

THE METROPOLITAN AREA AND EXTERNAL LINES OF COMMUNICATION  
CONTAINERSHIP OPERATIONS:  
A PRELIMINARY EVALUATION OF AN EVOLVING FORM OF OCEAN TRANSPORTATION

David L. Glickman, The Port of New York Authority

Few recent developments in the fields of transportation and communication have aroused as much discussion and concern as the trend towards integration of different modes of transportation in the form of piggyback for land movements and containerships - or fishyback - for oceanborne movements. In both instances, the key to the development of these services is the trailer portion of the conventional tractor-trailer truck form of movement, with or without the chassis. In the piggyback operation, truck and rail movements are integrated by separating the trailer from the tractor and then placing the trailer on a railroad car for movement to its destination either directly or by a subsequent tractor hook-up; in the containership operation the container or trailer is similarly removed and placed aboard ship for subsequent movement. In both instances the cargo, once placed in the container at point of shipment or at consolidation station is not rehandled until it reaches point of destination except for less than container or trailer loads which must be segregated prior to ultimate delivery to destination.

These two related developments, or perhaps better said different aspects of the same development, already give promise of major changes in the economics of transportation and in the distribution of cargo volumes among the major ports of the country. This afternoon, I should like to explore with you in some depth one of these forms, namely, the containerization of cargo for oceanborne movements. I should like first to discuss the different forms of containerization of oceanborne cargo and then to attempt a preliminary evaluation of the outlook for this integrated mode of transportation in the domestic coastwise and in foreign trades.

The basic materials for my presentation are derived from an extensive study now underway at The Port of New York Authority. Here it must be noted that although this study was in the first instance undertaken to measure and evaluate the impact of container and containership operations on the Port of New York and on its future requirements for marine terminal facilities, the nature of the problem is such that both the problem and its potential impact are equally applicable to other ports, including those here on the Pacific Coast. In fact, of the ports which until now have been most directly concerned with either actual container or containership operations or in plans for such operations, three are located here on the Pacific Coast, viz., San Francisco, Seattle and Los Angeles. On the Atlantic Coast, the port most directly involved has been and is the Port of New York.

#### FORMS OF CONTAINERSHIP OPERATIONS

Until now, I have used the terms "containerization" and "containerships" without differentiating between the two. In either case, the cargo to be transported is what is designated in the transportation industry as general cargo or general merchandise, rather than bulk cargo. The former is cargo which is generally packaged, crated, bundled or boxed; the latter is cargo which generally moves in bulk and loose form over specialized facilities.

Not all general cargo, however, is necessarily or feasibly containerizable. While no hard and fast lines can or should be drawn, it may be said that in order for cargo to be physically and economically containerizable, it must generally possess certain characteristics with respect to stowage factors, dimensions, value, susceptibility to damage, breakage and pilferage, size of shipment and materials handling techniques.

There is however, a fundamental distinction that needs to be drawn between the possibility of containerization of cargo and the development of full containership operations. Containerization per se involves the movement of containers of varying sizes as substitutes for another type of packaging. The size variations are influenced primarily by the composition of the cargo and the extent of consolidation and break bulk, and direct point to point movements. As a general proposition these containers do not exceed 8 or 10 feet in overall length and are frequently smaller. Many steamship lines, including Bull, American President, Moore-McCormack, United Fruit, etc., use some containers at the present time. They handle these containers in the same manner as they handle any other type of boxed or crated cargo, over their regular facilities at the ports they serve.

Containerships on the other hand, involve the construction and use of ships which are designed to carry only containers. Generally, these ships are cellular in construction and cannot accommodate any other type of cargo, except for one qualification which will be noted shortly. The containers used in such operations are always of trailer size, designed to fit the chassis of the tractor-trailer, and the cells in the ship are designed specifically to accommodate them. Here too, there are variations in the size of the containers, these variations stemming primarily from the lack of uniformity in trucking standards and also, in one instance that I am familiar with, from an extensive study on the optimum size of containers best suited to meet the requirements of a particular trade

route. I refer here to the study conducted by Matson Navigation Company to determine the optimum container size for its Pacific Coast-Hawaii trade which, after evaluating container lengths ranging from 12 to 40 feet came to the conclusion that a 24 foot container would best meet its requirements. The two most frequently used sizes, however, are 17 and 35 foot containers. In this context, it is pertinent to note that the lack of uniformity of trailer sizes has been a matter of some concern to the trucking industry generally, and that the American Standards Association recently recommended that sizes be standardized in 10, 20 and 40 feet modules.

