



**Motorways of the Sea: If It Works in Europe,
Why
Not in North America?**

“Free Roads – Clean Air”

33rd Annual Summer Ports, Waterways, Freight & International Trade Conference

June 20, 2008

Baltimore, MD

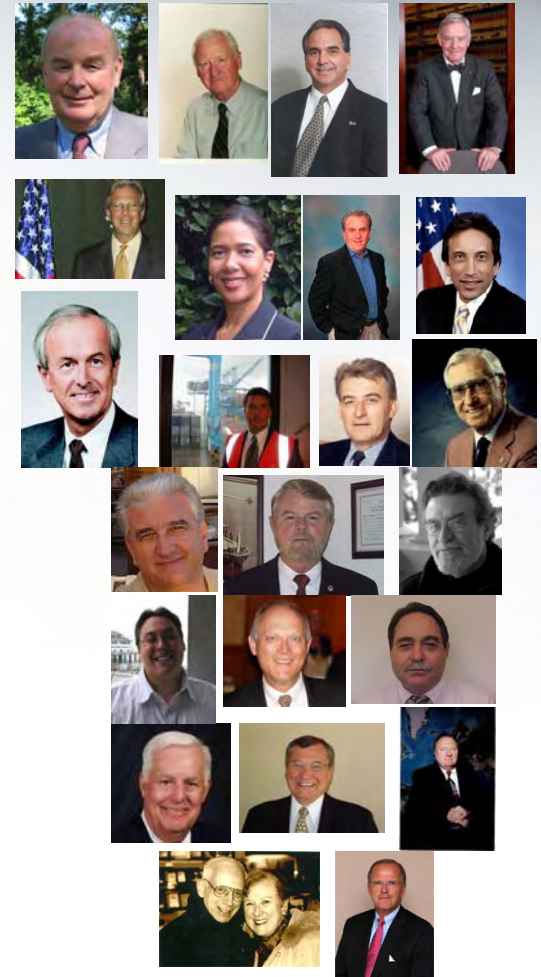
**Mark Yonge, Managing Member
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- **Transportation & Logistics Consultants**
- **400 + years combined industry experience**
- **Diversified industry specialists**
- **Focused attention to clients' needs & goals**
- **U.S. & International Expertise**
- **Broad industry network capabilities**



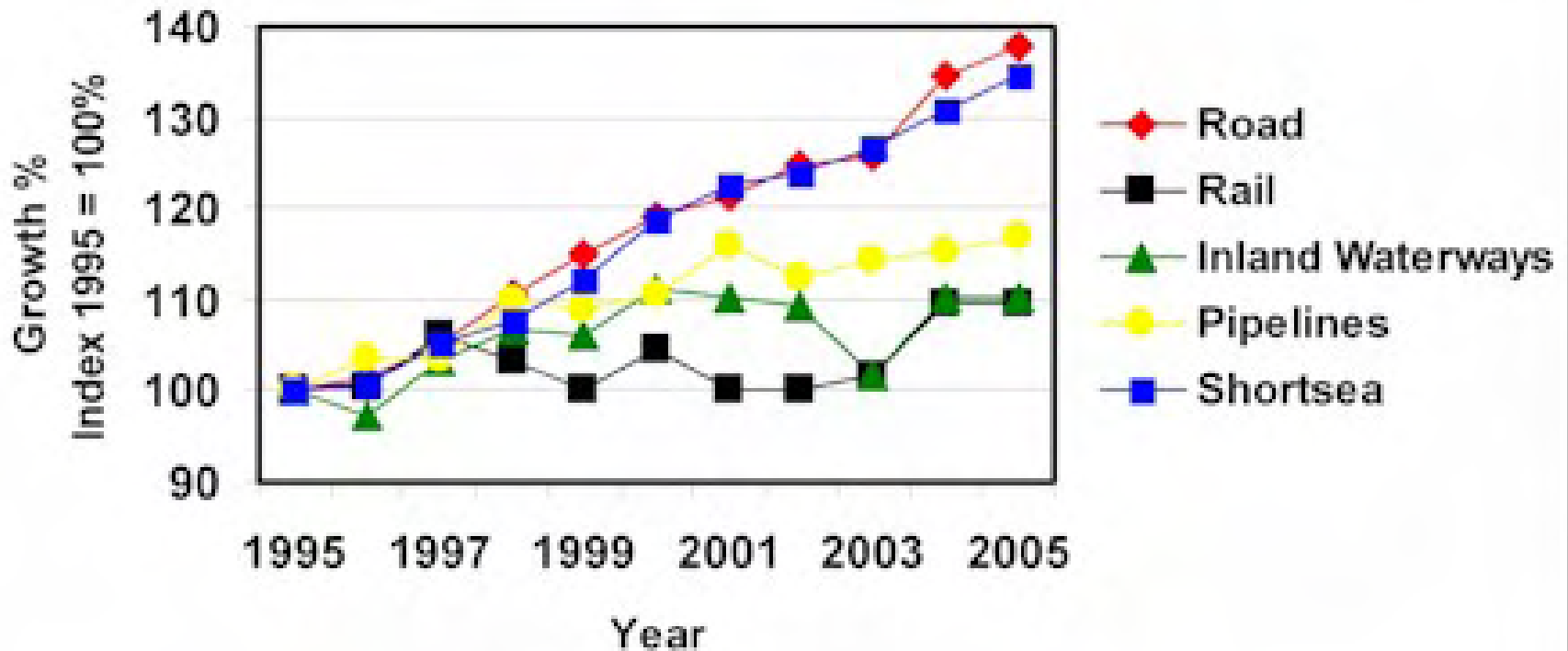


- ***The European Commission regards Short Sea Shipping as:***
“The Dynamic Choice Complementing the Sustainable Transport Chain”.
- ***Short Sea Shipping is a transportation priority in the European Union (EU).***
- ***Short Sea Shipping is an integral part of the EU’s transport policy and goals to develop an efficient, multi-modal transport system capable of meeting the existing and future freight logistic requirements***

