

2007 Executive Management Conference

Broadening Industry Awareness - Part One

Saddlebrook Resort, Tampa, Florida

May 7, 2007



Planning For Future Transportation Technologies

John Vickerman

Tran Systems

Norfolk, Virginia

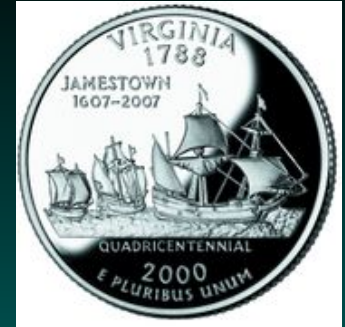
Agenda

- **External Industry Pressures**
- **Port Security Technological Change**
- **International Cargo Demand Trends**
- **The Asian Import Trade Challenge**
- **North America Forecasted Cargo Volumes**
- **North American Port & Intermodal Capacity**
- **International Port Productivity Comparisons**
- **Vessel Technology Trends**
- **Environmental Concerns for Vessel Emissions**



400 Years Ago

A Voyage of Three Vessels Created the First Permanent English Port in Jamestown, VA



In 1600, Queen Elizabeth I Granted a Royal Charter to the **Honourable East India Company**, First Joint-Stock Company (Forerunner of the Corporation), to Develop Far East Trade

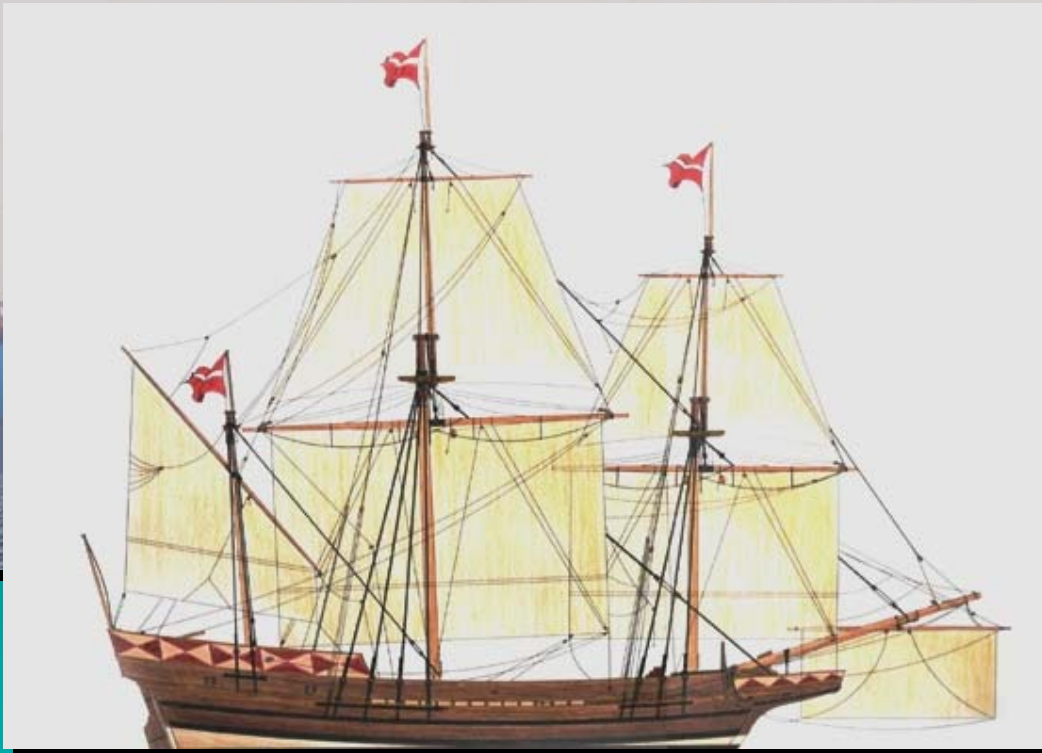


M/S EMMA MÆRSK *Circa 2007*

Deadweight Tonnage: 156,907 tons
LOA: 1,302 feet; **Crew: 13**



MAERSK



Godspeed Brigantine, Circa 1607

Deadweight Tonnage: 40 tons
LOA: 88 feet; **Crew: 13**

M/S EMMA MÆRSK

Circa 2007



MÆRSK



Godspeed Brigantine, Circa 1607



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Port & Intermodal External Industry Pressures

Global Trade: Current Course & Direction?

***Cargo Demands,
Capacity, Funding,
Port Productivity &
Environmental Challenges***

***North American
Port Gateways***



Vessel Cargo Handling Circa 1950

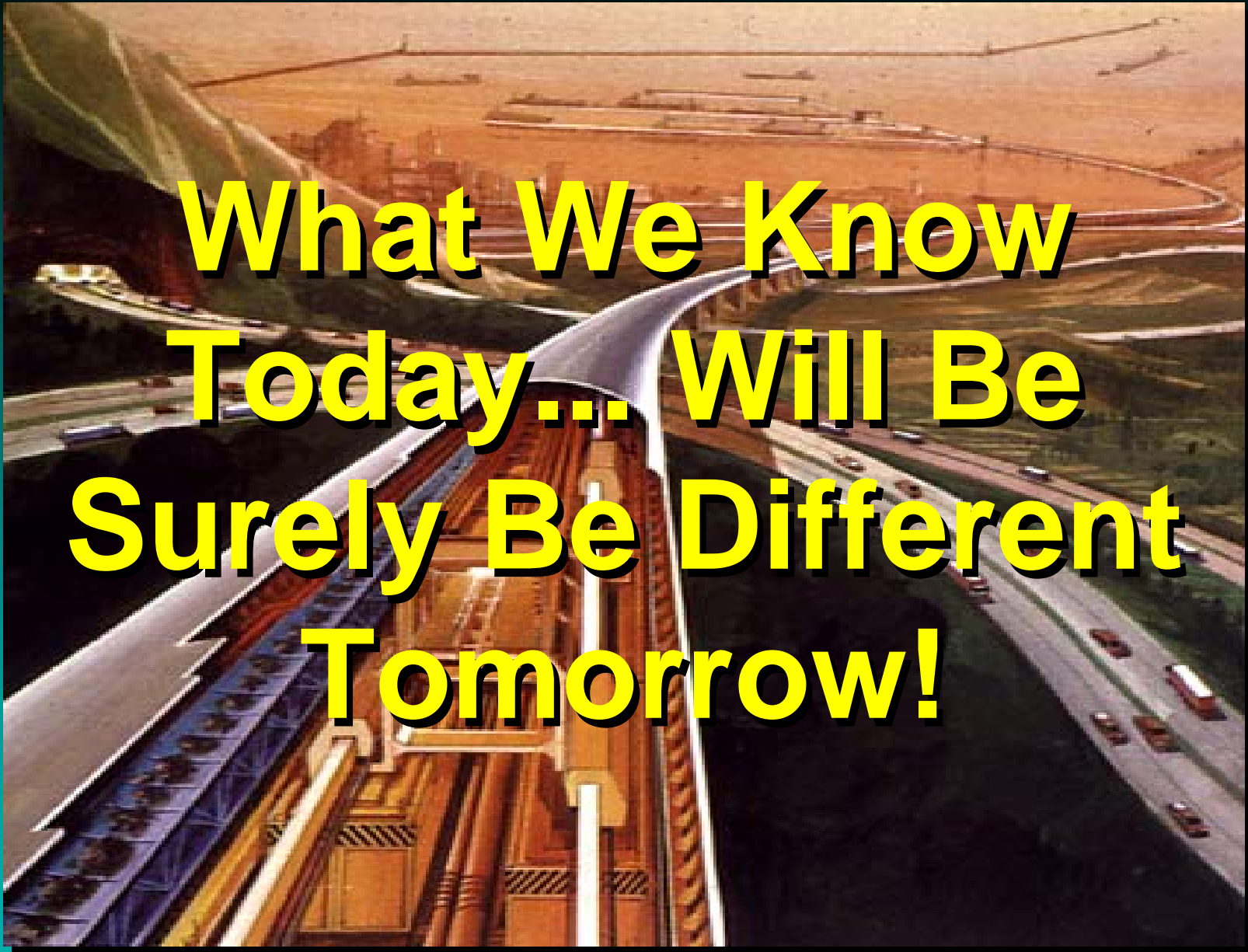





Cargo Handling Circa 2005

US Navy Fast Frigate Circa 2035



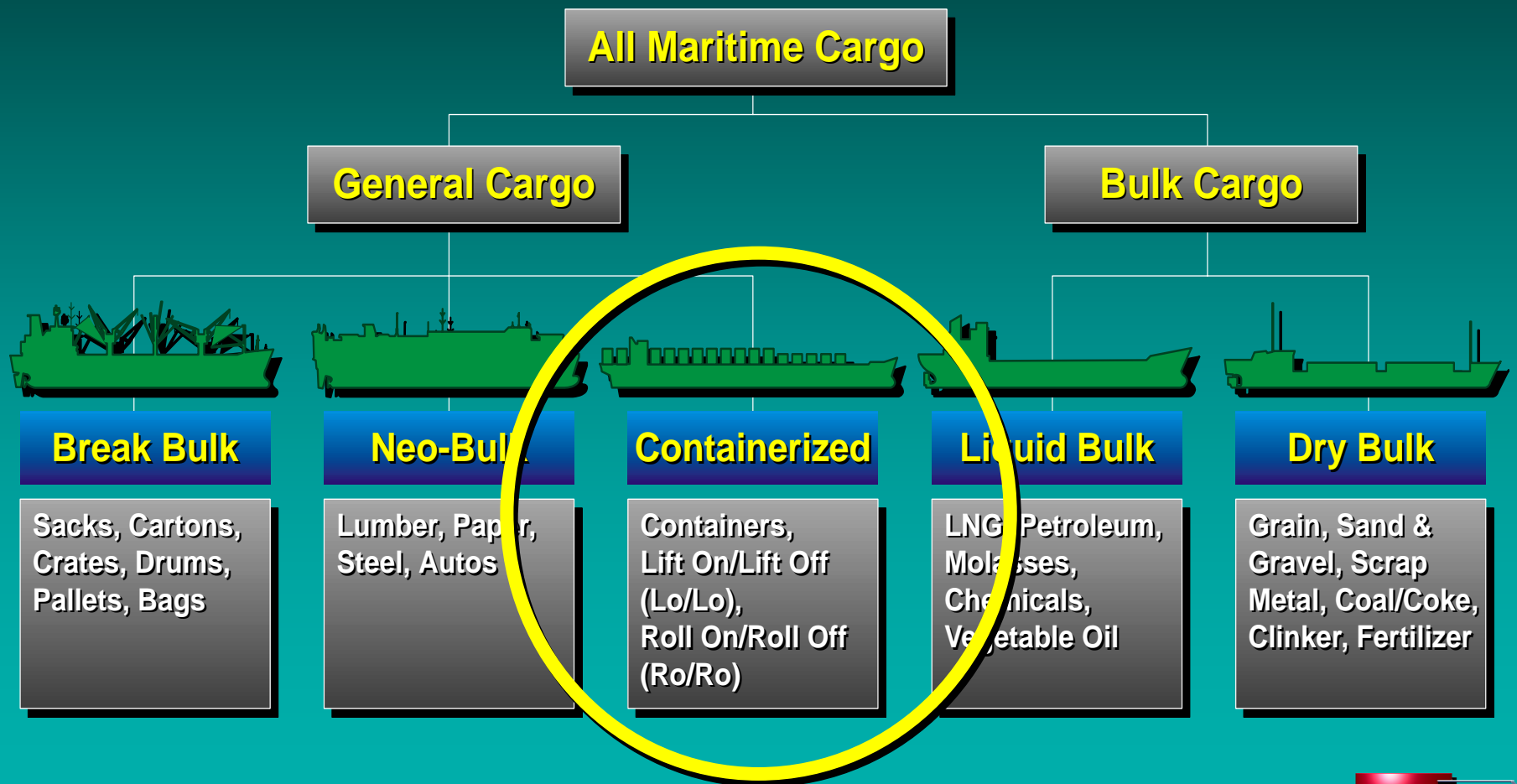
An aerial photograph of a complex highway interchange. A large, multi-level overpass structure is the central focus, with several lanes of traffic visible. The surrounding landscape is a mix of green fields and brownish terrain, suggesting a rural or semi-rural area. The sky is clear and blue.

**What We Know
Today... Will Be
Surely Be Different
Tomorrow!**



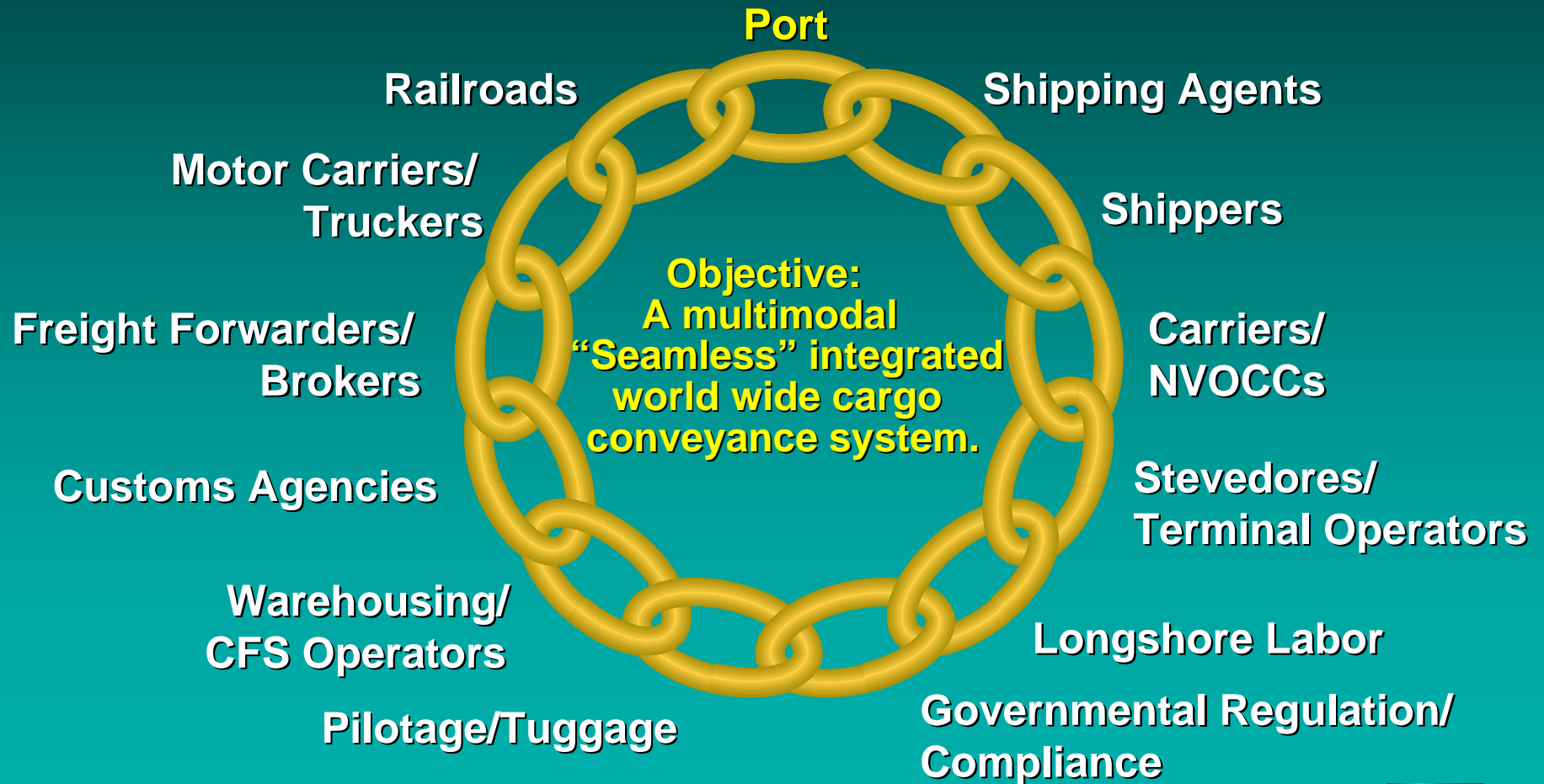
To Be Competitive Today...
Marine/Intermodal
Terminals Must Reduce
Throughput Cost &
Increase Cargo Velocity
Securely and as Stewards of
the Environment

Functional Classification of Global Maritime Cargoes



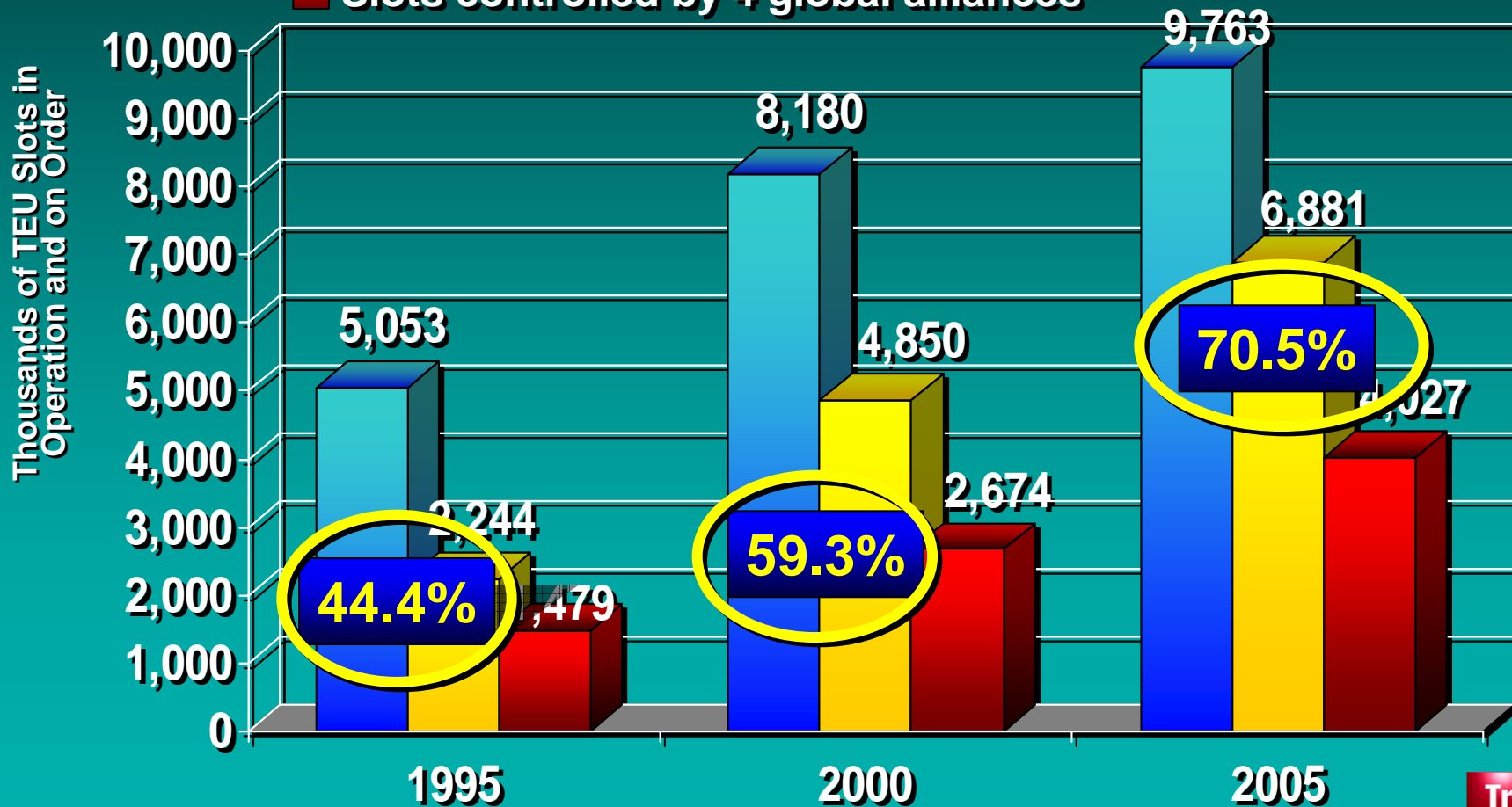
The "Port"

One of the Many Diverse Constituencies
in the Cargo Transportation Logistics Chain



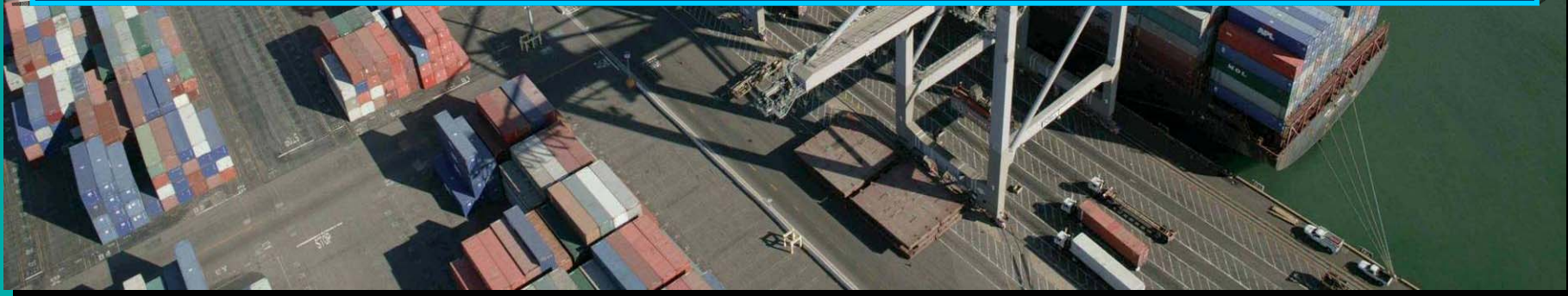
The Global Container Industry Continues to Consolidate...

- Total number of slots
- Slots controlled by top 20 carriers
- Slots controlled by 4 global alliances





***The North American Freight Paradox:
The Nation's Ports and Their Intermodal
Linkages are Experiencing the
"Best of Times and the Worst of Times"
in Terms of Growth and Demands on Capacity***



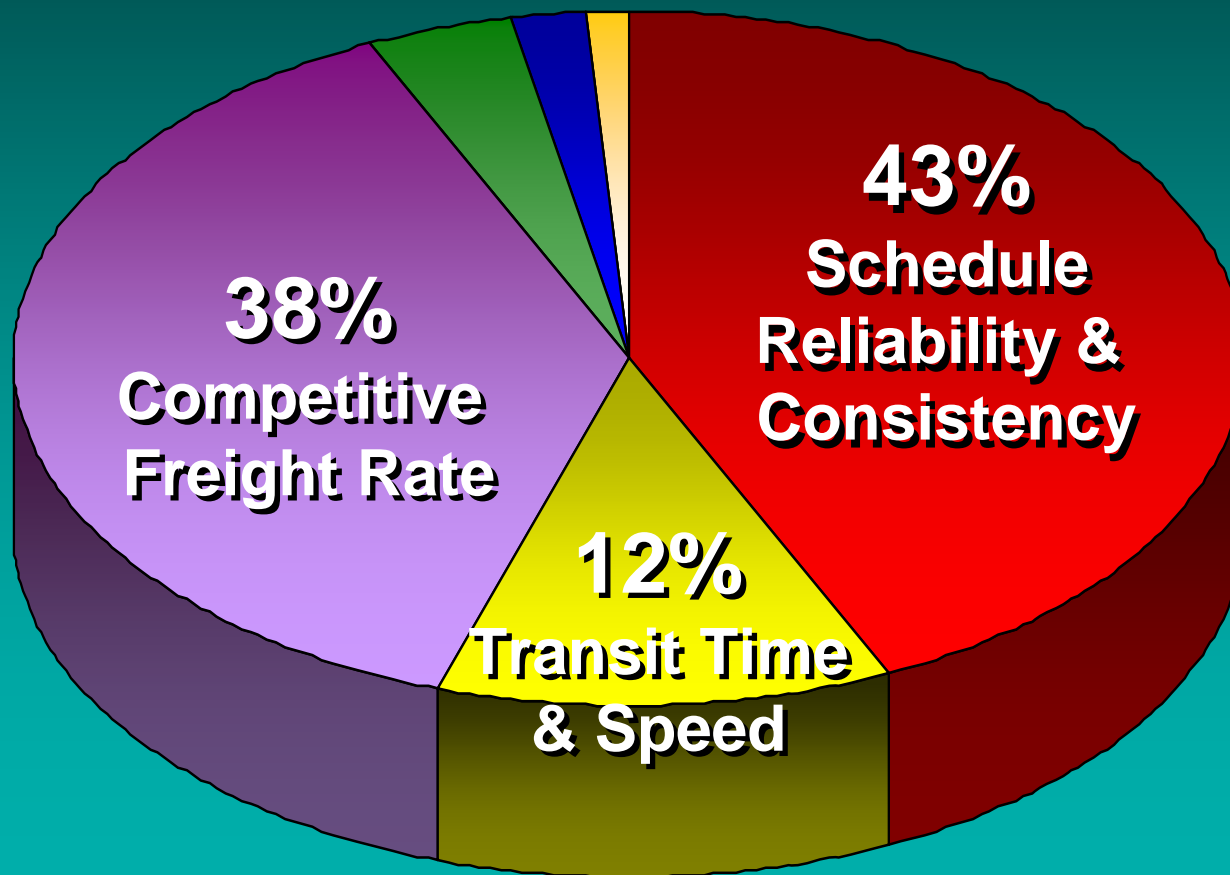


**At Current Productivity and Growth Levels by 2020
North American Ports & Their Associated
Intermodal Systems Will Be Severely Congested.
*In Today's Supply Chain
Congestion Can't be an Excuse...***



Americas Systems Inc. develops a port system that allows companies
to obtain information on shipments
BY CHRIS DUPIN

