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Great Lakes Maritime Research Institute

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

Quarterly Update

(April - June 2015)

July 2015

LNG Presentation at the Society of Mining, Metallurgy and Exploration

On April 15th, Dr. Stewart spoke at the annual meeting of the Society of Mining Metallurgy and Exploration at the Duluth Entertainment and Convention Center (DECC). He presented on the supply chain benefits for using liquefied natural gas (LNG) both in production and transportation of

iron ore. In addition to the mining industry, attendees also included representatives from the LNG industry. Development and equipment manufacturers participated in the event, and met with regional mining companies and economic developers from the Twin Ports while in the area. GLMRI members met with Mr. Eric Latto and Mr. Rick Geist from



Sempra LNG who attended the conference to hear Dr. Stewart's LNG presentation.

Since 2011, Duluth/Superior continues to be reviewed for plant development. GLMRI continues to work with agencies and industry --gas providers, developers and end users -- to pursue the expansion of using natural gas as a fuel for the Great Lakes and inland rivers maritime industry.



MARAD Administrator Visits Twin Ports

Mr. Tom Curelli, Director of Operations for the Fraser Shipyard hosted a breakfast meeting with MARAD Administrator Chip Jaenichen, and Director of the MARAD



Great Lakes Gateway Office in Chicago, Mr. Floyd Miras, along with the Business Manager for the shipyard, Mr. Dave Steining and members of GLMRI on May 27th at the Kitchi Gammi Club in Duluth, Minnesota. The Administrator was in town for the Ground Breaking Ceremony for the Duluth Intermodal Terminal (Dock C&D) project and for the National Maritime Day Luncheon where he was the keynote speaker. After the luncheon Administrator Jaenichen, in conjunction with Minnesota Department of Transportation District 1, held the Grow America Roundtable with a small group of area leaders to discuss transportation infrastructure investment, access to opportunity, and economic growth.

GLMRI Research Team Visits LNG Facilities in Japan

At the end of May, Dr. Richard Stewart and Research Assistant Hiroko Tada toured LNG facilities in Japan. Japan Petroleum Exploration Co. Ltd. (JAPEX) with additional support from the Japan Freight Railway Company, Komatsu Gas and the Kanazawa Water and Energy Company hosted the GLMRI team. They met with leaders at corporate headquarters in Tokyo and then toured the LNG truck/rail container transport system.

In Niigata, Japan an extensive tour was done of LNG truck facilities and the liquefaction plant where containers and trucks were being loaded with LNG. At the rail intermodal yard in Niigata, the team observed LNG containers being loaded and unloaded from rail cars.



In Kanazawa, Japan they were able to see the LNG containers being offloaded to be drayed. At the destination LNG was pumped out into storage tanks for residential and commercial use. The company representatives were very helpful and the research team was impressed with the efficiency of the LNG container system and the impeccable safety record over 15 years of operation. A full report will be available in the fall of 2015

Of Note:

- **University of Wisconsin-Superior Receives Grant to Preserve Maritime Archives.** UW-S was competitively selected for a \$50,000 federal grant to preserve hundreds of historic technical drawings from Fraser Shipyard of Superior and make them more accessible to researchers and the general public. The drawings include working design documents and blueprints of well-known vessels such as the *Edmund Fitzgerald*, the *Mackinaw*, the *Leon Fraser* and others. The award was announced in May by the National Park Service in partnership with the Maritime Administration. The grant is part of a \$2.6 million program awarded to 18 projects nationwide that preserve and teach about our nation's maritime history.

- Carol Wolosz was appointed as a member to the Wisconsin Department of Transportation's Harbor Advisory Council by the Secretary of Transportation, Mark Gottlieb.

- LCDR Judson Coleman, USCG, joined the GLMRI research team in May to work on LNG research as part of the U.S. Coast Guard's Port Safety and Security Industry Training Program.

- Positively Superior Magazine (June/July 2015) included an article on the UW-S Transportation and Logistics Program and the demand for the program's graduates. The article also highlights GLMRI and the T&L Research Center.

