Maritime Panel

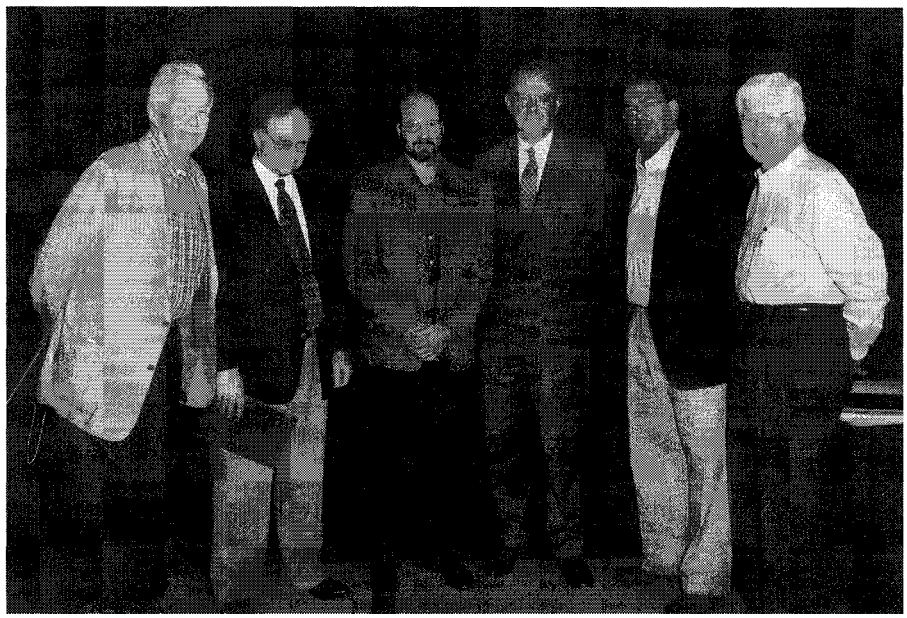
Theodore Prince, Moderator

ITI Board of Directors
Principal, Transgistics LLC

Intermodal transportation would not exist as it does today without the introduction of containerization by the maritime sector. Neither would global trade. Clearly by its very nature, all maritime transportation is intermodal, usually involving at least a steamship and a truck, very often rail, and increasingly other modes, such as air. Today's intermodal world has been greatly affected by double-stack transportation and domestic containerization, and the distinguished pioneers on this panel transcended the whole intermodal integration of maritime with rails and surface and the whole transportation network. Don Orris and his group "the Oakland Raiders" really helped the railroad industry understand what it meant to run a service of quality and reliability.

PANELISTS

Donald C. Orris, Peter I. Keller,
Nolan R. Gimpel, F. H. (Joe) Howard



(Left to right) Joe Howard, Don Orris, Nolan Gimpel, Peter Keller, Ted Prince, and Gil Carmichael.

Donald C. Orris

Chairman and Chief Executive Officer
Pacer International, Inc.

I have done a lot of things in transportation, but the stackcar is going to be the thing that marks me for life, good, bad, or indifferent. I will be the first to tell you that I did not invent the idea of a stackcar. My concept had nothing to do with the building of the first cars. I did participate as a part of the American President Lines in the development of a stackcar and the commercial arrangements that were associated with that development.

First Stackcar

The first attempt that I was involved in with the stackcar concept was when I was with the Denver & Rio Grande Western (D&RGW), a railroad that existed between Denver and Salt Lake and that also served Aspen at that time. In 1975 we were trying to come up with innovative ideas that would help our little railroad exist. We explored the development of a stackcar, trying to come up with a new plan, a new approach to the intermodal business market. Our approach was very simple in that we looked at the highway and the rail system in North America and asked what the limits were that we had to operate within in order to develop a piece of hardware that would universally move over most of the transportation system. As time progressed we learned that some of these limits, especially the height limit on rail, were, in fact, in error or changeable economically.

