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ECONOMIC COMMISSION FOR LATIN AMERICA
Office for the Caribbean

DRAFT

SMALL VESSEL SHIPPING IN THE EASTERN CARIBBEAN

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PREFACE

The Economic Commission for Latin America has included in its overall programme of work a project which will examine transport problems in the Caribbean Basin. In the early stages of this project however, it is desirable to concentrate on transport studies in the Commonwealth Caribbean. This reflects the urgency of assisting those countries in finding solutions for some immediate operational problems, and in implementing the transport clauses of the two integration treaties in force; i.e. the Caribbean Free Trade Association, (CARIFTA) and the East Caribbean Common Market (ECCM), which is a sub-group within CARIFTA. For this purpose a sub-project, "Inter-island Shipping in the Eastern Caribbean" has been undertaken as a first stage of the wider project.

2. The ECCM Agreement provides for a common transport policy and for common rules on the operations and development of transport in the ECCM area. As a first step, the ECCM Council of Ministers set up a committee in October 1968 "to examine sea transport among the Common Market territories with special attention to the economies of schooner traffic;" the ECLA Office for the Caribbean was invited to participate in the work of this committee. However, since two major focal points of schooner traffic are Barbados and Trinidad-Tobago - countries which are outside the ECCM, it has been necessary to widen the coverage.

3. This note is prepared for consideration by governments of the East Caribbean. While the main emphasis is on small vessel transport, it should be read in conjunction with other studies on maritime transport completed in this Office. It is hoped that the main conclusions will assist territories of the Eastern Caribbean, particularly the ECCM territories, in formulating their transport policies.

I. INTRODUCTION

In the political geography of the Americas, the term "Caribbean" is a well known expression, though not quite precise. It refers to the archipelagoes paralleling the Coastal American isthmus in the Atlantic Ocean, from the coasts of the North American peninsula of Florida to the shores of Venezuela in South America. Thus they begin in the North with the Bahamas area of nearly 700 islands physically part of the North Atlantic; they continue in an arch eastwards as Greater Antilles, curve southwards as Lesser Antilles (formed of Leeward Islands and Windward Islands) to link with the Continent through the Continental off-shore Islands.

The Commonwealth Caribbean includes countries on the mainland, British Honduras (Belize) in Central America and Guyana in South America, in addition to the English speaking island-states situated in the above mentioned chain. Of these, Jamaica lies westernmost in the Greater Antilles to the Southeast of Cuba and west of Hispanola and Puerto Rico. Trinidad and Tobago occupies two of a chain of the Continental off-shore islands, of which some belong to Venezuela and the others are part of Netherlands Antilles. The remaining islands of the Commonwealth Caribbean are located in the Lesser Antilles, where their neighbouring territories are the Virgin Islands (US and UK), the French Islands Guadeloupe, Marie Galante and Martinique, and the St. Martin, jointly administered by France and the Netherlands. The combined area of the Commonwealth Caribbean accounts for 100,000 square miles, is homeland of 4.8 million people, and dominates an expanse of some 2,300 nautical miles of the seas.

In the Caribbean therefore, ocean and coastal shipping has been of necessity the principal mode of transport, and seafaring one of the main occupations. The basic characteristic of the transport sector is its orientation to the extra-regional trade which, it is estimated, generates some 12 per cent of the

world maritime freight. 1/ The region trades mainly with North America and Europe exporting low-value, large-volume agricultural produce and minerals, raw or semi-processed, and importing locally unavailable manufactures and foodstuffs of high value, but much smaller volume. Coping satisfactorily with such traffic requires the use of advanced techniques, and as a result, overseas shipping is the domain of international lines.

The centres of economic activity in the Caribbean are small, and production patterns are simple and non-complementary. Further, because of metropolitan ties, their contacts and community interests have been traditionally minimal; this is evident from the pattern of overseas shipping services which radiate outwards from the Caribbean rather than inter-connecting component territories. 2/

The characteristics of the Caribbean intra-regional shipping vary from area to area. In some, regular services predominate (Bahamas, French Antilles), but in others the shipping relies more on irregular sailings (tramp). Ownership may be public (Dutch Antilles) or private, and type of vessel may vary from sophisticated hydrofoils (Jamaica, Trinidad) to motor vessels or sailing vessels with or without engine (schooners). The removal of trade barriers between some territories, and the desire to strengthen intra-regional commercial relations have shown up the inadequacy of existing sea transport facilities.

The eastern segment of the Commonwealth Caribbean which, more than elsewhere, relies on the typical, so-called schooner,

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1/ Analisis Preliminar del Transporte Maritimo en el Caribe. Corporation for Caribbean Economic Development, San Juan, Puerto Rico, Dec. 203.2/1/68/S.1968. pp.7-29. Cargo loaded and unloaded in 18 Caribbean countries in 1964 was 343.9 million metric tons, world's total 2,882 million metric tons.

2/ Op. cit. p.60. Of the 150 lines serving 30 Caribbean ports only five call in five or more of these ports.

though since early 1960's small motor vessels have come to join, if not to displace, the schooner. If the schooners and small motor vessels both have a role in the ECCM area shipping (Fig. 1), it is necessary to bear in mind the trend in the rest of the Caribbean, and refrain from unnecessarily separating the functions of these two types of ships. They should be taken as a typicla group of small vessels and typical technique of inter-island transport. Nevertheless, the industry faces a challenge in that the trade requirements and route patterns are changing and are becoming more demanding on the enterpreneurial competence of the shipowners. 3/

The main emphasis of this study is an examination of small vessel transport among East Caribbean countries; it is difficult to do this without considering in a general way the overall framework of maritime transport in the Caribbean. It has therefore been necessary to look briefly at other aspects of intra-Caribbean maritime transport.

The source material relied upon are principally the results of an enquiry into schooner shipping conducted by the ECCM sub-committee established for the purpose. This material has been supplemented by data requested and received from area Governments, and also by consulting other official documentation obtained directly by the ECLA Office for the Caribbean. Despite this, the available data were not adequate for detailed statistical and economic analysis; consequently the conclusions and recommendations reflect this limitation.

3/ The Trinidad Chamber of Commerce; Report of the Fact Finding Trade Mission, February 1965, pages 14 and 15.

It is felt, nevertheless, that they are substantially correct and any additions which may be needed, and subsequently incorporated in a later version of this note, should serve to give more emphasis to some of the conclusions, and more precision to the main body of recommendations.

In this note the sign $ means East Caribbean Currency Board Dollar, unless specifically stated otherwise.

The following symbols have been used in the tables;

.. = Not applicable

... = Not available

– = Magnitude zero

0 = Magnitude less than unit employed.

II. THE PATTERN OF MARITIME TRAFFIC

The Commonwealth Caribbean countries and territories conduct commercial exchanges between themselves which, though significant, are much less important, in both volume and value, than their overseas trade. It is estimated 6/ that in 1967 the Commonwealth Caribbean dry cargo 7/ imports were 2.1 million metric tons and exports 14.1 million metric tons. Compared with this total, goods moved in the intra-CARIFTA trade amounted to 925.5 thousand metric tons, of which 60 per cent were mineral fuels, 15.5 per cent food, and 14.9 per cent manufactured goods (table 1). In value terms the trade between these countries increased from $30 million to $48 million over the period 1963-66, but remained static at 6 per cent of their total trade. Petroleum and rice constituted a major share (50 per cent) of this intra-regional trade, with Guyana and Trinidad & Tobago accounting for 75 per cent of the total intra-regional trade.

Jamaica's main trade partners in CARIFTA were Barbados and the Leeward Islands, though these exchanges have been less important than those with the other Commonwealth Caribbean territories, now still outside CARIFTA, i.e. British Honduras and Virgin Islands; Trinidad traded mainly with Guyana and the Windward Islands; while Barbados had also a considerable trade with the Windward Islands, marking about 15 per cent of her total exports; nearly 50 per cent of this trade consisted of re-exports.

6/ Study Cargo Flow Commonwealth Caribbean Area prepared for ECLA Office for the Caribbean, September 1969.

7/ Trade in mineral fuels, though important, is omitted here since it involves specialized shipping in which the area shipping industry does not participate so far.

TABLE 1

CARIFTA Countries: Exports 1/ within the Area. 1967

(Quantities in Metric tons)

From	To:	Jamaica	St. Kitts	Antigua	Montserrat	Dominica	St. Lucia	Barbados	St. Vincent	Grenada	T'dad	Guyana	Total
Jamaica		/	3239	5086	1590	2350	2853	728	108	98	3015	13960	33027*
St. Kitts		-	/	33	367	2078	474	130	104	174	3712	-	7072*
Antigua		1	11	/	2	15	16	0	7	19	1	-	72
Montserrat		-	9	61	/	1	-	-	-	-	-	-	71
Dominica		-*	47*	5947*	1*	/	2	1099	14	30*	300	211	7651
St. Lucia		-	11	42	-	3	/	1872	17	-	1907	526	4378
Barbados		31	439	525	143	405	1090	/	617	531	2572	14207	20560
St. Vincent		2	0	460	6	5	26	1125	/	17	4463	149	6253
Grenada		-	0	0	1	6	110	68	73	/	189	5	452*
Trinidad	Ce	-	1385	766	-	-	-	16374	8356	8763	-	69029	104673
	Total	19255	9682	50991 2a/	3148	9653	18389 2b/	48254 2c/	11155	18174 2d/	/0	440572 2e/	629293
Guyana		15338	10	336	-	3	502	10175	1889	444	83302	/	111999
Total		34627	14833	64247	5258	14519	23462	79825	22340	28250	99461	538679	925501

Source: Saguenay Research Calculations from Regional Trade Statistics.

* = 1966

Ce= Cement

1/ SITC Divisions 0 to 9

2/ Includes major quantities of mineral fuels= a/ 49856 tons, b/ 14517, c/ 28832, d/ 13810, e/ 415429.

Exports of the major commodities such as oil and derivatives, bauxite and alumina, sugar and bananas, are shipped by enterprises associated with producers or marketers of these products in vessels owned by their firms or associates. This type of transport requires specialized ships and port facilities, which as a rule are of minor usefulness to inter-area trade. As a result area shipping interests do not participate in these transports. 8/

The cargoes shipped within the CARIFTA area are estimated to be over 200,000 tons annually. About 50 per cent of this tonnage is moved by the shallow-draft vessels; some 20 per cent or more is carried in the ships of the West Indies Shipping Corporation (WISC), the line jointly owned by the Governments of ECCM, Barbados, Jamaica and Trinidad & Tobago, and the rest by some of the lines engaged in overseas exports and imports, primarily Bookers and Geest (Table 2).

