Investigations into shipping casualties in Trinidad and Tobago

Simeon A. Yearwood

WMU

Follow this and additional works at: https://commons.wmu.se/all_dissertations

Recommended Citation
Yearwood, Simeon A., "Investigations into shipping casualties in Trinidad and Tobago" (1989). World Maritime University Dissertations. 863.
https://commons.wmu.se/all_dissertations/863

This Dissertation is brought to you courtesy of Maritime Commons. Open Access items may be downloaded for non-commercial, fair use academic purposes. No items may be hosted on another server or web site without express written permission from the World Maritime University. For more information, please contact library@wmu.se.
INVESTIGATIONS INTO SHIPPING CASUALTIES IN TRINIDAD AND TOBAGO - A LEGAL AND ADMINISTRATIVE PERSPECTIVE

BY

SIMEON A. YEARWOOD
TRINIDAD AND TOBAGO

A PAPER SUBMITTED TO THE WORLD MARITIME UNIVERSITY IN PARTIAL SATISFACTION OF THE REQUIREMENTS FOR THE AWARD OF
A:

MASTER OF SCIENCE DEGREE
IN
GENERAL MARITIME ADMINISTRATION

THE CONTENTS OF THIS PAPER REFLECT MY VIEWS AND ARE NOT NECESSARILY ENDORSED BY THE UNIVERSITY.

SIGNATURE: S.A. YEARWOOD
DATE: 20/10/99.

SUPERVISED AND ASSESSED BY:-
PROFESSOR J. MLYNARCZYK
WORLD MARITIME UNIVERSITY

CO-ASSESSED BY:-
Dr. FRANK L. WISWALL, Jr.
PROCTOR AND ADVOCATE IN ADMIRALTY
DEDICATION:

TO MY FAMILY

***************
CONTENTS

INVESTIGATIONS INTO SHIPPING CASUALTIES IN TRINIDAD AND TOBAGO - A LEGAL AND ADMINISTRATIVE PERSPECTIVE

i) List of Figures vii

ii) List of Tables viii

iii) Abstract ix

iv) Methodology xiii

v) Acknowledgements xix

Chapter 1 - Introduction 1

1.1 - Trinidad and Tobago - An Overview 1

1.2 - Ports and Shipping - An Overview 2

1.3 - Maritime Administration - An Overview 8

Chapter 2 - Shipping Casualties and the Need for Adequate Investigations 13

2.1 - Shipping Casualty - Defined 13
2.2 - Shipping Casualty Investigation - The Concept

2.3 - The Need for Adequate Investigations into Shipping Casualties

Chapter 3 - Maritime Legislation and the System of Investigating Shipping Casualties

3.1 - Laws: Prior to December, 1987

3.2 - The Shipping Act, 1987 - An Overview

3.3 - The Shipping Act, 1987 and Investigations into Shipping Casualties

3.4 - The Principal Legislation and Regulations

3.5 - Legal Review

3.6 - Looking Ahead

Chapter 4 - Maritime Administration and the System of Investigating Shipping Casualties: - Some Initial Considerations

4.1 - Reporting the Shipping Casualty

4.2 - Notification Procedures

4.3 - Memoranda of Understanding
Chapter 5 - The Preliminary Inquiry

5.1 - The Purpose

5.2 - Personnel within the Division of Maritime Services

5.3 - Appointment of Investigators within the Division of Maritime services

5.4 - Powers of Investigators

5.5 - Identification Cards for Investigators

5.6 - Essential Documentation and Equipment for Investigating Officers

5.7 - Technical Advisers

5.8 - Interpreters

5.9 - Arriving at the Scene of the Casualty and Interaction thereat

5.10 - Interviewing of Witnesses

5.11 - Examination of the Physical Evidence

5.12 - The Report

5.13 - Distribution of the Report
Chapter 9 - Conclusion and Recommendations

Appendix I - The Shipping Act, 1987 of the Republic of Trinidad and Tobago - Part XIX
- Inquires.

Appendix IA - The Shipping Act, 1987 - Part XXIV - Administration of the Act - Section 406.

Appendix IB - Commissions of Enquiry Act
- Chapter 19:01 - Act 2 of 1992
- as amended - Extract.

Appendix IC - The Shipping Act, 1987 - Part X - Safety Precautions and Navigational Safety - Section 207.

Appendix ID - The Shipping Act, 1987 - Part VII - Manning and Certification
- Sections 87 - 89.


Appendix II - Resolution A.173 (ES.IV) - Participation in Official Inquires into Maritime Casualties.

Appendix III - Resolution A.322 (IX) - The Conduct of Investigations into Casualties.
Appendix IV - Resolution A.440 (XI) - Exchange of Information for Investigations into Marine Casualties.


Appendix VII - Checklist - Casualties and Related Evidence

Selected Bibliography
LIST OF FIGURES

1.1 - Location of Major Ports and Sufferance Wharves 3

1.2 - Proposed Organizational Structure - Division of Maritime Services 10

4.1 - Division of Maritime Services - Report on Shipping Casualty 47

5.1 - Subpoena Ad Testificandum - Summons - To Attend a Preliminary Inquiry Under Section 371 of the Shipping Act, 1987 69

5.2 - Subpoena Duces Tecum - Summons - To Attend a Preliminary Inquiry Under Section 371 of the Shipping Act, 1987 70

6.1 - Appointment as a Wreck Commissioner Under Section 372 of the Shipping Act, 1987 of the Republic of Trinidad and Tobago 85

6.2 - Appointment as an Assessor Under Section 372 of the Shipping Act, 1987 of the Republic of Trinidad and Tobago 86

6.3 - The Shipping Act, 1987 of the Republic of Trinidad and Tobago - Notice of Investigation into a Shipping Casualty 88
LIST OF TABLES

1.1 - Passengers carried via the Government Shipping Service: 1983 - 1988 (January to June) 5

2.1 - Ships: Totally Lost - 1981 to 1988 20

2.2 - Number of Lives Lost - 1983 - 1988 21
ABSTRACT

On April 22, 1988 the M. V. DOCEBRUMA - a bulk carrier - accidentally rammed into the jetty at Point Lisas in Trinidad and Tobago. This resulted in immense damages to the vessel, the jetty and the cargo handling gear at the jetty. /1/

Further, some of the recent and alarming captions are as follows:

a) "MARINE DEATHS AT RECORD LEVEL" /2/

b) "SHIPWRECK! 90 KILLED, 30 MISSING" /3/

c) "62 DROWN, 14 MISSING AFTER FERRY DISASTER" /4/.

In this regard, the continued occurrences of shipping casualties must serve to emphasize to everyone, that all efforts must be made to learn the cause(s) of shipping casualties in order for all practicable action to be taken to prevent the occurrence of similar casualties. Accordingly, adequate investigations must be conducted and all possible follow-up action must be undertaken to prevent similar casualties from happening!

The Shipping Act, 1987 of the Republic of Trinidad and Tobago provides the legal basis inter alia for the conducting of investigations into shipping casualties. In keeping with the said Act a Division of Maritime Services is being established to administer and implement the Act.
In this context, this document which is descriptive and prescriptive in nature inter alia:-

1. emphasizes that there is a need to conduct adequate investigations into shipping casualties,

2. suggests ways in which the legal basis to facilitate the conducting of investigations can be improved,

3. provides administrative guidelines based on which proper investigations can be conducted, and

4. stresses the need for follow-up action with respect to the implementation of recommendations.

It is written with the view that one shipping casualty is one too many.

The underlying principle is that should a shipping casualty occur, the Division of Maritime Services must appreciate the need for the conducting of an investigation, have the necessary legal support to allow for the investigation, be aware of, have in place and be able to activate the necessary administrative procedures which will facilitate a thorough investigation into the casualty. It must thereafter recognize, accept and pursue its responsibility - as far as humanly possible - to ensure that all recommendations resulting from the investigation are implemented with a view of preventing the occurrence of a similar casualty - all in the interest of promoting safety at sea.
REFERENCES AND NOTES


/2/. Lloyd’s List - Lloyd’s of London, Press Ltd. - October 26, 1988; p. 3 - the article indicates that "the figure of 3,641 lives lost in marine casualties in 1987, was the highest recorded in peace time by Lloyd’s Register" and highlights that "eighty-one per cent of all 1987 deaths from marine casualties - 3,132 people - occurred when the 2,125 tons gross inter island ferry DONA PAZ sank in the Philippines after colliding with the 629 tons tanker VECTOR."

It should be noted that of the figure of 3,641 lives lost, 21 are recorded in the category "lost, etc" in which casualties as a result of war loss/damage during hostilities, hull/machinery damage and of a miscellaneous nature are placed. (See: Casualty Return, 1987 p. 5-7, Lloyd’s Register of Shipping, 1988).

/3/. Sun - Trinidad Express Newspaper Ltd. - January 3, 1989 - the article indicates that the BATEAU MOUCHE IV capsized on New Years Eve (68.12.31) resulting in the death of at least 90 Brazilians and foreign tourist and leaving about 30 others missing and feared dead in what it is reported, is the worst shipwreck in Brazil since 1906.

-xi-
January 4, 1989 - the article indicates that the ferry JUSTO RUFINO BARRIOS II was packed with about 120 people when it sank as a naval tug took it in tow in Guatemala’s Amatique Bay.
METHODOLOGY

Having decided on the focus of the thesis several steps were pursued towards achieving one's objectives. These steps incorporated:

- data collection
- the analysis of the data
- the deriving of conclusions and the formulation of recommendations
- review of the findings and finalization of the thesis.

CONSTRAINTS

There were some constraints faced in the pursuit of this study. These included:

1. the absence of a comprehensive data base on casualties and casualty investigations in Trinidad and Tobago,

2. the unavailability of documentation with respect to the procedure(s) used in the conducting of investigations in Trinidad and Tobago,
3. the fact that the study was undertaken at a great distance from its frame of reference - this sometimes resulted in delays in obtaining data and in some cases the impossibility of reviewing and/or verifying certain information, and

4. in a few instances there were non-responses to requests for data.

**DATA COLLECTION**

Information was collected from a vast number of sources and in several ways inclusive of the following:

1. Research at the undermentioned libraries:

   1.1 the Law Library at the Hall of Justice; Port-of-Spain, Trinidad and Tobago,

   1.2 the West Indian Reference Library, Port-of-Spain,

   1.3 the library at the World Maritime University, Malmo, Sweden (WMU), at which in the event one sought a text which was not available at the library efforts were made to get same from other library facilities,

   1.4 the library of Transport Canada, Ottawa, Canada, and
1.5 the library at the Headquarters of the International Maritime Organization; London, England.

2. Research was also done at the undermentioned institutions in Trinidad and Tobago:

2.1 The Customs and Excise Division.

2.2 The Ministry of Works, Infrastructure and Decentralization, (MWID),

2.3 The Harbour Master's Division, and

2.4 The Office of the Trinidad Express Newspaper.

3. Discussions and interviews were held (sometimes with the guidance of a questionnaire) with several persons inclusive of:

3.1 key personnel in the maritime sector in Trinidad and Tobago,

3.2 the International Maritime Organization's Regional Advisor on Maritime Safety,

3.3 lawyers from Trinidad and Tobago, Canada and the United States.
3.4 casualty investigators (for example personnel from the Marine Casualty Investigations Division in Canada, the United States Coast Guard and the National Transportation Safety Board of the United States),

3.5 in-house and visiting professors and lecturers at the WMU,

3.6 various officials during my field studies while at the WMU,

3.7 fellow students at the WMU (one of whom was once the Assistant Harbour Master in Trinidad and Tobago and had assisted in the conducting of shipping casualty investigations), and

3.8 the Acting Assistant Director, Civil Aviation Division

4. Corresponding via letters to institutions such as

4.1 The International Maritime Organization, and

4.2 The Trinidad and Tobago External Telecommunications Ltd.,

requesting data.

5. Discussions and the review of documentation; during a period of on-the-job training at the Marine Casualty Investigations Division, Ottawa, Canada.
6. Attendance at lectures on the subject of casualty investigations conducted at the WMU for example:

6.1 lectures on the Legal Aspects of Marine Casualty Investigations, and

6.2 Lectures on the Technical Aspects of Marine Casualty Investigations

The bibliography reflects some of the data collected and studied.

ANALYSIS OF THE DATA

The data collected was then thoroughly analysed. This analysis entailed many dimensions inclusive of:

1. an examination and comparison of the laws governing shipping casualty investigations in Trinidad and Tobago and in several other countries (for example: Canada, India, Liberia, Nigeria, Norway, Sweden, the United Kingdom and the United States of America).

2. a study and comparison of the procedure for investigating shipping casualties in Trinidad and Tobago and other countries (for example: Canada, England, Liberia, Poland and the United States).

3. a review of reports emanating from shipping casualty investigations in Trinidad and Tobago and in several other countries (for example: Canada, Liberia, the United Kingdom and the United States).
4. a comparative analysis of the system of investigating casualties in the maritime sector with the systems of investigating accidents in respect of the other modes of transport.

CONCLUSIONS AND RECOMMENDATIONS
After analysing the data, conclusions were arrived at and necessary recommendations were formulated. A draft of the thesis was then written.

REVIEW AND FINALIZATION
Copies of the draft were then submitted to personnel with varied expertise, for their frank comments thereon. These included:

1. shipping casualty investigators,
2. lawyers in the maritime field,
3. an Administrative Officer responsible for maritime matters at the MWID,
4. a shipmaster, and
5. a marine engineer.

The comments were assessed and with a comprehensive review by the author, necessary improvements, as identified, were made to the draft. The thesis was then submitted to the University.
ACKNOWLEDGEMENTS

In order to commence my studies and in the course of my studies, I received assistance from several persons and organizations. In this regard, I hereby give my thanks to all, inclusive of:

- My family; the members of which, fully supported me throughout the two years of study at the University.

- Miss. J. Alcantara; Permanent Secretary, Ministry of the Economy (M.E)

- Miss. Y. Gooding; Administrative Officer V, (M.E) and

- Miss. I. Nicholson; former Shipping Advisor to the Minister of Works, Infrastructure and Decentralization (MWID)

for the support provided in facilitating the commencement of my studies.

- Miss M. Squires; Administrative Officer (MWID), for her continued assistance in respect of the provision of data for this thesis and her comments on the draft.

- Mr. E. Diaz; Deputy Controller, Administrative Services, Customs and Excise Division

- Lieutenant Commander G. Arnold; Harbour Master, Harbour Master’s Division (MWID)

- Lieutenant Commander A. Franklyn; of the Trinidad and Tobago Coast Guard

- Captain B. Rial; International Maritime Organization, Regional Maritime Safety Advisor, and
Mr. M. Noland, Senior Surveyor of Lloyd's Register in charge of the Port-of-Spain Office, Trinidad and Tobago, who provided insights with respect to shipping casualties and shipping casualty investigations in Trinidad and Tobago.

Professor Mlynarczyk, Course Professor, General Maritime Administration, World Maritime University (WMU) and Professor P. S. Vanchiswar Course Professor, Maritime Safety Administration (Nautical), WMU, who provided comments on the draft.

Mr. B. Russell, Lecturer, Maritime Education and Training (Engineering), WMU, for his guidance during the course of the preparation of this thesis and his comments on the preliminary document.

Mr. P. Eriksson, Lecturer, WMU, who supplied me with a wealth of information on the subject of casualty investigation.

Dr. F. Wiswall Jr., Proctor and Advocate in Admiralty, for insights gained on legal aspects of marine casualty investigations, during his lectures and in the course of our discussions and also for his views on the draft of this thesis.
- Mr. L. A. Colucciello; Chief, Marine Accident Investigation, National Transportation Safety Board, for the insights gained during his lectures, in respect of the technical aspects of marine casualty investigation and for his remarks on the draft.

- Visiting Professor A. Os, for the data provided on the system used in Norway in order to investigate casualties and for his comments on the preliminary document.

- Mr. B. Vasiliiou; Special Policy Advisor, Marine Casualty Investigations, Transport Canada (MCITC) and Mr. S. Lavoie; Senior Data Officer (MCITC) for the data provided during the period of my on-the-job training at the Marine Casualty Investigations Division, Ottawa, Canada.

- Mrs. M. Caesar; Associate Attorney at Law in Trinidad and Tobago
- Mr. B. Clark; Review Officer, Legislation Development, Transport Canada who provided legal insights on aspects of the subject.

- Mr. E. Ashby; Acting, Assistant Director, Civil Aviation Division, who supplied data on the system of investigating accidents in respect of air transport.

- The members of the staff of the library at the WMU, for their assistance in the course of my research.
- Fellow students at the WMU, with whom I had the opportunity to discuss various aspects of the subject.
CHAPTER ONE

INTRODUCTION

1.1 TRINIDAD AND TOBAGO - AN OVERVIEW

Trinidad and Tobago is an archipelagic state which forms the southernmost link of the chain of islands of the Lesser Antilles in the Caribbean. It thus lies to the northeast of Venezuela and the northwest of Guyana between latitudes 10 degrees 2 minutes north and 11 degrees 12 minutes north and longitudes 60 degrees 30 minutes west and 61 degrees 56 minutes west.

The main islands of the country are the island of Trinidad and the island of Tobago; the latter lying to the northeast of the former. The said islands cover a land area of 5,128 square kilometers (sq km) of which Trinidad is 4,828 sq km and Tobago is 300 sq km.

Trinidad and Tobago has been under the control of several colonial powers, the last being Britain. Today, the Republican constitution of 1976 is the basis for parliamentary democracy within the country. In this context, the Government has the sovereign responsibility for effectively and efficiently managing the affairs of the country inclusive of all pertinent matters related to the maritime sector.

Given the history of the country, the population which amounts to approximately 1.2 million people is cosmopolitan in nature. Herein lies a culturally rich, multi-religious society in which English is the principal language.
In terms of the economy; there is a mixed economy in which the petroleum sector contributes about 20% to the gross domestic product and 80% to the foreign exchange earnings thus making a significant contribution to the revenues of the Government /1/. In addition, industrial plants are engaged in such activities as the production of ammonia, the production of asphalt, the manufacture of cement, furniture, garments, and the assembly of motor vehicles while the main commercial crops include sugar, cocoa and coffee.

Furthermore, the economy is open with trade having a significant impact on the development of the islands. In this regard, some of the major markets for exports and imports include: territories of the Caribbean, Canada, France, the Netherlands, the United Kingdom and the United States of America.

The country is at a critical stage of its development where the harnessing of all resources and the adequate utilization of same must be achieved. Thus, the growth and development of all sectors inclusive of the maritime sector are crucial and in this connection focus must be placed on "safer shipping and cleaner oceans" /2/ as one base on which an adequate service and trade can be developed.

1.2 PORTS AND SHIPPING - AN OVERVIEW

Ports and sufferance wharves are centers which are essential to the development of shipping. The majority of ports and sufferance wharves in Trinidad are located on the west coast while the major port in Tobago is located in Scarborough (Figure 1.1 refers).
Figure 1.1
Location of Major Ports and Sufferance Wharves
The importance of shipping to the country derives from such factors as:-

1. it facilitates the movement of people and communication between the islands of the country and between Trinidad and Tobago and other countries,

2. the fact that the smallness of the internal market dictates that in order to obtain the benefits of economies of scale the country has to engage in exportation and importation,

3. it provides a source of employment and income, and

4. it provides a means of recreation.

It is noted that some of the efforts currently being made to develop the economy and which are considered as areas to which priority must be given for investment, would have the effect of increasing the level of shipping activity. These include the following:-

1. the establishment of an export processing zone and the overall promotion of exports,

2. the development of a deep water harbour facility at Scarborough with suitable provision for the berthing of international cruise ships,

3. the promotion of tourism and the boosting of cruise shipping /3/,
4. the improvement of trans-shipment services, and

5. the promotion of boat building and deep sea fishing.

Given the above it is important that systems are put in place to assist in ensuring that there is the necessary degree of safety within the maritime sector.

In order to facilitate the transportation of passengers and cargo between Trinidad and Tobago the Port Authority of Trinidad and Tobago (PATT) operates the "Government Shipping Service" (GSS) as an agent of the Government. This is operated by the use of two state owned ro-ro ferries namely the M.V.TOBAGO and the M.F.PANORAMA. It is recorded that the number of passengers carried over the last five and a half years is as follows:

<table>
<thead>
<tr>
<th>YEAR</th>
<th>NUMBER OF PASSENGERS CARRIED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983</td>
<td>287,925</td>
</tr>
<tr>
<td>1984</td>
<td>314,539</td>
</tr>
<tr>
<td>1985</td>
<td>260,546</td>
</tr>
<tr>
<td>1986</td>
<td>294,190</td>
</tr>
<tr>
<td>1987</td>
<td>279,224</td>
</tr>
<tr>
<td>1988 (January to June)</td>
<td>108,286</td>
</tr>
</tbody>
</table>

Source: PATT- GSS - Passenger statistics.
The safety of each passenger is a responsibility of the state.

In terms of nationally owned shipping companies, there is the Shipping Corporation of Trinidad and Tobago (SCOTT). The said Corporation owns two methanol tankers which are involved in the transportation of methanol produced by the Trinidad and Tobago Methanol Company; one product tanker and one liquefied petroleum gas tanker both of which are on charter to the National Petroleum Marketing Company Limited of Trinidad and Tobago. SCOTT also operates liner services to Belgium, Canada, Denmark, France, Germany, Japan, the Netherlands, the United Kingdom and the United States via the use of chartered ships.

In addition, Trinidad and Tobago is the largest shareholder in the West Indies Shipping Corporation (WISCO) which is a regionally owned Shipping Corporation. WISCO operates three vessels; two of which are owned and the other is chartered. Its service connects the port of Port of Spain in Trinidad and all the ports of the Caribbean Community and Common Market (CARICOM). It also links all the ports of CARICOM directly with North America via its service from Miami.