In 1975, at our request, Thrall designed a stackcar. It was designed to take advantage of the 89-foot length, yet actually consisted of one container in the well and two on top. A three-container car, if you will. We were targeting new markets, and we went out with pricing, service schedules, everything as a part of this overall package to sell this concept at that time. This car was equipped to carry a refrigerator (reefer) generator, because one of the target markets was to take us into the perishable business, which at that time had already diminished from being a significant part of the rail intermodal industry. Part of the presentation to the Burlington, Western Pacific, and our railroad was to obtain market support for this equipment. The intermodal marketing company (IMC) industry, at that time, came forward and basically offered up freight purely for the development of the car, whether it was successful or not. This industry stood behind the car and it was a cost-free opportunity for the railroads. Two of the railroads agreed to go forward and one declined in spite of a no-cost risk, because they really did not want to see containerization come into US intermodal transportation. This was 1975, and the

concept did not sell. If we looked at the terminal situations across the country, it was not without merit to decline. In any event, the project was tabled.

First Doublestack

In 1978 American Car & Foundry (ACF) built the first doublestack car in conjunction with SeaLand and Southern Pacific Railroad (SP). Initially, they were three platform, articulated cars and they did not bring about a substantive change in the industry. We at APL came along in 1984, with Thrall and Union Pacific, and basically developed a car substantially different from the previous cars. We put these cars into service without doing the traditional testing, and we had to have special interchange agreements because the cars were not approved for general railroad service.

Thrall took terrific risks. The car-building industry was literally on its tail at that time, and Thrall guaranteed that the car would work. You will never see another warranty like this from any equipment manufacturer, but they did it. Union Pacific also took on a great deal of risk because we were dealing with centers of gravity that did not exist, prior to this time, in terms of height off of the rail. There were also braking issues since the braking capacity on these cars was not within the existing standards.

APL, especially, took a lot of risks. We signed up for these agreements on a take-or-pay basis, which meant that we were buying trainloads going both directions, we were standing behind them, and we were purchasing the equipment. APL was known for equipment innovation and they supported a lot of things, including 9-foot, 6-inch containers, 45-footers, and non-Panamax container ships. They were accustomed to a high-risk environment. I should add that many of APL's management came from SeaLand, so perhaps this all goes back to Malcolm MacLean and the establishment of intermodal. But, the fact that everybody at that time was willing to step out of their existing paradigms—Thrall by providing an unheard of warranty, Union Pacific by allowing this car to operate across its railroad without having the usual testing and confidence level, and APL with its investment and willingness to take risks. Incidentally, all of these cars had a failure in the braking system and had to be repaired within the first couple of months. The innovation occurred, but not without bumps in the road.

Doublestack Improvements

One of the biggest changes during the development of the car was in a 30-pound device that was supposed to secure the top container. The

device failed and somebody had the bright idea to go to the inter-box connector that the ocean industry used. There were questions on whether or not it would operate within a rail environment. In fact, it did. It eliminated that very heavy bulkhead seen on the earlier cars and allowed multi-sized containers to be utilized on the cars without restraints. The equipment served international 20s and 40s as well as domestic 45s, 48s, and 53s.

With regard to articulation, a five-platform car eliminated 40 percent of the wheels, which got rid of much of the mechanical expense associated with this equipment. It also brought the containers closer together, helping the aerodynamics. The use of a common truck-assembly stopped the rocking motion. To test our theory, we literally set up a dining room, without any bracing or blocking, and shipped it from Los Angeles to New York. The dining room stayed intact, and this test really demonstrated the ride quality of doublestack. It was a great way to tell people that we had a superior ride quality. It said if we can do this, nothing else matters.

The biggest problem with this equipment was height. We were told when we started that, with all the money in the world, we could not change the height limitations on Conrail. Somebody challenged that statement and changed the height limits, which really opened up the eastern corridor. APL, Union Pacific, and Western Pacific shared in the expense of opening up the central corridor. As I recall, it cost 15 million dollars. SP later lowered tunnels on the West Coast and basically made this hardware usable across most of the mainline track in North America today. There are still some north-south routes in the East that are not able to accommodate a stackcar. The car had 20s, 45s, 53s, and 48-foot containers on it, offering universal capability. This design, subsequently, took over for all of the car manufacturers.

