

"DELIMITATION, FISHERIES AND MARINE SCIENTIFIC RESEARCH:
THREE ASPECTS OF THE
EXCLUSIVE ECONOMIC ZONE PROBLEMATIQUE
IN THE EASTERN CARIBBEAN WITH PARTICULAR REFERENCE TO
TRINIDAD AND TOBAGO"

A Thesis
Submitted in Partial Fulfilment of the Requirements
for the Degree of Master of Science in
International Relations

of
Institute of International Relations
The University of the West Indies
St. Augustine, Trinidad

Arthur A. Gray

1988

ABSTRACT

Delimitation, Fisheries And Marine Scientific Research:
Three Aspects Of The Exclusive Economic Zone
Problematic In The Eastern Caribbean
With Particular Reference To Trinidad and Tobago

Arthur A. Gray

The introduction, on a global scale, of the Exclusive Economic zone (EEZ) regime, has presented coastal states with an extended range of opportunities with respect to the incorporation of extended areas of hydrospace and their resources--living and non-living--into their economic and wider national security concerns. The fact that these opportunities are also viewed as challenges serves to underscore the point that there are certain problems associated with these opportunities which it was sought to enshrine in 'positive law' during the protracted and often acrimonious negotiating sessions that constituted the Third United Nations Conference On The Law Of The Sea. This thesis is devoted to an exploration of three problem-areas which, in their present form, have arisen as a direct result of the introduction of the EEZ regime. This exploration is conducted in the particular context of that arc of small, tightly packed

and resource-deficient island states and territories that constitute the Eastern Caribbean sub-region with particular attention being given to the Trinidad and Tobago situation. While the range of management problems posed by the introduction of the EEZ regime were already discernible under earlier, more restricted ocean regimes, this innovation in international law has considerably amplified these problems while, at the same time, increasing national expectations with respect to the garnering of ocean-based resources. The problem-areas examined in this thesis are delimitation of maritime boundaries, fisheries and marine scientific research. In each case, the findings serve to emphasize the almost intractable nature of the EEZ problematique in the Eastern Caribbean and suggest the inappropriateness or inadequacy of this regime in the context of this sub-region.

TABLE OF CONTENTS

	Page
INTRODUCTION	1
CHAPTER I THE EXCLUSIVE ECONOMIC ZONE IN INTERNATIONAL SOCIETY	19
CHAPTER II THE CARIBBEAN SEASCAPE AND ITS IMPLICATIONS	77
CHAPTER III THE FISHERIES RESOURCES OF THE CARIBBEAN SEA	86
CHAPTER IV THE NON-RENEWABLE RESOURCES OF THE CARIBBEAN SEA	118
CHAPTER V MARITIME JURISDICTION IN THE EASTERN CARIBBEAN	148
CHAPTER VI THE DELIMITATION OF EXCLUSIVE ECONOMIC ZONES IN THE EASTERN CARIBBEAN	187
CHAPTER VII IMPLICATIONS OF THE EXCLUSIVE ECONOMIC ZONE REGIME FOR FISHING ACTIVITY IN THE EASTERN CARIBBEAN .	341
CHAPTER VIII IMPLICATIONS OF THE EXCLUSIVE ECONOMIC ZONE REGIME FOR MARINE SCIENTIFIC RESEARCH IN THE EASTERN CARIBBEAN	442
CHAPTER IX CONCLUSION: EVALUATION OF THE EXCLUSIVE ECONOMIC ZONE IN THE EASTERN CARIBBEAN	468

LIST OF FIGURES

Figure 1	-	The Eastern Caribbean	79
Figure 2	-	Location of Dominica within the French Enclave	189
Figure 3	-	Towards an Exclusive Economic Zone for Trinidad and Tobago	203
Figure 4	-	The Venezuela/United States of America Maritime Boundary	208
Figure 5	-	The Venezuela/Dutch West Indies Maritime Boundary	213
Figure 6	-	The Venezuela/France maritime Boundary	217
Figure 7	-	Official Map showing the AB-BY-XY Line of the 1942 Gulf of Paria Treaty	255
Figure 8	-	The AB-BY-XY Line together with a would-be median line as drawn by the International Court of Justice	260
Figure 9	-	The "Geographer's" approach to the 1942 Gulf of Paria Treaty Boundary	263

Figure 10	- Suggested Archipelagic Baselines of Trinidad and Tobago	283
Figure 11	- The Coastline of the island of Trinidad	287
Figure 12	- The Relative Positions of the island of Trinidad, Tobago and Grenada	321
Figure 13	- Map of Trinidad and Tobago showing Oil and Gas Fields	331
Figure 14	- Indicative Maritime Boundary Between Trinidad and Tobago; the Venezuela; and Grenada	335
Figure 15	- Areas Authorised for Fishing Between Trinidad and Tobago and Venezuela	350
Table V	Fish and Shrimp Landings at sixteen beaches throughout Trinidad and Tobago during 1982	139
Table VI	Energy Endowment, Production and Processing in Selected States/Territories of the Eastern Caribbean	141
Table VII	Trinidad and Tobago Petroleum Production by Source	143
Table VIII	Incidence of Selected Non-Fuel Minerals by Selected Producers Lying in or Bordering the Caribbean Sea	144

LIST OF TABLES

Table I	Global Position on the Breadth of National Jurisdiction with Dates of Entry into Force (1978)	65
Table II	Limits of Territorial Seas, Fishing Zones and Exclusive Economic Zones of States and Territories Lying in or Bordering the Caribbean Sea	72
Table III	Strategic International Straits in the Caribbean	82
Table IV	Results of Selected Research and Commercial Fishing Cruises of Trinidad 1951-1965	93
Table V	Fish and Shrimp landings at sixteen beaches throughout Trinidad and Tobago during 1982	109
Table VI	Energy Endowment, Production and Processing in Selected States/Territories of the Eastern Caribbean	131
Table VII	Trinidad and Tobago Petroleum Production by Source	132
Table VIII	Incidence of Selected Non-fuel Minerals by Major Producers Lying in or Bordering the Caribbean Sea	134

Table IX	Selected Approximate Distances in the Eastern Caribbean and Related Areas	151
Table X	Summary of Maritime Claims, preferred Delimitation Techniques and Baselines in the Eastern Caribbean:- Selected Countries	182
Table XI	Selected Maritime Boundary Delimitation Agreements in the Caribbean	206
Table XII	Alternative Limits of Trinidad and Tobago's EEZ Based on the Continental Shelf Approach to Delimitation	324
Table XIII	Selected Provisions of the 1982 Convention Dealing with Marine Scientific Research	444
Appendix V	Treaty Between His Britannic Majesty and the President of the United States of Venezuela Relating to the Submarine Areas of the Gulf of Paria	351
Appendix VI	Treaty Between His Britannic Majesty and the President of the United States of Venezuela Relating to the Island of Patuca	361

LIST OF APPENDICES

Appendix I	Three Maps Illustrating The United Kingdom/France Delimitation Agreement	532
Appendix II	The Italy/Yugoslavia Delimitation Agreement	535
Appendix III	The Iran/Qatar Delimitation Agreement	541
Appendix IV	"Bird Island in Disappearing": Article by Pedro Lava Sanchez in Translation from ZETA No. 491 of October 2, 1983.	544
Appendix V	Treaty Between His Britannic Majesty and the President of the United States of Venezuela Relating to the Submarine Areas of the Gulf of Paria	551
Appendix VI	Treaty Between His Britannic Majesty and the President of the United States of Venezuela Relating the island of Patos.	564

Appendix VII	Venezuelan Presidential Decree of July 10, 1968 Proclaiming a Straight Baseline Extending from Punta Araguapiche on the Venezuelan Coast to a Point on the Guyanese Coast, East of Waini Point (Unofficial Translation).	567
Appendix VIII	Fishing Agreement Between the government of the Republic of Trinidad and Tobago and the Republic of Venezuela (1977)	571
Appendix IX	Fishing Agreement Between the Government of the Republic of Trinidad and Tobago and the Republic of Venezuela (1985).	587
	Continental Shelf Boundary	
	Dalhousie Ocean Studies Project	
	Economic Commission for Latin America and the Caribbean	
	European Economic Community	
	Exclusive Economic Zone	
	Environmental Health Institute	
	Economist Intelligence Unit	
	Exclusive Zone	
	Food and Agriculture Organization	

LIST OF ABBREVIATIONS

A.C.P.	African, Caribbean and Pacific
A.J.I.L.	American Journal of International Law
ASEAN	Association of South East Asian Nations
B.Y.I.L.	British Yearbook of International Law
CARIFTA	Caribbean Free Trade Association
CARICOM	Caribbean Community
C.D.B.	Caribbean Development Bank
C.D.C.C.	Caribbean Development Cooperation Committee
C.I.V.	Colegio de Ingenieros de Venezuela (Venezuela College of Engineers)
C.O.P.E.I.	Christian Democrat Party of Venezuela
C.S.B.	Continental Shelf Boundary
D.O.S.P.	Dalhousie Ocean Studies Project
E.C.L.A.C.	Economic Commission for Latin America and the Caribbean
E.E.C.	European Economic Community
E.E.Z.	Exclusive Economic Zone
E.H.I.	Environmental Health Institute
E.I.U.	Economist Intelligence Unit
E.Z.	Exclusive Zone
F.A.O.	Food and Agriculture Organization

FUNVISIS	Foundacion Venezolana de Investigaciones Sismologicas (Venezuelan Foundation for Seismological Research)
G.C.S.	Group of Coastal States
G.D.P.	Gross Domestic Product
G.D.S.	Geographically Disadvantaged States
G.N.P.	Gross National product
I.A.D.B.	Inter-American Development Bank
I.C.J.	International Court of Justice
ICLARM	International Centre for Living Aquatic Resources Management
I.G.O.	Inter-Governmental Organization
I.I.R.	Institute of International Relations
I.M.A.	Institute of Marine Affairs
I.M.O.	International Maritime Organization
I.O.C.	Intergovernmental Oceanographic Commission
IOCARIBE	Intergovernmental Oceanographic Commission Association for the Caribbean and Adjacent Regions
I.O.I.	International Ocean Institute
I.S.E.R.	Institute of Social and Economic Research
L.L.G.D.S.	Land-Locked and Geographically Disadvantaged States
M.S.Y.	Maximum Sustainable Yield

NAMUCAR	Navieras Multinacionales de Caribe
NATO	North Atlantic Treaty Organization
N.E.A.F.C.	North East Atlantic Fisheries Commission
N.I.E.O.	New International Economic order
N.Y.	New York
O.A.S.	Organisation of American States
O.A.U.	Organisation of African Unity
O.D.I.L.	Ocean Development and International Law
O.E.C.S.	Organisation of Eastern Caribbean States
OLDEPESCA	Latin American Fisheries Development Organisation
OPANAL	Organisacion para la Porscripcion de Armas Nucleares en America Latina
P.A.H.O.	Pan American Health Organization
P.N.M.	People's National Movement
S.C.O.T.T.	Shipping Company of Trinidad and Tobago
S.E.L.A.	Latin American Economic System
S.P.F.F.A.	South Pacific Fisheries Forum Agency
T.A.C.	Total Allowable Catch
T.E.U.	Twenty-foot Equivalent Unit
U.N.	United Nations
U.N.C.L.O.S.	United Nations Conference on the Law of the Sea
UNECLAC	United Nations Economic Commission for Latin America and the Caribbean
U.N.E.P.	United Nations Environment Programme

UNESCO	United Nations Educational, Scientific and Cultural Organisation
U.N.F.A.O.	United Nations Food and Agricultural Organization
U.N.G.A.	United Nations General Assembly
U.N.I.T.A.R.	United Nations Institute for Training and Research
U.S.	United States
U.S.A.	United States of America
U.S.S.R.	Union of Soviet Socialist Republics
U.W.I.	University of the West Indies
W.E.C.A.F.C.	Western Central Atlantic Fisheries Commission
W.H.O.	World Health Organization
W.I.S.A.	West Indies Associated States
W.I.S.C.O.	West Indies Shipping Corporation

Articles together with its nine Annexes purport to embody formulae for the reconciliation of national and international rights to the passage and their resources.

A major theme in the evolution of the Law of the Sea has been the interplay of two important forces: the one emphasising what may be referred to as the claim of "territorial sovereignty"; the other emphasising the

The first negotiating session on substantive issues of UNCLOS III was held in 1974, when 136 delegations signed the Final Act of the Conference.

INTRODUCTION

The conclusions of the protracted and occasionally acrimonious debate that was the Third United Nations Conference on the Law of the Sea popularly referred to in the literature as "UNCLOS III", find expression in the Convention that was signed by some 119 delegations at Montego Bay, Jamaica, on December 10, 1982.¹

The 1982 Convention is an extensive document, endeavouring as it does, to provide international legal solutions not only in respect of traditional practices relating to the use of the sea but also in respect of current and even anticipated uses and abuses of hydrospace and also, in some instances at least, of the corresponding airspace. Its three hundred and twenty Articles together with its nine Annexes purport to embody formulae for the reconciliation of national and international rights to the oceans and their resources.

A major theme in the evolution of the Law of the Sea has been the interplay of two important forces: the one emphasising what may be referred to as the claims of "territorial sovereignty"; the other emphasising the

¹The first negotiating session on substantive issues of UNCLOS III was held in 1974. Some 150 delegations signed the Final Act of the Conference.

perceived merits of the doctrine of "freedom of the seas." Claims in respect of "territorial sovereignty" are promotive of the interest of the coastal states in advancing, as far as possible, the seaward limits of the area over which they may exercise jurisdiction. Those holding aloft the standard of "freedom of the sea" would reduce this area to a minimum, thus leaving available, if only in legal, as opposed to practical, terms, the greatest possible expanse of ocean space as an international common. Critics of the claims of "territorial sovereignty" find it indefensible that areas of ocean space, once open to all, are in the modern context, assimilated within the jurisdiction of coastal states. Critics of the claims attaching to "freedom of the seas" express the view that the application of that doctrine confers unfair advantages upon the minority group of maritime powers with respect to such factors as their superior technology in areas such as mining, exploration and exploitation as far as non-living resources of the oceans are concerned and also with respect to their distant-water fleets, remote sensing and other modern contrivances as far as the exploitation of the living resources of the marine environment is concerned.

The 1982 Convention attempts a compromise between the competing claims of those States which participated

in UNCLOS III as they sought to promote their respective national interests broadly in accordance with one or other of the "forces" earlier mentioned.

The Convention in its Part VIII dealing with the "Regime of Islands" also takes into account the interests of non-participants at UNCLOS III to the extent that it reflects the interests of entities, including some situated in the Eastern Caribbean which, due to their non-independent status, were unable to freely participate in international conferences such as UNCLOS III, at least, in most cases, during the vital, earlier phases of that Conference.

A major result of the clearly discernible attempted compromise is the regime contained in Part V of the 1982 Convention (Articles 55-57), of the Exclusive Economic Zone (EEZ). According to Article 55 of the Convention,

"The exclusive economic zone is an area beyond and adjacent to the territorial sea, subject to the specific legal regime established in this Part, under which the rights and jurisdiction of the coastal state and the rights and freedoms of other states are governed by the relevant provisions of this Convention."

With respect to the breadth of the EEZ, Article 57 provides that it:

"...shall not extend beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured."

Three of the major implications of this extended jurisdiction in favour of coastal states provide the focus of this thesis in the context of a portion of one of the three major groups of small, developing island states, namely the island states and territories of the Caribbean.² The three areas to be covered in this thesis are "delimitation", "fisheries" and "marine scientific research".

According to its Article 308(1)

"This Convention shall enter into force 12 months after the date of deposit of the sixtieth instrument of ratification or accession."

However, notwithstanding the fact that the Convention is yet to receive the stipulated number of ratifications, some of its provisions already, and mainly on the basis of state practice, appear to have

²The other two major groups are (i) the islands of the South-West and Central Pacific and (ii) the small island states of the Indian Ocean.

been assimilated into the corpus of international customary law.³

This observation is pertinent to the regime of the EEZ, whose essential characteristics, including its maximum radius of 200 miles, antedate even the adoption and signature of the 1982 Convention. In the EEZ, the coastal state has, inter alia:

"sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the Sea-bed and of the Sea-bed and its sub-soil, and with regard to other activities for the economic exploitation and exploration of the Zone, such as the production of energy from the water, currents and winds."⁴

This thesis deals, in specific terms, with the regional politics of hydrospace as manifested in the semi-enclosed Caribbean Sea and with some of the

³By 9 December, 1984, the closing date for signature, the Convention had been signed by 159 states or "entities". By then, too, fourteen instruments of ratification had been deposited. United Nations General Information document A/42/688 dated 5 November, 1987 from which this information is taken also indicated that by 3 November, 1987 only 35 instruments of ratification had been received, including one from Trinidad and Tobago, and that of 142 coastal states 72 had established exclusive economic zones and 19 exclusive fishery zones. A further 14 had incorporated the concept of "archipelagic states" into their legislation. It is to be noted that the legislation of certain states in this regard predates the 1982 Convention, e.g. Indonesia and Philippines.

⁴Article 56.1(a).

problems associated with the introduction of the Exclusive Economic Zone regime in the Eastern Caribbean as states pursue their national interests in terms of enhanced and exclusive access to maritime resources as well as extended jurisdiction over areas which, in most cases, exceed the area of their land territories. The simultaneous pursuit of these essentially identical national aspirations involves the pattern of the zero-sum games of decision-making theory,⁵ and will be examined within the parameters of international law--mainly the 1982 Convention--and of the necessarily unchangeable geographic configuration of the Caribbean seascape. It is these factors which, in the main, provide the major nuances in the operationalisation of the Exclusive Economic Zone concept.

As has been stated above, this thesis is concerned to explore some of the implications of the EEZ regime for the insular politico-geographic entities of the Eastern Caribbean. The concept of "The Eastern Caribbean" is employed to refer not only to those entities which constitute the membership of the OECS but, in the general geographic perspective, to

⁵In a two person zero-sum game, one player's winnings exactly equal the other's losses hence the zero-sum of the net payoffs. See for e.g. Harsanyi, J.C. "Game theory and the Analysis of International Conflict" in Rosenau, J. (ed.) International Politics and Foreign Policy. The Free Press, New York, 1969.

encompass in addition, the arc of islands extending as far South as the Republic of Trinidad and Tobago. For the purpose of this thesis therefore, the "Eastern Caribbean" is intended to refer to the political entities of Anguilla; Antigua and Barbuda; Barbados; Dominica; Grenada; Guadeloupe; Martinique; Montserrat; St. Kitts-Nevis; Saint Lucia; St. Vincent and the Grenadines; and Trinidad and Tobago. For completeness of exposition, however, extensive reference will also be made to other countries which border the Caribbean Sea, particularly to Venezuela, whose Caribbean coastline, in addition to its "insular facade" and Bird Island (Aves Island), present formidable political and legal difficulties for the implementation of the EEZ regime in the area under review. Within the overall exposition, however, attention will be focussed on the implications of the EEZ regime for Trinidad and Tobago.

The selection of Trinidad and Tobago as a case for detailed examination of its essential Law of the Sea properties, does not find its origin in the insular chauvinism for which the Eastern Caribbean has achieved considerable notoriety. Rather, it points to the fact of the rich and varied range of issues, themes, activities, and historical experiences, all of which relate to the Law of the Sea and all of which also

constitute vital "indices of interest"⁶ in the Trinidad and Tobago context. In a sense, the Trinidad and Tobago situation may be viewed as a microcosm of the wider Law of the Sea concerns and nuances that actively engage the territories of the Eastern Caribbean and indeed of coastal states in general.

In order to substantiate this assertion, or at least to give meaning to it, the following selection of ten considerations is put forward:

- (i) Trinidad and Tobago is a single political entity comprising the two main islands from which the country derives its name, as well as some 23 islets and rocks. The water-land ratio resulting from the drawing of archipelagic baselines around the outermost points of Trinidad and Tobago is approximately 1:1.316⁷. This meets the stipulation in Article 47(1) of the Convention, according to which, the water-land ratio should be between 1 to 1 and 9 to 1. The longest permissible archipelagic baseline that may be drawn by Trinidad and Tobago, is calculated by the author to be but seventy-six miles in length and is accounted for by the line joining Little Tobago to Point Galeota.⁸ Article 47(2) of the Convention provides that with the exception of 3 percent of the total number of baselines which may have a maximum length of 125 nautical miles, archipelagic baselines, "shall not exceed 100 nautical

⁶See Alexander, Lewis M., "Indices of National Interest in the Oceans" in O.D.I.L., Vol. 1, No. 1, Spring 1973, pp. 21-49.

⁷The approximate figures are 2027.15 square nautical miles to 1540.70 square nautical miles.

⁸See Figure 10.

miles." Trinidad and Tobago therefore appears to satisfy the requirements of the archipelagic regime⁹ with respect to its existence as a unitary state, to its water-land ratio and to the length of its baselines. This fact would serve to bring out certain nuances of the EEZ regime and, as such, it helps to justify the selection of the Trinidad and Tobago example.

- (ii) Trinidad and Tobago, either exclusively, or in geographical partnership with its Venezuelan neighbour, commands straits that are used for international navigation. Reference is here being made to the Tobago Passage; the Dragon's Mouth; and the Serpent's Mouth.¹⁰ Legislation giving domestic expression to the Archipelagic State concept has the effect of incorporating the Tobago Passage, which lies between the two major islands of the archipelago, and which is much used by ships sailing from the South Atlantic into the Caribbean Sea, within its archipelagic waters. This invokes the archipelagic sea

⁹See Articles 46 to 54 of the Convention. Act No. 24 of 1986 was assented to on 11 November, 1986 "to declare the Republic of Trinidad and Tobago an archipelagic state, and to define the new areas of marine space appertaining to Trinidad and Tobago in the exclusive economic zone, and in the archipelagic waters, and the nature and extent of the jurisdiction to be exercised by it in each of these areas and to make provision for matters connected therewith in accordance with the United Nations Convention on the Law of the Sea, done in Montego Bay, Jamaica on 10th December, 1982."

¹⁰"The Dragon's Mouth" and the "Serpent's Mouth" are the names given to the straits lying respectively to the Northern and Southern entrances to the Gulf of Paria. The former has a width of less than twelve miles and the latter a width of some nine miles. The implications of this state of geographical disadvantage, given the short distances between these countries, will be explored in this thesis.

lanes passage which is another new feature of the progressive development of the international law of the sea.¹¹

- (iii) Trinidad and Tobago numbers among the more interesting features of its domestic seascape, its own enclosed sea namely the Gulf of Paria.¹² This almost land-locked body of water, approximately 125 kilometres (east-west) by 60 kilometres (north-south), satisfies the definition of "enclosed or semi-enclosed sea" in Article 122 of the 1982 Convention and provides a literal microcosm of the Caribbean Sea of which it is a part and stands, overfished and over polluted, as an example of what that sea may become if some, at least, of the implications of the EEZ regime are not fully taken into account in the course of its utilization.¹³ Simultaneously, the Gulf of Paria may be viewed as a bay that is shared by two countries namely Trinidad and Tobago and Venezuela, rather like the Gulf of Venezuela which is shared by the latter country and Colombia.¹⁴ The instability of the Venezuelan shoreline in the Gulf of Paria may also have important implications for the delimitation of that area. The added complexity involved by virtue of this fact, not only enriches but also further justifies the selection of the Trinidad and Tobago example.

¹¹See especially Articles 49 and 53 of the 1982 Convention.

¹²Strictly speaking, this enclosed Sea is shared with its Venezuelan neighbour from whom it is separated by a mere nine miles of sea at the nearest point.

¹³See: Report of the IOCARIBE Workshop in Environment Geology of the Caribbean Coastal Area held in Port-of-Spain 16-18 January, 1978, in IOC Workshop Report, No. 13.

¹⁴See: Nweihed, K. "Venezuela's Contribution to the Contemporary Law of the Sea," in San Diego Law Review, Vol. II, No. 3, May 1974, pp. 603-632.

- (iv) The demarcation of Trinidad and Tobago's maritime boundaries in its typical, Eastern Caribbean complexity would involve at least five states.¹⁵
 - (v) By virtue of the Exchange of Notes effected between the Government of Trinidad and Tobago and the Government of the United Kingdom of Great Britain and Northern Ireland, Trinidad and Tobago has agreed to assume all obligations and to enjoy all rights which arise from all valid international instruments concluded with reference to it by the British authorities. This includes the Treaty signed in 1942 by His Britannic Majesty and the President of the United States of Venezuela delimiting the submarine areas of the Gulf of Paria. This historic treaty, the first of its kind, occupies a central place in the history of delimitation and therefore warrants some special attention.¹⁶
- In view of the fact that there exists an as yet undelimited zone between Trinidad and Tobago and Venezuela i.e. an area not included in the demarcation referred to in the 1942 Treaty, Trinidad and Tobago is also currently engaged in "further delimitation" talks with Venezuela and this too, enhances the validity of the selection of Trinidad and Tobago as exemplifying the Law of the Sea problematique of the Eastern Caribbean.
- (vi) As a producer of offshore hydrocarbons, considerations relating to sealanes, to pollution and to the preservation of the marine environment, rank high in Trinidad and Tobago's national as well as regional ocean-policy considerations.

¹⁵These States are Barbados, Grenada, Guyana, Venezuela and St. Vincent and the Grenadines.

¹⁶A discussion of the status of the 1942 Gulf of Paria Treaty will be engaged in Chapter VI.

(vii) In addition to its domestic policy, Trinidad and Tobago pursues an active foreign policy in the area of fisheries, as witness the conclusion of Fishing Agreements of different types with Venezuela (1977 and 1985); Brazil (1972 and 1977); and France/EEC (1982) with respect to Cayenne. Discussions on the conclusion of Fishing Agreements with other countries in the region have in some cases commenced and, in others, are expected shortly to do so.¹⁷

(viii) Trinidad and Tobago's interest in tourism, its pattern of port development and all other conflicting uses of the sea and of coastal areas, lend further complexity to the management of coastal zones. This is particularly noteworthy when it is recalled that most of Trinidad and Tobago's economic resources including oil, gas and fish, are to be found in offshore locations.

(ix) Trinidad and Tobago has a share in the equity of the regional shipping line namely, the West Indian Shipping Company and, in addition, has its own shipping company, the Shipping Company of Trinidad and Tobago (SCOTT).

(x) Trinidad and Tobago has historically been in the forefront of regional activities aimed at the evolution of a "Special Regime" for the island territories which lie in or border the Caribbean Sea. Its perspective on, as well as its approaches to the international Law of the Sea, can only enrich any presentation of the evolution of the Law of the Sea in the region.

This matrix of Law of the Sea concerns affords, with regard to a single country namely Trinidad and Tobago, insights into many problems and challenges

¹⁷ Negotiations between Trinidad and Tobago and Barbados commenced in May 1988. See News Release No. 557 of 1988 issued by the Information Division of the Office of the Prime Minister of Trinidad and Tobago.

which confront the ensemble of Caribbean States. Certainly, other countries or territories of the region manifest one or more of the attributes or concerns that have been listed above in respect of Trinidad and Tobago. However, as an overall paradigm, the example of Trinidad and Tobago is as rich as any other that may be identified within the Eastern Caribbean. It must be noted too, that the factors which have been listed above, all relate to or have important implications for the implementation of the regime of the Exclusive Economic Zone.

With respect to the relevance or viability of the EEZ regime in the Eastern Caribbean context, a major theme to be examined is the possible need for, as well as the feasibility of, a regional law of the sea regime such as might more adequately respond to the vital, if complex, difficulties which confront the region.

The major reasons for this situation, are, the impossibility in most cases, of a 200 mile EEZ regime in the Caribbean, the problem of delimitation of maritime boundaries, the high costs that management of extended areas would entail and the overall paucity of marine resources in this "living desert" that is the Caribbean Sea. In this connection, the problem of boundary delimitation warrants special emphasis, for it is the demarcation of maritime boundaries that would

provide the only clear and reliable basis on which rights conferred by the 1982 Convention and by certain aspects of international customary law, can be secured and protected.

The existence of "overlapping jurisdictions", given the proximity of the states of the Eastern Caribbean each to the other, presents considerable political and other difficulties and challenges for the exploration, exploitation and management of transnationally used environments and resources. The presence of four metropolitan countries, namely France, the Netherlands, the United Kingdom and the United States of America, in the region adds a further dimension of complexity to the scenario as does the geographical propinquity of Venezuela.

The challenges of regionalism and of functional co-operation in order to maximally and equitably exploit interdependence therefore once more engage the countries of the Caribbean. The waters of the region could in this context serve in functional, and not merely geographical, terms, as the transcendent link in the Caribbean chain of islands, no longer to be viewed as a hindrance to the conduct of international relations. This thesis will identify a possible need to evolve peculiar practices and procedures for the resolution of difficulties relating to Caribbean Law of

the Sea issues and for the optimum utilization of the, albeit limited, marine resources of the region. For example, there might be a need for Caribbean states to establish delimitation procedures for application inter se and also to adopt a common policy or procedure in relation to the demarcation of maritime boundaries with third states.

The justification of this topic of research is to be found with reference to the following considerations:

First of all, this thesis is devoted to the examination of a group of geographically disadvantaged states, namely the states of the Eastern Caribbean as defined, in terms of the opportunities and challenges that have been presented by the 1982 United Nations Convention on the Law of the Sea, and in a manner more comprehensive than, to the author's knowledge, has been the case heretofore.¹⁸ Further, within this daunting set of circumstances, inheres at least a potential innovative capacity as regards the formulation of new legal theories or the actual formulation of possible international or regional legal customs, institutions, or other mechanisms.

This thesis also has the perceived merit of contributing to the cumulative detailed knowledge, in a subregional perspective, of a topic that has for long engaged the international community only at an essentially global level. In addition, this thesis,

¹⁸Certain useful, though essentially monographic works, include: Mitchell, C. and Gold, E.: The Integration of Marine Space in National Development Strategies of Small Island States: The Case of the Caribbean States of Grenada and St. Lucia. Dalhousie Ocean Studies Programme, Halifax, Nova Scotia, Canada, 1982.

though it disavows any strictly teleological motivation, nevertheless has relevance at the practical level, inasmuch as it, necessarily, contains what might be regarded as policy guidelines for the decision-makers of the respective states. The major element of the justification of this thesis will have been achieved, however, if it, at least partially, satisfies the curiosity of readers or, in some other way, reduces the demystification of a topic which, notwithstanding the sea as, arguably, the most immediately visible feature of planet earth and a vital determinant of the Caribbean pattern of existence, remains, in its political, legal, and economic implications, arcane, exotic and dominated by the concerns of only one portion of the globe namely, "Europe".¹⁹

In summary terms, this thesis explores the following major themes, all in the context of the 1982 Convention as far as its provisions might relate to the Eastern Caribbean:

- (1) The special problems relating to the delimitation of maritime boundaries;
- (2) The significance of the Exclusive Economic Zone regime to the countries and territories of the Eastern Caribbean;
- (3) Regional perspectives in marine resource management and use;
- (4) Existing and potential conflicts of national marine policy;

¹⁹ 'Europe' is intended to refer generally to the developed countries of the 'North' including the USA, Canada and the USSR.

- (5) The particular problems of small, developing island nations in the management and development of their living and non-living marine resources;
- (6) The role of regional and wider multilateral co-operation in matters relating to fisheries, preservation of the marine environment, marine scientific research and related issues.

Implicit in the selection of these major themes is a thesis which is multidisciplinary in scope, covering such varied disciplines as geography, political science, marine biology and inevitably international law. With respect to the overall structure of the thesis, Chapter I is devoted to a survey of the regime of the Exclusive Economic Zone as contained in the 1982 Convention, including the evolution of that regime and emphasising the Caribbean contribution to that process. Providing a basis for the eventual assessment of the problems presented by the EEZ regime to the island States and territories of the Eastern Caribbean, Chapter II, III and IV deal respectively with "The Caribbean Seascape and its Implications," "The Fisheries Resources of the Caribbean Sea" and "The Non-Renewable Resources of the Caribbean Sea." In the same vein, Chapter V pursues the important topic of

"Maritime Jurisdiction in the Eastern Caribbean."

Chapter VI is devoted to an indepth exploration of the problems associated with the delimitation of Exclusive Economic Zones in the Eastern Caribbean.

In Chapter VII are pursued the several implications as well as the problems presented by the Exclusive Economic Zone Regime for fishing activity in the Eastern Caribbean, while in Chapter VIII are pursued the implications and problems associated with the introduction of that regime for the third issue-area to be highlighted, namely marine scientific research. Chapter IX, the concluding Chapter, is devoted to a brief recapitulation of the dominant themes pursued in the thesis, involving a review, in necessarily summary fashion, of the assemblage of political, legal and other elements which are relevant to the Law of the Sea problematique in the Eastern Caribbean. The major purpose of this Chapter, however, is to highlight and to reinforce the conclusions of the thesis in the assigned context of the island states and territories of the Eastern Caribbean, which is the only context in which the thesis as a whole has direct meaning.

CHAPTER I

THE EXCLUSIVE ECONOMIC ZONE IN INTERNATIONAL SOCIETY

The Exclusive Economic Zone (EEZ) may be viewed as one of the two main pillars of a new legal order for the exploitation of the resources of the oceans¹ and is the subject of a specific legal regime contained in Part V of the 1982 Convention on the Law of the Sea.

According to the Convention, the EEZ

"is an area beyond and adjacent to the territorial sea, subject to the specific legal regime established in this Part..."²

With respect to the breadth of this Zone, the Convention provides that

"The Exclusive Economic Zone shall not extend beyond 200 nautical miles from the baselines from which the breadth of the territorial sea is measured."³

¹The second pillar would be, in the author's view, the concept of the "common heritage of mankind" applied to the seabed and subsoil beyond the limits of national jurisdiction. A discussion of this concept is however, beyond the scope of the present thesis.

²Article 55.

³Article 57.

On the vital issues of the rights, jurisdiction and duties of the coastal state, the Convention stipulates, inter alia,:

" 1. In the exclusive economic zone, the coastal state has:

(a) sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the sea-bed and of the sea-bed and its subsoil, and with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds;

(b) jurisdiction as provided for in the relevant provisions of this Convention with regard to:

(i) the establishment and use of artificial islands, installations and structures;

(ii) marine scientific research;

(iii) the protection and preservation of the marine environment;

(c) other rights and duties provided for in this Convention.

2. In exercising its rights and performing its duties under this Convention in the exclusive economic zone, the Coastal State shall have due regard to the rights and duties of other States and shall act in a manner compatible with the provisions of this Convention."⁴

Reflecting the balance of maritime interests in hydrospace, provisions are also included to safeguard the rights and duties of other States, in the EEZ For

⁴Article 56.

example, the Convention provides for the enjoyment, on the part of all States, subject to certain conditions, of the freedoms of navigation and overflight and of the laying of submarine cables and pipelines and other internationally lawful uses of the sea related to these freedoms as may be compatible with other provisions of the said Convention.⁵

However, in exercising their rights and performing their duties under the Convention in the EEZ, States shall have due regard to the rights and duties of the coastal State in so far as these are not incompatible with the provisions for the EEZ regime.⁶

Conflicts arising between the interests of the coastal states and any other State in cases where the Convention does not attribute rights or jurisdiction either to the coastal State or to other States within the EEZ,

"...should be resolved on the basis of equity and in the light of all the relevant circumstances, taking into account the respective importance of the interests involved to the parties as well as to the international community as a whole."⁷

⁵Article 58.1.

⁶Article 58.2.

⁷Article 59. Emphasis added.

Supplementing the rights, jurisdiction and duties of the Coastal state in the EEZ as set out in Article 56, coastal states

"...shall have the exclusive right to construct and to authorize and regulate the construction, operation and use of:

- (a) artificial islands;
- (b) installations and structures for the purposes provided for in Article 56 and other economic purposes;
- (c) installations and structures which may interfere with the exercise of the rights of the coastal State in the zone.

The coastal State shall have exclusive jurisdiction over such artificial islands, installations and structures, including jurisdiction with regard to customs, fiscal, health, safety and immigration laws and regulations."⁸

Again, reflecting the balance of interests inherent in the EEZ regime, the coastal State is required to safeguard the interests of other States which may be permitted to use the EEZ and the marine environment itself. For example,

"Due notice must be given of the construction of artificial islands, installations or structures and permanent means for giving warning of their presence must be maintained."⁹

⁸Article 60.1

⁹Article 60.3.

Further, abandoned or disused installations or structures

"shall be removed to ensure safety of navigation...Such removal shall also have due regard to fishing, the protection of the marine environment and the rights and duties of other States. Appropriate publicity shall be given to the depth, position and dimensions of any installations or structures not entirely removed."¹⁰

Coastal States are empowered to establish

"reasonable safety zones around such artificial islands, installations and structures in which it may take appropriate measures to ensure the safety both of navigation and of the artificial islands, installations and structures."¹¹

The breadth of such safety zones

"shall be determined by the coastal State, taking into account applicable international standards...and shall not exceed a distance 500 metres from each point of their outer edge, except as authorized by generally accepted international standards or as recommended by the competent international organization. Due notice shall be given of the extent of safety zones."¹²

Although,

"artificial islands, installations and structures and the safety zones

¹⁰Article 60.4

¹¹See Article 60.4

¹²Article 60.5.

around them may not be established where interference may be caused to the use of recognized sealanes essential to international navigation,"¹³

nevertheless, all ships "must respect these safety zones..."¹⁴

With respect to the conservation of the living resources of the EEZ, the Convention prescribes that the coastal State "shall determine the allowable catch of the living resources..."¹⁵ The Convention also stipulates that

"The Coastal State, taking into account the best scientific evidence available to it, shall ensure...that the maintenance of the living resources in the exclusive economic zone is not endangered by over-exploitation. As appropriate the coastal State and competent, international organizations...shall cooperate to this end."¹⁶

On the question of the utilization of the living resources of the EEZ, the Convention provides that

"The coastal States shall promote the

¹³Article 60.7.

¹⁴Article 60.6.

¹⁵Article 61.1

¹⁶Article 61.2 [Emphasis added]

objective of optimum utilization...
without prejudice to Article 61."¹⁷

The coastal State is, in accordance with the Convention, required to determine its capacity to harvest the living resources of the EEZ. This Article also provides *inter alia* that:

"Where the coastal State does not have the capacity to harvest the entire allowable catch, it shall, through agreements or other arrangements...give other States access to the surplus of the allowable catch..."¹⁸

Nationals of other States, fishing in the exclusive economic zone shall, according to the provisions of the Convention:

"comply with the conservation measures and with other terms and conditions established in the laws and regulations of the coastal States."¹⁹

Coastal States are required, according to the Convention to "give notice of conservation and management laws and regulations."²⁰

With respect to the management of stocks occurring

¹⁷Article 62.1

¹⁸Article 62.2

¹⁹Article 62.4

²⁰Article 62.5

within the EEZ of two or more Coastal States, in accordance with the Convention:

"these States shall seek, either directly or through appropriate subregional or regional organizations to agree upon the measures necessary to co-ordinate and ensure the conservation and development of such stocks..."²¹

The Convention also provides that where the same stocks of associated species occur both within the EEZ and in an area beyond and adjacent to the zone:

"...the coastal State and the states fishing for such stocks in the adjacent area shall seek, either directly or through appropriate subregional or regional organizations, to agree upon the measures necessary for the conservation of these stocks in the adjacent area."²²

The 1982 Convention also makes certain provisions for the right of landlocked and geographically disadvantaged States to participate, to some degree, in the exploitation of the resources of the EEZ's of neighbouring countries. For example, it provides that:

"Landlocked States shall have the right to participate, on an equitable basis, in the exploitation of an appropriate part of the surplus of the living resources of the exclusive economic zone's of coastal States of the same subregion or region, taking into account the relevant economic

²¹Article 63.1 [Emphasis added]

²²Article 63.2 [Emphasis added]

and geographical circumstances of all the States concerned and in conformity with the provisions of this Article and of Articles 61 and 62."²³

The provision of a similar right, in respect of geographically disadvantaged States, inter alia, defines this category of States to mean:

"...coastal States, including States bordering enclosed or semi-enclosed seas, whose geographical situation makes them dependent upon the exploitation of the living resources of the exclusive economic zone's of other States in the sub-region or region for adequate supplies of fish for the nutritional purposes of their populations or parts thereof, and coastal States which can claim no exclusive economic zone of their own."²⁴

Articles 69 and 70, however, do not apply

"in the case of a coastal State whose economy is overwhelmingly dependent on the exploitation of the living resources of its exclusive economic zone."²⁵

With respect to the enforcement of laws and regulations of the coastal State, the Convention provides that

"The Coastal State may, in the exercise of its sovereign rights to explore, exploit, conserve and manage

²³Article 69.1

²⁴Article 70(2)

²⁵Article 71.

the living resources in the exclusive economic zone, take such measures, including, boarding, inspection, arrest and judicial proceedings, as may be necessary to ensure compliance with the laws and regulations adopted by it in conformity with this Convention."²⁶

The foregoing sets out the fundamental characteristics of the regime of the EEZ. For the purpose of this thesis, it is deemed useful to explore the texture and nuances of this innovation in international law and also to examine its evolution. The merit of this exercise is to be sought in the contribution it makes to an evaluation of the EEZ and of the possibility of successfully grafting this regime on to the international legal practices of States in the Eastern Caribbean with which this thesis is specifically concerned.

When it is taken into account that, as a result of the introduction of the EEZ regime on a global scale, some two-fifths of the oceans are liable to be partitioned among nations with long coastlines as EEZs for industrial use²⁷ and that some 85 percent of maritime oil and gas reserves and fishing grounds are to be found in such zones, it is a matter of

²⁶Article 73.1

²⁷See Skriver A., "A Rendezvous with History: The Convention on the Law of the Sea" in Development and Cooperation No. 4, July/August, 1982, pp. 6-9.

considerable perplexity to be reminded that the concept of the EEZ originated in the Third World and was intended to cater for the interests of developing coastal States.²⁸

Because of the combined effect of geographic and political factors: the latter relating in this instance, mainly to the possession of overseas maritime possessions by metropolitan and necessarily developed countries, the countries which stand to benefit most from the introduction, on the global level, of the EEZ regime are in fact developed countries. For example, because of her Pacific colonial possessions, the ocean holdings of France are estimated to have been increased more than thirty times. On the other hand, only five developing countries are listed among the ten countries receiving the largest gains of ocean space as a result of the EEZ regime.²⁹ In addition, high on the list of countries ranked according to their respective gains of proven oil and gas reserves, are nations like the United Kingdom and Norway. It is fair to add, however,

²⁸See Brown, E.D., "Maritime Zones: A Survey of Claims" in Churchill, R., (ed.), New Directions in the Law of the Sea. Oceana Publications Inc., Dobbs Ferry, New York, 1973, pp. 157-192.

²⁹The ten biggest gains of ocean space are in order: USA, Australia, Indonesia, New Zealand, Canada, USSR, Japan, Brazil, Mexico and Chile. See Skriver, A. op. cit., p. 6.

that developing countries such as Saudi Arabia also score considerable gains in this regard. But how did the EEZ Regime come about? And what implications does it have for the island States and territories of the Eastern Caribbean?

The evolution of the EEZ concept as indeed of the overall International Law of the Sea, generally, owes much to the interplay of political, economic and technological factors. Political factors have contributed by virtue of the extension in the geographical and ideological dimensions of independent actors in the international community. Since the adoption, in 1960, by the United Nations General Assembly, of the Declaration on the Granting of Independence to Colonial Territories and Peoples,³⁰ new forces, interests and attitudes have been ushered on to the international stage and a new "wind of change" has been steadily ruffling the old concepts, standards and bases upon which the operation of international society was predicated. The United Nations itself, co-author of some of the forces of decolonisation has also proved to have become a "victim" of the forces it helped to unleash. Following the Granting of Independence to Colonial Territories and Peoples, the United Nations General Assembly also adopted Resolutions supportive of

³⁰U.N.G.A. Resolution 1514 (XV).

the complete independence of former colonies. These include:

- (1) The Resolution on the Permanent Sovereignty over Natural Resources;³¹
- (2) The Charter of Economic Rights and Duties of States;³²
- (3) The Declaration on the Establishment of a New International Economic Order 1974.³³

To these must be added the United Nations Convention on the Law of the Sea, 1982, which contains substantial elements of Third World aspirations for a New International Economic Order. The 1982 Convention does not merely treat purely legal niceties. Rather, it is a document with a considerable economic content and a strong resource orientation especially as regards the sharing of the resources of the oceans on terms that are deemed favourable to the developing countries.

Viewed in this perspective, the new Law of the Sea fits into the post-war international ethos in accordance with which economic development has become a concern of public international relations and consequently of international law. The new states, essentially poor, are aspiring to participate in the

³¹U.N.G.A. Resolution 1803 (XVII) 1962, itself a Declaration.

³²U.N.G.A. Resolution 3281 (XXIX) 1974.

³³U.N.G.A. Resolution 3201 (S-VI) 1974.

wealth and resources of the world: wealth and resources which have, so far, been overwhelmingly concentrated in the developed countries of Western Europe and North America. Some new concepts in the international legal glossary like that of the "Exclusive Economic Zone," have been minted by developing countries in order to promote their own economic development and carried through by virtue of the political momentum provided by their numerical superiority in the relevant international fora.

The strictly economic influence that has conditioned the evolution of the modern Law of the Sea, refers to the desire by developing coastal States, to appropriate for their economic growth needs, the resources of the sea-bed and subsoil in areas adjacent to their coasts. With respect to technological factors, it is these that have placed the resources of the seabed, living and non-living, whether on the surface or on the ocean floor, within the grasp of countries possessing, or otherwise enjoying access to the relevant technology and on terms that are economic.

It was primarily the technological factor, not unrelated to the political self-assertion of the United States of America, that provided the catalyst for the evolution of the modern Law of the Sea. Reference is here being made to the Truman Proclamations of 1945 by

virtue of which the Government of the United States of America claimed exclusive control over the seabed beyond the territorial sea out to the 200 metre isobath.³⁴

Indeed the origins of the EEZ can be traced to the Truman Proclamations of 1945, even though the regimes associated with each remain separate and distinct.

The Truman Proclamations and the Evolution
of the Law of the Sea

If Grotius, through his doctrine of Mare Liberum, conditioned state practice in the area of the Law of the Sea, Truman by virtue of his twin proclamations of 28 September, 1945, stands to be remembered to the extent that his practice and doctrine rapidly evolved into a custom of international law and found endorsement in the 1958 United Nations Convention on the Continental Shelf: that is to say within a period not much longer than a decade.

The main Truman Proclamation reads as follows:

"Whereas the Government of the United States of America, aware of the long range world-wide need for new sources of petroleum and other minerals holds the view that efforts to discover and make available new supplies of these resources should be encouraged; and

³⁴See Evriviades, E., "The Third World's Approach to the Deep Seabed" in Ocean Development and International Law, Vol, 11, Nos. 3/4, 1982, pp. 201-264.

Whereas its competent experts are of the opinion that such resources underlie many parts of the continental shelf off the coasts of the United States of America, and that with modern technological progress their utilization is already practicable or will become so at an early date; and

Whereas recognized jurisdiction over these resources is required in the interest of their conservation and prudent utilization when and as development is undertaken; and

Whereas it is the view of the Government of the United States that the exercise of jurisdiction over the natural resources of the sub-soil and seabed of the Continental Shelf by the contiguous nation is reasonable and just, since the effectiveness of measures to utilize or conserve these resources would be contingent upon co-operation and protection from the shore, since the Continental Shelf may be regarded as an extension of the land mass of the coastal nation and thus naturally appurtenant to it, since these resources frequently form a seaward extension of a pool or deposit lying within the territory, and since self-protection compels the coastal nation to keep close watch over the activities off its shores which are of the nature necessary for utilization of these resources;

Now, therefore, I, Harry S. Truman, President of the United States of America, do hereby proclaim the following policy of the United States of America with respect to the natural resources of the sub-soil and seabed of the Continental Shelf.

Having concern for the urgency of conserving and prudently utilizing its natural resources, the Government of the United States regards the natural resources, of the sub-soil and seabed of the Continental Shelf beneath the high seas but contiguous to the coasts of the United States as appertaining to the United States subject to its jurisdiction and control. In cases where the Continental Shelf extends to the shores of another state or is shared with an adjacent state, the boundary shall be determined by the United States and the State concerned in accordance with

equitable principles. The character as high seas of the waters above the Continental Shelf and the right to their free and unimpeded navigation are in no way thus affected."³⁵

That a unilateral action on the part of a single nation state, albeit an economically and militarily powerful one, in the pursuit of its self-interest, should result in the progressive development of the International Law of the Sea no longer comes as a surprise, for it is by this means that the perceived inadequacies of international law are often remedied. Thus it is seen that vested interests, and not generally accepted or recognized custom, provided the impetus to the development of the Continental Shelf Regime. This regime brings into play the importance of national interest as it relates to usufruct, to sovereignty or to the enjoyment of sovereign rights as the theoretical and politico-legal underpinning of maritime claims. The question of the status of the superjacent waters also figured in some of the post-Truman claims as will be discussed later in this thesis.

