DAY 1: PLENARY SESSION

Intermodal Freight Transportation Report Card

Private Sector Perspective

Joanne Casey, *Intermodal Association of North America, Moderator*
Edward Emmett, *National Industrial Transportation League*
Timothy Rhein, *American President Lines, Ltd.*
Steven Branscum, *Burlington Northern Santa Fe Railway*
Greg Stefflre, *Rail Delivery Services, Inc.*
James Hertwig, *Landstar Logistics, Inc.*

OVERVIEW

Joanne Casey

It is a privilege and a pleasure to moderate this private sector panel on behalf of TRB and I also thank the sponsors: the U.S. Department of Defense and the U.S. Department of Transportation. We have been charged with assessing the effectiveness of various intermodal freight transportation initiatives and I doubt that 3 days is enough time to accomplish all that—we have a challenge in front of us and I think you will find the panelists are willing and able to rise to that challenge.

Our participating industry executives bring a wealth of experience and knowledge. Most of you probably know these individuals already. I did a quick calculation—there are over 150 years of collective transportation experience sitting on this panel. I say that only to tell you that these folks know this industry, know these issues, and have lived and breathed it as I have for more than a decade in terms of the current structure that we are operating under and I use the Intermodal Surface Transportation Efficiency Act of 1991 as the benchmarking for that structure.

We are actively involved in the public-private partnership issues you will hear more about throughout this conference. Although progress is evident, many challenges remain and we want to address those as well. We are here to talk about the home runs, base hits, strikeouts, and any other kind of analogy you wish to use. It is the continuing evolution of our nation's intermodal transportation system. I will not launch into specific issues, because I prefer that our speakers address them from their own modal and customer perspectives.

SHIPPER PERSPECTIVE

Edward Emmett

Ed Emmett is President and Chief Operating Officer of the National Industrial Transportation League, the nation's oldest and largest shipper association. Between 1979 and 1987, Ed was Chairman of the Texas House Committee on Energy and member of the House Committee on Transportation, and he represented the state of Texas on numerous national committees relating to energy and transportation policy. He then moved to Washington, D.C., to serve as a commissioner at the then ICC (Interstate Commerce Commission). He currently serves on the Board of Advisors of the U.S. Merchant Marine Academy Center for Global Logistics in Transportation, the Business Advisory Committee of Northwestern University's Transportation Center, and the Board of Directors of the Intermodal Transportation Institute at the University of Denver. He graduated from Rice University with a B.A. in economics and from the University of Texas at Austin with an M.A. in public affairs.

As the first speaker, I have an advantage because I get to raise all sorts of questions and then let the next four speakers answer them. One thing I love to do in life is raise the edge of tents and roll in grenades. I will try to do a bit of that today.

Each of you has a report card, a technique that I find fascinating. I joined the National Industrial Transportation (NIT) League in 1992 and the entire discussion of intermodal transportation policy from the very beginning had minimal involvement of shippers. In other words, the people who actually owned the freight, the people for which the entire system actually works, the people without whom there would be no reason for any of the carriers to exist, for the most part, were not involved, were not invited to the early meetings.

Having said that, I will tell you that the U.S. Department of Transportation today is extremely interested in shipper viewpoints and for that I am pleased. They have gone out of their way to get shippers involved. If you look at the list of participants at this conference, there are not very many shippers here. Why not? Because shippers do not care. Perhaps that sounds harsh, but the truth is shippers turn over their freight and they want it delivered in *x* days to its ultimate destination. They really do not care how it gets there, as long as it gets there in *x* days at a price they consider fair. As a result, they are not going to spend a lot of time going to conferences talking about intermodalism. It is a complaint on the one hand but a reality on the other—even if you go out of your way to invite shippers, they probably are not going to take the time off from their business to come and talk about these things, because they just expect transportation services to be there to happen. We are glad the rest of you are here to ensure that it happens.

For the most part, all modes are intermodal. I love the fight that goes on between railroads and trucks, because once you get something off a railroad (or a ship or an airplane for that matter), ultimately it is going to be delivered by a truck. We have to realize that intermodalism has always been there and always will be there.

What is the weak link in the intermodal chain right now? In my view, it is without a doubt the railroads. I recall two recent occasions when this has been pointed out—we had a conference in Dallas and a gentleman who ran the intermodal operation for one of the Class I railroads actually stood in front of a room of shippers who were angry over the Union Pacific service meltdown, and said "Yeah, but we need shippers' help because in Chicago, for example, we have a lot of shippers who want their deliveries made between 8:00 a.m. and noon and that's the worst time traffic-wise. . . ." I thought the entire room was going to erupt. They all stood up and the first one to blurt out the question said, "We don't care if it's between 8:00 a.m. and noon—we just want to know what day it's going to get there!" This has been a chronic problem with railroads—they love averages. They say, "We're down to an 8-day average transit." That's great, but in a just-in-time delivery system, if it's 12 one time and 6 another and 10 another, it may all average out the way you want it to, but that is absolutely fatal to a shipper. The railroads have to be more consistent, something you will hear from other people and perhaps from the railroads themselves. It is not the speed that matters, it is the consistency. Shippers can live with 8 days versus 6 if they know it is always going to be 8 days.

Having said that, I will now go back and say the railroads are going to be the critical piece of the intermodal transportation system in the future. We are going to continue to have highway congestion. We are going to continue to have truck driver shortages. We have to find innovative ways to move more freight. If you have 25 percent more freight, you are either going to put it on 25 percent more trucks or you are going to find a way to carry that 25 percent more efficiently. Part of that efficiency is going to have to be from heavier trucks. The railroads hate to talk about heavier trucks, but so far no railroad has picked up on a suggestion I have offered—what if we change the weight laws and the configuration for trucks if the container or trailer they are hauling includes a rail component in the move? Would you be willing to allow heavier trucks if the railroads got to carry that container or that trailer for some period of time?