Doublestack Economics

Crews are paid by the train. There are about 280 to 400 containers on a train versus a traditional intermodal train with a hundred plus trailers. The economics are the real issue. There are other economic contributors in terms of fuel, mechanical wear, the elimination of the end of car cushioning, which again contributed to ride quality. All of these played out such that the transportation experts could see that the savings involved in stack versus highway, or the other rail alternatives, made it a superior product.

Probably APL's biggest contribution was the fact that we took those savings into the marketplace. Not only did we negotiate for our international price improvements but benefits for domestic cargo as well. When we first entered the doublestack business and ran our first train east-

bound, we were responsible for the whole train, both ways, take or pay. We showed up in Chicago, and Universal Carloading, which was to be our partner, was not prepared to load it westbound. Frankly, we were on the street looking for business and, again, the IMC industry was there to support us. Tom Hardin of HUB signed up for 15 or 20 that first week. That is how the innovation went across the industry, because the economics were passed on to the customer. Of course, anytime you have hardware innovation, marketing always sells its advantages about an hour before it is invented and operational. But, that is the tradition of the business and that is how our commerce works, what makes this country what it is.

Stacktrain Dominant User

The dominant user of stacktrain is international freight, basically offering a bill of lading somewhere in a foreign country going to a point in the US or from a point in the US back to that foreign country. It would, however, be an error to think that doublestack has caused this. It has not. It is not rail economics versus ocean economics, because if it was, all that freight would be still going around North America via water. What the shipping companies really look at is deployment. They decide whether it is better to turn ships that they have in service in the Pacific and reap the benefits of the traditional, high, eastbound rates from Asia and the westbound loading, if it is available, or to go around the world, moving much of their capacity empty between the West Coast of the US and the East, then reloading and taking exports on to Europe. Ship lines go both ways. The economics are so powerful that they overcome anything that doublestack might do or not do for the shipping lines.

So, this is not the reason why international trade in the US has grown to the extent it has. It really has to do with the overall economics of the ocean carriers. Intermodal and stacktrain innovation have helped by providing a through product that is a quality product for the ocean carriers. But, this is not the cause. In 1999 the ocean industry represents a little more than one- third of the total intermodal business.

Growth of Doublestack

There is still a lot of business that is not in containers, like UPS. In metric tons in 1999, intermodal represents a little less than 20 percent of the rail business, but it is the growing segment. The doublestack in 1999 represents about one-half of the intermodal freight movements, and it will continue to grow. As Hank Logan stated, the rail system, in spite of recent merger problems, will continue to produce a better product. I believe this, and I believe that the railroad will be the mode that will con-

tinue to dominate the movement of consumer goods in North America because it is the best long-haul transportation alternative.

Peter I. Keller
Executive Vice President and COO
NYK Line (North America) Inc.

History really does repeat itself, particularly where business issues are concerned. Business is also often likened to war. In the military we were taught to understand our adversary and his history. If business issues and problems are the enemy, we should understand them and their history. I would like to draw on some of my own experiences, first at SeaLand and then later at the Cast Group Limited, to illustrate some of the recurring historical problems that we face.

In 1968, when I started at Port Elizabeth, SeaLand had a terrific little facility. It was the envy of the industry at that time. Fine people like Bill Hubbard had spent some time working on it and designing it. We had six gates, a huge amount of gate capacity at the time; three cranes, soon to be five; four berths; and thousands of parking spaces. This place was going to last us forever. We also had a lot of chassis to put the boxes on, but what we really had, what we were most proud of, was a state-of-the-art yard control system that featured punched cards.

Anticipating Growth

The problem was, and continues to be, volume. Volume always exceeded our expectations. We could never build enough, quickly enough, or change procedures, systems, and methodologies quickly and efficiently enough to keep up with growth. We always seemed to need more gates, always seemed to need more tractors, always looked to pave more land. We even needed more punch cards. Yet, when it was time to project the growth, or to look at new business levels, the operating people, like me, were always quick to suggest we could stand on our heads and do another hundred thousand boxes. The reality is that we did not prepare adequately for growth—yesterday or today.