Poll of the Top 1000 “Blue Chip” Multinational Shipper Priorities

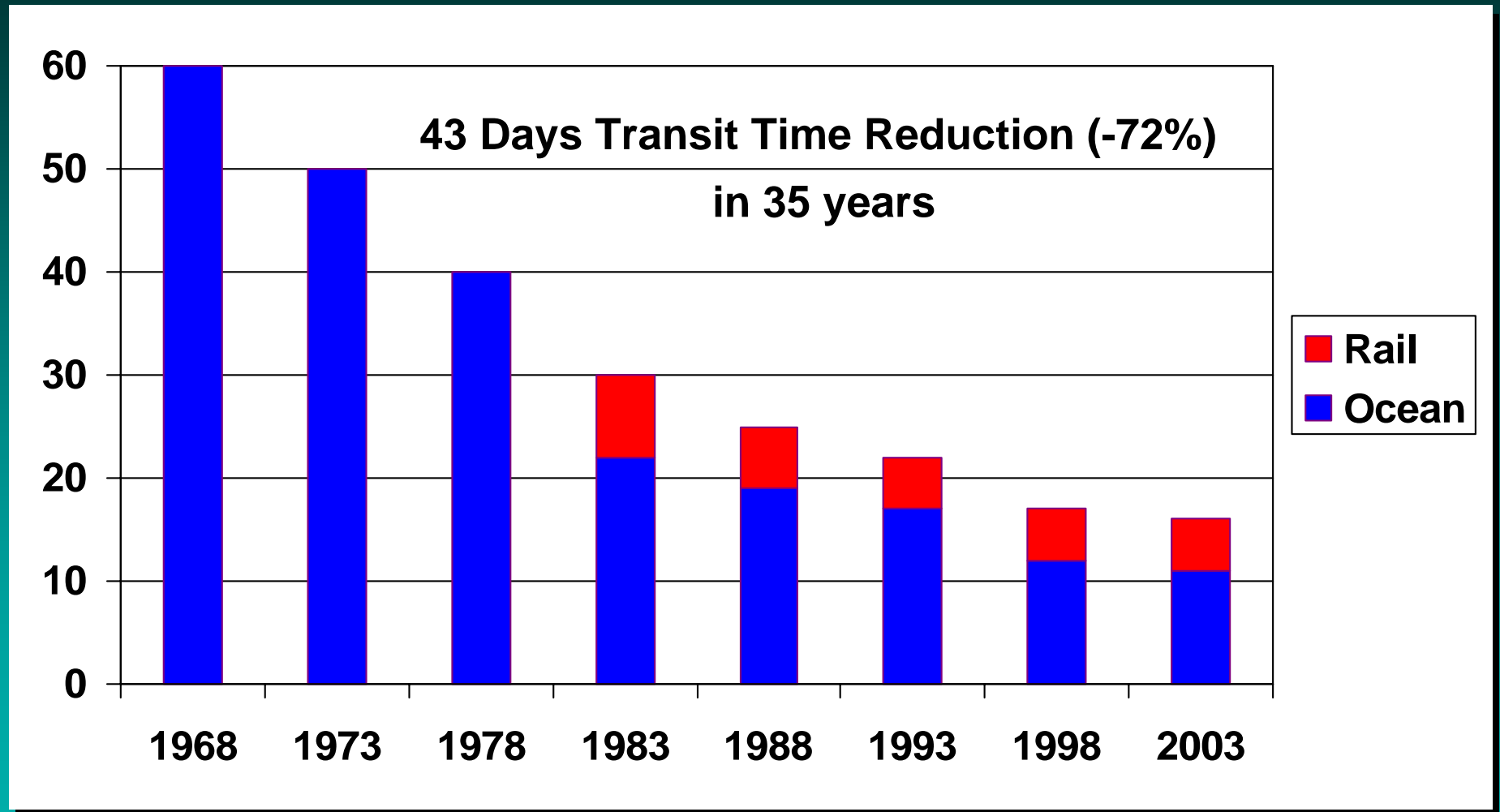


Today's Logistics Truth:

*“The customer
wants **more** and
is willing to pay
less for it.”*

Today: Global Trade is an Intermodal System

Typical Transit Days: Hong Kong to New York



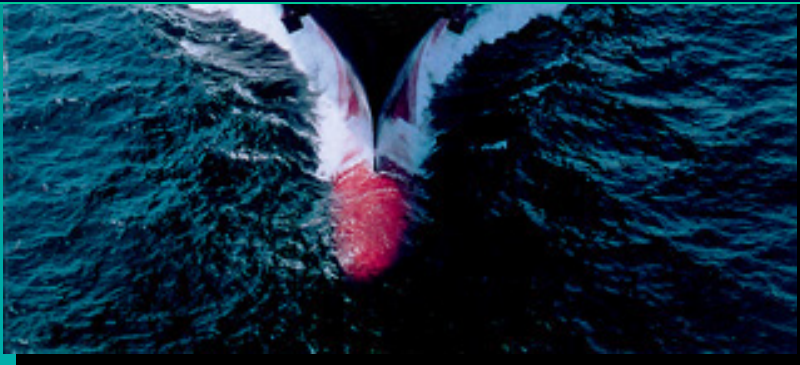
Source: Kansas City Southern Railroad



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We do not have an “intermodal system” as such. Rather we have an aggregation of multiple, private and public modes, each of which are “stove-piped” within their own individual areas of interest with little or no true cross communication and collaboration.





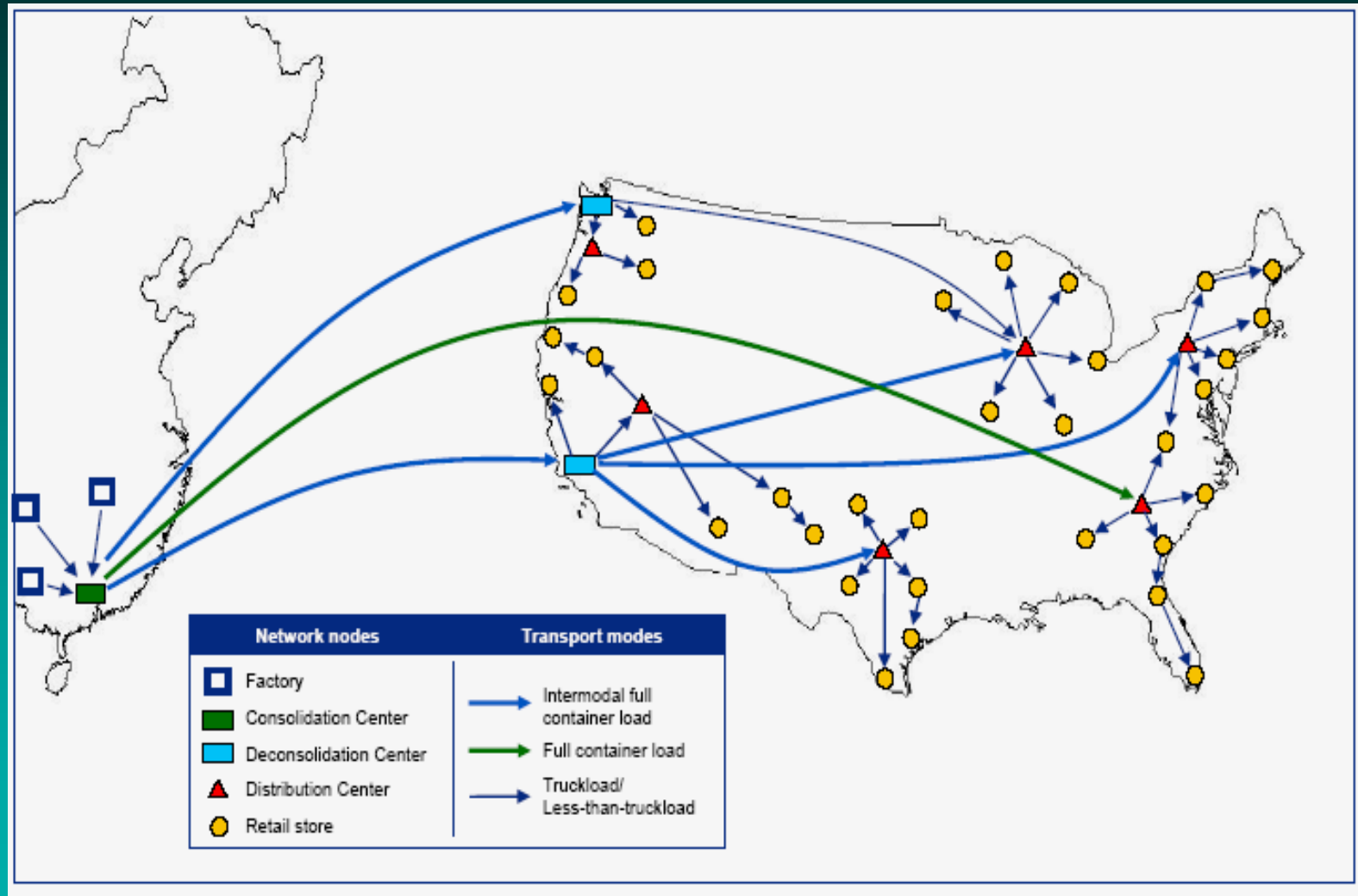
Recent Private Investment in North American Port Logistics Infrastructure

Impacts of Recent M&A Transactions on the Port & Terminal Operating Industry

<i>Acquirer</i>	<i>Target</i>	<i>Acquisition Value</i>	<i>EBITDA Multiple</i>
<i>Morgan Stanley</i>	<i>Montreal Gateway</i>	<i>CDN \$450 M</i>	<i>22.4</i>
<i>Macquarie Bank</i>	<i>Halterm, Halifax</i>	<i>CDN \$173 M</i>	<i>22.9</i>
<i>Ontario Teachers</i>	<i>Orient Overseas</i>	<i>US \$2,400 M</i>	<i>26.9</i>
<i>Goldman Group</i>	<i>Assoc. British Ports</i>	<i>£ 2,500 M</i>	<i>14.6</i>
<i>DP World</i>	<i>P&O</i>	<i>£ 3,880 M</i>	<i>16.3</i>
<i>Babcock & Brown</i>	<i>PD Ports Group</i>	<i>£ 260 M</i>	<i>12.6</i>
<i>AIG Global</i>	<i>DP World NA</i>		

Average Container Terminal EBITDA Multiple: 24.6

Changes in West Coast Port & Intermodal Cargo Transloading



Emergence of the Inland Port - Rail Logistics Park is Changing West Coast Trans-loading Long Term Trends

Inland Port Logistics Rail Parks Attracting Major Import DCs

Example: BNSF's Alliance, TX and Joliet, IL Logistics Park & UP's Global III Rochelle, IL

Disembark Ops Handled Not at West Coast Ports but at Inland Rail Logistics Park which is close to the Consumer

TTX 2006 International Transportation Flow Study:

2000: 28% Transload

2004: 24% Transload

2005: 20% Transload

**West Coast
Trans-load**



Dedicated DC Volume is primary reason

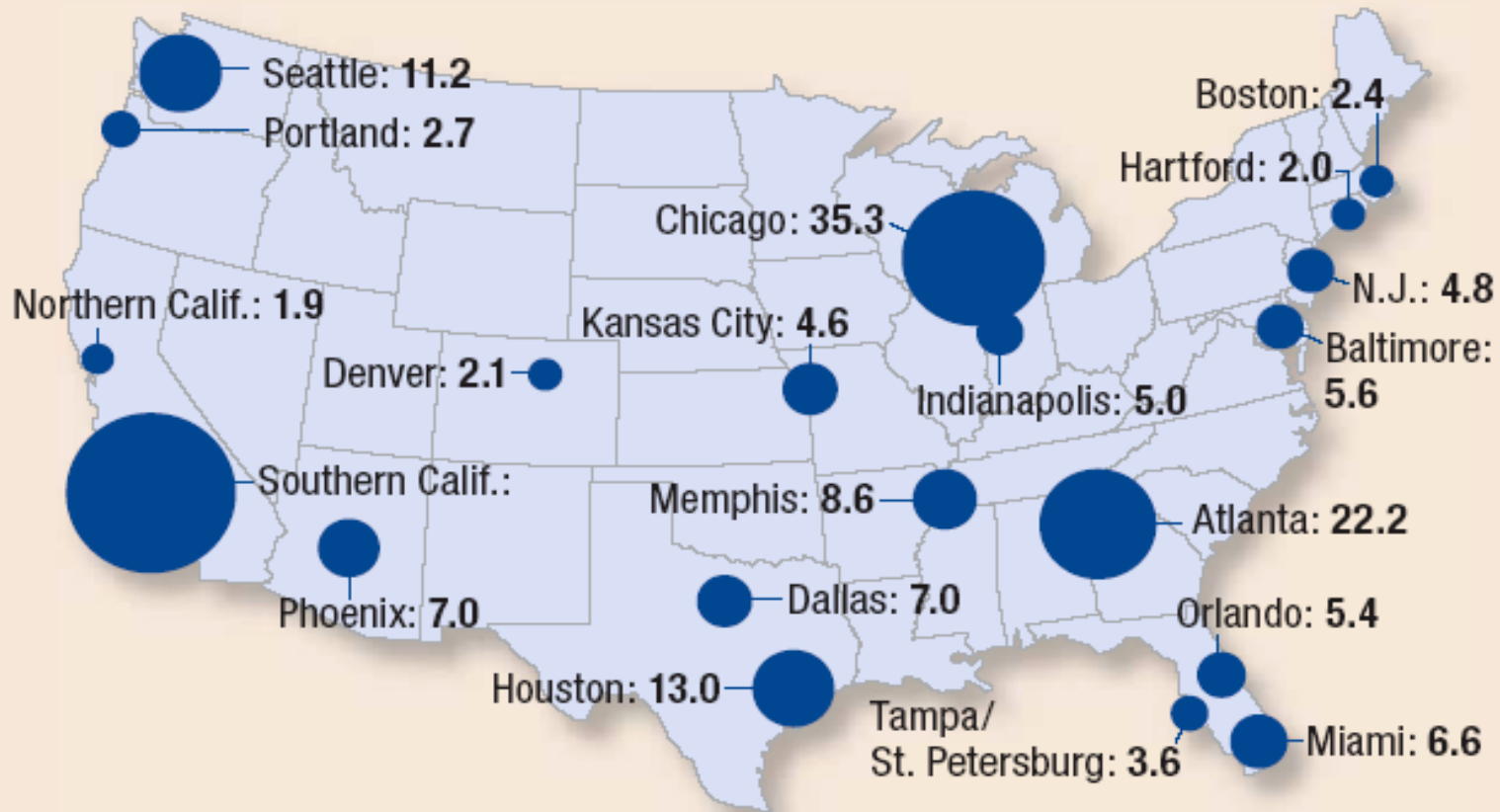
Wal-Mart's 3.2 million sf Joliet Import DC



Recent Changes in Domestic Distribution

Direct absorption: Warehouse/distribution

January 2004–April 2006 (per million square feet)



Source: Cushman & Wakefield, *Industrial White Paper*, June 2006: "New Age of Trade

Central Logistics Park, Chicago (Joliet Arsenal BNSF)



**Largest Intermodal Rail Terminal in the US
2006 Wal-Mart Opening of a
3.2 Million Sq Ft Distribution Center**



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Port Security Technological Change



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Ports are Experiencing Dramatic Surges in Seaport Security Costs

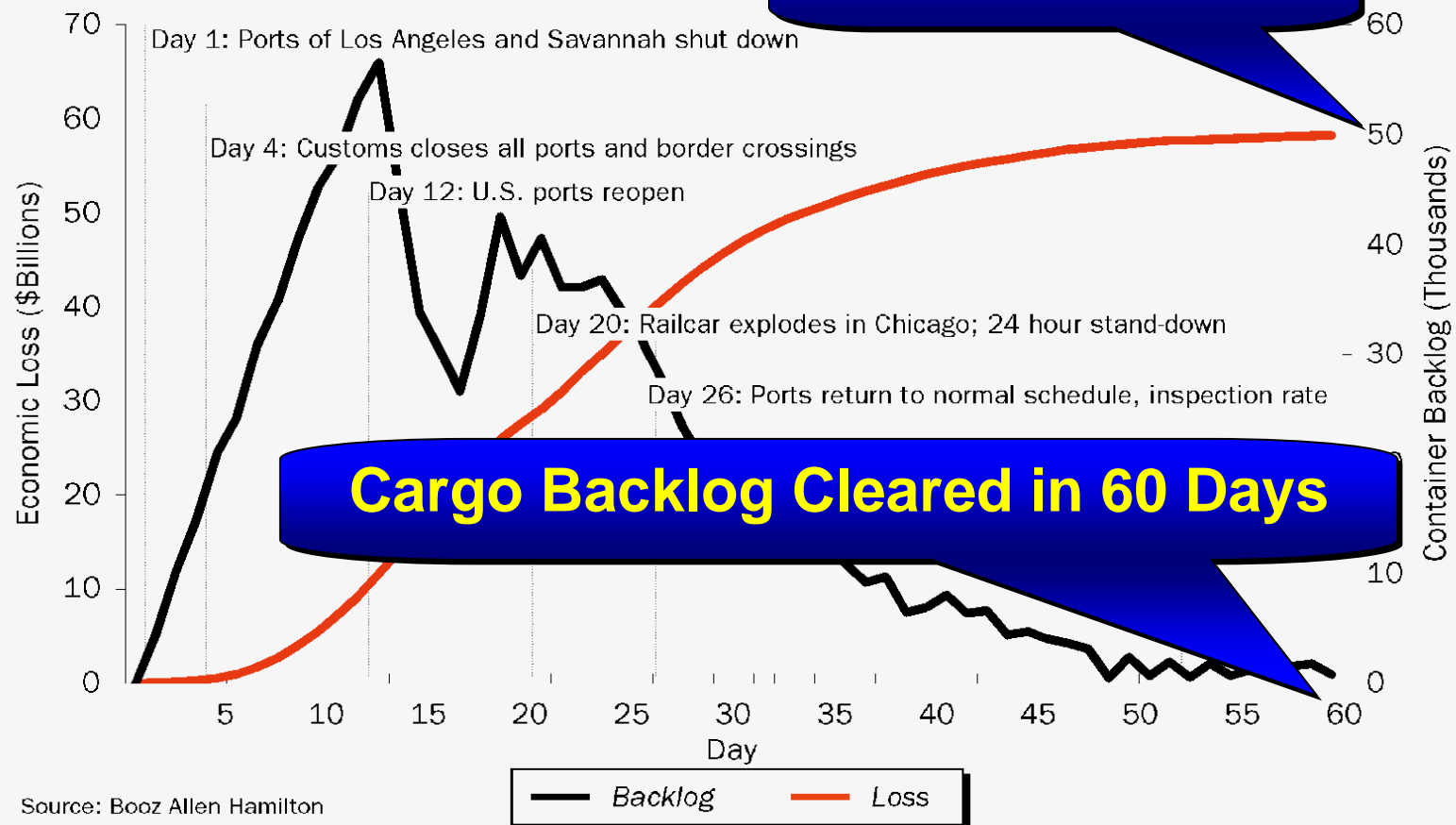
Port of Miami's Security Costs Today are 600% Higher Than that of 2001



US Port Security Breach: Supply Chain Disruption

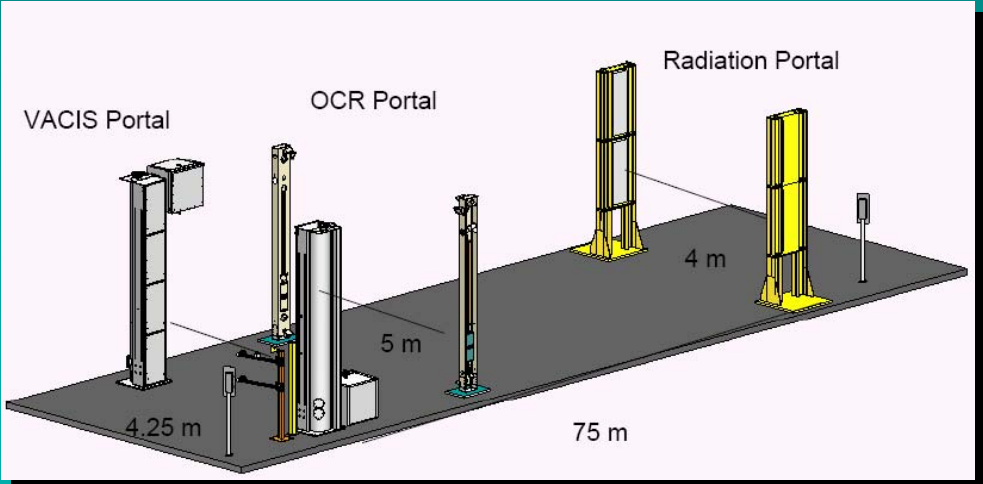
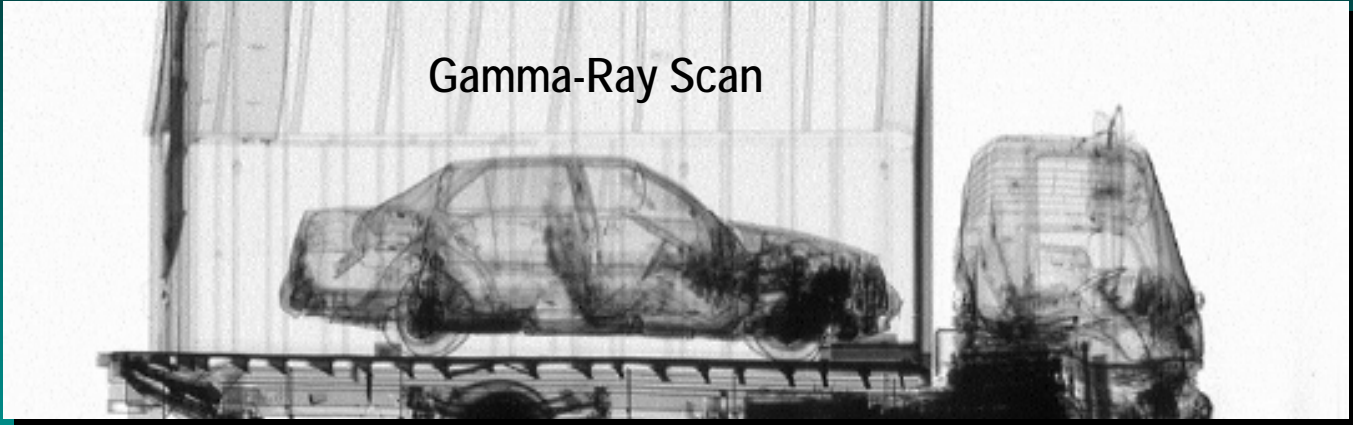
PORT SECURITY WAR GAME—ECONOMIC IMPACT

Exhibit 4



Equipment and Technologies Security Container Inspection

100% Radiological Inspection Regime



SAIC Configuration

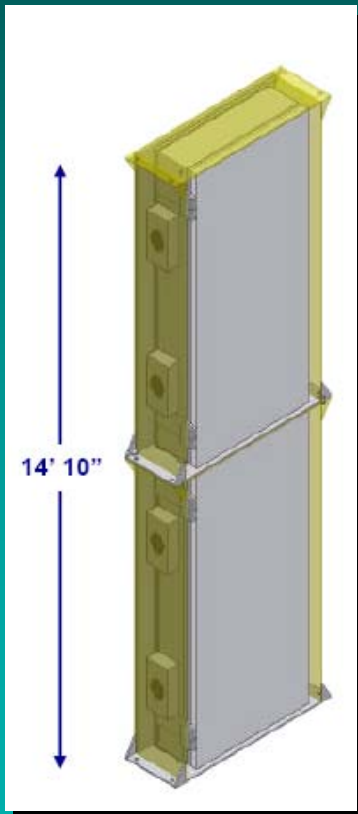


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What is a Radiation Portal Monitor (RPM)?

1st Generation: Plastic Scintillators (RPM)

2nd Generation: Spectroscopic (SPM)
(SPM Isotope Identifying Software)



A radiation portal monitor is a detection device that provides Customs and Border Protection (CBP) with a passive, non-intrusive means to screen containers and trucks as well as other conveyances for the presence of nuclear and radiological materials.

Plastic Scintillators Versus Spectral SPMs



*First generation Radiation Portal Monitors (RPM), have been referred to as... **Kitty Litter Detectors** because they couldn't differentiate between dangerous and non-dangerous sources, spectral devices referred to as Spectroscopic (SPM), can identify isotopes.*

Spectroscopic (Spectral) SPM Array

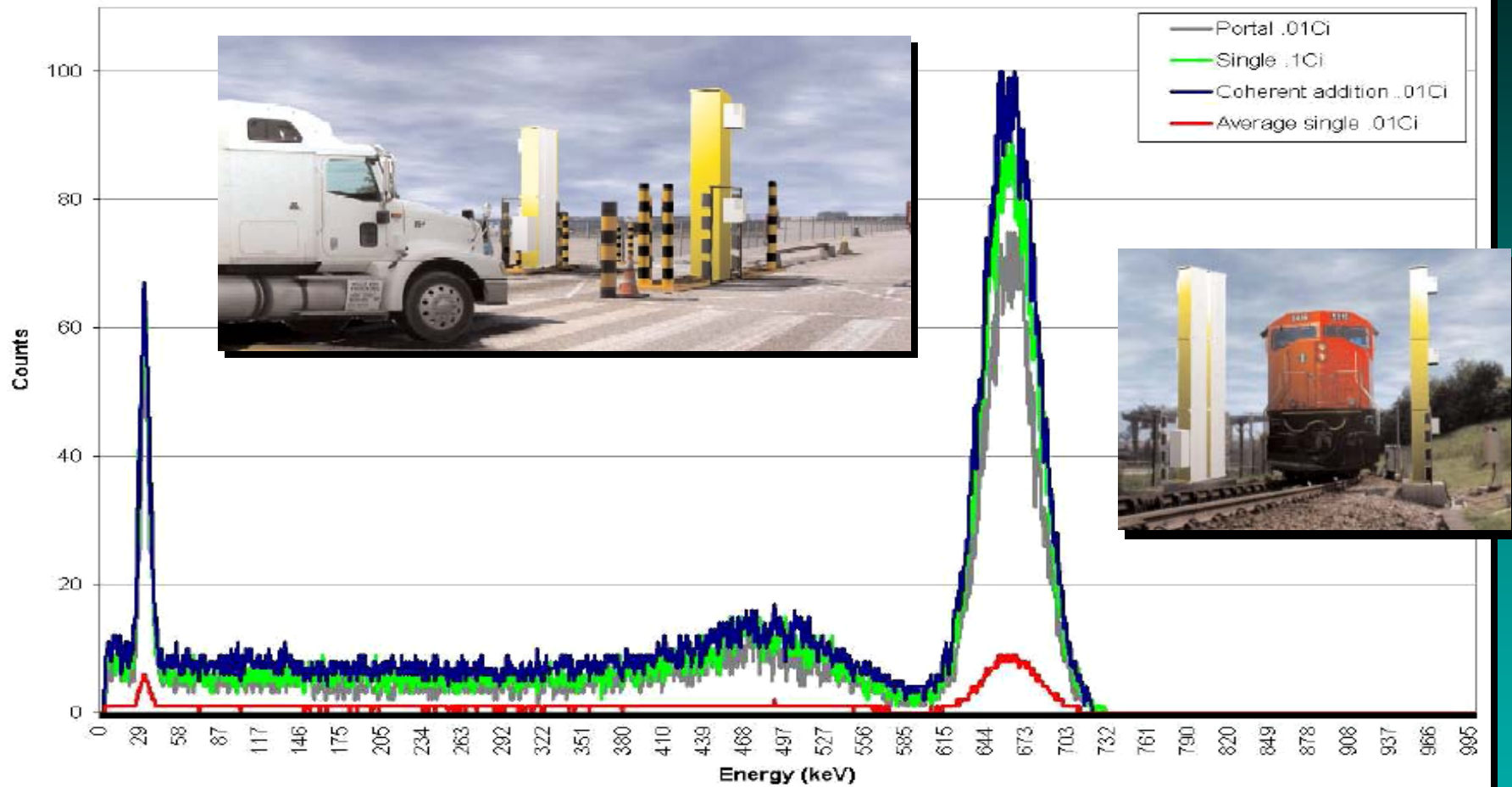


Fig. 2. Detected spectra for coherent addition of eleven 75mm NaI DSN detectors with a 0.01Ci source, a typical portal monitor detection of the same source, and detection of a 0.1Ci source using only one DSN detector, as well as an average single DSN detector sensing a 0.01 Ci source.



