PROSPECTS AND PROBLEMS OF THE CONTAINER
REVOLUTION

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"Container revolution" is a term which is often and increasingly heard today. Reduced to its simplest denominator, the term connotes no more and no less than a box of freight in motion—a concept as timeless as transportation itself. In the modern context, however, the revolutionized box—now called a container1—has created a dramatic change in existing systems for the movement of cargo in international commerce by land, ocean, and air carriers.2 The prospects for further change are manifold. At the same time, containerization has raised a myriad of problems, many of which will require solutions before the prospects of change may be implemented and fully realized.

I.
INTRODUCTION

The tremendous growth in the use of intermodal containers over the past several years is a matter of common knowledge. For example, in 1965, less than five per cent of the ocean liner cargo transported between Europe and the United States moved in containers; by 1975, it is variously estimated that from 50 per cent to as high as 80-85 per cent of that cargo

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1. "Container" is referred to in Article 4(5) of the Hague Rules of 1924 as an "article of transport." The United States Coast Guard, which is responsible for approving containers used for international transportation under Customs seal, proposes a definition of "container" as "an article of transport equipment (liftvan, portable tank, or other similar structure including normal accessories and equipment when imported with the equipment), other than a vehicle or conventional packaging [which is] . . . strong enough to be suitable for repeated use; . . . specially designed to facilitate the carriage of goods by one or more modes of transport, without intermediate reloading; . . . [fitted with devices permitting its ready handling, particularly its transfer from one mode of transport to another; and . . . so designed as to be easy to fill and empty." Proposed Regulation, 49 C.F.R. §420.3(3), published at 34 Fed. Reg. 14054 (Sept. 4, 1969).

will be containerized.\textsuperscript{3} Similarly, a rapidly increasing volume of air cargo is being transported in containers in jet freighter aircraft (and soon in jumbo-jet freighters).\textsuperscript{4} Many of the advantages of containerization—such as cost savings, reduced damage and losses, and simplification of trade—already have been partially realized. However, before integrated and effective intermodal systems can be achieved, it will be necessary to overcome a number of legal, operational, and economic barriers and problems.\textsuperscript{5}

At the outset, it should be emphasized that international transportation of cargo to and from the United States is subject to regulation by, \textit{inter alia}, three separate federal administrative agencies: the Interstate Commerce Commission (ICC),\textsuperscript{6} the Federal Maritime Commission (FMC),\textsuperscript{7} and the Civil Aeronautics Board (CAB).\textsuperscript{8} In addition, the Department of Transportation (DOT), established on April 1, 1967,\textsuperscript{9} has been charged with responsibility for developing and carrying out a national transportation policy. Within this multi-agency framework, the emergence of the container revolution has placed great emphasis upon the need for efficiency and cooperation on the part of individual transportation modes, and for close coordination on the part of regulatory bodies.\textsuperscript{10} The separate sets of principles and laws which have been

\textsuperscript{3} Oceanborne Shipping: Demand and Technology Forecast (June 1968), Litton Systems, Inc. study for the Department of Transportation; \textit{Hearings on S.3235 Before the Senate Comm. on Commerce}, 90th Cong., 2d Sess. 26 (1968); Kaiser Aluminum and Chemical Corporation, \textit{Containerization—An Outlook to 1977}. 3, 4, 9 (1968); John R. Immer, \textit{Container Services of the North Atlantic} 70-71 (Work Saving Internat'1, 1967).


\textsuperscript{5} It may be noted, however, that the freighter version of the jumbo jet has attracted little interest among the airlines, primarily because of the large cargo-carrying capacity of the passenger version of the new jets. See \textit{Journal of Commerce}, p. 1 (October 30, 1969).


\textsuperscript{7} The ICC has jurisdiction over domestic transportation, in interstate or foreign commerce, by motor carriers, railroads, freight forwarders, and water carriers. See \textit{Interstate Commerce Act}, 49 U.S.C. §§ 1-1022 (1964).

\textsuperscript{8} The FMC has jurisdiction over ocean transportation, in domestic-offshore or foreign commerce, by vessel operators, non-vessel operators (NVO's—similar to ICC freight-forwarders), and independent ocean freight-forwarders (shippers' agents on export freight). See \textit{Shipping Act}, 1916, 46 U.S.C. §§ 801-42 (1964); \textit{Intercoastal Shipping Act}, 1933, 46 U.S.C §§ 843-48 (1964).

\textsuperscript{9} The CAB has jurisdiction over air transportation, in interstate or foreign commerce, by direct air carriers (airlines) and indirect air carriers (air freight-forwarders). See \textit{Federal Aviation Act}, 1958, 49 U.S.C. §§ 1301-1542 (1964).

formulated over the years and applied to each of the modes now must be
dovetailed and streamlined to permit an integrated transportation
system.11 In some instances, new approaches, policies, and practices
should be adequate to accommodate the goals of the new system; in other,
legislation and treaties may be required.

The purpose of this article is to identify the benefits of containerization
which already have been achieved, as well as the many potential benefits
which may be anticipated; to identify the challenging and many-faceted
problems presented by the container revolution; to determine the extent to
which those problems can be or have been resolved; and to explore the
impact which solutions to those problems may have upon the
transportation industry and upon society as well. The problem areas
discussed herein are included within three categories: (a) pricing and
liability problems, (b) competitive problems, and (c) social problems. Due
to the wealth of issues and subissues to be covered, this article is intended
primarily as a survey. A more detailed treatment of individual problem
areas raised by the container revolution is left to future articles and
studies.12

In considering containerized transportation of freight, a distinction
should be made between three basic types of intermodal shipments. The
first is a container loaded and sealed at the supplier's factory and delivered
intact to the consignee's warehouse or other place of business. This is
tered a "door-to-door" container shipment. It is blessed with the
greatest cost savings obtainable from containerization but is burdened
with the greatest number of legal barriers, which will have to be
surmounted. The second type of shipment is a container loaded by a
freight consolidator at an inland point and transported to an inland point
overseas, where the container then is broken open and the contents
distributed. This is termed a "point-to-point" shipment. Thirdly, the

11 The suggestion that the three transportation agencies be combined into a single
agency to undertake regulation of all modes is not regarded as appropriate at this time. See
Hearings on S.3235, supra note 3, at 24. While such an agency would eliminate much inter-
agency friction, it would likely substitute intra-agency friction in its stead. Moreover,
creation of a single agency would not solve the difficult problem of how to regulate air and
ocean carriers of many different nationalities.
12 In this regard, the Department of Commerce, Maritime Administration, presently is
conducting a broad study, in three phases, of the impact of containerization on the United
States economy. This study has been contracted to Matson Research Corp. See Daily
movement of a container consolidated at a port or air terminal and shipped to an overseas port or air terminal, where the contents then are sorted for distribution, is termed a "port-to-port" or "air terminal-to-terminal" shipment.\textsuperscript{13}

II. ACHIEVEMENTS AND PROSPECTS OF THE CONTAINER REVOLUTION

One of the primary goals of the container revolution is reduction in transportation costs. While the precise amount of cost saving is best left for the economists, accountants, and data processing experts to determine, some general knowledge of the subject is necessary for an understanding of the prospects and problems of the container revolution. The first, though not the greatest, cost saving on a door-to-door container shipment\textsuperscript{14} results from elimination of the normal cost of export packing. When cargo is loaded in containers, there is no need for the full crating, coopering, or other preparations for stowing individual packages in the holds of ships. The insurance industry warns the shipping community of the danger of severe loss caused by improper packaging and securing of cargo within containers; however, underwriters generally agree that full export packaging is not required for such cargo and that the risk of damage is not great—assuming containers are properly loaded by shippers and properly protected by carriers.\textsuperscript{15}

A second cost saving will be achieved through use of "unit-trains" to transport containerized cargo from inland points to a port. Unit trains will be used particularly in intense traffic areas, such as between Chicago or St. Louis and New York or other major ports. In 1966, one railroad filed with the ICC a unit-train rate of $16,900 per train for the transportation of containers between the Chicago area and Port Newark, New Jersey.\textsuperscript{16} The cost per container on a fully utilized train would have

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\textsuperscript{13} There are, of course, many other variations of this theme, \textit{e.g.}, door-to-port movements, port-to-port movements, etc.

\textsuperscript{14} Containerized point-to-point and port-to-port shipments will be subject to some, but not all, of the cost savings of door-to-door container movements.


been less than $113. The announced plan was to transport the cargo between the two cities in one day. Numerous protests against the rate were filed with the ICC, and the rate ultimately was withdrawn by the railroad. Nonetheless, inexpensive, fast unit-train transportation does not appear to be far off. When implemented, it will provide one of the most significant cost savings of the container revolution.

Another saving results from the location and operation of new container terminals. The trend already is for containers to be loaded away from port areas, at interior points. New container terminals generally are located between the inner cities and the adjacent industrial or consuming areas. Ship lines which have initiated container service have moved their terminals from Manhattan or Brooklyn in New York City to Port Elizabeth, New Jersey or Staten Island; from San Francisco to Oakland, California; from old San Juan, Puerto Rico to Puerto Nuevo or Isla Grande, outside old San Juan; from London to Tilbury in England; and from the traditional port area in Rotterdam to Beatrixhaven in that city. The basic purpose of these moves to terminals in outlying areas has been the need for backup lands in which to park containers while they await loading onto ships or removal by trains or tractors. Additionally, the moves have made it unnecessary for freight to traverse the heavily trafficked downtown areas which typically are accessible only by narrow streets that hinder transportation.

The elimination of the cost of storage in sheds which the carrier must provide for conventional cargo is another saving produced by containerization. Containers are simply parked in the terminal area until the time of departure of the ship or airplane. Moreover, the container system eliminates the cost of unloading freight from rail cars or trucks to a place of rest on the pier and then transferring the freight from the place of rest (usually in the shed) to the end of the ship's tackle prior to loading the ship. Most important, it costs far less to load or unload a full

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and $19,700 between Fairmont City, Illinois and Port Newark. The charge applied to trains comprised of 75 flatcars with not more than two containers—loaded or empty—on each car. The minimum charge applied to containers weighing up to 45,000 pounds. Additional flatcars were subject to a charge of $223 or $260 each for the two routes.