The little SeaLand facility was already busy and getting full, and then came big, new fast ships. Enter the SL7s. They were really beautiful ships—big, sleek, fast. Thirty-three knots was their cruise speed across the Atlantic and the Pacific oceans. They were huge, with 35- and 40-foot boxes, and an immense 2000 TEUs (twenty-foot equivalent units). Wherever the SL7s called sorely taxed the existing terminal facilities. Land needed to be paved, parking expanded, gates built, boxes and chassis

built and delivered, and new cranes erected. And at the speeds these vessels traveled, we also had problems with paper, so we put couriers on airplanes. It was not exactly electronic data interchange, but it got the job done. As I look around this industry today, I really wonder how much we have advanced the state-of-the-art in the last 20-30 years.

In those days, we even introduced computers to longshoremen. The reviews were mixed. All of our terminal systems and procedures were stretched, as we not only tried to make do with what we had, but we also tried to innovate and implement new computerized solutions. In those days, ad hoc was really the name of the game.

We now have a flotilla of huge, post-Panamax vessels with 6, 7, and 8000 TEUs in the water. Many more are being built, and some people are talking about the next generation of vessels. Have we really thought about, and adequately planned for, this new tonnage and the volume that it will bring to the terminals in the short term? Have we learned anything from the lessons of the early 1970s? Are we again repeating what happened thirty years ago? Can a terminal and the intermodal infrastructure that we have in place today really service and support the business levels that we see tomorrow, at a reasonable cost and with reasonable service?

People are talking about compounded growth at a 6 to 8 percent level, and in many places they say that this projection is conservative. This compounded growth projection is a function of the increase in world trade as well as the movement to more containerization of breakbulk cargos. Are we ready for these ever increasing volumes? The answers are, unfortunately, very obvious. We have not learned; we are not ready.

Years ago, the container yards and gates were choked after the arrival of each vessel and the facilities were inadequate to support the volumes. Costs escalated and service became an issue. I remember one weekend when we were actually forced to commandeer the street in front of the terminal for container parking. We put a couple of hundred boxes out on Fleet Street in front of the SeaLand terminal in Port Elizabeth. The port authority police force was not amused. Similarities are there, however, in terms of what happened then and what is happening today. Look at the large vessels with their increased capacity and increased volume coming through our terminals. Think about crane size and terminal capacity issues. We see all of these problems reoccurring, and they will only get worse as we continue to move to the new generation of vessels. Business volumes continue to expand beyond our highest expectations.

Implementing New Technologies

In considering the terminal planning processes, particularly with regard to the SL7 introduction, we seemed to stay with the status quo until

the bitter end, not really opening ourselves up to the use of new and improved technologies and to a broader thinking. There are numerous innovative approaches around us that we seem hesitant to consider. Rather, we seem content to stay with the top picks, the straddle carriers, and regrettably the containers on chassis, when we know that there are a myriad of new ideas to consider. These technologies simply will not take us where we need to go into the next millennium at 6 to 8 percent volume increases and more per annum. Whether we are a railroad, a steamship company, or a port, the land constraints, the environmental realities of our inability to fill in wetlands, or to cut down mountains, and the realities of noise, and particular emissions, mandate the immediate development of new, more efficient operating methodologies.

Has anybody really thought about why we need all of these chassis in the United States? Certainly we do not have them in abundance anywhere else in the world. Canada, just to the north, works very nicely without a huge inventory of wheels and their excessive cost. Furthermore, the continuing lack of productivity in our terminals is totally unacceptable. We spend millions of dollars every year on container cranes capable of doing 60 or more moves an hour, yet we seem content with a productivity level in the area of 30-40 moves an hour. It always seems easy to blame the crane operator and labor, but I believe that most of us understand that the real culprit is the technology that we use in our terminals, the information flows, the information processes.

We simply must develop new approaches to feed containers to and from the cranes that service the ships. The maritime industry must take new, fresh approaches to these and other issues if we are to support the growth that we know is coming, growth that we are often not equipped to deal with in the short, intermediate, or long term.