Safe Port Act of 2006 (HR 4954 - The Security and Accountability For Every Port Act)

- 100% scanning using visual imaging and radiation detection
- Deployment radiation detection equipment in the **22 largest US seaports by the end of 2007** with screening of all ports handling inbound containers by end of 2008.
- Transportation Worker Identification Credential (TWIC) card required in top 40 US ports in specified security zones by **January 1, 2008**
- Codification of ATS, CSI and C-TPAT "**Greenlane**".





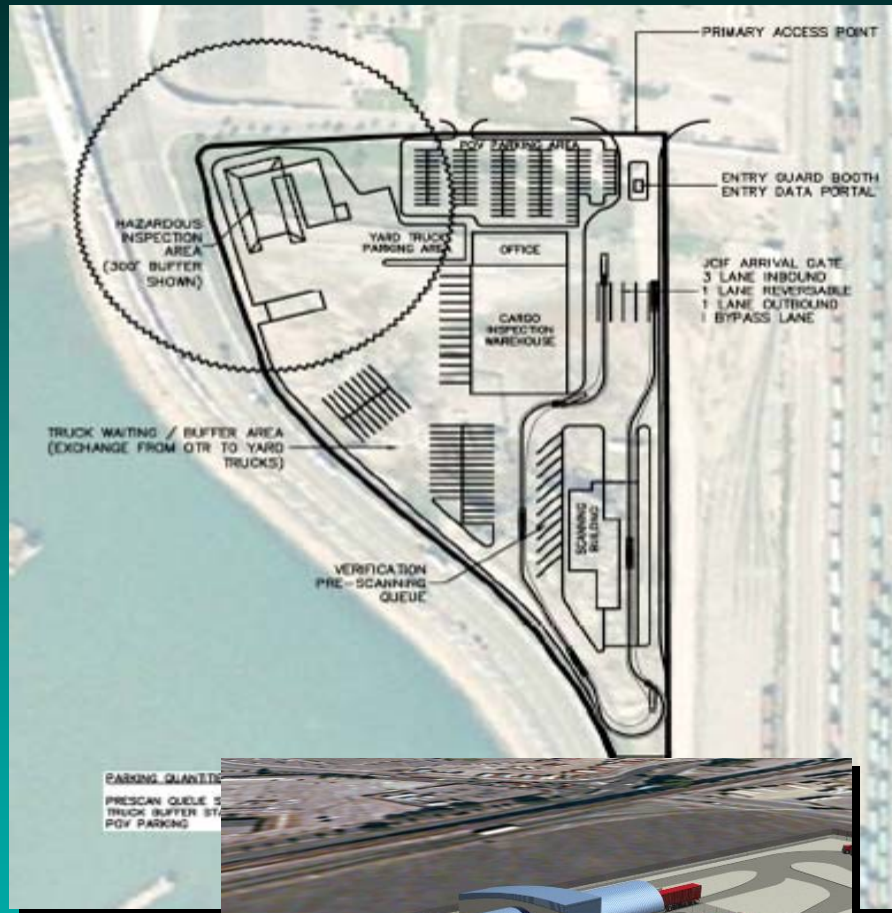
Secure Freight Initiative (December 7, 2006)

- ***DHS & DOE to deploy combination of existing programs – Unification of First and Second Lines of Defense***
- ***Deploy scanning equipment globally to capture data on all containers bound to the US***
- ***\$30 Million from USDOE NNSA SLD & \$30 Million from DHS (\$10 M per port max. per Secretary Chertoff)***
- ***Phase I Ports:***
 - ***Minor Ports:*** Qasim Pakistan, Puerto Cortes Honduras, Southampton UK (***Complete by Summer 2007***)
 - ***Major Ports:*** Salalah Oman, Singapore, Busan Korea (***Gamman Terminal***)

Once We Find a “Dirty Nuclear Threat” ... What Do We Do With It?, How Do We Contain It?



Port of Los Angeles/Port of Long Beach Joint Container Inspection Facility (JCIF)



**\$65 M High Tech Model
Facility to be Replicated
at all US Container Gateway
Ports Under a TSA/DHS Grant**

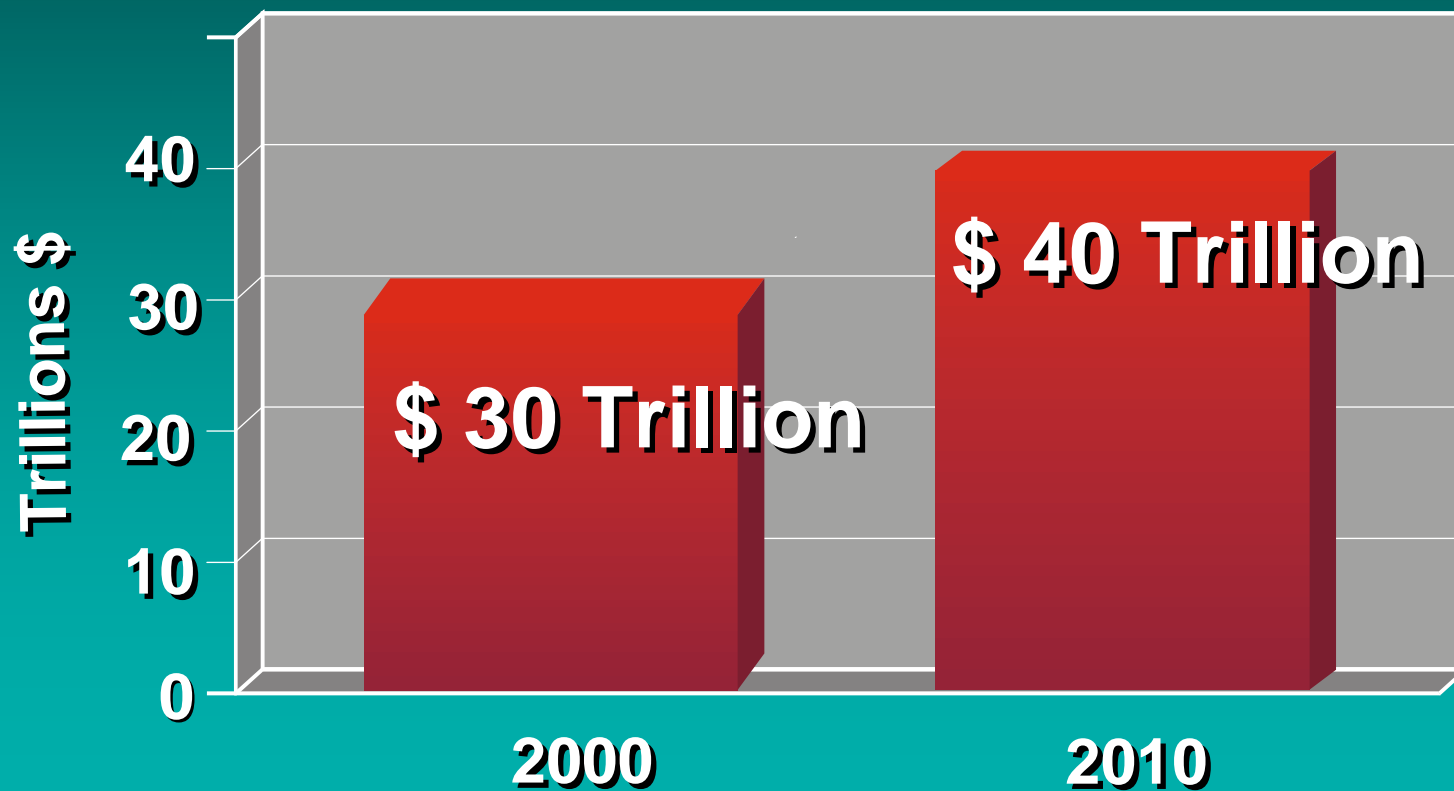




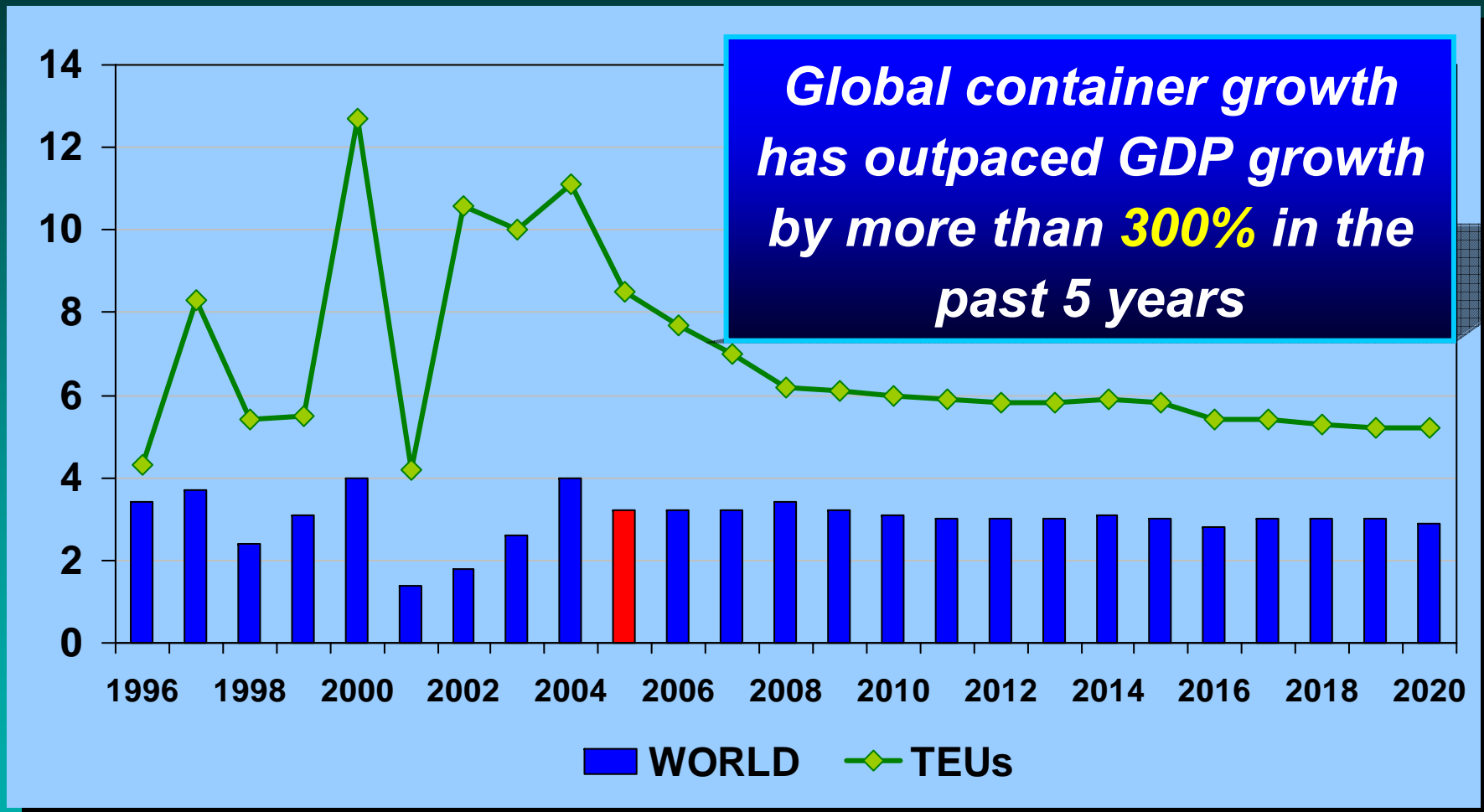
International Maritime Cargo Demand Trends

World Bank's 2010 "Global Economic Prospects"

World Output will Increase 33% in 10 years

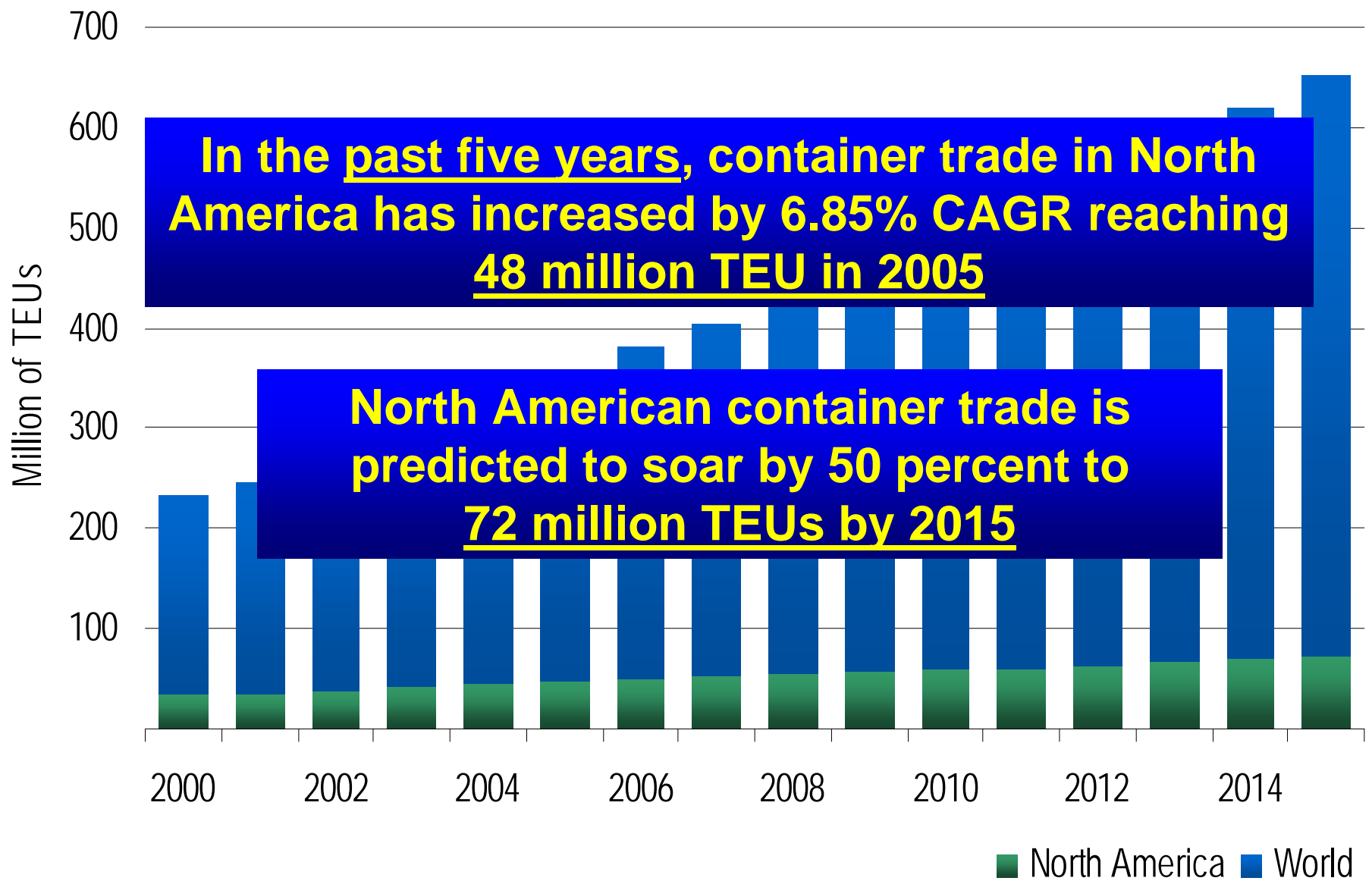


Ocean Container Trade Volume Will Continue to Grow Faster than the World Economy



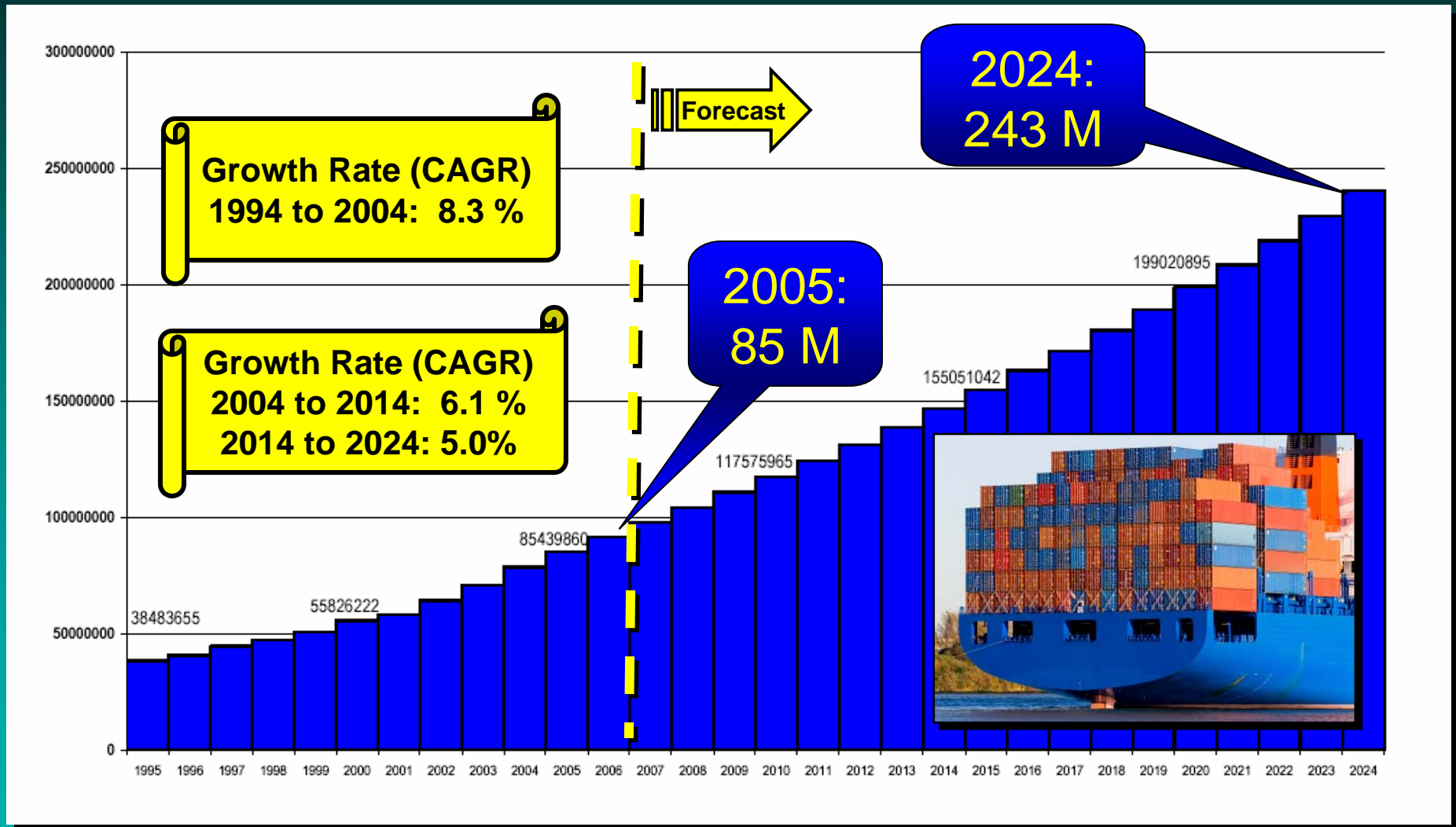
Source: Global Insight World Service and World Trade Service

Global Growth in Containerized Trade



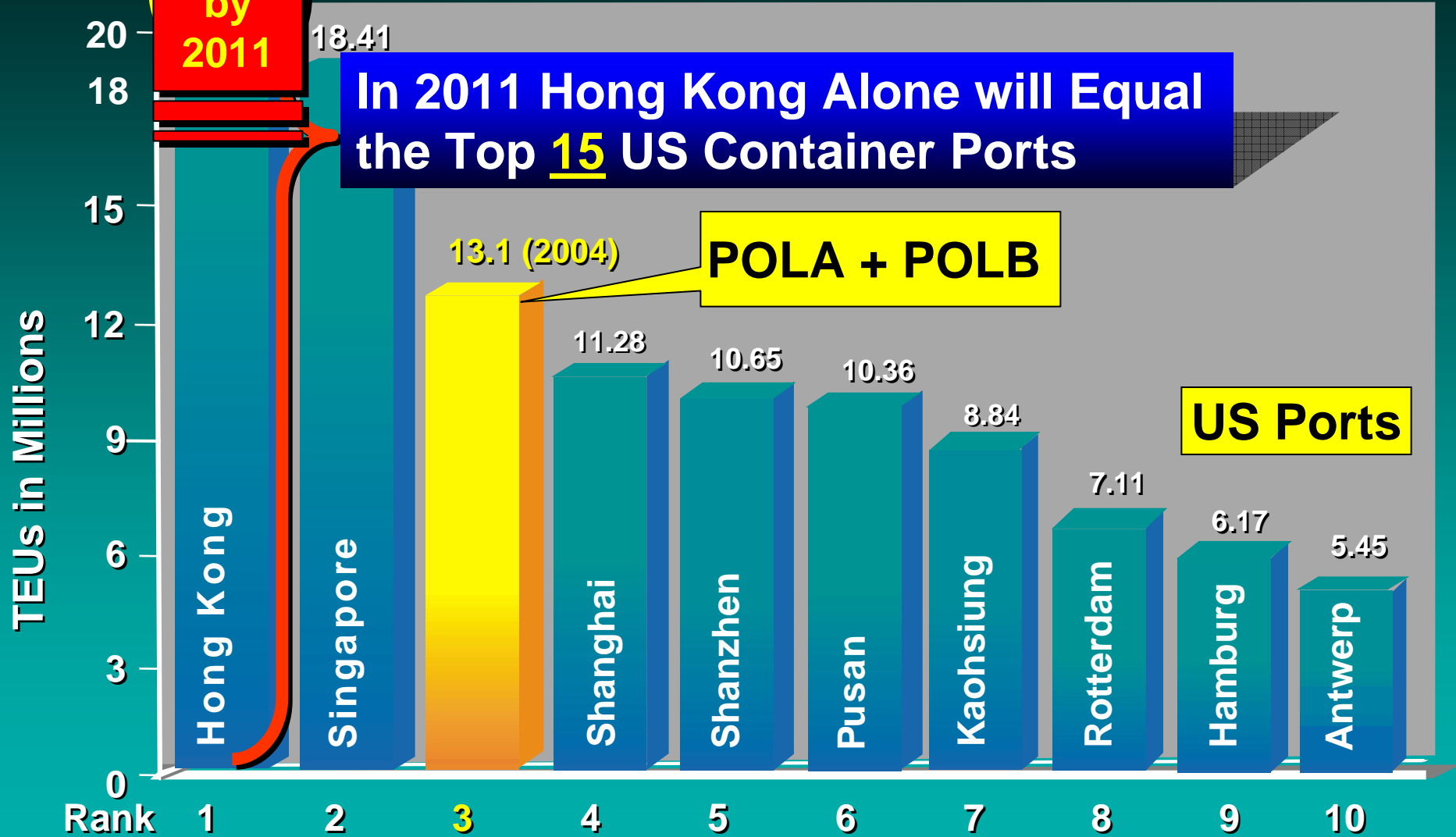
Source: TranSystems, Containerization International Statistics

World Container Forecast to 2024 in TEUs (186% Increase in Next 20 Years)



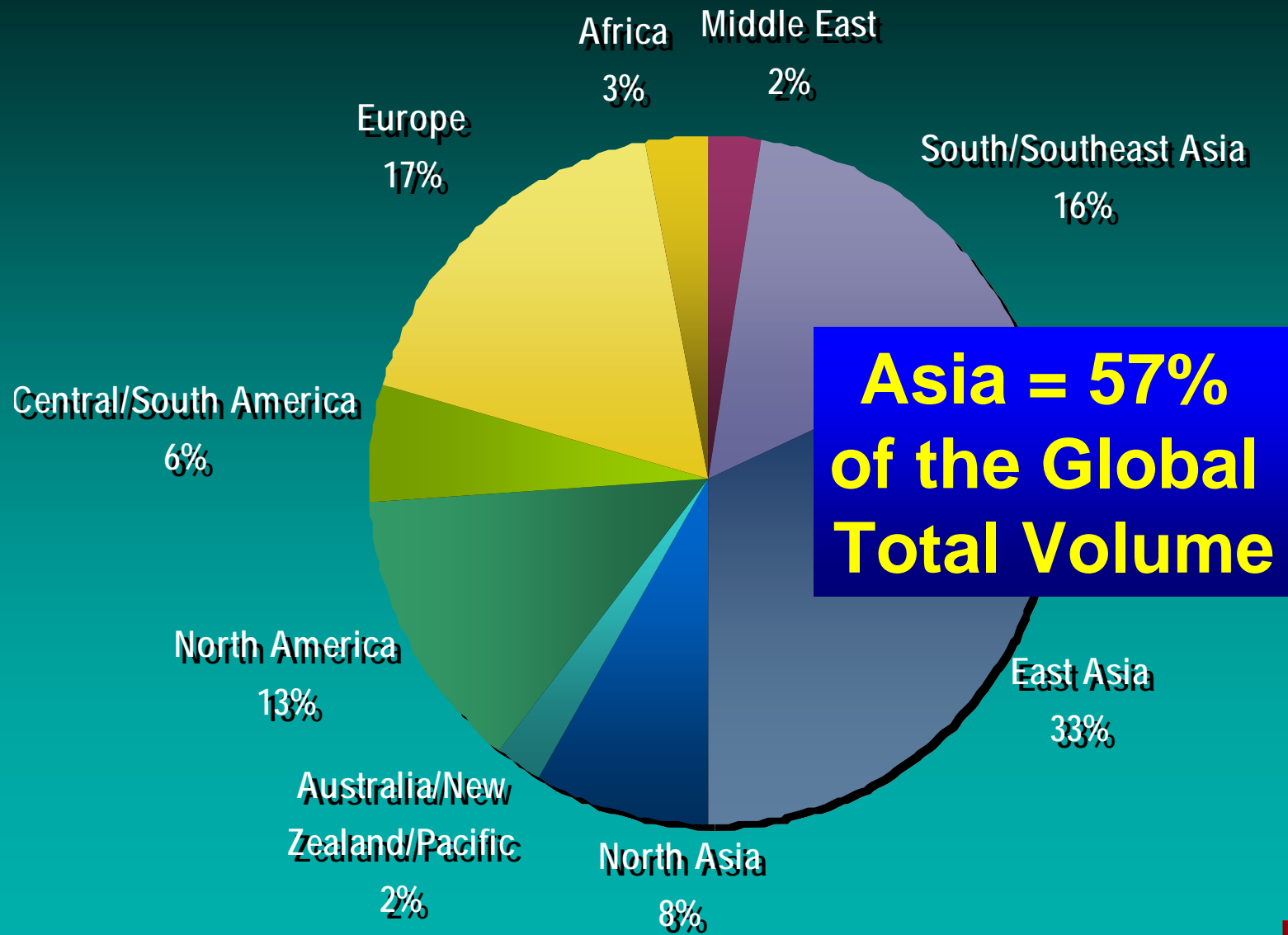
Source: Global Insight, 2004

2004 World Container Gateways "The World's Top 10 Ports"



Source: Port Engineering Management, Vol. 22- Issue 6 - December 2004

Projected 2015 Global Distribution of Container Volumes



**Asia = 57%
of the Global
Total Volume**

Source: UNESCAP 2005



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Global Market Economic Shifts (Country GDP Rank)