Growth of Short Sea Shipping in Europe



Freight Transport Modes (tonne-km growth in %)



Ton-kilometer growth 1995-2005 in per cent of Road, Rail, Inland Waterways, Pipelines and Shortsea shipping



“Free Roads – Clean Air”

2006 Short Sea Shipping – EU-27

- more than 1.9 billion tons



Accounted for

- 62% of total EU-27 maritime goods transported

In 2005

- the corresponding share was 63%



EU Promotion platforms



- **Short Sea Promotion Centers**

Almost all Member States with a coastline and Norway have industry-driven national Short Sea Promotion Centers. (20 total)



- **European Short Sea Network**

The Centers can also extend the scope of this advice beyond national borders because they have joined their expertise in the European Short Sea Network under the slogan 'Your Navigator from Highway to Waterway'



- **REALISE**

The Thematic Network for Short Sea Shipping is carrying out research and development activities that are closely linked to Short Sea Shipping policy.

Short Sea Promotion Centers (partial)



Belgium



UK

EU Transport Policy Modal Shift & Traffic Avoidance



Modal shift and traffic avoidance – a top EU transport policy

- A main objective of the EU transport policy is to stop growing congestion on Europe's roads
- EU Marco Polo program –
 - €75 Million 2003-2006
 - €450 Million 2007-2013
- Subsidies focus on alternative solutions or avoidance of "long haul" road journeys
 - short sea shipping,
 - rail and inland waterway.



Marco Polo Program



- Marco Polo is the European Union's funding program for projects which shift freight transport from the road to sea, rail and inland waterways.
- The current, second Marco Polo program runs from 2007-13 and features:
 - **more money:** the program budget is €450 million Euros
 - **more themes:** this program includes "motorways of the sea" and "traffic avoidance" projects
 - **more countries:** Countries bordering the EU are now eligible for funding if they signed an association agreement



Un Ro-Ro 3rd Generation Vessel

*'FREE ROADS - CLEAN AIR:
It is estimated that every
Euro of Marco Polo funding
generates social and environmental
benefits worth 6 Euros or more.'*

EU Marco Polo II



- **2nd. Shipping stimulus Marco Polo II Program**
- **Goal to shift 140 billion ton-kilometers of freight a year from road to non-road modes.**
- **Equivalent to 7 million truck moves traveling 1000 km.**
- **Projects environmental damage avoided and reduction in accidents, lower energy consumption and less infrastructure damage – the benefits are forecasted to be €5 billion.**
- **The EU Commission estimates for every €1 spent, a social and environmental benefit of €6 or more is gained**

***‘FREE ROADS - CLEAN AIR:
It is estimated that every
Euro of Marco Polo funding
generates social and environmental
benefits worth 6 Euros or more.’***

THE MOSES PROJECT



- **Motorways Of the Sea European Style (“MOSES”)**
- **A new endeavor to foster Motorways of the Sea to Increase Intermodality in a full logistics (door-to-door) context.**
- **MOSES was launched in June 2007**
- **Three year research project of over 14 million Euros total budget co-funded by the European Commission DG Transport and Energy.**
- **The project is carried out from a consortium of**
 - **41 partners from around 15 countries**
 - **5 shipping transport companies**
 - **6 ports and terminals**
 - **12 universities and research centers**
 - **2 industrial partners**
 - **5 software development companies**
 - **9 consulting companies**
 - **2 associations.**

EU Transport Research Knowledge Center



Transport Research Knowledge Centre

Provides an overview of research activities at
European and national levels.