There are many small vessels which are registered in the country. In this context, as at December 31, 1988 there were 2,347 fishing boats registered. Additionally, with the expanding use of shipping as a means of recreation there is an increasing number of pleasure crafts.
Some of the major associations in the country with an interest in shipping include:-

1. the Shipping Association of Trinidad and Tobago which represents parties such as the shipping agents (who in turn represent several international shipping lines),

2. the Pilots’ Association which provides pilotage as needed in respect of the ports, and

3. the Seamen and Waterfront Workers’ Trade Union which represents a large proportion of the workers in the sector.

Maritime safety must be considered important by all parties involved in the shipping sector. In order to assist in facilitating this, messages can be received from and relayed to vessels by the North Post Radio Station (gratis as a public service) as the need arises. This station thus promotes safety of life at sea by broadcasting navigational warnings and assisting vessels in distress. During the period January 16, 1987 to November 2, 1989, the station assisted at least nineteen (19) vessels in distress. The nature of the distresses included vessels with engine or other equipment problems and vessels which were drifting or sinking. Its efforts have led to the rescue of crew members and passengers.

This unit works closely with the Trinidad and Tobago Coast Guard which has a key role in the shipping sector inclusive of marine environmental protection and search and rescue. All these activities need to be effectively
administered.

1.3 MARITIME ADMINISTRATION - AN OVERVIEW
Maritime administration in Trinidad and Tobago is very fragmented in nature in that there are many Ministries with responsibilities for the development of aspects of the maritime sector. This situation at times leads to a lack of co-ordination of activities and the inevitable overlap of functions.

A key Ministry with respect to maritime administration is the Ministry of Works, Infrastructure and Decentralization. This Ministry, however, has a multiplicity of functions apart from its duties with respect to maritime administration. These functions include *inter alia* matters with respect to:–

- 1. the construction and maintenance of highways and main roads,
  2. the provision of adequate drainage and irrigation,
  3. motor vehicle licensing,
  4. the provision of an adequate bus service,
  5. traffic management,
  6. the development of the airports and the handling of all matters related to civil aviation,
  7. the development of the postal services, and
  8. the provision of meteorological services.

In terms of maritime administration, the Ministry has responsibility for such matters as the developing of the ports and harbours under its jurisdiction, and administering the Shipping Act, 1987.
The said Act which is Act no. 24 of 1987 is essentially "an Act to make provision for the registration and licensing of ships, matters relating to crews, safety of life at sea and matters incidental thereto;" and was assented to by Parliament on December 1, 1987. It is indicated at Section 403 (1) of the Act that "there shall be established a Division of Maritime Services" - the main function of the Division is to administer and implement the Act.

In this regard, Cabinet at its meeting on February 4, 1988 agreed inter alia that the post of Director, Division of Maritime Services be created subject to classification by the Chief Personnel Officer and that the necessary steps be taken to have the post filled at an early date. In addition, Cabinet at its meeting on April 15, 1988 agreed to the structure of the organization of the Division. Figure 1.2 refers.

It will be noted that there is a proposal for a Surveys, Inspection and Examination Section within the Division. This section will be responsible for such areas as:

1. all surveys and inspection of vessels,

2. the enforcement of safety standards in the maritime sector inclusive of the detention of unsafe and unseaworthy ships,

3. the technical input into the examination and certification of seafarers,

4. the undertaking of casualty investigations, and
5. all technical aspects with respect to wrecks and salvage.

A principal marine surveyor is to be in charge of the section assisted by two marine surveyors (nautical), one marine surveyor (engineering) and one marine surveyor (small craft).

Efforts are being made at present to have the Division functioning and in this respect a sum of $2,435,665 has been allocated for the Division in the Estimates of Expenditure, 1989. Adequate personnel must be put in place.

In the interim, the Shipping Act, 1987 is being administered by personnel within the Ministry of Works, Infrastructure and Decentralization, some of whom may be incorporated in the Division. A main area which the Division will have to address is the area of shipping casualty investigation.

REFERENCES AND NOTES

/1/. Trinidad and Tobago Export Free Zone - A Guide For Investors - Trinidad and Tobago Export Free Zone Company Limited, 1988 page 17.

/2/. IMO What it is, What it does, How it works - International Maritime Organization (IMO) - pub.003/85 - This is highlighted as the twin concern of the IMO.
The Express - Trinidad Express Newspaper Ltd., 20/8/89: indicates that on Tuesday 15, August, 1989 the Port Authority of Trinidad and Tobago formally opened the Port-of-Spain Cruise Ship Complex – a project which cost approximately $6m.

This reflects the more elaborate title of the Shipping Act, 1987.
CHAPTER TWO

SHIPPING CASUALTIES AND THE NEED FOR ADEQUATE INVESTIGATIONS

2.1 SHIPPING CASUALTY - DEFINED

A shipping casualty is deemed to have occurred whenever any of the following is involved:

1. the loss, or presumed loss, stranding, grounding, abandonment of, or damage to a ship,

2. a loss of life or serious personal injury caused by fire on board or by any accident to a ship or a ship’s boat or by any accident on board a ship or ship’s boat or,

3. any damage caused by a ship;

and at the time it occurred the ship was a Trinidad and Tobago ship or the ship or ship’s boat was in the waters of Trinidad and Tobago. /1/

The above is derived principally from Part XIX, Section 370 (1) of the Shipping Act, 1987 (with the inclusion of the notion of a serious personal injury as stated at 2. above). (Appendix 1 refers). A serious personal injury is considered here to be an injury which has one incapacitated for seventy-two hours or more. Such an injury must be considered significant and warrants an investigation into the related shipping casualty. It is recommended, therefore, that this notion be incorporated
into the definition of a shipping casualty within the jurisdiction of the Shipping Act, 1987.

2.2 SHIPPING CASUALTY INVESTIGATION - THE CONCEPT
The investigation into shipping casualties is the process of ascertaining the cause(s) of such casualties with a view to making recommendations which will be implemented to avoid the occurrence of similar casualties. It is multidimensional in nature embracing the following main dimensions: international, legal, administrative and technical. It must be appreciated as part of any system that promotes safer shipping.

In keeping with the Shipping Act, 1987, the focus of this thesis is primarily on the conducting of preliminary inquiries and the carrying out of formal investigations. Such investigations are principally safety oriented and are distinct from investigations which assign fault or determine civil or criminal liability.

2.3 THE NEED FOR ADEQUATE INVESTIGATIONS INTO SHIPPING CASUALTIES
Shipping casualties may vary in nature. The spectrum includes: abandonment, capsizings, collisions, contacts, fires and explosions, floodings, foundering, groundings, hull and machinery damage, lists, missing ships and strandings.

Given that shipping casualties could occur in many different ways; the impact could be varied also. In this context, there may be loss of life, damage to the vessel(s), damage to the cargo, damage to other personal property, and damage to the marine environment - each of
which involves a direct and an indirect cost.

In the event of a casualty, the following are parties who may be affected: crew and passengers, relatives of the crew and passengers, owner(s) of the vessel(s), the charterers, cargo owners, cargo users, financing institutions, insurance companies, naval architects, shipbuilders, classification societies and even different States. It must also be appreciated that shipping casualties may adversely impact on the fishing industry, the hotel industry, tourism and trade. Further, it must be recognized that a casualty today could have an adverse impact over many years in the future.

It is difficult to express the suffering of those who have been injured in a casualty. It is even more difficult to describe the suffering generated by loss of life.

A range of resources would have to be utilised should a casualty occur. These could include personnel and equipment from such institutions as the North Post Radio Station, the Trinidad and Tobago Coast Guard, the Fire Service, the Police Service, the Division of Maritime Services and the Institute of Marine Affairs (in the event that there is a need to determine the impact on the marine environment).

Some of the shipping casualties which have had a direct impact on Trinidad and Tobago over the last eight years are as follows:

1. On January 30, 1981 during the process of loading butane into the TEXACO COLON at no. 3 berth of the Point-a-Pierre harbour, a fire occurred injuring two
men from the tanker. The said fire also caused the death of two crew men from the tanker and injuries to two other crew men of the launch — TEXACO MOONFISH, who were assisting in the loading.

2. While on a voyage from Trinidad to Barbados on March 14, 1981 the crew of the M.V. Miss. GUYANA encountered "freak weather conditions." The vessel turned over and sank in the First Boca. Two of the crew members were never found.

3. While maneuvering on March 6, 1982 in a confined space in the vicinity of the Immigration Jetty at Port-of-Spain the steering and propulsion mechanisms of the FURNESS SEA HORSE apparently failed causing the barge to hit the yacht — SHULAH II — which was moored alongside the jetty. This rendered immense damage to the said yacht.

4. The M.V. TOBAGO ran aground in the Dip Dell Cove area off Tobago on September 14, 1982. This led to eighty-two passengers and the crew being stranded for hours.

5. On February 23, 1983 while the S/T SEAWISE GIANT — a Liberian registered tanker — was anchored off Point Lisas, two crew members who were engaged in maintenance work to the hull of the ship (from a lifeboat suspended on the port side), died as a result of injuries when the lifeboat plunged into the sea.

6. On March 4, 1983 three crew members of the fishing vessel ELIZABETH C.J. — a vessel registered in San
Diego California - died as a result of inhaling toxic fumes that were present in no. 4 starboard fish tank (which was alternately used for the storage of fuel).

7. A member of the crew of the M/V TALISMAN - a vessel of Danish registry - died on June 1, 1983 as a result of an "accident" in the cargo hold of the ship. The said ship was at the time lying at anchor within the harbour of Point Lisas.

8. The M.V. SAMOS SUN was at anchor in the harbour of Port Spain on July 4, 1983 when it was damaged by fire. The vessel sustained leaks and capsized in the harbour thereafter posing a threat to shipping in the area.

9. On August 10, 1983 an explosion aboard the Norwegian oil tanker - BERGE SEPTIMUS - off the east coast of Trinidad - killed three crew members and injured three others.

10. On May 19, 1984 a fire damaged the motor vessel UNITY COURRIER while it was lying at anchor off the St. Vincent Street Jetty in the port of Port-of-Spain. The wheelhouse, crews' quarters and galley were completely destroyed. Repairs were estimated to cost $90,000.

11. An explosion occurred at the Point-a-Pierre harbour on October 17, 1985 in which three vessels were involved and fourteen persons lost their lives.
12. On November 12, 1985 the M.V. CARIB GAS DOS struck and substantially damaged the jetty of the National Fisheries Company Limited - pier no. 3 - Sea Lots, Port of Spain. It was estimated that it would cost about $485,796 to repair the jetty.

13. On June 23, 1986 a member of the crew of the trawler - JOY K - drowned when the vessel capsized in the region of Blue River, Caroni.

14. As a result of flooding, the M.V. DENRO R sank off the east coast of Tobago on September 24, 1986.

15. On April 22, 1988 the M.V. DOCEBRUMA - a bulk carrier - struck and extensively damaged the jetty of the Iron and Steel Company of Trinidad and Tobago (ISCOTT) at Point Lisas. The estimated cost of repairs of the vessel is $1.5 million dollars. Operations at the jetty were adversely affected due to damages to the jetty and electronic facilities thereat.

This overview shows that casualties, each with a different impact continue to occur. /2/

As indicated, proposed developments and the promotion of trade and tourism would lead to increased shipping activities. This in turn would increase the probability of shipping casualties occurring. In the event that casualties continue to happen there will be a decline in shipping activity which in turn would have a negative impact on the economy and social life. There would also be a negative political dimension as the Government will
be seen as incapable of suitably dealing with its responsibility for maritime growth and development. Thus the more casualties the higher the socio-economic cost.

The case of the collision between the very large crude carriers: - AEGEAN CAPTAIN and ATLANTIC EMPRESS approximately twenty miles east of Tobago on July 19, 1979 is well known to seafarers /3/. Most seafarers are also familiar with the cases of such tragic casualties involving:

1. the TITANIC on April 14, 1912,

2. the TORREY CANYON on March 18, 1967,

3. the AMOCO CADIZ on March 16, 1978, and

4. the EXXON VALDEZ on March 24, 1989 /4/.

Shipping by its very nature is international. There is also an international dimension to shipping casualties. A look at the number of ships totally lost - on a global scale - during the period 1981 and 1988 indicates that casualties continue to be very high:-
TABLE 2.1

SHIPS: TOTALLY LOST - 1981 TO 1988

<table>
<thead>
<tr>
<th>YEAR</th>
<th>NUMBER</th>
<th>GROSS TONNAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td>348</td>
<td>1,112,302</td>
</tr>
<tr>
<td>1982</td>
<td>370</td>
<td>1,259,969</td>
</tr>
<tr>
<td>1983</td>
<td>320</td>
<td>1,357,701</td>
</tr>
<tr>
<td>1984</td>
<td>303</td>
<td>1,049,643</td>
</tr>
<tr>
<td>1985</td>
<td>277</td>
<td>907,510</td>
</tr>
<tr>
<td>1986</td>
<td>230</td>
<td>1,089,406</td>
</tr>
<tr>
<td>1987</td>
<td>206</td>
<td>947,464</td>
</tr>
<tr>
<td>1988</td>
<td>220</td>
<td>571,240</td>
</tr>
</tbody>
</table>

Sources:- Casualty Return - 1987; Lloyd’s Register of Shipping, 1986 and Casualty Return - 1988; Lloyd’s Register of Shipping, 1989 /5/.

Consequently, the number of lives lost continues to be high. It is recorded that over the period 1983 - 1988 the following number of lives were lost:-
TABLE 2.2

NUMBER OF LIVES LOST 1983 to 1988

<table>
<thead>
<tr>
<th>YEAR</th>
<th>TOTAL NUMBER OF LIVES LOST</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983</td>
<td>663</td>
</tr>
<tr>
<td>1984</td>
<td>497</td>
</tr>
<tr>
<td>1985</td>
<td>592</td>
</tr>
<tr>
<td>1986</td>
<td>1,024</td>
</tr>
<tr>
<td>1987</td>
<td>3,820</td>
</tr>
<tr>
<td>1988</td>
<td>759</td>
</tr>
</tbody>
</table>

Source:— Casualty Return, 1988; Lloyd’s Register of Shipping, 1989. /6/ 

The International Maritime Organization, in its continued efforts to promote safer shipping, has sought to improve the standards with respect to shipping via such means as International Conventions. In this context, with respect to casualty investigations, Trinidad and Tobago having acceded to the undermentioned Conventions must take note of the inherent obligations:

   - Therein at Article 23 it is stated that the
Administration undertakes to conduct an investigation into any casualty occurring to ships for which it is responsible and which are subject to the provisions of the Convention when it is of the opinion that such an investigation may aid in determining what changes in the Convention might be worthwhile.

It is also pointed out that the Contracting Government undertakes to provide the Organization with pertinent information concerning the results of such investigations and that no reports or recommendations of the Organization based upon such information shall disclose the nationality or identity of the ship concerned or in any way fix or imply responsibility upon any ship or person.

2. The International Convention for Safety of Life at Sea, 1974 (SOLAS) - which states at Chapter 1, Regulation 21 that the Administration undertakes to conduct an investigation of any casualty occurring to any of its ships subject to the provisions of the Convention when it judges that such an investigation may help in determining what changes in the present regulations might be desirable.

It is also stated that the Contracting Government undertakes to supply the Organization with relevant information concerning the findings of such investigations and that no reports or recommendations of the Organization based upon such data shall disclose the identity or nationality of the ships concerned or in any manner fix or imply responsibility upon any ship or person.
In addition, Trinidad and Tobago has acceded to the United Nations Convention on the Law of the Sea, 1982 and must therefore take note inter alia of:— Article 94 (7) which states that the State shall cause an inquiry to be held by or before an adequately qualified person or persons into every marine casualty or incident of navigation on the high seas involving a ship flying its flag and causing loss of life or serious injury to nationals of another State or serious damage to ships or installations of another State or to the marine environment. In addition, it is indicated that the flag State and the other State shall co-operate in the conduct of any inquiry held by that other State into any such casualty or incident of navigation./9/

Thus there is an international responsibility to conduct adequate investigations into shipping casualties!
Additionally, there are Resolutions emanating from the International Maritime Organization which should be considered by the Division of Maritime Services. These include the following which are highlighted at Appendices II to V:—

1. Resolution A. 173 (ES.IV) dated November 28, 1968:— with respect to participation in official inquires into maritime casualties,

2. Resolution A.322 (IX) adopted on November 12, 1975:— with regard to the conduct of investigations into casualties,

3. Resolution A.440 (XI) adopted on November 15, 1979 regarding the exchange of information for
investigations into marine casualties, and

4. Resolution A.442 (XI) adopted on November 15, 1979 in connection with personnel and material resource needs of Administrations for the investigation into casualties and the contravention of conventions.

Further, the Maritime Safety Committee of the International Maritime Organization in its efforts to gather and analyse data on serious casualties has developed a format for reporting marine casualties which Administrations are requested to complete and forward to the Organization. (Appendix VI refers.) The Division of Maritime Services, when effectively established, must take note and comply as necessary because once used adequately such data would serve to the benefit of the international shipping community.

Given all of the above, it is imperative that shipping casualties be adequately investigated. The main purpose being to find the cause(s) of same, identify all corrective and preventive actions and thereafter take all practicable actions to avoid similar casualties from happening.

Investigations allow one to get an appreciation of many factors inclusive of:

1. the adequacy of safety regulations,

2. the need to strengthen the enforcement of regulations,
3. the need for improvement with respect to the design and/or construction of ships,

4. the adequacy of safety practices,

5. the standard of training and supervision required,

6. the need for improvement in the equipment carried and used,

7. the need for improvement in the system of navigation,

8. the degree of occupational hazard, and the need for improving the working conditions on ships, and

9. the need for improvement in the management of ships.

Effective and efficient investigations, practicable recommendations and proper follow-up actions thereafter, would definitely assist in preventing similar casualties from occurring. This in turn will promote safety of life and property at sea with resulting consequences such as reducing human suffering, minimizing the loss of resources, preserving of the marine environment, improving maritime transport and maintaining the confidence of the public in shipping as a mode of transport. Surely, there is need for adequate investigations into shipping casualties!

REFERENCES AND NOTES

/1/. The Shipping Act, 1987 (Part 1) states that a "Trinidad and Tobago ship" means a ship which is:-
a) registered or licensed in Trinidad and Tobago under the Act; or

b) exempted under the Act from being registered or licensed.

The said Act also indicates that the "waters of Trinidad and Tobago" includes the internal waters and the territorial sea as defined in the Territorial Sea Act, and the archipelagic waters as defined in the Archipelagic Waters and Exclusive Economic Zone Act.

/2/. The sources for this data are:-

a) the Customs and Excise Division - Ministry of Finance and the Economy,

b) the Ministry of Works, Infrastructure and Decentralization,

c) the Trinidad and Tobago Express, and

d) the Trinidad Guardian.

/3/. Ronald D. Vardon: "Lessons that may be learned from Casualty Investigations for the Teaching of Shipboard Personnel" - The Fifth International Conference on Maritime Education and Training 19 - 22 September, 1988 Sydney, Nova Scotia, Canada:- The International Maritime Lecturers Association in Co-operation with the Canadian Coast Guard College p. 4 (paper 10).
The Economist; The Economist Newspaper Ltd., Volume 312 Number 7617, August 26, 1989 p. 80: This document indicates that a survey inclusive of the period March 1967 to March 1989 shows that, on a global scale, the oil spill resulting from the collision between the AEGEAN CAPTAIN and ATLANTIC EMPRESS is the worst spill (with an estimated spillage of 92m US gallons) over the years.

/4/. Newsweek - The International Newsmagazine; Newsweek Inc., September 18, 1989 p. 24 - 32: It is highlighted therein inter alia, that when the EXXON VALDEZ ran aground at Alaska's Prince William Sound the following resulted:

- oil spilled: 10,836,000 gallons
- shoreline contaminated by oil: 1,090 miles
- number of dead birds: 33,126
- number of dead others: 980
- cost of cleanup to EXXON: $1.28 billion
- number of people involved in the cleanup: 12,000
- number of vessels and planes used in the cleanup: 1,385
- number of lawsuits filed against EXXON: 145

This recent case highlights quite clearly some of the devastating consequences a casualty can have.

/5/. Casualty Return - 1987; Lloyd's Register of Shipping, 1988 p. 14 - 15 and Casualty Return - 1988; Lloyd's Register of Shipping, 1989 p. 5. Ships of less than 100 gross tonnage are not included. These
figures also exclude ships which are recorded in the "lost, etc" category. This category includes casualties re: war loss/damage during hostilities, hull and machinery damage and those of a miscellaneous nature.

/6/. Casualty Return, 1988 - Lloyd's Register of Shipping 1989 p. 6: The data reflects lives lost as a result of total losses with respect to ships. The concept of total loss indicates that as a result of a casualty the ship ceases to exist. Ships of less than 100 gross tonnage are not included. The figures also exclude lives lost as recorded in the "lost, etc." category. This category includes casualties re: war loss/ damage during hostilities, hull and machinery damage and those of a miscellaneous nature.

It is to be noted that the figure of 3,820 recorded in 1988 includes the loss of 3,132 lives as a result of the collision between the DONA PAZ and the VECTOR.


Prior to the enactment of the Shipping Act, 1987 State investigations into shipping casualties were conducted primarily by the Customs and Excise Division - which is now under the portfolio of the Minister of Finance. This phenomena had its roots in the administration of the United Kingdom Merchant Shipping Act, 1894 in Trinidad and Tobago. It also has further legal basis in the Merchant Shipping Ordinance Chapter 18 no. 5 of 1950 and the Trinidad and Tobago Merchant Shipping Act Ch. 50:01, both of which are based on the United Kingdom Merchant Shipping Act, 1894.