In between the container and containership there is a transitional form of operation in which the ship is designed to handle both conventionally packaged or crated cargo and containerized cargo. In such instances, the design of the ship may be conditioned by the requirements of the trade route served by the shipping operator, as in the case of the planned Grace Line Service between New York and the West Coast of South America, or may, as in the Matson case, be conditioned by the capital investment in existing ships and the need to phase out the construction of entirely new ships in light of the operator's ship replacement program.

Where an operation begins from "scratch," with no investment in existing fleet, this latter consideration does not apply and the operator can begin with either fully converted ships or entirely new ships. This was the case with two coastal operators out of the Port of New York, Sealand Service Inc. and Erie and St. Lawrence Corporation. Grace Lines, however, on both its North Coast South American run for which two fully converted containerships are already available and for its planned West Coast South American service, for which three containerships are to be constructed, had to phase out these ships in accordance with its overall ship replacement program. Here on the Coast, Matson, which also has substantial capital invested in its existing fleet of ships, began its container service in 1958 with deck loads of containers on six of its standard cargo ships, and then progressively brought in a converted combination container-bulk sugar ship<sup>1</sup> and an entirely reconverted containership, each of cellular design, with more of each type planned.

The containership itself may be of one or two types: a roll-on/roll-off or a lift-on/lift-off. The first, the roll-on/roll-off type requires that

<sup>1</sup>/ This ship was originally a bulk ore carrier, which was lengthened by 70 feet by insertion of a new mid-section. As is noted subsequently, (page ), there is a heavy sugar movement from Hawaii to the Pacific Coast. The ship is therefore designed to serve a double duty purpose: carriage of 205 loaded containers in each direction and approximately 16,500 tons of sugar eastbound. The cargo hold areas utilized for each of these movements are compartmentalized, and are not interchangeable.

the container be driven into and aboard the ship and placed in position. The container may first be detached from the chassis and carried into the ship by special capacity fork-lift trucks, as in the Erie and St. Lawrence operation, or the container resting on its chassis may be driven on to and positioned by a tractor unit, as in the military application of containership operations. The second, the lift-on/lift-off operation, on the other hand, requires that the container be detached from its chassis, lifted by specially designed gantry cranes and then positioned in a cell aboard the ship. In the first of these types, the holds, the interior cargo areas of the ships, are horizontally open to provide for the vehicular movement; in the second, the holds are fitted with the cells, arranged vertically to provide for tiering of the containers.

One comment is in order here on the military application of the containership and the specific form which it takes. Military logistics planning for both peace and war conditions includes a requirement that about 25 per cent of the total cargo volume be wheeled cargo. This includes tanks, artillery and other field pieces, construction equipment, trucks, staff cars, jeeps, etc. Under conditions of active military conflict roll-on/roll-off operations are deemed essential in order to provide for speed of movement and thus a reduction of time required in port or unloading area. Such equipment can be rolled off the ships in the various theatres of operation by ordinary military personnel, whereas crated or containerized cargo requires longshore operations. Military sources stress that since the roll-on/roll-off type is considered essential for combat operations, this criterion has, therefore, been accepted as the norm for military peace time operations. This judgement is strengthened by the fact that the cargo composition of the military movements even under peace time conditions also includes a 25 per cent ratio of wheeled to total cargo. Stated differently, the military view is that unless these operations can be provided for during peace time they will not be available during war time conditions, hence the clear emphasis on roll-on/roll-off rather than lift-on/lift-off operations.

Turning back to the commercial application of containership operations, it may well be asked what benefits it offers over existing forms of ocean shipping, and by whom these benefits are derived. From the shipping operator's point of view the key factors are (1) that approximately 50 cents of each revenue dollar is expended for cargo handling purposes on dock and aboard ship - this is a rough average for the industry as a whole, and (2) that the time required to load and unload a ship limits the number of round trip voyages - and hence utilization - of a ship or a fleet during any given period of time and thus increases the number of ships required to service a given trade route or complex of routes.

To illustrate these factors, consider the following pattern in existing operations. At the

present time, the typical shipment is handled and rehandled from 9 to 15 times between shipper's point and consignee's location, with most of these handlings taking place at the steamship operator's terminal facilities and aboard ship. The average rate of loading and unloading a ship is in the 450-500 ton range per day in port. Keep in mind that this is an overall average and that there are of course individual operators whose cargo handling rates are substantially higher. And there are also those whose rates are lower. In any event, it takes approximately 9-10 eight hour working days to load and unload 5000 tons of conventional general cargo at the present time. A ship serving a trade route requiring 20 days round trip sailing time thus requires 40 days for a full round trip, assuming that the cargo handling rate at both ends is similar and that 5000 tons are handled at both ends. On an annual basis, this is equivalent to approximately 9 complete round trips.