We still hear the safety argument; however, in my view, the safety argument does not make any sense against heavier trucks. Everybody says heavier trucks are unsafe. But, if you put 25 percent more trucks on the highway and they weigh 80,000 pounds, are you better off than if you have the same number of trucks but they weigh 25 percent more? The answer is you do not want to get hit by a truck. If you get hit, you do not care whether it weighs 80,000 pounds or 90,000 pounds—it does not matter to you. The idea is not to get hit in the first place. I think all those who fund and talk about truck safety and heavier trucks being bad need to think about what the really safe message is, and the message is to carry the freight more efficiently.

Now I would like to talk about ports. Ports have traditionally looked at the ocean carriers as their customers. That has got to change. Obviously, they have to be nice to the ocean carriers, but more and more they are going to have to look at the shippers as their customers. Even more so, as we end up with fewer and fewer railroads, we can see a time when the railroads become the dictating force as to which ports handle what kind of traffic. For example, if you are a railroad and you serve four ports on the East Coast and you have to invest heavily in intermodal facilities, are you going to invest heavily in all four ports, or are you going to consider putting all your effort in one port—hence making that the rail connection? Guess what? That is where the ship has to go if it is going to make that rail connection. I think the railroads could actually be dictating to the ports what type of traffic they have.

The title of this conference is interesting. It is the Global Intermodal Freight Conference. We must find a way to reach out to our global partners and who are some of those other partners? We have one represented by Tim Rhein; however, we have got to find a way to get the foreign flag ocean carriers heavily involved in this process, because when we talk about global intermodalism, we have to find a way to engage the foreign flag carriers who are now very critical partners. Certainly, you have got the airfreight component, but most of us are thinking ocean to rail to truck. If that is the case, it is disturbing to hear members of congress say, "Well now we can change the rules because the U.S. flag carriers have all been bought and these foreign guys, we've got to treat them differently." No, we cannot and if we do, it is a critical mistake. We must treat the foreign flag ocean carriers as our partners, just as we do our domestic railroads and just as we do our domestic trucking companies, or we will be in a world of hurt in the very near future.

I also want to introduce the issue of new technology. Something is going to come along that is going to change everything we do here today and probably everything we do 10 years from now. Just as containerization has dramatically changed the intermodal business, there is something else out there that is going to change it again in the future. Unfortunately, I do not have a clue what it is—if I did, I would be off starting my initial public offering (IPO) and making a fortune. Despite not knowing what is going to trigger change in the future, whatever we put in place now has to be flexible enough to adjust to that unknown when it happens; otherwise, we will find ourselves locked into old technology when the new technology arrives. We cannot afford to let that happen.

We are already seeing the impact of e-commerce. If you want to really understand e-commerce, those of you who have teenagers or have grandkids who are teenagers or have access to teenagers, go see how the world in which they operate is run. They think nothing at all about getting on that computer and buying this and buying that and they use your credit card or mine to do it. Nevertheless, more and more is being done that way. It is changing the way we are doing business.

Let me give you one example of what I predict is going to happen. We talk a lot about rail-truck intermodal facilities. I think we are going to see more and more rail-air intermodal facilities. I see the day coming where, just like you have unit trains of coal running out of the Powder River Basin, you are going to see unit trains of containers running out of Los Angeles–Long Beach, out to the middle of nowhere where there is an air strip. It is going to go straight from the train to FedEx, United Parcel Service (UPS), all those final delivery systems because the one piece of the e-commerce that we do not appear to have a good handle on yet is the fulfillment of orders, and that is going to happen. There is no reason for those goods to be carried all the way into a major city, put in some warehouse that may be owned by Amazon or whoever, and then taken out of that warehouse and transferred somewhere else. They can go directly to one intermodal facility; it will be rail-air.

The exchanges will obviously shape the way we make decisions in intermodal transportation. What do I mean by an exchange? Well, at least twice a week somebody new comes in and says, "I have a new dot.com and it's going to allow shippers to match up with carriers." I say, "Oh, an exchange," and they all say, "No, it's not an exchange—we're a value-added product." I try to get them to explain what makes them different from an exchange or an auction site, and I have not gotten good answers yet. But, whatever we want to call those people, they are out there and more and more that is how business is going to be done. I do not know which ones will survive, which ones will be the good ones. But, those will dictate also the selection of carriers, and selecting carriers determines a lot about intermodalism.

Briefly, back to the global nature of this conference. The NIT League, which has always been a domestic organization, will soon launch the Global Shippers Network. You will be able to go on at no cost, click on the area of the world you want, and hit the icon; you can go find out who represents the shippers in that area. If you want to find out the regulations for a particular country and we have access to them, you can get that. All of that is going to be done. Why? Because today, shippers are truly global. That is why the title of this conference is about global intermodalism. More and more we find a decision made by J. C. Penney in Plano, Texas, has a ripple effect all the way over to Thailand where the sourcing occurs for whatever it is that is being bought. In fact, when a retailer signs up with Standard & Poors or some similar outfit, that has an effect that goes all the way back into Asia. What happens if suddenly we start sourcing more from Africa instead of Asia? That is going to have an effect on our intermodal system because then you are going to have all these containers coming from a different direction that you have not had in the past. Everything is going to be interrelated. These types of conferences are good and that is why I definitely wanted to be here.

In closing, let me say that I look forward to the day when we really do not have conferences on intermodalism. Instead, we have conferences on freight transportation and everybody just understands that is intermodal.