Viewed purely in historical perspective, the Truman Declarations appear to have been more than just timely. Most writers agree that the period of over

³⁵Quoted in Harris, D.J., Cases and Materials on International Law. Sweet and Maxwell, London, 1982, 2nd. ed., pp. 378-379.

three hundred years which elapsed between the publication of Mare Liberum and the Truman Proclamation had witnessed little by way of progress in the development of the Law of the Sea.³⁶ Since 1945, however, there has been a rush for the resources of the continental shelf. These include coal, oil, gas, fish, sand, gravel and even diamonds. Their discovery and their exploitability which, necessarily, had to await the development of appropriate technology, conspired to make the Continental Shelf and other shallow areas, topics of foremost legal interest. Indeed, as Harris points out,

"By 1945, it had become technically possible to drill for oil and other mineral resources in the sea-bed from the sea and the Truman Proclamation was aimed at filling a gap in international law on the legal rights and duties of states arising from that possibility."³⁷

As a matter of historical record, the legal regulation of a state's submarine areas was first encountered in international relations in the Treaty between His Britannic Majesty and the President of the

³⁶See for example Larson's 'Foreword' to Ocean Development and International Law, Vol II, Nos. 1/2, 1982, pp. 1-8.

³⁷Harris, D.J., op. cit., p. 379.

United States of Venezuela relating to the submarine areas of the Gulf of Paria, in 1942.³⁸

Nevertheless, political reaction to the legal problems attaching to the exploration of the resources of the Continental Shelf, did not emerge until the formulation of the Truman Proclamation. This having been said, it may be profitable to briefly compare both these legal instruments for there exist, in the writer's view, differences of nuances even if certain shared elements are discernible.

In the case of the Treaty between the United Kingdom and Venezuela dealing with the Gulf of Paria, this amounted essentially to an exercise in delimitation with emphasis being placed on sovereignty over the area. The Truman Proclamation had a more comprehensive and obvious resource approach with emphasis on sovereign rights. Nevertheless, as has been stated, some degree of overlap clearly exists and a major practical implication of the United Kingdom-Venezuela delimitation exercise, was the partitioning of areas within which the respective states could exploit submarine resources, namely, petroleum.

³⁸See Uchegbu, P.E.A., "The Law of the Sea and Small States in the Caribbean," in Lewis, V.A., (ed.), Size Self-Determination and International Relations: The Caribbean, Institute of Social and Economic Research, The University Of The West Indies, 1976, pp. 285-306.

In his analysis of the Truman Proclamation, Sir Cecil Hurst expressed the view that:

"...the difficulty is that the distinction between the jurisdiction and the exclusive control which he claimed and sovereignty is so small as to be little more than a question of name."³⁹

"Stripped of the semiphilosophical language in which it is so often defined in the text books, I do not think that sovereignty denotes more than the right and the determination of a State to be master in its own household and the limits, be they geographical limits within which a state is sovereign and the limits of the area within which the state is entitled to be master...what I am suggesting...is that if the rights claimed over the continental shelf and its resources were called sovereignty, they would be no more extensive than what are claimed."

Some of Sir Cecil's concerns are reflected in the intervention of the French delegate to the Sixth Committee during the Eleventh United Nations General Assembly. In that Committee, Mr. Pinto expressed the view that:

"With regard to the Continental Shelf, certain terms employed in the draft were open to criticism. The expression 'sovereign rights' (Article 68) reflected political considerations and a lack of legal precision. If such rights were exercised...the adjective 'sovereign' was unnecessary because it added nothing to the word 'rights'...the

³⁹Whiteman, Digest of International Law, Vol. 4, p. 841.

expression 'sovereign rights' was contradictory because it implied that the state concerned had discretionary and arbitrary powers rather than rights."⁴⁰

The outcome of this semantic rift between thinkers and doers will be reverted to during the review of the 1958 Continental Shelf Regime which confers "sovereign rights" on the coastal state. Suffice it to say, for the present, that the Truman Proclamation brought in its wake, a series of more or less comprehensive claims to maritime jurisdiction.⁴¹

In the words of one writer,

"Science had laid bare the hidden environment of the deep oceans and seabeds; technology had put their riches at man's reach. But the wealth of the oceans was beyond the limits of national sovereignty, beyond the limits of the classical concept of ownership."⁴²

⁴⁰Summary record of 493rd Meeting of Sixth Committee of the Eleventh UNGA, 7th December, 1956, p. 56.

⁴¹It is only fair to point out that the debate on the continental shelf can be traced back to the 18th century and before. Further, as in the case of the Pearl Fisheries Ordinance of Ceylon, 1925, certain exclusive claims have been recorded. It was however the discovery of minerals which led to the more modern comprehensive claims plus, of course, technological developments.

⁴²See Mann Borgese, E. "Boom, Doom and Gloom Over the Oceans: The Economic Zone, the Developing Nations, and the Conference on the Law of the Sea," in San Diego Law Review, Vol II, No. 3, 1974, pp. 541-556.

It is this kind of perceived lacuna in the existing International Law of the Sea that prompted states to unilateral action seeking to ensure thereby the progressive development of that law.

By 1946, Argentina and Panama had declared sovereignty over the "epicontinental area and continental shelf."⁴³

On 23rd June, 1947, Chile declared sovereignty over the Continental Shelf and its resources. In this connection, the Chilean Government

"Confirms and proclaims its national sovereignty over the seas adjacent to its coasts whatever may be their depths, and within those limits necessary in order to reserve, protect, preserve and exploit the natural resources of whatever nature found on, within and below the said seas, placing within the control of the government especially all fisheries and whaling activities with the object of preventing the exploitation of natural riches of this kind to the detriment of the inhabitants of Chile and to prevent the spoiling or destruction of the said riches to the detriment of the country and the American Continent."⁴⁴

Chile also announced its right to demarcate "protection zones for whaling and deep sea fisheries in

⁴³See, Decree No. 14708 of 11 October, 1946 in the Argentinian Boletín Oficial of 5 December, 1946.

⁴⁴See Presidential Declaration of 23 June, 1947, quoted in Whiteman, Digest of International Law, Vol. IV, p. 795.

the continental and island seas" within 200 nautical miles of Chilean territory.⁴⁵

Within little more than a month of the Chilean Declaration, Peru, in August 1947, claimed sovereignty over a 200 mile zone.⁴⁶ El Salvador and Honduras followed.

In 1949, there were nine jurisdictional claims by British-protected states in the Persian Gulf. Then Britain issued a claim with respect to the submarine areas of the Bahamas. Australia did likewise citing sedentary fisheries among the natural resources of the seabed falling under its jurisdiction. Iceland and South Korea also extended their marine jurisdiction. In this context, special mention might be made of the Santiago Declaration of 1952.⁴⁷ This declaration was ratified by Ecuador, Peru and Chile. These countries proclaimed:

"as a principle of their international marine policy that each of them possesses sole sovereignty and jurisdiction over the area of the sea adjacent to the coast of its own country and extending not less than

⁴⁵Idem.

⁴⁶Supreme Decree No. 781 of August 1, 1947.

⁴⁷The Declaration was signed at the First Conference on the Exploitation and Conservation of the Maritime Resources of the South Pacific, Santiago, 18 August, 1952.

200 nautical miles from the said coast."

This tripartite Declaration might be viewed as an element of codification, quite apart from its calculated political impact of reinforcing previously stated extended maritime claims. At the Second Conference on the Exploitation and Conservation of the Maritime Resources of the South Pacific held in Lima on 4 December 1954, Chile, Ecuador, and Peru signed an agreement supplementary to the 1952 Declaration of Sovereignty over the Maritime Zone of 200 miles. According to the terms of this Agreement, the Parties:

"shall consult with one another for the purpose of upholding, in law, the principle of their sovereignty over the maritime zone to a distance of not less than two hundred nautical miles, including the seabed and subsoil corresponding thereto..."⁴⁸

On the specific issue of national interest as a conditioning factor of state practice, it is interesting to examine the positions adopted, in the main, by the United States of America and the United Kingdom, which are representative of maritime states on the one hand, and those adopted by the Latin American States on the other.

⁴⁸See Oda S., The International Law of the Ocean Development: Basic Documents. Vol II, Sijthoff, Leiden, 1975, pp. 31-32.

The maritime states, intent upon keeping the seas as "open" as possible in furtherance of their commercial, naval and strategic interests, have shown themselves to favour a continental shelf regime which, having provided for the exploitation of resources, involves minimum control over the continental shelf. They wished to maintain the "high seas" status of superjacent waters and it is for this reason that they lend support to the theory of usufruct.

Developing countries, on the other hand, have largely opted for a regime bordering on sovereignty in relation to the continental shelf. As has been stated in the earlier discussion on the "freedom of the seas", this concept served to feed the seemingly ever growing appetites of the more technologically advanced nations. Sovereignty or exclusive control was the legal guarantee sought by the developing countries to rectify that imbalance.

Further, in the case of the countries on the Pacific Coast of South America, where steep mountains reach down to the sea, there is little or no continental shelf. Therefore, as a response to the Truman Proclamation, countries like Chile and Peru felt justified in claiming exclusive jurisdiction over "superjacent waters." Thus, geographical factors in large measure determined the nature and requirements of

the national interest with the inevitable consequences for state practice.

The final word on the point of "interest" as conditioning factor in state behaviour must go to Friedmann for whom:

"In the present as it has done in the past, and will do in the future, a status of economic under-development will produce certain attitudes and approaches toward international law which will change or even be reversed as the underlying conditions change."⁴⁹

The same writer also expresses the view to the effect that

"the so-called Latin American approach to international law is little more than a rationalisation of certain attitudes produced by the politically and economically under-privileged position of the Latin American States vis-a-vis the major powers of North America and Western Europe."⁵⁰

It is interesting to note that, in the past, where conflicts arose between "territorial sovereignty" and "freedom of the seas", it was the powerful maritime nations which determined the boundary between them. In the modern situation, however, the lesser developed

⁴⁹See Friedmann, W., The Changing Structure of International Law, Stevens, London, 1964.

⁵⁰Friedmann, W., op. cit.

countries of the international community enjoy a position of substantial influence in these issue-areas.

By way of summary, this sub-section on the Truman Proclamations and the development of the regime of the Continental Shelf was undertaken to illustrate four main sets of factors. The first refers, historically and legally, to the absence in classical international law of concepts and doctrines such as would meet the needs of modern international society. The impact of technology on the development and transformation of the law must also be noted.

The second set of factors follow from the first and relate to the elaboration of new legal concepts, regimes and norms of international law. This is the purely legal or juristic level.

Thirdly, at the political level, the attitudes of states such as the United States of America and those from Latin America, in response to the filling of gaps in international Law of the Sea, are also relevant.

Finally, underlying all the above are considerations of national interest (sovereignty) which have determined the state practice of both developed and developing nations. It is this fact in particular, that has given the modern Law of the Sea such a powerful resource orientation.

The substance of the Truman Proclamation was universalized in the Convention on the Continental Shelf which emerged at the First United Nations Conference on the Law of the Sea (UNCLOS I) held in 1958.

With respect to the outcome of the competing claims of sovereignty or state jurisdiction, on the one hand, and of freedom of the seas or international regulation on the other, the 1958 Convention on the Continental Shelf states quite categorically that

"The Coastal State exercises over the continental shelf sovereign rights for the purpose of exploring and exploiting its natural resources."⁵¹

The earlier discussion of the precise nature of these rights is also recalled, pointing to the belief entertained by some, that the 1958 Convention on the Continental Shelf confers upon coastal states the equivalent of sovereign control over the seabed and subsoil of their continental shelves for exploration and exploitation of natural resources.

The importance of the Convention on the Continental Shelf is that it represents perhaps the major agreement reached at UNCLOS I, especially inasmuch as it gave recognition to increased national claims to resources which had hitherto been deemed to

⁵¹Article 2

fall within the purview of the "freedom of the seas" doctrine.

This having been stated, it must be noted that the Convention on the Continental Shelf refrained from granting full territorial sovereignty which would have been but a short step to the granting of sovereignty over the superjacent waters and the airspace.⁵² In fact, that Convention stipulates that the status of superjacent waters as high seas is not affected nor is the legal status of the airspace.⁵³

Again, qualifying the nature of the rights enjoyed by coastal states, the Convention on the Continental Shelf identifies the particular natural resources to which coastal states have legal access.⁵⁴

The 1958 Convention on the Continental Shelf also qualifies the rights enjoyed by coastal states with respect to continental shelves falling under their jurisdiction.⁵⁵ For example, it provides for the observance of the traditional high seas freedom of laying or maintaining submarine cables or pipelines,

⁵²This point is made by Uchegbu in The Law of the Sea and Small States in the Caribbean, op.cit.

⁵³Article 3

⁵⁴Article 2.4

⁵⁵Article 4 and 5

and stipulates that the exploration and exploitation of the natural resources of the continental shelf

"must not result in any unjustifiable interference with navigation, fishing or the conservation of the living resources of the sea, nor result in any interference with fundamental oceanographic or other scientific research carried out with the intention of open publication."⁵⁶

Thus all the major "high seas freedoms" remained intact.

By way of summary, then, it may be observed that coastal States were granted over the continental shelf sovereign rights for the purpose of exploring it and exploiting its natural resources - a specialized functional competence. In addition a provision was made for the continued enjoyment of certain traditional freedoms of the high seas.

In addition to the Convention on the Continental Shelf, three other Conventions were adopted at UNCLOS I, among them the Convention on Fishing and Conservation of the Living Resources of the High Seas. It was due, in part, to major inadequacies manifested in these Conventions as well as the Convention on the Continental Shelf that further changes in the International Law of the Sea received considerable impetus.

⁵⁶Article 5

The doctrine of the Continental Shelf had a rapid evolution inasmuch as it met the perceived needs of the international community as it then stood. The concept of the "continental shelf" as has been earlier mentioned, was unknown to classical international law up to the eve of World War II. Yet, even before the adoption of the Convention on the Continental Shelf in 1958, the doctrine had already crystallized into a principle of customary international law.

Major inadequacies of the Convention on the Continental Shelf arise from the imprecision of its legal limits. This Convention defines the continental shelf with respect to two criteria: geographical on the one hand and economic or technological on the other. These criteria refer firstly to "the seabed and subsoil of the submarine areas adjacent to the coast but outside the area of the territorial sea, to a depth of 200 metres" and secondly, the seabed and subsoil beyond the 200 metre limit "to where the depth of the superjacent waters admits of the exploitation of the natural resources of the said areas."⁵⁷

The 200 metre isobath which has been described "as one of the two corner stones of the 1958 Geneva

⁵⁷Article 1.

Convention provisions"⁵⁸ is highly uneven in terms of the distance offshore at which it occurs. On the basis of this measure, a few states gain large areas of continental shelf while others gain but little. The main beneficiaries have been calculated to be Canada, Indonesia, Australia, the United States of America, U.S.S.R., Argentina, China, Brazil, the United Kingdom and Japan. Together, these ten countries account for fifty-one percent of the total continental shelf area of the oceans included within the 200 metre isobath.⁵⁹

With respect to the exploitability criteria, its application benefits mainly the technologically advanced countries which have the capability to continuously advance seaward their respective national limits. Developing countries therefore felt themselves to be at a disadvantage. The exploitability criteria also proved inadequate to the extent that its elasticity places the geographical limits of the legal seabed area somewhat in doubt.

Notwithstanding the above, however, the exploitability criteria reflects a compromise that was

⁵⁸See Alexander L., "Future Regimes: A Survey of Proposals" in Churchill, R., et al (eds.), New Directions in the Law of the Sea, Vol. III, Oceana Publications Inc., Dobbs Ferry, New York, 1973, pp. 119-133.

⁵⁹Idem.

effected to meet the needs of countries such as Chile and Peru, whose contiguous areas plunge to depths of over 200 metres, or of Norway, off whose coasts occur a deep submarine canyon with shallow areas lying further out to sea.

Another inadequacy of the Convention on the Continental Shelf, together with the other 1958 Conventions, is that they did not specify the status of the deep seabed beyond the Continental Shelf. It follows, therefore, that no regime was created with respect to the seabed beyond national limits.

With respect to the definition of the natural resources contained in the Convention on the Continental Shelf,⁶⁰ this Convention appears to have rejected the claims of such countries as Argentina, Chile and Iceland which were interested in securing exclusive rights over the natural resources of the high seas above the continental shelf. This perceived inadequacy of this Convention found expression in the urging of comprehensive claims, not only by the countries just mentioned, but also by a large number of developing states.

A further perceived inadequacy of the Convention on the Continental Shelf especially with relation to its Article 2.4, is exemplified by the reaction of

⁶⁰Article 2.4

Japan to this Convention. In this context, Japan's national interest in distant and offshore fisheries was sufficient to lead it to oppose the definition of "natural resources" as enshrined in that Convention and consequently to refrain from adhering to the Convention. Canada, for its part, signed the Convention but did not ratify it for some twelve years. This, of course, is related to that country's activities in the Arctic archipelago.⁶¹

In the main, therefore, the inadequacies of the 1958 Convention on the Continental Shelf arose from the lack of precision with respect to its limits, the nature of the definitions it employs, problems relating to delimitation and the absence of any reference to the status of or a regime to govern the seabed beyond the limits of national jurisdiction.

With respect to the Convention on Fishing and Conservation of the Living Resources of the High Seas, one of its major inadequacies is reflected in the fact that, some twenty years after its adoption by UNCLOS I, the Convention had been ratified by a mere thirty-five states. Most of the smaller coastal States of Asia, Africa and Latin America declined to ratify this Convention which, because of the limits placed on the

⁶¹See Buzan, B., "Canada and the Law of the Sea," *ODIL*, Vol. II, Nos. 3/4, 1982, pp. 149-180.

rights of coastal states in its provisions, was interpreted as being inimical to their national interests. In the words of Anand, the Convention was thus "almost ignored in practice by all those to whom it was particularly relevant."⁶²

In the Convention on Fishing and Conservation of the Living Resources of the High Seas, mention was made of the recognized "special interest" of the coastal state "in the maintenance of the productivity of the living resources in any area of the high seas adjacent to its territorial sea."⁶³ It is however the case that, notwithstanding this recognition, the Convention failed to adequately cover the perceived interests of the coastal states. The main reason for this is that the Convention was the result of a conflict of national interests and that the law as formulated reflected the preponderant influence of developed, distant-water fishing nations. The "Third World" as a political force was to await the process of decolonisation.

Reflecting the inadequacies of the international legal regime of the sea as adopted at UNCLOS I are

⁶²See Anand R.P., "The Politics of a New Legal Order for Fisheries" in ODIL, Vol. I, Nos. 3/4, 1982, p. 275.

⁶³Article 6

certain major developments which may be listed as follows:

1970: i) The Montevideo Declaration of Principles on the Law of the Sea.

: ii) The Lima Declaration on the Law of the Sea. These Declarations reiterated "the right of the coastal state to establish the limits of its maritime sovereignty or jurisdiction."

1971: i) The Organisation of African Unity "confirmed the inalienable right of the African Countries over the fishery resources of the Continental Shelf surrounding Africa."

ii) The Asian-African Legal Consultative Committee supported Kenya's suggestion of coastal state jurisdiction within a two hundred mile exclusive economic zone.

1972: i) The Declaration of Santo Domingo by ten (10) Caribbean States, supporting a "patrimonial sea" extending 200 miles.⁶⁴

ii) The African States Regional Seminar on the Law of the Sea (Yaounde) declared the right of African States to establish an EEZ with exclusive jurisdiction to control and regulate pollution and the living resources of the sea.⁶⁵

⁶⁴The supporting states were: Colombia, Costa Rica, Dominican Republic, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Trinidad and Tobago and Venezuela. Abstaining were: Barbados, El Salvador, Guyana, Jamaica and Panama.

⁶⁵The conclusions adopted at this seminar are set out in Oda, S., The International Law of the Ocean Development, Vol. II, Sijthoff, Leiden, 1975, pp. 23-25.

1973: The O.A.U. Council of Ministers adopted the EEZ concept.⁶⁶

1974: First substantive session of UNCLOS III. The concept of EEZ was generally supported by African and Latin American States.

The above listed developments reflect the self-interest of the coastal states in rectifying the perceived international imbalance with respect to the International Law of the Sea. The rationale provided by the Kenyan delegate with respect to the EEZ puts the matter quite succinctly. In his view,

"The exclusive economic zone is an attempt at creating a framework to resolve the conflict of interests between the developed and the developing countries in the utilization of the sea. It is an attempt to formulate a new jurisdictional basis which will ensure a fair balance between the coastal states and other users of the neighbouring waters."⁶⁷

By the time the first working Session of UNCLOS III had convened in Caracas in 1974, the right of coastal states to claim an Exclusive Economic Zone of 200 nautical miles, had already received the

⁶⁶The text of the O.A.U. Declaration is set out in extenso in Oda, S., The International Law of the Ocean Development: Basic Documents, Vol. II, Sijthoff, Leiden, 1975, pp. 26-30.

⁶⁷Report of the 13th Session of Asian-African Legal Consultative Committee, Lagos, January, 1972, p. 24.

overwhelming support of the developing countries as well as of certain developed countries.

Severe opposition to the concept was however maintained by the group of landlocked countries which sought to maintain traditional rights of access to the resources of areas of high seas which would no longer be available under an EEZ regime. Opposition to the EEZ concept was also voiced by certain coastal states which complained of a similar type of disadvantaged status vis-a-vis the landlocked countries, since, given the geographical proximity of their neighbours, there were but narrow margins of water confronting their coasts. In cases where larger areas of water intervened between neighbouring countries, these were claimed to be poorly endowed with resources. The position adopted by these countries in the matter was to the effect that their acceptance of the EEZ concept would be contingent upon a guarantee of their continued access to such areas of ocean space. Within the Caribbean, for example, Jamaica expressed the view that it would accept the EEZ regime provided that there would be enshrined in the relevant provisions a corresponding right for neighbouring disadvantaged states to exploit the living resources of the zone.⁶⁸

⁶⁸See Vol. III of Report of the Seabed Committee in UN Doc. A/9021.

Significantly, Jamaica had abstained during the vote for the adoption of the Santo Domingo Declaration of 1972 and expressed reservations on the relevance of the concept of the patrimonial sea, endorsed by that Declaration, to the particular circumstances of the Caribbean geographical configuration. The Jamaican position may be understood with reference to the following.⁶⁹

- (i) Jamaica is a "sea-locked" country which can attain the full radius of 200 miles patrimonial sea only in certain areas off its coast.
- (ii) The implementation of a 200 mile patrimonial sea would have the effect of removing traditional rights of access hitherto enjoyed by Jamaica, with respect to the fisheries resources off the coasts of such countries as Colombia, Honduras and Nicaragua. Further, the waters around the Jamaican coast are not themselves rich in fisheries resources.
- (iii) The extension of coastal state maritime jurisdiction would reduce the extent of the area beyond national jurisdiction which, according to Resolution 2749 (XXV) of the General Assembly of the United Nations, was to be considered the "common heritage of mankind": a concept whose implementation was expected to benefit in financial terms the countries of the developing world.
- (iv) Jamaica was of the view that on the basis of a patrimonial sea regime no new privileges or rights would accrue to it in

⁶⁹This section owes a debt to observations made by participants including Jamaican discussion-leaders, at a Training Programme on the "Management of the EEZ in the Caribbean" sponsored jointly by the Commonwealth Secretariat and CARICOM. This programme took place in Ocho Rios, Jamaica during the period 2-18 April, 1984.

addition to those already enjoyed under the 1958 Convention on the Continental Shelf, for example.

It was on the basis of the foregoing rationale that Jamaica proposed the alternative concept of a "matrimonial sea" for the Caribbean. Under this regime, all States bordering the Caribbean Sea would, on a common and equal basis, exploit the living and non-living resources of the sea. This aspect of the Jamaican proposal was rejected at Santo Domingo and Jamaica thereafter concentrated its efforts on obtaining rights to the living resources of the patrimonial sea of other states. Trinidad and Tobago was the only Commonwealth Caribbean country to vote in favour of the Santo Domingo Declaration.

It is the author's view, however, that had a satisfactory provision with respect to rights of access to living resources been included in the Declaration of Santo Domingo, such countries as Barbados, Guyana and Jamaica would have become signatories. It is also the author's view that the absence of a co-ordinated position on the part of the Commonwealth Caribbean States explains why Trinidad and Tobago, having supported the Declaration of Santo Domingo, was able to alter its position in pursuit of its national interest as perceived, thereby voting against the draft articles incorporating the terms of the Declaration when they

were introduced by Colombia, Mexico and Venezuela at the 1973 Spring Session of the Sea-bed Committee. Co-sponsorship of the draft articles could reasonably have been expected to evoke strong reactions from Trinidad and Tobago's Commonwealth Caribbean colleagues whose positions were similar and with whom Trinidad and Tobago had been negotiating jointly.

Notwithstanding this, however, in the negotiating process for the reconciliation and accommodation of the positions of the Latin American group as defined by the United Nations, Trinidad and Tobago played what might be described as a pivotal role. By virtue of its signature of the Santo Domingo Declaration, it had a foot in the 200 mile EEZ camp. Yet, as a small distant-water fishing country, it had identified with the interests of countries such as Barbados, Cuba, the Dominican Republic and Jamaica in seeking preferential access to the 200-mile EEZs of other regional states.

With respect to the Jamaican proposal of preferential rights of access for states to a regional EEZ, this really stood little chance of success. Countries, such as Argentina, Brazil, Ecuador and Mexico and Peru, which are relatively well-endowed with fisheries resources, were certain to find this proposal unacceptable, thus withholding Latin American support which was so vital to the success of any such proposal.

Peru, for its part, appeared to be more fearful of Chilean fleets fishing preferentially in its waters rather than those of small Caribbean States. Similarly, on the basis of political and other considerations, Brazil would conceivably not have wished to accord Cuban fleets preferential rights of access to its fishing and shrimping grounds.

In Africa, Asia and Latin America, support for extended maritime jurisdiction on the part of coastal states was neither always total nor uniform. The Declaration of Santo Domingo was drafted in a forum including "Territorialist States" such as El Salvador and Panama who favoured a territorial sea of 200 miles. In fact, El Salvador had long passed legislation claiming a territorial sea of 200 miles, conceived in what might be called "special" as opposed to classic or traditional doctrine. This attitude, shared by certain other States, betrayed a conviction of a fundamental right to the exercise of sovereignty and not the lesser juridical concept of sovereign rights over a 200 mile territorial sea.

With respect to the position of El Salvador, the delegate of that country to UNCLOS III has clarified that

"...its constitution does not use the term territorial sea; it declares that the adjacent sea from the coast to the 200 miles is part of the

national territory...The constitution of El Salvador fully recognizes the freedom of navigation. The historical background of that constitution demonstrates that its main and sole purpose was to claim and economic zone."⁷⁰

Within UNCLOS III, there was formed, after the first working session, a group of "Landlocked and Geographically Disadvantaged States" (the LLGDS Group). This group comprised over fifty countries from the developed as well as from the developing world and represented the five regional groups of the Conference, namely, Africa, Asia, Eastern Europe, Latin America and Western Europe and "Others". In the political context of UNCLOS III, there soon emerged as a counter to the LLGDS Group, a "Group of Coastal States" (GCS). Like its adversary group, the GCS contained the developing and developed countries. However, it contained representatives only of the African, Asian, Latin American and Western European and other Groups. The GCS membership numbered some 90 and included such countries as Mexico and Peru from Latin America as well as Indonesia, Kenya, Mauritius, Norway and Tanzania.

⁷⁰Galindo-Pohl, R., et al, Pacem in Maribus in the Caribbean: The Tides of Change; Peace, Pollution and Potential of the Oceans. Mason and Charter, New York, 1975 Pacem in Maribus is the annual conference of the International Ocean Institute, Malta.

The LLGDS Group included Jamaica, the only Caribbean member, as well as Austria, Bolivia, Czechoslovakia, Poland, Singapore, Swaziland, and Zambia. With reference to the Caribbean, countries like Barbados and Trinidad and Tobago, which participated in UNCLOS III and which are also geographically disadvantaged, were not members of the LLGDS Group. Guyana, from the commencement of the Conference, because of its favourable geographical position and the consequent possibility of acquiring exclusive economic access to vast expanses of maritime space, had expressed its support for the EEZ concept. Its domestic legislation providing for a Guyanese 200 mile Fisheries Zone with the option of declaring an EEZ, was passed in 1977. Barbados did likewise in 1978.

Clearly, geography rather than ideology or economic status proved, generally, to be the most important factor which hindered the achievement of a consensus on this matter, involving, as it did, the harmonisation of several divergent positions representing the interests of different types of countries, thus making rivalry a dominant characteristic of the relationship as among developing countries on this issue.

The claims advanced by such LLGDS states as Bolivia, Uganda, and Zambia for access, not only to the living but also the non-living resources of other States, were rejected by the GCS countries. Those LLGDS States had pressed for regional economic zones, a proposal which rather resembled the concept of the "matrimonial sea" advanced but later abandoned by Jamaica.

It must also be recalled that the question of the right of access to the living resources of the EEZs of neighbouring States by landlocked and other States with special geographic characteristics constituted one of seven "hard-core" issues that delayed the completion of the work of UNCLOS III.

The triumph of the unigovernmental EEZ at the close of UNCLOS III is now a matter of historical record. Indeed, by August 1977 the Governments of Chile, Ecuador and Peru found it possible to issue a Joint Communique

"to express their satisfaction at the fact that the Santiago Declaration, which meant the starting-point of a new Law of the Sea for the benefit of the international community, reaches its 25th Anniversary surrounded by a world-wide acknowledgement of its principles."⁷¹

⁷¹See Joint Communique issued by the Embassies of Chile, Ecuador and Peru in Vienna, 18th August, 1977.

Elsewhere in the joint communique, with reference to what was termed "the 200 mile-tenet", the Government of Chile, Ecuador and Peru noted that

"this tenet has been taken over by the United Nations Conference on the Law of the Sea, which is leading to the implementation of a new Law of the Sea, as an instrument of economic and social justice and of development throughout the world."

Further,

"the tenet of sovereignty and jurisdiction over a 200 mile area has received and is still receiving, a wide and significant backing from countries in all geographical regions, which adapted it to the specific realities and needs of their peoples."

Such was the situation in 1977. By 1978, as UNCLOS III reached its chronological half-way mark, EEZs of 200 miles had been declared by over 40 States, in conjunction with which must be considered the claims of a 200 mile Territorial Sea on the part of a dozen States. The global position in 1978 with respect to claims involving the Territorial Sea, Economic Zones and Fisheries is set out in Table I.

Chile	12 (1978)	200 (1978)
Colombia	12 (1978)	200 (1978)
Ecuador	12 (1976)	200 (1976)
Congo	200 (1978)	
Costa Rica	12 (1975)	200 (1975)
Cuba	12 (1977)	200 (1977)
Cyprus	12 (1964)	
Czechoslovakia	No coast	
Dominican Republic		
Guatemala	12 (1982)	200 (1982)
Guinea-Bissau		
Rep. Korea	12	200 (1977)

TABLE I

GLOBAL POSITION ON THE BREADTH OF NATIONAL JURISDICTION
WITH DATES OF ENTRY INTO FORCE (1978)

STATE	TERRITORIAL SEA	ECONOMIC ZONE	FISHING LIMITS
Afghanistan	No coast		
Albania	15 (1976)		
Algeria	12 (1963)		
Angola	20 (1976)		200 (1976)
Argentina	200 (1976)		
Australia	3 (1978)		12 (1967)
Austria	No coast		
Bahamas	12 (1977)		200 (1977)
Bahrain	3		
Bangladesh	12 (1974)	200 (1974)	
Barbados	12 (1977)	200 (1977)	
Belgium	3		12 ¹
Benin	200 (1976)		
Bhutan	No coast		
Bolivia	No coast		
Botswana	No coast		
Brazil	200 (1970)		
Bulgaria	12 (1951)		
Burma	12 (1968)	200 (1977)	
Burundi	No coast		
Byelorussia	No coast		
Canada	12 (1970)		200 (1977)
Cape Verde	12 (1978)	200 (1978)	
Central African Empire	No coast		
Chad	No coast		
Chile	3		200 (1947)
China	12 (1978)		
Colombia	12 (1970)	200 (1978)	
Comoros	12 (1976)	200 (1976)	
Congo	200 (1977)		
Costa Rica	12 (1975)	200 (1975)	
Cuba	12 (1977)	200 (1977)	
Cyprus	12 (1964)		
Czechoslovakia	No coast		
Democratic Kampuchea	12 (1969)	200 (1978)	
Dem. People's Rep. Korea	12	200 (1977)	

STATE	TERRITORIAL SEA	ECONOMIC ZONE	FISHING LIMITS
Democratic Yemen	12 (1970)	200 (1978)	
Denmark	3 (1812)		200 ² (1977) (Baltic Sea)
Djibouti	12 (1971)		
Dominican Republic	6 (24 conti- guous zone)	200 (1977)	
Ecuador	200 (1966)		
Egypt	12 (1958)		(necessary supervision zone)
El Salvador	200 (1950)		
Equatorial Guinea	12 (1970)		
Ethiopia	12 (1953)		
Fiji	12 (1978) Straight baselines surrounding archipelago		200 ³ (1978)
Finland	4 (1956)		12
France	12 (1971)	200 ⁴ (1977 and 1978 except for Mediterranean)	
Gabon	100 (1972)		
Gambia	50 (1969)		200 (1978)
German Dem. Republic	3		Up to median line (1978)
Federal Rep. of Germany	3		200 (1977)
Ghana	200 (1977)		
Greece	6 (1936)		
Grenada	12 (1978)	200 (1978)	
Guatemala	12 (1934)	200 (1976)	
Guinea	200 (1977)		
Guinea-Bissau	12 (1978)	200 (1978)	
Guyana	12 (1977)	200 (1977)	
Haiti	12 (1972)	200 (1977)	
Holy See	No coast		
Honduras	12 (1965)		200 (1951)
Hungary	No coast		
Iceland	4		200 (1975)

STATE	TERRITORIAL SEA	ECONOMIC ZONE	FISHING LIMITS
India	12 (1967)	200 (1977)	
Indonesia	Straight baselines surrounding archipelago		
Iran	12 (1959)	Outer limits of superjacent waters of continental shelf (1973). Median Line in Sea of Oman (1977)	
Iraq	12 (1958)		
Ireland	3 (1959)		200 ⁵ (1977)
Israel	6 (1956)		
Italy	12 (1974)		
Ivory Coast	12 (1977)	20 (1977)	
Jamaica	12 (1971)		
Japan	12 (1977)		200 (1977)
Jordan	3 (1943)		
Kenya	12 (1969)	200 (28 Feb. 1979)	
Kuwait	12 (1967)		
Lao People's Dem. Rep.	No coast		
Lebanon	No legislation		
Lesotho	No coast		
Liberia	200 (1976)		
Libya	12 (1959)		
Liechtenstein	No coast		
Luxembourg	No coast		
Madagascar	50 (1973)	200 (1978)	
Malawi	No coast		
Malaysia	12 (1969)		
Maldives	Territorial limits defined by geographi- cal coordi- nates (about 3-55 miles)	Areas defined by geographi- cal coordi- nates (about 100- 150 miles)	

STATE	TERRITORIAL SEA	ECONOMIC ZONE	FISHING LIMITS
Mali	No coast		
Malta	12 (1978)		20 (1975)
Mauritania	30 (1972)	200 (1978)	
Mauritius	12 (1972)	200 (1977)	
Mexico	12 (1969)	200 (1976)	
Monaco	12		
Mongolia	No coast		
Morocco	12 (1973)		70 (1973)
Mozambique	12 (1976)	200 (1976)	
Nauru	12 (1972)		
Nepal	No coast		
Netherlands	3 (1889)		200 (1977)
New Zealand	12 (1977)	200 (1978)	
Nicaragua	3		200 (1965)
Niger	No coast		
Nigeria	30 (1971)		
Norway	4 (1812)	200 (1977)	
Oman	12 (1972)		200 (1977)
Pakistan	12 (1966)	200 (1977)	
Panama	200 (1967)		
Papua New Guinea	12 (1978)	200 (1978)	
Paraguay	No coast		
Peru	200 (1965)		
Philippines	In accordance with treaties of 1898, 1900 and 1930. Straight baselines surrounding archipelago (1961)		
Poland	12 (1978)		Up to median line (1978)
Portugal	12 (1977)	200 (1977)	
Qatar	3		Outer limits of superjacent waters of continental shelf 1974.
Republic of Korea	12 (1978)		200 (1978).
Romania	12 (1951)		
Rwanda	No coast		
Samoa	12 (1971)	200 ³ (1977)	

STATE	TERRITORIAL SEA	ECONOMIC ZONE	FISHING LIMITS
San Marino	No coast		
Sao Tome and Principle	12		
Saudi Arabia	12 (1958)		
Senegal	150 (1976)	200 (1976)	200 (1976)
Seychelles	12 (1977)	200 (1977)	
Sierra Leone	200 (1971)		
Singapore	3 (1878)		
Solomon Islands			200 (1978)
Somalia	200 (1973)		
South Africa	12 (1977)		200 (1977)
Spain	12 (1977)	200 (1978)	
Sri Lanka	12 (1971)	200 (1977)	
Sudan	12 (1960)		
Suriname	12 (1978)	200 (1978)	
Swaziland	No coast		
Sweden	4 (1979)		200 (1978)
Switzerland	No coast		
Syria	12 (1964)		12 + 6 (necessary supervision zone)
Thailand	12 (1966)		
Togo	30 (1977)	200 (1977)	
Tonga	Territorial limits defined by geographi- cal coordi- nates (173°- 177°W and 15°- 23° 30'S) (1887)		
Trinidad and Tobago	12 (1969)		
Tunisia	12 (1973)		
Turkey	6 (12 Black Sea) (1964)	12 (1964)	
Uganda	No coast		
Ukraine	12		200
USSR	12 (1909)		200 (1977)
United Arab Emirates	3 (12 miles in case of Sharga)		
United Kingdom	3 (1878)		200 ⁶ (1977)
United Republic of Cameroon	50 (1974)		

STATE	TERRITORIAL SEA	ECONOMIC ZONE	FISHING LIMITS
United Republic of Tanzania	50 (1973)		200 ⁷ (1977)
United States	3 (1793)		
Upper Volta	No coast		
Uruguay	200 (1969)		
Venezuela	12 (1956)	200 (1978)	
Viet Nam	12 (1977)	200 (1977)	
Yemen	12 (1967)		
Yugoslavia	10 (1965)		
Zaire	12 (1974)		
Zambia	No coast		

¹Although the European Economic Community voted to extend member States fishing limits to 200 nautical miles, it has not yet been confirmed whether Belgium has implemented an extended fishery jurisdiction.

²Includes Greenland and Faroe Islands.

³Not yet implemented.

⁴Includes overseas department and dependencies.

⁵Ireland, in addition, has claimed a 50 nautical mile exclusive fishing zone.

⁶Includes Bermuda, British Virgin Islands and Cayman Islands.

⁷Includes Puerto Rico, United States Virgin Islands, American Samoa, Guam, Johnston Atoll, Wake Islands, Jarvis Islands, Howland and Baker Islands.

Source: United Nations Department of Public Information, Press Section, Reference Paper No. 18, 1978. pp. 49-54.

By mid 1984 the number of 200 mile maritime claims had increased to over 60. Again, in this connection, the 200 mile Territorial Sea claims of El Salvador and Panama must be borne in mind.

A list of maritime claims with respect to the Territorial Sea, Fishing Zones and Exclusive Economic Zones of States bordering the Caribbean Sea is set out in Table II.

	TERRITORIAL SEA miles	FISHING ZONES miles	ECONOMIC ZONE miles
CARIBBEAN STATES			
Antigua & Barbuda	12 (1983)	200 (1983)	200 (1983)
Bahamas	3 (1978)	200 (1977)	
Barbados	12 (1977)		200 (1977)
British Virgin Islands	3 (1978)	200 (1977)	
Cayman Islands	3 (1978)	200 (1977)	
Cuba	12 (1977)		200 (1977)
Dominica	12 (1981)	200 (1981)	200 (1981)
Dominican Republic	6		200 (1977)
Grenada	12 (1978)		200 (1978)
Haiti	12 (1972)		200 (1977)
Jamaica	12 (1971)		
Netherlands Antilles	3 (1978)	200 (1983)	
Puerto Rico	3 (1979)	200 (1977)	
Trinidad and Tobago	12 (1984)		200 (1984)
Venezuela	3 (1978)		
Yugoslavia	12 (1968)		200 (1986)
Costa Rica	12 (1972)		
El Salvador	200 (1980)		
CENTRAL AMERICA			
Belize	12 (1978)	12 (1978)	
Costa Rica	12 (1972)		200 (1975)
El Salvador	200 (1980)		

TABLE II

LIMITS OF TERRITORIAL SEAS, FISHING ZONES AND EXCLUSIVE
ECONOMIC ZONES OF STATES AND TERRITORIES LYING IN OR
BORDERING THE CARIBBEAN SEA

STATE	TERRITORIAL SEA miles	FISHING ZONE miles	ECONOMIC ZONE miles
<u>ANTILLEAN CARIBBEAN</u>			
Antigua & Barbuda	12 (1983)	200 (1983)	200 (1983)
Bahamas	3 (1878)	200 (1977)	
Barbados	12 (1977)		200 (1977)
British Virgin Islands	3 (1878)	200 (1977)	
Cayman Islands	3 (1878)	200 (1977)	
Cuba	12 (1977)		200 (1977)
Dominica	12 (1981)	200 (1981)	200 (1981)
Dominican Republic	6		200 (1977)
Grenada	12 (1978)		200 (1978)
Haiti	12 (1972)		200 (1977)
Jamaica	12 (1971)		
Montserrat	3 (1978)	200 (1983)	
Netherlands Saint Christopher and Nevis	3 (1889)	200 (1977)	
St. Lucia	12 (1984)		200 (1984)
St. Vincent and the Grenadines	3 (1878)		
Trinidad and Tobago	12 (1969)		200 (1986)
Turks and Caicos	3 (1878)	200 (1978)	
<u>CARIBBEAN CENTRAL AMERICA</u>			
Belize	3 (1878)	12 (19	
Costa Rica	12 (1972)		200 (1975)
El Salvador	200 (1950)		

STATE	TERRITORIAL SEA miles	FISHING ZONE miles	ECONOMIC ZONE miles
<u>CARIBBEAN</u> <u>CENTRAL</u> <u>AMERICA</u>			
Guatemala	12 (1976)		200 (1976)
Honduras	12 (1965)		200 (1951)
Mexico	12 (1969)		200 (1976)
Nicaragua			200 (1979)
			sovereignty and juris- diction over the sea adjacent to its coasts up to 200 miles.
Panama	200 (1967)		
<u>CARIBBEAN</u> <u>SOUTH</u> <u>AMERICA</u>			
Colombia	12 (1970)		200 (1978)
Guyana	12 (1977)	200 (1977)	
Suriname	12 (1978)		200 (1978)
Venezuela	12 (1956)		200 (1978)

Source: United Nations Department of Public Information, Press Section, Reference Paper No. 18, 1978 and National Legislation.

Summary Evaluation of the
Exclusive Economic Zone Regime

The EEZ regime, now that it has been fully received into the corpus of international law, emerges

as a functional zone, par excellence, beyond the Territorial Sea.

As pointed out by E.D. Brown,

"the functions for which the EEZ was sought are few, being limited essentially to fishing, fishery conservation, pollution control and the exploitation of natural resources."⁷²

As will be clear from the preceding discussion, the EEZ represents a compromise solution between the claims of those States which, on the one hand, were opposed to the extension of coastal state jurisdiction beyond even a three mile Territorial Sea and States which, on the other hand, claimed either full or limited sovereignty over the sea and its resources up to a distance of 200 miles from appropriate baselines. The EEZ was conceived essentially in relation to the economic needs and interests of the developing countries. "Formulated with moderation and realism", the EEZ "is a reflection in jurisdictional terms of the contemporary political balance."⁷³

The 1958 Convention on the Continental Shelf allowed coastal states to exploit the natural resources

⁷²Brown, E.D., "Maritime Zones: A Survey of Claims," in Churchill et al (eds.) New Directions in the Law of the Sea, Vol. III, Oceana Publications Inc., Dobbs Ferry, New York, 1973, pp. 157-192.

⁷³Brown, E.D., op. cit.

of the Continental Shelf as defined in Article 1 of that Convention. Before the acceptance of the EEZ concept, international law had failed to sanction a similar monopoly situation with respect to the living resources in the superjacent waters. It is inequities of this type that were sought to be corrected by the developing countries. In the words of Evriviades,

"...the new nations were wary of the existing international legal and economic order established prior to their independence and which systematically suppressed indigenous rights and national aspirations."⁷⁴

On a less positive note, the view has been expressed to the effect that the innovation of the EEZ regime, in its present form, drastically reduces the economic viability of the area beyond national jurisdiction constituting the "common heritage of mankind." Most offshore hydrocarbons and also most harvested fisheries resources are obtained from areas within 200 miles from relevant baselines. These profitable activities are therefore not susceptible to international management. This state of affairs provides adequate cause for speculation as to whether receipts from seabed mining in the Area by an

⁷⁴See Evriviades, E., "The Third World's Approach to the Deep Seabed," in Ocean Development and International Law, Vol. II, Nos. 3/4, 1982, pp. 201-264.

International Seabed Authority will be enough to close the development gap as is envisaged.⁷⁵

By way of balance, however, it may be pointed out that, as a result of the juridical innovation of the EEZ, coastal States, many of which are in the process of developing or increasing their fishing capacity, are now better placed than before to exploit the waters adjacent to their coasts to which distant-water fleets are now denied automatic access.

⁷⁵See Mann Borgese, E., "Boom, Doom, and Gloom Over the Oceans: The Economic Zone, the Developing Nations, and the Conference on the Law of the Sea," in The San Diego Law Review, Vol. XI, No. 3, 1974, pp. 541-556.

CHAPTER II

THE CARIBBEAN SEASCAPE AND ITS IMPLICATIONS

The Caribbean Sea is a large suboceanic basin with an area of approximately 1.02 million square miles (2.64 million square kilometres) lying between 9° to 22° North Latitude and 89° to 60° West Longitude. Together with such features as Baffin Bay, Hudson Bay and the Gulf of Mexico, the Caribbean Sea is to be included among the large marginal seas and bays that are found on the western side of the Atlantic Ocean.¹

With almost 90 percent of its circumference separated from the open ocean by either continental or insular land masses, the Caribbean Sea provides an excellent example of a semi-enclosed sea.² To the south, the Caribbean Sea is bounded by the coasts of Venezuela, Colombia and Panama while to the west, along the continental mass, lie Costa Rica, Nicaragua,

¹The equivalent on the Eastern Side of the Atlantic include the Mediterranean and Black Seas; the North Sea; The Bay of Biscay and the Baltic.

²See Francis, A., The Caribbean Basin and Recent Developments in the Law of the Sea. Occasional Papers Nos. 2 and 3. Institute of International Relations, UWI, St. Augustine, Trinidad and Tobago, 1983, p. 6.

Honduras, Guatemala, Belize and the Yucatan Peninsula of Mexico. To the north, the Caribbean Sea is bounded by the islands of the Greater Antilles namely, Cuba, Jamaica, Hispaniola (comprising Haiti and the Dominican Republic) and Puerto Rico. On the eastern periphery of the Caribbean Sea lie the countries of the Lesser Antilles, a crescent of islands extending from the Virgin Islands in the North-East, to Trinidad and Tobago, off the Venezuelan coast in the South-East. Islands in this chain include, moving in a generally southerly direction, Anguilla, St. Martin, Barbuda, St. Kitts-Nevis, Antigua, Guadeloupe, Montserrat, Dominica, Martinique, St. Lucia, St. Vincent and the Grenadines, Barbados,³ Grenada and, finally, the unitary state of Trinidad and Tobago, the larger island of which fits neatly into the South American coastline. These political units, in many cases, constitute geographical and also, depending on their respective water-land ratios, legal archipelagos within the meaning of the 1982 Convention on the Law of the Sea and are separated by straits that are used for international navigation. A map of the Caribbean highlighting the Eastern Caribbean on which this thesis is focussed appears at Figure I.

³Strictly speaking Barbados does not form a part of the Lesser Antilles but it is conventionally grouped with this archipelago.