8/ A similar situation has been typical in other developing regions and countries. This matter has received much attention in Latin America through ECLA, LAFTA and also UNCTAD. Problems created by this state of shipping have been identified as well as costs to development and losses to incomes of the countries. Recent ECLA studies are Maritime Freight Rates in Foreign Trade of Latin America (E/CN.12/812 and Add. 1) and Transport in the Decade of 1970's (E/CN.12/832 and Corr. 1) Governmental policies of some Latin American countries have been directed to modify this situation. CARIFTA Governments have given priority to the reorganization of merchant shipping within the area, and to the establishment of machinery for investigation of freight rates and of negotiating with international shipping conferences.

TABLE 2

East Caribbean Common Market: Structure of Maritime Transport, 1968[a]

(Ship arrivals in numbers, cargo in freight tons)

Territory	International Lines			West Indian ships			Small Vessels [c]		
	Calls	Landed	Loaded	Calls	Landed	Loaded	Calls	Landed	Loaded
Antigua	344	55,370	...	86	9,168	...	350	3,418	...
Dominica	438	53,847	64,376[b]	49	4,982	632	291	5,819	2,728
Grenada	...	...	...	...	1,970	320	...	15,241	1,394
Montserrat	103	10,103	233[b]	46	5,181	111	214	2,899	260
St.Kitts-Nevis-Anguilla	188	29,416	30,248	53	5,320	859	82	1,400	453
St. Lucia	320	45,205	41,515[d]	162	28,373	1,211	319	4,571	4,092
St. Vincent	221	33,594	33,310[b]	49	1,382	674	295	17,479	7,796

Source: ECLA, on the basis of official information

a/Year: From 1 October 1967 to 31 September 1968.

b/West Indies Shipping Service (WISSCO) only.

c/Ships not exceeding 200 NRT, both sailing ships with or without aux. engine and motor vessels.

d/Includes motor-powered small vessels.

Only the WISC operates a regular service reaching Jamaica, though not Guyana.[9] (Table 3). Bookers "CARIFTA service" was inaugurated in fall 1968 with two ships on a schedule of fortnightly sailings on a route between Guyana, Trinidad and the Windwards and Leewards Islands. The Geest line has a ship sailing between Barbados, and the Windwards (Dominica, St. Vincent, Grenada, St. Lucia) twice a week.

In the Caribbean area, broadly three groups of shipowners can be distinguished engaging in coastal or inter-island traffic; in this note they are referred to as "small vessel" services. One of these groups is based on Jamaica and operates services mainly between Jamaica and Cayman Islands, Virgin Islands, Turks and Caicos, Puerto Rico, but its ships do not sail to the ECCM, Barbados and Trinidad and Tobago ports. Another group of importance is that of Guyana flag which engages mainly in Guyana coastal trade and in the trade of Guyana with Trinidad and Barbados. The third group are the ECCM small vessels which still include a relatively large proportion of sailing ships with auxiliary engines (present-day "schooners").

This group have as their main market shipping between Trinidad and Guyana, and Trinidad and Barbados, and practically all of Trinidad and Barbados exports and imports to Grenada, St. Vincent and St. Lucia, but Leeward Islands are now also within their reach, with the increasing tonnage of small motor vessels (Table 4). However, some offer of small vessel service from trade of that area with other neighbouring territories.

9/ A reorganization of the service is in progress by decision of the Conference of the Heads of Commonwealth Caribbean Governments (Appendix 1 contains some additional data on WISC).

TABLE 3

West Indies Shipping Corporation: Cargo traffic 1968

(Quantities in freight tons)

From	To: Jamaica	St.Kitts	Antigua	Montserrat	Dominica	St.Lucia	Barbados	St. Vin.	Grenada	T'dad	TOTAL
Jamaica	-	2770	833	2902	3199	721	5266	237	343	5078	21349
St.Kitts	85	-	68	11	39	6	30	21	45	18	323
Antigua	118	11	-	1	44	50	177	28	63	76	568
Montserrat	4	4	30	-	16	3	74	1	-	11	143
Dominica	22	50	171	26	-	34	156	40	26	20	545
St.Lucia	66	15	23	29	19	-	88	52	53	39	384
Barbados	296	748	1931	1578	505	562	-	259	309	136	6324
St.Vincent	32	33	195	7	47	24	107	-	55	115	615
Grenada	45	4	41	2	32	10	78	32	-	76	320
Trinidad	5246	1442	1861	816	1688	1678	2379	911	1284	-	17305
Total	5914	5077	5153	5372	5589	3088	8355	1581	2178	5569	47876

Source: 1968 Annual Report, West Indies Shipping Corporation (Advance text).

TABLE 4

Eastern Commonwealth Caribbean Small vessel traffic, 1968

(Quantities in tons)

Cargo From / To:	St. Kitts	Ant-gua	Mont-serrat	Domin-ica	St. Lucia	Bar-bados	St. Vincent	Grenada	Trinidad	Guyana
St. Kitts	-	827	...	641	...	...	74	55	1090	...
Antigua	...	-	...	409	...	...	29	13	134	...
Montserrat	...	672	-	189	...	...	...	...	10	...
Dominica	36	230	6	-	187	321	10	337	420	67
St. Lucia	..8	120	...	286	-	4000	...	...	1934	...
Barbados	442	82	..	735	..	-	1521	1335	3474	5000
St. Vincent	3	190	56	79	..	1621	-	715	3157	518
Grenada	...	6	...	238	...	19	123	-	3891	...
Trinidad	1315	1443	116	2214	11331	21509	13364	12566	-	33404 a/
Guyana	...	...	...	...	...	...	...	...	...	-

Source: ECLA, from official data.

a/ : Includes est. thousand tons cement.

The main port for small vessel activity is Port of Spain, Trinidad. In the Caribbean the vessels serve mainly Trinidad, Guyana and Barbados (cement, then rice, timber, sugar); the tonnage of this trade in 1968 was nearly 80 thousand tons. Within the ECCM area the small vessels are mainly engaged in exchange which the Windward and Leeward Islands have with Trinidad and Barbados. The main elements are general cargo imports of Grenada, St. Vincent and St. Lucia from Trinidad (some 12,000 tons in 1968) and their much smaller tonnages (in the order of one thousand tons) of fresh fruit, vegetables and other ground provisions to Trinidad and Barbados. As regards trade with non-CARIFTA territories, the small vessels appear in the Trinidad & Tobago trade with the French Antilles (Guadeloupe and Martinique, over 1,200 tons, exports of propane gas, motor fuels, lubricating oil), Venezuela (exports of wearing apparel). A newly developing demand for small vessel services in the ECCM area is that of Antigua (imports of building materials, foodstuffs) and Dominica (exports of pumice and lumber) with ports outside CARIFTA, the Virgin Islands, Puerto Rico and United States (Florida).

Over the last decade the demand seems to have fluctuated, without any marked growth trend. The tendency appears to be rather to a contraction, according to data so far available (table 5). In general terms, the ECCM small vessels are relied upon for the area trade with Trinidad & Tobago up to St. Lucia. Beyond these ports, they do not have specific routes through the CARIFTA area. ECCM trade with Barbados and Guyana also involves ECCM shipping, but in competition with services of other lines, the WISC, Geest and Bookers. Small vessels of Trinidad & Tobago or Jamaica do not operate in either ECCM or CARIFTA trade. Whilst Jamaican shipowners have a considerable small vessel tonnage, the CARIFTA trade of the country is carried either by WISC or by other flags.

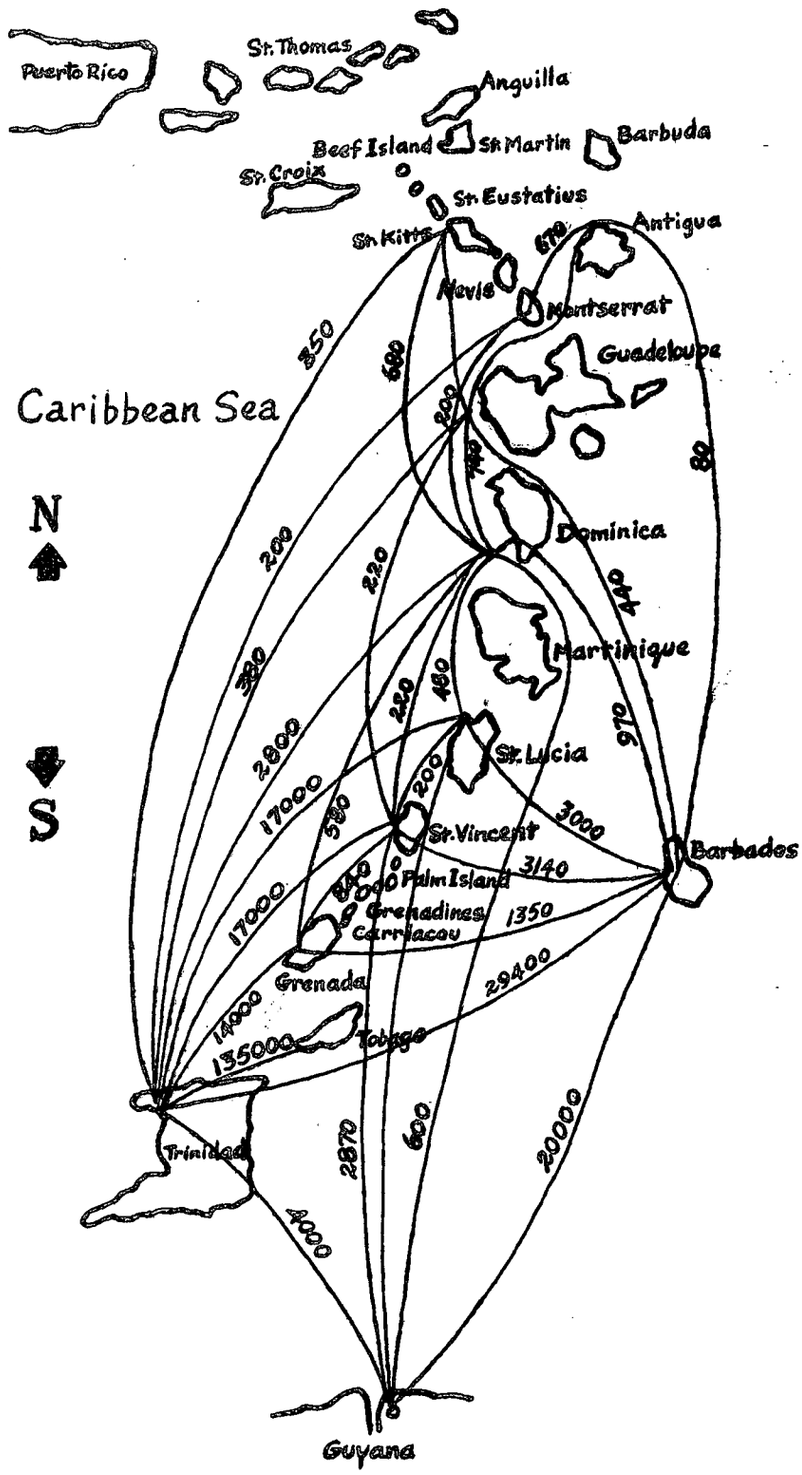

Fig. 2. Tonnages of small vessel trade in Eastern Caribbean.