Ocean Carrier Perspective

Timothy Rhein

Timothy Rhein is Chairman of American President Lines, Ltd. (APL). From 1995 to 1999, he was Chief Executive Officer and President of APL, Ltd. In his career at APL, he served as President and Chief Executive Officer of the company's domestic freight operation, APL Land Transport Services, which includes North America's most extensive doublestack container train network, a large intermodal marketing company, and an automotive logistics company. He also served as President and Chief Operating Officer of APL, which was one of the world's largest shipping lines providing ocean and intermodal container transportation services in Asia, the Americas, Europe, and the Middle East. Other key APL positions Mr. Rhein has held during his career include Senior Vice President of Marketing and Logistics, Vice President–North America, Vice President–Logistics and Vice President–Marketing. Before joining APL in 1967, Mr. Rhein was Captain in the Army Transportation Corps, where he served in Germany, Vietnam, and the United States. He was awarded the Bronze Star for his service in Vietnam and is a graduate of the University of Santa Clara; he has done graduate work at the College of William and Mary.

Intermodalism is a subject that our company and I personally have been very deeply involved in for more years than I care to admit. APL's history with intermodalism goes way, way back, even to the 1960s with the inauguration of overland common points—there probably are not too many here who even know what that is, so I will not go into it. It is old history.

In the 1970s, more innovation came out of our company, such as the liner trains and the interior point intermodal. In the 1980s, of course, the doublestack train was introduced by APL. The history is evident. And in the 1990s, we had the inauguration of the on-dock rail terminals. The one right down the street here in Los Angeles is the largest and finest and most sophisticated in the world. It allows three full doublestack trains to be simultaneously loaded and discharged, thereby eliminating a tremendous inefficiency in the supply chain—namely, the transfer from ocean terminal to the rail system.

Technically, all modes are intermodal. We have always acknowledged that. But, in our world, the carrier world, our primary concern is the connection with the railroad system. When we talk about intermodalism, that is where most of our focus is and you will find that many of my comments relate to that.

Our company is arguably the largest container-carrying company in the Pacific. We handle over one million 20-ft equivalent units (TEUs) per year in and out of the United States, 60 percent of which are what we call intermodal in that they use the U.S.–Canadian railroad systems. Using intermodalism, particularly in the eastern part of the country, saves 7 to 10 days in total transit. As any shipper will tell you, you can figure out what that is worth to you very quickly—just in terms of carrying cost. Intermodal is a time saver, but, as noted earlier, our biggest challenge is service reliability. We must respond to the needs of the shippers as we know them and recognize first and foremost that they are looking for a seamless process. They want to know what capacity we are going to have, where we are going to have it, what condition it is going to be in, and how we are going to keep them informed. The intermodal network is part of our network.

We expect strong growth in international trade, and if you look beneath the surface of what is fueling the American economy today in terms of consumption, you have to get beyond the IPOs and the Internet. It is the availability of cheap goods, primarily from Asia, that are being consumed in this country that is fueling our economy. That is where ocean shipping comes into play. It is the largest business in the world—roughly a $4.0 trillion business by container ship alone. The supply chain represents about 15 percent of that, give or take. In short, there is a huge amount of money that is spent globally on what we call global transportation, which includes intermodalism.

In terms of capacity, we are being asked to stay ahead of the market, stay ahead of the curve, and continue to invest in the hardware and software of this business. As you heard from the military, they would like us to provide the equipment. I don't blame them—everybody else does. They want it to be clean with no holes. They want the network to provide service everywhere and at the same time—it has to be fast, frequent, and reliable.

At the same time, we are supposed to do this for next to nothing, and, in reality, we are one of the cheapest bargains in the world. Our service represents less than 2 percent on the average of the retail value of the goods that we carry. It is important to note that we do carry retail goods. We are not carrying coal or grain or lumber or automobiles. We carry the stuff you find at Target, Wal-Mart, and Safeway.

Our customers, of course, are interested in safety and the environment—we all are. But they also view ship accidents as a negative and derailing as a negative. This is an area where we have some synergy with the railroads. We do not view either one as an act of God, although one could argue that a storm in the North Atlantic that knocks 10 containers off a ship could be—but nonetheless, we are looking at it as something we can prevent.

We are also being asked to reduce pollution, particularly on the West Coast of the United States with the discharge of ballast. There is also a call to reduce or eliminate congestion (much of it blamed on trucks) on the highways of the Los Angeles basin—our response has been to eliminate thousands and thousands of truck moves by loading trains on dock. In our view, more and more trucks on the Interstate highway system is not the proper use of the Interstate highway system. Freight should move across this country on trains—not on single or double-driver trucks going 2,000 mi to deliver a load. A lot of it happens, and a lot of it happens because of the service reliability issue.

Another part of the seamless process is information and we could spend a lot of time on that. Clearly, we need to simplify the information exchange. We have government agencies that are causing a roadblock at the ports—this includes Customs, the Department of Agriculture, and in some cases the Department of Commerce. We have to get to a point in our sophistication where we are guaranteeing delivery, much as UPS and FedEx do. You will not find anybody in our industry willing to do that and the reason is that we do not control the whole process, and even when we do, we do not do it as well as we should. We need to capture information once and early in the process. We have the capability of capturing that. For example, we have 30 offices in China. You will not find anybody in the United States who has 30 offices in China. This gives us the capability to capture import information at the earliest possible step in the process. But, I have to tell you, we have to enter it, and reenter it, and rework it many, many times before it is finally in the hands of the importer on the shelf, and that is because our systems and our intermodal modes do not connect well.

