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A feasibility study for a roll on roll off liner service Miami to Ecuador

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A FEASIBILITY STUDY FOR A ROLL ON ROLL OFF LINER SERVICE, MIAMI TO ECUADOR

By

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RECOMMENDATION

We recommend that Admiral Shipping enter into a joint venture with Galapagos Line for a ro/ro service Miami/ Ecuador, employing the M/V "Admiral Pacific" or similar tonnage. The service should be opened as soon as possible and not later than October 1, 1979. In view of the oversupply of ro/ro vessels on the world market, immediate start-up is crucial to deter others from attempting to enter this business.

CONCLUSIONS

1. Projected growth for the U.S. Atlantic/Ecuador southbound trade is 10.7% through 1980.
2. Miami's share of this trade is limited by its shortage of carrying capacity. Presently, only Coordinated Caribbean Transport (CCT) is offering ro/ro service from Miami with a single vessel. As of this writing (August 9, 1979) this vessel is booked solid to early October.
3. A non-conference ro/ro operation in association with Galapagos Line, with start-up October 1, 1979 and time charter cost of $6,200 daily, will make $36,000 profit in 1979 and $1,038,800 in 1980. These profits are calculated basis no northbound cargo (estimated contribution per month $33,000), no profit on refundables, and only 7% bunker surcharge (this surcharge is now scheduled to be raised to 10% by September 1979).
4. A cash investment of $750,000 is required to be paid in during September-December 1979. Cash flow is projected to turn positive in first quarter 1980, with the original investment paid back by August 1980. Working capital as of December 31, 1980 is projected to be $1,074,800 of which $353,400 is accumulated cash. This cash flow represents a return of 47% on the investment of $750,000.

Table 1

PROJECTED PROFIT AND LOSS
(in $1,000's)

	Oct.	Nov.	Dec.	TOTAL 1979	Q1	Q2	Q3	Q4	TOTAL 1980
No. of Sailings	2.214	2.143	2.214	6.571	6.500	6.500	6.571	6.571	26.142
% Utilization	40	60	100		70	90	70	90	
Revenue	352.8	522.3	892.5	1,767.6	1,844.7	2,359.7	1,864.8	2,385.4	8,454.6
Provision for Bad Debt & Manifest Error	7.0	10.4	17.8	35.2	37.0	47.2	37.4	47.6	169.2
Net Revenue	345.7	511.8	874.6	1,732.1	1,807.7	2,312.5	1,827.4	2,337.8	8,285.4
Expenses:									
Variable	90.5	131.6	222.8	444.9	471.0	586.1	476.1	592.5	2,125.7
Contribution	255.2	380.2	651.8	1,287.2	1,336.7	1,726.4	1,351.3	1,745.3	6,159.7
Fixed	378.8	366.7	378.8	1,124.3	1,112.2	1,112.2	1,124.3	1,124.3	4,473.0
Profit before Admin.	(123.6)	13.6	273.0	163.0	224.5	614.3	227.0	621.0	1,686.8
Start-Up	55.0			55.0					
Galapagos Share					90.0	90.0	90.0	90.0	360.0
Administration	24.0	24.0	24.0	72.0	72.0	72.0	72.0	72.0	288.0
Total Admin.	79.0	24.0	24.0	127.0	162.0	162.0	162.0	162.0	648.0
Profit/(Loss)	(202.6)	(10.4)	249.0	36.0	62.5	452.3	65.0	459.0	1,038.8

FINANCIAL PROJECTIONS

Projected Profit and Loss: Assumptions

1. Revenue

The following vessel utilization factors are assumed, taking into account start-up period, cargo seasonality, market growth, and projected market share (see Tables 10, 11, and 12):

Oct. 1979:	40%	1 Q 1980:	70%
Nov. 1979:	60%	2 Q 1980:	90%
Dec. 1979:	100%	3 Q 1980:	70%
		4 Q 1980:	90%

No northb-ound cargo is assumed. This could add $100,000 in contribution per quarter starting in 1980.

2. Voyage Costs

See details of assumptions, following Table 5.

3. Start-up and Administration Expense

See Tables 6 and 7.

4. Galapago's Share

To compensate Galapagos for loss of estimated contribution from present Miami liftings (M/V Pacifico would be withdrawn from Miami trade).

5. T/C Costs

This is based on $6,200 daily and assumes the vessel is delivered Miami at no cost to the joint venture. The budget assumes no offhire up to December 31, 1980.

TABLE 2

PROJECTED CASH FLOW: SEPT 1979/DEC 1980
(in $1,000's)

		SEPT	OCT	NOV	DEC	I Q	II Q	III Q	IV Q	TOTAL
Receipts			76.1	340.8	606.3	2,208.1	2,358.7	2,187.9	2,384.2	10,162.1
Payments:	Group I	55.0	173.8	214.5	310.1	720.6	843.5	727.4	851.8	3,896.7
	Group II			161.9	173.0	210.8	213.8	228.0	215.8	2,978.4
						427.5	455.9	431.5	460.2	
	Group III	96.1	96.1	93.0	96.1	470.2	470.2	475.3	475.3	2,933.6
			93.0	96.1	94.0	94.0	94.0	95.1	94.0	
Total Payments		151.1	362.9	565.5	673.2	1,923.1	2,078.5	1,957.3	2,097.1	9,808.7
Net Cash In (Out)		(151.1)	(286.8)	(224.7)	(66.9)	285.0	280.2	230.6	287.1	353.4*
Accumulated Cash		(151.1)	(437.9)	(662.6)	(729.5)	(444.5)	(164.3)	66.3	353.4	

*NOTE: As of Dec. 31, 1980, working capital is projected as follows:

Accumulated Cash	353.4
Accounts Receivable	857.2
Accounts Payable	(135.8)
Working Capital	1,074.8

TABLE 3

PROJECTED CASH RECEIPTS: OCT. 1979/DEC. 1980
(IN $1000's)

Period Oct. 79/ Dec. 80	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	TOTAL
Net Revenue	345.7	511.8	874.6	602.6	602.6	602.6	770.8	770.8	770.8	609.1	609.1	609.1	779.3	779.3	779.3	10,017.5
Refundables (10%)	34.6	51.2	87.5	60.3	60.3	60.3	77.1	77.1	77.1	60.9	60.9	60.9	77.9	77.0	77.9	1,001.0
Tot. Receivables	380.3	563.0	962.1	662.9	662.9	662.9	847.9	847.9	847.0	670.0	670.0	670.0	857.2	857.2	857.2	11,019.4
Collections:																
1-30 Days 20%	76.1	112.6	192.4	132.6	132.6	132.6	169.6	169.6	169.6	134.0	134.0	134.0	171.4	171.4	171.4	2,203.9
31-60 Days 60 %		228.2	337.8	577.3	397.7	397.7	397.7	508.7	508.7	508.7	402.0	402.0	402.0	514.3	514.3	6,097.1
61-90 Days 20%			76.1	112.6	192.4	132.6	132.6	132.6	169.6	169.6	169.6	134.0	134.0	134.0	171.4	1,861.1
Tot. receipts	76.1	340.8	606.3	822.5	722.7	662.9	699.9	810.9	847.9	812.3	705.6	670.0	707.4	819.7	857.1	10,162.1
Quarterly Totals			1,023.2			2,208.1			2,358.7			2,187.9			2,384.2	