	2000	2010	2020	2030	2040	2050
#1	USA	USA	USA	USA	USA	CHINA #1
	Japan	Japan	CHINA	CHINA	CHINA	USA #2
	Germany	Germany	Japan	Japan	INDIA	INDIA #3
	UK	UK	Germany	INDIA	Japan	Japan
	France	CHINA	UK	Russia	Russia	Brazil #5
	Italy	France	INDIA	UK	Brazil	Russia
#7	CHINA	Italy	France	Germany	UK	UK
#8	Brazil	INDIA	Russia	France	Germany	Germany
#9	INDIA	Russia	Italy	Brazil	France	France
	Russia	Brazil	Brazil	Italy	Italy	Italy

Source: Global Insight, 2005

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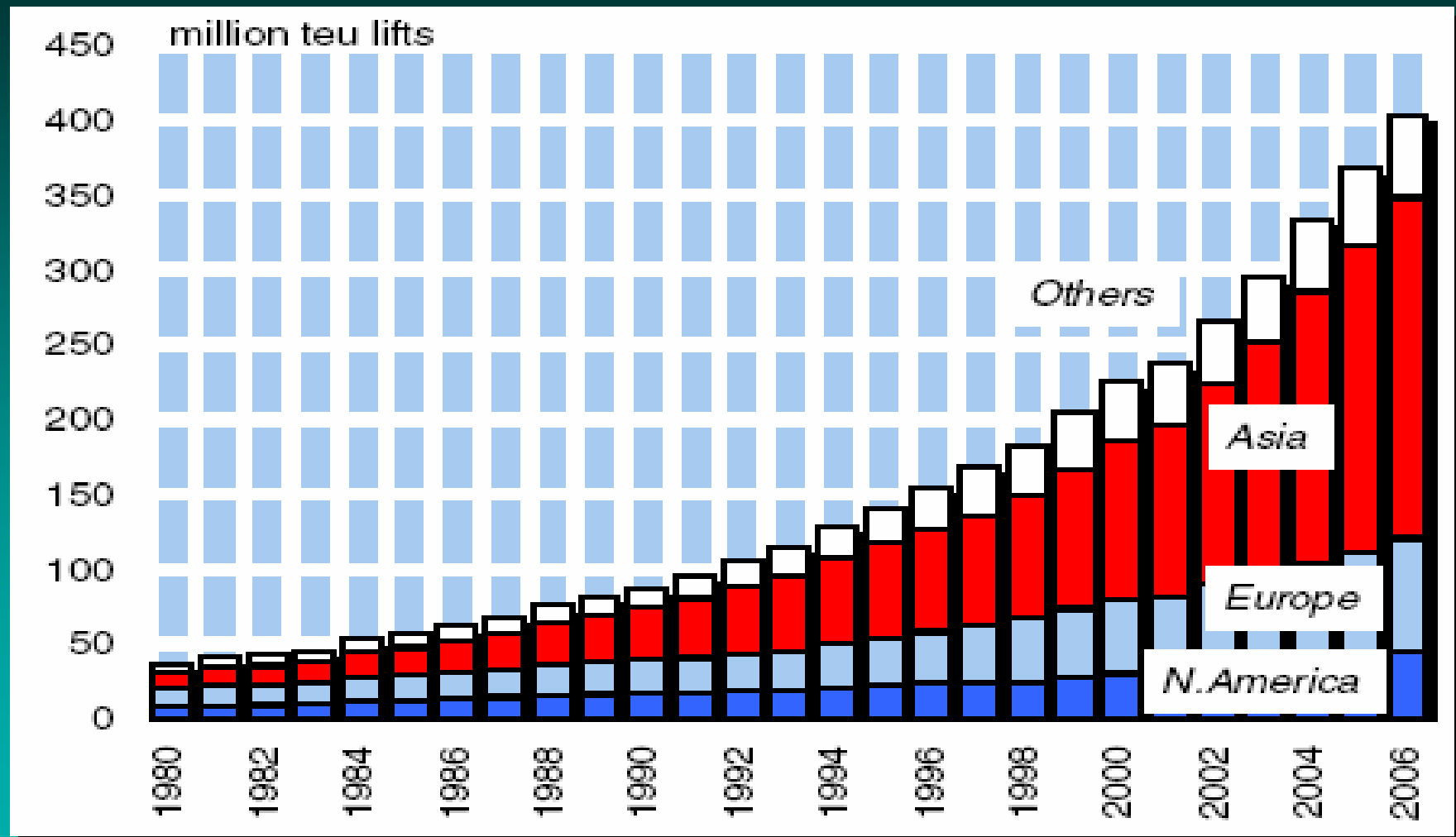
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The Growing Asian Import Trade Challenge



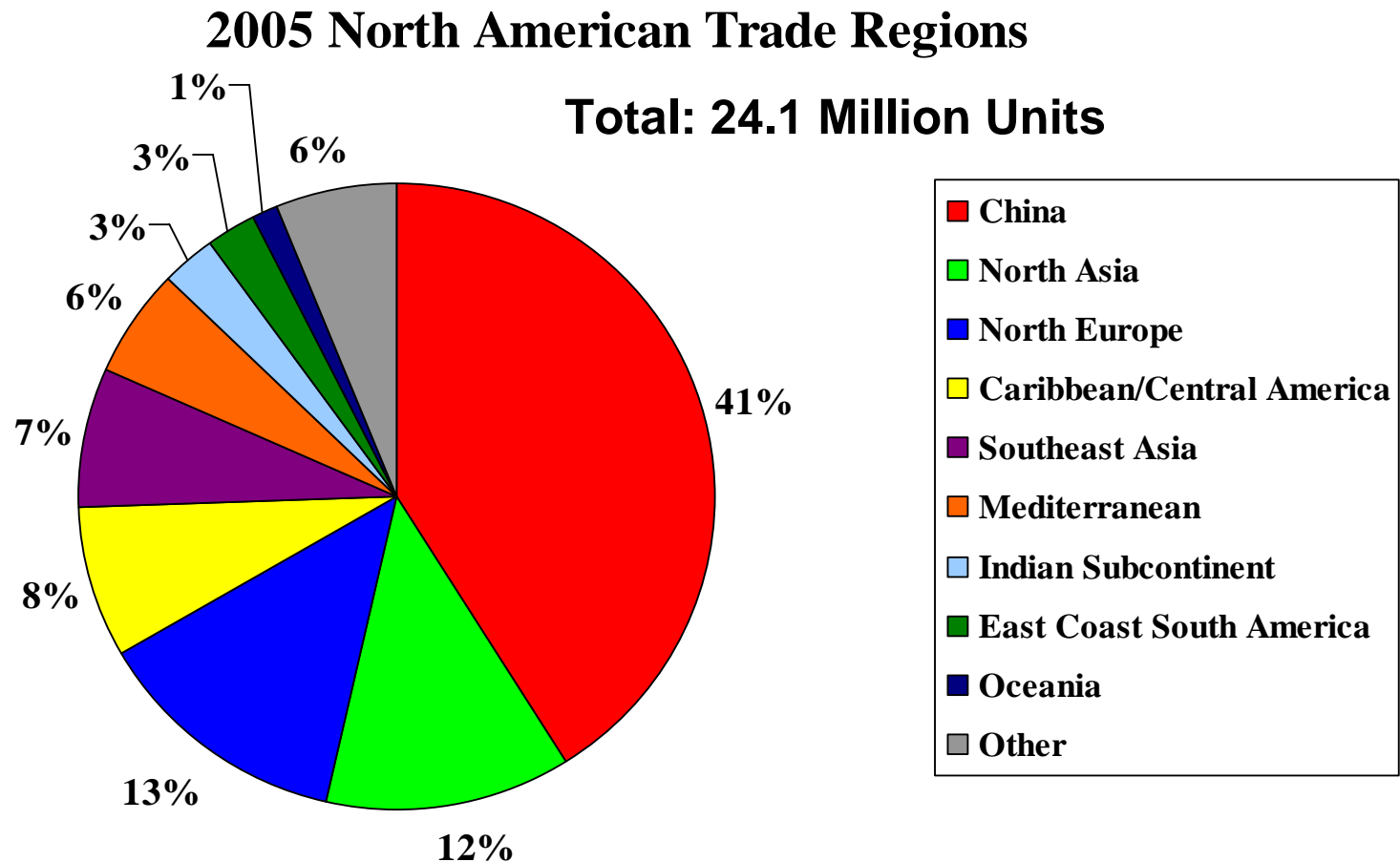
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Global Interdependent Economics Have Resulted in a Major Product Sourcing Shift to Asia



Source: Clarkson Research Studies

Today, more than 60% of all North American container trade is with Asia. European container flows have held steady (19% market share).

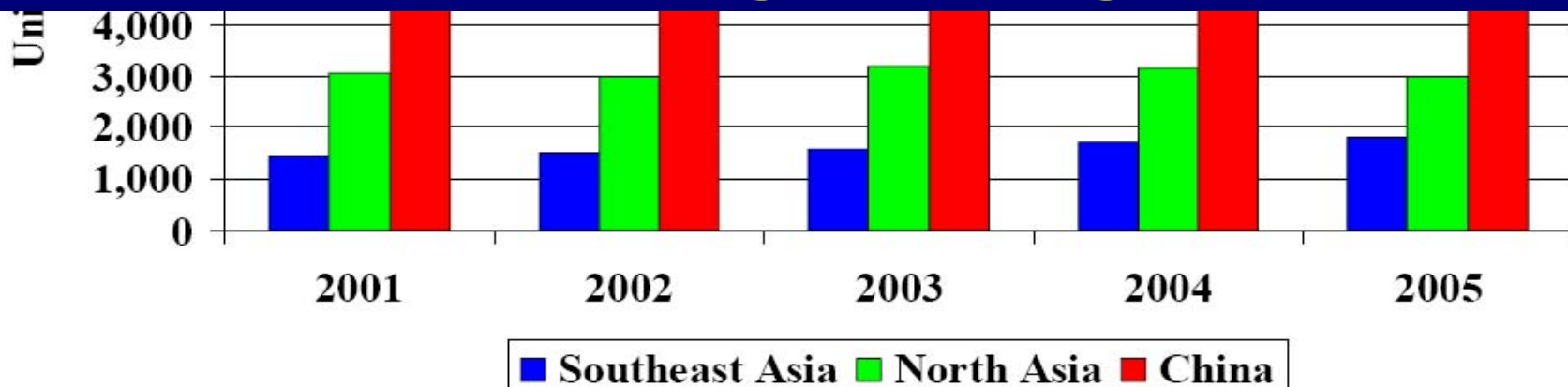


Source: PIERS; Port Reported Throughput; Norbridge Analysis

Last 5 Years Asia- US Container Trade Increased 12% CAGR and China Accounted for 95% of the Increase

Asia - U.S. Container Trade: 2001-2005

Surpassing the US for the first time since the end of World War II, China (not including Hong Kong) has become Japan's largest trading partner in 2006



Source: PIERS, Port Reported Throughput, Norbridge

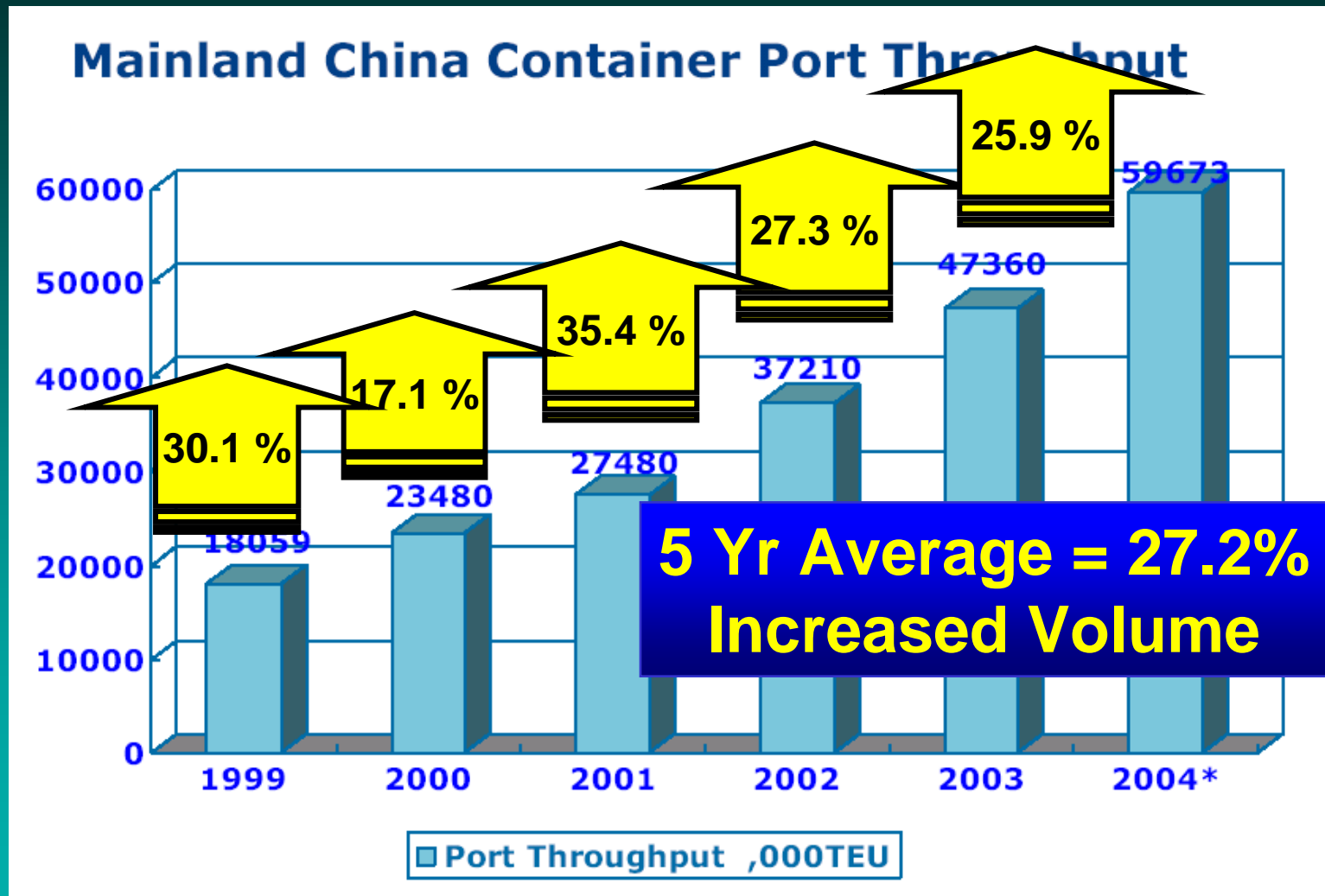
China-US: Twin Engines of the World



Population:
US: 298 million
China: 1,307 million
(1/5 World)

The number of Chinese children in elementary school is equivalent to the total US population.

Mainland China Container Port Growth (Compound Annual Growth Rates)



China's Ministry of Railways Signed a 5 year Cooperation Agreement with the US BNSF Railroad for Intermodal Rail Development

- Develop China's high volume efficient intermodal network
- **\$242 billion program to 2020**
- On-dock & near-dock intermodal transfer yards at ports
- Ministry to build 18 mega-terminals with 7 at seaports, 40 smaller Intermodal terminals

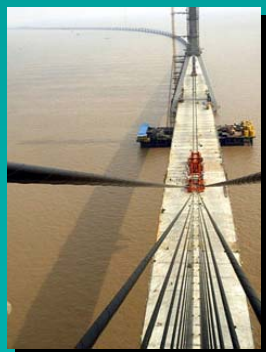
铁路



Shanghai International Shipping Center Yangshan Deep Port & Logistics Park



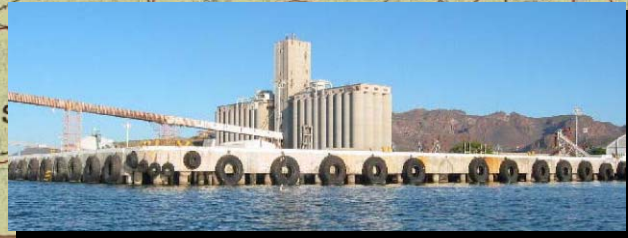
**20 Mile New Port Access
Bridge Constructed in 3 yrs**



Emerging New Mexican Intermodal Gateways & Corridors – Nearly 4 Million TEUs



**Guaymas
1.0 mil TEU**



**Punta Colonet
1 mil TEU Throughput**



**Lázaro Cárdenas
Phase I - 700K TEU
Fut. Phase - 2.0 mil TEU**

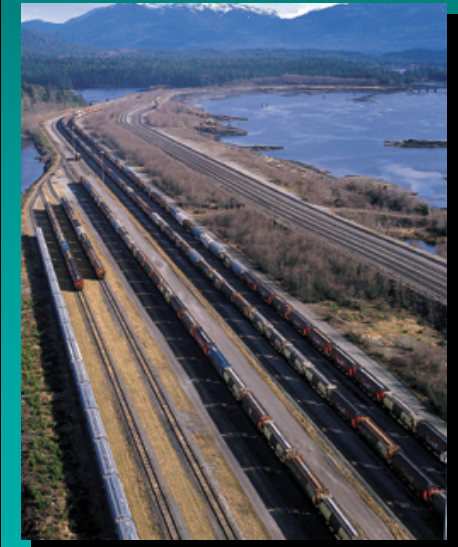
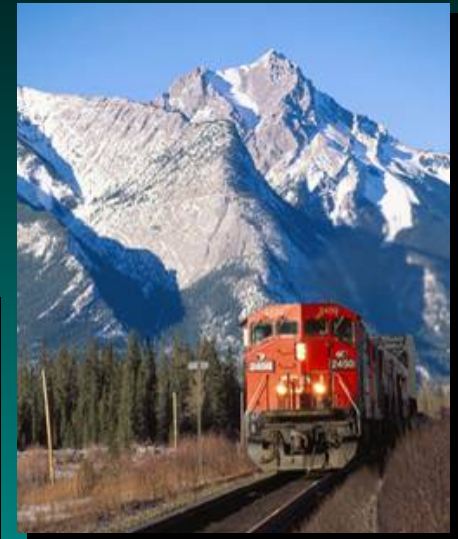
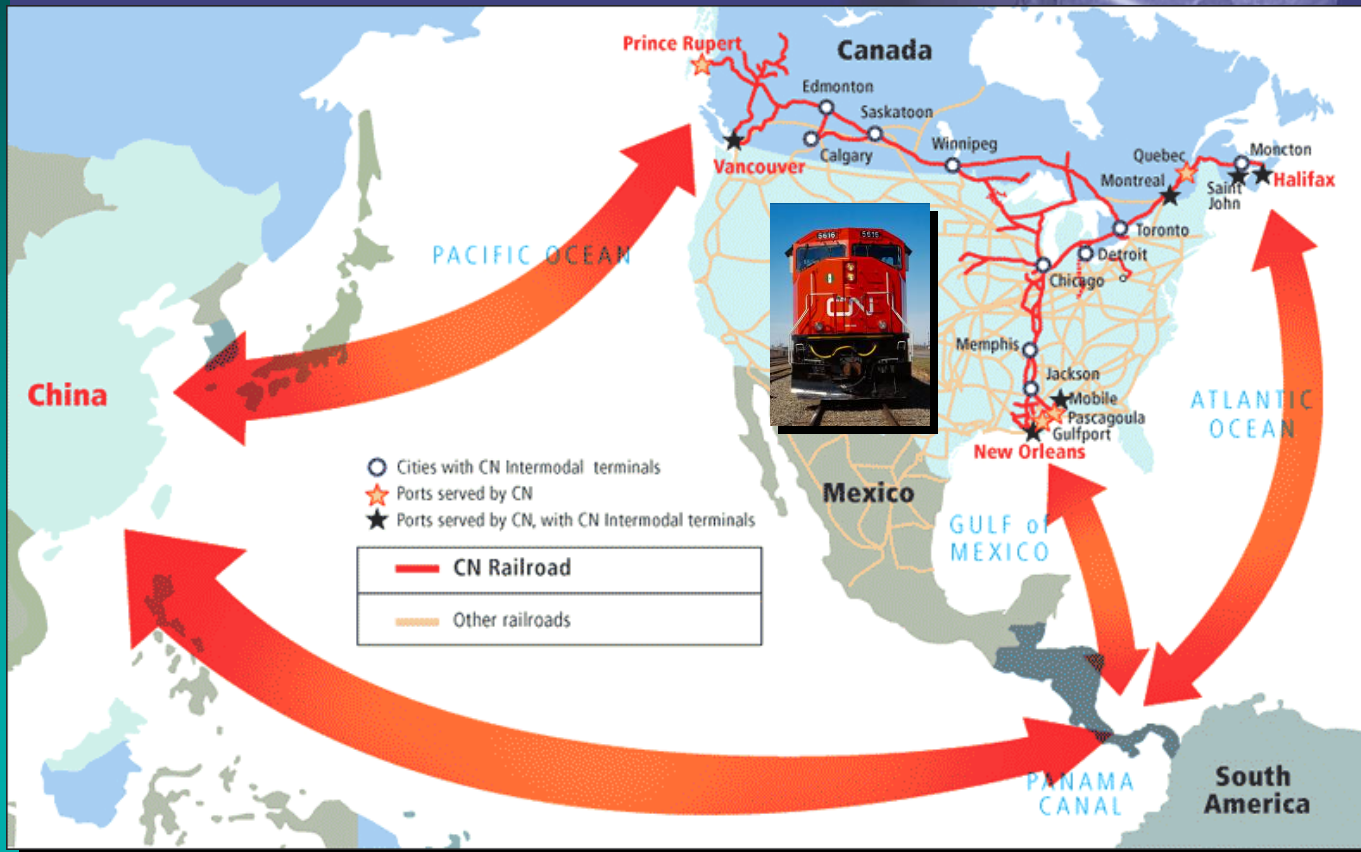