The ship operator's efforts to reduce costs therefore are focused on two areas: reduction of cargo handling costs and reduction of ship's stays in port. Both these objectives can, it is believed, be achieved by containership operations. The same 5000 tons of cargo, when containerized, can be loaded and unloaded within two working days, reducing the ship's stay in port and making possible a faster complete round trip turn-around. The same round trip will now take 24 rather than 40 days, thus increasing the number of sailings which a ship may make per year to 15 as compared with 9 for the conventional ship. This in turn, has the effect of producing a corresponding increase in the ship's annual cargo carrying capacity and revenue earning power.<sup>1</sup> On a fleet basis, this example may well result in reducing the number of ships required to serve a given trade route or complex of routes. The particular experiences of different steamship companies will vary because of somewhat different ratios in ship utilization, cargo carrying capacity and earning power depending on a variety of operational characteristics.

As against these potential savings in operating costs, there must be equated the capital costs required to put such an operation into service, including not only those for the ships but also for the containers and ancillary equipment, and the additional maintenance costs involved in such operations. Together, these run to substan-

tially more than the capital and maintenance costs of a conventionally designed cargo ship. This is a simplified - in fact oversimplified - version of the comparative cost structures of the conventional versus the containership type of operation and should obviously be used with caution.

From the point of view of the shippers and consignees of cargo, stress is most frequently placed on the following three potential benefits: 1) delivery in the least possible time, 2) delivery in the best possible condition, 3) delivery in the least expensive manner.

The first is made possible by the fact that total shipment time is considerably reduced. Many of the multiple handlings that are necessary under current conventional methods are eliminated by the simplified handling that is possible with the container service. Faster loading and unloading of cargo reduces total elapsed time. In addition, truck waiting time in making delivery to or pick-up from steamship berth is almost entirely eliminated.

With respect to the second point, namely, arrival of cargo in best possible condition, the elimination of the multiple handlings reduces the possibility of damage or other losses resulting from mishandling, bad stowage, weather, contamination, etc. For refrigerated cargo, additional benefits may be derived from the constant temperature control made possible with sealed containers equipped with refrigeration units.

Reduction in costs come about as a result of less rigid and bulky packaging requirements which, in turn, reduce both overall weight and cubic measurement which are the basis for assessing shipping charges. In addition, elimination of truck waiting time and reduction of losses, results in additional economies. Reduction in losses may in turn, lead to lower insurance premiums. While insurance rates are based upon actual loss ratio experiences, it is believed that some reductions in premium rates may be obtained for door-to-door movements of sealed containers, and, as experience improves, for less than container load movements. Further, there is also the possibility that in foreign trade the containers will be considered as integral elements of the ship and their weight not made subject to customs duties. This is in contrast with current practices under which the entire weight of the shipment, including the packaging, is frequently subject to duties assessed on a weight basis.

#### PROSPECTS OF CONTAINERSHIP OPERATIONS

What now can be said of the outlook for containership operations in the oceanborne trade of the United States? Here it is necessary to begin with a clear differentiation of the two major segments of what has until now been called "oceanborne trade." These are the domestic coastwise trades - note the plural because there are three rather dis-

<sup>1</sup>/ This is based on the assumption that the containership is designed to carry an equivalent amount of cargo as the conventional ship. A conventional ship converted to carry containers would necessarily have a smaller cargo carrying capacity because of the loss of space required for the cellular construction and the broken stowage factor involved in loading the containers with cargo. Further, it must be noted that shipping charges are assessed on a stowage conversion factor of 40 cubic feet per long ton, with the shipping operator fully entitled to assess charges on either basis.

tinct components - and foreign trade. The three components of the domestic coastwise services are (1) coastal trade, that is trade within a single or adjacent coastal areas; (2) intercoastal trade between the Atlantic and Gulf Coasts on the one hand and the Pacific Coast on the other; and (3) the off-shore trade typified by trade between the Pacific Coast and Hawaii, and between the Atlantic and Gulf Coasts and Puerto Rico. While there are some differences in the factors effecting the development of containership operations in each of these components, there are nonetheless a number of significant considerations affecting all in common, which are radically different from those affecting the development of such operations of foreign trade.

