Testimony of:

Mark Yonge, Managing Member
Maritime Transport & Logistics Advisors, LLC
("Maritime Advisors")

Before the:

Subcommittee on Coast Guard and Maritime Transportation
Committee on Transportation and Infrastructure Committee
U.S. House of Representatives

"The Development of Short Sea Shipping in the United States"

Washington, D.C. - February 15, 2007

Maritime Transport & Logistics Advisors, LLC,
85 Hendricks Isle
Ft. Lauderdale, FL 33301-3702

Email: mark.yonge@maritimeadvisors.com
www.maritimeadvisors.com

INTRODUCTION

My career in the maritime industry has provided me with over forty years of broad based experience including: ship agency; stevedore and terminal management; longshore and shipboard labor relations; ship chartering, ship operating; owning and operating U.S. Flag Vessels including liner and intermodal operations. I am presently the founder and Managing Member of Maritime Transport & Logistics Advisors, LLC ("Maritime Advisors") – a transportation consulting company that is recognized by industry and media as specialist on matters pertaining to the development of Short Sea Shipping.

"Maritime Advisors" is a group of well known experienced affiliate consultants in the maritime transportation and logistics industries. "Maritime Advisors" has followed and participated in the MARAD Short Sea Shipping initiative since its inception and has produced Short Sea Shipping research and analysis studies for private industry clients and government agencies; as well as white papers and numerous presentations at conferences, seminars, public meetings, and industry coalition and cooperative meetings. "Maritime Advisors" is an active member of the Coastwise Coalition, the Short Sea Shipping Cooperative (SCOOP) and many other transportation industry organizations.

The following testimony is based on nearly four years of research and analysis for studies done for clients and for internal use for publications, presentations, meetings and overall interest in this very important transportation capacity alternative. I will attempt to provide the subcommittee with background information, issues, findings and suggestions that are taken from our work to date.

BACKGROUND TO SHORT SEA SHIPPING IN THE U.S.

In the United States, as in much of the world, the use of waterborne transportation has been supplanted by other modes as the advent of motorized surface transportation vehicles shifted commerce from water to land. Tremendous infrastructures to support vehicular use emerged, such as the National Highway System in the United States and extensive rail networks. Populations grew significantly in the last century and increased demand has been placed on surface transportation networks, has caused congestion in major metropolitan areas and on highway and rail systems. Coupled with forecasts for enormous increases in global and U.S. domestic trade, this congestion and the negative impact that it can have on the nation's economic sustainability, has caused renewed examination of the use of the water to compliment and expand the capacity of the surface system.

The specific study of Short Sea Shipping is newer still. Started in the United States by the U.S. Maritime Administration in 2002, the Short Sea Shipping Initiative is shining a light on the potential contribution that waterborne domestic inland, coastal, Great Lakes, and nearby international services can offer.

Over the years there have been numerous Short Sea Shipping studies commissioned by government agencies including MARAD and DOT; public/private cooperatives such as SCOOP – a cooperative organized by MARAD and a private sector steering committee; the I-95 Coalition and many others.

MARAD has held three well attended and effective Short Sea Shipping Conferences. Today the Journal of Commerce sponsors annual Short Sea Shipping conferences – the 4th Annual conference being scheduled April, 2007.

SCOOP, being formed to promote Short Sea Shipping, composed of public & private sector companies/executives, has attended many transportation events in their promotion effort.

The Coastwise Coalition has also been very effective in bringing together the maritime industry in an independent forum for the development of Coastal and/or Short Sea Shipping in the United States.

Ongoing research including interviews conducted with ship operating companies, shippers, logistics providers, truckers and ports in the U.S. indicate there is a widespread opinion that new and expanded Short Sea Shipping markets clearly exist and that these services are necessary. The time frame for expansion is an issue that garners differing opinions, and for good reason. Some see Short Sea Shipping as a system, at least in some markets, that needs government assistance to attract private sector funding. Some disregard government assistance as necessary, and believe that business opportunities will drive Short Sea Shipping. Nearly all agree, however, that government initiatives, such as that at MARAD, serve business well by heightening the awareness of transportation related problems, issues and alternatives.

WHAT IS SHORT SEA SHIPPING?

As a term used in European Union (E.U.), it is defined as the shipping of cargo or goods for relatively "short" distances or to nearby coastal ports. Typically, Short Sea Shipping vessels follow a coastline, cross a channel or landlocked geography, e.g., inland body of water. The E.U. also refers to Short Sea Shipping as – "Short Sea" and references "Short Sea" as "The Dynamic Choice Complementing the Sustainable Transport Chain" Short Sea in the E.U. is also frequently called "Motorways of the Sea" interchangeably

Transport Canada's definition is: "In the North American context, "shortsea shipping" refers to a multi-modal concept involving the marine transportation of passengers and goods that does not cross oceans and takes place within and among Canada, the United States and Mexico".