Examining the Power of the Intermodal Experience

When I left SeaLand in 1982, I went up to Cast Group Limited in Montreal, Canada, mainly to see what bankruptcy was like, and it was interesting. Cast was, what in those days could best be termed, an innovative but unprofitable renegade carrier. The founder of Cast, a gentleman by the name of Frank Narby who came out of Federal Navigation, was an early believer in intermodalism, and he used intermodalism very effectively and to his commercial advantage. In the early 1970s, Narby saw an opportunity to develop market share by using intermodal movement over alternative, cheaper, and more reliable ports. In the late 1960s and 1970s, labor disruptions on the East Coast of the United States were the rule and not the exception. Costs were rising steadily and productivity was stalled. At that time the larger customers were just getting accus-

tomed to the advantages of containerization, and they were very frustrated as their distribution patterns were disrupted.

Narby had been in the steel trades in the Great Lakes and understood that price is king. He was operating breakbulk vessels to the Saint Lawrence River with steel and exiting with iron ore. He decided to put a few containers on the decks of these vessels and land them in Montreal. At that time, Montreal was relatively cheap, had berthing available, and, more importantly, had direct rail links to the major markets of the US Midwest. With his maritime and vessel cost well below his competition on the East Coast, and with a fairly regular service that he could sell to the Fords and 3Ms of this world, the stage was set for a shift of market. It shifted from the historic natural gateway of the East Coast of the US—the Ports of New York, Baltimore, and Norfolk—to the Midwest, using intermodalism. Today as much as 50 percent of the US Midwest cargo from the Atlantic range continues to move over Canada. We have now learned, and most of us understand, that customers do not necessarily care about how the cargo flows, but rather that it gets to its destination on time and at the lowest through delivered cost. Price is king.

At Cast, we took the intermodal experience to very broad levels through strong partnerships at different times with both the Canadian National and the Canadian Pacific Railroads. Through these partnerships we did some interesting things. In the late 1980s we were, in fact, taking containers off the ship, running line haul rail power onto the terminal within 8 hours of vessel arrival, arriving in Chicago 32 to 36 hours later, and unloading from the train. And people say that on-dock rail does not work. It works if you make it work. We also had our own trucks and provided very competitive services via Montreal into warehouses at Port Elizabeth. We had more than 40 percent of the New England market to the detriment of the non-productive Port of Boston.

Here, indeed, was a real world example of the power of intermodalism. We had developed innovative, low-cost networks that provided reasonable, quality services to the shipping public at very competitive rates. We need to remember the lessons of low-cost, productivity, and alternative, innovative approaches as we consider the shipping products and services that we provide in the future. The market will continue to demand ever-lower unit costs with ever-increasing product quality for ever-growing volumes. This will be the real challenge for the new intermodal executives of today and tomorrow.

Nolan R. Gimpel

Vice President and General Manager
Stevedoring Services of America

When I got off the ships in 1970, I looked for a job and found myself in beautiful downtown Weehawken, New Jersey, stowing Sea Train vessels. It was a short-lived experience because I found myself in Philadelphia about a year later, which was equally as entertaining from a longshoreman perspective. Work slowdowns, poor productivity, damage, you name it and we had it. The upshot of this was my first real brush with intermodalism. The costs of doing business in Philadelphia were so high that we quickly determined that running a shuttle service by truck back up to Weehawken made a lot more sense than putting the ship in at Philadelphia.

Within two years of joining Sea Train, I basically put myself out of a job in Philadelphia. Management next wanted me to figure out a way to serve the Port of Boston, and so we started a barge service from Weehawken to Boston, which became relatively successful. However, dealing with the Boston longshoremen made the Philadelphia longshoremen look reasonable. Then Sea Train sent me down to Wilmington, North Carolina, to work the ships. Sea Train, with two stick cranes, was doing a lot of the tobacco business to Europe out of North and South Carolina. I got involved doing that and wound up commuting between Wilmington and Philadelphia and Boston.

Running Containers

Then the next challenge was running containers from the West Coast over to the Port of Norfolk on the East Coast. I really knew nothing about the railroads, but I knew enough to get a name, especially when I could not find my boxes. So Reggie Short and I became great friends. After a lot of initial fighting, Reggie got the job done. I received the accolades at Sea Train and was promoted to the West Coast.

