



**SEABRIDGE**  
INC.

# SNAME SD-5 PANEL and INTERNATIONAL HYDROFOIL SOCIETY



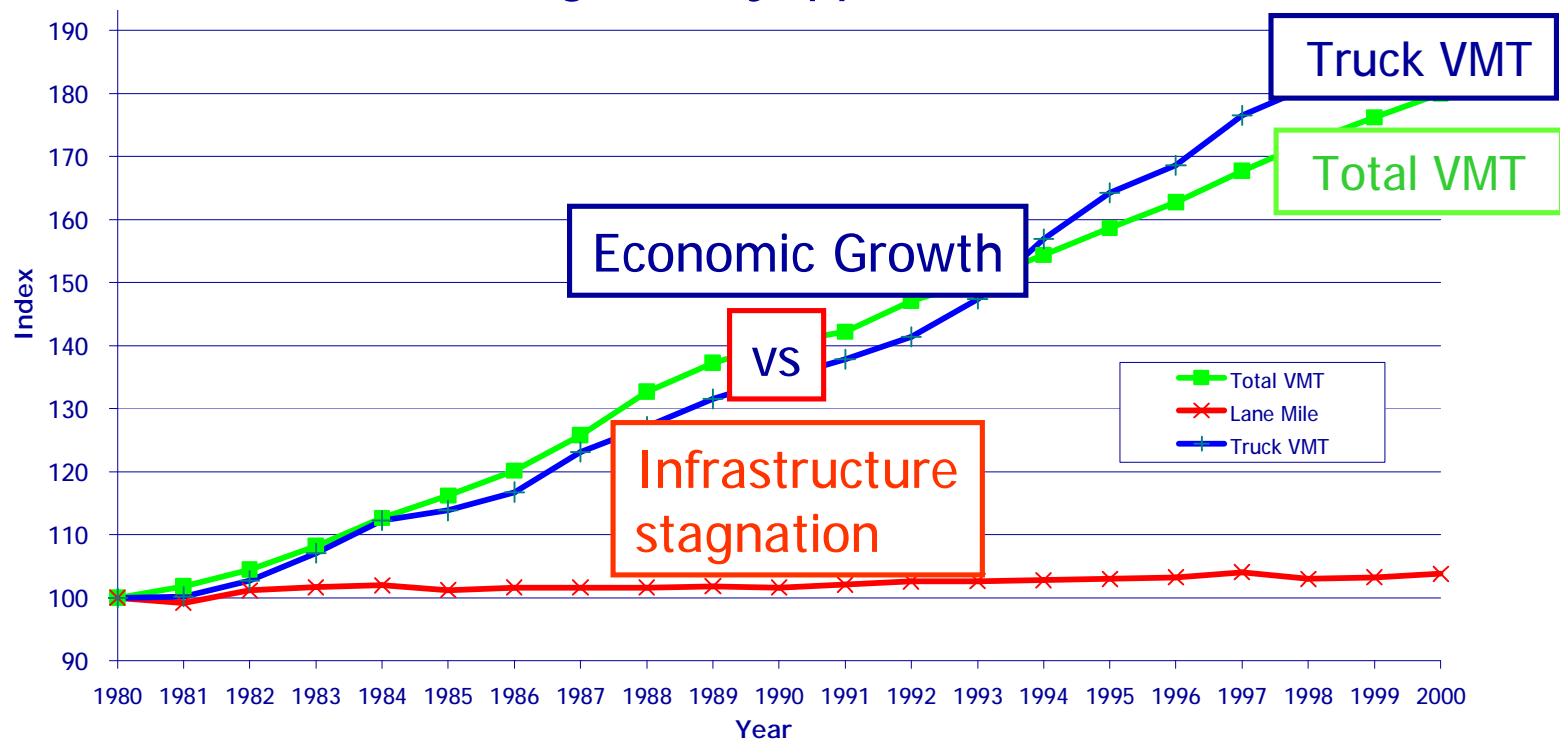
A Pentamaran Bridge over the Sea  
Stephen Flott, Chairman - SeaBridge Inc.  
Arlington, VA – Wednesday, June 27, 2007

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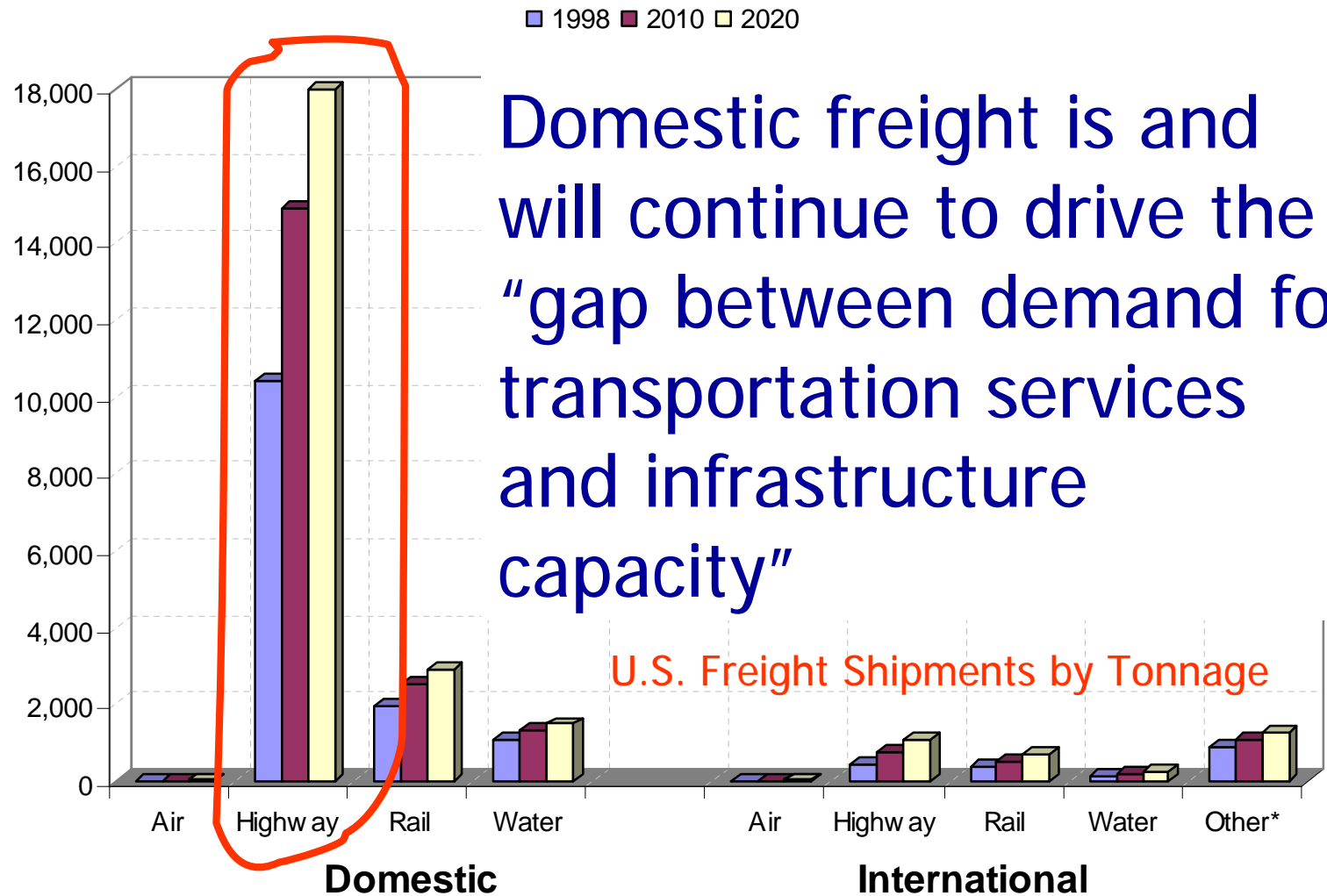
“One of the nation’s biggest challenges is closing the gap between the demand for transportation services and infrastructure capacity.”

