



# Great Lakes Maritime Research Institute

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

## Quarterly Update

## October 2007

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Co-Directors: Richard D. Stewart & James P. Riehl

### GLMRI Annual Meetings Held In September

The **GLMRI Advisory Board** and the **GLMRI Affiliate Universities** met on September 27 & 28 at the Lake Superior Marine Museum in Duluth. Advisory Board members presented updates on issues from their organizations that would merit as potential research focus areas for GLMRI. On Friday, the principal investigators from each of the current research projects provided a brief progress report on their funded research. As a side note, annual reports for each of the projects will be published and distributed by January. Please let us know if you would like multiple copies.

As a highlight of the annual meetings, **Dr. Jorma Rytkonen**, research director of Merikotka Research Institute and Kymenlaakso Polytechnic University in **Kotka, Finland**, provided a presentation on the work that is being done in Finland and the Baltic region on maritime initiatives. During his visit with GLMRI, Dr. Rytkonen met with researchers of the Great Ships Initiative project team at the Ballast Water Testing Facility in Superior, WI as part of a **research exchange**. Dr. Rytkonen also spent a day with maritime business leaders from the Duluth-Superior area. We are looking to expand this research exchange to other industry venues, such as the Cleveland Maritime Day events in February 2008.

### FY 2008 Research Projects Awarded

The project selection process was completed and the awards were made for the FY 2008 research projects. We received 20 proposals for consideration from 9 of the 11 consortium and affiliate universities, totaling over \$1.3M. Each proposal was reviewed by at least three reviewers, with at least one external topic expert based on the topic/theme of the proposal. Nine projects were selected within the available funding. A list is on page 2.

### Summer Teachers' Institute Year 2 - Another Success

Joan Chadde, Education Program Coordinator from Western UP Center for Science, Math & Environment Education at **Michigan Technological University** led the 5-day summer workshop in Duluth at the end of July. **Educators attended from MI, WI, MN, and OH**. The program included a visit to a variety of sites and interaction with ship captains, industry personnel, and port managers. Teachers earned two graduate credits from MTU, and must develop two lessons that will be posted on the K-12 Maritime Transportation Education website as part of the *Great Lakes Maritime Transportation Educators Guide*. In addition to the teachers and educators, the group included participants from the St. Lawrence Seaway Development Corporation, MN Sea Grant, GLMRI and a commissioner from the Duluth Seaway Port Authority.

## FY 2008 Research Projects Announced

- Great Lakes Maritime Education Program for K-12 Teachers, Students and Communities (**Michigan Technological University**)
- Application of an Environmental Management System “Model” to Examine Port and Tenant Operations and Provide a Tool to Small Public Port Authorities for Enhancing Environmental Initiatives (**Purdue University**)
- Intermodal Freight Transport in the Great Lakes: Development and Application of a Great Lakes Geographic Intermodal Freight Transport Model (**Rochester Institute of Technology**)
- Further Development and Optimization of the Ballast-Free Ship Design Concept (**University of Michigan**)
- Erie Pier Process Re-Use Cost and Market Analysis (**University of Minnesota Duluth**)
- Year 2: Building Sustainable Solutions to the Issues of Ballast Water Treatment: Testing Relationships Between Propagule Pressure and Colonization Success of Invasive Species (**University of Minnesota Duluth and University of Wisconsin-Superior with Great Ships Initiative**)
- Development and Succession of Microbial Communities Associated with Corroding Steel Pilings in the Duluth-Superior Harbor (**University of Minnesota Duluth**)
- Shipboard Testing of B-20 (**University of Minnesota Duluth**)
- The Great Lakes Maritime Information Delivery System: A Resource for the Regional Analysis of Intermodal Freight Flows in the Great Lakes Region (Phase III) (**University of Toledo**)

### GLMRI Participation

#### Key Outreach Events/Presentations/Meetings

July - September 2007

- July 6 - 9. Stacey Carlson attended the TRB Summer Conference, held in Chicago, IL.
- July 16 & 17. Program updates were presented to congressional offices, the Maritime Administration and the St. Lawrence Seaway Development Corporation in Washington, D.C.
- July 30 - August 3. K-12 Teachers Workshop was held in Duluth, MN/Superior, WI.
- July 20 - 25. Dr. Stewart took an observation trip on the *M/V Edwin H. Gott* from Two Harbors, MN, to Gary, IN.
- September 21. Dr. Stewart made presentations on Great Lakes Shipping and Carbon Tax Credits at the SNAME sectional meeting in Marinette, WI.



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