At that time, Sea Train had to renegotiate its contract with the Santa Fe and the Norfolk and Western Railway (N&W). I was told that not only could I not improve our rates, but that there was no future in intermodal business for the Santa Fe Railroad. This was how Sea Train ultimately got its first deal with the Southern Pacific. Sea Train really started with the concept of the true landbridge. It was moving cargo from Asia on ships, bringing it to the West Coast, moving it across the continent, putting it on ships on the East Coast, and going to Europe. The real problem was that the volumes were very small, and nobody was tracking anything, nobody was monitoring anything. The transit times varied depending on just how things fell into place. At the same time, the sales

force at Sea Train thought this was a good way to beat the tariffs. From an operational perspective, it was a nightmare because we wound up with containers and chassis all over the country with no idea where they were.

After the Santa Fe-N&W fiasco, we started with two ships in the Japan-Korea service and within a few years turned that into eight ships, calling to Japan, Korea, Hong Kong, and Taiwan. These ships, believe it or not, small though they were, were 50 percent intermodal cargo between the true landbridge cargo and the mini-landbridge cargo. So it was quite an evolution.

The other thing that happened of note was that a man from Denver named Don Orris kept coming around. Don worked for a mammoth railroad called the Denver & Rio Grande Western. For putting the Denver & Rio Grande Western in our routing, he would get us some empty repositioning back to the West Coast. We did do some business together and it was good for both the railroad and for Sea Train.

Later on, I went back to the East Coast for Sea Train, and Don went to work for APL. I interviewed with American President Lines (APL), was hired, and went back to New York and found myself, all these years later, in beautiful South Kearny, New Jersey. APL opened the facility in South Kearny, started carrier tracking, and we began taking destiny into our own hands with the railroads and with the delivery of the cargo.

Port of Oakland

Subsequent to APL, I went to work for the Port of Oakland, California, and I inherited quite a legacy there. We were way out in front of the curve on container development and the Asia trade development and had built a lot of infrastructure at the port. When the container boom hit, and the Asian economy started to perk up, the Port of Oakland was very well situated to handle a lot of that volume, and it did, and it grew very, very nicely.

As time went on, however, Los Angeles and Long Beach also created infrastructure, later Seattle and Tacoma created infrastructure, and people discovered that there was a huge local market in Los Angeles and Long Beach. Other people thought it was a shorter sailing time to Seattle and Tacoma. But nobody wanted to call at Oakland first. And, of course, everybody wants intermodal freight off at the first port of call. Oakland wound up with some very serious demographic and geographic issues in terms of where it was situated and in terms of the smaller local target base. It started to decline as an intermodal port. In addition, the port was unable to get dredging done and could not accommodate the new ships. That was the third part of my experience.

SSA

The fourth part of my intermodal experience is with Stevedoring Services of America (SSA). We have been involved in intermodal not only in the United States through our affiliation with Rail Services of America, but also through on-dock rail in some facilities and through intermodal terminals in other places, such as Mexico in our joint venture with Transportacion Maritima Mexicana (TMM). A good percentage of the cargo is actually destined to Mexico City.

Now, here we are 30 years later still talking about resolving many of the same issues. The biggest difficulty, in my opinion, is how you pay for these things. I agree that to move intermodal forward, we need to make technological advances, we need to improve service, and we need to make the transactions more and more seamless. But, most importantly, we need to find a way to make and to keep the business economical and profitable.

F.H. (Joe) Howard

Former President
Halterm Limited

My initial maritime experience was at the Port of Halifax, Nova Scotia, Canada, beginning in 1971. The port is located near the extreme eastern edge of Canada; it is a big port with a lot of deep water, six feet of tide, and had no business. Most of the business was going to the Port of Montreal, Montreal being the dominant port of eastern Canada. In the four months of winter, however, the Saint Lawrence River freezes, and this is when the Port of Halifax came into its own with breakbulk vessels and finger piers.

Nova Scotia is not a strong province. Canada is based upon the political principle of a strong central government and relatively weak provincial governments, which means that the provincial governments are always suspicious of the federal government. The federal government runs things by pork barrel, grants, investments, guaranteed loans, etc. The economy of Nova Scotia was a little bit of fish, a little bit of paper, a little bit of bad coal, and the headquarters of the Canadian Navy.