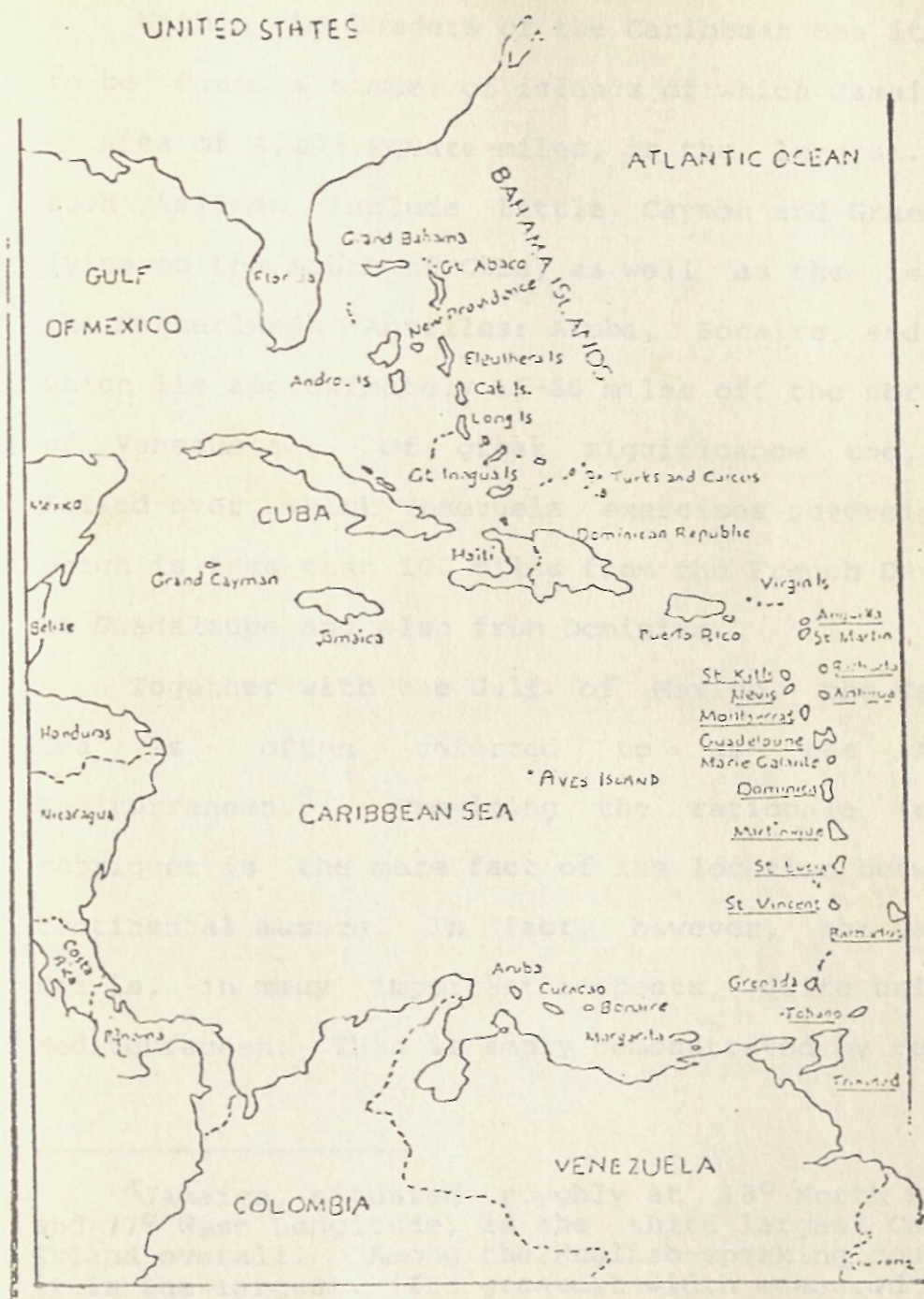


Figure I: THE EASTERN CARIBBEAN (Underlined)

Within the borders of the Caribbean Sea itself are to be found a number of islands of which Jamaica, with an area of 4,243 square miles, is the largest.⁴ Other such islands include Little Cayman and Grand Cayman lying to the south of Cuba, as well as the islands of the Netherlands Antilles: Aruba, Bonaire, and Curacao which lie approximately 15-60 miles off the north coast of Venezuela. Of great significance too, is Aves Island over which Venezuela exercises sovereignty but which is less than 100 miles from the French Department of Guadeloupe and also from Dominica.

Together with the Gulf of Mexico, the Caribbean Sea is often referred to as the American Mediterranean.⁵ Providing the rationale for this sobriquet is the mere fact of its location between two continental masses. In fact, however, the Caribbean Sea is, in many important respects, quite unlike the Mediterranean. This is amply demonstrated by reference

⁴Jamaica, situated roughly at 18° North Latitude and 77° West Longitude, is the third largest Caribbean Island overall. Among the English-speaking countries, it is the largest. Its greatest width measured East to West is 146 miles while its greatest width measured North to South is 51 miles ranging to 22 miles.

⁵See, for example Hodgson, R.D., "The American Mediterranean: One Sea, One Region," in Gamble, J. and Pontecorvo, G., (eds.), Law of the Sea: The Emerging Regime of the Oceans, Ballinger, Cambridge, Mass., 1974.

to the respective hydrographic and climatic profiles of these oceanic basins.

The Caribbean Sea is itself divided into five submarine basins which are separated from each other by submerged ridges and rises. These are the Yucatan, Cayman, Colombian, Venezuelan and Grenadian Basins.

Mention has been made of the straits used for international navigation and these necessarily abound in the insular environment of the Caribbean, especially on its northern and eastern boundaries. In these sectors of the Caribbean are to be found close to a dozen important straits. A listing of some of these straits indicating their basic dimensions and the countries under whose jurisdiction they fall, is set out in Table III.

The countries of the Caribbean tend to possess economies that are very open. This factor, in addition to the geographical location between continents has contributed to the growth of many large ports. The massive transshipment ports in Kingston, Jamaica,⁶ and

⁶Jamaica is situated some 550 miles North of the Panama Canal and is therefore well placed on some of the world's major shipping routes. At its nearest point to the American continent, Jamaica is 310 miles from the coast of Honduras. It is 700 miles to the south of Miami, Florida, U.S.A.

TABLE III

STRATEGIC INTERNATIONAL STRAITS IN THE CARIBBEAN

PASSAGE	LEAST WIDTH (NAUTICAL MILES)	SOVEREIGNTY (ON EITHER SIDE)
Florida	82	U.S.A., Cuba
Yucatan		
Channel	105	Cuba, Mexico
Windward		
Passage	45	Cuba, Haiti
Mona Passage	33	U.S.A. (Puerto Rico), Dominican Republic
Anegada		
Passage	48	U.K. Anegada, (U.K.) and Sombrero (U.K.)
St. Vincent		
Passage,	23	St. Lucia, St. Vincent
Dominica		
Channel	16	Guadeloupe (Fr.)-Dominica
Martinique		
Channel	22	Dominica-Martinique (Fr.)
St. Lucia		
Channel	17	Martinique (Fr.)-St. Lucia
Virgin Islands		
Passage	8	Puerto Rico (U.S.)-U.S. Virgin Islands
Guadeloupe		
Passage	28	Guadeloupe (Fr.)-Montserrat (U.K.)

Source: Alexander, L.M.: "Indices of National Interest in the Oceans" in Ocean Development and International Law, Vol. , No. 1, Spring 1973, pp. 21-49.

in San Juan, Puerto Rico, are but two of the major ports of call within the Caribbean. Others include Baranquilla, Charlotte Amalie, Cienfuegos, Cristobal, La Guaira, Port-of-Spain, Santiago de Cuba and Willemstad.

From Table III, it can be observed that, in addition to straits connecting the Caribbean Sea with the Atlantic Ocean, there is the Yucatan Channel, which, lying between Cuba and Mexico, connects the Caribbean Sea to another semi-enclosed sea, namely the Gulf of Mexico. An additional detailed feature, which is nevertheless important for the discussion that will develop later in this essay, is the existence of straits within the semi-enclosed Caribbean Sea. Reference is here being made to the Dragon's Mouth (12 miles wide) and the Serpent's Mouth (9 miles wide), which lie between Trinidad and Tobago and Venezuela at the northern and southern entrances respectively of the Gulf of Paria.

The more important implications for this thesis of what has been referred to as "the Caribbean Seascape" may be listed as follows:

- (i) The existence of some two dozen littoral states bordering an enclosed sea of just over one million square miles implies, in the context of the modern Law of the Sea, which sanctions an EEZ of up to 200 miles, that there will no longer be any areas of high seas within the Caribbean. Further, the partitioning of the Caribbean Sea will

permit few states to enjoy maximum permitted EEZs so that such zones, where they exist, will often overlap;

- (ii) The difficult problems of Fisheries and general Resource Management arising from (i) above;
- (iii) The fact that these two dozen littoral states constitute a political, cultural and linguistic mosaic, the component parts of which manifest but low levels of interaction. Reference is here being made to the Dutch, Hispanic, Francophone and Anglophone including U.S. sectors of the Caribbean. More than this, there exist in the region, political entities that enjoy different political status. There are colonies, (British Virgin Islands). Associated States: (Puerto Rico); Overseas Departments of metropolitan countries (Martinique and Guadeloupe {French}); the Netherlands Antilles (Dutch), etc.;
- (iv) Closely linked to (iii) above, but deserving of separate mention, is the presence of metropolitan powers in the region in addition to the Venezuelan presence as manifested by Aves Island, quite apart from the Venezuelan-Caribbean coast;
- (v) The existence of submarine features such as troughs or trenches which may also impinge on the delimitation process;
- (vi) The existence of several important or strategic straits and their implications for sealanes and other sea uses;
- (vii) The relationship between port development, maritime traffic and marine pollution;
- (viii) The objective need for cooperation, bilateral and regional, in areas such as pollution management and conservation of living resources;
- (ix) The existence of territorial disputes as between Guyana and Venezuela which militate against such cooperation and which also

have the effect of maintaining uncertainty over the precise location of maritime boundaries;

(x) The existence of shared geographical features such as the Gulf of Paria which lies between Trinidad and Tobago and Venezuela;

• (xi) The inescapable realisation that, given the presence of metropolitan countries, as well as of Venezuela in the Eastern Caribbean, the waters of that subregion which is the focus of this thesis, are not contiguous and are therefore not amenable to management along the traditional 'Commonwealth Caribbean' approach. Dominica, for example, will henceforth have its own marine space but, even so, the authorities will have had to negotiate and otherwise cooperate with the French and also with the Venezuelans;

(xii) The geographical disadvantage suffered by states as a result of their small size and their necessarily short coastlines;

(xiii) The relatively meagre resource endowment of the Caribbean Sea both as regards living and non-living resources.

CHAPTER III

THE FISHERIES RESOURCES OF THE CARIBBEAN SEA

Compared with the waters of the North Atlantic, the Caribbean Sea emerges as a maritime area that offers but low productivity. The single most important factor accounting for this is that in the North Atlantic, vast amounts of nutrient salts from deep layers are year after year returned to the surface by convection overturns. The relatively low productivity of the Caribbean is also manifested in the low returns per unit effort which it provides vis-a-vis areas such as Chesapeake Bay on the North Atlantic Seaboard.

In addition, because of relatively constant temperature of the Caribbean water column, there is a stable thermocline with cooler nutrient-rich water beneath which does not reach the surface. As a result, there is a general low level of zooplankton and lower forms in the food chain at any given time, resulting in small populations of exploitable fish. That the largest volumes of aquatic organisms that can be economically exploited occur in seas favoured by cold water currents whose oxygen content is high, has been

well established by the marine sciences. Oxygen, of course, is the key element in the food chain. It is a result of the combination of major factors such as water, temperature, oxygen content and other nutrient levels¹ that such countries as the USSR, Norway, Iceland, Canada, and, to a lesser extent, Mexico² attain high returns from the exploitation of their fisheries.³

Notwithstanding this fact, there are, within the Caribbean Sea, areas of rich local fisheries such as the area of upwelling near the island of Margarita off Venezuela's north coast. In addition, some species of Crustaceans and table fish such as shrimp, lobster, red snapper and tuna, can develop in tropical waters and attain sizes that render commercial exploitation feasible. This advantage is enjoyed by Mexico, the other countries of Central America, Panama, Colombia, Venezuela and Brazil. It remains true, nevertheless,

¹Marine animal and plant life also depends on and is affected by other factors such as salinity, acidity and pollution levels.

²In 1982 Mexico was already the seventh largest exporter of fish and fishery products after Canada, U.S.A., Denmark, Norway, Japan, and the Republic of Korea. See FAO Doc. COFI/83/Inf. 5 dated July, 1983.

³Given the area of focus of this thesis, examples are presented only from the Northern Hemisphere. Such countries as Chile, Ecuador and Peru are examples in the Southern Hemisphere.

that their volume is relatively limited since the waters in those areas produce less food nutrients.

Ocean currents also play an important part in indirectly determining the productivity of marine areas and the Caribbean provides an example of an area where the influence of these oceanographic phenomena is considerable.

In the Caribbean, the ocean current of greatest significance is the South Equatorial Drift which originates off the coast of South Africa, an area where occurs, a major upwelling of nutrient-rich waters.⁴

This current moves in a generally north-westerly direction and the areas influenced by it such as Guyana, Trinidad and Tobago and, even as far north as Saint Lucia, show greater levels of productivity than those such as the Leeward Islands, Puerto Rico, Hispaniola and Jamaica which are influenced by the North Equatorial Drift. Needless to say, in its long voyage up the Southern Atlantic, the South Equatorial Drift, which may be up to 300 kilometres wide, is, by the time it reaches the eastern coast of South America, much depleted of its supply of nutrients.⁵

⁴See Kenny J.S., and Bacon, P.R., "Aquatic Resources," in Cooper and Bacon (eds.), The Natural Resources of Trinidad and Tobago, Edward Arnold Ltd., London, 1981, pp. 112-143.

⁵Idem.

It is for this reason, among others, that the productivity of the Caribbean Sea is generally low and it is those Caribbean countries that are situated at the nearer reaches of this great current, that derive greater benefit from its load of nutrients.

Since the primary productivity of the Caribbean Sea is of a low level, it follows that the secondary productivity of that water body would be likewise. Together with that of such other areas as the Central Pacific, the level of secondary productivity of the Caribbean Sea ranks among the lowest in the world. A positive factor in this regard, given this generally low level of primary and secondary productivity, is the fact that there are areas which are influenced by riverine discharge, a factor which may serve to increase secondary productivity, through the inflow of organic material of land origin that is carried in suspension.⁶

The Amazon river, its outflow rich in organic nutrients, and organic materials, discharges into the Atlantic. Further to the North West, the Orinoco, through its several outlets, discharges vast quantities of organic and inorganic nutrients. Between these two great rivers, are many other major ones which also

⁶See Kenny and Bacon (eds.) op cit., to which this Chapter is greatly indebted.

contribute to the level of nutrients and organic material and consequently to the productivity of the sea areas around their mouths. It is this riverine outflow that is intercepted by the South Equatorial Drift as it passes from San Roque in Brazil, carrying on its way, the effluents of the Amazon, Orinoco and other rivers from Guyana, Cayenne and Suriname. It is this fact that explains why the southern waters of the Eastern Caribbean offer more productive potential than do the more northerly waters of the region.

Also worthy of mention in the context of the fisheries productivity of the Caribbean, is the existence of vast areas of continental shelf with sand or mud bottoms that are rich in organic material. In the Atlantic, where the ocean basin is growing laterally, there are extensive continental shelves on the eastern shores of North and South American and similarly on the Western shores of Europe and Africa. In the Caribbean Sea the examples of Honduras and Nicaragua are relevant.⁷ On the other hand, no significant areas of continental shelf are to be found

⁷The Continental Shelf of the Nicaraguan Atlantic coast extends at its maximum points to 300 miles in the North and 8 miles in the South. Its total area is 16,500 square miles. Industrial fishing for shrimp started on this coast in 1958. See "Informe Sobre los Principales Acontecimientos Registrados en la Pesquería de Nicaragua 1979-1982 in Fisheries Report, No. 278 (FAO Doc.: FIP/R278 Suppl. 1982).

on the Pacific side of North and South America. The areas of continental shelf in the Caribbean may, depending on the availability of nutrients, the type of sediment and the influence of major rivers, manifest widely varying levels of productivity. There are, for example, in the Bahamas, extensive areas of continental shelf which are relatively barren and which support little more than coral reefs.⁸ However, in areas lying off the north-east coast of South American where sedimentation levels are high and where there is a considerable inflow of organic material, the levels of secondary productivity are generally high and approach those of the more productive marine areas. It follows, from the foregoing, therefore, that a country such as Trinidad and Tobago is relatively well placed since it falls within this area of influence, and has a wide continental shelf along both its North and East Coasts as well as shallow basins in the Gulf of Paria. Here, the sea bottom is more productive than in other parts of the region and provides commercially viable stocks of both pelagic and demersal fisheries. It must be pointed out that the island of Tobago lying some 22 miles to the North East of Trinidad occupies the same continental shelf as the latter island. However, at

⁸An interesting case is that of Belize which is heavily dependent on the productivity of its coral reefs.

the northern end of the island the continental shelf falls away quite rapidly. Also, the additional distance from the Amazon and Orinoco rivers, in particular, means that the beneficial influences of these are not as strongly felt off Tobago as they are off Trinidad.

Some eleven percent of the surface of the Caribbean Sea consists of coastal waters less than one hundred metres in depth. This water overlies flat shelves which vary in width and depth but which all terminate in deep slopes and, almost everywhere, the shelf edge is above the one hundred metre contour. This provides a considerable area within which fishing activities can be easily pursued even by artisanal fisheries.

Historical Review - Trawling off the Island of Trinidad

Over the years numerous research and exploratory cruises have taken place around Trinidad and adjacent regions. The results of some of the earlier ones are tabulated as follows:

TABLE IV

RESULTS OF SELECTED RESEARCH AND COMMERCIAL FISHING
CRUISES OFF TRINIDAD 1951-1965

VESSEL	DATE	LOCATION	RESULTS/COMMENTS
"Assault"	1951- 1952	North East Trinidad	Exploratory: Good catches
"Bonnie Ethel"	1957	North Trinidad and North Venezuela	Commerical Fish- ing: Large catches
"Oregon"	1963	Continental Shelf of Guyana	800-1500 lbs. per fishing hour in water 20 fathoms deep.
"Obraztsoyo"	1964	West of Trinidad	Russian explora- tory trawling. Good catches
"Obraztsoyo"	1965	West of Trinidad	Trawling. 5,500 lbs. per fishing hour.

Source: Ministry of Food Production, Marine
Exploitation, Forestry and the
Environment, Trinidad and Tobago.

Results from all the cruises mentioned in TABLE IV were sufficient to indicate that a substantial trawl-fishery resource was to be found off the north-east coast of South America at depths of 20 fathoms. Further, it was already apparent from these cruises that the concentration of commercial fish was essentially restricted to the littoral shelf-zone area

off Trinidad and Venezuela. These expeditions further found that there were no commercial concentrations of demersals or pelagics in the north-west Caribbean, but that the concentrations of drums and large horse mackerels on the Venezuelan shelf, were manifested by returns of 0.6 tons/trawling hour in the latter months of the year, while a commercial concentration of snappers was to be found on the Trinidad shelf at 50-70 metres also in September-October at the boundary of freshened littoral waters.⁹

Demersal Resources

The demersal species may be divided into those which occur on the continental shelf and those which occur around islands, reefs and on oceanic banks. The insular demersals consist of a variety of over thirty species including mainly grunts, snappers and groupers. These are found on hard bottoms on the continental shelf. The continental or ground fish belong mainly to the family Gadidae (Haks) and Sciaenidae (croakers, drums and sea trout) and are found on the soft bottoms on the continental shelf.

⁹Source: Ministry of Food Production, Marine Exploitation, Forestry and the Environment, Trinidad and Tobago.

The major crustacean resources are composed of five species of commercially valuable species of shrimp which are currently exploited in relatively shallow water. These are Penaeus schmitti (white shrimp), Penaeus duorarum (pink shrimp), Penaeus brasiliensis (hopper), Penaeus aztecus (brown shrimp) and Xiphopenaeus Kroyeri (sea bob). These species are exploited off the southern and northern coasts of Trinidad and also in the Gulf of Paria. In addition to shrimp, three species of lobster, Penulirus argus, Penulirus Laevecauda, and Penulirus guttatus, are collected on Trinidad's north and east coasts, around the Chaguaramas Peninsula and around Tobago.

Production of spiny lobster by Trinidad and Tobago is estimated at one hundred tons per year. However, extensive shoal areas off Trinidad's east coast and off Tobago's south shore may make it possible that the production of spiny lobster here might reach five hundred tons per year.¹⁰

¹⁰Source: Ministry of Food Production, Marine Exploitation, Forestry and the Environment, Trinidad and Tobago.

Pelagic Resources

Less than nine percent of the total Caribbean production consist of pelagics. These include Scombridae (tunas), Coryphaenidae (dolphins), Istiophoridae (marlins), Xiphidae (sword fish), Carcharinidae and Lamnidae (sharks), Exocoetidae (flying fish), Engraulidae (anchovy) and Clupeidae (herrings). The pelagic population in the Caribbean has been projected at four hundred thousand to eight hundred thousand tonnes.¹¹ Tuna and tuna-like species landed in the Caribbean include mainly *Thunnus albacares* (yellowfin), *Thunnus obesus* (big eye), *Thunnus atlanticus* (blackfin) and *Katsuwonus pelamis* (skipjack). These species, along with sharks, sailfish and marlins are oceanic and migratory.

The Clupeoid (herring, anchovy) resources represent the largest concentrations of food along continental, coastal waters. The important genera here are *Sardinella* (sardines), *Herengula* (herring), *Anchoa* (Anchovy), and *Cetengraulis* (Anchoveta). The herrings and anchovies are the largest single group harvested in the area. They also have the largest potential yield.

¹¹That off the North East Coast of South America has been projected at 150-300 tonnes and that of Guyana at 35,000 to 70,000 tonnes. Source: Ministry of Food Production, Marine Exploitation, Forestry and the Environment, Trinidad and Tobago.

Sixteen species of mahi-mahi, herring, sardine, anchovy and anchoveta occur and are most abundant along the continental shelves. Jacks, dolphins, wahoo, bluefish and bonito appear unlikely to show potential for further development as they do not occur in dense schools but are only seasonally abundant. Further, only limited expansion of fishing effort can be justified with respect to the spanish mackerel (carite) along continental shelves, close to the distribution of the clupeoids. Promising potential is shown for acada, flying fish, half beaks and butterflyfish. These occur throughout the area but demonstrate a preference for the continental shelves with areas of upwelling and other areas of planktonic concentration. Sharks occur in varying concentrations throughout the Caribbean and present a significant resource within the continental shelf area between Guyana and Panama.

There appears to be considerable potential for improving the shark fishery in Trinidad and Tobago as evidenced by the activities of the eight foot vessel, "Sachem" in the 1950's which landed seven hundred and fifty sharks weighing approximately one hundred tons within a thirty-day experimental fishing trip in waters adjacent to Trinidad. A "shark project" undertaken off Tobago during the mid 1980's also yielded 'encouraging'

results which are still the subject of detailed evaluation.¹²

In a report published by the United Nations Food and Agriculture Organization in 1983,¹³ it was reported that fish landings from the area covered by the Western Central Atlantic Fisheries Commission, whose membership includes Barbados, Dominica, Grenada, Saint Lucia, and Trinidad and Tobago¹⁴ increased to a record level of 1.9 million tons in 1981. This figure, incidentally, excludes catches by sports fishers and those discarded at sea by commercial shrimp trawlers.¹⁵ The most significant increase in national catches were attained by Mexico, whose fishermen in 1981 landed some two hundred and seventy thousand tons of fish or twice the

¹²Source: Ministry of Food Production, Marine Exploitation, Forestry and the Environment, Trinidad and Tobago.

¹³See Doc. COFI 83/Inf. 4 dated July, 1983 entitled "Review of the World Fishing Resources."

¹⁴Other members are Bahamas, Brazil, Colombia, Cuba, France, Guatemala, Guyana, Haiti, Italy, Jamaica, Japan, Republic of Korea, Mexico, the Netherlands, Nicaragua, Panama, Spain, Suriname, United Kingdom, U.S.A., and Venezuela.

¹⁵Reference to sports fishers and the shrimp by-catch is important. Along the U.S. Gulf area and on the South Atlantic coasts, catches of the preferred species by sports fishers generally exceed that of commercial fishermen. With respect to the shrimp by-catch, this is estimated to be from five to ten times the quantity of shrimp landed.

figure of 1977. Catches in Cuba were reported to have decreased slightly from their 1976 peak.

A most disturbing feature of the report is its calculation of the estimated yield from the areas of continental shelf around the Caribbean islands. The yield co-efficient for these areas is stated to be at the revised level of 0.5 to 1.5 tons per square kilometre per year, which is a substantial reduction by comparison with earlier estimates. If these figures are correct, and coming from as authoritative a source as the Food and Agriculture Organization of the United Nations, they deserve more than casual noting. The obvious conclusion to be drawn would be to the effect that most of the demersal species in the region are already being fully exploited. Moreover, the generally sandy bottoms of these areas are historically known to be relatively unproductive. Following from the report under reference, it would seem that the greatest potential for fisheries expansion would lie with the smaller pelagics, from squid or from other less familiar types. It should be noted that these latter mentioned species travel distances that exceed the distance between adjacent islands of the Lesser Antilles. This would suggest, if over-exploitation is not to occur, a need for rational management policies

involving close collaboration between and among the countries involved.

The following brief reviews of the fisheries of selected countries of the Leeward Island group are set out to indicate the nature of interest these units have in fishing as an economic activity.¹⁶

Anguilla: With a land area of 9.065 hectares and a productive continental shelf of no less than 13,565 hectares, Anguilla lists subsistence agriculture and fishing as the main areas from which its people earn a livelihood. Indicative of another type of interest in fishing, is the fact that Anguilla's shallow submarine banks are "shared" with its neighbours, St. Martin and St. Bartholomew. Anguilla therefore views with extreme seriousness, the need to protect its "Territorial Waters." Anguilla exports lobsters to Puerto Rico, St. Martin and St. Thomas. Its available stock of tuna is relatively unexploited and, in fact, underutilization appears to be a major characteristic of Anguilla's fisheries. Pelagics account for about ninety percent of all fin-fish landings. Many Anguillan fishermen are lost at sea each year.

¹⁶Unless otherwise indicated, these reviews are based on Country Reports submitted to the 36th Annual Meeting of the Gulf and Caribbean Fisheries Institute (G.C.F.I.) which took place in Port-of-Spain, Trinidad and Tobago during the period 14-17 November, 1983. They represent the latest coherent data available to the author.

Antigua and Barbuda: The commercial fishing of Antigua and Barbuda is based almost entirely on the exploitation of demersal or reef species on the extensive reef areas between the islands. There is virtually no effort made to harvest pelagic or deep-sea species such as tuna, kingfish or dolphin. This is in contrast to other islands where pelagic fishing predominates. The fisheries resources of Antigua and Barbuda are currently exploited at sub-maximum sustainable levels. With respect to certain traditional fishing grounds, however, there are some indications of over-fishing.

In the 1980's the export potential of the fishing industry continues to be constrained by inadequate onshore facilities and by improperly managed and inadequately exploited lobster banks.

In 1982, the fishing authorities estimated that landings of fish decreased by eight percent while that of lobsters declined by a full twenty percent.¹⁷ The decline in catches has been attributed to the depletion of inshore stocks and to periods of adverse sea conditions. Exports of fish are estimated to have decreased by sixty percent and that of lobsters by almost ninety percent. Accounting for this development

¹⁷See ECLA: Economic Activity in Caribbean Countries, 1982.

is, for the most part, the increase in domestic prices, a factor which has apparently removed the incentive to export.

Fishing is currently estimated to contribute some 7.9 percent of the Gross National Product of Antigua and Barbuda. This contribution, it is worth noting, represents the output of only nine hundred fishermen. Antigua with its 34,000 square kilometres of continental shelf and its ability to give full effect to an exclusive economic zone of two hundred miles radius on its Atlantic Coast, would seem to have considerable potential with respect to the increased utilization of the fisheries resources falling within its jurisdiction.

Barbados: Flying fish accounts for some fifty percent of the total fish catch of Barbados. The remainder comprises king fish, dolphin and shark. All inshore areas have clearly been overfished and there is no possibility at present of increasing the catch by means of increased fishing effort. The annual catch is estimated at between seven and ten million pounds. The cost of acquiring appropriate equipment and facilities for offshore fishing is very high.

As far as management implications are concerned, it is suggested that flying fish undertake a return migration journey past Saint Lucia, and Barbados in

order to spawn in the Atlantic. With respect to such species as dolphin, there is but weak evidence of large-scale migration. Given the intention of increasing the exploitation of this fish, Barbadian fishery authorities would need to further evaluate its migratory patterns. This is a vital consideration for, should the species be migratory, any expansion into, for example, year-round fishing, might prove to be wasteful of already scarce resources.

Grenada: This country has, since the decade of the 1970s, shown a steady decline in its total production of fish. The two most notable instances of a dwindling fish resource refer to *penulirus argus* (spiny lobster), and *strombus gigas* (conch). These are, of course, the high-priced species which, in times past, earned fishermen an adequate livelihood and the national treasury important amounts of hard currency. The declining production is believed by some to have come about as a result of inadequate fishing capacity and of low fishing effort. This view has its critics who point to the fact that, to use a more popular index, both the percentage and the absolute amount of catch accounted for by beach seine have shown steady declines. Total landings in 1982 amounted to 3.6 million pounds compared with 3.8 million pounds in 1980 and 8.9 million pounds in 1979.

Montserrat: This is a tiny country of 41 square miles with little by way of resource endowment. Annual fish production is estimated at one hundred and fifteen thousand pounds as against an estimated annual domestic demand in the region of one hundred and seventy-five thousand pounds. Some seventy-five percent of the fishermen operate on a part-time basis. The offshore banks are known to be productive but are out of reach of the traditional inshore craft. As a result, not only are the considerable stocks of cavalli, jacks and tunas under-exploited, but also, the fishermen of Montserrat "trespass" into the waters off Antigua and also off St. Kitts. Paradoxically, also, many foreign vessels, including Japanese operatives, are known to be fishing in waters off Montserrat. Highlighting the real danger associated with the use of small traditional craft and the consequent reluctance to attempt fishing at distances farther off-shore, is the fact that many fishermen go missing for long periods. A modest radio communication network was introduced during 1984 in an attempt to enhance the safety levels. Montserrat is also endeavouring to increase its fishing potential by the creation of artificial reefs.

St. Kitts-Nevis: Fishing activity in St. Kitts provides employment for some 800 fishermen using some 650 boats, on a full-time basis. Annual total landings

are estimated at the level of 1880 tonnes and comprise pelagic species such as tuna, king-fish, dolphin and mackerel and also demersal species such as snappers, groupers, lobster and conch. Domestic fish consumption is high and surpasses production levels by far. In 1981, some 533,045 pounds of fish products were imported into St. Kitts-Nevis at a cost of EC\$ 1,274,006. These imports were mainly from hard currency areas such as the U.S.A. and Canada and consisted mainly of dried salted fish. Notwithstanding the shortfall in domestic fish production vis-a-vis domestic demand, some 147,936 pounds of conch and 12,532 pounds of lobster were exported in 1981 mainly to Guadeloupe and Martinique for a total of EC\$ 315,894.

The Government of St. Kitts-Nevis is attempting to expand the fishing industry but is handicapped by the cost of much-needed larger boats and other forms of equipment and also by the reluctance of youths to replace the disappearing generation of traditional fishermen.

Saint Lucia: In Saint Lucia, fishing activities contribute some six percent of the Gross Domestic Product and, together with agriculture, accounts for over forty percent of national employment. In fact, fishing is the main occupation and is therefore the

major source of earnings. About 2,500 fishermen are employed in this activity. However, some two-thirds of these operate on a part-time basis.

The main species exploited in Saint Lucia are pelagics including tuna, dolphins, king-fish, flying fish, snappers, groupers and lobsters. Mariculture, involving the production of seaweeds is also practiced.

Martinique and Guadeloupe:¹⁸ Total annual production of fish for these two French overseas departments is estimated at 4,000-4,500 tonnes and 3,200-3,700 tonnes respectively. Together, both entities take an estimated 200 to 250 tonnes of lobster per year. This, in terms of volume, represents but a small percentage of the total catch. Lobster is however, a major source of earnings for fishermen. Fishing is intensively practiced and is heavily subsidized. Commercial aquaculture, involving large species such as groupers and snappers is being successfully practiced. These fish are reared in cages.

¹⁸These countries are mentioned since they will be involved in the discussion on the evaluation of the EEZ problematique in a subsequent Chapter. Information set out here is based on the "Rapport d'Activites" presented by Mr. R. Abbes to the Third Session of the WECAFC Working Party on Assessment of the Marine Fishery Resources. See FAO Fisheries Report, No. 278 in Doc. FIP/R278 Supp. 1982.

Fisheries in Trinidad and Tobago

The various species exploited by Trinidad and Tobago fishermen have already been mentioned in a preceding section with reference to the overall level of productivity of the Caribbean Sea. Trinidad and Tobago's fishing activity may be divided according to the area in which such activity is carried out namely inshore vis-a-vis offshore and by the degree of capitalization involved as between artisanal and industrial fishing. The fishing fleet which exploits the marine resources around Trinidad and Tobago is mainly artisanal.

A census of fishing boats was carried out in 1980 and this showed a total of 1403 boats in Trinidad and Tobago of which 383 were registered in Tobago. In January 1987, however, there were 2700 registered fishing vessels in Trinidad and Tobago employing albeit on a part-time basis, 6750 fishermen.¹⁹ Trinidad and Tobago's industrial fishing activities are carried out by some fourteen trawlers owned by the National Fisheries Company Limited which have operated offshore on the fishing grounds on the Continental Shelf between

¹⁹Source: Ministry of Food Production, Marine Exploitation, Forestry and the Environment, Trinidad and Tobago.

Guyana and Brazil.²⁰ Fish production by artisanal fishermen in 1982 amounted to 4,105,539 kilograms. Trinidad and Tobago currently imports at least the equivalent of its domestic fish production. In 1982, some 5,142,198 kilograms²¹ of fish and fish products were imported at a value of \$30,596,062. Typically, some forty percent of imports are accounted for by dried salted cod and fifteen percent by canned sardines. In 1982, imports of the former commodity amounted to 2,243 tons.²² Exports of fish and fish products in 1982 were valued at \$5,813,791. These exports were almost entirely accounted for by frozen fish and shrimp not included in the production figures given above. Data on fish and shrimp landings at selected beaches throughout Trinidad and Tobago in 1982 are set out in Table V.

²⁰The first Trinidad and Tobago/Brazil Agreement was signed in 1972. Since 1986 most of these trawlers have been deployed to other locations including Venezuela. Source: National Fisheries Company Limited of Trinidad and Tobago.

²¹processed weight.

²²Source: FAO Doc. COFI/83/Ifn. 5 dated July, 1983.

TABLE V

FISH AND SHRIMP LANDINGS AT 16 BEACHES THROUGHOUT
TRINIDAD AND TOBAGO DURING 1982

SPECIES	WEIGHT (KG)	VALUE \$	% OF TOTAL
Carite	1,106,252	6,765,551	27.0
Shrimps*	699,772	6,870,912	17.0
Shark	414,521	1,283,420	10.1
King Fish	184,402	1,803,372	4.5
Cavalli	169,923	1,124,082	4.1
Snappers	148,250	1,368,149	3.6
Herring	76,190	130,063	1.9
Miscellaneous	1,306,229	1,724,820	31.9
TOTAL	4,105,539	26,070,369	100.0

*Exports included. The sample of sixteen beaches represents just over one half of the recognized fishing centres in Trinidad and Tobago.

As has been indicated, the level of consumption of fish in Trinidad and Tobago, exceeds that of domestic production. However, on the basis of less than buoyant production levels, the fisheries authorities have concluded several years ago that Trinidad and Tobago lacks an adequate fisheries resource base such as would support a large-scale fishing industry. This is certainly the case within its Territorial Sea. Nor can

Trinidad and Tobago any longer rely on traditional regional fishing grounds so that recourse must be had to the conclusion of access agreements with other countries. This explains the conclusion of fishing agreements of different types with such countries as Venezuela (1977 and 1985) and Brazil (Commencing 1972). Trinidad and Tobago also has, on the basis of its membership in the group of African, Caribbean and Pacific countries within the Lome Agreement with the European Economic Community, fisheries access to the waters off Cayenne. Negotiations aimed at the conclusion of access agreements with other countries are also envisaged.²³

Overview of Caribbean Interest in the Living Resources of the Sea

From the foregoing brief summaries of fishing activity and related issues in selected states and territories of the Eastern Caribbean, it is clear that this activity impinges closely, and in some instances, crucially, on the conditions of existence of their respective populations.

First of all, and most seriously, fisheries resources provide an important source of food. In this

²³The pattern of fisheries relations of the Eastern Caribbean is discussed in Chapter VII of this thesis.

instance, what is involved is a food source that is rich in protein, a vital nutritional requirement if healthy physical and mental development are to be achieved. In all the islands, fish is an important dietary staple for which demand often tends to outstrip not only current catch levels but also, in some cases, the potential of the available resources. It follows, therefore, that any action or phenomenon that has the effect of reducing the available quantity of harvestable marine protein, would, in addition to threatening or undermining the nutritional status of the peoples of the region, also have the effect of exacerbating already severe balance of payments problems as a result of the need to resort to imports.

Given the traditional dependence on the living resources of the marine environment, the dearth of scientific information on the exploited fisheries resource is a source of much concern. Kenny and Bacon attribute this to the historical preoccupation of these islands with plantation systems and agriculture, generally, in respect of which there is much published material available.²⁴ With respect to the fisheries resource of the islands, most of the scientific research that has been undertaken has been executed by foreign scientists with the consequence that the

²⁴Kenny and Bacon (eds.) op cit.

research findings are not, for the most part, to be found locally, but rather in foreign institutions. Scientific management requires an adequate information base. Stock assessments, migratory patterns, population dynamics and a host of other variables need to be ascertained at least within acceptable margins of error for this is the only basis on which the "total allowable catch" or the "maximum sustainable yield"²⁵ can be calculated.

Already, as a result of a lack of adequate information and scientific resource management, many species are on the decline. For example, the five genera of marine turtles found in Caribbean waters are on the verge of disappearing as an economic and nutritional asset if not as a species.²⁶

The second aspect of fishing activity in which the countries under review have a special interest, refers to the employment opportunities that are thereby generated. In some countries, fishing is the major economic activity and in these, the economic effect is far from negligible. The employment generated by

²⁵Once the total population of a specie has been quantified, its maximum sustainable yield is estimated as the maximum volume that can be extracted annually without affecting its natural replenishment after deducting natural mortality and applying an appropriate safety factor.

²⁶See FAO Fisheries Report, No. 278.

fishing involves not only those who are directly engaged in this pursuit i.e. the fishermen, but also includes vendors, fish processors, boat builders and repairers and also makers and repairers of fishing nets. The multiplier effect of fishing activity, as funds earned in this area are spent in other sectors of the economy, can also be considerable.

Worthy of individual mention is a third aspect of fishing activity in which the Eastern Caribbean has an interest and which refers to the spin-offs that are often generated in favour of other economic sectors. In certain countries such as Antigua and Barbados, fishing is of primordial importance in marine-oriented tourism. This form of tourism typically contributes substantially to the national Gross Domestic Product in those countries where it is more developed.

A fourth index of interest in fishing activity relates to the other contributions it can make to Gross Domestic Product. The fish exporters of the region receive much needed hard currency which is used to further wider development goals.

A fifth and final index of interest in fisheries on the part of the states and territories of the Eastern Caribbean, as elsewhere, is its ready availability as a source of recreation for its

nationals. This factor does not normally receive the emphasis it deserves.

Inherent in all the above factors is the transcendent interest the island-states and territories of the Eastern Caribbean have in pollution control and abatement.

All the islands of the Eastern Caribbean have expressed an interest in improving and upgrading their fisheries sector. In this context, the introduction of exclusive economic zones has led to moves for the creation of an industrial fisheries sector. It is for this reason that some brief mention will be made of this point since it indicates and highlights a particular dimension of the interest these states have in policy terms, in maximizing the returns in respect of the interests mentioned above.

With respect to the creation or upgrading of an industrial fisheries sector, it would appear as a general principle, in the light of the foregoing observations on the productivity of the Caribbean Sea and on other crucial factors, that the possibilities for growth are somewhat limited. This is not to deny that in those countries where industrial fisheries have to some extent been developed, for example in Trinidad and Tobago and Barbados, this represents a national asset of considerable politico-socio-economic

importance. The success of an industrial fishing sector itself depends on its own successful and effective integration into the rest of the economy. This applies with respect to the availability of large volumes of input as well as to forward linkages in terms of access to markets, physical or geographic, as well as legal or institutional factors.

As has been indicated by the United Nations Food and Agriculture Organization, the stability of industrial fisheries requires a steady demand for the output, a policy to manage and control the available resources and a need to reduce the risk of over-investment such as would lead to a waste of already inadequate economic and financial resources.²⁷ Some of these crucial requirements are either absent or are in a state of relative underdevelopment with respect to the Eastern Caribbean. In some instances, the collection, processing and utilization of the shrimp by-catch for human consumption may constitute a positive factor. Generally speaking, small-scale fisheries provide a more cost-effective basis on which to achieve sustained and stable fisheries development. This scale of activity also has the important merit of being naturally suited to regional conditions and requirements. Unlike industrial fisheries, it would

²⁷See FAO Fisheries Report, No. 292 of 1983.

involve but modest levels of investment and technology. It would also provide a ready object as well as an instrument for technical cooperation at the regional level.

Countries desirous of proceeding with the establishment of an industrial fishery, which, incidentally, may be linked with a developed artisanal arm, would need to take the following factors inter alia, very much into account:

- (i) The availability, seasonality, size and distribution of fish stocks;
- (ii) The economic potential for exploitation. (If the potential is not at an appropriate level, alternative means for using the resources would need to be explored);
- (iii) The possibility of negotiating rights of access to the fisheries resources of other states using the industrial fishery establishment at the basis of a joint venture;
- (iv) The availability of finance for borrowing or purchasing vessels and other equipment;
- (v) The need to secure reliable market outlets;
- (vi) The availability of required management skills, finance, and manpower; and
- (vii) Infrastructural requirements including processing and storage facilities.

With respect to certain possible negative implications of industrial fishing ventures, reference may be made to the decline in the catch-rate of spanish mackerel (carite), crevellis and tarpon in waters, for example off Trinidad and Tobago. The decline of

catches in respect of these species is believed to be at least correlated with the development of shrimp fishing in the fishing grounds off Guyana. Since offshore trawlers often exploit the same species as do inshore fishermen, it is often the case that activities of these craft, in addition to those of distant-water trawlers, have the effect of depleting the stocks that would otherwise have been available to inshore fisheries, thus depriving artisanal fishermen of a substantial portion of their livelihood, and their respective countries of a much needed and valuable food source.

CHAPTER IV

THE NON-RENEWABLE RESOURCES OF THE CARIBBEAN SEA

By "non-renewable resources" is meant those materials of either actual or potential economic value which exist in necessarily finite quantities and whose deposits cannot, within any meaningful time-frame, be reformed or replaced at anywhere near the rates of utilization. These stand in contra-distinction to living resources such as most aquatic species which, under appropriate systems of utilization and conservation, may continue to provide sustainable yields on an indefinite basis.

Most non-renewable resources exist in the form of minerals. Mineral resources may be defined as "known concentrations of chemical elements in a particular location on or in the earth's crust, or in the oceans, in such forms that usable commodities can be profitably extracted from them."¹

Minerals may be classified according to several criteria. These include their forms of natural

¹See IADB: Economic and Social Progress in Latin America 1983 Report, Chapter VI.

occurrence, their physical or chemical properties as well as their end-uses. A commonly understood classification divides minerals into four main categories namely energy minerals, ferrous minerals, non-ferrous metals and non-metallic materials.

Energy minerals include petroleum in its liquid or gaseous phases: geothermal steam, coal and the fissionable materials such as uranium, which is used in the generation of atomic energy. Ferrous minerals include iron-ore, manganese, chromium, silicon, nickel, cobalt, rhenium, columbium, tungsten, tantalum, molybdenum and vanadium. Non-ferrous metals include the popularly known and used base metals such as aluminum, copper, lead, zinc and tin. Also included in this category are the light metals such as magnesium and titanium² and numerous other elements ranging from gold, silver, platinum and other precious metals, with high unit values in relation to their volume, to the many substances that are used to a minor extent in industrial activity.

Non-metallic minerals include construction materials such as the "bulk minerals" clay, limestone,

²The presence of titanium minerals such as ilmenite and rutile is often indicated by the black colour of the sands of certain beaches.

gypsum, sand, gravel and stone.³ This category also includes fertilizer elements such as phosphorus,⁴ potassium and sulphur, together with a range of other substances that are used in metal-working, industrial chemicals, plastic and other products.

The major considerations attaching to the economic exploitation of minerals, especially those that are obtained from submarine or sub-sea sources, relate to the economics of their exploitation and utilization. These considerations include the following:

- (i) Mineral elements currently in commercial use constitute but a small fraction of the earth's crust.⁵
- (ii) Among metals, only aluminum, iron ore, magnesium, and titanium occur in significant quantities, while some 80 other useful elements together represent less than 1 percent.
- (iii) Most of the minerals in question are widely distributed and are located at great depths or are mixed with other substances which makes their extraction or separation

³The status of sand and gravel as minerals may be queried. Sand, however, contains much quartz. These are of low value and are only dredged from areas close to the source where operation and transportation cost are low. Sand, gravel and lime are used in the construction industry and represent an almost inexhaustible resource.

⁴Phosphorites are often associated with upwelling of nutrient-rich waters.

⁵This section draws heavily on IADB, Economic and Social Progress Reports in Latin America: 1983 Report, Chapter IV.

uneconomic. Commercially viable exploitation is therefore necessarily a rare possibility. The cost of acquiring technology and the need to acquire large amounts of finance present major constraints in this regard.

- (iv) Except for the case of petroleum, current mining techniques allow profitable exploitation only at relatively shallow depths.
- (v) Given the need to remove undesired material to attain the target metal, mining turns out to be energy intensive. The production of petroleum itself requires large amounts of minerals such as cement, barite, iron ore, copper, lead, zinc and others, for drilling, transportation, refining and storage.
- (vi) Only a fraction of exploitable deposits are known within any degree of accuracy. This is due to the imperfect state of knowledge as regards geological processes, limited exploration activities that have been undertaken, and the difficulties inherent in the identification of deposits occurring under dense vegetation, deep underground or, more related to the focus of this thesis, undersea. Moreover, there is a high risk factor since the process is subject to considerable uncertainty arising from geological or mining unknowns or from changes in economic conditions.
- (vii) The transportation of minerals in their several categories from reserves to resources that are actually available for use, requires considerable investment in infrastructure including such items as power supply, transportation, communications and even housing.

With respect to the Caribbean Sea, this marine enclave is shown on the basis of existing knowledge backed up by exploration attempts, to be less than generously endowed with minerals. This having been

stated, it must be noted that petroleum, the most important energy mineral, is associated with sedimentary rocks, principally those that have been deposited under marine conditions, though continental sediments are also included. Further, it is now clear that many of the deep sedimentary basins of the world are located along the margins of existing continents and that, in many cases, the conditions for the accumulation of oil and gas improve seaward. This means, of course, that the entire Caribbean Sea presents an example of an offshore sedimentary basin. A similar observation is appropriate with respect to the areas off the Atlantic Coasts of North and South America and of Europe and Africa, among others. Transcending this fact, however, is the observation that marine resources, both living and non-living, have a strong tendency to adhere to the continental land masses and that, with respect to the Caribbean Sea, such resources are to be found off the Caribbean coasts of Central America and off Caribbean South America. In the Gulf of Mexico, for example, large deposits of petroleum have been discovered at depths of hundreds of feet below the seafloor.

With respect to the Eastern Caribbean, only the areas to the South of that island chain show resources of any real worth. Trinidad and Tobago has been

exploiting submarine petroleum deposits since the 1950s.⁶ Barbados, a land-producer of modest significance, also shows a potential for offshore deposits of petroleum and, perhaps, of natural gas. All this having been noted, the Caribbean Sea contains, in quantities believed to be only modest, and at present uneconomical, iron, anharite, titanium, gold, phosphate and zircon, in addition to petroleum. Deposits of these are of course, unevenly distributed.

Manganese nodules have also been found off the coasts of Haiti and Jamaica.⁷ This latter country has already invested vast sums of money in offshore petroleum exploration though without much success. As a matter of detail, it may be pointed out that petroleum is not to be found on the seafloor but rather presents an instance of ordinary underground mining of what becomes called a sub-sea mineral to emphasize the fact that it is the continental shelf (lying below sea level) that is being explored.

⁶This excludes the close-to-shore Brighton Wells which were in use much earlier. See Bhoopsingh and Toney "Energy: Petroleum" in Cooper and Bacon (eds.) The Natural Resources of Trinidad and Tobago, Edward Arnold, London, 1981, Chapter 6.

⁷See Uchegbu, P. "The Law of the Sea and Small States in the Caribbean" in Lewis, V.A. (ed.), Size Self-Determination and International Relations: The Caribbean, I.S.E.R., University of the West Indies, pp. 285-306.

Magnetite can also be obtained from Caribbean beaches but this involves very important environmental considerations as indeed do all other forms of ocean mining. In this instance, the entire ecological pattern, including the beach, stands to be destroyed. The possibility of conflicts among users therefore emerges as an issue of supreme political, economic and social importance.

Reference must also be made in this section to dissolved solids contained in sea water. Sea water contains many substances which are recoverable on a commercial scale. These include salt, magnesium compounds and bromine. Salt extraction constitutes the largest scale activity in this category. More than one third of the world's salt production originates in the ocean while two thirds and one half of the magnesium metal and bromine respectively are derived from the same source.

The ocean contains an almost inexhaustible supply of certain substances and estimates suggest that in every cubic kilometre of sea water are to be found some forty million tons of dissolved solids. However, although the technology is available for the extraction of some of these inorganic substances, their exploitation would prove uneconomical given their current prices on world markets.