Our customers do not want to carry inventory. They want to eliminate the paper and do Internet to Internet or computer to computer. They want freight to arrive just in time. They do not want to rehandle it and they do not want it misrouted. A lot of our corporate customers really want to stick to their core competencies. If they make shoes, that is what they want to do. They want to outsource a lot of the transportation and logistics functions and there are third-party providers and now fourth-party providers, and there are a lot of transportation companies with assets that are doing logistical work. We are one of them.

I have talked a lot about what we think the shippers want and need. The carriers also want to reduce costs and improve productivity. There have been tremendous innovations in this business. We now are building 8,000-TEU ships that are too big for the Panama Canal. That is another innovation of our company and it is now the standard in the industry. We are building intermodal on-dock rail terminals that I told you about—the one down the road here is 260 acres—the largest in the western world. Rates have been reduced by over 100 percent in the past 15 years because of productivity and technology and efficiency. But the weakness on data, including computer transfer, is because we have no standardized systems and again, as I mentioned before, we use different codes and different connectivity.

Standardizing the cargo movement with the railroad movement with the truck movement, and interchange agreements and even liabilities among the modes, remains undone and is a critical need for the future if we are really going to build an intermodal system in this country for the 21st century.

We also need to eliminate the inappropriate tax regime. We are being threatened with a harbor tax for dredging. In our opinion, that is an improper application of taxation against the carrier. This is a public policy issue and an infrastructure issue, and the dredging of the harbors serves everybody—not just the carriers. If you witness the size of international freight that comes and goes from the United States, again safety and environmental issues speak for themselves and we want to link the modes. Frankly, the carriers, like APL, that have these 30 offices in these foreign countries that are manufacturing the goods want to be able to control and document the entire move to the consignee's doorstep, or actually to the shelf in his store if we can. That is the direction in which we are going.

The community has needs as well. Reducing congestion, saving fuel, reducing emissions—we understand this. We also want to recognize that reducing the wear and tear on the roads, including the Interstate highway system, is a priority. Therefore, I am not sure I agree with my cohort Ed Emmett on allowing heavier trucks. I would rather see more of this freight move on railroads and less on the highway.

Furthermore, infrastructure needs to be developed, but not just for highways. Most of the comments that I have heard today talk about development of highway systems and bridges and expansions of the Interstate highway system. The connections we have here in Los Angeles are a good example.

Improved economics attracts business. The ability to have improved economics for a shipper or a customer requires an efficient operation and that is why communities have an interest in fixing and improving the existing system, again supporting business needs, which in turn provides new sources of taxation.

Let me talk about successes that we have seen over the past 10 years. We have already talked about on-dock rail. This is a tremendous opportunity—APL ships 60 percent of its freight intermodally and about half of that goes through the port of Los Angeles. The tens of thousands of truck moves that are not taking place today that are not congesting your highways in Los Angeles, that are not threatening accidents, that are not emitting the fumes that gave Los Angeles its reputation for smog—on-dock rail is a tremendous technological change. The Alameda Corridor—I never thought it would succeed and I am happy I was wrong—it is a tremendous example of a joint effort among the federal government, the state government, and the ports of Long Beach and Los Angeles. That is where we see the future—in connections like that. Eliminating trucks, eliminating congestion, and cutting the cost out of the intermodal process, and, of course, information technology. I also want to note the tremendous success we have had in cooperation with the U.S. military—with military traffic management command, the military sealift command, and the U.S. transportation command.

I would like to also mention the need for establishing some successes in the intermodal connections, which for APL is the ocean-rail connection, that I do not believe has a high enough priority with this group. We need federal funds for improving intermodal access. We also need innovative financing, low-interest loans, or tax incentives to stimulate intermodal investment.

Other successes include the deregulation of the shipping industry, a subject we could talk about for hours. Bear in mind that we are now signing individual confidential contracts that discriminate between shippers. That is a tremendous change from the Shipping Act of 1984, where everything was controlled by cartels and there was no negotiation whatsoever. We did not even have service contracts until 1984.

There are some new inland terminals the railroads have built, and I take my hat off to them for that. That is good and we need more. Productivity is up and, as I mentioned earlier, we now have 8,000-TEU ships. Thirty years go, the biggest ship was 800 TEUs. Now ships are ten times bigger. At the same time, the 747 is still the 747, and a railcar is still a railcar.

In summary, the intermodal product is still a good one. We market it more than anybody. We work very hard and spend a lot of money and do a lot of unnecessary things to make it look good because it is our livelihood. But there are failures. The Department of Transportation (DOT) structure—I read the report from 1994—one of the strong recommendations was to eliminate the modal strength of DOT and create an office of intermodalism. That has not really happened—the office is there, but with all due respect to Mr. Van Beek and his staff, it has been invisible. What happened to the original recommendation? Regulatory paperwork still clogs and slows the system. We do not tie in Customs or Agriculture or Commerce or anybody else. We have not achieved any U.S. labor synergies. We have strikes with a contract where there are no strikes, we have resistance to automation on the waterfront and modernization, and we work only 4 hours in the morning and 4 hours in the afternoon and 4 hours at night. The rest of the world operates on 24/7. We still have railroad crews changing crew in the middle of nowhere because we achieve a certain number of miles. These are just a few examples.