The U.S. Maritime Administration (MARAD) has defined Short Sea Shipping as: "*…commercial waterborne transportation that does not transit an ocean. It is an alternative form of commercial transportation that utilizes inland and coastal waterways to move commercial freight from major domestic ports to its destination.***"** (MARAD 2005).

Common References here in the U.S:

"Coastwise Shipping"," Coastal Transport","Water 95","Highway H2O", "Marine Highways"

"Maritime Advisors" has found that referring to Short Sea Shipping as an "Intermodal Marine Alternative" is a more receptive terminology to shippers, logistics providers and trucking companies – the ultimate "users" of this new developing intermodal transportation alternative.

Short Sea Shipping as an "Intermodal or Multi-modal Alternative" is not new in the E.U., Canada or the U.S.

Quoting from *Honorable Norman Y. Mineta, Secretary of Transportation - Speech at US Chamber of Commerce Conference 6/12/03:

> **"One intermodal alternative is the development of a robust short sea shipping system that would aid in the reduction of growing freight congestion on our nation's rail and highway systems."***

The following is a quick recap of the many applications and terminology relative to Short Sea Shipping:

- **Intermodal cargo** moves between transport modes where the equipment is compatible. Examples are a shipping container moving from ship to truck or a truck rolling on and off a vessel for one leg of a long haul. For purposes of Short Sea Shipping the modes might include a vessel, truck, train or airplane. Intermodal transportation, cargo and passenger, has grown because of its inherent efficiencies and Short Sea Shipping is poised to become a growth aspect of intermodalism in the United States.

- **Containers or Trailers** are the instruments of choice for transport of non-bulk or non-break-bulk dry goods. The advent of containerization has facilitated expediency, safety, reliance, and overall cost reductions. Types of services and routes for container and trailer traffic most often used are: transshipments, feeder, coastwise and bridge.

- **Door-to-Door** is the concept of carrying freight from the "door" of the factory or shipper to the "door" of the consignee or receiving factory. Door-to-door services or express traffic is a large component of international and domestic trade. Customs clearance services are handled turnkey and seamlessly on all international shipments.

- **Floating Stock** consists of large volumes of goods that are shipped regularly over long distances within the U.S. This may be a suitable use for short sea vessels, in that, the shipper/consignee has large quantities of floating stock thus reducing the requirements for space in land-based warehouses or stock, e.g. tank farms.

- **Inter-Regional Cargo** has increased significantly with the establishment of the North American Free Trade Agreement (NAFTA), which eliminated many trade barriers. As a result, short sea vessels are serving an increased number of destinations throughout the region. Additionally, the liberalization of trade barriers under the central theme of globalization has heightened the utility of this transportation mode, particularly since many plants and suppliers have found themselves physically far from their markets. The low cost of water transportation has had dramatic effects on the economic landscape. The global supply chain is continuously striving to achieve overall economies of scale where the costs are lower and the transportation is becoming faster, ultimately leading to cost savings and added value for the total supply chain.

- **An Intermodal Alternative for Trucking** is imperative in many countries, especially in Europe and North America. Short sea service is not as much an alternative to trucking as it is an intermodal alternative for trucking. It is an alternative to excessive traffic jams and congestion on the interstates. This is primarily due to ever-growing, large and dense populations and increasing roadway cargo tonnage. Many roads and highways have more than exceeded their maximum capacity levels as a result of this ever-increasing road traffic. Congestion and environmental issues have heightened the need for alternatives. Short sea service also offers flexibility to trucking companies in managing the driver workforce, especially with limitations on hours of service and the shortage of available and qualified drivers.

- **Border Crossings,** international freight, immigration and customs clearance are often an integral part of Short Sea Shipping, especially between the US and Canada where high frequency ferry services are operating as a "bridge", an alternative means of extending the highway across the waterways. Trucks and trailers can be carried on Ro/Ro ships while their drivers can travel on the same vessel and take advantage of onboard passenger accommodations for rest and amenities for relaxation. Some routes also carry cars and walk-on/off passengers.

- **Feedering** is "used for local or coastal transport (for carriage of cargo and/or containers) to and from ports not scheduled to be called by the main (ocean) vessel, connecting these ports to the main (ocean) vessel" (P&O/Nedlloyd 2005) and is a part of Short Sea Shipping.

