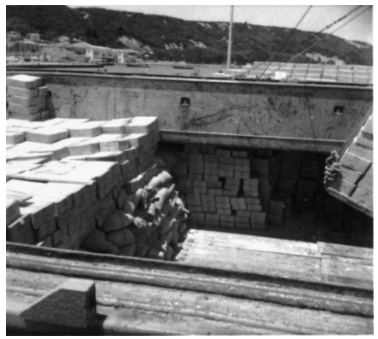
Changing Trade Lanes

Port Authority

of Kansas City, Missouri

Historical Cargo Handling

- Cargo was handled by hand for centuries



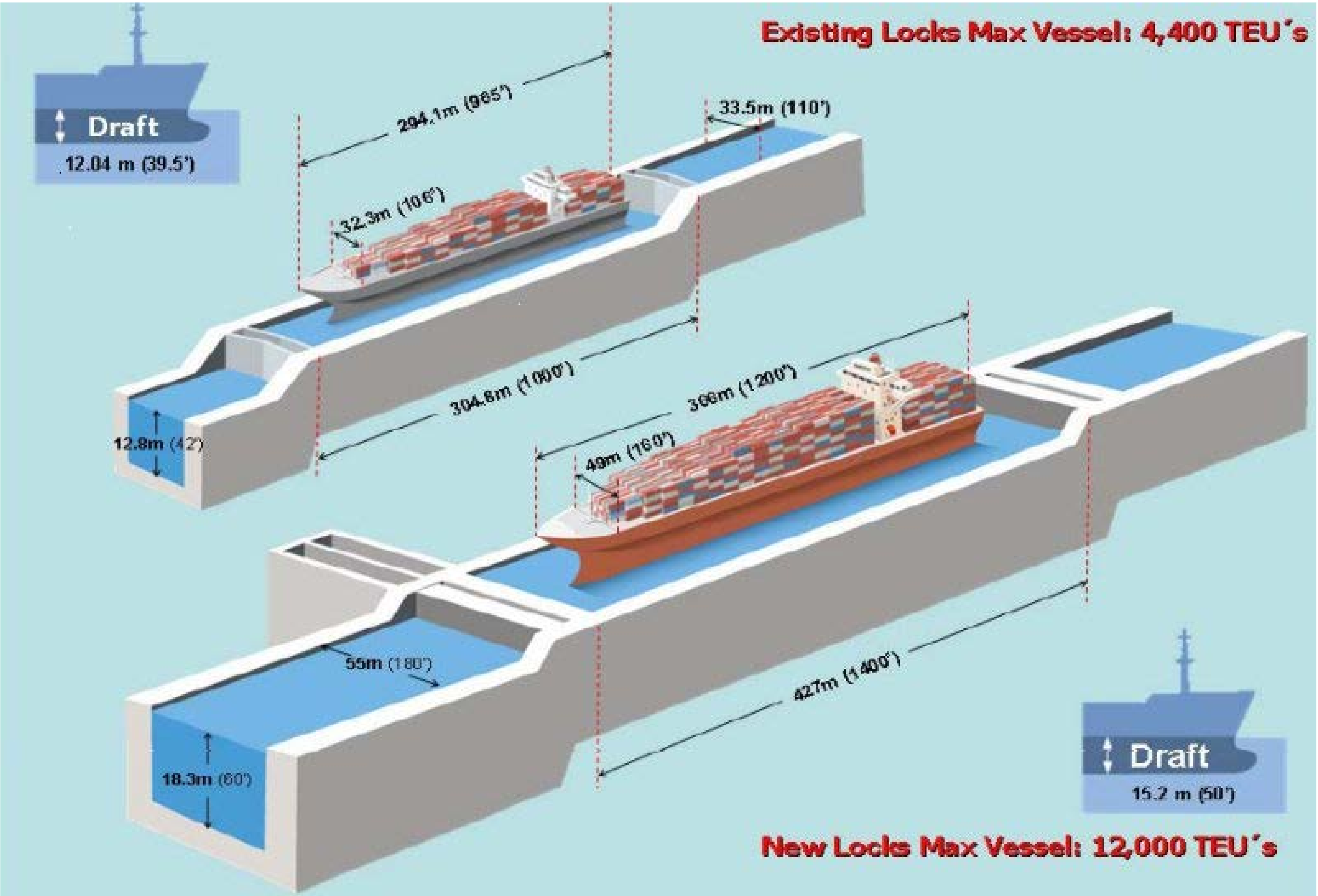
Conventional Ship

- Along came containerization

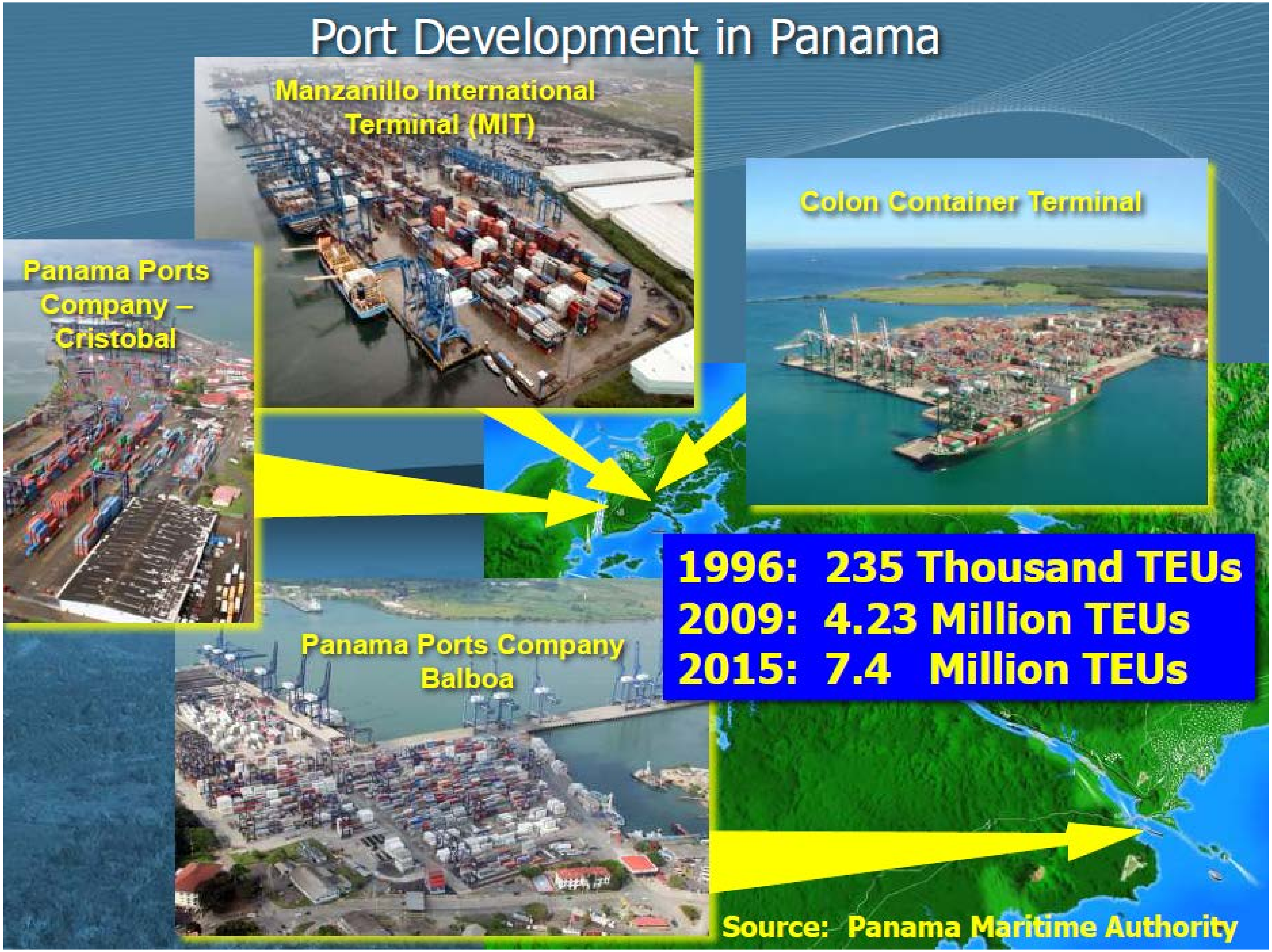
Container ship

The Evolution of Container Ships

Generation	Ship	Length	Draft	TEU
First (1956-1970)	Converted Cargo Vessel Converted Tanker	135 m 200 m	< 9 m < 30 ft	500 800
Second (1970-1980)	Cellular Containership	215 m	10 m 33 ft	1,000 – 2,500
Third (1980-1988)	Panamax Class	250 m 290 m	11-12 m 36-40 ft	3,000 4,000
Fourth (1988-2000)	Post Panamax	275 – 305 m	11-13 m 36-43 ft	4,000 – 5,000
Fifth (2000-2005)	Post Panamax Plus	335 m	13-14 m 43-46 ft	5,000 – 8,000
Sixth (2006-)	New Panamax	397 m	15.5 m 50 ft	11,000 – 14,500