17. The ICC ordered an investigation of the unit-train rate in Docket No. 48335, The Pennsylvania R.R. Co., Trainload Container Rates Between Illinois and New Jersey. After several postponements of the effective date, the rates were allowed to be canceled as of October 9, 1967. Accordingly, the proceeding was discontinued by ICC order on October 23, 1967.

18. It has been predicted that the major United States cities will be linked by permanently coupled unit trains specially designed to carry containers. See Traffic World, p. 22 (October 11, 1969).
container of freight than individual packages or even packages on pallets. The container is simply driven to the container yard by a chassis pulled by a tractor, the tractor is detached at a parking place, and the container awaits the ship. When the ship arrives, the container on the chassis is pulled by a yard tractor alongside the ship, where a giant crane lifts the container off the chassis and deposits it into one of the vertical cells of the containership.

At the other end of the line, containerization results in the same cost savings between the time the cargo arrives at the destination port and the time of delivery to the warehouse of the distributor.

Another great saving is in the ship’s in-port time. Whereas it takes a conventional vessel three days to load and unload general cargo, it now takes approximately eight hours for a containership to load and unload the same amount of cargo containerized. Also, containership operators try to eliminate multiple port calls in coastal areas and to stop at only two or three ports. To the extent this can be achieved, vessel expense is further reduced.

The smaller number of ships required to carry the same amount of cargo in containerized form results in further cost savings. Containerships are larger and more expensive than conventional ships, but are capable of carrying many times the amount of cargo formerly carried. For example, until recently, United States Lines, Inc., operated sixteen conventional ships in the trade between North Atlantic ports in the United States and ports in Europe and the United Kingdom. Six U.S. Lines containerships now serve this trade and carry roughly the same volume of traffic.

Beyond cost savings, another advantage of containerization is that it decreases pilferage and breakage of cargo. Thus, the supplier is more confident that his merchandise will reach the customer in good condition, and the importer is less fearful that his consignment of needed traffic will

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19. Some lines, such as Sea-Land Service, Inc., keep the container on the chassis until the ship arrives and then lift the container from the chassis directly onto the ship. Other lines, such as Matson Navigation Co., remove the container from the chassis and place it on the ground or on top of other containers and then move containers within the yard by means of a specially designed straddle carrier.

20. Sometimes the savings extend beyond the warehouse of the distributor. In the Puerto Rican trade, for example, foodstuffs are often delivered directly from the containership to the food market.

21. Due to the huge capital investment involved, “the economics of containerships requires that they sail across the ocean like a pingpong ball.” R. J. Gage, Conferences and the Container Revolution, in Seminars on the Container Revolution, supra note 15, at 27.

22. The tendency to eliminate some ports must be weighed against the social problem of port discrimination, discussed infra.
never arrive or be useless because of breakage. To date, there has been no overall reduction in cargo insurance rates. Insurers point out that, although the number of individual shipments subject to pilferage and breakage has been reduced, entire containers of cargo now are hijacked, fall over the side of the ship, or are damaged. Nevertheless, containerization appears to be a generally safer way to move the cargo, and, when initial problems are solved, insurance costs on cargo in containers should be reduced.

Other benefits of the container revolution may be broadly categorized as simplification of foreign commerce. The supplier of export merchandise should be eligible for payment when he delivers the cargo to the initial carrier and should not have to wait until he receives an on-board bill of lading from the ship. Indeed, ITC Commercial Credit Card, Inc. presently is introducing a credit card system in which a supplier dealing with a buyer who has been issued a credit card will have, in effect, an instant letter of credit payable at the supplier's own bank as soon as he delivers the merchandise to United Cargo Corporation or one of its agents. Export documentation and in-port procedures should be dramatically simplified so that the exporter will merely arrange with the carrier to have the merchandise delivered to a destination without the exporter becoming involved in a multiplicity of carrier and port charges or in special port procedure. There are also prospects for simplified documentation of cargo.

Over the next several years, the transportation industry can be expected to change to a more capital-intensive and less labor-intensive industry. This should tend to stabilize costs. Once a long-range investment in ships

23. An insurance representative points out many examples of entire containers of cargo being damaged. Nevertheless, he concludes that "[o]bviously, if containerization is going to work, it should overall reduce the cost of insurance, the rate of premium—if it's going to work. But I think you can see the many questions that have to be resolved." C. E. McDowell, supra note 15, at 76-77. But see, American Institute of Merchant Shipping, 12-Month Survey: Casualty Involving Containers During Sea Transportation, Container News 10 (January 1970).

24. United Cargo Corporation is an NVO (non-vessel operator) which receives and delivers freight at inland points in the U.S. and abroad. ITC Commercial Credit Card, Inc. is a wholly-owned subsidiary of United Cargo Corporation.

25. The Department of Commerce has effected three major changes in export documentation which should result in significant savings for exporters. See Daily Traffic World, pp. 1-2 (September 17, 1969). The National Committee on International Trade Documentation has proposed a set of five standardized documents—bill of lading, special cargo policy, certificate of origin, delivery instructions, and dock receipt—designed to simplify intermodal container movements. See Journal of Commerce, p. 1 (September 18, 1969). See also, Traffic World, p. 40 (February 21, 1970).
(20- to 25-year life), airplanes, terminal real estate, containers, and unit trains is made, costs will remain relatively constant.\textsuperscript{26} By contrast, labor costs, at least since the end of World War II, have tended to steadily increase. To the extent that labor will be replaced by capital, the costs of providing service should become more stable.

A final benefit of the container revolution will be the elimination of certain administrative costs, such as the cost of purchasing cargo insurance and the cost of freight-forwarders and custom brokers for handling port and airport clearances. If, as discussed \textit{infra}, insurance for loss or damage of cargo is included in the freight rate, cargo insurance companies will be able to deal with a single carrier rather than with a multitude of importers and exporters. The result should be an administrative saving in handling insurance.\textsuperscript{27}

In summary, the container revolution should result in great cost savings and other benefits. How soon these savings and benefits can be achieved, in light of the problems that will first have to be met, is the subject of the remainder of this article.

\section*{III. PRICING AND LIABILITY PROBLEMS}

\subsection*{A. Single-Factor Rates On Through Routes}

Under conventional break-bulk methods of transportation, freight typically moves by one or more land carriers from an inland point to a port or terminal, then by ocean or air carrier, and, finally, by other land carriers to an inland destination. Freight is subjected to at least six—and up to twenty—successive handlings or sortings at different stages of the movement. Shippers are charged separate transportation rates for each portion of the movement, pursuant to tariffs on file with the respective agencies charged with regulating the commerce involved.

With the advent of containerization, cargo moves in successive hauls by

\textsuperscript{26} With regard to real estate, container lines tend to procure far greater acreage for terminal yards than is necessary to meet immediate requirements. Apparently, they would prefer to allow the land to remain fallow until needed rather than face the prospect of hiring additional labor that would be required to handle the same amount of cargo in a smaller yard. The theory seems to be that, once capital is invested in land, inflation is no longer a problem; on the other hand, if additional labor is needed, inflation becomes a significant factor.

\textsuperscript{27} The difficulties involved in transferring to such an insurance system are discussed \textit{infra}, as are similar administrative and social problems.
land, ocean or air, and land carriers without rehandling.\textsuperscript{28} Freight may be loaded into containers at inland origins and remain untouched throughout the journey until the containers arrive at inland destinations. This change is methodology has prompted the question whether single rates, applicable to the entire intermodal movement, could be established. Such rates have been regarded as desirable because, it is said, they would allow predictability of overall transportation charges, improve control and coordination of shipments, and—not least importantly—encourage rate reductions.

There are a number of methods by which single rates might be accomplished. For example, carriers already can quote a “combination” rate, comprising the total of the separately published rates of each of the participating carriers. Under this method, the originating carrier\textsuperscript{29} quotes its customers a door-to-door charge, which is the mathematical combination of the land, water, and/or air carriers’ rates on file with the respective agencies plus incidental charges. Combination rates presently are widely used by carriers and groups of carriers in international commerce.

Another method of quoting single-factor rates is by including local pickup and delivery charges within the ocean or air carrier’s published port-to-port (or terminal-to-terminal) rates. Such rates have the same effect as door-to-door rates for shippers which are located within the described port area or the airport terminal area. Because local pickup and delivery service generally is regarded as “incidental” to the line-haul ocean or air transportation, the rate for that service is filed with the same agency as the rate for the line-haul service.\textsuperscript{30} Thus, the through rate is filed with one agency, and there is no need to break out a portion of the charge

\textsuperscript{28} It should be noted that an increasing amount of containerized cargo is moving in connecting service by ocean and air carriers. At first, it would appear that the primary advantage of air transportation—speed in transit—would tend to be nullified when combined with a slower ocean movement. However, along certain routes (e.g., Japan to Chicago), it appears that the speed of air carriage actually is complemented by the low cost of ocean carriage. Some 11.5 million pounds of freight moved in the “Sea-Air Program” of a single airline during fiscal year 1966. C.A.B. Docket 16242, \textit{Transpacific Route Investigation}, Examiner’s Recommended Decision 204, n. 266 (April 16, 1968).

\textsuperscript{29} The “originating” carrier is not necessarily the motor carrier which picks up the shipment. As ocean and air carriers usually own the containers utilized, they frequently are in a position to deal directly with shippers, at the same time advising those shippers of other carriers which participate in the combination rates.

for the land segment. This type of rate presently is being used by ocean carriers.\(^{31}\)

For shippers located beyond local port or terminal areas, single-factor rates can be accomplished by a transportation company which is authorized to operate in more than one mode. Thus, an ICC-regulated freight-forwarder can offer a single rate between inland U.S. points and foreign ports, and hold out single carrier responsibility for the entire movement. A company offering such a service is regarded by the FMC as an NVO.\(^{32}\) The single-factor rate must be broken down, with the land and water portions filed, respectively, with the ICC and FMC.

