

# 9/11 Issues for Railroads

By Charles H. White, Jr.

The horrendous events of 9/11 created far-reaching national self-examination. They opened our eyes to our transportation infrastructure's vulnerability,<sup>1</sup> and, ironically, to the success of the quiet logistics and intermodal revolution of the last management generation. They also raised important questions concerning our nation's transportation and related public policies.

This article is about public policy and focuses on one mode of transportation. This author has participated in the public policy dialog during the last 25 years. While I have stood close to the policy makers, the views in this article are purely my own.

In order to provide scope of the railroad industry's change over this relatively short period, I will briefly describe the state of the railroads as it was in 1970, when PennCentral, then the largest corporate bankruptcy in the nation's history, underwent reorganization. Then will come a brief description of the metamorphosis which changed America's dying private sector rail industry into the world's premier privately owned freight transporter, and an integral link in the global supply chain.

With this success story, however, is the hard fact that intermodalism makes U.S. railroads vulnerable to terrorism.

## **"Debalkanization" of the U.S. Railroad Industry**

In 1970 the nation's railroad industry was in distress. The Penn-

Central reorganization became too large and complex for the courts to handle. The carrier's problems spread to its connections, and six other northeast regional railroads accompanied PennCentral into bankruptcy. In the Midwest the Rock Island was teetering and it was soon to be followed by the Milwaukee Road. More than 25 percent of the nation's railroad capabilities were under the control of the courts and bankruptcy trustees. The rail-dependent "rust belt" industries – automobiles, steel, etc. – were threatened.

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In these circumstances Congress was faced with difficult choices. Was nationalization unavoidable? (The U.S. experiment in private sector railroading appeared to have run its natural course.) Given the parlous state of the industry, would deregulation work? And what to do about rail passenger service? Isn't access to that service a basic "right" in a developed and mobile society?

To appreciate the complexity of the issues facing Congress, one need only look at the structure and charac-

teristics of the industry in the late 1970s. The fact that a large, growing segment of the industry was operated by bankruptcy trustees only exacerbated the underlying problem.

In 1970 there were more than 40 so-called Class I railroads making up the quilt of the American rail system. This quilt, however, was strongly stitched together by laws compelling mandatory interchange and a uniform rate structure embodied in public tariffs and policed by a powerful federal agency, the Interstate Commerce Commission (ICC). Carriers provided joint line service, and the multi-line movement of their cars created a shared national car fleet. The railroads recognized, and the Commission enforced, common carrier obligations founded in common law. Preferential treatment of any shipper, no matter how important, was a violation of common carrier principles punishable by the ICC. Transportation contracts between carriers and shippers were strictly forbidden.

Rail management initiative was frustrated under this regime. Railroaders developed more of a "public utility" mentality than an entrepreneurial spirit under the heavy weight of regulation.

Congress thus faced a demoralized but economically necessary private sector industry. Courageously, Congress took a number of steps to avoid nationalizing an industry that could not earn its cost of capital and that was shrinking its plant as fast as it could to contain costs. Congress relieved the railroads of their obligation to provide

the chronic, red ink rail passenger service by creating Amtrak. (The record here is obviously not as good as that of freight railroading). It also passed the Staggers Rail Act, effectively deregulating the bulk of the railroads' rate structure. While it kept in place the mandatory interchange practices that forged a "system" out of the industry's parts, the Staggers Act allowed individual contract ratemaking. That doesn't sound revolutionary - but it is. The heart of the freight railroads revitalization over the last two decades lies in the ability to make contract rates.

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Instead of behaving like public utility tariff filers, railroad marketing departments (which were theretofore misnamed) were encouraged to act like other business marketers, negotiating confidential transportation contracts with their individual customers. Under the old regime the shippers had an advantage in that the rates were known and enforced, but the routing alternatives over the network remained the shippers' prerogative. Now the carriers could offer (confidential) alternatives on the rate side of the rate/route equation.