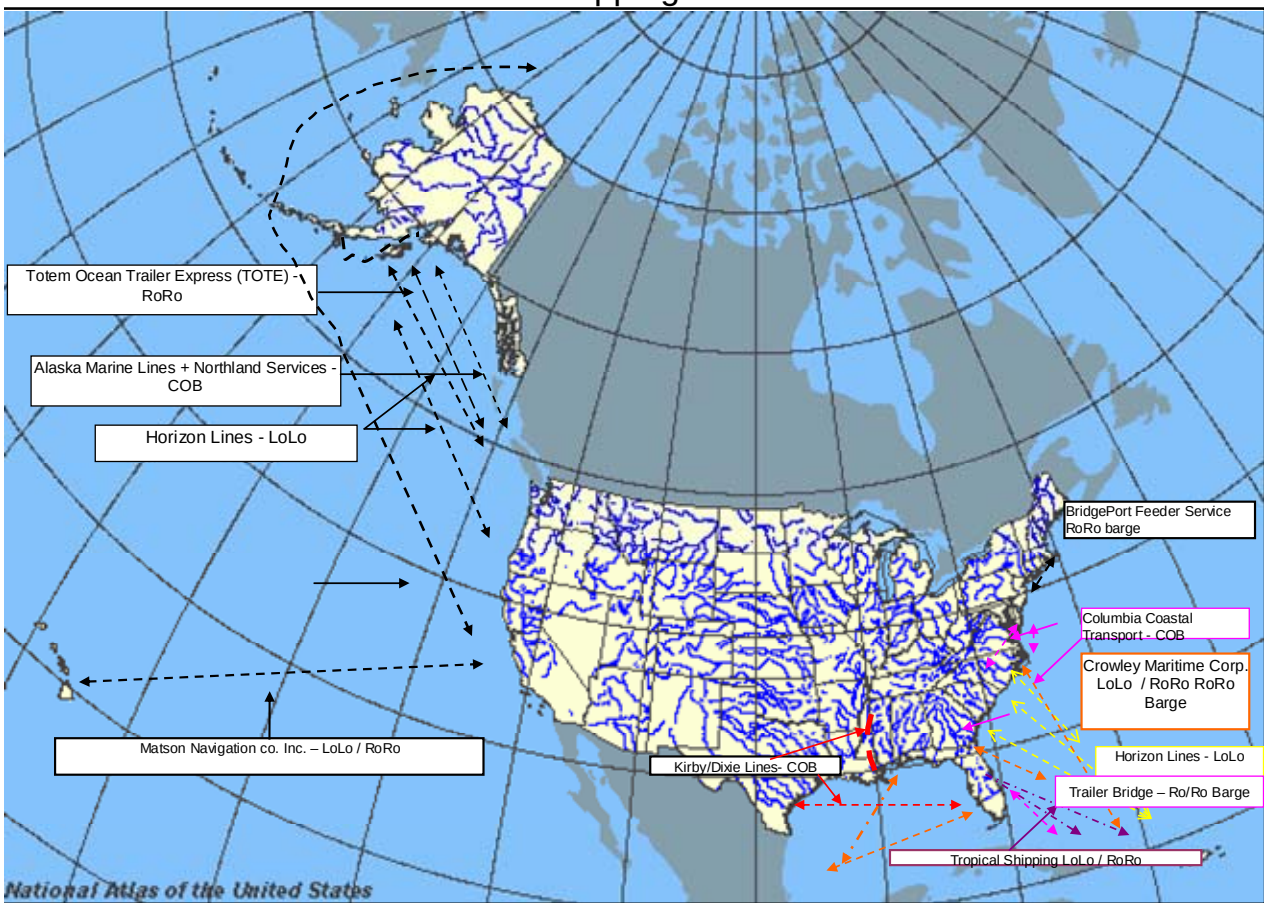
- **Transshipment**, "to transfer goods from one transportation line to another or from one ship to another" (MARAD 2005), is frequently used interchangeably with the term "**feedering**". In addition, transshipment may involve change in mode of transport, typically on a through-bill of lading, e.g., the case of APL utilizing double-stack trains to connect with ports on both the coasts.

- **The Hub and Spoke Networks** (and related feeder connections) are being fueled by the increase in vessel size and has caused ocean carriers to reduce the number of ports directly served. It shall also be noted that the trucking industry uses the same "hub" model for its terminal networks across the country. Hubs enable lines to effectively serve regional markets where volumes do not warrant direct calls.

"Coastal, Great Lakes, and inland waterways trade has existed in the United States for many years. The majority of cargos carried have been bulk commodities that travel through an established inland waterway system and along the U.S. coasts by barge, tanker and freighter. The existence of these bulk carriers already contributes to a reduction of rail and highway congestion. Without these coastal movements the cargo would require transport by rail or truck." (Source: SCOOP web site with emphasis added)

Examples of Short Sea Shipping Services in the U.S. (Partial)

Short Sea Shipping in the U.S.