A relatively small number of companies offer this type of service, due principally to the strict licensing requirements for land freight-forwarders under Part IV of the Interstate Commerce Act. Recently, however, the ICC has evidenced a more liberal approach to applications for land-forwarder permits where this will tend to effectuate coordinated intermodal operations.\(^{32}\) Moreover, for land/air movements, the ICC similarly has indicated a favorable attitude towards granting Part IV permits to air freight-forwarders which seek to develop integrated, through transportation of air freight.\(^{34}\)

Another—and the most controversial—method of offering single-factor rates is the establishment of two or more carriers of joint rates covering through transportation over their combined routes. Such rates have been

\(^{31}\) A number of steamship lines and NVO's include pickup and delivery service in their FMC tariffs. For example, Sea-Land Service, Inc. and Consolidated Express, Inc. provide such service in the New York-to-Puerto Rico trade and Matson Navigation Company provides the service in the Hawaii trade. Insofar as ICC-certificated motor carriers are used to perform the inland portion of the service, the rates for the land segment also are filed with the ICC. See Matson, supra note 30; Drive Away Auto Transport, Inc., Common Carrier Appl., 99 M.C.C. 75, 79 (I.C.C. 1965); Lindstrom Ext.—Southeast Alaska, 98 M.C.C. 647, 653 (I.C.C. 1965). While air carriers and air freight-forwarders file rates for pickup and delivery service with the CAB, the consistent practice has been to file separate tariffs for the airport-to-airport and pickup and delivery portions of the service.

\(^{32}\) Common Carriers by Water—Status of Express Companies, Truck Lines and Other Non-Vessel Carriers, 6 F.M.B. 245, 287 (1961). An NVO is a freight consolidator which, like its counterpart the ICC forwarder, purchases underlying transportation from vessel operators. See Comment, Intermodal Transportation and the Freight Forwarder, 76 Yale L.J. 1360 (1967).


\(^{34}\) Theodore Savage Contract Carrier Appl., 108 M.C.C. 205, 216 (1MC.C. 1968), wherein the Commission stated: "The field of coordinated intermodal air-motor service, therefore, is open under the controlling statute and the clear Congressional intent in enacting that statute. Within this framework, coordinated intermodal service may be provided and may enjoy an increasingly important role in the Nation's transportation picture."
specifically authorized by statute for land and ocean carriers operating between points in the continental United States and Hawaii and Alaska. Pursuant to that statute, carriers now serve the Alaska trade primarily in accordance with joint rates filed with a single agency—the ICC. The jurisdiction of the ICC over joint rates in the Hawaii trade has been subjected to challenge, but that jurisdiction has been upheld. In the foreign trades, an ocean carrier recently was requested by the FMC to delete from its United States—United Kingdom tariff that portion of a joint rate which covered inland U.S. transportation.

The regulatory joint-rate controversy has received considerable publicity in the past year. On July 15, 1969, the ICC modified its tariff circular to permit the filing with it of joint land/ocean rates for through transportation in foreign commerce. Only ten days later, the FMC Chairman directed a letter to the ICC Chairman, requesting that the new tariff rule be suspended. Three days later, the ICC stayed its tariff rule, and shortly thereafter, it instituted a rulemaking proceeding looking to the adoption of rules permitting joint land/ocean rates to be filed. The FMC, likewise, instituted its own rulemaking proceeding to consider the

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36. See Alaska Steamship Co. v. Federal Maritime Comm’n, 399 F.2d 623 (9th Cir. 1968); Sea-Land Service, Inc. v. Federal Maritime Comm’n, 404 F.2d 824 (D.C. Cir. 1968). Where pier-to-pier rates exist in the Alaska trade, they are filed with and regulated by the FMC.

37. On July 28, 1969, Matson Navigation Co. filed with the FMC a Petition for an Order To Show Cause Why Seatrain Lines, Inc. should not be required to file its West Coast-Hawaii rates with the FMC to the extent that Seatrain did not utilize the inland services of ICC-certificated carriers. Subsequently, Seatrain modified the tariff to exclude any possibility of its application where such inland services were not utilized. On December 3, 1969, the FMC denied Matson’s Petition.

38. The FMC also found that inland-overseas transportation could be included in the tariff. Disposition of Container Marine Lines Through Intermodal Freight Tariffs Nos. 1 and 2, FMC Nos. 10 and 11, 11 F.M.C. 476 (1968), remanded per curiam, North Atlantic Westbound Freight Ass’n v. Federal Maritime Comm’n, 397 F.2d 693; 404 F.2d 803 (D.C. Cir. 1968). The matter is pending before the FMC in Docket No. 68-8, Disposition of Container Marine Lines Through Intermodal Container Freight Tariffs Nos. 1 and 2, FMC Nos. 10 and 11.


adoption of a proposed rule allowing ocean/land rates to be filed with that agency. Comments from numerous interested parties have been filed in both rulemaking proceedings. On December 16, 1969, the FMC approved for a period of 18 months a conference agreement in the South American trades which contemplates the filing of joint land/ocean rates with the FMC; and, on April 15, 1970, the FMC adopted rules requiring carriers subject to its jurisdiction to file tariffs for any through rates established for through international transportation. The ICC has not yet concluded its rulemaking proceeding.

In the past, a number of efforts have been made to enact legislation which would facilitate the publication of joint rates. The most significant of those was the Trade Simplification Bill (S.3235), introduced on March 27, 1968. This bill was designed to allow each agency to retain jurisdiction over the carriers it regulated but, at the same time, to allow the filing of joint rates. Though supported by the Department of Transportation, Civil Aeronautics Board, and Federal Maritime Commission, the bill was opposed publicly by Sea-Land Service, Inc., the pioneer operator of containerships in foreign commerce, as well as by land freight-forwarders. The ICC took no position. The bill never was reported out of committee. On October 20, 1969, the DOT transmitted a redrafted version of the same bill to the 91st Congress; it was introduced in the House on October 23 (H.R. 14489) and in the Senate on November 14 (S. 3142).

Some of the principal questions raised by the Trade Simplification Bill concept are: whether non-equipment operating carriers, such as land freight-forwarders and NVO's, should be allowed to enter into joint rates; the extent to which the antitrust laws would apply to through transportation and land and ocean ratemaking associations; whether the divisions earned by any of the underlying carriers must be broken out and made subject to regulation by the agency to which the carrier is responsible; whether the parties to the joint rate must undertake unlimited liability for loss or damage of cargo, notwithstanding the different

43. E.g., in 1965, the ICC, FMC and CAB supported identical bills (H.R. 7793 and S.1950) which would have allowed joint rates in domestice-offshore commerce to be filed with any of the agencies. The bills would also have created a joint board to handle any regulatory problems raised by the joint rate filings. Hearings never were held on the bills. In 1966, a DOT-sponsored bill which extended the joint-board concept to foreign trade never was introduced in the Congress.
provisions for limitation of liability normally applicable to each carrier; and complications that might be introduced by foreign governments whose carriers might be a party to the joint rates.

Far too much of the consideration of proposals for filing joint rates has been focused on procedures for filing and on agency jurisdiction. The real questions which do not appear to have been carefully investigated are whether joint rates are needed, whether they would provide actual benefits and, if so, how these benefits could best be achieved.

One of the benefits claimed for a joint rate system is simplification of import-export trade. Shippers would not have to do a mass of arithmetic to arrive at transportation costs in international commerce, and, therefore, more businesses would be encouraged to enter foreign trade. The shipper would have to deal with only one carrier, which would inform him of the total price of the transportation. While this is obviously a benefit, it is difficult to believe that it is not happening now—without joint rates. Shippers presently are consulting the transportation companies with which they deal to receive a quotation which covers the combined costs of transportation.

A second claimed benefit is that, once joint rates are implemented, shippers would be provided with an official catalogue of rates for through transportation representing the total costs including transfer of cargo at terminals and pickup and delivery charges. Such an official catalogue would tend to prevent overcharges and rebating. But the question again arises: is a change in the law, or agency regulations, necessary to realize such a benefit? A simple solution under existing rules is for the land carrier to publish a through rate and break out the U.S. land portion in one column, the water portion in another column, and land transportation abroad and other accessorial charges in a third column. The tariff would be filed both with the ICC, which regulates the land rate, and with the FMC, which regulates the ocean rate. The FMC would consider the through carrier an NVO for the water portion of the transportation.

A third claimed advantage is that time is saved when cargoes are under the control of a single carrier or of two carriers cooperating under a joint rate. This time saving, it is said, arises from the fact that the participating carriers are able to arrange and supervise all transfers between carriers while the cargo is under their control. However, this claim has been based on a relatively small number of shipments and requires more documentation before it can be generally accepted. Further, it needs to be determined whether carriers which are willing to cooperate could provide

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44. See New England Forwarding, supra note 33, at 64.
the same coordinated transfers and speedy transportation without joint rates.

Still another claimed benefit is that joint rates for through routes would simplify limitation of liability problems and thereby define clearly which carrier is responsible to the shipper. However, it is by no means apparent that joint rates *per se* would create uniform limitation of carrier liability. Indeed, under most of the proposals for joint rates, the limitations of liability would continue to be governed by the law pertaining to each mode. It now appears that the only hope for adequate protection of merchandise in transit is through competition. Sooner or later, one or more of the transportation companies will offer unlimited responsibility for the entire through shipment as a means of attracting international freight. If shippers are attracted by this offer, other carriers will be obliged to match it.

