Great Lakes Maritime Research Institute

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

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IMMEDIATE RELEASE

Conversion To Natural Gas Would Be A First On The Lakes

Great Lakes Maritime Research Institute to Study Repowering the Great Lakes Commercial Fleet Including the Historic Carferry, *the S.S. Badger*

NOTE TO EDITORS & INTERESTED PARTIES:

Duluth, MN, and Superior, WI, U.S.A.— The Great Lakes Maritime Research Institute (GLMRI), a consortium of the University of Wisconsin-Superior (UW-S), and the University of Minnesota Duluth (UMD) have received a five year cooperative agreement with the United States Department of Transportation, Maritime Administration (MARAD), to address environmental issues that face shipping and marine transportation. GLMRI studies funded by MARAD will address maritime commerce on the Great Lakes. The results of the studies should benefit not only maritime commerce in the Great Lakes region, but other transportation modes along with ports and vessels operating on the inland rivers and coastal waters.

GLMRI's research team is led by Dr. Richard Stewart, Director of the Transportation and Logistics Research Center at the University of Wisconsin, Superior and Co-Director of GLMRI, with project management support from the University of Minnesota Duluth. GLMRI is bringing in additional research expertise from their affiliate universities, industry and government agencies as the cooperative agreement progresses during the coming years.

MARAD, in partnership with industry, has directed that during the first year, GLMRI research the feasibility of converting the existing steam propelled vessels to using natural gas, either compressed (CNG) or liquefied (LNG), as their primary fuel source.

One conceptual study will analyze the engineering, financial, environmental and energy issues associated with steamship conversion. The research team for this project is led by Dr. Michael Parsons, Professor Emeritus from the University of Michigan's Naval Architecture and Marine Engineering Department.

Another directed study will explore the LNG supply chain needed to support the fuel demand for the fleet with the potential for this fuel to be used by other modes of transportation. GLMRI will be working with the gas suppliers and pipeline companies on this study.

For a decade, Norway has operated natural gas powered ferries and is building natural gas powered Coast Guard vessels. The European Union (EU) has embarked on an approximately $14 Million study on converting vessels operating in the Baltic and other Emission Control Areas to using natural gas as a primary fuel. GLMRI through the U.S. government will be engaged in cooperative exchange with the EU research team. GLMRI, working with MARAD, will explore potential collaboration with Canadian researchers in using natural gas as a maritime fuel. GLMRI and the Great Lakes and Rivers Section of the Society of Naval Architects and Marine Engineers will co-host a multi-day education and information transfer session in Cleveland, Ohio in February 2012 that will bring in academics, industry and government agencies from the U.S., Europe and Canada.

GLMRI is working with the Lake Michigan Carferry Service and marine engineering experts in exploring the feasibility of converting the *S.S. Badger* to run it engines on natural gas. The team will be modeling the vessel's fuel consumption, routes, shore fueling station(s) and engineering to look at the viability of using natural gas. The demonstration project will also consider training needs and shipyard implications of the power conversions. The *S.S. Badger* is the only coal-fired steamship in operation in the United States. The 410' ferry entered service in 1953, designed specifically to handle the rough conditions that it would likely encounter during year 'round sailing on Lake Michigan. The *S.S. Badger* sails daily between Manitowoc, Wisconsin and Ludington, Michigan from mid-May through mid-October. Converting the vessel to natural gas as a primary fuel could have the potential to make the *S.S. Badger* one of the greenest vessels operating on the Great Lakes.

The Great Lakes Maritime Research Institute (GLMRI) was established in 2004 to pursue research efforts in marine transportation, logistics, economics, engineering, environmental planning, and port management. GLMRI is a joint program between UW-S and UMD, with 10 affiliate universities in the Great Lakes region. The Great Lakes Maritime Research Institute is designated as a National Maritime Enhancement Institute through the U.S. Department of Transportation. GLMRI's mission is: Developing and improving economically and environmentally sustainable maritime commerce on the Great Lakes through applied research.

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