

NAVAL POSTGRADUATE SCHOOL
MONTEREY, CALIFORNIA



THESIS

MICROVIOLENCE AT SEA, 1975-1995:
A DATA ANALYSIS

by

Michael D. Lumpkin

December, 1995

Thesis Advisor:

Gordon H. McCormick

Approved for public release; distribution is unlimited.

19960322 049

REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.

1. AGENCY USE ONLY <i>(Leave blank)</i>	2. REPORT DATE December 1995	3. REPORT TYPE AND DATES COVERED Master's Thesis	
4. TITLE AND SUBTITLE MICROVIOLENCE AT SEA, 1975-1995: A DATA ANALYSIS		5. FUNDING NUMBERS	
6. AUTHOR(S) Michael D. Lumpkin			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Naval Postgraduate School Monterey CA 93943-5000		8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSORING/MONITORING AGENCY REPORT NUMBER	
11. SUPPLEMENTARY NOTES The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.			
12a. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.		12b. DISTRIBUTION CODE	
13. ABSTRACT <i>(maximum 200 words)</i> The traditional definitional constraints of terrorism have resulted in the failure to effectively categorize all political acts of violence in the maritime environment. This thesis offers the more practical and useful paradigm of "Microviolence" for viewing this phenomenon. The intent of developing this paradigm was to create a framework which permits the creation of a data-based investigation of all recorded incidents of illegitimate political violence in the maritime environment. The database itself is focused on the period from 1975 to 1995 and was designed to permit rigorous statistical analysis. The database includes 374 reported cases of microviolence and each were dissected into 98 separate variables to permit a comprehensive quantitative and statistical picture of the trends and characteristics of microviolence for the past 20 years to be developed. The ultimate goal has been to create a comprehensive tool to determine and analyze the characteristics of illegitimate political violent incidents and its perpetrators.			
14. SUBJECT TERMS Microviolence, Terrorism, Database, Trend Analysis		15. NUMBER OF PAGES 91	
		16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UL

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)
Prescribed by ANSI Std. Z39-18 298-102

Approved for public release; distribution is unlimited.

MICROVIOLENCE AT SEA, 1975-1995:
A DATA ANALYSIS

Michael D. Lumpkin
Lieutenant, United States Navy
B.A., University of California, San Diego, 1986

Submitted in partial fulfillment
of the requirements for the degree of

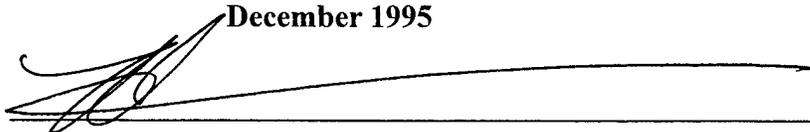
MASTER OF ARTS IN NATIONAL SECURITY AFFAIRS

from the

NAVAL POSTGRADUATE SCHOOL

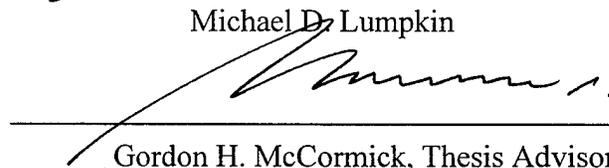
December 1995

Author:

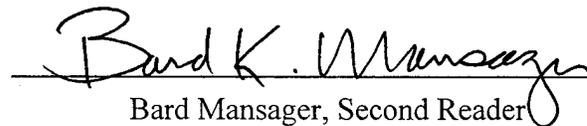


Michael D. Lumpkin

Approved by:



Gordon H. McCormick, Thesis Advisor



Bard Mansager, Second Reader



Frank Teti, Chairman

Department of National Security Affairs

ABSTRACT

The traditional definitional constraints of terrorism have resulted in the failure to effectively categorize all political acts of violence in the maritime environment. This thesis offers the more practical and useful paradigm of "Microviolence" for viewing this phenomenon. The intent of developing this paradigm was to create a framework which permits the creation of a data-based investigation of all recorded incidents of illegitimate political violence in the maritime environment. The database itself is focused on the period from 1975 to 1995 and was designed to permit rigorous statistical analysis. The database includes 374 reported cases of microviolence and each were dissected into 98 separate variables to permit a comprehensive quantitative and statistical picture of the trends and characteristics of microviolence for the past 20 years to be developed. The ultimate goal has been to create a comprehensive tool to determine and analyze the characteristics of illegitimate political violent incidents and its perpetrators.

TABLE OF CONTENTS

I. INTRODUCTION	1
II. DEFINING THE PROBLEM.....	5
A. OVERVIEW	5
B. SOURCES OF MARITIME VIOLENCE	5
1. Piracy	5
2. Politically Motivated International Organizations ...	6
3. Substate Conflicts	6
4. General Interstate Warfare	7
5. State Belligerency	8
C. TERRORISM AND THE CURRENT PARADIGM	8
D. SHIFTING THE PARADIGM	11
E. MICROVIOLENCE	14
III. THE MICROVIOLENCE AT SEA (MAS) DATABASE	17
A. CONCEPT/SCOPE	17
B. LIMITATIONS	20
IV. FINDINGS	23
A. THE MICROVIOLENT NOISE	23
B. THE FREQUENCY OF MARITIME MICROVIOLENCE	24
C. MICROVIOLENCE BY REGION	28
D. MICROVIOLENCE BY WATERS	30
E. STATES WITH THE HIGHEST INCIDENTS OF MICROVIOLENCE	32

F. WARNING PRIOR TO MICROVIOLENT ATTACKS	34
G. MICROVIOLENCE BY VESSEL FLAG	36
H. DAMAGE CAUSED BY MARITIME MICROVIOLENCE	38
I. CASUALTIES DUE TO MICROVIOLENCE	40
J. MICROVIOLENT SPONSORSHIP	42
K. WEAPONS USED IN MICROVIOLENCE	46
L. MARITIME MICROVIOLENT GROUPS	49
1. The Iraqi Government	50
2. The Iranian Government	51
3. Polisario Liberation Front (PLF)	52
4. Democratic Revolutionary Alliance (ARDE)	52
5. Sea Shepherd Conservation Society	53
6. Tamil Tigers	53
7. Greenpeace	54
8. Israeli Government	54
9. Irish Republican Army (IRA)	55
10. Moro National Liberation Front (MNLF)	55
M. TRENDS OF HIGH MICROVIOLENT STATES	56
N. RECENT TRENDS OF HIGH MICROVIOLENT STATES	56
V. CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER STUDY	61
A. THE MICROVIOLENT PROBLEM	61
B. CONCLUSIONS	62
APPENDIX A MICROVIOLENCE AT SEA DATABASE	65
APPENDIX B REGIONAL BREAKDOWN	71
APPENDIX C TWO-LETTER DIA COUNTRY DESIGNATION	73

INITIAL DISTRIBUTION LIST75

EXECUTIVE SUMMARY

This thesis presents a data-based assessment of all recorded illegitimate acts of political violence in the maritime environment from 1975-1995. The assessment was carried out using the Microviolence at Sea (MAS) Database. The study begins by examining the sources of violence within the maritime environment and subsequently breaking out those sources with a motivation rooted in politics. Those sources of political violence were then applied to the paradigm created by Denis Davydov in 1812 and modified by Nathan Lietes in 1979. This paradigm views political violence in three distinct categories: big wars, small wars, and microviolence. These categories are based on both the magnitude of the conflict and the legitimacy of the participant. Big wars and small wars are the domain of interstate actors and are used as methods to resolve their political conflicts. Those who can not enter this arena due to legitimacy or relative weakness frequently use microviolence in order to affect change in the political system which often relegates them to the use of terror tactics. It is these incident-oriented acts of microviolence that the MAS was designed to help catalog. All incidents within the database are unclassified, providing the widest access to the information.