Perhaps the most potent advantage claimed for joint rates is that they will foster rate reductions. The importance of this benefit depends largely upon the system of joint rates that is adopted and the degree of transportation change that will be tolerated. If carriers are allowed to enter joint rates with undisclosed and unregulated divisions, the competitive impact will be enormous. Land and ocean carriers seeking traffic increases to fill trains or ships could reduce rates sharply without diminishing profits. Soon, other combinations of carriers would file competitive joint rates. The danger in this process is that the two strongest carriers would offer each other the lowest divisions and eliminate all significant competitors. Thus, through rates offered for the giant railroad/giant ship route would tend to be significantly less than the rates which could be held out for the small truck/small ship route, the small truck/giant ship route, or the major railroad/small ship route.

The danger of eliminating all but the strongest competitors could be avoided by requiring the participants in joint rates to make public the divisions of each carrier and to make those divisions subject to normal statutory requirements prohibiting discrimination or unfairness. Such breaking out and regulation of divisions, however, would diminish or preclude any competitive motivation for rate reductions other than those

45. Limitations of carrier liability are reviewed infra.

46. E.g., a large railroad might be motivated to agree to a smaller division of revenue with a ship line that tendered 1,000 or 2,000 containers each week than with a ship line that tendered 100 or less containers a week. Likewise, a large ship line would be motivated to accept a lower division with a large railroad than with a small motor carrier.

47. Such a system of joint rates, requiring that the divisions between the participating carriers be clearly broken out, has been suggested by one writer. Note, *Legal and Regulatory Aspects of the Container Revolution*, 57 Geo. L.J. 533, 542-43 (1969).
reductions based on savings from efficiencies and improved technology. For example, the parties to a joint-rate agreement might work out arrangements for cheap and efficient use of terminal facilities. The question arises, however, whether efficiencies of that type could be achieved only through joint rates, or whether they could be achieved in other ways, e.g., by carriers offering reduced rates for freight tendered in a form which could be cheaply and easily handled.

Moreover, exposed divisions of joint rates would be closely watched by steamship conferences and rate associations. There is little likelihood that those ratemaking bodies would allow competitive rate reductions simply on the basis of the publication of through tariffs. The most that could be expected would be for the carriers to pass on to shippers savings that would result from improved methodology negotiated in joint-rate arrangements.

Several alternative courses are available for solving the controversy about joint rates. One method would be the institution of a multi-agency rulemaking proceeding. The personnel conducting the proceeding for the respective agencies could invite public comments and suggestions as to whether and what kind of joint-rate systems should be made lawful. They then could distribute a comprehensive list of alternatives and arrange hearings to question witnesses as to what results would be produced under each system. Thereafter, the hearing officers would be able to make appropriate recommendations to the agencies. Implementing action, such as legislation or regulations, could then be pursued.

The same kind of information also could be gathered by one or more committees in a Congressional investigation. The report resulting from such an investigation could be the basis for new legislation, or suggestions by the committees for agency rules, or a combination of both.

A third forum could be a Department of Transportation hearing. One of the functions of the DOT, as already mentioned, is to coordinate intermodal transportation. An investigation could be conducted pursuant to this responsibility, utilizing either the personnel of the other regulatory agencies or an officer of the DOT who would invite the testimony of other agency officials.

The critical point, in any event, is not the forum to be used; rather, it is the need for a comprehensive, well-staffed inquiry into the benefits, if any, that would result from various systems of joint rates. The investigators should insist on a demonstration of the precise manner in which claimed benefits would be realized. Such an inquiry concededly would be time-consuming, but would result in a resolution faster and surer than all the abortive, less thorough plans of attack which have been tried.
B. Integrated Pricing Systems

Tariffs published by land carriers generally prescribe rates for the inland segment of the transportation on the basis of the weight of the shipment, while ocean and air carriers generally base their rates for the water or air segment on the weight or measurement of the shipment (whichever results in the highest revenue). The reason for this divergence in practice is that weight is usually the limiting factor by truck or rail, and measurement is often the limiting factor by ship or airplane. A simple example of the difficulty caused by ocean rates based solely on weight is found in the transportation of wallboard, a commodity which changed from a dense to a bulky product over a relatively short time in response to advances in home-building technology. Water carriers charging a rate based only on weight discovered that significantly more shipboard space had to be utilized to earn the same revenue for wallboard as previously had been received.

Both land and water carriers frequently adjust rates to compensate for changes in the weight-measurement relationship of particular commodities, although ship lines have demonstrated reluctance to shift entirely to weight-based rates. As a result, it is generally impossible to determine through transportation charges in advance, unless the shipping documents include both the weight and measurement of the shipment to allow conversion of the rate. A resolution of this impediment will have to be achieved before single-factor rates can be published, quoted, or even known.

C. Container Rate Structures

There is an increasing pressure on the containership lines to offer freight-all-kinds (FAK), per-container, or containerload rates. Each of

48. In the domestic-offshore trades, ocean rates on many commodities are stated as the higher of a charge per hundred pounds specified in one column of the tariff or a charge per cubic foot specified in an adjacent column. In foreign trades, a single rate is stated in terms of the higher per long ton (2,240 pounds) or per measurement ton (40 cubic ft.); therefore, a commodity weighing 2,240 pounds but measuring 80 cubic feet is rated the equivalent of a two-ton shipment on a measurement basis.

49. Alaska Steamship Line converted to weight-based rates in most of its services in the Alaska trade. This appeared in large part to be designed to accommodate the through shipments it carried in connection with the Alaska Railroad.

50. A steamship conference official has stated that FAK rates:

... might be "forced" upon us, if, indeed, that's the right word. It might be something we would want to come to.

... We don't want to stop the low-value, low-rated cargo from moving by giving
these rate systems are tied to the economies of container transportation and each has different ramifications to land and ocean carriers, shippers, and cargo consolidators.

FAK rates are used by railroads, truck companies, and ship lines in domestic-offshore ocean trades51 where containerization has been an important factor since 1957. FAK rates are usually expressed in terms of a specified amount per cubic foot or per 100 pounds of mixed cargo, and typically require that no more than a specified percentage of the cargo be composed of a single commodity. Per-container rates are simply a freight charge for transportation of a full container. South Atlantic and Caribbean Lines, for example, will carry a full container, irrespective of the contents, from Florida to Puerto Rico for $770.52 Containerload rates are charged per 100 pounds for a commodity which, on a volume basis, is calculated to fill the container. The containerload rate for 43,000 pounds of canned goods, which would fill a 35-foot Sea-Land Service container, is $1.15 per 100 pounds, while the rate on canned goods in any lesser quantity is $1.55 per 100 pounds.53 The difference between the containerload and less-than-containerload rate is designed to attract cargo in an amount which eliminates the need for consolidation by the carrier and otherwise achieves the economies of containerization. This system has long existed in the carload and less-than-carload rates offered by railroads.

NVO freight consolidators favor FAK rates or per-container rates because these enable transportation to be purchased from underlying ocean carriers at a "wholesale" rate and to be sold to shippers at a

\[\text{it too high a rate, and we have to protect ourselves from outsiders coming in and grabbing the cargo which a too high FAK rate might make attractive at lower rates.}\]

R.J. Gage, supra note 21, at 30.

51. The domestic-offshore trades are the trades between the continental United States and Alaska, Guam, Hawaii, Puerto Rico, American Samoa and the Virgin Islands. Containerization has been an important factor in the Alaskan, Hawaiian, and Puerto Rican trades as well as in the contiguous American trades (e.g., New York to San Francisco or New York to Houston), since 1957, when Sea-Land Service established a Puerto Rican and contiguous service and was soon followed by Matson in the Hawaii trade and Alaska Steamship Company in the Alaska trade.

52. South Atlantic and Caribbean Lines, Inc., Freight Tariff No. FMC-F No. 9, Eighth Revised Page 19. The $770 rate applies to a 35-foot container and is subject to a maximum of 40,000 pounds, with an additional charge for any excess at 86 cents per 100 pounds.

53. Sea-Land Service, Inc., Puerto Rican Division, Freight Tariff No. FMC-F No. 21, (Pan-Atlantic Series), Third Revised Page 215. The less-than-containerload rate is calculated on a volume basis, at 49 cents per cubic foot, if this results in a higher rate than the weight basis. Also, a still lower rate of $1.05 per 100 pounds is established for shipments weighing a minimum of 129,000 pounds.
“retail” rate. This is the same basic system that land freight-forwarders have developed in United States domestic transportation. Although initially discouraged by the railroads, the land forwarders now are encouraged by them. Large shippers, of course, seek to retain the containerload/less-than-containerload system of rates because it passes on to them some of the benefits of containerization and gives them an advantage over shippers of less-than-containerload traffic. The FAK and per-container systems have been effectively used in the coastwise and intercoastal ocean trades of the United States, including the trades between the continental United States and Alaska, Hawaii and Puerto Rico. Thus far, however, they have not been in general use in the foreign trades.54

Ocean carriers and the ratemaking conferences to which they belong apparently frown on FAK or per-container rates for the reason that consolidators might gain more control of cargoes. They fear that ships will become ferryboats for the ocean leg of transportation controlled by inland carriers or consolidators; and that ships then will be at the mercy of inland carriers.54 Conferences have tried to encourage transportation in containers under existing systems by offering a 10 per cent allowance on the rate for full containers delivered to the pier. The North Atlantic Continental Freight Conference has published a tariff revision allowing 30 per cent of the freight rate as a container consolidation fee.

Some shipper interests have urged the FMC to require ship lines to publish FAK or per-container rates. Thus far, the FMC has not done so. Questions arise as to FMC jurisdiction to require steamship companies to publish such rates, and as to the wisdom of such a requirement. Any regulatory authority to require ocean carriers or conferences to establish FAK rates would have to be implied from Section 15 and perhaps even Section 17 of the Shipping Act. Section 15 authorizes the FMC to, “... after notice and hearing, disapprove, cancel or modify any agreement... that it finds to be unjustly discriminatory or unfair as between carriers, shippers, exporters, importers or ports... or to operate to the detriment of the commerce of the United States, or to be contrary to the public interest...” 55 Section 17 provides that “[n]o common carrier by

54. A per-container rate for foreign transportation was published by Waterman Steamship Company, which does not belong to a ratemaking conference, but has been withdrawn. A special per-containerload rate has been introduced by Cartainer Lines between Europe and the Gulf Coast, applying to large-volume movements.

