

**PANEL V: TRADE AND FREIGHT GATEWAYS TO THE NORTHEAST  
AND TO THE NATION**

*(Thursday, November 16<sup>th</sup> 2 – 3:30 p.m.)*

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**Director, Port Commerce Department**  
**Port Authority of New York and New Jersey**

Richard M. Larrabee is the Director of the Port Commerce Department of The Port Authority of New York and New Jersey. He oversees the management and operation of the major marine terminal facilities within the Port of New York and New Jersey, the largest port on the East Coast of North America, which handled 80 million tons of cargo in 2005, and approximately 4.8 million ten's (twenty-foot equivalent units). These facilities include:

- The Port Newark/Elizabeth Port Authority Marine Terminal complex in Newark and Elizabeth, New Jersey;
- The Red Hook Container Terminal in Brooklyn, New York;
- The Howland Hook Marine Terminal in Staten Island, New York; and
- The Auto Marine Terminal in Jersey City and Bayonne, New Jersey.

Mr. Larrabee manages a multi-billion dollar port redevelopment program that includes reinvestment in marine terminal facilities, deepening harbor channels and berths, improving intermodal connections and protecting sensitive marine environments. The redevelopment program is positioning the Port of New York and New Jersey to accommodate future growth that is projected to double over the next decade and could quadruple by 2040.

Prior to joining the Port Authority, Richard Larrabee held the rank of Rear Admiral in the United States Coast Guard. He served as Commander First Coast Guard District in Boston, MA, where he oversaw all Coast Guard operations in the Northeast United States. Over his thirty-two year Coast Guard career, Rear Admiral Larrabee held a variety of operational and staff assignments, including command at sea and shore assignments. He has received two Distinguished Service Medals and three Legion Merit awards.

Mr. Larrabee holds a Master of Science degree in Ocean Engineering from the University of Rhode Island and a Bachelor of Science degree from the United States Coast Guard Academy.

# **THE PORT AUTHORITY OF NEW YORK AND NEW JERSEY**

**RICHARD M. LARRABEE**  
**Director, Port Commerce Department**

**Statement for Presentation to  
The National Surface Transportation Policy and Revenue Study  
Commission  
On the Occasion of Its Meeting in New York, NY on November 16, 2006**

## *Moving From Modal Stovepipes to Logistic Pipelines*

Good Afternoon Commissioners. My name is Richard Larrabee, and I am the Director of the Port Commerce Department, Port Authority of New York and New Jersey. I will discuss our international trade outlook and the changing environment at the nation's international freight gateways.

Today, ports such as the Port of New York and New Jersey face significant challenges in keeping up with the transportation infrastructure demands required to maintain the United States competitive position in world economy. My comments specifically reflect the view from the Port of New York and New Jersey but could apply to many of the other large ports around our nation.

### **World Trade and Goods Movement**

- **Trade**

I know that you have heard that world trade is a dominant driver of today's transportation needs. With respect to freight, consider worldwide merchandise exports over the last 50 years. They have grown by a factor of 70, from \$87 billion to \$6.2 trillion.

Over this 50-year period, the U.S. economy has evolved from being essentially domestically based to one that is increasingly international in its underpinnings. We have become a service-driven economy, which is resulting in the significant growth of international trade. International trade is growing much faster than Gross Domestic Product (GNP). Between 1970 and 2005, exports have grown by a factor of 20 and imports by a factor of 41. During the same period, real GDP grew by a factor of 11, which demonstrates that trade is growing much faster than the overall economy.

International trade is rapidly becoming an integral part of the nation's economy. Consumption is about two-thirds of the US economy, and more and more of the goods consumed domestically are produced abroad. This growth in turn is putting a bigger strain on the nation's logistics system.

- **Goods Movement**

Today's manufactured products increasingly come from overseas, particularly Far East Asia. More than 95 percent of all international cargo, by volume, enters the nation through its port system. However, having an effective international gateway is no longer simply a matter of having a strong port; international freight movement is happening within a logistics framework where the port is just one element of the total delivery system.

It is from seaports that international cargo moves to users by truck, rail, pipeline, and barge. It is also from our nation's ports that American made goods are shipped overseas after long inland journeys from manufacturing plants. The port industry, however, does not just embrace the physical handling of cargo and the transport of cargo to and from port terminals, it also requires workers from a myriad of other private enterprises and governmental agencies to ensure the movement of millions of tons of goods through seaport terminals.

Historically, freight transportation has been organized around nodes (e.g., ports and depots) and modes (e.g., highway, rail, air and waterway). The planning, construction, and financing of infrastructure has been separated by public and private entities and has focused on individual nodes and modal stovepipes.

International freight transportation is no longer organized as a series of individual moves between nodes by carriers, e.g., passed from truck to ship and through the port to truck or rail at the other shore. Cargo movement is now planned and organized as a logistics system where each move is part of a supply chain, and the links are seamless. The same is true to a large extent in the domestic trade where, while trucking is the essential logistics provider system, greater efficiencies with other modes are increasingly important. The competition for business from the international shippers is between entire freight logistic systems, not just ports. Movement is viewed *en total* from initial point of origin to the final destination, which in the US may be a multi-state region.

### **Northeast Regional Demand**

- **Consumer Demand**

The Northeast (including the northern tier to Chicago) is the largest consumer market in the United States. This region's demand is fueled by its residents' purchasing power, which constitutes approximately 38 percent of the nation's disposable income.

Demand for international goods continues to grow within the Northeast. The Port of New York and New Jersey is the gateway for approximately 50 percent of the total demand. Of note, the majority of the other half of the goods consumed in the region is transported from the ports in Southern California by mini land-bridge.

A significant portion of this international cargo is coming from the Far East. Prior to 2001, the majority of Asian cargo bound for the Northeast moved primarily through Southern California ports. After September 11, 2001 tragedy and the port labor unrest in Southern California in the Fall of 2002, shippers began to rethink their supply chains. All water services, using both the Panama Canal and the Suez Canal, have grown significantly since then.

Currently there are 27 all water services destined for our region, and there are new services with larger ships that are now being planned to come to our port. Shippers are finding these services more reliable, lower cost, and nearly matching the transit times afforded by west coast ports. For example, in 2004, the Far East became the number one source of cargo to the Port of New York and New Jersey, accounting for 35 percent of all cargo. Previously, Europe had always been the number one origin of cargo to the New York-New Jersey (NY/NJ) port.

- **Port of New York and New Jersey**

The Port of New York and New Jersey is an economic engine. In 2005, the New York-New Jersey port moved 28.1 million metric tons of general cargo (i.e., manufactured and processed goods, usually packed in containers), a 10.4 percent increase over 2004. More than 2.8 million containers went through the Port, a 7 percent increase over the previous year. There also was a steady stream of automobile imports and exports. The port handled 722,411 vehicles in 2005. Meanwhile, more than 56 million metric tons of oceanborne bulk cargo, such as petroleum products, also passed through the Port, most of it handled at private facilities. Overall, that is \$24.4 billion worth of economic activity in the region. This international cargo movement:

- ❑ Provided nearly 122,500 direct full-time-equivalent jobs in the region (20% above 2000's count);
- ❑ Supported a total of 232,900 full-time-equivalent jobs in the 26-county metropolitan area;
- ❑ Generated \$12,568 million for port-region workers (33% higher than reported for 2000);
- ❑ Contributed state and local tax revenues totaling nearly \$2.0 billion in the port region; and
- ❑ Contributed \$3.8 billion to federal tax coffers.

The Port's container traffic has had an average annual growth of over 7 percent per year for over a decade. It has more than doubled from about 1.6 million total containers in 1996 to 2.8 million in 2005. At this rate of growth, the cargo volumes will double again by 2016. By 2056, the number entering the Port could be approximately 11 million containers.

As much as 80 percent of the containerized cargo entering through the Port, stays within the region. However, a significant portion heads inland to Chicago and to Northeastern Canada. Approximately 13 percent of the Port's cargo moves by rail today, but there are

plans and investments being made to increase that proportion to about 25 percent over the next decade.

- **Logistic Pipelines**

International freight movement is now part of a global supply chain where logistic providers control the flow. Seaports are part of this logistics system that must provide shippers with low cost, reliability, and cargo velocity to compete effectively. This formula works if there is adequate capacity within the components of the transportation /logistics pipeline to meet the shipping customer's demands.

A port is just one segment along the pipeline that must move containers swiftly and cost efficiently. It is also a replaceable segment. If a port's capacity is "narrower" than that of the rest of the pipeline, or if a port impedes the flow of goods in any other way, it can and will be replaced. The pipeline will be rerouted through another seaport that can keep up. The new gateway may be in Canada or to the south, and amid the fierce competition that engulfs the shipping sector, the chances of reconnecting will be slim.

The capacity and scale of this global pipeline is changing. It is being driven by the ever-increasing size of container ships. The ocean carrier industry has been steadily building larger vessels from the 2,500 TEU ships in 1990 to 13,000 TEU mega-ship emerging in 2006.

The savings offered by the economies of scale created by these mega-ships is allowing the carrier industry to drop their costs and to tighten margins. The rest of the delivery system must react and create comparable capacity within the system or face the economic consequences of congestion and diversions. Hence, the entire logistics system for a region (waterways, terminals, intermodal connections and distribution centers) must be expanded and redeveloped. Although the system failure may be regional (as occurred at Southern California ports in Fall 2002), the economic consequences are national in scope.

### **Infrastructure Investments**

The Port Authority of New York and New Jersey recognized these changes in the maritime transportation system starting in the mid-1990s. Since then, the Port Authority has been heavily investing in port infrastructure, on both the waterside and on the landside to keep pace with the demands for greater capacity. Over the past five years, the Port Authority has invested \$1.1 billion in an unprecedented capital program for port redevelopment. The goal has been to enable the Port to accommodate the steady swell in commerce and the new generation of ships that sail to it.

- **Dredging**

As is done with many other ports, the Port Authority entered into an agreement with the federal government to spend in excess of \$1.6 billion to deepen and expand the local

navigation channels to provide adequate underkeel draft demanded by today's container ship fleet.

Deepen major shipping channels to 45 feet in the first phase of an effort to ensure access for the mega-containerships (called Post-Panamax size because they're too big to fit through the Panama Canal) that have become the industry standard. The Port Authority undertook the job with the US Army Corps of Engineers and completed it in 2004 under budget and ahead of schedule. The Port Authority and the Corps of Engineers have begun construction of new deeper channels to accommodate the new generation of containerships. Deepening to 50 feet is now underway as is the deepening of terminal berths to lodge the mega-ships.

- **Terminals**

Investments (approximately \$1 billion) were also made in the redevelopment of the Port Authority's marine terminals. These investments, which included wharf reconstruction, terminal reconfiguration, paving, and so forth, were coupled with operator activities to increase terminal and rail productivity.

The Port's tenants' \$500 million-plus investment in terminal infrastructure and equipment has improved system performance. Private investments include strengthen of wharves to enable them to deploy bigger, higher-capacity, electrically driven container cranes capable of efficiently working the mega-ships. The operators have also purchased new and more efficient yard equipment to increase productivity, and have constructed new gates structures to reduce delays and increase terminal effectiveness.

- **Rail**

In the last few years alone, the Port Authority has authorized \$600 million for the expansion of on-dock rail infrastructure at the Port's terminal facilities to accommodate the unprecedented growth in intermodal rail volumes. International intermodal rail cargo is good business for the Port to handle as it increases the cargo handling capacity of facilities, is environmentally friendly, and meets the needs of port users, i.e., shippers. It also fills a critical role in the national freight distribution chain. However, much of our \$600 million investment in on-dock rail is at risk if other funding sources (public or private) are not identified to expand the freight rail system to handle the burgeoning growth in intermodal and other rail cargo. The Port cannot handle the growth expected and reach the capacity potential of the on-dock facilities with the existing freight rail lines beyond the terminals. Trying to do so would be like having a single-lane country road as your primary access to a huge football stadium.

We face critical rail projects like, clearing the Waldo Bergen tunnel for double-stack high cubes or the Waverly Loop project, which are wanting for funding and provide an immediate increase in the ability of our existing freight infrastructure to handle more volume. The Port Authority's Port Inland Distribution Network (PIDN) initiative is a



regional approach to encourage the greater use of rail to move boxes within the metropolitan area as well as the Northeast. Federal funding was provided to support the Alameda Corridor in Los Angeles and the Heartland Corridor, which is being built from Norfolk to Columbus and Cincinnati. But there are no programmatic mechanisms to fund these types of rail linkages to the hinterland from either our port or others.

- **Inland Access**

Similar investments beyond the terminal gates for intermodal services (including both truck and rail) and distribution centers are beginning to appear. The Port Authority is working with other government agencies and industry representative to create the needed system capacity and provide transportation efficiencies to meet the region and nation's demand for international cargo. For example, working with the Port of Albany under the PIDN program, Port Authority launched a container-on-barge service from the NY/NJ port to Albany. Although the service was not sustainable for several reasons, the Port Authority continues to look for innovative ways to use Short Sea Shipping and PIDN approaches to moving cargo out of the Port and on to inland locations.

There are inland linkages to the cargo's final destination that often go beyond the local region and sometimes beyond state borders. The overall delivery system is part of the global supply chain and therefore must include transportation capacity and considerations from the manufacturer overseas to the local retailer's shelf. Unfortunately, it does not seem that the demands of international cargo to flow through a national logistics network have been recognized as more than a local port problem by the Federal government. Likewise the needs of domestic freight and the relationship between freight and passenger transportation have been largely ignored. Here is where new federal policies are desired.

- **Security**

Security investments have been an extremely high priority since September 11, 2001. The Port Authority directed-resources applied to port security have increased 900 percent since 2001. Efforts have been aimed at strengthening our ability to secure and police port premises.

The policing costs have stabilized but the Port Authority has embraced the role of collaborator, contributor, and catalyst for port-wide security. We have worked vigorously at all levels to ensure and enhance port security. We are fostering close and continuous communication among the US Coast Guard, the Bureau of Customs and Border Protection, state and local law-enforcement authorities, marine terminal personnel and ocean carriers.