EU Waterway Network



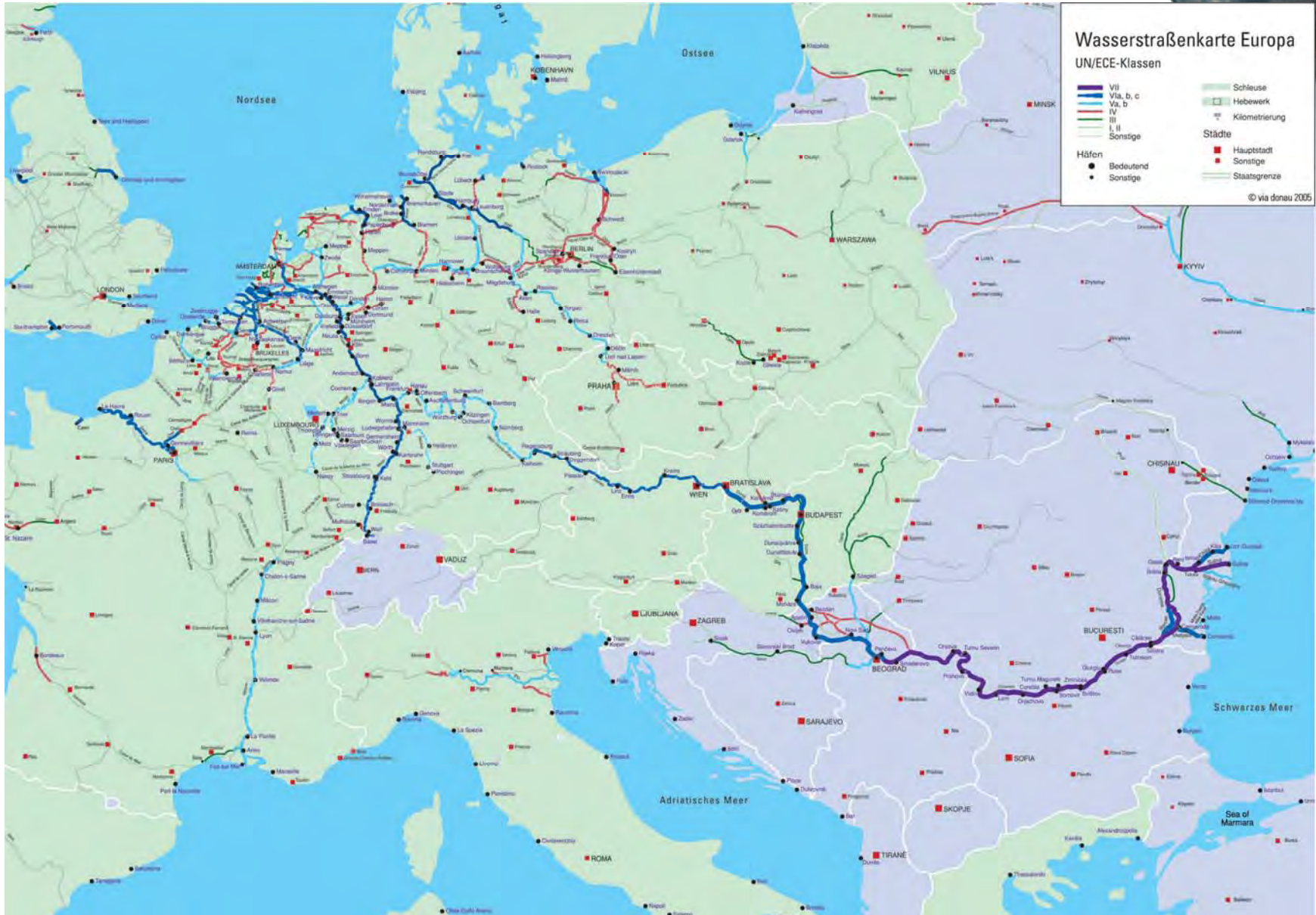
- **EU waterway network**
 - 35,000 km
 - over 485 million tons annually
 - most environmentally friendly of all land transport modes in terms of total external costs, EUR 10 per 1,000 t/km
- **Road Transport 10% higher**
- **Main other transport networks in the EU**
 - Road: 4,800,000 km
 - Rail: 200,000 km
- **Waterway transport creates jobs**
 - In Germany alone some 400,000 jobs directly or indirectly depend on the inland waterway sector and related companies.



**Main other water
Networks in the world**
USA: 42,000 km
Russia: 85,000 km
China: 121,000 km




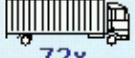

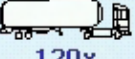







EU-27 Inland Waterway System

4 Main Corridors – All interlinked

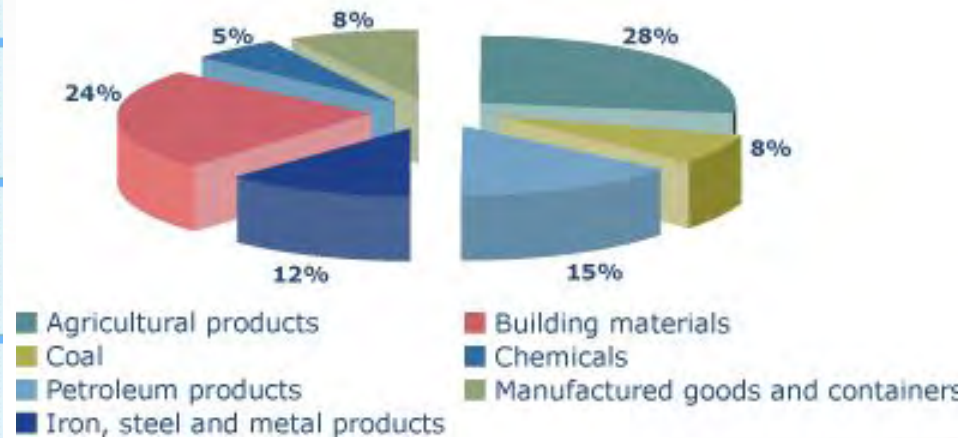


Vessel Types & cargoes

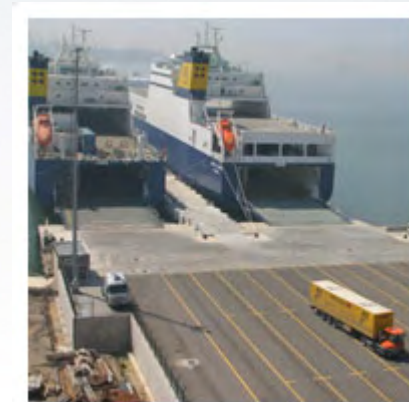


 SPITS Length 38,50m - width 5,05m - depth 2,20m - loading cap. 350t	 14x
 NEO K Length 63m - width 6,60m - depth 2,50m - load cap. 550t	 22x
 RO-RO VESSEL Length 110m - width 11,40m - depth 2,50m	 72x
 TANK SHIP Length 110m - width 11,40m - depth 3,50m - load cap. 3000t	 120x
 CAR VESSEL Length 110m - width 11,40m - depth 2,20m - load cap. 600t	 600x
 CONTAINER VESSEL Length 110m - width 11,40m - depth 3,00m - load cap. 200TEU	 200x
 CONTAINER VESSEL - JOWI CLASS Length 135m - width 17m - depth 3,00m - load cap. 470TEU	 470x
 PUSH CONVOY (4) Length 193m - width 22,80m - depth 2,50/3,00m - load cap. 11000t	 440x