By way of summary, then, with respect to islands of the Eastern Caribbean, the prospects of discovering energy minerals or other economically exploitable minerals would seem to be marginal. In this connection, the observation by Siebold is worth noting. In his Bruun Memorial Lectures delivered at UNESCO in 1979, he stated that

"underneath at least 80 percent of the vast blue ocean...it is useless to look for oil and gas..."⁸

In a similarly sobering observation, he also notes that

"...it is usually easier to find a mine by chance than to predict one..."⁹

In any case, as Siebold further points out, and bearing in mind the content of the preceding section "...offshore mining is not necessarily a bonanza."¹⁰

What needs to be emphasized in this thesis is the general unavailability of information with respect to the mineral deposits of the Caribbean Sea. This is not to suggest that no geophysical traverses have been made of this sub-oceanic basin. Indeed, several have been executed but, as in the case of the assessment of the

⁸See Seibold, E., "Non-living Marine Resources" in I.O.C. Technical Series, No. 21, UNESCO 1980, pp. 7-14.

⁹Idem.

¹⁰Idem.

stocks of living resources, the findings are for the most part, to be found in foreign institutions. Given the great interest the region has in this matter, it may be appropriate to establish a centre, necessarily regional in scope, and entrusted with the task of collating and assessing available information with a view to making it usable and readily accessible to Caribbean decision-makers.

It remains now to assess the exact nature of the interest on the part of the island states and territories of the Eastern Caribbean given the absence or, at least, the believed absence of economically exploitable mineral resource.

First, it must be borne in mind that the countries in question are, for the most part, predominantly agricultural with respect to the overall profile of their economic activity. Manufacturing sectors exist at varying levels in most territories while industrial production generally remains the province of the larger entities such as Trinidad and Tobago. It means, therefore, that these countries are typically dependent on foreign sources for important inputs and machinery for their respective manufacturing sectors and also, in all cases, for a broad range of manufactured goods. The discovery of economically exploitable minerals will not alter this pattern.

Of major importance to the economies of the island states and territories of the Eastern Caribbean is the generally modest availability of energy minerals. The countries of the region, with the exception of Trinidad and Tobago and, to a lesser extent, Barbados share characteristics which determine their energy position. The first of these refers to their almost total dependence on imported petroleum for meeting their commercial energy requirements. The second characteristic is the subcritical size of most energy systems. This has the effect of placing a severe constraint on the choice of least-cost solutions. A third energy-related characteristic that is generally shared by the countries being examined is the absence of organized markets for indigenous fuels such as wood and charcoal, and, closely related to this, a fourth factor, namely the replacement of indigenous fuels by imported petroleum.

In a survey conducted in the Caribbean in 1979, the World Bank related the pattern of energy demand in Caribbean countries to their respective structures and stages of economic development.¹¹ This survey identified three broad categories in the Caribbean:

- (i) Relatively high energy-intensive economies with significant mining and mineral

¹¹See World Bank Report, No. 2511 - CRB, May 7, 1979.

refining activities (Dominican Republic, Guyana, Jamaica and Suriname);

- (ii) Moderately energy-intensive economies related to light industries, tourism and sugar refining (Antigua, Barbados, Belize, Saint Lucia);
- (iii) Low intensive economies mainly based on agriculture (Most Windward and Leeward Islands and Haiti).

While one may question the details of this classification¹² its general validity would appear to be borne out by what is known of the overall structure of these economies and of the pattern of their economic activity.

The fact that the countries on which this thesis is focussed can be considered "low-energy intensive economies" has a significant degree of relevance in determining the nature of their interest in the energy question.

The constraint of size as it affects the establishment of economically viable energy production systems has already been noted. Also, the weak energy-resource base appears to be aggravated by the absence of appropriate policies and by inadequate efforts to develop indigenous resources.

¹²The exclusion of a country like Trinidad and Tobago from category (i) is a case in point, since domestic consumption can amount to over five million barrels per year.

Generally speaking, the petroleum sector of the island states and territories of the Eastern Caribbean has been adversely affected by inadequate resource management. The development of "possible" hydrocarbon resources in the area such as in Grenada has been retarded by lack of adequate exploration and also because the relatively minor prospects of finding petroleum has generated but little interest among international oil companies. Needless to say, the countries involved are hardly in a position to mobilize the required levels of capital, technology and manpower that are required for petroleum exploration. In addition to all this, is the inefficient use of valuable existing resources as was evidenced by the fact that in the case of Barbados, for example, nearly two thirds of the natural gas that is lifted, is flared. Barbados is nevertheless self-sufficient in this commodity. Further, in the Eastern Caribbean, the establishment of generally small-scale refineries induced by fiscal incentives, has led to financially weak units which require subsidies to continue operations. This has inevitably resulted in distorted fuel prices.

A representation of the overall configuration of energy endowment production and processing in selected

countries of the Eastern Caribbean is set out in Table VI.

Within the region, imports of petroleum fuels typically meet seventy to ninety percent of overall energy consumption. Trinidad and Tobago is self-sufficient in petroleum and, in fact, relies on the export of this commodity for the bulk of its foreign exchange earnings. A tabulation of petroleum production levels in that country, broken down into land and marine sources appears at Table VII. Barbados has a relatively small production of crude oil and natural gas which meets about twenty percent of total national energy requirements. The generation of thermal energy, widespread in the region, is primarily based on petroleum fuels and is also responsible, in very large measure, for the level of petroleum imports.

With the exception of hydropower generation in the region, in some of the island states and territories as has been shown, there is no indigenous commercial energy being recognized by government decision-makers and some countries are exploring the possibilities for non-conventional sources such as solar, geothermal and

TABLE VI

ENERGY ENDOWMENT, PRODUCTION AND PROCESSING
IN SELECTED STATES AND TERRITORIES OF
THE EASTERN CARIBBEAN

COUNTRY	Geothermal Potential	Oil Gas Potential	Commercial Oil/Gas Production	Hydropower Currently Exploited	Hydropower Potential	Natural Gas	Small Refinery	Large Refinery	Lignite Deposits	Swamp* Peat Deposits	Thermal Power Deposits
Antigua & Barbuda								+			+
Barbados			+			+		+			+
Dominica	+			+	+						+
Montserrat	+										
St. Kitts/ Nevis											+
St. Lucia	+			+							+
St. Vincent and the Grenadines	+			+							+
Trinidad and Tobago			+			+		+			+

*Potentially Exploitable.

Source: World Bank Report No. 2511-CRS of 7 May 1975. Maps Nos. 14228 and 14229 dated April 1979

TABLE VII

TRINIDAD AND TOBAGO PETROLEUM PRODUCTION BY SOURCE

Period	Source of Production						
	Daily Average per well barrels	Total production 000 barrels	Marine production 000 barrels	Marine as % of total	Land Production 00 barrels		
					Total	State	Private
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1984	44.4	62 042	48 321	77.8	13 719	11 412	2 311
1985	55.6	64 258	49 822	77.5	14 435	12 021	2 413
1986	52.6	61 639	46 847	76.0	14 792	12 328	2 464
1987	47.7	56 642	41 941	74.1	14 701	12 150	2 551
1988							
1987 1st Quarter	50.7	14 669	10 990	74.9	3 679	3 051	628
2nd Quarter	48.7	14 368	10 708	74.5	3 660	3 001	659
3rd Quarter	46.1	13 973	10 281	73.6	3 692	3 053	639
4th Quarter	45.3	13 632	9 962	73.1	3 609	2 950	659
1988 1st Quarter	44.8	13 390	9 781	73.0	3 609	2 950	659
2nd Quarter							
3rd Quarter							
4th Quarter							

Source: Quarterly Economic Report, January-March 1988, published by the Central Statistical Office, Trinidad and Tobago.

aeolian energy. The last mentioned would be more suited to those islands with longer coastlines. In the Caribbean, the most extensive use of wind energy has been made by Barbados.¹³

With respect to non-fuel minerals, many of these are exploited on a commercial basis by countries lying in or bordering the Caribbean Sea. A tabulation of the incidence of selected non-fuel minerals by major producers of the region is set out at Table VIII.

The constraints on energy production and exploration, so severe on land, are multiplied many times over with reference to similar activities in the marine environment. To refer to Latin America, in order to place the issue in a wider and more readily understood context, it has been noted that

"...current knowledge about Latin America's mineral resource base is scant and only small parts of its territory have been explored. For example, it is estimated that only five percent of the potential areas of mineralization in Mexico and ten percent of those in Bolivia have been intensively explored."¹⁴

If this is the case with respect to land-based interests, what prospects can there be for the marine

¹³See Satcunanathan, K., "Energy: Non-Conventional Sources" in Cooper and Bacon (eds.) The Natural Resources of Trinidad and Tobago. op cit., Chapter 7.

¹⁴IADB: Natural Resources of Latin America: 1983 Report, IADB.

TABLE VIII

INCIDENCE OF SELECTED NON-FUEL MINERALS BY
MAJOR PRODUCERS LYING IN OR BORDERING THE CARIBBEAN SEA

FERROUS METALS

Iron Ore	Venezuela
Tungsten	Mexico
Nickel	Cuba, Dominican Republic, Guatemala

NON-FERROUS BASE METALS

Bauxite	Guyana, Jamaica
Zinc	Mexico
Lead	Mexico

INDUSTRIAL METALS

Strontium	Mexico
Arsenic	Mexico
Antimony	Mexico
Selenium	Mexico
Cadmium	Mexico
Mercury	Mexico

PRECIOUS METAL

Silver	Mexico
--------	--------

NON-METALLIC MINERALS

Fluorspar	Mexico
Sodium Sulphate	Mexico
Barite	Mexico
Graphite	Mexico
Sulphur	Mexico
Feldspar	Mexico
Gypsum	Mexico
Diatomite	Mexico

Source:

U.S. Bureau of Mines
Mineral Commodity
Summaries, 1980 and 1983.

sector? As has been concluded in the I.A.D.B. report just quoted, the basic consideration is that

"adequate assessment of the region's mineral resources is...indispensable if their development and exploitation is to be effectively planned and the required investments prompted."¹⁵

This is all the more applicable to the small countries of the Eastern Caribbean whose economic needs are great but which nevertheless labour under severe geographical and economic constraints.

Thus far, attention has been focussed on the interest of the developing island states and territories of the Eastern Caribbean with respect to the minerals which may be found either on the seabed and subsoil thereof, or in suspension in the water column. In addition to these substances, however, there are other resources, of a non-extractive nature, which inhere in the areas within the exclusive economic zones, actual or potential, of these States and territories. Among these may be included those values which are related to the geopolitical location of these entities such as the provision of services related to the tourism and transshipment industries and also that value of primordial importance namely "marine

¹⁵IADB: Natural Resources of Latin America: 1983 Report, IADB.

scientific research."¹⁶ It is to this last named value that this thesis will place particular attention.

The Interest of the Eastern Caribbean States in Marine Scientific Research¹⁷

The Nature of Marine Science

Marine scientific research is the term applied to "the scientific investigation of the ocean, its biota and its physical boundaries with the solid earth and atmosphere."¹⁸

Many of the basic questions about the ocean are inherently inter-disciplinary so that their solution often calls for collaboration among scientists with different experiences and skills. Marine sciences,

¹⁶The point must be made in this connection that the provision of transshipment services arising from the geopolitical location of the Eastern Caribbean is an area of economic interest that has merely been accentuated by the introduction of EEZ regime which has given new prominence to all marine values as opposed to having created these values.

¹⁷Notwithstanding the fact that the issue of marine scientific research constitutes the subject of a later Chapter of this thesis, the inclusion of this section is deemed justifiable for the sake of completeness of exposition with a particular view to enhancing or placing in greater perspective, the observations made in this present Chapter. In any event Chapter VIII, deals only with the implications for marine scientific research of the introduction of the EEZ regime.

¹⁸See UNESCO Doc. IOC/INF-505 ADD. of 10th September, 1982.

then, span the range of physical, chemical and biological oceanography, geology, geophysics, marine and fisheries biology, hydrography, bathymetry and meteorology, among many others. Further, the oceans constitute an ecological unity with interaction on a global scale so that it cannot be divided into small national compartments. The fact of the vast dimensions of many oceanic processes coupled with the realisation that their occurrence and location are seldom coincident with the limits of national jurisdiction, conspire to make marine scientific research heavily dependent upon cooperation among countries. For example, the question of coastal processes are of vital concern to the states and territories of the Eastern Caribbean, as, indeed, to other coastal states. This is because the flux of materials through the boundary between land and sea is a critical element in the overall oceanic cycles. Further, it is in these coastal areas that evidence of changes of a general nature may be first apparent. Thus, the determination of changes in these fluxes must be a central question on the regional and global scales. A major difficulty encountered in this area is to separate short-term variability from longer-term trends and to distinguish "natural" from artificially induced changes.

In order to attempt generalizations about such locally diverse coastal environments so as to establish boundary conditions for the deep ocean and to provide management advice for the continental shelf regions themselves, a vast amount of interdisciplinary work on regional or wider international levels is necessary. In order to focus on the interests of Eastern Caribbean States in marine scientific research, an exploration will be undertaken later in this thesis of the reasons why ocean research warrants support on the part of decision-makers of the several political units located within the sub-region. Reference will also be made, by way of balance, to certain obstacles of a practical nature, which render the strengthening of such research initiatives somewhat problematic.

In a preceding section of this work, it was indicated that there were significant human problems existing in the group of States on which this thesis is focussed, which can, at least to some considerable extent, be mitigated by the application of the results of marine scientific research. As has been emphasized, the ocean is already a source of extractable resources, living and non-living and additional resources remain to develop. The ocean also provides a medium for shipping, communication and for national security, among other activities and concerns. It renders the

Caribbean climate more equitable, receives the wastes of domestic, agricultural and industrial activity and also offers exciting and profitable opportunities for recreation. All this is well known. However, with respect to each of these activities that have been mentioned, too little is known about the relevant phenomena and processes such as would permit accurate forecasts of the consequences of alternative use strategies or management measures. In the absence of that knowledge, resources may be wasted, used inefficiently or even destroyed inadvertently. "The cost of ignorance is often high, and the investment in reducing it can return large dividends."¹⁹

The implication of this fact may be summarized in the dictum according to which "to use the ocean wisely, you must first understand it."²⁰ While the industrialised maritime states remain the major investors in marine scientific research, many developing countries, including those bordering the Caribbean Sea, have already begun to assign significant degrees of priority to this activity. Within the Caribbean and adjacent regions, marine research

¹⁹UNESCO Document IOC/INF-505 ADD. dated 10th September, 1982.

²⁰Prof. E. Seibold in his "Introduction" to UNESCO Doc: IOC/INF-505 dated 20th July 1982.

institutes, to use a generic term, have been established in Barbados, Brazil, Belize, Colombia, Costa Rica, Cuba, Curacao, Cayenne, the Dominican Republic, Ecuador, El Salvador, Guadeloupe, Guatemala, Jamaica, Honduras, Martinique, Mexico, Nicaragua, Panama, Puerto Rico, Saint Lucia, Suriname, Trinidad and Tobago, Venezuela and the U.S. Virgin Islands.²¹

The several institutions are engaged in varied research programmes in such fields as oceanography, meteorology, marine biology, geology and fisheries resources. While most are situated in areas of "standard" marine conditions, Trinidad and Tobago with its Institute of Marine Affairs, and situated in a low salinity, estuarine location, offers unique possibilities for research and development of highly productive but little-known marine habitats.

A major constraint on the prosecution of much desired marine scientific research in the Caribbean however, is the inadequacy of indigenous resources, both human and financial. Moreover, the essentially strapped financial situation of the countries of the region has served to entrench the perspective whereby research, as indeed any other priorities, is evaluated with reference to the relative costs and benefits which

²¹See U.S. Department of Commerce "Latin American Marine Research Institutes," Washington, 1984.

may arise during a given accounting period. In this context, it is evident that benefits, in particular, of marine scientific research are difficult to estimate, inasmuch as they typically extend over a wide range of time and application and also because it is usually impossible to trace them to a single specific investigation. Moreover research efforts by one country usually benefit others with the obvious implications for cost-benefit accounting.

Notwithstanding the above, there is now in the Caribbean, a clear recognition of the need to assign greater priority to the support of basic marine scientific research and to the application of relevant findings over the entire range of ocean uses and to ocean management generally.

With their typically increasing pressure of population and already current expectation of modern standards on living, the tiny countries of the Eastern Caribbean are more than just aware of the limited nature of their land-based resources. Requirements of minerals and energy cannot, in the majority of cases, be met from land resources. In addition, as witness the balance of payments position of these countries and territories, all may be classified as "food deficit countries." It is therefore reasonable to expect ever

growing demands on the sea for its protein-rich resources.

Nor is the interest of Eastern Caribbean States in the area of marine scientific research confined to specialized programmes for fisheries or for the exploration of petroleum or mineral development on the continental shelf. While these activities are of great importance and, in some cases, are already being undertaken, the fact remains that, in the absence of basic information about such factors as "ocean-circulation" and the major ecosystems of the region, it would be difficult to use these resources wisely or to predict the consequences of their harvest. For that matter, even the traditional uses of the ocean stand to benefit from marine scientific research and engineering development.

In addition, it must be recalled that marine scientific research may closely impinge on activities that are land-based. For example, weather and climate forecasting which benefits agriculture, is partly based on ocean research. The use of low lying areas for agriculture and human settlement also depends on predictions relating to tides, floods and tsunamis. Further, any research that is related to ocean resources has at least an indirect influence on land

producers and generally on world markets for raw materials produced on land.

The objective interest of the Eastern Caribbean States in maritime scientific research therefore emerges supreme.

Summary of the "Indices of Interest" of the States and Territories of the Eastern Caribbean

In what might be described as "a pioneering methodological essay", written on the eve of the commencement of the negotiations within UNCLOS III, four basic elements were isolated to be taken into account in both the evaluation and the determination of the content of the interest in Law of the Sea matters on the part of any given country.²²

These elements, which may be construed in the nature of criteria of relevance, are listed as:

- (i) accessibility
- (ii) investment
- (iii) dependence and
- (iv) control

These four elements, employed in their several dimensions, are endorsed by the present writer as constituting a workable paradigm under which the

²²See Alexander, L.M., "Indices of National Interest in the Oceans," in O.D.I.L., No. 1, Spring 1973, pp. 21-49.

several interests of States with respect to marine affairs may be subsumed.

Such endorsement shows itself to be anything but misplaced at least in the instant case of the States and territories of the Eastern Caribbean in respect of which operationalisation of the respective elements as have been identified by Alexander, permits no exclusion with respect either to the objective or subjective marine interests of these political units.

With respect to "accessibility" a major aspect of the concerns or rather of the interest of these States, arises from the fact of their geographically disadvantaged location on the border of a semi-enclosed sea. The sea-locked nature of their location has implications for the degree of access enjoyed by these States and territories to ocean space whether in respect of the open sea or of the Caribbean Sea itself. The existence of numerous straits between neighbouring countries as well as the extent and configuration of such features as continental shelves are also important considerations.

On the matter of "investment", attention has been focussed on the several economic activities that are pursued within the marine environment. Emphasis, it will be recalled, was placed on fisheries, mineral exploration, sea-transport and marine scientific

research. All these activities imply levels of investment: actual or potential.

"Dependence," the third element, is related to the two just mentioned elements. With respect to the Eastern Caribbean States and territories, on which this thesis is focussed, varying degrees of dependence on the marine environment have been illustrated. The importance of tourism to the economies of Grenada and of Antigua and Barbuda; and the significance of offshore hydrocarbons to the Trinidad and Tobago economy are among the more telling examples of this phenomenon.

The final element, "control", perhaps constitutes the major element, for without a marine domain, considerations with respect to accessibility, investment and dependencies remain essentially academic. On the other hand, "control" in the sense of the exercise of jurisdiction over a defined area of hydrospace provides the only certain basis on which the other three elements can be adequately activated. Clearly, it is the interplay of these four elements which informs the national maritime policies of the States concerned.

It must be emphasized that the areas of interest that have been indicated with respect to the States and territories of the Eastern Caribbean are but a

selection and do not, therefore, purport to be exhaustive. For example, given the frequency of hurricanes in the region and the impact these invariably have on the marine environment, States in the region also have an interest in disaster relief operations arising directly or indirectly from the sea. Nor are additional examples difficult to find.

The points which have been emphasized in this Chapter as well as in the preceding one are intended to convey only some of the major areas of interest in the marine environment on the part of the States and territories of the Eastern Caribbean. The relative importance of each of these areas will provide the basis on which the nature of the problematique related to the introduction of the exclusive economic zone regime in this subregion will be evaluated. Before such an evaluation can be undertaken, however, the element of "control" requires to be explored in some detail inasmuch as it is the precise nature of problems relating to the delimitation of maritime boundaries that determine to what extent the States and territories under review are able, given their geographical location, to acquire an exclusive economic zone in the first place.

The determination of boundaries is a frequently recurring and often intractable marine desideratum and,

as has been suggested above, lies at the heart of many other Law of the Sea concerns. As a prelude to the exploration of this question, therefore, a survey of the nature of the maritime zones actually claimed will now be undertaken.

CHAPTER V

MARITIME JURISDICTION IN THE EASTERN CARIBBEAN

In Chapter II, the major features and characteristics of the Caribbean Sea were outlined and their implications for, inter alia, the delimitation of maritime boundaries, summarily itemised. Most important among the features and characteristics mentioned with respect to this Sea, were the proximity of some two dozen littoral states bordering this semi-enclosed sea of just over one million square miles in area, in a situation of obvious "geographical disadvantage",¹ the physical and political presence of metropolitan countries and of Venezuela in the region, the submarine features of the Caribbean, and the existence of a territorial boundary-dispute between Venezuela and Guyana. In this Chapter, these factors, together with all the others that have been earlier mentioned, will be fully operationalised in the dynamic context of delimitation practices and processes whereby nation-states intend to pursue their claims to maritime jurisdiction, for the most part, in a zero-sum context,

¹See Article 70.2 of the 1982 Convention.

in order to maximally exploit opportunity with respect to the acquisition of marine space as well as the resources thereof. In effect therefore, what is being undertaken is an examination of what may be referred to as "the politics of geographical disadvantage", in the context of the Caribbean Sea.

The Politics of Geographical Disadvantage
in the Eastern Caribbean

That geography constitutes a crucial factor in the determination of maritime boundaries is axiomatic. In the Eastern Caribbean situation, given the close proximity of States in the island-chain, the practical effects of this axiom attain hyperbolic dimensions. To place the matter in boldest relief, reference will be made to but two observations. Firstly, Article 57 of the Convention, it will be recalled, provides for an exclusive economic zone extending to a maximum of 200 nautical miles. Indeed, as has already been pointed out, this figure of 200 nautical miles had already crystallised in the practice of states as reflected in the several national enactments pertaining to exclusive economic zones even before the adoption of the 1982 Convention, which is yet to enter into force. It follows, then, that the need to embark on delimitation exercises will be obviated only in cases where a

distance of at least four hundred nautical miles intervenes between neighbouring countries.

The second pertinent observation, using for convenience, the example of the states and entities members of the O.E.C.S. namely, Anguilla, Antigua and Barbuda, Dominica, Grenada, Montserrat, St. Kitts-Nevis, Saint Lucia, and St. Vincent and the Grenadines, refers to the fact that these States and territories all lie within a distance, measured North-South, of some 380 miles. This is to say that had entities such as St. Kitts-Nevis, Montserrat, Dominica, Saint Lucia, St. Vincent and the Grenadines not existed, not to mention other entities such as Guadeloupe, Martinique and Barbados---between Antigua and Barbuda in the North and Grenada in the South, recourse to delimitation would still be necessary.

Some of the practical implications for delimitation within the Eastern Caribbean where the, now standard, 200 mile EEZ claim is also encountered are evident from Table IX which sets out the approximate distances separating the island states and territories of the Eastern Caribbean and also, distances between these states and territories and other relevant and mostly adjacent areas.

TABLE IXSELECTED APPROXIMATE DISTANCES IN
THE EASTERN CARIBBEAN AND RELATED AREAS

<u>ANGUILLA</u> (British)	60 miles North-West of St. Kitts
<u>ARUBA</u> (Netherlands)	15 miles North of the Venezuelan Coast
<u>AVES ISLAND</u> (Venezuela)	(i) 100 miles West-South-West of Guadeloupe (French)
	(ii) 125 miles West of Dominica
	(iii) 250 miles North of Margarita Island. (The nearest settled Venezuelan territory off the Venezuelan Coast.
<u>BARBADOS</u>	(i). 300 miles North-East of Venezuela
	(ii) 140 miles North-East of Grenada
	(iii) 88 miles East of St. Vincent
	(iv) 78 miles East of Saint Lucia
	(v) 70 miles North-East of Trinidad and Tobago.
<u>BONAIRE</u> (Netherlands)	50 miles North of Venezuela
<u>CURACAO</u> (Netherlands)	60 miles North of Venezuela
<u>DOMINICA</u>	(i) 125 miles East of Aves Island (Venezuela)
	(ii) 22 miles North-West of Martinique (France)
	(iii) 13 miles South of Guadeloupe (France)

GRENADA

- (i) 140 miles South-West of Barbados
 - (ii) 100 miles North of Venezuela
 - (iii) 90 miles North of Trinidad and Tobago
 - (iv) 68 miles South-South-West of St. Vincent
 - (v) 150 miles South of Saint Lucia
- N.B.: Between Grenada and St. Vincent are the Grenadines a chain of some 600 islets where, for example, Petit Martinique (Grenada) is a mere 1 1/2 miles from Petit St. Vincent (St. Vincent and the Grenadines).

GUADELOUPE
(France)

- (i) 4300 miles South-West of metropolitan France
- (ii) 370 miles North of the Venezuelan Coast
- (iii) 74 miles North of Martinique (France)
- (iv) 100 miles from Aves Island (Venezuela)

MARTINIQUE
(France)

- (i) 4400 miles South-West of metropolitan France
- (ii) 270 miles South-East of Dominica
- (iii) 74 miles South of Guadeloupe (France)
- (iv) 22 miles South-East of Dominica
- (v) 20 miles North of Saint Lucia

ST. KITTS

60 miles South-East of Anguilla (British)

SAINT LUCIA

- (i) 205 miles North-East of Venezuela
- (ii) 78 miles West of Barbados
- (iii) 25 miles North-East of St. Vincent
- (iv) 20 miles South of Martinique (France)
- (v) 150 miles North of Grenada

<u>ST. VINCENT</u>	(i)	165 miles North of Venezuela
	(ii)	88 miles West of Barbados
	(iii)	68 miles North-North-East of Grenada
	(iv)	25 miles South-West of St. Lucia
	N.B.:	See Note to Grenada entry above
<u>TRINIDAD AND TOBAGO</u>	(i)	90 miles South of Grenada
	(ii)	9 miles East of Venezuela
	(iii)	70 miles South-West of Barbados
<u>VENEZUELA</u>	(i)	370 miles South of Guadeloupe (France)
	(ii)	300 miles South-West of Barbados
	(iii)	270 miles South of Martinique (France)
	(iv)	205 miles South-West of Saint Lucia
	(v)	165 miles South of St. Vincent
	(vi)	100 miles South of Grenada
	(vii)	9 miles West of Trinidad and Tobago.

The distances indicated in Table IX illustrate not only the need for frequent resort to the potentially conflict-ridden delimitation procedure, in the geographical setting of the Eastern Caribbean, but they also point to the need for a multiplicity of agreements on the part of most states of this subregion. "In the case of the Caribbean", according to one writer

"where geographical, historic, cultural, social, economic, and even geomorphological factors have to be carefully considered, EZ delimitation

will be difficult and time-consuming."²

The same writer continues to the effect that

"should each and every political entity, including the colonies and associated states, demand EZ delimitations, as many as 105 agreements would have to be negotiated at once."³

The following eight explicit examples of the permutations of negotiations that will be required for the demarcation of maritime boundaries in the Eastern Caribbean, illustrate this point:

- (i) Antigua and Barbuda will need to conclude delimitation agreements with St. Christopher-Nevis, U.K. (Montserrat); and France (Guadeloupe).
- (ii) Barbados will need to negotiate at least with St. Lucia; St. Vincent and the Grenadines and Trinidad and Tobago in addition to France and Venezuela.
- (iii) Dominica will need to negotiate at least with Venezuela and France.⁴
- (iv) Grenada will need to negotiate at least with St. Vincent and the Grenadines and Trinidad and Tobago in addition to Venezuela.

²Nweihed, K.G., "EZ (Uneasy) Delimitation in the Semi-enclosed Caribbean Sea: Recent Agreements between Venezuela and Her Neighbors" in O.D.I.L., Vol. 8, No. 1, 1980, pp. 1-33.

³Idem.

⁴Negotiations with France have reportedly commenced.

- (v) Montserrat will need to negotiate a maritime boundary with Antigua and Barbuda; St. Christopher-Nevis and Venezuela.
- (vi) St. Lucia will need to negotiate at least with Barbados and St. Vincent and the Grenadines in addition to Venezuela and France.⁵
- (vii) St. Vincent and the Grenadines will need to negotiate at least with Barbados, Grenada and St. Lucia in addition to France, Venezuela and Trinidad and Tobago.
- (viii) Trinidad and Tobago will need to negotiate at least with Barbados, Grenada and Guyana in addition to Venezuela and St. Vincent and the Grenadines.

Nor is objective distance, or relative lack of it, the only complicating element in the determination of maritime boundaries in the Eastern Caribbean. In addition to this admittedly important factor, are the following which lend further degrees of complexity wherever they intervene in the delimitation process:

- (i) The need to activate the "regime of islands" in cases where islands intervene in the already cramped spaces that separate other land masses not falling under the same jurisdiction.⁶
- (ii) Related to (i) above, but worthy of separate mention, is the existence of twin

⁵The Governments of St. Lucia and of France on March 4, 1981, both signed and ratified an Agreement on maritime boundary delimitation. Source: Office for Ocean Affairs and the Law of the Sea, United Nations, New York.

⁶See Bowett, D., The Legal Regime of Islands in International Law. Oceana Publications, Dobbs Ferry, New York, 1979.

or multiple island archipelagic states--legal or geographical.

(iii) The problem posed by "political antispace" accounted for and inhabited by:

(a) metropolitan powers; and

(b) Venezuela.

This is in contradistinction to difficulties arising from literal, physical space as exists where the opposite or adjacent countries are neither Venezuelan nor metropolitan. "Antispace" is used to denote a situation where the presence of Venezuela and metropolitan countries leads not only to the sharing of maritime space but beyond that, to the "destruction" or "removal" of such space as would have otherwise accrued to the island-state and territories of the sub-region under reference.

The consideration attendant upon the "regime of islands" will, to avoid repetition, be discussed in a subsequent section where contemporary delimitation agreements are examined. The essentials of the problem have already been hinted with reference to the situation created by the presence of islands of the Grenadines group between St. Vincent and the Grenadines and Grenada.

With respect to the implications of archipelagic states, legal or geographical, in delimitation exercises, these will be amply discussed in the context of the Trinidad and Tobago case history in a subsequent Chapter of this thesis.

For the present, attention will be directed to what has been the "squeezing action" of such states as France and Venezuela in situations where the distances between discrete political entities are already meagre. And, as if this were not enough, this factor is also to be found in combination with the other two that have been mentioned.

In order, however, to evaluate just how and to what extent the "non-regional states of France and Venezuela "trespass" or impose upon the maritime claims of the States and territories in the Eastern Caribbean, it would be appropriate at this point to summarise the content of their respective claims. Such a procedure will also prove convenient for the overall assessment of the implications of the EEZ regime. A review of selected maritime claims is set out hereunder.

BARBADOS:

The Marine Boundaries Jurisdiction Act 1978 of Barbados provides for an Exclusive Economic Zone

The Act establishes contiguous to the territorial waters of that State, an Exclusive Economic Zone having as its inner limit a boundary line which at every point is a distance of 200 miles from the nearest points of the baselines of the territorial waters. The Minister

responsible for External Affairs, is empowered to prescribe other distances.⁷

The Act also provides that all rights in, and jurisdiction in respect of all activities relating to the economic exploration and exploitation of the zone, and all other rights in and jurisdiction over the zone recognized by international law, are vested in the Government of Barbados.⁸ Thus, no person shall within the zone, explore or exploit; carry out any research or excavation; conduct any research; drill or construct; maintain or operate any structure or device; or carry out any economic activity; unless he has been so permitted either by agreement with, or permit from the Government of Barbados.⁹

Subject to certain provisions relating to the application of certain enactments to the zone, ships and aircraft of all States are not restricted in or prohibited from the enjoyment of the freedom of navigation, overflight, the laying of cables and pipelines and "the other lawful use of the sea related

⁷Section 3 (1)

⁸Section 5.

⁹Section 6.

to navigation and communications recognized by international law.¹⁰

In the Barbados legislation, no distinction appears to have been made between the Exclusive Economic Zone and the Fishing Zone. The Barbados Act provides that "no person shall engage in fishing within the "zone" or the territorial waters, unless he is a citizen of Barbados, a holder of a valid permit or if there is in existence, in relation to him, an agreement with the Government of Barbados."¹¹

With respect to the delimitation of the Exclusive Economic Zone boundaries, the Marine Boundaries and Jurisdiction Act of Barbados provides that where the median line between Barbados and any adjacent or opposite State is less than 200 miles from the baselines of the territorial waters, the outer boundary limit of the EEZ shall be that fixed by agreement between Barbados and that other State. Where no agreement exists, the outer limit shall be the median line.¹²

¹⁰Section 7.

¹¹Section 7.

¹²Article 3. Note that the Territorial Waters Act of Barbados has no provision dealing with the delimitation of maritime boundaries between adjacent or opposite states.

On the matter of baselines, the Barbados Territorial Waters Act, 1977 provides that, in place of the low water mark, the Minister responsible for External Affairs may prescribe other baselines using a mixture of straight lines drawn from the points on the coast of Barbados and the low water line.¹³

Here it must be pointed out that in the Eastern Caribbean, the principles applied in the fixing of baselines are generally reflective of those principles contained in the 1958 Geneva Convention on the Territorial Sea and Contiguous Zone. Legislation in Barbados, Guyana, Trinidad and Tobago and Jamaica use the traditional low water mark as the base from which the territorial sea is measured. Straight baselines, as alternatives to the low water mark, are provided for in the legislation of these States, even if the factors informing their application appear to be different.

An interesting observation with respect to the Barbados legislation, is the close resemblance it bears to the Grenada enactment. The structure of the legislation is the same and both countries employ "twin enactments" in the form of a "Territorial Waters Act"

¹³Article 4(2).

accompanied by a Maritime Boundaries Act.¹⁴ Moreover, as in the case of provisions relating to their respective EEZs, the content is, for the most part, drafted in identical language.

DOMINICA:

In 1981, the Parliament of the Commonwealth of Dominica, adopted "An Act to Establish the Limits of the Territorial Sea, The Contiguous Zone, the Exclusive Economic and Fishery Zones of the Commonwealth of Dominica."¹⁵

This Act sets out the definitions of terms employed in the body of the statute and these include the following:¹⁶

- (i) "baselines" means the line from which the breadth of the territorial sea is drawn as determined in accordance with the straight baseline system;¹⁷
- (ii) "Contiguous Zone" means "that area of sea contiguous to the territorial sea over which the Commonwealth of Dominica may

¹⁴In the case of Barbados the appropriate reference is to a "Marine Boundaries and Jurisdiction Act." See review of the Grenadian EEZ legislation *infra*.

¹⁵Act No. 26 of 1981 passed on August 25, 1981 and published in the Official Gazette of September 10, 1981.

¹⁶Section 2.

¹⁷Emphasis added.

exercise sovereign rights necessary to prevent infringement of its customs, fiscal, immigration or sanitary regulations within its territory or territorial sea."

- (iii) "exclusive economic zone" means an area beyond and adjacent to the territorial sea, over which the Commonwealth of Dominica may exercise sovereign rights, and jurisdiction subject to the provisions of international law."
- (iv) "fishery zone" means "the areas of superjacent waters which extend to a distance of two hundred nautical miles from the baseline from which the breadth of the territorial sea is drawn."
- (v) "innocent passage" means "passage of a ship or aircraft which is not prejudicial to the peace, good order and security of the Commonwealth of Dominica."
- (vi) "territorial sea" means "that area of sea over which the Commonwealth of Dominica exercises sovereignty."

The Act provides, inter alia, for a contiguous zone, "contiguous to its territorial sea" extending twenty four miles from the baseline from which the breadth of the territorial sea is measured.¹⁸

The exclusive economic zone of Dominica according to the Act,

"comprises those areas of the sea, sea-bed and subsoil that are beyond and adjacent to the territorial sea...having as their outer limits a line measured seaward from 'the aforesaid baseline', every point of which line is distant two hundred

¹⁸Section 4.

nautical miles from the nearest point of the aforesaid baseline.¹⁹

In its EEZ, Dominica exercises:

- (a) Sovereign rights for the purpose of exploration, exploitation, conservation and management of the natural resources both living and non-living, of the sea-bed, subsoil and superjacent waters and other sovereign rights with regard to producing energy from tides, winds and currents therein;
- (b) jurisdiction with regard to:
 - (i) the establishment and use of artificial islands, installations and structures;
 - (ii) marine scientific research; and
 - (iii) the protection and preservation of the marine environment.
- (c) Other rights and duties provided for in international law.²⁰

In its Fishery Zone, Dominica exercises the sovereign right and exclusive authority to explore and exploit, conserve and manage the fishery resources of the superjacent waters, the seabed and subsoil therein, in accordance with International Law.²¹

The Fishery Zone is described in the statute as comprising

¹⁹Section 5.

²⁰Section 8.

²¹Section 9.

"...that area of sea, that is beyond and adjacent to the territorial sea...and having as its seaward boundary a line so drawn that each point upon it is distance two hundred (200) nautical miles from the nearest point of the baselines from which the breadth of the territorial sea is measured."²²

However, to the extent that there are provisions in legislation for an EEZ for the exercise of sovereign rights for the purpose of exploring, exploiting, and conserving and managing living and non-living natural resources of the seabed, its subsoil and the superjacent waters, there is implied exclusive right with respect to access to the fisheries resources of the Zone.

Dominica recognizes

"freedom of navigation and overflight of aircraft and of the laying of submarine cables and pipelines and other related activities in the exclusive economic zone in accordance with the principles and provisions of International Law."²³

On the important matter of the delimitation of maritime boundaries, the Act provides that

"where boundary lines of the territorial sea and of the exclusive economic zone...poses of delimitation with the territories and States adjacent or opposite, the Government...shall be ready, able and

²²Section 6.

²³Section 10.2

willing at appropriate times, to enter into negotiations on equitable principles, with the States concerned with a view to reaching amicable agreements."²⁴

GRENADA:

The maritime policy of Grenada is contained, for the most part, in two complementary enactments. These are The Grenada Territorial Waters Act 1978²⁵ and the Marine Boundaries Act 1978.²⁶ Provisions for a Grenadian EEZ are contained in the latter enactment but in order that the definitions attributed to concepts within that Act may be ascertained, attention is directed in that Statute, to the provisions of the former. For example, for the purpose of the Marine Boundaries Act, 'baselines' "has the meaning assigned to it by Section 4 of the Grenada Territorial Waters Act 1978."²⁷

According to this provision,

"...the baselines from which the territorial waters shall be measured

²⁴Section 11. Emphasis added.

²⁵Act No. 17 of 1978.

²⁶Act No. 20 of 1978.

²⁷Section 2 of the Marine Boundaries Act.

shall be the low-water line along the coast of Grenada."²⁸

However, as an alternative procedure, the Minister responsible for External Affairs may by order, inter alia:

- (a) "prescribe other baselines making use of a mixture of straight lines drawn from points on the coast of Grenada and the low-water line; and
- (b) prescribe geographical co-ordinates points on the coast of Grenada from which straight lines may be drawn for the purpose of sub-section (1)."²⁹

With respect to the definition of the Grenadian EEZ, the Marine Boundaries Act provides that:

"There is established, contiguous to the territorial waters, a marine zone to be known as the Exclusive Economic Zone having as its inner limit the boundary line of the seaward limit of the territorial waters and as its outer limit a boundary line which, subject to Sub-Section (3), at every point is a distance of 200 miles from the nearest point of the baselines of the territorial waters or such other distance from the nearest point of those baselines as the Minister may, by order prescribe."³⁰

In addition, Sub-section (3) of the Act provides that:

"Notwithstanding sub-section (1), where the median line...between Grenada and any adjacent or opposite

²⁸Idem.

²⁹Section 4 of the Marine Boundaries Act.

³⁰Section 3 (i).

State is less than 200 miles from the baselines of the territorial waters, the outer boundary limit of the Zone shall be that fixed by agreement between Grenada and that other State, but where there is no such agreement, the outer boundary limit shall be the median line."

The median line is defined as:

"...a line every point of which is equidistant from the nearest points of the baselines of the territorial waters, on the one hand, and the corresponding baselines of the territorial waters of any adjacent or opposite State as recognized by the Minister, on the other hand."³¹

With respect to the rights exercised by the Government of Grenada in the EEZ, the Act provides that:

"There is vested in the Government of Grenada:

- (a) All rights in, and jurisdiction over, the zone in respect of:
 - (i) the exploration, exploitation, conservation, protection or management of the natural living and non-living resources of the sea-bed; sub-soil and superjacent waters;
 - (ii) the construction, maintenance and use of structures or devices relating to the exploration or exploitation of the resources of the Zone, the regulation and safety of shipping, or any other economic purpose;
 - (iii) the authorisation, regulation or control of scientific research;

³¹Section 3 (4).

- (iv) the preservation and protection of the marine environment and the prevention and control of marine pollution;
- (v) all other activities relating to the economic exploration and exploitation of the Zone; and
- (b) all other rights in, and jurisdiction over, the zone recognized by international law.³²

The Grenadian EEZ legislation also has an interesting provision with respect to civil and criminal jurisdiction. In this context, the Marine Boundaries Act provides that:

"In any proceedings in a court in relation to the Zone the averment that an offence was committed or that an act was done within the limits of the Zone shall, until the contrary is proved, be deemed to be prima facie evidence that the locus in quo was within the Zone."³³

GUYANA:

The Maritime Boundaries Act, 1977.

The Guyanese legislation provides for the designation of an area as an "Exclusive Economic Zone". However, unlike, for example, the Barbados legislation which expressly provides for a limit of 200 miles, the

³²Section 5.

³³Section 10(1). A similar provision is contained in the Barbados Marine Boundaries and Jurisdiction Act 1978, Section 10.

Guyana legislation is silent on the point. The Act cautiously, in the writer's view, provides that the President may, if he considers it necessary or expedient, having regard to international law and State practice, designate an area beyond and adjacent to the territorial sea, an EEZ³⁴ Where such declaration is made, Guyana has exclusive and sovereign rights in respect of exploration, exploitation, conservation and management of the natural resources. Guyana shall also have such other rights as are recognized by international law.³⁵ In the zone, and the air-space above it, ships and aircraft of all States enjoy freedom of navigation and overflight. This freedom is however subject to the exercise by Guyana of its rights within the zone. Consent is also required for the undertaking of marine scientific research.³⁶

With respect to the Fishery Zone, the Guyanese legislation provides for a fishery zone

"beyond and adjacent to the territorial sea and bounded on its seaward side by the line every point on which is 200 miles from the

³⁴Section 15.

³⁵Section 16.

³⁶Section 17.

nearest point of the baseline of the territorial sea."³⁷

With respect to the delimitation of maritime boundaries, the Guyanese legislation provides that

"the maritime boundaries between Guyana and any State whose coast is adjacent to that of Guyana in regard to their respective territorial sea, continental shelves, exclusive economic zone, fishery or other maritime zones shall be determined by agreement between Guyana and such State."³⁸

Where no agreement exists, Guyana employs the equidistance principle providing that such boundaries shall not extend beyond the line every point of which is equidistant from the nearest point on the baseline from which the breadth of the territorial sea of Guyana and such State is measured.³⁹

On the question of baselines, the Guyana Maritime Boundaries Act provides that

"where the coastline is broken by a river the baseline shall be a straight line joining the two points where the low water line on the coast ends on either side of the river. Normally, however, the baseline from which the territorial sea shall be

³⁷Section 23.

³⁸Section 35.1.

³⁹Idem.

measured shall be the low water line along the coast..."⁴⁰

VENEZUELA:

The discussion of Venezuela's maritime legislation in this section is dictated by the policy of that country towards what may be perceived as "maritime expansionism". The importance of Venezuelan maritime policy is brought out in relation to the Trinidad and Tobago/Venezuela situation and also to claims that have been advanced by Venezuela and indeed recognized by some, with respect to Bird Island (Aves Island).

In 1978, the Congress of the Republic of Venezuela adopted an "Act Establishing an Exclusive Economic Zone along the Coasts of the Mainland and Islands of the Republic of Venezuela."⁴¹

This Act provides for the establishment of an EEZ

"beyond and adjacent to the territorial sea, all along the coasts of the mainland and islands of the Republic of Venezuela, which zone shall be subject to the regime established by this Act."⁴²

⁴⁰Section 7 (1).

⁴¹Adopted by the Venezuelan Congress on July 26, 1978 and published in the Extraordinary Official Gazette No. 2291 of the same date.

⁴²Section 1.

With respect to the breadth of the EEZ and to the delimitation of that zone, the Act provides that:

"The outer limit of the exclusive economic zone shall be a line every point of which is a distance of two hundred (200) nautical miles from the baseline used to measure the breadth of the territorial sea.

Where this provision results in overlapping with the exclusive economic zones of other States, the zones shall be delimited, as necessary, by agreement between the States concerned."⁴³

In the Exclusive Economic Zone established by the Act, Venezuela enjoys:

- (a) Sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the sea-bed and subsoil and the superjacent waters, and with regard to other activities for the economic exploration and exploitation of the zone, such as the production of energy from the waters, currents and wind.
- (b) Jurisdiction as provided for in the relevant provisions of this Act and its regulations with regard to:-
 - (i) The establishment and use of artificial islands, installation and structures;
 - (ii) Marine scientific research;
 - (iii) The preservation of the marine environment.
- (c) The rights set out in this Article with respect to the seabed and subsoil shall be

⁴³Section 2. All quotations in English are based on the translation supplied by the Permanent Mission of Venezuela to the U.N. in New York.

exercised in accordance with provisions relating to the continental shelf.⁴⁴

In the Venezuelan EEZ, all States enjoy the freedoms of navigation and overflight and of the laying of submarine cables and pipelines and other internationally lawful uses of the sea associated with navigation and communication, "subject to the relevant provisions of the present Act."⁴⁵

With respect to the important matter of the delimitation of maritime boundaries, it must be recalled that Venezuela is numbered among those countries which have not signed the 1982 Convention. Indeed, at the vote for the adoption of the Convention, Venezuela, "profoundly and seriously deploring" that it had to do so, recorded a vote against such adoption.⁴⁶ The sole cause of Venezuela's dissatisfaction with the Convention, and therefore, of its negative vote in that regard, was explained by its delegate, Dr. Andres Aguilar, to be its inability to accept those provisions

⁴⁴Section 3.

⁴⁵Section 4.

⁴⁶Only 3 other states recorded a similar vote viz. Israel, Turkey and the United States of America. See Interpress Service Feature, New York, May 4, 1982.

dealing with the delimitation of marine and submarine areas between states and opposite or adjacent coasts.⁴⁷

TRINIDAD AND TOBAGO:

What is striking in the Trinidad and Tobago example, is the absence until as late as 1986, of a modern legal framework for the definition, control and management of marine areas over which, in accordance with international law and practice, that country may exercise jurisdiction. Until 1986, the most recent provisions relating to areas of Maritime Space over which Trinidad and Tobago purported to exercise jurisdiction were contained in the Territorial Sea Act and the Continental Shelf Act both of which were enacted in 1969. The outline of marine legislation more appropriate to contemporary demands was however foreshadowed by the then Minister of External Affairs of Trinidad and Tobago in Parliament on 29 April 1983. This outline was translated into a package of three legislative enactments all of which were assented to in November 1986. These enactments were in the form of The Territorial Sea (Amendment) Act 1986;⁴⁸ The

⁴⁷See Interpress Service Feature, New York, May 4, 1982.

⁴⁸Act No. 22 of 1986.

Continental Shelf (Amendment) Act, 1986;⁴⁹ and The Archipelagic Waters and Exclusive Economic Zone Act, 1986.⁵⁰

The Territorial Sea (Amendment) Act, 1986

This Act provides, inter alia, for new definitions of the "Contiguous Zone", "Internal Waters", "Closing Lines", "Base Lines", and "Archipelagic Baselines" as will henceforth be used by the Trinidad and Tobago authorities.

According to the Act under reference, "Contiguous Zone" has been defined as

"that area contiguous to the territorial sea which does not extend beyond twenty-four nautical miles from the archipelagic baselines from which the breadth of the territorial sea is measured."⁵¹

With respect to "the internal waters of Trinidad and Tobago", these, according to the Act,

"shall include any areas of sea within its archipelagic waters that are on the landward side of the closing lines."⁵²

"Closing lines" are defined in the Act as

⁴⁹Act. No. 23 of 1986.

⁵⁰Act. No. 24 of 1986.

⁵¹Article 2.a

⁵²Article 2.b

"the straight lines drawn in accordance with the provisions of the 1982 United Nations Convention on the Law of the Sea, that

- (a) cross the mouth of a river;
- (b) enclose a bay;
- (c) delimit the waters of a harbour."⁵³

In the Act, "The baselines from which the breadth of the territorial sea shall be measured shall be straight archipelagic baselines of Trinidad and Tobago."⁵⁴ Further,

"The archipelagic baselines of Trinidad and Tobago consist of straight baselines joining the outermost parts of the outermost islands and drying reefs of the archipelago."⁵⁵

The Continental Shelf (Amendment) Act, 1986

This brief legislative enactment is also devoted to the modernisation of the major provisions of its predecessor. In this Act, "Continental Shelf" means

"the seabed and subsoil of the submarine areas of Trinidad and Tobago that extend beyond its territorial sea throughout the natural prolongation of its land territory to the outer edge of its Continental Margin, or to a distance

⁵³Article 2 (b)

⁵⁴Article 2 (c). Emphasis added.