The MAS Database itself is structurally complex; consisting of 374 recorded instances that have been dissected into 98 separate variables in an effort to conduct analytical and quantitative analysis of the microviolent phenomenon in the maritime environment. The scope of the analysis has been to look at both

the international and regional trends of this phenomenon over the past two decades; with international trends receiving primary attention. Assessment variables for the international level of analysis were chose to allow the reader to view the results from the operational perspective of the mariner.

It was the desire of the author to use previous trends in an effort to predict the future of microviolence in the maritime environment; this was done by coming to grips with the reality that violent conflict is a natural occurrence and will take place as long as normal political intercourse between political bodies occurs. It is not the goal of this thesis to delve into the age-old controversy on the nature of man, but rather it is an investigation of political violence which indicates there is statistical support for the concept of natural conflict. This constant associated with microviolence is referred to as the *noise* of microviolence and can be statistically represented allowing for predictive aspect resulting from this thesis.

Understanding the scope of maritime microviolence is a prerequisite for being able to assess its impact on international maritime trade and the international political system. The results presented in this study represent a first level assessment of the data over the last two decades. There is a wealth of additional information available in the MAS Database. Its analytical value will grow as the database is gradually extended over time.

I. INTRODUCTION

While political acts of violence against the airline industry have received considerable attention and scrutiny over the previous two decades, similar incidents of violence in the maritime environment have remained relatively ignored. As the shipping industry carries out international commerce on the high seas, they have been victimized by politically motivated acts of violence that have resulted in brutal killings, billions of dollars in destroyed or damaged vessels, lost revenue and cargo, and mounting insurance claims. The casualties in such acts are comparable to those in acts of political violence against commercial jet liners. The isolated nature of the shipping industry, however, has maintained a cloud of secrecy around politically motivated violence at sea.

There have been several attempts by organizations such as the RAND Corporation and the Office of Naval Intelligence (ONI) to catalog acts of illegitimate political violence at sea in database form. Each of these efforts, however, has failed to effectively catalog all incidents that have occurred in the maritime environment.¹ Previous efforts have been limited to only acts of violence that fall within the category of terrorism in the strictest sense. While these chronologies are important in understanding politically motivated violence, they only touch the

¹ See, for example, Brian Jenkins *et al*, *A Chronology of Terrorist Attacks and Other Criminal Actions Against Maritime Targets*, RAND Corporation, September 1983.

surface of what is occurring on the high seas. More liberal parameters will be introduced to better categorize and statistically organize political violence in the maritime environment.

The heart of this thesis is the creation of the Microviolence at Sea (MAS) Database that chronicles all known acts of illegitimate and incident-oriented, politically motivated violence in the maritime environment between 1975-1995. Understandably, many of the incidents that are cataloged in this database can be found in other chronologies. This is the only available effort, however, that attempts to increase our *understanding* and view *trends* in maritime violence through quantitative analysis.² Records of violence against the maritime entities were obtained from a myriad of sources from U.S. intelligence agencies to the shipping industry. Information in the reports themselves increased over the years, making available the greatest data in the latter years of the period being examined. This is primarily due to increased requirements placed on the shipping industry by insurance carriers as well as a higher reliance on industry organizations such as the Maritime Security Council (MSC) and the Baltic and International Maritime Council (BIMCO) and their subsequent policies.³ Under-reporting that has been attributed to acts of

² *Ibid.*, p. 6 outlines the inability to conduct quantitative analysis due to an insufficient database.

³ This is according to Mr. Thomas Fitzhugh, Chairman of the Maritime Security Council.

piracy at sea does not appear to be present in politically motivated violence.⁴ There does not seem to be the stigma attached to reporting that reflects unfavorably on crew discipline and watchkeeping, nor is there a concern of causing a diplomatic offense to the country where they must trade regularly because of the very nature of politics being the motivation for the attack. This has greatly aided the author's efforts in the database creation.

This thesis will proceed in four sections. First, it will attempt to effectively define the phenomenon of politically motivated violence against maritime assets. This is necessary because it is central to understanding the criteria for incident inclusion into the MAS Database. A shift in the traditional paradigm of viewing violence will be examined as it applies to the maritime environment.

Second, the MAS Database itself will be addressed. Structural characteristics and an overview of the methodology is explained, detailing the uniqueness of the database itself. Both design strengths and limitations will be brought into context as they pertain to this analysis.

Thirdly, the findings will be presented. This section will present both an analytical and quantitative breakdown of this problem by both statistical and graphic means. While it is true

⁴ Under-reporting of piracy is outlined in detail by LCDR Mark C. Farley, *International and Regional Trends in Maritime Piracy 1989-1993*, Thesis Naval Postgraduate School, Department of National Security Affairs, Monterey, 1993.

that the meat of this thesis is the database itself, this section presents the fruit of the labor.

The final section will provide conclusions and an overview of the major themes of the thesis.

II. DEFINING THE PROBLEM

A. OVERVIEW

Prior to the creation of the MAS Database an initial dilemma required resolution: what were the defining requirements that merited incident inclusion into the database? From the very beginning it was recognized that this was one of the most difficult aspects of the database formulation. Current accepted defining paradigms of political violence, while useful in addressing specific categories within the realm of maritime political violence, fail to provide an all inclusive categorization of incidents. For this reason, a new paradigm is in order.

B. SOURCES OF MARITIME VIOLENCE

Incidents of maritime violence do not originate from a single source, nor are they born of a single motivation. Maritime violence can take one of many forms: piracy, violence perpetrated by substate contenders, acts of state belligerency, general interstate war, and violent political statements by international organizations. Each of these types, less piracy, have one thing in common: they are an attempt to create change in the political *status quo* in order to modify the political system.

1. Piracy

As mentioned above, piracy differs greatly from the other forms of maritime violence in that its motivation lacks a political component. It is purely for monetary gain. The International

Maritime Bureau (IMB) defines piracy as:

The act of boarding any vessel with the intent to commit theft or crime and with⁵ the capability to use force in the furtherance of the act.

Piracy is nothing more than a criminal act perpetrated to increase one's monetary situation and will not be addressed *per se*. This is not to say, however, that politically motivated groups do not commit acts of theft or kidnap hostages for ransom in order to finance their political campaign. More attention will be given to this phenomenon later in this thesis.

