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The Future of the Port of Wilmington



Part II: The Port in Operation

**Center for the Study of Marine Policy
University of Delaware
Newark, Delaware 19716**

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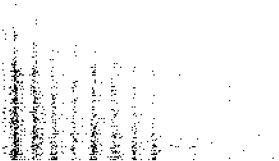
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Foreword

THIS is the second of three studies of the future of the Port of Wilmington organized and published by the Center for the Study of Marine Policy at the University of Delaware. The first study, published in December 1985, provided a history of the port from earliest times to its major development after World War I. Operations of the port from 1923 to 1938 were described as well as the record after World War II, concluding with comment about the reforms and improvements to the port that took place up to 1975.

This study deals largely with the current operations of the port and some future planning to continue the growth of the port as a vital element in the commerce of the city, the State of Delaware, and the region. The long-range objective of these studies is to raise questions and stimulate discussion about the future of the port under its present legal and financial structure.

The Center is greatly indebted to Mureen (Kim) Slentz, a candidate for the Master of Marine Policy degree in the College of Marine Studies at the University of Delaware, who prepared this study with painstaking research and the collaboration of several port officials. Ms. Slentz also had the benefit of an internship at the Port of Wilmington through the sponsorship of the Port of Wilmington Maritime Society and the City of Wilmington.

Among others who have made this study possible through financial support, the Center wishes to thank John J. Casey, Jr., Director of Commerce of the City of Wilmington, the Board of Directors of the Port of Wilmington Maritime Society, and the Sea Grant College Program of the University of Delaware.

*Gerard J. Mangor
Director
15 March 1986*



The Part of Washington, D.C. Christened in Philip's Honor.

Port History in Brief

IN 1917 in response to a consensus of the community that there was a need for expanded harbor facilities in the city of Wilmington, John Meigs, a consulting engineer and former director of the Department of Wharves, Docks and Ferries of Philadelphia, submitted a report to Wilmington's Chamber of Commerce and City Council outlining the possibilities and opportunities for port development. Wilmington's qualifications for such a plan included its central location with an extensive tributary region, a large producing and consuming population, deep and ample water connections, excellent railroad connections, and a city administration empowered to undertake and finance port activities.

An initial bond issue for \$2,500,000 was approved, and by 1923 the Board of Harbor Commissioners was able to announce the completion of the construction of the first unit of the Wilmington Marine Terminal. The next few years were busy as industries began to locate nearby the terminal facilities. Yearly tonnage handled by the port increased consistently and by 1938 the first calls were sounded for port expansion. However, with the advent of World War II and the resultant dampening of the port's commercial activity, it wasn't until 1954 that sufficient momentum was achieved for the city to award a contract for the construction of a new warehouse to offset the overcrowded conditions of the terminal. During the next eight years, more than nine million dollars were spent on improvements and expansion of the port facilities.

Beginning in 1967 and continuing into the 1970s, a number of studies were undertaken to evaluate port operations and to advise on the development of short- and long-term goals for port management. By 1974 the debate over the need for changes in port management and control had become a heated one. Governor Sherman W. Tribbit issued an executive order establishing a study committee to investigate the matter of the port's operations and its business potential. The Tribbitt study then became the basis for numerous changes at the port over the next few years. An extensive capital improvement program was undertaken; long-term commitments from shippers were sought; marketing and accounting directors were hired; and the port administration was improved.