- Inland Shipping by Commodity



Short Sea Shipping in the EU today





Obstacles Remaining in the EU Short Sea Shipping



- *First, many commercial players still view it, wrongly, as an old-fashioned mode of transport.*
- *Second, full integration of Short Sea Shipping into door-to-door multimodality remains to be accomplished.*
- *Third, the complexity of documentary and administrative procedures in Short Sea Shipping is a fact that needs to be examined and tackled.*
- *Fourth, the efficiency of ports, port services and port-hinterland connections needs to be enhanced.*

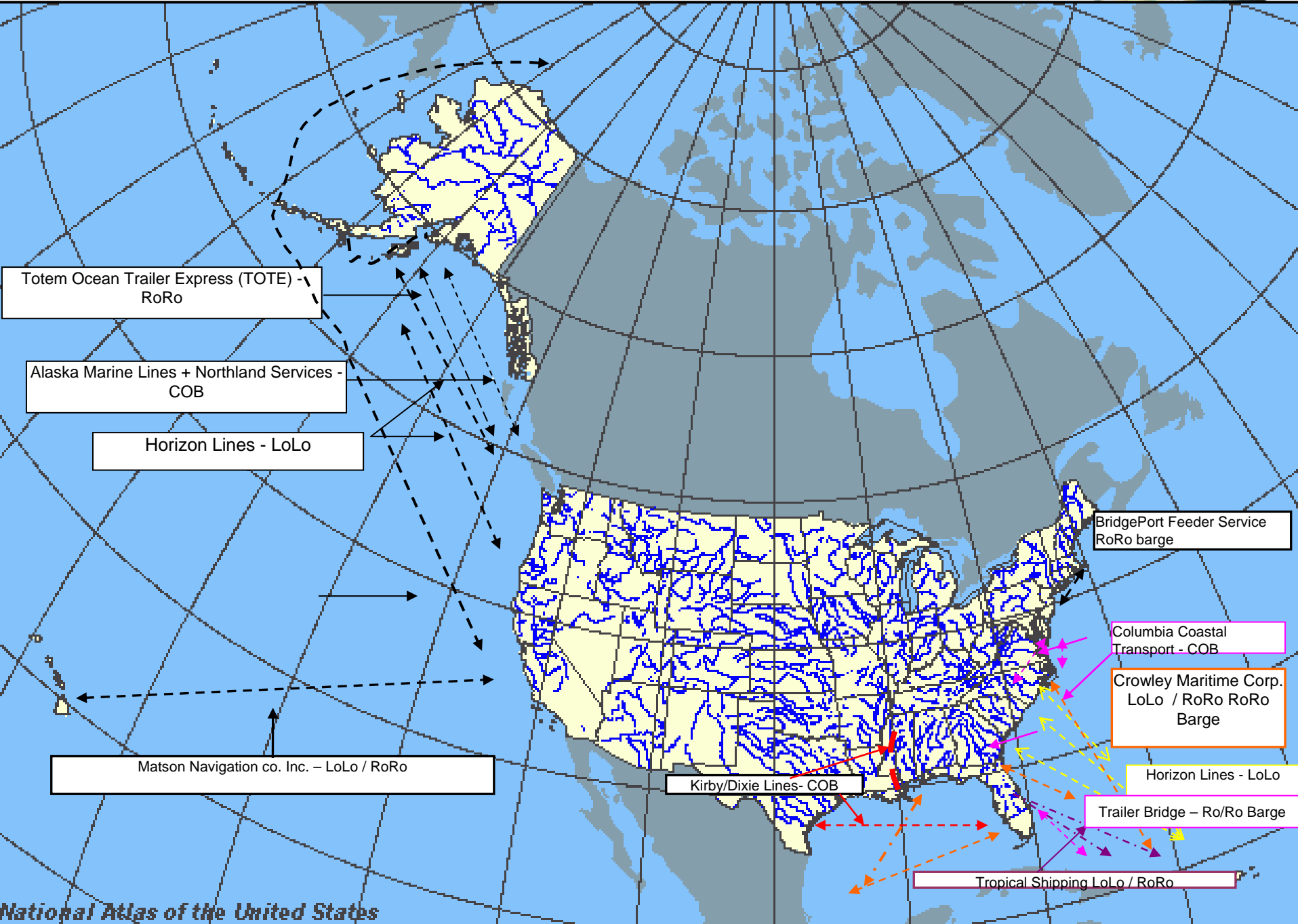


The success of Short Sea Shipping in the European Union, as well as the success in changes in other transport modes, is attributable to the fact that:

Europe approaches their transportation capacity policy as a fully integrated transportation system, inclusive of all modes of transportation.

- **“Free Roads – Clean Air”**

Short Sea Shipping in the U.S.



Short Sea Shipping in the U.S. Today



Detroit-Windsor Ferry



**Columbia
Coastal**



Trailer-Bridge



Tote – M/V Midnight Star



SeaStar Line



Central Gulf R/R Vessel



Short Sea Shipping Today

- **Short Sea Shipping Services have been in operation in the U.S. for many years**
- **New services are being developed now – some have already started**
- **Greatest immediate growth will come when the Harbor Maintenance Tax (HMT) is repealed for short sea shipping services**
- **Port and Terminal Infrastructure:**

The system requires separate domestic terminals to handle the trailer flows. Many States, MPOs and smaller port authorities are currently researching their ability to enter this market, (SCOOP presentation-2006 Marine Money Conference, NYC)



**Kirby/Dixie/Osprey
Houston – Tampa Service**



TECO Ocean Shipping is TECO Transport's ocean-going connection. TECO Ocean Shipping carries bulk commodities within the Gulf of Mexico and to ports around the world. The company currently operates 15 vessels that range in size from 19,200 to 42,800 DWT and has a total shipping capacity of over 450,000 DWT. We offer self-loading as well as gearless vessels.