New North American Container Gateway

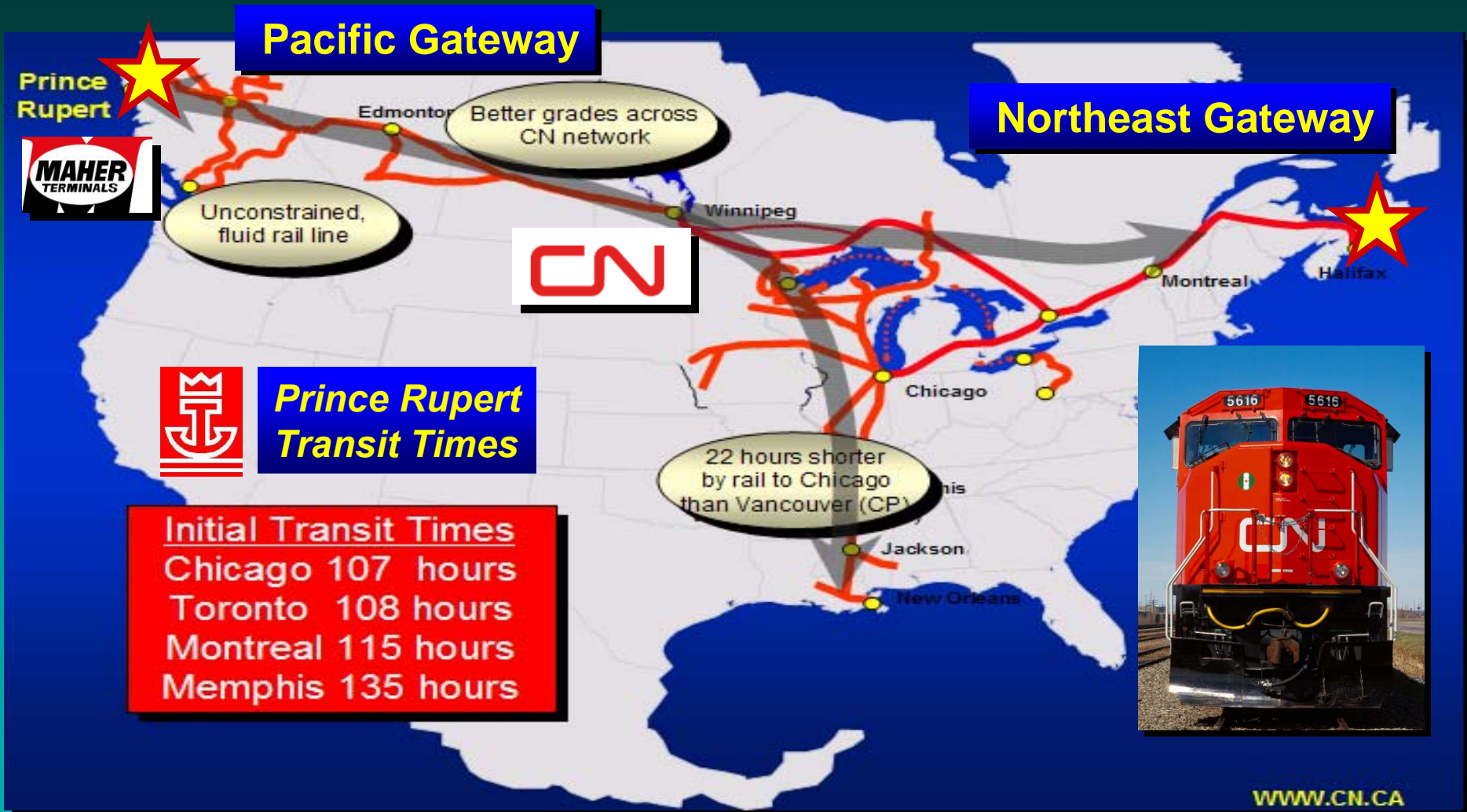
Prince Rupert Port Authority

the new world port

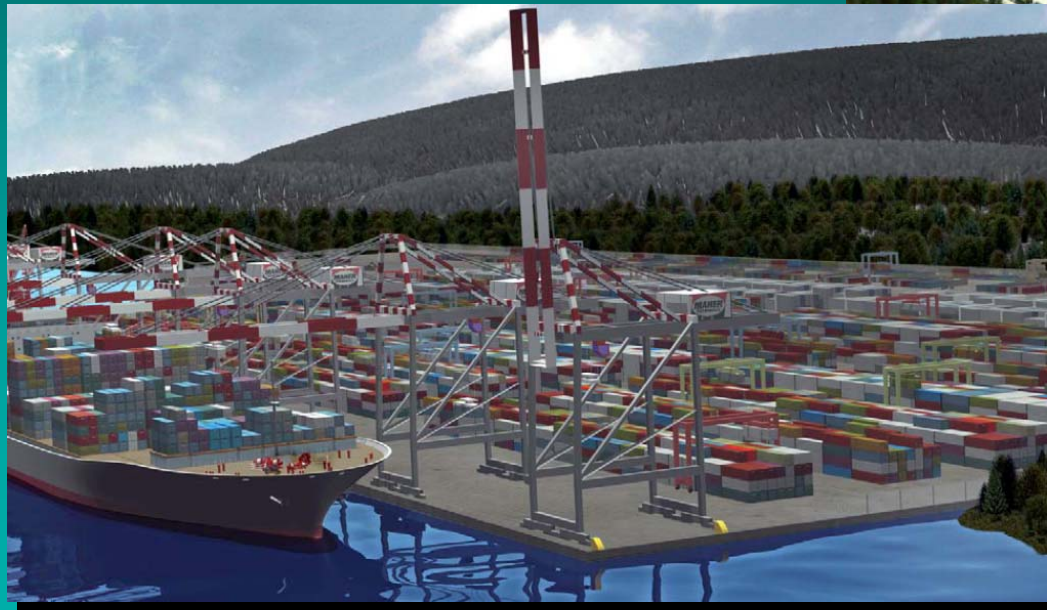
opening a new world of opportunity



The Emerging CN Transcontinental Land Bridge



Melford International Terminal Inc. Strait of Canso – Northeast Gateway

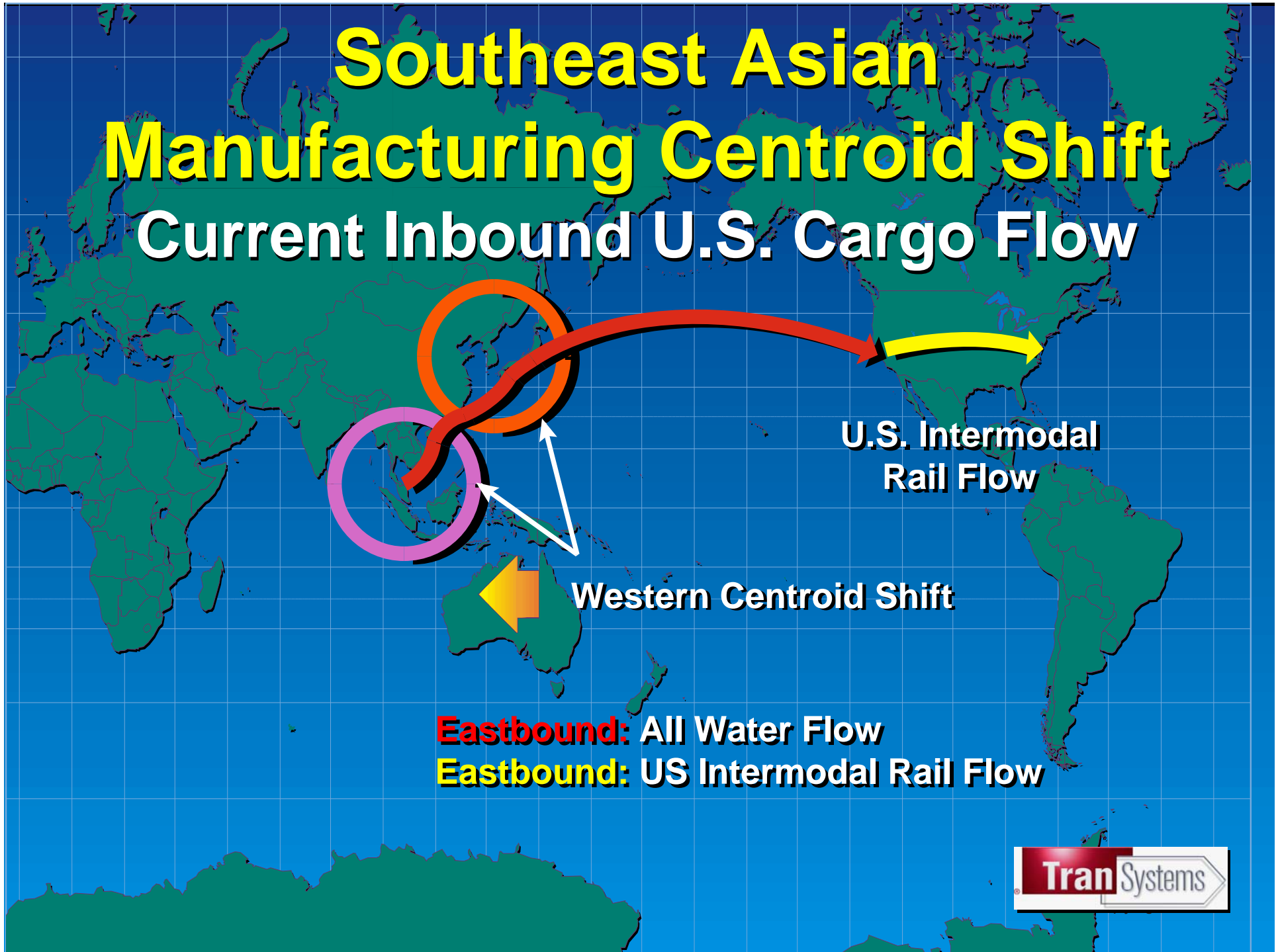


A Project Developed By Trident Holdings Inc.



Southeast Asian Manufacturing Centroid Shift

Current Inbound U.S. Cargo Flow



U.S. Intermodal
Rail Flow

Western Centroid Shift

Eastbound: All Water Flow

Eastbound: US Intermodal Rail Flow

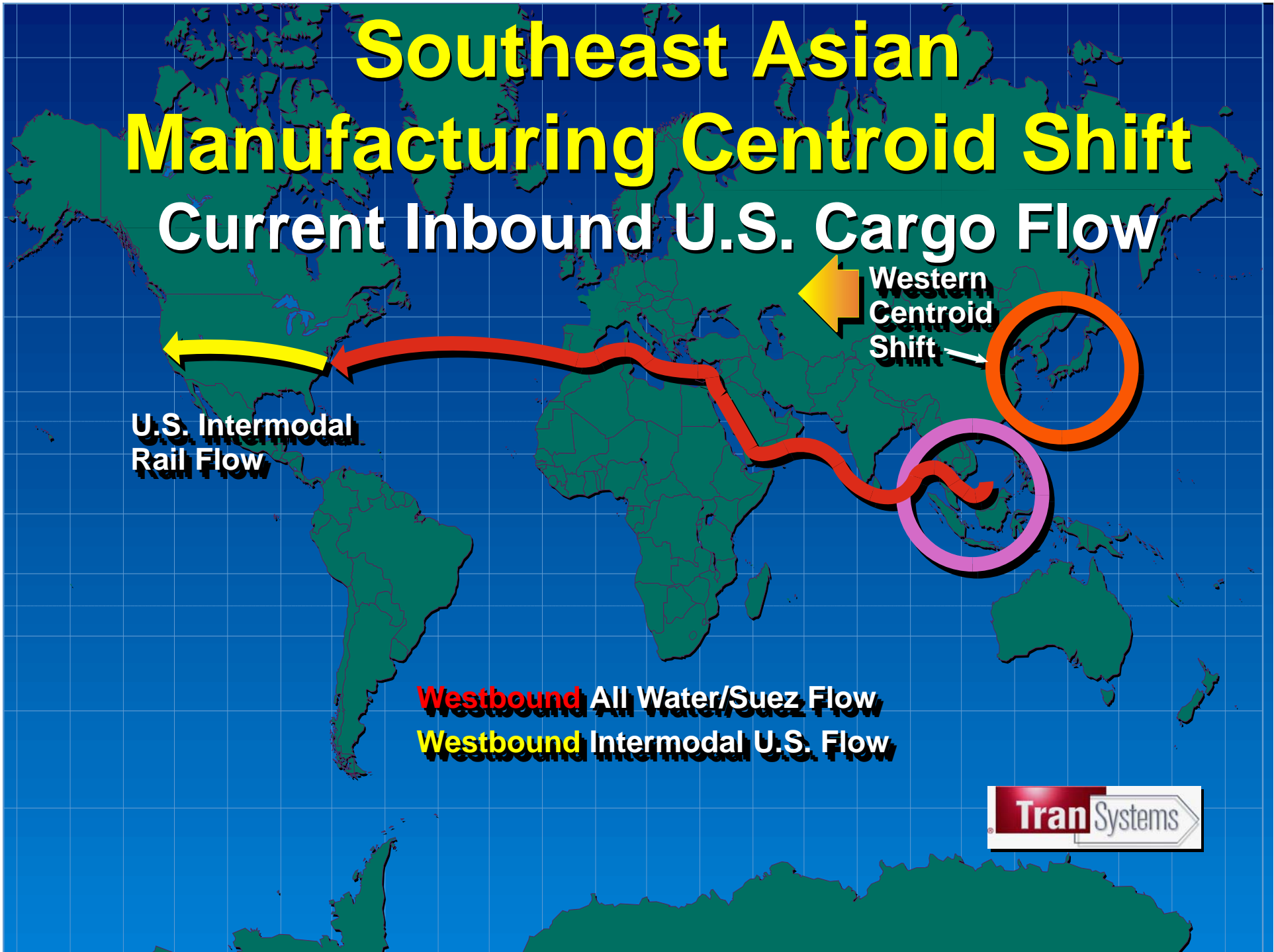
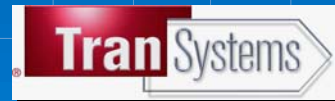
Southeast Asian Manufacturing Centroid Shift

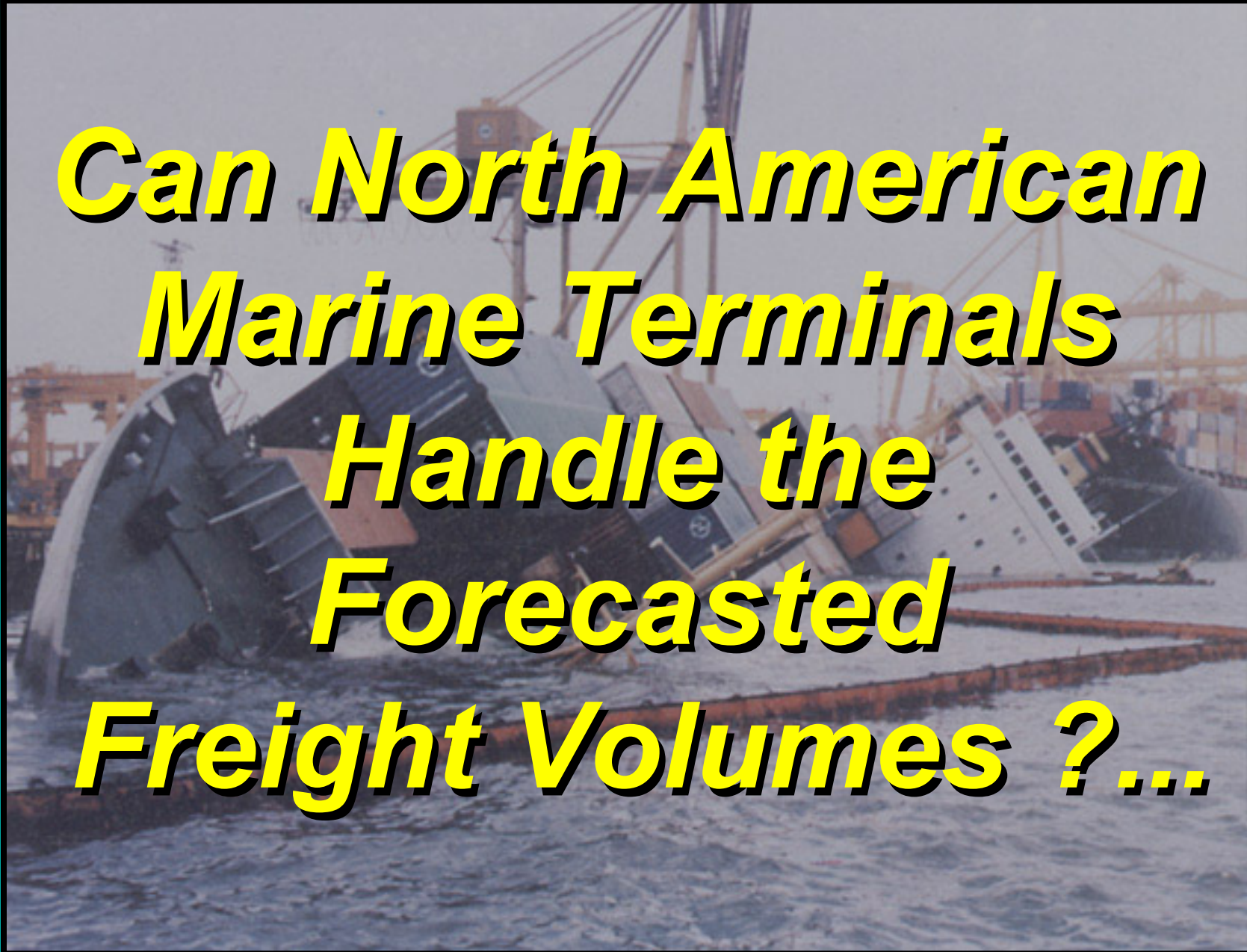
Current Inbound U.S. Cargo Flow

U.S. Intermodal
Rail Flow

Western
Centroid
Shift

Westbound All Water/Suez Flow
Westbound Intermodal U.S. Flow



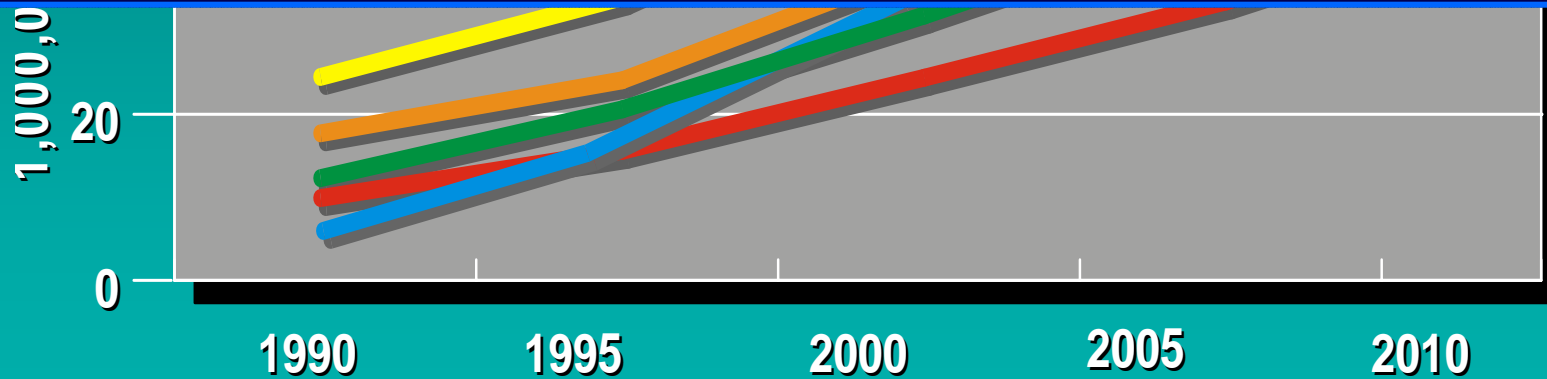


***Can North American
Marine Terminals
Handle the
Forecasted
Freight Volumes ?...***

U.S. Containerized Tonnage Forecast



By 2020 Most US Container Port Gateways Will Double or Triple in Volume



Source: DRI/McGraw Hill

North American Maritime Container Current and Future Trade Growth

(Top 10 Ports)



(TEUs in thousands)



Forecast figures based on 6 year linear regression



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The Port Landside Access Challenge

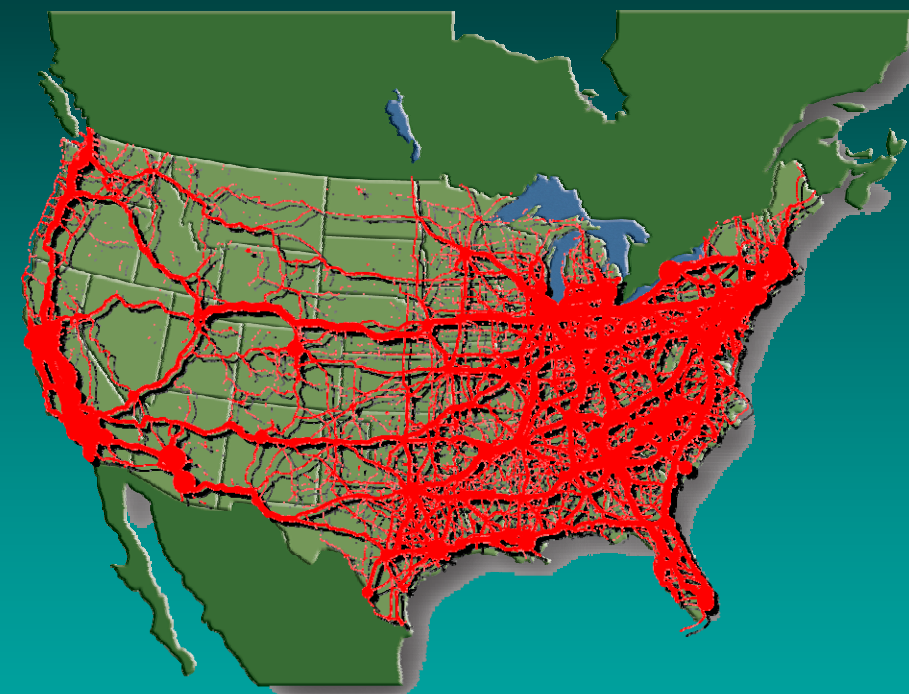


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Future US Truck Traffic Growth In Urban Consumption Zones

Today

2020



Source: USDOT FHWA Freight Analysis Framework

POLA/POLB Challenge: Truck Congestion



Goods movement is a major contributor to traffic congestion and a bottleneck to future growth.

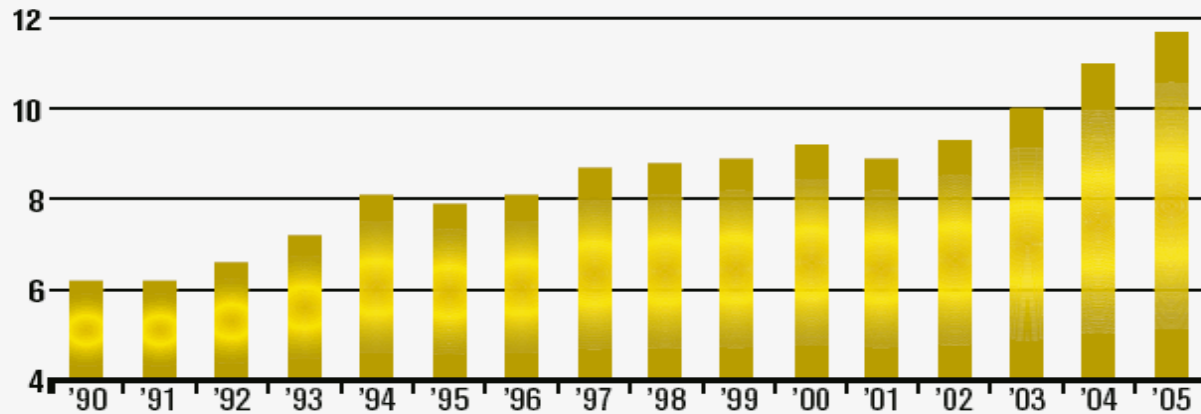
I-710 Typical Day

I-710 During 2002 Port Lockout



Rail Growth in North America

Intermodal Growth 1990-2005
Container and trailer units (in millions)



Source: AAR

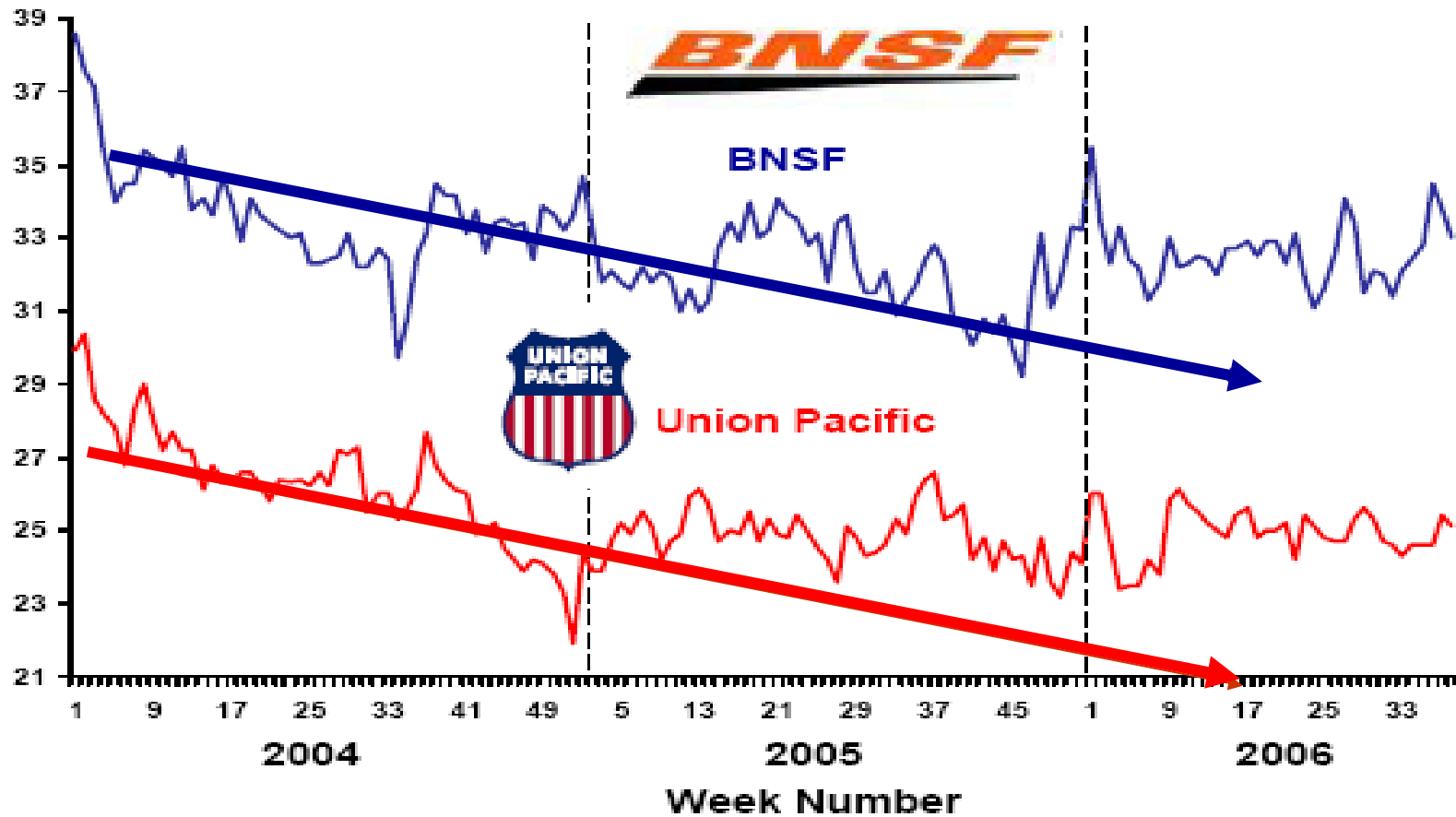


**Intermodal traffic
in US has nearly
doubled in the
past 15 years**

Annual Intermodal Volume Figures, 2001-2005

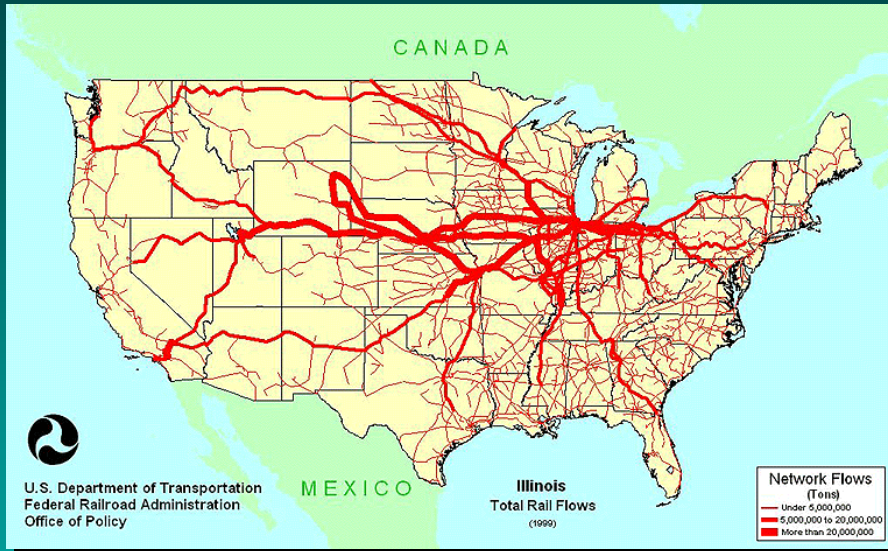
	2001	2002	2003	2004	2005
RAIL INTERMODAL ACTIVITY					
Containers	7,921,213	8,588,822	9,472,518	10,283,491	11,057,610
Trailers	2,413,933	2,345,508	2,424,407	2,639,545	2,584,262
<i>Total Rail Intermodal Volume</i>	10,224,942	11,191,142	11,903,121	12,923,036	13,641,872

US Intermodal Main Line Train Speed (Miles per Hour)



Future US Rail Traffic Flows

Today



2020

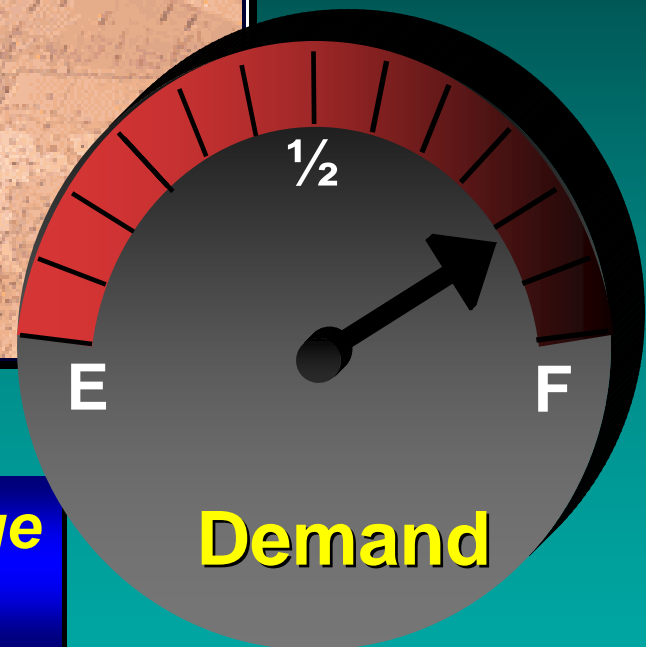


Capacity vs. Demand Bottom Line:

Balancing Capacity and Demand is Both a *Public and Private Issue*



We Must Change Our Course



North America's future economic and environmental health is at risk as a result of declining transportation efficiency and reliability.