It is noted that the job specifications of the Harbour Master indicates inter alia that he is to "conduct enquiries into shipping accidents occurring in the territorial waters of Trinidad and Tobago." In addition, as outlined in the Laws of Trinidad and Tobago - Harbours Act - Chapter 50:06, Section 54, the Harbour Master has Admiralty jurisdiction in all cases of damage by collision where the amount claimed did not exceed one hundred and ninety-two dollars and the collision took place within a harbour under his jurisdiction. Notwithstanding these provisions, most investigations were conducted by the Receiver of Wrecks and Salvage as a Principal Officer of the Customs.
The following provides an insight into what transpired when casualties occurred and investigations were conducted under the laws prior to the Shipping Act, 1987. It is not intended to give specifics about the casualties but to allow one to appreciate the approaches utilised with respect to the undertaking of investigations.

1. Loss of the M.V. NICLAN I off Blanchisseuse
On December 19, 1975 an explosion led to the sinking of the vessel with the resulting loss of seven lives from a crew of nine persons. During the period December 29, 1975 to January 6, 1976 a preliminary enquiry was conducted by the Receiver of Wrecks and the Harbour Master at Customs House, Port of Spain.

The report of the enquiry took the form of a memorandum from the Receiver of Wrecks to the Minister of Public Utilities. It highlighted the features of the vessel and that depositions on oath were taken (the same being in an Appendix). Thereafter the report focused on:

- the evidence
- comments on the evidence
- conclusion
- recommendation

It was recommended that an "official enquiry" be held.

On May 28, 1976 it was indicated that in keeping with the Merchant Shipping Ordinance Chapter 18 no. 5 an Acting Senior Magistrate was appointed to hear the case and on July 1, 1976 Cabinet approved the appointment of an assessor to assist in the formal investigation. The Chief Magistrate subsequently submitted a report to the

The report indicated that the case was determined on October 27, 1976 at the Magistrate’s Court Port of Spain. It highlighted that depositions on oath were taken and had the following format:

- The Evidence
- Comments and Conclusions

The report was then submitted to Cabinet via a Note dated February 17, 1977 for its information and it was recommended that in view of the great public interest shown in the matter, the sections of the report entitled the evidence and comments and conclusions be laid in Parliament. The said sections were laid on the Table of the House of Representatives on February 25, 1977.

Available data does not indicate that any follow-up action was taken thereafter.

2. Fire on board the M.V. YTAI at Cronstadt Island
On March 15, 1977 there was a fire on board the vessel at Cronstadt island in the Gulf of Paria. Subsequently, on March 24, 1977 a preliminary inquiry was held by the Receiver of Wrecks and Salvage at Customs House, Port of Spain in accordance with Section 46 of the Merchant Shipping Ordinance Chapter 18 no. 5.

Thereafter, via a memorandum, dated December 30, 1977 the Receiver of Wrecks reported to the Minister of Works, Transport and Communication. The said report highlighted that the Receiver of Wrecks and Salvage presided over the
inquiry with the assistance of two "assessors". It further highlighted that depositions on oath were taken from members of the crew.

The report then took the following format:

- The Evidence
- Observations
- Recommendations
- Conclusion

In this connection, four recommendations were made and the conclusion was that a formal investigation should not be held.

In a Note for Cabinet dated March 15, 1978 the Minister recommended and asked Cabinet to:— note the report and to agree that in view of the fact that there was no loss of life, the inquiry should be considered closed.

In this context, at its meeting on March 16, 1978 Cabinet agreed on the recommendations of the Minister that in view of the fact that there was no loss of life as a result of the fire the inquiry into the incident be considered closed.

Available data does not indicate that any further action was taken in respect of the implementation of the recommendations of the Receiver of Wrecks and Salvage.

During the period January 12 - 18, 1980 a study was undertaken in Trinidad and Tobago by the International Maritime Consultative Organization /1/ Inter-Regional consultant on Maritime Safety Administration. The said consultant in a report dated March 3, 1980 having noted
that "at present, preliminary inquires into shipping casualties are being held by customs officers, under the existing legislation" advised that "the functions relating to the conduct of preliminary inquires and follow-up actions (including matters relating to formal investigations) need to be transferred to the Maritime Safety Administration (proposed Marine Department or Directorate of Shipping). Further, the procedure and documentation need to be improved, with detailed instructions to all concerned." /2/

On March 9, 1984 the Harbour Master highlighted to the Permanent Secretary, Ministry of Public Utilities and National Transportation that preliminary inquires were being conducted by officers of the Customs and Excise Division. He also indicated *inter alia* that the said officers were performing a duty which was beyond their expertise and advised that the Harbour Master's Division being the maritime safety agency for the country should undertake such responsibility. Thus, the need for improvement in the then existing state of affairs was recognized.

### 3.2 THE SHIPPING ACT, 1987 - AN OVERVIEW

One now turns to the Shipping Act, 1987. In this regard, when the said Act came into force in December, 1987 the Merchant Shipping Act, 1894 of the United Kingdom, as in force on August 31, 1962, ceased to have effect in its application to Trinidad and Tobago.

This Act addresses such areas as:

- the seaworthiness of ships,
- the national character of a ship and the right to fly the flag of Trinidad and Tobago,
- registration and licensing of ships,
- manning and certification,
- matters with respect to safety precautions,
- wrecks and salvage,
- inquires, and
- legal proceedings. /3/

3.3 THE SHIPPING ACT, 1987 AND INVESTIGATIONS INTO SHIPING CASUALTIES

The legal foundation for a system which facilitates investigations into shipping casualties is provided primarily at Part XIX of the Shipping Act, 1987. This is a major focus of this thesis. (Appendix I refers).

To date, one preliminary inquiry has been held under the jurisdiction of the new Shipping Act, 1987. This is in respect of the M.V.DOCEBRUMA—a 75,000 ton ore carrier which accidentally rammed into the Point Lisas wharf on April 22, 1988. /4/

In the absence of a fully functioning Division of Maritime Services, the preliminary inquiry was conducted by the International Maritime Organization's Regional Adviser on Maritime Safety and the Harbour Master. They were
appointed by the Minister of Works, Infrastructure and Decentralization by means of letters dated April 28, 1988 to conduct this particular inquiry.

An interim report was prepared on May 10, 1988 and the final report was done on November 10, 1988. A summary report on the preliminary inquiry was then submitted to Cabinet for its information, via a Note dated November 29, 1988. Available data indicates that the Note is currently (September, 1989) being considered by Cabinet.

3.4 THE PRINCIPAL LEGISLATION AND REGULATIONS

In keeping with the Act the undermentioned Regulations have been made:-


It is noted at Part XXIV, Section 406 (m) of the Act that the Minister may make Regulations for the holding of "inquires and investigations."

Regulations would be a great asset because the existence of same would:-

1. allow one to keep in focus the purpose of investigations,
2. set standards which facilitate the attaining of the objective of investigations in an effective and efficient manner,

3. provide guidelines for the Act to be properly administered,

4. allow for consistency in the manner in which the law is administered and implemented, and

5. allow everyone the opportunity to be familiar with the procedures to be followed.

It is envisaged that the suggestions in this thesis, any experience in administering Part XIX of the Act, the undertaking of necessary impact analysis and due discussion with the public (and the maritime sector in particular), would lead to the early formulation of the essential regulations with respect to the conducting of investigations.

It is to be appreciated that when any such regulations are finalized, they must be brought to the attention of and be available to the public. This would go a long way in guaranteeing an appreciation and understanding of the law and allowing for proper administration of same.

3.5 LEGAL REVIEW

The environment in which the Shipping Act is to be administered is a dynamic one. Hence the Act must never be seen as a static tool but one which must be subject to review and necessary change.
In this context, it is advisable to ensure that within the country there is legal expertise in the maritime field. This expertise would facilitate reviews of the law and would be utilised in many areas in respect of the shipping sector.

3.6 LOOKING AHEAD
The Shipping Act, 1987 provides inter alia the basic framework for the conducting of investigations into shipping casualties. It is a framework on which one can expand and improve as necessary.

In this regard, it is vital that the Division of Maritime Services be expeditiously established to administer the Act and in so doing to recommend changes to same as proven necessary. It is clear that without the Division, the Act cannot be as effective as it should be, because the development of systems to address the requirements therein will be greatly impeded.

Shipping casualty investigations, however, must not be seen as merely the fulfillment of a legal requirement. It is a crucial component of a system, which touches the very lives of all users of the sea and its related resources.

The system for conducting investigations into casualties which must be established must be one that allows for:

- the timely investigation into a casualty,
- the expediting of the conducting of the investigation,
- the early preparation of reports thereafter,
- the early submission of reports for action, and

makes provision for the recommendations from investigations to be acted on expeditiously, monitored and evaluated for any further action, all with a view to ensuring that a similar casualty does not occur.

Given the fact that a shipping casualty investigation is an important and professional undertaking, the personnel within the Division must have expertise to address same. It has got to be appreciated that the maritime sector is a specialised area. Hence persons to look into matters relating to the sector must have a deep appreciation of the sector. The views of personnel with such expertise will be respected and accepted more readily than those of non-marine oriented personnel and this is crucial given that one wants the most practicable recommendations made and implemented. Accordingly it is of grave importance that within the Division there are professional marine personnel who could effectively undertake investigations.

In addition to the system and the personnel there must be an adequate and properly equipped working environment and access to essential resources. These will assist in promoting a high standard in the performance of one's duties.

It is observed that in the event of a casualty there are no forms on which reports are to be made. This must be addressed because apart from an oral report, there must be a more detailed written report which will serve, amongst other things, as a basis for investigation and will form part of the Division's data base.
Forms must be recognized as part of the tools of the Administration. They aid in ensuring that essential data is recorded thereby assisting in expediting processes. Thus forms must be developed and available with respect to various aspects of investigations. Additionally, with the same justification, checklists should be established to assist the Division in its functions.

It is also noted that there are no current, comprehensive, adequately documented guidelines on investigating shipping casualties in Trinidad and Tobago. No one is going to be in office forever! It is therefore critical that based on research and experience, procedures are documented which could serve as a basis for conducting investigations and which will be reviewed and updated regularly, in order to ensure that a high standard is maintained.

It has been pointed out that preliminary inquiries were conducted chiefly by officers of the Customs and Excise Division. These officers would then submit a report to the Ministry responsible for maritime safety. All the necessary follow-up action could not be seen as a responsibility of the Customs and Excise Division.

In many instances the Ministry was as far as the report got in that same was not submitted to the Harbour Master's Division (which was essentially the Safety Administration within the country) for implementation of the recommendations or monitoring of the implementation of same. The fact must, however, be borne in mind that the Harbour Master's Division (HMD) did not possess all adequately qualified staff to undertake many of its responsibilities. Hence, even if reports did reach the HMD
there may have been a problem in terms of the timely implementation of the recommendations. Thus, again and again one sees the need for a well staffed Division of Maritime Service which will view shipping casualty investigations as critical exercises, the results from which must be acted on and followed-up expeditiously.

In some cases reports were sent to Cabinet. This is a good practice in terms of keeping the Cabinet informed as to the casualties that have taken place in respect of the waters of Trinidad and Tobago and Trinidad and Tobago Ships. The fact, however, is that Cabinet has a multiplicity of issues to consider and sometimes it is possible that the report cannot be given priority consideration, and same may also have to be forwarded for the consideration of other State departments.

A procedure needs to be developed whereby the Minister responsible for maritime safety, in addition to informing Cabinet as necessary, acts on the recommendations with respect to maritime safety and which must be implemented of necessity. A report that gets tied up in the bureaucracy serves to defeat the purpose of a timely shipping casualty investigation.

It is further noted that there is no adequate data base on shipping casualties. In respect of investigations conducted in Trinidad and Tobago, some files are at the Customs and Excise Division, some are at the Harbour Master's Division and some are at the Ministry of Works, Infrastructure and Decentralization. There is thus no comprehensive collation of data on casualties and
no current trend analysis; information from which could assist investigators. This must be addressed.

Given the above and the importance of conducting investigations, it is critical that all essential legal and administrative requirements are put in place in order to facilitate adequate investigations and follow-up action. Having noted the aforementioned, one now takes a closer look at the processes involved in shipping casualty investigations and in so doing points out the essential action(s) which should be taken prior to, during and after investigations.

REFERENCES AND NOTES

/1/. Now the International Maritime Organization


/3/. It is stated at Section 412 of the Shipping Act, 1987 that except as otherwise provided in the Act nothing in the Act shall apply -

a) to Trinidad and Tobago Government ships operated for non-commercial purposes;

b) to ships or aircraft of the Defence Force.

and that "the Minister may make regulations
prescribing the manner and extent to which the provisions of this Act apply to Trinidad and Tobago Government ships operated for non-commercial purposes."

Part I of the shipping Act, 1987 indicates that a "Trinidad and Tobago Government ship" means a ship which belongs to the Government of the Republic of Trinidad and Tobago but does not include a ship which forms part of the Defence Force of Trinidad and Tobago.

4 The Trinidad Guardian; Trinidad Publishing Company Ltd., April 26, 1988 - p. 12.
CHAPTER FOUR

MARITIME ADMINISTRATION AND THE SYSTEM OF INVESTIGATING SHIPPIING CASUALTIES - SOME INITIAL CONSIDERATIONS

The following is contributed having analysed and learnt from the past; appreciating the present and with a look to the future.

4.1 REPORTING THE SHIPPING CASUALTY

It is a fact that shipping casualties do occur. It is also a fact that some are not reported. In this regard, if one is not aware that a casualty has occurred there is nothing that one can do to ensure that a similar casualty does not occur. A proper system for investigating casualties would thus promote the reporting of same. In this context, there are:

1) voluntary and confidential reporting, and

2) mandatory reporting.

In respect of voluntary and confidential reporting, the Division of Maritime Services has to encourage the reporting of casualties by everyone in the maritime sector and also by the general public, by enlightening same as to the significance of alerting the Division of the occurrence of any casualty. This could be done via public awareness programmes by the Division.

With respect to mandatory reporting Section 215 of the Shipping Act, 1987 states that where any ship has been involved in any accident or incident whether or not
occasioning loss of life or any serious injury to any person, or has received any material damage affecting its seaworthiness or its efficiency either in its hull or, in the case of a ship propelled by mechanical power, in any part of its machinery, or has been in collision with another ship, the master shall as soon as practicable after the accident or damage, transmit to the Director, a report of the accident or damage, and of the probable cause thereof, stating:

1) the name of the ship,
2) its official number,
3) its port of registry or the port to which it belongs and
4) its location.

The section indicates further that in the event the managing owner, or if there is no managing owner or no such owner resident in Trinidad and Tobago, the agent to any ship has reason to believe that the ship has sustained or caused any such accident or received any such damage as is mentioned above, he shall satisfy himself that the accident or damage has been reported to the Director by the master. The Section also highlights that in the event that any such managing owner or agent has reason to believe that the accident or damage has not been so reported, he shall as soon as possible, send to the Director notice in writing stating:

1) the name of the ship,
2) its official number,
3) its port of registry or the port to which it belongs and stating to best of his knowledge and belief, the nature and extent of the accident or damage, the probable cause thereof and the location of the ship.

-44-
It is pointed out that this section applies to any ship to which any such accident or damage, as is mentioned above occurs or is believed to have occurred, in the waters of Trinidad and Tobago and that the master or managing owner or agent who fails, without reasonable cause to comply with this section is guilty of an offence and is liable to a fine of one thousand dollars.

In addition, in respect of the apprehended loss of a ship, Section 216 of the Act indicates that "where the managing owner or, in the event of there being no managing owner, or no such owner resident in Trinidad and Tobago, the agent of any ship to which this Section applies has reason to believe that the ship has been totally lost, he shall as soon as possible, send to the Director notice in writing stating the name of the ship, its official number, its Port of Registry or the port to which it belongs and stating also to the best of his knowledge and belief, the probable cause of the loss."

It is indicated further, that the Section applies to Trinidad and Tobago ships; and other ships which are lost or are believed to have been lost in the waters of Trinidad and Tobago. In this connection, the Act states that "a managing owner or agent who fails without reasonable cause to comply with this Section within a reasonable time is guilty of an offence and is liable to a fine of one thousand dollars."

While the above provides a basis on which shipping casualties could be reported, a more comprehensive approach is needed in order that reports could be of greater assistance to investigators.
The data on the report is to serve as a primary source of information to investigators and will be a basis on which decisions will be taken *inter alia* as to the nature of the investigation to be undertaken. It must therefore be as detailed as possible. The format hereunder may be used as a means of gathering necessary data. (Figure 4.1 refers).

It must be filled in by the master, or to the extent possible by the owner of the vessel or agent. It should be emphasised that this written report which must follow any other initial communication on the casualty is to be submitted *as soon as possible*. Such forms are to be distributed throughout the maritime sector and are to be available at all ports, at the offices of the Customs and Excise Division and at all the Consulates and Embassies of Trinidad and Tobago at all times.

The report is to be analysed by the Division of Maritime Services for action and should be one of the first set of documents on the file in relation to the casualty. It thus also facilitates the creation of a data base.
SECTION I - GENERAL INFORMATION

<table>
<thead>
<tr>
<th>1. Name of ship</th>
<th>2. Official Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Nationality</td>
<td>4. Call Sign</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Type of ship</td>
<td>6. Place Built</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Year Built</td>
<td>8. Hull Material -</td>
</tr>
<tr>
<td></td>
<td>(steel, wood....)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-fwd</td>
</tr>
<tr>
<td></td>
<td>-aft</td>
</tr>
<tr>
<td>11. Gross Tonnage</td>
<td>12. Propulsion -</td>
</tr>
<tr>
<td></td>
<td>(steam, diesel, gas turbines)</td>
</tr>
<tr>
<td>13. Class of the vessel</td>
<td>14. Nature, Place and Date of Issue of last Inspection Certificate</td>
</tr>
<tr>
<td>------------------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>15. Name, Address and Telephone Number of Owner/Local Agent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>16. Name, Address and Telephone Number of Master/Person in charge</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>17. Number, Grade, Date and Place of Issue of Certificate of Master</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>18. Name, Address and Telephone Number of Pilot (if any)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>19. By whom was the pilot licensed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>20. Number of persons on board</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>21. Description and weight of cargo</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>22. Date of shipping casualty</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>23. Time of shipping casualty</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>24. Location of shipping casualty</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>25. Current location of the ship</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

-48-
### SECTION II: NAVIGATION INFORMATION

<table>
<thead>
<tr>
<th>1. Last port</th>
<th>2. Where bound</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Date of departure</th>
<th>4. Time of departure</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(local)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5. Course</th>
<th>6. Position of the vessel at the time of the casualty (fixed or underway)</th>
</tr>
</thead>
</table>

### SECTION III: CONDITIONS RE - SHIPPING CASUALTY

<table>
<thead>
<tr>
<th>1. Time:</th>
<th>2. Sea or river conditions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daylight</td>
<td></td>
</tr>
<tr>
<td>Twilight</td>
<td></td>
</tr>
<tr>
<td>Night</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Speed and direction</th>
<th>4. Weather (clear, rain or other-please specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

-49-
SECTION IV: DESCRIPTION OF SHIPPING CASUALTY

Describe the nature of the shipping casualty, how it occurred (clearly identifying any other vessel(s) involved) and the outcome - inclusive of any deaths, injuries and/or persons missing. Give an account of any assistance requested, given and action taken thereafter.

SECTION V: PERSONNEL DATA RE DEATH/INJURED/MISSING

1. Name, Address and Telephone Number
2. Status: indicate whether a member of the crew, if so the nature of duty at the time of the casualty; passenger or other (please specify)
3. Whether person: dead, injured or missing and the relevant dates

SECTION VI: ESTIMATED LOSS OR DAMAGE

1. Vessel $ (TT)

2. Cargo $ (TT)

3. Other (please specify) $ (TT)

SECTION VII RECOMMENDATIONS FOR CORRECTIVE SAFETY MEASURES
SECTION VIII: WITNESSES

<table>
<thead>
<tr>
<th>NAME</th>
<th>ADDRESS</th>
<th>TELEPHONE NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION IX: PERSON MAKING THIS REPORT

1. Name

2. Signature

3. Position

4. Address

5. Date

SECTION X: FOR OFFICIAL USE

1. COMMENTS

2. NAME OF INVESTIGATOR

3. SIGNATURE OF INVESTIGATOR

4. DATE

ADDRESS: -52-
Section 215 refers to casualties which have occurred in the waters of Trinidad and Tobago. In this context, one is of the view that provision must also be made in law for the reporting of shipping casualties in which Trinidad and Tobago ships are involved in waters of any part of the world. This will assist in the conducting of investigations into same. The aforementioned indicates that there is room for enhancing the provisions of the Shipping Act, 1987 in order for it to address better the reporting of shipping casualties.

Further, one is of the firm opinion that the law must have a provision which directs that "near misses" (or near accidents) in the waters of Trinidad and Tobago or in which Trinidad and Tobago ships are involved are to be reported and allows investigating officers the right to exercise their discretion and conduct investigations with respect to the said "near misses". Such inquiries should be conducted as long as the investigating officer is of the view that lessons will be learned from the inquiry, recommendations made and the said recommendations implemented. The Division of Maritime Services must also encourage the reporting of near misses. One way of doing this is by highlighting the benefits to the maritime sector of preventing an actual casualty in the future, having studied the cause(s) of the near accident and taken the related action(s) to ensure that an actual casualty does not take place.

It is recommended that regulations be expeditiously made to facilitate the effective reporting of shipping casualties. Steps must then be taken to alert the public as to the existence of such laws and to ensure that the
reporting system is one in which the maritime sector has confidence.