Source: Panama Canal Authority


Port Development in Panama
Manzanillo International Terminal (MIT)
Colon Container Terminal
Panama Ports Company – Cristobal
Panama Ports Company Balboa
1996: 235 Thousand TEUs
2009: 4.23 Million TEUs
2015: 7.4 Million TEUs
Source: Panama Maritime Authority

Colon Free Trade Zone

- Largest Zone in the Americas
- 1700 + Companies
- $ 6.5 Billion in Annual Exports
- 1125 Acres

Today's emerging markets could become the largest ones!

(Country GDP Ranking in Billions of Real (2003) U.S. Dollars)

2000	2010	2020	2030	2040	2050
U.S.	U.S.	U.S.	U.S.	U.S.	China
Japan	Japan	China	China	China	U.S.
Germany	Germany	Japan	Japan	India	India
U.K.	U.K.	Germany	India	Japan	Japan
France	China	U.K.	Russia	Russia	Brazil
Italy	France	India	U.K.	Brazil	Russia
China	Italy	France	Germany	U.K.	U.K.
Brazil	India	Russia	France	Germany	Germany
India	Russia	Italy	Brazil	France	France
Russia	Brazil	Brazil	Italy	Italy	Italy

Source: Global Insight World Service, Goldman Sachs & Halcrow

Caribbean Transshipment Triangle

Latest Hub Developments

- Spring 2011. Brazilian engineering company Odebrecht commits to a $400 million port modernization project with the Cuban government for total port development at Mariel Cuba.
- July 2011. PSA Corp. of Singapore, the worlds 3rd largest marine terminal operator commits to a $250 million terminal operating agreement to operate the container terminal at the Port of Mariel Cuba.
- August 2011. CMA/CGM the worlds 3rd largest carrier has committed to a 35 year contract and to invest $100 million in equipment and infrastructure at the Port of Kingston Jamaica.
  - *This project is a strategic investment for CMA CGM and illustrates the Group's willingness to be ahead of the game in anticipating changes that will result from widening the Panama Canal. This agreement confirms the CMA CGM Group's historic commitment to Jamaica and the region," explains Rodolphe Saadé, Executive Officer at CMA CGM.*
- APM, the terminal operating arm of A.P. Moller/Maersk has committed to a $992 million 33 year concession agreement to develop & operate the Port of Moin, Costa Rica

Reasons transshipping may make sense

- South American population expected to grow at double the rate of Europe & North America and is expected to reach 700 million by 2025
- Can load the ship in Asia with Caribbean, North, Central & South American cargo
  - thereby increasing utilization on the head haul
- For the backhaul, can attract cargo from USEC, Gulf, Central and South America, and the Caribbean
  - Improve backhaul utilization
- Transshipment in the Caribbean could be on a high growth curve
  - 2013 when demand picks up
  - After 2015 when the Canal opens
- TS rates should remain in check thanks to competition
- Value added services such as manipulation, assembly, FTZ at lower costs

The St. Lawrence Seaway Management Corporation

Corporation de Gestion de la Voie Maritime du Saint-Laurent

The Saint Lawrence Seaway Development Corporation

GREAT LAKES ST. LAWRENCE SEAWAY SYSTEM

LE RESEAU GRANDS LACS VOIE MARITIME DU SAINT-LAURENT

Our Waterway – Gateway to Middle America

Kansas City Region

- Economic Development driven by competitive transportation
- Manufactured good can reach 95% of the continental US within two days
- Kansas City connects with five class 1 RR & 4 US Interstate highways
- Untapped Capacity **“ The Missouri River”**