*The Freight Story, pp. 12-13, USDOT, November 2002*



Source: U.S. Department of Transportation, Federal Highway Administration, Highway Statistics (Washington, DC: Various years).





Source: The Freight Analysis Framework (FAF), U.S. Department of Transportation





## Secretary of Transportation Norman Mineta

Speech at US Chamber of Commerce Conference [6/12/03](#)

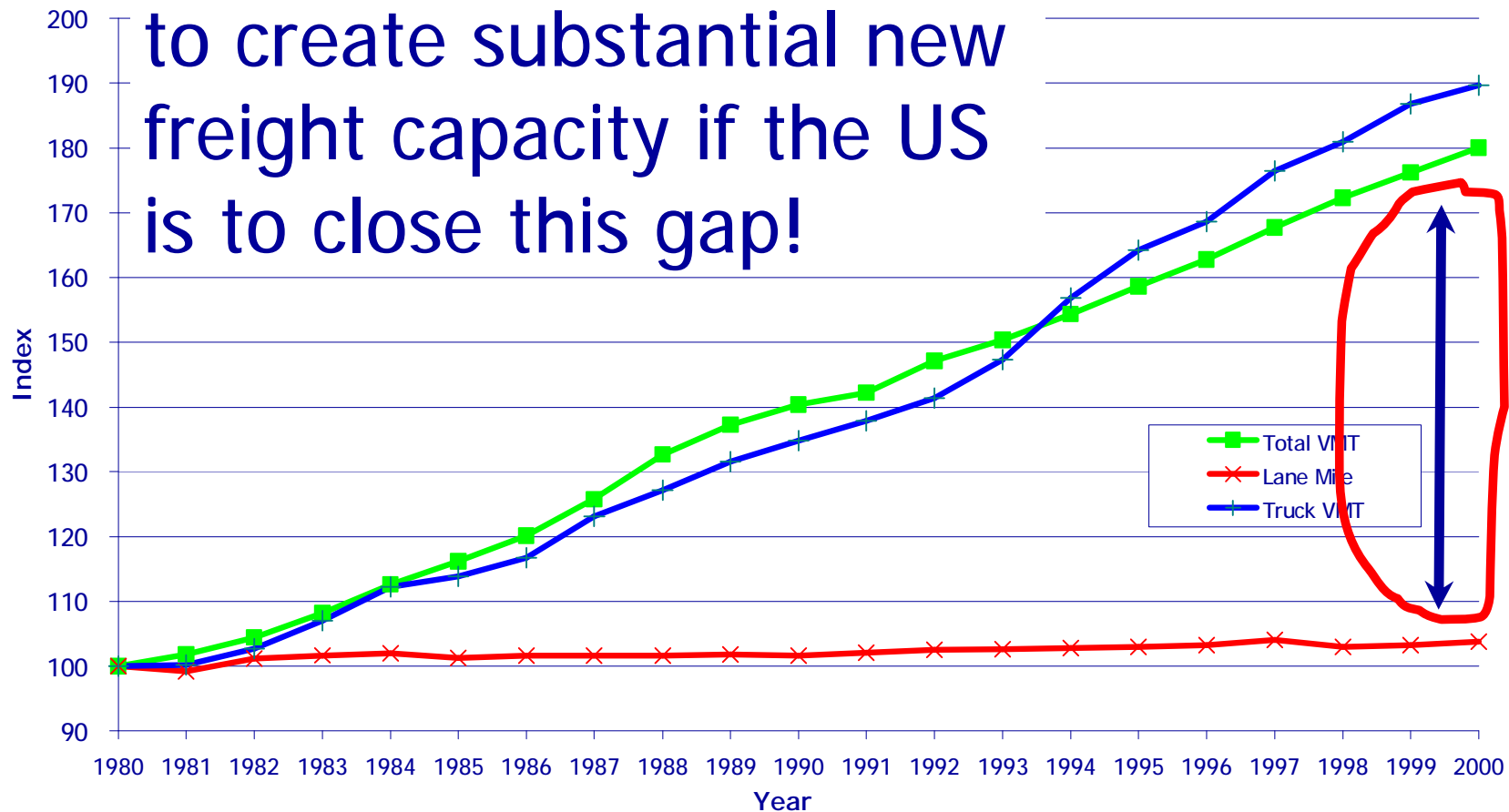
*“Our landside transportation system is already stressed to the limit and currently planned infrastructure improvements and expansion cannot possibly meet this escalating demand.”*

*“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.”*





Waterborne services need to create substantial new freight capacity if the US is to close this gap!