It didn't take long for the carriers to realize that economic advantage comes from making transportation contracts over the longest haul pos-

sible, and that the best way to expand long-haul possibilities is to expand the carrier's geographic reach. In other words, the rate freedoms unleashed by the Staggers Act had the unintended consequence of encouraging rationalization of the U.S. rail industry through mergers of connecting carriers. And merge they did!

Over the last 20 years the 40-plus Class I railroads merged into a stable structure of four mega-systems and a small collection of regional railroads. Large trunk line carriers often spun off duplicative rail plant to new short-line carriers. There are now more than 500 short lines with varying participation in the national rail system.

The merger movement not only concentrated corporations, it actually streamlined the physical plant, promoting high density lines by channeling freight onto those efficient corridors. The industry in 2002 is far different from that of 1980 when the Staggers Act was passed.

It is healthier and more concentrated, but it is also more vulnerable to terrorist disruption.

### ***The Logistics Revolution and the U.S. Rail Industry***

The general public was largely unaware that American business operations have changed as logistics has matured as a management science. The readers of this article are the change agents. Here are some elements of that change.

First, the deregulation of the surface modes (motor carriers and railroads) made truck/rail intermodalism far more efficient by eliminating the need for the ICC's complicated, clumsy "piggyback plans." Deregulation also eliminated the wasteful turf battles between the Federal Maritime Commission and

the ICC concerning water-rail coordination. Elimination of the archaic Panama Canal Act, which generally prohibited joint ownership of rail and water carriers, also eased the way for multi-modal conglomerates. Containerization was a primary force. It restructured the maritime industry and created the need for new rail-water carrier relationships. "Land bridge" operations thus flourished.

Logistics was professionalized by combining management science, system analysis and computer skills. The logistician's profile was raised in the corporate hierarchy, and professional third party logistics firms developed along with the new competitive setting.

The logistics professionals brought significant savings and efficiencies to the American economy by wringing out huge inventory costs (both for finished goods and materials). Supply chain strategies were developed stressing coordination throughout the transportation infrastructure.

More than 20 percent of all containerized traffic moving over the American ports continues its inland or land bridge moves by rail. A similar percentage of the railroads' total traffic is intermodal container or piggyback traffic. This is the rail industry's fastest growing business, and, if priced correctly, holds the potential to significantly improve the industry's rate of return. In short, deregulated railroads, with their contract making freedom, are both key participants in intermodal transportation, and increasingly important partners with logistics professionals. But the railroads are also now far more vulnerable to terrorism.

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## **Terrorism and the Vulnerability of the U.S. Rail System**

I would guess that the public viewed the nation's railroads before 9/11 as fairly robust physical enterprises. While individual carriers may experience temporary shut downs, as when lightning struck CSX's dispatch center in Florida, or suffered casualties when a derailed individual misaligned tracks, the system seemed relatively secure from large-scale terror attack. All that changed.

In the analysis accompanying the economic paralysis caused by the post-9/11 border closings, many "discoveries" were made. The international intermodal system, designed for maximum speed and efficiency, is vulnerable to terrorists who could use containers to deliver mass destruction weapons. This vulnerability does not end at the ports. It is sent throughout the nation by railroads. The public is increasingly aware of the danger, a danger driven home every time an intermodal train is seen.

The FBI (Federal Bureau of Investigation) recently warned that the U.S. rail system is a specifically identified target of opportunity. As this article was being written, *The Washington Post* carried a front page story stating that "train spotting" is now to be treated as a suspicious activity which may provide cover for terrorist intelligence gatherers.<sup>2</sup>

Our transportation system was driven to become as efficient and time sensitive as possible. It was not designed with security as a principal consideration. The intermodal system has been retrofitted with security safeguards, a most difficult and pressing challenge facing logistics and transportation professionals. They have to find ways of adjusting

the system without giving up too much of the efficiency upon which America's just-in-time manufacturing and distribution is largely based. As a minimum, security considerations must become decisional criteria in policy decisions for the future of the nation's railroads.