Finally, the failures—in my opinion, the railroads are still inadequate. They are not building the network for the future. They only react. They invest billions of dollars in buying each other, which may be a good investment, but that puts tremendous pressure on them with the heavy debt load and shareholders who want to see returns quickly—not 10 years from now. So, I am somewhat sympathetic to their dilemma. Intermodal is really not a high priority for most railroads. I will take my hat off to Burlington Northern Santa Fe, they appear to prioritize it more than most. But, nonetheless, most railroads treat it like added traffic. The difference is that intermodal is high value, high reliability, requiring cargo handling, and the railroads must differentiate intermodal freight from coal, grain, and chemicals. The requirements of the business are entirely different. The value of the business is entirely different. If we are going to succeed with intermodalism, that connection has to be made. The leadership can come from this group and that is why I am very pleased to have had the opportunity to address you today. Thank you very much.

RAIL PERSPECTIVE

Steven Branscum

Steven Branscum is Group Vice President of the Consumer Product Business Unit of Burlington Northern Santa Fe Railway. He began his career in 1980 with the former Santa Fe Railway in the industrial engineering department, where he held various positions in Texas and Kansas. In 1989, Steve was named General Director of the Intermodal Planning and Control Unit in Chicago, where the intermodal business unit was actually formed and he was later appointed to the position of Assistant Vice President of Intermodal Hub Operations. He received his B.A. in industrial engineering from New Mexico State University and completed graduate studies at the University of Missouri and Washburn University in Topeka, Kansas.

I am pleased to address this group about intermodalism from the rail perspective. A couple things—I think I disagree with most of the issues raised by Ed Emmett. I agree with most of the issues that Tim Rhein raised, with one or two exceptions. I will address most of these issues in my formal remarks and, if not there, during the question and answer period. I will try to be a little more upbeat about the intermodal industry, particularly the rail side of the intermodal industry because I think there are some real success stories and some real positives that need to be presented.

From the rail side, I think the intermodal business is one of the rail industry's brightest spots. In recent years, it has really been the growth machine for the industry and I think it will be even more so in years to come. It has already reached a very substantial level today. In 1999, intermodally, we moved over nine million loads of freight in the continental United States. That is one load every 3.5 s—when a truck or a trailer is taken off the highway and moved in line-haul service over the rail system. With that kind of volume out there and the growth that has gotten us to that point, shippers are clearly demonstrating momentum toward intermodal for a multitude of reasons.

Why are we seeing this growth? Why is intermodal the growth engine of the rail industry? Why has it grown to the level it is today? The cost differential between an intermodal move and a pure truck move is significant and is one of the major reasons shippers move more and more toward intermodal. They see true value in the intermodal product. Today, the difference in highway rates and intermodal rates is somewhere between 15 and 30 percent. There are a number of factors that determine what the difference really is. The single largest factor is probably the length of haul and, in general, the longer the length of haul, the greater the savings. As far as service reliability, customers want consistent service and times that are competitive with trucks. As Ed pointed out, service is not what it needs to be. I think he was speaking more to the carload side of the business than intermodal, but I realize there have been intermodal problems as well.

Let me give you a few service facts about the intermodal service on the Burlington Northern Santa Fe (BNSF). In 1999, we handled over three million intermodal loads—a third of those were handled in the United States and on all those loads we averaged 90 percent on time. If you dissect those three million loads into some of the different market segments that we deal with, particularly the service-sensitive end of the market, the less-than-truckload (LTL) shippers and the partial shippers, we were over 95 percent on time with these shippers during 1999. If you take that segmentation even a step further, for UPS, our largest customer in 1999, we handled almost 400,000 trailer loads of freight and we were over 99 percent on time with those loads.

Let me offer a couple examples that speak to the service reliability and consistency. In the middle of last year, we introduced a product called Ice Cold Express, which is an intermodal product—it is a RoadRailer service that is targeted to perishable or temperature-controlled freight. In the past 20 weeks, we have been ahead of schedule or on time, moving over 2,000 loads of perishable, temperature-controlled freight 100 percent on time or better. A recent press release highlighted the fact that BNSF recently received an award from Anheuser-Busch for moving their loads for over 1 year service failure-free.

To give you an idea about the competitiveness of intermodal schedules relative to truck, the length of the schedules is not driving those high on-time percentages. Chicago–Los Angeles is the key intermodal lane on the BNSF, the highest-volume lane. In that lane, we offer a third-morning, a fourth-morning, and a fifth-morning product. We are very reliable with those products. In a shorter-haul lane, like the Chicago–Dallas lane, we offer a second-morning and third-morning product. We are even handling a fair amount of airfreight in our intermodal world. One of the speakers offered a quote by Fred Smith saying that the future of airfreight is on the ground. I think that is true and we are handling a larger and larger amount of freight that is sold as an air product but moving not only on the ground but on the rail.

I also want to mention some of the other benefits to intermodal. Intermodal is environmentally more friendly than truck. It consumes less fuel, produces less pollution, and reduces highway congestion and wear and tear on the highway infrastructure. As far as capacity, there is a big benefit to intermodal that I do not think gets a lot of attention—specifically, that is the ability to move large volumes of freight in any given time. When the 8,000-TEU megaships call on ports and discharge thousands of units at a time, there is absolutely no way that freight could ever be handled exclusively by truck. It is impossible to deploy the number of drivers and tractors to do that. It has to move by rail. Similarly, again responding to comments from a previous speaker, when there is a need to deploy large volumes of freight for the military in short order, that type of movement can be handled only in a rail environment. These are but a few of the benefits; however, the bottom line is intermodal on rail is much more flexible than traditional rail and it provides a much better value than a pure highway move.

There has been steady growth in intermodal in the continental United States over the past 10 years—about a 4.5 percent compound annual growth over a 10-year period. Another factor on a longer time frame than this is that for 17 of the past 18 years, the intermodal industry has set new volume records. The only year that there was a decline in volume was 1994–1995. With that one exception, we have had nearly 18 years of record-breaking volumes.

