## FORECASTING TRANSPORTATION MARKET DEMANDS AND FORGING STRATEGIC ALLIANCES TO MEET THEM

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Sea-Land is an industry leader that is striking some of the most innovative and perhaps unexpected strategic alliances, and doing some dramatic things that are producing some strategic challenges within our industry.

The main topics that will be covered in this presentation are the following:

- Key drivers of trade,
- World trade outlook,
- Supply-demand overview,
- Shipper needs in the 1990s,
- Carriers response, and
- Sea-Land strategic partners.

I want to talk about how we bridge from the demand side to the supply side, and look at some other key issues that help us in trying to decide what types of alliances we form. A good amount of time is spent looking at the obvious, what is happening in each country in terms of GNP growth, import, and export levels; what is happening in consumption, in key containerized commodity industries like apparel, chemicals, textiles, and electronic goods. Beyond that, we examine where the investment flow is heading and why; what is happening to inflation rates and their impact on a country's competitiveness; and different industry sectors' competitiveness that causes shifts in sourcing of goods and therefore changes in our trade flow opportunities. Similarly, we look at what is happening to industrial production levels and why; and focus on shifts and major swings in exchange rates, interest rates, and other drivers.

We look a lot at direct investment, both company-direct investments for a U.S. company in any given area, or third-party investments. We might work with a European company making a joint venture in China. A lot of our customer needs and the key market segments we serve will do the same thing. They will work with direct and third-party investments; we try to track that as closely as we can. A lot of time is spent assessing trade policies, working closely with our people and divisions in the individual countries to see what they are observing on swings in protectionism, both direct and indirect, what is happening with subsidies, and what is happening with legislative changes, both for the country overall and for key sectors like the Caribbean Basin Initiative, like GATT negotiations throughout Europe, Asia, and North America. Reciprocal trade agreements take quite a bit of looking at. What will that do in terms of manufacturing competitiveness, in terms of trade flows and therefore, our services? How quickly do we need to shift services to take advantage of the swings and opportunities?

Some of the market opportunities we are looking at right now (and have been for the last few years) include Eastern Europe and the Soviet Bloc, South America, the Middle East subcontinent (principally, India and Pakistan and to a lesser degree Vietnam, and Burma, recently renamed Myanmar).

The key trading blocks that we are focused on and the great majority of our revenues and loads include North America, Europe, and Asia. In North America, we are particularly careful to assess what is happening with the Mexico-United States free trade agreement negotiations as well as impacts that have already occurred in the Canadian zone. In Europe and Asia, we are looking at a lot of the same things. All carriers and transportation providers are concerned with what is going on with single-market integration and what is happening with some of the Asian trading lines, particularly the Southeast Asian blocks.

The world economic outlook for 1991-1992 is generally expected to have the following characteristics:

• World economic growth decelerates in 1991, regains momentum in 1992.

• After recession, U.S. economy gathers momentum over second half of 1991.

• U.S. recovery underpinned by the following factors:

- Rebound in consumer confidence,
- Inventory rebuilding, and
- Continued export growth.
- Economic growth slows abroad in 1991
  - Germany
- Japan
- U.S. dollar appreciates slightly.
- Oil prices remain relatively stable.

From an overview standpoint, of course, growth

decreased quite a bit this year. We think it will regain strength next year, not to match the level of the last 5-year average, but a great deal better than 1990 and 1991 figures. In the United States, we are still looking generally at a modest recovery in the middle to late third quarter of 1991. We do agree though it will be anemic. We're talking about maybe a 2% GNP next year, 2% to 3% tops, not the 5% to 6% that has been typical after most major recessions.

Growth abroad will still be quite a bit stronger than in the United States, although slowing a bit from the late 1980s, particularly in Germany and Japan. We are looking for 3% to 4% growth, perhaps 5% in Japan rather than the 5% to 7% that we've seen in the last 3 to 4 years. We do see a slight rebound in the dollar but nothing to really hurt export competitiveness in the United States. Then a relatively stable level of oil prices, based on the fact that any production that Iraq and Kuwait bring back on line will be offset by Saudi Arabia reducing its production. Therefore we don't think the prices will drop much.

In the United States, factors driving trade include

• Weak domestic demand (industrial and consumer);

• Deceleration in capital investment (foreign and domestic;

• Weak but strengthening U.S. dollar;

• Interest rates as affected by neutral Fed policy in short term;

• Budget deficits, federal, state, and local, tempering economic rebound;

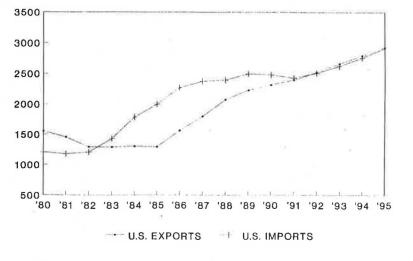
Evolving North American common market;

• Middle East rebuild, with bias toward U.S.

companies; and

• Military cutbacks with troop withdrawals from Europe and Asia.