Under existing law the domestic services may be provided only by United States flag carriers whereas in foreign trade shipping services are of course provided by both American and foreign flag carriers, the latter generally operating with lower cost structures. Further, while the domestic flag carriers operating in the domestic services are not eligible for either construction or operating differential subsidies, domestic flag carriers operating in foreign trade are eligible for both types of subsidies in order to enable them to compete with foreign flag operations. Third, whereas there are no customs and regulatory agency controls exercised in the domestic trades other than those which are generally applicable to land forms of transportation, such controls do exist in foreign trade and pose important operating problems. Finally, whereas in foreign trade the containership operation must meet competition only from conventional water carriers, both United States and foreign flag, in the domestic coastal and intercoastal services, the competition is primarily with the two established modes of land transportation, the railroad and the truck. While the rate structures of both ocean and land modes of transportation are subject to regulation, the controls over the domestic services, both water and rail, are subject to far more extensive and absolute controls.

#### Coastal and Intercoastal Trade

The development of containership services in the United States has until recently been confined almost entirely to the coastal trades, notably between the Port of New York and Florida and Gulf Coast ports and to a more limited extent on the Pacific Coast between Seattle and Alaskan ports. The latter, however, actually possesses more of the characteristics of an off-shore trade since there are no direct rail connections between the West Coast and the 49th State and highway connections are at best limited.

In both instances the institution of containerized services - full ship out of the Port of New York and container out of Seattle - benefited from experiences derived from an earlier and specialized form of containerized operations. This was

and still is the transportation of rail cars in oceangoing vessels. In New York, there were two such services, provided by Seatrain and Newtex, the latter no longer in operation, the former converting increasingly to trailer carriage; here on the Coast, Alaska Steamship Company has for some years provided service for the water movement of rail cars but it too is turning increasingly to the movement of truck containers. In both cases the shift has been prompted by three major considerations: the increasing role played by the truck in land haulage of freight particularly for short and medium length hauls; the division of joint rail-water rates; and the increase in the cargo capacity of the ships resulting from the transport of containers as compared with rail cars which must necessarily be transported intact, complete with undercarriage.

Prior to World War II, there were substantial coastal and intercoastal services serving the Atlantic and Pacific Coast ports. At the Port of New York, it has been estimated that during the late 1930's these services accounted for about a third of the total volume of oceanborne general cargo. During the post-war period, however, the coastal services of the conventional general cargo carriers have all but disappeared, while in the intercoastal trade only one carrier, Luckenbach Steamship, currently operates a continuous two directional service. The remaining carriers in the intercoastal trade tend to be specialized carriers for the movement of lumber from west to east and iron and steel mill products in the reverse direction.

The re-establishment and expansion of coastal and intercoastal services, particularly of containership operations, depends on the ability to provide frequent and steady sailing schedules at equitable rates.

Seatrain in New York is already, as has been noted, converting increasingly to trailer-container movement. In addition, in 1956 an entirely new service was established by the McLean interests, now known as SeaLand Services Incorporated, to provide service to Florida and Texas ports. The measure of success of these two operations lies in the fact that there has been a combined increase of almost 700,000 tons in the past three years in the volumes carried by these two operators. This is of actual weight tons and not ton-miles.

There is some evidence to the effect that the utilization of these services has resulted in some shifts in source of supply - consumption market relationships, with the areas being served substituting in some measure for prior linkages with other sources of supply and consumption markets. As a result of these developments, one other carrier, Erie and St. Lawrence Corporation, has already had two entirely new ships constructed and is soon to enter into coastal containership operation between New York and Florida and South Carolina

ports.<sup>1/</sup> And the outlook is that additional carriers will, in the not too distant future, also seek to enter into operations between New York and South Atlantic and Gulf Coast ports.

As for the possibility of instituting containership operations in the intercoastal service, it must first be noted that the comparative distances of haulage are roughly 3000 miles by land and 5260 nautical miles by sea to San Francisco through the Panama Canal. Two steamship companies, American-Hawaiian and again Sealand Services, have indicated that they would like to establish new services and have applied to the Federal Maritime Board for mortgage guarantees on funds to be borrowed for construction of their proposed vessels. Whether they actually will be established or whether Luckenbach will consider converting cannot now be answered with any definitiveness. These are possibilities but cannot at the present moment be viewed as probabilities.