The Port Authority has often served as a spokesman for the seaport industry to the Federal government on port security issues. We have also worked with other ports and federal agencies on research and development for cargo screening systems. It has taken an active role with the port industry to advance security-related information technologies

and business procedures aimed at securing containers from their points of origin right to their destinations.

- **Environment**

Environmental awareness has become an integral part of all of the Port Authority's daily operations and long-term planning and development. The Port Authority and its tenants are investing in protecting the environment.

The huge new container cranes in the port are powered by electricity rather than by diesel engines as a result of new electrical infrastructure built by the Port Authority. Port tenants are extending gate hours to reduce truck delays. They are also increasingly replacing diesel-powered container-yard equipment with new gear that runs on propane or electricity. In fact, a Port Authority inventory of cargo-handling equipment emissions showed a 30% reduction across a full spectrum of pollutants from a similar study two years earlier, despite a 20% increase in cargo-handling equipment to handle freight growth. Of course, the rail investments have taken trucks off the road and also improve our local air quality.

The port's dredging program, too, has been able to serve both economic and environmental goals. Deepening channels enables the port to handle bigger ships that carry more cargo, moving goods more efficiently and with less impact on the environment. Another positive is that all of the dredged material that is produced is put to good use. The program has supported the investment of millions of dollars in beneficial use of all dredged materials. Applications have included the creation and expansion of rock fishing reefs, placement of clean materials at the Historic Area Remediation Site (HARS), and remediation of degraded upland sites with amended dredged material.

In addition as part of dredging program, we are investing \$14 million in engine replacements and retrofits for the Staten Island Ferries to remove over 400 tons per year of nitrous oxide.

Other investments in the Harbor include \$60 million for environmental site acquisition and preservation, \$9 million for the Comprehensive Harbor Restoration Plan, and \$31 million in studies to identify the sources of harbor sediment contamination and develop reduction strategies for them.

Finally, as they say, actions speak louder than words. The Port Authority has implemented a Green Port Program that includes establishing an Environmental Management System, conducting tenant environmental awareness training, and forming a Green Practices Task Force among port tenants. The Task Force is focused on air and water quality improvement, energy conservation, and waste minimization.

## **Financing**

The Port Authority of New York and New Jersey is a financially self-sufficient organization that must work from a triple bottom line. Our role is to create regional prosperity through transportation and mobility. We must do everything with a focus on the environment and security. Third, we must continue to receive a return on our investments so that we can continue to fund major capital projects in the future.

It is evident that more freight transportation and logistics capacity must be created if the coming tidal wave of international cargo is to be accommodated. The necessary investments have been made and will continue to be made by the Port Authority and others in the waterways, terminals and on-dock rail facilities in the Port. The Port Authority can partner with others but has no authority to invest in infrastructure assets beyond its Port District, defined as a 25-mile zone circumscribed around the Statue of Liberty. Now there is a clear need for others to make investments in the rest of the local and national freight delivery system including dedicated regional highways and rail networks.

- **Public Benefits**

Seaports and their associated intermodal and distribution system pipelines not only provide economic benefits but also provide public benefits including regional environmental benefits. Waterborne transport of cargo reduces landside congestion, air emissions and energy use. These are unaccounted public benefits that accrue from Port Authority and private business investments. These public benefits can be significant. Unfortunately seaports and the associated logistics elements do not have a mechanism for recovering the system investments that matches the public benefits generated.

Many ports, included the Port of New York and New Jersey, are locked into long-term leases. Many of these lease terms were negotiated during an earlier period when anticipated cargo growth levels were in the range of 3 to 4 percent. With growth rates now averaging 7 percent or more, these long-term leases may not provide sufficient revenue to enable ports to finance the amount of investment now required to handle the projected 7 percent growth over the next 10 to 20 years. If such capacity is not provided, the US bound cargo might have to flow through Canadian and Mexican ports, raising the cost to consumers and lessening the economic benefits to the nation. In addition, desired public benefits provided by seaports are lost.

- **Finding Resources**

New regional and national investments in freight capacity will need innovative regional and Federal financing mechanisms. Other funding solutions for warehousing and distribution center construction will need to be created for the private industry parties to assist them in the development of an all-inclusive logistics system described previously.

Reliable sources of funding for highway and airport infrastructure investments have been federally legislated. Of course there is the highway trust fund. The nation's airports are able to charge a passenger facility charge (PFC) to provide a funding source for their

system investments. Seaports and their intermodal connections should have a comparable funding mechanism to provide needed systematic investments.

If the Port Authority or others can provide the business value at the right price, then the government could provide legislated mechanisms to foster private sector investments and to recover public sector investments. To provide transparency, the responsible Federal agency's rules and regulations could direct that the industry investor be given certain rights during the project vetting and funding process and that the agencies would have the final review responsibility to achieve accountability. Given the necessity to promote public-private investments in the national freight logistics system, avenues to recover capital investments are required.

### **National Policy Overlays**

The business of international trade provides jobs, wages, and tax revenues for our nation's citizens. The movement of international cargo is a significant economic engine for regions and the nation that provides enormous national economic benefits.

The Federal government is providing policy and governance leadership to meet our security needs; similar policy leadership is desirable in meeting our growing transportation needs. To assist in the process of organizing trade and cargo flows, the Federal government could map the international freight transportation system from a national perspective and propose national corridors to accommodate the anticipated freight flows.

The Federal government could also consider methods for providing a predictable source of funds and financing mechanisms for seaport and associated infrastructure investments. The public benefits of these investments require some form of acknowledgement and compensation. Further, these transportation investments would be consistent with and supports our foreign trade policies.

Unless the nation responds to this growing demand for adequate international and domestic freight capacity over the coming years, there could not only be negative economic impacts but also severe environmental and quality of life impacts created by the logistic system's congestion, slowdown, and decline.

**SAM CRANE**  
**Senior Vice President, External Affairs**  
**Maier Terminals, Inc.**

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NORTHEAST AND TO THE NATION**

**SAM CRANE**  
**Senior Vice President, External Affairs**  
**Maier Terminals, Inc.**

Mr. Crane is the Senior Vice President, External Affairs for Maier Terminals, Inc., a family-owned New Jersey business, specializing in marine cargo movement and management. Maier Terminals, Inc. operates a 450 acre terminal at Port Elizabeth, the largest at the Port of New York and New Jersey. Maier Terminals also provides services to other port operations, such as loading and unloading automobiles.

Prior to joining Maier Terminals, Inc., Mr. Crane was the principal of Crane Consulting (1999-2000), specializing in issue and project strategic planning and governmental affairs consulting.

Mr. Crane served as President of the Regional Business Partnership (1994-1999), a private non-profit business organization devoted to regional economic and business development in Newark and Northern New Jersey.

Mr. Crane was State Treasurer (1992-1994) under Governor Florio, where he served as the Chief Financial Officer for the State of New Jersey. In that position, he managed the state's \$16 billion annual budget, all revenue collections and the lottery. He was also a member of the Sports and Exhibition Authority and the New Jersey Economic Development Authority.

Mr. Crane has also held several senior level government positions (1978-1991) in finance and policy development.

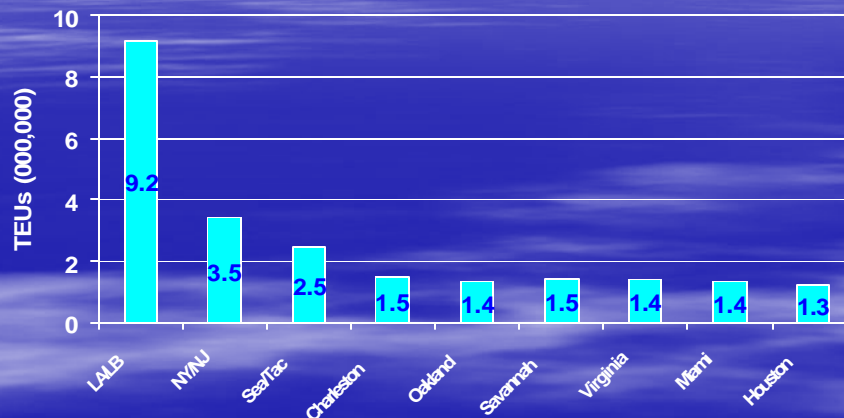
**Presentation**  
**The National Surface**  
**Transportation Policy & Revenue**  
**Commission**

Sam Crane  
Maher Terminals Inc.  
November 16, 2006

## Overview

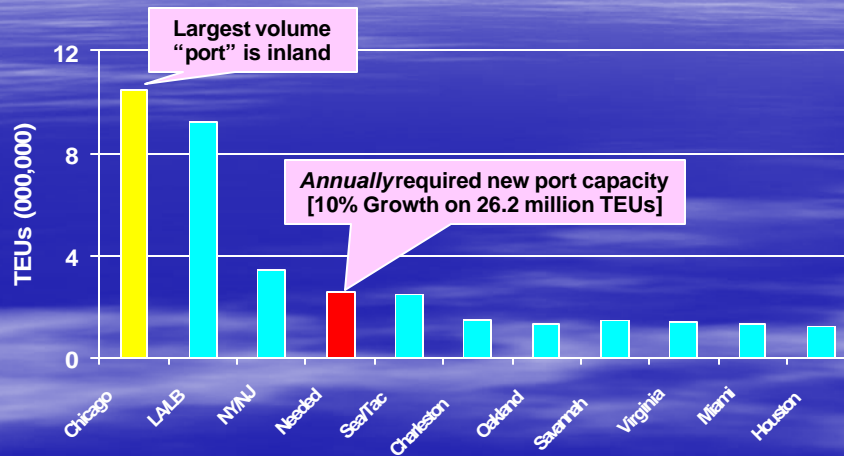
- 41.9 million TEU traveled through U.S. ports in 2005.
- 78% of U.S. TEU handled by 10 ports—LA/LB, NY, Oakland, Seattle, Tacoma, Charleston, Norfolk, Savannah and Houston.
- TEUs handled by top ten US ports increased by 9% from 2004 to 2005.
- NY/NJ is the second largest gateway after Southern California

## 2005 Container Volume The Traditional View





## 2005 Container Volume A Reality Check View



## Challenges

- Container volume is expected to double in the next twenty years, with some freight system congestion expected before the end of this decade.
- Traditional (public) sources of infrastructure funding cannot handle the demand for new investments
- Regional Freight Gateways are critical to system operation and reliability
- Federal modal policy stovepipes are incongruous with the intermodal nature of goods movement

## Solutions

- We must act now to ensure that we have the people, technology, and the transportation infrastructure to provide efficient and reliable goods movement system.
- Policy Solutions must be flexible to accommodate market changes, innovations and unforeseen circumstances
- Major gateway regions are the arteries for the American global economy and should be the essential building blocks for a national freight policy
- Creative use and improvement of existing infrastructure and the integration of the modes should be encouraged

## Regional Plan Partners

- Public  
Federal, State, & Local Governments & Port Authorities
- Private  
Vessel Owners, Marine Terminals, Trucking Companies, Railroads, Distributions Centers Owners and Shippers

## Components of a Regional Plan

- Targeted Private Infrastructure Investments and Business Practices, including Net Environmental Benefits
- Targeted Public Infrastructure Investments
  - With Financial Return
  - Support Private Investment
- Governmental Regulations and Land Use Practices

## MTSNAC Initial Action Items

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|---|--|
| <ul style="list-style-type: none"><li>■ <b><u>Public Sector</u></b><ol style="list-style-type: none"><li>1. Make intermodal a national priority</li><li>2. Preserve the existing freight infrastructure</li><li>3. Measure capacity and productivity</li><li>4. Encourage private sector investment</li><li>5. Support regional freight solutions</li></ol></li></ul> | <ul style="list-style-type: none"><li>■ <b><u>Private Sector</u></b><ol style="list-style-type: none"><li>6. Even freight flow across the system</li><li>7. Support harbor trucking improvement</li><li>8. Improve chassis management</li><li>9. Manage free-time better</li><li>10. Ensure sufficient personnel</li></ol></li></ul> |
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THANK YOU



***Intermodal Recommendations to  
Secretary Norman Y. Mineta***

**A Report sponsored by the  
Marine Transportation System National Advisory Council  
Adopted 28 September 2005  
in Memphis, Tennessee**

MTSNAC Chairman  
John Gaughan

Intermodal Committee Chairman  
Sam Crane

MTSNAC Vice-Chairman  
Rick Gabrielson

Intermodal Committee Vice-Chairman  
Theodore Prince

MTSNAC Intermodal Recommendation to Secretary Norman Y. Mineta

This report has been prepared by the Maritime Transportation System National Advisory Council (MTSNAC) for the Secretary of Transportation. The findings and recommendations in this report are based on data extracted from reports and studies previously undertaken by both the public and private sectors over the past four years. As challenges facing the U.S. intermodal transportation system are well documented, we have relied upon existing studies, which have already articulated various valuable proposals regarding a national freight policy, and have outlined specific initiatives to address the system's capacity shortfall now and in the future.

This report acknowledges the urgent need for a comprehensive national freight policy and it makes recommendations which might contribute to deliberations relating to such a policy. *However, this report primarily concentrates on specific short-term actions that can be taken to address waterborne freight with prior-or-subsequent inland movement.*

Unique hurdles facing MTSNAC, as it fashions solutions to intermodal, include the variations in transportation infrastructure across the country, the range and diversity of local needs, and the complicated rules of ownership and operations inside the nation's transportation infrastructure. The public sector owns the nation's waterways and the highways; the private sector (or a combination of public and private sector) has invested in and owns much of the port and rail infrastructure and the truck and maritime capacity. Shippers own the cargo, and they dictate its delivery place and time. As a result, several observations can be made right at the outset of this report.

*Specific solutions to the unique needs of different geographic areas will partially drive any study of intermodal.* What is needed in one port region may not be what is needed in another port region. Additionally, both the private sector and the public sector play roles in the process. Together, they must pursue the national objective of connecting to -- and competing in -- the world economy.