III. SMALL VESSEL FLEET AND SERVICES

The transport offer constituted by small vessels has several distinctive characteristics. In scope it includes both schooners and motor vessels. The former, by definition, are sailing ships 10/ designed so that they could lie closer to the wind, and be easier to handle than square-rigged ships; but the present-day term implies also the use of the internal combustion engine. The "schooners" in use invariably have an auxiliary engine together with sails. Since early 1960's small motor vessels, (diesel engines, single screw or twin screw), are increasingly used.

In so far as is practicable, the appraisal which follows attempts to present all the available facts that would permit at least a preliminary analysis of the present state of the ECCM based shipping enterprise, outline its short-term role and appraise the long-term trend.

Type, age and capacity

At the end of 1968, some 135 small vessels were in operation on inter-island routes in the East Caribbean, with a total of about 10,000 nrt. 11/ This excludes vessels on local routes 12/ remaining within the waters of the territory of their home port. Of this total, there were some sixty motor vessels with about 7,000 nrt and the rest were the converted schooners with installed engines capable of full-time use (Table 6). Craft

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10/ Fore-and-aft rigged; in West Indies traditionally it has two masts, but in the height of sailing days had up to seven masts. Cf. Webster's Third New International Dictionary, pages 2001 and 2031.

11/ In the West Indies harbour dues are assessed on this measure, which has been thereofre more readily available for the purposes of this, than GRT,cubic capacity or deadweight specifications.

12/ They are schooners and sloops with auxiliary engines totalling about 20 units registered within ECCM.

TABLE 5

Port of Spain: Small-vessel traffic 1959-68

(Ships' calls in numbers, cargo in tons)

	Total	Schooners	Motor-vessels	General cargo Loaded and Unloaded
1959	1561	...	...	110,548
1960	...	...	...	61,150
1961	...	...	...	58,844
1962	979	745	234	44,260
1963	856	700	156	87,923
1964	825	655	170	110,533
1965	841	651	190	121,068
1966	1059	829	230	134,175
1967	1052	802	250	...
1968	950 a/	...	...	121,850

Sources: Report of the Commission of Enquiry into the Labour Force Requirements of the Ports of Trinidad & Tobago. Government Printery, Trinidad & Tobago, 1968; 1968 Report by Manager (Operations) Port Authority, Trinidad & Tobago; David Kay and Partners, Coastal Steamers Wharf and Laventille Jetty Reconstruction, 1965.

depending entirely on sails have gone out of existence in the inter-territory shipping.

The vessels with auxiliary engines (also termed "auxiliaries"), are of a wooden construction and do not exceed 80ft. average length with relatively long boom to accommodate the use of sails. The engine (gasoline fuelled, about 60 to 90 HP) is used full time, together with sails, and give an operational speed of about 5 to 8 knots. The draft is about 12ft. so that the depth they require in the harbour is about 15ft. The vessels have a single hold aft of the foremast.

TABLE 6

Eastern Commonwealth Caribbean: Active 1/ small vessel fleet, 1968.

	Total		Motor Vessels		Vessels with auxiliary engines	
	Units	tonnage	Units	tonnage	Units	tonnage
Type of ship						
All ships	135	10237	56	6992	80	3245
Up to 30 tons	29	539	5	69	24	470
Over 30 and up to 50 tons	43	1727	7	309	36	1418
Over 50 and up to 100 tons	32	2343	13	986	19	1357
Over 100 and up to 350 tons	30	5147	30	5147	-	-
Over 350 tons	1	481	1	481	-	-

Source: ECLA, from official information.

1/ Vessels reported as operational and on routes between ports of different territories.

Deck cargo is stored mid-ships and on the stern; the foredeck is seldom used, though it is also suitable for cargo, if properly protected. For handling cargo there is a lifting tackle on the foremast and the two masts are joined at the top for additional support.

Besides the auxiliaries, there are the motor powered vessels (diesel engines, single or twin screw). As a rule they have metal hulls, though wooden hul motor vessels also exist. Their design varies from unit to unit. The first three such ships appeared in the area service in 1964 and the fleet has since increased through acquisitions, as a rule second-hand, from Canada, U.K. or the Netherlands.

Navigation and safety-at-sea equipment on board these vessels are often kept to bare essentials. Only in exceptional cases can ship-to-shore radio equipment be found on the "schooners"; and such equipment is not standard on motor vessels by any means. It is doubtful whether a full complement of serviceable life safety gear is carried regularly by all ships.

Invariably the age of the vessels is considerable (Table 7). In 1968 over 40 per cent of them were registered prior to 1945; about 15 per cent of the vessels registered between 1946 and 1950; 10 per cent between 1951 and 1955; 20 per cent date from 1956 to 1960. Only about 10 per cent were built between 1961 and 1965 and 5 per cent in 1956-68.

The wooden-hull ships with auxiliary engines have been built mainly in the Grenadines, (Bequia, Union Island, Carriacou), some in Grenada, others in Montserrat and Anguilla, by local ships' carpenters. The composition of the existing fleet indicates that in the period 1956-60 on the average four ships a year may have been built; and since 1966 only about one such

TABLE 7

Eastern Commonwealth Caribbean: Small vessels of the area according to age, 1968.

Year of construction	Total		Motor Vessels		Vessels with auxiliary engine	
	Units	tonnage	Units	tonnage	Units	tonnage
All ships	135	10237	56	6992	79	3245
Built up to 1945	24	2232	12	1645	12	587
1946-1950	8	864	4	698	4	166
1951-1955	5	430	2	297	3	133
1956-1960	23	1194	4	465	19	729
1961-1965	6	287	3	162	3	125
1966-1968	5	215	1	62	4	153
Construction year not known	64	5015	30	3663	34	1352

Source: ECLA, from official information.

ship a year has been added to the service, built as a motor vessel, not a "schooner". There is no evidence of the resort to area shipyards for building of motor vessels, although those of Trinidad and Guyana are considered to be capable of building them.

The decline in new construction for small vessel inter-island shipping seems due to lack of resources for designing and testing suitable prototypes of vessels, technical resources and capital. As to wooden vessels, it is manifest that there is a decline in new construction for the inter-island shipping. The reasons for it are the lack of method, skill, technical training and especially lack of power tools in the workshops, which would be needed to produce adequate types of wooden hull ships with installed engines. Such construction calls for higher grade materials and more attention to engineering than has been necessary to put into a traditional schooner. The few new ships locally built so far, appear to be deteriorating much faster than may have been expected. According to some owners, the useful service life may not be more than some seven years.

Undoubtedly most of the fleet is outmoded. If the tonnage has nevertheless remained constant over recent years, this is due to the addition of motor vessels; but as with the schooners, the obsoleteness of these vessels reduces materially the loading capacity. The cargo capacity of the auxiliaries nowadays is not less than 20 tons, and most fall in the range of 35 to 60 tons. Ships of such cargo capacity are also rated as accommodating from four to six deck passengers. The capacity of motor vessels ranges from 60 to some 400 tons. No accommodation for passengers is provided on them. The carrying capacity per annum may be estimated to amount to over 400 thousand freight tons. 13/

13/ Auxiliaries capable of 30 voyages p.a. loading 50 freight tons and motor vessels 40 voyages p.a. with 140 freight tons on each voyage.

This would indicate loading factor of some 50 per cent, given the annual offer within the area in excess of 200 thousand tons. However, various vessels, not taken into account in this estimate, carry cargo to and from outside the area.

Registration

A substantial part of the small-vessel fleet belongs to nationals of ECCM territories, and the majority, approximately 80 per cent of the auxiliaries are registered in these territories. Registration of motor vessels is mainly between ECCM territories and Guyana; but some of the West Indian shipowners keep their motor vessels registered outside the area (Bahamas, Canada, U.K.), and nearly 50 per cent of this tonnage is so affected. There are also motor vessels registered in non-Commonwealth Caribbean territories (Venezuela, Puerto Rico), plying on East Caribbean routes. In addition there are motor vessels operating in the area (between the Leeward Islands, Puerto Rico and Florida) whose ports of registration are predominantly outside the ECCM, but it is known that some are operated by West Indian nationals. (Nationality of vessels engaged in Eastern Commonwealth Caribbean traffic at the end of 1968 is given in Table 8).

The territories of registration are competent authorities for the administration of maritime laws and regulations as well as international rules on safety at sea. It has been recognized that maritime legislation urgently needs revising and that a joint action may be desirable. 14/ It has been also indicated that the existing legislation should be more rigorously implemented, but it would seem that authorities lack the necessary resources. Possibly, if this course had been taken, a large part of the fleet might have been found unseaworthy. On the other hand, on some matters, such as the observation of load line, authorities reportedly lack the necessary policing powers.

14/ The Government of Trinidad & Tobago prepared a draft Bill which it circulated to other CARIFTA governments, for the purpose of regional consultation in early 1969.

TABLE 8

Eastern Commonwealth Caribbean: Small vessel registration[1] 1968

Area (territory) of registration	Total		Motor Vessels		Vessels with an Auxiliary Engine	
	Units	NRT	Units	NRT	Units	NRT
Total	135	10,237	56	6,992	79	3,245
East Caribbean Common Market	81	3,778	18	1,422	63	2,356
Antigua	7	113	-	-	7	113
Dominica	4	142	-	-	4	142
Grenada	20	921	2	188	18	733
Montserrat	-	-	-	-	-	-
St. Kitts-Nevis-Anguilla	11	462	1	95	10	367
St. Lucia	15	834	9	577	6	257
St. Vincent	24	1,306	6	562	18	744
Caribbean Free Trade Area other than ECCM[2]	19	1,255	8	688	11	567
Other than ECCM and CARIFTA	31	4,965	28[3]	4,753	3[4]	212
Registration not reported	4	239	2	129	2	110

Source: ECLA Office for the Caribbean, from official information.

1/ Vessels known as un-operational and those serving routes along the coasts of the port of registration has been omitted.

2/ Jamaica is not shown as vessels not active in ECCM area.

3/ Includes vessels owned by persons domiciled in, or nationals of ECCM territories (reportedly 5 units).

Enterprise domiciled in			
St. Lucia,	3 MVs	416	nrt
Barbados,	1	122	"
Trinidad,	1	148	"

4/ One each from St. Maarten, Sweden, Venezuela.

Routes and Cargoes

The shipowners tend to keep their vessels on a given route, or principally serve a pair of ports with occasional additions of adjacent ports, or when opportunity arises deviating to a new route. The total tonnage of small vessels on a particular route reflects closely the volume of trade between the ports the route connects. Those shipowners who turned to motor vessels undoubtedly carry by far the larger percentage of the traffic, yet the vessels with auxiliary engines still seem to have scope for their tonnage.

