



**U.S. House of Representatives**  
**Committee on Transportation and Infrastructure**

**James L. Oberstar**  
**Chairman**

**Washington, DC 20515**

**John L. Mica**  
**Ranking Republican Member**

David Heymsfeld, Chief of Staff  
Ward W. McCarragher, Chief Counsel

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James W. Coon II, Republican Chief of Staff

**SUMMARY OF SUBJECT MATTER**

**TO:** Members of the Subcommittee on Railroads, Pipelines, and Hazardous Materials  
**FROM:** Subcommittee on Railroads, Pipelines, and Hazardous Materials Majority Staff  
**SUBJECT:** Hearing on Rail Capacity

**PURPOSE OF HEARING**

The Subcommittee on Railroads, Pipelines, and Hazardous Materials is scheduled to meet on Wednesday, April 23, 2008, at 10:00 a.m., in 2167 Rayburn House Office Building to receive testimony on rail capacity. The hearing will examine current and projected demand on the nation's freight, intercity passenger, and commuter rail infrastructure.

**BACKGROUND**

The U.S. economy is growing, and with it the demand for rail transportation services. Freight railroads move more than 40 percent of our nation's freight (measured in ton-miles). Amtrak, the nation's primary intercity passenger rail provider, moved 25.8 million passengers in 2007, and the nation's 22 commuter rail providers had 460 million trips in 2007.

It is uncertain the extent that demands for rail services will grow in the future, but two recent studies suggest that this growth will be significant. The American Association of State Highway and Transportation Officials ("AASHTO") reports that even moderate growth projections in the economy — about three percent per year — will result in a 57 percent increase in domestic freight tonnage by 2020 and import-export tonnage will increase by nearly 100 percent. A more aggressive projection by the bipartisan National Surface Transportation Policy and Revenue Study Commission ("Commission") predicts U.S. economic output will lead to an increase of the total freight movements by 92 percent over the next 30 years.

Freight rail's performance will degrade significantly if it maintains its current capacity levels under either of the AASHTO's or the Commission's future growth projections. For example, the Commission found that currently 88 percent of primary freight rail corridors currently operate at

levels below their theoretical capacity, meaning there is sufficient capacity to accommodate periodic maintenance activities and to recover from incidents that interfere with routine operations. Further, nine percent operates near its theoretical capacity and three percent operates at its theoretical capacity limit, meaning there is limited ability to accommodate maintenance needs or accommodate incidents.

Under the Commission's growth projections, without additional capacity by 2035, the percentage of rail corridors operating below capacity will decline to 44 percent and corridors operating at capacity will increase to 15 percent while corridors above capacity will increase to 30 percent, which means unstable flows and service breakdown conditions. This would result in routine service interruptions and a constant questionability of product delivery.

Yet while demand for rail service continues to grow, capacity has shrunk since passage of the Staggers Act in 1980, which largely deregulated the railroad industry. In 1970, the Class I railroads operated about 206,000 route-miles of track. Today, abandonment and spin-offs to smaller railroads have reduced this figure 32 percent to about 140,810 miles. Further, the DOT reports that the rail network has decreased by almost 20 percent while revenue ton-miles increased by 64 percent since 1990.

Overall, the Class I railroad's total capital spending has increased, though it has declined as a percentage of revenue. Over the past five years, the seven Class I railroads spent an average \$8.02 billion per year on capacity compared to the twelve year average of \$7.687 billion. However, an analysis of the annual reports of the seven Class I railroads shows that over the past five years, capital investment has averaged 16.3% of revenue compared to the past 12 years at 17.8% of revenue. While railroads are generating greater revenues than ever before, a smaller portion of those revenues are being dedicated to capacity spending.

The Department of Transportation ("DOT") also states that freight railroads have the financial resources to raise additional capital for capacity expansion. According to industrial sector data compiled by New York University's Leonard School of Business, the U.S. railroads' debt ratio for the 18 largest railroads (Class I, II, and III) has improved by over 25 percent in recent years, moving from 41 percent to 30 percent in 2004. Using AAR data, if the analysis is confined to the seven Class I railroads, it appears the industry has the capability of assuming up to \$4 billion in additional debt.