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### **Post-9/11 Policy Issues**

In addition to retrofitting security safeguards, logisticians must engage in the public policy dialog concerning the railroads' future. Their experience and security insight is necessary.

Although national defense has long been an element of the national rail policy articulated by Congress to guide the ICC and Surface Transportation Board (STB), it has largely played a minor, if not ceremonial, role in major railroad cases - mergers, etc. That has changed. Without attempting detailed predictions, it is fairly easy to discern the criterion's new importance in major policy development.

### **Stability vs. Further Concentration**

As pointed out above, the railroad industry has undergone profound structural change since the Staggers Act. The industry rationalized its corporate structure and physical

flows. Instead of a host of interconnected and tariff-tied Class I railroads, the U.S. industry is now dominated by four mega-systems: UP/SP (Union Pacific/Southern Pacific) and BNSF (Burlington Northern Santa Fe Railway) west of the Mississippi, and CSX (formed by the acquisition of the Chessie System Railway and the Seaboard Coast Line Railway) and NS (Norfolk Southern) in the east. These four are variously partnered with the two Canadian transcontinentals, Canadian Pacific (CP) and Canadian National (CN). (Despite the frequently used term, there are no U.S. transcontinentals.) Unlike the pre-Staggers carriers, these giants are primarily driven by contract relationships with their shippers. (In fact, this relationship is raising a policy issue: Is the U.S. rail industry still a "common carrier" industry?)

Lately the industry's road to consolidation has not been smooth. Union Pacific had considerable trouble absorbing Southern Pacific with the operational problems originating in the Houston area quickly spreading throughout the nation. These problems, which almost shut down the petrochemical and plastics industries, clogged the West Coast ports and drew locomotives away from the lumber/forestry industry in the Pacific Northwest, highlighted the interdependence of intermodal transport. In the East the Conrail split and realignment between CSX and NS unexpectedly caused similar problems. Both experiences underscore the vulnerability of our interconnected system to a strategically concentrated terrorist attack.

After "Houston" and Conrail two well-run systems, BNSF and CN, gave notice that they intended to consolidate. This caused concern in the rest of the industry, not to mention the shippers who suffered under

the UP/SP and Conrail consolidations. In an unprecedented move, the remaining Class I railroads asked the STB to place a moratorium on further railroad consolidations. The agency complied and announced that it would re-examine its rail merger rules and procedures in light of the increasing concentration. This writer was given the privilege of presenting the Department of Transportation's views before the STB, and in a later setting recommended "higher hurdles for each successive" rail merger "because the cost of failure in each successive merger will go higher and higher."<sup>3</sup> This was before 9/11.

Now we must factor in security considerations in future rail mergers. Will further concentration multiply vulnerability? Will further canalization of traffic flows create richer targets? What is the cost/benefit analysis of retaining some system redundancy? Who will bear the cost of maintaining this redundancy? Will the great Canadian railroads not be allowed to expand their reach into the U.S.? How will the government in its security role (Departments of Homeland Security and Defense) participate in future rail merger cases?

If consolidation pressures again arise and we reach "a critical public policy turning point two steps away from checkmate whereby there will be but two North American railroads,"<sup>3</sup> what will the national security implications be?

### Capacity vs. Competition

Faced with the combination of consolidation, ratemaking freedoms, a contracting Class I plant and canalization of flows on the Class I high density lines, shippers have been fighting a rear guard action to preserve, if not enhance, rail intramodal competition. This has been one of the most visible rail policy issues

over the last decade. However, given the changed physical structure of the industry, it appears that it will be increasingly difficult to find an equitable way to mandate multi-carrier access. I believe this matter will begin to give way to another in the next decade: access to the system rather than to multiple carrier competition.