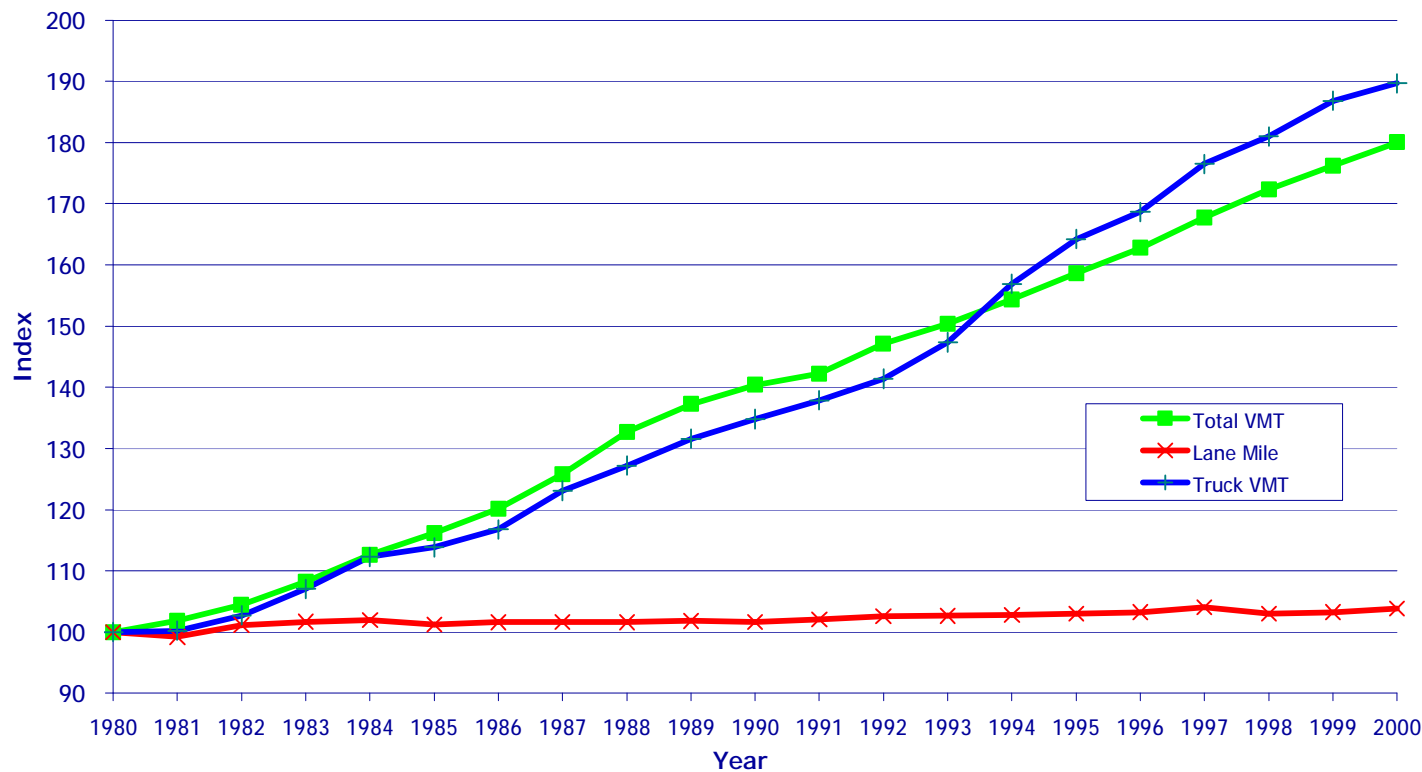


Source: U.S. Department of Transportation, Federal Highway Administration, Highway Statistics (Washington, DC: Various years).



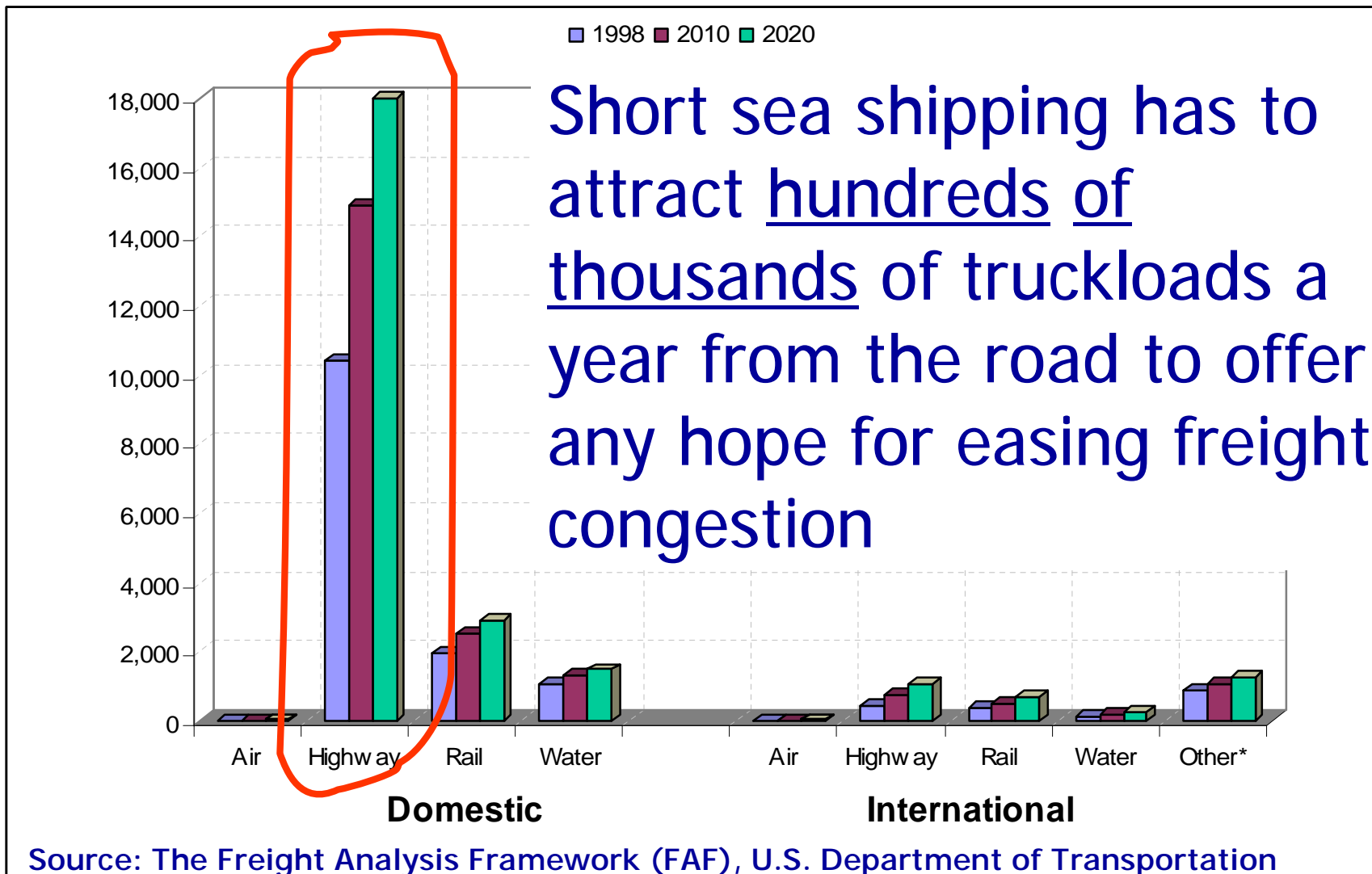


## Absorbing vehicle miles from highways creates capacity without adding lanes



Source: U.S. Department of Transportation, Federal Highway Administration, Highway Statistics (Washington, DC: Various years).







