Terminals Panel

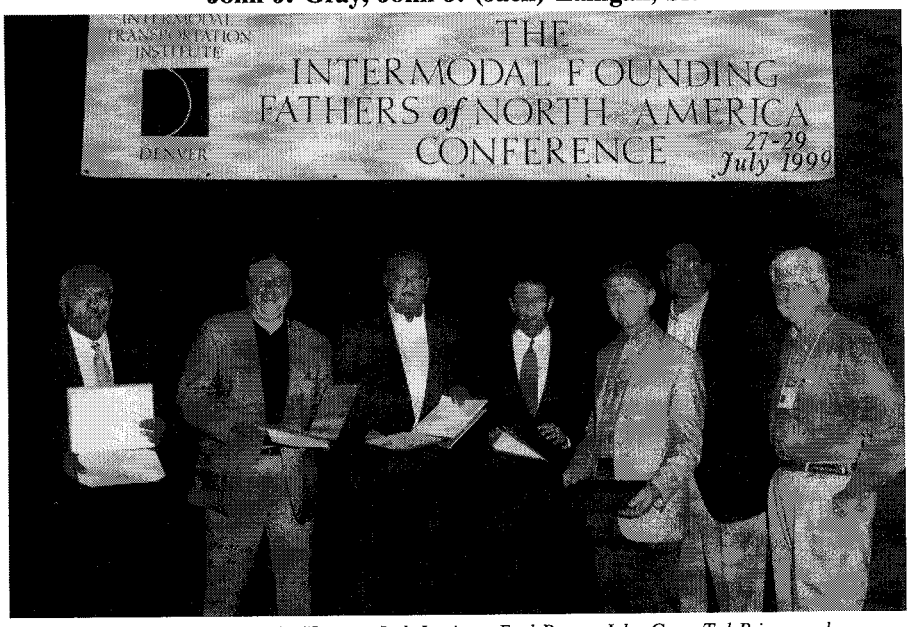
Michael R. Haverty, Moderator

ITI Board Member
President and CEO
Kansas City Southern Industries

Since I have been in the management side of the railroad business, I have always been told that the way you make money is to fill up capacity on the railroad. I certainly understand this because there is not a continuous movement of trains on most main line tracks and, therefore, there is additional capacity. But, the real constraints on a railroad are at the terminals, both in the switching yards and in the intermodal yards. In the intermodal yards over the years, railroads have been dragged kicking and screaming into the intermodal business. We took weed-infested yards and paved over them, put rock over them, sometimes mud. We used these as the intermodal facilities to start a business that was supposed to be competitive with trucks. We have come a long way since then. Here are the men who have really lived through the transition period of intermodal terminal operations.

PANELISTS

Raymond F. Ascencio, Fredrick E. Boone, John J. Gray, John J. (Jack) Lanigan, Sr.



(Left to right) Ray Ascencio, Mike Haverty, Jack Lanigan, Fred Boone, John Gray, Ted Prince, and Gil Carmichael.

Raymond F. Ascencio
President
TransMex/USA, Inc.

My 40 years in the intermodal industry can be broken into four phases. The first phase was my years at Forty-Seventh Street in Chicago, where I started on the old Pennsylvania Railroad as a clerk and worked my way up to terminal manager. The second phase was my years on the East Coast—the years during the major snowstorms and the ILA strikes in the East when Roy Hayes sent me to the East Coast for two weeks. I spent 17 years there, until 1977 or 1978. During that time, I went on to become the general manager of intermodal terminals for the Pennsylvania Truck Line, which was the manager of Conrail's terminals. The third phase was my years with K Line and establishing its Rail-Bridge Corporation, which became, at one point, the largest, privately owned doublestack operation. We had our own facility on the East Coast at Port Elizabeth, which was billed as the only privately owned facility that was able to handle 44 doublestack cars at one setting. The last phase was my years in Mexico. While still employed with K Line, I was asked to consult and assist the Mexican railroads in establishing intermodal. Over the last 10 years, I have devoted my energies and my expertise trying to establish intermodalism in Mexico at the request of the Mexican Government and the Mexican railroads, which were one and the same at that time. There were no recognizable intermodal terminals in Mexico of any shape or form.