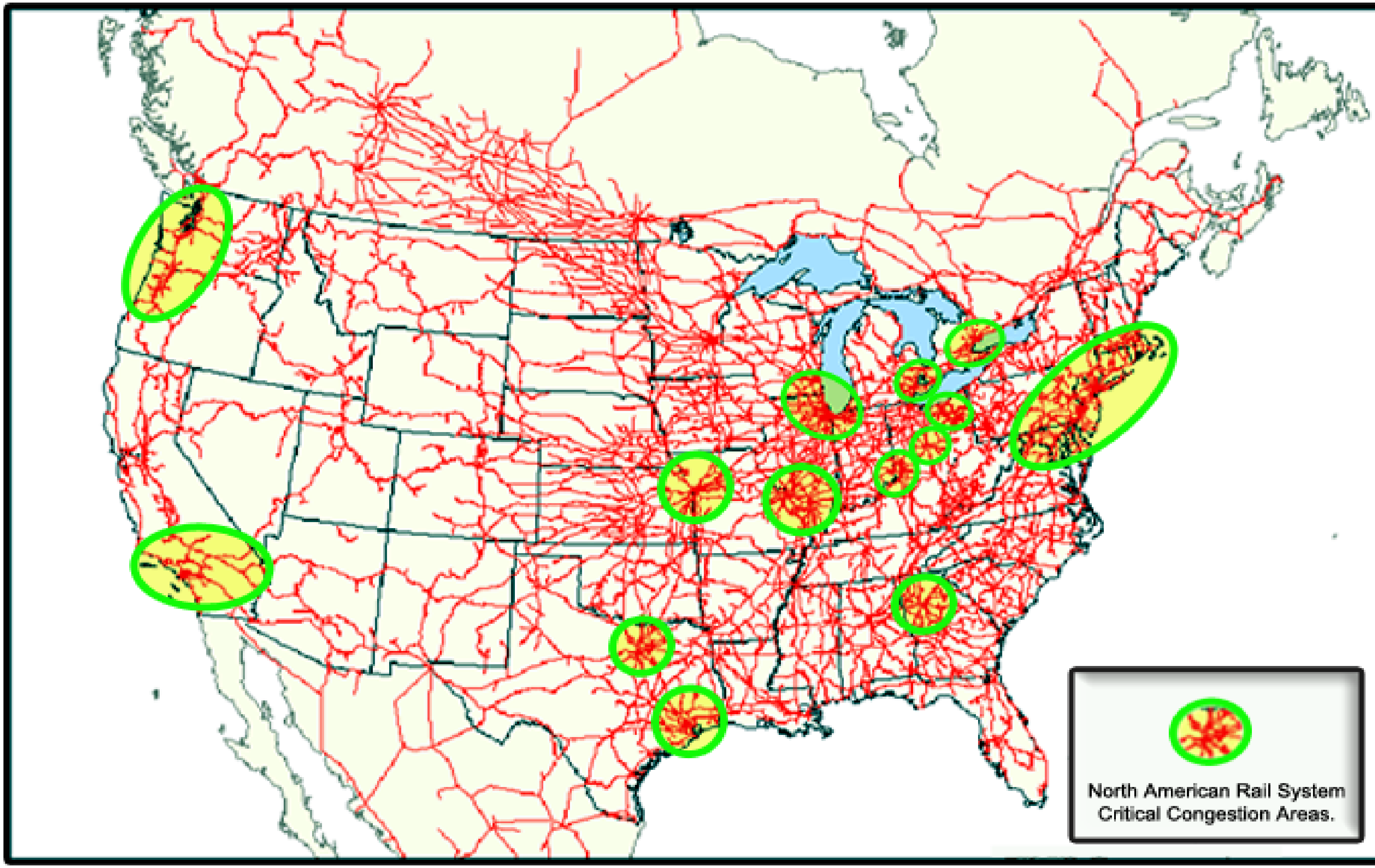
Port of Kansas City

Missouri's Sea Coast

What are the Commodities?