*The private sector must continue to invest in its part of the transportation infrastructure.* It also must develop and implement programs to reduce congestion on the nation's highways and railways, and within port and inland terminal facilities. Extending marine terminal gate hours, reducing cargo free time, transporting cargo during non-peak hours, and using technology to improve efficiency, are all programs initiated by the private sector, which must remain in place and expand in use wherever appropriate.

*The public sector must encourage private investment, and make the necessary government investment in public infrastructure.* It must take a long and systemic view which anticipates national and regional capacity needs, fosters planning and, where needed, provides incentives for investments by public and private stakeholders. This report will focus on recommending necessary measures to the Secretary of Transportation to assist the private sector in this effort, and on prioritizing transportation infrastructure improvement projects.

## **Introduction**

Efforts of the Secretary of Transportation to highlight the importance of freight movement to the U.S. economy and its consumers has been reinforced and well documented in a number of national studies:

America depends on international trade that is imported and exported in marine containers. Our farmers find customers in foreign lands, our manufacturers use parts, raw materials, and inputs that come from the four corners of the globe, and sell their finished products to customers here and abroad. American brand names depend on supply chains that stretch globally, and reach consumers around the world with their American presence. And the domestic retail industry--which provides American consumers with the best quality, price, and selection anywhere on Earth--depends on trade for everything from fresh produce to hand tools.<sup>1</sup>

Still, transportation's value is not widely understood by the American public.

While the importance of freight transportation to the national economy has never been in doubt, the true magnitude of the nation's dependence on a reliable, cost effective system for the distribution of goods is not well understood by the majority of people. It is said that "freight doesn't vote," yet the international movement of containerized goods represents almost a trillion dollars in value passing through the U.S. ports. This value enters the economic system as the "raw material" for the retail sector or as "extended factory" supplying critical components to the manufacturing sector. At the same time, a cost effective and efficient intermodal system is crucial to U.S. companies that depend on exports to foreign markets for their markets.<sup>2</sup>

## **The Numbers**

- In 1970, foreign trade was 10.7% of U.S. gross domestic product (GDP.) By 2002, it had grown to 26.9% of GDP.
- From 1990 to 2000, the value of international trade more than doubled (in inflation adjusted terms) from about \$900 million to \$2.2 trillion, of which approximately \$700 billion is containerized, manufactured goods.
- About half of international commerce serves America by water, mostly in marine containers. In 2004, 25.2 million TEU (twenty-foot equivalent units) of exports and imports traveled through America's ports; 50% was handled by West Coast ports (12.7 million TEU), 43% by Atlantic seaboard ports (10.7 million TEU), and 7 percent by Gulf ports (1.7 million TEU).
- The U.S. DOT's Federal Highway Administration predicts that the United States will experience an overall doubling of international freight by 2020. As a result, in less than 20

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<sup>1</sup> *Marine Container Transportation System White Paper*, The Waterfront Coalition, Washington, DC, May 2005.

<sup>2</sup> *Trade and Transportation, A Study of North American Port and Intermodal Systems*, U.S. Chamber of Commerce, Washington, DC, March 2003.

years, U.S. ports and related infrastructure must be capable of handling more than 50 million TEU's per year.

### **The Challenges**

A number of studies have identified the numerous capacity challenges facing the nation's ports and domestic freight movement system.

Transportation was a catalyst as the United States evolved from a 19th century agricultural economy, through the 20th century industrial economy, and into a 21st century service and global economy. However, America's long and successful ride to prosperity is threatened by a transportation infrastructure incapable of meeting future requirements. The interdependent network of roads, bridges, and terminals is growing increasingly antiquated, congested and disconnected, and therefore, incapable of providing the productivity and prosperity support upon which the nation has depended for the last century and a half.<sup>3</sup>

There is substantial infrastructure already in place throughout the nation. Railroads, waterways, and highways serve as the domestic arteries for moving domestic and international freight. It is an ongoing challenge to maintain these assets – especially if untapped (i.e., excess) capacity currently exists.

The inland waterways provide a fitting example. Some might advocate postponing their maintenance and investment requirements because of weak cost/benefit analysis. But there is no realistic alternative to this network, which compliments rail and highway transportation. If the system falls into disrepair due to neglect, how will we ever access this resource when the nation needs it? It will cost too much, and take too long, to return it to service. The same problem threatens railroad rights of way and shipping channels.

Our nation has been living off the legacy of regulated, excess capacity. Today, very little of it remains, and we must preserve it for tomorrow. The federal Government would do well to rethink its method of determining the value of the system's economic worth. Available funding (i.e., inland waterways and harbor maintenance funds) should be used for its intended purpose -- not held as a deficit offset. In addition, presently unused or underutilized rail lines need to be preserved for future use and not lost to the system.

The U.S. Chamber of Commerce Report on Trade and Transportation concluded that:

- Ports and their associated intermodal systems can no longer build their way out of their capacity problems. 75% of the 16 ports surveyed for the report will have significant capacity problems by 2010. "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."

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<sup>3</sup> *Investing in America's Future; The Need for an Enlightened Transportation Policy*, University of Denver Intermodal Transportation Institute, September 2004.



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- The U.S. intermodal freight system is now being operated in many areas near the limits of economically sustainable capacity. The rail freight system handled 50% more freight between 1980 and 2000, and volumes are expected to double between 2000 and 2020.
- 18 % of total domestic freight is carried by the MTS on its network of inland barges. Yet funding for channel, lock and levee improvements has, in fact, decreased over the past 20 years.

The U.S. Chamber study goes on to say that “should any component of the system [MTS] break down, more than one fourth of the national economy will be crippled.” This grim prediction was borne out during the shut-down of West Coast port operations in 2002 and 2004, and in September 2005 with the interruptions to the transportation of America’s commerce following Hurricanes Katrina and Rita.

Lillian C. Borrone, Chair of the Eno Transportation Foundation Board, in her Thomas B. Deen Distinguished Lecture in January, 2005 summed it up as follows:

It would seem self-evident that the focus on the quality and capacity of our connectors to the rest of the world-and to the transportation system that would move these goods internally-would be a high national priority. But despite a number of major attempts at developing and applying a strategic national vision that included strong freight elements, we have fallen short.<sup>4</sup>

To put the requirements in stark detail, consider that, to handle the annual increase in container traffic, we must annually add capacity across the system which is equal to the current capacity of the Port of Oakland. To do this, we must make better use of what we have.

### ***Recommendations***

The growth in trade has not occurred by accident; it has been spurred by longstanding national policies advocating open market access. We must develop a matching platform to address the quality and efficiency of our transportation connections to the world economy; it will measure our success.<sup>5</sup>

The size, scope, economic impact and strategic significance of the problem have been well defined over the course of the last few years. There is a need to move from problem definition to problem resolution.

### ***SAFETEA-LU Represents Some Progress***

MTSNAC recognizes that the enactment of the \$286.5 billion SAFETEA-LU bill incorporates some of the recommendations made in earlier studies, and focuses more on freight transportation than any previous transportation funding bill. The new law increases funding to existing

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<sup>4</sup> Lillian C. Borrone, Thomas B. Deen Distinguished lecture, Transportation Research Board, Washington, DC, January, 2005.

<sup>5</sup> *Investing in America’s Future; The Need for an Enlightened Transportation Policy*, University of Denver Intermodal Transportation Institute, September 2004.

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programs; adds new programs; funds projects including some that would benefit freight movement; recognizes the importance of better planning; and, directs the establishment of several forums to accomplish this. Nevertheless, it falls short in some ways including the absence of certain freight specific recommendations from the Department of Transportation, specifically the 2% set-aside for intermodal freight connection projects.

One weakness of SAFETEA-LU is the great dependence by Congress on project earmarking, especially in those sections which are intended in part to address congestion and capacity issues in corridors and gateway regions. The Secretary is authorized to use discretion in awarding projects of national significance, for example, but is afforded no funding authorization to render that discretion meaningful. Also, SAFETEA-LU does not significantly address rail freight needs. The new law only authorizes the Secretary to study system needs and report findings to Congress.

**Sector Capacity and Assistance Needs**

The table below illustrates the components of the Marine Transportation System (MTS) and is designed to help identify those areas of the system where the private sector needs more assistance from the government – in some form – in order to address the capacity problem.

<b><i>MTS Capacity and Infrastructure</i></b>			
<b><i>Transportation Sector</i></b>	<b><i>Ownership</i></b>	<b><i>Capacity Problem</i></b>	<b><i>Need for Government Assistance</i></b>
Inland Waterway Conveyances (tugs and barges)	Private	No	<b>No</b>
Inland Waterway Locks and Dams Infrastructure	Public	Yes	<b><u>Maybe.</u></b> Existing trust fund is adequate for construction <i>if</i> money in it is spent for on lock and dam infrastructure need; O&M funding is not supported by trust fund or adequate funding
Trucking Conveyances (trucks and equipment)	Private	Yes	<b><u>Somewhat.</u></b> Driver shortages exist in some areas, which is an issue for the market and government to address. However, certain regulations, like those governing hours of service, impact total available capacity and other regulations, like those governing fuel emissions, increase the driver's cost to operate.
Highway Infrastructure	Public	Yes	<b><u>Yes.</u></b> This will need to be addressed in the context of SAFETEA-LU. The new law establishes some programs to address these challenges, but virtually all funding in these programs has been earmarked for specific projects. The Secretary must have funding authority to allocate to additional

<b>MTS Capacity and Infrastructure</b>			
<b>Transportation Sector</b>	<b>Ownership</b>	<b>Capacity Problem</b>	<b>Need for Government Assistance</b>
			meritorious freight transportation solutions. Funding to states is inadequate; thus the extent to which states will allocate discretionary resources to freight projects is debatable.
Maritime Conveyances (ships)	Private	No, with exception of specialized short-sea vessels	<b>No</b> , with possible exception of financing incentives for specialized short-sea vessel construction.
Harbor Dredging	Public	Yes, Location Specific	<b>Maybe</b> . Existing trust fund, which supports O&M, is adequate <i>if</i> money in it is spent as intended; harbor channel construction has been underbudgeted and under funded...
Port Marine Terminal Infrastructure (inside the gate)	Combination of public and private	Yes, Location Specific	<b>Somewhat</b> . Ports and private sector generally can provide the capital. Obtaining permits and acreage for capacity expansion has become the more difficult issue.
Rail Connections to Ports	Most private, some public	Yes, Location Specific	<b>Yes</b> . This will need to be addressed in the context of SAFETEA-LU. The new law to a limited extent supports rail freight improvements to address these challenges, but virtually all funding in these programs has been earmarked for specific projects. The Secretary must have greater authority and additional funding authority to allocate funding for additional meritorious freight transportation solutions.
Highway Connections to Ports	Public	Yes, Location Specific	<b>Yes</b> . This will need to be addressed in the context of SAFETEA-LU. The new law establishes good programs to address these challenges, but virtually all funding in these programs has been earmarked for specific projects. The Secretary needs to have the discretion to approve additional funding for additional meritorious freight transportation solutions.
Rail Conveyances (locomotives and rail cars)	Private	Yes, Location Specific	<b>No</b> . Railroads' investment responsibility.
Rail Trackage	Most	Yes,	<b>No</b> . Primarily railroads' investment

<b><i>MTS Capacity and Infrastructure</i></b>			
<b><i>Transportation Sector</i></b>	<b><i>Ownership</i></b>	<b><i>Capacity Problem</i></b>	<b><i>Need for Government Assistance</i></b>
	private, some public	Location Specific	responsibility.

### **Public Sector Recommendations**

The passage of SAFETEA-LU provides a number of new programs. The features of “Projects of National and Regional Significance” and “National Corridor Infrastructure Improvement Program”, are aimed at improving the intermodal transportation system. Still, all of the funding is earmarked for specific projects (the sum of which falls well short of the need) and the Secretary is impeded from authorizing new projects – no matter how significant the impact. The expansion of eligibility to include rail facilities and other changes to the Transportation Infrastructure Finance and Innovation Act (TIFIA), which allow smaller projects to qualify and/or grouped together, represent some of the positive improvements to existing programs; and the new Capital Grants for Rail Line Relocation Projects is a welcome addition to existing financing options for available transportation infrastructure improvement projects.

Nevertheless, MTSNAC remains concerned that, while the bill provides a good framework to move forward, it denies the Secretary adequate funding authority to initiate projects which he considers to be essential to the national system and to support future demand. Furthermore, as a substantially highway-oriented measure, it represents an incomplete answer to the need for a national freight policy which is meant to incorporate the full marine transportation system.

#### **1. Make intermodal freight movement a national priority**

There is a direct link between the efficiency of our transportation system and the future of our economy. Therefore all branches of government must give high priority to the expansion and improvement of the existing marine transportation system. The Department of Transportation cannot accomplish these objectives alone. The missions of the Departments of Defense, Energy, Homeland Security and Commerce all rely on the freight transportation network, and they should be driving discussion of potential innovations, such as short haul intermodal (which includes short-sea shipping) and long haul coastal shipping for domestic cargo, to increase the nation’s freight movement capacity. The Departments of State and Treasury, and the Trade Representative, should work hand-in-hand with the Department of Transportation as they consider new trade agreements, to fully understand and prepare for the likely impact of increased trade on a transportation system which is already stressed.

The President and Congress are advised to focus their attention on raising public awareness while promoting concrete programs, with assured funding, to preserve and expand this system. Not only will this provide the private sector with incentives to continue investing, but it should increase state and local attention on transportation issues.

By making freight movement an immediate national economic priority, the federal government can articulate necessary freight capacity expansion initiatives to the public, and can also lay the foundation for improvement to freight policy legislation for the next transportation bill, four

years from now, if not sooner. It is essential to establish the groundwork for an informed debate on modal divisions, and how best to integrate them as a system and a national policy. It is MTSNAC's recommendation that the surface transportation policy commissions, created in SAFETEA-LU, should consider modal divisions as soon as possible.