Terminal Operations

To me, terminal operations probably have been the most neglected part of intermodal over the past 40 years. You can move the train from one point to another. You can add all the traffic that you want. You can doublestack it, single stack it, but if you can not get it off the car or if you can not get it out of the gate, then you have failed in offering your customer the complete service. I believe that every terminal manager and the work force, from the clerk on up, should be trained in how a terminal should be run. I believe that when you become a terminal manager, there should be no job that you could not do in the terminal, including working with the trainmasters, working with the operating people, driving the trucks, and operating the cranes. All of these things are basic points that, somehow, we have forgotten. These are basics that we have to return to if we are ever going to get beyond 10 million units and handle the business effectively.

Infrastructure is the single most important element of good terminal operations. At every position that I have had, in every terminal that I

have been in, I have found that a strong management force that understood what the common goal was, and how it should be attained, had a higher ratio of success than the ones that did not.

Good terminal operations start with management. I believe that the old adage, "too many chefs spoil the soup," applies also. One terminal manager, whether he works for the railroad, a rail subsidiary, or a subcontractor, must be responsible for the entire terminal operation. It should be his responsibility to coordinate with the rail operating department and the lift contractors to see that the loading and unloading schedules are maintained. Additionally, his responsibilities should include the knowledge of any terminal failure that adversely affects a customer's shipment. Terminals with more than one manager, with managers having overlapping responsibilities, end up finger pointing when things go wrong. Communication becomes nonexistent, and the results are readily visible in the lifts-per-man-hour, which is how we measure terminals.

In 1959, when I started in this business, the terminal lift operator was either a subcontractor or a subsidiary. Both had union workers. The one constant was that the terminals generally had a railroad terminal manager. The terminal manager was not always a railroad employee. The office employees were either union or non-union, Teamster or BRAC (Brotherhood of Railway & Airline Clerks, now the Transportation Communications Union International). Consequently, the job of the terminal manager— keeping a labor force operating as a team—is a real challenge. I have always found when dealing with labor—and I have dealt with BRAC's top management and the Teamster's top management in every Eastern state in the United States as well as Washington DC—that if you could speak to all of the issues of terminal operations with a basic knowledge and a voice of authority, that you were able to accomplish a lot more.

The railroad still selects the terminal operator through the bid process and defines the terms of the bid. One thing that has not changed is that some railroads still think that the lift contractors are nonprofit organizations who charge too much for their services and who should be available 24-hours-a-day, seven-days-a-week. Some terminals have no railroad representation, which leads to the railroad abdicating its responsibility to the lift operator. I do not think that this is in the best interest of the carrier or the customers.

Obstacles to Good Terminal Operations

There are obstacles to good terminal operations today that we did not have in the early years. The railroad tops the list. The very entity that should be mandating and dictating policy is the very same entity that

creates many of the problems that exist in a terminal today. In talking with some of the contractors, I have found that, in general, terminal operations have not changed much in the last 10 years. The one thing that I got from all of them was that they felt the railroads constantly make changes without a thought as to how the changes will affect the lift contractor's operation or cost. At the terminal level, rail managers offer very little support to reduce costs, and, in fact, frequently request additional manpower without any compensation. In the past, a five-minute delay to a train departing from any facility in the system meant that you had to call the power desk in Philadelphia and get permission for the extension. I do not believe that exists today.

I do not know how many times and how many countless calls that I got over the years at night or in the middle of the night about a train or a problem that existed in a facility. In fact, anyone who is in this industry and is senior management knows that you did not want to call the top railroad operating people in the morning and explain why you were fifteen minutes late with a train and that included calling any customer regarding a shipment that was left on the ground. I can remember Phil Yeager calling many times in the early years saying, "Ray give me the car numbers for my trailers leaving last night." Phil was personally calling about the movement of all of his traffic.

Likewise, there was a gentleman who I think needs to be mentioned for his contribution to our industry, John Allen, Sr. He was the former assistant postmaster general of the United States and one of the modern innovators of intermodal, heading up a company called ITOFCA, Industrial Trailers on Flat Cars Association. As president of one of the largest shippers of intermodal freight in the late 1950s and 60s, it was not uncommon for Allen to get on the phone and call us tracing his shipments. He expected good service and gave his customers the same. It was men like John Allen who made this industry what it is today. When he called you, he gave a straight and truthful answer good or bad. He had an inside to the top people in our railroad, and you certainly did not want him calling up the president of the railroad.