FACTORS THAT SUPPORT OR IMPEDE SHORT SEA SHIPPING

Quoting from remarks from the honorable Norman Y. Mineta, Secretary of Transportation – NASDAQ Opening Bell, New York, NY – May 23, 2006:

"… there is a looming threat to our economic prosperity in the form of transportation congestion. Goods stalled at overwhelmed seaports, airplanes circling crowded airports, and delivery trucks stuck in traffic cost America an estimated $200 billion each year. Traffic jams alone waste 2.3 billion gallons of gasoline and 3.7 billion hours…"

- "The U. S. Highway system has experienced nearly a doubling of vehicle miles traveled in the past 20 years while the total highway mileage has increased only by 1 percent." (Note: See FHWA Freight Flow Maps and Congestion Maps– Exhibit no. 1-4))
- "One of the Nation's biggest challenges, and a critical focus of USDOT, is closing the gap between the demand for transportation services and infrastructure capacity." (FHWA FAF)
- A freight capacity crunch of unprecedented dimensions is predicted for the next decade and just building more roads or expanding rail capacity to meet projected demand are simply not viable options, even if they were possible.
- In many areas of the U.S. today, highway, rail and port facilities are nearing and/or exceeding capacity.
- The U.S. transportation system carried over 15 billion tons of freight valued at over $9 trillion in 1998.* (Exhibit 5)
- By 2020, the U.S. transportation system is expected to handle cargo valued at nearly $30 trillion.*
- By 2020, Domestic freight volumes will grow by more than 65 percent, increasing from 13.5 billion tons in to 22.5 billion tons (Exhibit 5)
- By 2020, U.S. highways, railways and ports will be expected to move 70% more freight than they did in 1998.*
- An annual expenditure of $75.9 billion (2000 dollars) will be needed for the 2001-2020 period just to maintain the physical highway infrastructure, as it existed in 2000. (USDOT FHWA 2002c).

*(source: FHWA FAF)

Most recently the FHWA has posted a new statement and projections dated December 21, 2006:

> "The U.S. transportation system in 2002 moved, on average, 53 million tons of freight worth $36 billion each day. Trucks moved about 60 percent of freight by weight, the same proportion expected in 2035. However, over this period tons transported overall are expected to almost double with international shipments growing somewhat faster than domestic shipments. Trucks transported two-thirds of freight by value."

Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework, 2006.

Note: Although the above statements by FHWA mentions international shipments growing somewhat faster that domestic shipments – when reviewing Exhibit 6, particular attention must be given to the total volumes – domestic volumes are nearly ten (10) times international volumes.

In other words the FHWA indicates that the trend line of highway transportation freight growth is projected to continue through 2035. (Exhibit 6)

Adding or increasing highway capacity is costly, and is time challenged with environmental issues, land availability, budget and time constraints:

According the FHWA February 8, 2007 - the capital cost of constructing a new interstate highway varies significantly from one location to another and from one type of scenario to another. These numbers are national average and the exact cost varies widely depending on the specific conditions.

	Adding lane to	
	new alignment	**existing alignment**
Rural Interstate	2002 dollars per lane-mile with unit of thousands (000's)	
flat terrain	2,106	1,519
rolling terrain	2,665	1,647
mountainous terrain	6,003	5,128
Urban Interstate		
population<50,000	3,360	2,493
population: 50,000-200,000	4,529	2,724
population: 200,000-1,000,000	6,643	4,559
population > 1, 000, 000	14,889	11,336

For emphasis: Using the above "new alignment" (New highway) numbers adding a new four lane highway capacity has an estimated cost between $8,424,000 per mile and $59,556,000 per mile

- **About 12 miles of new highway cost would build a new $100,000,000 Short Sea Shipping vessel with a potential to remove 30-60,000 trucks off the road per year <u>or</u> provide MARAD Title XI leveraging capability to build approximately ten (10) new Short Sea Shipping Vessels.**

- **Short Sea Shipping "Water Highways" are generally in place ready for use now.**

Highway capacity and congestion are not the only driving forces to support Short Sea Shipping ("Alternative Intermodal Capability"_:

A recent interview with a major trucking company revealed additional driving forces:

" A Perfect Storm is forming" (for the Trucking industry)

- Highway Congestion
- Rail & Highway Capacity inadequate to handle future freight projections
- Long Haul Driver Shortages – Quality of life a priority
- Ultra Low Sulfur Fuels required Oct. 2006
- New environmental regulations – Fleet replacement cost high
- New Hours of Service regulations
- New Immigration laws/License requirements
- Aging truck fleet
- Trucks are expected to move over 75 percent more tons in 2020

No different than land transportation modes, in general, the following conditions have to be met to increase the attractiveness of Short Sea Shipping as an intermodal alternative:

Frequency Reliability Quality of service Cost-efficiency Service Speed

"Just in time" supply chain requirements and length of route – short haul or long haul - will be a determining factor as to whether slower vessels such as barges and/or 18/24 knot vessels are suitable or if newer technology 30/40 high speed vessels will be needed.