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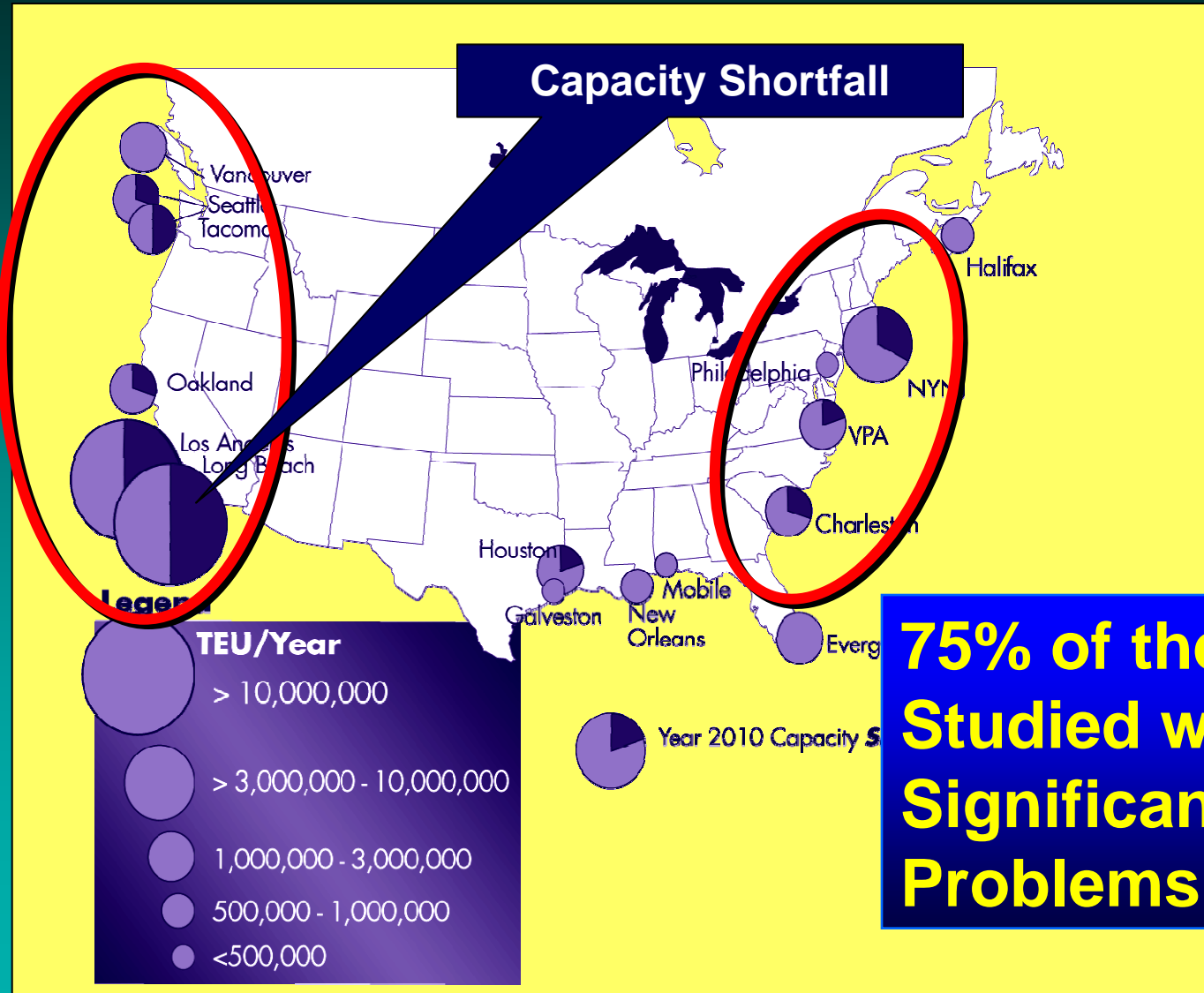
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North American Port & Intermodal Capacity Trends



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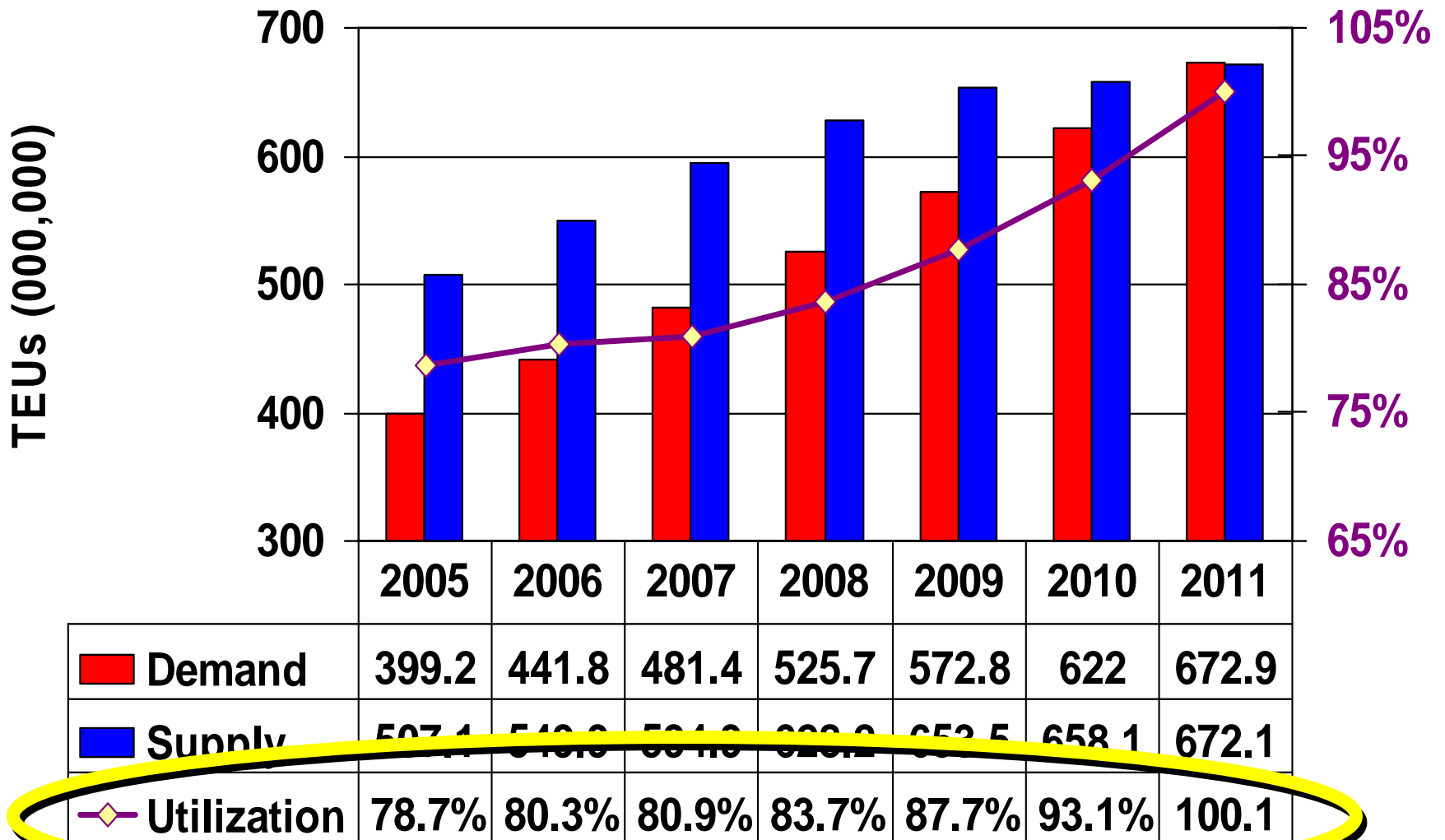
2010 Projected Public Port Capacity Shortfall



75% of the 16 Ports Studied will have Significant Capacity Problems by 2010



North American Marine Terminal Capacity

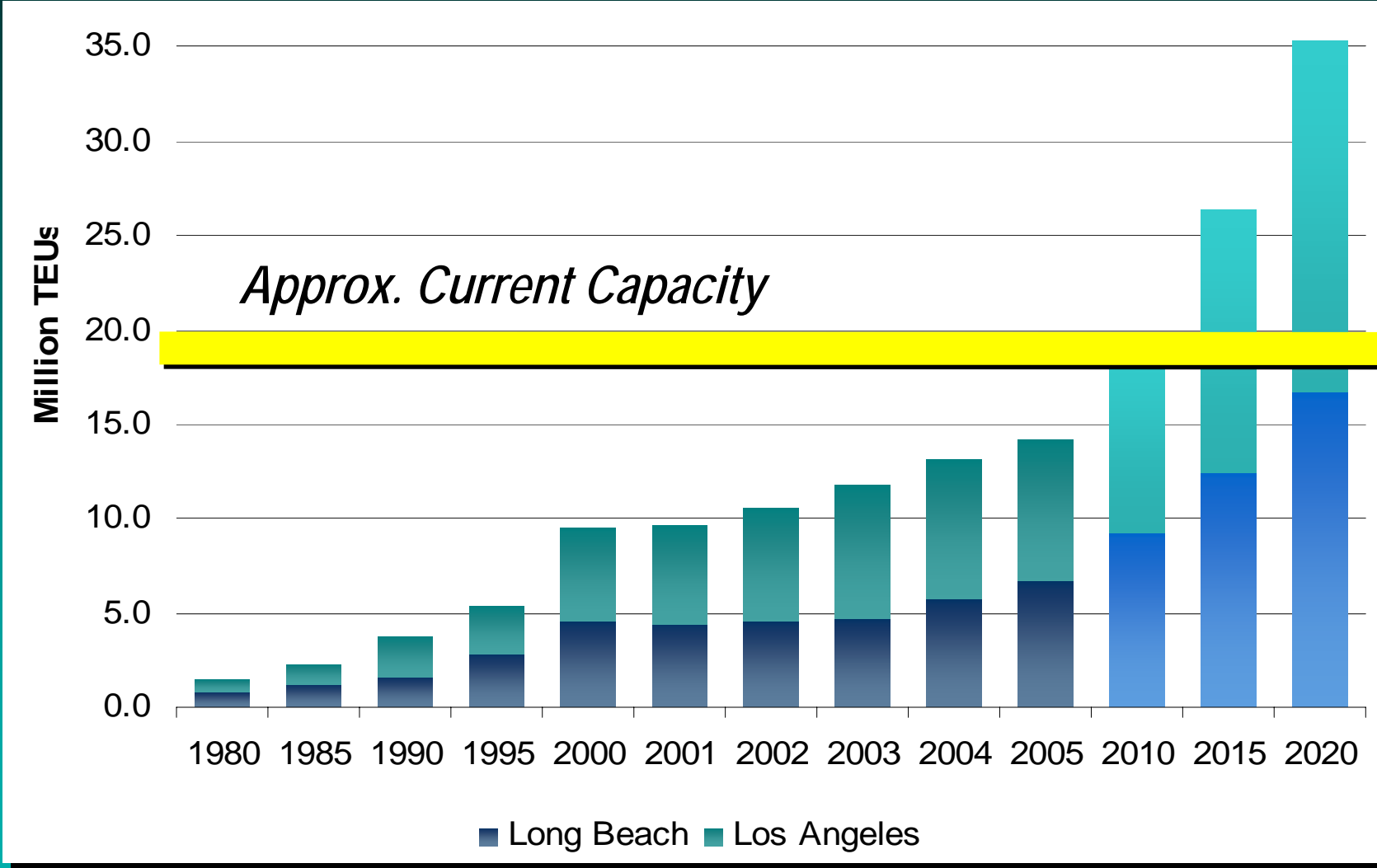


Source: Drewry Shipping Consultants

Explosive Southern California Port Container Growth Forecasted

44.7 Million TEUs

2030



Source: TranSystems, American Association of Port Authorities Statistics

AAFA



American Association
of Port Authorities

International Port Productivity Comparisons



Global Port Terminal Productivity

North American Ports Are Not As Productive
As The Most Productive International Ports
By a Factor Of More Than 4 To 1

Global Marine Terminal Productivity

(Circa 1999 to 2004)

(Throughput measured in TEUs/Acre/Year)

	1999	2004	5YR CAGR
Asian Ports	9,272	16,595	15.3%
European Ports	4,284	6,396	15.4%
United States Ports	2,894	4,028	7.7%
US West Coast Ports	3,543	4,944	7.5%
US Gulf Coast Ports	3,149	4,635	9.4%
US East Coast Ports	2,021	2,661	6.8%

Source: 1999 - 2004 CI Database, Seaports of the Americas, Port Data



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Maritime Vessel Technology Trends



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April 26, 1956

58 Modified 35-foot Truck Containers

The deck of the *Ideal X*
at Port Newark
preparing for the
historical sailing
of the world's first
containership

**April 2006:
50 Year Anniversary of the Container**

***In 1955 Malcolm McLean, sold McLean Trucking,
and secured a bank loan of US\$42 million to build the
world's first container ship.***

World Container Ship Evolution



1st Generation (Pre-1960 - 1970)



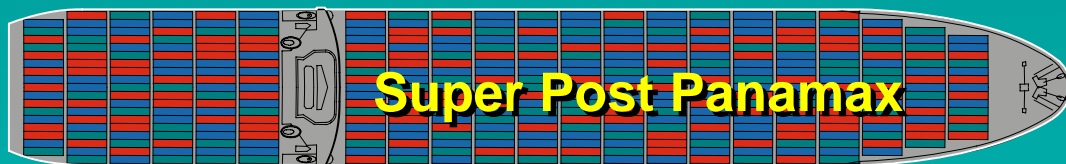
2nd Generation (1970 - 1980)



3rd Generation (1985)

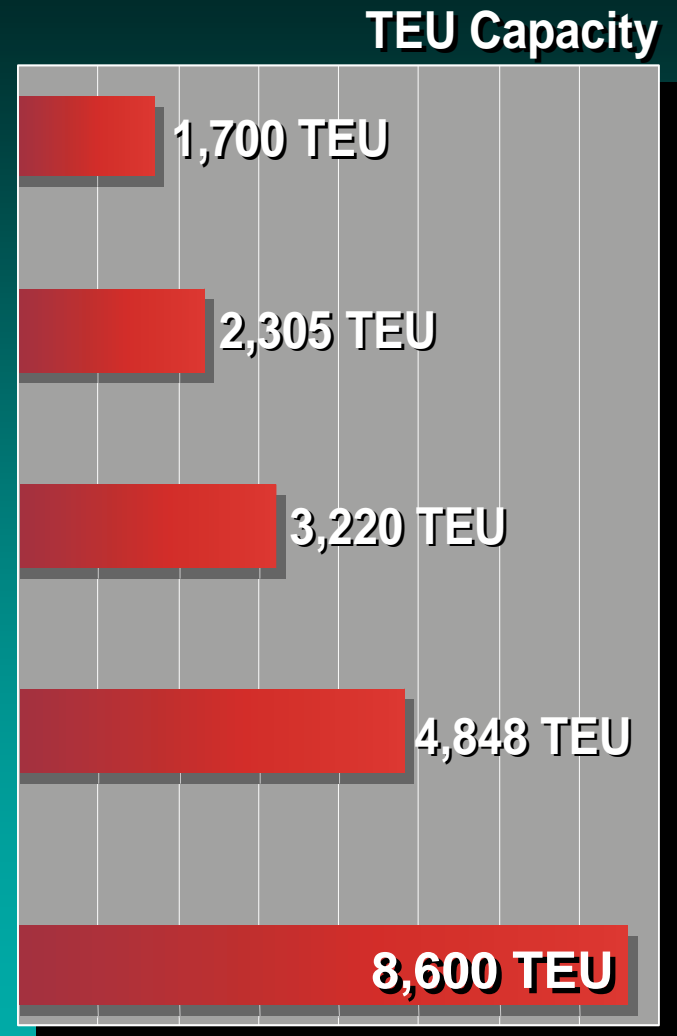


4th Generation (1986 - 2000)



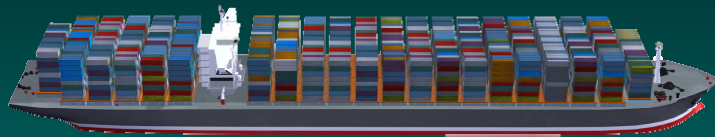
5th Generation (2000 - 2005)

6th Generation ???



2006 New Build Orders

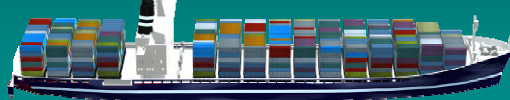
Expansion of World Post-Panamax Container Fleet



8,000+ TEUs



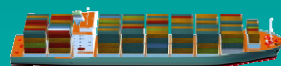
6,000 – 7,999 TEUs



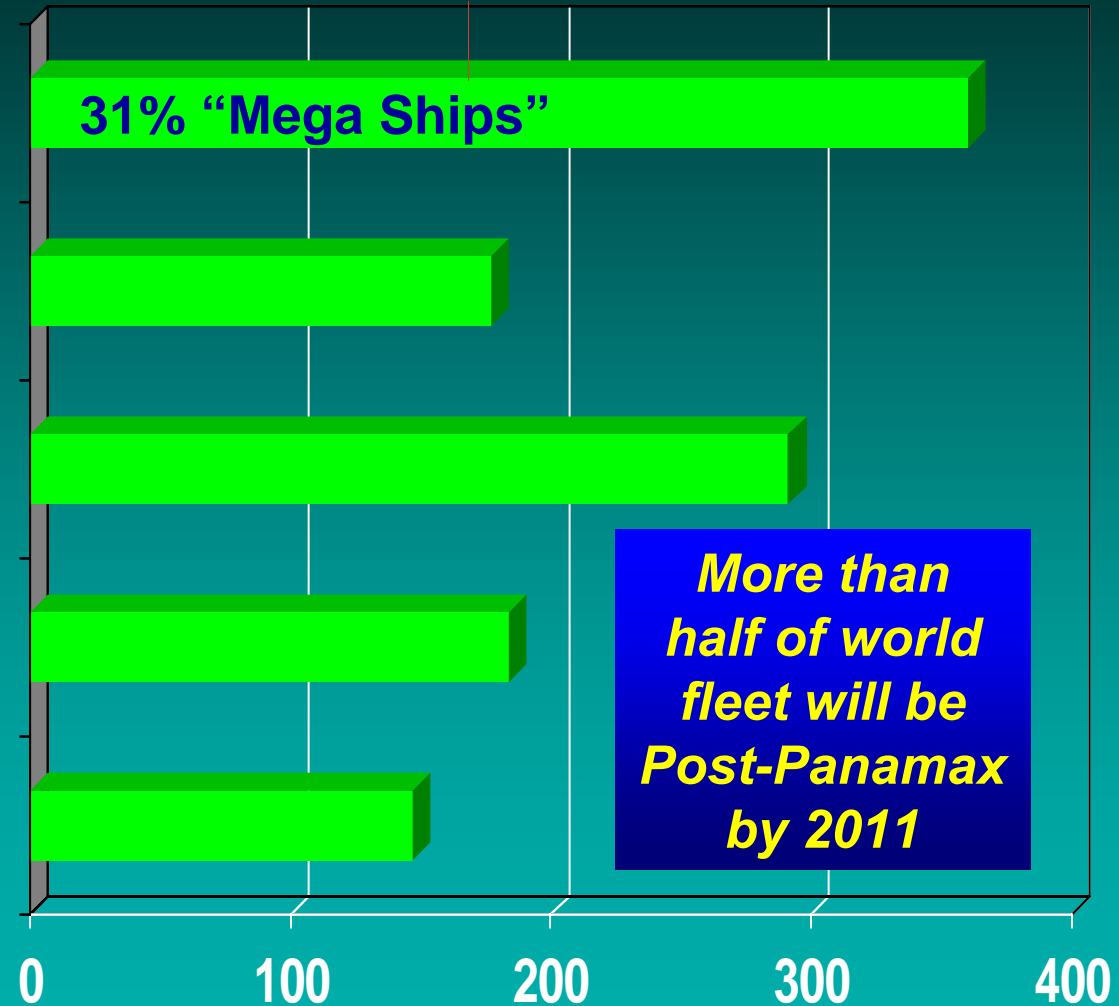
4,000 – 5,999 TEUs



2,000 – 3,999 TEUs



Less than 1,999 TEUs



Source: ISL, July 2006

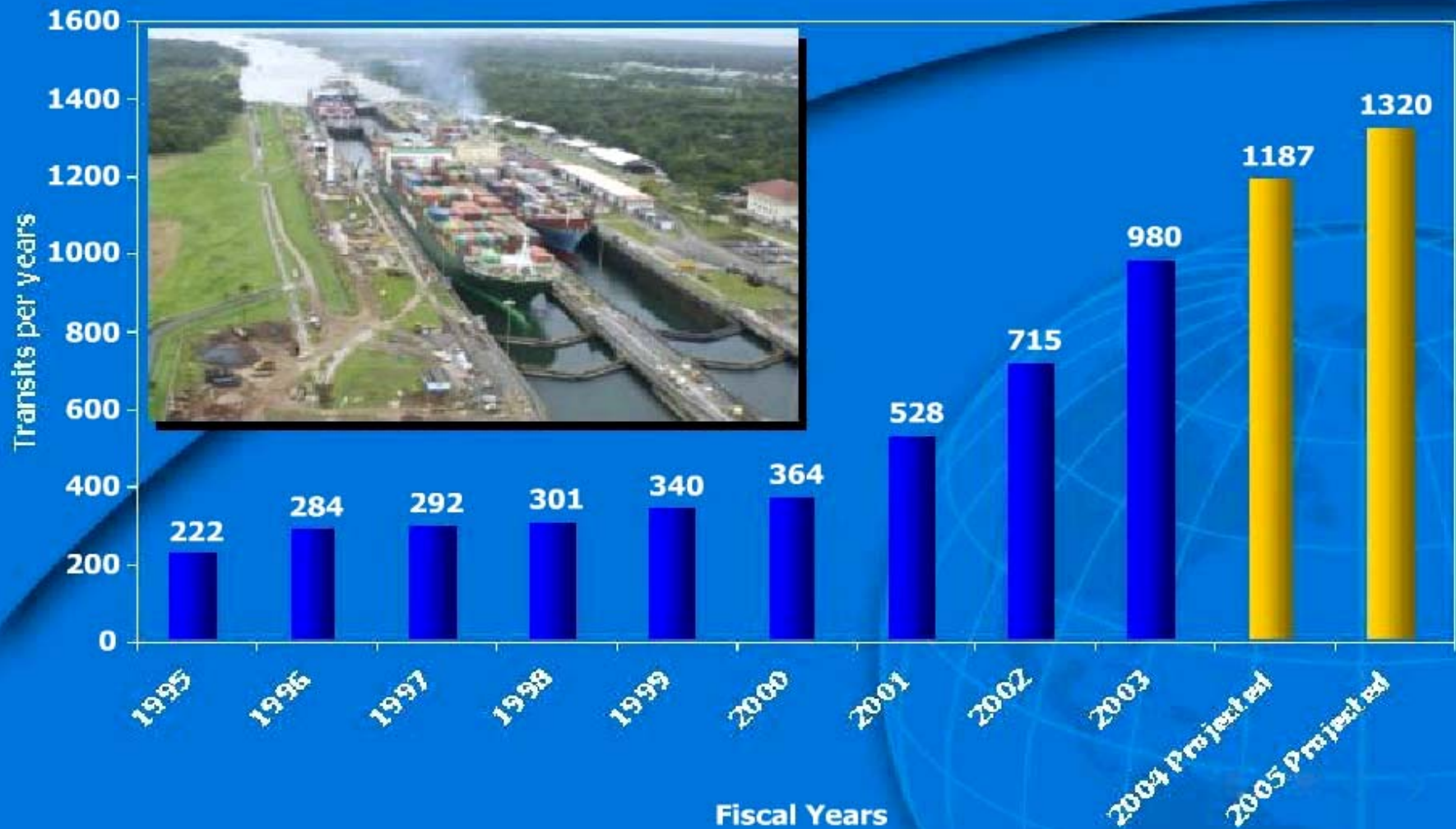
Panama Canal Challenges



Madison Maersk (3,928 TEUs) in the Panama Canal (Current Max Panamax = 5000 TEUs)