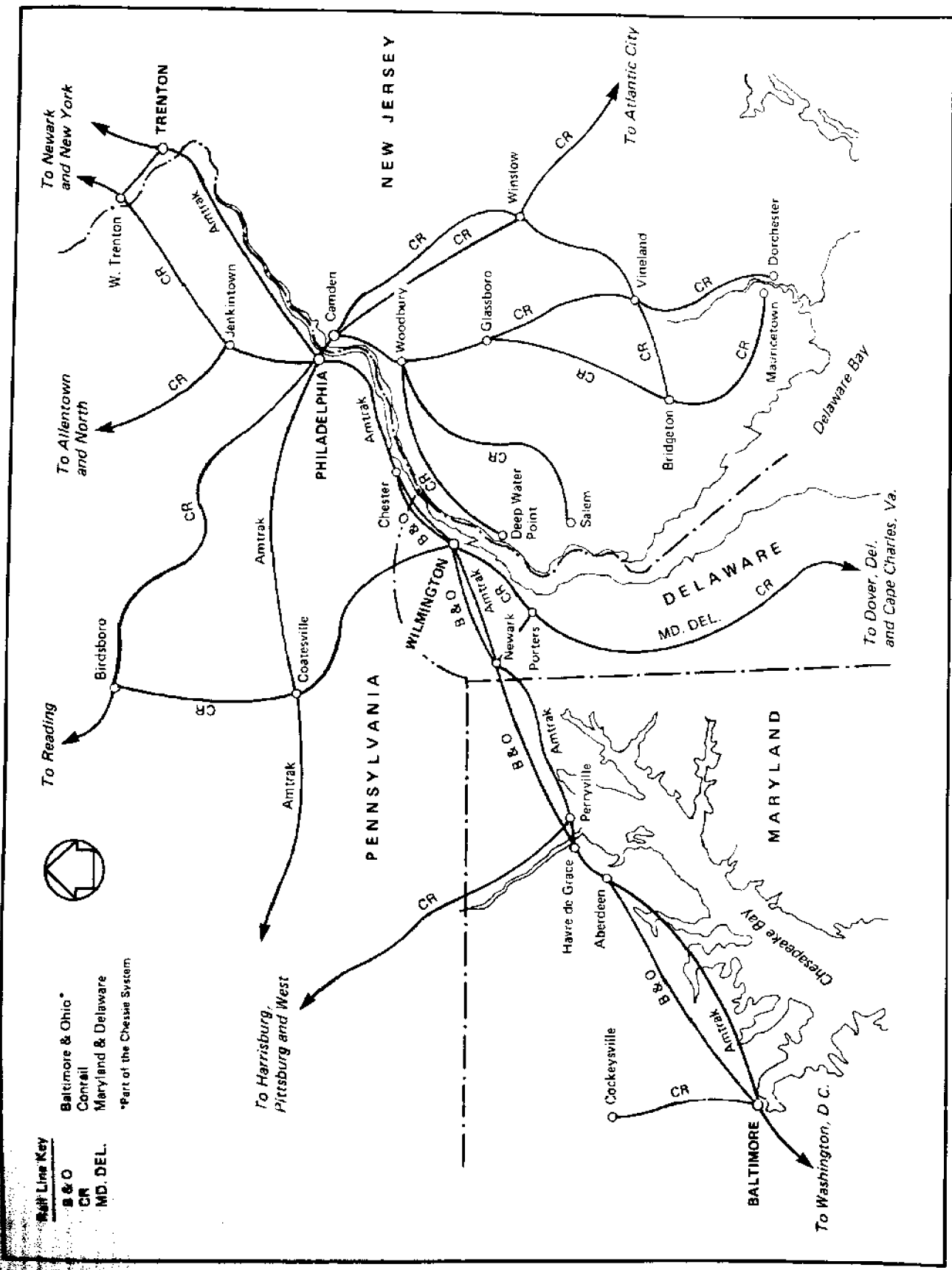
The historical development of the port shows vigor and purpose in achieving for the City of Wilmington a small, relatively prosperous harbor that has benefitted the commerce of the city, the state, and the region. Further challenges in increasing foreign trade and meeting the competition of the other ports along the eastern shore of the United States lie ahead. Major considerations for the port must be its sources of capital and its attraction of carriers, linked to domestic and foreign shippers. This may require a review of its public constitution in order to expand its capital support and its outreach to the state and region for more imports and exports.

Physical Characteristics

THE Port of Wilmington is situated on the southern bank of the Christina River where it joins the Delaware River, about 63 miles upstream from Cape Henlopen, Delaware and Cape May, New Jersey. Along the Delaware River, it is the major inland port closest to the Atlantic Ocean. The berthing facilities of the port consist of a marginal wharf (3,060 feet long), a floating berth for vehicle loading and unloading (510 feet long), and a tanker berth (960 feet long). The marginal wharf can accommodate a maximum of six vessels of 450 feet in length at one time.

The port has excellent connections to highways and it is served by two major U.S. rail systems - the Chessie Systems and Conrail. Interstate I-95, which connects with the major cities of the East Coast, is readily accessible and located only about one-half mile from the port's gate. Two and one-half miles from the I-95 access is I-295, which connects with the New Jersey Turnpike via the Delaware River Bridge. There are also good connections between the port and the Pennsylvania Turnpike that leads to markets in the west.

The port connects with Conrail's New Castle cut-off line near the port's gate, which is about one mile from Conrail's main line. Chessie System services are available by a connection to the Baltimore and Ohio division of Wilmington at the Edgemoor Yard via Conrail lines. Both Conrail and Chessie serve north-south routes for Wilmington and have interconnections in Newark to the south and in Chester, Pennsylvania to the north as shown in Figure 1. Trackage within the port complex extends to both the covered and open storage areas and to rail tracks located along the wharf.



Rail Line Key
 B & O
 CR
 MD. DEL.



Baltimore & Ohio*
 Conrail
 Maryland & Delaware
 *Part of the Chesapeake System

Figure 1. Regional Rail System.

Navigation in the Delaware and Christina Rivers

ALL foreign flag vessels are navigated through the ship channel of the Delaware River by Delaware state licensed pilots. About 1.5 nautical miles south of the Port of Wilmington, a licensed private pilot guides the vessels by tugboats into the mouth of the Christina River and into the turning basin adjacent to the port's marginal wharf. The turning basin can only accommodate ships of less than 650 feet in length for turning and berthing with head out to the Delaware River.