## **2. Protect system reliability by preserving freight infrastructure**

There is a considerable transportation infrastructure already in place. Railways, waterways, and highways serve as the domestic arteries for moving domestic and international freight. The challenge is to maintain these assets – especially if untapped (i.e., excess) capacity currently exists. The nation has been living off the legacy of regulated, excess capacity. But there is very little left. It is time to preserve today's capacity for tomorrow.

The inland waterways provide an excellent example. Some would advocate postponing maintenance and investment and justify doing so by pointing to criticism of the cost/benefit analysis. However, there is no viable alternative to this network which integrates rail and highway transportation. If this resource falls into disrepair due to neglect, how will we ever recover it when the nation needs it? It will cost too much and take too long to return the system to service. The federal government must reexamine the way it evaluates the economic worth of our transportation system. The same could be said of railroad rights of way and shipping channels.

- Two policy examples are noteworthy: Existing Federal channels and navigation infrastructure should be maintained. The Harbor Maintenance Trust Fund was established in 1986 to assure the availability of harbor maintenance funding. Yet with spending from the trust fund consistently at a rate lower than user fee collections, the trust fund is on the path to having an accumulated net surplus of \$3 billion by the close of the next fiscal year. Meanwhile, the need for maintenance funding for both the coastal port system (which is supported by the HMTF) and the inland waterway system (the maintenance funding of which comes from the general treasury) is both considerable and unmet year after year in the Federal budget. Roughly \$600 million of the \$1.1 billion in the critical maintenance backlog is for navigation.
- Port related activity should be given a priority in use of waterfront and brownfield acreage. Most major freight facilities are located near major metropolitan areas. Port and rail terminals must contend with other interests for necessary real estate. Just as we should preserve waterways and rail rights of way for future growth, and in order to prevent "freight sprawl" and the related problems of more emissions, we must determine how to ensure that freight terminals will be able to expand their existing facilities, truck traffic and higher freight costs. We support the U.S. Chamber recommendation that "existing brownfield sites should be catalogued for possible freight conversion, and a fast-track, pre-approval status should be developed for those sites with high freight potential."

## **3. Enable timely, consistent, and accurate measurement of capacity and productivity**

"You can't manage what you can't measure." At present there are no metrics commonly available to objectively measure capacity and productivity of the MTS. The public and private sectors don't really know how much additional volume can be handled before the system

effectively collapses. Objective metric analysis could be used to identify best practices that might be implemented systemwide. Shippers would benefit from having an accurate measure of the capacity of the terminals and networks they are either considering or those which they use.

Additionally, the Bureau of Transportation Statistics (BTS) has suffered from inadequate funding and leadership. SAFETEA-LU provides for the appointment of a Director, who, among other things, is tasked with “providing data, statistics, and analysis to transportation decision makers,” as well as “encouraging data standardization.” and “publishing a comprehensive set of transportation statistics on the performance and impacts of the national transportation system.” In so doing, the legislation takes steps to fulfill a long-standing planning need of both the private and public sectors, to access better information on the capacity and use of the many components of the intermodal transportation system. It should be recognized that relevant data collection efforts exist outside of BTS – and DOT. (i.e., Army Corp of Engineers.) MTSNAC strongly urges the Secretary to support transportation data collection with appropriate funding and oversight,

- Transportation industry associations are probably best situated to develop standard industry metrics in cooperation with BTS. MTSNAC recommends BTS should contract with these groups as a matter of priority. Trade associations in other industries (i.e., mass retailers) regularly engage in such activity.
- Last, we are disappointed to note that the Act grants the National Research Council up to two years to complete a needs assessment before the compilation of this information can begin. MTSNAC recommends that the Secretary establish a more aggressive time frame for the completion of the needs assessment.

#### **4. Encourage private sector investment through tax incentives**

The federal government should encourage continued -- and accelerated -- private sector investment in transportation infrastructure. Federal funding, on which infrastructure projects have traditionally depended, can no longer cover the costs of the capital improvements necessary to keep the system ready to manage demands of commerce. State transportation officials, the U.S. Chamber of Commerce, and many Members of Congress spoke convincingly of the inadequacy of SAFETEA-LU, and the annual budget process, to satisfy the nation’s transportation system needs.

However investors are showing interest in public infrastructure. Unfortunately, the benefit for expansion is disaggregated amongst many parties, with the notable exception of some tolled facilities, which are attracting private investors. Often, the for-profit enterprise cannot capture the public benefit in its economic evaluation. Positive public investment by the private sector should be encouraged. Short of outright public financing federal and state tax incentives -- potentially including devices such as tax credit bonds -- present an attractive way to encourage private investment in infrastructure capacity, innovations in service, and equipment.

#### **5. Recognize and support regional freight solutions**

All aspects of the freight system are not equal. There is significant concentration through a limited number of gateways – which are often located in densely populated regions already

experiencing congestion. Furthermore, no two network nodes are identical. (i.e., Challenges and solutions in Los Angeles/Long Beach differ from those in New York/New Jersey.)

SAFETEA-LU recognizes these differences by authorizing the Secretary to distinguish projects meeting new criteria as Projects of National and Regional Significance (PONRS.) It also designates certain corridors as “High Priority Corridors on the National Highway System.” Additionally, specific projects funded in other sections of the bill address needs in a local or regional area, which may ultimately benefit freight transportation nationwide. These projects can serve as a foundation upon which to build a national freight improvement program, and by which chokepoint solutions and new capacity enhancements at major gateways can be undertaken with some sense of priority. The major gateways, challenged by metropolitan congestion, increasing cargo flows, and distribution center development, contain the sum of all problems. Yet, they also represent an opportunity to create new solutions to the benefit of the country.

The freight transportation projects designated in SAFETEA-LU still fall far short of what’s required to sustain our nation’s economic growth and vitality. Because the existing freight transportation capacity operates so close to capacity, any significant disruption to a major gateway, or along certain corridors, will not easily be absorbed by the remaining freight transportation system. Despite the fact that Congress fully earmarked the PONRS section of the bill, we recommend that the Secretary of Transportation begin implementing the section by crafting criteria for the designation of major gateways.

MTSNAC also recommends the Secretary encourage submission of regional plans for each of the major freight gateways, which address the region’s intermodal freight system’s needs. The Secretary should also consider any inter-regional plans which hold promise for enhancing the national system capacity. The Secretary is urged to request that such plans include both regional public-private initiatives to increase system capacity and efficiency, and achievable short term goals (i.e., within 3-5 years) designed to eliminate bottlenecks and make efficient use of existing capacity. Such plans should envision local and private funding, and federal funding which could match up to 50% of the plan’s entire short term capital costs.

The new programs in SAFETEA-LU appear to provide adequate latitude to incorporate these regional planning projects into the framework of the current law, but, because the law earmarks all available funding for specific projects, additional funding is required to meet national intermodal freight transportation system needs. We estimate that \$4 billion a year for the next five years, matched by the local and private capital pursuant to such plans submitted to the Secretary, would provide a reasonable start.

It is anticipated that the plans submitted would recognize and accommodate each region’s unique characteristics and challenges. For example, one region may have access to river and ocean waterways, which afford it a waterborne solution, while another has rail access that could be maximized. While plans may differ, the outcome would be the same: more capacity, less congestion, and the formation of meaningful public-private partnerships.

### **Private Sector Recommendations**

The private sector must continue to seek out and implement solutions, wherever possible, to assist infrastructure development. With limited terminal space, road and rail capacity in major port regions, the vessel operators, port terminals, shippers, railroads, and trucking companies, with the support and encouragement of the Secretary of Transportation, should facilitate changes in business practices to make better use of existing capacity. At the same time, ports should reserve precious port acreage by giving priority to operations that require waterfront, and relocate others. Some initiatives for consideration are found below.

It should be noted that many of the following plans can be affected by the private sector alone; however, some require coordination with local and state officials.

#### **6. Even the flow of freight across the existing system**

There are several steps that can be taken to even the flow of freight across the existing system. One way to help relieve congestion immediately is to *move more cargo in and out of ports during off-peak hours*, and better utilize available road capacity. Currently, most intermodal movement occurs during the normal work day, when roads are most congested. PierPass, recently implemented by the Ports of Los Angeles and Long Beach, encourages delivery and receipt of containers outside normal work day hours. Early indications are that the program has improved congestion on the roads, and has reduced trucker dwell time at the terminals. Terminal operators in Oakland and New York/New Jersey have also recently extended gate hours.

This step alone has met with some early success. Though not successfully implemented at all ports, its merits should still be investigated. Implementing such a change requires the cooperation of all stakeholders, as it implies greater costs to some. Enhanced data visibility amongst all participants would facilitate additional system efficiencies.

Warehouses must be willing to extend the hours they will be available to receive cargo; terminals must secure labor for the extended work hours; and, truckers must adjust their work days to take advantage of the new schedule. Should local ordinances prohibit implementing such a program, modifications should be pursued through active cooperation between private sector supply chain participants and local government.

Shippers and their carriers, together with the impacted terminals, are advised to review vessel schedules to distribute arrivals more evenly across the days of the week. For example, traditional vessel scheduling serving the nation's largest trade – the Trans-Pacific – results in disproportionate amounts of cargo arriving in Southern California Thursday through Sunday, when those ports are already challenged to handle volume during peak periods. The increased cargo is partly due to the introduction of larger vessels on an existing service, but potential modifications to the vessel arrival schedules should be considered. Shippers and their carriers should, in fact, regularly review their ability to change production and delivery schedules, so that vessel arrivals might be more evenly dispersed throughout the week.



**7. Improve attractiveness of harbor trucking for owner-operators**

Harbor trucking relies on "owner-operators," who own their own tractors and contract for per-trip movement. Many factors including low rates, congestion, rising fuel and insurance costs, and hours of service, have made this business marginally profitable.

The piecework nature of the harbor drayage business makes any delay a cause for fewer trips – and less revenue for that day's work. This problem extends beyond the turn around time on a marine terminal, and includes any impact of congestion. The result is a vicious cycle of market exit (by many truckers) and degrading conditions for the remaining participants. Appropriate rates and fuel cost recovery are issues to be addressed between the owner-operators and the companies that contract with them. Still, congestion improvements on terminals, roads and railways will improve the ability of drivers to increase their daily trips and their revenue.

In addition, most harbor truckers lack the necessary resources to acquire suitable equipment. The recently enacted Energy Policy Act of 2005 includes provisions which can offer these truckers financial assistance either to retrofit or to purchase tractors which are cleaner and more energy efficient. We encourage regional trucking and port organizations to pursue these sources and establish programs to assist these truckers in meeting environmental standards.

**8. Improve the management of chassis**

The United States is the only country in the world where chassis are not owned primarily by trucking companies. In the U.S., they are primarily owned by ocean carriers and, to some degree railroads -- at a great capital cost. Vast amounts of valuable real estate, in terminals or nearby storage yards, are consumed by stored chassis. Additionally, more chassis might be required in a terminal used by multiple carriers, simply because carriers do not coordinate with one another to effectively utilize their chassis fleets. The impact to system-wide capacity is further compounded when scarce trucking resources are used to reposition the chassis between terminals and fleets.

The development of port-wide, or regional chassis pools, (where chassis are managed by a single entity for use by multiple carriers) has proven successful in some locations, and the value of implementing this type of pool at other congested locations merits investigation by carriers and terminal operators and implemented wherever beneficial.

**9. Manage free-time better**

Efficient marine terminals and rail depots are essential if imports and exports are to flow correctly. Carriers, (including ocean, rail and truck), as well as ports and marine terminal operators, offer provisions for the use of the container for a period of time without penalty. These entities should limit the amount of free time they permit on import containers strictly to the reasonable duration of customs processing and pick-up. Additionally, demurrage and storage charges should be increased to a level which will deter cargo interests from allowing the container to sit unloaded beyond the free days. This will avoid the use of scarce resources as warehouse space, which currently exacerbates the congestion problem.

## **10. Recruit, train and retain sufficient personnel to operate the system**

Freight transportation cannot thrive without workers. The truck driver shortage is severe, and spot problems in the rail and marine sectors have caused national gridlock in recent years. Recruitment, training and retention of a safe and secure freight transportation workforce are essential. Private businesses develop human resource strategies for their own companies to recruit, retain and develop employees for the future. The same thinking should be applied by those sectors that rely on the use of a common worker pool, such as marine terminals and rail, where we recommend the creation of a workforce development strategy supporting the needs of future growth for those sectors.

### **Conclusion: Where to Start**

New steps must be taken to address the capacity shortfall of the marine transportation system. The complexity of the system -- multiple modes and owners, infrastructure age and state of repair, and, geographic diversity -- do not allow for a single, simple solution. Problems, often narrowly focused and independent one of the other, must be approached differently, and their solutions must reflect an appreciation for the effect on the entire system.

It is for this reason that the Council recommends the implementation of solutions, where possible, on regional and even inter-regional bases. Regional solutions and freight transportation plans can be the foundation for a sound national transportation system. The wisdom and resources needed to develop these solutions do not reside alone in government or in the operating institutions. Public and private sectors must coordinate, each respecting the talents of the other, for the economic and environmental good of region and nation. They can help ensure that increasingly scarce public funding is used effectively.

We conclude as we started. Thoughtful reports and recommendations by transportation leaders, regional planners, coalitions, and scholars on freight mobility and the marine transportation system are a matter of record. Major gateways have studied forecasts and prepared plans for significant cargo growth since the late 1990s. U.S.DOT reported to Congress on the needs of intermodal connectors on the NHS in 2000. The U.S. Chamber of Commerce highlighted the looming problem and urged action in 2003. The National Academy of Sciences pointed the way in its MTS report of 2004. Major shippers coalesced out of concern and called for government and private sector action in 2005. All these items unambiguously point to diminishing capacity in the system and the economic consequences of inaction. To his credit the Secretary of Transportation is building what he calls a Federal freight *action* agenda.