In the United States, we've seen weakness in so many sectors; that is what has caused problems for us in some of the in-bound lanes. We'll see weak demand both in industrial investment, machinery, capital goods, and a lot of basic infrastructure goods, as well as on the consumer side across the board in apparel, textiles, durables, and, in fact, in major sectors like housing, furniture, and related industries. The capital investment levels have dropped fairly significantly for investment both within the domestic markets and abroad. We do see the dollar strengthening but still weak, which has helped on the export side but has exacerbated problems on the import side, as shown in Figure 1. Interest rates will stay in a pretty narrow band. They've come down far enough that we don't see much of a further drop, but we also don't see, any big kick back upward. Budget deficits, or course, are, shall we say, restricting a lot of the growth potential, restricting rebounds for the foreseeable future of any major magnitude. The North American Common Market we feel very positive about, very hopeful that the fast-track legislation will continue on stream and progress forward for Mexico and help opportunities in the United States in the transportation area. In the Middle East, we see some gratitude that leaves a little bias to U.S. companies on the rebuild and we are positioning ourselves over there along with most of our competitors. Finally, on the military side, in the short to middle term, the troop withdrawals look like they will be fairly significant in Europe and Asia, so we see some slowdown in military cargo carriage.



AMERICAS: PUERTO RICO, CENTRAL AMERICA, CARIBBEAN



In Asia, factors driving trade include:

• General slowing of regional economic growth in 1991;

Japan as strategic driver of Asia;

• Region's reduced export dependence on United States;

Rising intra-regional trade and investment links;

• Expanding market presence in Europe and Eastern Europe;

• New market opportunities in Vietnam, Burma (Myanmar), and the Subcontinent;

• Trade friction between United States, Japan, and People's Republic of China;

• U.S. military cutbacks; and

• Inflationary pressures (Southeast Asia) undermining international competitiveness.

In Asia, we see very strong growth in an absolute level but it is slowing from a few years ago. Roughly a level of 6% to 8% rather than 10% to 12% percent average for most of the late 1980s. Japan is still the strategic driver and has had quite a rebound. In a few sectors where it had lost a bit of ground a few years ago, it has come back booming as an investor and as a producer, particularly its investments in Southeast Asia. The overall region's dependence on the United States has dropped dramatically in the last 10 years. The trade bloc there is growing in power and significance, given all the intra-regional trade not only between Northeast and Southeast Asia but within Southeast Asia and within and across Northeast Asia, and that includes direct and indirect investment linkages. The presence of Asian customers and firms and competitors in Europe and Eastern Europe has been building very steadily over the last 2 years. They have a good foothold in a lot of key countries supported by direct investment.

Market opportunities are in a few new areas that will not be a major source of new business but a steadily building one, over the next 5 to 10 years. There is some friction with both Japan and with the People's Republic of China (PRC), not only with trade legislation but on legal issues, property rights, profit margins, and other things, that cause us to be very careful about the nature of the investment or business operations that we set up. We have seen some strong inflationary pressures building over the last 2 or 3 years. It is cutting the area's overall competitiveness from 2 or 3 years ago.

In Europe, the principal drivers of trade include

• Recession in United Kingdom, Sweden, and (potentially) France;

Moderate growth in Italy and Spain;

• Problems with Germany reunification including financial costs and in infrastructure development;

- Currency realignments;
- "Single market" in Europe;

• Problems associated with Eastern Europe and Soviet Union because of declining growth, high inflation, and rising unemployment;

• U.S. military cutbacks; and

• Inflationary pressures in Mediterranean countries undermining international competitiveness.

In Europe, the largest, deepest recessions to date are in Britain and Sweden, and one is beginning to build in France, not to mention some of the smaller countries of western Europe. Growth in Italy and Spain is still good but moderating. The German unification has had some major setbacks and problems, not only because of the direct costs in social legislation given unemployment levels and rationalizing of factories but also due to the enormous capital needs and new technology, new infrastructure, in an environmental pollution clean-up. You name it, they have massive capital needs. This has hurt a lot of the German economic performance.

Currency realignments continue to shift more rapidly than before, so we are paying a lot more attention to the nature of our operations, how our costs are set up so that we can take advantage of currency swings and local currency rather than always being subject to the swings and risks of our United States-based currency.

Problems in Eastern Europe overall and the Soviet Bloc going well beyond just the German issue are growing very quickly. The growth levels have declined, production in a good number of Eastern European countries has dropped 30% in the last 18 months, and inflation is up to high double digits in most of the countries. In some countries it is up to triple digits. Unemployment is up to 15% to 20% levels in most of them; in some of them there is 30% to 35% unemployment. Big problems exist in the short-to-middle term.

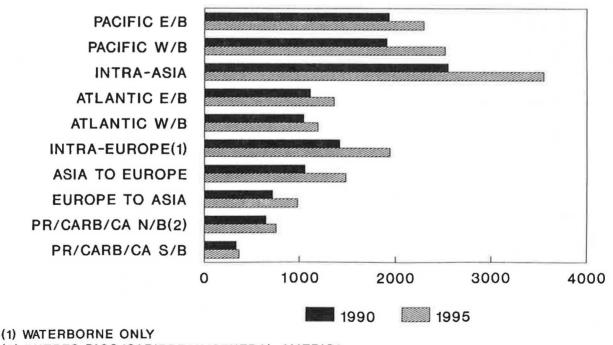
Cutbacks in military strength of the United States have hurt some of the military cargo carriage; we see that pretty much stabilizing after another year at a lower level than over the past decade.