## The SeaBridge Approach is just one option

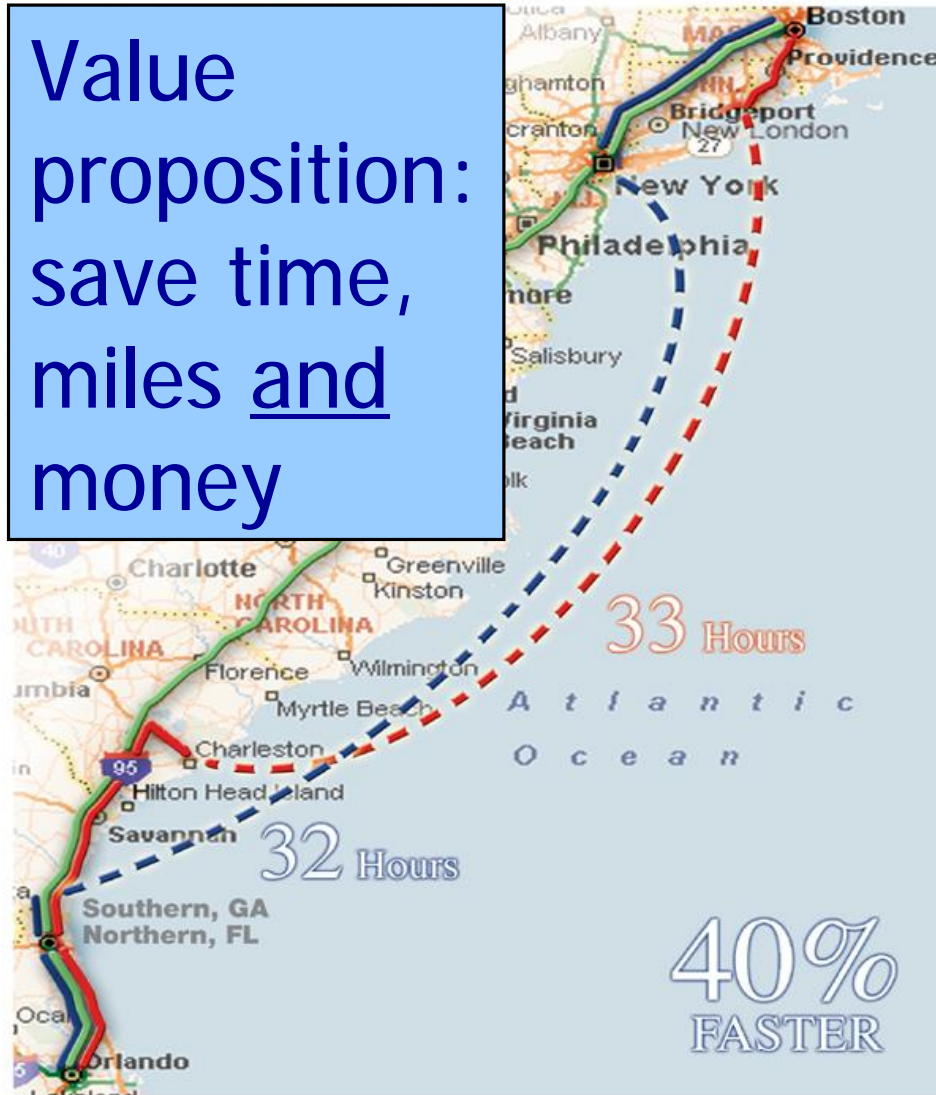
Create a fast, reliable, coastal freight and passenger ferry network with the capacity and scale to improve motor carrier service capabilities and lower costs and offer a new "mini-cruise" option to motorists





## Turning Coastal Oceans into Sea Bridges

Value proposition:  
save time,  
miles and  
money



### ROUTE TWO: BOSTON TO ORLANDO (TWO OPTIONS)

#### All-Road Option (Green Line)

Day#	Duty	Miles	Hours
<b>Day 1</b>	Pickup	0	1
	Driving	523	11
	Rest+Other	0	13
<b>Day 2</b>	Driving	523	11
	Rest+Other	0	13
<b>Day 3</b>	Driving	254	5
<b>Total Trip</b>		<b>1,300</b>	<b>54</b>

#### SeaBridge Option 1 (Red Line)

Origin	Destination	Miles	Speed	Driving	Hours
Boston	New London	106	47.5	2	2
<b>SeaBridge Link - - -</b>					
<b>New London to Charleston</b>	<b>0</b>	<b>N/A</b>	<b>0</b>	<b>23</b>	
Charleston	Orlando	379	47.5	8	8
<b>Total Trip</b>		<b>485</b>		<b>10</b>	<b>33</b>

#### SeaBridge Option 2 (Blue Line)

Origin	Destination	Miles	Speed	Driving	Hours
Boston	New Jersey	244	47.5	5	5
<b>SeaBridge Link - - -</b>					
<b>New Jersey to So GA/No FL</b>	<b>0</b>	<b>N/A</b>	<b>0</b>	<b>24</b>	
So GA/No FL	Orlando	141	47.5	3	3
<b>Total Trip</b>		<b>385</b>		<b>8</b>	<b>32</b>





## Advantages of expedited intermodal for truckers

- ü Faster transit times than existing over-the-road and rail intermodal services
- ü Matches team driver operations
- ü Reduces exposure to accidents
- ü Improves equipment velocity and utilization
- ü Improves driver utilization and retention
- ü Hours of service compliance without loss of service speed
- ü Expands markets; increases profitability





Ship size, speed, fuel efficiency and seakeeping ensure schedule integrity with a high level of passenger comfort

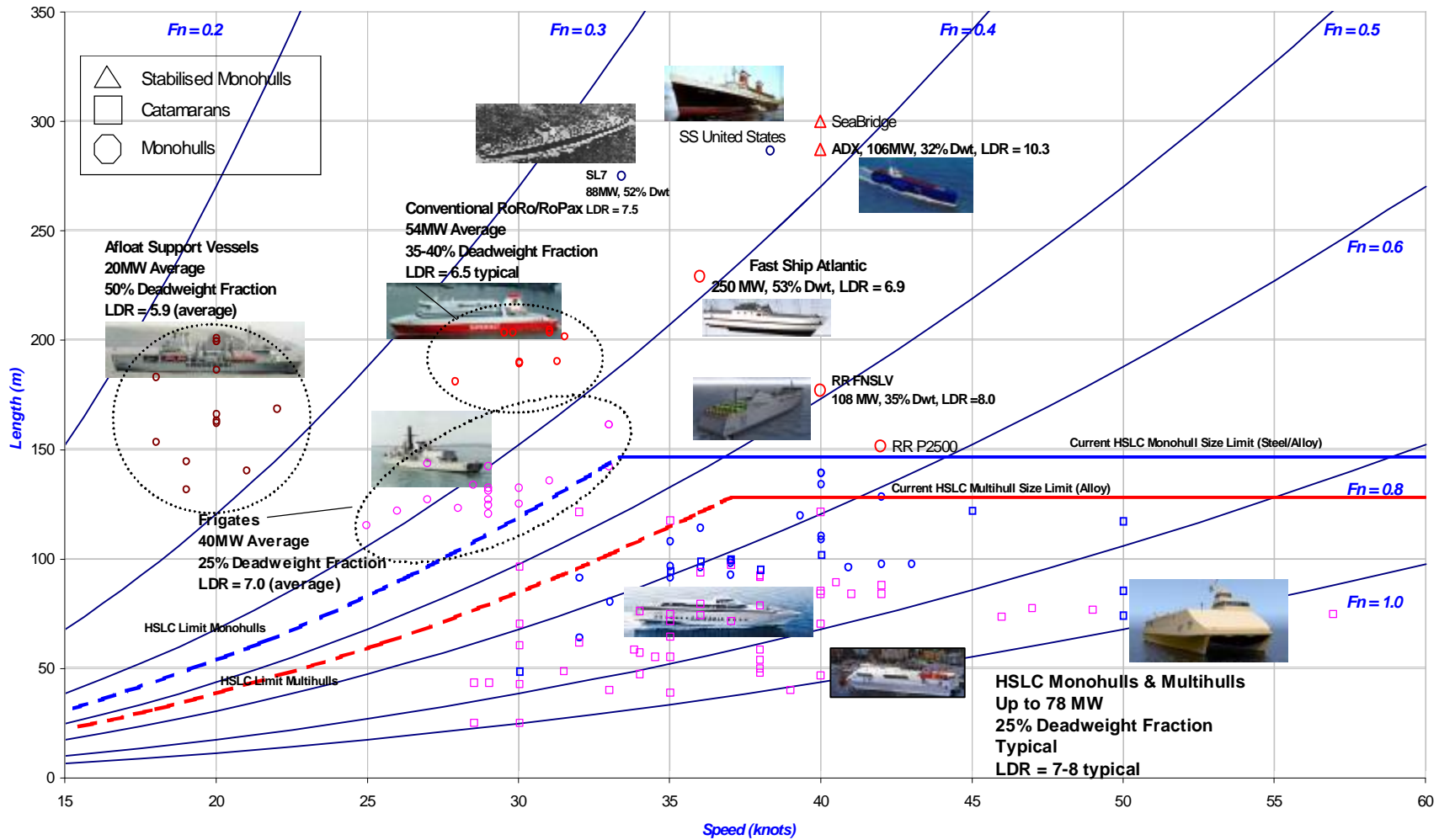


SeaBridge USA's roll-on/roll-off passenger vessel can transport more than 170 trailers or 100 trailers & 500 cars and 1,800 passengers at up to 42 knots