The ship channel and turning basin in the Christina River accumulate silt constantly. Consequently, dredging of the Christina River is required to assure adequate water depths for the accommodation of vessels calling at the port. Dredging is the responsibility of the U.S. Army Corps of Engineers. Beginning in 1982, the dredging of the ship channel and turning basin was implemented twice yearly to achieve a depth of 35 feet. Prior to this time, the dredging maintenance schedule had not been sufficient to keep up with the high rate of silt deposition. As a result the port lost some trade because deep draft vessels either chose other ports or "lightered" their cargoes to shallower draft ships, which incurred high handling costs. Approximately one million cubic yards of fine-grained dredge material have been removed each year to maintain the channel depth. The dredging is performed by hydraulic pipeline dredges and the material is pumped into two disposal areas on Cherry Island, located north of the port across the Christina River (see Figure 2).

The federal role in harbor and channel dredging has been under review and any policy decision will be of great concern to the port. The federal government has argued that its costs for channel dredging should be recovered through fees levied against the actual users of the waters. The imposition of "user fees" would place the port of Wilmington and other Delaware River ports at a considerable competitive disadvantage with other North Atlantic and Canadian ports because of this area's high silting rates and more frequent need of dredging. The issue is being debated nation-wide and legislation has yet to be enacted.

Meanwhile, the Port of Wilmington has obtained a new agreement with the Corps to deepen the

channel to 38 feet to accommodate ships with deeper drafts. The agreement involves greater financial demands on the port, however, and highlights the federal government's attempt to relieve itself of the burden of dredging costs. Specifically, the port has been responsible in the past for the costs (\$205,000) involved with dredging under the floating dock and to a distance of 50 feet from the wharf into the Christina. The new agreement requires the port to absorb the costs involved to a new distance of 110 feet from the wharf, which then brings the port's total cost to over \$300,000 for each scheduled dredging.

Another current concern is that the remaining capacity of the Cherry Island Disposal Area is dwindling and soon another disposal area must be made available. A July 1985 proposal by the Army Corps of Engineers outlined a plan to begin using an area directly south of the port, named the Wilmington Harbor South Disposal Area. It is anticipated that the plan will be approved and permitted by April of 1986 in the event that there is no expression of any adverse public comment. The area will probably be in use by 1987.

Flow of Commodities

THE Port of Wilmington handles a wide variety of cargoes including fuel oil, gypsum ore, bananas, petrol coke, iron and steel, salt, lumber, cars and trucks, orange juice concentrate, fertilizer, heavy equipment, cocoa beans, fluorspar, jute, lead, aluminum, applies, chrome ore, manganese ore, wire rod, frozen meat and fish, pineapples, grapes and titanium slag. A total of 480 vessels visited the port in fiscal year 1985, and 84,000 truck movements were made in and out of the port (see Tables 1 and 2).

	FY '85	FY '84
General Cargo	1,060,342	940,477
Dry Bulk	944,317	33,957
Wet Bulk	803,660	991,689
Total Tonnage	2,858,000	2,766,123