Some advantages of Short Sea Shipping in comparison with road transport are:

- Increased national transportation capacity
- Lower energy consumption per ton of freight transported and better environmental performance in terms of pollution and safety
- Reduction of road congestion
- General availability of space capacity in Short Sea Shipping sea lanes and the possibility to extend it further with few infrastructure costs

Economic and infrastructure Advantages:

- Potential positive contribution to the development of coastal regions of the U.S., especially in underutilized ports – new infrastructure, new jobs, additional and/or new "economic engines" to surrounding communities
- Positive effect on the development of related US maritime sectors such shipboard and landside labor – new jobs, new and more efficient vessel design, and a boost to the shipbuilding industry including improvement of its capacity and expertise that can make U.S. yards more competitive.
- Expansion of the nation's sealift capacity in time of national emergencies and/or national defense
- Jobs created to maintain and increase well trained maritime labor forces
- Preservation of present and future U.S. Flag, U.S. Crewed, U.S. controlled vessels
- New technology vessels for the future and the environment

However, there are several structural obstacles to the development of efficient and "robust" Short Sea Shipping services on a significant scale, which are:

- Harbor Maintenance Tax (HMT) - Truck and rail movements by truck and rail are not subject to the HMT but freight moving by water is subject to this tax. Harbor Maintenance Tax collected on an average container of cargo can be as substantial as $100 or more. **Shippers and/or logistics providers are not willing to pay this additional charge to use Intermodal Marine Services**

- Financing - the private capital funding sectors have indicated that new services must have freight commitments before the financial sector will provide funding – the proverbial "chicken before the egg".

- Availability of existing U.S. Flag, Jones Act vessels is limited. Additional vessels are needed including new technology high speed vessels that can meet supply chain needs and expectations as well as anticipate tightening restrictions on emissions.

- Cost to build and operate U.S. Flag Jones Act Vessels. (Note: The Jones Act, restricts the carriage of goods between United States ports to U.S. Flag, U.S. built, U.S. owned, U.S. crewed vessels)
- Lack of statistical data which make accurate analysis of trade flows between ports and regions difficult
- Shippers and logistics providers are reluctant to make long term commitments to carriers until Short Sea Services are in place.

RECOMMENDED ACTIONS TO STIMULATE SHORT SEA SHIPPING/INTERMODAL MARINE ALTERNATIVES

The actions listed below are provided as a result of research and input from many sectors of transportation "users" and "providers", coalitions, cooperatives, conferences, seminars, etc.:

The most important actions indicated are:

1. Elimination of the Harbor Maintenance Tax as it applies to intermodal cargo moved in the domestic trade and perhaps between Canada and the U.S. on the Great Lakes by container or on wheeled vehicles. In some ways not eliminating this tax encourages shippers to continue using highways and bridges – adding to congestion and capacity problems. As it stands today, the HMT is a significant disincentive for shippers to use Short Sea Shipping.
2. MARAD Title XI loan guarantees; use of Capital Construction (CCF) Fund Deposits.

   Note: MARAD's Title XI program, initiated in 1938, has a proven record of effective vessel finance and a stimulus for building U.S. Flag/U.S. Build vessels. Over the years, the Title XI program has been a profitable program for the U.S. government and overall has resulted in the goals of promoting a U.S. Flag fleet. The vessel owners in the recent Lake Express (Milwaukee to Muskegon, Lake Michigan)(Kenneth Szallai, President of Lake Express and the current Hawaii Superferry (former Secretary of the Navy - John Lehman) projects have publicly stated that these projects could not have been done without Title XI and have praised its availability.
3. Stimulation of new Short Sea Shipping services and/or maritime transport technologies through Federal and State incentives and/or technology development programs.
4. Stimulation of integration into multimodal transport chains or networks through Federal and/or State tax incentives or infrastructure programs, as an example – tax credits to shippers (Wal-Mart, Target, etc.) as incentives to use Short Sea Shipping to ease the pressure on land routes.
5. Encouraging states to consider interstate water transportation options, especially where surface system capacity expansion options are limited.
6. Creation of reliable market data on existing land transportation that could be used with decision making on North American Short Sea Shipping
7. Improving understanding and awareness of Short Sea Shipping, which is often overlooked by the public, public officials and transportation planners alike i.e.: Establishment of a staffed Short Sea Shipping promotional coalition/cooperative with full time focus similar to the I-95 Coalition, The National Waterways Conference, etc.
8. Integration of border crossing systems
9. Improvement of transparency in ports, related to tariffs and state aids

WHERE IS SHORT SEA SHIPPING TODAY?

As noted earlier in this testimony there are also a number of contiguous and non-contiguous Short Sea Shipping services existing today, including Ro/Ro and Lo/Lo container services between the U.S. with Alaska and Puerto Rico, Great Lakes services, and waterway services – the majority of cargoes carried being bulk commodities .

Recently two new services have been instituted with the assistance of MARAD Title XI loan guarantees - Lake Express (Milwaukee to Muskegon, Lake Michigan) and the Hawaii Superferry projects.

A number of new technology ventures are in various stages of development with varying service ideas and ship designs. To name a few:

- Articulated Ro/Ro Barges utilizing innovative freight handling equipment
- Hovercraft Ferries for passengers and freight
- 30 knot Ro/Ro Monohull vessels utilizing innovative cargo handling ramps & freight handling equipment
- 40+ knot Pentamaran Ro/Pax vessels providing both truck/trailer Ro/Ro service along with passenger and passenger car capability

Many if not all Companies contemplating new Short Sea Services are held back from going forward because of some of the disadvantages listed in the previous section. Notably the major issues are the domestic Harbor Maintenance Tax and the availability of funding and/or loan guarantees, followed by shipper incentives and awareness.