2. Politically Motivated International Organizations

International organizations with political agendas will at times resort to the use of violence in an effort to further their cause. Traditionally, these groups tend to focus on political causes that transcend state boundaries. Environmental and animal rights groups frequently use violent methods to facilitate policy changes in fishing practices, the transport of radioactive materials, or nuclear weapons testing. Violent protests by these organizations frequently occur only after peaceful means to achieve their goals have been exhausted.

3. Substate Conflicts

Violent conflicts that arise between political entities within the boundaries of a sovereign state often take their violence to the maritime environment. Manifesting themselves as civil wars or wars of national liberation, these substate conflicts generally

⁵ *Special Report-Piracy*, ICC International Maritime Bureau Publication, June, 1992, 2.

occur between the incumbent government and an insurgent party. In some instances the insurgents have *de facto* control of a segment of the population and territory, but in the vast majority of the situations this is not the case. Some may view civil wars and wars of national liberation as separate entities, but for the purposes of this investigation they have been combined due to the lack of a clear demarcation between the two. It was crucial that the topology was clean to facilitate consistent categorization of all cases. Movements such as the Basque *Euskadi Ta Askatasuna* (ETA) or the Polisario Liberation Front (PLF), both of which routinely attack Spanish maritime assets in their efforts to create their own respective sovereign states, exemplify this type of conflict.

4. General Interstate Warfare

States involved in general warfare will frequently take to the seas to engage their enemy. Clausewitz's famous summation, "war is a continuation of policy by other means"⁶ rings true as states engage enemies in this readily accepted form of political violence. Acceptance is due to the normative larger size of these conflicts and because of the legitimacy that surrounds them within the international system. Generally, similar capabilities between sides are present in this type of violence.

5. State Belligerency

States may choose to use acts of violence to further their

⁶ Carl Von Clausewitz, *On War*, Translate by Michael Howard and Peter Paret, Princeton Press, Princeton, New Jersey, 1976, p. 87.

political goals outside the scope of general interstate warfare. This may be done overtly or through the use of clandestine agents. Unlawful acts of belligerency are those committed in the breach of the laws of war, either due to a violation of a provision of international law or because they are not attributable to a duly commissioned belligerent. State belligerency often occurs when states oppose a situation or activity that falls outside the international political system and subsequently are unable to use their traditional political methods to alter its presence. This can produce violence against a specific industry, non-governmental organization, or substate actor. State belligerency occurred regularly during the Iran and Iraq War in the 1980s when both sides routinely attacked neutral flagged shipping and port facilities in order to reduce the flow of war supplies and economic revenues to their opponent.

C. TERRORISM AND THE CURRENT PARADIGM

While the sources for political violence in the maritime environment are varied, traditional outlooks have viewed political violence in a bipolar manner. Incidents were considered either an act of terrorism, or were categorized as legitimate violence between warring states. Frequently, however, incidents fell between the cracks of these two distinct categories and were not considered at all due to the restrictive definitions of the two accepted categories.

By definition interstate war must be a conflict of at least

two legitimate states that are duly recognized within the international arena. Substate actors or international organizations may participate in such conflicts, but only as ancillary actors. There is little flexibility in the defining principles of interstate war and therefore will remain intact as a category for maritime political violence.

It is the category of terrorism, on the other hand, that is highly problematic. Due to the pejorative nature of this word, largely due to the news media, to heighten the drama surrounding any act of violence, definitional problems continually arise. Terrorism and its definitional limitations are not new and have been a seed of controversy for well over a decade. Brian Jenkins recognized the problems in his 1980 study of terrorism:

The term "terrorism" has no precise or widely-accepted definition. The problem of defining terrorism is compounded by the fact that terrorism has recently become a fad word used promiscuously and often applied to a variety of acts of violence which are not strictly terrorism by definition. It is generally pejorative. Some governments are prone to label as terrorism all violent acts by their political opponents, while anti-government extremists frequently claim to be victims of government terror. What is called terrorism thus seems to depend one's point of view. Use of the term implies a moral judgement; and if one party can successfully attach the label *terrorist* to its opponent, then it has indirectly persuaded others to adopt its moral viewpoint. Terrorism is what the bad guys do.¹

Due to the very slippery nature and the bias that is associated with the word - terrorism - it is probably best to reduce it down

¹ Brian Jenkins, *The Study of Terrorism: Definitional Problems*, RAND Corporation, Santa Monica, California, November, 1980.

to what it really is: a symbolic act of violence that is used to influence a political audience by instilling fear or anxiety. A terrorist group is nothing more than a political body that uses terror as a tactic in its political struggle. If this concept is accepted, then it is reasonable to assert that different types of political entities can use terror tactics, and can subsequently be labeled as terrorists.

This, however, flies into the face of the U.S. government's view of terrorism and who uses it. The State Department, as well as other governmental agencies, use the extremely restrictive definition of Title 22 of the United States Code, Section 2656f (d) which defines terrorism as:

...premeditated, politically-motivated violence perpetrated against non-combatants by subnational groups or clandestine state agents, normally intended to influence and audience.

This definition misses the very nature of terrorism in that it restricts the use of this tactic to specific sources. Using this definition, it becomes apparent that neither international organizations nor overt violent political activities of belligerent states, which have occurred regularly in the previous two decades, can be incorporated in any study of the use of terror tactics in incidents of maritime violence. Politically motivated acts of violence against law enforcement officials and military personnel are also excluded due to the inability to include acts against legitimate combatants. State representatives in positions such as these are often lucrative targets for those using political violence as a method to achieve their goals. These shortcomings

fail to capture much of the violence that occurs in the "real world" and would lead to erroneous conclusions if not included in the MAS Database chronology.

D. SHIFTING THE PARADIGM

The widely accepted paradigm for viewing illegitimate political violence at sea holds its foundation in the mainstream idea of interstate conflict and the view of terrorism that is exemplified within the State Department's definition. As previously outlined, the exclusive use of this framework fails to include a multitude of incidents of politically motivated violence based on the defining limitations both on the source and target of the violent act itself. For this reason, it is necessary to abandon this framework for one that broadens our understanding of maritime political violence.

For the purpose of this thesis, a simple way to understand paradigms is to see them as maps. It is widely known that "the map is not the territory." A map is simply an explanation of certain aspects of the territory.⁸ The map that we have been using to explain political violence in the maritime environment is wrong for the territory that we want to look at. Because of the inflexibility of the definitional construct of interstate conflict, it has become necessary to shed the traditional restrictive

⁸ This particular manner to understanding paradigms and their influence is offered by Stephen Covey in *Seven Habits of Highly Effective People*, Simon and Schuster, Fireside Press, 1990, p. 23.

definitions within political violence and look at terrorism for what it really is: a political tactic used within the spectrum of violence. So therefore, we must find a new map that better matches the terrain of the high seas in regard to political violence.

The paradigm that best incorporates the many sources of political violence in the maritime environment was initially offered by the practitioner and analyst of Russian unconventional warfare in 1812, Denis Davydov, who distinguished three levels of political violence: (big) wars, small war, and those "burning one or two granaries."⁹ The third type of warfare was later refined to small violence, or microviolence by Nathan Leites.¹⁰ The paradigm that Davydov and Leites offer is not broken down by the perpetrator or victim of the violence, but rather by magnitude, intensity, and purpose for the violence itself. Terrorism falls into this paradigm solely as a tactic available to those political entities desiring to use it.