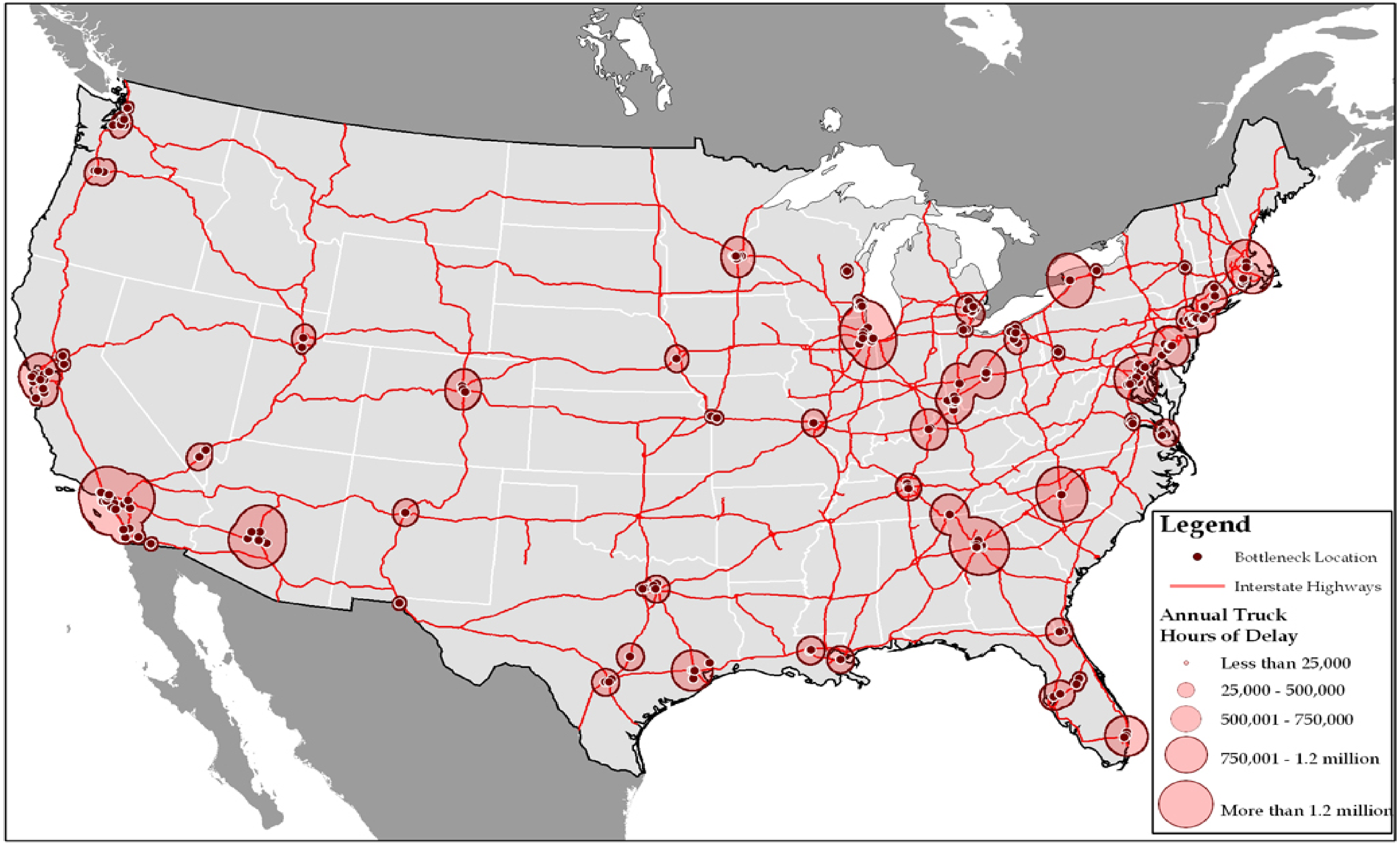
- Sand, gravel & aggregate
- Agricultural Products, (grains, fertilizer, feedstuffs)
- Iron, steel & non-ferrous metals
- Petroleum products
- Coal
- Chemicals
- Salt

North American Rail Network (Bottlenecks & Congestion Areas)



Source: MARAD 2005

Major Freight Truck Bottlenecks



Source: Cambridge Systematics, Inc., "An Initial Assessment of Freight Bottlenecks on Highways," for FHWA, October 2005