CONCLUSION AND DISCUSSION

From the business or industry perspective, the majority of the transportation users and providers respond with a positive interest in short sea shipping. This is a major change from where the Short Sea Shipping initiative commenced four (4) years ago. In the beginning, the trucking companies considered Short Sea Shipping a competitor. Today Short Sea Shipping is viewed as a potential "Intermodal Alternative' as are the rail systems today – both serving the trucking industry..

From the policy perspective, there has been limited focus on Short Sea Shipping at national and state levels. An awareness campaign focused by the U.S. Department of Transportation and other political decision makers would be beneficial.

The continuing industry business, policy analysis and recommendations assist in reducing the impediments to increasing the use of Short Sea Shipping services in the United States. For example, the American Association of Port Authorities, along with over 35 national transportation and business associations and ports, recently adopted a position for the repeal of the domestic Harbor Maintenance Tax (http://www.aapa-ports.org/govrelations/hmt_repeal_paper.htm). An action necessary to remove this "significant disincentive to coastwise waterborne trade, which could help alleviate surface transportation congestion in the future". This significant national policy perspective demonstrates the growing concern that this nation cannot build its way out of the current and impending transportation capacity crisis without utilization of a Short Sea Shipping network.

Time is of the essence - Transportation capacity and Economic Sustainability go hand in hand

Surface transportation capacity has not kept pace with transportation demand. Highway capacity coupled with driver shortages and other trucking "Perfect Storm" problems compound the issue. Increasing rail capacity is limited and does little to address the impending transportation capacity crisis.

Short Sea Shipping has the potential to provide our nation with almost immediate, cost effective additional surface transportation capacity that will assist in securing our nations economic sustainability. While much attention has been paid in recent years to the increasing flood of imports to this country and the additional burden it is placing on our transportation system, significant growth is also occurring in domestic freight in greater volumes. It is the transport of goods in domestic service where Short Sea Shipping can potentially make a major contribution to the nation's transportation system.

The Coastal seaways, Great Lakes, rivers and waterways are generally available now as water highways. While there are a few existing vessels still available for Jones Act Short Sea Shipping, strong consideration needs to be given that it takes 2-3 years or more to design and build new vessel's that can provide new "intermodal alternatives" to our fast growing transportation demands.

Action is needed now to energize Short Sea Shipping – to unleash new transportation capacity that will help sustain our growing population, transportation needs and provide adequate sustainability to our nation's economy.

Acknowledgements:

We wish to thank the efforts of the following:

Mr. Tianjia Tang, Ph.D., PE, U.S. Department of Transportation, Federal Highway Administration who provide up todate FHWA data for the content of this testimony

Maritime Advisors affiliates who contributed to the content of this testimony; Paul Bea; Richard Calcote, Clayton Cook; Larry Henesey; John Jamian, Mark Yonge

References:

American Association of Port Authorities (AAPA). www.aapaports.org/govrelations/ hmt_repeal_paper.htm. Accessed January 14, 2005.

Federal Highway Administration Freight Analysis Framework (FAF) website: http://www.ops.fhwa.dot.gov/freight/freight_analysis/faf/index.htm Accessed Feb 8 2007

MARAD (2003). Short Sea Shipping Initiative, www.MARAD.do.gov/Programs/shortseashipping.html Accessed January 12, 2005.

MARAD (2005). Glossary of Shipping Terms, www.marad.dot.gov/publications/glossary/A.html Accessed January 12 2005.

MARAD (2005). Short Sea Shipping Brochure, www.marad.dot.gov/Programs/sssbroc.htm Accessed January 12 2005.

Maritime Cabotage Task Force (2004). Metropolitan Planning Organization - An Economic Framework for Domestic Short Sea Shipping (September 28, 2004), SNAME Panel O-36 & Transportation Research Board/Marine Board, www.mctf.com/ Accessed January 10 2005.

Short Sea Shipping Cooperative Program (SCOOP) website; www.shortsea.us Accesssed Feb 8 2007

Transport Canada website: http://www.tc.gc.ca/en/menu.htm accessesd Feb 8 2007

Transportation Research Board (2004). Transportation Research Board of the National Academies, www.trb.org. Accessed January 12, 2005.