The key word is action. It is time for the Federal government to:

- Move from investigation to action;
- Treat intermodal freight mobility as a national priority;
- Make room for non-traditional – an sometimes unconventional – policy solutions;
- Empower the Secretary with meaningful authority -- including adequate funding, not earmarks -- to help capacity challenged regions to implement solutions, many of which are already defined;

*MTSNAC Intermodal Recommendation to Secretary Norman Y. Mineta*

- Invite the private sector to the table as partners and consider them untapped resources.
- Encourage intermodal efficiencies which make the best use of all MTS modes and elements; and,
- Maintain and build a transportation system that is fit for the 21<sup>st</sup> century and up to the demands articulated in current federal trade policies.

We gratefully thank the Secretary for the opportunity to express our views on these matters of pressing urgency to our transportation system – and to our country.

**Appendix**

***MTS National Advisory Council  
Intermodal Capacity and Operations Team***

Name	Organization
Sam Crane - Chair	U.S. Chamber of Commerce
Ted Prince - Vice Chair	Intermodal Association of North America
John Mohr	American Association of Port Authorities
Jean Godwin	American Association of Port Authorities
Steve Pfeiffer	American Great Lakes Ports Association
Gloria Tosi	American Maritime Congress
Curtis Whalen	American Trucking Association
Paul Bea	Coastwise Coalition
Rolf Marshall	Coastwise Coalition
Dave McDonald	Gulf of Mexico States Partnership, Inc.
John Baniak	I-95 Corridor Coalition
Ron Thomason	Maritime Security Council
Will Smith	National Association of Counties
Pat Hall	National Association of Waterfront Employers
Looman Stingo	National Industrial Transportation League
Jim McKenna	Pacific Maritime Association
John Gaughan	The Propeller Club of the United States
Paul Mentz	Society of Naval Architects and Marine Engineers
Jim Cook	U.S. Exporters Competitive Maritime Council
Ole Sweedlund	United States Maritime Alliance, Ltd.
Carol Lambos	United States Maritime Alliance, Ltd.
Rick Gabrielson	The Waterfront Coalition
Robin Lanier	The Waterfront Coalition
Chris Koch	World Shipping Council
Don O'Hare	World Shipping Council
<i>Committee Participants – Not MTSNAC Members</i>	
Carl Seiberlich	Transystems
Mark Yonge	Maritime Transport and Logistics Advisors

**WILLIAM G. M. GOETZ**  
**Resident Vice President**  
**CSX Transportation**

**PANEL V: TRADE AND FREIGHT GATEWAYS TO THE  
NORTHEAST AND TO THE NATION**

**WILLIAM G. M. GOETZ**  
**Resident Vice President**  
**CSX Transportation**

Bill Goetz is Resident Vice President for CSX Transportation, a Fortune 500 company operating the largest railroad in the eastern United States. Bill represents CSX with a variety of public and governmental agencies in the cities of New York and Philadelphia and the states of New Jersey and Delaware. In recent assignments Bill has contributed to a number of major East Coast railroad projects, including the reactivation of the Staten Island (NY) railroad, railroad facilities serving the port of New York/New Jersey, and a service redesign in Philadelphia, PA.

An employee of CSX and its predecessor railroads since 1977, Bill has directed activities in the Intermodal, Automotive, Metals, and Merchandise business units. While in college, Bill worked in the Senate of the Commonwealth of Massachusetts and was a member of the Senate Minority Leader's staff. Bill is a graduate of Boston University. He holds a Masters degree from the Wharton Graduate School of the University of Pennsylvania.

**WILLIAM G. M. GOETZ**  
**Resident Vice President**  
**CSX Transportation**  
Summary of Testimony

Introduction: New York metro region, CSX, and Goetz

New York Metro freight railroad characteristics

- Transportation beginning and end point
- Not a major railroad-to-railroad interchange point
- Major modal interchange point
  - Rail-truck
  - Rail-water, especially international containers

Three freight rail challenges in the NY/NJ region

#1 Main line route capacity

- Pinch points
- Difficult and expensive to address
- How this came about
- Report Card of stakeholder effort to address
  - Understanding the situation     B+
  - Resolve to take action         B
  - Speed of execution             B
- Related theme: railroad investment tax credit

#2 Complications of serving a highly successful port

- Port growth has led to switching complexit
- Conrail split compounds complexity
- Report Card of stakeholder effort to address
  - Understanding the situation     A
  - Resolve to take action         A
  - Speed of execution             B-

#3 Chasing industrial sprawl

- Multiple components in the modern logistics supply chain
- Logistics centers growing in size, requiring larger land parcels
- NIMBY's
- Freight railroads' immediate customers moving further away from traditional railheads
- Unchecked, phenomenon increases probability that freight enters region on a truck rather than a train.
- Report Card of stakeholder effort to address
  - Understanding the situation     B-
  - Resolve to take action         C
  - Speed of execution             C
- Related theme: Liberty Corridor

Summary and wrap up

**Before the National Surface Transportation Policy and Revenue Study  
Commission**

**New York City Field Hearing**

November 16, 2006

Comments of William G. M. Goetz,  
Resident Vice President  
New York City, Philadelphia, and New Jersey  
CSX Transportation

My name is William G. M. Goetz. I am Resident Vice President with CSX Transportation (CSX), a position requiring ongoing involvement with freight railroad policy and frequent interaction with governmental entities in the City of New York, the City of Philadelphia, and the States of New Jersey and Delaware. My responsibilities also include planning service and facilities supporting the New York/New Jersey port and the Port of Philadelphia. I have been an employee of CSX and its predecessor companies for twenty-nine years.

CSX Transportation is a common carrier railroad and a unit of CSX Corporation, a publicly-held company. CSX Corporation's surface transportation enterprises generated \$8.6 billion annual revenue in calendar year 2005. Its 21,000-mile route network touches 23 states, two Canadian provinces and the District of Columbia. Operations require approximately 35,000 employees, 3,790 locomotives, and 103,314 freight cars.

For purposes of this discussion, I refer to the NY/NJ region as being that area commonly associated with the New York City metropolitan area, including the counties of northeastern New Jersey, downstate New York including Long Island, and southwestern Connecticut. CSX operates extensive facilities in this region, including terminals in the borough of the Bronx, NY, and throughout Northern New Jersey. CSX also offers regular container transportation service at both the Port Newark, NJ and Port Elizabeth, NJ on-dock terminals.

Freight railroad operations in the NY/NJ region are large and somewhat unique. The region's economy has evolved from heavy industry and manufacturing to a vibrant service-based economy with significant purchasing power. The region's nearly twenty million inhabitants draw food and consumer items from North America and throughout the world.

For freight railroads, the region is an endpoint. Unlike locations such as Chicago, Memphis, or New Orleans, NY/NJ is not a location where large railroads have significant amounts of interchange traffic. What's far more important here is the transfer of traffic between modes: between rail and truck, or, between rail and ocean carriers.



The port of New York and New Jersey is by far the largest container port on the east coast. The port is a significant origination and termination point for containers moving to and from points in the U. S. interior. CSX moves containers between the NY/NJ port and Chicago, Detroit, Cleveland, Columbus, Kansas City, St. Louis, Indianapolis, and New England, plus several other markets. This is a large and growing business for CSX.

In today's discussion I am prepared to offer comment on two NY/NJ freight rail challenges. One is the scarcity of main line freight route capacity. The other deals with the complications of serving a highly successful container port.

To honor this proceeding's time schedule, I will focus on the first subject for the purpose of this opening statement, and offer to discuss the second subject should time and interest permit.

Freight route capacity is the ability to move freight trains into and through the region. The more tracks available for trains moving in a given direction, the greater the capacity. A single track that must support trains moving in opposing directions has less capacity than a pair of tracks where trains moving in opposing directions can move concurrently. Places where multiple tracks converge to a fewer number of tracks, with the potential for some trains stopping and waiting for other trains to pass, have less capacity than junctions which support parallel, simultaneous train movements.

The region's freight rail infrastructure is complex. It is sufficient to move the current normal traffic load, provided that operations are indeed "normal". The freight system, however, is vulnerable to stress factors, such as weather, accidents, track repair, and a vast array of unusual occurrences possible in a densely-populated region such as this.

At times of system stress, trains can be held when they should be moving and nearly everyone is unhappy with the result. Freight rail customers are upset because they don't have access to their freight at the time they anticipated. In some cases this can disrupt customers' plant operations, logistical systems, or vessel operations. Freight railroads are upset because trains not moving represent waste of valuable locomotives, cars, and operating crews. Trackside communities dislike freight trains standing in residential neighborhoods, or slow-moving trains blocking at-grade crossings.

Various studies confirm that the NY/NJ region is home to a number of congestion points. Rather than further emphasizing that conclusion, I'd like to explain some of the factors that have contributed to that outcome, discuss real efforts the region is making to address the situation, and focus on some lessons we've learned from all of this.

I want to begin by examining how we got where we are. The NY/NJ region has always taken much of its definition from its extraordinary waterway system. The port was New York's first business, and as industry grew, it grew along the waterfronts of Manhattan and Brooklyn and Hudson, Essex, and Union counties in New Jersey. When railroads developed in the middle part of the nineteenth century, they constructed tracks right down to the waterfront and built elaborate facilities to float railroad cars around New York harbor, both to reach their customers and to connect with other railroads. Getting to the region meant getting to and on the water. By 1900, New York's harbor was, in effect, a giant railroad yard and industrial park. The railroad industry here built the entire system on this maritime model.

Throughout the twentieth century that maritime model began to break down. Waterfront property slowly evolved into non-industrial purposes. Railroad companies combined and could consolidate traffic before it reached the region. New customers sought building sites near the interstate highway grid rather than the Hudson River waterfront. To reach them, railroads needed to transfer freight from trains to trucks, and built Intermodal terminals, automotive terminals, and bulk transloading terminals to accomplish that. These new operations were established where the railroads happened to own land, but weren't always situated in the best part of the network. By the beginning of the current century, the railroad network had almost completely vanished from the Hudson waterfront, and growing numbers of trains were struggling to find their way to places like South Kearny, NJ and the New Jersey meadowlands, somewhat contrary to the original design of the track system.

A second and equally major factor was the increasing specialization of the track network. In the nineteenth century, the NY/NJ region hosted ten major railroad companies, and some had more than one main line route. These ten companies were not equally sized. Some, such as the Pennsylvania Railroad and the New York Central, built very robust networks with four-track, electrified, and grade separated main lines. Other railroads, such as the Erie, Lackawanna, New Haven, and Central of New Jersey, were in the middle, and some companies, such as the Lehigh Valley, West Shore, Reading, and Susquehanna, operated in the region on a smaller scale.

All of these railroads operated freight and passenger service on mostly the same tracks. With nearly all of them in bankruptcy by the 1970's, many were anxious to jettison passenger operations and willingly shed ownership of the tracks as part of the bargain. Today, Amtrak, Metro North, and New Jersey Transit own most of what were the dominant rail routes. This is not a bad outcome, and the region certainly values the high quality of passenger service offered both in New York and New Jersey.

However, the routes now utilized by freight railroads were never the region's first-tier railroads. CSX's main entry into Northern New Jersey was originally the

West Shore. It is laced with at-grade crossings and most of its neighbors are residential rather than industrial, creating constant community friction. CSX's entry from the south, formerly the Reading, has similar characteristics. Norfolk Southern reaches the region on the former Lehigh Valley, sharing track segments with both New Jersey Transit and with CSX, Canadian Pacific, and Conrail. In one track segment, over fifty daily freight trains operate, with only one track to support movements in both directions.

These basic vulnerabilities did not go unnoticed when CSX and Norfolk Southern purchased and divided Conrail's network. Almost immediately, the carriers began to develop plans to address these fundamental problems. I'd like to explore our efforts in northern New Jersey, because there are lessons to be learned from that work.

A five-party group of public and private sector entities identified and ranked network problem areas in the region. Construction solutions were developed and ranked. A series of projects for initial construction were selected with a combined cost of \$50 million. Common attributes of the projects were that (1) they improved access to the major North Jersey terminals and to Port Newark/Elizabeth, (2) they were all located on a portion of undivided Conrail, and (3) collectively, the projects benefited CSX and Norfolk Southern equally.

CSX and Norfolk Southern collectively authorized \$25 million, matched with an equal amount from the public side, which included the Port Authority of New York and New Jersey, and the New Jersey Department of Transportation. These funds funneled to Conrail, which became responsible for engineering and constructing the projects.

This entire effort deserves to be credited as a success, but there are powerful lessons to be learned. First and foremost, construction work is happening, with some projects already in service and others well underway. By the end of 2007, that previously-mentioned single-track segment with fifty daily freight trains will be double track. This initiative's objective was to improve the track network and it is doing just that.

But we've learned some things along the way. The process was very slow, with project conception-to-completion spanning nearly ten years, from 1998 to 2007. Moreover, the rigid structure of agreements and contracts, required for good accounting control, made change management very difficult. Issues such as cost overruns have been slow and difficult to resolve. The deliberate pace of this approach also made it vulnerable to turnover on both the public and private side. During the life of this project, five different people have been Governor of New Jersey, and none of the railroad CEO's who originally approved the project will be around as CEO's to cut the ribbon in 2007.

I submit to you that today's policy risk is less about doing the wrong things and more about doing the right things too slowly. This region's economy is growing, its port is growing, and if freight rail doesn't grow, the only real alternative is more trucks and paving over more of the region.

As you contemplate national freight policy, I respectfully urge you to set freight capacity as a fundamental policy objective, acknowledge a sense of urgency, push project identification decisions to the private sector, and create private sector investment incentives to make growth happen.

One policy approach supported by the North American freight railroad industry is a tax credit incentive carefully aligned with growth objectives. The Capacity Expansion Act proposes a 25% tax credit for certain qualifying capital expenditures. This is very important: the qualifying expenditures must represent new, additional tracks or net horsepower additions to a railroad's locomotive fleet. This is not a credit for replacing something that's already there; the goal is capacity growth and the proposed incentives are clearly tied to that. Moreover, investment must be in hard assets such as additional track or more locomotive horsepower, not in intangible things like studies or research.

This concept merits your serious consideration. Structured as a tax credit, it forces a private sector railroad to rank and select the best projects. It also creates a sense of urgency to utilize the credits in the periods they are available.