Short Sea Shipping in the U.S. Today – Major milestones



- **2002 Short Sea Shipping Initiative started by MARAD**
- **October 2003 - MARAD forms the Short Sea Shipping Cooperative (SCOOP) Program (Renamed Marine Highways Cooperative)**
- **Coastwise Coalition – Pro-Active Coastal shipping Coalition**
- **February 15, 2007 - Subcommittee on Coast Guard and Maritime Transportation Committee on Transportation and Infrastructure Committee U.S. House of Representatives holds hearing on SSS**
- **December 19, 2007 – President signs - Public Law 110-140 (HR 6) signed December 19, 2007 containing SSS provisions**
- **June 18, 2008 – U.S. House of Representatives, Committee on Transportation & Infrastructure holds Short Sea Transport Roundtable with industry stakeholders.**



Congressional SSS Roundtable

June 18, 2008



**Members of Congress present: John Mica-(R) Fla – Ranking Member of Sub-Committee
Other members of Congress and Maritime Administrator, Sean Connaughton**

- **Tom Allegretti**
President and CEO
American Waterways Operators
- **Susan Monteverde**
V.P., Government Relations
AAPA
- **Mike Rodriguez**
Assistant to the President
Maritime Institute for
Research and Industrial
Development
- **Curtis Whalen**
Executive Director
Intermodal Motor Carriers
Conference, ATA
- **Mark Yonge**
Managing Member
Maritime Advisors
- **Paul Bea**
Chairman
Coast Wise Coalition.
- **Stan Shumway**
Executive Vice President
LOGISTICS PLUS
- **Richard Wainio**
Port Director & CEO
Tampa Port Authority
- **Jeff Keever**
Deputy Executive Director
Ports of Virginia
- **Robert Giangrisostomi**
Deputy Executive Director
Business Development
Canaveral Port Authority
- **Steve Cernak**
Port Director
Port of Galveston
- **Rainer Lillienthal**
Director Business Development
Port of Houston



Roundtable Recommendations



- **The need for more trained workers (shipboard)**
- **Several persons mentioned the need for congressional action on the HMT**
- **Ease away from current labeling that defines “surface transportation” as road and rail, to the exclusion of the other surface mode—water**
- **Integrate the separate modal policies into a forward looking policy**
- **Further develop the water mode because of the significant contribution it can make to national economic security through its inherent fuel efficiency.**



Roundtable Recommendations

- Seven (7) year authorized & funded **Marine Highway's "Start Up Services" Title XI program** with monies adequate to provide guarantee authority sufficient to meet current and projected U.S. National transportation and National security needs for new coastal marine highway vessel construction and closely related objectives such as vessel dry docks, shipyard modernization, terminals and dockage facilities essential to the development of Great Lakes and Coastal Marine Highways.
- Project Similar to EU MOSES that targets a significant increase in the market share of Short Sea Shipping and Intermodal Transport, by developing a blue print for an innovative network



Short Sea Promotion in the US



- U.S. Maritime Administration – America's Marine Highways initiative



- Marine Highways Cooperative (Formally SCOOP)



- **Coastwise** Coalition



What's next in the U.S.?



- **Barrier No. 1: Harbor Maintenance Tax (HMT)**
- **Barrier No.2: Lack of Private Sector funding for new marine highway vessels and related marine highway infrastructure.**
- **Barrier No. 3:**
 - **New short sea shipping technology**
- **Barrier No. 4:**
 - **developing seamless multi-modal integration/connections**
- **Barrier No. 5:**
 - **Reluctance of shippers/logistics providers to commit to using new marine highways.**
- **Barrier No. 6:**
 - **Port & Terminal infrastructure**



America's Marine Highways An "INTERMODAL Marine ALTERNATIVE"



Ports & Terminals

"Intermodal Marine Network"