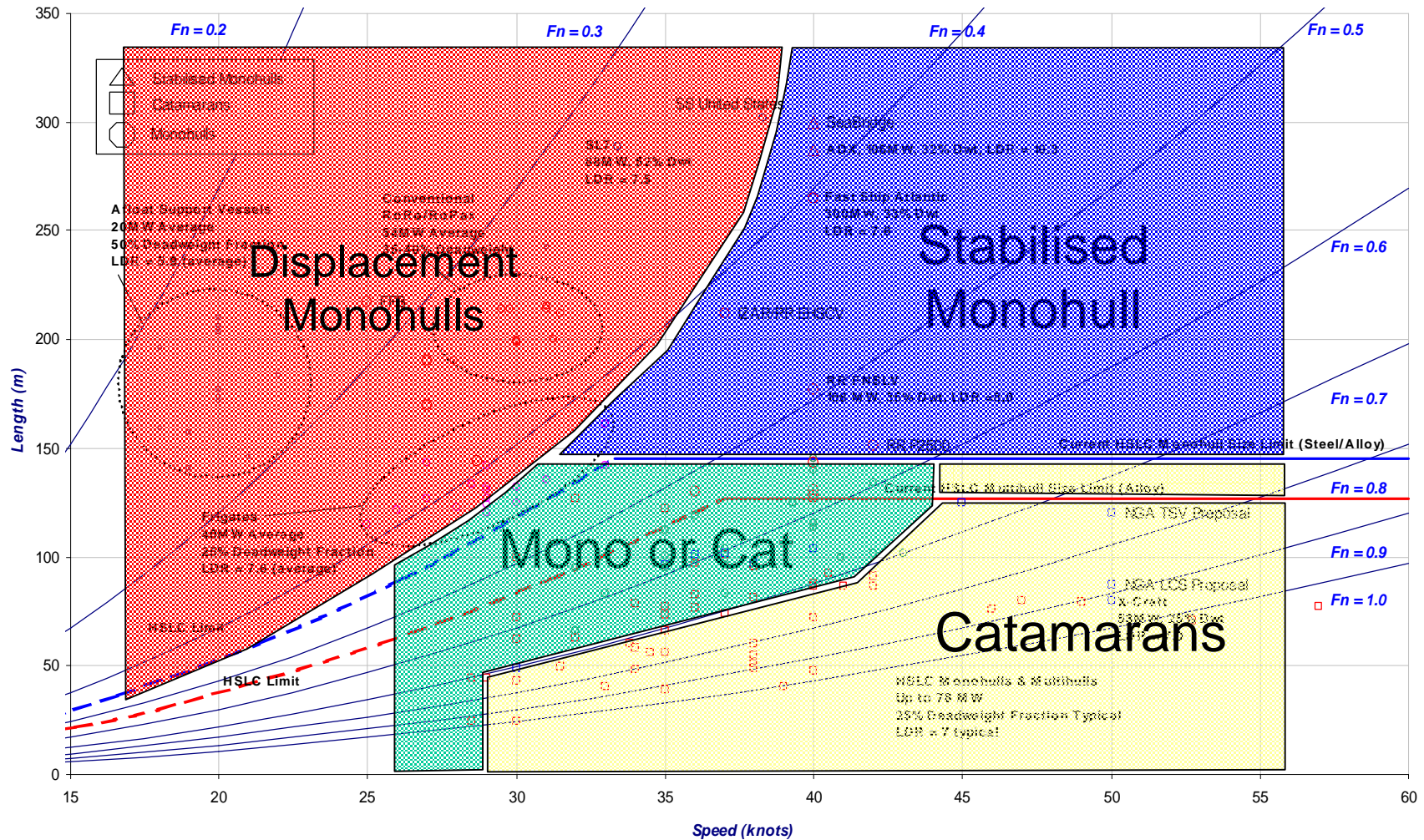


## Turning Coastal Oceans into Sea Bridges



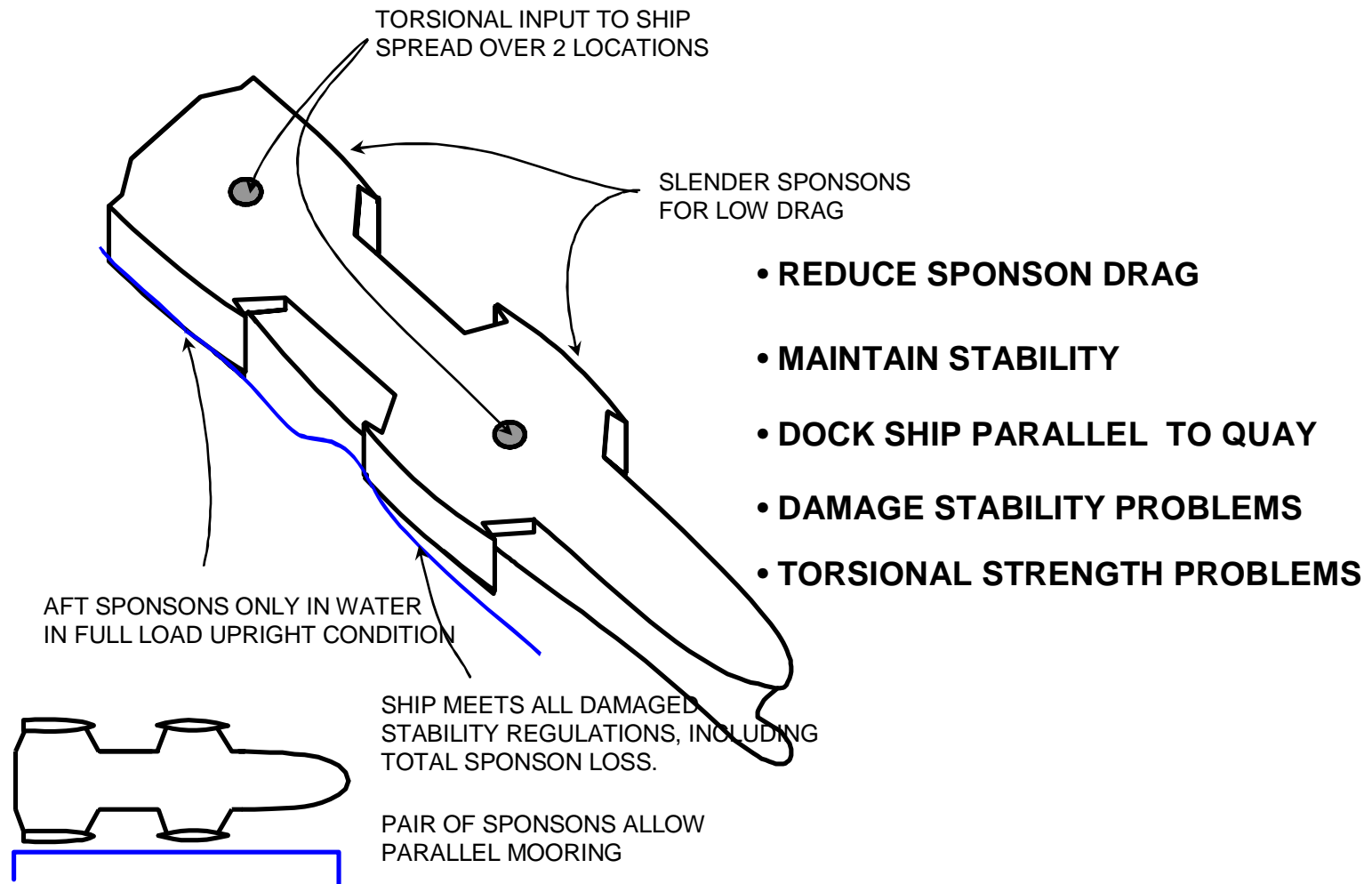


## Turning Coastal Oceans into Sea Bridges





## Turning Coastal Oceans into Sea Bridges



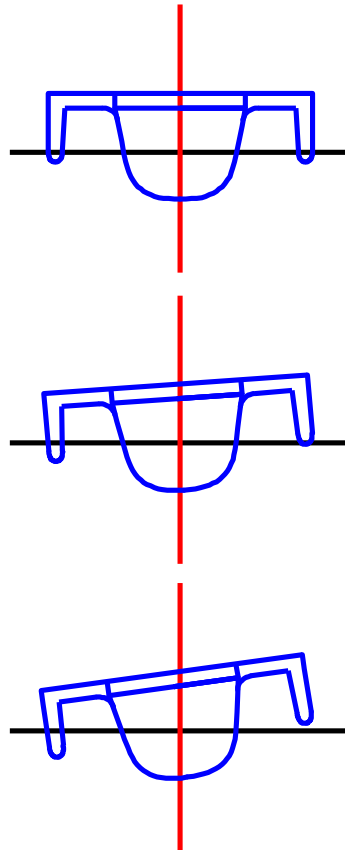