Table 4

PROJECTED EXPENSES BY PAYABLE GROUPING SEPT 1979/DEC 1980
(in $1,000's)

		SEPT.	OCT.	NOV.	DEC.	I Q	II Q	III Q	IV Q	TOTAL
GROUP I	Variable Excl Equipment		57.0	82.9	140.4	296.7	369.2	299.9	373.3	1,619.4
	Fixed Excl Bunkers & T/C		58.2	56.4	58.2	171.0	171.0	172.8	172.8	860.4
	Refundables		34.6	51.2	87.5	180.9	231.3	182.7	233.7	1,001.9
	Administration & Start Up	55.0	24.0	24.0	24.0	72.0	72.0	72.0	72.0	415.0
	Total Group I	55.0	173.8	214.5	310.1	720.6	843.5	727.4	851.8	3,896.7
GROUP II	Equipment		33.5	48.7	82.4	174.3	216.9	176.2	219.2	951.2
	Bunkers		128.4	124.3	128.4	377.0	377.0	381.1	381.1	1,897.3
	Galapagos Share					90.0	90.0	90.0	90.0	360.0
	Total Group II		161.9	173.0	210.8	641.3	683.9	647.3	690.3	3,208.5
GROUP III	T/C Hire		192.2	186.0	192.2	564.2	564.2	570.4	570.4	2,839.6
	Total All Groups	55.0	527.9	573.5	713.1	1,926.1	2,091.6	1,945.1	2,112.5	9,944.8

NOTE: GROUP I = Payable in Month Incurred
GROUP II = Payable in Following Month
GROUP III = Payable Semi-Monthly in Advance

Cash Flow

Assumptions

I. Receipts

A. Gross receipts based on net freight (after provision for bad debt and manifest error) plus 10% for refundables. Note: Refundables are items charged on the bill of lading in addition to ocean freight to cover cost of additional outside services, e.g., Miami Handling, Miami Drayage, and Ecuador Inland Trucking. (P & L budget assumes no profit in refundables.) Refundables estimated as follows per trailer:

Miami Drayage	$ 70.00
Miami Handling	116.00
Inland Trucking Ecuador (average)	220.00
	$406.00

Average Trailer Revenue (including bunker surcharge) = $4,280.00

406/4,280 = 10%.

B. Timing of Collections Calculated as Follows:

1-30 Days	20% of Revenue
31-60 Days	60% of Revenue
61-90 Days	20% of Revenue

II. Payments

A. Expenses Grouped as Follows: (See table preceding)

Group I: Payable in month incurred

Group II: Payable in following month

Group III: Payable semi-monthly in advance

B. Group I

Consists of administration plus all items included in agents' normal disbursements:

Commissions

Stevedoring

Manta Wharfage and Handling

Port Charges and Agency Fees

Misc. Manta Expenses

Panama Canal Transit

Refundables

It is assumed that agents will require funds for disbursements on vessel's arrival.

Claims are included in this Group on the assumption that the P & I deductible is low and premiums are payable in advance.

C. Group II

Consists of equipment hire, bunkers, and Galapagos' share. More than 30 days credit may be obtainable for these items.

D. Group III

T/C hire.

MARKET ANALYSIS: MIAMI/ECUADOR RO/RO TRADE

Port of Miami vs. Other U.S. Atlantic Ports: General

During the past decade the Port of Miami has experienced tremendous growth in the liner trades to the Caribbean and Latin America. Miami's attraction to cargo originating in the East and Midwest, USA, compared to the services offered by Atlantic ports to the North, is threefold:

1. Competitive freight rates--including offsetting the higher inland transportation cost to Miami from points north.
2. Faster door-to-door transit.
3. Conveneince of trailer vs. container (and/or breakbulk) service.

This competitiveness is based on Miami's:

1. Geographical location.
2. Independence from conferences.
3. Ro/ro capacity.

Traditionally, cargo originating in the Eastern/ Midwestern U.S.A. is routed to the nearest Atlantic port for loading. Since, in most cases, the conference freight rates are the same for the entire Atlantic range of ports, the shipper's only potential for savings is to minimize his

inland shipping cost. This results in cargo flowing to the five or six major Atlantic ports for loading, which in turn necessitates lengthy, multi-port voyages for the ocean carriers.

All of this cargo will eventually pass by Miami en route to points south. By drawing this cargo overland to a single loading port which is closer to the final destination, the Miami operators can achieve 1) lower loading cost and port charges than the Atlantic operators, and 2) shorter vessel round trip time; for instance, a fortnightly service to Ecuador requires one vessel from Miami compared to two vessels from the Atlantic.

These economic advantages, combined with independence from conference rate making, have enabled Miami operators to offer lower freight rates. The combination of short round trip time and single port loading has resulted in faster door-to-door transit. This combination has also enabled Miami operators to profitably employ ro/ro vessels.

The majority of cargo is transported to Miami by rail in piggyback trailers. In addition to having higher cubic than conventional containers, trailers are more readily available on short notice to shippers from the railroad at most inland origin points. Additionally, the Miami ro/ro operators can offer superior service to the high volume of cars and rolling equipment moving to Latin America and the Caribbean.

The build-up of the liner business from Miami has been self-reinforcing to the extent that the resulting high frequency of service itself has been a strong attraction to shippers.

Miami vs. Atlantic: The Trade to Ecuador

As with the USA/Venezuela--Central America and Caribbean trades, there is a strong basic demand in the East and Midwest for dependable Miami ro/ro service to Ecuador. This is evidenced by the fact that CCT, as Miami's only ro/ro service to Ecuador, is consistently overbooked to the tune of one to two full vessel loads. As of this writing, CCT has no space available for the next two sailings, i.e. until end September/early October, 1979.

Between 1976 and 1978, the volume of Ecuador bound cargo loading Miami has nearly doubled compared to the two year growth for other Atlantic ports of only 11% (see Table 9). This expansion of Miami at the expense of other Atlantic ports is mainly due to the stimulus provided by CCT (see Table 9). However, for reasons discussed below, CCT has not been able to expand its capacity, resulting in a stabilization of Miami's share of the Atlantic market at 43.7% in 1978 (see Table 8). It is estimated that the introduction of an additional ro/ro vessel to the Miami trade would push Miami's share to 51.9% by end 1979 and to

an average of 54% in 1980 (see Table 12). This increase would be accounted for by cargo which is presently being routed via Atlantic ports owing to 1) CCT's backlog and 2) CCT's poor frequency. In the five quarters ending March, 1979, CCT sailed 25 times, or approximately every 18 days. Introduction of an additional vessel would enable Miami to offer weekly to 10 day ro/ro service.

<u>Miami/Ecuador Ro/Ro Trade: Barriers to Entry</u>

1. Ecuadorian Cargo Reserve Law

Simply, this law prohibits shipping companies from operating in the USA/Ecuador trade without either U.S. or Ecuadorian flag vessels. Under this law, bonafide Ecuadorian flag operators are allowed to charter in and operate foreign flag vessels up to 100% of their Ecuadorian flag tonnage.

For CCT this has meant confining their tonnage to the M/V "Lionheart" of approximately 120 trailers and 100 car capacity. Delivery of CCT's new U.S. flag barge has been continuously delayed; their latest estimate is April 1980. This new vessel will increase CCT's capacity by approximately 37%. For the time being, CCT will be cofined to operating the "Lionheart."