What is driving the growth? There are many factors that drive the growth, but one of them is improved intermodal networks. I know there is a lot of controversy surrounding rail mergers and the problems that they cause, but they do, in fact, create better intermodal networks, where more single-line routes can be offered and more truck-competitive services provided. With respect to shippers, Tim mentioned the demand, that retailers and others in need of transportation services are looking for lower-cost alternatives in transportation. They are continually looking for better service, or at least consistent, reliable service at a lower cost. That is driving them toward intermodal. On top of that natural drive that exists, there are driver shortages in the trucking industry and rising fuel costs that are adding to the high demand for intermodal services. Last, but certainly not least, as our logistics business matures and the transportation infrastructure in the United States matures, there is a rationalization of freight to the most efficient mode. This is driving more and more freight to an intermodal-type move that involves ocean, rail, and truck.

What are the keys to sustaining the growth that we have seen and actually improving upon it and dealing with some of the service issues that do exist? Well, service is a given. Service has to be there. It has to be consistent and reliable. Not only does it have to be consistent and reliable, but I think it has to be provided in a more differentiated manner. I think the key players in intermodal transportation—the ocean carriers, the railroads, the trucks—have to work better together to customize services for particular segments of business. For instance, airfreight moving on a ground environment. They not only have to customize services for segments of business, but in many cases, for individual shippers.

With respect to supply-chain integration, historically rails have been involved only in moving raw materials to manufacturing plants and moving products to distribution facilities. However, as the product becomes more reliable and there is more and more demand for lower-cost alternatives, shippers are using intermodal services for moving merchandise direct to store, vendor direct to store. Railroads are getting more and more involved in the supply chain. All the major forces in the intermodal world—the ocean carriers, the trucking community, the rail community—need to work together in a more cooperative manner to make intermodal moves and mode integration more transparent to shippers.

Thus far I have talked at an industry level and I would like to talk a little bit more specifically about BNSF and how it fits into the intermodal world. Last year, we moved 3.2 million intermodal loads, distributed across really three market segments. We moved about 900,000—almost 1 million—loads of very service-sensitive freight for the LTL and parcel industry. We moved slightly more than one million loads of full truckload freight, and we moved about 1.3 million loads of international freight, import-export freight, in conjunction with our ocean carrier partners. We are the only railroad that really provides differentiated services for these different market segments and we market to these four diverse market segments: (*a*) the LTL parcel; (*b*) the asset-based truckload carriers like J.B. Hunt, Schneider, Swift et al., and also intermodal marketing companies or brokers that primarily get involved in the transportation of full truckload dry product; and (*c*) the international steamship lines or ocean carriers. As you consider these different market segments and how I have described them, with the LTL and the full truckload, we are dealing in a wholesale environment. We are dealing with other carriers.

Ed made the point that shippers were not involved a lot in intermodal transportation. He also made the point that they do not want to be. They just want the service to be there and I understand that completely. However, I think it is critical that they become more involved in intermodal transportation, to ensure on the one hand that we, the carriers, have a clear understanding of what their needs are and, on the other hand, that we are able to educate them about the considerable capabilities of the intermodal network and the benefits of using intermodal. I think the more they become involved, particularly in the buying decisions they make, the more and more they will gravitate toward an intermodal product.

Tim mentioned investments made by the rail industry and we have certainly been the leader in that regard. Since 1996, BNSF has spent between $2.2 billion and $2.5 billion a year to partially maintain, but more importantly to expand, the infrastructure in our rail network and to significantly increase the number of assets we deploy for all types of rail services, including intermodal. For example, BNSF spent $265 million in the past 4 years on intermodal facilities, including building five new intermodal facilities in the past 7 years—one in the Dallas–Fort Worth area, one in Chicago, two in southern California (San Bernadino and Los Angeles), and one currently under construction in northern California (Stockton). BNSF is not alone in investing in intermodal. The Norfolk Southern has recently built, or is in the process of building, facilities in Atlanta, Bethlehem, and Harrisburg. The CSX has built or is in the process of building new facilities in Atlanta and Chicago. There is considerable investment in the intermodal product by the rail community.

There is also a fair amount of joint public-private sector funding of intermodal projects, the most significant being the Alameda corridor. There are several metropolitan planning organizations (MPOs) making significant strides toward an improved intermodal infrastructure. One is a joint public-private project in Chicago that happened to affect one of our intermodal facilities, the largest intermodal facility we have in the Chicago area. The primary road structure that accesses that facility is Kedsey Avenue. Historically, it has been a very busy thoroughfare because of the truck traffic in and out of our intermodal facility and also the normal ground transportation of the passenger vehicles. It was a very congested street to get down. A project was developed and funded to include street widening, addition of turning lanes, and installation of stoplights at the entrance to our intermodal facility, all of which have resulted in improved traffic throughput, both for automobiles and for the trucks entering and exiting our facility. These investments have been made for two principal reasons: to improve service levels and to build infrastructure that will enable growth of the intermodal product.

How have we done? Examples of volume improvements and growth of intermodal product on the BNSF system include the following key lanes: Chicago to California is up 49 percent in the past 4 years; Texas to California is up 56 percent; Chicago to Texas is up 54 percent. If you take all lanes together, it represents 52 percent growth in a 4-year period.

While experiencing this significant growth, we have also substantially improved on-time service. In the 3 years from 1997 to 1999, we improved the service from slightly below 80 percent on-time performance to slightly over 90 percent in 1999. Another fun fact about service reliability—one of the things UPS has done for the rail industry—is to really energize them to do new things, meet new thresholds in terms of service. They have challenged all the railroads that handle their freight to have extended periods of time or streaks of handling freight for them with no service failures. In 1995, Conrail had a streak of 61 days without a service failure for UPS and that record holds today. During that 61 days, they moved 35,000 units. As I stand here today, BNSF is on our 96th day of failure-free service for UPS. We have moved over 105,000 trailers in that 96 days and that represents 120 million packages that we have helped UPS provide to their customers service failure-free. I think that is evidence that intermodal service can and does work.