Davydov and Leites' paradigm adequately incorporates each of the sources of maritime political violence within its framework. Full scale warfare between states that takes its violence to the maritime environment corresponds directly with their "big war" category without interpolation. This by definition is the highest in magnitude and intensity in the spectrum of violence and is conducted in a series of campaigns by one sovereign state against

⁹ W. Laqueur, *Guerilla*, Boston 1976, p.46.

¹⁰ Nathan Leites, "Understanding the Next Act", *TERRORISM: An International Journal*, Volume 3, Numbers 1-2, 1979.

another. These campaigns are designed to break the back of the opponent by instilling sufficient damage and casualties with the eventual goal of destroying the enemy's will to continue fighting. Conventional warfare also holds the most legitimacy in the international arena. Interstate political violence has been recognized since the 1648 Treaty of Westphalia as a legitimate manner in resolving disputes between states. One does not have to look very far to find examples of "big wars". The Gulf War of 1991 and World War II exemplify this category of political violence.

The category of "small wars" offered by Davydov and Leites is by design smaller in scale than "big wars". They are lower in magnitude and intensity, yet also take place in the interstate arena. Sovereign states generally engage in "small wars" when entering into a larger conflict is neither possible nor practical due to either political or materiel considerations. Limitations in one form or another prevent them from raising the ante and engaging in a larger scale conflict. Despite the relative reduction in size, the campaign-orientation and legitimacy within the international arena are still present as one side attempts to attrite its opponent. While "small wars" can take many forms, they often manifest themselves as border skirmishes, as exemplified by the violence between El Salvador, Honduras, and Nicaragua in the Gulf of Fonseca.

The remaining sources of political maritime violence - politically motivated international organizations, substate conflicts, and incidents of state belligerency - fall into the

category of "microviolence" and are deemed illegitimate by the international system. Microviolence is the smallest of the three in both size and scope. Leites states:

What differentiates microviolence - a mere quantity - is that with "small war" you may expect to impose substantial attrition on the enemy at least over the long run, and with "microviolence" not even that.¹¹

The perpetrators of microviolence are relatively weak in the arena in which they are trying to exercise their political will and subsequently resort to tactics that often incorporate the use of terror in order to facilitate change in the political system. The relative weakness may be manifested in the form of a manpower and armament limitation by a substate contender that is seeking to seize and control its own sovereign territory, or even a state that is attempting to affect its political will in the face of restrictive coercive diplomacy within the international system.

E. MICROVIOLENCE

Although not mentioned specifically by either Davydov or Leites, legitimacy escapes microviolent actions within the international community because the perpetrators are operating against either territorial and international law. Their microviolence, while rooted in politics, is essentially viewed as criminal by those around them. The relative weakness of those who rely on microviolence has forced them to operate outside

¹¹ *Ibid.*, p. 1.

"traditional" channels, which are frequently illegal, in the pursuit of their political goals. This often takes the form of terror tactics.

Unlike the categories of "big war" and "small war", microviolence lacks a deliberate campaign-orientation. The relative weakness of the perpetrator has forced them into an "incident mentality" rather than that of a campaign. Each microviolent incident is a stand-alone act that draws its value from the perception of the act itself, instead of the damage or casualties that the act inflicted on the victim. While it is true that microviolent perpetrators may commit numerous violent incidents, each act does not require other acts to convey the political message. Specific incidents are independent entities.

Microviolence is not simply violence. It includes incidents that are designed to influence a larger audience, not necessarily just those whom the microviolence is directed. When directed toward the state, the microviolence may be used to publicize a specific cause or to demonstrate the weakness of the government to put pressure on the government and its supporters. How the audience reacts is as important as the act itself. For this reason it is imperative to distinguish the victims of the act from the target. Microviolent actors are primarily interested in the audience, not the victims, of the violent acts they conduct, unlike the campaign-oriented strategies of "big wars" and "small wars".

In an effort to understand political violence in the maritime environment short of interstate conflict, the MAS Database has been

created. The MAS Database was designed to capture all known cases of microviolence in the maritime environment and dissect them in an attempt to increase our understanding of this incident-oriented phenomenon. Unfortunately, the emphasis of this investigation has been limited to the victims of the microviolence and not the target audience due to the inability to measure audience reactions and perceptions in a quantitative and statistical manner. Despite this fact, significant insight on this phenomenon is obtainable from focusing on the victims themselves. Those subject to the wrath of microviolence must understand it in order to effectively reduce its coercive powers.

III. THE MICROVIOLENCE AT SEA (MAS) DATABASE

A. CONCEPT/SCOPE

The MAS Database was designed exclusively for the purpose of analyzing microviolence in a quantitative manner. It presently operates at the unclassified level. Its structure was designed with the ultimate goal of being incorporated into the interagency Joint Maritime Information Element (JMIE).¹² Subsequently, many of the database's fields are set up to be easily translated into a JMIE-compatible format. The database is comprised of 374 incidents which have been dissected into 98 fields that were formulated to identify the essential components of incidents of microviolence in the maritime environment. Appendix A is a reproduction of the data collection instrument which was used to record individual incidents prior to their entry into the MAS Database. The large number of fields are essential to capture the pertinent information that is available from the many sources which currently report microviolent incidents. There is currently no standardization in incident reporting format and frequently there is only scant information available, especially in the early years of the period in question. The data contained in MAS have been compiled using a wide variety

¹² JMIE is a secret level on-line system capable of being accessed by up to 100 remote workstations. Users can download query-controlled raw data for analytic purposes. The list of maritime information sources which provide data to JMIE is extensive.

of reporting sources on political violence at sea worldwide.¹³

After reviewing a sample of the type of microviolent data that were available, the database concept was formulated and Appendix A was created. Despite the best efforts, revision occurred several times in order to better tailor it in order to maximize the quantitative analysis of the available data. Numerous experts at both the Naval Postgraduate School and the Office of Naval Intelligence were consulted and contributed greatly to its creation.¹⁴ For the purpose of the analysis, it is imperative to note that the MAS Database contains known incidents of microviolence from 1975 to 1995 at the unclassified level. It is not a sample.

The data collection instrument was created to capture pertinent information reported in a majority of incidents. This includes date, type of microviolence, type of microviolent maritime target, perpetrator of the microviolence, and general region where

¹³ Sources were: Office of Naval Intelligence (ONI) Data, Department of Energy (DOE) Data, Defense Mapping Agency Hydrographic/Topographic Center NAVINFONET Anti-Shipping Messages, International Maritime Bureau (IMB) reports and publications, International Maritime Organization (IMO) quarterly reports, *Lloyd's Weekly Casualty Reports*, *Lloyd's List*, Selected open press reporting, *A Chronology of Terrorist Attacks and Other Actions Against Maritime Targets* by Brian Jenkins of the RAND Corporation, *Violence at Sea* edited by Brigadier Brian Parritt, and the private chronologies of incidents at sea by Samuel P. Menefee and Charles Dragonette respectively entitled *An Analysis of Incidents of Post-War Terrorism, Piracy, Sabotage, and other forms of Violence relating to Ports, Harbors and Roadsteads and 1945-Present: A Chronology of Maritime Terrorism*.