55. See testimony of several conferences before FMC Staff Investigation and Informal Conferences, Non-Vessel Operating Common Carriers by Water (NVOCC’s) in the Foreign and Domestic Offshore Commerce of the United States (June 25-26, 1969).

water in foreign commerce shall... charge... any rate... which is unjustly discriminatory between shippers or ports, or unjustly prejudicial to exporters of the United States as compared with their foreign competitors."

In the absence of an FMC requirement, the lines will decide for themselves whether and when FAK rates should be offered. A report by McKinsey and Company predicts that through the process of changing to integrated door-to-door transportation, "... rates largely reflecting the value of cargo will tend to be replaced by the ship freight-any-kind principle—thus, the complexity of commodity ad valorem rates will tend to be replaced by a straight charge per container." 

D. Dual Rate Systems and Other Conference Problems

Because international trade is subject to the jurisdiction of both the nation of export and the nation of import, it is difficult for either nation, through regulation, to prescribe specific transportation rates in international trade. Moreover, it is generally recognized that insistence of the sovereigns on full rate competition on the part of every carrier would cause more chaos than the trading community is able or willing to bear. Most nations, therefore, have allowed lines serving their trades to enter into ratemaking conferences. They have allowed those conferences to use certain devices to protect their rate structures from the competition of carriers choosing to remain independent. The protective device allowed under United States law is the dual rate system. Pursuant to this system, a conference may, subject to limitations, establish one set of rates for shippers who contract to give the conference lines all or a specified portion of their shipments, and a different set of rates, up to 15 per cent higher, for shippers who do not sign such a contract.

Many problems arise from the interplay of the conference systems and the container revolution. Will conference members, for example, be able to enter into joint-rate arrangements with land carriers under which the ocean carriers' division of the joint rate is lower than the port-to-port rate of the conference? Will the conference itself be allowed to publish a joint rate or have any control over the division agreed to by its member lines?

59. See Note, Rate Regulation in Ocean Shipping, 78 Harv. L. Rev. 635 (1965).
Can a member of a dual-rate-system conference that publishes only port-to-port rates receive a different amount for the port-to-port segment of a through rate which he independently establishes? These issues are being reviewed by the FMC. 62

Other problems relate to enforcement of dual rate systems if signatory shippers are allowed to ship their cargoes via NVO’s which, in turn, may utilize the underlying vessels of independent carriers, and to enforcement of those systems if nonsignatory shippers can tender cargoes to NVO’s which use underlying conference vessels. 63 These problems are merely representative of the difficult questions with which existing conference systems increasingly will be confronted as a natural consequence of the container revolution.

E. **Limitation of Liability**

The limitation upon carrier liability for loss or damage to cargo on a point-to-point land/ocean shipment between the United States and most countries in Europe is different, at the present time, for each of the three segments of the transportation. On the inland U.S. segment, liability generally is unlimited except in the event the carrier had been given permission by the ICC to file a released rate. 64 On the ocean, the limitation of liability is $500 per package or unit. This limitation is prescribed in Section 4(5) of the Carriage of Goods by Sea Act, 65 which is a statutory codification of the 1924 Convention for the Unification of Certain Rules of Loss Relating to Bills of Lading—colloquially known as the “Hague Rules.” Virtually all ocean conferences have limited their liability to $500 per container on the theory that the container is the “package or unit” within the meaning of the Carriage of Goods by Sea Act and the Hague Rules. 66 On land overseas, the truck limitation is an amount per kilogram

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62. *Container Marine Lines*, supra note 38, involving a dispute between a conference and a member-carrier over the carrier’s asserted right to publish a single-factor rate for containerized traffic from inland points in Great Britain to ports in the United States.

63. See R. J. Gage, *supra* note 21, at 28-29.

64. The general rule of liability for United States land carriers is established by §20(11) [railroads] and §219 [motor carriers] of the Interstate Commerce Act, 49 U.S.C. §§20(11), 319 (1964). The same provisions give the ICC discretionary power to authorize released rates for those carriers. The ICC has exercised that power only sparingly.


that converts to approximately $3.70 per pound, and the rail limitation is an amount per kilogram that converts to $15.00 per pound.

These diverse limitations of liability present two important problems. First, by insisting that the container is the package, ocean carriers have, in the absence of court interference, virtually insulated themselves from liability, generated extensive litigation, and created a different standard of liability for containerized cargo than for other cargo. Second, the limitation of liability of the carrier depends in every case on a determination of where the loss or damage occurred. While in most cases it is not difficult to determine responsibility for the loss of non-delivered cargo simply by looking at carrier receipts, it would be very difficult to determine where damage occurred in a sealed container movement. Yet, the carrier's responsibility to the shipper for the damage would depend on whether that damage occurred in the United States, on the ocean, or in a foreign country.

A diplomatic conference was held in Brussels, Belgium during May 16-27, 1967 to deal with various maritime conventions, including a proposed protocol for amendment to the Hague Rules. One of the proposals considered was an increase in the limitation of liability under the Hague Rules from $500 to $662 per package or unit. Norway and the United States introduced a counter-proposal to eliminate the per-package limitation and to substitute a limitation of $3.70 per pound. The purpose of the counter-proposal was to establish a limit that was high enough to cover most commodities (though not the extraordinarily valuable

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68. Revision of the International Conventions Concerning the Carriage of Goods by Rail (CIM), done October 25, 1952, 241 U.N.T.S. 339 (1952). Though not discussed in detail herein, it may be noted that the limitation upon air-carrier liability for international air cargo is an amount per kilogram which converts to $7.50 per pound. Convention for the Unification of Certain Rules Relating to International Carriage by Air, done October 12, 1929, 49 Stat. 3000 (1934), 137 U.N.T.S. 11 [Warsaw Convention] The separate limitation for air-carrier liability reflects a further diversity in the applicable laws which impede intermodal container transportation.

69. If the courts uphold the carriers, a package loaded directly into the hold of the ship could produce liability of $500, whereas the same package loaded into a container along with 199 similar packages could result in liability of only $2.50 per package. However, on June 5, 1970, a federal district court held that the $500 limitation applied to each of 99 individual bales of leather shipped in a container, and not to the container as a unit. Leather's Best, Inc. v. S.S. Mormaclynx, et al., No. 69-C-1027 (E.D.N.Y., decided June 5, 1970). In that case, the description in the bill of lading was "1 container S.T.O. (said to contain) 99 bales of leather." See also, United Purveyors v. Motor Vessel New Yorker, 250 F. Supp. 102 (S.D. Fla. 1965).
merchandise) and, at the same time, to achieve the greatest potential for uniformity on at least two segments of the multi-segment international shipment. It was thought that, if the ocean limit could be made the same as the truck limit in Europe, changes in the overseas rail convention and United States land liability provisions would be more readily obtainable, resulting, ultimately, in a single limitation of liability for through transportation in international trade.

Following the first Brussels meeting, vigorous industry opposition developed in the United States to the $3.70-per-pound proposal. Ocean carriers generally advocated a limitation of $828 per package or 60 cents per pound, whichever was higher, while cargo insurance interests favored $662 per package or 90 cents per pound, whichever was higher. On the other hand, all interested agencies and departments of the United States agreed that the limitation advocated by both industry groups was inadequate if a containerload of general cargo was to be deemed a single package. The government regarded it as unfair that a number of packages which were combined in a container—e.g., television sets—should be relegated to a 90-cent-per-pound limit when, before containerization, these packages each would have been subject to a $500 limit. Various shipper groups agreed with the government position. It was finally agreed that the United States would not oppose a limitation of $662 per freight unit or package or 90 cents per pound, provided that packages or units loaded in a container or on a pallet would be considered individually for the purpose of applying the limitation.

At the second meeting of the Twelfth Session of the Diplomatic Conference on Maritime Law held in Brussels during February 19-23, 1968, it was decided, after lengthy and heated debate, to adopt limitations of liability equivalent to $662 per package or unit or 90 cents per pound, whichever is higher, and to add a provision to accommodate the container problem. The container provision of the protocol passed by the conference reads as follows:

Where a container, pallet or similar article of transport is used to consolidate goods, the number of packages or units enumerated in the Bill of Lading as packed in such article of transport shall be deemed the number of packages or units for the purpose of this paragraph as far as these packages or units are concerned. Except as aforesaid such article of transport shall be considered the package or unit.70

This provision seemed to cure the container problems, but a question arose immediately as to its interpretation. The British contended that carriers could charge an additional fee to allow the shipper to enumerate packages in the bill of lading. The United States delegation, which had drafted the container clause, construed it to preclude any additional payment for enumeration.\(^7\) Because shippers could recover up to $662 per package if the number of packages in the container were enumerated, but their recovery would be limited to 90 cents per pound if there were no enumeration, carriers could effectively limit their liability by demanding an unreasonable premium for allowing the shipper to enumerate. For this reason, the issue of whether an additional charge may be permitted is a critical one.

The 1968 protocol to the Hague Rules has not, as of this date, been submitted to the U.S. Senate for ratification, nor has the Department of State requested any congressional committee to amend the Carriage of Goods by Sea Act to bring it into conformity with the protocol.\(^7\)

For purposes of a workable liability system in intermodal transportation, the protocol to the Hague Rules does not afford the complete answer. Indeed, it appears that the answer will not result from international treaty or legislation. Rather, it is anticipated that the containership lines, together with connecting land carriers, will seek to accomplish a uniform rule of liability for through transportation and, to obtain this end, will be willing to undertake greater liability than is required under applicable law. The most likely undertaking at this time seems to be $3.70 per pound, but it is not beyond belief that containerization will so minimize loss or damage that enlightened container carriers will be willing to accept unlimited liability and thereby avoid the red tape, litigation, and shipper dissatisfaction that will probably accompany nonuniform modal liability rules.