4.2 NOTIFICATION PROCEDURES
The investigator should be at the site of the casualty as soon as possible. It is therefore imperative that the Division of Maritime Services establishes formal notification procedures to ensure that it is informed promptly should a casualty occur. This would include memoranda of understanding with such agencies as the North Post Radio Station, the Trinidad and Tobago Coast Guard, the fire services, the medical services, the shipping agents, the ports and the police.

The following must be made clear to the Agencies:

1) the name of the officer(s) of the Division to be contacted,

2) where the officer(s) can be contacted, and

3) how the officer(s) can be contacted.

In addition, the procedure must be operative twenty-four hours of the day and must be updated as necessary.

It is to be noted that the procedure is also to facilitate the notification of affected flag states, by the Division of Maritime Services. This is in keeping with the need for international co-operation with respect to investigations and the implementation of recommendations.
4.3 MEMORANDA OF UNDERSTANDING

Apart from the memoranda of understanding required in respect of notification procedures, there are several others which can assist in ensuring that an investigation is adequately conducted. Some are indicated hereunder while others are mentioned as necessary during the course of the text.

It is noted that in Canada efforts are being made to establish a Transportation Accident Investigation Board. This Board is to be responsible for investigating all air, marine, pipeline and rail accidents /2/. Such an integrated approach to accident investigation has its merits. However, given the different nature of the various administrative procedures and the stages of development of the various Bodies responsible for conducting investigations into accidents/casualties with respect to the different modes of transportation in Trinidad and Tobago, it is not feasible at this time to create such a National Transportation Investigation Board.

In terms of expertise from the investigating Bodies in respect of the other modes of transportation apart from shipping, such as personnel from the Civil Aviation Division and the police services, one is of the view that memoranda of understanding can be worked out with these organizations with respect to the utilization of each others personnel as technical advisers and the provision of all possible assistance in the course of inquires. This will lead to the maximum use being made of the resources of the country in the present scenario.
In terms of the other departments of the State, memoranda of understanding must also be established. Accordingly, agreements could be reached with such units as the Hydrographic Surveying Unit, the Customs and Excise Division and the Meteorological Services Division as agencies which may have a role in the course of investigations.

Memoranda of understanding could also be worked out with the shipping agents. This will serve to foster a working relationship between the Division of Maritime Services and these agents which would facilitate an appreciation of the role of each in the event of a casualty. This will then help to generate necessary co-operation.

Memoranda of understanding could also be worked out with the insurance industry in order to ensure that the Division is kept abreast of all shipping casualties reported to the industry. This will allow the Division to investigate cases which otherwise may not be reported.

In many cases the news media tend to be at the scene of a casualty quite early. It is therefore beneficial to develop a good working relationship with the media and one means of doing this is via a memorandum of understanding which allows for a permissible two-way flow of data.

This could ensure that the investigating officer gets some crucial information inclusive of recorded data such as early photographs or access to video tapes of the casualty. It will also serve to permit the investigating officer to conduct the investigation without undue
pressure from the media. In addition, it can facilitate in the sensitizing of the media as to the need to convey a message of due caution and care to the maritime industry not only when there is an accident but as part of a regular program.

It is to be noted that should a casualty occur with respect to the drilling activities of a mobile offshore unit that this is a matter of industrial safety, the investigation of which is to be conducted within the petroleum sector. However, if the casualty relates solely to navigability and seaworthiness, the Division of Maritime Services is to conduct an investigation. In the event that the casualty relates to both areas a joint investigation is to be carried out based on a memorandum of understanding.

While the aforementioned suggests a formal approach with respect to working relationships, it is not to be taken to mean that informal working relationships would not have potential advantages, under certain circumstances. It is meant rather to highlight that formal working relationships can be of potential benefit.

REFERENCES AND NOTES

/1/. This form has been developed based on a study of the nature of the data required in several forms inclusive of the following:

a) Department of Transportation U.S. Coast Guard C G - 2692 (Rev. 6-82) : Report of Marine
Accident, Injury or Death.

b) Marine Casualty Report 97 – A form issued by the Norwegian Maritime Directorate and in use from 1/1/88.

c) Report of a shipping casualty and/or an accident on board ship – Form 1 (W.R)/2(A.R) combined – Transport Canada – Marine.

d) The Republic of Liberia, Ministry of Finance – Bureau of Maritime Affairs:
   i) 10.1 – Report of Vessel Casualty or Accident,
   ii) 10.2 – Report of Personal Injury or loss of life.

CHAPTER FIVE
THE PRELIMINARY INQUIRY

5.1 THE PURPOSE

The legal basis for conducting a preliminary inquiry is outlined at Part XIX of the Shipping Act, 1987 (Appendix I refers). The proper implementing of the law requires that the Division of Maritime Services has in place the right system, equipment and personnel in order to provide the required administrative support to the Act.

The investigating officer of the Division of Maritime Services must do a careful assessment of any report received whether verbal or written. The said officer in exercising discretion is never to simply ignore a "small" casualty because there may be a big lesson to be learned. In instances where the casualty is of a nature that the cause(s) could be clearly and unambiguously deduced from the report, it may thereafter be necessary that recommendations be made and acted on by the Division.

In contrast, when the investigating officer is not one hundred per-cent sure of the cause(s) of the casualty or there is need to determine the cause(s), a preliminary inquiry may be undertaken. In the context of the Division of Maritime Services, a preliminary inquiry is "a planned search for evidence through interviewing witnesses on the one hand and a survey of physical evidence on the other" - as far as practicable - in an effort to determine the cause(s) of the casualty with the purpose of making recommendations and thereafter taking all necessary and feasible actions to prevent the occurrence of a similar casualty.
The undermentioned serves as a guide with respect to the effective and efficient conducting of preliminary inquires. It could also serve as a basis from which related regulations are formulated.

5.2 PERSONNEL - WITHIN THE DIVISION OF MARITIME SERVICES
In terms of personnel to conduct preliminary inquires one must take note of the proposed structure of the Division; in which it is envisaged that such inquires will be conducted by personnel of the Surveys, Inspection and Examination Section. This Section is to be essentially the investigating authority of the State.

As a unit, it therefore must have technically knowledgeable expertise with respect to ship construction, seamanship, navigation, marine engineering and each officer must have a working knowledge of the Shipping Act, 1987 and other standards in the maritime sector. Additionally, the investigator must also be honest, objective, have an analytical approach to problems, be professionally inquisitive, possess tact in communicating with others /2/ and be able to express himself clearly orally and in writing.

It must be remembered that people are the core element in the organization. Thus in developing the institution it is imperative that the right people are put in the right place at the right time. In this context all efforts must be made to establish a professional unit of the highest integrity.

5.3 APPOINTMENT OF INVESTIGATORS
It is noted that under the provisions of Section 370 (1)
of the Shipping Act, 1987 "the Minister may cause a preliminary inquiry into the casualty to be held by a person appointed for the purpose by the Minister." Given the large size and multi-faceted nature of the portfolio of the Minister of Works, Infrastructure and Decentralization and the need for timely inquiries, when the Division is fully established the authority to direct the holding of the preliminary inquiry should be delegated to the Director of the Division. In addition, it is important that upon being employed in the Surveys, Inspection and Examination Section of the Division as one of the surveyors, one should be appointed by the Minister and given the authority to conduct inquiries based on the direction of the Director. It is to be appreciated that with such an appointment one is expected to be on call twenty-four hours of the day.

The conducting of an investigation into a shipping casualty is a very important exercise requiring due care, total concentration and diligence. In this context, the investigating officer should be relieved (as far as possible) of all other responsibilities as he pursues the inquiry. Thus having been directed to carry out the inquiry the officer should be permitted to dedicate his efforts to same.

The surveyor on being appointed to conduct inquiries should be protected by law from having to appear as an expert witness in any court addressing matters of civil or criminal liability with respect to any case in which he conducted the preliminary inquiry given the fact that the nature of the investigations he carries out is oriented to safety and nothing else. In the event he is called to
testify he should be called as a fact witness only (facts are facts).

5.4 POWERS OF INVESTIGATORS
The powers of an investigator conducting a preliminary inquiry are outlined at Section 371 (1) of the Shipping Act, 1987. These are essentially that:

1. he may go on board the ship and inspect it or any of the boats, equipment, machinery or articles on board thereof,

2. he may enter and inspect any premises which appears to him to be of significance in the inquiry,

3. he may, by summons under his hand, require the attendance of all persons relevant to the inquiry,

4. he may require and enforce the production of all documentation needed in respect of the inquiry, and

5. he could administer oaths, or require every person examined by him to make and subscribe a declaration of the truth of the statements made by him in the inquiry.

Given the fact that the human factor is of great significance in many shipping casualties, these powers should be extended to include the right of the investigator to issue a notice in writing, signed by the investigator, upon any person who is directly or indirectly involved in the casualty, requiring the person to submit to a medical examination when the investigator
believes that such an examination is relevant to the inquiry. The said examination is to be conducted by an appointed medical practitioner.

5.5 IDENTIFICATION CARDS FOR INVESTIGATORS
At the scene of the casualty and/or the inquiry the investigating officer must be recognized as the one empowered to conduct the necessary preliminary inquiry. Accordingly, each officer should be issued an identification card. The said card is to bear the name of the officer, his photograph, his signature and the appointment of the officer on one side and a summary of his powers on the reverse side countersigned by the Director. The card must be carried whenever the officer is on duty.

5.6 ESSENTIAL DOCUMENTATION AND EQUIPMENT FOR INVESTIGATING OFFICERS
It is important that the officer is prepared to conduct an inquiry on short notice. He is to be a travelling officer in the public service and must have at hand essential documentation and equipment. In this regard, the officer should be provided with an investigation kit which must contain at least the following:

1. a copy of Part XIX of the Shipping Act, 1967,
2. a copy of an operational manual (to be developed),
3. blank subpoena forms,
4. a list of telephone numbers needed for work,
5. religious texts for swearing in witnesses (for example a Bible),
6. a clipboard, paper, pencil and markers,
7. report forms,
6. protective clothing — inclusive of sturdy gloves, good work shoes and a hard hat,
9. flashlight and batteries,
10. a camera and film — a flash camera (35 mm.) — using high speed colour film,
11. a cassette recorder and spare cassettes and batteries,
12. a magnifying glass,
13. measuring tape,
14. identification tags, and
15. specimen containers and a supply of plastic bags of various sizes for the purpose of gathering evidence.

The said kit should be completely checked periodically and refurbished as necessary. One may follow a schedule and use a checklist to facilitate such an exercise.

5.7 TECHNICAL ADVISERS

Notwithstanding the above there may be instances when the assistance of a specialist in a certain field (marine or non-marine) may be required. The said individual would assist in the capacity of technical adviser to the investigating officer and is to take an oath or make a solemn affirmation with respect to the impartial and professional performance of his duties. Provision should be made for this in law.

It is therefore imperative that the Division develops, reviews and updates a list of experts from which the required expertise can be drawn. The said list may initially be comprised of experts in the various fields in the maritime sector inclusive of representatives of classification societies. Thereafter, as necessity
dictates and one utilizes the services of an expert in a non-marine field the said expert can be added to the list. The said list must highlight their names, addresses, telephone numbers, academic qualifications and working experiences.

Given the current financial situation, every effort should be made to have on the list persons who are able and willing to provide an honorary service. It is recognized that this is not always possible. Thus the Division will need to ensure that there is a system for the payment of technical advisers as necessary.

A word of caution is necessary at this point. The Division must as far as possible ensure the transfer of technology from the various experts. This will reduce one's dependence on such advisers in the long run and allow one to expedite investigations.

5.8 INTERPRETERS
On occasions the investigating officer may need the assistance of an interpreter in order to effectively communicate with a witness. The Division should have a list of interpreters which is reviewed and updated regularly. Preference should be given to interpreters with a marine background. The list must highlight: the name of the person, his address, his telephone number and the language(s) he is fluent in. To the extent that an interpreter cannot be found within the public service (the assistance of whom can be secured through inter-departmental agreements), a fee may have to be paid to an interpreter. The Division has to ensure that there is a system for the payment of such services.
5.9 ARRIVING AT THE SCENE OF THE CASUALTY AND INTERACTION THEREAT

The officer is to expeditiously arrive at the scene of the casualty with due care. One cannot over emphasize the need for timely action on the part of the investigating officer. This is necessary, for example, because if one waits too long before examining the vessel(s) the physical evidence may be disturbed and if one does not conduct interviews early, important facts may be forgotten by witnesses.

Thus the Division has to ensure that the investigating officer has access to adequate means of transport. The officer being a travelling officer will have access to a road vehicle. In terms of getting out to sea this may be facilitated via one of the launches in the possession of the Harbour Master's Division or by arrangement with the Coast Guard.

While en-route to the scene of the casualty it is important that the Head Office alerts personnel in charge at the scene of the casualty as to who the investigating officer is and seeks their co-operation with the officer. Accordingly, on arriving the said officer is to identify himself to the relevant authorities, solicit all necessary co-operation and conditions permitting, ensure that the area and the vessel are secured for examination of same.

Based on the nature of the casualty, there is certain crucial evidence which must be gathered. The investigator must appreciate that the accuracy and thoroughness with which data is collected and recorded will impact on the quality of the report and thus on the effectiveness of any recommendations. All pertinent information and the
source(s) of all data must be recorded. A systematic approach to data collection can be facilitated by the use of a checklist which serves to remind one of the minimum data to be gathered. An example of such a checklist is highlighted at Appendix VII. This checklist can be developed by the Division of Maritime Services over time.

In many instances the Coast Guard will be one of the first parties at the scene of the casualty. The Coast Guard, having performed its duties, could provide information on the casualty from which the investigating officer could make deductions. In this context, there is a clear need for a proper working relationship between the Trinidad and Tobago Coast Guard and the Division with respect to inquiries.

The investigating officer is to identify all witnesses and arrange to conduct interviews as early as possible. It is to be noted that if his action is based on having received a written report, the said report should have a list of witnesses who may be interviewed.

5.10 INTERVIEWING OF WITNESSES
The emphasis here is on interviewing the witnesses and not interrogating them. The parties to be interviewed should include the master, mates, engineers, pilot and any person deemed to have knowledge relating to the casualty.

Within the law the investigating officer can summon witnesses to attend interviews and to produce relevant documents. This authority however should only be utilised as a last resort in situations where the co-operation of a party is not forthcoming. The investigating officer,
however, should be prepared to do so when necessary. Thus he should have with him the relevant forms for so doing. These forms must be authorized for use by the Division of Maritime Services and may take the format as outlined at Figures 5.1 or 5.2.

As long as it is possible all witnesses should be assembled. The investigating officer should then clearly identify himself as an officer of the State empowered to conduct the inquiry. The witnesses should then be informed as to the purpose and the nature of the inquiry. They are to be advised therefore *inter alia* that the investigator wants to find the cause(s) of the shipping casualty and is not seeking to place blame on anyone.

Then the witnesses should be informed as to the order of their appearance in the interview. The investigating officer should thereafter separate the witnesses to the extent possible and interview them individually. Should it prove impossible to have all the witnesses assembled then each should be briefed in a similar manner. Interviews must be conducted in a convenient and adequate place as soon as feasible.
FIGURE 5.1
SUBPOENA AD TESTIFICANDUM
SUMMONS
TO ATTEND A PRELIMINARY INQUIRY UNDER SECTION 371 OF THE
SHIPPING ACT, 1987

TO: ____________________________________________________________

RE: ____________________________________________________________

You are hereby notified that the Minister of Works, Infrastructure and Decentralization has appointed the undersigned, _________________________ to conduct a preliminary inquiry into the circumstances surrounding ____________________________

You are further notified that the inquiry will commence at _________ o’clock in the _________ on the _____ day of ______, 19___, at the ___________________________________________

and that you are requested to attend for the purpose of being examined and give evidence on matters within your knowledge pertaining to the casualty.

Dated at ______________________, this ______ day of ______, 19___.

Investigating Officer
Division of Maritime Services /3/
TO ATTEND A PRELIMINARY INQUIRY UNDER SECTION 371 OF THE SHIPPING ACT, 1987

TO:__________________________________________________________
RE:__________________________________________________________

You are hereby notified that the Minister of Works, Infrastructure and Decentralization has appointed the undersigned_________________________________________ to conduct a preliminary inquiry into the circumstances surrounding the ________________.

You are further notified that the inquiry will commence at____0:clock in the______ on _________the______day of_________19___ at__________________________ and that you are required to attend for the purpose of being examined and give evidence on matters within your knowledge pertaining to the casualty. You are also commanded to bring with you and there produce_______
__________________________________________________________ and any other document that may have a bearing on the case.

Dated at _______________this_____day of ___________,19__.

Investigating Officer
Division of Maritime Services./4/
A witness must have the right to counsel during the course of giving evidence. The said counsel could be permitted to ask questions critical to the safety purpose of the investigation. The investigating officer is to ensure that the counsel does not disrupt the proceedings and that matters with respect to safety are addressed at all times. Provision must be made for the above in law.

The investigating officer may administer oaths prior to the taking of testimony. In the event that an oath is to be administered it may take the following form:

"I __________ do solemnly swear by Almighty God that the evidence I shall give shall be the truth, the whole truth and nothing but the truth." /5/

Should the witness object on religious grounds then he may require the witness to make and subscribe a declaration of the truth of the statements made by him in the course of his examination. Section 371 (1) (e) of Appendix 1 refers. The statements and declarations of witnesses must be treated with a high degree of confidentiality.

The investigator may use a shipping casualty inquiry form to guide him in questioning the witnesses. This form should be developed by the Division and made available to all the investigators. In this connection, questions should be designed in a simple manner which will generate information.
Apart from oral responses to questions the investigator must:

1. encourage the witnesses to draw diagrams to illustrate any point - as appropriate and

2. take note of all signs of non-verbal communication.

A firm principle during the interview is that "nothing should be assumed when questioning a witness; assumptions can result in failure to obtain vital facts." /6/

The investigator must be able to separate facts from opinion and eyewitness statements from hearsay testimony. He must also carefully assess the credibility of all witnesses.

The testimony of the witnesses may be tape-recorded. The said recording is to be used only as an aide memoire to the investigator during the course of writing his report. Each witness should be given a copy of his statement. This may assist him to recall additional information on reflection.

The investigating officer must ensure that he has adequate data on the witness from which he may be able to contact the witness at a future date. He must also provide the witness with information based on which, should it be necessary, the witness may contact the Division at a future date.

Prior to the end of the interview the investigator should ask the witness if there is any further data he would like to provide. In the end the interview is to be closed by
the investigator thanking the witness.

5.11 EXAMINATION OF THE PHYSICAL EVIDENCE

Whenever it is possible a survey of the site and of all physical evidence is to be undertaken. The investigator is to make comprehensive visual records by means of photographs. Thus within the Division there must be a photobank for the storage of photographs and negatives.

The examination of physical evidence includes analysing all relevant documents. These documents may include:

1. bunker particulars
2. the Bridge movement book
3. the Cargo manifest
4. the Cargo storage plan
5. certificates
6. charts
7. the Charter party
8. course recorder tracer
9. crew list
10. deck log
11. echo sounder tracer
12. engine room log
13. passenger list
14. radio log
15. stability data
16. standing orders

It is recommended that where the documents cannot be retained by the officer adequate certified copies are to be obtained.

The investigator may have to utilize the assistance of divers to gather evidence from underwater. Thus expertise in the field of diving must be known to the Division.

The officer is to determine the items to be preserved and carefully take necessary samples, if possible in the presence of the master of the ship or in the presence of a
responsible person designated by either the owner, master or agent. One should record the nature of the evidence, the location from where it was taken, the date and time of taking same, by whom taken, the witness to it being taken; and thereafter properly tag and secure same. In addition, the witness to the evidence being so taken must make and sign a statement - as proof of being present when the evidence was taken.

There must be an area at the office of the Division for the secure storage of the physical evidence. The said evidence may have to be sent to a laboratory for analysis. In this connection the movement of all evidence is to be monitored. Adequate records must be kept!

5.12 THE REPORT
Having conducted the interviews and made the necessary examinations of the physical evidence, the investigating officer has to review the data, do a comprehensive analysis of it and thereafter prepare a report. This is a most important part of his work /7/. The timely submission of reports will maximize their impact on safety.

The report should be given a title which clearly indicates the casualty being addressed inclusive of the location at which it took place, the date on which it took place and a specific code number. A statement is then to be made as to the Authority under which the preliminary inquiry was conducted.

The report could then consist of the following sections:-
SECTION 1 - A SUMMARY
This should give a brief outline of the nature of the casualty, the conclusion and the recommendations.

SECTION 2 - A FACTUAL REPORT
This section must contain statements of fact in respect of the casualty and not offer any interpretation of the evidence. It should highlight particulars of the ship(s) involved and provide a narrative of events. The narrative should give a detailed account of circumstances leading to the casualty, the casualty, the events following the casualty and the outcome of the casualty. It should contain the sources of facts and the data derived from any examination of the physical evidence.

SECTION 3 - ANALYSIS
Based on a thorough analysis, the investigating officer is to give his comments on the evidence, inclusive of comments on the reliability of the evidence obtained.

SECTION 4 - CONCLUSION
The investigating officer is to indicate the cause or most probable cause of the casualty (if neither can be deduced he must state so).

SECTION 5 - RECOMMENDATIONS
The investigating officer is to suggest the action(s) if any which should be taken to address the casualty, the steps to be taken to prevent a similar casualty from happening and whether a formal investigation is deemed necessary.
It must be appreciated that when making recommendations one must consider both the social environment on which they are to have an impact and the economic reality of same. This will ensure that the recommendations are practical. One may even have to suggest a phased implementation of the recommendations.