Schedules are absolutely paramount for a terminal operator. Wages, benefits, and general liability insurance comprise more than 60 percent of a contractor's overall costs. Understandably, wages are the first thing he tries to reduce. Today's contractors generally have a non-union or union employee working at wages substantially less than the national truck rate. With the nationwide shortage of drivers, ramp operations are at the bottom of the list for employment. When you add in absenteeism, illegal substance abuse, accidents, past practices, and a revolving work force, you can see the obstacles to maintaining a 3.0 lift-per-man hour. The railroads have finally begun to budget for the needed expansion of their

terminals to allow for increased efficiency in the loading and unloading of trains. But, I question the wisdom of circumventing this by leasing out much needed parking areas to outside companies for the storage of their empty equipment.

Priorities for Good Terminal Operations

I think the priorities for terminals should be the same today, as they were 20 or 40 years ago. The private customer wants his trailer loaded on the first available train, and he wants his draymen to get in and out of the terminal with his trailer in the least amount of time. The railroad-operating partner wants the trains loaded and released on time so that they can depart on time and maintain the schedule. The contractor wants the trains to arrive on schedule, and he wants the trains to be switched onto the working tracks in a timely fashion. Everyone is conscious of safety—this must be paramount in each of our operations. The common need of all is to work as a team to service the customer. I cannot stress enough how important it is to a terminal operation that communication be maintained among all parties. It does not take long to see which terminals have a good relationship with the work force. This was a big factor in New Jersey when I went there in 1977. It was not just the snowstorm. We had 5,000 trailers, containers, and boxes stuck in New Jersey and 250 cars stuck in Harrisburg, and we were not able to move. When we got down to the bottom of it, it was not just the weather. The management force that we had in our terminals had forgotten the basics.

I think that it is important to get the information to the customer. If something has happened with a shipment, it should not be necessary, with the Internet and email, for a customer to call to find out that his trailers are sitting on the ground for two weeks, or that they have not moved, or that there is something wrong.

We have come a long way. We clearly understand the problems, but we do not seem to be doing enough with the problems that we understand. The problems that we are experiencing in terminal operations today are the same ones that we had 20 or 30 years ago. We have studied terminals to death. There is no need to study them anymore. We already know that there are not enough gates. We already know that you cannot get in and out of a facility. We already know that every facility needs to be expanded and that parking is essential. Those things are common knowledge. We need to get on with it.

Fredrick E. Boone
Vice President
Heavy Machines, Inc.

Heavy Machines, Inc., is a distributor of lift machinery, principally to the railroad industry. Our marketing program in the railroad industry began in 1974, when our company was LeTourneau Railroad Services. This name came from an exclusive association with this manufacturer. Richard O. Wilson was the founder of our company, a visionary who foresaw what the intermodal industry could be and would be. With this vision, he was able to convince the manufacturer that it needed a marketing program that was unified in its national perspective and dedicated to the intermodal industry. While our principal focus has been the rail industry, we have from time to time been somewhat involved in the maritime industry.

The lift equipment that we have represented throughout the years is the LeTourneau line, including side porters or side lifts and rubber tire gantry cranes. Because the company name linked us to a single manufacturer, we began to look at diversification and representing other manufacturers and products. The LeTourneau name became a hindrance, so we decided to select the most generic name that we could find for heavy lift machinery, Heavy Machines, Inc.

In addition to the LeTourneau product line, we have also represented Shuttlelift. Shuttlelift, a division of Marine Travelift, is a manufacturer of boat hoists and industrial-style cranes. In 1990 we were able to convince them to enter the intermodal industry with a crane for handling containers primarily. We looked at some of the smaller rail container yards that were growing, as a special marketing niche, which, quite frankly, never developed. But one thing that came out of the association with Shuttlelift was an opportunity to explore the feature of an elevating operator cab. In about 1993 when the approach to doublestack containerization was to have a low cab and a separate high cab, there was a lot of discussion about an elevating cab, which would allow an operator to have complete flexibility and position himself to see his work at different heights. The first operational elevating cab is on a Shuttlelift crane that is in the Burlington Northern Santa Fe (BNSF) system.