#### Off-Shore Trade

Turning now to the third segment of the coastwise services, the off-shore trade, there seems little doubt that this will within a relative short time be converted largely to containership operations. In New York, such a service is already provided by Sealand Services with a sailing schedule currently providing for three sailings per week in each direction. In addition, Bull Lines has for some years been carrying containers and is said to be considering a full containership operation.

Here on the Coast, Matson Navigation has already instituted deck load, combination container-bulk sugar and full containership movements between the Pacific Coast and Hawaii, with terminals in Seattle, Los Angeles and the San Francisco Bay area. Both the East Coast and West Coast services, it should be noted, benefit substantially from the fact that the trade with the off-shore areas served has two major components; inbound sugar trade which is not generally containerizable because of the handling problems of the commodity itself and secondly, other types of cargo in and outbound which are in large measures extremely suitable for containerization. It is for these reasons that it is suggested the off-shore general cargo trade, with the exception of sugar, will move almost completely in the direction of containership.

#### Foreign Trade

The future of containership operations in foreign trade is, as already noted, affected by complex of factors radically different from those in the domestic trade. Three additional factors of major importance must now be added. These are

the characteristics of trade route composition, the differences in trucking and highway standards and systems abroad as compared with United States, and the length of ocean haul. It will be helpful to indicate briefly the manner in which these factors affect our problem at hand.

1. There is a tendency in some quarters to minimize the problems involved in customs and other regulatory agency controls as these affect containerized movements. While I personally believe that, in time, these issues will be resolved, it will be necessary to determine where, for example, the examination of containerized cargo for customs and health purposes is to take place, that is, whether at point of unloading or at the point of ultimate delivery, whether the weight of the containers is to be taken into account in assessing customs duties, whether charges are to be assessed on the containers for inland movements away from ports, etc. These issues are equally as pertinent here in the United States as they are abroad. Some of these issues have been resolved in the movement of containers across boundary lines in Western Europe. As I have indicated, I believe that these privileges will eventually be extended to transatlantic traffic, whether originating in this country or abroad.

2. While there are certain types of cargo which are generally considered as containerizable, the volumes of such commodity movements vary considerably from trade route to trade route and from country to country. Further, even when cargo, originating in any particular country abroad, is viewed as containerizable there are serious questions as to the probability of concentrating these movements in a limited number of ports. This is particularly important since it is accepted as a general criterion of effective containership operations that the number of ports served should be limited in order to make possible quick turnaround and hence increased carrying capacity of the ship itself, and to limit dispersion of the containers. As a case in point, cargo originating in Italy may be loaded in Sicily or in Naples, Genoa and at a number of Adriatic ports. Even assuming that there is a sufficient volume in the Italian-U. S. trade which would make possible a containership operation, there is some question as to whether any one of these ports would have sufficient volume to warrant such a service. The same is true for example, in France, with cargo being handled at Mediterranean, Atlantic and Channel ports. These examples could be multiplied many times. Further, since cargo ships generally service trade routes touching upon a number of countries, the cargo capacity of the entire route must be evaluated.

3. Trucking and rail practices and the highway systems in other countries will probably limit - at least initially - the expansion of containership operations in foreign trade. Re those countries which have adopted American trucking practices, e.g. in the West Indies, North Coast of

<sup>1/</sup> First ship sailed from the Port of New York on August 19, 1960.

South America and the East Coast of South America, the possibility of ultimate adoption of container-ship services - based solely on this criterion - is more likely with these areas than with Western Europe, where trucking, railroad and highway standards are quite different from those in this country. This is not to be interpreted, however, as suggesting that some modification may not be brought about to make it more possible for the large size American containers to be used in Western Europe. The point is rather that this presents problems which should not be minimized.

4. The longer the ocean voyage the smaller the likelihood of development of full container-ship operations. There are three basic reasons for this: (a) the pattern of distribution of general cargo with the more distant trade routes is for these routes generally to have smaller volumes, e.g. Australasia, South and West Africa, the Indian Ocean area. In those instances where some of the more distant trade routes do have substantial cargo volumes, there tends to be concentration of these movements in a limited number of commodities. For such routes it is important to maintain flexibility in cargo hold space. An exception to this is the trade with Japan, which is both large in volume and diversified in character. (b) Ships serving the more distant routes generally service a substantial number of ports. To service all of them by container-ship would require extensive capital investment and tend to disperse the containers over wide areas without the concentration which is deemed necessary for successful operation. (c) The longer the trade route the less the possibility of achieving major savings in turn-around time and hence an increased annual carrying capacity of the ships. As the length of voyages increase the economies attained in reducing stays in port are proportionately reduced. For example, a trade route requiring 40 days round trip sailing time benefits less from reduced port stay than a voyage requiring 20 days sailing time. Where the optimum point is reached with respect to length of voyage cannot be pinpointed with any degree of certainty. Each trade route will have to be evaluated in terms of its own characteristics.