¹⁴ The structure of the database itself was largely based on the one used by LCDR Farley in his analysis on piracy.

the incident took place. Other fields were designed to reflect bits and pieces of information that were not found in all reports in an effort to gain a broad picture within the population of specific incidents. Once the myriad of sources were inspected and the information was entered onto the data collection instruments, the information was arranged in a computer database to allow easy access and convenient data entry. Nevertheless, the nature of the sources of raw data was such that coding decisions were constantly required to allow for a consistent coding process. When the database is incorporated onto the JMIE host, its availability will increase dramatically. While it is true that more data is available on incidents of microviolence at higher levels of classification, the decision to keep the MAS unclassified was made to allow maximum accessibility. It is envisioned that one of the primary users of this database and its findings will be the shipping industry as a tool to aid in reducing their vulnerability to microviolence. Although much of the information contained in the MAS Database is currently available to the user elsewhere in a raw or processed form, MAS has consolidated it into a single user-friendly location.¹⁵

Because of the vast number of information fields, the possible combinations of single or multi-variable analysis which can cogently be queried using MAS are huge. However, many fields do

¹⁵ Microsoft Excel version 5.0 for *Windows* was used due to its ease and flexibility. Initial efforts were made to create the database in *Superbase* version 2.0 but proved excessively cumbersome and limiting and were subsequently abandoned.

not presently contain sufficient data to allow those queries to be conducted. For this analysis, the author made the decisions on which single and multi-variable combinations to use. Fields were generally selected which had the greatest number of responses.

B. LIMITATIONS

While every attempt was made to ensure both accuracy and completeness of the MAS Database, it is important to note several points. The analysis of the data is only as good as the data itself. As previously mentioned, it was the goal to ensure maximum accessibility to the data and subsequent conclusions which mandated an unclassified study. This, however, is a double-edged sword. Known cases of microviolence were purposely not included into the MAS Database because they were classified at the confidential level or above by government agencies. Therefore, it is crucial to understand that this study is focused on *unclassified* incidents which may provide a slight deviation from the true nature of microviolence in the maritime environment. This, however, has been determined by the author to be minimal.

MAS incorporates the most comprehensive and thoroughly cross-referenced look at maritime microviolence available to date. In many instances however, an individual attack is still only addressed by a *single* data source. As anticipated, data from various sources on a specific incident were frequently different. In cases when the data was significantly different, it became necessary to make a determination about which information would be

entered into the database. In these cases, cross-referencing of information was performed and the information with the highest credibility was incorporated into the database. The coding procedure for this first iteration of MAS was done exclusively by the author. As more cases were examined, the experience dealing with the data became more useful in the deconfliction process that was necessary. There was an exhaustive attempt to deconflict incidents long after they were first recorded in MAS.

IV. FINDINGS

A. THE MICROVIOLENT NOISE

Because this study is focused on the past 20 years, it should not be misconstrued that microviolence is a recent phenomenon. It has been going on as long as social and political interaction between peoples have occurred. Cases such as the United States' efforts to halt the Barbary Pirates in the early 19th century and the German campaign against the neutral commercial shipping during World War I exemplify this fact. It is only logical to assert that as the number of societies and their respective political agendas have increased, so have the occurrences of microviolence. In other words, a certain number of microviolent incidents are going to occur due to the daily interaction of political actors whether they be states, organizations, or groups. This is not a problem that can be made to go away without changing the very nature of politics or mankind. People will always try to evoke their will on others through violence.

This continued occurrence over time can be referred to as the statistical *noise* of microviolence. Noise refers to the finite number of incidents that occur every year as a result of the daily interaction of political entities. Taking a Hobbesian stance, this concept asserts that a certain noise associated with microviolence will be present globally despite preemptive precautions due solely to regular political intercourse, provided normal interaction between political actors occurs. It is the acceptance of the idea

of noise that brings a predictive aspect to this thesis. One can estimate the future of microviolence in the maritime environment based on the microviolent noise that has been present in previous years. Simultaneously, the noise sets the baseline for determining deviation in incident characteristics within a given period of time. For this investigation the unit of time being use is the calendar year. It is not realistic to use zero as a baseline for measurement because no year in the investigation is void of activity.

B. THE FREQUENCY OF MARITIME MICROVIOLENCE

The trend in microviolent occurrences for the past two decades at first glance looks indecipherable, as can be seen in Figure 1. In actuality, however, this could not be farther from the truth. While it is true that the 20 year period yielded an average of 18.7 incidents of microviolence annually, the noise of microviolence remained at a relatively steady 8 incidents per year. It was calculated by conducting successive averages eliminating the highest value.¹⁶ In other words, one could anticipate, in the absence of any spike in microviolent activity, at least 8 incidents in any given year. The high was realized in 1984 with 70 incidents, while 1977 and 1992 both recorded the low of 5 microviolent attacks each. This great variation is best explained by looking at the political ingredient of microviolence.

¹⁶ This is the standard methodology used to obtain the noise level present in specific characteristics of microviolence.