Mark Your Calendars--Plan to Attend
2015 World Maritime Day
Maritime Education and Training Summit
(MITAGS) Linthicum, MD
October 5-7, 2015
(SOCP Co-Sponsors)

Great Lakes & Great Rivers Section, Society of Naval
Architects and Marine Engineers Meeting
October 7-8, 2015
With the Canadian Institute of Marine Engineering
Location in Ontario, Canada (TBD)



Again this year GLMRI is an endorsing partner for the HHP Summit - North America's largest and most comprehensive event focused on the economic and environmental benefits of natural gas for marine, mining, rail, drilling, pressure pumping and power generation operations. GLMRI attendees can save \$50 on registration using code GLMRI50; www.hhpsummit.com/register

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Key Outreach, Events, Presentations, & Meetings

- Dr. Stewart, Ms. Wolosz and Ms. Roemhildt met with a team of developers to discuss possibilities for a gas liquefaction plant in the Twin Ports. Duluth, MN. 14 Apr.
- Dr. Stewart presented at the Society of Mining, Metallurgy and Exploration (SME) on the Greening the mine to metal supply chain. Duluth, MN. 15 Apr.
- Ms. Wolosz attended the Annual Green Bay Port Symposium, and met with other participants. Green Bay, WI. 17 Apr.
- Ms. Wolosz attended the Milwaukee Logistics Council tour of the Port of Milwaukee. 13 May.
- Dr. Stewart and Ms. Wolosz met with Mr. Curelli, Fraser Shipyard. Superior, WI. 26 May.
- Dr. Stewart and Ms. Wolosz met with Administrator Chip Jaenichen and Mr. Floyd Miras from MARAD, and Mr. Tom Curelli and Mr. Dave Steinger. Duluth, MN. 27 May.
- Dr. Stewart and Ms. Wolosz attended the Duluth Seaway Port Authority's Ground Breaking Ceremony for the new dock expansion. Duluth, MN. 27 May.
- GLMRI team members participated in the ceremony and luncheon for Maritime Day at the Duluth Convention Center. Duluth, MN. 27 May.
- Ms. Wolosz participated in the MARAD Roundtable discussions held at Minnesota Department of Transportation District 1. Duluth, MN. 27 May.
- Ms. Wolosz participated in the Sustainable Transportation for the Future Forum sponsored by the Center for Freight, Infrastructure, Research and Education (C-FIRE) at the University of Wisconsin. Madison, WI. 29 May.
- Dr. Stewart and Ms. Hiroko Tada met with Japanese officials and toured LNG facilities. 29 May – 6 Jun.
- Ms. Roemhildt and three Student Research Assistants attended the Harbor Technical Advisory Committee (H-TAC) meeting. Duluth, MN. 3 Jun.
- Mr. Michael Carter and Mr. Dan Yuska met with the GLMRI research team to discuss current research and outcomes. While on the UW-S campus, Ms. Aue and Dr. Jacobs from the UW-S library provided a tour of the maritime archives. Superior, WI. 9 Jun.
- Dr. Stewart and LCDR Jud Coleman met with facility manager, Dustin Carlson and toured the Northern Natural Gas LNG facility. Wrenshall, MN. 23 Jun.
- Dr. Stewart and LCDR Coleman met with Assistant Port Manager, Lance Hunt and toured the CN fuel facility. Two Harbors, MN. 26 Jun.

Girl Scouts Learn About Maritime Transportation with a tour of the *S.S. William A. Irvin*

On June 25th, thirty-six Girl Scouts from the region spent the day learning about the modes of transportation. The girls ended the day



with a tour of U.S. Steel's William A. Irvin which is now an ore boat museum in Duluth, Minnesota.

The focus of the event was to teach the girls about the five modes of transportation and show them that they can be the future transportation leaders of America. In addition to the ship tour the scouts

toured the cab of a Halvor Lines semi-truck, built a pipeline model, experimented with paper airplanes and took a ride aboard the North Shore Scenic Railroad.

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