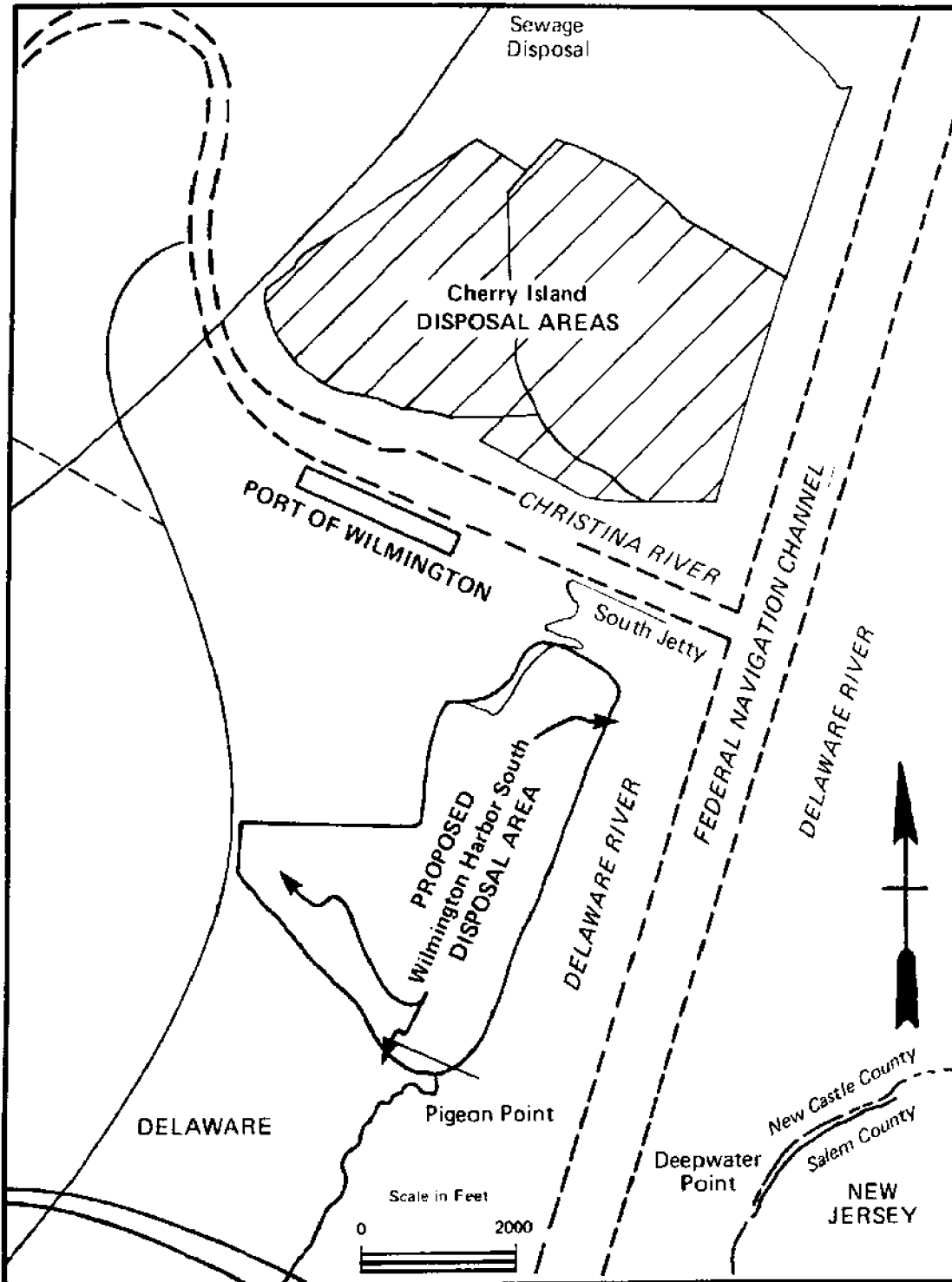


Figure 2. Wilmington Harbor Disposal Area Development.

Imports have accounted for more than 80 percent of the port's traffic. In 1985, about 630 million tons of fuel oil was imported from the Middle East, the second largest import of commodities by quantity was 500 million tons of bananas. Gypsum ore from Nova Scotia, a material used by the Georgia Pacific Company in processing wallboard, was the third largest import. A total of 160 million tons of steel, originating in South America and Europe, was delivered in the form of wire rods, coils, slabs, beams and plates. Other primary cargoes included road and commercial salt derived from solar evaporation systems in the Caribbean and South America, lumber from British Columbia, frozen orange juice concentrate from South America, and cars, tractors, and trucks from Germany, France, and Italy.

Table 2
Principal Commodities Handled in FY '85
(in tons)

Petrol Coke	371,001
Gypsum Ore	310,991
Containers	297,931
Bananas	185,762
Vehicles	167,739
Iron & Steel	160,740
Salt	132,231
Lumber	130,433
Orange Juice Concentrate	83,109
Urea	67,621

The imports to Wilmington are carried by rail and/or by truck to different hinterlands in the United States. Imported automobiles go as far as Illinois and Wisconsin to the west, North Carolina to the south, and Pennsylvania and New Jersey in the mid-Atlantic region. Fruit imports, including bananas, are used mainly in the mid-Atlantic states and New England. Dry bulk commodities, like iron, steel, petrol coke, limestone, salt, and gypsum generally are taken by customers within a 50 mile radius. Imported frozen orange juice is delivered to Canada, but most of the imported lumber remains in the Delaware region.

The principal American products exported through the port in fiscal year 1985 included 300

million tons of petrol coke to Europe and 11,350 General Motors cars and trucks to the Persian Gulf ports of Kuwait, Jetta, and Abu Dubai.

Studies to Improve the Port

AN enduring refrain by port managers during the 1970s was that despite the Port of Wilmington's central location, stable labor relations, and good access to transportation systems, it had notable disadvantages in comparison to other regional ports. First, it was not able to service container ships; second, it did not enjoy a well-maintained dock area; and, third, it could not provide sufficient warehouse space. In consequence of those complaints, a number of studies were done to assess the dynamic forces of trade that could affect the operations of the port and to recommend measures that would enable the port to capitalize on its resources. As a result, the port has made significant strides in long range planning and facility improvements.

The two most comprehensive consultant studies of the port in recent years were the *Delaware River Regional Port Study* published in 1982 by the Transportation Consulting Division of Booz, Allen, & Hamilton, Inc. in conjunction with a study committee made up of regional and federal representatives from the port community and the *Port of Wilmington Master Plan*, completed in January 1984 by Tippetts-Abbett-McCarthy-Stratton (TAMS).

The Booz-Allen & Hamilton Report

In April 1983, Helene R. Butler from Wilmington's Division of Management and Planning presented a paper entitled, "Implications for the Port of Wilmington from the Delaware River Region Port Study." In it she summarized the salient recommendations of the Booz-Allen reports with respect to the Port of Wilmington:

Rail. Target a greater effort towards increasing rail traffic, and work regionally to promote an optimal resolution of the sale of Conrail, since the pending sale of Conrail could have a major impact on the port and its competitive position. Specifically the port was advised to seek congressional support of a plan to

sell Conrail in its entirety rather than piecemeal with the expectation of ensuring the routing of more tonnage through the region's ports.

Dredging. Continue to participate in regional efforts to resolve the "user fee" debate.

Industrial Development. Garner assistance from local, county, and state economic development agencies to promote the port and to target industries toward the port.