Maritime Microviolent Incidents by Year

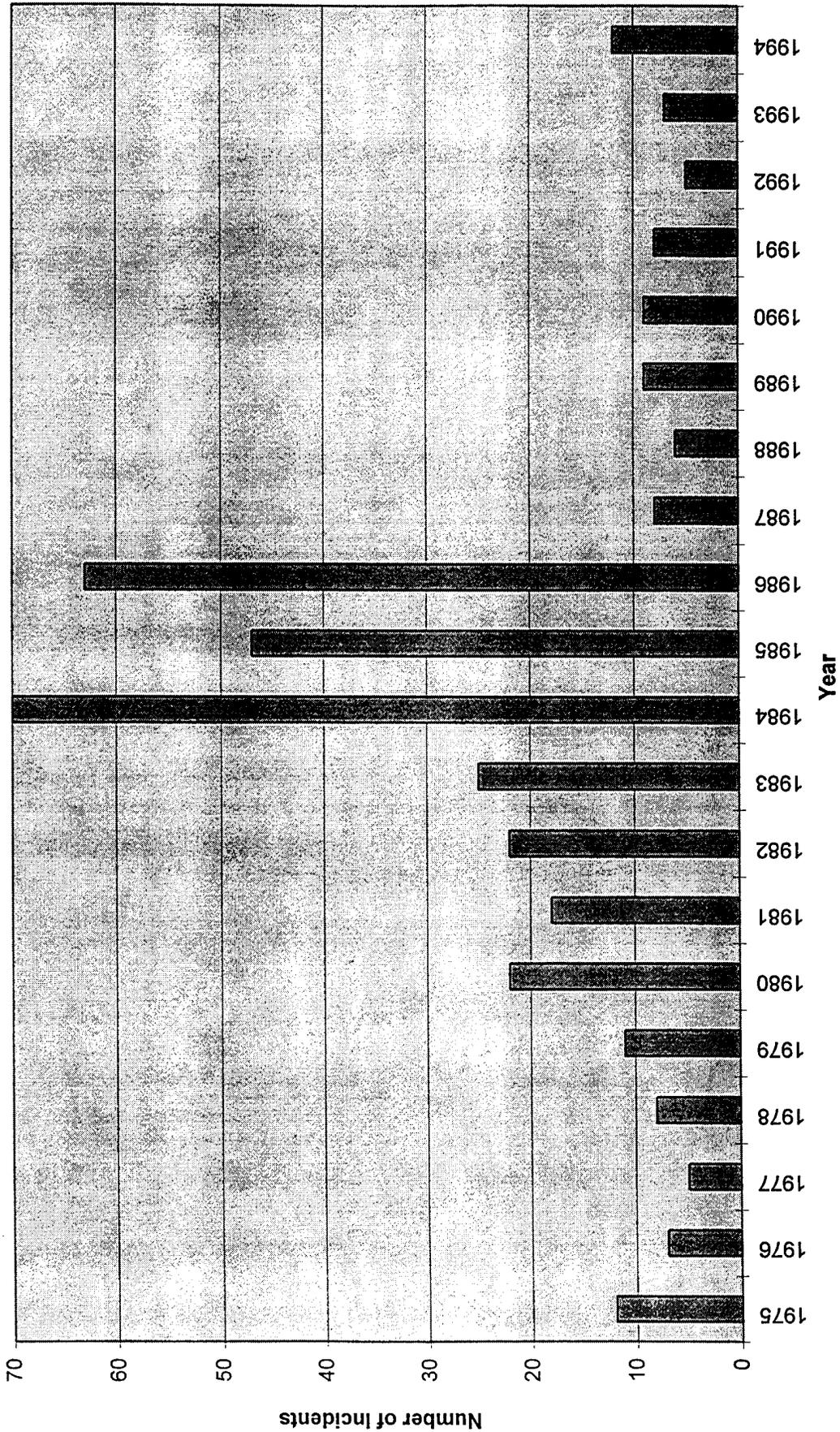


Figure 1.

Like political agendas, microviolence is episodal. Whether used as a means to effect political change or to maintain the *status quo*, once the political goal has been achieved, its utility is greatly diminished. It is no longer necessary to conduct acts of microviolence if the reason for its inception is removed from the political agenda of the perpetrator. For this reason, spikes above the noise level are present in the 20 year record of maritime microviolence.

The first major increase occurred in 1980 as the Christian Phalangists and the Polisario Liberation Front (PLF) increased their violent efforts to create homelands for themselves through wars of national liberation in Lebanon and Morocco, respectively. As these movements began to loose momentum in mid-1981 their maritime microviolent attacks subsided dramatically, becoming less frequent but much more deadly. The decrease in incidents in 1981 indicates this reduction in activity especially on the part of PLF.

Increased microviolent activity in 1982 started a five year surge in attacks in both Central America and the Middle East. The quest by the United States supported Contras in Nicaragua to overthrow the incumbent Sandanista government led to the mining of harbors and the sinking of Sandanista vessels, while the factional fighting in Lebanon escalated causing the frequency and number of microviolent attacks to increase. The event that instigated the greatest number of microviolent attacks was the war between Iran and Iraq. While both Iran and Iraq sought to inflict damage and hardship on the enemy, they also targeted neutral shipping that

conducted economic trade with the opposition. This has become known as the Tanker Wars of 1984-1986 within the shipping industry. This state belligerency led to the deaths of hundreds of sailors and the loss of billions dollars due to vessel damage and lost economic revenue during this period. Damage that Iran and Iraq inflicted on each other is not represented in this investigation because it falls outside the definition of microviolence.

Rampant microviolence in the Middle East continued with a decline in 1985 that one again surged in 1986. This situation changed drastically, however, with the commencement of OPERATION EARNEST WILL. The reflagging of Kuwaiti tankers and the subsequent immense U.S./NATO presence, serving as commercial vessel security in the region, rapidly suppressed the microviolent activity of both Iran and Iraq. The worldwide frequency of maritime microviolence was reduced from 63 incidents in 1986 to 8 in 1987, solely due to the U.S./NATO intervention in the conflict.

The cessation of the infliction of neutral casualties as a result of the Iran and Iraq War returned the microviolence to the levels that were present prior to the dramatic increase of 1980. This trend continued through 1993. The normative microviolent noise level returned to its anticipated level. Nineteen ninety-four, however, saw the first trend increase in almost a decade. The ongoing conflict between the Tamil Tigers and the government of Sri Lanka and the violent seizure of vessels by diasporic refugees from states in turmoil have led to this recent increase.

C. MICROVIOLENCE BY REGION

All microviolent attacks in the MAS Database have been separated into one or another of 14 general regions in the desire to obtain a regional perspective on microviolence. This breakdown revealed that while it is true that maritime microviolence is a worldwide phenomenon, it is not equally distributed among all regions, despite a mean noise level of 10 incidents per region over the 20 year period. Figure 2 illustrates the number of incidents by world region from 1975 to 1995. See Appendix B for a complete breakdown of states within each geographic region.

The Middle East possessed the highest number of incidents, dwarfing all others. Fifty-five percent of all attacks took place in this region. This is predominantly due to the Tanker Wars of 1984-1986. The other regions illustrated reflect the anticipated noise levels with a few notable exceptions. Those being South East Asia, Indonesia and U.S./Canada.

An above average level of maritime violence was noted by LCDR Mark Farley in South East Asia and Indonesia in the form of piracy.¹⁷ It is interesting to note this proclivity to violence in the maritime environment lacks a substantive political component, although 2 instances of political groups resorting to piracy to finance their efforts at political reform have been recorded. Only 8 incidents, which equates to just over 2 percent of all the maritime attacks, were recorded in South East Asia over the 20 year period. No incidents were recorded in Indonesia.

¹⁷ LCDR Mark Farley, p. 28.