SECTION 6 - APPENDICES
This section is to contain all supporting documents inclusive of the following as appropriate:

1. cargo details  
2. charts  
3. crew list  
4. passenger list  
5. log extracts  
6. photographs  
7. plans of the ship(s)  
8. press cuttings  
9. records of equipment  
10. statutory certificates  
11. statements  
12. weather reports

In addition to the said report and any daily progress reports; the investigating officer may have to prepare an interim report depending on the casualty. This may be required in respect of casualties:

1. in which loss of life has occurred,  
2. which have an adverse effect on the national economy,  
3. in which there is a great amount of public concern,  
4. which have resulted in grave criticisms of any agency of the State.
It is stated in law that the person holding the preliminary inquiry is to send his report to the Minister (Appendix I section 371 (2) refers.) This is to be encouraged as long as the Division of Maritime Services has the necessary expertise to perform an adequate job. Given the nature of the civil service it is quite possible, however, that the report will travel a somewhat longer route to its destination. It may be sent to the Principal Surveyor then to the Deputy Director then to the Director then to the Permanent Secretary and finally to the Minister.

Notwithstanding the above, the report of the investigator must be respected as an independent report which is not to be altered. Thus, in the event that comments are to be made by any party, the said comments are to be made on a separate document and submitted to the senior person en-route to the Minister.

The Minister will then decide on the further action to be taken. Accordingly, the Minister must be sensitized to the importance of the document before him.

It is crucial that the Minister gives early consideration to the implementation of the recommendations by the Division of Maritime Services. It is also critical that he gives early consideration to the distribution of data from the reports.
5.13 DISTRIBUTION OF THE REPORT

It is very important that lessons learned from shipping casualties be shared with all in the maritime sector on a worldwide basis in order to avoid the occurrence of a similar casualty. In this context it is suggested that the Minister approves the publication and distribution of summaries of the reports as long as they highlight the facts without ascribing statements to witnesses and provide recommendations which promote safety without ascribing blame to anyone.

The Division of Maritime Services must have a mailing list with respect to the distribution of such reports. This list should include at least all areas in the national maritime sector, inclusive of designers of ships, shipbuilders, equipment manufacturers, shipowners, training institutions, and unions. It should also include the media, the investigating agencies of the Governments of the region and the International Maritime Organization. Thus the message of due care will be spread throughout the maritime sector.

REFERENCES AND NOTES


/2/. Accident Investigation - A New Approach - National Safety Council - Chicago, 1983; p. 3. These qualities are stated as necessary for members of an accident investigation team.
This is based on the formats used in respect of:-

a) The Commissions of Enquiry Act Chapter 19:01 - Laws of Trinidad and Tobago - Authorized by L.R.O. - 1/1980; and


Op. cit. at /3/.


This feature of the investigation is so important that the Marine Casualty Investigations Division of Transport Canada is in the process of preparing a "Report Writing Manual on Shipping Casualties and/or Accidents on Board Ship."

CHAPTER SIX

THE FORMAL INVESTIGATION

6.1 THE PURPOSE

A formal investigation is a public inquiry. It is to be held under the authority of Part XIX of the Shipping Act, 1987 at the discretion of the Minister. It may be held as a result of a preliminary inquiry. (Appendix I refers).

It is to be noted that the formal investigation is to be held by a Wreck Commissioner who may be assisted by an assessor or assessors and that these parties are all to be appointed by the Minister. This body of personnel may be deemed a Court or a Commission.

In this regard it is good practice to have a counsel appointed to the Commission (Commission Counsel) by the Minister. The Commission Counsel although appointed by the Minister is to represent "the public interest by ensuring that all the relevant facts are presented to the court for its consideration." /1/

A formal investigation is held under circumstances such as when:

1. there is a need to establish the cause(s) of a shipping casualty and in so doing the same is publicized as a means of preventing the occurrence of a similar casualty,

2. it is necessary to provide more information with regard to the cause(s) of a casualty as opposed to
the data obtained during the course of a preliminary inquiry,

3. the casualty involved loss of life or serious damage to property,

4. the casualty attracted considerable public interest and there is need to restore public confidence in shipping as a mode of transport,

5. there is an indication that there may be an issue of default and/or negligence on the part of a master or officer,

6. there is need to address the fitness of a master, mate or engineer to discharge his duties and one's certificate or licence may have to be revoked.

6.2 THE ROLE OF THE ADMINISTRATION

The role of the Division of Maritime Services at a formal investigation depends on the extent to which the Division itself is the subject of investigation. In the event that the Division is not in any way subject to investigation it is to assist in the following manner: inter alia:

1. assign an officer of the Division to provide assistance as required by the Commission,

2. arrange through the Ministry of Justice and National Security for the nomination of a person to be appointed as a Wreck Commissioner,

3. establish the panel of assessors,
4. arrange through the Ministry of Justice and National Security for the nomination of a lawyer (preferably with legal experience in maritime matters) to act as Commission Counsel,

5. prepare documentation for the appointments of the Wreck Commissioner, the assessor(s) and the Commission Counsel, to be signed by the Minister,

6. prepare letters to each of the above parties advising them as to who are the members of the Commission,

7. advise the Commission as to the facts already obtained inclusive of providing all relevant documentation — the Commission having the responsibility of assessing and verifying such advice/documentation,

8. stress to the Commission that the investigation is not to be used by any party for discovery purposes with regard to civil litigation or criminal litigation,

9. assist in the preparation of the notice of investigation, the statement of the case and the questions for the opinion of the Commission,

10. arrange for court reporting services,

11. prepare a list of witnesses,

12. arrange for the attendance of witnesses,
13. arrange for interpreters as required,

14. arrange for the attendance of expert witnesses,

15. arrange for the Commission to visit any relevant area and/or facility inclusive of the ship.

The officer of the Division should keep Headquarters informed of progress being made at the investigation.

When the Division is in any way subject to investigation with respect to a shipping casualty, it must co-operate in every way with the Commission with respect to the provision of all available data. The Commission, however, must be and must be seen to be functioning independent of the Division, amongst other things, in terms of its approach to the investigation.

Thus any assistance the Commission requires, for example, in terms of technical advice, must be sought from outside the Division. In addition, an independent secretary/clerk to the Commission will have to be appointed whose duty it will be to meet the administrative requirements of the Commission.

6.3 CONDUCTING AN INVESTIGATION

To facilitate the conducting of an investigation under either of the above scenarios regulations would be great assets. The benefits of having regulations have been discussed earlier.

It is noted that the Act makes provision for a Wreck Commissioner to conduct the investigation in accordance
with any regulations which may be made by the Minister and for any rehearing of same to be conducted in accordance with regulations made by the Minister. (Appendix I refers). On the other hand provision is made for Wreck Commissioners to "make such rules for their own guidance, and the conduct and management of proceedings before them, and the hours and times and places for their sittings not inconsistent with their commission, as they may from time to time think fit, and may, from time to time adjourn for such time and to such place as they may think fit, subject only to the terms of their commission." This arrangement is a basis for potential conflict.

Given that one is addressing a State responsibility with respect to safer shipping and the need for adequate and consistent standards; it is necessary for the State to take the initiative in setting standards. Regulations should therefore be made by the Minister with due consultation with the maritime sector inclusive of the Division of Maritime Services and with the Ministry of Justice and National Security. The same are to be under constant review and improved over time as necessary.

Having regard to the benefits of establishing regulations the undermentioned guidelines are worthy of note:-

GUIDELINES FOR THE CONDUCTING OF FORMAL INVESTIGATIONS

NOTIFICATION OF INVESTIGATION AND PARTIES TO THE INVESTIGATION

1. When the Minister causes a formal investigation to be held a Wreck Commission is to be formed. This is to comprise of the Wreck Commissioner who will be the presiding officer, the necessary assessor(s) and a
counsel (Commission Counsel) who are to be appointed by the Minister. Figures 6.1 and 6.2 can serve as guides in this respect.

**FIGURE 6.1**


TO: ____________________________________________________________

RE: ____________________________________________________________

You are hereby advised that in accordance with Section 372 of the Shipping Act, 1987 of the Republic of Trinidad and Tobago, you, __________________________ have been appointed as the Wreck Commissioner to conduct the Formal Investigation with respect to the shipping casualty:

_____________________________________________________________

_____________________________________________________________

Dated this ___day of _______19_____.

Minister of Works,
Infrastructure and Decentralization.
TO: ____________________________________________

RE: ____________________________________________

You are hereby advised that in accordance with Section 372 of the Shipping Act, 1987 of the Republic of Trinidad and Tobago, you, ____________________________, have been appointed as an assessor in the formal investigation with respect to the shipping casualty: ____________________________

Dated this _____ day of ___________ 19___.

Minister of Works,
Infrastructure and Decentralization. (WID)
2. As necessary the Commission is to be supported by personnel from the Division of Maritime Services, expert witnesses, a secretary/clerk to the Commission and interpreters.

3. Each person re 1. and 2. above is to take an oath or make a solemn affirmation with respect to the professional performance of his duties.

4. The Wreck Commissioner shall cause a "notice of investigation" to be served on any person (including personnel from the Division of Maritime Services), who in his opinion ought to be a party to the formal investigation. The said person shall be a party to the formal investigation.

5. The notice of investigation shall contain:
   a) the date, time and place of the investigation, and
   b) when applicable - a request to produce documents that may be useful in the investigation and attached to the Notice there is to be:
      i) a statement of the facts giving rise to the formal investigation and
      ii) a statement of the questions or issues to be addressed.

   Figure 6.3 provides a guide in this regard.

6. As far as practicable the notice shall be served at least thirty (30) days before the formal investigation commences.
FIGURE 6.3
THE SHIPPING ACT, 1987 OF THE REPUBLIC OF TRINIDAD AND TOBAGO
NOTICE OF INVESTIGATION INTO A SHIPPING CASUALTY /3/

TO: ____________________________________________

RE: ____________________________________________

Notice is hereby given that the Minister (responsible for maritime transport) has ordered a formal investigation to be held into the circumstance attending the shipping casualty: ____________________________ on ______ and that attached hereto is a copy of the statement of the case upon which the said investigation has been ordered.

You are also given notice that based on the information obtained by the Minister, the questions and/or issues on the statement annexed hereto, are those upon which it is proposed to obtain the decisions or recommendations of the Commission and that the questions and/or issues may be subject to change.

Notice is also given for you to be a party to the investigation and to produce to the Commission: ____________________________ and any other document relevant to this case which may be in your possession.

Dated this ___ day of _______19__

Wreck Commissioner.
7. The notice is to be served either personally or by registered post service to the person's last known address.

8. If it appears that the conduct of any person will be in issue, then the Wreck Commissioner shall cause that person to be so notified.

9. Any person who is not party to the formal investigation may become a party to the investigation with the approval of the Wreck Commissioner. The application for such approval should be accompanied by an affidavit, outlining the nature of the evidence that the person deems necessary to bring to the attention of the Commission.

10. Each party has the right to be represented by an attorney of his choice.

EVIDENCE AND PROCEDURE

1. Unless the Wreck Commissioner considers them unjust:- affidavits and other documents may be used as evidence.

2. A party may give another party notice in writing to admit any document and in case of disregard or defiance to admit after such notice, the party so disregarding or defying shall be liable for all the cost of obtaining same unless the Wreck Commissioner is of the opinion that the refusal to admit was justifiable.

3. The Wreck Commissioner may hold a preparatory meeting before the commencement of the formal investigation, at which any course as to procedure may be established.
4. The investigation is to proceed on the date set aside for its commencement whether the parties notified are present or not — as long as the Wreck Commissioner is satisfied that the necessary notices have been served.

5. The investigation shall be held in public, except when the Wreck Commissioner is of the opinion that in the interest of justice or in the public interest any part of the evidence should be dealt with in private.

6. Each party is bound to appear in person at the formal investigation unless the Wreck Commission grants that party a leave of absence for reasons which should be outlined to the Commission in writing by the party applying for the leave of absence. In this regard representations may be made by the party in writing to the Wreck Commissioner and are to be read out by the Commissioner at the formal investigation.

7. During the proceedings there may be the issuance of summons to witnesses and/or the issuance of summons to present documents or other evidence.

8. The formal investigation shall commence with an opening statement by the Commission Counsel inclusive of an indication of:

   a) the statement of the case and

   b) a statement of the questions or issues to be addressed indicating that these may be subject to change during the proceedings.
9. Documentary evidence is to be adduced in the order directed by the Wreck Commissioner.

10. The witnesses should then be called. The fact witnesses should be examined first. They should be excluded from the hearing room while any other fact witness is testifying. The expert witnesses - if any - should be examined last. They should be present throughout the proceedings. Each witness is to take an oath or make a solemn affirmation as to the truth of his testimony. Given that witnesses may be recalled, they must be cautioned by the Wreck Commissioner not to discuss their testimony with other witnesses or third parties and as far as practicable are to be kept separated from each other.

11. The first set of witnesses will be those called by the Commission Counsel. They are to be examined by the Commission Counsel and then may be cross examined by the parties in such order as the Wreck Commissioner may direct. Then the said the witnesses may be re-examined by the Commission Counsel.

12. In the order directed by the Wreck Commissioner, the parties to the investigation shall be entitled to call witnesses and examine them. The same can be cross examined by the Commission Counsel.

13. Thereafter, the introduction of further evidence or the calling of additional witnesses or the recalling of witnesses is to be permitted at the discretion of the Wreck Commissioner.
14. If substantial criticism has been made against any person during the investigation the said person shall have an opportunity to make a defence either in person or otherwise.

15. After evidence has been taken, parties may address the Commission in such order as the Wreck Commissioner directs. Then the Commission Counsel may address the Commission in reply upon the entire case.

16. At the discretion of the Wreck Commissioner, an officer of whose conduct substantial criticism has been made during the formal investigation may be asked or allowed to make a final statement as to why, in the event of a finding that his conduct caused or contributed to the casualty, his certificate of competency or license should not be cancelled or suspended, or as to why he should not be penalized.

ADJOURNMENT

The formal investigation may be adjourned by the Wreck Commissioner from time to time and from place to place. In the event that an adjournment is asked for by any party the said party must state the reason(s) for requesting the adjournment. The Wreck Commissioner is to decide on whether to grant the adjournment and should the granting of such adjournment lead to the incurring of any cost, the Wreck Commissioner is to indicate the conditions as to payment of the cost.
RESULT OF THE FORMAL INVESTIGATION

At the end of the investigation the Wreck Commissioner shall:-

a) in proceedings where an officer’s certificate or license is cancelled or is suspended, give the decision concerning the certificate or license and a summary of the findings in public; and

b) whether or not a certificate or license is in issue, give a summary of the findings in public and make a comprehensive report to the Minister.

REPORT

The report should highlight inter alia:-

1. the circumstances of the case,

2. the conduct of persons implicated,

3. the findings of the Commission re: the casualty or any matter relating thereto,

4. the Commission’s opinion as to the cause(s) of the casualty,

5. recommendations inclusive of whether the certificate or license of any officer is to be suspended or cancelled and the reasons for such suspension or cancellation.

Attached to the report should be inter alia:-

1. a list of the parties,
2. a list of the witnesses,

3. a list of exhibits, and

4. any significant documentary evidence.

It must be signed by the Wreck Commissioner. Each assessor shall either sign the report with or without reservation, or indicate in writing his disagreement with the contents of the report (or parts thereof). The same shall be submitted to the Minister with the report.

Each party to the investigation shall receive a copy of the report unless it is against the interest of justice or the public interest.

COST OF FORMAL INVESTIGATION
The Wreck Commissioner shall make an order for any necessary cost to be paid and shall state in a report the reasons for making such an order.

RE-HEARING
Any re-hearing of a formal investigation pursuant to Section 376 of the Shipping Act, 1987 should be conducted in accordance with the aforementioned guidelines.

An affected party may apply to the Minister for a re-hearing within 30 days of the Commission's decision. Where the Minister does not accede to the request he must give his reasons in writing. Copies of such a document should be sent to the members of the Commission who conducted the investigation, the party applying for the
re-hearing and the Division Of Maritime Services.

APPEAL
In keeping with Section 377 of the Shipping Act, 1987 an appeal may be taken to the High Court.

6.4 HEARING RE: FITNESS OR CONDUCT
This is a hearing specially convened to determine whether any master, or mate or engineer who holds a certificate or license should be censured or whether his certificate or license should be suspended or revoked. It takes the form of a formal investigation and may be convened as long as:

1. there is a question as to whether an officer is unfit to discharge his duties,

2. an officer has been seriously negligent in the discharge of his duties,

3. an officer has failed to provide assistance in the case of a collision or in the case of a vessel being in distress,

4. there is abuse of any signal of distress or urgency on a ship.

Provision is made for this in Section 375 of the Shipping Act, 1987. (Appendix I refers). In the context of this thesis, one is concerned with such a hearing when it results from a shipping casualty.
6.5 DISTRIBUTION OF THE REPORT

On receiving the report from the formal investigation, the Minister is to direct that action be taken by the Division of Maritime Services to study the recommendations and as far as practicable, undertake the implementation of same. The report is also to be distributed throughout the maritime sector (national, regional and international) in keeping with a mailing list established by the Division as long as it is not against the interest of justice or the public interest.

This is a good criteria to use in distributing such reports. It is suggested that the same be applied in respect of formal investigations re:- fitness or conduct as per Section 375 of the Act. (Appendix I refers.)

REFERENCES AND NOTES


One also noted the comments made with respect to the need for the appointment of a counsel to the tribunal and not on behalf of the Secretary of State as recorded in M.V. Herald of Free Enterprise - Report of Court no. 8074 - Formal Investigation - London, Her Majesty's Stationery Office - Third Impression, p.60.
The guidelines are based on:

a) a study of the Merchant Shipping (Formal Investigation) Rules 1965 no.1001 of the United Kingdom,

b) a study of the comments made with respect to appointing a counsel to the tribunal, independent of the Secretary of State - as recorded in M. V. Herald of Free Enterprise - Report of Court no. 8074 - Formal Investigation - London, Her Majesty's Stationery Office - Third Impression p.60.

c) a study of:
   i) the Shipping Inquires and Investigation Rules - Chapter 1479 of the Canada Shipping Act, Ottawa, 1978;
   
   ii) Shipping Inquires and Investigation Rules, amendment - 28, October 1982 C.S.A - Canada Gazette Part 11 vol.116 no.21, Ottawa, 1982 and

   iii) Shipping Inquires and Investigation Rules, amendment - 6, March 1985 - C.S.A. - Canada Gazette part 11 vol.120 no. 6, Ottawa, 1986.

d) Lectures at the World Maritime University, during the period May 15-19, 1989 by Dr. Frank Wiswall Jr. on the legal aspects of marine casualty investigations.

They are designed to provide a measure of guidance.
re: a procedure which could be embraced within regulations to be followed.

/3/. This form is based on:-

   a) Form 266 of the Atkins Encyclopedia of Court Forms in Civil Proceedings; volume three, second edition, Butterworths, 1969, and

   b) Schedule 1 of the Canada Shipping Act - Chapter 1479 - Shipping Inquires and Investigation Rules, Queens Printer for Canada, Ottawa, 1978.
CHAPTER SEVEN

IMPLEMENTATION OF THE RECOMMENDATIONS; REVIEWING THE SYSTEM AND COMPUTERIZATION

7.1 IMPLEMENTATION OF THE RECOMMENDATIONS

The effective implementation of the recommendations which emanate from an investigation into a shipping casualty is critical. This in fact determines whether one's efforts to prevent the occurrence of a similar casualty will be successful. Thus on receiving the report, the Minister should direct that action be taken by the Division of Maritime Services to study the recommendations and as far as practicable, undertake the implementation of same.

The Division is to ensure that when necessary, warnings and/or notices to mariners are issued. These may be issued via the North Post Radio station, circulars to the maritime sector, the Gazette and the news media.

The distribution of reports (or pertinent parts thereof) is crucial as it allows members of the maritime sector the opportunity of getting a better appreciation of the shipping casualty. This information should be supplemented when necessary and possible by further communication with the public in general and the shipping sector in particular. This is to be done in order to facilitate an appreciation of the recommendations and to generate the necessary support for them. It will also provide feedback from the sector as to which recommendations should be or could be pursued.
The implementation of recommendations thus requires the functioning of a professional, respected and active Division. It may also require the support of many agencies for example, the Trinidad and Tobago Coast Guard, the Customs and Excise Division, the news media and that of the industry as a whole. Thus the Division must be able to generate the necessary support to achieve the desired goal of preventing the occurrence of a similar casualty.

In its follow-up action the Division is to ensure that the institutions to which the recommendations for action are submitted indicate the degree to which recommendations have been implemented and properly account for the non-implementation of any of the recommendations or aspects thereof. In addition, in the event that it is pointed out and accepted that a recommendation is inappropriate, it must be reviewed and modified by the Division as necessary.

In the situation where the investigation has led to the recommendation of improved standards, putting these standards into effect cannot be done adequately by Trinidad and Tobago alone. A great measure of regional support is needed.

This is a fact because if one country in the Caribbean sets standards which are comparatively much higher than those in force in the other countries of the region, the possibility exists that the said country can notice a decline of its shipping activities and an increase in the shipping activities of its neighbours. Thus in the interest of safety at sea there must be support for adequate standards at a regional level.
A co-ordinated approach to investigations would lead to a co-ordinated approach to the implementation of recommendations. One way of achieving this is via a Regional Shipping Casualty Investigation Board. Such an approach to casualty investigations would have benefits not only in terms of the implementation of recommendations but would also lead to a maximization of the scarce resources within the Caribbean region.

The creation of such a Board will surely be a positive move as long as there is the necessary commitment on the part of the States of the region. Given the differences in the stages of development of the legal basis for investigations in the countries of the region and the history of regional institutions; the creation of such a Board must be seen as a long term goal to be approached with the utmost of caution. In the circumstances, the Division of Maritime Services would have to approach its Caribbean neighbours and generate the required support for the implementation of critical recommendations. Alternatively, efforts could be made by the Division to establish a regional memorandum of understanding with respect to the execution of recommendations.