The highest density routes link the triangle of ports, Port of Spain (Trinidad)-Bridgetown (Barbados)-Georgetown (Guyana). About 50 per cent of the motor vessel tonnage and 15 per cent of the "auxiliary" tonnage registered in the ECCM area sail principally there, supplying about 2,000 NRT. Another thousand NRT is provided by Guyana and Barbados vessels.

The routes on which the "auxiliaries" predominate are those connecting the Windward Islands with Trinidad and Barbados and in particular, Grenada-Trinidad and St.Vincent-Trinidad. The same occurs with regard to the routes within the Windwards or Leewards. A few such ships sail longer routes; among them are Trinidad-Anguilla and Trinidad-Guadeloupe. Otherwise, the routes connecting Trinidad and Barbados with the Leewards, direct or with port of call in the Windwards, are serviced by motor vessels. Also only motor vessels are used in the newly developing trade between the Leeward Islands, Puerto Rico and Florida (U.S.A.). 15/

In contrast to this, various old established services by ECCM small vessels are being dropped. Lack of shipping reportedly

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15/ They carry exports of pumice, lumber, building blocks from Dominica and imports of cement to Antigua.

exists for fresh fruit and vegetables from Montserrat and Dominica to Barbados, or between St.Kitts, Dominica and Antigua (sugar, citrus).

The small vessels' local routes need not be considered here. The most important route of this category is that linking Port of Spain and Tobago. Other services are those connecting St. Vincent and Grenada with the Grenadines or Antigua with Barbuda. Coastal services which could be considered as alternative or competitive to road transport are practically non-existent. The only two which may be usefully mentioned are in St. Lucia between Castries and Soufriere, and in Dominica between Roseau and Plymouth. While the latter road is not yet completed, schooner traffic already declined in 1968. This would be an indication that coastal shipping could not compete with motor transport on the short routes as exist in the ECCM territories.

Some port aspects

In the ports of the area as a rule the physical facility consists of a wharf or pier with one or more berths each having about 30ft. berthing space per vessel. Port mobile equipment (cranes, trucks) may be available for hire, no transit sheds are provided, and there is only open storage area. Such facilities are very inexpensive in both capital and recurrent costs so that the charges and dues levied may be taken as sufficient. At least some of the open wharves in the area undoubtedly are quite profitable. (Appendix 3, contains a description of ports and a list of port charges).

In the ports, small vessel operators customarily have had common use of specific berths, have controlled their own labour, have had their own cargo canvassing systems. In considering these facilities note must be taken of the necessity to keep down costs, consistent with the trade of low cost commodities produced in

the area which constitute the small vessels' main occupation. Port administrations have taken this into account by permitting simpler customs and port procedures and lower wharfage and tonnage dues than those which apply to overseas shipping.

The opinion is held widely, that small vessel services manage to share in the inter-island trade only because they receive assistance of the kind described above, amounting to an indirect subsidy in the form of material advantages in the ports that in turn permit lower cargo handling costs. This is not fully supported by ascertainable facts. Whatever special port charges or tariffs for customs attendances exist, while they vary from port to port, they were found to cover the costs of the facilities provided and services performed.

Customs administrations charge for the hours of time taken up by the customs inspection and apply surcharges for overtime when it is done outside normal office hours. Port charges range from $1.0 per trip in Montserrat to $10 in Barbados for an auxiliary, or for a 350 nrt motor vessel charged $7.20 in Antigua (per trip) to $30 in Barbados (First 72 hours).

On the whole, these practices and rules are comparable to regimes that are commonly provided for small scale operations abroad on inland waterways or coastal shipping, domestic or international. At present in the area they do not amount to a true regime, for there are considerable variations from port to port. Some of the facilities have been reduced or even lost, so that it is not possible to sum up the present state of facilities available as a coherent regime designed to meet the requirements of the small vessel operations. For that purpose the component parts would have to be re-defined, amplified and harmonized through the area.

With some relatively minor exceptions, port conditions and port traffic operations, are not favourable to small vessels.

Mainly the problem is the poor physical state of the fixed facilities in the majority of ports, and inadequate design in the rest of them for accommodating the ships. These inadequacies are reflected in delays to services and risks for the cargo. There is a considerable discrepancy as to layout, design and servicing of the small vessel port areas, (jetties, piers, access ramps), the existence of adequate standrads of facilities being rather an exception.

Throughout the area port reconstruction or improvements have been among the more urgent public works projects for some time. An example of these projects could be St. John's Harbour in Antigua that was completed at the end of 1968 at a cost of $13 million. Such investments are planned and the improvements made mainly for the purposes of overseas trade. Very little attention seems to be paid to the provision of adequate facilities for small vessel shipping, either in the reconstruction of existing ports or in the plans which have been made for new ones.
In some cases where projects have envisaged improvements destined for small vessel services, this component has either been postponed or eliminated. Also, where existing plans do include the small vessel facility, its design may require revision because they had been orientated to the traditional "schooner" traffic, not to the introduction of motor vessels. Certainly no joint approach has been attempted in the region to compare these plans and agree on adequate standrad specifications.

The lack of importers' warehousing facilities in the ECCM area is general. The tendency is to rely on shipping and ports to avoid this kind of investment. Accordingly merchants and shipping agents frequently utilise the ships in the ports of arrival for warehousing the cargo. The cargo may be animal feed, copra, coconuts; the storage period, one to two weeks. While the shipowner may charge for this service and obtain reimbursement of port dues and customs fees, this does not bring any reveune and

he otherwise has no effective means to decline the provision of this particular service. On a large scale it occurs especially in Port of Spain, St. George's, Bridgetown, Kingston and was done also in St. John's, prior to the opening of the new harbour, where the vessel must anchor at a distance from the private wharf.

This practice in the first place, causes overcrowding at jetties or wharves and additional costs for the upkeep of the harbour. Secondly it also creates problems of traffic congestion on pier and in the adjacent streets. 16/ In particular municipal authorities of Bridgetown, (Barbados) and St. George's(Grenada), have pressed for remedial measures with the result that the port authorities are preparing to re-locate the small vessel wharfs, costs of which will have to be charged to the users.

Freight rates and charges, quality of service

Mention has been made already of the typical commodities transported by small vessels in the inter-island trade, and the routes. The main routes radiate from Port of Spain. The cargo carried consists mainly of cement, building and housing materials and supplies, and in much smaller quantities, sugar, rice, ground provisions. For example, during April 1968, of the 11 thousand tons of cargo loaded on small vessels in Port of Spain, 80 per cent were cement and 12 per cent various merchandise; of the 1200 tons unloaded 40 per cent were empty gas cylinders and other re-usable containers, 10 per cent limestone, 40 per cent agricultural commodities.

Services are conducted without an established tariff or without the publication of freight rates. The shipowners, shipping agents, and the shippers, follow maritime shipping practice on quoting rates and on charters, simplified as

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16/ Such congestion also has the effect of increasing ships' operating costs as storage of cargo cannot be done efficiently.

necessary, in the circumstances. Furthermore, the provisions of the WISC freight tariff, which is published, exercise some effect and are applied especially as regards listing of commodities and application of measurement or weight tonnage rate of freight.

The transporters have in no way any obligation to file their tariff, rates and chrages for information or approval with any public authority. 17/ No practice exists of posting or circulating those data to their customers or to the Chambers of Commerce. In spite of these circumstances, throughout the area, the actual rates and conditions under which they are applied, seem to be fairly uniform and stable, the variations or fluctuations occurring within narrow limits (for a compilation of these data see Appendix 2).

The rate variations observed, seem to reflect typically the difficulties or facilities of a particular route. They may be somewhat more flexible and tending towards the lower limits, where the volume of the commodity transported is large, if it is a cargo relatively easy to handle and clean. Rates also reflect physical and labour conditions existing in the ports of loading and unloading, and availability of return cargo. The sailing time and mileage of a route are of a secondary importance in rate making. The distance of up to about 100 miles can be taken as basic.

17/ Only freight rates are discussed here. The small vessel services may have had a function in passenger transport, but this is now on the wane. At present the demand for deck passenger space seems to be very seasonal and in any case, it has been falling off. It seems that the captains discourage passengers coming on board, but when some are carried the fares tend to be discretional possibly some 50 to 60 per cent below those for deck passengers on WISC ships. This also applies to the custom of vendors accompanying their merchandise, which appears to have fallen off sharply, even on the main trading routes.

When distances are from 100 to 200 miles, somewhat higher rates or surcharges appear and for distances well over 200 miles the rates are distinctly higher, but not disproportionately so.

As a rule, insurance costs are treated separately; but seldom is cargo covered by insurance, the exception being shipments contracted by the Marketing Boards of the countries or similar organizations. Insurance rates for transports by small vessels are quoted between $1\frac{1}{2}$ to 2 per cent of cif value as against 1 per cent or less on steamships.

Rates are quoted as a rule per bags, (cements, fertilizer, rice, salt), crates (avocadoes, citrus fruit), cartons, casks, etc. A commodity is seldom moved by boat load. Even in trade such as cement, rice, salt, limestone, general cargo may be found completing the shipment.

The basic level of rates is around $11.00 per ton for commodities such as rice in bags. Cement in bags, copra, sweet potatoes, are transported at the rate of between $12.00 and $16.00. Rates for fresh fruit, citrus, tamarinds, bananas are between $16.00 and $20.00. Higher rates in the range of $18.00 to $25.00, are charged for commodities such as beer, cigarettes, wine, avocado. Rum, whiskey, cigarettes and cinema films would form the top class of merchandise where the rate may be up to $60.00 per ton. Perishable fruit from Antigua to Barbados may have a rate of some $22.00 to $25.00, while manufactures from Trinidad to St. Vincent and those transhipped from St. Vincent or St. Lucia to Dominica range between $12.00 to $16.00. Rice from Guyana varies between about $16.00 to St. Vincent and $25.00 to Antigua.

At present, little information is available on the arrangements for and levels of freight rates of small vessel shipping serving other countries of the Caribbean. A rough comparison can, however, be made with the arrangements for the

Guadeloupe and Martinique services on coastal routes which are supervised by a governmental maritime department. Rates are published and subject to authorization; they are very low, for example (per metric ton); pineapples (in bags or crates), $7.20; cement $6.00; rice $4.00. This regime compares with that of the public service linking the ports of Trinidad & Tobago (Port of Spain, Scarborough).

As could be expected, the small vessel freight rates are well below the level of the inter-island regular line services operated by WISC or by Bookers (Guyana) and Geest. The routes, schedules and ports served by these lines are competitive. WISC tariff is adhered to by WISC competitors and is applied in so far as practicable by Bookers also on the Trinidad-Guyana service.