A very public-spirited man in Halifax, with strong political connections and a passion to get Halifax out of this winter-only role, was exposed to containerization at a conference. He persuaded provincial and municipal governments to form a corporation called Halifax International Containers Limited. The company became a partner along with Canadian National (CN) in the formation of Halterm Limited, which became the terminal operator. Since this company was to be incorporated

in Nova Scotia, it had to have a Nova Scotia president, and I was fortunate enough to be offered the job. I had come out of the railroad business and out of General Motors with the Portager piggyback/container car.

A third partner in Halterm Limited, in addition to CN and the government of Nova Scotia, was Clarke Steamships, which ran a coastal shipping line up to Labrador and around to Newfoundland. Stanley Clarke got the inspiration to go on the high seas. It took him $20 million, but he went into a partnership with the Belgians and the British to form Dart Line. It was very convenient because that made Dart our first customer; Clarke also extracted a guarantee that his rates would be 10 percent lower than his competitors. He was a very capable operator.

This public-spirited man of Halifax had also persuaded the National Harbors Board, which was the Canadian government agency that owned all the ports, to stop building finger piers and to build a container pier. It did, with tremendous cooperation from Canadian National, which laid out the terminal. The National Harbors Board bought some cranes and sold them to Halterm Limited, and we were in business.

Developing Halterm Limited

Canadian National then established a freight-all-kinds container rate from Halifax to Montreal and Toronto, based on a guaranteed minimum of 15,000 TEUs per year. At that volume, the rate was only available to ocean carriers. This was a unique rate proposal and something not done in the United States. The steamship lines absorbed this rate and offered through bills of lading from Antwerp to Montreal. Container carriers stopped in Halifax just long enough for their containers to be put on the train. We had an on-dock terminal in 1971, with rails right beside the ship or maybe a hundred yards away. Canadian National also provided a lot of expert marketing and, as usual in Halifax, was suspect because it was government-owned.

There was constant pressure to lower CN's rates. So I hired two outside consultants, both from the United States, who were knowledgeable about railroad costs. They looked at CN closely and told me that CN was barely covering its variable costs. CN had, however, two strong officers in their marketing department who always refused to cut the rates.

It also became known that we were using nine-man gangs to unload the ships at the Port of Halifax, and Helen Bentley of MARAD thought that was great. She could not understand why American ports could not use nine-man gangs. The fact is that there was another nine-man gang loading the railcars, so we really had about the same number of longshoremen as any other port. The longshoremen were very suspicious of

Halterm at first, especially of me since I had "come from away." We spent several hours in courtrooms to prevent unauthorized work stoppages that were contrary to the contract. But the longshoremen finally came along, and we got a permanent workforce.

We were railroad dominated and very pleasantly so. We had virtually no truck business; the economy of Nova Scotia does not lend itself to containerization, so we had no 50-mile longshoreman rule. Then, we went out after the customers. We got Atlantic Container Line, Columbus Line, and Hapag-Lloyd. Zim became a big customer. We chased after Sea Train, US Lines, New England Express, and the Japanese as well as SeaLand and Maersk, who came in after I got fired. For a while we were the biggest container operator in Canada, running about 300,000 TEUs per year. Halifax is on the Great Circle Route between the Bristol Channel and New York, which meant that every ship going to or from New York could call at the Port of Halifax for Canadian cargo.

Then Cast came to Montreal, Canadian Pacific Ships moved from Quebec City to Montreal, and the Port of Montreal became bigger than the Port of Halifax. Montreal is still bigger, with two-thirds of its business going to Chicago. Halifax does only a little business to Chicago because it is an 1800-mile trip by rail.

Halterm Limited has made a profit since the day it started. The Port of Halifax is doing very well at about 400,000 TEUs per year. It is not likely to get any bigger because its competition is still New York.

Vancouver has now eclipsed Montreal as the biggest container port in Canada because, among other things, the westbound Pacific container rates are so low that container lines are soliciting cargo that formerly went breakbulk, including lumber and pulp and paper. As a result, their container traffic is going up but their tonnage is not. Much of it is being converted away from where it really belongs.