2. Commitment to the Conference[1]

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[1]Atlantic and Gulf/West Coast of South America Conference.

As discussed, success of a Miami ro/ro line to Ecuador, in large part depends on its ability to offer below-conference freight rates. The major Ecuadorian and U.S. Flag companies serving USA/Ecuador are:

<u>Ecuadorian Flag</u>

Transnave (Government Owned)

Ecuadorian Line (Private)

Galapagos Line (Private)

Valmar (Private)

<u>U.S. Flag</u>

Delta Line

Lykes Line

Except for Valmar, all of these lines are conference members. With the exception of Galapagos Line, the conference lines are likely to retain their conference membership. Transnave is politically committed to the conference system and will not drop out unless other government-owned South American shipping companies follow suit. At this time, this is highly unlikely. Ecuadorian Line is owned by a Mr. Naboa, who is heavily engaged in banana growing and distribution as well as a number of other businesses in Ecuador. His fleet consists solely of reefer vessels, their principal cargo being bananas northbound and general cargo southbound, most of which is "in-house"--consigned to Naboa's various enterprises. Given Naboa's commitment to reefer vessels, it is unlikely that Ecuadorian Line would want to lose the

benefit of conference rates, or, for that matter to start a ro/ro service from Miami in competition with his own conventional vessels.

The U.S. flag lines, Delta and Lykes, are traditionally conference-minded. Furthermore, the protection afforded by the conference covers not only the trade to Ecuador, but West Coast Columbia, Peru and Chile. Given their commitment to vessels suitable for conventional, multi-port liner service (as opposed to short-run, ro/ro shuttle service) it is unlikely that these lines would drop from the conference and start up a ro/ro service in competition with their existing fleet.

As an independent, Valmar has not yet seen fit to start a ro/ro service from Miami. Presently we do not know their intentions, but are investigating same.

In summary, the lack of Ecuadorian Flag and/or U.S. Flag ro/ro tonnage, combined with the commitment to the conference by the major carriers has precluded the build-up of ro/ro service Miami/Ecuador.

Presently, Galapagos Line is in a unique position to enter this trade as a bonafide Ecuadorian line, by chartering in a foreign flag ro/ro vessel which does not exceed 100% of its Ecuadorian flag tonnage. Such a vessel could not exceed the GRT of Galapagos' M/V "Pacifico" (2,665 GRT).

In spite of the obstacles, a number of companies are interested in entering this business. Among the major Miami

carriers, Chester Blackburn & Roder and Nopal Caribe Lines are both seriously considering ro/ro service to Ecuador at this time. In addition, others are rumored to be looking into this business, such as Servicios Navieros Ecuatorianos, S.A. (Naviesa) and Empresa Transporta (Emtraca), both Ecuadorian companies. However, to date none of these companies has managed to put together the needed combination of flag, vessel and capital.

Miami/Ecuador Southbound Cargo Projections

1. Market Definition

The primary focus of this study is on the southbound market from Atlantic ports including the Great Lakes and Miami. Historical figures for U.S. Gulf cargo are included for reference (see Tables 8 and 9); however, it is assumed that the cargo which can be attracted to Miami from the existing Gulf market is minimal.

2. Market Growth: Total Atlantic

The Atlantic southbound market is projected to grow at the annual rate of 10.7% for the remainder of 1979 and through 1980. Cargo volume for the total year 1979 is projected at 284.5 million pounds and for 1980 at 314.9 million pounds (see Tables 10 and 11).

3. Miami's Share of Total Atlantic

Assuming start-up of a new ro/ro service on October 1, 1979, Miami's share of Atlantic cargo to Ecuador is projected to rise to an average of 54% in 1980 from an average in 1978 of 43.7%. This expansion of Miami's market at the expense of other Atlantic ports is based on the strong demand for Miami ro/ro service to Ecuador: Given that this demand has not been met owing to chronic capacity shortage, the addition of a new ro/ro service and the expansion of CCT's own vessel capacity in April 1980 will enable Miami to capitalize on a cargo flow which would otherwise be 1) backlogged one to two months in CCT's yard awaiting shipment, or 2) routed via alternative ports on the Atlantic. Furthermore, the addition of a new service to the trade will enable Miami to offer a weekly to ten day sailing schedule, effectively doubling its historical ro/ro frequency. This in itself will be a strong attraction to cargo presently being routed via alternative ports on the Atlantic.

4. Admiral/Galapagos' Projected Share of Miami Cargo

A new ro/ro service's share of the Miami market is projected to be 29.5% in the fourth quarter of 1979 and to average 34.2% in 1980. This share assumes that CCT will maintain its average tons per sailing and average frequency of five sailings per quarter until the second quarter of 1980. At that time, it is assumed that CCT's average lifting

will increase by 19% and that by July 1980 they will manage six sailings per quarter. In other words, it is assumed that no erosion of CCT's volume will occur. On the contrary, CCT's estimated annual liftings will jump from approximately 34,000 kilotons in 1979 to 40,400 in 1980. CCT's market share is projected to decline from 59% in 1979 to 52% in 1980 owing to the proportionally greater increase in the Miami market as a whole (see Table 13). The share of the Miami market held by conventional and occasional liner services is expected to gradually decline from 25% in the last quarter of 1979 to 10% in the last quarter of 1980. In spite of the growing market size, this also represents a decline in volume for these carriers from 4,668 tons in the fourth quarter of 1979 to 2,170 tons in the fourth quarter of 1980 (see Table 12).

Ecuador/Miami Northbound Cargo Projection

For the purpose of this study, northbound reefer cargo has been excluded, since it would require an investment in reefer equipment; this investment, if warranted, should be postponed until early 1980, given that the Miami reefer trade is slack in the fourth quarter (see Table 14). The profit and loss projections herein do not include any revenues from northbound cargo. However, there is a northbound dry (non-reefer) cargo movement which could develop into

$40/45,000 in monthly revenues (see Table 16). This estimate defines the total northbound market to be the dry cargo moving to Miami only, excluding movements to the other Atlantic ports. Since CCT carries virtually 100% of the northbound dry cargo to Miami (see Table 15), and since the volume of this cargo is less than CCT's vessel capacity, it is assumed that there is no additional cargo available for Miami carriers which is not already taken via Miami. Given that a new ro/ro service would have similar service and frequency as CCT, it is estimated that such a line would have access to half of CCT's northbound liftings.

APPENDIX 1

Voyage Calculations and Overhead Costs

Table 5

VOYAGE CALCULATIONS

Vessel Utilization %	40	60	70	90	100
No. of Trailers (@ $4,000)	32	49	57	73	81
No. of Autos (@ $775)	27	41	48	61	68
Gross Revenue	159,350	243,725	283,800	363,025	403,100
Provision for Bad Debt and Manifest Error 2%	3,200	4,900	5,700	7,250	8,062
Net Freight	156,150	238,825	278,100	355,775	395,038
Variable Expenses:					
Commissions 10%*	14,900	22,700	26,520	33,928	37,800
Claims 1%	1,600	2,450	2,850	3,625	4,031
Miami Stevedoring	3,500	4,300	4,800	5,200	4,031
Manta Port. Auth. Unions	600	860	990	1,250	1,400
Manta Unions Stevedoring	1,650	2,500	3,000	3,750	4,000
Manta Wharfage	3,000	4,600	5,300	6,800	8,000
Manta Handling	730	1,100	1,300	1,670	2,000
Equip. incl. Parking	14,890	22,800	26,500	33,950	37,800
Contribution	115,280	177,435	205,640	265,602	294,407
Fixed Expenses:					
Miami Port Chgs. & Agency	1,750	1,750	1,750	1,750	1,750
Manta Port Chgs. & Agency	1,650	1,650	1,650	1,650	1,650
Misc. Manta Expenses	1,900	1,900	1,900	1,900	1,900
Panama Canal Transit	21,000	21,000	21,000	21,000	21,000
Bunkers	58,000	58,000	58,000	58,000	58,000
T/C Hire @ $6,200 Daily	86,800	86,800	86,800	86,800	86,800
Result	(55,820)	6,335	34,540	94,502	123,307
Daily Result T/C Basis	2,213	6,653	8,667	12,950	15,008

*Based on gross revenue minus 7% bunker surcharge.

