“Short Sea Shipping Development in the U.S
A Decade of Trials, Errors, Successes and New Directions”

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2012 International Research Conference on Short Sea Shipping
April 2-3, 2012
Lisbon, Portugal
U.S. Marine Highways Committee (SOCP)

- Formerly the Marine Highways Cooperative (Short Sea Shipping Cooperative)
- Membership composed of:
  - U.S. based vessel operators and organizations that support vessel operations
  - U.S. Maritime Administration (MARAD), Sponsoring Agency,
  - Industry
  - Labor
  - Government
- SOCP’s overall objective is to improve the competitiveness, productivity, efficiency, safety, and environmental responsiveness of U.S. vessel operations
Marine Highways Committee (SOCP)

Mission Statement

• promote innovations to improve transportation via short sea shipping

• identify freight movement improvements utilizing short sea shipping research and development.

• support the introduction of short sea shipping programs that are consistent with national defense needs where applicable.

• To inform and educate all interests, including corporate, state, local and public in the need of short sea shipping.
U.S. Flag Waterborne Domestic Trade

- U.S. Domestic Trade is regulated by the Jones Act - the U.S. maritime cabotage law

- The domestic trades serve 41 states and 90 percent of the population.

- Over 1 Billion tons annually (1/4 of Nations Freight) – mostly bulk products*

- U.S. Domestic Fleet – 40,000 vessels, $30 Billion (mostly tugs and barges)*

- sustains nearly 500,000 jobs, $29 billion in labor compensation, and more than $100 billion in annual economic output **

*(Statistics: MARAD Economic Impact of the U.S. Jones Act, April 2006)

**a study by PricewaterhouseCoopers
Major Cargos – Domestic Marine Highways*

• Grain, coal, and other dry-bulk cargos and crude and petroleum via inland rivers.

• Iron ore, limestone and coal across the Great Lakes.

• Refined petroleum products along the East and Gulf coasts.

• Supplies for Gulf offshore operations.

• Merchandise and construction materials to and from Alaska, Hawaii, Puerto Rico, and Guam.

* American Maritime Partnership
Domestic trade to Alaska, Hawaii and Puerto Rico dominated by Containerized cargoes*

220 ferry operators based in 41 U.S. states and territories transport an estimated 90 million passengers*
The Jones Act ensures that the United States has the vessels, seafarers and shipyards necessary to protect the national security of the country, and for use in time of war or national emergency.

All vessels engaged in domestic waterborne commerce between two ports in the United States must be:

- Built in the United States
- Owned by a U.S. citizen
- Documented under U.S. Law (U.S. Flag)
- Crewed by U.S. citizen seafarers
Short Sea Shipping Services (2004-5)

- Totem Ocean Trailer Express (TOTE) - Ro/Ro
- Alaska Marine Lines + Northland Services - COB
- Horizon Lines - Lo/Lo
- Foss Maritime Co. + Tidewater Barge Lines - COB
- Matson Navigation Co. Inc. - Lo/Lo / Ro/Ro

BridgePort Feeder Service Ro/Ro barge
- Crowley Maritime Corp.
- Horizon Lines - Lo/Lo
- Tropical Shipping
- Columbia Coastal Transport - COB
EU SSS Study for U.S. Maritime Administration

European Union Short Sea Shipping

European Union Transport Initiatives to achieve sufficient mobility in order to sustain economic growth

Prepared for the:
U.S. Department of Transportation,
Maritime Administration
Office of Ports and Domestic Shipping

Presentation of Study
Washington, D.C.
April 12, 2004

By: Mark Yonge, Maritime Industry Consultant
Maritime Transport & Logistics Advisors
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Key Government Milestones
Development of U.S. Marine Highways

• 2002 - 1st Short Sea Shipping Conference (MARAD)

• 2003- Short Sea Shipping Cooperative (SCOOP) - Later renamed Marine Highways Cooperative

• 2007 - February 15 - Congressional Hearing - Development of Short Sea Shipping

• 2007 - Energy Act of 2007 - Requires Federal Govt to establish programs to identify and support development of Short Sea Transportation; Short Sea Transport eligible for CCF

• 2008 - Committee on Transportation & Infrastructure Roundtable - develop strategies to expand short Sea Initiatives

• 2009-10 - $39 Million Grants Awarded to U.S West Coast & Gulf

• 2010 - Aug. 11 - DOT announces designation of Marine Highway Corridors and awards $7 million in Grants for project development
Key Government Milestones
Development of U.S. Marine Highways

• 2011 - April - U.S. DOT/MARAD Americas Marine Highway Report to Congress


• 2012 - Feb. - MARAD - River System Purpose Built Study to be released.

• 2012 - March - U.S. Navy/MARAD presents Dual-Use vessel studies to the U.S. Maritime Industry as a new policy, legislative, programmatic initiative to get Dual-Use U.S. Marine Highways built

• 2012- March/April - America’s Marine Highway - Environmental Review Project in Five Major Regions - Public comment

• 2012 - June - - MARAD release of Marine Highway Initiative studies along the U.S. East and West Coasts and the Mississippi River.
America’s Marine Highway - Environmental Review Project in Five Major Regions

West Coast (4 States)

Great Lakes & St. Lawrence Seaway (7 States)

Inland Waterways (13 States)

Gulf Coast (5 States)

East Coast (15 States)
Mission:
Develop a viable commercial vessel design as a Dual-Use Marine Highway vessel meeting USN RRF requirements for National Defense and Emergency needs