Exhibit No. 1

Freight Flows by Truck: 1998 (daily truck volumes) (Source: FHWA FAF)

Exhibit No. 2

Freight Flows by Truck: 2020 (daily truck volumes) (Source FHWA FAF)

Exhibit No. 3

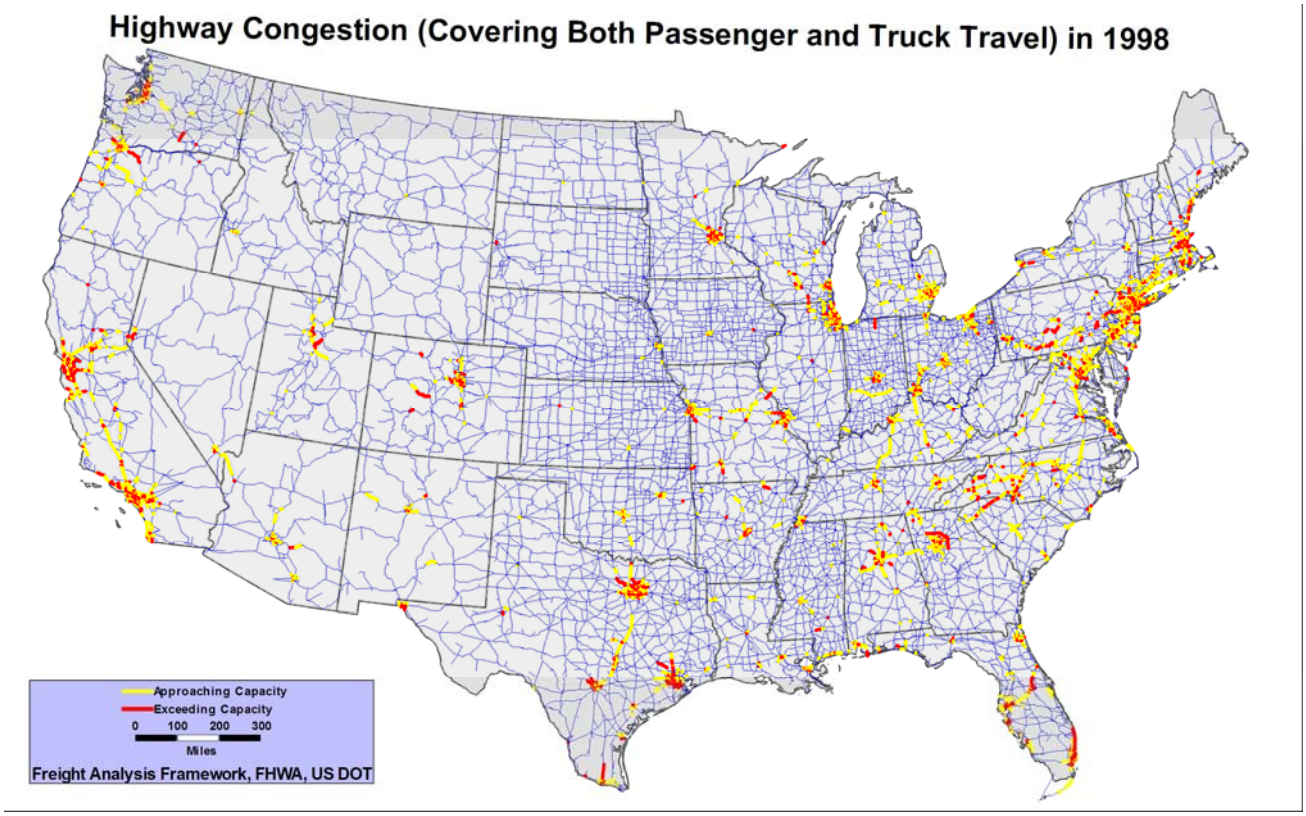


Exhibit No. 4

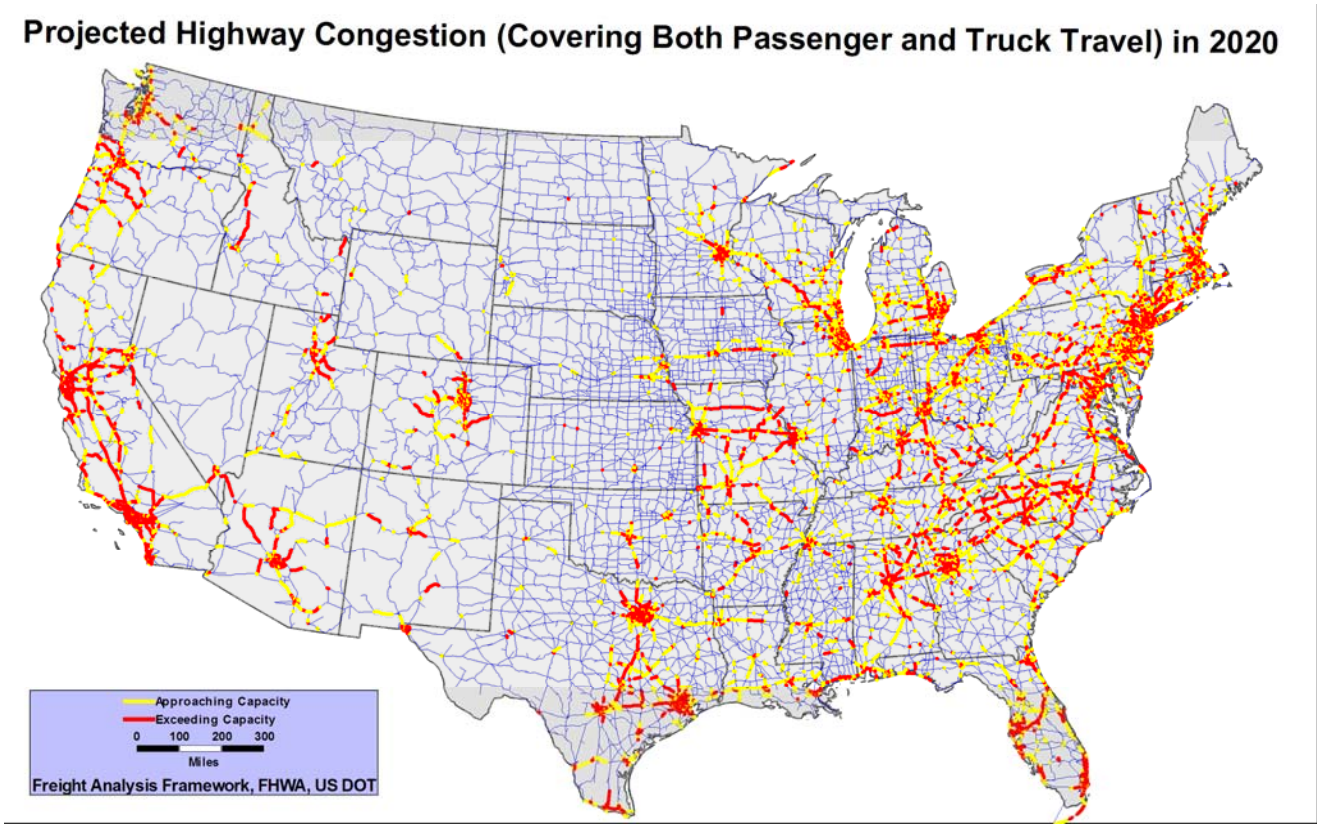


Exhibit 5

FAF[1] National Summary: 1998, 2010, 2020

Table 1. U.S. Freight Shipments by Tons and Value

Mode	Tons (millions)			Value (billions $)		
	1998	2010	2020	1998	2010	2020
Total	15,271	21,376	25,848	9,312	18,339	29,954
Domestic						
Air	9	18	26	545	1,308	2,246
Highway	10,439	14,930	18,130	6,656	12,746	20,241
Rail	1,954	2,528	2,894	530	848	1,230
Water	1,082	1,345	1,487	146	250	358
Total, Domestic	13,484	18,820	22,537	7,876	15,152	24,075
International						
Air	9	16	24	530	1,182	2,259
Highway	419	733	1,069	772	1,724	3,131
Rail	358	518	699	116	248	432
Water	136	199	260	17	34	57
Other [a]	864	1,090	1,259	NA	NA	NA
Total, International	1,787	2,556	3,311	1,436	3,187	5,879

Note: Modal numbers may not add to totals due to rounding. NA = Not Available.
[a]The "Other" category includes international shipments that moved via pipeline or by an unspecified mode.

(Source: FHWA FAF, updated April, 2006)

Table 2-1 and 2-1M:. Shipments by Mode and Weight: 2002 and 2035 (Millions of Tons)