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The Class I railroads have largely moved their traffic to their efficient high-density lines, and this traffic is mostly contracted. Redundant, marginal lines have been sloughed off to short lines or regional carriers. Thus the pre-Staggers network has been partially disconnected. As traffic increases over the next decade, access to a limited resource – the already capacity-strained main line system – probably will create new pricing strategies for the major railroads. It may even force us to revisit old "common carrier" concepts.

The combination of greatly increased traffic flows and a constrained main line plant will create two major policy issues. The first is, again, how to provide fair access to the main line system for all shippers in a transportation contract tolerant

regime. The second includes terrorism.

Is it wise security policy to concentrate rail traffic over capacity constrained Class I lines? Should the nation encourage alternative "safety valve" routings over the short lines and regionals? Is it feasible to do so given the relatively under funded short line industry? Who will pay to enable this shadow system up to carry today's heavy freight cars? Is it a legitimate part of the national defense policy to subsidize short line traffic alternatives?

The principal lesson learned from the "Houston" and Conrail split experience is that our railroad network is fragile, operating near capacity and easily overwhelmed. The alternative routings of the pre-Staggers network have been largely downgraded by neglect or design or both. Is national security compatible with a system as sensitive to stress as our unaided private sector railroads?

### Physical Plant vs. Technology Investment

Both increased plant and technology investment are necessary for the railroad industry to meet the growing demands of traffic and national security. However, as pointed out in the last transportation issue of **Logistics Spectrum**,<sup>4</sup> the industry has been relatively slow to embrace emerging technology to solve capacity problems: "...public policy issues will arise if the railroads do not find a way to keep pace with other transport mode infrastructure capacity growth in the burgeoning and increasingly global marketplace." Unfortunately, "...railroads have been slow to adopt broader capacity enhancing techniques such as advanced train control." This reluctance is no longer appropriate in light of the specific threats on the industry, and



the overall threats to national security. The railroads' emerging role in global commerce carries both opportunities and responsibilities. If overseas container inspection is to become a reality, railroads must be involved in the design and financing. More locomotives, cars and double tracking are not enough. There has to be new thinking about security, technology and systems.

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The public is now aware of the rail industry's important link to the intermodal infrastructure, to international business. The public should also be made aware that this link is private, self-funding. National security considerations will help bring this message home. In turn, these security considerations should also help further public support issues, such as those involving technology and financial assistance.

#### **Private Sector vs. Public Support**

While U.S. railroads have shouldered infrastructure costs, they are now faced with national security expenses. It is only fair that the government cover these expenses. It is also fair to bring fresh thinking to railroad infrastructure finance.

It is time for national transportation policy makers to consider subsidizing rail infrastructure. “As we look into the future, we have congested highways, ports at capacity and a rail system at capacity, but the other modes have a financial draw on the government. Maybe we are at the point where we have outgrown the nostalgia of a private-sector railroad system infrastructure.”<sup>5</sup>

#### **End Notes**

1. Flynn, Stephen, *Protecting the Homeland*, **Foreign Affairs**, Jan-Feb, 2002.
2. Phillips, Don, “Ride but Don't Watch,” *The Washington Post*, November 15, 2002.
3. Willner, Frank, *Digest Past Mergers First*, **Traffic World**, March 6, 2002.
4. White, Charles, *Old Wine in a New Bottle: Policy Issues for the U.S. Railroad System*, **Logistics Spectrum**, Vol. 35, Issue 1, Jan-March, 2001.
5. Willner, Frank, *Subsidize Rail Track*, **Traffic World**, January 8, 2001.

#### **Author's Biography**



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Mr. White has extensive experience advising foreign governments on transportation and infrastructure matters. He is a frequent lecturer and author on transportation policy both in this country and abroad. His writing has appeared in such journals as **Harvard Business Review**, **Journal of Commerce**, **Legal Times**, **Latin American Law and Business**, and **Logistics Spectrum**.

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