We also associated with the ELME Manufacturing Company when the J.B. Hunt program began. We represented the company in its after market sales, which meant that we were responsible for the selling, installing, and servicing the ELME Pin Lifts on machines that were already in the industry and had to have the J.B. Hunt capability. This continues to have some significant activity.

We also distribute container-handling equipment from Kalmar, a Swedish manufacturing company. This line of equipment includes reach-stackers, straddle carriers, rubber tire gantry cranes, conventional container handlers and lift trucks, and the whole line of intermodal lift equipment that might be required in intermodal terminals. The Kalmar association has been rather interesting, as we have found that some European manufacturers design to very definite specifications. When they brought their machines to the United States, there were some that just would not hold up with the severity of the duty cycle in rail terminals. Their equipment has now gone through a succession of re-designs and modifications. I think that we will begin to see much better performance from the new innovations in this equipment.

Cranes and Side Porters

I have been with Heavy Machines for 25 years. In thinking back over the years, learning the design and performance specifications and the requirements of loading and unloading rail cars has been a real education for me. For example, the rubber tire gantry crane is, by any measurement, the most efficient lifting device that takes trailers or containers on and off railcars. It is the most productive crane, particularly if, when the train is spotted in the yard, you want to strip it in sequence, box after box after box. On the other hand, the side porter, the lift truck-type machine, has the flexibility to load and unload selectively—lift, carry, and ground stack boxes. I know how much the railroads do not like to ground stack boxes.

As the industry has evolved and containerization has driven things, there has been a natural evolution of equipment in order to satisfy these needs. Those of us on the equipment side of the table are often confronted with the problems of reliability, availability, and maintenance. Things of this sort impact productivity. If we look at the inventories of equipment in the rail industry today, there are machines out there still performing as front-line production machines that are more than 25 years old. Early predictions were that these machines would have a 7-to-10-year life span. It turns out these predictions were so far off, it is incredible. The replacement market in lift equipment has virtually been non-existent until the last three to five years, when the railroads began to retire equipment.

Terminal Equipment Improvements and Trends

I think that we will continue to see improvements, notably in lift machine control systems. The control systems in machines today allow an operator greater safety, greater precision, and greater proficiency. I think

that we can be pleased that the manufacturers have responded to the need for this type of improvement. On the other hand, there have been some structural improvements. Many of the cranes are heavier, stronger, and more durable today. We have seen machines that often perform as much as 100,000 lifts per year.

When I first started, the railroads wanted to buy a machine that was universal in capability, that could lift trailers of any length, that could adjust to containers, and that could just do everything. As doublestack technology evolved, containers grew to 50 to 60 percent of the intermodal movements as opposed to trailers. As containers continue to grow in volume, we will see greater use of reach-stackers, for example. These are lift truck-type machines with an extendable boom that allows an operator to extend the boom over a chassis to the railcar and, in some cases, to the second rail. These features have tremendous potential in improved productivity by simply allowing a chassis to be staged alongside a track. When the train comes in, operators can simply unload containers by reaching over the chassis. This eliminates waiting for a chassis to be positioned by a driver. I think that we will continue to see more and more of this type of machine as a replacement for the more conventional, straight, mass-lift machines.

It is interesting to look at the trends in mechanization in the rail industry and in the numbers of terminals. In 1975, there were about 1,500 piggyback terminals, circus ramps were the majority. Of that number, about 110 were mechanized terminals. Some records indicate that there could have been as many as 170, but even that number represents a very small proportion of the total number of terminals. In 1999, we have 246 mechanized terminals. In 1975, there were about 200 machines in railroad terminals. According to the most recent edition of the *IANA Directory*, there are now about 787 lift machines in rail intermodal terminals. The breakdown of the equipment is generally about 445 side porters and 342 cranes.

This certainly makes clear the growth of intermodal transportation in the rail industry. The industry, in 1998, handled 8 million loads. It takes 16 million lifts to get them up and down, and with the growing volume of containers, you can add another 30 to 40 percent in total lifts, just for the grounding, internal transfer, and handling of containers.