International trade is growing rapidly and is placing pressure on the domestic transportation network and the different modes. International shipments by truck include the inland portion of intermodal shipments through ports and truck movements across land borders with Canada and Mexico.

Table 2-1 (standard units)

	2002 Total	2002 Domestic	2002 Exports[3]	2002 Imports[3]	2035 Total	2035 Domestic	2035 Exports[3]	2035 Imports[3]
Total	(P) 19,326	17,670	(P) 524	(P) 1,133	(P) 37,178	33,668	(P) 1,105	(P) 2,404
Truck	11,539	11,336	106	97	22,814	22,231	262	320
Rail	1,879	1,769	32	78	3,525	3,292	57	176
Water	701	595	62	44	1,041	874	114	54
Air, air & truck	(P) 10	3	(P) 3	(P) 4	(P) 27	10	(P) 7	(P) 10
Intermodal[1]	1,292	196	317	780	2,598	334	660	1,604
Pipeline & unknown[2]	3,905	3,772	4	130	7,172	6,926	5	240

Key: P = preliminary

[1]Intermodal includes U.S. Postal Service and courier shipments and all intermodal combinations, except air and truck.
[2]Pipeline and unknown shipments are combined because data on region-to-region flows by pipeline are statistically uncertain.
[3]Data do not include imports and exports that pass through the United States from a foreign origin to a foreign destination by any mode.

Notes: Numbers may not add to total due to rounding.

Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework, 2006.