Microviolence by Region

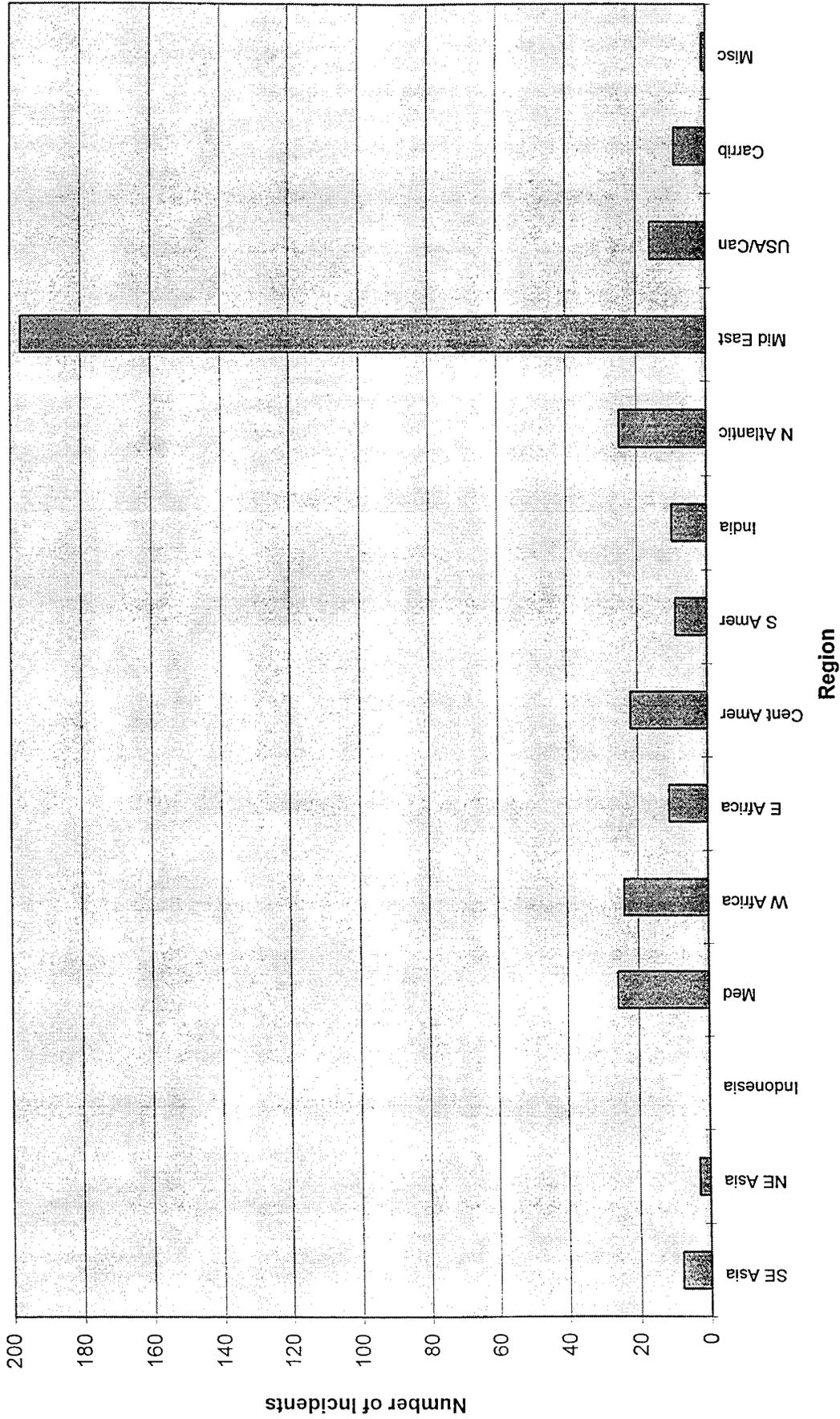


Figure 2.

The other region of interest was that of U.S./Canada. While most residents of the U.S. view political violence as something "that happens over there" and would expect incidents within the U.S. to be below expected microviolent noise levels, this could not be farther from reality. It is also interesting to note that of the 16 incidents that occurred in this region, none of them took place in Canada. This indicates that the U.S. possesses slightly over 4 percent of all microviolence within its territorial waters. While ranking seventh by region, this places the U.S. as the fourth highest in the frequency of maritime microviolent attacks within its sovereign waters.

D. MICROVIOLENCE BY WATERS

To further understand where microviolent acts have been occurring in the maritime environment, the database was constructed to allow breakdown of attacks by whether they took place in territorial or international waters. Figure 3 represents this query. Because microviolence is political violence conducted by one political actor against another, it is understandable that a strong association would be present with the sovereignty that is implicit to territorial waters. Expectedly, 82.7 percent of all maritime microviolence took place within sovereign waters. This correlation is present with only one major episodal deviation.

The Tanker Wars of 1984-1986, while commencing with attacks against vessels conducting commerce in territorial waters, quickly escalated to the engagement of vessels in international waters,

Incidents by Waters

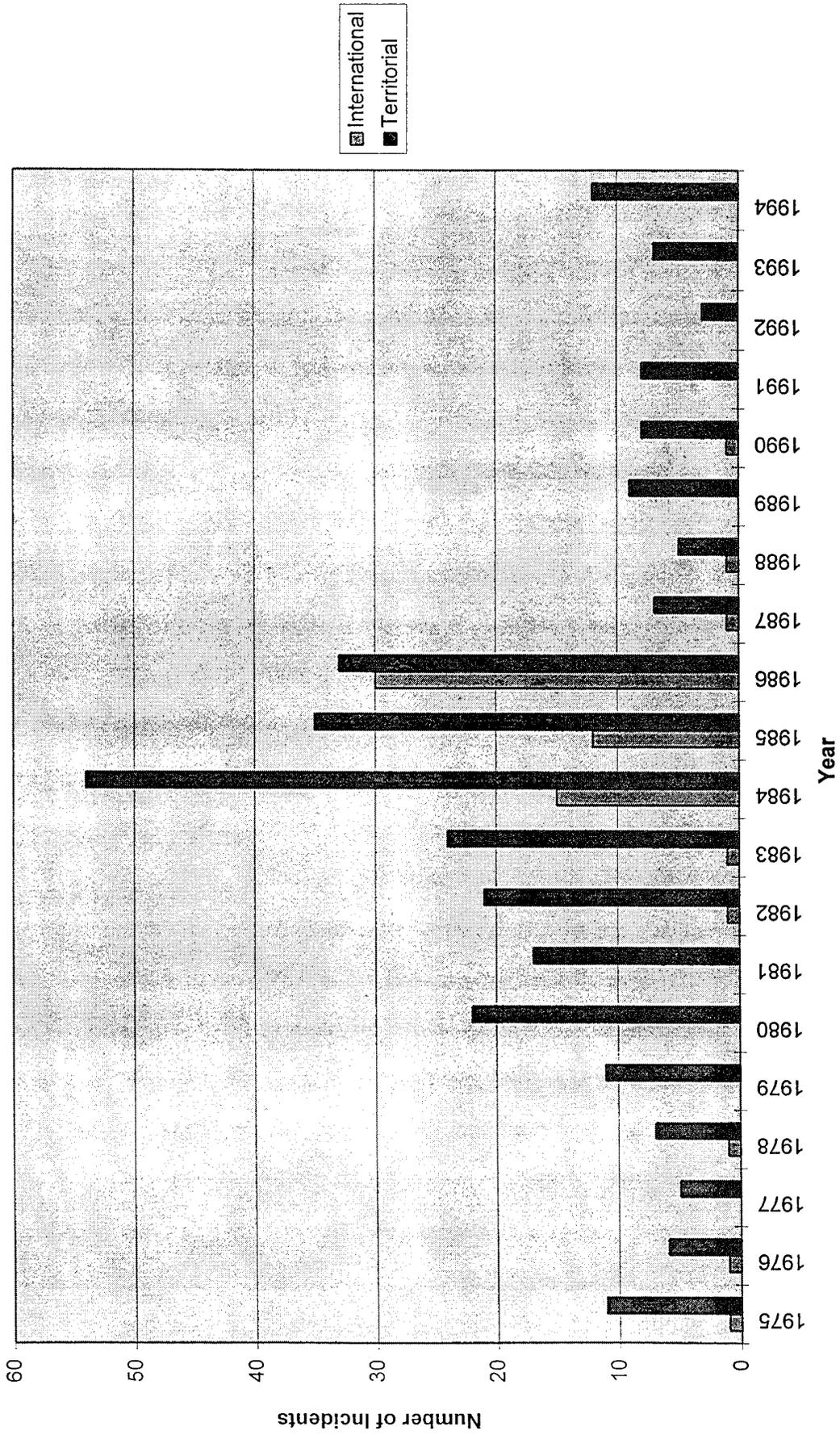


Figure 3.