Marketing. Pursue new commodity markets, especially fruit; expand the list of shippers for direct sales efforts; keep up with new developments in cargo handling systems; focus on capturing a share of the containerized cargo market in the tri-state area.

Financing. Keep informed of the financing methods used successfully at other ports in light of planned expansion efforts, and solicit a broader base of financial support, specifically from the state and county.

General. Continue to pursue a regular steamship line of service; investigate localizing more elements of the contracts negotiated with port labor; *examine ways to adapt the port organization to increase its long-term ability to deal with the above issues and trends.*

The TAMS Report

The TAMS *Port Master Plan* also relied on the port obtaining a contract for regular liner service in making its forecast for port growth in handling containerized cargoes. It recommended facility improvements, including the introduction of a container operation, building a specialized temperature-controlled storage facility, construction of a new port administration building, and rehabilitation of the port's existing facilities. Specifically, attention was called to the storm drainage and sanitary sewage system, the freshwater system, the electrical system, the wharf fender systems, the trackwork, mechanical equipment, and the roadways. The plan also advised creating continued incentives to attract private investments in the development of port facilities, marketing efforts, and cargo handling operations so that the port's financial outlays and risks would be minimized.

The TAMS report advised caution in planning any relocation of berth facilities from the Christina

River to the Delaware River or in the consideration of any change in the current institutional arrangement for port ownership and management unless the port were to experience significant growth in volumes of cargo throughputs, requiring a major program of capital investment. Under the present scenario of projected cargo, it recommended that the port's development be limited at present to the land the port presently occupies. *If substantial growth were to occur, TAMS advised the development of a port corporation as the appropriate institutional arrangement for the Port of Wilmington.*

Neither the Booz-Allen nor the TAMS report came out strongly in favor of institutional change in light of uncertain market conditions. Rather they both emphasized the need for consistent economic development and marketing efforts as a necessary first step. The Booz-Allen report stressed the importance of adequate rail service and healthy cargo flows by rail. The report assessed the possibilities for industrial development in the Delaware River region and stressed the importance of soliciting water-dependent industries to the area. It provided a report on the economic impact of port activity in the region with respect to federal, state, and local levels, including a detailed history of the demand for port services and trade statistics from 1967 through 1980. The study made only general comments on the issue of dredging and the advisability of further port expansion. Instead it urged that the Port Master Plan address these points.

The 1984 TAMS report (or *Port Master Plan*) was similarly cautious. It focused on the potentials surrounding an aggressive marketing strategy and surmised that the existing capacity of the port could accommodate the anticipated growth in cargo volumes so long as the existing facilities were well maintained. Predictions about the likelihood of steady economic growth for the port were avoided with the stated rationale that the 1984 global economic climate was unstable and unpredictable.

Improving the Facilities

EVEN before the 1982 and 1984 studies by consultants to the port, the City of Wilmington had taken steps to improve facilities for cargo handling, storage, and distribution. In 1976 a floating berth

was constructed specifically for handling vehicle imports and exports, while old dock sections that had fallen into disrepair were reconstructed. In 1978 a new storage area and processing facility made Wilmington a major automotive port of entry for Volkswagens on the Atlantic seaboard. That same year, the city built an addition to the port's banana unloading facility, expanding and modernizing the entire banana terminal with new truck loading docks, refrigeration, and fumigation equipment.

Containerization

Critical to the development of the port, indeed, to its economic survival, were facilities to handle containerized cargo. Shipping had been revolutionized by the ever-increasing use of containers for cargo during the 1960s and 1970s. Nevertheless, the Port of Wilmington had been unable to take advantage of this important and valuable technological change. It only had two dry bulk and general cargo cranes with capacities up to 100 tons.

A "container" is an enclosed reusable weather-tight shipping conveyance, similar in appearance and size to a highway trailer that can be transported by either truck or rail once it is unloaded from the ship. Without container-handling cranes to load and unload cargo, the port was at a severe competitive disadvantage with other ports that had installed such cranes. The necessary capital for such an investment lay beyond the city's financial capabilities. After long negotiations the State of Delaware in 1980 finally appropriated \$1.25 million toward the construction of a crane costing \$3.6 million. This was the first time that the state had ever made a substantial financial contribution to the port. The balance of support for the containerized cargo facility was provided by the city, the U.S. Department of Commerce, and the Economic Development Administration. A second appropriation of \$800,000 by the State of Delaware was made in 1981 for the expansion of the existing container facilities.

In 1982 the 233-foot-high container crane became operational. It is capable of lifting a 40-foot-long container 30 times each hour. Two men operate the controls, four men drive trucks to receive the containers, and fourteen men work in the ship's hold. The crane's primary customer has been Castle & Cooke, an international food producing and marketing firm that grows and markets pineapples and bananas under the Dole label. The port has designated

7.2 acres of land located adjacent to the dockside crane for container storage and addition acreage for this purpose elsewhere on terminal property.

Rail Tracks

The port had suffered a major decline in rail traffic from 1975 to 1980, and a study revealed that deficient rail track and frequent derailments had been a major determinant in the decisions of shippers to reduce their rail transport or seek alternative transportation arrangements. In 1983, therefore, improvements were made on the 7.5 mile network of port-owned railroad track with many benefits to port rail transfers.