### IMPACTS OF CONSTRAINED CAPACITY

Constrained capacity imposes its own cost. It adds extra cost to virtually all goods and services produced in the economy. The resulting congestion adds to direct transportation costs and forces companies to carry larger inventories and invest in increased warehouse space, making U.S. businesses less competitive both here and abroad. Transportation congestion also reduces productivity, increases levels of harmful emissions, and reduces safety. The DOT estimates that congestion adds over \$200 billion per year to the costs of goods, a portion of which is attributed to the Nation's rail network.

Further, freight-rail service is vital to many state's economies. States have made freight-rail service, especially the retention of lower-density branch lines, a significant part of their economic

development and transportation programs. Idaho's Department of Commerce, for example, stated in 2002 that "Idaho's economy, particularly in rural areas, relies heavily upon the freight-rail system to facilitate movement of the state's ... natural resources and manufactured products to local, national, and international markets. Most Idaho companies surveyed that ship by rail state that they could not exist without access to railroads."

Many shippers are dependent on rail to move heavy materials or large volumes of materials that is significantly cost-effective over trucks. Depending on the density of the commodity, one railcar may move the same weight or volume as four or five trucks. Even industries that ship their finished products by truck may be dependent on rail. For example, while poultry farmers ship their chickens to market by truck, most of the cost is in buying and moving feed, done by rail. The availability of rail service can be an important factor for states and municipalities interested in retaining and attracting these types of businesses.

However, following passage of Staggers, much of the rail industry has consolidated. In 1976, there were 63 Class I railroads operating in the United States. Following passage of the Staggers Act of 1980, which largely deregulated the industry, many of these railroads merged with one another. Currently, there are seven Class I railroads in the United States: BNSF Railway ("BNSF"); CSX Transportation ("CSX"); Grand Trunk Corporation, which consists of the U.S. operation of Canadian National ("CN"); Kansas City Southern ("KCS"); Norfolk Southern ("NS"); the former Soo Line, owned by Canadian Pacific Railway ("CP"); and Union Pacific ("UP"). Nearly half of the reductions since 1976 are attributable to rail mergers. According to the Association of American Railroads, the seven Class I railroads controlled 87 percent of all ton-miles for the 562 railroads in the U.S. (1.776 trillion of 2.04 trillion ton miles), which accounts for 40 percent of intercity ton-miles across all transportation modes (more than any other mode of transportation).

This reduction in capacity and overall consolidation of the industry allows greater pricing power for the railroads, and also affects system performance. The DOT reports that since 1990, average train speed has reduced almost 20 percent, accompanied by deterioration in service reliability. Yet, railroads are increasingly able to shift more costs to shippers. For example, the Government Accountability Office ("GAO") reports in *Updated Information on Rates and Other Industry Trends* that a 20 percent shift has occurred in railcar ownership since 1987. In 1987, railcars owned by freight railroad companies moved 60 percent of tons carried. In 2005, they moved 40 percent of tons carried, meaning that freight railroads' railcars no longer carry the majority of tonnage.

Further, railroads have also been charging shippers, in particular captive shippers, higher rates. According to GAO, while 2005 rates remain lower than 1985, they rose 7 percent over their 2004 levels. This represents the largest annual increase in rates during the 20 year period from 1985 to 2005, and outpaced increases in inflation.

Looking into the future, it is evident that where feasible, public policy will increasingly favor transferring freight movements from truck to rail. AASHTO reports that currently trucks and the highway system carry 78 percent of domestic tonnage, the freight-rail system carries 16 percent, and barges and coastal shipping carry six percent. Under its modest projections, AASHTO predicts that by 2020, the highway system will carry an additional 6,600 million tons of freight (an increase of 62 percent), and the freight rail system must carry an additional 888 million tons (an increase of 44 percent). However, the highway system is increasingly congested, and the social, economic, and environmental costs of adding new highway capacity are prohibitively high in many areas. State

departments of transportation are asking if expanding the capacity of the freight-rail system in some cases might be a cost-effective way of increasing the capacity of the total transportation system.