I hope you will concur that we are doing the right things in this industry, but we need to do more, and do more quickly.

Thank you for this opportunity to present these comments today.

**ANTHONY B. HATCH**  
**Consultant, Finance and Railroads**

**PANEL V: TRADE AND FREIGHT GATEWAYS TO THE  
NORTHEAST AND TO THE NATION**

**ANTHONY B. HATCH**  
**Consultant**  
**Finance and Railroads**

Anthony Hatch is an independent consultant and analyst who specializes in institutional and private equity financing, with extensive experience in transportation and the freight railroad industry. He has advised the American Association of Railroads and individual carriers, governments, and suppliers on strategy and investor relations.

Mr. Hatch's previous experience with surface transportation markets and financing includes Vice President with NatWest Markets, First Vice-President with PaineWebber, Inc., as well as various analyst positions with Argus Research Corporation, PaineWebber Inc., Salomon Brothers Inc., and McKinsey & Company, Inc. He is past President of the Motor Carrier Analysts Association and is active with a number of intermodal and railroad associations, including e-railroading.

Mr. Hatch holds a Bachelor of Arts in American History from Harvard University.

# Renaissance: Rails, Returns, Capital & Capacity

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ABH18@mindspring.com::

## National Surface Transportation Policy and Revenue Study Commission NYC

November 16, 2006

## Railroads at historic tipping point

- Capacity issues across all modes
- Volume increasing
- Share increasing
- Rates increasing
- Services levels (yes) increasing
- Returns increasing
- *A secular, not a cyclical story*
- Capacity and infrastructure – and competitor - issues remain
- *Not fully reflected in the market?*

## Show Me the Money

- Share Price is *the* Indicator – over time!
- Cash (Flow) is King
- High ROIC = High Stock Price
- And Vice Versa
- Key is the phrase “through a cycle”
- Old Model: Disinvestment
- New Model: TBD



## Spending \$: Mgmt.'s #1 Decision

- Capex for Maintenance – “base”
- Capex for Capacity, Service & Growth
- Dividends
- Share Buybacks
- M&A – Strategic
- M&A – Non-strategic (conglomeracy)
- *How management allocates indicates confidence & direction and impacts all stakeholders*

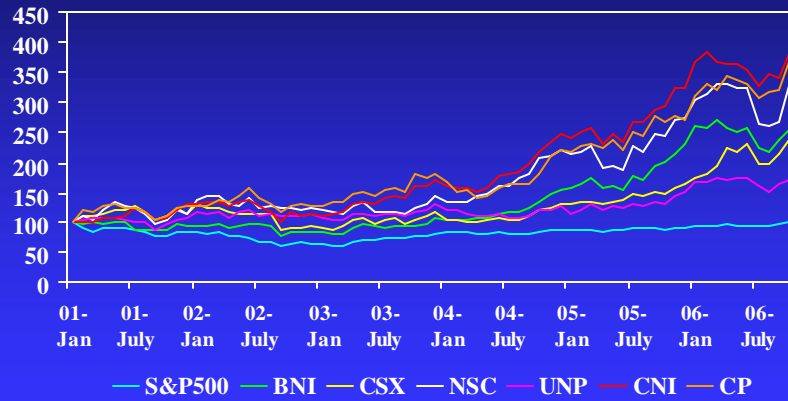
## Virtuous Circle 2006

- Better returns (half *finally* earn returns equal to the cost of capital)
- Better stock prices
- Better revenue prospects – up double digit '04-05
- Equals more investment – capex up sharply
- Equals more capacity, better service
- ...equals better returns and growth....

# Railroad Stock Prices

January 2001 – October 2006

Index Jan 2001 = 100



Sources: MSN and CSI, Inc.

# S&P 500 and Railroads

Monthly Data January 1980 – October 2006

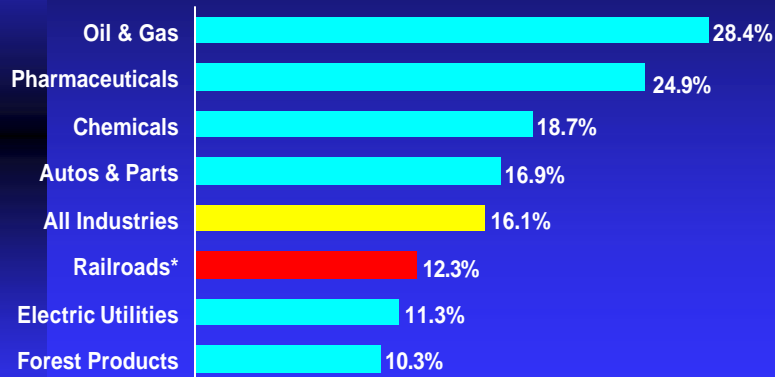
Index Jan. 1980 = 100



Sources: MSN and CSI, Inc.

# Even With Booming Traffic, Rail Earnings Are Substandard

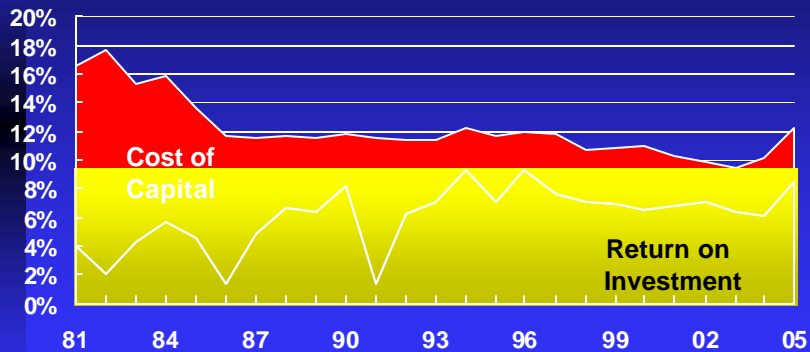
Median Return on Equity in 2005 (S&P 500 companies)



\*BNSF, CSX, NS, and UP

Source: Business Week

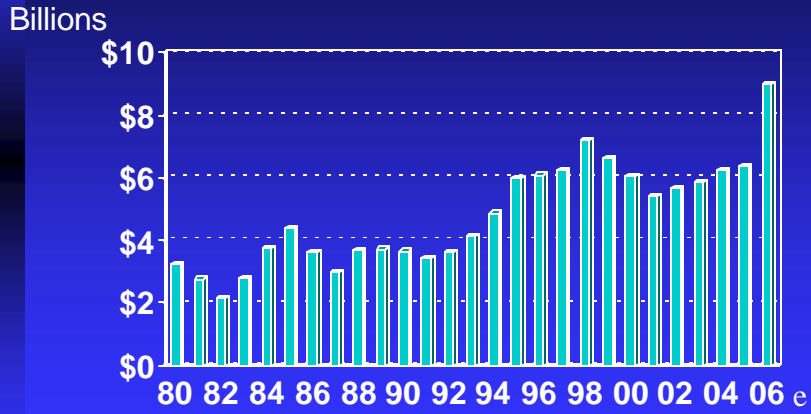
# RR CoC vs. ROIC -stocks have done well but... they still trade at a discount to all stocks



Source: Surface Transportation Board

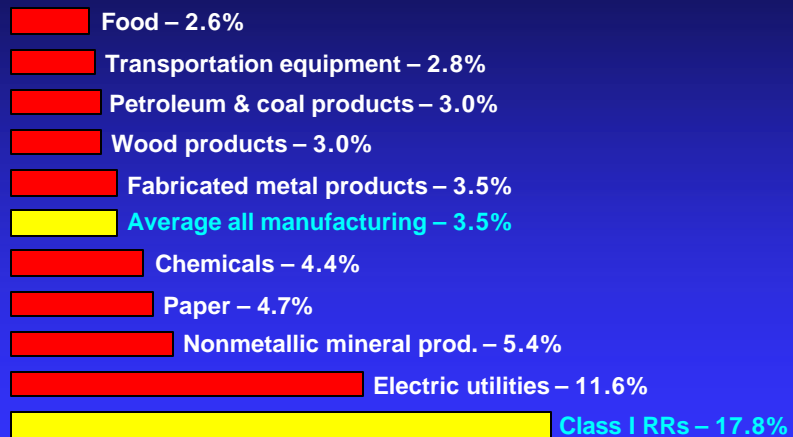
# Railroad Capital Expenditures

Class I Railroads



Source: *Railroad Facts*, AAR

# Capital Expenditures as % of Revenue

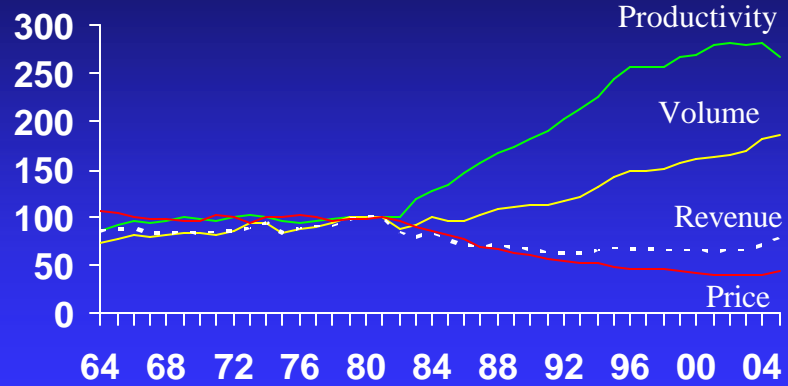


Source: Census Bureau, EEI, AAR

# Railroad Performance

Class I Railroads

Index 1981 = 100



Source: *Railroad Facts*, AAR

## Intermodal Growth Drivers Domestic *and* International

- Globalization
- Trade
- Railroad Cost Advantages
- Share Recovery From Highway
- Truckload Issues



## RRs and Investment

- Is growth affordable? Capex up 10% in '07?
- Can the intermodal model extend to carload?
- Is additional capacity necessary? Desirable?
- Wall Street's constrictive role ("fighting the last war") – *changing?*
- *Is this disconnect between the Renaissance and the Street the opportunity of a lifetime?*

## Sources of capital

- FCF – booming at most carriers (capex vs. ROIC)
- Governments – states, PAs, Feds
- Governments – Canada as contrast
- Traditional Street sources & Banks
- Private Equity

## Serious U.S. Transportation and Congestion Problems

- High Cost of Highway Maintenance and Construction
- Interdependence of Modes
- \$67 billion per Year Drag on Economy
- Demand for Freight Transportation to Double by 2020

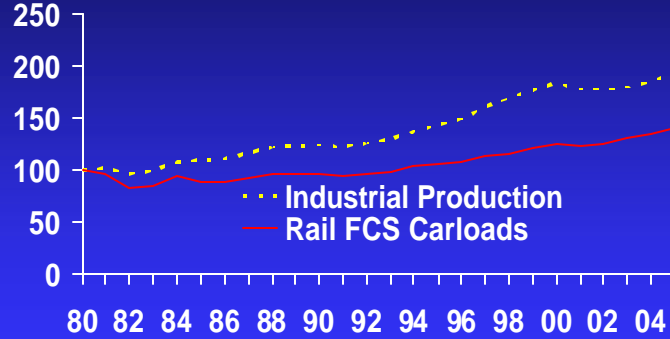


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# Railroads and the Economy

Class I Railroads

Index 1980 = 100

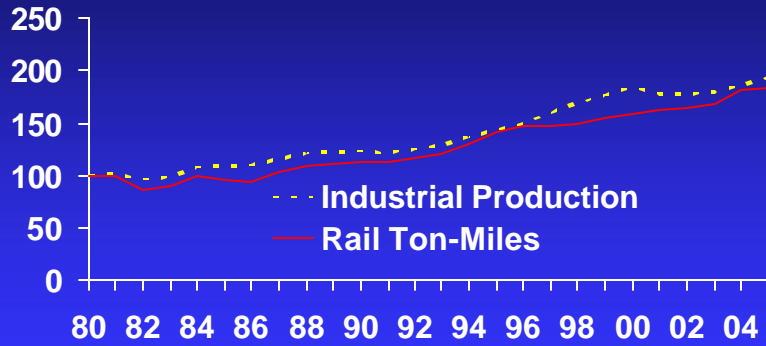


Sources: Federal Reserve System and AAR

# Railroads and the Economy

Class I Railroads

Index 1980 = 100

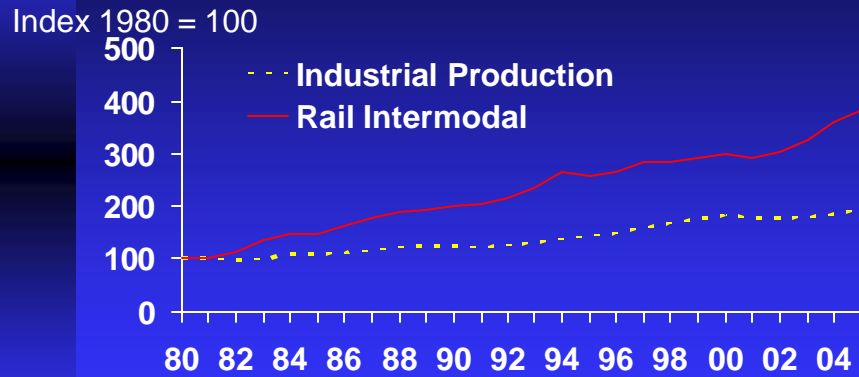


Sources: Federal Reserve System and AAR



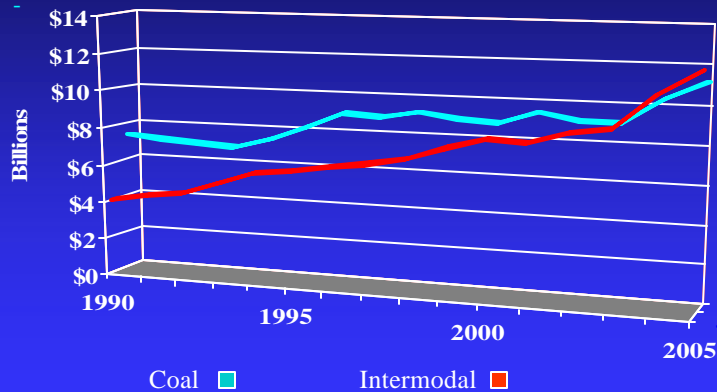
# Railroads and the Economy

U.S. Railroads



Sources: Federal Reserve System and AAR

# Railroad Intermodal Revenue Growth Over 5% - Long Live the New King!



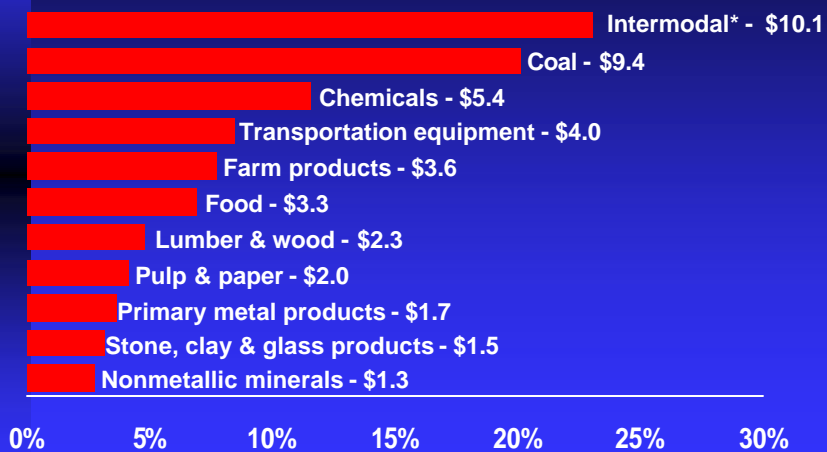
Source: Carload Waybill Statistics (includes non-Class I railroads)