Again, there are some strong inflationary pressures in the Mediterranean countries that are reducing their competitiveness, particularly in Spain and Greece.

We'll take a quick snapshot and look at the major global containerized trade lanes that we serve. The import trades for the United States declined for both Europe and Asia last year in the 1% to 2% magnitude for the Pacific eastbound and the Atlantic westbound. The export lanes of the United States were mixed last year seeing strong growth in the Atlantic eastbound, about 10% to 11% and a bit of a softening from the year before, for Pacific westbound, but still positive. The strongest have been the foreign-to-foreign trade lanes, Asia to Europe and back, as well as the interport areas. Trade within Asia and within Europe: high single-digit or low double-digit last year and continuing, as we see it, for the next few years.

This year, the import trades declined again by more significant margins. Eastbound, we are forecasting about a 2% to 3% drop and it has actually been more severe than that this year. Year to date through about 4 months, which is the most current hard data we have, about a 6% drop in Pacific eastbound. The Atlantic westbound has dropped even more precipitously—about a 3% drop for the year, but that is predicated on a fairly significant turnaround for the remainder of the year; right now it is down by quite a bit more than that.

Figure 2 shows this is not revenue. It is strictly container loads. This is all in 40-foot equivalent containers, which is the major benchmark standard we use for base volume. The export lanes are strong again. We are seeing stronger growth than last year in Pacific westbound up to about 5%. Right now for 4 months it has been 10%. So the import lanes have been tougher than expected and the export lanes stronger than expected. Then you can see in the Atlantic eastbound we are forecasting about 4% to 5% growth; right now it has been about 13%, booming Atlantic eastbound trade. Again, all that for the reasons we talked about earlier. In the United States, the industrial competitiveness of a lot of basic industries and some advanced consumer goods and electronic industries have improved dramatically. The exchange rate is also in our favor, with the dollar depreciation and the growth abroad in GNP and per capita income and production very strong, giving us a good source of export markets. We see that continuing for several years. Foreign-to-foreign are the star performers in the 10% to 12% growth range.



(2) PUERTO RICO/CARIBBEAN/CENTRAL AMERICA

ALL-IN MARKET INCLUDES COMMERICAL, MILITARY AND QUASI-BULK CARGO.

FIGURE 2 All-in container market (000 FEUs).

Looking next year, we see more of the same with the exception of the imports. We do think that will have a recovery by next year assuming the rebound by late third quarter in the United States with at least a recovery from the recession of a gradual nature that would lead to some positive gains on the import side from both the Pacific and Europe. We see the export lanes continuing, even building, as we gain competitiveness in chemicals, machinery, electronic goods, and other capital goods. We think intra-Europe will actually grow stronger than it has for the last 5 or 6 years getting very close in growth levels to Asia up to the 7% to 8% range. Then pretty much as it has been for the past 5 years but pretty amazingly strong given the size of the base. Now we see Asia to Europe and back continuing yet again in the 7% to 8% range. That market is the second biggest in the world now.

Just a quick summary of some of those major lanes. A look at the level and the crossing over, the transition and size between the exports and imports in the United States. The overall growth has been in real terms very healthy over the last decade. We've gone from about 1.3 and 1.6 million FEU, respectively, in 1980 to about 2.5 million 40-foot equivalents. So there has been major growth in real terms. We can see that moderating a bit, but still healthy basic growth and much better balance on the imports and exports, both continuing from about 1991 on, pretty much in tandem, up to 3 million FEU.

We have far better information on commercial growth around the world and that is what we primarily focus on. To get a feel for overall demand that we have to take into account when looking at supply and balance, we've included on top of the commercial, the military market, the quasi-bulk market, and other, what we call, below-the-line markets, non-commercial. Comparisons between last year and a 5-year future outlook: the biggest ones will remain in importance for some time in the Pacific theater, both Pacific East and West, and the strongest of all, the intra-Asia area, a very large market, a very fast-growing and very profitable market. The Atlantic is now not only much smaller than the Pacific (which it has been for several years) but is becoming smaller intra-Europe and the major Asia to-and-from Europe lanes, as we look forward. Our America lanes are still growing but at a much slower level, with Puerto Rico, the Caribbean, and Central America on the bottom.

Even when the military is added, the Pacific theater and the foreign-to-foreign trade within their regions or between them are becoming larger and healthier markets than the United States-based ones. The military is only a big factor in a few lanes, particularly in the Atlantic and, to a lesser degree, in one of the Pacific lanes. From a total global standpoint including all the lanes you've seen plus some others like South Pacific-Africa, etc., compounded average annual growth in market demand is a little under 5%, and on the supply side a little over 5% percent. So this is nothing to feel good about, but supply is still growing faster than demand the balance of markets across the world (Figure 3, page 51). On the other hand, things shouldn't get a great deal worse. The imbalances by region are significant; we need to continue to push alliances and other means to take advantage of market opportunities. We certainly do not want to contribute to any supply problem.