*Turning Coastal Oceans into Sea Bridges*

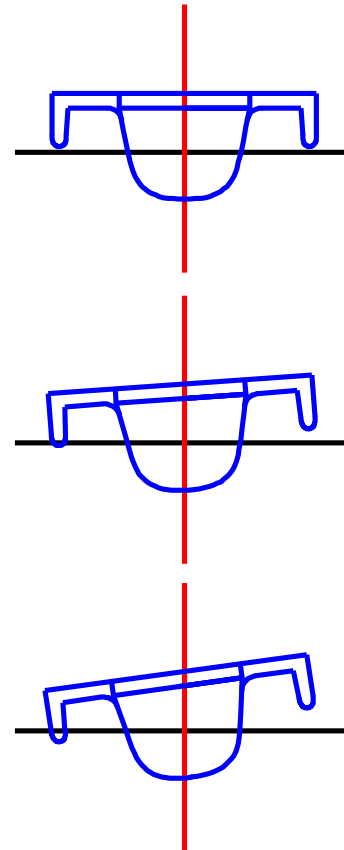
**Progressive Heeling**

**Aft Sponsons**

**Forward Sponsons**



Upright - Zero Heel Angle



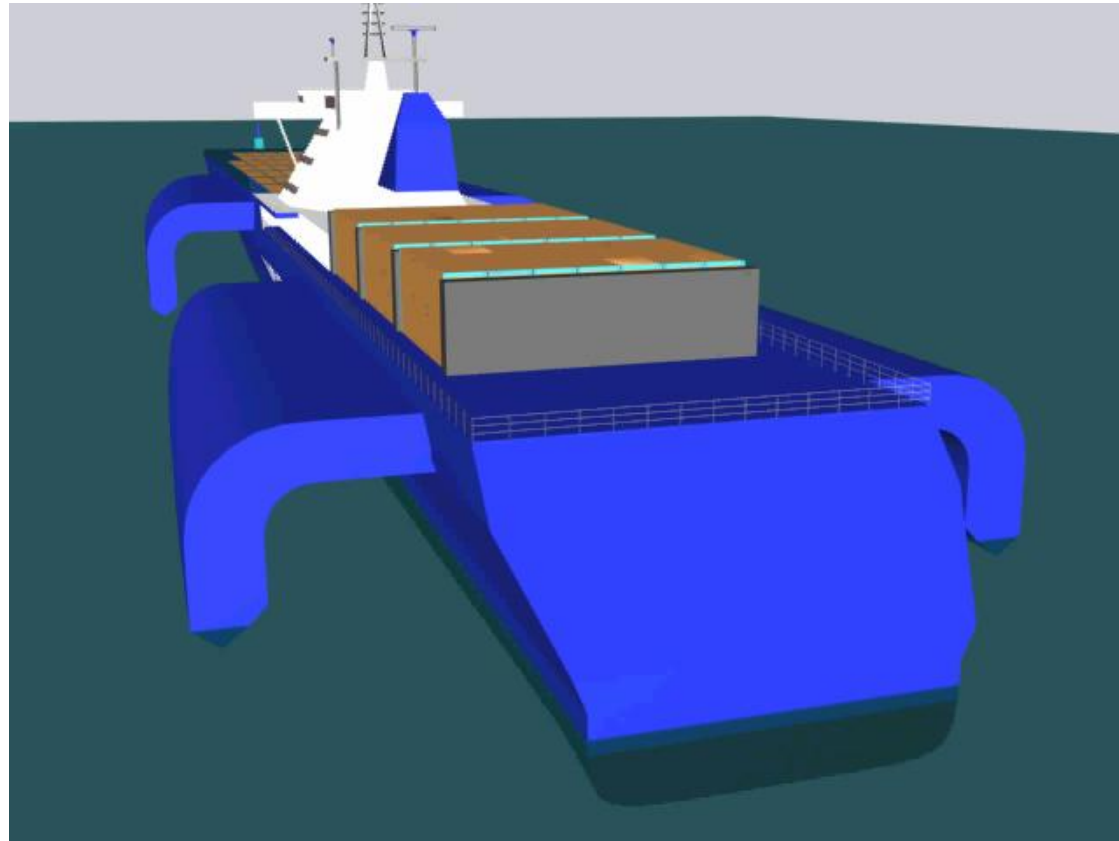
Small Heel Angle