In the wider international context, the Division must monitor recommendations emanating from different States and implement same as relevant. It must also co-operate as far as possible with all States in the implementation of recommendations which will definitely enhance the safety dimension of the shipping sector.
7.2 REVIEWING THE SYSTEM

The conducting of a preliminary inquiry and/or a formal investigation must be done in an impartial and objective manner. It is imperative that the system of investigating shipping casualties is one in which the scope for any conflict of interest is eradicated.

Conflicts of interest may arise in situations where for example the casualty raises questions about any or all of the following:

1. a policy of the Division,

2. the nature of the enforcement of regulations by the Division,

3. the actions of members of the Division,

and the investigation is to be conducted by members of the said Division. One must be aware of the potential for such conflicts and be prepared to deal with them.

A suggestion would be to establish an independent unit to conduct investigations into shipping casualties. This is at present the situation in Canada where there is an independent Marine Casualties Investigation Division and is to prevail in the United Kingdom with the establishment of the Marine Accident Investigation Branch. In Trinidad and Tobago, given the current stage of development of maritime administration and the scarcity of funds, the creation of an independent unit can only be supported when there is the need for same as a result of the fact that the approved organization currently being established, is
proven inadequate and when the resources to do so are available.

As indicated earlier, the investigating unit within the Division must be of the highest integrity. This feature will ensure that objectivity is maintained in all preliminary inquiries.

In addition, the system provides for the undertaking of formal investigations which allows for an independent and objective investigation. This may also be resorted to whenever it is perceived that there may be an element of conflict of interest should the Division conduct the inquiry.

It must be noted that the system of formal investigation also allows for a further degree of objectivity in that provision is made in law for an appeal to the High Court based on the decision of a formal investigation. This is provided for at Section 377 of the Shipping Act, 1987. (Appendix I refers).

The system of investigating shipping casualties must nonetheless always be under review with the objective of improving it. A review should be undertaken by the Division of Maritime Services at least once a year and at regular intervals by parties independent of the Division.

In this regard, an assessment has to be made of such factors as the extent to which:

1. the procedures, personnel and equipment are adequate to achieve the goals of the Division,
2. all resources are being effectively and efficiently utilised,

3. recommendations have been implemented, and

4. the system has assisted in reducing the rate of shipping casualties.

Thereafter all necessary suggestions for improvement must be made. These must then be reported to the Minister for relevant action.

7.3 COMPUTERIZATION

The Division of Maritime Services must be in a position to undertake its responsibilities in a systematic manner. A computer system can assist in this respect.

There is need for an adequate data base with respect to shipping casualties and shipping casualty investigations. This can be developed with the assistance of a computer system. In this context, the reports one gets on casualties can serve as the basis for the creation of a core data base.

The data base should comprise of the following inter alia:-

1. the procedure which one may use in guiding the conduct of an investigation,

2. sources of equipment needed to assist in conducting an investigation,

3. the list of experts,
4. the list of interpreters,

5. sources of training with respect to the conducting of investigations highlighting such factors as time and place,

6. casualties - general information

7. results of investigations, and

8. statements on the progress with respect to the implementation of recommendations.

In terms of casualties, information could be collated by categories for example by: nationality of the ship; type of ship; size of the ship; age of the ship; nature of the casualty; location of the casualty; and the month and/or year in which the casualty occurred. It is imperative that data collected on casualties be updated and analysed.

One can also use a computer system to produce reports, for example, statistical reports highlighting such facts as the amount of lives lost; ships lost; tonnage lost and the value of assets damaged or lost. This may be placed in a national, regional or international context.

Such data would allow one to keep track of the safety record of a ship; detect trends; make an assessment of risk, forecast and make recommendations. Additionally, if one knows the type of casualty one could use data from a past casualty investigation to guide one's current investigation as relevant.
The computer system can also be used to produce forms for example those used to report a shipping casualty, summons, and those for appointing someone to undertake an investigation. Standard software like D-base, fox base, or lotus 1-2-3 may be used to manage such a data base.

Some of the data gathered during an investigation may be confidential. This data can be securely stored via the use of a computerised system which only allows persons who have the required code to have access to the data.

Computer systems may also be used to assist in the performance of complex tasks. These include functions such as simulations, metal analysis and stability analysis. It may not be feasible for the Division to acquire such technology in the short term. It is however essential that the Division establishes access to same so that in time of need the means to perform the task would be available.

The officers of the investigating unit have to keep abreast of changes in the application of computer technology to shipping casualty investigations. One never knows when one may need such technology to find out the cause(s) of a casualty. /1/

Computer linkages between the Division and other State agencies with responsibility for different areas in the maritime sector would lead to the development of an information network. Given the speed and reliability of computers, data will be readily provided on request. Such a network may be developed over the long term as necessary.
Given the benefits to be derived from the use of computer systems, the Division in conjunction with the National Computer Agency (which is the major Agency responsible for computerization in the public service) should take steps to put a computerised system in place. The system would be of benefit not only to the Surveys, Inspection and Examination Section but to the entire Division.

REFERENCES AND NOTES
/1/. See:— "Salvage Association Program is used to spot fraudulent claims." - Lloyd's Ship Manager - Shipping News International; The International Business Monthly for Vessel Management, Technology and Operations - Volume 8 no. 12 - Lloyd's Press Ltd. - March 1988 P. 19. The Salvage Association has a specially designed program - the progressive flooding program - which the principal naval architect of the Association indicated "had the potential to solve problems similar to the EUROPEAN GATEWAY collision and capsizing, calculating the rate of flooding and leading to recommendations concerning ro-ro design."
 CHAPTER EIGHT

EDUCATION, TRAINING AND PUBLIC AWARENESS

8.1 EDUCATION AND TRAINING IN THE MARITIME FIELD IN TRINIDAD AND TOBAGO

It is noted in the Shipping Act, 1987 that the Minister to whom responsibility for shipping is assigned may make regulations for:-

1. the operation of maritime training schools,

2. the training and qualification of officers, seamen and fishermen, and

3. certificates of competency and licenses.

The Minister with such responsibility at present is the Minister of Works, Infrastructure and Decentralization. Thus the Ministry under his portfolio is to be a major Organization in the promotion of maritime education and training. (Appendix IA refers).

In its effort to develop the maritime sector through training, note must be taken of the role of the Caribbean Fisheries Training and Development Institute (CFTDI) facility for training. This institute at which training commenced in 1974 is geared towards providing training for the fisheries sector. It receives active support from such organizations as the Trinidad and Tobago Coast Guard and the Fire Services.
Classes are conducted in such areas as Coastal Navigation and General Seamanship, Marine Safety and Marine Fire Fighting. The Coastal Navigation and General Seamanship course addresses the following subjects:- Law Of The Sea, Trinidad and Tobago as an archipelagic State, instruments, introduction to charts, general ship knowledge, rules of the road, first aid, ship maintenance, ship master's business and fishing as a business.

While the course in Maritime Safety deals with such matters as:- emergency planning, launching and recovery of lifeboats, lifeboat radio and emergency position indicating radio beacons, lifeboat sailing and the use of survival suits. On the other hand, the Marine Fire Fighting Course focuses on such matters as the theory of fire; fire detection systems and fire fighting.

While many Organizations conduct in-house and/or on the job training, maritime training and education is complemented by attendance at institutions abroad. In this regard, a key institution in the Caribbean at which maritime training is obtained is the Jamaica Maritime Training Institute (JMTI) which provides training for merchant marine officers, which meets international standards. In addition, courses have been carried out at the institute with respect to training:- for apprentice pilots, for fishermen, for hydrographic surveyors, and in the handling of dangerous goods in port and in power barge operations.
8.2 EDUCATION AND TRAINING FOR THE UNDERTAKING OF INVESTIGATIONS INTO SHIPPING CASUALTIES

Given the above overview, one now turns to the issue of education and training for the conducting of investigations into shipping casualties. This is addressed in the context of training being an on-going exercise in keeping with the qualifications and experience of the investigating officers of the Division.

Training must be seen as a crucial component of the efficiency of the organization. It can be a means of orienting the new investigating officers to the organization and their jobs, improving the performance of existing investigators in their jobs and preparing investigators for new experiences.

It is necessary that investigators keep abreast of changes which impact on the nature of an investigation /1/. These may be changes in laws, Conventions and/or the very technology utilised in shipping. It is noted that new technology exerts a continuous need for employee training and retraining./2/

Having regard to the qualifications and experience of the investigating officers and/or any changes affecting the shipping industry, there may be the need for training in a particular area. This necessitates that adequate action be taken to enhance the qualifications and expertise of the officers of the investigating unit to the benefit of the maritime community. Hence it is imperative that a training policy with respect to the conducting of investigations into shipping casualties be developed by the Division of Maritime Services. All efforts must be made to have an
In this context, some of the areas in which there may be need for training are as follows:

1. an understanding of the law governing investigations into shipping casualties: the law is the heart of the system and must be interpreted adequately; it must be appreciated that the law is a relatively new law hence if it is perceived that there is need for any guidance as to its interpretation and application - efforts should be made to address this;

2. a detailed comprehension of the system of conducting investigations into shipping casualties as required by the Division of Maritime Services in the pursuit of a high standard of investigation;

3. an appreciation of the international Conventions and standards which relate to the conducting of investigations;

4. the development of communication skills and/or interview techniques: this goes a long way in assisting in obtaining adequate results from one’s investigation;

5. public relations: the ability of an investigator to deal with the public in general and the news media in particular is an asset to the smooth conducting of an investigation;
6. psychology: it must be appreciated that "because the causes of marine accidents are predominantly related to human performance, accident investigators need special training in psychological disciplines in order to determine the relevance of various human factors to the cause." /3/

7. photography: this must be seen as an art in itself and one in which progress is continuously being made - the investigating officer may need training in this area given its critical role in the data collecting phase of an investigation;

8. writing: a standard has to be established for the manner in which reports are presented: investigating officers may have to be guided in their approach to writing a report, for example, it must be borne in mind that although technical details are necessary, data must be expressed (as far as possible) in such a way that most people may be able to understand the essentials of the report - in addition, there must be the consistent use of concepts/terminologies;

9. the application of computer technology to investigations: In the long run there will be greater use of computers to assist investigators, thus keeping abreast of computer technology is important. In the short and medium term even though the Division may not possess advanced computers it is critical that the investigating officer of the Division is able to assess the results and comments from analysis done by organizations on behalf of the Division. One must never forget that in the final
analysis the responsibility for the investigation is that of the Division.

10. technical - It is a fact that if one's training in a particular area is not utilised, over time one's skill may deteriorate and retraining will be necessary. In addition, refresher courses may have to be undertaken in order to keep abreast of changes in technology.

Educational needs can be met to some extent via a library at the Division of Maritime Services, at which inter alia, data on the aforementioned areas inclusive of information on shipping casualties, shipping casualty investigations and the promotion of safety at sea is readily available. This would include the reports from investigations into shipping casualties conducted in other countries. The onus is on the investigator to study such data and thereby keep himself abreast of such issues as approaches to investigations and means of promoting safer shipping.

There must be a policy at the library to ensure that as far as possible data on shipping casualties is brought to the attention of the investigating unit. This may be done via a circular to the unit informing of same.

Additionally, training must be provided in-house and/or organized at institutions within Trinidad and Tobago. This training could be done by means of short courses which may include workshops. The courses may range from a
few hours to about five days depending on the nature of the subject and if found necessary (as a check on the effectiveness of the training and as a source of motivation) examinations could be conducted and awards made.

Based on the fact that personnel from the Customs and Excise Division conducted investigations, the said Division may be requested to provide guidance in a particular area based on its experience over the years. Some of the other sources which may be approached for assistance include the Ministry responsible for education, the Government Central Training Unit, the Ministry responsible for finance and the International Maritime Organization (IMO).

The investigating officers may also attend courses held by the police service in such areas as interview techniques and the collection and preservation of evidence. They may also attend courses in photography at suitable photography studios.

The training policy should also be designed so as to allow investigating officers to participate in related training abroad. On a regional level, the Division should explore the possibility of utilizing the facilities at CFTDI and/or JMTI for training for the undertaking of investigations into shipping casualties inclusive of the conducting of seminars on the subject. The training must be done based on the requirements of the region.

Should it be found necessary, the Division may seek technical assistance from the IMO. It is to be noted that

-114-
the IMO has published a model course on marine accident and incident investigations which is designed to be used as a guide in the formulation of a training programme. 

Training abroad could also include attending relevant sections of accident investigation courses taught for the aeronautical sector and on the job training via attachments to Administrations. The investigating officer should thereafter prepare a comprehensive report of what he learned with his comments thereon. This can then be circulated for the benefit of all within the investigating unit.

Training is indeed important. It must therefore be appreciated that as long as officers are adequately trained in an area, they must be placed in a position to utilize the skills acquired - failure to do this represents a comprehensive loss to the individual, the sector and the country.

6.3 PUBLIC AWARENESS

It is imperative that the public in general and the maritime sector in particular be aware of the need for constant vigilance in order to ensure that the maritime sector is one in which safety is a key element. In this regard an adequate information system has to be developed. This system should be designed to provide detailed information to the maritime sector, summaries of essential data to the general public and allow for feedback.
The flow of information should cover such areas as:

1. the identification of the Division of Maritime Services as the State agency responsible for investigations into shipping casualties and follow up action thereafter;

2. the definition of a shipping casualty;

3. the impact of shipping casualties;

4. the laws governing investigations into shipping casualties;

5. the international obligations of Trinidad and Tobago with respect to investigations into shipping casualties;

6. the importance of reporting shipping casualties;

7. the system of reporting shipping casualties;

8. the purpose of investigating shipping casualties - with emphasis on the fact that the aim is to find the cause(s) of the casualty with a view to enhancing maritime safety and not that of ascribing blame;

9. the system of investigating shipping casualties;

10. the outcome of investigations inclusive of recommended actions for the prevention of the occurrence of a similar casualty; and
11. recommended actions for the prevention of shipping casualties.

It is thus critical that adequate means of generating public awareness be utilised. This would include:

1. the use of the media,

2. Minister's speeches in such fora as Parliament and the Senate,

3. an annual publication by the Division,

4. warnings to mariners,

5. notices to mariners,

6. bulletins from the Division, and

7. seminars.

Thus a public awareness programme should be developed by the Division of Maritime Services. This is all towards the promotion of safety at sea.

REFERENCES AND NOTES

Register - designed voyage data recorder is a new device which in its "black box" role can provide information on shipping casualties.


/4/. Details are embodied in Model Course 3.11 - Marine Accident and Incident Investigation - The International Maritime Organization, 1988.
It must be concluded that there is a need to ensure that adequate investigations are undertaken into shipping casualties. This need emanates from the fact that responsible Maritime Administrations must be concerned with the protection of people from injury and death, the preservation of the marine environment and the prevention of the depletion of economic resources. Furthermore, Maritime Administrations must meet their international obligations in respect of promoting safer shipping. One effective way of doing this is to conduct proper investigations into casualties and pursue the necessary follow-up actions to prevent similar casualties from occurring.

Part XIX of the Shipping Act, 1967 provides a solid framework on which one must build in order to have in place all crucial legislation to support the conducting of investigations. In this context, it is with a view to enhancing the existing legal base that the undermentioned recommendations are made:

1. the definition of a shipping casualty must embrace a "serious personal injury" as caused by fire on board or by any accident to a ship or ship's boat, or by any accident on board a ship or ship's boat. The notion of such an injury is to be understood to mean any injury which has one incapacitated for 72 hours or more. It must be appreciated that an injury which has such an effect is critical and warrants an
investigation into the related casualty.

2. There must be a provision in law which directs that "near misses" which occur in the waters of Trinidad and Tobago or in which Trinidad and Tobago ships are involved are to be reported and gives an Investigating officer the right to conduct inquiries in cases of such "near misses" when he is of the opinion that lessons would be learned which would prevent a casualty from occurring.

3. In the context of Section 215 of the Shipping Act, 1987, Provision must also be made in law for the reporting of shipping casualties in which Trinidad and Tobago ships are involved in waters in any part of the world and not just for the reporting of casualties occurring in the waters of Trinidad and Tobago.

4. With due consideration to the suggestions made previously, the formulation of shipping casualty reporting regulations inclusive of a comprehensive form on which the report is to be made must be expedited. A model of such a form has been illustrated earlier.

5. Provision should be made in law for an investigating officer to have the authority to issue a notice in writing upon any person involved in a casualty (directly or indirectly) to submit to a medical examination by an appointed medical practitioner.
6. With regard to the system outlined for the conducting of a preliminary inquiry the formulation of regulations for the conducting of such inquiries must be expedited. The regulations should include inter alia the right of a witness to counsel during an inquiry and the right of the investigating officer to have person(s) advising him (for example technical advisers) during the course of an inquiry.

7. Given the need to ensure that formal investigations are conducted adequately, it is imperative that regulations for such investigations be expeditiously formulated. The guidelines incorporated herein should be of assistance in such an exercise.

8. The law should be modified to indicate that reports emanating from formal investigations would be submitted to an affected officer only if doing so is not against the interest of justice or the public interest.

9. The law must remain under constant review and improved over time as necessary.

Based on the contents of this document, the following recommendations are highlighted with a view to assisting in ensuring that investigations into shipping casualties are effectively and efficiently conducted and the related follow-up action taken thereafter:

1. It is crucial that the Division of Maritime Services be expeditiously established. This is the Division
which is to actively administer and implement the Shipping Act, 1987. It must be adequately staffed, properly equipped and put in place suitable systems in order to carry out its many functions inclusive of all responsibilities related to investigations into shipping casualties.

In this connection, within the Division one must be clear at all times as to the role of the Surveys, Inspection and Examination Section with respect to investigations into shipping casualties. This role would embrace the conducting of preliminary inquiries and providing all vital administrative support during formal investigations. These must be done with the objective of finding the cause(s) of the shipping casualty and thereafter taking and/or promoting all practicable action to prevent the occurrence of a similar casualty.

In order to carry out these functions the Division is to be responsible for budgeting annually for such undertakings. This must be done properly in order to justify obtaining allocations from the Ministry of Finance. Having received the necessary funds, the Division is to efficiently manage same.

2. The Division must be provided with all necessary means to assist in carrying out its functions with respect to shipping casualty investigations. Thus it must have inter alia an appropriate working environment inclusive of a photo-bank and a separate area for the storage of evidence.
3. In order to receive essential support and feedback from the public, the Division must undertake the necessary public awareness campaigns. The public in general and the maritime sector in particular need to be aware of the purpose behind the conducting of investigations into shipping casualties, the law regulating same and the system to implement the law. This aspect of reaching out to the people must never be overlooked.

4. It is also vital that notification procedures be established which would guarantee that should a shipping casualty occur, the Division would be quickly alerted.

5. All essential memoranda of understanding must be worked out early by the Division.

6. It is crucial that a manpower survey is undertaken with respect to the available human resources in the maritime sector. This could form the basis inter alia for the establishment of a list of experts. The said list which is to be updated as necessary must highlight the name, address, telephone number, academic qualifications and working experience of each person. It is from such a list that technical advisers and/or assessors may be chosen to assist in the course of an investigation.

7. A list of interpreters is also to be established and updated as necessary. It must state the name of the person, his address, telephone number and the
language(s) in which he is fluent. This is critical when a foreign crew is involved in a casualty and there is a degree of unfamiliarity with English on the part of the crew.

8. An operations manual should be developed. This will assist in ensuring that investigations are conducted meticulously and under high standards. In addition, a manual on how to write reports should be developed. This will facilitate reports being produced in a satisfactory manner.

9. A mailing list should be established in order to guarantee that all relevant personnel and institutions receive reports emanating from investigations. This will allow the lessons learned from investigations to be shared. The list should include at least: designers of ships, shipbuilders, equipment manufacturers, shipowners, fishing vessel mariners, training institutions, the Unions and the International Maritime Organization.

10. The Cabinet is to be advised of casualty investigations via an annual report and as deemed necessary by relevant interim reports. However, only in cases of extreme sensitivity and/or cases with political implications should Cabinet be asked to consider recommendations and make decisions thereon. The Division of Maritime Services must otherwise be in a position to implement recommendations in a timely manner.
11. The implementation of recommendations must be vigorously pursued. The recommendations are not to be left lying in a file! This may require a wide range of support from the maritime sector: national, regional and international. In this context, discussions are to be held with personnel from the sector as necessary. This may facilitate the smooth implementation of the recommendations and/or vital feedback from the sector.

12. It is essential that a proper data base is established. This will serve inter alia as reference material during investigations and during the production of reports. In this regard, the Division must put in place a computerised information system. This is a necessary asset. In respect of shipping casualties apart from assisting in the creation of the required data base, it can help in analysis and in the production of forms and reports.

13. The Division should actively pursue the publication of a magazine which promotes safer shipping. In this regard, the results of investigations can be used further, to convey necessary lessons to the maritime sector.

14. Given the dynamic nature of shipping, an education and training programme must be developed by the Division in order to ensure that its investigators can undertake their duties in an adequate manner in conjunction with the changes in the sector. Consideration should also be given to developing a
regional education and training programme with respect to the undertaking of casualty investigations.

15. It is crucial that the system of investigating casualties remain under review. This is to ensure that the system is adequate over time.

In some countries changes are being made to the administrative arrangements for investigating casualties, for example, the United Kingdom and Canada. The Division must monitor such changes and note any lessons which may be learned for improving its own administrative arrangements.

The Division must also keep abreast of progress made in the techniques of investigating casualties related to the air, land and/or sea; the aim being to ensure that the Division's approach to investigations is upgraded as necessary.