Storage

In 1984 the port enjoyed some innovative construction that improved its versatility and increased its income. First, construction was completed on a new 100,000-square-foot fruit handling facility, which has a heat/chill temperature control range of 32 to 60 degrees Fahrenheit and a venting system capable of complete fumigation. The cost of this project totalled \$3 million, and it is notable that the State of Delaware paid two-thirds of the cost. Second, a new bulk orange juice handling facility, costing \$5 million, was built and started operations. The port's berthing area has enabled Citrus Coolstore, Inc. to off-load bulk orange juice concentrate from a vessel directly into a fully automated plan through an above-ground protected pipeline. Refrigerated stainless steel tanks, with a total capacity of 3 million gallons, store the juice concentrate until it is pumped into tanker trucks for delivery to processors. The city of Wilmington contributed \$700,000 toward this project.

Increased Financial Support

THE latest addition to the port's assets is the acquisition of 70 acres of land adjacent to the port property on either side of Christiana Avenue (see Figure 3). This land makes available 50 acres for open storage leasing for bulk products such as steel and wire, 20 acres for future development, and an office building and warehouse on the site to serve port needs. At the end of April 1986, final transfer of title to the city depended only on the result of a survey of the subsoil.

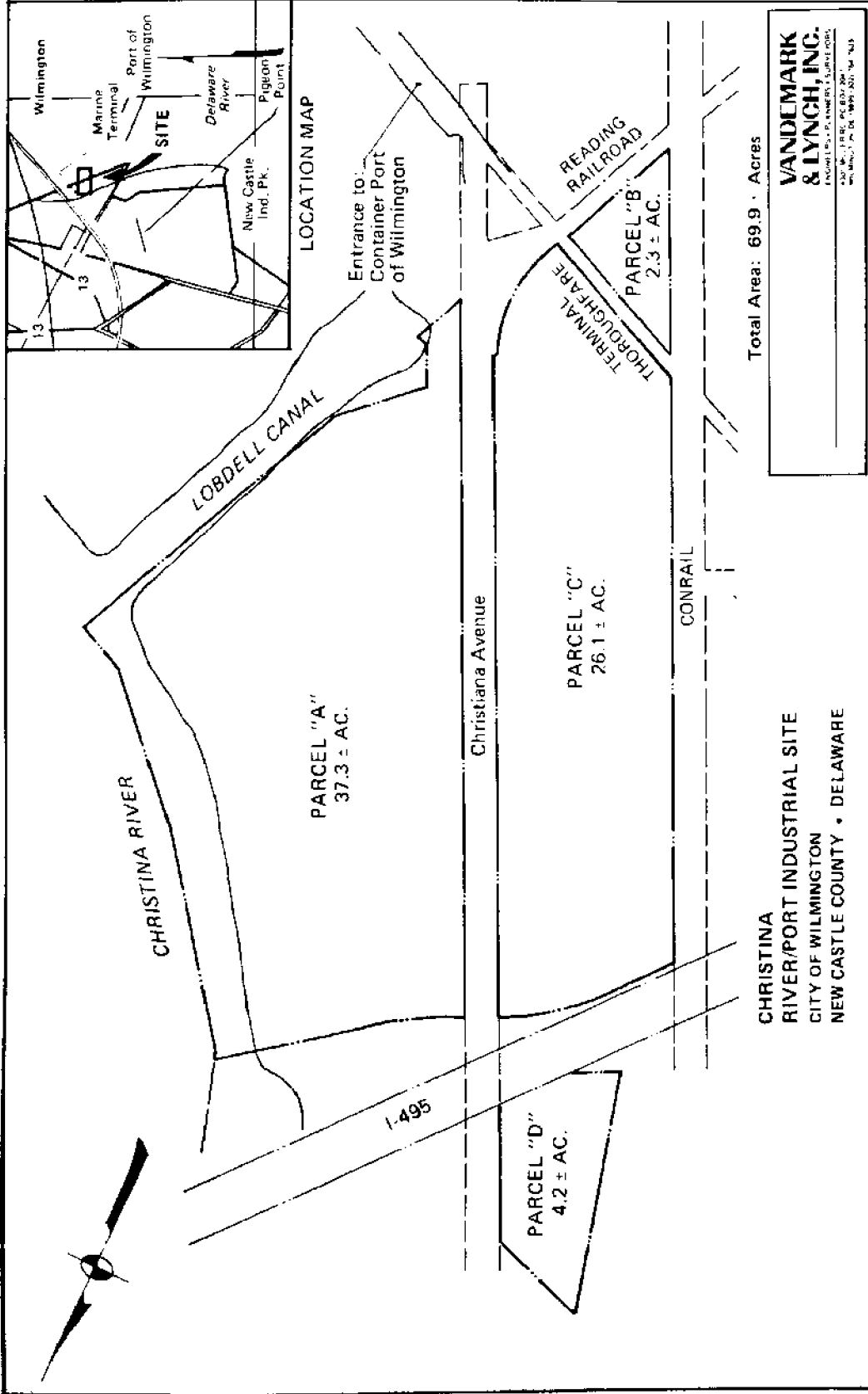


Figure 3. Christina River/Port Industrial Site.