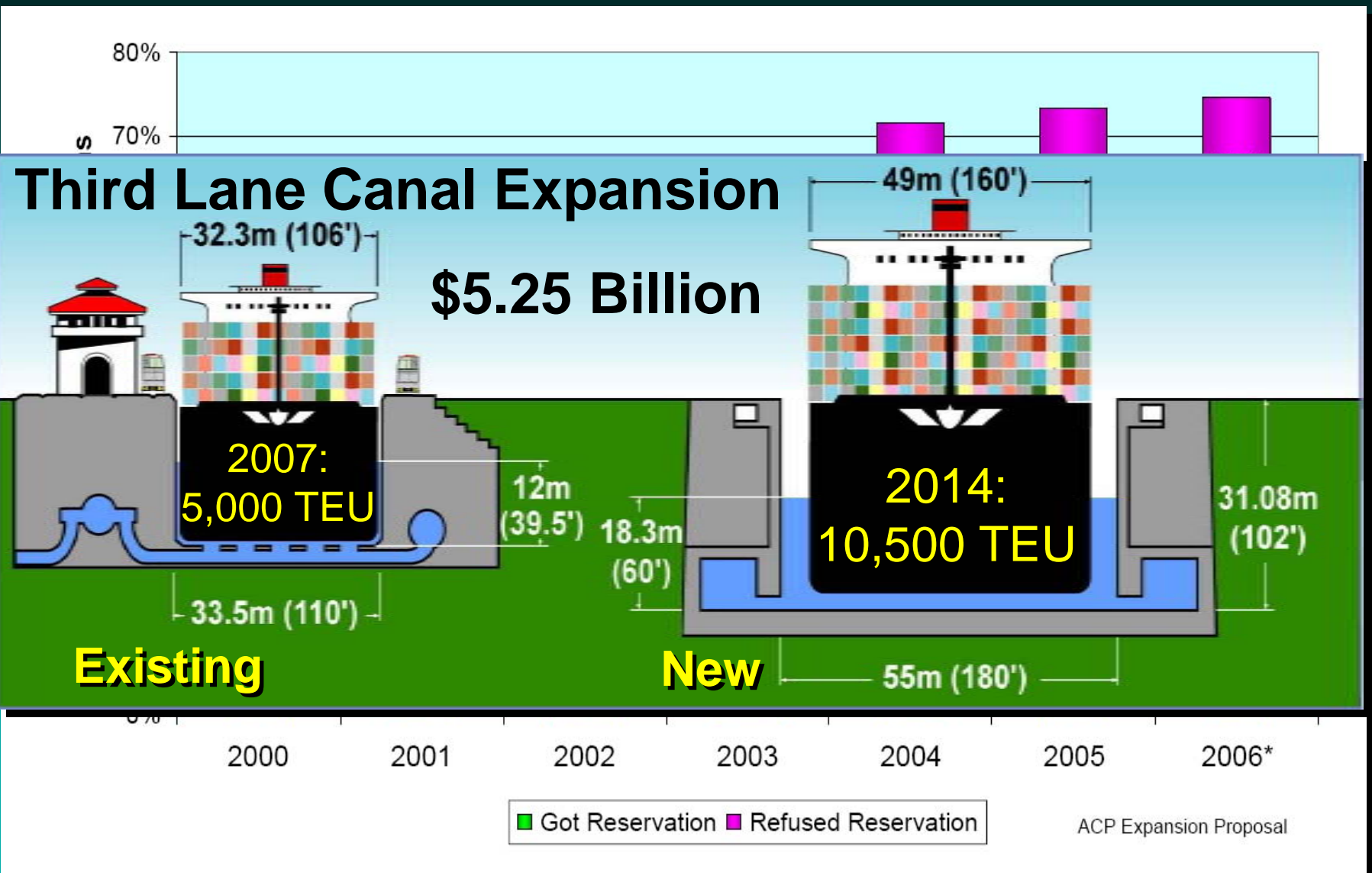


Transits of Vessels with $\geq 900'$ Length Overall



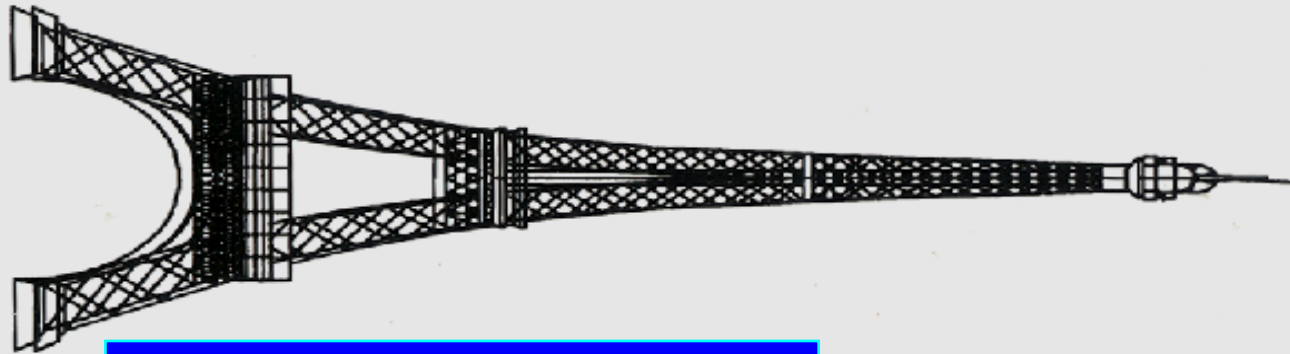


Panama Canal Transit Reservation Demand



Source: ACP Expansion Proposal

Today's Mega Ships - Measuring Up



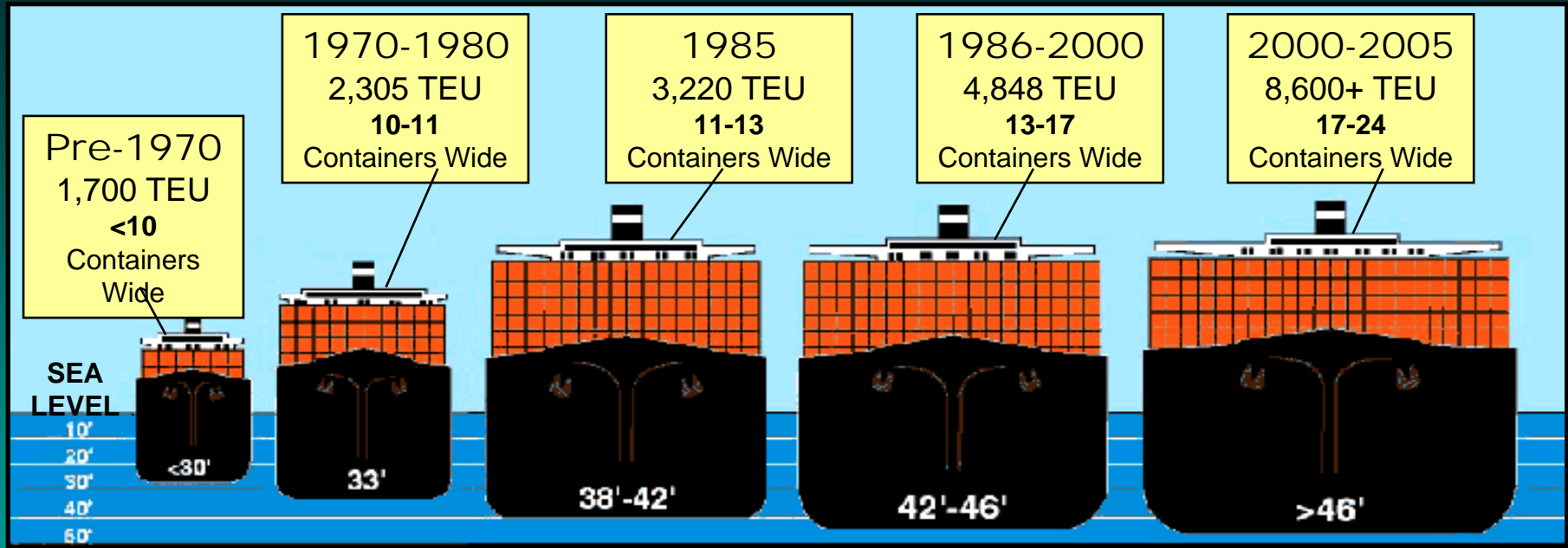
Eiffel Tower – 990 feet



Regina Maersk – 1043 Ft, 140 Ft wide, 6000+ TEUs

Today's Mega Ships - Measuring Up

How Wide, How Deep?



10,000 TEU Container Ships Currently on Order



Zim orders **four 10,000 TEU container ships** from Hyundai Shipyards in Korea; will double its carriage capacity
Zim will take delivery of the ships, second half of 2009



Cosco orders **four 10,000 TEU containerships** from Hyundai Heavy Industries to be delivered in 2008
\$505 M Deal

Source: North Sea Terminal Bremerhaven GmbH & Co

2005 COSCO Orders Four 10,000 TEU Vessels



LENGTH OVERALL	349 M (1145 FT.)
BREADTH	45.6 M (149.6 FT.)
MAX. DRAFT	14.5 M (47.6 FT.)
OPERATING SPEED	25.8 KNOTS (29.7 miles/hr)

Source: Lloyd's Register, February 2005



A.P. Moller-Maersk September 2006 Service Announcement for 14,000 TEU Vessel



The new-build known as “**M/S Emma Maersk**”, was christened at the Odense-Lindo Shipyard in Denmark in August 2006. The nominal capacity of the new vessel could be as high as **14,000 TEUs** based on its reported LOA of 397 m, Beam of 56 m, Draft of 15.5 m, Gross Tonnage 170,974 gt, Speed 25.5 knots

Source: Journal of Commerce August 2006, Marine Log December 2006



A.P. Moller-Maersk L Class M/S Emma Maersk

(14,000 TEU Vessel - 22 Containers Wide)



Length: 1,302 ft, Width: 207 ft, Net Cargo: 123,200 tons

Key Cranes: 10, Engine: 14 in-line cylinders diesel engine (110,000 BHP)

Cruise Speed: 31 mi/h, Full Crew: 13, Construction cost - US \$145 M+

Source: Maritime World Logistics Inc. January 2007



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A.P. Moller-Maersk L Class M/S Emma Maersk

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A.P. Moller-Maersk L Class M/S Emma Maersk

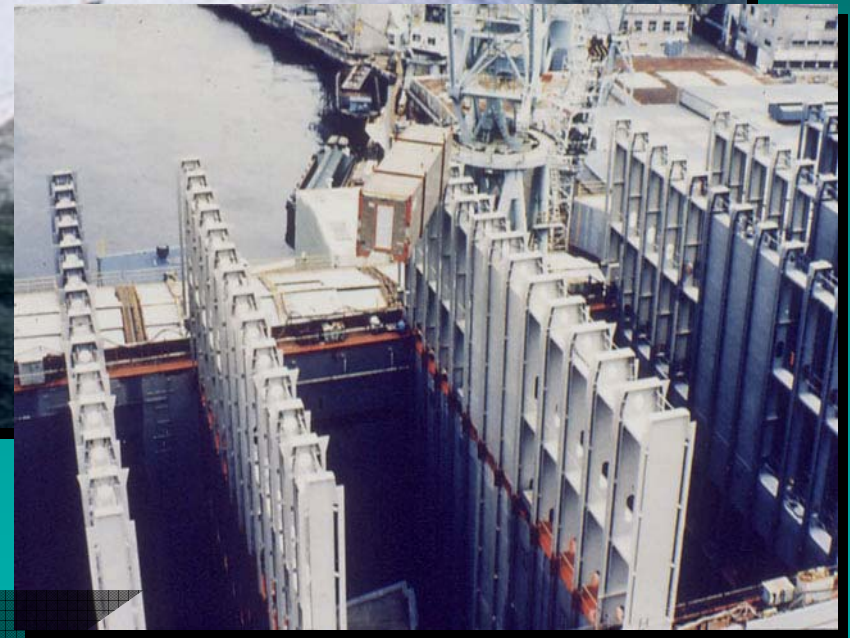
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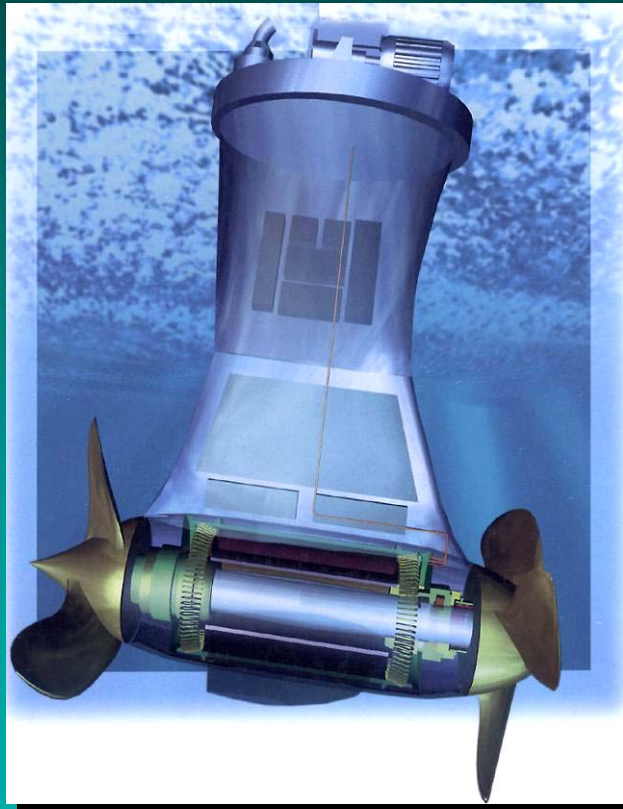
The Hatch-Less Container Vessel



Per P&O Nedlloyd:

- 15% Faster Port Productivity
- 84% Less Re-Stows
- Less Damaged Boxes

Containerships & Recent Cruise Vessel Technological Advances...What's Next?



SSP Propulsion
Schottel / Siemens



Azipod
**Eagle Class Cruise
Vessel**

The 15,000 TEU Containership

“...the ship is a flight of fancy... but such a ship is within the current state of the shipbuilder’s art...”

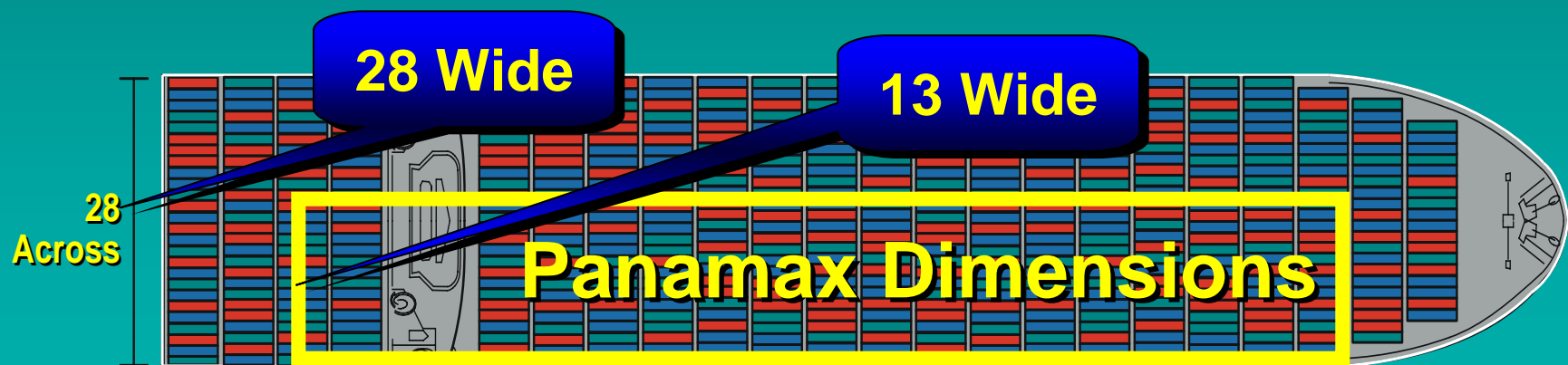
R. G. McLellan, P&O Containers

The 15,000 TEU Containership

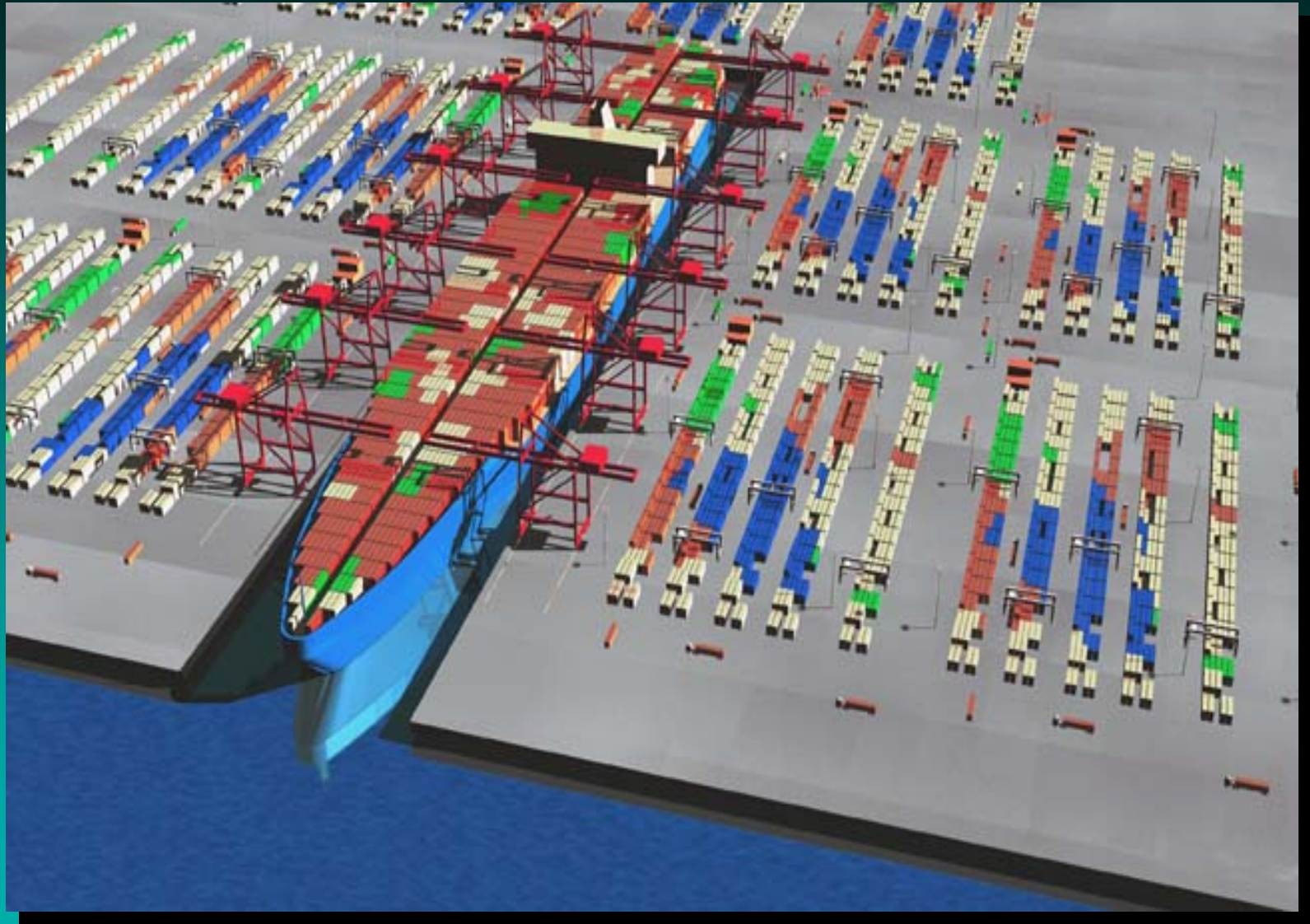
LOA. = 400 m (1,312 ft.)

Draft = 14 m (46 ft.)

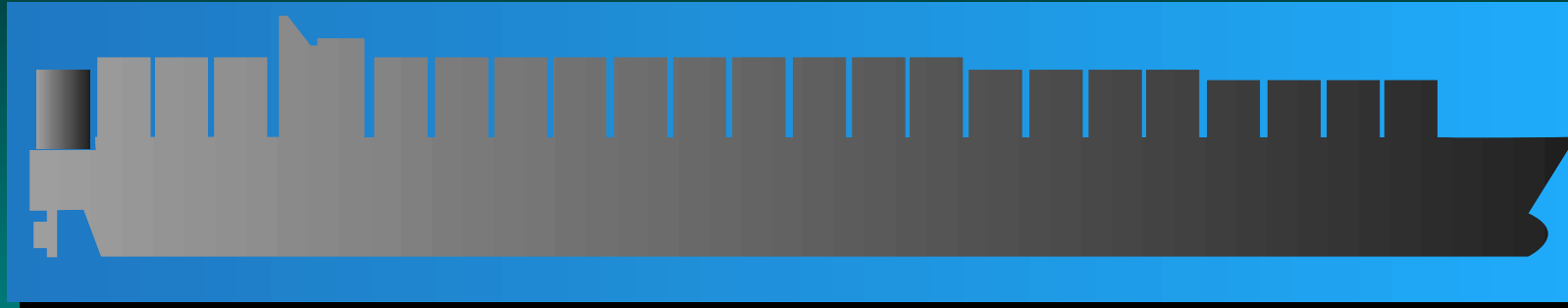
BEAM = 69 m (226 ft.)



Container Ship-in-a-Slip Concept



The 18,000 TEU Malaccamax Reported Predictions/Benefits



- By 2010 on Asia-Europe Trade Route
- **30% Cheaper** than 4800 TEU Panamax Vessel, primarily due to “Economies of Scale”
- **US\$40/TEU Savings**

Source: Dynamar Consultancy, Rotterdam

Emergence of North American Fast Feeder Short-Sea Coastal Vessels



**The New Frontier:
Transshipment and Short Sea**



**2,000 - 3,000 TEU
Feeder Ship**

10,000 to 15,000 TEU Mega Ship

Short Sea Shipping
COOPERATIVE



Short Sea Shipping Coastwise Maritime Trade



Taking Freight off of Congested Roads

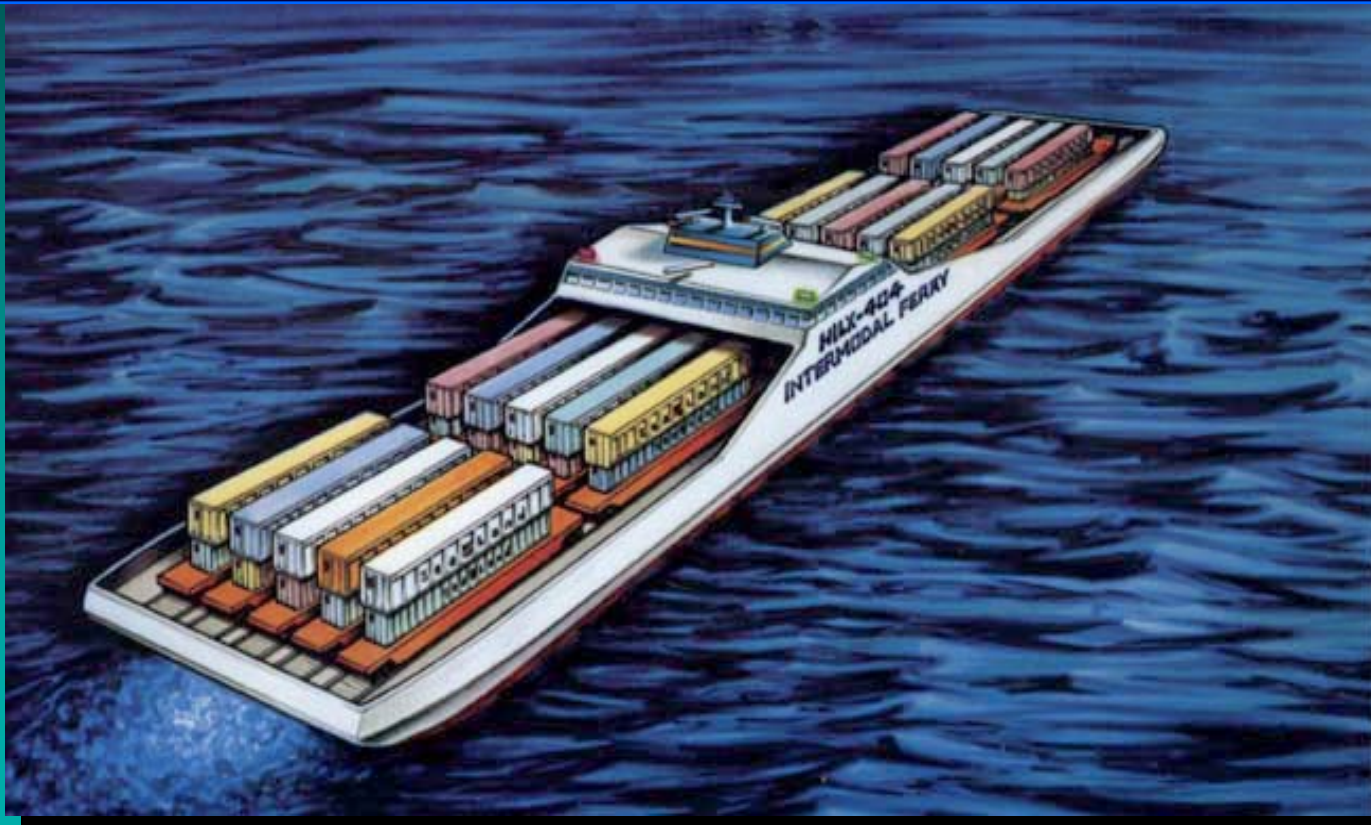


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Emerging Viable Container On Barge Coastal Shipping Concepts & Inland Intermodal Port Potential