These increases in freight traffic will also act to the detriment of intercity passenger and commuter rail services. A majority of Amtrak's intercity passenger rail service operates over freight ("host") rail tracks outside the Northeast Corridor ("NEC"). Freight congestion negatively affects these services. For example, Amtrak reports that approximately 80% of delay minutes experienced by Amtrak trains operating outside the NEC are caused by host railroad issues. These issues cause the majority of variability in Amtrak delays, compared to Amtrak and third party delays which are generally small and stable. Finally, Amtrak reports that host railroad delays are increasing dramatically, up 50% during the five years from the first half of FY2002 to the first half of FY2007.

Amtrak has a statutory right to not only operate over the tracks of these host railroads, but has also been granted preference over host transportation in using a rail line, junction, or crossing. However, host railroad delays significantly impact Amtrak's operations. The DOT Inspector General ("IG") recently reported that freight movements contributed to Amtrak's poor on-time performance ("OTP") off the NEC, substantially impacting Amtrak's finances and ability to attract ridership. If Amtrak achieved 85 percent OTP off the NEC in FY 2006 (when it was 68 percent) it would have saved Amtrak \$136.6 million in operating expenses (of an operating budget of \$540 million). The DOT IG also found that improving OTP is an important element in making rail a more viable alternative for travelers. A large number of travelers who had previously used other modes would choose to travel by rail if it was reliably on-time. This has implications for reducing congestion on airways and roads.

The nation's 22 commuter rail services also rely heavily on freight track to provide their services. Rail transit services exist in over 50 metropolitan areas and small cities, and the number grows annually. Indeed, the American Public Transportation Association ("APTA") states that transit ridership has grown over 30 percent since 1995, and is outpacing both the growth of the nation's population, at 12 percent, and the growth in the use of the nation's highways, at 24 percent, since then. Each weekday, 34 million trips are made on public transportation.

Today, over 90 percent of commuter rail trips are on lines publicly owned. This includes long-established systems such as New York's Long Island Rail Road and Metro North Railroad, NJ Transit, the Southeastern Pennsylvania Transportation Authority, and the Massachusetts Bay Transportation Authority. New systems such as Florida's Tri-Rail, the Trinity Railway Express in Texas, the Rail Runner in Albuquerque, and the soon to be open system in Salt Lake City have opted to acquire their own rights of way. Chicago's Metra system and the Metrolink system in Los Angeles own some of their own lines, while using other lines owned by freight railroads. Systems including the Virginia Railway Express ("VRE"), Seattle's Sounder, the Altamont Commuter Express and Nashville's Music City Star system operate entirely on tracks owned by freight railroads. For these later systems, there are often few if any redundant freight lines available for public purchase, making partnerships with Class I railroads a necessity.

### **GAINS IN PRODUCTIVITY**

Freight railroads' productivity gains have allowed them to carry much more traffic. For example, from 1987 to 1999, railroad productivity grew by nearly 48 percent, while traffic measured

in ton-miles grew by nearly 52 percent. In comparison, the U.S. manufacturing sector as a whole increased productivity by only 16.1 percent over the same period. Tons originated grew by over 25 percent, with coal, chemicals, metal products, and motor vehicles and equipment leading the way. Rail intermodal shipments, measured in units shipped, grew by 73 percent. The locomotive fleet grew by only one percent, but new units are now able to haul more trailing tons; lighter and larger freight cars now carrier heavier payloads. Overall, the industry has been able to improve productivity on every part of the system.

Increasing productivity through assistance of new technologies will also allow additional traffic on the existing system. Two of the most important new opportunities are Positive Train Control (“PTC”) and Electronically Controlled Pneumatic (“ECP”) brakes.

Under PTC, enhanced communications and real-time information headways and improve train speeds and safety. The information provided by PTC will permit more effective management of train movements over the affected infrastructure. These improvements will eventually allow the carriers to move more freight over the system under existing capacity. Better train speeds improve a carrier’s asset utilization. For example, a one mph increase in average train speed will save Class I railroads an estimated \$200 million per year. By moving freight faster over long distances with the same number of trains and crews, the effective number of workers and locomotives per mile falls, generating large efficiencies. On January 8, 2007, FRA announced approval of the first PTC system capable of automatically controlling train speed and movements to prevent certain accidents, including train collisions.

Additionally, ECP brakes allow a train to apply its brakes uniformly and virtually instantaneously on every rail car throughout a train, vastly improving train control, improved network management, fuel and equipment maintenance savings, and enhanced safety. On March 29, 2007, FRA announced that it had approved a BNSF/NS joint waiver request for operating ECP brakes on their systems.