- Operational features compatible for U.S. Military Sea Lift needs and ready reserve capacity
  - Adequate Deck heights
  - Water tight stowage for CH-47 Chinooks,
  - A deck load of M-I Abrams tanks at 68 Short Tons
  - Quarters for force protection personnel,
  - Portable ramp capabilities
  - Long Range capability
  - Ability to load/discharge in “austere Ports”
MARAD AMH Dual-Use Design Study-Key Findings

• “A potential market for AMH services *does exist*” (2014 onward)

• Best routes with **only** two ports are more cost competitive than routes with multiple ports:
  1. Pacific Northwest and Southern California
  2. Delaware River or New York/New Jersey and Florida
  3. Texas to the west coast of Florida

• Study designs are “generic” & based on off-the-shelf technology

• Cost competitiveness can be **enhanced by using existing designs**

• Incorporate cost reductions available via **technical support from overseas shipyards**

• Government policies and **support** can have a major impact on the viability of AMH services
01-RoRo Small 18 kt
550’x89’x 58.7’ (168x27x17.9m)
Draft 19.8’ (6.0m)
71 Trailers, 80 Containers
RoRo 74,400 ft²
10,000 kW, Twin Screw w/ CPP

02-RoRo Trimaran 29 kt
673’x 133’x70.6’ (205x41x21.5m)
Draft 26.9’ (8.2m)
115 Trailer, 138 Containers
RoRo 106,023 ft²
76,500 kW, CPP, Pod, 2xWater Jet
**Developed jointly with CSC**

03-RoRo Medium 23 kt
682’x95’x77.4’ (208x28.5x23.6m)
Draft 23.3’ (7.0m)
151 Trailers, 104 Containers
RoRo 130,820 ft²
28,000 kW, Twin Screw w/ CPP
Conclusions and Recommendations

- CCDotT Marine Highway System Evaluation Model facilitates:
  - Estimation of RFRs and sensitivity analysis for key vessel and route variables
  - Comparison of RFRs against prevailing market rates
  - Assessment of impact of potential policies on RFR

- For most of the routes examined, the services do not appear profitable at the expected market rates. Promising routes:
  - B2C, Delaware River to Jacksonville, Vessel 04 with reductions in fuel cost and no HMT
  - C1, Portland to LA, Vessels 05 and 13

- Route between Pacific Northwest and Southern California appears promising due to high prevailing market rates relative to east coast route(s)

- Externalities delta between AMH and truck or rail may justify policies to incentivize AMH

- Next step is to refine estimates of costs for feasible or near feasible routes
European Technology Transfer

STX Finland RoPax Design
M/V “COTENTIN” – built 2007
Modern State of the Art
Hull form - Low resistance
Proven in successful service
Proven Build/Shipyard Technology transferable to U.S. Yards

“Enduro” Series
IML/STX #L10-052-601-01
Dual-Use
Dual Fuel: LNG/MDO
Hi-Capacity-Multi-modal RoRo
Marine Highway Vessel
European Cargo Handling Technology

RoRo Cassette cargo handling system
Containerized and/or Unitized cargoes Cassette System
“Double Container Stacking” Capability

Summary Benefits of a Cassette System

- High load capacity
- Short turn-around times
- Reduced lashing
- Optimized use of space
- Faster loading and unloading
- Lower occurrence of handling damage
- No load-securing labor
- Low running costs
- Safer operation
- Pre-loading concept equalizes utilization of equipment and labor
Marine Highways
No longer what we thought 10 years ago

• Major shift of International supply chain logistics

• Shipper Distribution centers extended to more diversified geographic locations lessening service interruptions risk

• Trans-loading of 20’ & 40’ international containerized cargo to domestic 53’ containers now SOP

• Long Haul, Domestic Intermodal preferred - Trucking Sector now largest customer of R/R Intermodal

• increased domestic intermodal demand an integral part of logistics industry long term Strategic Plans

• Truck HOS; Driver Shortages; Driver Culture Changed
Barriers to Marine Highways Start-up

- “Disruptive” service in direct competition with existing services at a time when adequate capacity exists

- “Just in Time” shipper mandate - Speed, Reliability, Cost competitive
  - Service must be Equal to or better than

- Reluctance of shippers to change existing supply chain or logistics provider contracts

- “Proof of Service” “Build it and maybe we will come”

- Significant capitalization, start up risk

- Harbor Maintenance Tax on domestic cargo a dis-incentive

- MARAD Title XI Loan Guarantee availability difficult
Major Barriers

• No “Un-met Consumer Demand” today!

• Adequate truck and rail capacity exists today

• No incentive today for shippers to commit to the “unknown”

• A disconnect between shippers needs today and the need to plan for the future

“Timing is everything”
What’s on the Horizon?

• Marine Transportation System National Advisory Council (MTSNAC) – Marine Highway Subcommittee recommendations to the Secretary of Transportation

• “64 Express” Service enters 2nd year of operations – sailing full with two (2) barges operating – moving 200-300 trucks off the road weekly

• New Green Trade Corridor – Stockton/Oakland service to commence Summer, 2012. 2 Barges 2X per week – 1,000 Trucks off the road per week

• U.S. Navy Dual-Use Marine Highway initiative – most promising initiative that may incentivize the building of up to 10 new U.S. Dual-Use vessels.
  • Marco Polo type startup assistance program

• 2012 – June – – MARAD release of Marine Highway Initiative studies along the U.S. East and West Coasts and the Mississippi River

• 2012 – U.S. Gulf – Brownsville/Port Manatee service restart anticipated
Thank you!! 😊

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