High-Speed, Low Wake, Intermodal Float Technology



AAFA



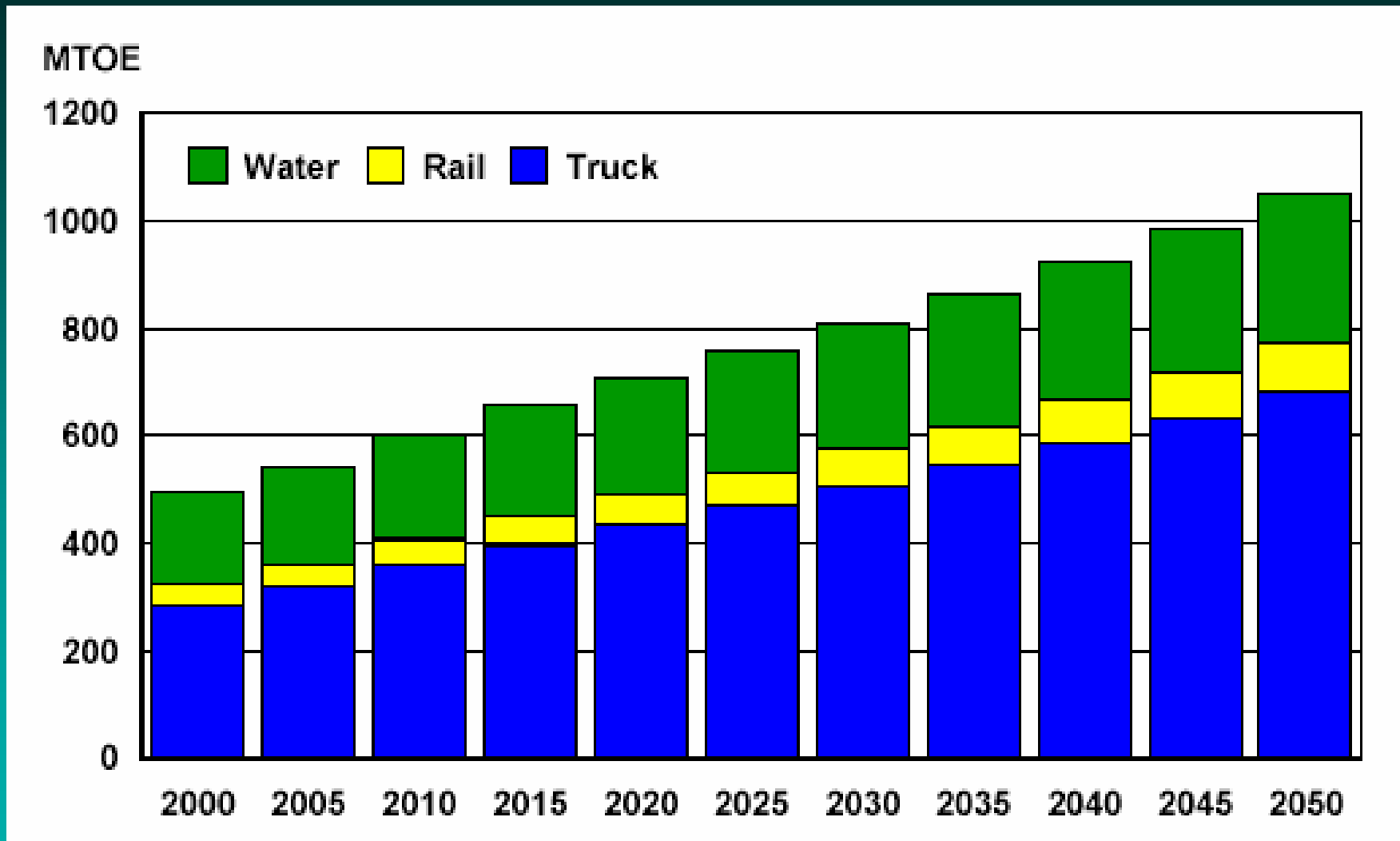
American Association
of Port Authorities

Growing Environmental Concerns for Marine Vessel Emissions



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Global Freight Energy Use is on the Rise



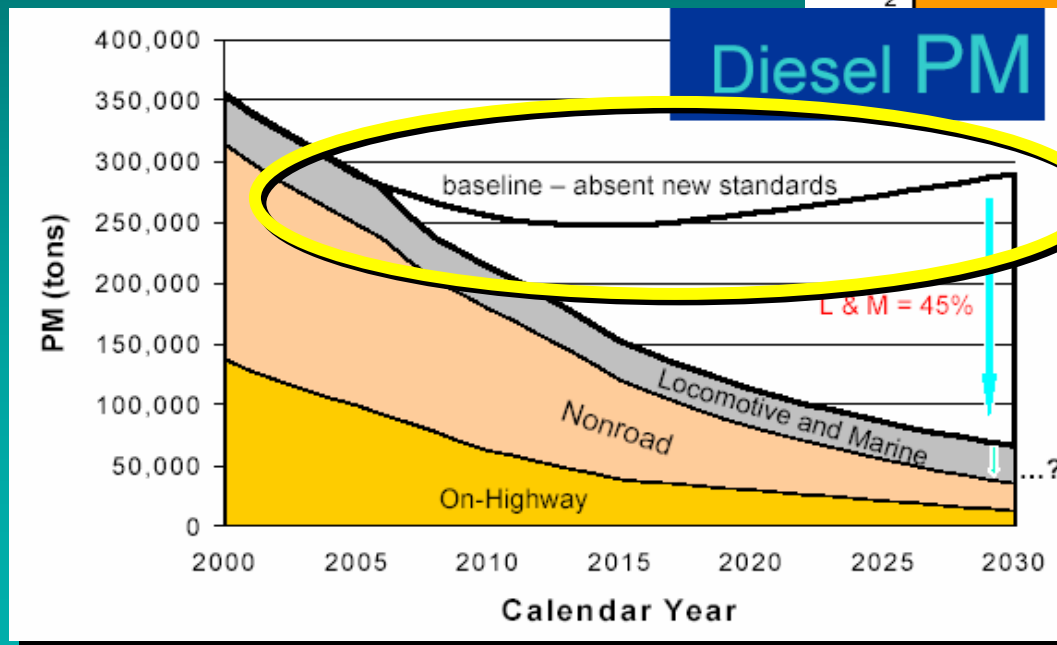
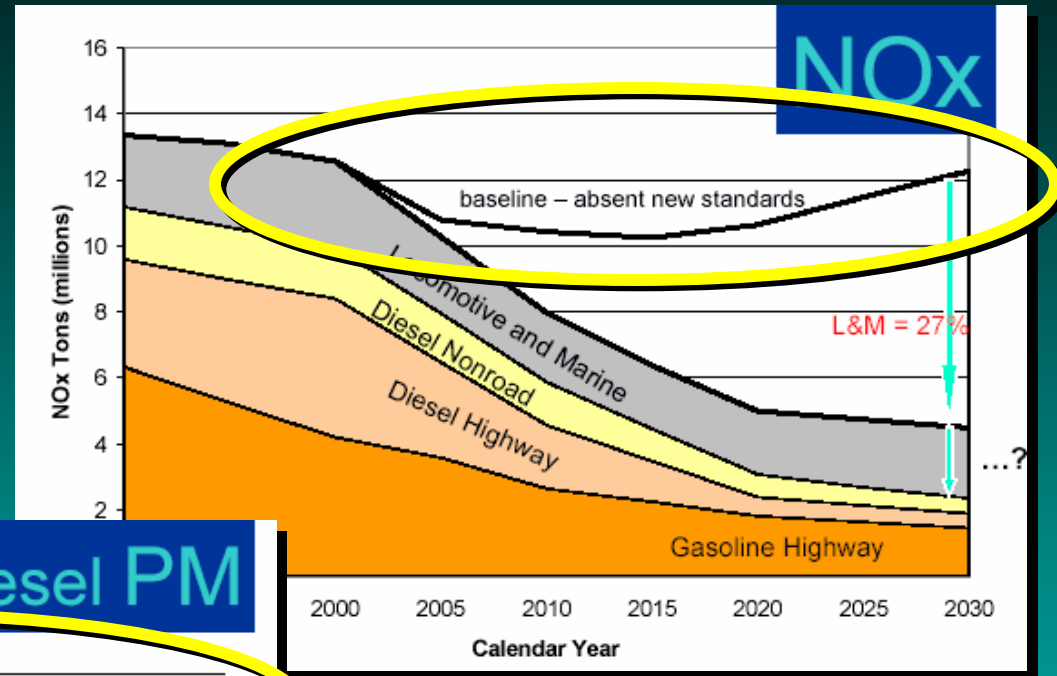
Source: 2005 Haagen Smit Worldwide Emissions Overview & NRDC "Harboring Pollution"



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Global Diesel PM & NOx Baseline Projections

Land Based Pollutants
Have Declined with
Regulation, but the
Unregulated Marine
Based Pollutants are
Increasing



Absent New
Standards and
Regulations the
Pollutant Baselines
Are Forecast to Rise

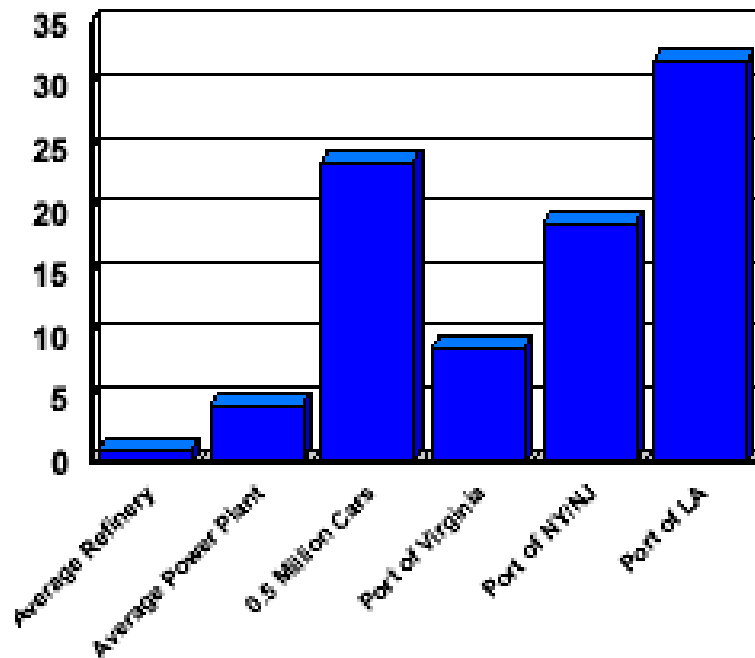
Source: 2005 Haagen Smit Worldwide Emissions Overview

Pollution Sources

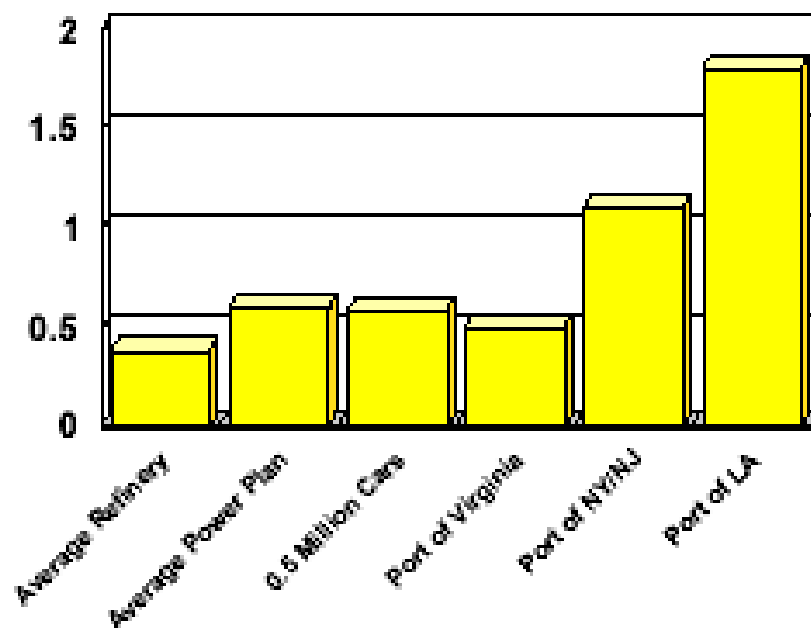
US Ports vs Other Industries...

We Need To Do Better

NOx Emissions
Tons per day



PM10 Emissions
Tons per day



Source: 2005 Haagen Smit Worldwide Emissions Overview & NRDC "Harboring Pollution"

Transportation Diesel Pollutants are Putting Our Health in Jeopardy



Diesel PM



Progress has stalled and diesel emissions from ships, locomotives and port complex are projected to increase.



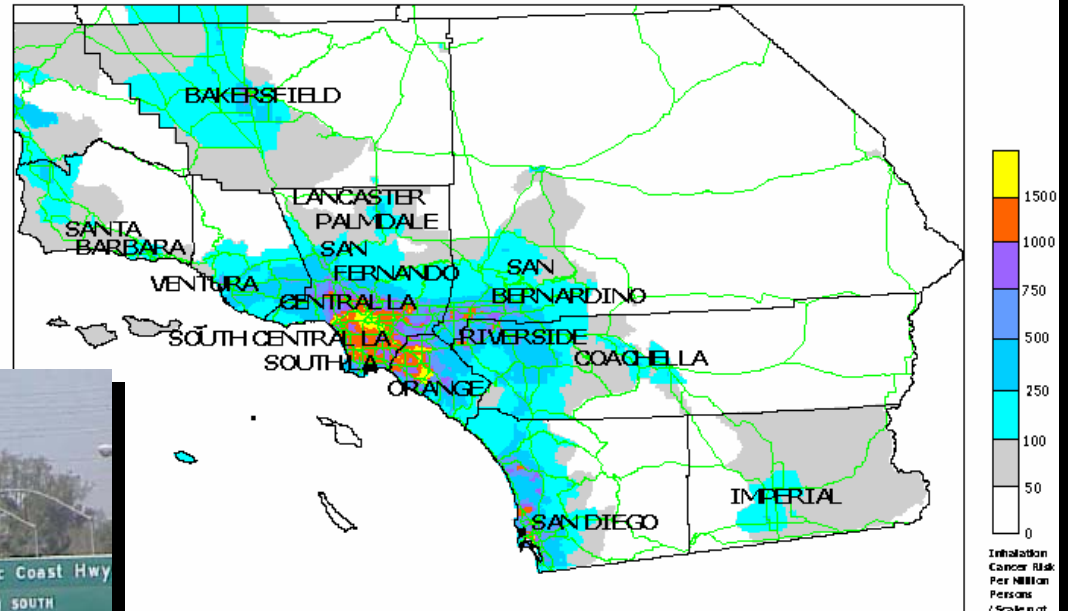
Source: SCAQMD, Multiple Air Toxics Exposure Study II, March 2000

South California Environmental Challenges

The “Diesel PM Death Zone”

Total Risk (diesel + nondiesel)

Southern California: 1990 Cancer Risk Per Million
AllSources



List of sources not yet included in risk.
©2004

Cancer Risk Per Million



I-710 Typical Day from POLA/POLB

- Environmental Constraints are Growing
- POLA/POLB Have had 40 major Projects Held up for Years
- State Looking Into User Fees

Cost-Effective Air Quality Emission Reduction Improvement Measures

**Modernize truck fleet:
Scrap dirty old trucks
Retrofit all other pre-2007 trucks**



Upgrade all cargo handling equipment with electric equipment or clean fuels



**Use clean marine fuels
Provide onshore electric power for ships at berth (Cold Iron)**



Replace locomotives with cleaner technologies, fuels, and explore rail electrification



Source: Southern California Association of Governments

POLA/POLB PierPass

Use of Peak Traffic Period Pricing to Better Align Freight System Costs and Benefits

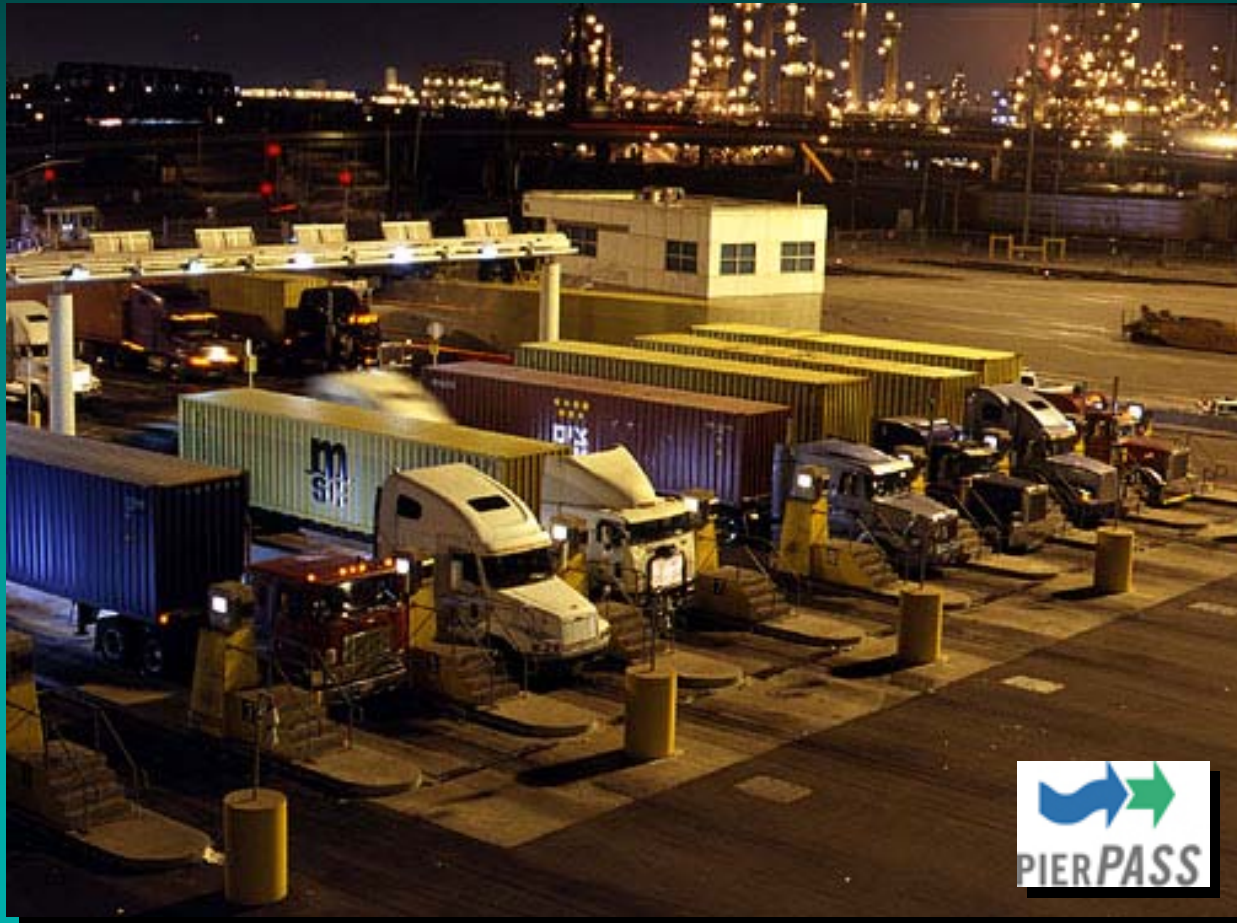


Photo courtesy of PierPass



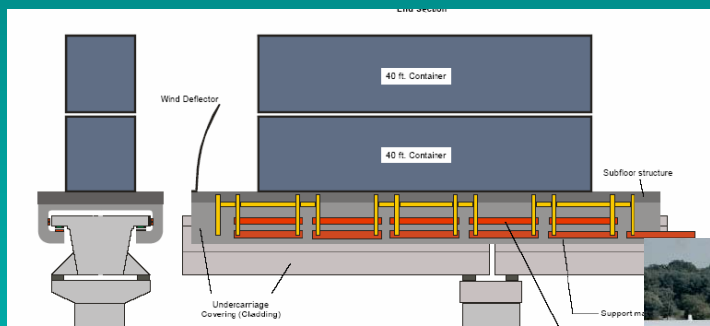
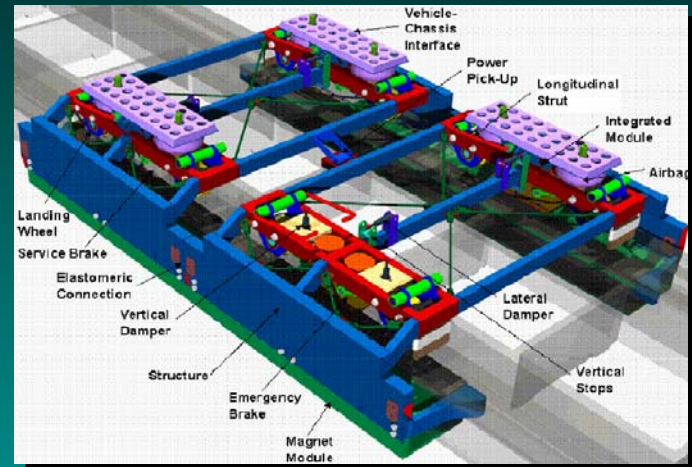
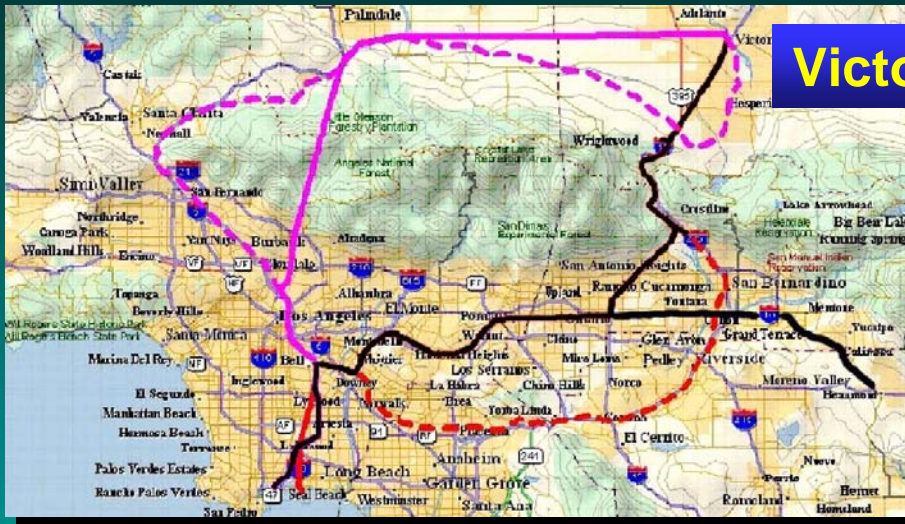
POLA/POLB PierPass

Initial Results

- Collaborative effort by marine terminal operators in LA/LB.
- \$40/teu fee imposed on local cargo moving via truck during peak hours.
- Initial results show 30% of total truck traffic moving off-peak.
- Reduced port-related truck congestion at peak times; however, **no substantial impact on turnaround times yet.**



MAGLEV Cargo Conveyor Demonstration Project



Transrapid Freight Vehicle Concept

Port & Intermodal Terminal Competitive Mandates

Ports & intermodal linkages must change the current **cost** versus **value** relationship in the logistics chain. **Become Value Added Multipliers...**

Successful ports & intermodal terminals in the next decade must **invest in and leverage technology** to improve terminal productivity, cost, effectiveness and reliability for all modes of transportation...**securely as environmental stewards.**

2007 Executive Management Conference

Broadening Industry Awareness - Part One

Saddlebrook Resort, Tampa, Florida

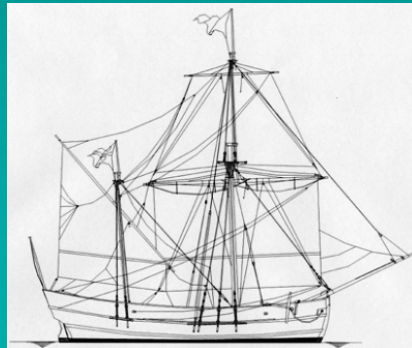
May 7, 2007

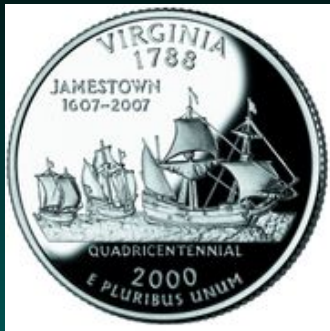


***Planning For Future
Transportation
Technologies***

Thank You









400 Years Ago A Voyage of Three Vessels Created the First US Port in Jamestown, Virginia



In 1600, Queen Elizabeth I Granted a Royal Charter to the **Honourable East India Company**, First Joint-Stock Company (Forerunner of the Corporation), to Develop Trade



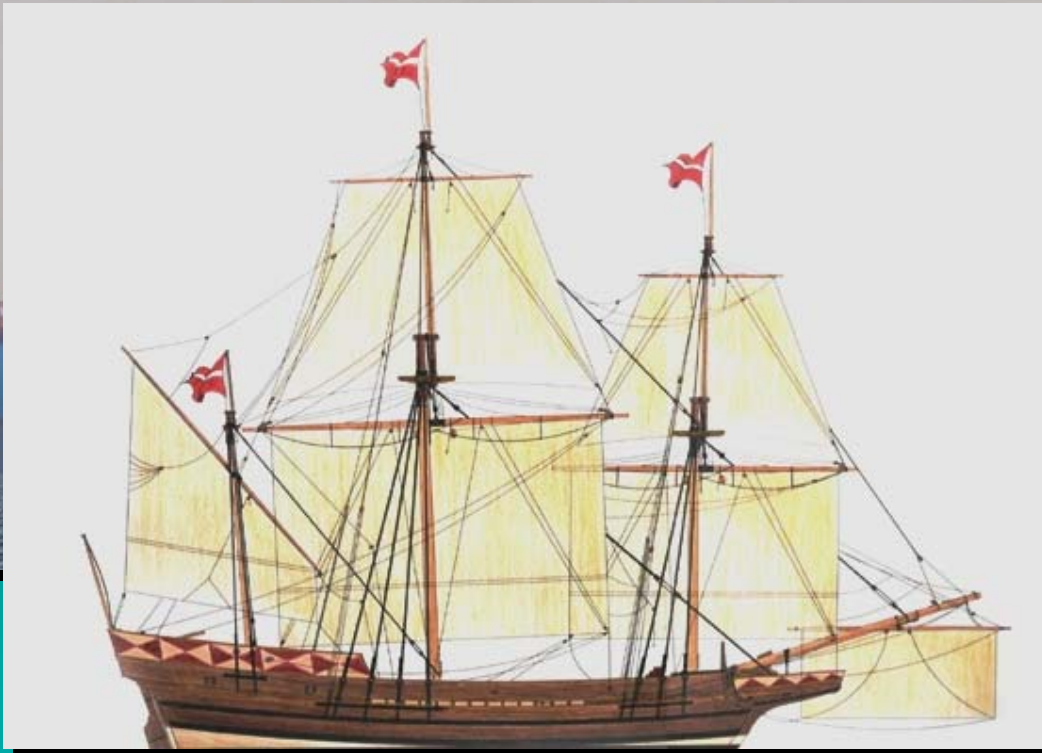


MÆRSK

M/S EMMA MÆRSK

2007

**Deadweight Tonnage: 156,907 tons
LOA: 1,302 feet; Crew: 13**



Godspeed Brigantine 1607

**Deadweight Tonnage: 40 tons
LOA: 88 feet; Crew: 13**



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M/S EMMA MÆRSK

2007



MÆRSK



Godspeed Brigantine 1607



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