Assumptions to Table 5: Voyage Calculations

REVENUE

The revenue is based on different levels of utilization of the vessel's carrying capacity. Given the vessel's capacity at 90 trailers plus 45 autos and a cargo mix (based on CCT actual experience) of 90% of the trailer space being occupied by trailers and the remaining by autos at a rate of 2.5 cars per trailer space, the cargo mix at different rates of utilization is:

% Utilization	40	60	70	90	100
No. of trailers	32	49	57	73	81
No. of autos	27	41	48	61	68
Cargo weight*	497	760	884	1,131	1,256
Cargo weight plus weight of trailers**	669	1,024	1,192	1,526	1,694

* Average cargo weight per trailer is 14 metric tons. Average weight per auto is 1.8 metric tons.

**Average trailer tare weight is 5.4 metric tons.

RATES

Average revenue per trailer = $4,000.

Average revenue per automobile = $775.

Bunker surcharge 7% of ocean freight.

These figures are based on CCT's tariff presently in effect.

COSTS

1. Round Trip Time

Miami-Cristobal	1189.9 miles @ 16 kn.	74.37 hrs.
Cristobal-Balboa	47.5 miles @ 4 kn.	12.00 hrs.
Balboa-Manta	591.4 miles @ 16 kn.	36.96 hrs.
Sub Total		123.33 hrs.
Round Trip Steaming Time	123.33 x 2	246.67 hrs.
Port Time		48.00 hrs.
Provisions for Delay Panama Canal		24.00 hrs.
Provisions for Other Delays		17.33 hrs.
Total Time		336.00 hrs.

2. Provision for bad debt of .5% is based on Nopal actual experience of .55% of revenues payable in USA. Practically 100% of Ecuador freights are paid in the USA. Provision for manifest error of 1.5% if based on actual experience of Nopal.

3. Provision for claims of 1% is based on Nopal actual of 1%. Based on experience at CCT the Ecuador trade is lower in claims than CCT's other trades and CCT estimated 1978 claims are 0.14% of revenue for the Ecuador service. Thus, 1% for this trade is conservative.

4. Commissions breakdown as follows:

Miami agent	4.0%
Miami freight forwarder	2.5%
*Inland agent 40% of 2.5	1.0%
Ecuador agent	2.5%
Total	10.0%

*It is assumed that inland agents will book 40% of cargo carried.

5. Miami stevedoring is based on the new rates in effect as of October 1, 1979. The gang structure is:

				Straight Time	Overtime Difference
1 Header		@	$10.90	$ 10.90	$ 5.45
8 Truck Drivers		@	10.75	86.00	43.00
10 Men		@	10.40	104.00	52.00
1 Water Boy		@	10.40	10.40	5.20
1 Checker		@	10.50	10.50	5.25
1 Superintendent		@	13.50	13.50	6.75
1 Assistant Superintendent		@	13.00	13.00	6.50
1 Yard Checker		@	10.50	10.50	5.25
1 Yard Driver		@	10.75	10.75	5.38
Insurance & Taxes*	$ 21.	@	16.53%	3.47	
Insurance & Taxes	$248.55	@	25.85%	64.25	
5 Tractors		@	12.00	60.00	
Overhead & Profit	$269.55	@	20%	53.91	
				451.18	134.78
WPV & GAI	23 men	@	4,115	94.65	
				545.83	
1 Mechanic				15.16	7.58
Total				$560.99	$142.36

8 hours straight time	@ 560.99	4,487.92
8 hours overtime difference	@ 142.36	1,138.88
		5,626.80

*For checker and yard checker only.

Assuming we will work equal hours overtime and straight time, the eight hour basis is estimated at $5,100.00. Given that we will be charged for 4, 6, or 8 hours, the chargeable stevedore time at different levels of vessel utilization are:

40%	60%	70%	90%	100%
4 hours	6 hours	6 hours	8 hours	8 hours

Some reserves are built in the figures used in the voyage calculations.

6. Manta Port Authority Unions and Manta Union Stevedoring are two different unions whose charges are:

Port Authority Union

270 sucres/full trailer unloaded	$9.82
100 sucres/empty trailer unloaded	3.64
50 sucres/vehicle unloaded	1.82

Surcharge: 9%
Meals : $56 per call

Manta Union Stevedoring

General cargo unloaded	$1.00 per metric ton
Vehicles unloaded	2.84 per unit
Empty trailers or containers	5.45 per unit

Social Benefits: 96%
Surcharges : $.13 per metric ton loaded/unloaded
.36 per empty unit loaded
Meals : $82 per call

7. Manta wharfage is $2.80 per measurement ton of cargo unloaded. We have assumed 2.5 measurement ton per metric ton.

8. Manta handling is $3.27 per metric ton. We have assumed that 20% of the number of trailers unloaded contain LTL cargo for stripping.

9. Manta misc. expenses are:

Tractors	$30/hr. x 6 tractors x 7.5 hrs. =	$1,350
Checkers		150
Drivers		360
Total		$1,860/ $1,900

10. Bunkers are based on current Miami prices of $192.67 for IFO 30 and $210.00 for MDO. Assuming some increase to $210.00 and $220.00 respectively, the bunker cost per round trip are:

$$\text{IFO 30: } \frac{246.67 \text{ hours}}{24 \quad \text{hours/day}} \times \frac{24 \text{ tons}}{\text{day}} \times \$210 = \$51{,}800$$

$$\text{MDO : } 14 \text{ days} \times \frac{2 \text{ tons}}{\text{day}} \times \$220 = \underline{6{,}160}$$

$$\$58{,}000$$

Increases beyond $58,000 per round trip are assumed to be covered by corresponding increases in bunker surcharges.

11. Panama Canal tonnage is 5,751 tons. Current rate is $1.29 per ton. However, an increase to $1.55 is expected in the near future.

Panama Canal Fees	5,751 tons x $1.55/ton	$ 8,914.
Line Handling		730.
Launch Hire		49.
Agency Items		675.
Cables		75.
Total		10.500.
Total per round trip	2 x $10,500	$21,000.