➤ Intermodal Waterway Terminals



Port of Memphis

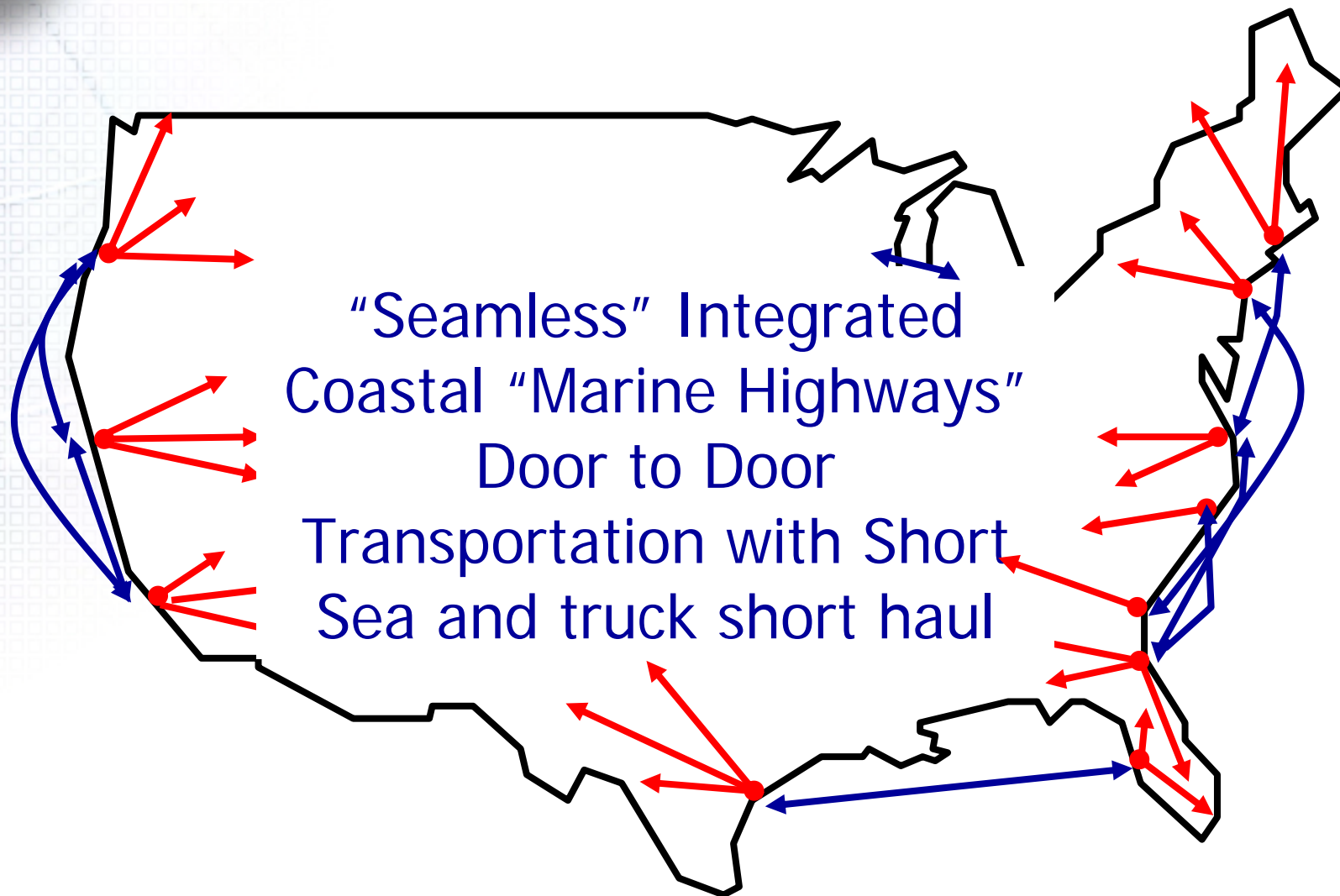
➤ Intermodal Coastal Terminals



Port Canaveral



“Seamless” Intermodal Marine network



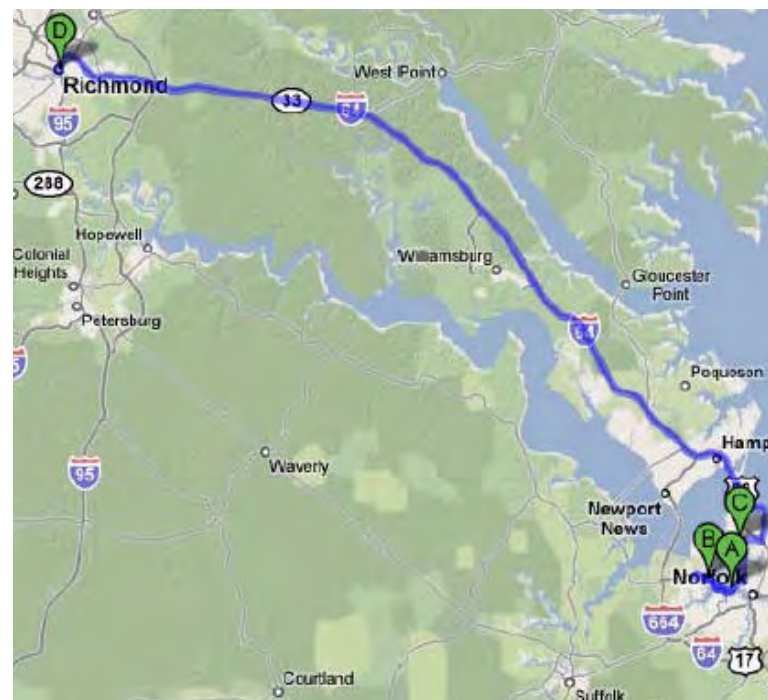


New Marine Highway Services Announced



James River Barge Line

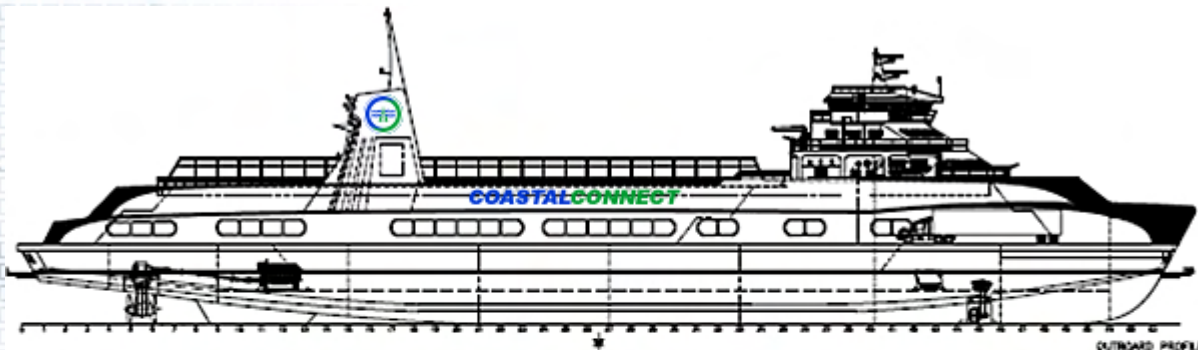
- An inland barge transporting containers between the Port of Richmond and the Port of Hampton Roads
- Importers and Exporters in the Greater Richmond area are leapfrogging congested roadways to end destinations
- Barge will provide the most cost-effective, reliable, and environmentally-friendly mode of transport
- **\$2.25 M in CMAQ funds allocated for FY 09 – FY 11 (April 2008)** (CMAQ: Congestion Mitigation and Air Quality funds used for projects/programs that reduce air pollution generated from vehicle emissions)