71. The meaning the British delegation gave to the container clause was announced in the closing hours of the conference after the clause had been passed. The meaning attributed to the clause by the United States delegation was set forth in a report of the delegation, dated April 26, 1962, to the Secretary of State.

72. If the United States decides to ratify the protocol, the procedure probably will be to submit it to the Foreign Relations Committee of the Senate for ratification, and then to submit the ratified treaty to the Merchant Marine and Fisheries Committee of the House of Representatives and to the Commerce Committee of the Senate with a request that the Carriage of Goods by Sea Act be amended to comport with the new protocol. Another approach would be to request the Congress to repeal the Carriage of Goods by Sea Act and to enact a provision to make the convention, as amended by the protocol, applicable to bills of lading.
IV. COMPETITIVE PROBLEMS

A. Prospects of Overtonnaging

The key to the future of the container revolution is how competitive problems are handled. The present approach by the steamship companies is to build large, fast containerships and efficient container systems for the heavily trafficked trade routes of the world. The forecast of the McKinsey study, that "ship operators must introduce this technology or risk becoming uncompetitive,"73 is proving to be correct. Thus, the attention to competitive problems given by individual ship lines, conferences and national governments becomes critical. The most important competitive problem is overtonnaging of the important trade routes.

Already, it appears that the trade routes between U.S. North Atlantic ports and ports in Great Britain and the Continent are overtonnaged. Containerships first were introduced into that trade in 1966. By the end of 1968, about 28 per cent of the commercial liner traffic moving on the major North Atlantic trade route was containerized.74 During the first quarter of 1969, the container traffic inbound on that route was approximately the same as during the comparable 1968 period; significantly, however, the 1969 movement was accomplished with less than half the number of container sailings made during the 1968 period.75 While the reduction in sailings is attributable in part to the ILA strike at North Atlantic ports, "it also reflects the entrance of newer and more efficient container capacity into the North Atlantic/United Kingdom-Continent trade."76

The McKinsey study has predicted that, considering "the very high productivity of container ships," it may be expected that "only 25 ships with a capacity of less than 2,000 containers each could handle the entire European/North American general cargo trade."77 At present, Atlantic

74. U.S. Dep't of Commerce, Maritime Administration, Foreign Ocean-Trade of the United States—Containerized Cargo/Selected Trade Routes 1 (1968). On the major transpacific trade route, the comparable 1968 figure is less than 6 per cent. Id. at 3.
75. U.S. Dep't of Commerce, Maritime Administration, Foreign Oceanborne Trade of the United States—Container Cargo/Selected Trade Routes (1st Qtr. 1969).
76. Id. at 2. Figures for the third quarter of 1969 reflect 418,000 long tons, or a 136 per cent increase in inbound containerized movements over the comparable 1968 period. Id. at 5 (3rd Qtr. 1969). The commercial container trade on the North Atlantic increased to 58 per cent of the total commercial liner traffic, inbound and outbound, during the third quarter of 1969. Ibid.
Container Lines operate six roll-on/roll-off ships in the North Atlantic trade, has one more under construction, and is authorized under the terms of the cooperative agreement among the parties to the ACL consortium to operate ten such ships. Hapag Lloyd operates four containerships in the trade and is expected to construct four more. American Export-Isbrandtsen Lines, operating under the trade name of Container Marine Lines, has three ships in North Atlantic service and has applied for construction subsidy to build two more. United States Lines has six containerships in operation in the trade and has two more on order. Moore-McCormack Lines has three to four containerships operating in North Atlantic service. Sea-Land Service has eight containerships in the trade, and has others on order.

As of mid-1969, 79 American-flag containerships and 103 American ships with partial container capacity were operating in the trade routes of the world. On the major transatlantic and transpacific trade routes, the American-flag vessels handled approximately two-thirds of the containerized U.S. foreign commerce. At the same time, construction of new containerships has been proceeding at a rapid pace. At the end of 1968, 99 containerships and 104 ships with partial container capacities were under construction or on order. With the steady increase in container service, it should be noted that, at 1968 freight rates and operating costs, containerships break even when they are approximately 55 per cent full, and yield sharply increasing profits when they pass the break-even point.

It appears that, if competitive forces are left to themselves, there will ultimately be a fierce battle to fill ships. The weapons of the battle will be quality of service, level of freight rates, rebates and control of transportation companies that feed freight to the ships, i.e., truck lines, railroads, airlines, forwarders, and consolidators.

In anticipation of the problems of overtonnaging, all container lines serving the Atlantic have formed a new Transatlantic Freight.

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78. U.S. Dep't of Commerce, Maritime Administration, United States Flag Containerships and United States Flag Ships with Partial Capacities for Containers and/or Vehicles (June 30, 1969).
79. MarAd Report, supra note 75.
80. U.S. Dep't of Commerce, Maritime Administration, Containerships Under Construction and on Order (Including Conversions) in United States and Foreign Shipyards—Oceangoing Ships of 1,000 Gross Tons and Over (December 31, 1968). By June 30, 1969, the figures had increased to 122 containerships and 112 ships with partial container capacities under construction or on order, with 19 additional ships undergoing conversion to containerships. Id. (November 30, 1969).
Conference,81 which they contend is better geared to the needs of containerization than the existing general cargo conferences. The conference agreement was submitted to the Federal Maritime Commission for approval on August 22, 1969.82 The trade covered by the proposed Transatlantic Freight Conference would include transportation of cargo in both directions between U.S. North Atlantic ports and ports in continental Europe.83 There are now many separate conferences, inbound and outbound, covering defined port ranges in Europe. Apparently, the new conference would immediately, upon approval, take the place of all eastbound and westbound conferences serving U.S. North Atlantic ports and would leave room for lines in the United Kingdom trades to join later.

The proposed Transatlantic Freight Conference would limit competition in rates as well as other areas. Its members, for example, have agreed to maintain a rate structure which preserves natural routing, thereby avoiding diversion of cargo to or through ports or "ranges" which are not naturally tributary to the origin of the cargo. The conference agreement would minimize transshipment between ranges for the purpose of obtaining a rate advantage84 and would prohibit absorption of inland costs. The agreement would permit any member line to take independent action against an individual competitor.85 It includes a self-policing provision that provides for fines of up to $100,000 for a single violation. The conference was expressly formed in recognition of "the


82. FMC approval of the agreement is required under the Shipping Act of 1916. See note 60, supra. Following publication of notice of the agreement, No. 9813, 34 Fed. Reg. 13953 (Aug. 30, 1969), comments were filed with the FMC by various parties, including the Department of Transportation, the Justice Department, and the Department of Defense. The FMC has ordered an investigation and hearing to determine whether the agreement should be approved, disapproved, or modified. 34 Fed. Reg. 20231-32 (Dec. 24, 1969).

83. The agreement of the proposed Transatlantic Freight Conference (dated July 29, 1969) states, at page 2: "The 'conference trade' means the transportation of cargo between (i) United States North Atlantic ports and ports in Europe, and (ii) to the extent now or hereafter lawfully permissible, between any points in the United States and points in Europe via United States North Atlantic ports and ports in Europe."

84. Id., Article 6(c), pp. 7-8.

85. Id., Article 10, pp. 16-17.
modern trend towards containerized shipping, roll-on/roll-off, palletization, unitization, and other forms of specialized service," but is not limited to containerships or other special-purpose ships.86

The Transatlantic Freight Conference is a well-drawn instrument with abundant procedural guarantees. Its plain purpose is to blunt or eliminate price competition among member lines. The agreement, however, does not include a dual rate system to defend itself against ratecutting by independent lines. In this respect, it follows the existing inbound and outbound conferences in the North Atlantic-Continent trades, which are the only major conferences in the foreign trade of the United States not protected by a dual rate system.

There are two major issues brought about by the Transatlantic Freight Conference. First, will the agreement be approved by the FMC, particularly in the face of its two-directional, multirange coverage and its novel independent-action provision? Second, if the agreement is approved, will overtonnaging of the North Atlantic cause one or more of the major lines to break from the conference and cut rates in order to fill its ships?

There is no question that steamship lines are now willing or required by business considerations to invest huge amounts of capital in containerships. The outstanding questions are the extent to which they will be allowed to institute restraints on competition, and whether those restraints will work.88 If the lines are allowed to form a strong conference which proves effective, any overtonnaging will force most of the ships to operate with considerable empty space. This would necessitate an increase in rates to a level which will pay for ships operating at perhaps 50 per cent of capacity. If overtonnaging becomes too severe, some of the containerships will be diverted to other trades. The newer ships tend to be the larger ones, and these would remain on the transatlantic, transpacific, and other major trade routes. Thus, the rates to support expensive containerships sailing half-full can be sustained only if the conferences are effective. Conversely, if the attempt to maintain effective conferences fails, rates would be driven down by competition. While shippers would receive excellent container service at low rates, the steamship industry might be placed in turmoil. Cargo would likely be attracted by lower overland rates away from certain trade routes such as the U.S./Mediterranean routes and the routes between Europe and the U.S. West Coast. Some lines would be forced to leave the high-volume routes and institute containership service, at reduced rates, on other routes that do not

86. Id., Article 3, p. 3.
87. Id., Article 1, p. 1.
generate as much traffic. The weakest companies would have to go out of the liner business.\textsuperscript{89} It is entirely possible that the threat of such a severe competitive climate will induce steamship companies to seek a system of rate control by national, bilateral or international bodies.

An alternative system—besides effective containership conferences or governmental regulation—would involve operation of ship lines on a completely competitive basis much akin to the present international tanker and bulk carrier markets. Under this approach, ships or portions of ships would be chartered by land transportation companies which would then be responsible for attracting cargo to the vessels which they chartered. At this stage in the container revolution, it is impossible to foresee which approach to competition will prevail or which system will be best for future development of international transportation.