⁵⁵Article 2 (c). Emphasis added.

of two hundred nautical miles from the baselines from which the breadth of the territorial sea of Trinidad and Tobago is measured where the outer edge of the Continental Margin does not extend up to that distance."⁵⁶

Also, "Continental Margin" means

"the submerged prolongation of the land mass of Trinidad and Tobago consisting of the seabed and subsoil, the slope and the rise of the Continental Shelf determined in accordance with the provisions of the 1982 United Nations Convention on the Law of the Sea."⁵⁷

Finally, the Minister with responsibility for External Affairs may

"establish the outer-edge of the Continental Margin wherever the margin extends beyond 200 nautical miles from the baseline from which the breadth of the territorial sea of Trinidad and Tobago is measured."⁵⁸

The Archipelagic Waters and Exclusive Economic Zone Act, 1986

This legislation is divided into three parts. Part I is headed "Preliminary" and contains definitions of the major terms used in the other two sections. These include "Archipelagic State", "Archipelagic Waters", "Contiguous Zone", "Continental Shelf" and

⁵⁶Article 2 (a)

⁵⁷Article 2 (b)

⁵⁸Article 2 (c)

"Conservation and Management". This Section makes cross references to definitions employed in the Territorial Sea and Continental Shelf (Amendment) Act which have already been discussed.

In Part I of the Act headed "Archipelagic State", the Republic of Trinidad and Tobago is declared an "Archipelagic State" which is defined as

"the political entity of Trinidad and Tobago comprising that group of islands including parts of islands interconnecting waters and other natural features which are so closely interrelated that they form an intrinsic geographical and economic entity".

According to this Act, the sovereignty of Trinidad and Tobago as an archipelagic state extends to:

- "(a) the archipelagic waters regardless of their depth or distance from the coast; and
- (b) the airspace over the archipelagic waters as well as their bed and subsoil and the resources both living and non-living contained therein."⁵⁹

The Act also provides that:

"The breadth of the territorial sea, the contiguous zone, the exclusive economic zone and the continental shelf shall be measured from archipelagic baselines..."⁶⁰

⁵⁹Section 5.

⁶⁰Section 6.

In this connection, the Act expressly repeats the definition of archipelagic baselines as used in the Territorial Sea (Amendment) Act 1986.

Other provisions in Part I of the Act relate to such areas as the right to lay and repair submarine cables, the recognition of rights of innocent passage and respect for existing agreements covering areas falling within the archipelagic waters of Trinidad and Tobago.

Part III of the Act, headed "Exclusive Economic Zone" provides that:

"The exclusive economic zone of Trinidad and Tobago...comprises all areas of sea, having as their innermost limits the outermost limits a line drawn seaward from the baselines from which the territorial sea is measured every point of which is at a distance of two hundred nautical miles from the nearest point of the baselines from which the breadth of the territorial sea is measured."⁶¹

The Act also provides that:

"where the distance between Trinidad and Tobago and opposite or adjacent States is less than four hundred nautical miles, the boundary of the exclusive economic zone shall be determined by agreement...on the basis of international law in order to achieve an equitable solution."⁶²

⁶¹Section 14.

⁶²Section 15.

According to the Act, in the exclusive economic zone, Trinidad and Tobago enjoys:

- (a) sovereign rights over -
 - (i) the exploration and exploitation, conservation and management of the living and non-living natural resources of the waters superjacent to the seabed and of the sea-bed and its subsoil.
 - (ii) the production of energy from the water, currents and winds; and
- (b) jurisdiction over -
 - (i) the establishment and use of artificial islands, installations and structures;
 - (ii) marine scientific research; and
 - (iii) the protection and preservation of the marine environment.⁶³

Rights of navigation, overflight and the laying of submarine cables are also recognized.⁶⁴

Further, the Act provides that the Minister to whom fisheries is assigned may prescribe on the basis of agreements or other arrangements the portion of the allowable catch which other States or the nationals of such States are permitted to harvest in the exclusive economic zone.⁶⁵

⁶³Section 19.

⁶⁴Section 20.

⁶⁵Section 21.

What the foregoing summaries reveal beyond any doubt, is a lack of uniformity in the provisions of the respective states with respect to their maritime claims, their preferred delimitation techniques as well as the forms of baselines to be employed in the measurement of maritime boundaries. This is not to suggest that the differences are in every case considerable or that the reasons governing their prescriptions are not valid. What it does mean, however, is that in each case there are certain particular nuances to be taken into account so that any generalisation with respect to the factors would, unless very vaguely stated and with a consequent limited utility, be not only hazardous but also misleading.

The relevant provisions in the marine legislation, actual or proposed, of selected countries are summarized in Table X.

TABLE X

SUMMARY OF MARITIME CLAIMS, PREFERRED DELIMITATION
TECHNIQUES AND BASELINES IN THE
EASTERN CARIBBEAN: SELECTED COUNTRIES

COUNTRY	BREADTH OF EXCLUSIVE ECONOMIC ZONE	DELIMITATION TECHNIQUES SPECIFIED	BASELINES
Barbados	200 miles or other as may be prescribed by the Minister	<u>Agreement</u> failing which <u>Median Line</u>	Low water line or mixture of straight lines and low water line.
Dominica	200 mile Exclusive; Economic Zone/200 mile Fish- ery Zone	Equitable principles	Straight base- lines
Grenada	200 miles	<u>Agreement</u> failing which <u>Median Line</u>	Low water line or mixture of straight lines and low water line or straight lines drawn from determined coordinates. Baselines of the adjacent or opposite State must be those "as recognised by the Minister."

COUNTRY	BREADTH OF EXCLUSIVE ECONOMIC ZONE	DELIMITATION TECHNIQUES SPECIFIED	BASELINES
Guyana	Not specified. Fishery Zone of 200	<u>Agreement failing which equidistance</u>	Low water line or straight lines joining two points where the low water line on the coast ends on either side of a river.
Venezuela	200 miles	Agreement	As used for Territorial Sea.
Trinidad and Tobago (provisional)	200 miles	Agreement on the basis of international law to achieve an equitable solution.	Straight Archipelagic Baselines

The implications of the several provisions dealing with delimitation techniques and baselines will be operationalized in the course of this thesis when the delimitation perspectives of the Eastern Caribbean States and territories are examined.

With respect to the EEZ the following observations are pertinent. As indicated above, differences exist with respect to the extent of the area over which exclusive economic jurisdiction is claimed. The content of such jurisdiction and some of its conditioning assumptions are also far from uniform. With respect to the breadth of the zone, the figure of

200 miles is endemic. Three important observations are relevant, however. While the Barbadian legislation makes provision for an EEZ of 200 miles, it is also provided that other distances may be prescribed. It could be, however, that the Barbadian Parliament, in enacting such a provision, envisaged, in the light of the geographical location of Barbados, that a maximum EEZ of 200 miles would not be uniformly feasible around that island, so that provisions for an EEZ of a breadth of less than 200 miles along some portions of Barbados, would simply be a means of recognizing the constraint of geography in the demarcation of maritime boundaries. This is perhaps the soundest construction that may be placed on the Barbados provision since, given the posture of Barbados over the years, with respect to an EEZ, and given, also, its interest in the offshore exploration of hydrocarbons, it is unlikely that a general reduction of the prescribed breadth of the EEZ would now be implemented or even proposed.

The second observation with respect to provisions relating to the breadth of the EEZ refers to the Dominican example, the drafting of whose proposals is less than precise in its references both to an EEZ and to a 200 mile Fishery Zone. The construction placed by this thesis on the provisions as indicated, is to the effect that, inasmuch as the jurisdiction claimed with

respect to fisheries appears to be total, then it has to be implied that what has been created is a regime based on exclusive rights such as would permit its accommodation within the "normal" EEZ bracket.

The Guyanese example provides an instance where the extent of any eventually proposed EEZ has not been specified, for what has been explicitly established in the Guyanese legislation is not an EEZ but rather, a 200 mile Fishery Zone.

With respect to the nature of the jurisdiction to be exercised in the respective economic zones, there is a considerable degree of commonality among the provisions as have been enacted by the several States. The very close similarity between the laws of Grenada and Barbados has already been noted and suggests a common progenitor in this regard. All provisions emphasize economic jurisdiction involving the living and non-living resources of the zones as prescribed. Mention is made of exclusive jurisdiction over the use of the EEZ, its seabed and subsoil, for such purposes as the generation of energy and the general exploration or exploitation of the resources of the marine environment. Control over marine scientific research is mentioned but only in some of the provisions and there are, as can be seen from the relevant excerpts, varying degrees of emphasis placed on this activity.

It is the writer's view that marine scientific research, relevant as it is to the whole spectrum of ocean uses, is of primordial importance and cannot be overstressed in any examination or implementation of marine policy. Together with fisheries jurisdiction and other related elements, the subject of marine scientific research is fully explored in subsequent sections of this thesis when some of the major implications of the EEZ regime for the Eastern Caribbean sub-region are evaluated. For the present, what will be examined is, first of all, the extent to which the claims of 200 mile EEZ's can be practically implemented in the context of the island states and territories of the Eastern Caribbean. It is to this fundamental question that we now turn.

Mitchell, C.L. and Gold, E., Fisheries Management in Dominica: An Assessment of the New Law of the Sea Jurisdiction and Scarborough Bank, Halifax, Nova Scotia, Canada, 1983.

CHAPTER VI

THE DELIMITATION OF EXCLUSIVE ECONOMIC ZONES

IN THE EASTERN CARIBBEAN

Metropolitan Presence and Maritime Space in the Eastern Caribbean: France

The implications for "Caribbean" marine space of the French presence in the region is, perhaps, most cogently illustrated with reference to the situation of Dominica.

The importance of maritime boundary delimitation arises from the fact that "jurisdiction cannot be established without agreed boundaries. Furthermore, offshore resource policies cannot be developed without full jurisdictional stability."¹ Against this reality, the establishment by a country such as Dominica of jurisdiction over defined areas of maritime space and the development of its offshore resources must, in the context of the Exclusive Economic Zone regime, depend

¹Mitchell, C.L. and Gold, E., Fisheries Development in Dominica: An Assessment of the New Law of the Sea Implications and Strategies, DOSP, Halifax, Nova Scotia, Canada, 1983.

on the outcome of very complex negotiations with neighbouring states.

The island of Dominica with an area of some 300 square miles, lies, as shown in Figure 2, between the French islands of Guadeloupe and Marie Galante to the north and Martinique, which is also French, to the south-east. In terms of actual distances, Dominica is situated a mere 22 miles North-West of Martinique and 13 miles south of Guadeloupe. The total distance between Martinique and Guadeloupe is 74 miles, the former lying south of the latter. Were the distances between Dominica and Martinique and Guadeloupe to be multiplied by a factor of 18-30 respectively, the Dominican situation with respect to the demarcation of its maritime boundaries would still present major difficulties and hardships. A 200 mile EEZ was claimed by France in respect of both Guadeloupe² and Martinique³ in 1978. Dominica, it will be recalled, enacted its Territorial Sea, Contiguous Zone, Exclusive Economic and Fishing Zones Act, three years later in 1981. Nor does this exhaust the scenario. A further complication is introduced by the fact that in reality "Guadeloupe" properly refers not to a single physical

²Decree No. 78/276.

³Decree No. 78/277.

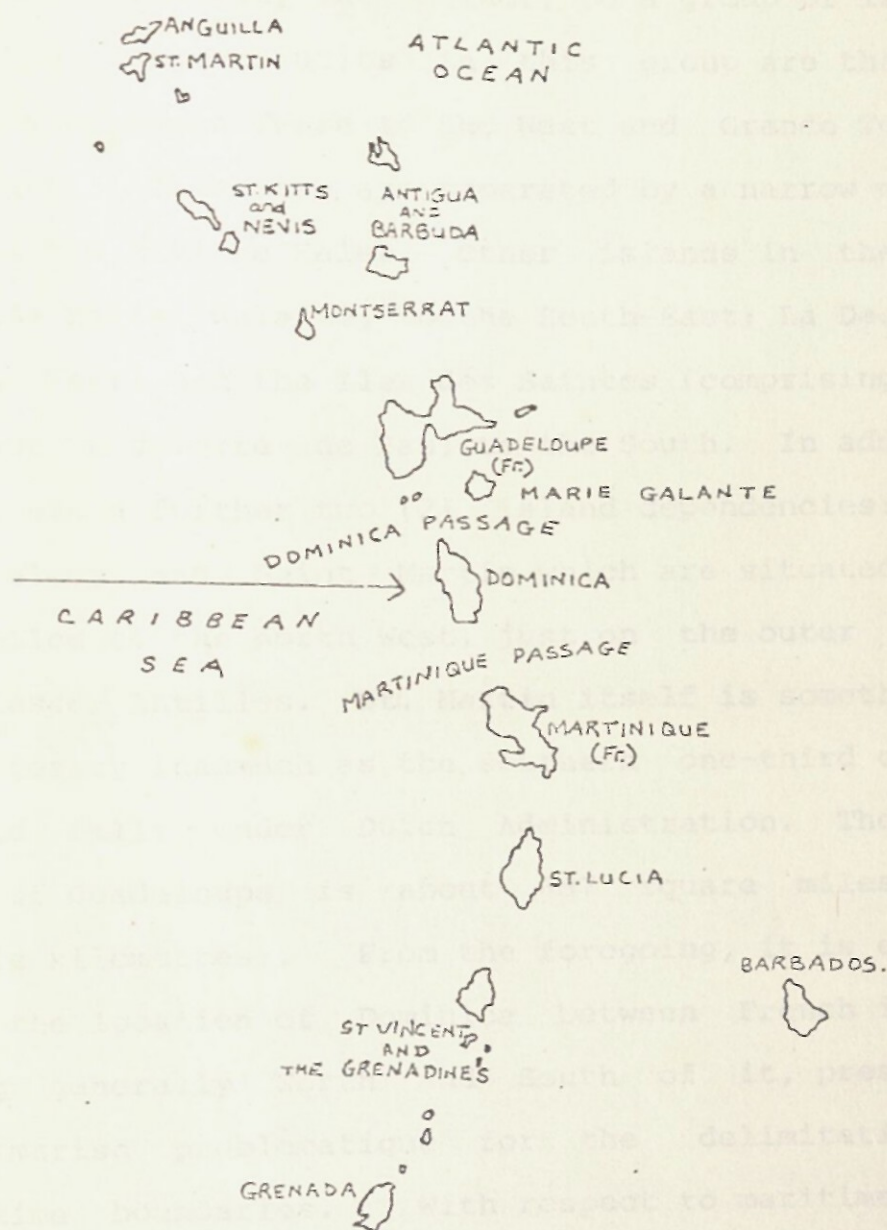


FIGURE 2

SHOWING THE LOCATION
OF DOMINICA WITHIN
THE FRENCH ENCLAVE.

"Guadeloupe" properly refers not to a single physical geographical entity but, rather, to a group of islands. The two largest units in this group are the twin-islands of Basse Terre to the West and Grande Terre to the East. These two are separated by a narrow channel called the Riviere Salee. Other islands in the group include Marie Galante, to the South-East; La Desirade, to the East; and the Iles des Saintes (comprising Terre de Haut and Terre de Bas) to the South. In addition, there are a further two (2) island dependencies: Saint Barthelemy and Saint Martin which are situated about 150 miles to the North West, just on the outer arc of the Lesser Antilles. St. Martin itself is something of a curiosity inasmuch as the southern one-third of this island falls under Dutch Administration. The total area of Guadeloupe is about 687 square miles (1780 square kilometres). From the foregoing, it is evident that the location of Dominica between French islands lying generally North and South of it, presents a nightmarish problematique for the delimitation of maritime boundaries. With respect to maritime space off the east and west coasts of Dominica, the situation is only slightly less complex. A casual look at the map of the Caribbean suggests that, to the east of Dominica, lies nothing but the open Atlantic so that, at least in this locality, this economically

underdeveloped country would have potential access to the resources of a maximum 200 mile EEZ. This, however, is not the case, for, even off the east coast of Dominica, it is apparent that Dominica's prospective EEZ may be "infringed" by those of Guadeloupe and Martinique. In particular, the projection of the Caravelle Peninsula of Martinique, when combined with the effect of Marie Galante in the North, may severely restrict the eastward extension of Dominica's EEZ.⁴ Similar considerations in the delimitation of maritime boundaries are relevant, albeit to varying degrees, to the situation of Martinique vis-a-vis Saint Lucia; and Guadeloupe vis-a-vis Montserrat as well as Antigua and Barbuda.⁵

The Venezuelan Presence and Maritime Space
in the Caribbean: A Geopolitical Analysis

In his book published at the commencement of the Third United Nations Conference on the Law of the Sea,

⁴Mitchell and Gold, Fisheries Development in Dominica, DOSP, 1983, op. cit.

⁵A delimitation treaty was signed between the Government of the French Republic (Martinique and Guadeloupe) and the Government of Venezuela on 17 July 1980 and entered into force on 28 January 1983. Also a delimitation treaty was signed between France (Martinique) and St. Lucia on 4 March 1981 entering into force on the same date. Source: Office for Ocean Affairs and the Law of the Sea, United Nations, New York.

Ruben Carpio Castillo, sometime Professor, Parliamentarian, Ambassador of Venezuela to Canada, and Spain, and a member of his country's delegation to UNCLOS III, describes Venezuela as un pais esencialmente Caribeno (an essentially Eastern Caribbean Country). The title of his book translates into English as, "Maritime Borders of Venezuela"⁶ and in this work, are set out Venezuelan perspectives on issues relating to the Law of the Sea, in particular as these relate to the "territorial integrity" of Venezuela.

Venezuela has over 2,800 kilometres of maritime coast fronting the Caribbean Sea and is, in fact, the only country in South America with a Caribbean as well as an Atlantic coast. Venezuela, it is important to note, faces the Atlantic precisely in the areas where that ocean narrows its breadth to form what may be called an "oceanic strait" leading between the north coast of South America and the South Coast of Trinidad into the Caribbean. In the Venezuelan perspective, the existence of Trinidad and Tobago, or at least the existence of Trinidad and Tobago as a geographical entity not falling under Venezuelan jurisdiction, has

⁶See Carpio Castillo, R. Fronteras Maritimas de Venezuela, Publicaciones de la Comision Organizadora de la III Conferencia de las Naciones Unidas Sobre Derecho del Mar, Caracas, 1974.

the effect of reducing the strategic importance of the geographical position of Venezuela's Atlantic frontage.

Of importance to Venezuela, is the existence of its insular facade off its North Coast constituting its "first step" further into the Caribbean. The offshore islands of Venezuela include, Las Aves, La Blanquilla, Isla Coche, Cubagua, Los Hermanos, La Orchila, Los Roques, Los Testigos, La Tortuga and Margarita.

The existence of these islands as Venezuelan territory is seen by Carpio Castillo as

"un hecho geografico unico en el continente americano que refuerza la importancia de Venezuela en el Caribe"⁷

inasmuch as these islands have the effect of extending Venezuelan jurisdiction further into the Caribbean Sea.

The Venezuelan offshore island of Margarita, for example, the largest unit of that "arco insular meridional" (Southern arc of islands), has a great strategic advantage deriving from its location in the Eastern Caribbean in the vicinity of the Atlantic coast. In overall Caribbean perspective, Venezuela sees itself as being somewhat confined, geographically speaking. The presence of Trinidad and Tobago and its

⁷Carpio Castillo, R., Fronteras Maritimas de Venezuela, op. cit., p. 10. This quote translates "a unique geographical fact in the American Continent, which reinforces the importance of Venezuela in the Caribbean."

implications for Venezuela have already been suggested and the major irksome aspect of Venezuela's geographical situation is the lack of a "Salida al Atlantico", an egress to the Atlantic. At the same time, Carpio Castillo expresses the view with respect to the offshore islands that

"fue muy importante el hecho de que Espana reconciera la realidad geografica y le assignara a Venezuela esta fachada insular, como complemento indispensable para la proteccion y conservacion de su territorio continental."⁸

The geo-politico-strategic situation arising from the location of the country of Trinidad and Tobago, is but one of five "juridical situations," in the words of Carpio Castillo, which impinge on the "territorial integrity" of Venezuela. The other four relate to Guyana, Grenada, the Netherlands Antilles, and the Gulf of Venezuela.

With respect to the Venezuela-Guyana situation, which has implications not only for the two countries directly involved but also for countries such as Trinidad and Tobago and even Barbados, the intensity of Venezuelan feeling may be gauged from Carpio Castillo's reference to Guyana as once having been:

⁸"it was very important that Spain recognized the geographical reality and assigned this insular facade to Venezuela, as an indispensable complement for the protection of its Continental territory."

"...parte de territorio venezolano injustamente arrebatado a nuestro país por la Gran Bretaña, cuyos designios imperialistas los hemos padecido en Trinidad y en aquel territorio colonial guyanés en donde los británicos ocuparon todas las tierras que nos pertenecían al oeste del río Essequibo."⁹

Further, Carpio Castillo laments that

"Como puede apreciarse, con la ocupación de Trinidad y las tierras venezolanas del Essequibo, La Gran Bretaña aspiraba a consolidar una posición estratégica en relación con la navegación del Orinoco y de la importante salida al exterior que tiene Venezuela a través de este río y del Océano Atlántico. De esa manera quedaba animorada la posición geoestratégica de Venezuela en esa fachada oceánica y virtualmente controlada por la potencia imperialista europea."¹⁰

Finally,

"...la importancia del corredor del Orinoco se magnificó en los tiempos actuales por las explotaciones mineras, los establecimientos

9 "...part of Venezuelan territory unjustly taken away from our country by Great Britain whose imperialist designs we have suffered in Trinidad and in that Guyanese colonial territory where the British occupied all the lands that belonged to us west of the Essequibo River." Emphasis added.

10 "As can be appreciated with the occupation of Trinidad and the Venezuelan lands of the Essequibo, Great Britain sought to consolidate a strategic position with respect to the navigation of the Orinoco and to the important egress to the exterior enjoyed by Venezuela across this river and to the Atlantic Ocean. In this way, the geostrategic position of Venezuela remained prejudiced and virtually controlled by the European imperialist power."

siderurgicos y la existencia de una faja bituminosa o petrolera,--o ambas cosas a la vez--de extraordinario valor economico y estrategico. Esta circunstancia hace que el Orinoco y la fachada atlantica venezolana aumente su importancia en el dominio nacional e internacional."¹¹

With respect to the Netherlands Antilles--the islands of Aruba, Bonaire and Curacao--which lie between 15 and 50 miles off the Venezuelan coast--Venezuela cannot forget that these territories, once under her jurisdiction, now interrupt the "mar interior" (Internal waters) as well as the continental shelf of Venezuela. Besides, the general area is generously endowed with mineral resources, especially petroleum. Moreover, Venezuela has observed, with anything but equanimity, the considerable economic benefits that have accrued to the Netherlands Antilles simply by virtue of their geographical location. Like Trinidad and Tobago, Aruba and Curacao have become important points on air and shipping routes from North America and Europe to the South American Pacific. Their proximity to the Panama Canal also enhances the economic significance of the geographical location of

¹¹The importance of the Orinoco corridor is magnified at the present time because of mineral exploitation, steel installations and the existence of a belt of bitumen or petroleum,--or both together--of extraordinary economic and strategic value. This situation makes the Orinoco and the Venezuelan Atlantic facade increase in importance in the national and international domain."

the Netherlands Antilles. Noteworthy, too, is the fact that, in the vicinity of the Gulf of Venezuela, Aruba and Curacao together with La Guajira (Colombia) control the entrance to Lake Maracaibo. A delimitation agreement between Venezuela and the Netherlands Antilles was signed on March 31, 1978 and ratified on December 15, 1978.

That the determination of Venezuela's international maritime policy is overwhelmingly influenced by its geographical position is a gross understatement. The substance of this proposition will be illustrated with reference to the geopolitico-strategic "situations" as arise between Venezuela and the insular states and territories of the Eastern Caribbean.¹²

Venezuela and the Island States and Territories of the Eastern Caribbean

In the preceding section it was demonstrated that a country such as Dominica, was, given the close proximity of geographical units under French jurisdiction, severely restricted on its northern, eastern and southern coasts, in any attempt to attain an EEZ of significant proportions. This state of

¹²For this reason only, incidental references will be made to Venezuelan maritime relations in the Gulf of Venezuela.

affairs gives rise to speculation as to the motive factors which prompted a country such as Dominica to support the EEZ concept at the Third United Nations Conference on the Law of the Sea! This matter is brought into even bolder relief when the implications of the Venezuelan presence in the Caribbean are evaluated.

Lying some 250 miles to the north of the nearest settled offshore islands, north of the Venezuelan mainland, is Aves Island, otherwise known as "Bird Island", which has a length of 500 metres and a maximum and minimum breadth of 150 metres and 50 metres respectively.

Aves Island, located 250 miles from Margarita Island, is Venezuela's most northerly foothold in the Caribbean Sea and lies at a distance of 125 miles west of Dominica and about 100 miles west of Guadeloupe. With respect to the former, the presence of Aves Island as a reference point that is recognised, at least by some, completes its encirclement, with important consequences which will be explored later in this thesis.

An Exclusive Economic Zone generated by Aves Island would also have serious negative implications for the area of marine space that will accrue to the

jurisdiction of St. Kitts-Nevis and Montserrat in addition to Puerto Rico and Guadeloupe.

Venezuela/Grenada Maritime Relations

As in the case of the demarcation of a maritime boundary between Venezuela and Trinidad and Tobago, the delimitation of marine space between Venezuela and Grenada promises to be a very complex exercise. Not only are the limited spaces involved known to be rich in hydrocarbons but also, the topography of the seabed of the area to be delimited is rather complex. On the south coast of Grenada, steep "mountains" fall abruptly to the sea to considerable depths. This geographical factor would necessarily have important implications for the delimitation process. In addition, the Grenadian south coast is very indented and this too must be taken into account given prescribed baselines and stipulated modes of delimitation as are set out in national legislative enactments.

Implications of Venezuela/Guyana Maritime Relations

Inasmuch as this thesis is intended to focus specifically on the island states and territories of the Eastern Caribbean as defined, Venezuela/Guyana territorial and maritime relations will be explored

only to the extent that they impinge on the delimitation of the Exclusive Economic Zones of these countries.

Whereas an ideal situation would require a distance of at least 400 miles between the neighbouring states involved, Venezuela is situated only 9 miles to the south of the island of Trinidad at its nearest point.

Guyana and Venezuela are adjacent continental states: the former lying to the East of the latter. With this geographical configuration, it follows that any disagreement on the part of the two adjacent states with respect to the location of their land boundary must necessarily have significant implications for the extent of maritime zones of a country like Trinidad and Tobago and also for the process of delimitation of maritime boundaries between Trinidad and Tobago and Venezuela and likewise between Trinidad and Tobago and Guyana.

The problem posed by the Guyana/Venezuela territorial dispute is that, moving along the north coast of South America in an easterly direction, there is as yet no agreement on the part of the countries concerned as to where the territory of Venezuela ends and that of Guyana commences. Given the fact that maritime zones are normally delimited using the

baselines from which the breadth of the territorial sea is measured, it follows that problems of land boundary disputes involving coastlines are ipso facto disputes involving marine space. It must be recalled, however, that Venezuela has not signed the 1982 Convention on the Law of the Sea specifically on account of its dissatisfaction with the provisions dealing with the delimitation of maritime boundaries. In the context of the present negotiating impasse, given points on the North Coast of South America might ultimately belong to either Venezuela or Guyana. With whom, therefore, is the Government of Trinidad and Tobago to negotiate in order to establish its own maritime boundaries along certain sectors of the north coast of South America?

Similarly, in the course of negotiations to further delimit the Trinidad and Tobago/Venezuela Maritime Boundary, the Venezuelans have reportedly sought to use a closing line across the mouth of the Orinoco: this line extending from Punta Araguapiche in the west to Waini Point on the east. Trinidad and Tobago has reportedly found itself unable to accept that line since its acceptance was deemed prejudicial to the outcome of Venezuela/Guyana delimitation negotiations whenever these are resumed. An illustration of the EEZ problematique that takes into

account all the above mentioned elements is given in Figure 3.¹³

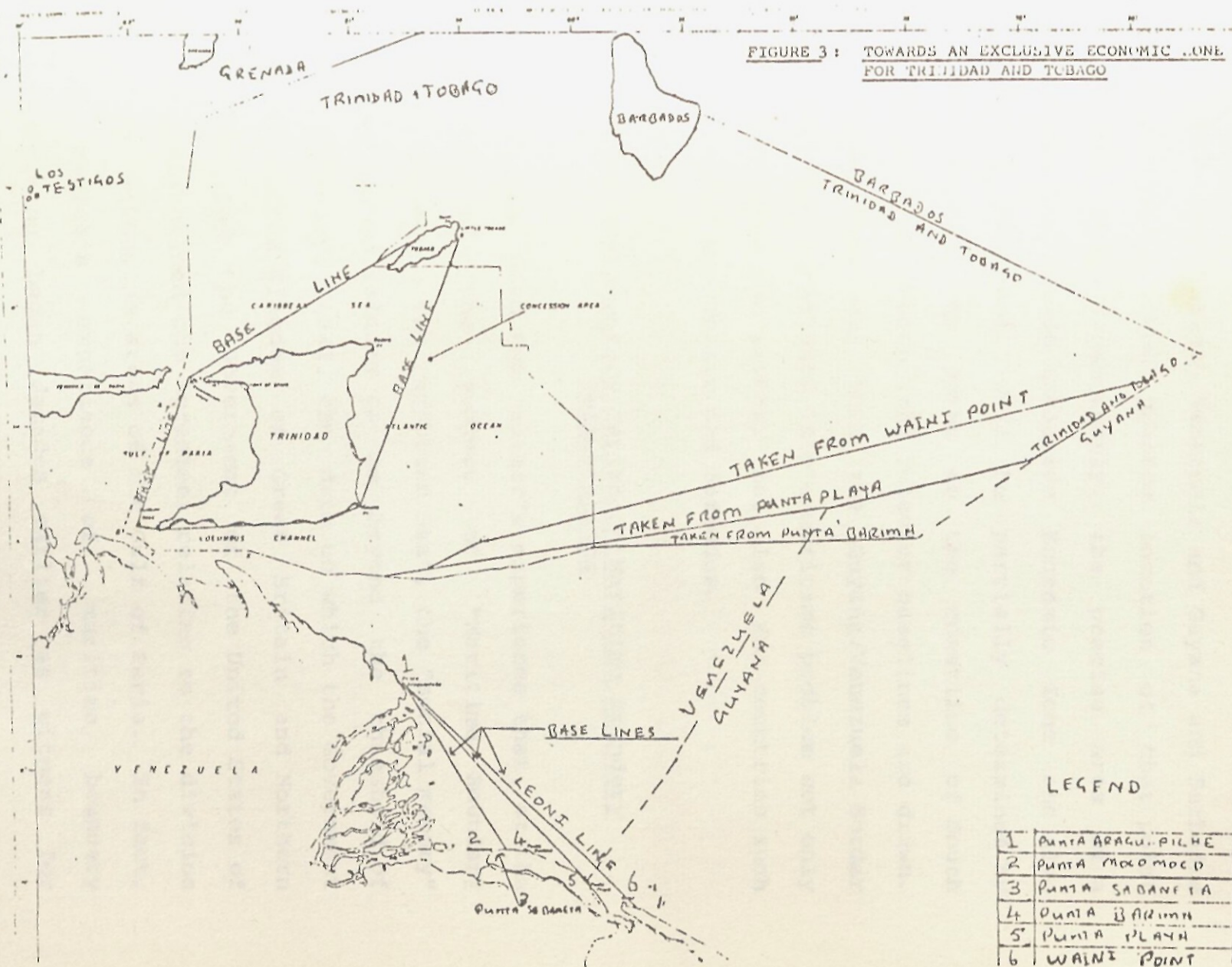
It must be pointed out that the use of a baseline from Waini Point as suggested by the Venezuelans in the course of delimitation negotiations with Trinidad and Tobago, significantly affects the extent of the concession zones for the exploration and exploitation of petroleum and natural gas that would remain within a Trinidad and Tobago Exclusive Economic Zone. This, needless to say, is a consideration of primordial importance.

Linked to "the straight-baseline" manoeuvre on the part of Venezuela, is the desire on the part of that country for a "salida al Atlantico", an egress to the Atlantic Ocean. In the prevailing circumstances, this cannot be granted by Trinidad and Tobago given the geography of the area. Rather, such an egress would need to be the subject of discussions between Venezuela and Guyana.

A further interesting feature of any eventual delimitation exercise in the area separating Trinidad and Tobago, Venezuela and Guyana, is the fact that off the East Coast of Trinidad, will be encountered a point

¹³Source: Frontiers Directorate, Ministry of External Relations, Venezuela.

FIGURE 3: TOWARDS AN EXCLUSIVE ECONOMIC ZONE
FOR TRINIDAD AND TOBAGO



LEGEND

1	PUNTA ARAGUA-PICHE
2	PUNTA MOCOMOCO
3	PUNTA SABANETA
4	PUNTA BARIM
5	PUNTA PLAYA
6	WAINI POINT

where the Exclusive Economic Zone boundaries of Trinidad and Tobago, Venezuela and Guyana and Barbados all converge! The precise location of that point however, and, consequently, the precise area of a Trinidad and Tobago Exclusive Economic Zone and also that of Barbados, will be partially determined by reference to the point on the coastline of South America from which the relevant baselines are drawn. It is in this way that the Guyana/Venezuela Border Dispute is translated into a maritime problem not only between these two states, but also for countries such as Trinidad and Tobago and Barbados.

Some Contemporary Caribbean Maritime Boundary Delimitations

It has been the author's experience that, at the mention of the subject of "Maritime Boundary Delimitation in the Caribbean Sea", the "social memory" of the region refuses to go beyond the threshold of 26th February, 1942, the date on which the Government of the United Kingdom of Great Britain and Northern Ireland and the Government of the United States of Venezuela signed the Agreement relating to the division of the submarine areas of the Gulf of Paria. In fact, the region's experience of maritime boundary delimitation began decades earlier as witness for

example, the agreement between Colombia and Nicaragua signed in 1920.¹⁴

However, using the year 1942 as a convenient starting point, a selection of maritime boundary delimitation agreements in the Caribbean, is set out in Table XI.

An interesting observation with respect to the treaties listed, is the extensive use that has been made of the equidistance or median line principle. For the purpose of this thesis, however, particular attention will be paid to three Agreements which relate to and which, in some significant manner, affect the delimitation processes or prospects of the countries of the Eastern Caribbean.

¹⁴As a matter of interest, in 1941, the year preceding the Gulf of Paria Treaty, Venezuela, a party to that Treaty, had also signed a Maritime Boundary Agreement recognizing Colombia's right to a portion of the coastline of the Gulf of Venezuela. See Nweihed, K., "EZ (Uneasy) Delimitation in the semi-enclosed Caribbean Sea" in O.D.I.L., Vol. 8, No. 1, 1980, pp. 1-33.

TABLE XI

SELECTED MARITIME BOUNDARY DELIMITATION AGREEMENTS
IN THE CARIBBEAN

YEAR	COUNTRY	SIGNED	RATIFIED
1942	Venezuela/U.K. (Trinidad and Tobago)	February 26, 1942	September 22, 1942
1975	Colombia/Ecuador	August 23, 1975	
1976	Cuba/Mexico	July 26, 1976	
	Colombia/Panama	November 20, 1976	1977
1977	Colombia/Costa Rica	March 17, 1977	
	Cuba/Haiti	October 27, 1977	January 6, 1978
1978	Venezuela/U.S.A.	March 29, 1978	November 24, 1980
	Venezuela/ Netherlands	March 31, 1978	December 15, 1978
	Colombia/Dominican Republic	January 13, 1978	
	Colombia/Haiti	February 17, 1978	
1979	Venezuela/Dominican Republic	March 3, 1979	January 15, 1982
1980	France/Venezuela	July 17, 1980	
	Costa Rica/Panama	February 2, 1980	February 11, 1982
1981	St. Lucia/France	March 4, 1981	March 4, 1981

Source: Office for Ocean Affairs and the Law of the Sea, United Nations, New York.

(i) The Venezuela/U.S.A. Maritime Boundary Agreement of 1978¹⁵

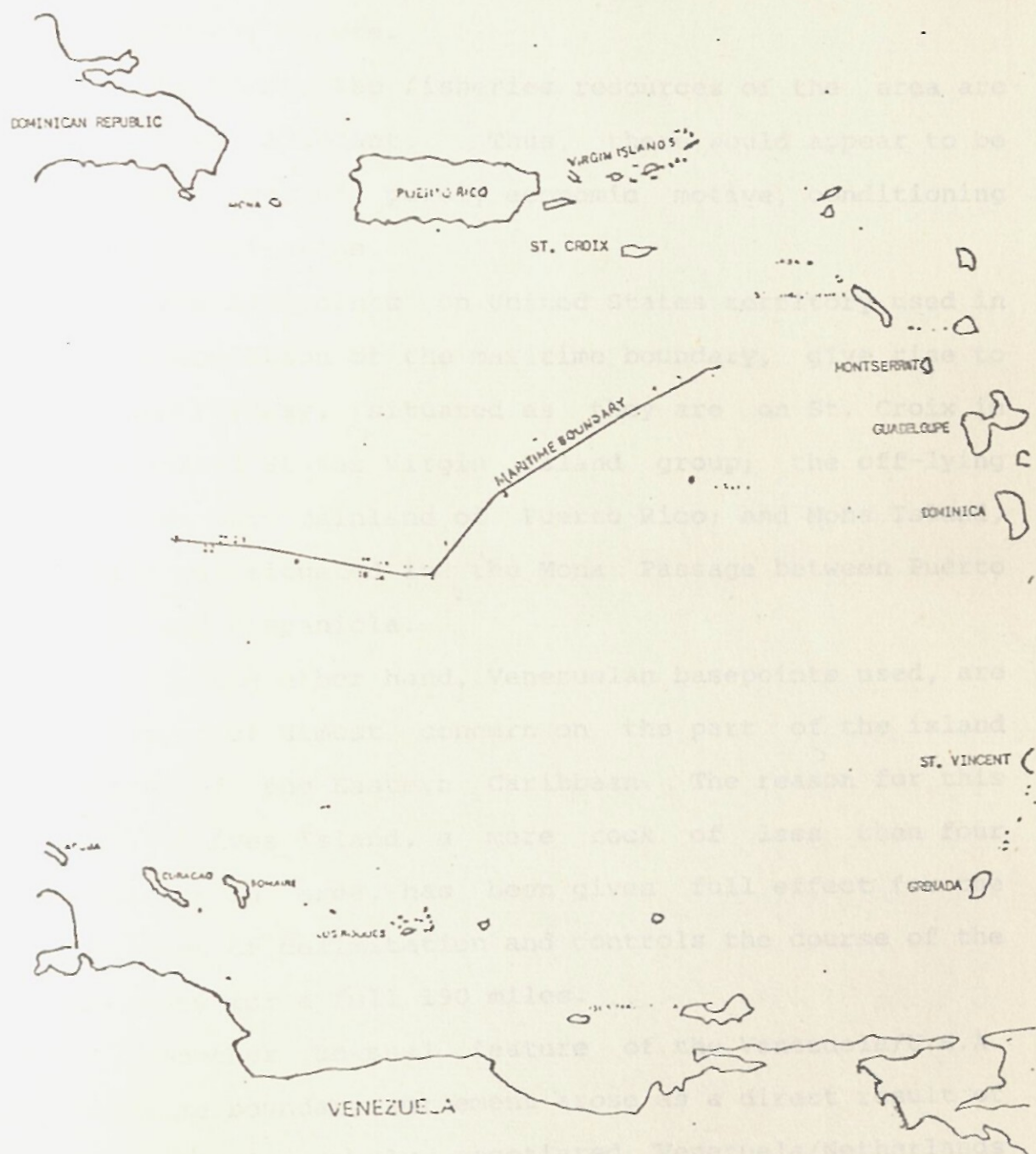
The maritime boundary agreement between the United States of America and Venezuela was signed in Caracas on the 28th March, 1978 just prior to the visit of President Carter. This agreement was negotiated by Venezuela in conjunction with a similar agreement with the Netherlands, which was signed three days later with the result that the eastern and western terminal points coincided with the initial points of the Venezuela/Netherlands maritime boundary. The agreement entered into force on November 24, 1980.¹⁶

The Venezuela/U.S.A. maritime boundary, as shown in Figure 4 is 305 miles in length and equates very closely to a computed equidistance line utilizing the low water sinousities of both coastlines. For all intents and purposes, this boundary line may be said to be a "pure" equidistance line. Given the depths of 3000-4000 metres in the boundary area and the very thin

¹⁵See Dundas, C., Towards a Legal Regime for Aves Island (Bird Island) in the Caribbean Sea. Commonwealth Secretariat, London, July 1983. This section is also greatly indebted to information provided by the Venezuelan Ministry of Foreign Affairs.

¹⁶Source: Office for Ocean Affairs and the Law of the Sea, United Nations, New York.

VENEZUELA - UNITED STATES OF AMERICA MARITIME BOUNDARY



Source: Office for Ocean Affairs and the Law of the Sea,
United Nations, New York.

Figure 4

layer of sedimentary rock, in the boundary area, the likelihood of commercially viable finds of hydrocarbons is probably remote.

Moreover, the fisheries resources of the area are far from abundant. Thus, there would appear to be little by way of purely economic motive, conditioning this delimitation.

The basepoints on United States territory used in the computation of the maritime boundary, give rise to no controversy, situated as they are on St. Croix in the United States Virgin Island group; the off-lying islands and mainland of Puerto Rico; and Mona Island, which is situated in the Mona Passage between Puerto Rico and Hispaniola.

On the other hand, Venezuelan basepoints used, are a source of utmost concern on the part of the island states of the Eastern Caribbean. The reason for this is that Aves Island, a mere rock of less than four hectares in area, has been given full effect for the purposes of delimitation and controls the course of the boundary for a full 190 miles.

Another unusual feature of the Venezuela/U.S.A. maritime boundary agreement arose as a direct result of the simultaneously negotiated Venezuela/Netherlands Treaty where the equidistance method was set aside in favour of equitable principles. This procedure had the

effect of reducing the area allocated to Aruba, Curacao and Bonaire by 44 percent compared with an area which would have accrued to them were the equidistance method employed. As a result, the western 85 mile segment of the U.S.A./Venezuela maritime boundary was computed utilizing the Dutch island of Bonaire and Curacao as Venezuelan basepoints.¹⁷

This agreement, more than most others, bears the mark of a "political" decision on the part of the Carter regime. In Nweihed's view,

"as a political prize, the treaty was valuable for President Carter's spring overseas trip, as well as for President Perez's "open bridge" between the United States and democratic regimes in Latin America."¹⁸

Worthy of note is the fact that, in the course of this delimitation, the Colombian Deep was ignored. The need to agree on a trijunction point is also relevant. Of greater immediate concern to the Eastern Caribbean States, is the fact that full recognition has been given by a major metropolitan power, the United States of America, to Aves Island as an entity capable of generating and Exclusive Economic Zone.

¹⁷Source: Frontiers Directorate, Ministry of External Relations, Venezuela.

¹⁸See Nweihed, op. cit.

In his much to be quoted essay, Dundas cites the testimony of the Deputy Legal Adviser of the United States State Department to the Committee on Foreign Relations of the United States Senate on the question of the recognition of Aves Island. Mr. Fieldman is partially quoted as follows:

"Of course, the United States uses islands and rocks as basepoints for measuring the territorial sea and the 200 mile zone over a large percentage of the total stretch of the United States coast. Islands also are relevant in that sense.

This practice also has a bearing on our Pacific boundaries. We have a number of island territories for which we wish to receive full recognition in the Pacific.

So I do not think there is any doubt about it from the point of view of the national interest of the United States, the security interest, the resource interest, and control over as much area as possible, this principle serves our general boundary position very well."¹⁹

On the basis of the above, a clear coincidence of interest as between the U.S.A. and Venezuela is discernible. The direct economic relevance of Aves Island to both the United States of America and Venezuela appears to be marginal. From a Caribbean perspective, the zone provided for by custom, born of international state practice and endorsed by the 1982

¹⁹Dundas, C., op. cit.

Convention for exclusive economic utilization, has been transformed into a zone for the furtherance of almost exclusively political aspirations.

(ii) The Treaty of Delimitation of Marine and Submarine Waters Between Venezuela and the Dutch West Indies 1978.

This treaty, signed on the 31st March 1978 and ratified on 15th December, 1978, may be viewed as the siamese twin of the Venezuela/U.S.A. maritime boundary agreement signed on March 28, 1978, and which was negotiated concurrently. From the fact that the Venezuela/Dutch West Indies boundary consisted of one area involving Aruba, Curacao and Bonaire and another, relating to the marine space between Aves Island and the Dutch possessions of Saba, St. Eustatius and St. Maarten in the Lesser Antilles, it was clear that any agreement reached between Venezuela and the U.S.A. would have implications for a Venezuela/Dutch West Indies Agreement and vice versa. However, rather than convene trilateral delimitation negotiations, recourse was had to the alternative expedient of simultaneous negotiations.²⁰

The boundary line between Aves Island and the Dutch Islands of Saba and St. Eustatius, as shown in Figure 5, is an equidistance line, 25 miles long with

²⁰See Nweihed, K., op. cit.

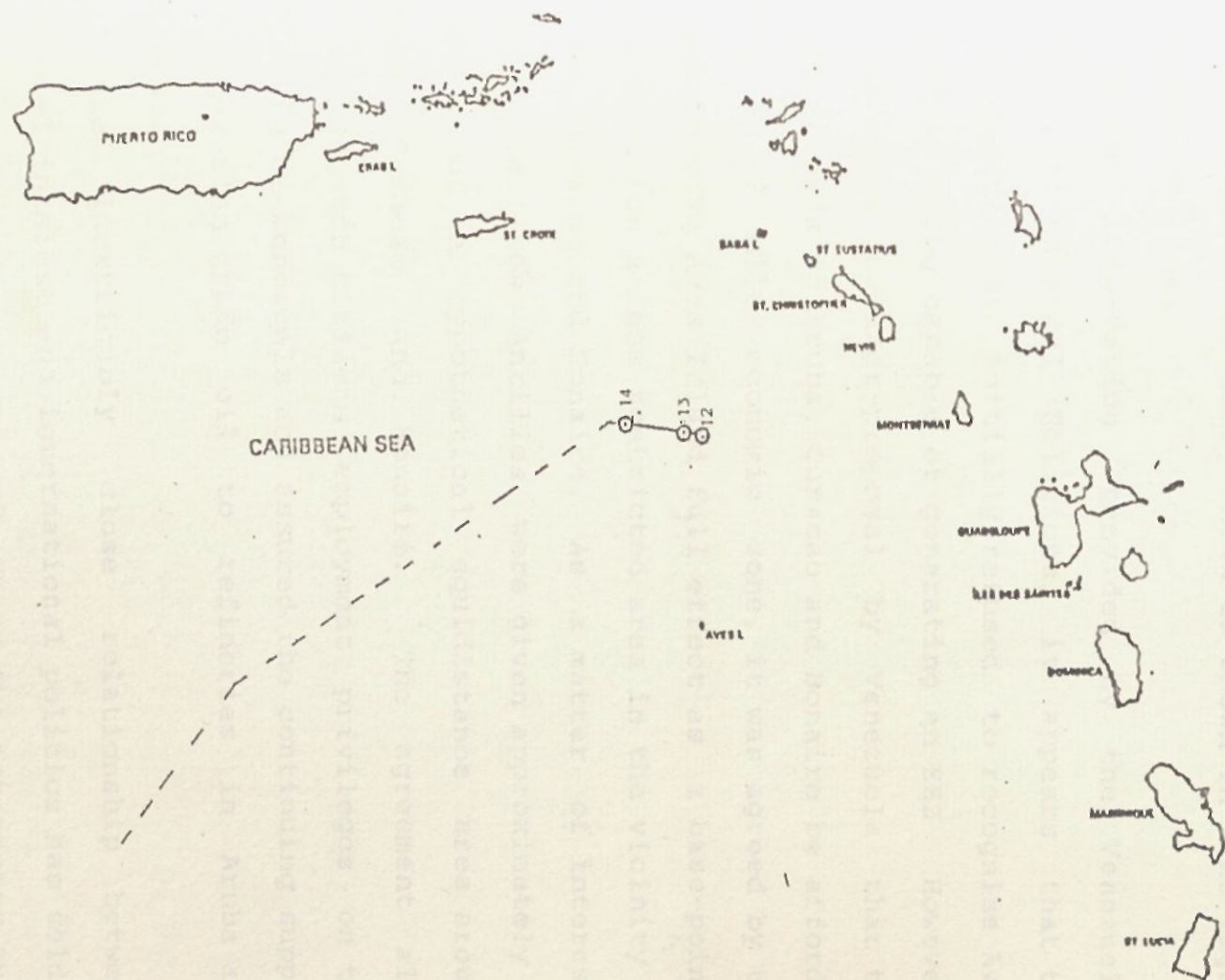


Figure 5: Venezuela-Dutch West Indies Maritime Boundary

Source: Office for Ocean Affairs and the Law of the Sea,
United Nations, New York.

three turning and terminal points situated in depths of 1500 to 2000 metres. Point 14, the western terminal point, is coterminous with point 1 of the U.S.A./Venezuela boundary which is shown in the figure as a broken line.