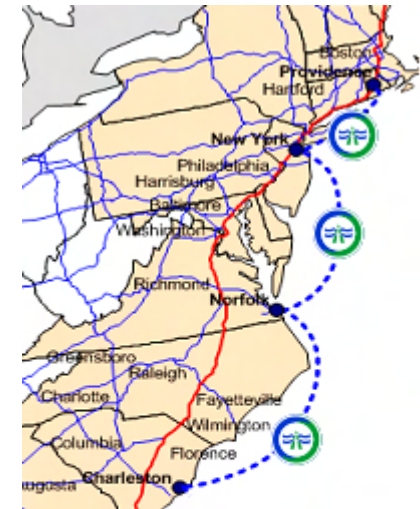
New Marine Highway services announced

- **CoastalConnect**



COASTAL CONNECT DROP TRAILER RORO

- Ⓢ SERVING NEW ENGLAND'S I-95 CORRIDOR
- Ⓢ POWERED BY COMPRESSED NATURAL GAS
- Ⓢ ONE HUNDRED 53' DOMESTIC TRAILER CAPACITY
- Ⓢ 20 KNOT NEXT DAY DELIVERY





Proposed New Marine Highway services announced



Horizon Lines - Coastwise Container Feeder Network

- moving containers from congested gateways to smaller ports



New Service – Brownsville, TX to Manatee, FL

Phase I

10 Day Service Utilizing a 600 TEU Capacity Bluewater Barge Pulled by 4,200 HP Tug.
4 Day Transit Time Between Ports

Both Ports offer Extensive Warehouse Capabilities for Transloading and Freight Storage Operational Requirements.
Both Ports offer Off-Port Warehouse Capability to Handle Max Container Weight Loads.
Both Ports offer Excellent Access to Truck, Rail, and Steamship Interchange.

Phase II

Additional Tug / Barge Unit added to Support Sailings from each Port Every 5 Days.
Improved Port Transition Facilities to Enhance Ease of Pick-up and Drop-off.
Improved Rail Ramp Facilities Enhance Ease of Access to Rail Capacity.

Phase III

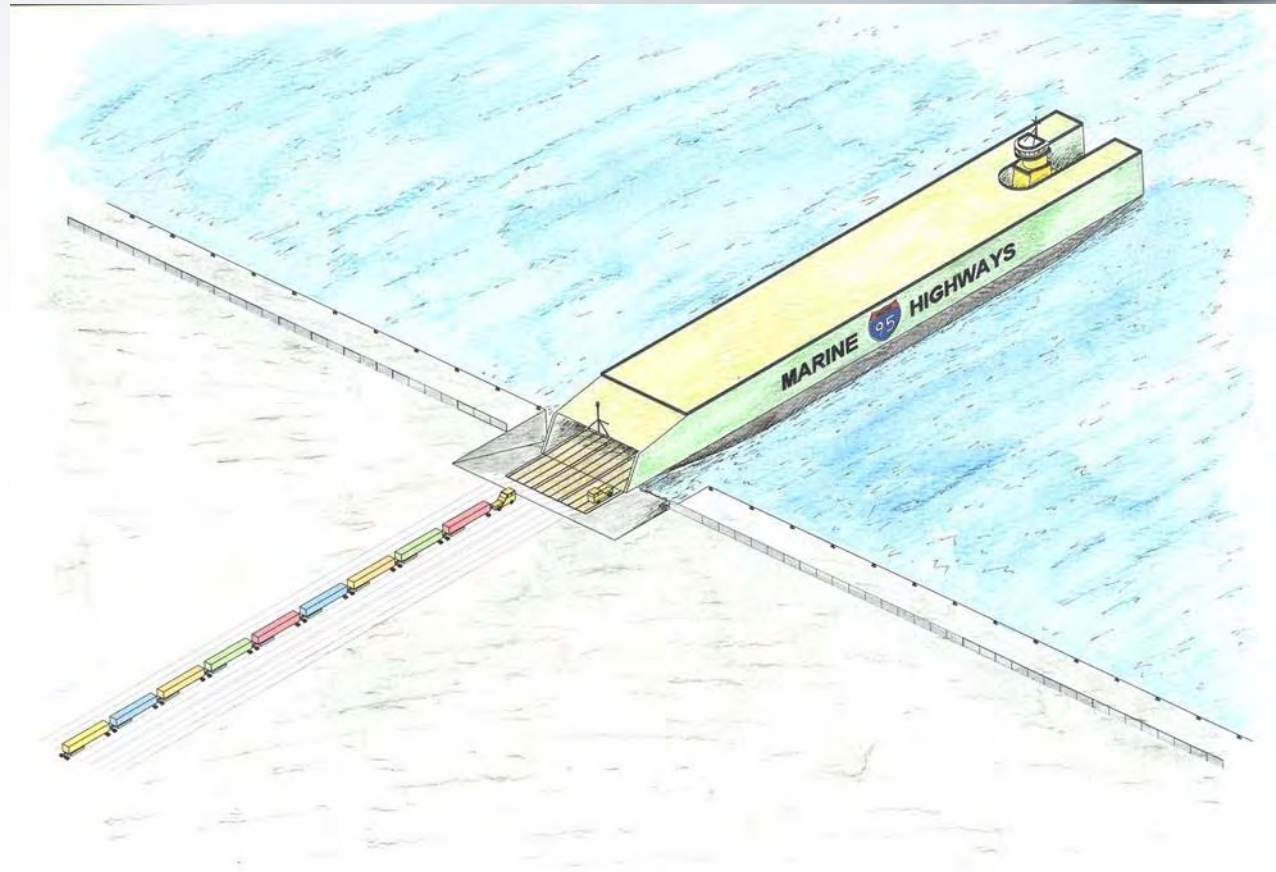
Bluewater Intermodal Units Enter Service.
Transit Times Decrease to 2.5 Days and Sailing Frequency Increases to 3 Times Weekly from each Port.
Third Port Added to Sailing Rotation