\textit{B. Uniform Container Standards}

During the years 1966-1968, there was a drive to prescribe uniform container standards for the steamship industry. The most difficult of the many proposals which were advanced related to standardization of lengths of container into adaptable units of 10, 20, 30 or 40 feet, particularly in light of the fact that Matson Navigation Company, one of the important early container operators, was using 24-foot containers, and Sea-Land Service, Inc., another pioneer, was using 35-foot containers.\textsuperscript{90}

In 1967, several bills were introduced in the Congress relating to standardization of containers. The primary bill, S. 2419 and H.R. 12954, was designed to preclude the establishment of standard container dimensions. Hearings on the bill were held before the House Committee on Merchant Marine and Fisheries. On November 29, 1967, the Committee issued a report condemning standardization of container sizes. Illustrative of the attitude adopted by the Committee toward uniform container standards is the following passage from the report:\textsuperscript{91}

\begin{quotation}
\textit{89. If the container revolution reaches this highly competitive state and some lines are driven away from the principal trade routes or out of business, the public may have to face the issue of how to control the remaining lines which, in the absence of competition, may be free to increase rates sharply.}

\textit{90. During the third quarter of 1969, 66,000 containers were utilized in the North Atlantic trade, of which 40 per cent were 20 feet in length and 41 per cent were 40 feet in length. MarAd Report, supra note 76.}

\end{quotation}
The purpose of this legislation is to prevent the application of discriminatory policies or practices by any government agency against any carrier by giving preference as between them upon the basis of length, height, or width of cargo container cells, except when required by military necessity.

The further development of containerized transportation systems is dependent upon free play in the marketplace, at least for the near future.

It appeared from the Committee hearings that, while it is important to have adaptable containers that can be used by any inland or ocean system, it is not essential that the containers be of uniform length. Matson and Sea-Land both indicated that, when this became necessary, they would modify their ships to handle 40-foot containers as well as the size presently carried; i.e., most of the container cells would continue to be 24 feet long for Matson and 35 feet for Sea-Land, but some would be 40 feet long. The bill was enacted into law on March 16, 1968. 92

The length of the containers is not a problem in roll-on/roll-off, as opposed to cellular, ships. Moreover, cellular ships having horizontal rather than vertical container cells also would largely eliminate the problem of containers of varying lengths.

C. Container Interchange Practices

It is no longer unusual for ship lines to carry cargo in containers which belong to other ship lines, container-leasing companies, NVO's, and even shippers.93 Steamship lines exchange container equipment with each other under agreements filed with and approved by the FMC pursuant to Section 15 of the Shipping Act.94 Similar agreements can be entered and approved between NVO's—or other persons subject to the Act—and steamship lines. The ICC, under Section 5b of the Interstate Commerce Act, can approve the exemption from the antitrust laws of container-equipment interchange agreements among land carriers.95 There is doubt, however, whether an agreement for a pool of container equipment

93. Many shippers construct special-purpose containers for their own commodities and tender them to the ship lines in accordance with tariff rules and rates. Some shippers are considering building their own special-purpose barges to be carried on LASH or Seabee barge-carrying ships.
94. Shipping Act, supra note 56. Approval under §15 exempts agreements under the antitrust laws.
belonging to land and ocean carriers would be exempted from the antitrust laws, even if all members received the blessings of the ICC under Section 5b or of the FMC under Section 15.

To allow for the formation of such a pool of container equipment by land and ocean carriers, the Equipment Interchange Bill, H.R. 8968, was introduced in the Congress on March 13, 1969. This bill was not approved, primarily because of the pendency at the same time of the Trade Simplification Bill96 which contained a provision allowing for equipment interchange.97 The Trade Simplification Bill provision, however, was limited to pooling or interchange among parties to joint-rate agreements, whereas the Equipment Interchange Bill would have allowed any carrier to enter the agreement, irrespective of joint rates. Neither the Trade Simplification Bill nor the Equipment Interchange Bill was passed by the 90th Congress. However, as already noted, the Trade Simplification Bill has been reintroduced in the 91st Congress. It is difficult to imagine any valid objection which could be raised against legislation to allow interchange of containers with reasonable limitations.

D. Joint Utilization of Container Facilities

Sea-Land Service and Matson Navigation have established the practice of operating their own container terminals. In most cases, terminal properties are under long-term, exclusive leases, so the wharfage charges previously paid to port authorities for the account of the shipper have been eliminated.98 Container terminals ordinarily include a large parking area,99 a building for receiving and delivering containers, an administrative building, berths, and huge container cranes. Except in the large container operations at major ports, the containers of several lines can be handled at one terminal which has multiple, backup parking areas. The ships can be scheduled to use the berths in an orderly way.

96. S.3235, 90th Cong., 1st Sess., discussed supra note 43 and accompanying text.
97. Id., §4, provided: "A common carrier subject to the jurisdiction of an agency may agree to establish joint rates for international transportation. . . . Subject to section 8 of this Act, . . . the pooling or interchange of equipment . . . may be fixed by the carriers participating in a joint rate arrangement."
99. Sheds or other closed storage areas are not needed in the container system (unless the carrier consolidates or breaks the containers), because the enclosed container is itself sufficient protection from the elements.
Multiline container terminals are able to achieve better utilization of expensive berths and cranes than are terminals used by individual lines. Several systems are available for implementing joint terminal operations: a ship agent providing terminal facilities for a number of ship lines at a single facility; a terminal operator providing a single facility for many ship lines; or a port authority operating the berths and cranes necessary to handle containers from the individual backup container yards of each of the lines serving the port. Such systems as these can be established pursuant to Section 15 agreements filed with the FMC and exempted from the antitrust laws.

A significant problem can arise if a single line is able to obtain leases placing it in a superior competitive position vis-à-vis other lines which may be unable to lease facilities because of land limitations at a port area. However, most port authorities include in container terminal leases a provision that the lease will in no way restrict them from offering similar terminal facilities to other lines.  

E. Control of Rebating and Container Inspection Programs

It may be considered healthy, on the one hand, for technology and competition to force the lowering of transportation rates, at least within certain limits. On the other hand, commerce generally is not benefited by private deals to rebate part of freight rates to certain shippers or by the reduction of a shipper’s transportation charges because of his intentionally misdescribing the cargo which is carried. The shipping public normally must bear the cost of the monies siphoned off to certain shippers engaged in such unlawful practices. Virtually all transportation statutes include provisions outlawing rebating and misdescription.

When ship lines do not have sufficient cargo to fill their ships at tariff rates, they sometimes resort to rebating not only by direct means, but also through absorption of inland freight charges and other indirect practices. In many cases, rebating makes it difficult for legitimate shippers to meet the competition of shippers receiving the rebates and for the carriers observing their tariffs to compete with carriers paying rebates to their customers. Largely as a result of an investigation from 1959 through 1961 by the Celler Committee of the House of Representatives, the Shipping

100. See, e.g., Agreement No. T-1870, supra note 98, at 20.
101. See Shipping Act, 1916, §16, 46 U.S.C. §915 (1964); Intercoastal Shipping Act, 1933, §7, 46 U.S.C. §847, Interstate Commerce Act, §§2, 216(d), 217(b), 305(c), 306(c), 404(b), and 405(c), 49 U.S.C. §§2, 216(d), 217(b), 305(c), 905(c), 906(c), 1004(b), and 1005(c); Federal Aviation Act, §§403(b) and 404(b), 49 U.S.C. §§1373(b) and 1374(b) (1964).
102. Hearings Before the Anti-Trust Subcomm. (Sub-Committee No. 5) of the Comm.
Act of 1916, as revised in 1961, requires that ocean conferences institute an adequate system for the policing of obligations under the conference agreement.\(^\text{103}\)

A policing system that could eliminate all rebating probably is impossible. Various attempts by conferences to punish lines allegedly engaged in rebating have failed for procedural reasons.\(^\text{104}\) There appears to be no feasible way for a governmental body such as the FMC to eliminate rebates that are paid abroad, particularly in view of the refusal of foreign governments to enter into bilateral or multilateral programs to curtail such practices. Thus far, the lines themselves do not appear to have been successful in preventing rebating. The proposed Transatlantic Freight Conference includes well-defined procedures for self-policing and a fine of up to $100,000, which may be effective if the self-policing authority is sufficiently strong. Notwithstanding the proposal of that Conference, there is no reason to expect that rebating will be markedly reduced in all trades in the very near future.

As already noted, misclassification of cargo sometimes can be a form of rebating. This takes the form of misweighing, mismeasurement, and misdescription of cargo. Even if the carrier does not tolerate misclassification as a matter of policy, solicitors or agents attempting to attract cargo may close their eyes and cooperate with shippers in misdescribing shipments.\(^\text{105}\) In the U.S. domestic offshore trades, misclassification had become so serious that some carriers requested the FMC to institute a policing program. Virtually every carrier serving those trades agreed to cooperate fully—even to the extent of paying for unloading containers so that they might be inspected. The policing program was instituted in 1966 and has proved effective. Misclassification practices which have been plaguing the trades were curtailed. As of the present time, it appears that misclassification practices have not returned


\(^{105}\) See Royal Netherlands Steamship Co. v. Federal Maritime Board, 304 F.2d 938 (D.C. Cir. 1962).
to the domestic trades. The FMC program is continuing and may prove to be a useful tool in the foreign trades.

V. SOCIAL PROBLEMS

A. Dislocation of Labor

Like most other major technological innovations, the container revolution will displace people who hold particular types of jobs under the old system. In the shipping field, there will be three important labor dislocations: reduction of the number of seamen needed to transport ocean freight, reduction of the number of longshore workers, and an accommodation between teamsters and longshoremen as to who is entitled to load and unload the freight that moves on ships.