Larger Heel Angles





*Turning Coastal Oceans into Sea Bridges*





*Turning Coastal Oceans into Sea Bridges*



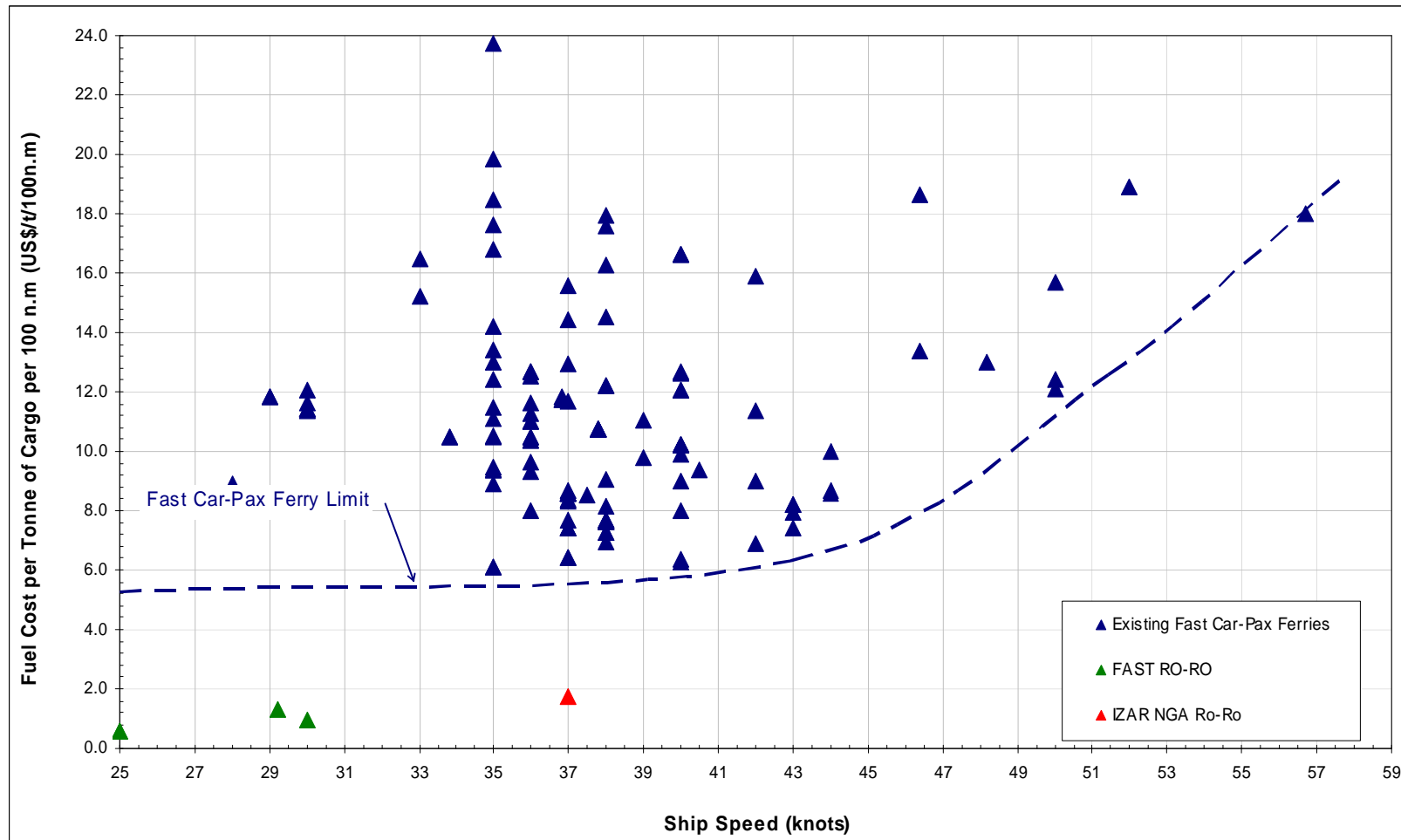


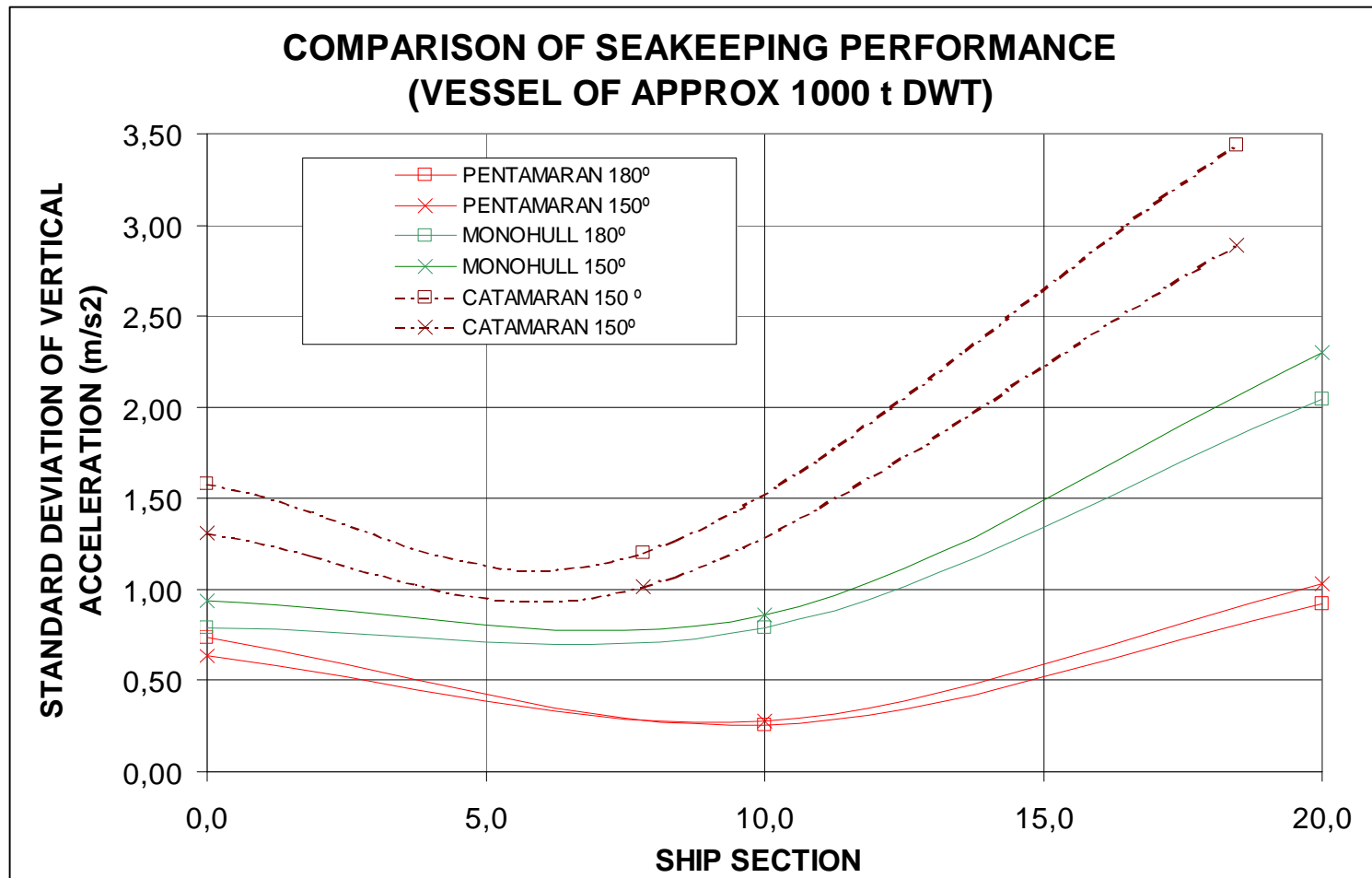
*Turning Coastal Oceans into Sea Bridges*