WISC tariff 18/ applies between any two ports served for local or transhipment cargo, and in addition to the freight, landing charges are payable. Rates (per ton weight or measurement) for the commodities which constitute the bulk of small vessel trade are:

cement, limestone	$19
copra	$21
vegetables, fresh	$19
potatoes, sweet potatoes	$20

Examples of rates for other commodities: fresh fruit (in open stowage) $19; beer $20; cigarettes $37; manufactured articles (radiogrammes, TV sets) $30-34; clothing, dresses, shirts, $37; books, stationery $22-$27-50. These rates indicate that on the whole the difference between small vessel rates and WISC reflect the regularity and high quality of the latter.

18/ WISS Freight Tariff No.3, issued 3.4.68 and Amendments 1-15.

On small vessels the lower quality of service is due mainly to delays in transit or damage to the cargo during the transit. Cargo transported may be subject to damage from rain, seepage and improper stowage. Perishables suffer from lack of cooled space or if the ship cannot be unloaded immediately on arrival at port, which is not an unusual occurrence. Damage to vegetables such as tomatoes, but even also to avocadoes and sweet potatoes seems to be a common complaint. While the problems of lack of cargo protection, inadequate cool storage, or poor stowage are serious, they seem to affect more the transport of low cost agricultural produce than shipments or manufactures.

The low level of rates, in the first place, reflects the competition which exists among small vessel operators, and then also in part the fact that small vessel services operate individually, with no investment connection with cargo owners. The shippers contract services from a position of strength and are not prepared to tolerate rate increases even for exports of manufactures of relatively high value emphasizing the uncertain quality and regularity of service. Another reason may be that the small vessel shipping enterprise, being weak financially, lacks the means of organizing on its own initiative the required level of quality and regularity. Perhaps, it is not even aware that in order to protect its earnings there is the necessity to offer services of higher standards than has been provided so far.

For the incipient stage of commercial exchanges developing as a result of the prospects provided by CARIFTA and ECCM agreements, the dual level of rates responds to an economic necessity. On the whole, the regional lines cannot successfully compete or would even try to compete with small vessels on routes involving lighterage ports, even less so if the volume is small; similarly they must leave to small vessels the transports of commodities of low economic density, and possibly even other cargo on routes with pronounced imbalance

of freight. Yet of course, the small vessels now operate with economic results. The transports which they carry, could be done more efficiently by other types of vessels than have been brought into service so far. For example, for transports of cement, limestone, building materials, more advantageous would be motorships towing lighters or pushboats or towboats working with several barges. For manufactured goods, to meet the trend of door-to-door through transport, motor vessels or roll-on-roll-off type ships or even ferry-boats might be preferable. Obviously the small private enterprise cannot attempt to examine such techniques and select the one applicable to its trade and route.

Some enterpreneurial aspects

The principal characteristic of the small vessel services is the individual ownership. There are probably some two or three enterprises owning three or four vessels. There may be some five or six enterprises owning two vessels each. Otherwise, practically each of the small vessels registered in the ECCM area is owned by a different owner. He or a member of his family may have been the builder of the ship. The trend to operate metal hull vessels modifies this pattern, derived from combining skills and resources for the construction and operation. Few shipowners solicit trade independently; it is now a general practice that cargo is obtained through shipping agents in ports.

A shipowner's organization exists, though not a result of some effort to provide a co-operative approach in the solution of business problems. At present it acts as agent 19/ for its members, arranges freight rates, collects freights and under certain conditions renders financial assistance. The Association

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19/ B.W.I. Schooner Owners' Association (Inc.) located in Bridgetown, Barbados, with membership in ECCM, Barbados and Trinidad & Tobago.

is a successor to schooner owners associations which have been in existence throughout the area with offices or representation in Barbados, St. Lucia, and St. Vincent. During World War II a regional association was formed, then known as Schooner Pool (1939-1945) with the participation and assistance of governments in the area, to facilitate the movement of freight. The actual regional organization of shipowners is without government assistance.

Enquiry into some of the financial considerations affecting investment revealed that the locally built wooden hull motorship is reputed to cost $70 thousand, while a 20 year old motor vessel cost $120 thousand. Apparently building a "schooner" in the 1940's cost about $10 thousand, while in 1968, it would cost some $40 thousand.

Very little information was obtainable regarding the finances of operation. For example, it has not been possible to find a workable basis for calculating trip or mileage costs. Some information has been received more as an illustration of difficulties facing the operators than as accounts data, but nevertheless, an attempt is made here to suggest some cost magnitudes.

Vessels with an auxiliary engine during the year need 20-50 days for repairs; of the 300 operational days about half is spent in ports, partly waiting for cargo and partly storing the imported cargo (which earns some revenue). Some 30 round trips are carried out, involving the expenditure of $900 per trip, a level of expenditure that would be covered if some 60 freight tons were carried at the rate of $15. However, from the data of cargo offered it would appear that the vessel is likely to carry on the average 30 freight tons going and 10 freight tons returning, so that it would have to earn $22.50 per ton to cover its expenditures. This seems to indicate that this type of vessel is relatively costly for inter-island

transports and that the operators do not now allow fully for replacement and maintenance.

As to motor vessels, these may do approximately some 40 voyages per annum with about 60 per cent of time in port and 40 per cent sailing. Maintenance would be high but these ships are kept in service without set periods for overhaul, and when past working efficiency, they are under repair for long periods. Their share of cargo may be estimated some 130 freight tons one way and 20 tons returning. The expenditure per trip is estimated per trip is estimated at $2400 and would be covered by a rate of $16 on the 150 tons freighted.

The managerial techniques are very simple. For example, transports originating in the Windward Islands with destination to the focal port of the area, Port of Spain, have their auxiliaries arrive on Fridays, the weekend being considered as the best marketing opportunity for the imported commodities (mainly agricultural produce). Then the greater part of the next week is required to book the return cargo, so that the vessel sails on the return journey not later than Saturday forenoon. This protracted schedule is not observed nor necessary in the Guyana-Trinidad trade, where most cargo is now moved by the small metal hull vessels; but the management here has the task only to coordinate the loading of cement which requires several days, with the additional consignments of general merchandise.

The crews of the ships are recruited locally. On some routes the size of the crew is much larger than four to five as is required for manning the vessel. It may be increased to some tne persons, the reason being that the crew is employed for loading and offloading cargo. Otherwise there is lack of engineers to run and maintain the engines, as well as sailors competent to handle or repair the sails.

The employment opportunities on the metal hull motor vessels are sought after more than on the auxiliaries. Experienced crew for the former is apparently easy to enlist, from among West Indian nationals formerly sailing on foreign ships. Average weekly wages are $20-$25, the higher rate occurring on the motor vessels. Employment opportunities on board motor vessels is estimated to be about 180 posts and on the auxiliaries, some 460 posts.

As to the prospects for area shipping enterprises, given the participation of the governments of ECCM territories, with Barbados, Jamaica and Trinidad & Tobago, in the Regional Shipping Council, (established to govern the West Indies Shipping Corporation), it would appear that at least some enterprises and also some regional users' organizations viewed this as signifying an inter-governmental initiative to modernise inter-island shipping, inclusive to replace private enterprises. On the other hand, some commercial and industrial organizations, though aware of the weak competitive situation of the small independent operators, favour and would recommend a larger scope for privately owned shipping in the area.

In any case, at present the operation of small vessel services seems on the decline, and the invested enterpreneurial skill and financial resources tend to be transferred to other economic activity offering better rewards. This is now relatively easy, since the formerly predominant family type business has practically disappeared. On the other hand, the small vessel type of shipping service is widely considered as a permanent fixture of the inter-islands trade, and some shipowners seem to be aware of the signs of growing demand, and seek to add to the motor vessel tonnage. This dilemma, as it would seem, has existed since early 1960's that small vessel enterprises were about to go out of business, but in spite of such prognostics, they continued to handle the cargo offering, so that no plans were made for their replacement.

IV. OPPORTUNITIES AND SCOPE FOR SMALL VESSEL SHIPPING

The shipping provided by small vessels is but one aspect of regional maritime services, the development of which has been the subject of inter-governmental attention for some years now. It has been recognized that effective progress depends both on policies adopted at the regional level and on the benefits which can be obtained from the relatively recent though rapid modernization of shipping which has become worldwide.

On world level, the trend is experienced toward large or even giant, capital-expensive ships in deep sea transport. Obviously, an economic employment of such ships requires refraining from calls at numerous ports if discharge and loading limited tonnages of cargo only is involved. This applies increasingly even if unitized cargo is handled, both containers and modern pallets.

Shipping routes are expected to establish a new concentrated pattern of liner traffic that will bring about the appearance of "pivotal" ports, from which feeder services must radiate 20/. On the scale of the Commonwealth Caribbean traffic, the present trunk services would become the equivalent of feeder lines. In turn, these would possibly require their own accessory feeder services.

There is little information on the relative cost structures of container through services, of specialized or conventional freighters serving a range of ports, or of the feeder transport operations. It would appear that this is still rather fluid and subject to change until more experience is gained with container services. Yet there are no significant trends against small vessel shipping as a component part of short sea services in the link-up of modes or means of transport from

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20/ United Nations study An examination of some aspects of the unitload system of cargo shipments. Sales No. 66.VIII.2.

producer to consumer. They have the relative advantages of being able to (i) enter small shallow draft, or lighterage ports; (ii) meet the warehousing requirements of shippers and at the receiving port; and (iii) respond to situations of small geographic pattern of production and consumption.

The question arises whether adequate prospects exist for small vessels in ECCM area. If the general indicators from elsewhere in the world could be deemed favourable, the recent past performance of this shipping in the area would be rather in the opposite.

True, small vessel shipping appears to have made a positive contribution to the economies of ECCM territories, even while being a fairly modest and simply organized industry, but at present, it is an industry which has been static, if not on the decline. It shows signs of a relative contraction of its services, or in any case, a lack of dynamism, compared to operations of small vessels of other flags. This may be due in part to its existence as a conglomerate of enterprises exploiting routes which parallel that of the publicly owned regional shipping service, even though the division of trade between the two shows a measure of workable co-existence, though not coordination (as a result of the freight rate structure imposed by the market on the small vessel and by regulation on the public service). Other reasons may be related to policies which governments have pursued at the regional level. They are characterized by a close involvement of the public sector, without bringing to bear the possible role of private shipping, in particular that which in ECCM territories specializes in small vessel services.[21/]

These policies need not necessarily continue without modifications. Under the ECCM and CARIFTA Agreements the regional policy views transport services as one of the instruments designed to assist in programmes of area industrialization, and agricultural specialization and in the expansion of commercial exchanges. While this involves a close involvement of the public sector, it could provide also for a suitable

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21/ Suggestions for defining the role of small vessel shipping were made at the Fifth Heads of Commonwealth Caribbean Governments Conference (of Verbatim Record, Wednesday 5 February 1969, pp 18-20. Confidential)

participation of private shipping, inclusive of that established in ECCM territories and specializing in small vessel services.