## Coal and Ag – Bulk Comeback

- New growth mode?
- Emissions and environmental issues
- Oil prices and coal
- Politics and coal; and grain/rereg
- Ethanol
- Exports
- Feed

## Major Sources of Railroad Revenue

Class I Railroads, 2005 Gross Freight Revenue in billions

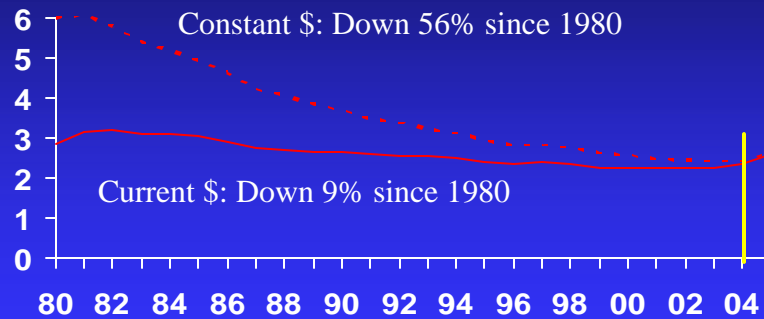


Source: AAR \*Estimated. Some intermodal revenue is also included in individual commodities.

## Railroad Rates- the old story

Class I Railroads, Revenue Per Ton-Mile

Cents



Source: *Railroad Facts*, AAR

## Pricing - the new paradigm

- Rates up 3% in '04 – post-Staggers best
- *Up 11% in '05* (Secular rate of 2-3%?)
- Fuel surcharges similar to TL
- Yet Price Gap to the highway *widening, even in '05 and '06 YTD*
- Capacity (still) short across all freight modes, despite temporary surpluses
- Rails moving toward tariff and spot markets

Conclusion: **Best Ever Rate Environment**

“The new Golden era” – cost of capital *within sight*; not there yet

## Railroad Issues Fall 2006

- Economic/industrial recovery - durability
- *Service metrics* – recovery or a meltdown (again)?
- Trucking troubles also a *secular* issue
- Capacity – coming shortage? Or “*creative tension*”?
- Intermodal – new king of the hill
- Coal and Grain: Comeback? Thanks to oil!
- *Is Growth Affordable?* (Who will pay?)
- Alliances vs. Mergers?
- Hurricanes, other AoG
- Labor – 1 Man Crews off the table? Coming shortage?
- Safety and security – new risk?

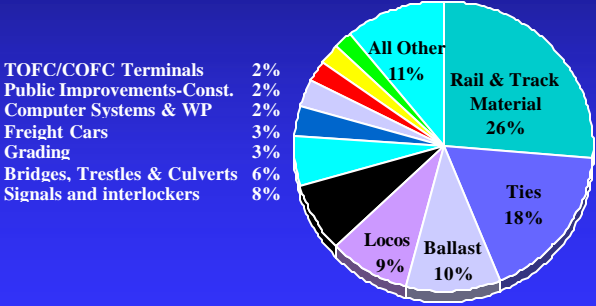
## “Big Six” Rail H106 results

- All six beat Street consensus
- EPS up an average 58% vs. tough comps; range from +27% to +140%
- Revenue growth averaged 14%
- Estimated Yield growth (ex FS) was 6%
- Fuel surcharges added another ~6%
- *So Far Q306 5 for 5 beating Street; solid forecasts (DPS increases, share buybacks & splits) – operating ratios in the 50s?!?*

# Capital Expenditures 2005

Class I Railroads

\$6.4 billion for Roadway & Structures and Equipment

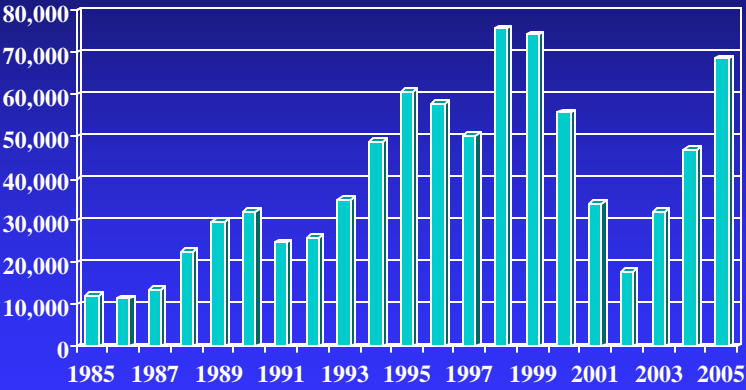


Source: AAR and R-I annual reports

Excludes new operating leases.

# New Freight Car Deliveries

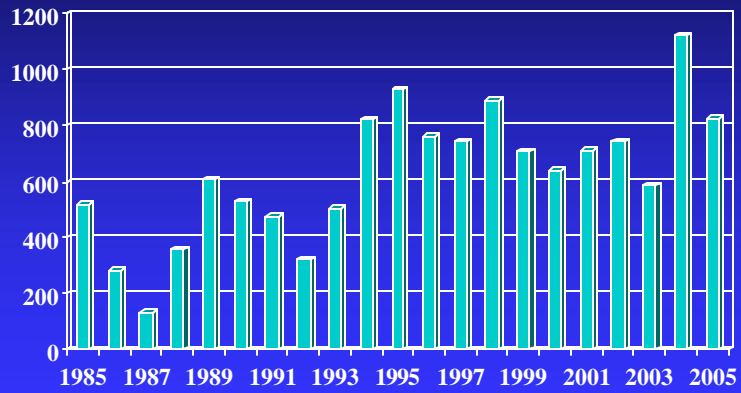
Railroad and Private Owners



Beginning 1995, Canadian cars included with U.S.

# New Locomotives Installed

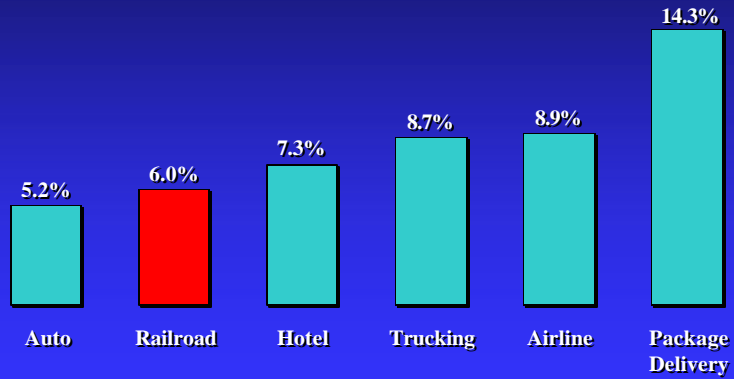
U.S. Class I Railroads



Note: New locomotives may also be installed by Canadian, Mexican, or U.S. regional railroads.

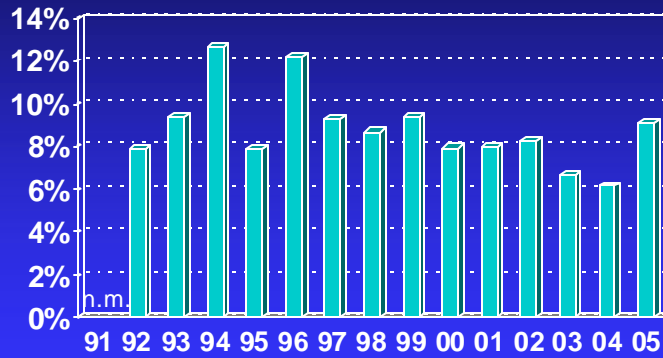
# Return on Total Capital

by Industry 2001-2004 average



# Railroad Return on Equity

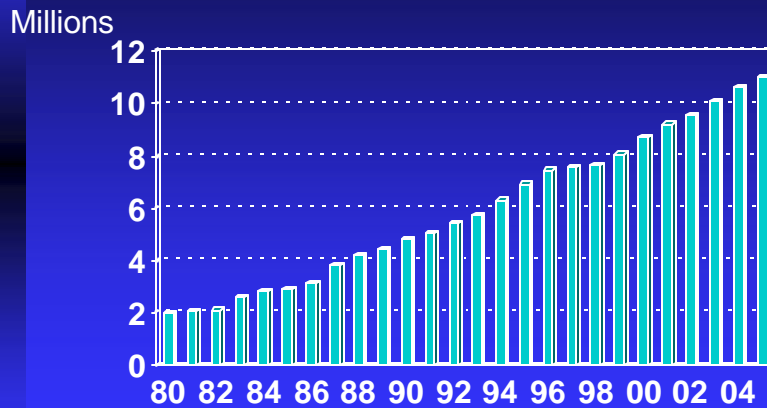
Class I Railroads



n.m. - not meaningful (negative value) Source: *Railroad Facts*, AAR

# Railroad Employee Productivity

Class I Railroads, Ton-Miles Per Employee



Source: *Railroad Facts*, AAR

**GLEN WEISBROD**

**President**

**Transportation, Energy & Economic Practice  
Economic Development Research Group**



**PANEL V: TRADE AND FREIGHT GATEWAYS TO THE  
NORTHEAST AND TO THE NATION**

**GLEN WEISBROD**

**President**

**Transportation, Energy & Economic Practice  
Economic Development Research Group**

Glen Weisbrod is the President of Economic Development Research Group, Inc. (EDR Group). For the last 30 years, he has worked prominently around the world on the relationship of economic development to transportation, energy and technology development in such diverse markets as the U.S., Japan, Scotland, Finland, Australia, Italy, India, Canada and the Netherlands.

Mr. Weisbrod is currently Chair of the Transportation Research Board Committee on Transportation and Economic Development. He serves on the Board of Directors of the Economic Development and Industrial Corporation of Framingham and he was previously served on the Board of Directors of the Council for Urban Economic Development.

Mr. Weisbrod was also formerly Sr. Vice President of Cambridge Systematics, Inc. and Director of the Boston office of HBRS and Hagler Bailly Consulting.

The author of over 30 published articles, Mr. Weisbrod holds a MS in Engineering and MCP in Planning from M.I.T., and BA in Economics from Brandeis University.

**Testimony of Glen Weisbrod**  
President of Economic Development Research Group  
to the National Surface Transportation Policy and Revenue Study Commission  
New York City, November 16, 2006

Thank you, Mr. Chairman and Commission members, for the opportunity to speak with you about trade and freight gateways. I am Chair of the Transportation Research Board's Committee on Transportation and Economic Development, and President of a consulting firm that works around the country on regional economic development. However, I speak today as an individual who has worked in this field for three decades.

My comments today center on our need to address two key needs: (1) to maintain and strengthen the economic competitiveness of our nation in the face of increasing globalization, and (2) to meet changing infrastructure needs in a way that is cost-effective and distributes benefits for people and businesses throughout our land. Our policies towards ports and gateways, and the access routes to them, can have profound implications for both of needs. This finding is based on three key observations.

**#1. The role of transportation investment in supporting economic development is greater than ever.** There is a misconception among some academics and policymakers that our nation's ground transportation network is becoming mature, that fewer areas are still under-served, and that relatively less capital investment will be needed in the future. That is wrong thinking, for the simple reason that our economic well-being and economic growth depend on maintaining *access* to relevant suppliers and markets, and the nature of those access needs are continuing to shift dramatically as both markets and suppliers change.

- a) Over the past two decades, the value of our exports to foreign markets and imports from foreign suppliers have increased. Canada and Mexico continues to represent the top two trading partners for the US, accounting for 1/3 of all US foreign trade and the transborder movements via surface modes. In fact, no two countries on the planet have as much mutual trade as the US and Canada. However, in addition to direct trade, there is also a growing segment of the market involving re-exports, whereby US products travel overseas via Canadian ports and Canadian products travel overseas via US ports. This movement is being done because it is economically efficient and aids the economy of both nations. However, trade with our neighbors and overseas transshipments through our neighbors are threatened by greater delays and costs at border crossings. In the long run, both nations but particularly the affected northern border regions of the US, stand to benefit by addressing these issues. The Eastern Border Transportation Coalition (EBTC), a consortium of US states and Canadian provinces, is continuing to highlight these needs.
- b) Today and moving into the future, it is critical to note that the fastest rate of growth in imports and US exports is with Asian nations. Of course, this growing overseas trade requires increasing reliance on sea and air freight, and that puts additional demand on the major US international seaports and international airports. In fact, the northeast coast US ports have gained trans-oceanic freight movements via the Suez and Panama Canals that would never have been anticipated a decade ago. (See Figure 1.) As the northeast ports are a

day closer to Europe than more southern US ports, this trend is accentuating the problem of congestion along highway and rail freight corridors in the northeast region. (See Figure 2.)