I would like to wrap up and talk about how we can improve upon the successes I have described. There is plenty of room for improvement. There needs to be improved mode integration between the major entities that provide these services—the ocean carriers, rail carriers, and truck carriers. Often, it is simple things like getting all the carriers that get involved in these services to utilize electronic data interchange. We need to continue to invest capacity in the infrastructure, but, more importantly, I think we need to look at technology, work simplification, and process improvements, because there truly are great opportunities for improving the product; we also need to look at getting more throughput—moving more freight without continued investment in the infrastructure, although ultimately that has to happen as well. There also needs to be continued coordination between the private and public sector for more projects like the Alameda Corridor and the CATS project that is going on in the Chicago area.

In closing, I think the state of the intermodal freight industry is solid. The growth I described for you and the successes in service have been driven much more by the private than by the public sector. But I think that is the way it is supposed to be. However, I think the public sector does play an important role and I think it has provided a positive role in helping intermodalism move in the right direction. The future of intermodal is bright and I expect to see continued strong growth. Thank you.

MOTOR CARRIER PERSPECTIVE

Greg Stefflre

Greg Stefflre, Esq., is nationally known as a transportation attorney active in both legal and freight transportation circles. In private practice in LaPalma, California, Greg represents clients in connection with deregulated transportation issues—an environment we have all learned to play in since the 1980s. He also handles multimodal transportation and business and legal aspects in the use of independent contractor fleets by transportation companies—something that is a growing concern and interest to many of us in this industry. Greg is a founding member of the Board of Directors of the Intermodal Association of North America and he is currently a member of the American Trucking Associations Executive Committee. He has served as past Chairman of the Intermodal Conference of the American Trucking Associations. He is a member of the Good Movements Advisory Committee of Southern California Association of Governments and was a member of TRB's policy committee that studied and reported on impediments and opportunities in intermodal marine container transportation. He frequently lectures at colleges and universities, speaks at freight conferences, and testifies before congress and the California legislature on multimodal issues. He also has written numerous articles and was one of the lead witnesses in the overweight container hearings that were held in congress.

My interest here today is to tell you that freight transportation is all about execution, but you cannot do it without capacity. Nothing that has been said today has, in any way, given you the clear and absolute statement that we are in deep trouble on capacity in this country. We are not going to keep the economy moving without greater capacity and all the words and all the wonderful thoughts and all the government acts are not going to do that. In a trucker's view, that means drivers. Although Ed Emmett said every move is, in a sense, an intermodal move, the reality of life is that every move involves drivers. One way or the other, if you got it, a driver brought it. We cannot meld any more drivers. All Jim and I do is trade drivers together. We are not going to get them any more with a 4 percent unemployment rate. It is not going to happen. How do we solve the problem? Real simple—we have to develop productivity. Are we talking about how we can do that? This is tough productivity.

In fall 1998, the intermodal rail system in this country almost froze. There are some who argue that, in fact, it did freeze, but the reality is we reached capacity in fall 1998. The over-the-road trucks barely, and I mean barely, were able to hold it together. Even though they moved every extra load they could possibly move, we still left a ton of freight here on the West Coast. If we ran out of capacity in 1998, how do we square that with the projections by the Asia–Pacific Economic Cooperative (APEC), which suggests that, by 2007, we will nearly double the number of truckloads moving out of the ports of Los Angeles and Long Beach on a weekly basis? Today, we move approximately 125,000 truckloads out of the ports of Los Angeles and Long Beach on a weekly basis. If you take the APEC numbers, which are projections based on a huge sustained economic international growth curve, we are talking about 200,000 to 225,000 loads. Folks, we do not have the drivers to move them. We do not have the physicality to move them. More importantly, even if we had the physicality, we do not have the drivers. We can always buy trucks. We can always buy track and trace. We cannot buy drivers. We have to increase productivity. Ports can no longer afford to have only a 6-hour day, 5 days a week open hours to landside access. We have to move freight on a 24-hour a day, 7-day a week (24/7) basis and neither ports, nor any other terminal, nor any customer can afford to say our receiving hours are 4 hours, 3 days per week. It is not going to happen because their freight will end up sitting.

What do we as a group have to do? What does TRB have to think about? Well, I can guarantee you that, from my perspective, TRB must concentrate and the government must concentrate on trying to figure out how to take the public sector and get them to cooperate on defining how to resolve productivity issues. Those are hard issues. The opinion of many in the market is that we are at 75 percent of total land transportation capacity in this country. The last 25 percent is the hardest 25 percent, because invariably that 25 percent is dramatically, and in many cases negatively, affected by labor agreements that cannot be easily changed or worked around. What does that tell us? How do we meet and how do we sustain this economic growth? I do not know—somebody smarter than I has to figure it out.

We say capital investment is important. BNSF made a huge capital investment on triple tracking and increasing system speed. How did the public market react? They knocked the stock down to the floor because nobody likes capital investment in freight transportation. When you look at the transportation index on the public boards today, and it is not because the companies are not good—they're great—it is because nobody likes capital investment. Then who is going to make the capital investment? Who is going to offer incentives to private business—businesses run based on how their stock runs—to make capital investments that are necessary to expand capacity? I do not know, but my best guess at the moment is that it is going to have to be the government.