Shipper needs in the 1990s can be summarized as follows:

• Flexible and reliable partnerships with carriers;

• Broader service offerings from single sources;

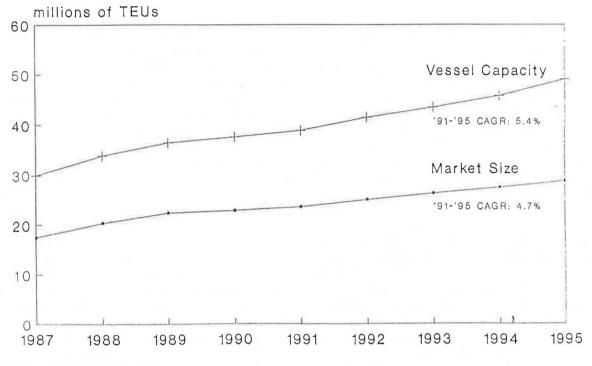
• Global coverage, including warehousing, distribution, etc.;

Advanced information capabilities; and

• Integrated transportation packages, i.e., logistics management.

The shippers first want us to be a lot more flexible—by how we handle the need, a rapid response to ship to a new market, a lot more reliable—that if we come forward with a proposal to enter another market we will do it steadily and reliably even if we are not in total control of the access involved; we have to find a way to manage so that we do deliver. They want broader service offerings from a single source rather than to deal with a host of vendors. They tell us, "We want to rationalize down to a much shorter list and if you want to be on that list and remain on it we need to develop additional offerings, value-added services, geographic services, specialized sales approaches, new market channels, etc."

A growing number are telling us that they want global coverage. They want us in some of the markets we are not in today, either directly or indirectly, with other carrier partnerships and with other modals. They would also like, particularly in some of the industries most important to us, value-added services that we don't have in all markets now, like warehousing, additional consolidation services, tag services, distribution capabilities, and so on. Information capabilities are something that we have invested very heavily in over the last 5 years and will continue to invest in the coming years. It has been a particularly fast-growing area of investment for us because we see that as a main source of advantage. That information has to be customized very strongly just the way the customer wants it and on a real time basis.



Source: DRI McGraw-Hill

#### FIGURE 3 Global container supply/demand.

To a lesser degree-but also important-is logistics management. There we have gone down a big learning curve with one of our sister units. CSX Sea-Land Logistics, and with partnerships we've had in Europe and Asia with logistics firms. Customers are telling us they do have an interest and they do want, in some cases, contract logistics. In other cases, they are not ready to turn over their operations but they want more coordination and more patching from us. They want it their way, not the way it is shown in press releases or studies or a cookie cutter package. We and others have probably been too quick to offer what we may think is customized, but evidently is not really customized enough, when you get down to brass tacks. We are working hard on that and we have had some good successes recently.

The changing needs of shippers have forced carriers to rethink strategies, with emphasis on the following factors:

- Stronger customer orientation;
- High-quality service;

• Emphasis on value-added services and differentiated products;

Sophisticated information systems;

"Marketing" focus versus operations and sales focus;

Greater focus on integrated logistics services;

- Door-to-door services;
- Global coverage;

 Inland intermodal capability in North America and Europe; and

Formation of strategic partnerships and alliances.

What has all this led us to focus on in terms of strategies? We do have a much stronger emphasis on product development, market development, and strategic planning across the board focused on the customer's perspective. If you look at a lot of plans we have put together in the last couple of years, if you look at how we have entered new markets and the types of new products and services we have developed, whether they are information products or valuated services or new geographic services, they have been developed far more closely in connection with customers than in the past. Quality, service-across-the-board people are still as interested as ever in reliability. The ship's on time at their point-to-point operation, the information on bills of lading and other documents are accurate and timely, and people are responsive and knowledgeable at customer service centers. That has certainly not diminished in importance and we have spent a lot of time and money beefing up those operations, the basics.

The emphasis on differentiated products and services has continued, particularly in the area of information products and value-added services like consolidation and warehousing. Information systems have gotten more sophisticated from the customer's perspective. To speak their language, whatever their business may be, is critical—not our language in shipping. Our focus in the company in terms of functional emphasis has clearly emphasized marketing. We have beefed up marketing in the last 2 to 3 years, not only at the corporate level but in the divisions and in the individual countries.

The emphasis on integration of all our services-basic services, value-added services, and logistics management functions-has been heavy. One of the ways we have done this is to get people in the local markets working in a task force or team approach rather than working under functional hierarchies. They are working together for customer segments, each of them bringing something different to the party. One is the expert on warehousing, one on the ocean side, one on the intermodal side, and so on. Door-to-door service is growing as a portion of our revenues and volume and we see that continuing. A lot of our emphasis has been entering markets we either hadn't served strongly enough or at all, so that we can increase the global scope. Intermodal capability has been increasingly important, not only in North America but also in Europe and Asia. We have had to do a great deal with partnerships and alliances, not only with carriers but also with customers.