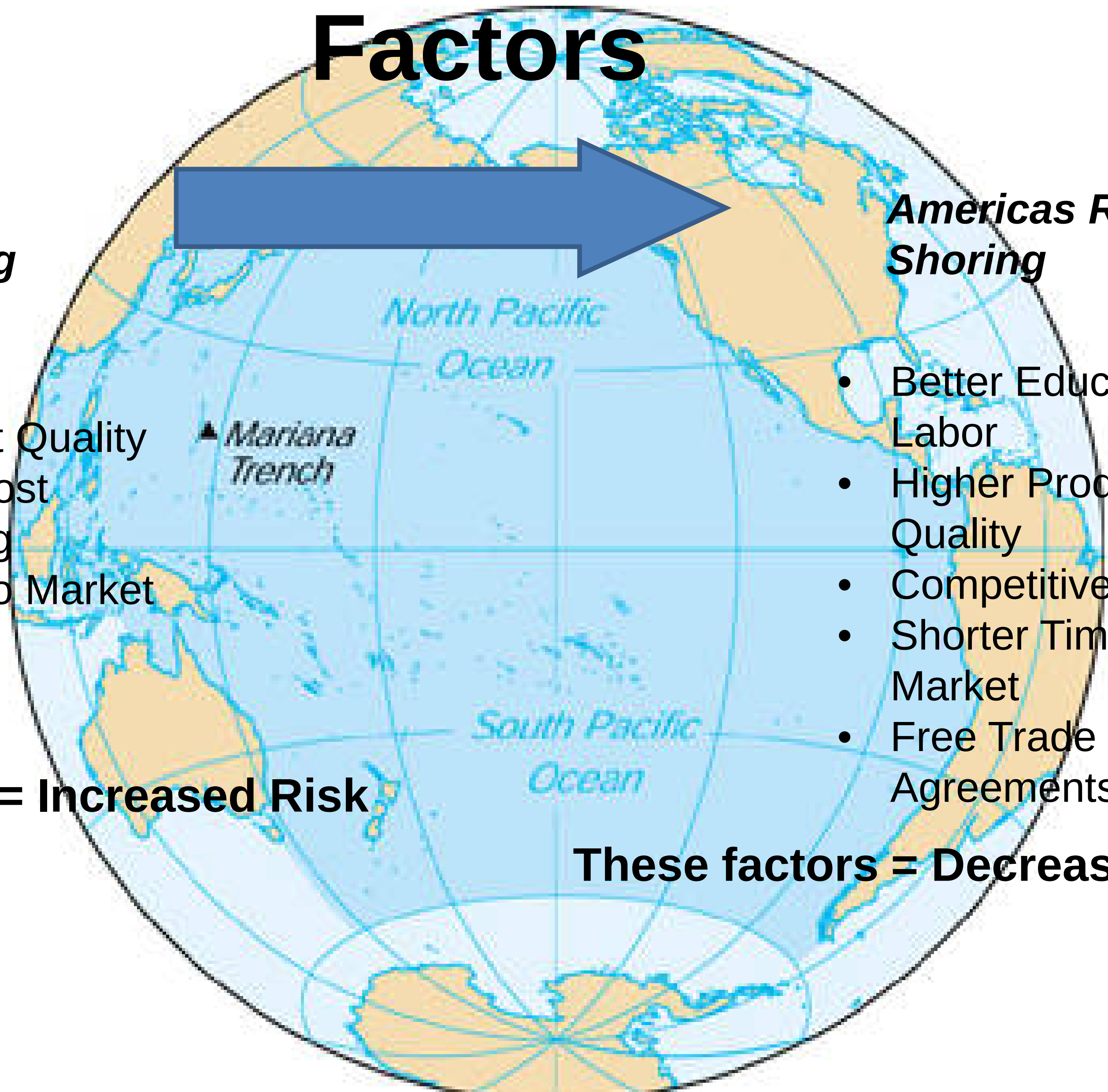
The Capacity Solution

- International trade will at least double by the year 2030, further stressing our already congested landside transportation system.
- Existing landside infrastructure can not support growth projections. Landside expansion is costly, protracted, and can be controversial.
- The Nation's Marine Highway system offers unlimited growth potential.
- The U.S. moves approximately 2% of our domestic freight by water:
    - Europe - 44%
    - China - 61%

- The Maritime Administration is developing initiatives to increase the marine domestic freight market share.

Source: MARAD

Near Sourcing Factors



Asian Manufacturing

- Higher Wages
- Lower Product Quality
- Higher Fuel Cost
- Slow Steaming
- Longer Time to Market

These factors = Increased Risk

Americas Re-Shoring

- Better Educated Labor
- Higher Product Quality
- Competitive Costs
- Shorter Time to Market
- Free Trade Agreements

These factors = Decreased Risk

Points to Ponder

- Use untapped capacity without large infrastructure investment
- Highlight Transportation safety
- Multimodal interfacing in less congested areas
- Multi transport mode options effecting overall freight rates
- Competitively priced land and workforce, with above national average “standard of living”

Supply Chain Logistics – a Worldwide Phenomenon


Coca-Cola


MoneyGram
CASA DAVID


UNITED
Crown
UNITED

We have a full load with extra seating on top!

Instead of Horsepower we have Manpower (5MP)

Port Authority
of Kansas City, Missouri

Contact Information:

Richard L Grenville Director of Port Operations
Kansas City Port Authority Missouri
300 Wyandotte, Suite 100
Kansas City, MO 64105.

Email: rgrenville@kcportauthority.com
Phone: 816-559-3726