Fig.1 Increasing Demand for NE Ports

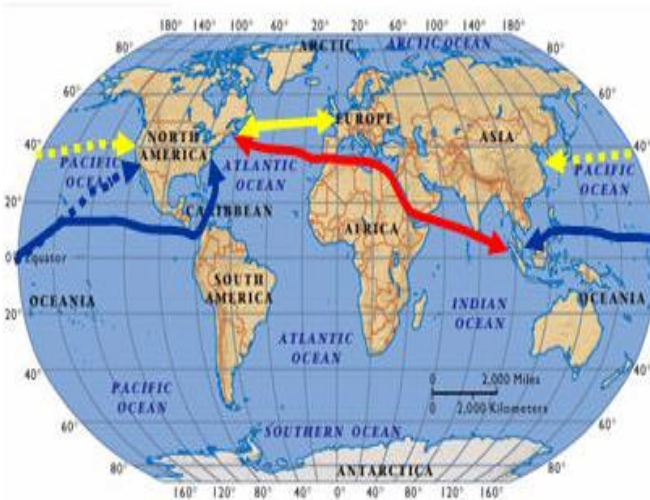
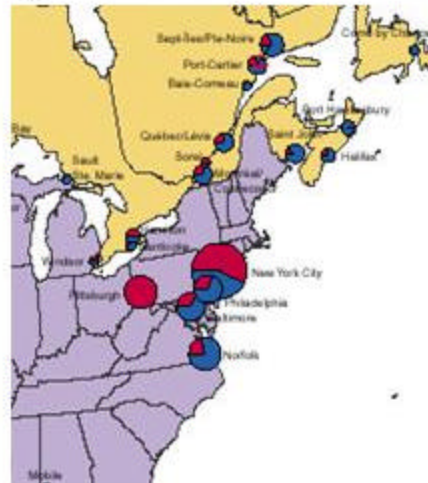


Fig.2 Concentration of Port Activities



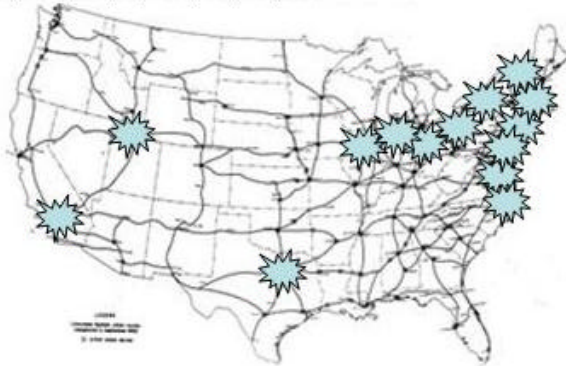
c) While rail, highway and sea remain major modes of import/export movement, air freight is actually experiencing the fastest growth rate, reflecting the combined forces of just-in-time processing and globalization of markets. Specialty goods shipped by air are a particularly important source of economic growth for entrepreneurial specialty companies. All of these changes are placing increasing demand on airport access and shipment reliability, especially for the air and marine ports of NY and NJ, and the truck (and rail) routes serving them. US International trade data show that businesses exporting overseas, whether located in the Midwest or northern New England, ship significant volumes of products to ports located hundreds of miles away, including most prominently the Ports of NY-NJ. Thus, the role of long distance rail and highway corridors becomes critical for maintaining and improving port access, and thus becomes even more important to support future economic development in those regions.

(Figure 3 shows the location of top origins for products shipped overseas from NY air and marine ports. It is clear that these origins span a distance of 1,000 miles or longer from the port, and they are generally aligned along interstate highway corridors. Figure 4 shows the location of top air and marine ports used for shipping of Massachusetts goods to overseas destinations. Again, we see the long surface transportation distances involved.)

**Fig.3 NY-NJ Ports Serve Broad Regions**

*(Top Originating States Using NY-NJ Air and Seaport)*

NYS, NJ, MA, PA, CT, VT  
CA, UT, OH, IL, MD., MI, TX, NC



**Fig.4. Businesses Ship thru Diverse Ports**

*(Top Ports for Massachusetts Exports)*

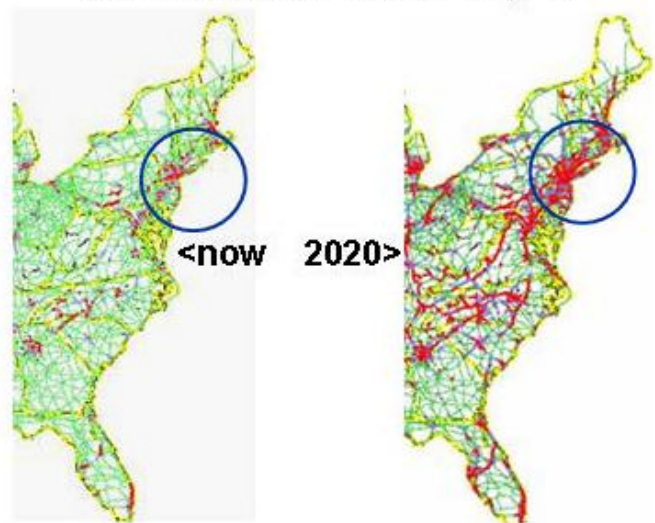
New York, Boston, Anchorage, Buffalo, Cleveland,  
Highgate Springs VT, Champlain-Rouses Point NY,  
New Orleans, Chicago, Detroit, Miami, Los Angeles



**#2. Air and seaport growth is limited by continued congestion growth.** While transborder movements depend on rail and highway access, overseas air and sea shipments also depend critically on those same two modes for *ground access* to/from US air and marine ports. These ports are thus equally affected by highway congestion whether it occurs across urban areas, is spread along major inter-city corridors or is concentrated at choke points along routes to/from airports, marine ports or inter-modal rail terminals.

- a) From an economic development viewpoint, the stakes associated with controlling congestion are also increasing, as we see a spreading of business supply chains along highway corridors. That is a reflection of the increasing role of just-in-time inventory, assembly and delivery processes. It is also a growing source of concern about the broad negative implications of congestion and reliability problems for inter-city truck shipments. A recent Portland (OR) study is most illustrative of the ways in which highway congestion affects regional economic growth, as it shows how major regional employers suffer economically when highway congestion affects their airport, seaport and business market access times and costs.
- b) As our dependence on international materials, customer markets and visitor markets grows over the next fifty years, the potential losses associated with unchecked congestion growth can be staggering. These stakes are potentially greatest for the northeast states, which now relies disproportionately on the JFK Airport and the Ports of NY and NJ for overseas freight movements. While New England has its own air and marine ports, that region also depends substantially on access to the NYC region for the vastly wider range of international origins and destinations served by those

**Fig.5 Traffic Congestion Growth is becoming severe in the NY-NJ-CT Region**

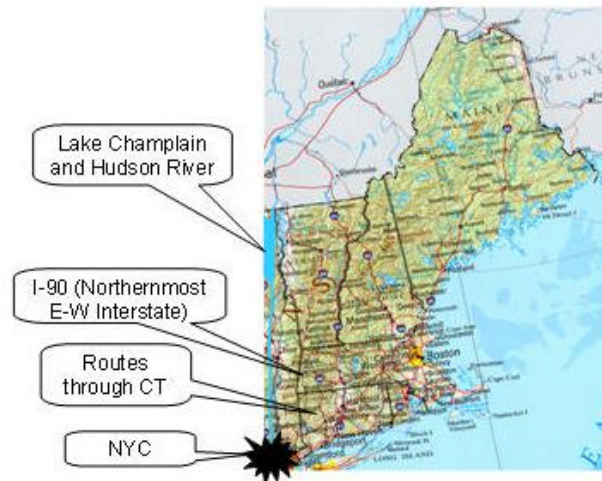


facilities. However, congestion along major interstate highway and rail routes in Connecticut and New Jersey threaten to significantly limit future growth of freight movement between outlying areas and the freight gateway facilities in the NYC region. (see Figure 5.) The Port Inland Distribution Network (PIDN) is a developing system of “inland port” (remote rail and barge) facilities that can move freight to and from the ports while eliminating truck movements through the worst congestion near port facilities. That can defer the congestion problem, but in the long run, it alone cannot solve the broader northeastern freight congestion problem.

**#3 The northeast US can benefit substantially from increasing options for freight routes and gateways.** Despite growing use of air transportation, the mountains, rivers and historical locations of transportation facilities in the northeastern US act to constrain the region’s transportation networks and make this region potentially more vulnerable to future economic loss than other parts of the nation. They increase the potential for cutting off the economic growth of currently thriving areas and further isolating depressed northern regions of New England over the next few decades. That makes it particularly important to consider broadening freight routes, border crossings and port options for the future.

- a) The topography of mountains and rivers constrains transportation access to eastern ports more than even western ports. For instance, the Hudson River and Lake Champlain together form one major barrier to rail travel. As a result, the region directly east of the Hudson (including all of New England) has far less freight moving by rail than the area directly west of the river, for the simple reason that rail lines crossing the river are extremely limited. That makes all of New England far more dependent on truck movements and its economy more vulnerable to congestion occurring at Hudson River crossings and congestion along the few western Connecticut access routes to NYC. If not addressed, growing congestion along Connecticut highway and rail routes, combined with limited crossings of the Hudson River, could eventually choke the economy of the Boston region as well as the rest of New England. (See Figure 6.)

**Fig.6 Constraints on New England Connections**



- b) Already, the northern tier of New York and northern New England are looking to Canadian trade routes and ports (including connections to the ports of Montreal, St. John and Halifax) as alternatives for obtaining international access. In fact, the connections between these regions and Canada will become increasingly important in the future, although they are now being hurt by increasingly fees and inspection delays that hopefully will not persist in the long run.
- c) The eastern border of US and Canada is the only part of America’s border that bends back on itself (dipping north and south twice). That creates a situation where the shortest and most direct path from the Great Lakes and Midwest to Europe would actually be via North American routes that twice cross the US-Canada border before leaving from ports in Maine or Atlantic Canada. Both nations now incur higher transportation costs by using less direct rail and highway routes that avoid the US-Canada border and rely on ports further away from Europe. (See Figure 7.) The “Northeast CanAm Connections” (aka Northeast Border Transportation Corridor) study is a federally funded effort in which four US states and five Canadian provinces are working together to study surface transportation (rail and highway) improvement options that could address freight movement and port access issues affecting both countries. Their motivation is explicitly to improve the economies of northern NY State, northern New England and eastern Canada.

**Fig.7 Cross-Border Avoidance Issues**



- d) Looking ahead for the next fifty years, it is critical for economic development reasons that we expand the range of options for international airports, seaports and the road and rail corridors serving them. There are three reasons for this:
1. *Congestion Impacts.* While sea shipping companies may see substantial economies of scale from concentrating at mega port facilities, the flip side is that ground transportation companies, businesses that depend on the shipments and the public sector can all face the higher “externality” costs of rising road and rail transportation congestion. This leads to higher labor time costs, reduced schedule reliability and greater air pollution costs associated with more congested road and rail networks at those port locations, along corridors serving them and in the regions around them. Increasing future options that avoid congestion costs can thus be attractive.
  2. *Infrastructure Costs.* The public and private costs of continuing to add ground-side road and rail capacity to stem that rising congestion associated with air and seaports can become very high over the next fifty years. Costs of adding capacity also become particularly high when the congestion is concentrated at specific urban facilities and corridors, where options for adding capacity are both limited and costly. On the other hand, upgrading capacity and routes serving additional ports and border crossings that

are not congested can potentially enhance overall system capacity at a lower capital cost.

3. *Regional Economic Development.* Ultimately, the most compelling argument for expanding our port and gateway options and access routes should be the economic welfare of our citizens. Expanding international trade routes with Canada and connecting Atlantic port facilities can potentially help to reduce the access isolation and resulting depressed economies of New England's northern tier. It can also help to increase options for American freight moving to/from the upper Midwest.

In closing, I want to point out that a fifty year time horizon is quite useful for looking at the logical extension of our current trends and the potential implications of allowing a "status quo" scenario to unfold. With investment in our multimodal international trade gateways and land corridors, we also have a unique opportunity to simultaneously address both urban congestion and rural isolation in ways that can ultimately be of benefit to all Americans. This will depend on developing inter-governmental cooperation to link infrastructure investments across our borders, but the dividends for our nation's long-run international competitiveness can be substantial.

Thank you for your time.

**Additional Background Reading on the Eastern Border Transportation Coalition (EBTC)  
Material follows**



## The US-Canadian Border is a Vital Gateway

The key transportation group is the Eastern Border Transportation Coalition. EBTC Members are the Transportation Agencies of the U.S. States of Michigan, New York, Vermont and Maine and the Canadian Provinces of Ontario, Quebec, New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland & Labrador

Canada and the United States enjoy an economic partnership unique in the contemporary world. In 2003, they did more business with one another than with any other country in the world - more than \$500 billion<sup>1</sup> or half a trillion dollars worth. That works out to about \$1.5 billion a day.

For 2002, Canada was the origin of 16.5 per cent of all imports of goods and services to the United States, while the United States sold 19 per cent of all its goods and services to Canada. The numbers are even more significant for Canada where 81% of the nation's exports went to the U.S. and 70% of its imports originated in the U.S.

According to the Canadian Department of International Trade, Canada- U.S. trade supports more than two million jobs in each country.

Specifics:

EBTC Serves a combined US and Canadian population of over 50 million

In 2000, US/Canadian surface trade was \$400 billion

Nearly 75% of the total US/Canadian surface trade passes through EBTC border crossings

Over 60% of the US/Canadian surface trade that crosses through EBTC border crossings have a destination or an origin in a non-EBTC state

EBTC border crossings serve 10.7 million trucks annually

EBTC border crossings serve 60 million autos annually

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