John J. Gray

President
Rail Management Services

I started in the railroad business in 1972. I went to Notre Dame as an undergraduate and then to Stanford Business School with a one-year

stint in between with Boise Cascade Transportation Department. In 1972 I went to work for Western Pacific Railroad (WP). Western Pacific hired Burt Cardwell, a former trucking executive, to start a trucking company and then put me in right behind him as general manager because Cardwell had a bad heart. He had a major heart attack within six months of taking the job, and so, at twenty-six, I was president of a non-existent trucking line.

Learning the Business

We started a less-than-truckload (LTL) and truckload operation between the Bay Area in California and Salt Lake City, Utah, and went on into Denver, Colorado, in conjunction with the Denver & Rio Grande Western Railroad (D&RGW), which is where I met Don Orris. We ran a piggyback train every night, hauling LTL and truckload. We must have had about an 80 percent market share, by our measure. We purchased a fleet of pickup and delivery trucks, straight trucks, and heavy tractors. We built terminals in Salt Lake City, in Denver, and in Stockton, Oakland, and San Jose in California. We did very well.

This was the age before deregulation of the motor carrier industry because we were operating under motor carrier rates and the Rocky Mountain Motor Tariff Bureau. There was a nice, fat margin in those rates, based on over the highway economics, so we made a lot of money with our lower cost rail transportation. Terminal operations were a sideline. We, of course, inherited the terminals from the WP and had the Teamsters in Oakland, which was always a curse. It was a struggle to get traffic in and out of the Oakland terminal, and a big month was about 7,000 lifts. But Oakland had a great view of San Francisco and the waterfront. This is where I learned the business.

As things progressed and deregulation started in the trucking business, the cost of the Teamsters became even more expensive. I went through a whole series of maneuvers to separate the truck line into a terminal operating company, wholly owned by the railroad, and then separate the LTL and truckload operations. Then, I peddled the terminal operating company to Chico Clark for a dollar. We entered into a new contract at a much lower cost. That was our first entrance into the subcontracting of intermodal terminals. The driving force was the need to reduce terminal operating costs. It is the same mantra that we recite today: reduce man-count and improve throughput in the facility with the same capital investment. It worked pretty well. Then came the deregulation of the railroad industry in 1980. When that occurred, the WP merged with the Union Pacific (UP).

Managing a Terminal Operation

I did not want to go to Omaha, Nebraska, with the Union Pacific, but I had to do something. I thought I would start a terminal operating company. If that did not work, I could always go out and get a job. My first contract was with a little terminal in Auburn, Washington, on the Burlington Northern Railroad, handling empty containers. It was a hands-on operation. I rented a lift truck, and I was it. My office was a Denny's phone booth down the street. This is how I started.

I added terminals. I made a deal with Stevedoring Services of America (SSA), which is the largest marine terminal operator in the US, headquartered in Seattle. It was a fifty-fifty partnership, and then I just went out and started peddling my wares and bidding for terminals. We run, now in 1999, about 50 terminals, which changes every day. We do about 6-to-7 million lifts per year, and we try to run the business as much as possible on a formula basis.

As Ray Ascencio stated, the challenge for terminal operators is to improve labor productivity. In fact, about 80 to 90 percent of our costs are labor, fringe, and labor-related expenses, including management. We are always working schemes to try to reduce costs and improve labor productivity; however, there is no consistency in labor productivity throughout our operations. We operate terminals from something short of dirt lots to major facilities that look like airports. We are between two opposing forces: the cost of finding decent people to do a good job who will not get into a lot of accidents and who can pass a drug test, which is the hard part, and the need to reduce costs or maintain costs and provide a level of service for our customer, the railroad. This is our role in life.

There are bright spots on our horizon. Some of our terminals are huge success stories. Willow Springs on the Burlington Northern Santa Fe (BNSF) is one of them. Its volume is huge, 50,000 to 60,000 lifts per month; its on time performance is 100 percent, at least, for our side of the operation. It is a good operation with good people, modern equipment, and a good facility design that is matched to the type of business that goes in and out of there. Seattle International Gateway, a BNSF facility, is another success. It is an all-container operation, matched to the kind of business that it has. It, too, has modern equipment, good management, and good people. South Kearny is one of the best facilities that we have. It is being renovated and expanded by CSX. It, too, is matched very well to the kind of business that it handles. These terminal facilities also have very good train service. All of these elements combine to make a successful terminal operation.

