

For more information on this topic:

Research Title:

Twin Ports Intermodal Freight Terminal Study

Research Authors:

Richard D. Stewart, Ph.D., Principal Investigator
University of Wisconsin-Superior

Robert J. Eger III, Ph.D.
University of Wisconsin-Milwaukee

Libby Ogard and Frank Harder
Tioga Group and Associates

Website:

For full report, go to
www.mrutc.org/research/index.htm
Select project 02-06: Research Report

Contact Information:

Transportation & Logistics Research Center
Erlanson Hall, Room 5
University of Wisconsin-Superior
Post Office Box 2000
Superior, WI 54880-4500
www2.uwsuper.edu/trans

MRUTC Contact Information:

Jackie Jiran
1415 Engineering Drive
Madison, WI 53706
(608) 262-2013
jiran@engr.wisc.edu

www.mrutc.org

Research Summary Series

*A series to disseminate results of research being conducted
by the Midwest Regional University Transportation Center,
Federal Highway Administration, and Wisconsin
Department of Transportation*

Twin Ports Intermodal Freight Terminal Study



Project 02-06

Research results in a quick and easy-to-read format

Research Objective

The objective of this research was to examine the potential for an intermodal freight terminal in the metropolitan area of Duluth, MN and Superior, WI (Twin Ports).

Intermodal Freight Operations

Intermodal (Multimodal) freight operations offer an alternative to single mode carriage. True intermodal operations have a sealed container or truck trailer that is mechanically moved between modes in a seamless fashion. The information on the shipment is as critical as the cargo, and should also move in a seamless manner ahead of the cargo movement. The Twin Ports have some of the world's most efficient bulk intermodal operations for transferring cargo from rail to ship or truck but has no intermodal terminals for the transfer of containers or trailers. An intermodal terminal would need to have equipment suitable for transferring the containers/trailers between modes.

Project Overview

This study focused on intermodal operations using containers and trailers that are transferred between rail, truck, and marine carriers with scheduled service. The research included a review of published materials on intermodal freight terminals and operations; case studies of intermodal terminals in communities similar to Twin Ports; surveys of shippers and intermodal marketing companies; and analysis of the Reebie data on truck and rail movements for the calendar year 2001.

Conclusions

An analysis of the key findings from this study along with input from private and public groups lead the team to make the following conclusions:

- The Twin Ports would support an intermodal terminal on the scale of Green Bay, WI or Auburn, Maine.
- There is sufficient cargo in the Twin Ports region to support an intermodal terminal (approximately 28,000 lifts annually).
- There is a potential load balance with 21% more outbound than inbound cargo in the category containing finished paper, scrap, consumer products and appliances, which are moving between manufacturers and warehouses for further distribution activities.
- There could be significantly more intermodally compatible cargo than was captured by the Reebie data.

- An existing intermodal service could be utilized to connect to the Chicago intermodal hub and outlying markets.
- There are operating rail yards in the Twin Ports that are suitable for an intermodal terminal. Freight corridors need to be developed that address the difference in state weight restrictions.
- There is significant shipper, government, and carrier interest in the establishment of an intermodal system serving this area.
- A roll on/roll off marine service between the Twin Ports and Thunder Bay is feasible and could generate additional cargo for an intermodal terminal. Taxation issues need to be addressed.
- A Twin Ports intermodal terminal would provide land transportation services that could attract additional and diverse international marine cargo in the port.
- Lower drayage distances, decreased road congestion and improved shipping opportunities would result if a reliable cost effective intermodal terminal was operating in the Twin Ports.
- A trend analysis of comparable Reebie data covering several years should be undertaken.

The researchers see three options that the community of shippers, carriers and public can undertake to establish an intermodal terminal in the Twin Ports:

Full Service Terminal The service could be tied to the existing intermodal train operated by Canadian National, or trains operated by any of the carriers and tied to either the Chicago hub or the Twin Cities terminals would provide the service.

Specialized Equipment Dedicated Operation The service would be tied to specially designed intermodal operations such as Iron Highway, RailRunner, RoadRailer or Triple Crown. This use of specialized equipment is best suited for committed customers who have distribution centers and the probability of backhaul cargo. The service routes could be to Detroit, the Chicago hub or the Twin Cities. The service has a limited customer base due to higher equipment costs.

Paper Ramp or Outreach Facility The service would be done by bringing the trailers to a drop lot to be drayed by truck to a rail intermodal terminal in the Twin Cities or Chicago. For a shipper, freight shipments would be available for pick up and drop off locally and the rail carrier arranges for road transportation to an existing intermodal facility. The service would appear to be similar to a rail intermodal service.