In addition to the above the following recommendations of a general nature are made:

1. The Division should follow-up developments related to the introduction of the "black box" into shipping and after careful consideration provide relevant support for same.

2. The Division should promote research and development in areas related to ensuring safety at sea.
3. It is important that data on casualties in the Caribbean region and internationally be gathered and analysed in order that all safety related lessons could be learned and as relevant conveyed to the national shipping sector. This requires that links be created to ensure that there is a flow of such data to the Division.

4. In the event that a shipping casualty occurs in foreign waters, in a foreign ship and any national of Trinidad and Tobago is seriously injured or loses his life, when necessary, the Division is to take an active role in generating an investigation into the casualty and follow-up same. This may be done in conjunction with the Ministry responsible for external affairs.

5. It is worth giving consideration to the creation of a separate Ministry of Transportation given inter alia:

- the importance of the maritime sector and the mass of work involved in developing same and

- the importance of developing and maintaining the other modes of transport.

In closing, emphasis is once again placed on the fact that the conducting of investigations into shipping casualties must be seen as important undertakings, the results from which must be used to the benefit of the maritime sector. In this regard, it is hoped that this document makes a contribution towards the strengthening of the legal
framework and the establishing of adequate administrative procedures which result in an effective and efficient system for the conducting of investigations — all in the pursuit of safety at sea.
APPENDIX I

THE SHIPING ACT, 1987
OF
THE REPUBLIC OF TRINIDAD AND TOBAGO

PART XIX

INQUIRIES

370. (1) Where any of the following casualties occur, that is to say—

(a) the loss or presumed loss, stranding, grounding, abandonment of, or damage to, a ship;

(b) a loss of life caused by fire on board, or by any accident to, a ship or a ship’s boat, or by any accident occurring on board a ship or a ship’s boat; or

(c) any damage caused by a ship

and, at the time it occurs, the ship was a Trinidad and Tobago ship or the ship or the ship’s boat was in the waters of Trinidad and Tobago, the Minister may cause a preliminary inquiry into the casualty to be held by a person appointed for the purpose by the Minister.

(2) Whether or not a preliminary inquiry into the casualty has been held under subsection (1), the Minister
may cause a formal investigation to be held by a Wreck Commissioner appointed under section 372.

371. (1) For the purpose of a preliminary inquiry under section 370, the person holding the inquiry has all the following powers, namely-

(a) he may go on board any ship and may inspect the same or any part thereof, or any of the machinery, boats, equipment or articles on board thereof to which this Act applies, not unnecessarily detaining or delaying it from proceeding on any voyage;

(b) he may enter and inspect any premises the entry or inspection of which appears to him to be requisite for the purpose of the report which he is directed to make;

(c) he may, by summons under his hand, require the attendance of all such persons as he thinks fit to make;

(d) he may require and enforce the production of all books, papers or documents which he considers important for such purpose;
(e) he may require oaths, or may, in lieu of requiring or administering an oath, require every person examined by him to make and subscribe a declaration of the truth of the statements made by him in his examination.

(2) Upon conclusion of a preliminary inquiry, the person holding it shall send to the Minister a report containing a full statement of the case and of that person's opinion thereon accompanied by such report of, or extracts from, the evidence, and such observations, as he thinks fit.

372. (1) The Minister may appoint-

(a) a person appearing to him to be suitably qualified, by holding of, or by having held, judicial office, or by experience as a legal practitioner;

(b) a senior public officer; or

(c) a senior officer of the Defence Force,

to be a wreck commissioner to hold one or more formal investigations.
(2) The Wreck Commissioner holding a formal investigation -

(a) shall conduct it with the assistance of one or more assessors with nautical, engineering or other special skills or knowledge; and

(b) shall conduct it in accordance with any regulations made under section 406.

(APPENDIX IA refers)

(3) Notwithstanding subsection (1), where any question concerning the cancellation or suspension of an officer's certificate or licence is likely to arise there shall be at least two assessors with appropriate qualifications and experience in the merchant shipping service assisting the Wreck Commissioner.

(4) Sections 8, 9, 10, 11, 12(2) and 12(3) of the Commissions of Enquiry Act apply to a formal investigation as if the investigation were an inquiry under this Act in relation to which the Wreck Commissioner were the Chairman. (APPENDIX IB refers).

(5) The Wreck Commissioner may make such order with regard to the costs of a formal investigation as he thinks just; and any such costs may be recovered by the Minister from the person ordered to pay them.
(6) At the conclusion of a formal investigation the Wreck Commissioner shall send to the Minister a full report on the investigation, together with the evidence taken.

373. Every witness summoned to give evidence in a preliminary inquiry under section 371 or a formal investigation under section 372 shall be allowed such expenses as would be allowed to any witness attending on subpoena to give evidence before any Court of Record; and in case of any dispute as to the amount of such expenses, the same shall be referred by the person presiding over the preliminary inquiry or the formal investigation, as the case may be, to the Registrar of the Supreme Court or a Master of the High Court, who, on a request made of him for that purpose under the hand of the said person presiding over the preliminary inquiry or the formal investigation, as the case may be, shall ascertain and certify the proper amount of such expenses.

374. (1) When, as a result of a formal investigation, the Wreck Commissioner-

(a) is satisfied that any master, mate or engineer-

(i) is unfit to discharge his duties whether by reason of incompetence or misconduct or for any other reason;
(ii) has been seriously negligent in the discharge of his duties; or

(iii) has failed to give assistance or information required by section 207; (APPENDIX IC refers) and

(b) in a case coming under paragraph (a) (i) or (ii), is further satisfied that that circumstances caused or contributed to a casualty,

the Wreck Commissioner may cancel or suspend any certificate or licence issued under section 87 or section 89 to the officer concerned or censure him (APPENDIX ID refers).

(2) Where a certificate or licence is cancelled or suspended pursuant to subsection (1), the officer concerned shall forthwith deliver such certificate or licence to the Wreck Commissioner or the Director.

(3) Notwithstanding subsection (1), a Wreck Commissioner may not cancel or suspend a certificate or licence unless at least one-half of the number of the assessors concur, and each assessor who does not concur shall state in writing his dissent and his reasons therefor.

(4) A copy of the report made to the Minister under subsection (6) of section 372 shall be furnished by the Wreck Commissioner to any officer whose certificate or licence is cancelled or suspended, or who is censured.
375. (1) Where it appears to the Minister that any master, mate or engineer who holds a certificate or licence under section 87 or section 89 (APPENDIX ID refers) -

(a) is unfit to discharge his duties, whether by reason of incompetence or misconduct or for any other reason;

(b) has been seriously negligent in the discharge of his duties; or

(c) has failed to give assistance or information required by section 207 or 213, or contravened section 214 (APPENDICES IC and IE refer),

the Minister may cause an inquiry to be held by any person qualified under section 372 to be appointed as a Wreck Commissioner and, where the Minister does so, he may, where he thinks fit, suspend the certificate or licence pending the outcome of the inquiry and require the officer concerned to deliver it to the Director.

(2) Section 372 applies to an inquiry under this section as if the inquiry were a formal investigation and as if the person holding the inquiry were a Wreck Commissioner.

(3) A person holding an inquiry under this section may, where satisfied of any of the matters mentioned in paragraphs (a) to (c) of subsection (1), censure the officer or, where at least one-half of the number of assessors concur therein, cancel or suspend any
certificate or licence issued to the officer under section 87 or section 89. (APPENDIX ID refers).

(4) Where a certificate or a licence is suspended under this section, the officer concerned shall, unless he has delivered it to the Director under subsection (1), deliver it forthwith to the person holding the inquiry or to the Director.

(5) A copy of the report made to the Minister under section 372 (6) shall be furnished by the person holding the inquiry to the master, mate or engineer whose fitness or conduct is inquired into.

376. (1) Where an inquiry or formal investigation has been held under this Part, the Minister may, in his discretion order the whole or any part of the case to be reheard.

(2) It is the duty of the Minister to order a case or part thereof to be reheard-

(a) where new and important evidence that could not be produced at the inquiry or investigation has been discovered, or

(b) where it appears to the Minister that there are other grounds for suspecting that a miscarriage of justice might have occurred.
(3) A rehearing under this section—

(a) may be held by the person or wreck commissioner who held the first inquiry or formal investigation, or by another person qualified to hold the inquiry or investigation, as the Minister may direct;

(b) shall be conducted in accordance with regulations made under section 406 (APPENDIX IA refers), and subject to such regulations, the provisions of this Part that applied to the original inquiry or investigation under section 370 apply to the rehearing.

377. Where, as a result of a formal investigation under section 372 or an inquiry under section 375—

(a) the certificate or licence of any person has been cancelled or suspended, or

(b) any person has been found to be at fault,

then, where no order is made under subsection (1) or (2) of section 376 a person described in paragraph (a) or (b) of this section or any other person who, having an interest in the investigation or inquiry, has appeared at the hearing thereof and is affected by the decision of finding, may appeal to the High Court.
378. (1) A person who fails to deliver a certificate or licence as required by or under sections 374 and 375 is guilty of an offence and is liable to a fine of one thousand dollars.

(2) Where a certificate or licence is delivered to any person other than the Director in pursuance of section 374 or 375 that person shall, as soon as possible, forward it to the Director for retention.

(3) Where a certificate or licence issued under section 89 (2) is suspended or cancelled under this Part, the Director shall send a copy of the report on the case and of the evidence to the Government of the state by which the certificate of the officer concerned was issued.

379. (1) Where a certificate or licence has been suspended or cancelled under section 374 or 375, the Minister may, where he is of the opinion that the justice of the case so requires -

(a) re-issue the certificate or licence or, as the case may be, reduce the period of suspension; or

(b) grant a new certificate or licence of the same or a lower grade in place of that cancelled or suspended.
APPENDIX IA


PART XXIV

ADMINISTRATION OF THE ACT

SECTION 406

406. The Minister may make regulations generally for the administration of this Act, and in particular, for the following purposes-

(a) the enforcement of any international convention relating to this Act and all maritime matters;

(b) the carriage of passengers and cargo by ship;

(c) the training and qualifications of officers, seamen and fishermen;

(d) certificates of competency and licences;

(e) the manning and survey of all ships including fishing vessels;

(f) the operation of maritime training schools;

(g) pleasure craft, drogers, lighters and other craft;
(h) the exemption of vessels from the provisions of this Act;

(i) the safety of navigation, load lines and the appointment, duties and powers of surveyors of ships;

(j) licensed Trinidad and Tobago ships;

(k) ships operating safely within the waters of Trinidad and Tobago;

(l) fees, stamps duties and all other payments required under this Act;

(m) the holding of all inquiries and investigations;

(n) lighthouses, buoys and beacons;

(o) prescribing sanctions and penalties by way of fines not exceeding one thousand dollars for the contravention of any regulation;

(p) the categories and classes of Trinidad and Tobago ships by reference to their tonnage capacity, the nature of their cargo and the trade or voyage in which they are engaged including geographical limits;

(q) prescribing anything that under this act is to be prescribed.
APPENDIX IB

COMMISSIONS OF ENQUIRY ACT

CHAPTER 19:01

ACT 2 OF 1892 - AS AMENDED

EXTRACT

8. If the commissioners are, in any case, equally divided on any question that arises during the proceedings of the commission, the chairman of the commission shall have a second or casting vote.

9. Commissioners acting under this Act may make such rules for their guidance, and the conduct and management of proceedings before them, and the hours and times and places for their sittings, not inconsistent with their commission, as they may from time to time think fit, adjourn for such time and to such place as they may think fit, subject only to the terms of their commission.

10. Any person whose conduct is the subject of enquiry under this Act or who is in any way implicated or concerned in the matter under enquiry, and any other person who may consider it desirable that he be so represented may, by leave of the commissioners, be represented in the same manner.

11. Commissioners acting under this Act shall have the powers of the High Court to summon witnesses, to call for the production of books, plans, and documents, and to
examine witnesses and parties concerned on oath; and no commissioner shall be liable to any action or suit for any matter or thing done by him as such commissioner. All summonses for the attendance of witnesses or other persons, or the production of documents, may be in the form given in the Schedule, and shall be signed by one of the commissioners (see annex). Oaths may be administered by one of the Commissioners or by the secretary.

12. (2) Any person who refuses or fails, without sufficient cause to attend at the time and place mentioned in the summons served on him, and any person who attends, but leaves the commission without the permission of the commissioners, or refuses without sufficient cause to answer or to answer fully and satisfactorily to the best of his knowledge and belief, all questions put to him by or with the concurrence of the commissioners, or refuses or fails without sufficient cause to produce any books, plans or documents in his possession, or under his control, and mentioned or referred to in the summons served on him, and any person who at any sitting of the commission willfully insults any commissioner or the secretary, or willfully interrupts the proceedings of the commission, is liable on summary conviction to a fine of two thousand dollars.

(3) No person giving evidence before the commission shall be compellable to criminate himself, and every such person shall, in respect of any evidence given by him before the commission, be entitled to all the privileges to which a witness giving evidence before the High Court is entitled in respect of evidence given by him before such Court.
ANNEX

SCHEDULE

SUMMONS TO WITNESS

To A. B...... (name of person summoned, and his calling and residence).

You are hereby summoned to appear before....(here name the commissioners) appointed by the president to enquire..... (state briefly the subject of enquiry) at.... (place) upon the ....day of ....19...., at......o'clock, and to give evidence respecting such enquiry. (If the person summoned is to produce any documents, add) and you are required to bring with you.....(specify the books; plans, and documents required). Therefor fail not at your peril.

Given under the hand of ......, Commissioner, this.... day of .... , 19....

**********
APPENDIX IC


PART X

SAFETY PRECAUTIONS AND NAVIGATIONAL SAFETY

SECTION 207

207. (1) In every case of collision between two ships, the master or person in charge of each ship, if and so far as he can do so without danger to his own ship, crew and passengers, shall-

(a) render to the other ship, its master, crew and passengers, such assistance as may be practicable and necessary to save them from any danger caused by the collision, and shall stay by the other ship until he has ascertained that there is no further need for assistance; and

(b) give to the master or person in charge of the other ship the name of his own ship and the Port of Registry to which it belongs, and also the name of its previous port of call and the port to which it is bound.

(2) The master or person in charge of a ship who fails, without reasonable cause, to comply with this section, is guilty of an offence and, in addition, if he is an officer certificated or licensed under this Act, he
shall be subject to an inquiry into his conduct as provided in section 375.

(3) The failure of the master or any person in charge of a ship to comply with the provisions of this section shall not raise any presumption of law that the collision was caused by his wrongful act, neglect or default.
APPENDIX ID

THE SHIPPING ACT, 1987

PART VII

MANNING AND CERTIFICATION

SECTIONS 87 - 89

87. (1) Subject to subsection (2) the Minister may make regulations -

(a) requiring ships to carry such number of qualified officers of any description, qualified doctors and qualified cooks and such number of other seamen or qualified seamen of any description as may be specified in the regulations;

(b) prescribing standards of competency to be attained and other conditions to be satisfied, subject to any exceptions allowed by or under the regulations, by officers and other seamen of any description in order to be qualified for the purposes of this section; and

(c) requiring that in any case a ship shall be under the charge of a properly certificated master and that watches at sea and in port are always kept by appropriately qualified officers.
(2) The Minister shall not exercise his power to make regulations requiring ships to carry seamen other than doctors and cooks except to the extent that it appears to him necessary or expedient in the interests of safety.

(3) Without prejudice to the generality of paragraph (b) of subsection (1) the conditions prescribed under that paragraph may include conditions as to nationality, and regulations made for the purposes of that paragraph may provide for—

(a) the manner in which the attainment of any standard or the satisfaction of any other condition is to be evidenced;

(b) the conduct of any examinations, the conditions for admissions to them and the appointment and remuneration of examiners;

(c) the issue, form and recording of certificates and other documents;

(d) the payment of fees; and

(e) prescribing the rights and obligations of holders of certificates of competency and the offences for which certificates may be suspended or cancelled.

88. The Minister may exempt any ship from the requirements of any regulation made under section 87 and such exemption given under this section may be confined to a particular
89. (1) When the laws of any other state provide for the examination for, and grant of, certificates to persons intending to act as masters, seamen, officers and engineers on board ships, and the Minister is satisfied that all examinations are so conducted as to be equally effective as the examinations for the same purpose under this Act, the certificates so granted are deemed to be at least equivalent to those granted under this Act.

(2) Where a person holding a certificate referred to in subsection (1) is desirous of serving on a Trinidad and Tobago ship as master, deck officer or engineer, the Minister may direct that-

(a) where the person is a citizen of Trinidad and Tobago, he be granted a certificate of equivalent grade under this Act,

(b) where the person is not a citizen of Trinidad and Tobago, he may be issued with a licence, authorising him to serve on a Trinidad and Tobago ship in the same capacity as if his certificate had been granted under this Act,

subject to such conditions as the Minister may impose.
(3) A licence issued under subsection (2) shall -

(a) during its currency have the same force as a Certificate of Competency granted under this Act and may be cancelled or suspended for like reason;

(b) be valid for a period of five years from the date of issue, and may be renewed upon such conditions as may be prescribed.

(4) The Minister may by Notice from time to time, declare the names of those states to which subsection (1) applies.
APPENDIX IE

THE SHIPPING ACT, 1967

PART X

SAFETY PRECAUTIONS AND NAVIGATIONAL SAFETY

SECTIONS 213 - 214

213. (1) The master of a Trinidad and Tobago ship at sea on receiving a signal from any source that a ship or aircraft or survival craft thereof is in distress shall proceed at maximum speed to the assistance of the person in distress, informing them if possible, that he is doing so, but if he is unable, or in the special circumstances of the case considers it unreasonable or unnecessary, to proceed to their assistance, he shall enter in the official log book the reason for failing to proceed to the assistance of the persons in distress.

(2) The master of any ship in distress may, after consultation so far as possible with the masters of the ships which answer his distress signal, requisition such one or more of the ships as he considers best able to render assistance and it shall be the duty of the master of a Trinidad and Tobago ship that is so requisitioned to comply with the requisition by continuing to proceed at maximum speed to the assistance of the persons in distress.

(3) The master or person in charge of a ship who fails, without reasonable cause, to comply with this
section, is guilty of an offence and, in addition, if he is an officer certificated or licensed under this Act, he shall be subject to an inquiry into his conduct as provided in section 375.

(4) Compliance with the provisions of this section shall not affect the right of salvage.

214. (1) The Minister may make regulations relating to signals of distress and urgency and the signals prescribed by the regulations shall be deemed to be signals of distress and urgency.

(2) Where a master of a ship uses or displays or causes or permits any person under his authority to use or display -

(a) any signal except in circumstances and for the purposes prescribed; and

(b) any signal that is liable to be mistaken for any prescribed signal,

he is guilty of an offence and in addition to any penalty imposed upon him on conviction, he is liable to pay compensation for any labour undertaken, risk incurred or loss sustained in consequence of the signal having been supposed to be a signal of distress or urgency; and such compensation may, without prejudice to any other remedy, be recovered in the same manner in which salvage is recoverable.
APPENDIX II

RESOLUTION A.173(ES.IV)

PARTICIPATION IN OFFICIAL INQUIRES INTO MARITIME CASUALTIES

The Assembly,

NOTING that there is a variation in the practices of member States with regard to official inquiries into maritime casualties, and other proceedings directly consequent upon such inquiries,

WITH A VIEW to ensuring that States seriously affected by or having a substantial interest in maritime casualties, particularly where oil pollution to their coast has resulted, shall have an opportunity of being represented at inquiries into, or other such proceedings relating to, such casualties, and

DESIRING to encourage international unification of practice in relation to such inquiries and proceedings,

RECOMMENDS to governments that if a State other than the State of the flag is known to have been seriously affected by or to have a substantial interest in a maritime casualty occurring to a ship of the flag State (particularly where the coast of that other State has been polluted by oil as a result of the casualty):

(1) (a) the State of the flag should, unless an inquiry is held by that State as a matter
of course, consult with that other State as to the holding of an inquiry into the casualty by one or other of the States, complying with the provisions of sub-paragraph (2);

(b) if such an inquiry is held as a matter of course by the flag State, the other State should be informed of its time and place;

(2) Such an inquiry should be so conducted that, subject to the national rules relating to the special conditions under which inquiries are held in camera,

(a) the public is permitted to attend and

(b) arrangements are made which would, subject to the discretion of the Authority holding the inquiry, allow a representative of the other State concerned to attend and participate in the inquiry at least to the extent of:

(i) questioning witnesses or causing questions to be put through the Authority concerned; and

(ii) viewing all relevant documents;

(3) if an inquiry is held by a State seriously affected or having a substantial interest, a representative of the State of the flag should be given similar facilities.

If one or the other of the conditions of sub-paragraph
(2) above cannot be complied with at the inquiry itself, this recommendation shall be treated as being complied with if the condition not previously satisfied is satisfied in proceedings directly consequent upon the inquiry. Nothing in this recommendation shall affect or apply to the holding of any preliminary or informal inquiry or any other proceedings.

A State shall not be treated for the purposes of the recommendation as being affected by or having a substantial interest in a maritime casualty by reason only that it is the flag State of one of the two ships in collision, nor should the fact that one or more of its nationals has a commercial interest in the ship or its cargo in itself confer such an interest.

