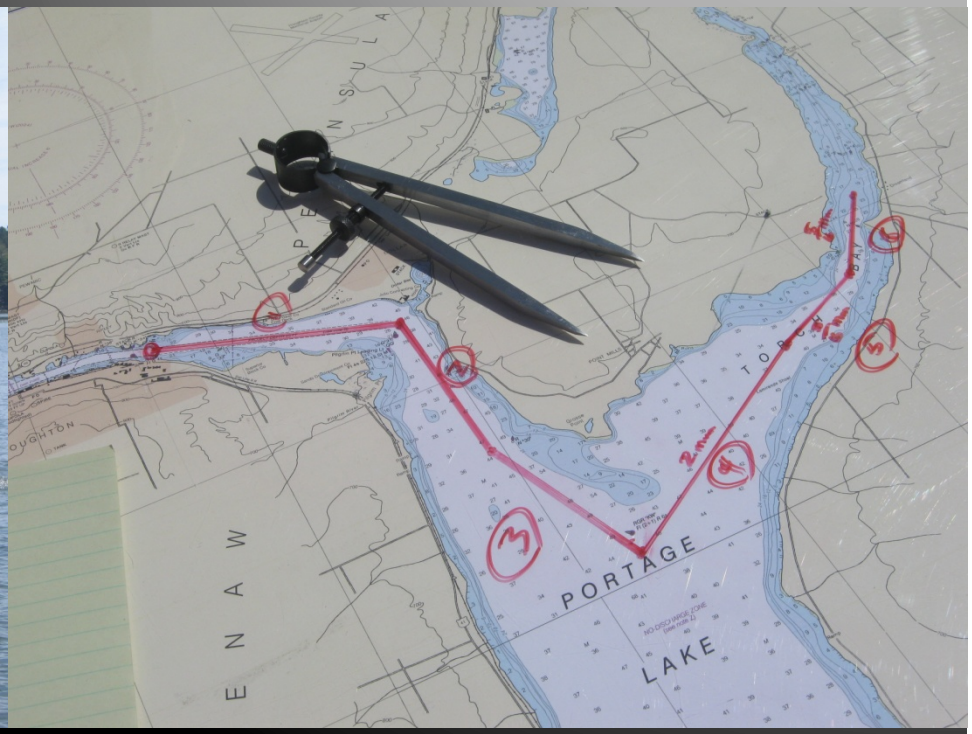
Day Three: Taking it Back to the Classroom

Day Four: Remotely Operated Vehicles



Day Four: Exploring Maritime Museum in Vermillion, OH

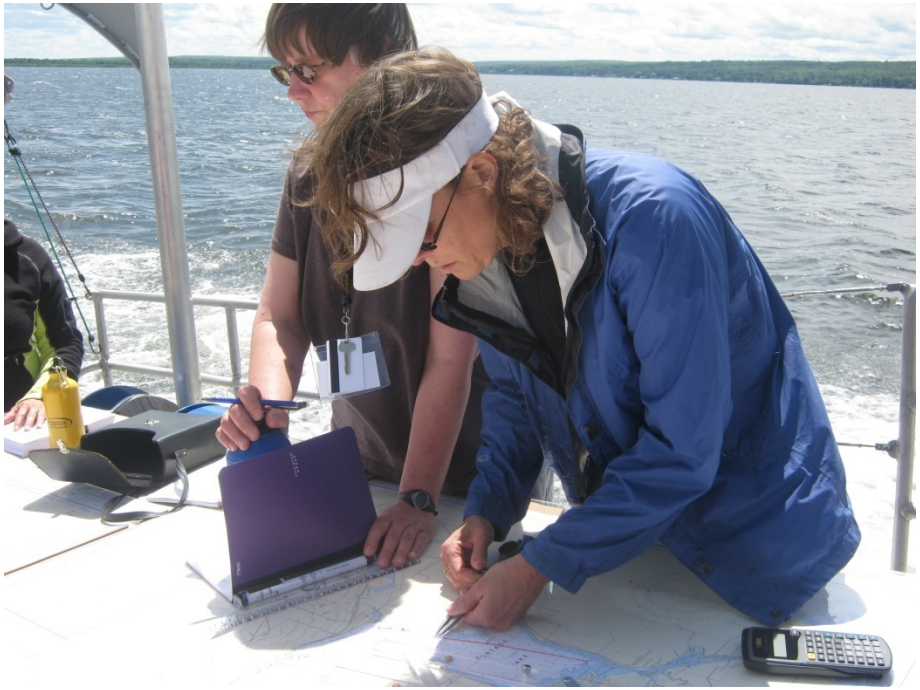
2. Mathematics & Navigation Summer Teacher Institute – 13 participants



Day One: Finding Position, DED Reckoning

Day Two: Charts & Charting Using Navigation Instruments

Day Three: Compass, Speed, Time and Distance



Day Four: Visual Aids and Electronic Instruments

Day Five: Teachers Navigate from Keewenaw Bay to Pequamming

3. Teacher Workshop at Great Lakes Shipwreck Museum at Whitefish Point in Paradise, MI

Shipwreck Museum Tour

Lesson Writing & Collaboration

4. Presentations on Great Lakes Maritime Transportation at one state or national conference to recruit workshop participants and disseminate teaching tools.

- Michigan Earth Science Teacher Association (MESTA) Conference at Lake Superior State University; August 2010

- Michigan Science Teachers Association

Feb, 24-25, 2011 in Grand Rapids, MI

6. Assemble EIGHT Great Lakes Maritime Transportation Chests Education teaching chests for dissemination to museums and education centers in the Great Lakes region.

31 Teaching Chests distributed in Great Lakes watershed:
15-MI, 2-PA 5-WI, 1-IN, 5-OH, 3-MN

6-Superior
9-Michigan
6-Huron
9- Erie
2-Ontario

Sanborn Elementary (gr. 3 students)
Alpena, MI