From information provided by the Venezuelan Ministry of External Relations, it appears that the Dutch negotiators initially refused to recognise Aves Island as being capable of generating an EEZ. However, following a counter-proposal by Venezuela that the Dutch Islands of Aruba, Curacao and Bonaire be afforded only a 12 mile economic zone, it was agreed by the Dutch to give Aves Island full effect as a base-point, in return for a less restricted area in the vicinity of Aruba, Curacao and Bonaire. As a matter of interest, the Netherlands Antilles were given approximately 56 percent of a hypothetical equidistance area around Aruba, Curacao and Bonaire. The agreement also afforded Dutch citizens employment privileges on the mainland of Venezuela and assured the continuing supply of Venezuelan crude oil to refineries in Aruba and Curacao.

The inextricably close relationship between national interest and international politics has seldom been more evident than in these two agreements just examined. The anglophone countries of the Eastern

Caribbean thus encounter a further obstacle in the attainment of extended jurisdiction on their part over given areas of the Caribbean Sea. On the other hand, they are confronted by arrangements which ensure enhanced jurisdiction in favour of metropolitan and other "non-regional" powers to Caribbean maritime space.

On the basis of the extensive coverage given in the Venezuelan Press to the Venezuela/Dutch West Indies marine and submarine delimitation treaty, it appears that both sides were delighted with the outcome. The Treaty appeared to be particularly pleasing to the Venezuelans. President Carlos Andrés Pérez was in Curacao for the occasion, accompanied by his Minister of Foreign Affairs and several other Ministers and officials in addition to Ambassador Isidro Morales Paul.²¹ The pilgrimage to Curacao on the part of this vast entourage of dignitaries is to be interpreted as conferring the greatest diplomatic significance, on the

²¹Ambassador Morales Paul is a foremost Venezuelan authority in Law of the Sea Affairs generally, and has headed several negotiating teams either in bilateral negotiations or in conferences as UNCLOS III. He was appointed Minister of Foreign Affairs under the Lusinchi regime during the period 1984-85.

part of the Venezuelan Government, to the event of the conclusion of the maritime boundary agreement.²²

On the morrow of the signing of the Treaty, President Carlos Andres Perez was quoted as saying:

"Now our sea is a path (camino) which goes beyond Aves Island and we are consolidating our firm presence in the Caribbean, but not for domination, not for egoism but for integration, understanding and cooperation between all the countries of Latin America."²³

Further, the view was reportedly expressed by President Andres Perez that "the time has come for a definitive meeting" between the Caribbean and Latin America.²⁴

(iii) The Maritime Boundary Delimitation Between the Republic of Venezuela and France

The agreement on the maritime boundary between the Republic of Venezuela, on the one hand, and France, with respect to Guadeloupe and Martinique, on the other, was signed on July 17, 1980.

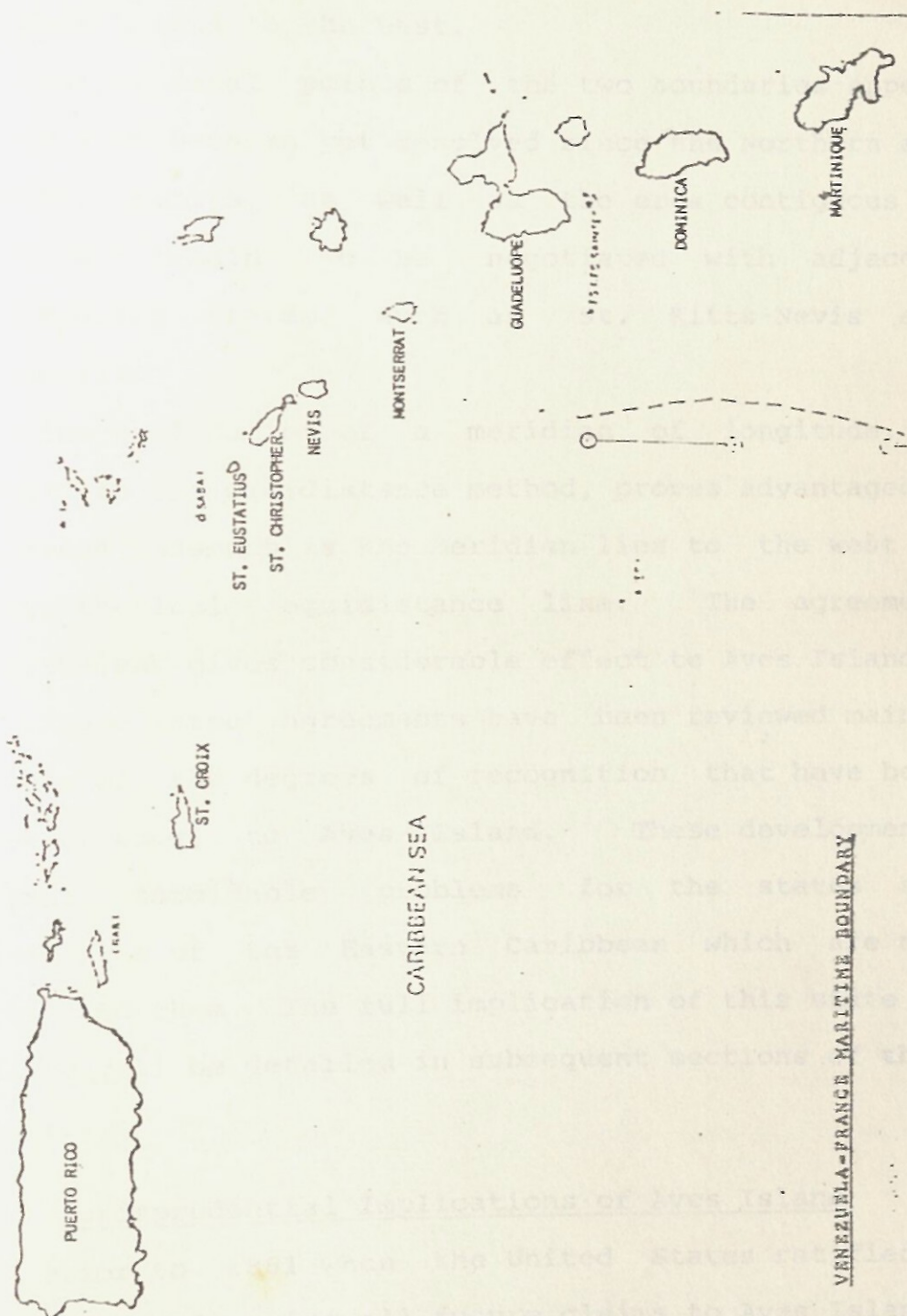
With respect to this Treaty, it is known that the boundary line as shown in Figure 6 follows the meridian

²²See "El Nacional" and "El Universal" of 31 March, 1978, (Caracas).

²³El Universal, Caracas, April 1, 1978.

²⁴The Daily Journal, Caracas, April 2, 1978. This is an English-Language Venezuelan Newspaper.

Figure 6



Source: Office for Ocean Affairs and the Law of the Sea,
United Nations, New York.

62° 48' 50" West longitude between the French overseas departments of Guadeloupe and Martinique to the east, and Aves Island to the West.

The terminal points of the two boundaries appear not to have been as yet resolved since the Northern and Southern limits, as well as the area contiguous to Dominica, remain to be negotiated with adjacent neighbouring States such as St. Kitts-Nevis and Montserrat.

The utilization of a meridian of longitude, as opposed to the equidistance method, proves advantageous to France inasmuch as the meridian lies to the west of a hypothetical equidistance line. The agreement nevertheless gives considerable effect to Aves Island.

These three agreements have been reviewed mainly because of the degrees of recognition that have been given by them, to Aves Island. These developments present formidable problems for the states and territories of the Eastern Caribbean which are not parties to them. The full implication of this state of affairs will be detailed in subsequent sections of this thesis.

Jurisprudential Implications of Aves Island

Prior to 1861 when the United States ratified a Convention renouncing all future claims to Aves Island, there took place a protracted series of exchanges

between Venezuela and the United States of America with respect to the ownership of that entity. Nor was this the extent of the controversy, for between 1854-1859, the Netherlands seriously challenged Venezuelan claims of sovereignty over Aves Island. The dispute was eventually submitted to Queen Isabella of Spain for arbitration. Predictably, perhaps, an award was made in favour of Venezuela "since the issue for settlement was essentially an assessment of the former rights of Spain over Aves Island."²⁵

The validity of the 1865 award has been challenged by many writers on historical, legal and procedural grounds but, with respect to the island States of the Caribbean, the following considerations are pertinent:

- (i) The award has been in effect for almost 120 years without challenge.
- (ii) The major metropolitan powers present in the region have treated the question of sovereignty over Aves Island as a settled issue.
- (iii) The important legal issue for the countries of the Eastern Caribbean relates to the legal regime that should properly be accorded Aves Island, given its size, location and economic status in the context of the 1982 Convention.

In the case of Dominica, as has been pointed out earlier in this thesis, the presence of tiny Aves

²⁵Dundas, C.W., Towards a Legal Regime for Aves Island (Bird Island) In the Caribbean Sea, Commonwealth Secretariat, July, 1983.

between Venezuela and the United States of America with respect to the ownership of that entity. Nor was this the extent of the controversy, for between 1854-1859, the Netherlands seriously challenged Venezuelan claims of sovereignty over Aves Island. The dispute was eventually submitted to Queen Isabella of Spain for arbitration. Predictably, perhaps, an award was made in favour of Venezuela "since the issue for settlement was essentially an assessment of the former rights of Spain over Aves Island."²⁵

The validity of the 1865 award has been challenged by many writers on historical, legal and procedural grounds but, with respect to the island States of the Caribbean, the following considerations are pertinent:

- (i) The award has been in effect for almost 120 years without challenge.
- (ii) The major metropolitan powers present in the region have treated the question of sovereignty over Aves Island as a settled issue.
- (iii) The important legal issue for the countries of the Eastern Caribbean relates to the legal regime that should properly be accorded Aves Island, given its size, location and economic status in the context of the 1982 Convention.

In the case of Dominica, as has been pointed out earlier in this thesis, the presence of tiny Aves

²⁵Dundas, C.W., Towards a Legal Regime for Aves Island (Bird Island) In the Caribbean Sea, Commonwealth Secretariat, July, 1983.

Island with a purported capacity to generate and exclusive economic zone has served to greatly erode the area of marine space that would otherwise have fallen under the jurisdiction of that country. In this connection, the countries of the Eastern Caribbean might seek to have the status of Aves Island adjusted in order to remove the inequity created by a tiny "rock" vis-a-vis sovereign states. Caribbean efforts may find support in case law; decisions of the judicial and arbitral tribunals; state practice; writings of eminent jurists and other related developments in the international community. Some "precedents" are set out as follows by way of illustration:

(1) Judicial and Arbitral Decisions

(i) United Kingdom/France

Negotiations between the United Kingdom and France to delimit the continental shelf between them commenced in 1964 and the agreement to submit the course of the boundary to a court of arbitration was signed on July 10, 1975.

A maritime boundary was proposed as an alternative to a continental shelf delimitation by France but this

proposal was rejected by the United Kingdom on the grounds that different criteria would apply.²⁶

In its decision, the Court of Arbitration dealt at length with the general problems of islands belonging to one state but situated near the coast of another state. The Court noted that the islands in question, namely the Channel Islands, which belonged to the United Kingdom, were situated on the French side of a median line drawn between the two mainlands, practically within the arms of the Gulf of St. Malo on the French Coast. The Court, noting the population, economic viability and political organization of the islands, distinguished them from mere rocks or even small islands. The Court observed, that, were British islands lying so close to the French coast to be given full effect in a continental shelf delimitation, the area of such continental shelf that would otherwise have fallen to France, would be substantially reduced, thus creating a condition of inequity. In this connection, the Court indicated that, not only were the Channel Islands on the wrong side of the mid-Channel

²⁶The proceedings of the Court and the delimitation of the continental shelf are set out in Reports of International Arbitral Awards, Vol. XVIII, United Nations. This review has been taken almost in extenso from an unattributed document available for consultation at the Library of the Ministry of External Affairs and International Trade, Trinidad and Tobago.

median line, but also, they were completely detached geographically from the United Kingdom.

The mode of equitable delimitation formulated by the Court in its award, involved the enclosure of the Channel Islands in an enclave formed, to their north and west, by the boundary of a 12 mile zone and to their East, South and South-west by the boundary between them and the coasts of Normandy and Brittany. In other words, the Channel Islands were awarded a combination of a 12 mile territorial sea and continental shelf. Further, although the Court had no mandate to delimit the territorial sea, the boundary was terminated at a distance of 24 miles in an opposite state situation and 12 miles from each coast in an adjacent state situation thereby maintaining a balance between the states although the United Kingdom claimed only a three mile territorial sea. Maps showing the United Kingdom/France Delimitation are set out as Appendix I.

(ii) Tunisia/Libya

In this case, the International Court of Justice was called upon to decide on the effect the presence of a group of islands off the coast of one of the parties should be permitted to have on the legal and geographical framework for the delimitation of a marine boundary.

In this connection, the Libyan submission that the Kerkennah Islands should be excluded, was rejected by the International Court of Justice. The Court however recalled precedents for the granting of partial effect to islands situated close to the coast and decided to allow the islands "half-effect". This was to be done by drawing a third delimitation line between the two which respectively allowed full effect and no effect at all, in such a way as to equally divide the area between them, or as bisector of the angle which they make with each other, or possibly by treating the islands as displaced toward the mainland by half its actual distance therefrom.²⁷

(2) State Practice

(i) Italy/Yugoslavia

On January 8, 1968, the Governments of Italy and Yugoslavia signed a continental shelf delimitation agreement. This agreement entered into force on January 21, 1970. A territorial sea boundary agreement was subsequently signed on November 10, 1975 and this entered into force on March 1, 1977.

This case provides excellent guidelines as to treatment that may be accorded to islands whose location have the potential to create disproportionate

²⁷See I.C.J. Reports, 1982, p. 18; and Dundas op.cit.

and inequitable divisions of maritime areas. In this case the equidistance method was used, but this was tempered by three considerations namely: the presence of islands in the boundary area; the effect of small islands of little economic importance lying well offshore; and the effect of the Yugoslav islands enclosed by a straight baseline system.

In order to ensure that the presence of islands on the boundary did not result in an inequitable position in favour of Italy, certain concessions were given to Yugoslavia with respect to the Italian island of Pianosa. On the other hand, the Yugoslav islands of Kajola and Pelagruz were given no area outside their respective 12 nautical mile potential territorial sea. Due to compensation of area elsewhere, the Italian Island of Pianosa was not used as a basepoint. Rather, the mainland was used. In the words of Dundas

"by such a rather extensive corrective measure of compensation and reduction of the otherwise distorting effect of the random location of small islands, the parties were able to work an admirable and satisfactory shelf delimitation."²⁸

Maps together with a detailed commentary on this case are set out as Appendix II.

²⁸Dundas, C. op.cit., p. 19.

(ii) Italy/Tunisa

In the resolution of this matter, which involved a continental shelf delimitation, the question of the treatment of islands situated close to the mainland also constituted an important desideratum. The boundary line adopted in the agreement of August 1971, was the median line between the two countries, taking into account islands, islets and low-tide elevations but with the exception of four Italian islands. The complexity of the boundary line adopted with respect to areas around the islands was justified, in the eyes of the parties, by the perceived need to avoid a total enclosure position similar to that accorded the Channel Islands in the United Kingdom/France Continental Shelf delimitation. What was in fact created was a "semi-enclave situation"²⁹ in which the continental shelves of the islands remained linked to the Italian Continental Shelf.

(iii) Iran/Quatar

The Governments of Iran and Quatar signed a continental shelf delimitation agreement on September 20, 1969. This agreement came into force on May 10, 1970. The boundary employed in this delimitation is an equidistance line which disregards the presence of

²⁹Dundas, C., op. cit.

islands and islets belonging to Iran, Quatar, and Abu Dhabi.

A map together with a detailed commentary appear as Appendix III.

There is undoubtedly enough in the few cases mentioned to fire the imagination of Caribbean decision makers in evolving a position with respect to the effect to be accorded Aves Island in the course of delimitation exercises. In broad terms, what is suggested by the foregoing, is that entities such as Aves Island may be either ignored or otherwise allowed only partial effect in the course of delimitation exercises. In the latter case, the possibility of an additional concession to be paid by Venezuela could be stipulated as a further possible compensatory mechanism.

Aves Island: The Nature of the Problem Reviewed

The problem attaching to Aves Island, as far as it relates to the demarcation of maritime boundaries in the Caribbean, can be usefully approached from the perspective of the extent to which such a feature affects delimitation exercises and how exactly future delimitations might be effected. The clarification of points relevant to these issues requires reference to

the 1982 Convention. The relevant provision is to be found in Article 121.

According to Article 121(1),

"An Island is a naturally formed area of land surrounded by water, which is above water at high tide".

Thus Aves Island, all four hectares of it, standing up to some ten feet above sea level, would appear to fulfil the stipulated criteria enshrined in this legal definition.

Article 121(2) states that

"Except as provided for in paragraph 3, the territorial sea, the contiguous zone, the exclusive economic zone and the continental shelf of an island are determined in accordance with the provisions of this Convention applicable to other land territory."

This is, according to one interpretation, welcome news for the ensemble of insular states of the Eastern Caribbean since all political entities have equal, objective, if theoretical, access to marine space. In any event, the standard prescriptions with respect to the mode of delimitation will apply equally to islands as to continental masses.

Article 121(3) provides that

"Rocks which cannot sustain human habitation or economic life of their own shall have no exclusive economic zone or continental shelf."

What is the effect of the application of this definition to Aves Island? As Dundas points out, the absence of a definition of "rocks" constitutes a veritable legal lacuna.³⁰ According to his analysis, which finds support in this paper, there is implicit in the wording of Article 121(3), the assumption that there may be rocks which can sustain "human habitation or economic life of their own in which case a rock as defined in Article 121(3) may be equivalent to an island as defined in Article 121(1). But then, Aves Island, with, in addition to its small size, its unenviable location, given the prevailing winds, currents, and, rather importantly, its lack of supply of potable water, tillable soil or natural resources, cannot, reasonably, be construed as an "island" capable of generating an EEZ given the provisions of Article 121(3). This is but one area where states of the Eastern Caribbean will need to fill in, clarify or appropriately implement the intent of the Convention. Nevertheless, such a move would doubtlessly prompt Venezuela to recall that it is not a party to the 1982 Convention.

³⁰Dundas, C. *op. cit.* See also Vandyke, J.M. and Brooks, "Uninhabited Islands: Their Impact on the Ownership of the Ocean's Resources" in O.D.I.L., Vol. 12, Nos. 3/4, 1983, pp. 265-300.

With respect to the mode of "delimitation of the Exclusive Economic Zone between states with Opposite or Adjacent Coasts" as addressed by Article 74 of the Convention, the procedure to be followed is as vague as it is flexible. Article 74(1), requires that such delimitation "shall be effected by agreement on the basis of international law...in order to achieve an equitable solution." The precise content of this notion of "equitable" which is also contained in Article 83(1) dealing with delimitation of the continental shelf remains unspecified. In the absence of precise rules, weaker countries will always, in the nature of things, be more subject to the manipulations of stronger ones. The Convention in this particular area leaves small states in a somewhat exposed position.³¹ For example, in the context of the Leeward Islands, Antigua and Barbuda will need to reach an agreement with St. Kitts-Nevis on a regime for the sea corridor between themselves and Montserrat. With the existence of Aves Island, Venezuela is provided with an opportunity to "play one country against the other". In any event, any position adopted by Dominica with

³¹See however, the Judgement of the ICJ on October 12, 1984 in the case concerning Delimitation of the Maritime Boundary in the Gulf of Maine Area (Canada/United States of America). In its judgement the court identified certain criteria and methods that are capable of ensuring an equitable result. See I.C.J. Reports 1984, p. 246.

respect to Aves Island will have implications for the neighbouring states and territories of this sub-region.

However, with appropriate initiative and organization, it may yet prove possible that the will of these small countries prevail.

Venezuelan Claims and Achievements with Respect to Aves Island

As has been indicated in earlier sections of this thesis, Venezuela has obtained recognition on the part of major metropolitan powers present in the region, of Aves Island, as a geographical entity conforming to the prescriptions of an "island" as set out in Article 121 of the 1982 Convention. That is to say, Aves Island has been recognised as being capable of generating an EEZ as well as a continental shelf.

For an indication of the Venezuelan intellectual approach to its "fachadas maritimas" (maritime facade), Ruben Carpio Castillo has it to say that these constitute:

"...un muy importante dominio en el cual habremos de actuar con toda precision, extrayendo experiencias historicas para no incurrir, al definir nuestros derechos soberanos sobre el mar ribereno y los fondos marinos y submarinos, en los mismos

errores que menguaron en el pasado la heredad nacional."³²

On a slightly softer but no less discouraging tone with respect to the states and territories of the Eastern Caribbean, another Venezuelan writer in 1980, stated the position to the effect that

"...there has been no doubt as to Venezuela's right to the island itself, but in view of the new developments in the emerging law of the sea, de lege ferenda, concern has arisen as to whether Aves Island is entitled to continental shelf and E.Z. claims."³³

The response of the same author is to the effect that

"...the recognition of rights of Aves Island to its own economic zone by two of the main Western and maritime powers in the area will probably save the island nations of the eastern Caribbean arc the trouble of trying to find out whether tiny Caribbean islands do or do not engender economic claims."³⁴

As Nweihed recalls,

"Venezuela's vigorous and systematic drive toward the building of a Caribbean policy aroused suspicions in Port-of-Spain where Dr. Williams

³²Carpio Castillo, R., op. cit., p. 27. "...a very important domain in which we shall have to act with every precision, drawing on historical experience so as not to commit, in defining our sovereign rights on the surrounding sea and the seabed, the same errors which diminished the national heritage in the past."

³³Nweihed, K. op. cit.

³⁴Nweihed, K., op. cit., p. 14. Emphasis added.

openly spoke of Venezuelan sub-imperialism."³⁵

The Caribbean Response to Aves Island

In his speech to a Special Convention of the ruling party, the People's National Movement on June 15, 1975, Dr. Eric Williams then Prime Minister of Trinidad and Tobago, in his capacity as Political Leader of the Party, moved a resolution on behalf of the Party's General Council according to which the Convention, inter alia:

"(c) re-dedicates itself to the total elimination of colonialism in all its shapes and forms in the Caribbean Area;"

"(d) asserts the inalienable right of the Caribbean peoples...to the enjoyment, in dignity and independence, of the earth which they have fructified with their sweat and blood and tears, free from the threat of ancient historical claims and contemporary ambitions of recolonisation" and

"(e) advocates specifically, and as a matter of the greatest urgency, the active cooperation of all Caribbean territories...for the achievement of an equitable regime in the Caribbean sea designed to protect their basic rights and essential economic interests in the current international negotiations for

³⁵Nweihed, K., Ibid.

a new convention on the law of the Sea."³⁶

The intervention on the part of the Political Leader who, it must be recalled, occupied the position of Prime Minister, was a direct response to what he perceived as Venezuelan maritime expansionism in the Caribbean. In this regard, he noted that

"Venezuela's offshore islands in its so-called inland sea, and Bird Island in the North pose a very special problem."³⁷

Further,

"...even the name we boast of, Caribbean Sea, has been steadily changed by Venezuelan publicists, without most of us knowing."³⁸

As to a possible course of action with respect to Bird Island, the Political Leader/Prime Minister/historian had this to say:

"...How can we possibly reopen a treaty by which one Caribbean area was ceded by one metropolitan power to another? Will we then reopen Spain's cession of Curacao and Aruba to the Netherlands? Or Spain's cession of Haiti to France? Or Spain's cession of Jamaica to

³⁶Eric Williams, The Threat to the Caribbean Community: Speech of the Political Leader at the Special Convention of the PNM, Chaguaramas, June 15, 1975.

³⁷Emphasis added.

³⁸In this connection numerous references were made by Dr. Williams to Carpio Castillo's publication.

Britain? Or Spain's cession of Puerto Rico to the U.S.A.? There will be no end to this once started; as I said facetiously to the U.S. Ambassador a few days ago...what will happen if the U.S.A. is asked to return Texas and California?"

Further

"We must make it absolutely clear that we cannot in the international decisions on the law of the sea agree to subordinate the rights of the former colonial peoples to share equitably in the heritage of their common matrimonial Caribbean Sea, to deprive established island communities of their fundamental rights and essential economic interests for the sake of barren uninhabited rocks...or to abrogate those rights in favour of birds, even with their droppings."³⁹

The Political Leader also recognised that

"one of the fundamental rights and essential economic interests of the Caribbean peoples threatened by any Venezuelan exclusive economic zone in the Caribbean is their access to the fishery resources of the Caribbean."

Possible Guidelines for Action

As has been suggested earlier, the 1865 award in respect of Aves Island may be open to challenge on several grounds. In this context, however, the advice of the late Prime Minister of Trinidad and Tobago might

³⁹Reference is here being made to the deposits of guano discovered in the mid 19th Century on Bird Island. This provided the basis for profitable commercial operations and for national rivalries for its possession.

usefully be heeded since there really seems to be little point in challenging Venezuela's title to Aves Island in the year of Our Lord, 1988. However, while it may be a difficult task to mount an initiative such as might remove Aves Island from Venezuelan jurisdiction, the development and successful deployment of an appropriate political posture on the wider international plane appears to have the potential of, at least, eroding the impact, so favourable to Venezuela, of the recognition on the part of metropolitan countries, of Aves Island as an entity capable of generating all permitted maritime zones under the 1982 Convention. In any event, it is more than likely that if the Convention eventually comes into force, entities such as Aves Island will not generally receive the type of recognition that has been granted by the U.S.A., the Netherlands and France. To date, the 1982 Convention has received some thirty five ratifications which include only six from the wider Caribbean region.⁴⁰ Caribbean States would do well to promote both within regional and subregional organizations as well as within wider international

⁴⁰These are accounted for by the Bahamas, Belize, Cuba, Jamaica, St. Lucia and Trinidad and Tobago.

fora, to continue diplomatic initiatives aimed at the ratification of the 1982 Convention.⁴¹

In addition, the question may be pursued as to whether, in the light of Venezuela's refusal to sign, let alone ratify, the 1982 Convention the legal regime established for islands and rocks in that instrument, is the applicable law vis-a-vis Aves Island, irrespective of whether Venezuela accedes to the Convention or not. Prospects in this regard would, however, be sanctioned by the overall evolution of state practice and international custom.

While the states and territories of the Eastern Caribbean formulate approaches and mechanisms to deal with the problem of the "squeezing effect" of Aves Island on their potential areas of EEZ, it appears that an altogether different type of solution might develop.

In 1840 a survey of Aves Island calculated its area to be 33 acres with a length of 4,000 feet and a maximum height of 18 feet. By 1973, the area of Aves Island had substantially reduced to 10.16 acres with a length of 2,000 feet and a maximum height of 10 feet. Within recent years the erosion of Aves Island has aroused the greatest concern on the part of the Venezuela decision-makers and publicists.

⁴¹At the 38th UNGA all Eastern Caribbean countries were among co-sponsors of a Resolution aimed at early ratification of the 1982 Convention.

In an article published in October, 1983 under the dramatic caption "Aves Island is Disappearing!" concern was expressed primarily with respect to the effect that the physical disappearance of Aves Island could have on Venezuela's geo-political interests in the Caribbean as well as on the natural resources to be found on the Island.⁴²

Aves Island, it would seem from this Article, is still slowly disappearing as a result of marine erosion with the possibility that the island could divide into two thus obviously becoming "mere rocks" rather than an island.

This, in accordance with the provisions of the 1982 Conventions would mean that neither a continental shelf nor an exclusive economic zone would be permitted to accrue to Aves Island. As a consequence of the foregoing, the author argues that, unless action is taken to arrest the marine erosion, Venezuela would lose up to one-third of its total EEZ, in the Caribbean which is generated as a result of Venezuela's sovereignty over Aves Island. The seriousness with which this development is viewed can be seen from the author's concluding remark to the effect that

⁴²Sanchez, P.L., "Aves Island is Disappearing" in ZETA, No. 491 of October 2, 1983, Caracas. ("Zeta" is the title of a Venezuelan Weekly Magazine.)

"the division of Aves Island will be more dangerous than the conflict with Guyana and the dispute over the Gulf of Venezuela. The reason is simple, it would represent a loss of transcendental area of Caribbean Sea and continental shelf full of resources of all kinds."

The full text of this Article is contained, in translation, as Appendix IV.

A mere week after the appearance of that Article, there followed another under the title "Scientific Expedition Detects Explosions to the North of Aves Islands."⁴³

This article quotes the revelations of the scientific findings of geologist, Dr. Gunther Fielder, Director of the Seismology Department at the Cajigal Observatory in Venezuela. Dr. Fielder was reported to have detected submarine explosions some 30 miles to the north east of Aves Island.

A propos of Dr. Fielder's findings, the reaction of a retired official of the Air Force, General Maximiliano Hernandez Vasquez, promptly observed that perhaps some effort should be launched in order to prevent the total disappearance of Aves Island which "in strategic terms is of great value to the country." The retired general also added that among the dangers to which Aves Island is exposed are ocean swells which

⁴³El Universal, Caracas, October 10, 1983.
Article by Guillermo Jose Schael.

sweep over the meagre heights that exist on the island and the possible cracking of the island as may be produced by submarine earthquakes. Dr. Fielder's findings are, according to the Article, confirmed by those of a Dr. John Tamblin, "Head of the Seismic Research Unit in Trinidad" who recorded the explosions while conducting research in St. Vincent, Dominica and Grenada.

Dr. Fielder discounted "geophysical experiments" as the likely cause of the explosions. In his view they were caused by fishermen operating illegally, who employ explosives to harvest "hundreds of thousands of fish" at a time. In this connection, the present author has been informed by Fisheries Officers of States and territories neighbouring Aves Island, of the alleged use, by particularly French fishermen, of dynamite and other explosives in that area. Whatever may be the status of such reports, the important element is that Aves Island is apparently being exposed to additional stresses with the inevitable consequences for that obviously fragile Venezuelan maritime possession.

The final Article to be quoted to exemplify the areas of concern manifested by Venezuela as well as the precarious conditions of Aves Island, also appeared in the Venezuela Press. The first appeared on October 27,

1983 under the main title of "Goodbye Aves Island, Now That You Are Leaving." This Article is suitably subtitled "Venezuela loses its Maritime Essequibo."⁴⁴

In this Article, the President of the College of Engineers of Venezuela (CIV) explains that Aves Island is diminishing in size, to the extent of its eventual disappearance, unless preventative measures are taken. The President is quoted as having pointed out that as of 1876 roughly, Aves Island has reduced to its present area of about 4 hectares, a reduction of some 20 hectares. Thus, as he explained, by the end of this century, the island may well have disappeared. Chief among the probable causes of this phenomenon, in the President's view, is aeolian erosion brought by the very strong winds to which Aves Island is subjected.

The President of the CIV noted with dismay, that the loss of Aves Island would be the maritime equivalent of the loss of the Essequibo since "some 200 square miles of maritime frontier are at stake." The Article adds that, in the light of the above, a Commission has been formed to prepare a report on the exact causes of the gradual disappearance of Aves Island. The Commission comprises representatives of the CIV, the Venezuelan Foundation for Seismological

⁴⁴See El Diario de Caracas, October 27, 1983. Article by Maria Teresa Aberlaez. Present author's translation in each case.

Research (FUNVISIS); the Navy; the Ministries of Environment and Defence as well as Petroleum Companies.

In response to the inevitable questions as to why no action had been taken earlier to deal with this "problem", the President reportedly observed that "son las cosas que pasan en este pais." (these are the things that happen in this country).

The final article appears under the caption "Aves Island Might Disappear"⁴⁵ and deals with the proceedings of a seminar on "Neotectonics, Seismology and Geological Risk in Venezuela and the Caribbean." At this seminar, three of the six papers presented dealt with the reduction in size and possible disappearance of Aves Island.

The Article begins by pointing out that Aves Island is so tiny that hour by hour, high winds and rough seas contribute to its disappearance. The Article then recalls that, on a day-to-day basis, Aves Island, which is gradually disappearing, is from the economic and political points of view, one of Venezuela's most strategic areas.

However, the seminar itself was concerned only with the scientific, rather than the political or economic aspects of this phenomenon. Among the papers presented were:-

⁴⁵See El Universal, Caracas, 1 November 1983.

- (i) "New contributions on the diminution of Aves Island and its causes" by Dr. Aggarwal of FUNVISIS.
- (ii) "New data on Aves Island" by Carlos Schubert of IVIC, the Venezuelan Institute for Scientific Research.
- (iii) Recession of the coast and vulnerability to erosion of Aves Island, by Armando Singer also of FUNVISIS.

The three other contributions were made by the Ministry of Energy and Mines.

Important aspects of papers presented are excerpted as follows:-

(i) Dr. Aggarwal:

"A careful review of the historical cartographic data shows that the size of the island has diminished over time. However, the results of these studies differ from those of previous researchers in three important respects."

According to Dr. Aggarwal, whose own view he professes to be somewhat different,

"Aves Island might divide into two sections, losing one-half of its present area of 4 hectares in the process."

This, he anticipates,

"would occur by the year 2000 so that the complete disappearance of Aves Island would take place sometime around the middle of the twenty-first century."

(ii) Armando Singer:

"The presence of several generations of beach rock, and the diminution of these, with respect to the present

coast, provide evidence that certain palaeographic changes have recently occurred on the island."

Singer adds that the anomalies he observes, imply a recession of the coast as a consequence of marine erosion. Further,

"the vulnerability of the island was demonstrated by the magnitude of the transformation wrought by Hurricane David on August 27, 1979: namely the temporary partitioning of the island into two islets and the destruction of a storm terrace."

(iii) Jose Mendez Baamondes:

In the view of Mr. Mendez of the Ministry of Energy and Mines, it was hazardous to affirm, on the basis of historic data only, that Aves Island has been diminishing in size since geological findings are not conclusive in this regard.⁴⁶

"In his view, given the strategic importance of Aves Island, an indepth geological study should be undertaken and if it proves that Aves Island is disappearing due to the influence of ocean currents and lack of growth of the reef areas, engineering structures can be erected to help recover lost areas. Such a project would however require governmental approval."

⁴⁶In response to an enquiry as to the present position of Aves Island, a senior Venezuelan naval officer informed the present author that far from reducing in size, Aves Island is larger than has been formerly believed due to faulty survey techniques!

The survey of recent published accounts of the political, economic and scientific concerns of Venezuela vis-a-vis Aves Island has at least one common theme running through it, namely the probability of the eventual disappearance of Aves Island. What would be the implications of such a development for the Caribbean? Would areas already allocated to Venezuelan jurisdiction by virtue of the delimitation agreements discussed earlier, retain their status? If not, will new boundaries have to be negotiated involving Dominica as well as the other states and territories which are hemmed in by Venezuelan exclusive economic zone claims in respect of Aves Island?

In this regard, it would seem that a gross miscarriage of justice would arise as a result of delimitation agreements being entered into with Venezuela on the basis of an "island" which is about to disappear and in respect of which boundaries may be deemed to subsist for all time, notwithstanding the fact that the reference point for these would have ceased to exist. It might be useful to recall at this point that the maritime claims that have been advanced by Venezuela in respect of Aves Island would, if allowed by the States and territories of the Eastern Caribbean, have the effect of diminishing the area of maritime space which would otherwise have accrued to

those states and territories by an estimated 7,300 square miles.⁴⁷

In the case of Aves Island, therefore, Article 121 of the 1982 Convention, which, on the face of it, appears to be a simple and straight-forward provision, immediately sheds this character inasmuch as the ability or otherwise of Aves to generate extended areas of maritime jurisdiction arises not in isolation, but in relation to the delimitation of maritime boundaries between states. Predictably, given the acreage of marine space at stake, the Government of Venezuela has, by the establishment of a scientific research station there, sought to avoid, circumvent, or to otherwise frustrate the operation of the exception rule enshrined in Article 121.1 of the 1982 Convention, so as to be able to use the tiny Aves Island as a base point in boundary delimitation. In order to counter continued claims by Venezuela in this regard, the countries of the Eastern Caribbean which could be adversely affected, might recall the imperative of an equitable delimitation as ruled by, inter alia, the international Court of Justice in the North Sea Continental Shelf Cases. Here, it was ruled that "it is necessary to

⁴⁷Source: CARICOM Secretariat. Calculation as reported to the Training Programme on "The Management of the EEZ in the Caribbean" sponsored jointly by the Commonwealth Secretariat and CARICOM. Ocho Rios, Jamaica, 2-18 April, 1984.

seek not one method of delimitation, but one goal" in which case the goal, namely an equitable delimitation; should stand above any method of delimitation and any formulation of provisions.⁴⁸

In addition, the countries of the Eastern Caribbean may seek to exploit the principle of proportionality, first developed by the International Court of Justice also in its judgement in the North Sea Continental Shelf cases, so as to be able to argue that not only the size of Aves Island but also its population and lack of economic potential are grossly out of proportion to the maritime zones claimed. The matter of Aves Island then, may be claimed as a case requiring the application of the "special or all relevant circumstances" principle. The foregoing, however represents a Caribbean perspective with regard only to Aves Island, for the application of the principle of proportionality in the Southern Caribbean would greatly favour Venezuela given its extensive Caribbean coast.

⁴⁸See I.C.J. Reports, 1969, p. 3.

Trinidad and Tobago/Venezuela Maritime Boundary
Delimitation: Historical Aspects

(i) The Gulf of Paria Treaty, 1942

On February 26, 1942, was signed in Caracas a "Treaty between His Britannic Majesty and the President of the United States of Venezuela relating to the Submarine Areas of the Gulf of Paria."⁴⁹ The purpose of the Treaty, as stated in its preamble is "to make provisions for and to define as between themselves their respective interests in the submarine areas of the Gulf of Paria."⁵⁰ The text of this Treaty is attached at Appendix V.

Although international political reaction to the problem of the Continental Shelf did not emerge until the formulation of the Truman Proclamations of 28th September, 1945,⁵¹ the Gulf of Paria Treaty, which antedates those Proclamations by more than three full years, is nevertheless recognised in the annals of international law as "...the earliest treaty ever

⁴⁹United Kingdom Treaty Series, No. 10 (1942).

⁵⁰Emphasis added. The preamble is not ipso facto an operative part of the treaty nor does it bind the Parties directly. It however, in the absence of the "travaux préparatoires" establishes the intentions of the Treaty and the objectives of the Treaty.

⁵¹Quoted in Harris, D.J., Cases and Materials on International Law. Sweet and Maxwell, London, 1979, 2nd. ed., pp. 378-379.

concluded between two states to delimit, explore and exploit a submerged area."⁵² The Truman Proclamation with its more comprehensive resource-oriented approach, places emphasis on the enjoyment of sovereign rights inasmuch as

"the natural resources, of the subsoil and seabed of the continental shelf beneath the high seas but contiguous to the coasts of the United States (are seen) as appertaining to the United States subject to its jurisdiction and control."

The Gulf of Paria Treaty, on the other hand, is more concerned with "rights of sovereignty", so that for example,

"The President of the United States of Venezuela declares that he, for his part, will not assert any claim to sovereignty or control over those parts of the submarine areas of the Gulf of Paria which lie westerly of the line..."⁵³

The Treaty does not enshrine claims with respect to "the status of islands, islets or rocks above the surface of the sea together with the territorial waters thereof."⁵⁴

⁵²Nweihed, K., "Venezuela's Contribution to the Contemporary Law of the Sea" op. cit.

⁵³Article 2.

⁵⁴Article 5.

Moreover, "nothing in this Treaty shall be held to affect in any way the status of the waters of the Gulf of Paria or any rights of passage or navigation on the surface of the seas outside the territorial waters of the Contracting Parties."⁵⁵

Whereas provisions are stipulated within the Treaty to the effect that "...passage or navigation shall not be closed or be impeded by any works or installations"⁵⁶ and that "...the High Contracting Parties shall take all practical measures to prevent the exploitation of any submarine areas...from causing the pollution of the territorial waters of the other by oil, mud or any other fluid or substance..."⁵⁷ the Treaty is primarily and fundamentally concerned with the demarcation of a submarine boundary and this, only if the intention to claim is manifested.⁵⁸ From this it follows that without concomitant or subsequent legislation having been enacted by the "High Contracting Parties", the Gulf of Paria Treaty 1942, would have been without any practical effect

⁵⁵Article 6.

⁵⁶Article 6.

⁵⁷Article 7.

⁵⁸See especially Article 2 and 10. Article 9, inter alia, is also relevant.

whatsoever. In addition, the Treaty does not purport to extend the scope of the demarcation agreement to areas beyond the Gulf of Paria and not consistent with the provisions of Articles 2 and 3. It follows, therefore, that the Gulf of Paria Treaty 1942, in so far as it represents an understanding prior to the manifestation of intention, may in no way be construed to relate to any areas not expressly referred to in its Articles, notwithstanding there being a relation in terms of subject matter.

In accordance with Article 10 of the Treaty, instruments of ratification were exchanged in London by His Britannic Majesty and the President of the United States of Venezuela on 22nd September, 1942, on which date the Gulf of Paria Treaty came into force.⁵⁹

Municipal legislation to implement the intention of Articles 2 and 3 of the Treaty was enacted by each of the High Contracting Parties in order to set out the respective areas wherein the Treaty shall apply and

⁵⁹See International Boundary Study, No. 11, March 6, 1970, Office of the Geographer, Department of State, U.S.A.

annexing these in terms of sovereignty, jurisdiction and administration.⁶⁰

Problems in the Implementation of the Gulf of Paria Treaty: The Mixed Commission

According to Article 4 of the Treaty

"the High Contracting Parties shall, as soon as practicable after the coming into force of this Treaty, appoint a Mixed Commission to take all necessary steps to demarcate the lines A-B, B-Y and Y-X..."

in respect of which agreement was expressed in the Treaty.

From the British (Trinidad and Tobago) perspective, the demarcation of the marine boundary in the Gulf of Paria might well be viewed as a great achievement even though it might be speculated that the outcome was related to the asymmetry of power relations as between the two Contracting Parties. The political, technical and even psychological demands inherent in anything as delicate as a maritime boundary delimitation, especially in the area known to be rich in hydrocarbons, are enough to substantially affect the manner, procedures and the general conduct of negotiations. In a situation where, in addition to the

⁶⁰In Britain, legislative effect was accorded the Treaty by means of the Submarine Areas of the Gulf of Paria (Annexation) Order of 6th August, 1942. The Treaty was approved by the Venezuelan Congress on 9th July, 1942.

other factors mentioned, negotiations are conducted between a weak, "new" state and an established power vaunting imperial status, the degree of tension is greatly exacerbated. Indeed, though of an essentially academic nature, the speculation might be entertained as to whether the Government of Trinidad and Tobago, which by an exchange of letters with the British Government on Independence Day, 31st August, 1962, agreed, *inter alia*, that all obligations and responsibilities of the Government of the United Kingdom which arise from any valid international instrument shall henceforth be assumed by the Government of Trinidad and Tobago, insofar as such instruments may be held to have application to Trinidad and Tobago, would have been able to achieve such a delimitation by its own efforts.

Writing on the subject of the 1942 Treaty of delimitation of the submarine areas of the Gulf of Paria, Kaldone Nweihed, one of Venezuela's foremost law of the sea academics and publicists, suggests that the British motive for seeking a delimitation agreement was the shortage of energy supplies as prevailed during World War II and the need to legally justify any submarine exploration and exploitation as may be undertaken.⁶¹ Nweihed writes of the British approach

⁶¹Nweihed, K., *op. cit.*

to Venezuela "whose attitude, at the outset, was cautiously receptive."⁶² Nweihed's mild evaluation, born perhaps of modesty, falls far short of the mark, however.

Investigations by the present author at the Public Records Office in London, where material released on the period covering the conclusion of the 1942 Treaty and the Work of the Mixed Commission set up in accordance with its Article 4 is now available, reveals in minutest detail, the attitudes, assumptions, perceptions and diplomatic styles of the Contracting Parties to the Treaty. As can be seen from the Foreign Office files, cautious receptivity turns into vacillation, even intransigence and, on both sides, dissatisfaction moved beyond the point of prolonged and profound exasperation. The recently released papers also provide detailed information about the work of the Mixed Commission and its procedures. Problems arose in the implementation of the Gulf of Paria Treaty with respect to inter alia:

- (i) The British perception of the Venezuelan penchant for procrastination; for non-adherence to previously concluded points of

⁶²Nweihed, K., op. cit.

agreement; and for generally failing to cooperate.⁶³

- (ii) The refusal of the Venezuelan Government to contribute toward the expenses incurred in the triangulation exercise in the Gulf of Paria and in the erection and maintenance of beacons. The Venezuelan view was to the effect that beacons were unnecessary and costly and that triangulation data calculated in 1931 were sufficient for the purposes of the Mixed Commission. The Venezuelans were also convinced that the British request for a new triangulation exercise aimed at a degree of precision "which goes far beyond the objectives which are sought and which is vastly difficult to attain and useless in this specific case."⁶⁴
- (iii) The perception on the part of the British Government that Venezuelan behaviour "amounts to a rejection of Article 4 of the 1942 Treaty, as well as removing the *raison d'être* of the Mixed Commission."⁶⁵

As detailed in its Article 3, the Treaty establishes as per Figure 7, a line of demarcation

⁶³See letter dated 6th September, 1950 from A. Campbell, The Church House, Great Smith Street, London, S.W.1 to R. Cecil, Esq. American Department, Foreign Office, London, S.W.1 See also letter from A.S. Fordham, dated 22nd September, 1950 from the Foreign Office London, to Sir John Magowan, K.B.E., C.M.G., Ambassador Extraordinary and Plenipotentiary of Great Britain to Venezuela.

⁶⁴See Memorandum dated 6th November, 1950 forwarded to the British Ambassador in Caracas by the Venezuelan Ministry of Foreign Affairs (in English) in response to a Memorandum from the British Foreign Office dated 22nd September, 1949.

⁶⁵Source: Internal Foreign Office Memorandum dated 13 December, 1950, from J.D.B. Shaw to Brigadier Hotine. Public Records Office, London.

Figure 7



MAP NO. 2092 X

Official Map showing the AB-BY-YX Line of the
1942 Gulf of Paria Treaty

between the island of Trinidad and Venezuela designated A-B, B-Y and Y-X in which A is the point of intersection of the central meridian of the island of Patos with the Southern limit of the territorial waters of that island. At the time of the conclusion of the Treaty, both Contracting Parties claimed jurisdiction over a three mile territorial sea. Point B, on the map marks the intersection of longitude $62^{\circ} 05' 08''$ West with the territorial waters of Venezuela and point Y is the point of intersection of latitude $9^{\circ} 57' 30''$ North with longitude $61^{\circ} 30' 00''$. Point X, the final point, falls at a location South of Point Roja on the Southern shore of Trinidad approximately half-way along that coast and also approximately mid-way between the coasts of Venezuela and Trinidad.

Article 3 of the Treaty also stipulated that

"the coordinates of points A, B, and Y which are here given approximately shall be determined with exactness by the Commission provided for in Article 4 of this Treaty."

Given, inter alia, the "difficulties" encountered in the performance of its work, the Mixed Commission was able to determine the location of the boundary A, B, Y, X but only in 1953 after having sat for a period of seven years. The Commission further recommended that, from point Y, the boundary should proceed as a projection of the line YX to complete the demarcation

between the South Coast of Trinidad and the North Coast of Venezuela. Since the Venezuelan coast falls sharply away at this point, the adoption of that recommendation would have meant that a greater portion of the area South of Trinidad and North of Venezuela would have accrued to Venezuela so that the reaction of the British delegation was one of outright rejection. More than this, the ratification of the boundary proved to be an obstacle not easily overcome.

The Island of Patos Treaty

An important element of the Trinidad and Tobago/Venezuela delimitation scenario in February 1942 was the conclusion of a "Treaty to regulate in a spirit of goodwill certain questions concerning the status of the island of Patos."⁶⁶ This treaty was signed on the same date as the Gulf of Paria Treaty but nevertheless precedes the latter agreement.

In accordance with the Treaty,

"His Majesty, the King renounces in favour of the United States of Venezuela all sovereign rights and title over the island of Patos and transfers to the United States of Venezuela all sovereign rights and title over the said Island which shall thereafter be considered as

⁶⁶See the Preamble to the Treaty.

part of the territory of
Venezuela."⁶⁷

The Treaty which was also ratified by virtue of same exchange of letters as brought the Gulf of Paria Treaty into force, stipulated in its Article 2, that

"if at any time the Venezuelan Government think it necessary to install on the Island of Patos military or naval defence works...they shall give timely notice of their intention to His Majesty's Government in the United Kingdom."⁶⁸

To date, no formal discussions have been held with the Venezuelans on this matter. The inclusion of Article 2 in the Treaty probably has relevance to the asymmetry of power relations as between the Contracting Parties as discussed earlier. The text of the Island of Patos Treaty is contained in Appendix VI.