Even at present, in spite of serious deficiencies , this local shipping is characterized by several elements which permit envisaging the possibility that the ECCM interests could be given a specific opportunity for participation in CARIFTA area shipping services. In any case, the short-term demand for its services may be quite promising, if they could be retionalized, with a view to improving the carrying capacity and regularity. However, for the setbacks which occurred in the recent years, it is not likely that this rationalization can come about through the action of the shipowners alone. On the contrary, it is quite clear that governments would have to look into the matter, actively show their interest, and take deliberate measures, as they are empowered to do, by provisions of the regional Agreements.

Governmental assistance

Measures studied and instituted with a view to provide efficient, low-cost shipping in the region have so far, concentrated on strengthening the WISC but have not taken into account the possible role of small vessel shipping in the private sector. In particular, ECCM governments have reasons to be interested in that industry: a large portion of it is owned and operated by, and employs, their nationals, and it has kept the lower limit of the prevailing freight rates. Provided that ECCM small vessel enterprise can continue to play this part in area economy, it may be taken as having a valid function in ECCM and CARIFTA ventures of economic cooperation.

A test of such new policy could be attempted by action outlined below. Preferrably, the action should be initiated by, and carried out under the responsibility of the governments members of ECCM. Some governments may be in a position to move on their own accord, but by and large mutual consultation and cooperation and pooling of resources are likely to give more satisfactory results for the involvement of governments in the affairs of inter-island shipping has been only minor in recent years.

The formulation of suitable policies requires that more detailed data are obtained on the industry than those available so far, and a careful analysis made. The shipping interests themselves should put their case before the governments, in particular, if they have any aspiration of becoming a regional industry within CARIFTA owned by its nationals, using ECCM enterprise and capital, and in turn earning their incomes from services to all the CARIFTA partners, not only those in the ECCM. So far they have been concerned at the most with safeguarding the actual situation.

Where the small vessel services move mainly low-cost commodities as in the Guyana trade, there seem no immediate problems, but in shipping within ECCM, and in particular, the trade of its individual territories with Barbados and Trinidad, a more rational use of the present fleet should be sought as a matter of urgency. It would go a long way to increase the carrying capacity and regularity of the services. This could be the initial subject matter where the ECCM governments could assist, and also an initial experience in the facilitation and supervision of small vessel services. At the same time, better understanding would be obtained of the main problems, which were mentioned before, i.e.,

(a) deteriorating physical and operational facilities in ports;

(b) lack of suitable shallow-draft vessels that would be readily available to modernize the obsolete fleet;

(c) deficient organization and management of the enterprises.

Obviously, these problems are interrelated, for an active industry would press for port improvements, etc., on its own initiative, same as it would discontinue to operate ships requiring frequent repairs. The solutions of the problems are linked with each other in that it is necessary to improve the organizational aspects of the industry first if a fleet modernization is to be successful, or that port improvements are necessary for an efficient employment of more modern ships.

There is no specific order of steps which the enterprises should be invited to taken. Some can be taken simultaneously, other may be hard to

do. Basically, the first requirement is for the governments to insist that the operators establish consultations with the users (represented by the Chambers of Commerce and by the countries' Marketing Boards) under the auspicies of ECCM Council. The shipowners should strengthen their regional association, which should divulge the freight tariff and the basic rates. Subsequently, the shipowners should devise ways to co-operate in scheduling reasonably frequent and regular departures between pairs or groupings of ports, using a pool of vessels in good repair.

Governments would encourage this scheme through their respective port administrations by providing some incentives. Initially, it may be allocation of berths for timely loading and unloading for participating vessels; it could be also the issue of a distinctive sign or marking to identify the newly launched service; later some forms of financial assistance should follow. If a satisfactory progress is achieved within a reasonable time, then there may be a favourable climate to take the more difficult problems and start work on questions such as improved port facilities, progressive acquisition of new vessels, modern harbour and maritime legislation and regulation.

The governments should encourage the operators to observe closely the economic and commercial aspects as they supervise the implementation of the scheme. This would permit to make periodic revisions of rates, in consultation with the ports served. The publication of rates and schedules of sailings could be supplemented by a shipowner's statement on minimum requirements for vessels included in their respective pools.

Cooperation of the enterprises

Modernization of the small vessel fleet has been clearly beyond the competence and means of the local shipowners. It should be recalled that even already during the World War II which was a peak period for traffic and ship construction, it was necessary to provide technical assistance for both these aspects. Now, moreover, shipping and cargo handling techniques have entered a stage of radical modernization after a prolonged period of relatively slow process of developmental changes. This phenomenon manifests itself in ECCM area in various forms: studies of new

services by overseas shipowners; trial calls by new-concept vessels; experimental operation or even introduction into services of some such vessels.

The enterpreneurial position and economic prospectus could be improved by combining operations in jointly operative groups. No doubt, any ideas or suggestions of cooperation should originate with the shipowners. Possibly such cooperation can be developed progressively, from the simple initial steps designed to increase productivity of their present fleet through the institutions of regular rules by selected vessels. It could be joint common ownership of cargo handling equipment or transit shed at an open wharf of a port reserved for small vessels or pooling labour at a port, or arranging for a line service between certain ports. Government financial assistance should be envisaged once the shipowners take the initiative to propose a suitable cooperative project. The assistance would have different forms, depending on proposals. For shore installations it could be easy rental terms, in case of cargo handling equipment low cost loans, similar to schemes that exist in some territories for assistance to fishing enterprises for purchase of motors.

At present it is not yet possible to suggest a specific programme of scrapping obsolete vessels. Yet it could be that some shipowners would be prepared to acquire jointly a more efficient motor vessel which could replace a number of auxilliaries owned by them. In replacing schooners by self-propelled ships, there is hardly any social problem involved, changes in this respect will be very gradual, any man with some skill being readily employable. Governments would not be expected to assist in these questions, nor would it be necessary for these transactions to take place to be encouraged by Government guarantees of private loans. This would be required in more generalized programmes of ship replacement.

The regional shipowners' association should open a "CARIFTA Register" of ships, as a voluntary action of the shipwoners and operators. It could be taken as soon as a start is made on creating the initial network of regular inter-connections. The purpose would be to permit progressively to scrap or replace the obsolete vessels.

The initial register would show existing vessels and their category as to serviceability. From this the association could work out which ships must be scrapped and make estimates of the costs involved, so that some programme of scrapping may be instituted. It could suggest how the programme supervised and whether its progress would require payments of subsidies.

Governments' interest in the matter is to see that as a result of the establishment of the register, they could ensure a stricter application of the safety-at-sea regulations (load line, safety equipment, health protection, ship-to-shore communications). This may need a joint action, coordinated between the authorities of the ECCM countries and port and maritime administrators of Barbados, Guyana and Trinidad and Tobago. At this stage of a reorganization of the enterprises the authorities could introduce some incentives and if practicable, even also modest subsidies for repair and new equipment. Their form could be similar to that used in agricultural plans for purchase of machinery, or alternatively, some proportionate remittances of harbour dues could be arranged.

Assistance by port authorities

Since the second half of the 1960's the ECCM governments in their development plans, provided for investments in port and harbours and prepared legislative measures on maritime shipping for the purposes of facilitating deep-sea shipping and strengthening the inter-island services of the regional shipping line, but postponing provisions of physical facilities for small vessel trade. Therefore, shippers began to patronize increasingly the regional service as well as shipping lines of extra-regional flags who were in a position to provide additional shipping of the quality and level of freights comparable to that of the public services. As a result, physical facilities, administration and regulations in ECCM ports are not adequate for small vessel operations. In particular, these harbours are short of berths, and of both open space and covered sheds in cargo areas. The need for lighterate in some ports further increases the costs of serving the ECCM ports.

The facilities which are required in this respect are a jetty with a 15 ft. depth of water at low tide mainly open, but also a sheltered area for cargo handling. The number of berths will vary from two upwards. In lighterate ports adequate provision is required for simultaneous handling of lighters and inter-island small vessels. Invariably, in every port of the area the facilities do not satisfy the minimum requirements. In some cases, facilities that could be reasonably adequate have been reduced or allowed to deteriorate or have been rebuilt to serve for other purposes.

Understandably, building harbour facilities for small vessels is only relatively secondary aspect in the overall modernization or expansion which is planned for all the main ports of the area, and in particular, the two focal ports, Port-of-Spain and Bridgetown. While the overall projects are being prepared, as is the case in the region now, it would be helpful to the development of small vessel services if at least some of the more urgent improvements could be given a priority.

It is, of course, for the shipowners to give detailed data on the problems caused by inadequate physical and operational facilities in ports, and provide information on suitable shallow-draft vessels which they intend to modernize the obsolete fleet.

Port authorities could provide some technical assistance, aware of the considerable amount of coordination required that if a modernization is to be successful, port improvements are necessary for an efficient employment of more modern ships.

The volume of trade handled by ECCM vessels in Trinidad and Barbados is impressive and much of ECCM shipping depends on its continued participation in that trade. The small vessel shipping depends on facilities in Bridgetown and Port-of-Spain to a greater extent than on those of the vessels' home ports as they constitute their principal loading and unloading terminals. There is considerable uncertainty whether and when the needed improvements of the small vessel harbour facilities will be undertaken. If that proceeds, then still questions arise as to what administrative rules will be established, whether they will reflect the past liberal practices on small vessel berthing and labour employment,

whether they will be more restrictive or whether they will be eliminated altogether.

The solutions that will be adopted in particular, by the Port Authority of Trinidad will be decisive; design standards and specifications adopted by them for the physical facilities which need to be followed or suitably adapted for the ports in ECCM area; investments done in Port-of-Spain should be timed with those called for in ECCM ports: the former ones will be considerably higher than the latter ones and their effectiveness could be adversely affected by a lack of action in other ports served from Trinidad. Similarly, the subjects of port administration and regulation should be taken up in joint consultation, at least for the aspects directly related to the investment in physical facilities.

Another area where the assistance of port authorities could be eminently rewarding is in the introduction of unitized cargo handling and of small vessels capable to handle palletized cargo and small containers besides the break bulk cargo. Ports could encourage shipowners and shippers to experiment with some simple equipment on the lines of a rollable platform or small size collapsible container on casters or wheels, equipment which could be stacked or combined into larger units on the way from the warehouse to the platform of a lorry, or over short distances directly, to the ship's side, and vice versa.

Various types of such equipment are used in industrial transport operations, a few in air cargo operations, some others in combined transport road-sea, road-air. Examples which might be mentioned here are those of the use of rolling platforms in some ports of New Zealand 22/ and the methods of collecting small lots of cargo into a container in a major depot done by freight forwarders or consolidators in Europe or Japan. Work on transferring and adapting some of these techniques could be especially fruitful if it were possible to identify the best suitable equipment that would not be imported, but manufactured in the area.