Addressing the Challenges of the Future

In terms of the intermodal food chain, the terminal operating companies are down at the bottom, doing the best that they can. However, where do we go from here? I think that labor, as an issue, is not a short-term problem. To find good quality, skilled, manual labor that can make a decent wage in high-cost urban areas, in a full-employment economy is a real challenge. Mechanics are another concern. This is another group of people who are even more skilled than the ramp people are. The challenge is always going to be to find these people, to hire them, to train them, and to maintain them. They all have to be drug-free. Sixty percent of the people that we run through a drug screen flunk. It makes no difference what city or region you are in. At any given moment, we are probably dropping a container or a trailer somewhere. And, it is not always the fault of the crane.

Currently, we have been running at a rate of 12 to 13 accidents-per-month system-wide, compared to 30 accidents-per-month last year. This improvement is because we are up on the learning curve and because the quality of people who are available is better. In the future, we have to continue to improve labor productivity. We cannot get the increases that we would like from our customers, because our customers are not in a position to give us the increases. We must look for ways to improve the way that we manage the facilities, the way that we operate them, and the kinds of equipment that we use to improve labor productivity. We would love to build terminals; we would love to finance terminals; but the margins are so thin that there is not a decent rate of return on intermodal traffic, making it very difficult to provide the expansion capacity that is needed. We have to work with the facilities that are available to us today.

Within the existing infrastructure of today, we have to come up with new ways to improve the capacity, improve the throughput, and reduce the costs. All of these things must be done at the same time, in the face of rising labor costs. This is the challenge; it will separate the winners from the losers in our industry. The other big challenge is the continuing trend toward containerization. Containers are generally labor and land intensive in a terminal, when compared to trailers. The future challenges are huge. Hopefully, our operations are so transparent that the customers are not even aware that we exist. That is the way it should be.

John (Jack) J. Lanigan, Sr.

Chairman
Mi-Jack Products, Inc.

The introduction of lift equipment, whether it is a side loader or a rubber tire gantry crane, took the piggyback industry from the Dark Ages into the 20th century. Prior to lift equipment, trailers were loaded and unloaded by "circus ramps"— backing a trailer on a ramp onto a flatcar and backing the trailer up to 1000 feet up to 8 flatcars. This usually took between 35 and 90 minutes per trailer. Stanchions had to be raised and lowered; bridge plates had to be installed and removed. All railroad cars had to be facing the same way coming into the terminal, which required many switches, depending on how many cars were coming into the terminal. And, it was very dangerous for a tractor-trailer to be backed up or removed from a flatcar, because sometimes the load would shift and the trailer would fall off the flatcar or the ramp.

Today, we load and unload trailers with our translift cranes every minute and a half, working cranes at some terminals 24-hours-a-day, 7-days-a-week, without failure. We use operating divisions (ITS) as an outdoor testing laboratory for R&D. Our operating people continuously give the engineers who design the translift cranes suggestions to improve our product for maximum reliability. In our opinion, no crane has a higher reliability than the Mi-Jack Translift.

The reason that the crane is what it is to the intermodal industry today is because we worked very closely in the early 1960s with the Santa Fe Railroad on a mission from Drott Crane Manufacturing Company. About five years earlier, the Pennsylvania Railroad sold a second-hand machine to the Chicago & Eastern Illinois Railroad (C&EI) for light duty. This was an old Drott crane that lifted boats out of the water at a marina and was converted to a trailer-on-flat-car (TOFC) lift crane. However, this machine was unsuccessful as it was continuously breaking down with structural, pumps, and cylinder failures. It was constantly being repaired and finally put out of service. However, the concept was ideal for loading and removing trailers, and the Santa Fe recognized this.

We designed a new crane just for the intermodal industry, and with the patience of the Santa Fe and with the help of Drott, it worked. We kept improving the design of every machine that the Santa Fe bought. Everybody wanted to cooperate with the Santa Fe to make piggyback a success.

The early railroaders who started intermodal, with whom I worked, had everybody "shooting" at them, even their peers. If they made a mistake, it was exaggerated. It was not the competitors who were giving them a hard time; it was their own people. I think that the pioneers of

intermodal were like the Dirty Dozen. In spite of everybody and all of the obstacles they had to overcome, they made it work.