According to Nweihed, Venezuela had insisted on the recovery of Patos Island which is situated in the Dragon's Mouth, the strait at the Northern entrance into the Gulf of Paria from the Caribbean Sea proper⁶⁹ and negotiations with Britain aimed at the latter's recognition of Venezuelan sovereignty over the Island

⁶⁷Article 1.

⁶⁸The Patos Treaty was approved by the British Parliament and thereby incorporated into British Law by means of the "Anglo-Venezuelan Treaty (Island of Patos) Act" enacted on 21 May, 1942.

⁶⁹See Nweihed, op. cit.

and on the "division" of the submarine areas of Paria had begun in 1936. In his view, the maintenance of British control over Patos would have bolstered the British negotiating position "and probably her share" of the Gulf of Paria at the expense of Venezuela so that the question of the status of Patos having been settled "the first treaty to deal with the delimitation of submarine areas in international law" namely the Gulf of Paria Treaty, was signed in Caracas on 26th February, 1942. It is in this sense that the Island of Patos Treaty is stated as having preceded the Gulf of Paria Treaty even if both were signed and ratified on the same date.

Principles and Techniques of Delimitation in the Gulf of Paria Treaty

Giving rise to a prolonged discussion on the international plane as to the principles and techniques employed in the Gulf of Paria submarine delimitation by the co-signatories of the Treaty is the absence in the Treaty of any reference thereto. In the course of the North Sea Continental Shelf Cases, it was adduced that the Gulf of Paria Treaty was based on the equidistance principle.⁷⁰ The I.C.J., for its part, was however, not so persuaded. Figure 8, which is excerpted from

⁷⁰Nweihed, K., op. cit.

the North Sea Continental Shelf Cases, shows the AB-BY-YX lines of the Treaty together with a would-be median line. In this Figure, a median equidistant boundary line overlaps the A-B Treaty line by approximately 477 square kilometres in the North in Venezuela's favour and, similarly, there is an almost equal overlap of the median line in the south in Trinidad and Tobago's favour. This apparently equal exchange of submarine areas is taken to be supportive of the view that the A-B Treaty line is a median line.

On the subject as to whether the equidistance method was employed in the 1942 Treaty, Nweihed has expressed the firm conviction that "such an assertion is absolutely incorrect and misleading."⁷¹ In the view of another eminent authority on Law of the Sea questions, the fact that straight lines have been used rather than lines following the sinuosities of the coast, only suggests that a median line has been used. However, despite the resemblance of the A-B line to a median line, the conclusion that the equidistance principle was employed in the 1942 Treaty is "erroneous."⁷²

⁷¹Nweihed, op. cit., p. 611.

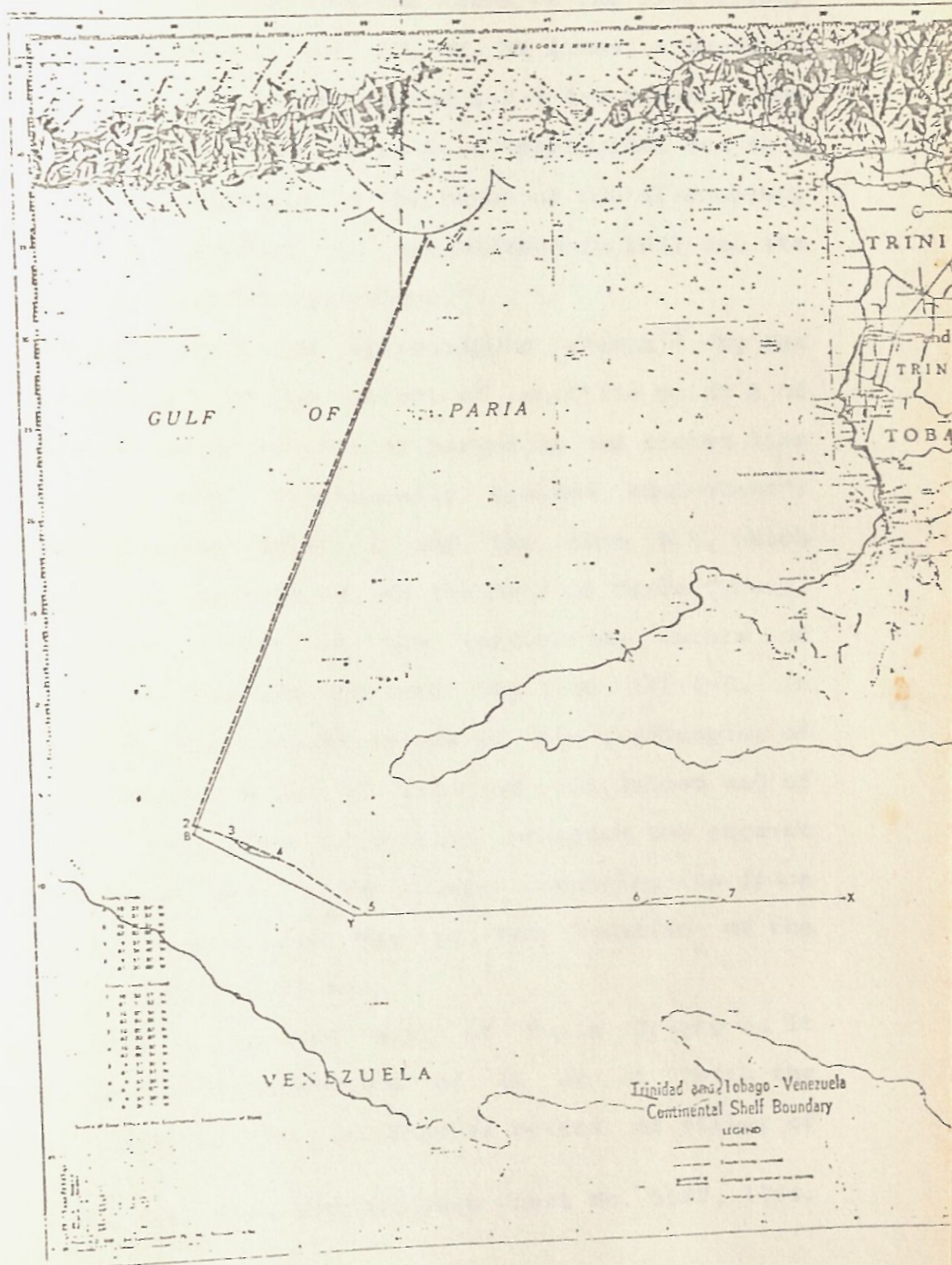
⁷²Ruben Carpio Castillo, Fronteras Maritimas de Venezuela, op. cit.

The submissions relative to the 1942 Treaty in the course of the North Sea Continental Shelf Cases, represent but one approach to the determination of the question as to whether the equidistance principle was used. Another approach is to be found in the work of the Geographer of the Department of State of the U.S.A.⁷³ According to this study, the Trinidad and Tobago/Venezuela Continental Shelf boundary was not delimited according to the equidistance principle. In justification of this assertion, the observation is made that only at two points of the revised Continental Shelf Boundary is the terminal or turning point equidistant between the two countries.⁷⁴ Herein lies a major clue as to the approach pursued by the Geographer. The map appearing as Figure 9 is excerpted from this study and shows two different interpretations of the continental shelf boundary as delimited in the 1942 Treaty. In this study, unlike the other approaches just mentioned, the discrepancy between the two boundary calculations may be attributed to the difference in hydrographic charts used in the course of the delimitation exercise.

⁷³See International Boundary Study, No. 11, dated 6 March, 1970. Published by the Geographer, U.S. State Department.

⁷⁴Emphasis added.

Figure 9



The use of "more recent hydrographic charts" by the Geographer in applying the terms of the 1942 Treaty produces, instead of the AB, BY, YX lines, a boundary represented by the lines marked 1-2-3-4-5-6-7-X. The use of the Venezuelan three mile territorial sea as a segment in the boundary is the cause of the discrepancy between the boundary as established in 1942 and its "technically revised equivalent."

Application of new hydrographic charts⁷⁵ by the Geographer has had the effect of shifting point A of the 1942 Treaty to Point 1 as marked on the broken line representing the "technically revised equivalent"; Point B becomes Point 2 and the line B.Y, which according to Article 3 of the Gulf of Paria Treaty, "follows the limits of the territorial waters of Venezuela" is transformed into the line 2-3-4-5. In this segment, the problem arises of the overlapping of the territorial seas of Trinidad and Tobago and of Venezuela. This area of overlap occupies the segment lying between 3-4. The segment occupying the space between 6-7 also arises due to the location of the Venezuelan Territorial Sea.

Article 3 of the Gulf of Paria Treaty as it relates to the intersection of AB or YX "with the outside limit of the territorial waters of either of

⁷⁵See U.S. Navy Hydrographic Chart No. 5587, 1964.

the two High Contracting Parties" is advanced in justification of the demarcation line 1-2-3-4-5-6-7-X.

In this connection, the Geographer suggests that

"the shift of the location of the Venezuelan territorial sea may be the result of the geomorphic changes in the Venezuela coastline, which in the vicinity of the Western Channel and the Serpent's Mouth is composed of mud flats."

The configuration of the Venezuelan coastline can therefore be expected to change significantly in the future.

At the end of its survey, however, the Geographer concludes that

"the analysis of the physical characteristics of the two C.S.B.'s does not present a significantly different picture."

For example, the Treaty boundary established in 1942 covers 71.5 nautical miles as against 72 nautical miles in the "technically revised version". The average distance between the four points of the 1942 boundary is 23.8 nautical miles as against 10.3 nautical miles between the eight points of the revised boundary. With respect to the water depths, the average on the 1942 boundary is 12 fathoms with a range of 2-22 fathoms as against a range of 3-22 fathoms in the revised version.

Overall, however, the Geographer is convinced that

"if the language of the agreement has precedence over the map drafted in

1942, the revised C.S.B. would become the accepted boundary line."⁷⁶

(ii) The Trinidad and Tobago/Venezuela Maritime Boundary: The Unfinished Delimitation

While it has been indicated that the delimitation of the maritime zones of Trinidad and Tobago off the four coasts of Trinidad involves Venezuela, the expression "Trinidad and Tobago/Venezuela Maritime Boundary" is being used with reference to the largest sectors of marine space to be delimited as between the two countries. These sectors are those off the South Coast of Trinidad and Tobago, that is, South of Trinidad and North of Venezuela; as well as the Gulf of Paria. Areas off the East coast of Trinidad will also receive attention in this regard.

It will be recalled that there is in existence a delimitation Treaty, the Gulf of Paria Treaty 1942, according to which the submarine areas in the Gulf of Paria and the area South of Trinidad and North of Venezuela have been delimited: the latter area only partially so. This Treaty may be considered to be still in force, between Trinidad and Tobago and Venezuela.

The element of uncertainty is introduced merely because the Treaty was originally an international

⁷⁶See International Boundary Study, No. 11, dated March 6, 1970, op. cit.

agreement between the United Kingdom and Venezuela. Nevertheless, under customary international law and in absence of protests by the Government of Venezuela to this effect, Trinidad and Tobago may be regarded as successor to the rights and obligations under that Treaty by virtue of an Exchange of Letters between Trinidad and Tobago and the United Kingdom on 31st August, 1962, the date on which Trinidad and Tobago agreed to assume all obligations, responsibilities, rights and benefits arising from any valid international instrument, insofar as such instrument may be applicable to Trinidad and Tobago. Although the Gulf of Paria Treaty is one of these instruments, the assumption of all rights and obligations by Trinidad and Tobago, by virtue of the said Exchange of Letters cannot ipso facto be considered to be binding on Venezuela in the absence of its consent thereto; and

consequently the Exchange of Letters cannot be said to affect the operation of customary international law.⁷⁷

This having been said however, it is to be emphasized that no objection has ever been raised by Venezuela with respect to the devolution agreement between the Government of Trinidad and Tobago and the Government of the United Kingdom.

On the contrary, Venezuela's acquiescence in respect of that agreement is to be deduced from the significant fact that soon after the proclamation on 23rd July, 1956 of its "Law on the Territorial Sea, the Continental Shelf, Fishing Protection and Air Space,"⁷⁸ it was stated by the Venezuelan Government that the new

⁷⁷This view finds support in the provisions of the 1978 Vienna Convention on Succession of States in Respect of Treaties which in its Article 8 provides, *inter alia*, that

- (i) The obligations or rights of a predecessor State under treaties in force in respect of a treaty at the date of a succession of States do not become the obligations or rights of the successor States towards other States parties to those treaties by reason only of the fact that the predecessor State and the successor State have concluded an agreement providing that such obligations or rights shall devolve upon the successor State."

The question of the current status of the 1942 Treaty is further discussed later in this thesis.

⁷⁸See Preiswerk, R. (ed.) Documents on International Relations of the Caribbean, Institute of Caribbean Studies, University of Puerto Rico, 1970, p. 661.

twelve-mile limit would not affect the delimitation of the continental shelf in the Gulf of Paria as laid down in the 1942 Treaty.

Further, notwithstanding the fact that, to date, neither Trinidad and Tobago nor Venezuela has ratified or acceded to the 1978 Vienna Convention on Succession of States in Respect of Treaties, which, in any event, is yet to enter into force, it may be useful to examine the issue of the status of the 1942 Gulf of Paria Treaty from another stand-point with reference to the Convention.

What is of relevance here is the fact that the 1942 Gulf of Paria Treaty provides an example of a dispositive Treaty. In respect of such a Treaty, the Vienna Convention on Succession of States in Respect of Treaties provides in its Article 11 that:

A Succession of States does not as such affect:

- (a) a boundary established by a treaty; or
- (b) obligations and rights established by a treaty and relating to the regime of a boundary.

It is to be recalled in this connection that the adoption of the provisions of Article 11 just quoted, reflected the incorporation of state practice into a positive law-making treaty: this notwithstanding the fact that the remaining Articles of the 1978 Geneva

Convention under reference are predicated on the idea that "a new State starts with a "clean slate" in respect of the multilateral and bilateral treaty rights and obligations of its predecessor..."⁷⁹

It is on the basis of the foregoing argumentation that it has been concluded that the 1942 Gulf of Paria Treaty may be considered to be still in force between Trinidad and Tobago and Venezuela.

This point is being made and perhaps overemphasized, at this stage simply because, in the author's own view, it is not unthinkable that in the context of a modern boundary delimitation given, inter alia, the far reaching developments in international law since 1942, or even 1956, Venezuela may seek to reopen negotiations on the agreed Treaty line. The far-reaching developments in international law may include such a factor as the new "universally" accepted methods of drawing baselines. Providing the impetus for the reopening of negotiations may also be the important developments in science and technology for the exploitation of marine resources, quite apart from the fact that, given the entire boundary delimitation scenario as between the two countries, it may simply appear advantageous to do so given the wider range of matters of interest to both parties.

⁷⁹See Harris, D.J., op. cit., p. 661.

For example, from a Venezuelan perspective, the Gulf of Paria Treaty and the Patos Treaty may be seen as obstacles to the effective claim of submarine territory beyond the agreed line notwithstanding Article 4 of its "Law on the Territorial Sea, the Continental Shelf, Fishing Protection and Air Space" of 23rd July, 1956 and its Act of 26th July, 1978 establishing, inter alia, and EEZ of 200 nautical miles. Similar considerations may also be entertained by Trinidad and Tobago. For example, Trinidad and Tobago's claim may be seen as an indirect one represented in the form of concessions given to oil companies in the area off the East Coast of Trinidad. Needless to say, the island of Trinidad stands on the Continental Shelf a part of which is claimed by Venezuela, so that it may be said that the two countries "share" that shelf. That Trinidad and Tobago has an interest in this matter would be to grossly understate the case.

Another element of utmost importance worth recalling is the fact that the international dividing line, that is, the ABYX line shown in Figure 7 is an integral part of the Gulf of Paria Treaty. That is to say, it corresponds to an operational aspect of the Treaty to be determined by separate commission. To date the co-signatories of the said Treaty have not

found it in their interest to ratify the findings of the Commission. Therefore, the major aspect of the Treaty not having been ratified, it may be construed as being of considerably diminished significance.

Nevertheless, at the operational level, not only are the undelimited marine areas off the South Coast of Trinidad and North of Venezuela known to be rich in hydrocarbons but also, concessions for their exploration and exploitation have been granted by both parties. In this situation, each of the two countries would presumably need to know the exact extent of its rights inasmuch as the uncertainty connected with the allocation of jurisdiction over the said areas can hardly facilitate the development of resources by each State including the not improbable recourse to the conclusion of joint venture agreements for this purpose. Further, questions related to the preservation of the marine environment, the possible need for and considerable potential benefits to be derived from exchange of information or other forms of technical cooperation including joint oceanographic research, would not be easily addressed unless areas falling under the national jurisdiction of each party have been delimited. Matters concerned with averting maritime dangers, shipping in oil exploited areas and the concomitant problems concerning the responsibility

of States in this respect; and the question of jurisdiction over installation and exploitation machinery in areas of close proximity to either state but utilized by competing companies are both subject to similar considerations.

The further delimitation of the marine areas South of Trinidad and North of Venezuela is a fascinating study from the operational-legal point of view. In the sections of this thesis in which attention is focussed on those aspects of the delimitation problematique of the areas off the east and north coasts of Trinidad, that is, where the claims of Barbados and Grenada in particular are emphasized, the major principles and elements of marine boundary delimitation are operationalised. These included proportionality, equidistance, geomorphological criteria, equitable principles, special circumstances, the distinction and its relevance as between states whose coasts lie opposite or adjacent to each other; as well as the historical 200 metre isobath as it relates to the delimitation of the continental shelf.

While all these principles and elements will necessarily find expression in the hypothetical delimitation of the marine areas off the South Coast of Trinidad, there will be additional nuances brought about by the focus that is required on such questions

as the choice of base points and baselines; the implications of territorial boundary disputes⁸⁰ and the puzzling complexity of what may eventually turn out to be at least quadrilateral negotiations in order to establish the maritime boundaries between say, Trinidad and Tobago and Venezuela. In this context, there is but one further point that needs to be recalled. This refers to the fact that, when the 1942 Treaty was drawn up, both Trinidad and Tobago and Venezuela claimed only a three mile territorial sea and the Treaty line was drawn in such a way that the territorial sea of neither party encroached on the Treaty limits.. However, the extended claims of Venezuela and Trinidad and Tobago with respect to Territorial Seas and EEZ's, create a situation where each country lays claim to the territorial waters on the side of the ABYX boundary that is nearer to the other party.

Moreover, since the 1942 Treaty excluded the exercise by either party of sovereignty over the surface and water-column, an exceptional situation was created whereby both states had claimed certain areas of marine space over which, however, they were unable to exercise jurisdiction.

⁸⁰In this case the Venezuela claim dating from 1821 to nearly two-thirds of the territory of Guyana based on the contention that Venezuela is successor to the territories in Guyana which belong to Spain. The area in question is about 70,000 square miles in extent.

Baselines, Basepoints and the Trinidad and Tobago/
Venezuela EEZ Boundary in areas off the
South and East Coasts of Trinidad

By virtue of a Presidential Decree issued on 10th July, 1968, the Republic of Venezuela made provisions in its laws for the drawing of straight baselines from which the breadth of its Territorial Sea was to be measured.⁸¹

This Decree would appear to have its juridical basis in Article 13 of the Convention on the Territorial Sea and the Contiguous Zone, 1958. The baseline for which specific provision is made by the Decree is one that is drawn with the intention of closing the mouth of the Orinoco River, but which extends from Punta Araguapiche in the West, to Waini Point in the east. The text of this most important delimitation policy "statement" on the part of the Venezuelan Authorities is set out in extenso as Appendix VII. An illustration of the Leoni Line is contained in Figure 3.

The "Leoni Line", so called after the Venezuelan President responsible for its promulgation, is of central importance in the further delimitation of the

⁸¹Decree No. 1152 issued on 10th July, 1968, and published in the Gaceta Oficial, No. 28672 of 9 July, 1968. Article 2 of the Venezuelan law of 23rd July, 1956 had made provision for the use of both the low-water mark as well as, "when circumstances dictated", straight baselines.

Trinidad and Tobago/Venezuela maritime boundary, hence its use as a point of departure in this discussion. This line could hardly have been expected to receive the ready acceptance of the Government of Trinidad and Tobago in the context of any delimitation exercise and this for reasons which may be qualified as "material", or "legal" as well as "political". To begin with, Waini Point, the terminal point of this baseline which is drawn covering a distance of some 98.9 nautical miles, would, most likely, be viewed by Trinidad and Tobago as forming part of the territory of the independent state of Guyana. Given the traditional ties as exist between Trinidad and Tobago and Guyana, as well as the efforts which have been deployed by Trinidad and Tobago leading inter alia to the Protocol of Port-of-Spain of 1970 as part of the attempt to resolve the Venezuela/Guyana boundary dispute, support or acceptance of the Leoni line by Trinidad and Tobago would be illogical and even perverse.⁸²

Even if the Leoni Line purporting to close the mouth of the Orinoco were to terminate at Punta

⁸²In June, 1970, Trinidad and Tobago used its good offices to bring Venezuela and Guyana together to sign the Protocol of Port-of-Spain whereby the two Governments agreed that territorial claims would not be pursued for twelve years after which the two Governments would seek to cooperate to arrive at an amicable settlement.

Playa,⁸³ thus running its full length exclusively and undisputedly within Venezuelan territory, Trinidad and Tobago could have been reasonably expected to protest on the ground that the manner in which it was drawn was not in strict accordance with international law. The rationale for such a position might be as follows:

First of all, municipal acts which affect international situations, have validity only if accepted by the States concerned or if done in accordance with international law. A straight baseline drawn from Punta Araguapiche to Punta Playa would encompass an area which extends beyond the deep indentation of a delta of the River. Even before the adoption of the 1982 Convention, which Venezuela has refused to sign, the Convention on the Territorial Sea and the Contiguous Zone, 1958, to which Venezuela is a party, provides that

"If a river flows directly into the sea, the baselines should be a straight line across the mouth of the river between points on the low-tide line of its banks."⁸⁴

This article is also to be found verbatim in the 1982 Convention which has been signed by Trinidad and Tobago

⁸³See Figure 3.

⁸⁴Article 13.

except that the expression "low-tide" in the 1958 text has been replaced by the expression, "low-water".⁸⁵

Thus, Punta Playa, lying so far eastwards, could not reasonably be encompassed within the definition of the mouth of the Orinoco River, nor could it be considered the terminal point of the low-tide/low-water line of one of its banks.

A line drawn from Punta Araguapiche to Punta Mocomoco might be preferable being more in accordance with the prescriptions of international treaty law.⁸⁶ For that matter, a more restrictive interpretation, such as would have the straight base line with its origin in Punta Araguapiche but terminating at Punta Barima, might be a justifiable maximum position for Trinidad and Tobago. Baselines terminating at Punta Playa and Punta Barima would be respectively 70 miles and 50 miles in length.

Since Punta Playa lies within Venezuelan territory, its use as a base point for the plotting of an eventual Trinidad and Tobago/Venezuela maritime boundary could not be expected to draw protests from Trinidad and Tobago. It is its use as a terminal point of the straight baseline in question that is

⁸⁵Article 9.

⁸⁶See Figure 3.

potentially problematic. With reference to the use of Waini Point, there is precedent by Venezuela for the use of the territory of a third state as a base point from which to measure negotiated boundary lines.⁸⁷ In the Guyana/Venezuela situation such a practice could be expected to draw the serious objections on the part of the Government of Trinidad and Tobago.

Quite apart from objections of a legal nature, or from those arising as a result of the perceived infringements of the interest of a friendly CARICOM State, Trinidad and Tobago could not be assumed to be oblivious to the fact that, in the context of an exercise as economically and politically sensitive in its domestic concerns, as a maritime boundary delimitation, that charity really begins at home. The greatest objection that Trinidad and Tobago could have to the "Leoni Line" as proposed, and even as it might be shortened, is the effect it has, given the fact that it is this line from which the territorial sea is to be measured, and which will therefore have the effect of pushing northwards, any equidistant line that may be drawn, thus reducing the area that would otherwise have

⁸⁷See its Maritime Boundary Agreement with the Dominican Republic on 3 March, 1979 (in which the Islands of Aruba and Curacao (Netherlands Antilles) were used as Venezuelan Base points for determining the equidistance line.) in United Nations: The Law of the Sea: Maritime Boundary Agreements 1970-1984. New York, 1987. pp. 135-138.

fallen under its jurisdiction. Conversely, the Venezuelans, by converting marine areas on the landward side of the "Leoni Line" into internal waters, would have acquired jurisdiction over an increased area of marine space. In general terms, the shorter baselines would tend to deflect the equidistant line southwards, that is, in Trinidad and Tobago's favour. The correctness or otherwise of the hypothetical Trinidad and Tobago position as expressed, would clearly, if truistically, depend on the basic considerations informing its negotiation strategy. For example, it may decide in the interest of friendly relations with its closest neighbour, to forego the relatively small portions of its existing concession areas in the South-east where the equidistant line cuts into the concession areas.

Alternatively, it may seek either to retain the existing concession areas purely and simply, or to retain them while making concessions to Venezuela in other areas to be delimited. These considerations serve to bring to the fore two important issues which must surely be borne in the minds of the Trinidad and Tobago as well as the Venezuelan authorities. These are, first of all, the need for scientific assessments of the potential yields of the living and non-living resources of the areas to be delimited. Secondly, and

perhaps even more importantly, is the need to consider the delimitation exercise as a single package. Given the close inter-relationship of all maritime zones, it would be both difficult and irresponsible to consider, let alone enter into, negotiations with respect to a given maritime area, in isolation from others which remain to be delimited.

Trinidad and Tobago Baselines

In Chapter II it was indicated that, on the basis of its satisfaction of the criteria with respect to the land-water ratio of its over twenty islands, and also with respect to the length of its baselines, Trinidad and Tobago qualifies for the status of an archipelagic state and has so declared itself, through the enactment of the relevant legislation.⁸⁸ From this it follows that boundary lines delimiting maritime zones between Trinidad and Tobago and any adjacent or opposite States would be fixed on the basis of straight (archipelagic) baselines.

Suggested archipelagic baselines such as may represent the most favourable interpretation of Article 47.1 from Trinidad and Tobago's point of view, are

⁸⁸The land-water ratio resulting from the drawing of archipelagic baselines around the outer points of Trinidad and Tobago is approximately 1540:2027 square nautical miles. This conforms to the 1:1 and 9:1 range required by Article 47.1 of the 1982 Convention.

shown in Figure 10.⁸⁹ In this figure, the longest baseline has a length of 76 miles which is well within the maximum of 100 miles prescribed in Article 47.2 of the 1982 Convention. This is the line drawn from Little Tobago to Galeota Point.

Effect of Trinidad and Tobago Baselines

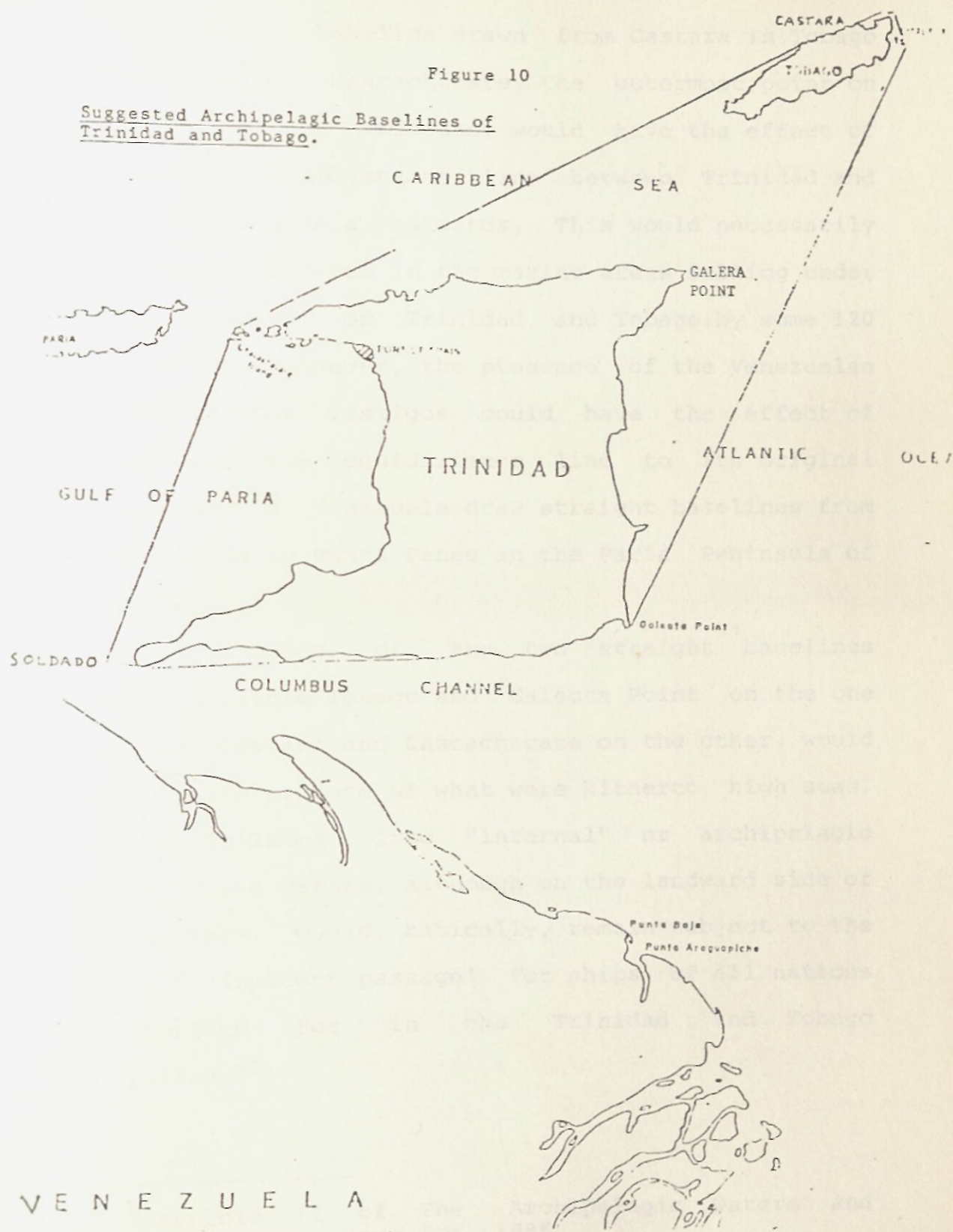
The baseline joining Little Tobago and Galeota Point, the outermost land-point on the east coast of the island of Trinidad, will have the effect of partially neutralising the effect of the "Leoni Line". Nevertheless, it is clear that the use of the equidistance line on the basis of these two baselines, would still have the effect of reducing the concession area currently exploited by Trinidad and Tobago. On the other hand, a straight baseline from Little Tobago to Galeota Point together with a straight baseline from Punta Araguapiche to Punta Sabaneta will more or less preserve the concession area exploited by Trinidad and Tobago.⁹⁰

⁸⁹As far as can be ascertained, official charts showing the archipelagic baselines of Trinidad and Tobago have not been issued by the authorities of that country. All calculations used in this section are the author's.

⁹⁰See Figure 3.

Figure 10

Suggested Archipelagic Baselines of
Trinidad and Tobago.



A straight baseline drawn from Castara in Tobago to the island of Chacachacare, the outermost point on the north west of Trinidad, would have the effect of shifting the equidistance line between Trinidad and Tobago and Venezuela westwards. This would necessarily result in an increase in the marine areas falling under the jurisdiction of Trinidad and Tobago by some 120 square miles. However, the presence of the Venezuelan islands of Los Testigos could have the effect of pushing back the equidistance line to its original location should Venezuela draw straight baselines from those islands to Punta Penas in the Paria Peninsula of Venezuela.

The drawing of the two straight baselines connecting Little Tobago and Galeota Point on the one hand, and Castara and Chacachacare on the other, would result in two pockets of what were hitherto high seas, being assimilated into "internal" or archipelagic waters. These waters, although on the landward side of the baselines, would, basically, remain subject to the regime of "innocent passage" for ships of all nations as provided for in the Trinidad and Tobago legislation.⁹¹

⁹¹Article 11 of The Archipelagic Waters and Exclusive Economic Zone Act, 1986.

The strait between north-eastern Trinidad and southern Tobago which has historically been used for international navigation would be subject to the right of archipelagic sealanes passage. Trinidad and Tobago might however seek to argue that a strait of similar convenience exists just beyond the north coast of Tobago thus restricting the passage of vessels, especially high-risk/pollution units such as oil tankers. Such an action appears to be sanctioned by the 1982 Convention.⁹²

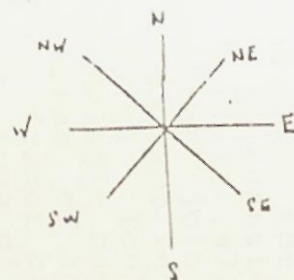
Even before the evolution of international law to accommodate the drawing of archipelagic baselines, Trinidad and Tobago would have deemed it advantageous to employ a system of straight baselines, given the broken and deeply indented nature of most of its coastline. Only along some portions of the south coast of Trinidad, is there any degree of uniformity. In this area, however, runs a partial international boundary established by the 1942 Treaty. On the east coast of Trinidad in contrast, there are large breaks in the uniformity of the coast at, for example, Galeota Point, Radix Point, Manzanilla Point and Balandra. As to the utility of strait baselines, it may be stated that only where large expanses of unbroken coast exist, is the low water mark of any practical utility in the

⁹²Article 36.

delimitation of maritime boundaries. On the other hand, straight baselines, apart from increasing the extent of internal waters, also have the advantage of permitting the accurate identification of maritime limits by the use of geographical coordinates. A map illustrating the coastline of the island of Trinidad appears as Figure 11.

Possible Venezuelan Reactions to Trinidad and Tobago
Baselines Based on the Archipelagic Principle

Notwithstanding the fact that the archipelagic state concept is enshrined in Part IV of the 1982 Convention and also that the concept itself, unlike the rights of transit, was a source of controversy at UNCLOS III, Venezuela might be expected to perceive Trinidad and Tobago's recourse to archipelagic baselines as a counter-measure to its "Leoni Line".



THE COASTLINE OF THE ISLAND OF TRINIDAD

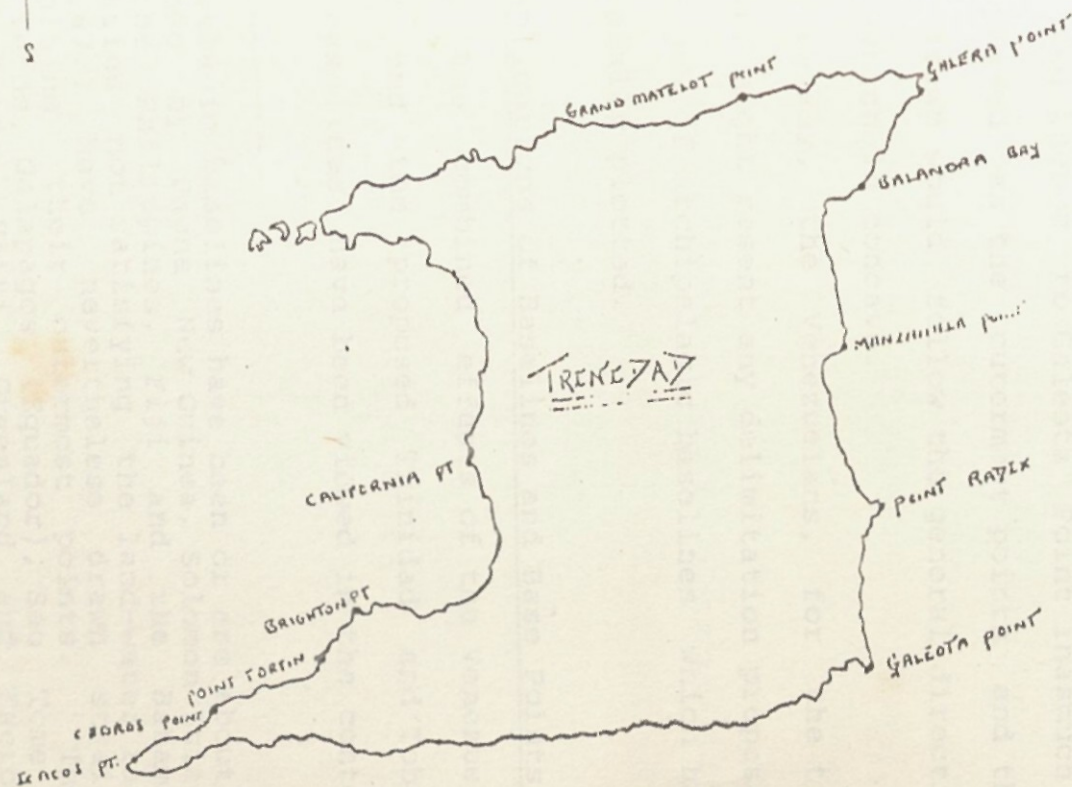


Figure 11

Trinidad and Tobago might, in its defence, plead the above-mentioned points, in addition to the evident and growing state practice in this regard.⁹³

Alternatively, Venezuela might contend that any archipelagic lines should connect Little Tobago with Galera Point and thence to Galeota Point inasmuch as these may be viewed as the outermost points and that baselines so drawn would follow the general direction of the coast, which is concave.

Needless to say, the Venezuelans, for the time being at least, might resent any delimitation proposals involving the use of archipelagic baselines which have not been officially plotted.

Further Implications of Baselines and Base Points

So far, the combined effects of the Venezuelan "Leoni Line" and the proposed Trinidad and Tobago archipelagic baselines have been viewed in the context

⁹³Archipelagic baselines have been or are about to be promulgated by Papua New Guinea, Solomon Island, Indonesia, the Philippines, Fiji and the Bahamas. Certain countries not satisfying the land-water ratio of Article 47.1 have nevertheless drawn straight baselines joining their outermost points. These include Cape Verde, Galapagos (Equador), Sao Tome and Principe; Iceland, Haiti, Greenland and Faeroes. Archipelagic baselines appear also to be feasible in the cases of Antigua and Barbuda; and St. Kitts-Nevis. In the former case, the ratio of the area of the water to the area of land is approximately 4.6 to 1. Other Eastern Caribbean States also appear to be eligible for archipelagic status in the context of the 1982 Convention.

of the sheer allocation of marine space as between the two countries, particularly with general reference to areas off the north, east and south coasts of Trinidad. Inevitably, the matter is one of infinitely greater complexity.

To begin with, as has been pointed out by Ruben Carpio Castillo, Venezuela, for geopolitical reasons, and given the importance of northern Venezuela, deems the securing of a "Salida al Atlantico", an egress to the Atlantic, a requirement of the utmost strategic importance.⁹⁴

On the basis of an application of the equidistance principle under normal circumstances, the convergence of the exclusive economic zone frontiers of Trinidad and Tobago and of Guyana would zone-lock Venezuela at a distance that is well short of the maximum of 200 nautical miles permitted under the EEZ regime. The effect of this is that Venezuela would effectively be denied a national maritime corridor leading to the high seas of the Atlantic beyond its EEZ from its territorial sea.

While it may be the case that Trinidad and Tobago could be genuinely sympathetic to Venezuelan concerns in this regard, Trinidad and Tobago will, for important

⁹⁴R. Carpio Castillo, op. cit. See also the Trinidad Express, 30th July, 1982.

reasons, find it impossible to make appropriate concessions toward this end. Any concessions granted by Trinidad and Tobago to Venezuela has the automatic and presumably unacceptable effect of reducing the extent of marine space which would otherwise have accrued to it and which is of significant value to the present and future economic well-being of the people of Trinidad and Tobago, bearing in mind the living and non-living resources of the area.

Moreover, as a result of the convergence of the Barbados and Guyana EEZ boundaries off the east coast of Trinidad, Trinidad and Tobago is itself denied a "Salida" to the high seas of the Atlantic beyond its own EEZ. Thus, Tripidad and Tobago, would require a substantial reciprocal concession on the part of Venezuela in order to assist that country to secure an egress to the Atlantic in the light of its own situation. Further, given the vast proven deposits of hydrocarbons in the relevant area, Venezuela would be hard put to provide adequate compensation.

From the foregoing, it is abundantly clear that the use of the equidistance principle in the demarcation of EEZ's as between Barbados, Trinidad and Tobago, Venezuela and Guyana would result in zone-locked positions for both Trinidad and Tobago and Venezuela. The marine boundary between Trinidad and

Tobago and Venezuela based on a 200 mile EEZ would most probably be the equidistant line which divides the marine areas in the south and which meets a triple point where the boundaries of Trinidad and Tobago, Guyana and Barbados converge.

The equidistance boundary between Guyana and Venezuela would produce the zone-locked situation for Venezuela while Trinidad and Tobago's zone-locked position would arise in the demarcation of an equidistance boundary between itself and Barbados.

Reflecting and perhaps complicating the Venezuelan/Guyana territorial dispute, it also appears from the foregoing, that Venezuela would need to negotiate, and access to the edge of the continental margin, not with Trinidad and Tobago but rather with its political adversary, Guyana. Arguably, since there may be scope for "trade-offs" in this context, this fact might actually serve to facilitate the resolution of the Venezuela/Guyana border dispute.

By the same token, Trinidad and Tobago would have to negotiate a modification of the equidistance boundary with Barbados in order to be able to extend its EEZ to the maximum permitted breadth. It is this fact in particular which may render Trinidad and Tobago sympathetic to Venezuelan appeals for a "Salida". The geographically disadvantaged position of Trinidad and

Tobago and Venezuela in the middle of a concave coastal facade that is flanked by Barbados to the North and Guyana in the south is worthy of note in this situation.

Adjacent States

It would seem, in addition, that approximately beyond the meridian of $60^{\circ} 30'$ West, Trinidad and Tobago and Venezuela move from an "opposite" relationship to one of "adjacency". Thus, any projection further eastward by Venezuela, would produce some distortion and possible inequity for Trinidad and Tobago should the equidistance method of delimitation be applied without modification. In this instance, Trinidad and Tobago would need to seek to abate the disproportionality so induced with respect to the allocation of marine space. Some guidance in this regard is afforded by the Judgement of the United Kingdom/France Court of Arbitration of 30th June, 1977.⁹⁵ With respect to this case, a similarity is to be seen between the geographical location of Trinidad and Tobago and Venezuela on the one hand and of France and the United Kingdom on the other. Here, the Court sought to abate a disproportional allocation which the projection of the United Kingdom further into the

⁹⁵See Reports of International Awards, Vol. XVIII, p. 3.

Atlantic Ocean would have produced. Paragraph 244 of the Judgement states:

"The projection of the Cornish Peninsula and the Isles of Scilly, further seawards into the Atlantic than the Brittany peninsula and the island of Ushant, is a geographical fact, a fact of nature; and, as was observed in the North Sea Continental Shelf cases, there is no question of equity "completely refashioning nature" or "totally refashioning geography" (Judgement, paragraph 91). It may also be urged that the very fact of the projection of the United Kingdom land mass further into the Atlantic region has the natural consequence of rendering greater areas of continental shelf appurtenant to it. Nevertheless, when account is taken of the fact that in these respects the two states abut on the same continental shelf with coasts not markedly different in extent and broadly similar in their relation to that shelf, a question arises as to whether giving full effect to the Scilly Isles in delimiting an equidistance boundary out to the 1,000 metre isobath may not distort the boundary and have disproportionate effects as between the two states. In the view of the Court, the further projection westwards of the Scilly Isles, when superadded to the greater projection of the Cornish mainland westwards beyond Finistere, is much of the same nature for present purposes, and has much the same tendency to distortion of the equidistance line, as the projection of an exceptionally long promontory, which is generally recognised to be one of the potential forms of "Special Circumstances". In the present instance, the Court considers that the additional projection of the Scilly Isles into the Atlantic region does constitute an element of distortion which is

material enough to justify the delimitation of a boundary other than the strict median line envisaged in Article 6, paragraph 1, of the Convention."

On the other hand, it appears that Venezuela cannot accept to be zone-locked by Trinidad and Tobago and Guyana. In the context of the Venezuela/Guyana territorial boundary-dispute, Venezuela can be expected to be of the opinion that there is no triple point where the maritime boundaries of Trinidad and Tobago, Venezuela and Guyana meet. In their view, the projection of Guyanese territory cannot be northwards but rather north-east or eastwards. It may be, therefore, that politically, Venezuela would prefer to have no agreement with respect to the delimitation of its maritime zones, rather than one which did not settle to its satisfaction, the question of a Venezuelan "Salida al Atlantico" in the sense of securing a "corridor" of water not only to which it enjoys access but also over which it exercises jurisdiction.

Opposite States in the Columbus Channel

In the Columbus Channel, Trinidad and Tobago and Venezuela are opposite states. There, the use of the median line drawn without reference to the "Leoni Line" or its derivatives, beyond point X of the 1942 Gulf of Paria Treaty, may be proposed as an equitable

delimitation up to the meridian 60° 30' where the relationship between the countries changes. Beyond this point, some modification of the meridian line would need to be introduced.

A Possible Minimum Position for Trinidad and Tobago

With respect to its southern boundary, there appear to be three grounds on which the southern limits of the existing concession area exploited by Trinidad and Tobago may be defended as a minimum position. First of all, there is the historical exercise by Trinidad and Tobago of sovereign rights over concessions in this area on the basis of Article 1 of the Convention on the Continental Shelf, 1958. This fact must be opposable to Venezuela which like Trinidad and Tobago, is a party to that Convention. Secondly, the southern boundary may be pleaded as a special or relevant circumstance that must be taken into account in the establishment of maritime boundaries. With respect to the matter of "Special Circumstances", it may be useful to recall the declaration made by Venezuela upon its signing of the 1958 Convention on the Continental Shelf. The declaration reads as follows:

"In signing the present Convention, the Republic of Venezuela declares with reference to Article 6 that there are special circumstances to be taken into consideration in the

following areas: The Gulf of Paria, insofar as the boundary is not determined by existing agreements, and in zones adjacent thereto; the area between the coast of Venezuela and the island of Aruba, and the Gulf of Venezuela."⁹⁶

Upon its ratification of the Convention, Venezuela did so "...with express reservation in respect of Article 6 of the said Convention."⁹⁷

The ultimate trade-off by Trinidad and Tobago vis-a-vis Venezuela, would possibly be a proposal for the recognition of the southern boundary of Trinidad and Tobago; concession area as the bilateral maritime boundary as between the two countries, in exchange for an (equally important) acreage as would assist Venezuela to have her "Salida al Atlántico" off the South East Coast of the island of Trinidad. The first round of formal negotiations aimed at the conclusion of a maritime boundary between Trinidad and Tobago and Venezuela was convened in November 1975. To date no

⁹⁶Emphasis added.

⁹⁷See UN DOC. ST/LEG/SER. D/10, p. 519. Article 6 deals with the delimitation of the Continental Shelf.

agreement has been reached though negotiations continue.⁹⁸

It may be pointed out here, that obstacles to the extension of a Venezuelan EEZ are not presented only by the existence of Trinidad and Tobago. For example, whereas, the coastal facade of Venezuela is some 750 miles long, it is screened by the Netherlands Antilles over a distance of about 112 miles. By comparison, the existence of Trinidad and Tobago has the effect of screening the Venezuelan coast for only fifty (50) miles, which can hardly be claimed to be responsible for Venezuela's geographically disadvantaged position. From the Venezuelan viewpoint, the two situations may be viewed in much the same light inasmuch as the proximity of both sets of islands have the effect of forming semi-enclaves on the natural prolongation of its continental land mass. Further, both areas are rich in hydrocarbons. In the writer's view, however, the fact that Trinidad and Tobago is a sovereign state, whereas the Netherlands Antilles are "merely" an overseas territory of the Netherlands is deserving of some consideration, so that the matter might be

⁹⁸See Joint Communique of the Prime Minister of the Republic of Trinidad and Tobago and the President of the Republic of Venezuela issued at Port-of-Spain on 13 September 1986. Published by the Ministry of Information of Trinidad and Tobago.

perceived to go beyond the purely geographical similarity of the cases.⁹⁹

A Trinidad and Tobago/Venezuela Maritime Boundary
North of Chacachacare

In this area, the maritime boundary between Trinidad and Tobago and Venezuela may be drawn, first of all, by finding the point of intersection of the twelve mile territorial sea claimed by each country. From this point a line should be drawn due north so as to form a straight line with point 'A' of the Gulf of Paria Treaty Line. This boundary line may therefore be seen as an extension northwards of the BA line of the 1942 Treaty.¹⁰⁰

The demarcation of the Trinidad and Tobago/Venezuela maritime boundary northwards of the Treaty Point, A, might be informed by the following considerations:-

- (i) The possibly perceived need for Trinidad and Tobago to have an egress to the Caribbean from the Gulf of Paria.
- (ii) The question of compensation to Trinidad and Tobago for allowing possible Venezuelan jurisdiction in areas north of the equidistance line off Trinidad's south coast.

⁹⁹In delimitation negotiations a host of factors can be taken into account. A delimitation agreement was signed between Venezuela and the Netherlands Antilles on 31st May, 1978.

¹⁰⁰See Figure 7.