### CAPACITY EXPANSION PROPOSALS

The railroad industry is one of the most capital intensive of all industries. Class I railroads on average spend 17% of their annual revenues on capital investment while manufacturing industries average 3% and truck transportation spends 5%. As a result, railroads will typically only invest in capacity expansion where they expect to receive the greatest return on their investment.

AASHTO contends that freight railroads will be able to generate a majority of the funding necessary (up to \$142 billion) to meet future demand, though approximately \$2.65 billion annually would have to come from other sources.

Here is an overview of federal funding options:

**General Revenue.** Current options for federal funding for freight railroad infrastructure loans, grants and tax expenditures and are taken from the General Fund and the Highway Trust Fund. GAO states that these multimodal funding mechanisms do not maximize specific national public freight transportation benefits. In addition, GAO considers Highway Trust Funds and General

Revenue funds high-risk because revenue from traditional transportation funding mechanisms may not keep pace with the demand.

**Rail Trust Fund.** The railroads are the only transportation mode in the United States that do not benefit from a federal trust fund similar to the highway, waterway and airway trust funds. Trust funds are financed with levies on the users of the transportation system provided. Examples of levies include taxes on fuel, new equipment, cargo waybills and passenger fares. However, the railroads contend that a trust fund would not allow the railroads to make their own decisions on capital investments, and may impose higher costs on freight due to a “trust fund tax” thereby diverting freight to other modes of transport.

**Highway Trust Fund.** Funds could be diverted from the highway trust fund to rail projects. Proponents argue that dollars can be used to alleviate congestion on highways and state transportation officials and other planning organizations could be given the power and flexibility to decide which projects gets funded. However, opponents state that this proposal undercuts the “users-pay” principle, since the trust fund is paid through the gas tax. Additionally, rail projects would then be in competition with highway and transit projects.

**Tax Credit Bonds.** A tax-credit bond allows a bondholder to receive a credit against their federal income tax liability instead of cash interest. Bondholders must report the tax credit as income, but after calculating their tax liability as if they had received that compensation in cash, they can subtract the amount of the credit from the tax due. Although the federal government effectively pays the interest on the bonds by granting tax credits, the repayment of the principal at maturity is the responsibility of the entity that issues the bonds. However, using tax-credit bonds to fund programs that could be funded through federal appropriations would cost the federal government more per dollar than a more conventional financing method, such as issuing taxable bonds through the Treasury or through general appropriation.

**Railroad Rehabilitation & Improvement Financing (“RRIF”).** The RRIF program was established by the Transportation Equity Act for the 21st Century (TEA-21) and amended by the Safe Accountable, Flexible and Efficient Transportation Equity Act: a Legacy for Users (SAFETEA-LU). Under this program the FRA Administrator is authorized to provide direct loans and loan guarantees up to \$35.0 billion. Up to \$7.0 billion is reserved for projects benefiting freight railroads other than Class I carriers. The funding may be used to: acquire, improve, or rehabilitate intermodal or rail equipment or facilities, including track, components of track, bridges, yards, buildings and shops; refinance outstanding debt incurred for the purposes listed above; and develop or establish new intermodal or railroad facilities. Direct loans can fund up to 100% of a railroad project with repayment periods of up to 25 years and interest rates equal to the cost of borrowing to the government. Eligible borrowers include railroads, state and local governments, government-sponsored authorities and corporations, joint ventures that include at least one railroad, and limited option freight shippers who intend to construct a new rail connection.

WITNESSES

**Mr. James (Jim) Daloisio**  
President  
Railroad Construction Company

**Mr. Ed Hamberger**  
President and CEO  
Association of American Railroads

**Mr. Evan Hayes**  
Chairman  
Idaho Barley Commission

**Mr. Lance Grenzeback**  
Senior Vice President  
Cambridge Systematics, Inc.

**Mr. Alexander Kummant**  
President and CEO  
Amtrak

**Mr. Al Moro**  
Chief Harbor Engineer  
Port of Long Beach

**Mr. Steve Sharp**  
Principal Engineer  
Arkansas Electric Cooperative, Inc.

**Mr. Dale J. Zehner**  
Chief Executive Officer  
Virginia Railway Express