We all had problems. I had a problem with the manufacturer. I kept going back to Drott with more recommendations and Drott was spending a lot of money on R&D and a new design in engineering. We were convinced that next year we were going to sell four or five cranes. The only railroad that was buying cranes at that time was the Santa Fe. Then the Union Pacific (UP) and the Southern pacific (SP) began buying cranes. By 1976 or 1977 business was improving, but Drott was getting impatient.

Starting Mi-Jack

In 1978, Drott called and asked me for a realistic sales forecast for Drott cranes. I had been telling Drott for five years that someday I would sell at least 10 cranes a year. Drott decided that if we did not sell 10 cranes a year by 1980 that it would get out of the business. Fortunately, I sold about 9 cranes that year. However, in 1980 Drott decided to get out of the business, as it needed 20 to 25 cranes a year to justify expenses and to maintain a production line.

I realized that I was in a good position in a new industry. I was working with people who were all entrepreneurs. I knew that intermodal was a new form of transportation and that someday it would be the envy of the world. So, I went out and talked to some of my railroad friends and asked for letters from various railroad presidents. I received letters from the Santa Fe, the Union Pacific, the Southern Pacific, and the Pennsylvania Truck Line, all pointing out that intermodal is the future for transportation. I obtained a loan from the bank, re-designed the Drott machine, and called it the Mi-Jack Translift. But, I had a lot of help. I saw a lot of men work hard to make this industry work and I am very proud to be a member of this group.

Again, working with Santa Fe, I had a new concept to try called the two-for-one concept—have one track instead of two and unload from one side, leaving the trailers there. An inbound train would come in and there would be no place to put the unloaded trailers, which increased terminal congestion and increased operating costs. The less a trailer or a container is handled, the less it will cost. The two-for-one concept worked such that when a train comes in, you unload the trailers and leave them to one side of the track. Then, you pull the trailers from the storage area and load them on the other side, creating empty slots, and then move the unloaded trailers at trackside to the empty slots. Ed Frey with the Santa Fe told me that if I thought the two-for-one concept would work, the Santa Fe would let Mi-Jack operate the terminal. That is what we did and that was the beginning of Mi-Jack operating terminals. Today, we are op-

erating over 70 terminals in the US, and we are also operating terminals in Argentina and Mexico.

Designing the Intermodal Terminal of the Future

The way we handle piggyback today must change. If we can anticipate a growth of "50 percent intermodal and 50 percent highway," what are we going to do with all of the intermodal traffic? We have to have new ways. We must stop moving trailers and boxes in the terminal. We must design the terminal to allow the trucker to be in and out of the terminal in the shortest period of time. We must have a terminal control tower, much like at the airports. The dispatcher must "walk" the driver through the terminal, getting him in and out in less than 10 minutes. This can be done.

We must have all of the operations along-side the trackside. We should consider a four-to-one. When I say a four-to-one or a two-to-one, the first number is the operating space on the track and the next number is the track. If, for example, you have an eight-to-two, that means eight storage areas are operating spaces for two tracks. We must have a new type of equipment that will pick up not one box but three or four boxes, hold three and drop the one needed, with immediate selectivity.

The train must come into the terminal and leave within two hours, and the crew must stay with the train. In the future, there can be no more going across town to meet connections. We must have a true port terminal and the railroads must realize that they have to work together. Three or four railroads will come into a terminal and a crane will pick up the box and just switch it to different cars. When we can do this, we will be ready for the 50 percent increase in traffic that we are going to get.

We cannot keep operating the same way. Every time we have an influx of traffic, things back up on us. I can remember when we built a new terminal and within 18 months to 2 years, the terminal was beginning to be congested. We must think big and think 15 years ahead. It is a great, beautiful industry. It is very exciting and there are so many changes that can be made. All eyes are going to be on the young men and women coming up in this industry.

When I began in this industry, nobody was really watching us. Maybe that is why we succeeded. Now, everyone will be watching, including the government. The government will be watching to see if these mergers will improve the delivery time of shipping the product to destination. So, we must be ahead of the game. The young generation must have the same attitude as the pioneers of intermodal had when the rubber tire side-loader and gantry crane were introduced to the piggyback industry in the early 1960s. This equipment drastically reduced the cost of operation and improved productivity. The safety factor was an added bonus.