12. Miami Port Charges

Miami Dockage:	$.05/GRT x 2,625 GRT		$131.25
Tugs:	Base Charge	$220.	
	Fuel Charge	35.	
	OT Differential	55.	
		$310.	
	10% Contract Discount	31.	
		$279	

Tugs in and out			$558.00
Pilots: Draft charge: $9./ft. x 15.65 ft.	=	$140.85	
Draft charge in and out: 2 x $140.85	=	281.70	
Tonnage charge: $.015/GRT x 2,625 GRT	=	39.38	
Tonnage charge in and out: 2 x $39.38	=	78.15	
Docking and Undocking	=	100.00	$459.85
Agency Fee			250.00
Bonding Clearing and Entry			200.00
			$1,599.10

Voyage calculation figure of $1,750.00 includes $150.00 for contingencies.

13. Manta Port Charges

Facility Charge	$ 400
Pratique	132.
Launch	30.
Dockage	333.
Captains of the port - boarding officials	250.
Agency fee	250.
Total	$1,395.
Voyage calculations assume:	$1,650.

14. Equipment. It is assumed that the average onhire time per trailer is 45 days, as follows:

Onhire in Miami	7 days
Total Transit Time	14 days
In Ecuador	21 days
Return time to Railroad	3 days
Total	45 days

Daily cost of $9.00 includes allowance for repairs, insurance, and maintenance.

Table 6

START UP EXPENSES

(September, 1979)

Tariff Filings	$ 2,000
Promotion	10,000
Salaries	15,600
Social Security, Etc.	1,600
Tel & Tel	4,000
Office Equipment	10,000
Stationary	2,000
Misc. & Contingency	9,800
	$55,000

Assumptions to Table 6: Start Up Expenses

1. Tariff Filings

   Based on filing by Tariff Publishers, Inc., Washington, D.C.

2. Promotion

Party Onboard Vessel	$ 6,000.
Misc. Fliers, Advertising, Etc.	4,000.
	$10,000

3. Salaries

ENM, RL, CAS -	6 weeks @ $2,402/week	$14,400.
SECR. -	4 weeks @ $300/week	1,200.
		$15,600

4. Social Security, etc.

   Estimated at 10% of Salaries.

5. Office Equipment includes:

   4 Desks
   1 Typewriter
   Misc.

6. Misc.

   Includes Travel & Entertainment

Table 7

MONTHLY ADMINISTRATION

Salaries	$11,700.
Social Security, Etc.	1,200
Tel & Telex	2,000.
Travel & Entertainment	2,000.
Advertising	1,700.
Autos	1,000.
Outport Agents	800.
Stationery & Supplies	500.
Legal & Professional Fees	500.
Rent	350.
Postage	250.
Misc. & Contingency	2,000
	$24,000.

Assumptions to Table 7: Monthly Administration

1. Salaries

ENM	$3,750	
RL	3,333.	
CAS	3,333.	
SECRETARY	1,300.	
	$11,716.	$11,700.

2. Social Security, Etc.

   10% of Salaries — 1,200.

3. Telephone & Telex

   Includes Basic Telephone Service, Long Distance Calls and Telexes.

4. Travel & Entertainment

   Covers 1.5 Trips to Ecuador @$800. plus other Travel plus Entertainment of Customers.

5. Advertising

   Est. @ $20,000./year. — 1,700.

6. Autos

   Includes 3 company cars @ $270./mo. plus Mileage for Salesman @ $.20/mile. — 1,000.

7. Outport Agents

   Monthly overhead of outport agents charged to line (i.e., tel & Telex, travel, etc.) estimated $600: Manta-Guayaquil-Quito, $200: Panama.

8. Stationery & Supplies

   Includes replenishing of line documentation paper inventory (B/ladings, manifests, etc.) plus usual office supplies.

9. Legal & Professional Fees

Includes cost of legal assistance and some accounting/tax consulting fees.

10. Rent

As per estimate by Albury & Co.

11. Postage and Miscellaneous

Rough estimates.

APPENDIX 2

Cargo Market: Southbound

Table 8 a.

SOUTHBOUND LINER CARGO USA/ECUADOR
Excluding U.S. Pacific Ports
(in 1,000 pounds)

	1976	1977	1978
Atlantic			
New York	74,631	87,334	80,683
Philadelphia[1]	10,592	15,838	11,261
Baltimore	19,792	21,670	19,633
Norfolk[2]	3,642	4,729	4,459
Charleston[3]	13,071	14,467	18,708
Savannah[4]	216	200	4,534
Jacksonville	63	429	100
Sub Total	122,007	144,667	139,378
Miami[5]	63,617	104,748	114,408
Sub Total	196,547	257,205	262,111
Gulf			
Tampa	11,053	1,093	826
Pensacola/Mobile	4,650	8,134	4,166
New Orleans[6]	38,037	54,414	43,354
Houston	28,653	41,549	63,839
Texas (other)	13,308	12,912	13,105
Sub Total	95,701	118,102	125,290
Total All Ports	292,248	375,307	387,401

Notes:

[1]Includes Camden and Paulsboro, N.J.

[2]Includes Newport News, Va.

[3]Includes Georgetown, S.C.

[4]Includes Brunswick, Ga.

[5]Includes Port Everglades and West Palm Beach.

[6]Includes Baton Rouge, Lake Charles, La. and Gulfport, Miss.

[7]Figures exclude bulk and semi-bulk shipments considered unsuitable for ro/ro trade.

Table 8 b.

SOUTHBOUND LINER CARGO USA/ECUADOR
Excluding U.S. Pacific Ports
% Share by Port

	1976	1977	1978
Atlantic			
New York	25.5	23.3	20.8
Philadelphia	3.6	4.2	2.9
Baltimore	6.8	5.8	5.1
Norfolk	1.3	1.3	1.2
Charleston	4.5	3.9	4.8
Savannah	.1	.1	1.2
Jacksonville	---	.1	---
Sub Total	41.8	38.6	36.0
Great Lakes	3.7	2.1	2.2
Sub Total	45.5	40.6	38.1
Miami	21.8	27.9	29.5
Sub Total	67.3	68.5	67.7
Gulf			
Tampa	3.8	.3	.2
Pensacola/Mobile	1.6	2.2	1.1
New Orleans	13.0	14.5	11.2
Houston	9.8	11.1	16.5
Texas (other)	4.6	3.4	3.4
Sub Total	32.8	31.5	32.3
Total All Ports	100.0	100.0	100.0
Miami as % of Atlantic	32.4	40.7	43.7

Note: Differences due to rounding.

Table 8 c.

SOUTHBOUND LINER CARGO USA/ECUADOR
Excluding U.S. Pacific Ports
(in 1,000 pounds)

	1st Q 1978	2nd Q 1978	3rd Q 1978	4th Q 1978	1st Q 1979
Atlantic					
New York	19,790	22,347	17,888	20,659	17,764
Philadelphia	2,590	2,723	3,849	2,098	8,720
Baltimore	5,579	5,706	3,905	4,443	7,990
Norfolk	1,427	1,425	834	773	125
Charleston	3,510	4,941	2,781	7,476	5,554
Savannah	585	8	2,150	1,792	135
Jacksonville	2	5	1	91	2
Sub Total	33,483	37,155	31,408	37,332	40,290
Great Lakes	4	835	6,261	1,225	---
Sub Total	33,487	37,990	37,669	38,557	40,290
Miami	27,298	33,564	20,404	33,142	24,364
Sub Total	60,785	71,554	58,073	71,699	53,654
Gulf					
Tampa	---	---	---	826	923
Pensacola/ Mobile	2,289	865	750	263	3,717
New Orleans	9,359	10,734	14,205	9,056	18,408
Houston	11,559	13,720	17,725	20,835	26,939[1]
Texas (other)	5,198	3,128	3,063	1,717	3,733
Sub Total	28,405	28,447	35,743	32,697	53,720
Total All Ports	89,190	100,001	93,816	104,396	118,374

Note:

[1] Includes 10,713 plastic resins which compare to total annual liftings of 18,096 and 11,788 in 1977 and 1976 respectively. If the 54% 1976/1977 growth rate for this commodity is assumed to continue for 1978 and 1979, 10,713 is not unreasonable for first quarter 1979. However, this may be a statistical error.