## Turning Coastal Oceans into Sea Bridges







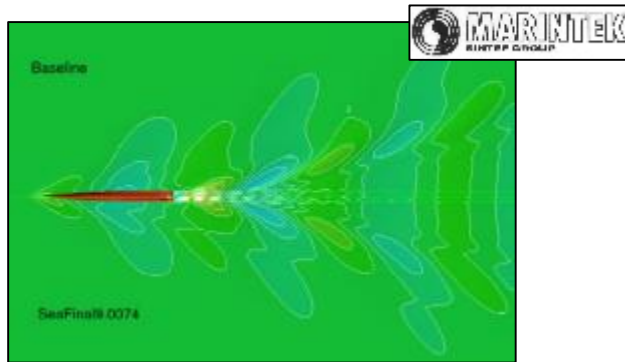
**SEABRIDGE**  
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*Turning Coastal Oceans into Sea Bridges*

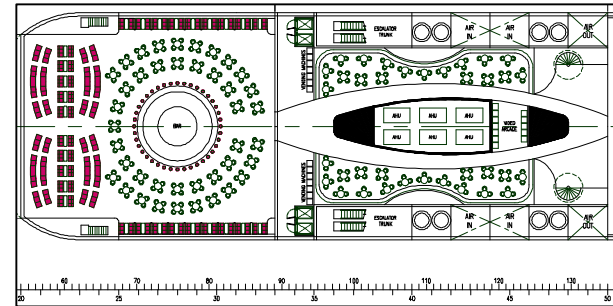




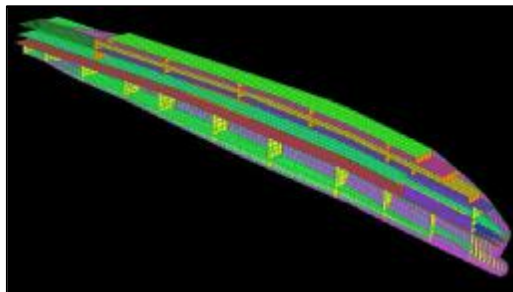
## Turning Coastal Oceans into Sea Bridges



Hull Form Development



Ship Arrangements



Structural Development

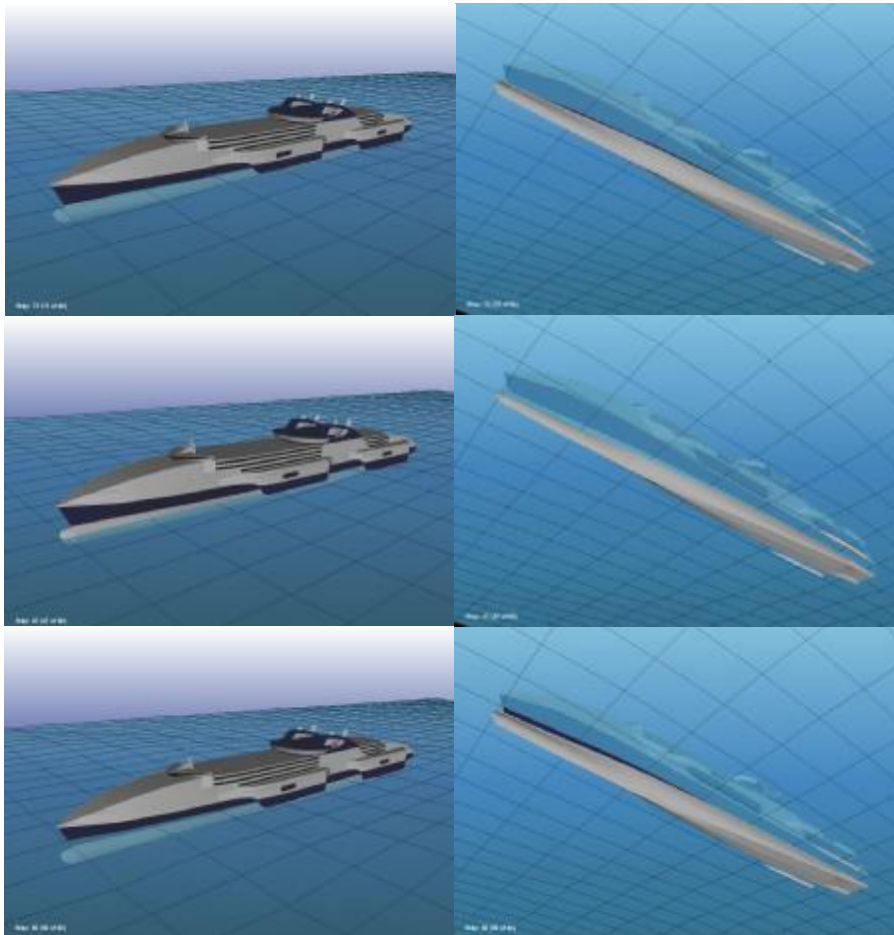


Cost & Route Studies

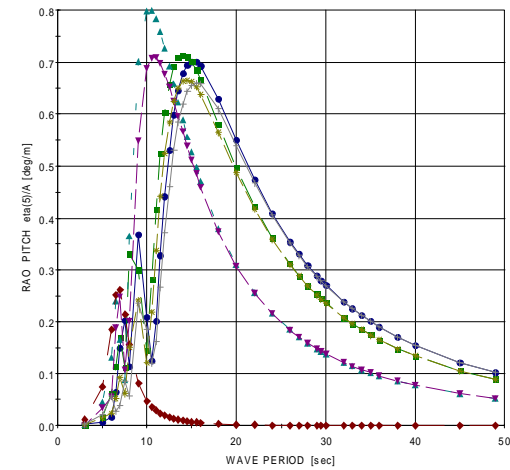




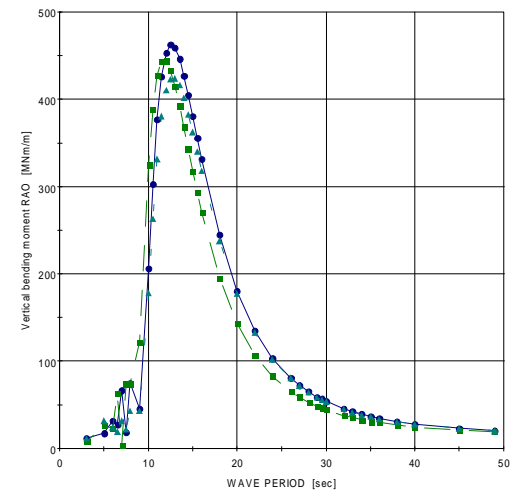
## Turning Coastal Oceans into Sea Bridges



DISPLACEMENTS



Vertical bending moment at Transverse cut X = 125.00 m





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Thank you!