28 November 1968
Agenda item 5
APPENDIX III

RESOLUTION A.322(IX)

THE CONDUCT OF INVESTIGATIONS INTO CASUALTIES

Adopted on 12 November 1975
Agenda item 7(c)

THE ASSEMBLY,

NOTING Article 16(i) of the IMCO Convention concerning the functions of the Assembly,

NOTING FURTHER the provisions of Regulation 21, Chapter 1 of the International Convention for Safety of Life at Sea, 1960 and Article 23 of the International Convention on Load Lines, 1966 which are intended to provide the Organization with pertinent information regarding the effectiveness of the Regulations,

BEING AWARE of the provisions of Resolution A.173(ES.IV) concerning participation in official inquiries into maritime casualties,

HAVING CONSIDERED the Report of the Maritime Safety Committee on its thirty-third session,

DRAWS ATTENTION to the obligations of Contracting Governments concerning the investigation of casualties set out in the above-mentioned Conventions,

URGES Contracting Governments to provide the Organization
with relevant information regarding lessons to be learnt and conclusions derived from the investigation of casualties,

REQUESTS the Maritime Safety Committee to examine regularly such reports supplied by Contracting Governments and to recommend action as necessary,

FURTHER REQUESTS the Maritime Safety Committee in consultation with the Secretariat to consider whether the Organization should take the initiative in listing serious casualties and in requesting Administrations to give information regarding the inquires held into them and their findings and thereafter to take any appropriate action to this end.
APPENDIX IV

RESOLUTION A.440(XI)

EXCHANGE OF INFORMATION FOR INVESTIGATIONS INTO MARINE CASUALTIES

Adopted on 15 November 1979
Agenda item 10(b)

THE ASSEMBLY,

RECALLING Article 16(i) of the Inter-Governmental Maritime Consultative Organization concerning the functions of the Assembly,

CONSIDERING Regulation 21 of Chapter 1 of the International Convention for the Safety of Life at Sea, 1974, which requires Administrations to conduct an investigation of any casualty occurring to any of its ships when it judges that any such an investigation may assist in determining what changes in the requirements of the 1974 SOLAS Convention might be desirable,

NOTING that the Maritime Safety Committee has considered reports of investigations into serious marine casualties and has recognized the importance of a free exchange of information between Governments and, in particular, the need for providing details of those casualties,
BEING AWARE that investigations into casualties, especially in the case of collisions, are often hampered by lack of exchange of information where ships under different flags are involved,

HAVING CONSIDERED the recommendation made by the Maritime Safety Committee at its thirty-ninth session,

URGES Governments to co-operate on a mutual basis in investigations into marine casualties and to exchange information freely for the purpose of a full appraisal of such casualties.
APPENDIX V

RESOLUTION A.442(XI)

PERSONNEL AND MATERIAL RESOURCE NEEDS OF ADMINISTRATIONS FOR THE INVESTIGATION OF CASUALTIES AND CONTRAVENTION OF CONVENTIONS

Adopted on 15 November 1979
Agenda item 10(b)

THE ASSEMBLY,

RECALLING Article 16(h) of the Convention on the Inter-Governmental Maritime Consultative Organization concerning the functions of the Assembly,

DESIRING to ensure that all ships at all times comply with maritime safety and marine environmental protection standards and procedures prescribed by conventions in force,

NOTING the numerous reports of contraventions of the provisions of conventions,

BEARING IN MIND resolutions A.321(IX), A.322(IX), A.390(X), A.391(X) and A.440(XI) concerning the enforcement of conventions in cases of contraventions and investigations into casualties, and the work of the Maritime Safety Committee and the Marine Environment Protection Committee in this field,
BELIEVING that the sufficiency of personnel and material resources of every Administration to fully investigate casualties and contraventions is an important factor for ensuring effective enforcement of conventions,

URGES Governments to take all necessary steps to ensure that they have available efficient means and suitably qualified personnel and material resources to enable them adequately to enforce international regulations particularly in cases of casualties and contraventions relating to maritime safety and the protection of the environment.
APPENDIX VI

INTERNATIONAL MARITIME ORGANIZATION

REPORTS ON INVESTIGATIONS INTO SERIOUS CASUALTIES

MSC/Circ.433

13 February 1986

1. The Maritime Safety Committee, at its fifty-second session, approved revised procedures regarding the submission of information concerning investigations into casualties conducted by Administrations and forwarded to the Organization in response to the enquiries made by the Secretariat pursuant to Assembly resolution A.322(IX).

2. The Committee adopted the amended Marine Casualty Report form, set out in the attached annex, which includes a means of classifying the causes of casualties. Administrations are urged to complete this form in respect of casualties to ships of not less than 1,600 gross tonnage which are a total loss, including a constructive loss, and to ships of not less than 500 gross tonnage involving loss of life.

3. The information to complete the form should be based on:
   - the report of a court or board of formal investigation;
   - the report of a preliminary investigation carried out by the Administration; or
   - the report of an informal fact-finding investigation carried out by the Administration.
4. When possible, a copy of the above report, or an extract therefrom, should be forwarded with the Marine Casualty Report.

5. Administrations are also urged to ensure that the fire casualty record form (MSC/Circ. 388), the intact stability casualty record (MSC/Circ.224) and the questionnaire on the maritime distress system (COM/Circ.70) are completed and forwarded to the Organization, as appropriate.

6. The Committee recalled that, at its fiftieth session, it had agreed that information on investigations into serious casualties should be submitted to the Organization in accordance with the provisions of regulation I/21(b) of the 1974 SOLAS Convention. In this connection, the Committee noted that, in accordance with the provisions of regulation I/21(b) of the 1974 SOLAS Convention, no reports or recommendations of the Organization, based on the above information, shall disclose the identity or nationality of the ships concerned or in any manner fix or imply responsibility upon any ship or person.

7. MSC/Circ.395 is hereby revoked and the form, set out in the attached annex supersedes that contained in MSC 46/19, annex 12.

***

-162-
ANNEX

FORMAT OF MARINE CASUALTY REPORTS

NOTES

1. Administrations are urged to complete this form in respect of casualties to ships of not less than 1600 gross tonnage which are total loss, including a constructive loss, and to ships of not less than 500 gross tonnage involving loss of life.

2. The information to complete the form should be based on:
   - the report of a court or board of formal investigation; or
   - the report of a preliminary investigation carried out by the Administration; or
   - the report of an informal fact finding investigation carried out by the Administration.

3. When possible, a copy of the report mentioned in paragraph 2. or an extract thereof should accompany this form.

4. If sufficient space is not available then reference may be made to the report of an additional sheet of paper should be used.
<table>
<thead>
<tr>
<th>Name of ship</th>
<th>No. or letters</th>
<th>Year of build</th>
<th>Tonnage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date of casualty</th>
<th>Time of casualty</th>
<th>Type of casualty</th>
<th>Name(s)</th>
<th>Flag(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Day Month year</th>
<th>(local time)</th>
<th>founder,</th>
<th>of other</th>
<th>etc.)</th>
<th>ships</th>
<th>involved</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Name of place or sea where casualty occurred</th>
<th>Latitude and longitude</th>
<th>State of sea, weather and visibility at time of casualty</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

-164-
Port last Port of cargo

sailed from destination

and date of

Status (i.e. General

sailing

loaded, part description of

loaded, ballast) cargo(es)

Brief account of the sequence of events of the casualty:

Brief account of any assistance given to the ship and/or rescue services provided:

Brief account of the extent of the damage to the ship:

Will the ship be: Repaired*

Salvaged *

Broken up *

Not removed*

* Delete as appropriate

-165-
<table>
<thead>
<tr>
<th>Number of lives</th>
<th>Did pollution occur? (from subject ship)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>only</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Crew</th>
<th>Pollutant</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Passengers</th>
<th>Yes/No*</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Other</th>
<th>Amount, if known</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Cause of casualty</th>
<th>Code for casualty</th>
<th>Code for cause**</th>
</tr>
</thead>
<tbody>
<tr>
<td>(ascertained/probable)</td>
<td>casualty</td>
<td>primary</td>
</tr>
<tr>
<td>*</td>
<td>**</td>
<td></td>
</tr>
</tbody>
</table>

| Indicate the form of investigation carried out (see note 2) |

<table>
<thead>
<tr>
<th>State principal findings:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>State action taken:</th>
</tr>
</thead>
</table>

* Delete as appropriate

** See: Classification for cause
State findings affecting international regulations:

Is a further investigation to be carried out? If yes further information should be forwarded in due course.

Yes/No

Signature and title of person providing information

Date

On behalf of

* Delete as appropriate
CLASSIFICATION FOR CAUSE

Notes:

1. Where incident involves more than one type of casualty then entry should indicate sequence, i.e. a collision leading to a fire and foundering should read "1-5-3".

2. Enter primary cause and, when appropriate, any secondary cause.

CODES FOR TYPE OF CASUALTY

1. Collision and Contacts 2. Strandings and Groundings
3. Floodings and foundering 4. Lists and Capsizings
5. Fires and Explosions 6. Hull and Machinery Damage
7. Other 8. Unknown

CODES FOR CAUSE OF CASUALTY

Personal faults
01: Failure to comply with Regulations
02: Failure to obtain ship's position or course
03: Improper watchkeeping or lookout
04: Improper maintenance
05: Incorrect operation
06: Failure to secure closing arrangements
07: Improper stowage of cargo
08: Improper loading or overloading
09: Incorrect ballasting
10: Negligence
11: Illicit smoking or use of smoking materials or uncontrolled use of heat source
12: Inadequate training
13: Unable to fulfil duties

19: Other

Failure of ship, its machinery or equipment
20: Propulsion machinery
21: Essential ancillary machinery
22: Steering gear
23: Navigation or communication equipment
24: Closing arrangements
25: Structural failure
26: Hull fittings or shaft seals
27: Subdivision arrangements
28: Bilge pumping
29: Spontaneous combustion
30: Component failure
39: Other

Not related to ship
40: Force of wind, tide or current
41: Failure to provide instructions, charts or nautical publications
42: Failure of aids to navigation
43: Uncharted obstruction
44: Weather damage
45: Faulty design or construction
46: Blame (in whole or part) attributed to third party
47: Arson
59: Other
99: unknown

----------

-169-
APPENDIX VII

CHECKLIST
CASUALTIES AND RELATED EVIDENCE

The following checklist is intended to serve as a guide during the conducting of investigations. It is to be reviewed and developed as necessary over time.

A. SHIP
   1. name, official number and port of registry
   2. type of ship
   3. owner
   4. when and where built
   5. ship's dimensions
   6. gross tonnage and net tonnage
   7. navigation equipment - type and condition
   8. normal full speed
   9. classification society and class
   10. inspection certificates
   11. log books
B. CREW, PASSENGERS AND WITNESSES

1. name, nationality and qualification of master

2. crew list

3. passenger list (if applicable)

4. name, birth dates, addresses and phone numbers of witnesses.

5. names, birth dates and addresses of dead, injured or missing persons

C. VOYAGE

1. last port and date of departure

2. destination

3. amount and nature of cargo

4. date, place and nature of casualty

5. outcome of casualty (i.e., total or constructive total loss)

D. COLLISION

In addition to the above, the following evidence is needed:

1. general outline of events leading to the collision - from each ship;
2. officers on the bridge;

3. number of lookouts and where posted;

4. when, how and by whom was each ship detected by the other (i.e. visually or by radar);

5. true course and speed when first detected;

6. relative bearing, course, speed and distance of each ship when first detected by the other;

7. whether radar plot was kept;

8. weather and visibility conditions at the time;

9. courses, speeds and sound signals made from first "sighting" to moment of collision;

10. radio communications between the two ships;

11. steps taken to avoid the collision;

12. engine movement book or computer read-out;

13. chart of the area showing position of collision;

14. sketches by witnesses showing relative positions of each ship from first "sighting" to collision;

15. point and angle of impact (include sketches and photographs);
16. outcome of collision (degree of damage, fire, loss, etc.);

17. name of vessels in the vicinity and assistance rendered;

18. course recorder record.

E. FOUNDERINGS

 Founderings, other than those resulting from collisions or groundings, may be due to:
- explosions and fires (this is mostly related to the nature of the cargo carried or last carried),
- heavy weather,
- liquification of certain types of bulk cargoes with consequent loss of stability,
- shifting cargo (in the case of a loaded ship, the nature, stowage and securing of the cargo must be considered),
- structural failures (the history and known characteristics of the vessel must be considered).

It is important that these factors be evaluated.
F. GROUNDING AND STRANDINGS

Some of the reasons for groundings are:

- poor visibility,

- misreading of charts, old or inaccurate charts

- strong currents,

- undue reliance on buoys in narrow channels.

- errors in navigation,

Data is needed on these factors, where applicable, and on the undermentioned:

1. general outline of events leading to the grounding;

2 persons on the bridge;

3. lookouts;

4. name of pilot, if any;

5. courses and speeds maintained in the hour preceding the grounding;

6. last reliable position and how it was obtained;

7. type and condition of equipment e.g. radar;

8. visibility conditions in the hours preceding and up to the moment of grounding;
9. ship’s draught;

10. ship’s head at time of grounding;

11. soundings, internal and external;

12. communications with ships nearby;

13. sound signals;

14. equipment or machinery failure;

15. log-book entries;

16. date, time and place of grounding;

17. state of tide at time of grounding;

18. nature of assistance, if any;

19. damage suffered;

20. extent of pollution;

21. whether the vessel was salvaged or abandoned.

G. VESSELS LOST OR MISSING, WITHOUT A TRACE
The following points are to be checked:

1. nationality and qualifications of the master;

2. name of persons on board;

3. type of cargo, and how stowed and secured;
4. seaworthiness of the vessel on leaving the last port of call.

5. date and time of departure from last port;

6. next port of call and voyage plan;

7. estimated date of arrival at next port of call;

8. type of radio equipment carried;

9. reported weather conditions along the route;

10. radio communications between the ship and her owners or charterers and nature of information;

11. radio contact with other ships during the voyage, with dates and nature of the messages;

12. when, where and by whom the vessel was last sighted, and her condition at the time;

13. date and nature of the last reported contact with the ship;

14. last reported position of the ship;

15. any history of equipment failures or structural defects;

16. testimony of persons involved in loading the ship at the last port;
17. testimony of persons who had sailed on the ship;

18. a check with marine underwriters.

H. VESSELS LOST WITH NO SURVIVORS - ONLY BODIES AND/OR DEBRIS FOUND

A lot may be learned about the probable cause of the casualty if bodies are recovered or debris found.

a) BODIES

1. The presence or absence of lifejackets on the bodies provides an indication of the suddenness or otherwise with which the casualty occurred.

2. Clothes and watches found on the bodies may indicate the time the casualty occurred.

3. Autopsies may sometimes reveal the cause of death, e.g., injuries, drowning, fire, explosion or exposure.

b) DEBRIS

1. Knowledge of the position where debris was found and identified, along with a study of recent weather conditions in the area and currents may assist in locating the wreck if the casualty occurred recently.

2. Once located, and the depth of the water permitting, the wreck should be inspected by divers for clues as to possible cause of the casualty.
3. The condition of debris may indicate the nature and suddenness of the disaster.

**SOURCES**

1. List of the Principal Questions which should be asked when Examining witnesses at Maritime Declarations, for the use of Consular Courts - issued by the Maritime Directorate - Norway. Grondahl and Son, Oslo 3.69.


SELECTED BIBLIOGRAPHY

A. DOCUMENTS RE:- LEGISLATION

1. An Act 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 - Republic of Trinidad and Tobago Act No. 24 of 1986.

2. An Act to Establish the Transportation Accident Investigation Board and to amend certain Acts in consequence thereof - Bill C-2 - The House of Commons of Canada - First Reading, April 7, 1989.


16. Laws of Trinidad and Tobago – 1950, Volume II; Chapters 9 – 19, C. F. Rosenworth Ltd, 1951.


B. OTHER BOOKS, REPORTS AND STUDIES


11. Deschenes, Bernard - Study on Marine Casualty Investigations in Canada (for the Minister of Transport) - Minister of Supply and Services, Canada, 1984.


22. Investment Policy of Trinidad and Tobago - The Trinidad and Tobago Industrial Development Corporation; August, 1987.

24. King, Rupert - Industrial Safety Handbook - Port Authority of Trinidad and Tobago, 1986.


27. List of the Principal Questions which should be asked when Examining Witnesses at Maritime Declarations, for the use of Consular Courts - Issued by the Maritime Directorate - Norway. Grondahl and Son, Oslo. 3.69.


45. Republic of Trinidad and Tobago Draft Estimates - Details of Estimates of Recurrent Expenditure for the year 1989.


C. SEMINAR DOCUMENTATION


D. JOURNALS, MAGAZINES, NEWSPAPERS AND PERIODICALS

1. Caribbean Shipping; Creative Communications Inc. Ltd., May 1987:

   - de Frietas, Angela - "JMTI Serving needs of entire Caribbean."


4. Express; Trinidad Express Newspaper Limited:

   - "Air Rescue as the M.V. TOBAGO Runs Aground"; Publication date, 15/9/82.

   - Lopez, Susan - "3 Seamen Burnt To Death Off East Coast"; Publication date, 11/8/83.

   - "3 Killed in Tanker Explosion"; Publication date, 12/8/83.

   - "Boat Sinks"; Publication date, 29/9/86.

-192-
- "Tales of Peril on the High Seas"; Publication date, 17/10/86.

- "62 Drown, 14 Missing After Ferry Disaster"; Publication date, 4/1/89.

5. Fairplay, International Shipping Weekly; Fairplay Publications Limited; February 16, 1989:

- "Ship losses up, Tonnage Losses Down".

6. Guardian; Trinidad Publishing Company Limited; April 26, 1988:

- "Brazilian Carrier Rams into Point Lisas Wharf";

- "Mr. SOLO Goes Down in Flames".

7. IMO News - The Magazine of the International Maritime Organization; No. 4, 1988:

- Cowley, J. - "IMO and National Administrations".

8. ITF Seafarers' Bulletin; International Transport Workers Federation:


- Ellsworth, Phoebe and Smith, Vicki - "The Social Psychology of Eyewitness Accuracy: Misleading Questions and Communicator Expertise".

10. Journal of Safety Research; Pergamon Press Inc. N. Y., Volume 7, Number 2, June 1975:
- Brenner Jr., Ludwig - "Accident Investigations: Multilinear Events Sequencing Methods".

11. Lloyd's List; Lloyd's of London Press Limited:
- "Marine Deaths at Record Level", Publication date, 26/10/88.
- Maloney, Sean - "IMO adopts Ferry Safety Rule Changes", Publication date, 29/10/88.
- Landells, John - "Cash is the Key as Ferry Toll Mounts", Publication date, 6/1/89.
- "Data Recorder Makes Debut", Publication date, 13/3/89.
- Landells, John - "23 Missing as Tanker Explodes", Publication date, 15/3/89.
- Landells, John - "Investigators Probe Carrier Blast", Publication date, 16/3/89.
- Mulrenan, Jim - "Alaska Oil Disaster Cost to top $100m", Publication date, 28/3/89.

- Smith, Leigh - "EXXON sacks master for alcohol abuse", Publication date, 1/4/89.

- Brewer, James - "Exxon steps up Alaska Pollution Fight", Publication date, 5/4/89.


- "Pleasure Craft Catastrophe on the high tide", Publication date, 21/8/89.

12. Lloyd’s Ship Manager - Shipping News International - The International Business Monthly for Vessel Management, Technology and Operations; Lloyd’s of London Press Limited, Volume 8, No. 12, March 1988:

- "Salvage Association Program is used to spot Fraudulent Claims".

13. Marine Engineers Review; Journal of the Institute of Marine Engineers - Marine Management (Holdings) Ltd., MER March, 1988:

- "Merchant Shipping Bill Strengthens Laws on Safety"


- Alder, Jerry - "Alaska After EXXON".

- "Scientific Investigation of Marine Fires and Explosions"

16. Port News; Port Authority of Jamaica Vol. 4, No. 3, September 1988:

- Rattray, Lucien – "Address to the Graduates of the Jamaica Maritime Training Institute".

17. Salvage Lines – News from the Salvage Association in London No. 4, Spring 1988; The Salvage Association, 1988:

- "Flooding Program Offers Key to those Mystery Sinkings".

18. Seatrade; Seatrade Publications Limited, Vol. 9, No. 8 August 1979:

- Renouf, Anthony – "Counting the Cost of the Tobago Collision".
19. Seaways; The Journal of the Nautical Institute; July 1988:
   - Crombe, A. - "Marine Safety Procedures and Responsibilities".
   - Tench, W.H. - "Government Responsibility for Transportation Safety".


21. Shipping World and Shipbuilder; Marine Publications International Ltd., Volume 187 No. 4053; May 1989:
   - "Safety - at - Sea :- Black Box".

22. Soviet Shipping; Association of Soviet Shipowners, Volume 9, No. 1, 1.89, 1989:
   - "Lessons of a Fire".


24. Sun, Trinidad Express Newspaper Limited; January 3, 1989:
   - "Shipwreck! 90 Killed, 30 Missing".

25. The Economist; The Economist Newspaper Ltd. - Volume 312, Number 7617, August 26, 1989:
   - SCIENCE and TECHNOLOGY
26. The Institute of Marine Engineers; Marine Management (Holdings) Ltd.:  
- Transactions (TM) - Trans/Mar E (TM) Vol 96, 1984:  
  - Chadwick, W.A. - "Marine Casualties and How to Prevent them".  
- Transactions Volume 100, Part 3, 1988:  
  - Harold, A.F. - "The Investigation of Marine Casualties".

27. The Naval Architect; International Journal of the Royal Institute of Naval Architects, January 1988:  

28. The Telegraph; Newspaper of NUMAST, the National Union of Marine, Aviation and Shipping Transport Officers; Volume 22:  
  a) Number 7, July, 1989:  
  - "Manslaughter Trial Shock"  
  - "Report that pinpointed Blame in Disaster"  
  - "Inquest Blames Corrosion for Dredger’s Loss"  
  - "NUMAST Inquiry Call"  
  - "Soviet Cruise Ship Hit Ice In Near Disaster".

-198-
b) Number 8, August, 1989:

- "New Accident Inquiry System"

- "Faulty Ships Increase"

- "Oil Disaster - EXXON Blamed"

***************