If, however, I were asked to speculate as to the trade areas which are likely to be candidates for the institution of either complete or part container-ship services, I would suggest that the most likely candidates would be - and here I trust you will understand why I must limit myself to the Atlantic side of the country - (1) the North-Atlantic-Caribbean routes; (2) North Atlantic-North Coast and West Coast South America; and (3) the several North Atlantic and Gulf Coast - European trade routes, including the entire Mediterranean area. Possibly also North Atlantic and Gulf Coasts to East Coast South America. The remaining major trading areas, including all of Africa south of the Mediterranean, Australasia, the Far East and the Indian Ocean area are not regarded as prime possibilities at this point. One word of caution, however. This is not a forecast of the shape of

things to come, nor is it meant to exclude other United States coastal areas or foreign trading regions.

One final word on the outlook for container-ship services in foreign trade. It is quite probable that American flag lines rather than foreign flag lines will be in the forefront in developing container-ship operations. This outlook is related to the ship replacement programs of the American carriers. In turn, it raises the question as to how much of the total volumes which may be involved will be carried by American flag lines without distinction as to whether these lines will operate the conventional cargo ships or container-ships or combination conventional cargo-container-ships. At the present time, American flag lines carry less than 40 per cent of total United States general cargo exports and less of total United States general cargo imports. On this score there is also some question as to whether the governments of some of the leading maritime nations with national flag lines will permit - through various devices - any major changes in the distribution of cargo trade with the United States.

I should like to conclude this presentation with a general observation on the implications of container-ship operations as they affect the distribution of oceanborne volumes of commerce among the ports of the nation. It has already been noted that it is considered a *sine qua non* of effective container-ship operations that the number of port calls made by the ship be limited and also that the containers be concentrated in as few ports as possible. It follows from this that a container-ship operator will tend to use one major port in a range of competitive ports rather than as it is today the common practice to call at each of these ports.

As an example, the five major port areas on the North Atlantic Coast - Boston, New York, Philadelphia, Baltimore and Hampton Roads Area - all compete for oceanborne foreign trade cargo originating or terminating in the interior of the country. It would be uneconomical for a container-ship operator to call at all of these ports on a single voyage as is the customary practice at the present time. Instead it is much more likely that the operator will concentrate his movements at one of the ports. This will have the effect of improving the competitive position of the port chosen as the base of operations vis-a-vis the other ports in question. What has just been said also applies to the domestic offshore trade.

Much the same impact is likely to be felt among the competing ports on the Gulf Coast and probably to a more limited extent here on the Pacific Coast. My reason for suggesting a possibly more limited impact here on the Coast is that there are three fairly distinct groups of port areas - Columbia River-Puget Sound, Bay Area and Southern California - separated by sufficient distances to make it more likely that such oper-

ations as are instituted will be concentrated within a single port in each of these areas rather than in one port, or port area, for the entire Pacific Coast range of ports. This will not, of course, minimize the competition among the individual ports in each of the port areas; each port will seek to derive the advantages of this evolving forms of integrated transportation and to maximize its benefits therefrom.

In large measure the outlook for both coastal and intercoastal operations will take the same form. There is a qualification, however, which must be noted in this respect stemming from the fact that the areas behind the ports which can be served effectively by containership operators is much more limited than in the case of foreign trade. Nevertheless, even in these instances there is likely to be a fanning out behind the port areas of service to the point of serious encroachment on the immediate hinterland of competing ports.

It is our feeling that the Port of New York will benefit substantially from these anticipated developments. As the largest direct consumption market, both personal and industrial, on the North Atlantic and also as the largest individual area of generation of outbound movements it begins with a major advantage over its competing ports in having substantial cargo volumes immediately available for containership movements. With such a base to begin with, it will, we believe, become the favored base of operation for both domestic and overseas services. The fact is that it is today the only port on the North Atlantic which has containership services and for which additional such services are currently in the planning stage.

As we look forward to the future, therefore, we are optimistic that this new form of integrated transportation will be of substantial benefit to the Port of New York. It will be an important factor in increasing the cargo volumes which we will be called upon to handle and in improving our overall competitive position for oceanborne cargo volumes.