



Great Lakes Maritime Research Institute

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

Quarterly Update (July – September 2011)

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

October 2011

Great Lakes Maritime Data Workshop Held in Ohio

The University of Toledo hosted a workshop on the *Great Lakes Maritime Information Delivery System* for members of Highway H20 on September 19th. Participants were provided with a "hands on" introduction to data resources and query applications in the newly-developed prototype version of *Midwest FreightView* and provided valuable feedback to the project team. The bi-national workshop was sponsored by the St. Lawrence Seaway Management Corporation with participants from regional port authority offices, universities and industry.

Annual Report

Preparation Underway

We are moving forward with the preparation of the GLMRI annual report which is being targeted for release in February 2012. Summaries of each of the research projects will be included with full reports available as the projects and studies reach completion. Please send address changes/additions to Jeannie Hartwick (jhartwic@d.umn.edu). Also, if you would like to have multiple copies of the report, please let her know.

Mark Your Calendars!

Marine Community Day/
GL Waterways Conf.
22-23 February 2012

SNAME Section Meeting
23-24 February 2012
Cleveland, OH



GLMRI Holds 6th Year of Research Reviews/Fall Program Meetings

The Great Lakes Maritime Research Institute (GLMRI) held its annual advisory board meeting and affiliate research meeting at the Radisson Hotel in Duluth, Minnesota on Thursday and Friday, 22 and 23 September. The advisory board meeting was hosted by Dr. Richard Stewart, GLMRI Co-Director and Ms. Carol Wolosz, Executive Director. Representatives from the following agencies participated in the discussions: The Maritime Administration (DOT), the Saint Lawrence Seaway Development Corporation (DOT), the U.S. Army Corps of Engineers (DOD), the U.S. Coast Guard (DHS), the Lake Carriers Association, the American Great Lakes Ports Association, the Great Lakes Commission and the Society of Naval Architecture and Marine Engineering.

The agenda for the GLMRI affiliates meeting included presentations of the on-going projects. Highlights from three new projects included a new ship design concept to minimize drag (University of Michigan), a look at combining dredged materials with the bio-solids that remain from the waste water treatment plant to expand the utility of the 2 bi-products (University of Minnesota Duluth) and an economic feasibility study for a cross-lake truck ferry between Milwaukee, WI and Muskegon, MI across Lake Michigan (Purdue University, North Central). Researchers provided updates on several of the continuing projects such as the Great Lakes Maritime Data Clearinghouse (University of Toledo) and the University of Minnesota Duluth's biology studies with harbor infrastructure corrosion and the joint project with University of Wisconsin-Superior's Lake Superior Research Institute looking at the reproduction and life cycle of plankton related to ballast water. The Michigan Technological University's education program coordinator provided a photo summary of the 2 co-sponsored maritime teacher's workshops held over the summer (See page 2). The University of Wisconsin-Madison's Center for Freight and Infrastructure Research and Education partnered with GLMRI and MTU to support the workshops.

As an added presentation, Ms. Libby Ogard provided a preliminary review of the findings for the National Cooperative Freight Research Program's funded study on Great Lakes-Saint Lawrence basin's current multi-modal freight transportation, including the economic impact of the freight transportation system on regional, US, and Canadian economies.

2nd Annual Navigation Workshop held in Houghton, Michigan

By Joan Chadde

Eleven teachers from Michigan, Maryland, and Illinois spent a week at Michigan Technological University (MTU) from June 27-July 1 developing their navigational skills so they could take it back to their students. Now in its second year, the Teaching Math Through Navigation Teacher Institute is taught by mariner and MTU math professor emeritus, Stephen Roblee. Teachers spend the morning in the classroom learning nearshore marine navigation, including finding position, DED reckoning, chart-reading, using a compass, and making speed, time, and distance calculations. Afternoons were spent aboard the *R/V Agassiz* on the Keweenaw Waterway where classroom learning is put into practice. Students even tried their hand at nighttime navigation!

The class was coordinated by Joan Chadde, education program coordinator for the MTU Center for Science & Environmental Outreach. This workshop and the K-12 Maritime Teacher Institutes held in June were jointly supported by GLMRI and the Center for Freight and Infrastructure Research and Education (C-FIRE) at the University of Wisconsin-Madison.



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GLMRI Receives Cooperative Agreement with MARAD

A 5-year agreement was signed in August between MARAD and GLMRI to provide studies and support to address issues and opportunities facing maritime transportation in the US. GLMRI will be working with MARAD project managers to develop the specific work plan for the initial focus of the research.

Research Highlights

Key Outreach, Events, Presentations, Meetings

- Carol Wolosz attended the Metropolitan Interstate Council's annual program and dinner. Mr. Steve Fisher, Executive Director for the American Great Lakes Ports Association and GLMRI Advisory Board representative was the guest speaker. Mr. Fisher talked about the legislative and regulatory issues impacting the Great Lakes navigational system. Duluth, MN. Jul 20.
- Dr. Stewart and Carol met with MARAD officials to discuss future research initiatives with GLMRI. Duluth, MN. Jul 27.
- Dr. Stewart was able to log some deck time on the *M/V Roger Blough* toward his licensing requirements. His Lake travels took him from Duluth to Conneaut, Ohio. Aug 8-18.
- Carol attended the International Upper Great Lakes Study Phase 2 Public Meeting. The study is being done by the International Joint Commission (governments of U.S. and Canada) to examine physical processes and possible ongoing St. Clair River changes and the impacts on levels of Lake Michigan. Superior, WI. Aug 9.
- Carol participated in a conference at the University of Wisconsin-Superior to discuss opportunities for small businesses that are interested in international trade. Superior, WI. Aug 18.
- The GLMRI research team hosted a meeting with MARAD representatives and members of the Great Lakes shipping industry to discuss the potential of using Liquefied Natural Gas (LNG) as a primary fuel source for Great Lakes commercial ships. Cleveland, OH. Aug 23.
- Dr. Stewart provided a presentation on transportation issues for proposed iron ore mining in northern Wisconsin at a seminar of Wisconsin state cabinet members. The meeting was sponsored by the Iron Range Resources and Rehabilitation Board (IRRRB) in Eveleth, MN. Sep 6.
- Carol attended the quarterly Harbor Technical Advisory Committee meeting. Superior, WI. Sep 7.
- Dr. Stewart and Carol met with the new area congressional staffs in Duluth and Superior to provide an overview of GLMRI research projects and educational initiatives. Aug 30 and Sep 7.
- Advisory board member Jim Sharrow and Carol attended the Society of Naval Architecture and Marine Engineering (SNAME) Section meeting and also met with the MARAD Great Lakes Gateway Director Floyd Miras. Planning is underway to host speakers on LNG/fuel alternatives at the Marine Community Day/GL Waterways Conference and the SNAME meetings scheduled for February 2011. Chicago, IL. Sep 28-30.



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