The increase of container shipments into the port has demonstrated the worth of the single container crane, but the lack of any back-up crane and the need for a sturdier, faster-cycle crane led the city of Wilmington to call upon the State of Delaware for further assistance.

In August 1985, the State of Delaware approved another bond bill for \$2.5 million for the purchase of a second multi-purpose container crane and gave assurance that an additional \$2.7 million would be appropriated in 1986 for the crane and backup equipment. The city will contribute \$1.5 million. The new crane is expected to be in place by the summer of 1987.

The increasing financial support by the State of Delaware to the Port of Wilmington in the 1980s demonstrates the state's growing interest and commitment to the port as it has become an important city, state, and regional asset.

Operation of the Port

RUNNING a port that receives 480 ships and handles 2.8 million tons of commerce a year with thousands of truck and rail movements entails close attention and oversight of day-to-day operations. Ernie Casper, the Director of Operations, has observed that the overall product ratio of refrigerated and chilled cargo in the port is increasing and that business inquiries about such cargoes have also been growing. This might soon lead to the need for additional freezer and chill space. Another problem that has been under study is the port's maintenance and lift truck supply because additional equipment is necessary to update the stock. A decision must be made on whether to buy the equipment or enter into a long-term lease arrangement.

Deputy Port Director John H. Doherty has stressed the need for effective maintenance of the port. In the past ten years a concerted maintenance program has reduced the percentage of crane breakdowns from approximately 50 to 6 percent yearly. The sewer system, drinking water and fire systems of the port have all been improved, but there are

pressing needs to improve maintenance in other areas. As the port adds new equipment, it will require a larger maintenance force that is properly trained to maintain the equipment in good working order. Further, the existing mechanical equipment is in need of upgrading, including both the lift truck and front end loaders, which are the workhorses of the port. The dock areas need refurbishing, and the whole marginal wharf system should be evaluated for necessary improvements. Although \$237,000 has already been spent to upgrade the terminal's railroad tracks, Mr. Doherty estimates that another \$300,000 will be necessary to complete the job.

It is unlikely, however, that any of these maintenance concerns can be addressed until after the new container crane is in place in the spring of 1987. All extra budgetary spending is in abeyance until then, which obviously concerns those responsible for quality in the operation of the port. As is often the case in large enterprises, current operations costs are stinted while large capital improvements occur.

To keep pace with the port's finances (see Table 3), a new computerized management information system has been in operation since 1984. It has been described by Joe Peltz, Port Finance Director, as a revenue/cost allocation system for all commodities handled and services offered, and a new computer system will soon be on line that will make possible an automatic billing system and warehouse inventory for all commodities at the port.

A report by the Mayor's office in 1984 stated that since 1976 revenues had risen 158 percent, annual tonnage had risen by 15.5 percent, and over \$1.7 million had been spent on improving the port's capabilities.

New Developments in Shipping

IN the mid-1970s, the railroad and shipping industry began to cooperate in developing a new system for the transportation of goods. The system uses the terms "mini-bridge" and "micro-bridge" to describe a coordinated movement of goods by ships, trains, and trucks to reduce a customer's overall transportation costs. Under the "mini-bridge" sys-

Table 3
Financial Summary
(in dollars)

	FY '85	FY '84
Gross Revenues	11,460,612	9,706,252
Operating Expenses:		
Personal Services	4,464,174	4,019,957
Materials, Supplies, & Contractual Services	2,861,125	1,632,731
Pension & Retirement	210,000	211,551
Depreciation & Amortization	1,021,091	848,829
Interest Expense	1,039,637	998,782
Indirect Cost	300,232	400,310
Total Estimate Operating Expense ..	9,896,259	8,112,160
Net Income	1,564,353	1,594,092

tem, the ocean carrier provides an empty container at the shipper's plant or factory. The shipper then loads the container and makes arrangements with a truck or rail carrier to transport the container to a U.S. port, and pays all charges. The ocean carrier is then responsible for arranging and paying for a rail carrier to transport the container (along with those of other shippers) to the port from which it will be shipped overseas. This port may be on the opposite coast.

The "microbridge" system permits a shipper to load the container at his factory, and arrange for a local trucker to deliver it to the nearest rail ramp where it is placed on a piggyback train by the ocean carrier who arranges and pays for domestic transport from that point.

In 1978 the federal government deregulated the railroad and trucking industries, and in 1984 the ocean shipping industry was deregulated. As a result of the "bridges" and deregulation, cargo on which each U.S. port had come to rely over the years is no longer "captive" cargo for its specific hinterland since various cost-competitive transportation schemes had become possible for delivering cargo to its destination point. Suddenly ports were thrown into the position of having to work to attract and keep their carrier business. As a result, port marketing has become of major importance in the marine transportation industry.