Because of all that, the only way we feel we can meet needs and still have an advantage is by being efficient and effective. We think the approach that will be increasingly important is alliances and partnerships.

The effects of strategic alliances will enable carriers to

- Enhance service scope,
- Expand value-added services,
- Reduce cost structure and capital requirements,
- Enhance competitive advantage,
- Expand global coverage,
- Rationalize capacity,
- Increase utilization, and
- Increase market share.

Benefits we see are many. Enhancing the scope of services geographically, entering into a market with somebody already here so that we don't add excess capacity and we can rationalize and work together and both be more efficient in serving that market. Sea-Land has expanded our menu of value-added services by aligning with businesses who may have capabilities we don't, and we, in turn, offer capabilities to these new partners that they would like to offer their customers. The result will be efficiency and investment-reducing operating costs on several fronts-vessel operations, equipment, terminal operations, people, fuel, and of course, capital-given the extreme capital requirements in this business. This is a very effective, cost-effective way to enter a market on the capital side. Enhancing our competitive advantage by offering more frequent sailings, better day of the week departures for customers, having better access to certain terminals-a lot of direct operating advantages can come about through proper alliances: expanding global coverage even in markets where we already are; expanding the frequency of coverage and having a much stronger base around the world; in some cases rationalizing capacity, being able to enter a partnership and not only being able to improve service but actually to take vessels out of the trade and redeploy them elsewhere where there is a better market opportunity; and raising the utilization level for efficiency and getting gains and share by offering better service in key customer segments.

The longest alliance that we have has been running for about 3 years. In the vessel-sharing agreements in the Atlantic that have primary partners P&O, Nedlloyd, and Compagnie General Maritime (CGM), we are not only sharing vessels but are beginning to share terminals, containers, and chasses. It affects trade between North America and Europe, and the main thrust behind it continues to be asset rationalizing, better utilization assets, equipment and terminals, and overall operating cost reduction in an extremely competitive and overtonnage trade. We had the lowest-cost capacity on the trade and had something to bring to the party for our competitive carriers that they have agreed with Maersk, we have several ventures already under way. The slot charter for that U.S. West Coast-to-Europe service, the all-water service, has as a benefit that it is a new service for us-we didn't have an all-water service from the West Coast to Europe. For Maersk, it is an opportunity to gain some revenue for slots they are not using at any given time. The U.S. East Coast/Gulf to Europe and back service has enhanced our capabilities in terms of frequency of coverage from those areas to New York and better day of the week departures, so it has enhanced competitiveness on our basic services. For Maersk, they are taking advantage of our vessel-sharing operations from those locations. The newest one which has had heavy press coverage is the Pacific agreement with Maersk in which we have a full vessel-sharing agreement. We will be sharing more than 50 vessels altogether when you count all the intra-Asia feeder vessels. About 15 of those are intra-Asia. That is (conversely from most of the other ventures) far more driven by service enhancement than costs. There will be

PARTNER	TYPE OF AGREEMENT	TRADE LANE	RATIONALE/BENEFITS
P&O NEDLLOYD CGM	VESSEL SHARING AGREEMENT (USA); SHARING OF TERMINALS AND ROLLING STOCK.	NORTH AMERICA- EUROPE	ASSET RATIONALIZATION; COST REDUCTIONS; BETTER UTILIZATION OF CAPACITY/EQUIPMENT
MAERSK	SLOT CHARTER	U.S. WEST COAST – EUROPE	NEW SERVICE FOR SEA-LAND
MAERSK	SLOT/SWAP AGREEMENT	U.S. EAST COAST/GULF- EUROPE	ENHANCE SERVICE CAPABILITIES
MAERSK	VESSEL SHARING AGREEMENT	NORTH AMERICA-ASIA INTRA-ASIA	ENHANCE SERVICE CAPABILITIES; REDUCE CAPACITY; ENHANCE INTRA-ASIA SERVICES
PARTNER	TYPE OF AGREEMENT	TRADE LANE	RATIONALE/BENEFITS
CTE	SLOT CHARTERING	NORTH AMERICA- EUROPE	PREVENT ADDITIONAL CAPACITY FROM ENTERING TRADE; GROW REVENUES
NORASIA	VESSEL SHARING AGREEMENT	EUROPE-MIDDLE EAST- ASIA	ENHANCE AND AUGMENT SERVICE CAPACITY; LOW-COST ENTRY TO EXPANDING TRADES
SOVIETS	PARTNERSHIP; CONNECTING-CARRIER AGREEMENT	TRANS SIBERIAN LAND BRIDGE (ASIA–EUROPE); BLACK SEA–MEDITERRANEAN	NEW BUSINESS/SERVICI OPPORTUNITIES
FRANS MAAS	PARTNERSHIP	INTRA-EUROPE	NEW BUSINESS/SERVICE

### FIGURE 4 Sea-Land strategic partners.

some slight cost savings but not major. The real issue was in improving the number of sailings. We'll now have 5 weekly sailings to and from the Pacific, we'll reduce some capacity, and we will go from 9 to 8 feeder services in intra-Asia.