Ultimately, productivity is the only answer. We have to find a way to increase productivity and I have just a couple simple suggestions that may or may not ever be realized. First, every core intermodal terminal in this country that pushes freight through must work on a 24/7 basis. We can no longer afford to have limited hours of work. There must be a process, and the government must be actively involved in this at a federal, state, and local level, of giving shippers and receivers incentives to ship and receive in off hours. There has to be a way to do that. They must be incited. I am not sure what that is—maybe a negative incentive. Maybe it is an environmental issue, but they have to do it. We have to take high-volume intermodal terminals and we have to get them out of this crunched urban environment. You look around here—look at the rail yards in southern California. Try to figure out how you get from here to there.

We have heard about the Alameda Corridor—let me quickly give you my bad news about the Alameda Corridor. The Alameda Corridor was perceived originally and conceived to take all rail traffic and all truck traffic and put it in a single, non-grade-interrupted run from here to Los Angeles—right? What was the first thing that was dropped out of the Alameda Corridor? Trucks. Trucks were knocked out of the Alameda Corridor. Now we are moving trains on it. I am not impressed by that. If my tax dollars went into \$1.4 billion or \$1.8 billion of asphalt moving, you are not going to see any change in the Harbor Freeway or the 710 Long Beach Freeway because of that project. To me, it is a terrible waste of money. That is just my opinion, for what it is worth. We have to find some way to knock off the bunching of freight shipments and find some way to reduce the amount of unloaded past miles. It is all about data—sharing data among the parties and they just will not do it voluntarily. Thank you.

Intermodal System Planning Perspective

James Hertwig

James Hertwig is President of Landstar Logistics and Landstar Gemini. He is also Executive Vice President of Landstar Systems, the parent company. Landstar is a transportation services company that operates one of the largest truckload carrier businesses in North America. Before going to Landstar in 1995, Jim was President and Chief Executive Officer of Carolina Freight Carriers and the Chairman and Chief Executive Officer of Red Arrow Freight Lines. He serves on Florida's Intermodal Freight

Task Force and is Chairman of the Highway Subcommittee and a member of the American Society of Transportation and Logistics and the Transportation Research Board's Policy Study Committee on Freight Capacity for the Next Century. He was also recently appointed to the Foundation for Intermodal Research and Education, the policy research arm of IANA.

I was asked to provide an assessment of how effectively public agencies have responded to policy, planning, and research and development challenges within the private sector and how freight moves both domestically and internationally. I am not going to take the time to talk about some of the problems that have already been discussed today and I am not going to talk about trucks. I am going to talk about a success story in which industry, government, and academia came together to provide solutions.

In summer 1998, I was asked to participate on the Florida freight stakeholders task force, and in particular to be a member of the executive committee and chair the highway subcommittee. The Florida freight stakeholders task force was a result of the governor's transportation intermodal summit. The task force was to be a private and public partnership that would address the needs of Florida's intermodal freight transportation. The task force was organized into five subcommittees: rail terminals, seaports, truck terminals, and airports, with the fifth committee covering freight transportation policy. The five subcommittee and task force chairmen formed an executive committee to manage the work of the task force. Our objectives were quite simple:

1. Identify, prioritize, and recommend freight transportation projects for fast-track funding.
2. Develop recommendations for the 2020 Florida statewide intermodal systems plan that will address Florida's freight transportation interests.

First, it was necessary to establish geographic boundaries and criteria for project definition. This led to the development of the Florida strategic freight network. This network includes the Florida Interstate highway system; primary freight facilities including seaports, railroads, intermodal terminals, airport facilities, and highway freight facilities; and road connections between the Florida Interstate highway system and all the freight terminals.

The second step in the process was to develop a prioritization methodology to evaluate freight projects for freight selection. To be eligible for consideration, projects had to be located on this strategic freight network. They had to facilitate freight movement and have a public benefit-cost ratio greater than one.

Once the project became eligible, it was then prioritized with other projects using a scoring system that took into account the following criteria: benefit-cost ratio, stage of development and environmental compliance, time to complete the project, current level of service, safety rating, neighborhood impact of the project, and finally current freight volume.

The Florida legislature appropriated $10 million to fund a pilot fast-track program for freight projects recommended by the freight task force. To identify these projects, the Florida DOT identified freight projects currently existing in the public sector work programs. In addition, the task force solicited applications for fast-track funding from the task force members, MPOs, ports, and airports. The response included 17 projects totaling $101 million. The task force recommended six projects for the limited $10 million in resources. All these projects have received funding and are moving forward for completion. In addition, five projects representing $72 million were considered highly worthy and were submitted to the newly established Florida DOT fast-track funding program.

To meet the second part of our objective, the task force recommended the following for inclusion in the 2020 Florida statewide intermodal system plan:

- Establish the Florida strategic freight network as part of the intermodal systems plan;
- Adopt the Florida freight stakeholders task force process for prioritization and selection of future freight projects;
- Establish a Florida freight advisory council within the Florida DOT;
- Establish freight mobility committees in the largest MPOs;
- Create a Florida freight project investment bank to fund freight projects; and
- Fund research, planning, and productivity studies.

I am happy to report that all these recommendations are moving forward with the necessary legislation. In conclusion, the blending of private sector and public sector professionals within the task force created an effective team for dealing with the freight transportation issues. I learned valuable information about the MPO process and have a better understanding of some of the inherent political and planning constraints that our public sector representatives must overcome, such as "freight doesn't vote."

I leave you with this question: "If Internet companies have forced private industry to begin thinking, talking, and now planning, in dog years (7 human years to a single dog year), when will the government recognize that current planning processes will some day have to further change?" Thank you.