Table 8 d.

SOUTHBOUND LINER CARGO USA/ECUADOR
Excluding U.S. Pacific Ports
% Share by Port

	1st Q 1978	2nd Q 1978	3rd Q 1978	4th Q 1978	1st Q 1979
Atlantic					
New York	22.2	22.4	19.1	19.8	15.0
Philadelphia	2.9	2.7	4.1	2.0	7.4
Baltimore	6.3	5.7	4.2	4.3	6.8
Norfolk	1.6	1.4	.9	.7	.1
Charleston	3.9	4.9	3.0	7.2	4.7
Savannah	---	---	2.3	1.7	.1
Jacksonville	---	---	---	.1	---
Sub Total	37.5	37.2	33.5	35.8	34.0
Great Lakes	---	.8	6.7	1.2	---
Sub Total	37.6	38.0	40.2	36.9	34.0
Miami	30.6	33.6	21.8	31.8	20.6
Sub Total	68.2	71.6	61.9	68.7	54.6
Gulf					
Tampa	---	---	---	.8	.8
Pensacola/ Mobile	2.6	.9	.8	.3	3.1
New Orleans	10.5	10.7	15.2	8.7	15.6
Houston	13.0	13.7	18.9	20.0	22.8
Texas (other)	5.8	3.1	3.3	1.6	3.2
Sub Total	31.9	28.5	38.1	31.3	45.4
Total All Ports	100.0	100.0	100.0	100.0	100.0
Miami as % of Atlantic	44.9	46.9	35.1	46.2	37.7

Note: Differences due to rounding.

Table 9

SOUTHBOUND MARKET SHARES BY LINE BY TRADING AREA
For 12 Month Period June 1978/May 1979

1. Average monthly liftings over the 12 month period (excluding pure bulk movements and larger bulk parcels carried by regular liner operators) and percentage market share.

Southbound	Conference Member	Miami Metric Tons	Miami %	Atlantic Metric Tons	Atlantic %	Gulf Metric Tons	Gulf %
CCT*		1,755*	48				
Ecuadorian	x	802	22	2,439	31		
Transnave	x	341	9	672	9	13	
Galapagos	x	266	7			1,058	19
Valmar		199	5			1,417	25
Delta	x	145	4	1,755	23	4	
Granco	x	25	1	1,400	18	1,282	23
Chilean	x	5		358	5	41	1
Lykes	x					1,502	27
Peruvian	x			528	7		
Misc.		142	4	642	8	327	6
Totals		3,680	100	7,794	101	5,644	101

*Adjusting for the abnormally low 4th Q 1978 (in which CCT was subject to technical problems and delays) CCT average monthly lifting is 2,355 metric tons: average CCT market share, excluding 4th Q 1978 = 64%, 64% x total Miami monthly liftings of 3,680 = 2,355.

Table 9 (Continued)

2. Percentage market shares by quarters by line by trading area.

Southbound	Conference Member	Miami 1978 3Q	Miami 1978 4Q	Miami 1979 1Q	Miami 1979 2Q	Atlantic 1978 3Q	Atlantic 1978 4Q	Atlantic 1979 1Q	Atlantic 1979 2Q	Gulf 1978 3Q	Gulf 1978 4Q	Gulf 1979 1Q	Gulf 1979 2Q
CCT*		65	26	66	62								
Ecuadorian	x	12	26	18	19	27	29	30	46			17	15
Transnave	x		20	9	4		5	24	6		1	29	24
Galapagos	x	3	12	3	3					20	24		
Valmar		3	8	1	10					6	40	20	24
Delta	x	4	7	2	2	23	19	23	21				
Granco	x		1		1	15	18	19	17	35	14	34	32
Chilean	x					13		2	2		3		
Lykes	x									23	19		5
Peruvian	x					9	15	5	5				
Misc.		13	11	11	11	13	14	4	4	17			

Second Quarter 1979 is based on April and May only.

*CCT's average market share for these four quarters, excluding 4th Q 1978 in which CCT experienced serious technical problems and delays, was 64%. CCT's bookings in this quarter w-ere normal. However, most of the cargo was withdrawn at the last minute and transferred to other Miami carriers, thereby having nil effect on Miami's share of the total Atlantic Market (see Table 8).

Table 10

SOUTHBOUND CARGO MARKET: U.S. ATLANTIC/ECUADOR
Historical Growth & Seasonality of Cargo Flow

I. MARKET GROWTH

1. Comparative Period Growth Rates:

	Atlantic (incl. Miami)	Total Atlantic & Gulf
1976-1977	30.9%	28.4%
1977-1978	1.9%	3.2%
1976-1978 (compounded)	15.5%	15.1%
1st Q 1978 vs. 1st Q 1979	6.4%	32.7%*

*First Q 1979 Gulf figures may be distorted owing to an abnormally high shipment of plastic resins from Houston, which is a possible statistical error.

2. TOTAL ATLANTIC

Quarterly Moving Averages -- Jan 1978/March 1979:

Period		Cargo Vol. (1,000 lbs.)	Two Quarters Average Volume	Two Quarters Average Growth Rate
1978	I Q	60,785		
	II Q	71,554	66,170	
	III Q	58,073	64,813	-2.1%
	IV Q	71,699	63,886	..1%
1979	I Q	64,654	68,177	5.1%

Compounded growth rate from first average to last average (66,170 to 68,177) is 1.00% compounded quarterly, or 4.06¢ per annum.

Table 10 (Continued)

3. Summary

The high growth rate experienced in 1977 of 30.9% declined sharply to 1.9% in 1978. However, the growth rate appears to be on the rise again based on a comparison of first quarter volumes, 1978 vs. 1979, indicating growth of 6.4%. Likew-ise, based on quarterly moving averages for the period Jan. 1978 to March 1979, a growth of 4.06% is observed. It is estimated that the growth rate within the year 1978 falls somewhere between the 4.06% rate based on moving averages and the 6.4% rate based on the comparison of first quarters for 1978 and 1979; that is, approximately 5%, or 1.23% compounded quarterly.

II. SEASONALITY

Total Atlantic Estimated Seasonality Factor - Year 1978

1978 Quarter	Cargo Volume (1,000 lbs.)	÷	Growth Factor*	=	Cargo Volume Basis No Growth	Seasonality Factor
I	60,785		1.0123		60,046	94.5
II	71,554		1.0246		69,836	109.9
III	58,073		1.0369		56,006	88.1
IV	71,699		1,0492		68,337	107.5
Total					254,225	
Average					63,556	100.0

*Estimated 1.23% compounded quarterly.

Table 11

SOUTHBOUND CARGO MARKET: U.S. ATLANTIC/ECUADOR
PROJECTED MARKET GROWTH FOR 1979 & 1980

1. Assumptions:

   A) The seasonality factor for 1978 calculated in Table 10 will apply for 1979 and 1980.