American-ship labor unions are important, strong, and have vigorous leadership.106 Wages of American seamen are more than double the wages of seamen on foreign vessels which compete with American ships for international freight. In order to make American-flag ships competitive with foreign ships, the United States Government pays an operating differential subsidy to American passenger and cargo liners in the foreign commerce of the United States.107 Not all American liners in foreign trade are parties to subsidy contracts, and those which have no contracts must compete without the benefit of subsidy. Under the controlling statute, the "amount of the operating-differential subsidy [may] not exceed the excess of the fair and reasonable cost of insurance, maintenance, repairs not

106. The National Maritime Union generally supplies seamen for American-flag, subsidized ships operating from the Atlantic Coast of the United States and for Lyke Bros. Steamship Company operating out of the Gulf Coast. Its president for many years has been Joseph Curran, one of the leaders of the dramatic union movement in the United States in the 1930's. Seamen for ships operating from the Pacific and Gulf Coasts generally are supplied by the Seafarers International Union or one of its affiliates), headed by Paul Hall, an important leader in the AFL-CIO. Mr. Hall also is president of the Maritime Trades Department of the AFL-CIO, whose vast membership includes most of the building trade unions and many of the metal trade unions. Both Mr. Curran and Mr. Hall are on the Executive Committee of the AFL-CIO. The Masters, Mates and Pilots Union, headed by Thomas O'Callaghan, supplies masters and mates for the majority of American-flag vessels on all coasts. The Marine Engineers Brotherhood Association supplies engineers to most American-flag ships. Jesse Calhoun is president of District 1, and Ray McKay is president of District 2, of the Engineer's Union.

107. Ships in the domestic trades are protected from foreign competition by the cabotage laws (Merchant Marine Act, 1920, §27. 46 U.S.C. §883 (1964)), and, therefore, operating differential subsidy is not paid in these trades.
compensated by insurance, wages and subsistence of officers and crews . . . over the estimated fair and reasonable cost of the same items of expense . . . if such vessel or vessels were operated under the registry of a foreign country whose vessels are substantial competitors . . . .

Each new container ship being introduced replaces two to three conventional ships, yet has approximately the same number of seamen as a single conventional ship.109 The seagoing labor unions, however, have not opposed the container revolution.110 The probable reasons for the unions' decision are the critical reduction of the share of U.S. foreign commerce carried by American-flag ships111 and the refusal by the government to appropriate increased funds for operating differential subsidy.112 The seagoing unions apparently recognize that their jobs will be safe only if American shipping becomes competitive with the fleets of other nations and that a United States lead in the container field is one of the few means by which such competitiveness can be achieved. Because a containership carries much more cargo per year than does a conventional ship, the labor cost per ton is greatly reduced and, therefore, the importance of subsidized labor is less than on conventional ships. For this reason, operating differential subsidy may be curtailed in the future on high-volume traffic routes such as the North Atlantic and transpacific.113

Longshore labor faces no direct foreign competition and is not involved in a government subsidy system. However, it has had to face a sharp reduction in the number of longshoremen needed to load cargo on

109. See Journal of Commerce, p. 24 (October 3, 1969). It is anticipated that, regardless of whether the Administration's new merchant marine program is effectuated, seafaring employment will decrease by one-third to one-half the present levels (approximately 56,700) in the next ten years. Journal of Commerce, p. 1 (October 29, 1969).
110. Contracts between seagoing unions and ship operators were negotiated early in 1969. Those contracts provided increased wages and benefits, but did not include provisions which would thwart containerization.
111. E.g., during 1956, American-flag ships carried approximately 20.7 per cent, by weight, of our total foreign commerce; this share was reduced to 10.2 per cent in 1959; to 5.3 per cent in 1967; and to 6.0 per cent in 1968. Preliminary data places the 1969 share at 4.8 per cent. U.S. Dep't of Commerce, Maritime Administration, Value or Tonnage of Commercial Cargo Carried in United States Oceanborne Foreign Trade.
112. With regard to operating subsidy, the new maritime program introduced by the Nixon Administration would base subsidy upon broader wage indices than before and would eliminate the requirement that a portion of profits be paid to the Government. H.R. Rep. No. 91-1073, Report on H.R. 15424, House Committee on Merchant Marine and Fisheries, Merchant Marine Program, 91st Cong., 2d Sess. (May 12, 1970).
113. See Id. at 39-41.
containerships as opposed to conventional ships. Although the longshore unions have not resisted containerization, they have insisted that their members be compensated for the increased productivity of the new system and that funds be established by the operators to retrain or retire longshoremen.

The first major labor contract directed toward control of containerization was established in 1960 by the International Longshoremen’s and Warehousemen’s Union, which operates on the West Coast and Hawaii, and the Pacific Management Association, on behalf of the ship lines and terminal operators on the West Coast. The agreement provided for a mechanization and modernization fund that maintained labor peace until June 1966, protected longshoremen, and allowed establishment of the containership system on the West Coast.\(^{114}\) By contrast, labor rules governing containerization were not negotiated so deliberately on the other coasts. There were intermittent strikes before an agreement directed toward containerization became effective at the Port of New York in February 1969. That agreement, between the International Longshoremen’s Association and the New York Shipping Association, was followed by similar agreements at most East Coast, Gulf, Coast and Great Lakes ports during February and March 1969. The longshore agreements provided basically for increased wages and benefits, as well as a rule to the effect that containers loaded or consolidated more than 50 miles from the port may be packed by non-ILA labor, but containers consolidated within the 50-mile limit have to be loaded at ocean terminals by ILA members. The agreement has already produced litigation.\(^{115}\)

The significance of the 50-mile rule is that it provides a guideline for a division of labor between longshoremen and teamsters. Traditionally, trucks were loaded at inland points by teamster labor, and ships were loaded on the piers by longshore labor. To the extent that the cargo now is carried in containers loaded at inland points, rather than unloaded from trucks and reloaded into conventional ships by terminal labor, longshoremen will be deprived of jobs. Thus, longshoremen who formerly

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\(^{114}\) The agreement was extended in 1966 for an additional five-year period. For a full discussion of the mechanization and modernization agreement and the factors that led to its establishment, see H. Bridges and W. Horvitz, Labor Negotiators Look at the Container Revolution, in Seminars on the Container Revolution, supra note 15, at 85-105.

loaded all cargo into ships will not load containers at inland points and will not load containers consolidated outside the 50-mile limit. They will have to content themselves with transferring full containers onto ships and, if their 50-mile rule prevails, with loading containers where the consolidation takes place within 50 miles of the port. \textsuperscript{116}

Whether this labor system works will depend largely on an accommodation between the Teamsters and Longshoremen's unions. The structure for labor rules to meet the container revolution has been established, and the parties, particularly the unions, will have to operate responsibly under the rules for the system to work. \textsuperscript{117} Nothing would be more tragic than for containerships, which cost tens of millions of dollars and which can increase and expedite foreign trade, to lie idle because of jurisdictional disputes.

\section*{B. Dislocation of Freight-Forwarders}

Ocean freight-forwarders (shipper's agents on export traffic) fear that they will be displaced by the container revolution, and their fears are not without good cause. Cargo in containers consolidated by inland freight-forwarders, who also operate as NVO's, does not require the port services that ocean freight-forwarders historically have performed. Inland carriers, ocean carriers, and NVO's together are seeking methods for moving the cargo through ports as quickly as possible. Inevitably, the process of change will result in elimination of many of the functions of ocean forwarders.

Ocean forwarders and customhouse brokers employ more experts in inland transportation than does any other industry. Unlike the labor unions, it is doubtful whether these companies have the power to secure and maintain their current functions in the face of the container revolution. They will, of course, continue to operate in trades where containerization is not and will not be overwhelming. To the extent they are displaced, they will probably either become port consolidators, \textsuperscript{118} move inland to perform consolidation and documentation functions, enter

\begin{itemize}
  \item \textsuperscript{117} One writer predicts that containerization will result in emergence of a new, highly skilled breed of "container men." \textit{Container News}, p. 26 (October 1969). See also, \textit{Container News}, p. 42 (June 1970).
  \item \textsuperscript{118} As discussed above, they can become consolidators only if they reach an accommodation with the longshoremen.
\end{itemize}
the NVO field, or become employed directly by or as agents for other transportation companies.

C. Port Dislocations

Some of the large ports of the world are fearful of being bypassed by container cargo, because containerships operate most efficiently on restricted schedules with cargo funneled by inland carriers through a few centrally situated ports. With the advent of containerization, cargo that was considered naturally tributary to certain ports may be funneled away from them, unless there is some legal prohibition. The legal safeguards preclude absorption by ocean carriers of inland freight charges, equalization of inland charges as between various ports, and single-factor rate systems where routing of freight is in the hands of the carriers rather than the shippers.

However, a political problem also arises as to the future of the labor force and business communities formerly involved in shipping at those ports which the container revolution will tend to bypass. The problem is not limited to the United States—it will have to be faced by all the major commercial powers. It will be a matter of weighing the social interest of continuing the port life of many large cities against the achievement of the most efficient possible system of containerized transportation. On the East Coast, the Massachusetts and Delaware River Port Authorities have worked together to prevent absorption of inland freight charges which would have the effect of diverting to New York cargoes that were once naturally tributary to those ports. Whether these and other ports similarly situated can continue by legal or political means to withstand the economic expediency and operational forces which impel the funneling of cargo through a few major ports remains to be seen.

119. The alternative of entry into the NVO field has been suggested by an FMC Commission and an educator, J.F. Fansen and E.W. Williams, Jr., speeches before the International Federation of Forwarding Agents Association, Journal of Commerce, p. 3 (October 3 and 6, 1969).

120. E.g., See-Land Services v. South Atlantic and Caribbean Line, 9 F.M.C. 338 (1966); Proportional Commodity Rates on Cigarettes and Tobacco, 6 F.M.B. 48 (1960).


123. E.g., in FMC Docket No. 70-19, Intermodal Service to Portland, Oregon, the FMC, on April 22, 1970, instituted an investigation to determine, inter alia, whether container operators lawfully can serve a particular port on a regular basis by moving cargoes through a neighboring port via inland motor carrier services and by absorbing the inland transportation charges.