Marketing the Port

THE Port of Wilmington did not formalize its marketing commitment until 1975 when it hired Hugh Donnelly as its first Director of Marketing. A new plan for the port emphasized the handling of food stuffs: i.e., frozen meat, fish, fruit, and bananas, along with some expansion of the steel trade. In 1978 Mayor William McLaughlin, the Commerce Director John Babiarz, and Port Director Don Alfieri flew to South America to meet with government officials and businessmen in Peru, Chile, Brazil, and Venezuela to promote the Port of Wilmington.

This marketing venture was the first of its kind for Wilmington. The officials were met and escorted by Robert Mescal, a du Pont executive, who was soon hired by the port as its South American marketing representative. As a result of the trip, frozen orange juice concentrate shipped in drums became a major port commodity, which ultimately led to the construction of the new bulk orange juice handling facility that has been in successful operation.

A 1981 marketing study by Paul F. Richardson Associates, Inc. recommended that the port promote itself as the "Container Port of Wilmington, DE" and as the "Philadelphia area port closest to the sea." Wilmington's great advantage over upriver ports is that a carrier using the port can reduce its costs by thousands of dollars on each voyage in vessel marine

and insurance charges. The study also stressed that the port's excellent inland connections should be emphasized in all advertising schemes and that marketing and sales efforts should be concentrated on container shipping companies.

Ken Muck, who became Port Director in 1985, has defined marketing as not just selling but tailoring the port's services and facilities to carrier needs, making the port's prices competitive, promoting the port in new ways, and targeting both carriers and shippers for marketing efforts. The Port of Wilmington can be described as a specialty port because it can be specifically designed to meet the needs of a special class of shipper and thereby create a niche for itself in the marketplace.

The port staff has been planning a thorough evaluation of the port's strengths and weaknesses, examining its facilities, its labor pool, its geographic location, and the services that it can make available to shippers. The attributes of the port will then be compared with other competitive ports to assess any needs for improvement. In addition, the port has been soliciting opinions from its existing and potential customers on their perception of the port and their ideas for change. The marketing plan has been designed to improve the current services and products of the port and to target new products that could be handled profitably and to the customer's satisfaction. The marketing strategy adopted by the port emphasizes the Port of Wilmington as the "Port of Personal Service," since it is small enough to respond quickly to customer inquiries and requirements.

To promote the port more effectively, a colorful videotape presentation about the advantages of the port has been created to show to potential customers. The port has also been working on the possibility of contracting with additional container lines as long-term tenants, which would be an arrangement similar to that held now with the Dole Company. Cost competitiveness continues to be a key selling point, due to the port's small management team and low overhead costs. To strengthen its marketing force, Dick Coffee, who has had a long career in port-related work in Baltimore, was appointed as Director of Marketing when Hugh Donnelly retired. Christina Casgar, who was trained as a Master of Marine Policy at the University of Delaware and had worked for the port as its domestic marketing representative, was recently appointed as the port's representative in the Scandinavian and European market. Robert Mescal continues to represent the port's interest's in

South America, and John O'Donnell is the port's newest marketing appointment based in Wilmington.

A Foreign Trade Zone

AN important addition in 1984 was the designation of over half of the port's acreage as a "Foreign Trade Zone" or FTZ. Set up under the federal Foreign Trade Zones Act of 1934, as amended, the FTZ allows goods to be imported into areas of the United States without being subjected to customs duties until they leave the zone for American markets. Goods undergo a manufacturing process while in a FTZ, which may increase their value. The FTZ may be used as a storage area for goods in transit from one foreign country to another. Importers can use them as they do bonded warehouses, to maintain an inventory without having to pay duty until the item moves. Presently, Citrus Coolstore, Inc. is one operation benefitting from the FTZ designation. Duty need not be paid on the imported bulk orange juice concentrate until it is disbursed by tank truck. Operating a FTZ costs the port \$100,000 annually to pay for customs officials, security measures, and other facilities.

The Port of Wilmington Maritime Society

STRONG backing for port-related activity and growth has been provided by the Port of Wilmington Maritime Society. Founded by a group of interested citizens in 1978 as a non-profit private organization, the society has grown and is now governed by a 36-person Board of Directors comprised of business leaders, elected officials, and prominent citizens. Membership in the society is open to the public and now totals over 300, including representation by over 50 corporations and public agencies.

The goal of the society is to aid the port to increase its level of profitable business activity by creating a positive awareness of the public of the

port and its capabilities, by fostering a commitment of the business community to the port, and by encouraging investment to help develop the port to its fullest potential. The society, working through local, state, and federal officials, has helped the port in achieving its goals of deeper water, facilities improvement, and new equipment. It has also fostered annual internships of graduate students at the port for training and research. In regular consultation with officials of the port, the society has acted as a catalyst to improvement and it is a constant supporter of the important role of the Port of Wilmington in American trade.

Conclusion

It is clear that current operations at the port are strong and there is an enduring belief and commitment by all concerned parties to a long and profitable future at the Port of Wilmington. However, with that future in mind, there is always an opportunity for greater development, possibly with an expansion of the commercial base and public management of the port. The third and final monograph in this series will explore opportunities for increasing public support of the port through alternative forms of organization and management, bearing in mind the excellent record of the city of Wilmington in operating a valuable resource for the state and the region.