Design ideas for the future Marine Highways “ATB”



Kirby Corporation & Management & Transportation Associates New Waterborne Intermodal System concept

- **Cost efficient
Articulated Barge
design**
 - Quick port turn-around
 - Reasonable capital cost
 - Low operating cost
- **180 Trailers**
- **Competitive transit
up to 500 miles**



Marine Highway Alternatives - Design ideas for the Future



- **Multi-Speed Mode - Economical and Very High Speeds (25-40kts).**
- **Improved propulsion efficiency and reduced fuel consumption at both moderate and maximum speeds**
- **Improved Wave loads, Maneuverability and Stability**
- **Interoperability – Can handle a wide variety of cargo such as tractor-trailers, containers palletized cargo, large tracked or wheeled vehicles, military modular cargo, etc.**
- **High Speed Trimaran technology is well suited to both of these ocean shipping requirements.**
- **High schedule reliability due to redundancy and insensitivity to weather.**

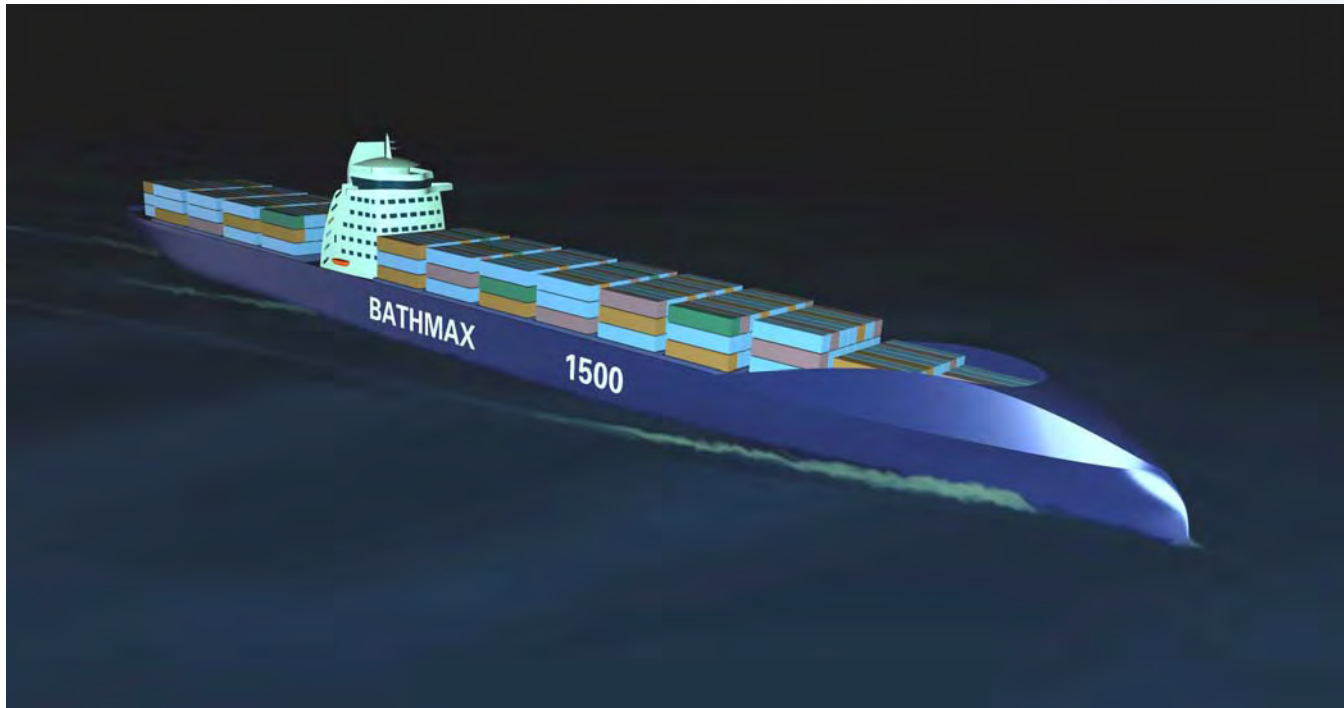
Dual Use Short Sea Shipping Trimaran Trailership HSTT-180



Design ideas for the future AkerYards Marine High Speed Design



- High Speed Monohull Container Vessel
- with Wave-Piercing Bow
- LOA – 260.0 metres
- Speed - 35 knots
- Capacity - 1500TEU
- Power – Approx 75MW



Thank You



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