22/ This was described by R. K. Trimmer: Cargo Handling by the Rolling Method, IAPH Conference, Tokyo, 1967.

Institutional framework

The policies of the governments of the ECCM area with regard to small vessel enterprises may be formulated and implemented by the ECCM Council of Ministers, as matters falling under the provisions of article 16 on transport. It may be desirable, moreover, if the Council could have, in that respect, also the cooperation of the Regional Shipping Council and of CARIFTA organs entrusted with shipping matters. At present, that body is the Ministerial Committee on Transport established by the decision of the Fifth Heads of Commonwealth Caribbean Conference.

It would seem that representatives of ECCM governments on the Council or in the Committee are at liberty to designate a specialist or a representative of small vessel enterprises as their advisers or delegation members. Should governments decide to initiate a formal study of small vessel part in regional shipping, it would probably be an indispensable step to arrange at least for the participation of the representatives of these shipowners as observers at a future session of either of these bodies, when policy matters of interest to small vessel shipping are on their respective agendas.

Apart from devising a suitable form of representation, governments could also decide on receiving a periodic (annual) report or reports (if done by territorial groupings of enterprises) or activities of small vessel enterprises. Such reports could have a suitable format which may be drawn up by the governments, themselves, to facilitate their consideration in conjunction with that of the WISC. Initially, some assistance, if necessary, could be provided from official sources in their preparation.

V. SUMMARY

Basically, the small vessel shipping is an economic activity which used to be an interesting revenue earning source to the ECCM area; whether it could again become a profitable industry is difficult to determine at this stage, mainly because of the setbacks which occurred in the last decade. It would now be necessary for ECCM and CARIFTA governing bodies to take deliberate measures, as they are empowered to do, by the treaty provisions on transport.

The term "small vessels" should be taken as envisaging motor powered ships up to some 700 tons, rather than the traditional "schooner", (nowadays they are also engine powered). With motor vessels rapidly displacing the schooners, it would be possible to build wooden hull motor ships locally, as has been the case with schooners, and as some have been built. However, the shipowners' experience has been more favourable with metal hull vessels. Shipyards exist in Trinidad and Guyana which could take orders for new construction of the latter, though some technical assistance on design and construction would be desirable.

The persent small vessel fleet has about 135 units with nearly 10,000 net registered tons. The registration in the ECCM area (Grenada, St. Lucia, and St. Vincent mainly) is over 80 units with nearly 4,000 tons. About 30 vessels with 5,000 tons are registered in non-Caribbean Commonwealth territories and are used in the trade of the area with Puerto Rico, U.S.A. (Florida), Virgin Islands, South America.

The main demand for ECCM shipping services is created by the trade of Guyana, Trinidad and Barbados. In 1968 this amounted to nearly eighty thousand tons(Trinidad-Barbados, 25,000 tons; Trinidad-Guyana, 40,000 tons; mainly cement, sugar, rice, timber.) ECCM services supply about one-third of the shipping tonnage required and the rest is carried mainly by vessels of the Guyana flag. The trade of the remaining CARIFTA member, Jamaica, though comparable, is outside the range of ECCM shipping.

Within the ECCM area the small vessels serve the exchange which the Windward and Leeward Islands have with Trinidad and Barbados. The main elements are general cargo imports of Grenada, St. Vincent and St. Lucia from Trinidad of some 12,000 tons annually and their much smaller tonnages in the order of one thousand tons of fresh fruit, vegetables and other ground provisions to Trinidad and Barbados. On other routes, those which do not include these two islands or on routes beyond St. Lucia, marked lack of offer can be detected. For example, lack of shipping has been reported for the expert trade of Montserrat and Dominica to Antigua and Barbados (in citrus, other fresh fruit and vegetables). On the other hand, ECCM ships cover whatever trade there is between Trinidad and the French Islands, Guadeloupe and Martinique, (over 1,200 tons, exports of propane gas, lubricating oil, etc., from Trinidad).

A newly developing demand for small vessel services in the Leewards is that of Antigua (imports of building materials, foodstuffs) and Dominica (exports of pumice and lumber) with ports outside CARIFTA, the Virgin Islands, Puerto Rico and United States (Florida). About twelve ships with 2,000 n.r.t. have been reported in this trade in 1968 but the tonnages carried are not know. These ships are motor powered and mainly registered outside CARIFTA (Dominican Republic, Puerto Rico, Panama) though some belong to West Indian shipowners. The overall tendency through the area, however, is that of a contraction of services.

The freight carried annually in the Eastern Caribbean by the West Indies Shipping service amount to 25,000 tons while shipping by the international lines in conjunction with their overseas routes is some 20,000 tons. The small vessel traffic in the Eastern Caribbean may be estimated at 135,000 tons per annum. Unit values of the cargo transported are of the order of $200 - $700, and thus they do not allow for any high transport costs. The small ship freight rates are about $10 - $16, while those of WISS and the international lines are $20 - $30, which explains the merchants' periodic demand that either the small vessel services be improved or the WISS freight tariff lowered.

The small vessel shipping enterprises have such competitive freight rates because of minimal capital requirements, independent operations, employment of casual manpower instead of specialized ship and port labour force. In ports this shipping is allowed relatively lower wharfage and tonnage dues than other vessels and the customs administrations apply simplified customs procedures to clear the cargoes. On the other hand, the enterprises have no regular sailings and the cargo is subject to damage and loss from deficient handling in ports and stowage on board, so that the quality of services is rather low.

For a further participation of the small vessel in area shipping, with the rising cost of labour and emphasised demand for regular and frequent sailings, the shipowners have to turn to motor vessels when replacing their present ships with auxiliary engines. This may further reduce the available tonnage considering that a large proportion of the vessels is obsolete. Over 40 per cent of those ships were first registered prior to 1945 and further 25 per cent between 1946 and 1955.

The owner-managers of the small vessel services do not seem to hesitate to transfer to other business instead of attempting to replace the ships, since even second-hand motor vessels represent four to five times higher capital investment than locally built wooden hull ships. The time seems, therefore, appropriate for the ECCM Governments to demonstrate active interest in assisting the shipowners.

The type of assistance to the small vessel shipping which is needed is not costly but is not simple either. In the first place, a consultation machinery should be set up, between government authorities and the owners. Secondly, coordination of action should be devised, between this assistance and that being provided to the WISS jointly owned by the Governments, which they initiated recently with a view to expanding its operations and strengthening its participation in international shipping. Thirdly, the ECCM governments should invite the Chambers of Commerce to include the small vessel interests among their membership.

One particular element of assistance within this framework is that of deciding the scope of the facilities which would be made available in

the principal port of the area, Port-of-Spain. With a large proportion of ECCM small vessel shipping engaged in Trinidad area imports and exports, the continuation of liberal policies of the harbour and customs administrations and of the labour interests seems essential. This is, however, not an easy matter to achieve, and to be successful would require a considerable capital investment, in the modernization of the wharfs and storage areas reserved for small vessel shipping.

In general terms the inter-governmental programme of action may be states as follows:

Liaison between small vessel shipping and governmental authorities (including the government Marketing Boards and similar agencies) to improve regularity to services and stabilize freight rates;

Adjustment of regulations and administrative practices causing improper or discriminatory delays to small vessels in the ports;

Review of harbour construction projects to ensure adequate wharf areas for small ships operations;

Modernization and unification of regulations applicable to inter-island small vessel services;

Schemes of financial assistance to facilitate the withdrawal of deficient vessels from servicing.

Appendix 1

Some additional data on WISC

The West Indies Shipping Service operated by the West Indies Shipping Corporation is a successor to a shipping line which the Federal West Indies Government began to build in 1961. It has two ships, which were a Canadian gift to the Federation, to serve as the basic form of inter-island linkage for economic and political development. The ships (each about 3,200 grt) are combined passenger and cargo ships giving bi-weekly scheduled sailings to all the ten main ports of the area. They can carry 50 cabin passengers, 260 deck passengers, have 4,000 cubic feet space for refrigerated cargo and 58,000 cubic feet dry cargo (1,500 measurement tons). This capacity has been sufficient except that for refrigerated cargo.

There has been continual decline since 1965 in the number of passengers carried while cargo shipping markedly improved in 1968. That year the line carried about 48,000 freight tons of cargo and 18,000 passengers. The service has required relatively high subsidy 1/ from the governments, because in the earlier years the cargo capacity was under-utilized, for the ships have been designed for expanding trade, and also that a combined passenger and cargo service is offered with emphasis on a cruise-type schedule of day stop-overs at each island and strict observance of timetables (with consequent high labour costs for a large ship's crew and overtime in the ports for cargo handling). For the present increased cargo demand the ships' design and propulsion features have proved to be a further handicap to economic operation.

Various measures have been studied to improve this service, but without results so far. The possibility has been evaluated of having alternative or additional ports in the schedule of the ships and some merit found in including Puerto Rico. On the other hand, having regard to the necessity of increasing the frequency of calls in the East Caribbean ports, it has been ascertained that concentrating on this segment, without sailing beyond the Leewards, would also improve operational results, especially if combined with a service for cargo only, extending to Jamaica and Guyana.

Another alternative is for WISSCo to reorganize and expand its involvement in transhipments of overseas imports. This is being studied now by decision of the Fifth Conference of the Heads of Heads of Commonwealth Caribbean Governments.

1/ In 1968, on an annual expenditure of $2,81 million, the subsidy amounted to $0.73 million.

At the request of the governments ECLA Regional Adviser has been assisting with drawing up proposals for consideration at the next session of the Regional Shipping Council. A study has been made of a staged replacement of the present two ships by vessels, which could handle both, unitized and conventional cargo shipments. WISC services would be reorganized to operate on two levels, a trunk line linking Jamaica, Trinidad, Barbados and Guyana and shuttle lines through the Eastern Caribeean for local cargo and as feeder services for overseas cargo.

Appendix 2

Ports: Small vessel facilities and charges. 1968

A. Physical facilities

Only a brief summary is provided here, describing the state of those port facilities and sections used by small vessels.

Basseterre, St. Kitts:

A lighterage port where the use of lighters is required even of small vessels. Congestion of storage facilities is often reported. At the jetty priority is granted to imports from overseas which causes delays to small vessels. No casual labour is available for loading and unloading these vessels.

Bridgetown, Barbados:

The careenage (Harbour of Molehead) is outside the new harbour which is in Carlisle Bay. Approach channel has 12 ft. 6 in. of water at l.w.o.s.t; vessels of maximum 14 ft. 6 in. can be accommodated alongside. The inner basin at the careenage is entered by way of a swing bridge with 32 ft. span.