- (iii) The distorting effect of Punta Mejillones, a small projection of the Venezuelan Coast, on the equidistant boundary.¹⁰¹

Maritime Boundary in the Gulf of Paria

Here, it seems simple enough to let the AB line of the 1942 Treaty constitute the maritime boundary with respect, that is, to the water column as well as to the seabed and subsoil. The line BY may similarly be left intact. With respect to YX, Trinidad and Tobago could attempt to negotiate a northward shift of this segment about point Y on the understanding, perhaps, that further progradation of the Venezuelan coastline would not constitute grounds for the subsequent renegotiation and relocation of the boundary.

Prospects for a Trinidad and Tobago/Venezuela Marine Boundary

From the foregoing, it would appear, that, in the context of a Trinidad and Tobago/Venezuela maritime boundary delimitation, the crucial aspect of the negotiations would centre on the triangular area off the undelimited eastern area off the south coast of the island of Trinidad. It might even be speculated that, given the economic, strategic and "territorial" importance of the area, particularly to Venezuela,

¹⁰¹See "Reports of International Arbitral Awards, Vol. XVIII, June 30, 1977, United Nations for the treatment of a similar feature by the I.C.J.

failure to reach agreement on this "triangular area" would diminish, perhaps to zero, the prospects of any delimitation agreement between the two countries.

With respect to the further delimitation of the Areas off the south coast of Trinidad the view has been expressed that:

"The point "X" is only midway along the south coast. Although the rest of the line is not fully drawn, there is a large measure of agreement as to approximately where its continued path toward its eastern extremity should run."¹⁰²

As might have been expected, this statement was made before the convening of UNCLOS III and before the rise to wider international prominence of two of the acronyms that dominated the international scene in the 1970s namely "OPEC" and the "EEZ". Today, such a statement seems somewhat naive.

In the circumstances, whatever line of action may be advanced by the technicians: cartographers, international lawyers, geologists and the whole range of ocean-related disciplines, the Trinidad and Tobago/Venezuela delimitation scenario suggests the need, ever present, but now greater than ever, for a political decision.

¹⁰² Alleyne, D.H., Offshore Hydrocarbon Development in Trinidad and Tobago: Technical Paper delivered at United Nations Interregional Seminar on the Development of the Mineral Resources of the Continental Shelf, Port-of-Spain, Trinidad and Tobago, 5-16 April, 1971.

The Venezuelan authorities, it might be assumed, would have the greatest difficulty explaining to their electorate the acceptance of a boundary line which, in addition to ignoring the century old claim to the Essequibo region of Guyana, also has the effect of leaving them zone-locked by not only Trinidad and Tobago but also by the very Guyanese adversary. A review of the Venezuelan Press over the last decade, reveals periodic upsurges of feeling among certain sectors of the Venezuelan public, to the effect that what is necessary, is not delimitation of boundaries but the annexation of territory, marine or otherwise. It was concern over what may be termed "Venezuelan maritime expansionism" that prompted the late Prime Minister of Trinidad and Tobago to make that monumental intervention against the prescriptions and initiatives of Venezuela's maritime policy.¹⁰³ One may even speculate as to the effect that speech might have had on Carlos Andres Perez, who, on gaining Presidential Office, not only substantially toned down his earlier strident rhetoric with respect to the need for a Venezuelan thrust into the Caribbean, but also made no real attempt at territorial annexation.

¹⁰³Williams, E. The Threat to the Caribbean Community, op. cit.

With the coming into office of an Accion Democratica Administration in Venezuela in 1984, a new approach by Venezuela for Trinidad and Tobago/Venezuela marine boundary delimitation did not appear unlikely. Their interest in the matter remains great if one may judge from reports in the Venezuelan daily and weekly Press. It may be worth recalling, in this context, that it was an Accion Democratica (Democratic Action) Government that negotiated a Fishing Agreement with Trinidad and Tobago in 1977: not COPEI. In any event, this latter party seemed reluctant to do so perhaps deeming it politically risky inasmuch as it was then a minority group within Congress. Today and throughout his mandate Jaime Lusinchi, appears to be in command of a powerful array of Accion Democratica forces within Congress thus apparently having at his disposal, the political resources to have his preferred policy alternatives endorsed. The record of Isidro Morales Paul--former Venezuelan delegate to UNCLOS III and Chief Negotiator of Venezuela's maritime boundary agreements including that with the Netherlands, and Foreign Minister in the Lusinchi Cabinet for the first year of the Lusinchi administration, lent support to this view. The Cabinet reshuffle of March 1985, which saw Morales Paul replaced by the even more experienced ex-Foreign Minister Consalvi, served only to entrench

this view. The only caveat to be issued here is that the delimitation issue continues to occupy a vital space in the social consciousness of Venezuela and has become a "national issue" with respect to which positions might be adopted even without reference to political party affiliation. The fact that presidential elections are due to be held in Venezuela in December 1988 suggests that the Lusinchi government would shy away from concluding any agreement in this most controversial area at this time.

On the Trinidad and Tobago side, consideration of a similarly political nature would appear to be relevant. How feasible would it be, for example, for Trinidad and Tobago to accept a boundary line with Venezuela which, in order to assist Venezuela to obtain a "Salida al Atlantico", deprives it of valuable mineral-rich areas on which the economic fortunes of the country depend? The need for a political decision appears even more acute for, notwithstanding what base points are used to delimit the "triangular area" in question, some, however small, acreage of valuable real estate would have to be surrendered as indeed it would be interpreted.¹⁰⁴ What this means is that, in the

¹⁰⁴Objective calculations demonstrate that the Southern boundary of the Trinidad and Tobago "Concession Area" infringes the median line as between the South Coast of Trinidad and the North Coast of Venezuela.

delimitation of the eastern portion off the south coast of Trinidad, there is a definite limit to what the technicians of both countries can accomplish. It is for this reason that a political decision is deemed the vital and unique solution. This is a daunting prospect, for the eventual plotters of that delimitation line would have little to rely on in terms of a defence against any future judgement of history.

Political considerations also arise in the overall aspects of the delimitation of other marine spaces between Trinidad and Tobago and Venezuela. One would expect to encounter the perception that, on the Caribbean side, Venezuela, in agreements concluded with the U.S.A., Netherlands, and France, has managed to secure what is clearly a disproportionate portion of the Caribbean Sea, in the eyes of Caribbean States including Trinidad and Tobago. This view might be taken into account should there be a request on the part of Venezuela, for the abatement of the hardship it has encountered in its quest for an Atlantic egress in the area south of Trinidad where Venezuela finds itself zone-locked. In this connection, there could be a case in Trinidad and Tobago's favour for arguing that in "righting" the inequity inflicted by Venezuela on the States and territories of the Eastern Caribbean, the question of the ratio of coastal facade to maritime

areas enjoyed by Venezuela vis-a-vis not only Trinidad and Tobago, but also all other territories of the Caribbean, individually and collectively, may be examined with a view to balancing the advantages gained by virtue of Aves Island. Here, it must be recalled that Venezuela will be required to undertake delimitation exercises with at least Grenada, St. Lucia, Dominica, Montserrat, and St. Kitts-Nevis. These are only some of the difficulties or considerations which determine the prospects of demarcation of a Trinidad and Tobago/Venezuela maritime boundary especially as that relates to the areas south of Trinidad and north of Venezuela; and to the area off the east coast of Trinidad. When all these factors are taken into account, it emerges that both countries concerned i.e. Trinidad and Tobago and Venezuela, may need to make a political decision as to whether, on the one hand, a continued modus vivendi based on the 1942 Treaty is appropriate to the circumstances, or whether, on the other hand, a totally new treaty should be insisted upon. Perhaps some consideration could be given to a special regime between Trinidad and Tobago and Venezuela to take in at least the "Closed Sea" of the Gulf of Paria as well as the area south of Trinidad and north of Venezuela such as would eradicate the major maritime and other problems encountered in these

areas. Whether such a regime would really obviate the necessity for a delimitation, at least of sorts, if only in order to estimate the "contribution" of each party to the operation of the proposed regime, is arguable. Similar considerations would attach to the use of joint ventures in any endeavour to implement joint-venture agreements for the exploration and exploitation of stocks of non-living as well as living resources which straddle any de facto or de jure boundary line in the context of a unitisation of these resources.

A Possible Special Regime to Govern the Waters,
Seabed and Subsoil Between
Trinidad and Tobago and Venezuela

The Special Regime proposed may be of a general kind and may include either all or selected portions of the waters, the seabed and subsoil between the two countries whether or not they are legally or subject to the exclusive jurisdiction of either country. In these areas, matters such as development of petroleum and natural gas resources; the conservation and exploitation of sedentary and pelagic fisheries; the supervision and control of fisheries; navigation; and the general policing of the waters, may be made the subject of consultation between the two governments or of a programme supervised by a joint body representing the two governments. Alternatively, special regimes

may be created to deal with individual issues and these may or may not involve the creation of permanent joint bodies. Most of the issues involved in this context are obviously of a very sensitive nature so that it may be easier for agreement to be reached on a Joint Fishing Conservation Council, for example, than on a modus vivendi or a fully fledged joint venture for the exploitation of petroleum resources. It could be, however, that in the light of the current situation where Venezuela, as a member of OPEC, has to bear in mind the production ceilings imposed by that Organization, it may find joint venture or similar arrangements with Trinidad and Tobago an attractive proposition inasmuch as it would provide a loophole through which Venezuela could in effect have more crude oil available for marketing than would otherwise have been the case. The current low level of petroleum prices may, however, operate as a disincentive in this regard.

The delimitation of maritime boundaries is probably the major problem area in the relations between Trinidad and Tobago and Venezuela. Resolution of this problem would doubtlessly pave the way for greater degrees of cooperation in many other areas. Even if unitisation emerges as a possible solution, there may yet be need for some kind of delimitation.

In any event, there remains the task of identifying and costing the several options. Also, if Venezuela does not advance its "delimitation" negotiations and also declares itself against trilateral, or quadrilateral talks, then as between Trinidad and Tobago and Venezuela, there may never be a complete delimitation of maritime boundaries. There may, however, be a series of "understandings" which may nevertheless serve as a de facto Agreement.

Some indication of the extreme preoccupation and sensitivity of Venezuela in relation to the settlement of boundary issues was afforded by statements made by future Foreign Minister, Consalvi in the performance of his duties as Minister in charge of the Presidential Secretariat. The statement, in the form of a lecture, was devoted to an overview of Venezuelan history and foreign policy.¹⁰⁵ Dr. Consalvi expressed the view that

¹⁰⁵See Article in El Universal of 1st July, 1984 which contains the text of a lecture delivered at the Venezuelan Military Academy by Dr. Simon Alberto Consalvi, then Minister in Charge of the Presidential Cabinet. Dr. Consalvi is a former Permanent Representative of Venezuela to the U.N. (1974-77) and served as Foreign Minister (1977-79). He is also the author of a biographical article on President Lusinchi which appeared in El Diario de Caracas on 5th December, 1983. Dr. Consalvi again served as Foreign Minister in the Lusinchi administration from March 1985 to January 1988.

"the Nineteenth Century was characterised by the unfortunate conduct of the foreign policy of the country on matters as important as boundary negotiations particularly in relation to the problems of Guyana and Colombia."¹⁰⁶

Further,

"in this sense, the experience of Venezuela in the past century can be summed up as follows: Confronted with a world power such as British Imperialism, the alternatives were few because Britain acted on the basis of the law of the strongest."

Turning his attention to the contemporary period, Dr. Consalvi opines to the effect that:

"Certainly it is pertinent to point out that the outstanding success of the foreign policy of Venezuela in recent years has been the delimitation of marine areas with various countries of the Caribbean, through a process of serious and responsible negotiations, which has permitted the adoption by national consensus of important delimitation treaties, which protect vital interests in the area of national security and defence."

In his concluding remarks, these achievements were evaluated to indicate that

"we are thus overcoming a traumatic chapter in Venezuelan history in the matter of boundary negotiations."

The Government of Trinidad and Tobago will surely need to keep these basic Venezuelan considerations in mind

¹⁰⁶Emphasis added.

as it moves forward the definitive settlement of outstanding delimitation issues with Venezuela.

The ICJ in the Caribbean: The Prospects for
Litigation in the Trinidad and Tobago/Venezuela
Delimitation of Maritime Boundaries

The Venezuelan preference for "equitable principles" as the major basis for the delimitation of maritime boundaries has already been noted. The reluctance of that country to invoke third-party mechanisms to settle its border disputes is also a matter of record.

With respect to Trinidad and Tobago, as far as the author has been able to establish, no public statements have been made by this country directly relating to the need for recourse to the International Court of Justice or to any other Tribunal as a means of settling the question of its maritime frontiers with Venezuela.

Some indication of Venezuela's more recent attitudinal stance towards the involvement of third parties in the settlement of its Maritime borders is afforded by an Article which appeared in the Venezuelan Press in which the views of a former Venezuelan Foreign Minister on that matter, have been somewhat forcefully expressed.¹⁰⁷ Given its importance, a substantial part of the article, in translation, is set out as follows:

¹⁰⁷El Nacional, Caracas, 22 October 1982.

Isidro Morales Paul and the Dispute with Columbia:
Venezuela Must be Ready to go to the
International Court¹⁰⁸

Ruben Carpio Castillo, for his part, pronounced himself in favour of continuing talks "as soon as possible" and the ex-Foreign Minister, Simon Alberto Consalvi, thinks these talks ought to be maintained at the bilateral level.¹⁰⁹ Imperio Rodrigues.

The question of the delimitation of marine and submarine areas, being debated internally in Colombia, seems to be taboo in Venezuela, for obvious reasons; one must again avoid falling a victim to the strategy of the neighbouring country and in that regard it seems that the path being followed by Colombia is to seek the suspension of the negotiations in order to place the matter before the International Court of Justice.

The recent statements of the Colombian Foreign Minister, Rodrigo Lloreda Caicedo, demanding from the Venezuelan Government "official notification" of the suspension of said negotiation and, on the other hand the informal meeting which he held with the United Nations Secretary General, Javier Perez de Cuellar, whom he informed of the possibility that Colombia might approach the International Court of Justice are now the objects of off-the-record comments by our international affairs experts who believe that the Venezuelan Government ought not to play along with the Colombian strategy to that end.

¹⁰⁸This is the headline of the Article.

¹⁰⁹This is the sub-title of the Article.

Nevertheless, not all the experts on the matter think alike. This is the case of the Venezuelan negotiator and delegate to the Conference on the Law of the Sea, Isidro Morales Paul, who insists that Venezuela ought not to intervene in the internal debate taking place in Colombia, but holds the view that we ought to be ready to approach the International Court of Justice in the Hague, if one recalls recent judgments of that international organ which show that Venezuela would not suffer in the event that the matter goes before the Court.

As regards the Colombian proposal that the Venezuelan Government "formalise" the suspension of the negotiations until 1984, the international affairs expert observed, in the first place, that "Venezuela must not intervene in the internal debate in Colombia on that country's strategy in relation to the border question."

He argued that the imminence of the elections in our country "is a factor of immense importance" in not doing so, since we are now in a period "in which one ought to prevent such delicate questions from forming part of the debate between the contenders for public office."

Insofar as the possibility of approaching the Court is concerned, Morales Paul believes that Venezuela ought to be prepared for this, without entering into considerations whether it would or would not suit the country to do so.

"I don't say that it would suit us or not, but I do insist that Venezuela must be ready to go to the Court."

However, his statements on the matter speak for themselves, and are based

on the evolution of the International Law of the Sea and recent judgments on the international tribunal (ICJ).

"In this regard," Morales Paul emphasized, "I can cite in the framework of the evolution of the Law of the Sea, especially the judgments of the Court in relation to the North Sea continental shelf and the continental shelf of the Gulf of Gaba between Libya and Tunisia, as well as the case of the dispute between Argentina and Chile for the Beagle Channel and that of the Channel Islands between France and England. These recent judgments reject the criterion of equidistance and constitute precedents of transcendental importance of the law applicable to the problem between Venezuela and Colombia."

"The judgement of the ICJ in relation to the delimitation of the continental shelf in the Gulf of Gaba (February 24, 1982), uses equitable principles, the relevant circumstances of the area and prolongation of the border territory as applicable criteria" Morales Paul explained.

"What is more," the international expert added, "the very evolution of the Third United Nations Conference on the Law of the Sea which eliminated the method of equidistance in its articles 74 and 83, demanding that the result be equitable, is an outcome which militates equally in favour of the Venezuelan thesis."

While the subject-matter of the Article deals with the Venezuelan-Colombian maritime frontiers dispute and the possibility of that dispute being submitted to the International Court of Justice, in it, the ex-Foreign

Minister, then Ambassador, Isidro Morales Paul asserts that Venezuela should be ready to take the matter to the International Court of Justice. Given Venezuela's historical attitude to arbitration or judicial settlement, the statements by Dr. Morales Paul could be interpreted as signalling a major change in Venezuela's thinking on the matter even if or perhaps inasmuch as his comments are described as being "off the record."¹¹⁰ Dr. Morales Paul clearly believes that the recent developments in the International Law of the Sea favour the Venezuelan position on the delimitation of maritime frontiers. Although the "legal precedents" mentioned have been cited by Dr. Morales Paul to support the Venezuelan contention vis-a-vis its delimitation dispute with Colombia, it is nevertheless clear that he could equally have been addressing the Trinidad and Tobago/Venezuela delimitation since some of these very "legal precedents" such as the International Court of Justice judgement in the North Sea Continental Shelf Cases not to mention Articles 74 and 83 of the 1982 Convention would clearly be relevant to the delimitation of at least the Trinidad and

¹¹⁰The question as to whether the Gulf of Venezuela dispute should be referred to the ICJ has once more arisen in the context of the 1988 Presidential election campaign. See El Diario de Caracas, 7 September, 1988.

Tobago/Venezuela maritime frontiers in the area along the eastern portion of the South Coast of Trinidad.

The implication of the foregoing is that Trinidad and Tobago should hold itself in readiness should Venezuela eventually seek to have its maritime boundaries with Trinidad and Tobago settled by recourse to arbitration or to the International Court of Justice, given the current stalemate, notwithstanding the general preference of Latin American states for other factors, especially state practice, to be recognised as being superior to judicial settlements by the International Court of Justice. The latter has the additional disadvantages of being lengthy and expensive.

Exclusive Economic Zone Delimitation Perspectives and Strategies in the Caribbean:
The Trinidad and Tobago Scenario Summarised

The perspectives and strategies associated with the establishment by Trinidad and Tobago of maritime boundaries within which it may exercise jurisdiction may, for analytical purposes, be viewed within the following geographico-legal parameters:

- (i) The geographical location of Trinidad and Tobago;
- (ii) The new Law of the Sea regime;
- (iii) The maritime legislation and claims of Trinidad and Tobago and of its maritime neighbours, viz. Barbados, Grenada, Guyana,

St. Vincent and the Grenadines, and Venezuela;

- (iv) The Venezuela/Guyana territorial dispute;
- (v) The topography of submarine areas to be delimited;
- (vi) The resource and other strategic profiles of the areas to be delimited;
- (vii) State practice and relevant judgments of the ICJ.

In the preceding sections of this thesis, considerable emphasis was given to the fact that the distances that intervene between neighbouring island states and territories of the Eastern Caribbean serve to substantially diminish the significance of the 200-mile EEZ as sanctioned by the 1982 Convention on the Law of the Sea. In this context it has also been mentioned that, at its nearest point, the island of Trinidad is only some nine miles away from Venezuela. The presence of other states, which as a result of the EEZ regime, have been brought into a new relationship of "maritime propinquity" with respect to both states mentioned, has created a situation in which Trinidad and Tobago's global delimitation exercise with respect to its maritime boundaries, cannot be accomplished by itself and Venezuela acting in isolation. What is of considerable interest, however, is that, with respect to the demarcation of the maritime boundaries of Trinidad and Tobago, the participation of Venezuela

remains a constant whether it be in respect of the east, west, north or south coast of the island of Trinidad.

It is perhaps useful to bear in mind at this stage, the structure or composition of the EEZ, which comprises not only the water column and surface but also the seabed and subsoil to a maximum radius of 200 nautical miles. A major implication of this fact, is that, notwithstanding the definition of the "continental shelf" in Article 76 of the 1982 Convention, the geographical co-efficient of this concept is, for practical purposes, to be subsumed under the regime of the EEZ up to the prescribed limit of 200 miles.

However, in order to enrich the analysis and also by way of introduction into the eventual question as to whether the countries of the Caribbean would have been as well or better off with the 1958 Conventions on the Territorial Sea and on the Continental Shelf, extensive mention of the "continental shelf" will be made in this summary. The continental shelf, it will be recalled according to Article 76 of the 1982 Convention, is defined with reference to two criteria namely "geomorphology" and "distance". In precise terms,

"the Continental Shelf of a coastal state comprises the seabed and subsoil of the submarine areas that extend beyond its territorial sea

throughout the natural prolongation of its land territory to the outer edge of the continental margin, or to a distance of 200 nautical miles from the baselines from which the breadth of the continental margin does not extend up to that distance."¹¹¹

What is most striking about the definitions of the "continental shelf" and the "exclusive economic zone", is the nature of the formulations that have been employed. As has just been quoted, the Continental Shelf...simply "comprises" the sea-bed and subsoil etc. With respect to the other concept, the "exclusive economic zone" merely "is an area beyond and adjacent to the territorial sea."¹¹²

The establishment, in law, of the continental shelf as a natural prolongation of coastal state's land territory not relying on occupation or on express proclamation,¹¹³ explains the formulation of Article 76 of the 1982 Convention. It appears from Article 55, that in order that the EEZ concept may properly sit on and embrace the Continental Shelf concept, a similar construction has been used. It follows then, that the "express proclamation" evident in state practice with

¹¹¹Article 76.1

¹¹²Article 55. Emphasis added.

¹¹³See Article 2.3 of the 1958 Convention on the Continental Shelf.

respect to the EEZ is but a temporary requirement, for what Article 55 appears to indicate, is that such a proclamation may not always be necessary once the 1982 Convention enters into force, depending on the requirements of particular municipal legal systems with respect to the incorporation of international Conventions and Treaties in those systems.¹¹⁴

Further, it may now be the case, for example, that, at common law, where this is applicable, an Exclusive Economic Zone may be said to exist even in the absence of legislation inasmuch as that regime is recognized to form part of international customary law.

The final point to be recalled before continuing on the delimitation scenario of Trinidad and Tobago as a "paradigm" for the Eastern Caribbean, is the use of the depth-cum-exploitability-criterion employed in the definition of the continental shelf at UNCLOS I. According to Article 1 of the Convention on the Continental Shelf 1958,

"...the term continental shelf is used as referring (a) to the seabed and subsoil of the submarine areas adjacent to the coast but outside the area of the territorial sea, to a depth of 200 metres or beyond that

¹¹⁴This point is elaborated in E.J. Manner, "Some Basic Viewpoints on Delimitation of Marine Areas between Neighbouring States" in The Frontier of the Seas: The Problems of Delimitation 1980. Proceedings of the Fifth Ocean Symposium 26 to 17 November, 1980. Japan, Ocean Association of Japan.

limit, to where the depth of the superjacent waters admits of the exploitation of the natural resources of the said areas..."

Demarcation of the Trinidad and Tobago/Grenada
Marine Boundary

Lying some 90 miles away, Grenada is among Trinidad and Tobago's nearest neighbours to the north. The demarcation of a maritime boundary between these two countries has assumed special importance to both countries, given the commencement by each, of oil exploration activities in areas which may be affected by delimitation.¹¹⁵

Approaching the demarcation of the Trinidad and Tobago/Grenada maritime boundary for the time being, from the point of view of a Continental Shelf delimitation, four main views or profiles are evident from Trinidad and Tobago moving towards Grenada.¹¹⁶ A map showing the relative positions of Trinidad and Tobago and Grenada appears as Figure 12.

¹¹⁵See Trinidad Express 17 February 1988. "Grenada Searches for Oil, Gas."

¹¹⁶The technical information contained in this section is based on material kindly made available by the Ministry of Energy and Natural Resources of Trinidad and Tobago. The analysis is, however, the author's responsibility.

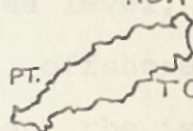
GRENADA



NORTH PT.

CROWN PT.

TOBAGO



TRINIDAD

GALERA PT.

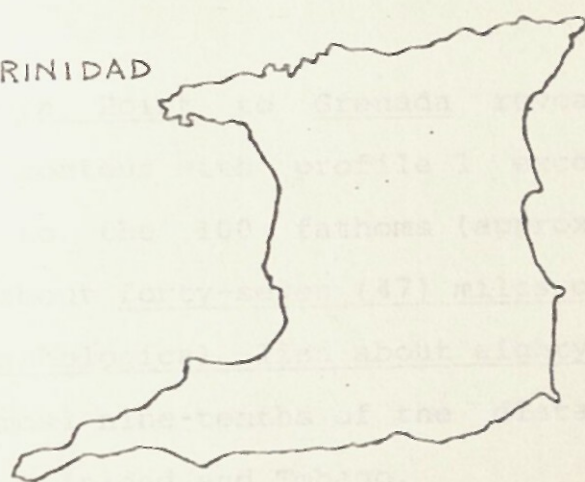


FIGURE 12

SHOWING THE RELATIVE
POSITIONS OF THE
ISLANDS OF TRINIDAD,
TOBAGO, AND GRENADA

Profile 1:

From the West Coast of Trinidad to Grenada reveals that the continental shelf slopes very gradually down to the 100 fathoms (approximately 200 metres) isobath line. Measured horizontally at sea level, this occurs about fifty (50) miles offshore. Beyond this point, the seabed slopes relatively steeply to the 445 fathom depth to the base of the Continental rise or geomorphological line. Measured at sea level, this occurs about seventy-five (75) miles offshore or roughly five-sixths of the distance between the island of Trinidad and Grenada.

Profile 2:

From Galera Point to Grenada reveals a close similarity in contour with profile 1 except that the shelf slopes to the 100 fathoms (approximately 200 metres) depth about forty-seven (47) miles offshore and to the geomorphological line about eighty (80) miles offshore or almost nine-tenths of the distance between the islands of Trinidad and Tobago.

Profile 3:

From Tobago (Crown Point) to Grenada shows a marked difference from profiles 1 and 2 in that the continental shelf falls to the 100 fathoms depth about twenty-five (25) miles offshore. It then moves below

this depth for five (5) miles after which it rises to the level of the 100 fathoms depth thirty-five (35) miles offshore. After this point, the shelf slopes fairly steeply to the geomorphological line at a depth of 550 fathoms, sixty-two (62) miles offshore and then rises sharply to the Grenadian coastline.

Profile 4:

From the North Point of Tobago to Grenada manifests and even steeper fall to the 100 fathoms depth at a distance of a mere five (5) miles offshore. Beyond this point, it plunges fairly steeply to the geomorphological line at 730 fathoms, at a distance of some sixty-two (62) miles offshore.

Unlike the Trinidad and Tobago/Venezuela scenario, the delimitation of maritime boundaries between Trinidad and Tobago and Grenada does not involve a Continental Shelf that is shared in common. This is because of the occurrence on the Grenada Trough which, incidentally, plunges sharply very close to shore. It would follow then that as between Trinidad and Tobago and Grenada, the delimitation of a maritime boundary based on the Continental Shelf approach, may be effected on the basis of:

- (i) the median line principle;
- (ii) the geomorphological line or Continental Shelf principle bearing in mind the existence of the trough; and

- (iii) the 200 metre isobath line (for purposes of comparison with the 1958 Convention on the Continental Shelf)

The respective implications of the use of these three delimitation criteria are tabulated as follows:

From Table XII, it is clear that Trinidad and

TABLE XII

ALTERNATIVE LIMITS OF TRINIDAD AND TOBAGO'S EEZ
BASED ON THE CONTINENTAL SHELF APPROACH TO DELIMITATION

PROFILE	CRITERIA ALTERNATIVES			Total Distance from T & T to Grenada miles
	Median line from shore miles	200 Metres Isobath Line miles	Geomorphological (from shore) miles	
1. From West Coast (T'dad) to Greece	44	50	75	88
2. From Galera Point (T'dad) Grenada	48	49	80	96
3. From Tobago (Crown Point) to Grenada	40	25	62	80
4. From Tobago (North Point) to Grenada	44	5	62	88

Source:

Ministry of Energy and Natural Resources, Trinidad and Tobago.

Tobago, in its EEZ delimitation negotiations with Grenada, would stand to benefit from the use of geological or geomorphological criteria. In this case, Trinidad and Tobago might propose that the boundary follow the axis of the oceanic trough which makes the break in the natural prolongation of the Trinidad and Tobago Continental Shelf. This conclusion however, is based on the continental shelf approach to delimitation.

As a result of this approach, it is seen from Table XII that the distance from Tobago to the 200 metre isobath in relation to Grenada is less than the distance to the median line vis-a-vis these same islands. This is due to the steep nature of the Continental Shelf off Tobago's North Coast.

However, the distance from the North Coast of Trinidad, taking the distances from the extreme west coast Point and Galera Point, to the 200 metre isobath is greater in all cases than the distance from Tobago to Grenada. Thus, were the 200 metre isobath of the 1958 Convention to be accepted as the outer limit between Trinidad and Tobago and Grenada, "losses" of ocean space on the Tobago side would have been compensated by gains on the Trinidad side.

With respect to the merits of the utilization of the 200 metre isobath vis-a-vis the median line with

Grenada, this would yield results that differ only slightly. The use of the 200 metre isobath produces an extra six miles of Continental Shelf, diminishing in an easterly direction to about one mile between the north of Trinidad and Grenada.

A global EEZ approach may however yield results that are somewhat different. Mention has already been made of the Continental Shelf as the "natural prolongation" of the land territory of the coastal state and as an institution that is not only enshrined in the 1958 Convention on the Continental Shelf but which has also been established in the North Sea Continental Shelf Cases, among others.

If, as is the case with the 1958 Convention, the Continental Shelf is defined with reference to the 200 metre isobath or to the limit of exploitability, the view has been expressed that delimitation is neither necessary nor possible where the continental shelf areas of neighbouring states are separated by a deeper non-exploitable area as in the case of a Trinidad and Tobago/Grenada continental shelf delimitation.¹¹⁷ As in the case of the United Kingdom/Norway Continental Shelf Delimitation, States may agree otherwise and

¹¹⁷See Manner, E.J., Some Basic Viewpoints on Delimitation of Marine Areas between Neighbouring States, op. cit.

disregard oceanic depression but this does not detract from the general proposition.¹¹⁸

With respect to the EEZ, Manner has suggested that

"...the geological features of the seabed within the limit of 200 nautical miles would not have the same relevance for delimitation as they have by virtue of the 1958 Convention. If the distance between the baselines of states with opposite coasts is less than 400 nautical miles, the concept of the same continental shelf would no longer be relevant. The situation would be similar to that of two opposite exclusive economic zones, the breadth of which is also limited to 200 nautical miles."¹¹⁹

Should Grenada however be prepared to recognise Trinidad and Tobago's EEZ jurisdiction to the edge of the trough, Trinidad and Tobago may be prepared to grant as a quid pro quo, concessions such as preferential access to Grenadian fishermen to the living resources of the waters north of the island of Trinidad. Alternatively, a regime may be established for the joint exploration and exploitation of the resources of that area as between the two countries. The proposal with respect to extension of Trinidad and Tobago's jurisdiction up to the Grenada Trough is suggested as a maximum or ideal position.

¹¹⁸United Kingdom Treaty Series 71 (1965).

¹¹⁹Manner, E.J., op. cit.

A Possible Case for Special Circumstances in the
Trinidad and Tobago/Grenada EEZ Delimitation

Unlike Grenada, Trinidad and Tobago has acceded to the Convention on Continental Shelf 1958.¹²⁰ Nevertheless, since the idea of a Continental Shelf as the natural prolongation of the territory of a coastal state has been incorporated into international customary law, Grenada may exercise jurisdiction over a Continental Shelf given inter alia her acquiescence with state practice which has crystallized into a customary norm.

On the basis of the above considerations and on the doctrine of the natural prolongation principle, plus the 200 metre isobath limit, Trinidad and Tobago has exercised and continues to exercise, sovereign rights for the exploration and exploitation of the non-living resources of the Continental Shelf between itself and Grenada. The existence of an oceanic trough located 60 to 80 miles north of the island of Trinidad, i.e. 30 to 10 miles from Grenada, is evidence enough of the structural discontinuity of the natural prolongation and therefore sets, in an impartial way, the limits to which this geomorphological principle can be applied as between the two countries. Geologically,

¹²⁰The Instrument of accession was deposited on 11 July, 1968.

the rock structure of the submarine areas extending from the oceanic trough to the coast of Grenada is essentially of metamorphic and volcanic origin. That of the continental shelf region "claimed" by Trinidad and Tobago has a more sedimentary oil-bearing characteristic.

The delimitation formula prescribed by the 1982 Convention, speaks of agreement on the basis of international law in order to arrive at an equitable solution. On the basis of case law and other perspectives, it may be correct to state that, with respect to the Continental Shelf--the only area on which, unlike the EEZ a substantial body of case law ready exists--in the absence of "special circumstances", the method to be used for the delimitation of the EEZ between Trinidad and Tobago and Grenada would be the median line. This view finds support in the Judgement delivered by the ICJ on 12th October, 1984 in the case concerning Delimitation of the Marine Boundary in the Gulf of Maine Area (Canada/United States of America).¹²¹ In its judgement, the Chamber of the Court had occasion to explore the criteria and methods which are capable of ensuring an equitable result. In this connection, the Chamber examined the criteria and methods which are

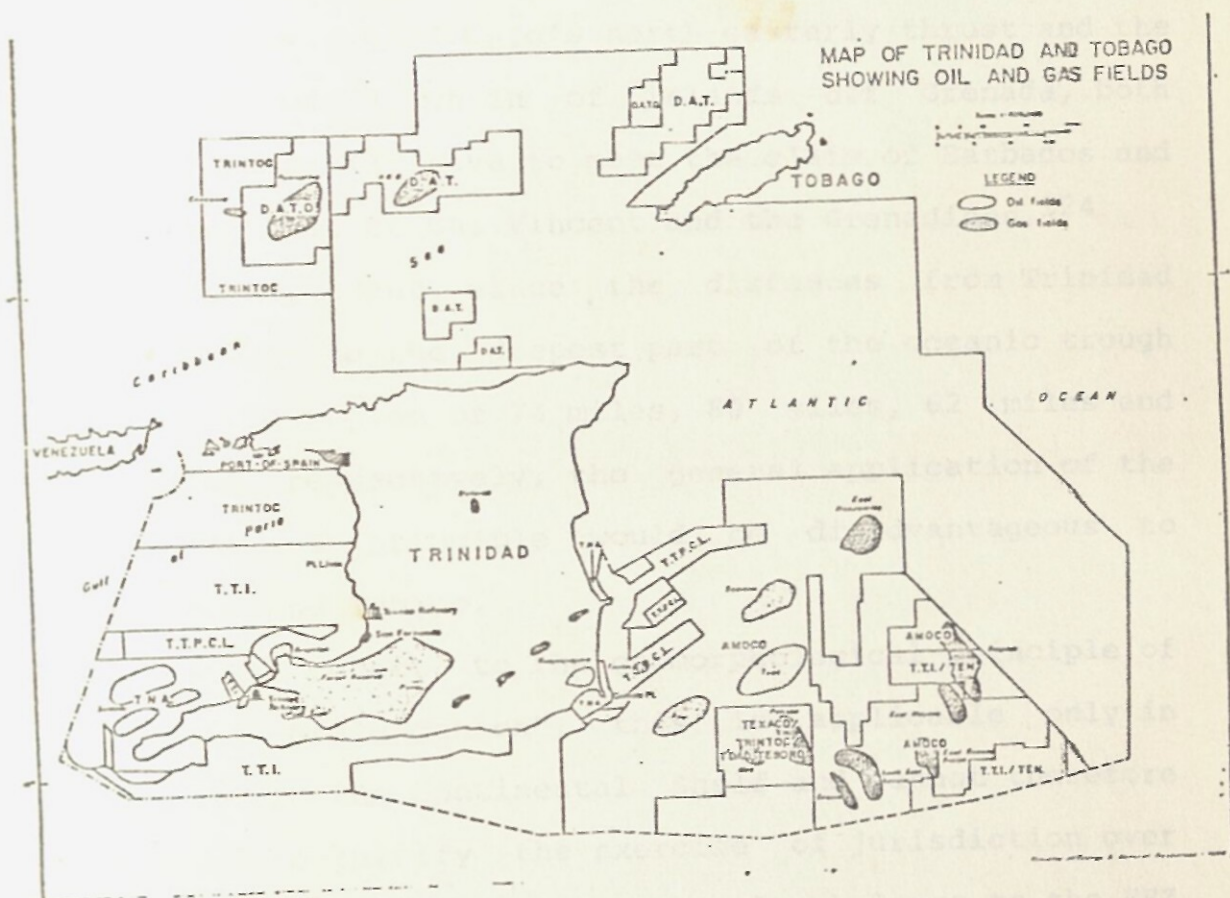
¹²¹See I.C.J. Reports, 1984, p. 246.

provided for in Article 6 of the 1958 Convention on the Continental Shelf, namely the use of the median line in the case of opposite coasts and of the lateral equidistance line in the case of adjacent coasts.¹²² It is however, obvious from Table XII, that the application of the median line principle would be most disadvantageous to Trinidad and Tobago. In addition to the reasons already stated, in terms of the distances and thus of the area of marine space involved, it must be pointed out that an equidistance line drawn between Trinidad and Tobago and Grenada, would trend in a generally South-Westerly to north-Easterly direction some 36 nautical miles from the island of Trinidad before continuing in a South-Westerly/North-Easterly direction between Tobago and Grenada. In its former direction, the line would fall approximately nine (9) nautical miles South of areas in respect of which concessions for the exploration of oil have already been granted by the Government of Trinidad and Tobago.¹²³ A map showing the oil and gas fields of Trinidad and Tobago is set out at Figure 13.

¹²²See ICJ Communique No. 84/35 dated 12th October, 1984.

¹²³Source: Ministry of Energy and Natural Resources, Trinidad and Tobago.

Figure 13



Source: Booklet,
"Information on the Petroleum Industry
of Trinidad & Tobago"
Ministry of Energy & Natural Resources
Republic of Trinidad and Tobago
June 1984

An interesting aspect of any exercise to delimit the EEZ as between Trinidad and Tobago and Grenada, is the example it provides of islands which, prima facie, are "opposite" but which actually constitute a situation of adjacency on the part of the Tobago Trough where, due to Tobago's north-easterly thrust and the existence of a chain of islands off Grenada, both countries would have to meet the claim of Barbados and probably that of St. Vincent and the Grenadines.¹²⁴

In any event, since the distances from Trinidad and Tobago to the deepest part of the oceanic trough are in the region of 74 miles, 80 miles, 62 miles and 70 miles respectively, the general application of the equidistance principle would be disadvantageous to Trinidad and Tobago.

With respect to the geomorphological principle of "natural prolongation", this is applicable only in respect of the Continental Shelf and cannot therefore be used to justify the exercise of jurisdiction over the water column which properly belongs to the EEZ regime. The application of this principle may be invoked in order to preserve Trinidad and Tobago's jurisdiction over the Continental Shelf to the deepest part of the Trough. The ultimate purpose of the arguments so far presented, is to suggest that the

¹²⁴See Nweihed, K., op. cit.

exercise by Trinidad and Tobago of sovereign rights over areas of continental shelf lying between itself and Grenada over several years in accordance with established norms of international law, may be pleaded as special circumstances thus justifying a demarcation line other than the median line for the delimitation of the EEZ between Trinidad and Tobago and Grenada. Should this prove possible, the spatial extent of Trinidad and Tobago's existing Continental Shelf jurisdiction could be retained within an EEZ.

It follows then, that, overall, a delimitation based on the geomorphological principle and not the median line, should be sought by Trinidad and Tobago with respect to that portion of the continental or insular shelf between the island of Trinidad and Grenada. With respect to the areas of Continental Shelf between the island of Tobago and Grenada, the equidistance principle might be used, given the sudden drop of the Continental Shelf off Tobago's North Coast. The possibility of the grant by the Government of Trinidad and Tobago to Grenadian fishermen of preferential rights with respect to the living resources of Trinidad and Tobago's EEZ has already been mentioned.

The Trinidad and Tobago/Grenada/Venezuela Triangle

As has been indicated, the delimitation of Trinidad and Tobago maritime zones would involve negotiations with Venezuela with respect to the four coasts of Trinidad. A possible delimitation scenario is shown at Figure 14.

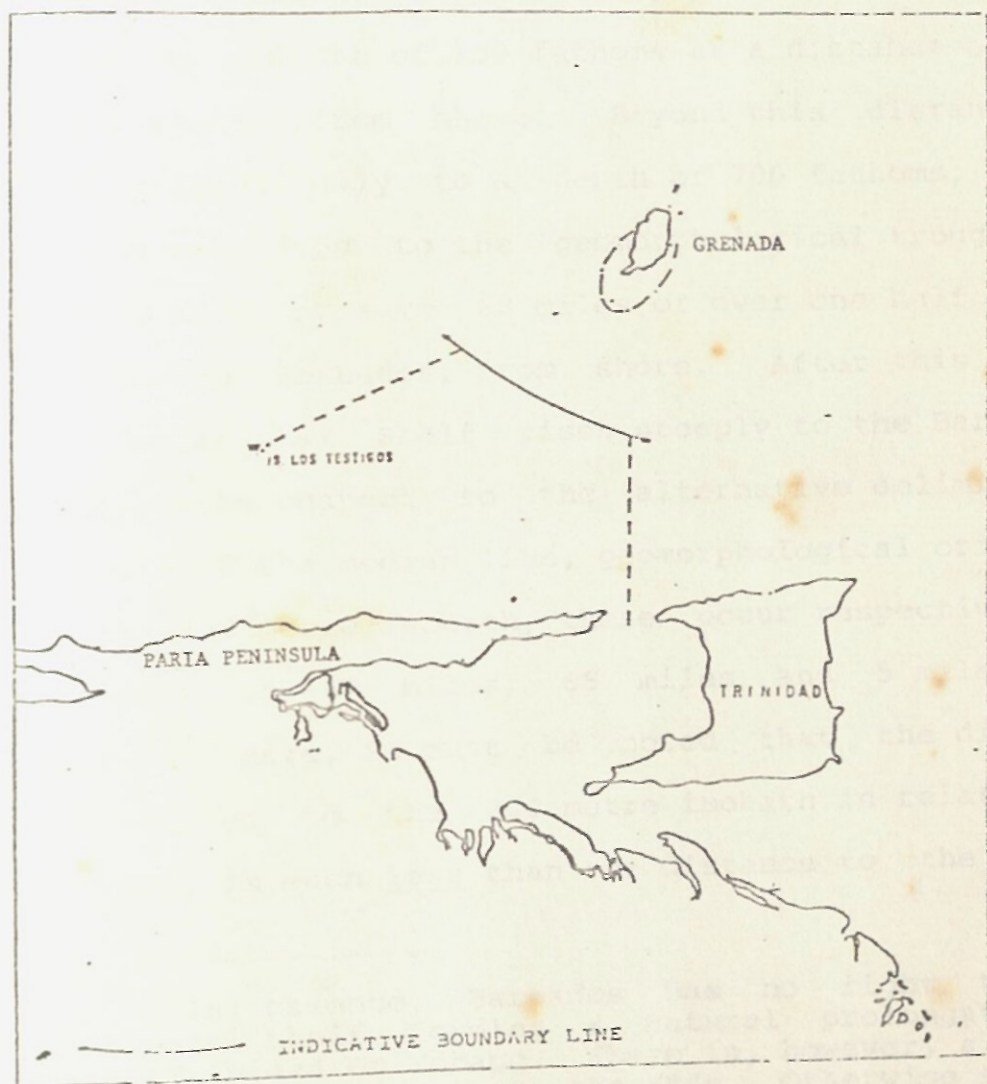
From this figure, it may be deduced that a proposal which may reasonably be made by Trinidad and Tobago to the Venezuelans with respect to the adjacent boundary of both states, off their respective north coasts, notwithstanding the formula used for the Grenada/Trinidad and Tobago demarcation, might be to the effect that the line depicting the Trinidad and Tobago/Venezuela maritime boundary, should terminate at the point where the equidistant line between Trinidad and Tobago and Grenada intersects the western Trinidad and Tobago/Venezuela maritime boundary.

Demarcation of the Trinidad and Tobago/Barbados
Maritime Boundary

The demarcation of the Trinidad and Tobago/Barbados Maritime Boundary affects mainly the area north east of Tobago as well as areas off the east coast of Trinidad.

Figure 14

INDICATIVE MARITIME BOUNDARY BETWEEN TRINIDAD AND TOBAGO, VENEZUELA
AND GRENADA



Source: Carpio-Castillo, R., Fronteras Marítimas de Venezuela, op.cit.

Starting once more with the Continental Shelf approach to the delimitation of maritime zones, the profile from the north coast of Tobago to Barbados reveals a fall that is far steeper than those existing vis-a-vis Grenada. In this area, the Continental Shelf plunges to a depth of 100 fathoms at a distance of less than six miles from shore. Beyond this distance, it falls precipitously to a depth of 700 fathoms, levels off and then dips to the geomorphological trough 1204 fathoms deep at some 68 miles or over one half of the distance to Barbados, from shore. After this point, the Continental Shelf rises steeply to the Barbadian coast. With respect to the alternative delimitation criteria of the median line, geomorphological criteria, and the 200 metre isobath, these occur respectively at distances of 67 miles; 68 miles and 5 miles from shore.¹²⁵ Here, it must be noted that the distance from Tobago to the 200 metre isobath in relation to Barbados, is much less than the distance to the median

¹²⁵In essence, Barbados has no right to any Continental Shelf forming a natural prolongation of either Trinidad or Tobago. There is, however, a degree of overlap with respect to the EEZs. Otherwise stated, Barbados has a narrow shelf that is not shared with Trinidad and Tobago. Thus, Barbados cannot properly seek to oppose a Continental Shelf claim to Trinidad and Tobago. This is in contrast to the Trinidad and Tobago/Venezuela situation where both countries are situated on the same Continental Shelf. Source: Ministry of Energy and Natural Resources of Trinidad and Tobago.

line. This is due to the steep falling away of the Continental Shelf off Tobago's north coast.

It follows then, from the Continental Shelf approach, that with respect to the establishment of the Trinidad and Tobago/Barbados maritime boundary-line from the Continental Shelf approach, either the median line principle or the geomorphological line would operate to Trinidad and Tobago's advantage, there being a difference of only one mile in the result produced by the use of either criterion. Conversely, the use of the 200 metre isobath principle would operate to the greatest disadvantage of Trinidad and Tobago inasmuch as the Continental Shelf off Tobago plunges steeply to this depth a mere five miles from shore.

Barbados, Trinidad and Tobago, Venezuela, Guyana
and the EEZ

With respect to the delimitation of EEZs as between Trinidad and Tobago and Barbados, the employment of the equidistance principle would not be without negative implications, notwithstanding the favourable results yielded by virtue of the use of the Continental Shelf approach.

As can be seen in Figure 3, Barbados, Trinidad and Tobago, Venezuela and Guyana form a "concave facade" on the Atlantic Ocean, a configuration not unlike that of Denmark, the Federal Republic of Germany and the

Netherlands as was brought out in the North Sea Continental Shelf Cases. In those cases, the ICJ expressed the view that the existence of concave and convex coastlines would create an inequitable lateral boundary if the median line were employed. In the present instance, both Trinidad and Tobago and Venezuela may be compared with the Federal Republic of Germany while Barbados and Guyana may be compared with Denmark and the Netherlands respectively. In the situation of a concave coastline, the state or states in the middle would inevitably be allocated an area of continental shelf that is smaller than would otherwise have been the case.¹²⁶

As a result, the strict use of the equidistance principle would produce a situation where both Trinidad and Tobago and Venezuela would become zone-locked. That is to say, their respective EEZs would be locked in by those of Barbados and Guyana well before they reach the maximum permitted radius of 200 nautical miles.

Another parallel with the North Sea Continental Shelf Cases relates to the unacceptability expressed by the ICJ with respect to the fact that a state should enjoy rights different from those of its neighbours merely because, in the one case, the coastline is

¹²⁶See Harris, op. cit., p. 28.

roughly convex in form and in the other, it is markedly concave, although the coastlines in question are comparable in length. In the present case, the extent of the marine areas which the use of the equidistance line would allocate to Barbados, bears no relationship first of all, to its area and secondly, to the length of its coastline vis-a-vis Trinidad and Tobago. As it is, the use of the equidistance method to establish the maritime boundary between Trinidad and Tobago and Barbados would result in a zone-locked position for Trinidad and Tobago at a distance of 192 miles from Little Tobago. Further, the equidistance boundary would attribute to Barbados, marine areas that are greater in extent than those that would be allocated to Trinidad and Tobago, even if Barbados has a shorter coastline as well as an area that is smaller than Trinidad and Tobago's.

In order for Trinidad and Tobago to avoid a zone-locked position and to attain the maximum permitted EEZ on its east coast, a negotiated boundary between itself and Barbados based on equitable principles would appear to be necessary. In addition, some degree of application of the principle of proportionality may have to be established as between the lengths of the respective coastlines and the areas of marine space allocated.

Pockets of resources are known to exist in the area which may be affected by delimitation but it is always assumed that seismic and other surveys will be carried out as vital preparatory work for maritime boundary delimitation.