There are also sharing space arrangements with CGM on our econo-ships in the Atlantic, where they are slot chartering. That was done to gain some revenue from some underutilized space that we still had and also to prevent our slot chartering partner (CGM) from adding unnecessary capacity to the trade. They were planning to enter one way or another. If you are going to enter, let's find a more acceptable way so that we can work together and take advantage of existing assets and capacity and still give you the opportunity to serve customers in a market you need. The deal with Norasia in the Asia-Middle East-Europe trade has been underway for 2-1/2 years now and it has had some major enhancements recently. We've enhanced the service frequency, maintained a low-cost entry, and expanded the nature of the venture with capital contributions growing on both our side and Norasia. That had initially been an issue for us to increase coverage of the Middle East and gradually has become more important to us for trade between the two legs of Europe and Asia as well as the Middle East and subcontinent—expanded coverage in big markets as well as smaller ones. Regarding the Soviets, there is a lot going on, actually six or seven things going on. We still feel very positive about the Trans-Siberian Land Bridge. The Land Bridge time has decreased from 40 days, 3 years ago, to about 15 days, now. It still has a long way to go in improving itself in reliability and accuracy but it is making steady gains. Obviously, there are risks involved, given the problems within the Soviet Bloc and the instability within the political sphere. Given the importance to them of building their own infrastructure, we don't think that the Soviets will allow this venture to deteriorate.

Another that is just beginning is with Baltic shipping, trade between Bremerhaven and Leningrad. In addition, things coming down the road that you may have seen in the press include some sea-air ventures that are in the embryonic stages now, such as sea-air trade between Asia and Europe with Aeroflot. We think that will take another year to get underway. We are confident we can have about a 5-day transit time from Asia to Europe with that sea-air combination at a very attractive cost. In addition, we have opened up about a half-dozen sales offices in the Soviet Union and the Eastern Bloc and we have put in place some new information tracking systems jointly owned by us and the Soviet ministries of transportation, using, for one, sea track to link the Soviet carriers that are partners with Sea-Land's customer base worldwide. Our joint venture with Frans Maas, the big Dutch freight forwarder and logistics management firm, has led to a lot of new operations within Europe, including contract trucking, warehousing, and consolidation. That also is still in early stages. The joint venture has been underway about 1-1/2 years and it is building steadily.

Other types of strategic alliances include those involving

- Inland operations, e.g., trucking;
- Information systems;
- Equipment; and
- Terminals.

A few other examples that are a bit further afield from the direct ocean-land transportation per se include ventures and link ups with several trucking lines; and an expanded network in Asia through Hong Kong Orient Trucking. We also have some initial ventures in western Europe and one new one that will begin in Southern Europe. On the information systems front, we have been focusing on not reinventing the wheel where possible by working with other carriers to develop a common work station for booking and other processes so that customers don't have to use 16 different systems, procedures, or hook ups in order to do what they want to do. We are also working with some companies who are leaders in information systems technology outside of the shipping field, in fact, outside of the transportation field.

On the equipment front, I can mention one thing that was in the press about 9 months ago. We have a joint venture on K Manufacturing, one on chassis manufacturing in Asia, and one that probably will take place soon with a European firm. On the terminal front, third-party terminal services has been the way to leverage our existing capacity around the world. We do have a very good position for competitive carriers who find a cost-effective way to leverage our system.

What Frans Maas, our Dutch partner, has been doing with Xerox is a good example of the kinds of initiatives we think will gain importance because they offer real bottom line benefits. They have been successful in attracting new customers we haven't served at all in the past. They are not only taking care of the inbound transportation, the consolidation, the warehousing, and even the outbound distribution for Rank Xerox, but also they are assembling copiers at locations for them, actually bolting housings, attaching trays, and other operations, which have cut out a great deal of direct labor and manufacturing overhead for Xerox. This is a very important service.

In another case, our buyers, consolidators, and subsidiaries in Asia are working with about a half-dozen very large merchandise accounts, particularly apparel and footwear people. They are going further than the consolidation activity of the past. In the past, a couple of big footwear employers, retail chains, may have gotten most of the footwear produced in one country, say South Korea. One 40-foot container holds about 10,000 pairs of shoes or sneakers. Now, footwear production has shifted to many locations around the world (e.g., Korea, China, Singapore, and Malaysia) and there is also heavy footwear production in parts of Latin America and even parts of Eastern Europe. It is not as cost effective anymore for the importers to pull in multiple containers but inventory will draw down very slowly with all the different styles. So what buyers are doing is consolidating all this footwear from about 19 countries, allowing the importer to save on warehousing by drawing down all the styles it needs from this one container. It has also allowed us to use larger and larger containers to spread the costs very effectively over more units and, if coordinated correctly, we can even ship the container with all these styles directly from the port to the retail store right to the display rack. This procedure saves them all the double handling. One other thing they are doing is labeling footwear carts for them.