   B) The quarterly market growth, discounted for seasonality, from 4th Quarter 1978 to 1st Quarter 1979 will be maintained for 1979 and 1980, as follows:

Period	Cargo Vol. (1,000 lbs.)	÷	Seasonality Factor	=	Cargo Vol. Disc. for Seasonality
1978 IV Q	71,699		1.075		66,697
1979 I Q	64,654		.945		68.417

Growth: 66,697 68.417 = 2.6% per quarter, or 10.7% per annum (compounded quarterly)

2. Projected Market Growth 1979 & 1980

Period	Cargo Vol. (1,000 lbs.)	÷	Growth Factor (2.6%)	=	Cargo Vol. Basis No Growth	Seasonality Factor
1979 I Q	64,654		1.026		63,016	94.5
II Q	77,096		1.052		73,285	109.9
III Q	63,389		1.079		58,748	88.1
IV Q	79,354		1.107		71,684	107.5
Total 1979	284,493					
1980 I Q	71,571		1.026		69,757	94.5
II Q	85,344		1.052		81,125	109.9
III Q	70,171		1.079		65,033	88.1
IV Q	87,844		1.107		79,353	107.5
Total 1980	314,930					

Table 12

SOUTHBOUND MARKET USA/ECUADOR LINER CARGO: PROJECTED MARKET SHARES

Period	Budgeted Revenue	Galapagos Cargo Vol. Kilotons (@ $321/ton)	CCT Cargo Vol. Est. Kilotons	Other Miami Carriers Est. Volume Kilotons	Total Miami Est. Volume Kilotons	Total Atlantic (incl. Miami) Kilotons	Galapagos Share: As % of total Atlantic	Galapagos Share: As % of Miami Only	Miami as % of Total Atlantic
1979 IV Q	1,767,600	5,506	8,500[1]	4,668[2]	18,674	36,005	15.3	29.5	51.9
1980 I Q	1,844,700	5,747	7,500[1]	3,312[2]	16,559	32,473	17.7	34.7	51.0
II Q	2,359,700	7,351	10,100[1]	3,080[2]	20,531	38,722	19.0	35.8	53.0
III Q	1,864,800	5,809	10,700[1]	1,834[2]	18,343	31,838	18.2	31.7	57.6
IV Q	2,385,600	7,431	12,100[1]	2,170[2]	21,701	39,857	18.6	34.2	54.5
1980 Year Total	8,454,600	26,338	40,400	10,396	77,134	142,890	18.4	34.2	54.0

Notes:

[1] CCT Average tons per sailing July 78/May 79 were:

July/Sept.	78	1427	kilotons
Oct/Dec.	78	1640	"
Jan./March	79	1539	"
Apr. May	79	1752	"

CCT Oct. 79/Dec. 80 projected as follows:

1979	IV Q	5	sailings @	1700 tons
1980	I Q	5	"	1500 tons
	II Q	5	"	(1700 + 19%) tons
	III Q	6	"	(1500 + 19%) tons
	IV Q	6	"	(1700 + 19%) tons

CCT's new barge is scheduled for delivery April, 1980, and has approximately 37% more capacity than their present vessel, "Lionheart." However, it is assumed that at least half of this capacity increase will be utilized by Miami/Panama Corp.

[2] "Other Miami Carriers" share estimated as follows:

1979	IV Q	25%
1980	I Q	20%
	II Q	15%
	III Q	10%
	IV Q	10%

Table 13

CCT'S PROJECTED CARGO AND MARKET SHARE*

	CCT Est. Share of Miami			Miami	Total Atlantic
Year	%	Kilotons	1,000 lbs.	1,000 lbs.	1,000 lbs.
1978	64[1]	33,221[2]	73,221[2]	114,408[3]	262,111[3]
1979	59[6]	33,890[6]	74,693[6]	126,599[5]	284,493[4]
1980	52[7]	40,400	89,042[7]	170,003[7]	314,930[4]

[1]Adjusted by excluding abnormal 4th Q 1978 (see Table 9).

[2]Roughly compares to adjusted figure for 12 months ending May 1979 of 28,262 based on Ecuadorian manifest statistics (Table 9), calculated as follows: Miami monthly average 3,860 x 12 x 64% = 28,262. This represents a discrepancy between statistical sources of 15%, in part caused by a half year time lag between the data being compared, as well as estimation error.

[3]From U.S. Dept. of Commerce statistics (see Table 8).

[4]Based on projected quarterly growth of 2.6% (see Table 11).

[5]44.5% of Total Atlantic:

Assumes Miami share of Atlantic for first 3 Q of 1979 is 42%, which is the average for the quarters ending March 1979 (111,474 ÷ 265,980 = 42%), and last quarter 1979 is 52% (see Table 12). Average for 1979, then, is:

$$[(3 \times .42) + .52] \div 4 = 44.5\%.$$

[6]Assumes trend of 12 mos. ending May 1979 continues for first three Q 1979 (64%) and 45.5% for 4th quarter 1979, as per Table 12.

[7]As per Table 12.

*This table combines the statistical information obtained from Ecuadorian manifest statistics and U.S. Dept. of Commerce figures.

APPENDIX 3

Cargo Market: Northbound

Table 14 a.

NORTHBOUND LINER CARGO ECUADOR/USA
Excluding U.S. Pacific Ports
(in 1,000 pounds)

	1976	1977	1978
Atlantic			
New London[1]	17,044	25,280	15,202
New York[2]	569,255	530,560	559,537
Philadelphia[3]	41,932	66,799	119,027
Baltimore	38,002	27,223	16,182
Norfolk[4]	304	795	703
Charleston	263	84	1
Savannah	12	59	156
Jacksonville	---	537	428
Sub Total	666,812	651,337	711,236
Miami[5]	37,302	43,055	73,746
Sub Total	704,114	694,392	784,982
Gulf			
Tampa	15,869	---	---
New Orleans[6]	184,948	321,016	298,847
Texas[7]	5,750	15,516	25,644
Sub Total	206,567	336,532	324,491
Total All Ports	910,681	1,030,924	1,109,473
Miami Reefer Cargo (included above)	19,796	21,852	17,023
Miami Dry Cargo (included above)	17,506	21,203	56,723

Notes:

[1] Includes Gloucester, Mass., and Bridgeport, Conn.

[2] Includes Albany, N.Y.

[3] Includes Camden, N.J., and Wilmington, Del.

[4] Includes Newport News.

[5] Includes Port Everglades and West Palm Beach.

[6] Includes Mobile, Ala., and Gulfport, Miss.

[7] Includes Houston.

Table 14 b.

NORTHBOUND LINER CARGO ECUADOR/USA
% Share by Port

	1976	1977	1978
Atlantic			
New London	1.9	2.5	1.4
New York	62.5	51.5	50.4
Philadelphia	4.6	6.5	10.7
Baltimore	4.2	2.6	1.5
Norfolk	--	.1	.1
Charleston	--	--	--
Savannah	--	--	--
Jacksonville	--	.1	--
Sub Total	73.2	63.2	64.1
Miami	4.1	4.2	6.7
Sub Total	77.3	67.4	70.7
Gulf			
Tampa	1.7	--	--
New Orleans	20.3	31.1	26.9
Texas	.6	1.5	2.3
Sub Total	22.7	32.6	29.3
Total All Ports	100.0	100.0	100.0
Miami as % of Atlantic	5.3	6.2	9.4
Miami Reefer as % of Miami	53.1	50.8	23.1
Miami Dry as % of Atlantic	2.5	3.1	7.2

Table 14 c.