An extension of the deep water harbour is considered in which case a small vessel quay would be built for the relocation of the careenage traffic.

Castries, St. Lucia:

Castries harbour has the Western wharf 500 ft., 24 ft. in depth (bananas); North East Wharf, 390 ft., 21-24 ft; Northern Wharf, 650 ft. in length, depth 27 ft. (general cargo).

The harbour needs completing deferred maintenance and extension of warehousing facilities. Small vessels share the quay (North pier) with other ships, but overseas services have priority.

Kingstown, St. Vincent:

Modern harbour with a berthing pier for two ocean-going ships and a wharf at right angles to it which accommodates small vessels, about five berths. Transhipment to these vessels is done by using inner side of the deep-water pier. Employment of casual labour or ships crew at the open wharf is authorized. The small vessel area suffers from occasional congestion and inadequate accommodation for ships on regular runs to the Grenadines.

Plymouth, Montserrat:

An open roadstead and a small finger-type jetty with mean water depth of 9 ft. Lighterage not obligatory if small vessel can reach jetty.

Port of Spain, Trinidad:

The harbour reserves an area for small vessel traffic, located at its south-eastern end, and known as "open wharves area" (or "Queen's Wharf"). They provide approximately 880 ft. of berthing, with maximum depth of 15 ft., suitable for handling ships up to some 700 tons. 1/

Existing structures are

- the wharf section east of the Customs building consisting of a timber deck on concrete cylinders which were reputedly constructed in 1898. The dock is backed by a wall of concrete or concrete block construction; and

- the Laventille jetty, of timber construction built in 1944-1945. It is in very poor condition, beyond repair, unusable on the eastern side due to the dumping of shells and ballast, and restricted to use by vehicles not over 6 tons.

Due to considerable traffic overcrowding along the jetty is continuous; ships are frequently tied up three abreast. Loading and unloading must be often done by shuffling it across the decks of ships so tied, which is time consuming and hazardous to workers.

The Port Authority envisages to improve the small vessel wharves as a part of an overall modernization of the harbour. Alternative plans involving investment up to $1.0 million were prepared, in 1961 and 1965 but, may need updating.

Roseau, Dominica:

L-shaped jetty with depth ranging from 19 ft. to 15 ft. between the ends of the landing face of the jetty, about 97 ft. long. Vessels over 12 ft. draft must anchor at least 100 ft

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1/ At present the wharf is used by ships up to capacity for 350 tons of cargo, subject to an administrative provision that ships other than schooners operated there prior to October 1967.

from jetty.

St. George's, Grenada:

The careenage for small vessels is a part of the inner harbour where the main facilities are the berths for two ocean-going vessels alongside a pier 800 ft. long with a minimum depth of 30 ft. Berths for small vessels are available also along 400 ft. on one face of the pier. An expansion of the harbour has been studied; it would include a schooner wharf (to relieve the street congestion at the present careenage) 540 ft. long, 20 ft. wide with a basin dredged to a depth of 20 ft. On the whole a lower priority is given to the construction of a small vessel wharf but it is recognized that some additional facility is needed.

St. John's, Antigua:

The new deep water harbour includes a berth for small vessels at the eastern end of the deep water berth. It is 100 ft. long, dredged to 15 ft., with adjacent open storage area.

Government wharf and the private wharfs in the old harbour continue to be used by small vessels though for most this calls for lighterage, since the wharf access is limited to vessels drawing not more than 6 ft.

B. Harbour and tonnage charges

Harbour dues in ECCM ports applicable to small vessels may be represented by the following two examples:

(a) Antigua Harbours and Roadsteads, Revision 1955-

(i) Harbour dues per trip

20 ton, not exceeding 30 tons	80.72
30-50 tons	1.00
51-100 tons	2.00
101-150 tons	4.00
151-500 tons	7.20
501-2000 tons	8.40
over 2000 tons	9.60

(ii) Tonnage dues are 48¢ per ton of cargo landed. Ships of 20-30 NRT pay at this rate once a year; ships at 31-60 NRT, once in six months.

(b) Montserrat

(i) Harbour dues per trip

sailing ships and auxiliary	$1
freighters to 500 tons	$8
freighters to 501-5000 tons	$9
freighters over 5000 tons	$10

(ii) Tonnage dues applicable to any cargo, 18¢ per ton landed.

The main dues in Barbados (as revised in 1960 when the construction of its new deep water harbour was nearing completion, Barbados Harbours Act, 1960) are as follows:

(a) Harbour dues for berthing

(i) for the first 72 hours

up to 100 ton NRT	
deep water harbour	$30
careenage	$10
Over 100 tons, up to 350 ton NRT	
deep water harbour	$60 (up to 2000 ton)
careenage	$30
Over 350 ton NRT	
deep water harbour	$60 (up to 2000 ton)
careenage	$50

(ii) for each additional 24 hours

deep water harbour	$12-24
careenage	
per each NRT	$0.08

(b) Tonnage dues are:

(i) deep water harbour

on each ton handled $0.30

(ii) Careenage:

on each NRT or on total tonnage handled, whichever is less $0.30

Ships under 100 NRT exempted from tonnage dues after having paid six times during the year.

Rates for port services in Trinidad and Tobago applicable to small vessels at any wharf at Port of Spain (Schedule II Port Services Ordinance Ch. 18 No. 2) are 40 cents per ton of cargo. Commuted harbour and wharf dues may be paid in the case of vessels over 10 net registered tons up to 1000 tons. The following are examples from the scale:

Tonnage	Harbour dues $	Wharfage dues $
50-60	6	12
60-75	9	18
75-100	12	24
750-1000	75	100

Appendix 3

Eastern Commonwealth Caribbean: Information on small vessel freight rates. 1968

Commodity	Route: Origin	Route: Destination	Port Facility 1/	Distance (miles)	Rate per Ton ($EC) 2/
Bananas	Dominica	Barbados	J/W	200	22.00
Bay oil	Dominica	Barbados	J/W	200	25.00
Bay Rum	Antigua	Trinidad	L/A	434	30.00
Beer	St. Kitts	Antigua	L/W	58	25.00
	St. Kitts	Dominica	L/J	141	25.00
Cement	Trinidad	Barbados	A/W	203	16.00 3/
	Trinidad	Guyana	A/W	376	12.00-16.00 4/
	Trinidad	St.Lucia	A/Q	230	11.00
Cigarettes	Grenada	Trinidad	Q/A	102	38.50
Cinema film	Grenada	Trinidad	Q/A	102	60.00 TM
Citrus	Dominica	Antigua	J/L	121	19.00
	Dominica	Barbados	J/W	115	19.00
	Dominica	St. Kitts	J/L	141	19.00
	St. Lucia	Barbados	Q/W	115	15.00
Coconuts	Dominica	Barbados	J/W	200	14.00
	St.Lucia	Barbados	Q/W	115	15.00
Copra	Grenada	Trinidad	Q/A	102	12.00
	St. Lucia	Barbados	Q/W	115	14.00
	St. Vincent	Barbados	W/W	98	13.50
	St. Vincent	Guyana	W/W	440	19.90
	St. Vincent	Trinidad	W/A	175	13.50
Eddoes	St. Vincent	Trinidad	W/A	175	12.50
Empty gas cylinders	Grenada	Trinidad	Q/A	102	18.00
Fertilizer	St.Vincent	Antigua	W/L	264	14.25
	St.Vincent	Barbados	W/W	98	13.25
	St. Vincent	Dominica	W/J	145	12.25
	St. Vincent	Grenada	W/Q	75	11.25
	St. Vincent	Guadeloupe	W/A	200	12.25
	St. Vincent	Martinique	W/A	89	11.25
	St. Vincent	Montserrat	W/L	230	13.25
	St. Vincent	St. Lucia	W/	60	10.25
	St. Vincent	Trinidad	W/A	175	13.25

Commodity	Route Origin	Route Destination	Port Facility[1]	Distance (miles)	Rate per Ton ($EC)[2]
Furniture, personal effects, household effects.	Grenada	Barbados	Q/W	152	25.00 TM
	Grenada	St. Lucia	Q/Q	135	20.00 TM
	Grenada	St.Vincent	Q/W	75	12.00 TM
	Grenada	Trinidad	Q/A	102	12.00 TM
General cargo	Barbados	St.Lucia	W/Q	115	12.00
	St.Kitts	British Virgin Islands	L/W	140	40.00
	St.Kitts	St.Barths	L/J	40	25.00
	St.Kitts	St.Martin	L/J	60	25.00
Industrial gases	Antigua	Dominica	L/J	121	18.00
	Antigua	Montserrat	L/L	27	18.00
	Antigua	St.Kitts	L/L	58	18.00
Mace	Grenada	Trinidad	Q/A	102	9.00 TM
Nutmeg	Grenada	Trinidad	Q/A	102	9.00
Orange juice	Trinidad	Guyana	A/Q	376	21.00
Peanuts	St.Vincent	Antigua	W/L	264	28.88
	St.Vincent	Barbados	W/W	98	26.40
	St.Vincent	Guyana	W/Q	440	33.86
	St.Vincent	Trinidad	W/A	175	23.90
Rice	Guyana	Antigua	Q/L	689	25.00
Rum	Antigua	Anguilla	L/L	...	18.00
	Antigua	St.Kitts	L/L	58	18.00
	Barbados	St.Lucia	W/Q	115	36.00
Sugar	St.Kitts	Dominica	L/J	155	25.00
	St.Kitts	Montserrat	L/L	96	25.00
	Trinidad	St.Lucia	A/Q	230	14.00
Sweet potatoes	St.Vincent	Grenada	W/Q	75	11.50
	St.Vincent	Trinidad	W/A	175	12.50
Tamarind	Antigua	Barbados	L/W	320	22.00
	Dominica	Barbados	J/W	200	46.20
Tomatoes	Montserrat	Dominica	L/J	99	22.00
Vegetables	Dominica	Antigua	J/L	121	22.00
Whisky	Grenada	Trinidad	Q/A	102	36.00
Wine	Antigua	Anguilla	L/L	...	18.00
	Antigua	St.Kitts	L/J	60	18.00
Yams	St.Vincent	Antigua	W/L	260	22.00
	St.Vincent	Guyana	W/W	440	22.00
	St. Vincent	Trinidad	W/A	175	12.50

Source: ECLA, on the basis of an official enquiry.

Notes: 1/ Port conditions are marked as follows:

A Port has an area reserved for small vessels with jetty, quay and open space

W A wharf is reserved for small vessels

Q Port has a quay space which small vessels share with all other shipping

J A jetty is used jointly by small vessels and lighters

L Lighterage is necessary by small vessels

First letter refers to the port of origin, the second one to the port of destination.

2/ Per Ton Weight unless TM appears in the column, specifying Ton Measurement.

3/ Includes landing charges.

4/ Excludes landing charges.

Appendix 4

Bibliographical Note

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