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

Great Lakes Maritime Research Institute

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

July and October 2014

Quarterly Update (April - September 2014*)

MARAD Continues to Support GLMRI Research on LNG

The U.S. Maritime Administration (MARAD) provided GLMRI with funding of \$400,000 to continue their research and outreach on using Liquefied Natural Gas (LNG) as an alternative fuel. Under a cooperative agreement between the two agencies, MARAD extended the on-going work that GLMRI has been doing since 2011 to continue working to research the use of LNG for marine vessels on the Great Lakes and the region, and to further research the supply chain for LNG.

On September 18, 2014, Dr. Richard Stewart, Co-Director of GLMRI, Carol Wolosz, Executive Director and Cassandra Roemhildt, Research Associate, had a kickoff meeting at the University of Wisconsin-Superior with Mr. Daniel Yuska from MARAD to discuss the focus of the work. Faculty members from the UW-S Business Department - Dr. Amit Mokashi, Dr. Mei Cao and Dr. Zamira Simkins also met with Mr. Yuska to talk about other maritime related projects at UW-S.

In the newly awarded effort, GLMRI will continue to work with industry, governmental agencies and potential users to extend the LNG supply chain and research potential sites and methods on providing LNG to the maritime industry and other potential users. GLMRI will work to support educational workshops over the coming year, to provide informational sessions on the use and potential economic and environmental benefits associated with fueling with LNG.

New Address for the GLMRI Office

Over the summer, the GLMRI Program Office moved to the University of Wisconsin-Superior. Please note our new contact information:

Great Lakes Maritime Research Institute
Old Main, Room 129E
P. O. Box 2000
University of Wisconsin-Superior
Superior, WI 54880
(715) 394-8268 www.glmri.org

GLMRI Holds Third Meeting in Duluth/Superior to Discuss LNG

In May 2014, GLMRI held its third annual meeting to discuss the Liquefied Natural Gas (LNG) potential for the Great Lakes region at UW-S. Experts discussed LNG uses and safety, along with their experiences as current users. Speakers also addressed the potential benefits of using LNG, with a focus on "greening the supply chain". Attendees at the meeting included potential LNG fuel users from the mining, agricultural, trucking, rail and maritime sectors along with LNG equipment and LNG development companies. City, state and federal representatives from the Great Lakes region, along with fire marshals and first responders participated to better understand the embedded safety culture. Presentations from the meeting are posted on the GLMRI web site: www.glmri.org/news

LNG Strategy Group Tours Liquefaction Plant in Burnsville, MN

Carol Wolosz coordinated a tour of the Centerpoint Energy plant on May 6, with members from the Duluth Superior LNG Strategy Group. Attendees included members from local development agencies, businesses, the Duluth Seaway Port Authority and Minnesota Clean Cities. Centerpoint hosted the group at their Burnsville facility, provided a detailed look at the plant and its operations. Following the tour, the group attended the Council of Supply Chain Management's spring program focusing on LNG, and including a tour of the 3M Innovation Center.

* Due to the office transition, we did not send out a separate Quarterly Report for July. This Update includes some of the highlights from that period of time.

Of Note:

- Dr. Richard Stewart, GLMRI Co-Director was appointed by Duluth Mayor Donald Ness to be on the Board of Directors for the Duluth Airport Authority.



- In July, Dr. Stewart and Ms. Wolosz were invited to serve on the advisory committee to the Council of Great Lakes Governors' and Premiers' Great Lakes-St. Lawrence River Task Force
- Over the summer, Dr. Stewart and Ms. Wolosz worked with Gladstein, Neandross, and Associates (GNA) to provide information and expertise on LNG and Great Lakes maritime shipping for input into a report they prepared for the American Natural Gas Alliance. The report was released at the HHP Summit and is available at: www.anga.us
- Dr. Stewart, Elizabeth Ogard and Cassandra Roemhildt completed research and writing of the GLMRI Port Planning Benchmarking Study.
- Dr. Stewart, with student assistants Erica Hansen and Natalie Burger, researched the impact of the climate on Great Lakes Shipping and LNG supply chains.

Mark Your Calendars-Plan to Attend

Ship Operations Cooperative Program Fall Meeting

October 29-30, 2014 Linthicum, MD (MITAGS) (Register at www.socp.us)

GLMRI Fall Advisory Board and Affiliate
Universities Meetings
November 6-7, 2014
Held at John Carroll University
University Heights, OH

Great Lakes Waterways Conference Cleveland, OH February 10-11, 2015

Great Lakes & Great Rivers Section, Society of Naval Architects and Marine Engineers Meeting, Cleveland, OH February 11-12, 2015

Key Outreach, Events, Presentations, & Meetings

- Dr. Stewart attended the 2nd Annual Fleet Framework & Infrastructure Technology Summit. Oklahoma City, OK. 1-2 Apr.
- Dr. Stewart and Ms. Wolosz met with visitors from Turkmenistan at the request from the Department of State. Duluth, MN. 17 Apr.
- Dr. Stewart attended the Green Bay Port Symposium. Green Bay, WI. 23 Apr.
- Ms. Wolosz attended the Ship Operations Cooperative Program meeting in Galveston, TX and met with educators at the San Jacinto College Maritime Center near Houston, TX. 12-14 May.
- Dr. Stewart presented and coordinated a panel of speakers for the TRB meeting. Irvine, CA. 13-15 May.
- Ms. Wolosz attended the Harbor Technical Advisory Committee. Duluth, MN and Superior, WI. 4 Jun and 3 Sep.
- Ms. Wolosz attended the Fraser Shipyard ceremony announcing their new construction project. Superior, WI.
 6 Jun.
- Dr. Stewart and Ms. Wolosz attended the open house for the USCG, Duluth Marine Safety Office in their new offices at the Federal Building. Duluth, MN. 26 Jun.
- Dr. Zamira Simkins (UW-S) attended the International Association of Maritime Economists Annual Meeting. Norfolk VA. 15-18 Jul.
- Dr. Stewart presented on the Port Planning Benchmarking Study at the Wisconsin Commercial Ports Association Meeting. Green Bay, WI. 21 Aug.
- Dr. Stewart presented about the Potential Impact of Climate Change on Great Lakes Shipping at the Canadian Maritime Pilots' Association Annual Meeting. Niagara Falls, Ontario, Canada. 11 Sep.
- Dr. Stewart also researched operations and traveled on the Lake Express and Chi Cheemaun ferries on the Great Lakes in early September.
- Dr. Stewart, Ms. Wolosz and Ms. Roemhildt met with Mr. Dan Yuska from MARAD to discuss the plans for the Phase III LNG study. Also, Drs. Simkins, Mokaski and Cao, UW-S faculty met with Mr. Yuska over lunch to discuss maritime-related their research. Superior, WI. 18 Sep.
- Ms. Wolosz represented GLMRI at the Great Lakes Maritime Academy's Board of Visitors meeting, meeting with faculty, staff and cadets. Traverse City, MI. 30 Sep.

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