A lot of value-added services have been popping up very successfully in the last 2 or 3 years. Our CTI (Customized Transportation Inc.) subsidiary, part of CSX, trucking and related services, is working with the North American automobile sector right now, taking their assembly line parts—key ones like shock absorber struts and door handles and parts—and assembling them and taking them directly to the assembly plants just in time to avoid any production down time. That has just begun with two automobile carriers and will probably expand to three or four including one of the transplant Asian operators within another year.

#### Summary

The trade of containerized commodities around the world is clearly becoming more complex, shifting more quickly and becoming far less focused on the United States. As recently as about 5 years ago, just under 60% was U.S.-based counting imports and exports. Right now we are estimating about 45%. A good 13-to-14-point drop in just 5 years is quite significant. The outlook for supply and demand balance is not going to change dramatically-not going to get a lot better or worse-but given the current imbalances, what that tells us is that there is going to be enough supply out there to keep things intensely competitive in all major trade lanes, particularly over the long haul. Therefore, we have to be more aggressive than ever to find ways to be creative, sharing assets, and sharing capacities already out there. At the same time, the needs of our customers are growing in both size and complexity, so we need to be more flexible not only in where we serve and how we do it with partners from an operating standpoint, but also in terms of what we offer. That has forced us to continually look for new ways to create alliances with competitors, intermediaries, and customers. We think the next decade will see a lot more of the same and it will take a lot more management time and talent to manage it all. In the last 2 years, we have had to devote a lot more time for key people to manage all these vessel-sharing agreements and equipment partnerships to make them work right.

#### Questions & Answers to Mr. McGowan

\* Any potential growth that might exist in South America?

South America will be more important down the road. For the next 2 years, it will probably be volatile enough that it probably wouldn't be a big opportunity for us or others. It is going to take time to settle down because key countries are going through so much change with deregulation of their own in privatization not only in the transportation sector but in a lot of related industries. It will take time to shake out the rules and regulations on how one operates, legal restrictions on ownership and operation, the nature of partnerships, nature of accounting and profit repatriation, etc. It is worth considering down the road because it is a major sphere of the world that we certainly do think that over the long run will be a bigger player in the economy.

\* What is the expected impact of the execution of the free-trade agreement with Mexico for Sea-Land?

Depends on the nature of it. We are watching it because of what it may do not only for trade between Mexico and the United States but for trade between Mexico, Europe, Asia, and the rest of Latin America. We think that, depending on the nature of the agreement it can spur a lot of growth in industry that will impact ocean transportation as well as intermodal transportation with the United States.

\* Does that mean you are looking at direct calls at Mexican ports?

We are not looking at that yet because things are pretty muddy on the nature of the agreement. There is a lot of press hype we don't think has really panned out yet and it will be slower going than reports to date. It is an open question at this point, similar to South America, not a high priority but on the list of future opportunities.

\* Customers are requiring broader services from a single source. Have you seen any particular concern as to whether that single source actually provides the underlying service or are they satisfied as long as the process is managed in the eyes of the customer? Does it make any difference?

It makes less difference in how we do it than in what gets delivered. Whether we work with 5 or 15 people, while still presenting one face to the customer and making it easier to do to business day to day in every way, the customer doesn't care how many people are involved behind the scenes. \* The concept of a mega-modal carrier that is pretty heavily integrated was talked about. Do you see that the relationship with your sister company, CSX Intermodal, provides Sea-Land with any particular benefit as compared with doing business with other intermodal providers?

Some benefit because they are close to us. By dealing with them as part of the same company, we know their operation better and they get to know us better, but it isn't a major difference. I am not as close to CSX Intermodal as others in the company but from what I've seen we pretty much work at arm's length. The meetings between Sea-Land and CSX Intermodal are probably not much different than the meetings they have with other customers.

Our relationship with logistics sister units is much closer. They are working directly on developing new valuated services, understanding logistics flows, and coming up with good opportunities for us, whereas Intermodal serves more as a modal carrier for us. Certainly, they work as hard to understand our needs as they would with any customer, but I haven't been involved enough with them personally to understand the nature of the advantage beyond knowing one another's cost structures, markets, and players, so you work together well. That is an advantage, of course.

\* You listed a fairly broad range of agreements and alliances with other parties. What are some of the biggest obstacles you have had?

Most of the obstacles have not been legislative, regulatory, or in any way government related. When the first big initiative came up, many people thought that the vessel-sharing agreement (VSA) would collapse because it would be too difficult to get the different carriers to work with one another. There had to be agreement on who sails where, and when, who manages the tonnage center, who manages the operating decision making, who changes the sailing frequencies, etc. They thought that the carriers were just too accustomed to controlling their destinies totally and were too independent. We did have growing pains, but within 6 months it was working smoothly, much more so than people expected, and that has continued. For some of the other alliances, the newer ones, time will tell. But they have started off well. The real hurdle has been, particularly with ocean carriers, learning one another's needs and figuring out a creative way to take care of them. It takes a lot of time up front. We underestimated initially the amount of time required and a lot of management time on an ongoing basis. There was much less difficulty in basic operations and more needs of people to manage. With other partnerships involving the joint venture, say with Frans Maas, we didn't have a history to overcome in terms of being competitors but we had to learn a totally new company with a different background, culture, philosophy, objectives, and style and that has taken longer.