NORTHBOUND LINER CARGO ECUADOR/USA
Excluding U.S. Pacific Ports
(in 1,000 pounds)

	1st Q 1978	2nd Q 1978	3rd Q 1978	4th Q 1978	1st Q 1979
Atlantic					
New London	1,443	5,356	6,358	2,044	12,705
New York	132,153	134,153	144,555	148,676	111,321
Philadelphia	25,677	30,545	26,374	36,432	29,232
Baltimore	572	1,941	13,146	523	8,433
Norfolk	174	---	---	530	70
Charleston	---	---	1	---	---
Savannah	---	33	24	99	---
Jacksonville	236	---	115	77	154
Sub Total	160,255	172,028	190,573	188,381	161,915
Miami	44,482	15,676	9,078	4,511	10,527
Sub Total	204,737	187,704	199,651	192,892	172,442
Gulf					
Tampa	---	---	---	---	---
New Orleans	65,576	97,241	83,182	52,848	85,991
Texas	6,594	2,894	7,986	8,171	12,042
Sub Total	72,170	100,135	91,168	61,019	98,033
Total All Ports	276,907	287,839	290,819	253,911	270,475
Miami Reefer Cargo (included above)	6,378	5,639	4,409	597	4,976
Miami Dry Cargo (included above)	38,104*	10,037	4,669	3,914	5.551

*See Table 16.

Table 14 d.

NORTHBOUND LINER CARGO ECUADOR/USA
Excluding U.S. Pacific Ports
% Share by Port

	1st Q 1978	2nd Q 1978	3rd Q 1978	4th Q 1978	1st Q 1979
Atlantic					
New London	.5	1.9	2.2	.8	4.7
New York	47.7	46.6	49.7	58.6	41.2
Philadelphia	9.3	10.6	9.1	14.4	10.8
Baltimore	.2	.7	4.5	.2	3.1
Norfolk	.1	--	--	.2	--
Charleston	--	--	--	--	--
Savannah	--	--	--	--	--
Jacksonville	.1	--	--		.1
Sub Total	57.9	59.8	65.5	74.2	59.9
Miami	16.1	5.5	3.1	1.8	3.9
Sub Total	73.9	65.2	68.7	76.0	63.8
Gulf					
Tampa	--	--	--	--	--
New Orleans	23.7	33.8	28.6	20.8	31.8
Texas	2.4	1.0	2.8	3.2	4.5
Sub Total	26.1	34.8	31.4	24.0	36.2
Total All Ports	100.0	100.0	100.0	100.0	100.0
Miami as % of Atlantic	21.7	8.4	4.6	2.3	6.1
Miami Reefer as % of Miami	14.3	36.0	48.6	13.2	47.3
Miami Dry as % of Atlantic	18.6*	5.3	2.3	2.0	2.9

*See Table 16.

Table 15

NORTHBOUND MARKET SHARES BY LINE BY TRADING AREA
For 12 Month Period June 1978/May 1979

1. Average monthly liftings over the 12 month period excluding pure bulk movements and larger bulk parcels carried by regular liner operators and percentage market share.

Northbound	Conference Member	Miami				Atlantic		Gulf	
		Non-Reefer		Reefer		Non-Reefer		Non-Reefer	
		Metric Tons	%	Metric Tons	%	Metric Tons	%	Metric Tons	%
CCT		677	98	545	100				
Galapagos	x	16	2					798	42
Granco	x					1538	24	595	31
Delta	x					1175	19		
Transnave	x					1902	30		
Peruvian	x					1695	27	301	16
Lykes	x							225	12
Totals		693	100	545	100	6310	100	1919	101

Table 15 (Continued)

2. Percentage Market Share by Line by Quarters by Trading Area:

	Miami								Atlantic				Gulf			
	Non-Reefer				Reefer				Non-Reefer				Non-Reefer			
	1978		1979		1978		1979		1978		1979		1978		1979	
	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q
CCT	98	96	99	96	100	100	100	100								
Ecuadorean									40	38	23	14				
Transnave																
Galapagos	2	4	1	4									30	49	32	19
Valmar																
Delta									14	27	23	28				
Granco									16	25	19	22	43	13	45	40
Chilean																
Lykes													18	10	18	13
Peruvian									28	10	35	36	10	28		29
Misc.									2						4	

Second quarter 1979 is based on April and May only.

Table 16

NORTHBOUND DRY (NON-REEFER) CARGO ECUADOR/MIAMI
PROJECTED MARKET AND MARKET SHARES FOR 1979 & 1980

1. Market Growth Trend 1976-1978:

Year	Dry Cargo Volume (1,000 lbs.)	Year to Year Growth	2 Year Compounded Growth 1976-78
1976	17,506		
1977	21,203	21%	
1978	24,171 (adjusted)	14%	17.5%

(Actual 1978 volume was 56,723. Adjusted 1978 volume is the sum of twelve months, April 1978 through March 1979. This adjustment is to remove the distortion of 1st quarter 1978 (volume 38,104) which is abnormally high, being possibly a one-time shipment or statistical error.)

2. Projected Market Growth 1979-1980:

Based on the above trend, 15% growth is estimated:

Year	Dry Cargo Est. Volume (1,000 lbs.)	Metric Tons	Metric Tons Per Month	Trailers Per Month @ 14 T.
1979	27,797	12,612	1,051	75
1980	31,966	14,504	1,209	86

Table 16 (Continued)

3. These figures can be compared to four recent CCT sailings as follows:

Arrival Date Miami	# Trailers	# Metric Tons
5/12/79	60	843.07
6/11/79	85	1,109.73
6/29/79	68	820.79
7/16/79	60	852.99
Totals	273	3,626.58

Average # trailers/sailing: 68
Average # tons/sailing: 907

Given that dry cargo accounts for approximately 60% of Northbound cargo, average number of dry trailers per sailing is approximately 41 and dry cargo weight 544 metric tons or, basis two sailings per month: 82 trailers or 1,088 metric tons per month.

4. Projected Market Share for CCT and Galapagos 1979-1980: Practically 100% of northbound dry shipments to Miami from Ecuador have been carried by CCT. Since cargo volume falls short of vessel capacity, it is assumed that additional tonnage in the trade will not in itself increase the total cargo volume per month. On the contrary, it is estimated that the introduction of a second fortnightly Ro/Ro service will serve to split the market in two equal shares. On this basis, Galapagos will have

Table 16 (Continued)

access to 38 trailers per month in 1979 and 43 per month in 1980.

Based on the average northbound freight per dry trailer of $1,050, monthly revenues would be:

1979	$39,900
1980	$45,150

SOURCES:

Tables 8 and 14:

U.S. Department of Commerce
U.S. WaterBourne Imports/Exports
Reports SM 305/705
Annual 1976 and 1977
Monthly 1978 and 1st Quarter 1979

Tables 9 and 15

Import/Export Statistics Compiled By:
Estadisticas De Importation Y Exportation CIA. LTDA.
Tulcan 1001 Y Velez, Guyaquil, Ecuador
Monthly, June 1978/May 1979

Extensive travel through South Florida and Ecuador.