\* Can you talk about the significance of the Trans-Siberian Railroad improvements to the American east coast trade?

I see a big impact over the next few years. I think it will take long enough to make a sizable impact on trade between Asia and Europe as a basic land bridge. It has a lot to do to prove itself but we are encouraged by early signs because the cooperation has been good but there will be setbacks and risks of further changes and governments. There are enough underlying fundamental demands driving them that we think it will improve, but for a long time to come its main thrust will be as a competitive service to all water routes between Asia and Europe.

\* What happens 10 or 20 years from now when you have one carrier, one route, and we are all cooperating when, in fact, you have a monopoly?

I have only been in the industry 3 years, but the way I have seen things happen it would take a 100 or 200 years before there is a ghost of a chance of that happening. The amount of capacity that keeps getting added is in some cases staggering. Right now the amount of overcapacity in the Atlantic is about 35 percent. We are full up on our ships because we are up to six partners now, but the trade as a whole is almost 40 percent overtonnaged. In the Pacific, it is close to 30 percent. In most of the other trades, at least 10 to 20 percent. If you look at the number of carriers coming on stream with either announced plans or firm ship orders going out until at least the end of the decade, I don't see that going away. There are too many independent carriers, new national carriers, that have their own objectives, their own interests in becoming a major transportation firm, in becoming global operators, in supporting their country's other industries with secure,

cost-effective transportation service. They are subsidized in many cases, or they are owned outright by many governments. I just don't see that going away. It would be an incredible feat to have enough alliances to possibly make a dent in that.

We are working harder and harder to come up with new sources of business.

The terminal and equipment side is the challenge over the next few years. This is a bigger challenge to manage and coordinate with other carriers than the vessel side.

\* How do Sea-Land and its sister affiliates approach a JC Penney as a corporation—do you all go in separately or is there a matrix organization?

There has been too much of a fragmented approach, with a number of different hats going in—maybe eight or nine depending on the size of the customers and the extent of their markets around the world and the services they need from transportation providers. We are working hard to fix that. The large customers in multiple countries often have 10 or 15 groups to deal with. As we are trying to go in with fewer hats, ideally with one hat, we are working with customers to try and do the same. We have had some success by trying to work as a team.

We wouldn't rule out alliances with national carriers. We will work with key players in whatever market if it gives us benefit and takes care of the customers. If it doesn't, we have to see if it is worthwhile to go it alone.

\* When you have an international partner like Frans Maas, which approach to data harmonization and exchange does Sea-Land advocate?

It has a long way to go. The systems are not fully integrated. We are still working on that. It will take years to work out and a lot of cost. Capital requirements for informational systems have been absolutely enormous. They have begun to dwarf some of the hard asset needs. To really link all these new services, the informational systems needed amount to massive costs. We are trying to come to grips with this.

[At this point in the workshop the participants broke into two discussion groups to examine world market data and opportunities for innovative alliances. What follows is a report from those discussion groups.]

# WORLD MARKETS — FORECASTING OF SYSTEM CAPACITY, DEMAND AND SUPPLY — SOURCES AND GAPS IN INFORMATION

Arlene Dietz Navigation Data Center U.S. Army Corps of Engineers

Our subgroup was focusing on the problems and gaps in the data for forecasting world market capacity demand and supply. The first thing we did is make note of the TRB workshops that were held last year on data resources for national transportation decision making. Part of this dealt with the marine side. *Transportation Research Record 1253*, a paper on marine transportation, provides very good coverage of the data sources. It is a handy reference.

Of the data sources, we discussed the private and the public ones. The most recognized firms are on the private side, DRI/TBS of the World Seatrade Services, the Wharton Econometrics group are leaders. For information on the government side is the Department of Commerce and the Corps of Engineers for some water transportation data.

Two to one felt that the number one problem is that data is plentiful but there is little information. The information is only important when it meets a decision maker's needs. The information has to be focused for a particular decision maker. These data have to be consistently updated. Maintaining consistency as far as data currency. Databases should be compatible between rail, foreign trade, and waterborne cargo with common standards and codes as well as other locators.

The value of geographic information systems (GISs) lies in giving utility to data and translating it into useful information. This is critical for data integrators and is seen by our group as the wave of the future. This is a key intermodal area. We have a GIS group within TRB but they haven't focused on the marine/intermodal industry.

Another major area of priority is agreeing on national and international formats and data. The container weight issue, the information on standards for measurement, and the format for transmitting this information (software).

Data reporting is another area, internationally as well as nationally. It is inadequate and inconsistent across modes domestically. We don't have consistent origindestination information. What we do have when we try to get it internationally—we find it goes to a broker's address? In exports, it looks like all the grain is going out of Louisiana. We know it is not all grown in