normally the Persian Gulf. This continued throughout the period, reaching a high of 30 attacks in 1986. Of all of the microviolent attacks in international waters 88 percent were conducted in the Persian Gulf during this conflict. The microviolent transition to international waters was quickly reversed with the overwhelming U.S./NATO presence that appeared in the Persian Gulf in 1987.

E. STATES WITH THE HIGHEST INCIDENTS OF MICROVIOLENCE

Like world regions some states incur higher levels of microviolence than others. In an effort to understand the number of incidents within specific states the MAS Database was queried to further reduce the general region and territorial water data fields for analysis. Figure 4 illustrates the number of microviolent attacks that occurred within the territorial waters of each respective state. Only those states with more than 5 attacks are listed. This is done to indicate "chronic" microviolence in a relative sense. Those "chronic" states that have had maritime microviolent attacks take place within their waters accounted for over 54 percent of all incidents recorded.

Iran led all other states in regard to victimization with 61 microviolent attacks, or 16 percent of the total, within its waters which were predominantly conducted by Iraqi war assets against neutral flagged shipping during their interstate conflict. A distant second and third in numbers are Lebanon and Nicaragua with 26 and 19 attacks, respectively. As previously mentioned the U.S. falls fourth with 16 occurrences.

States With More Than 5 Incidents of Microviolence

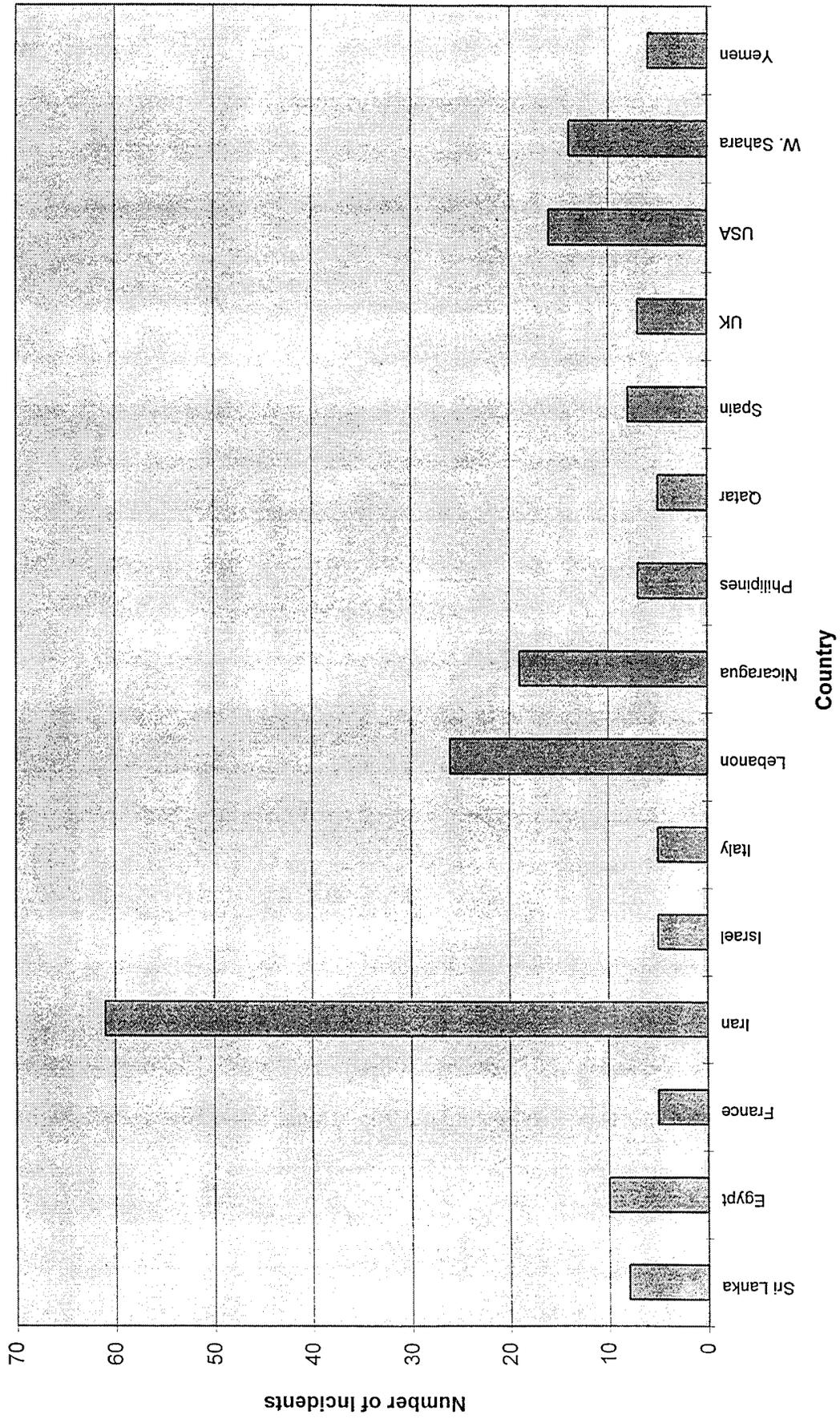


Figure 4.

F. WARNING PRIOR TO MICROVIOLENT ATTACKS

Trends of warnings prior to attack were conducted to investigate the possibility of prior warning providing an opportunity for the vessels to implement preventative measures. The Database revealed that microviolent attacks generally occur with little or no warning. Figure 5 outlines the trend of warning prior to microviolent attack. Only 24 percent of all attacks occurred with any forewarning prior to the onset of violence. Of these, the majority that took place are attributed to Iraq during their conflict with Iran. Ninety-seven percent of instances of prior warning fall into this category when Iraq outlined its belligerent intentions to those who dared engage in maritime commerce with Iran via a formal communique.

The absence of warning prior to the onset of violence complicates efforts of implementing proposed policies of increased vigilance within the shipping industry and port facilities in the event of impending violence. This places the burden on the shipping industry to be constantly prepared for microviolence at all times. Despite this fact, one can predict which region, states, and waters are more likely to support a microviolent incident by looking at data with MAS. The greatest threat lies in areas with ongoing hostilities between political actors. Vessels that venture into such environments are likely targets and put their crews at risk.

Periodicity of Warning Prior to Attack

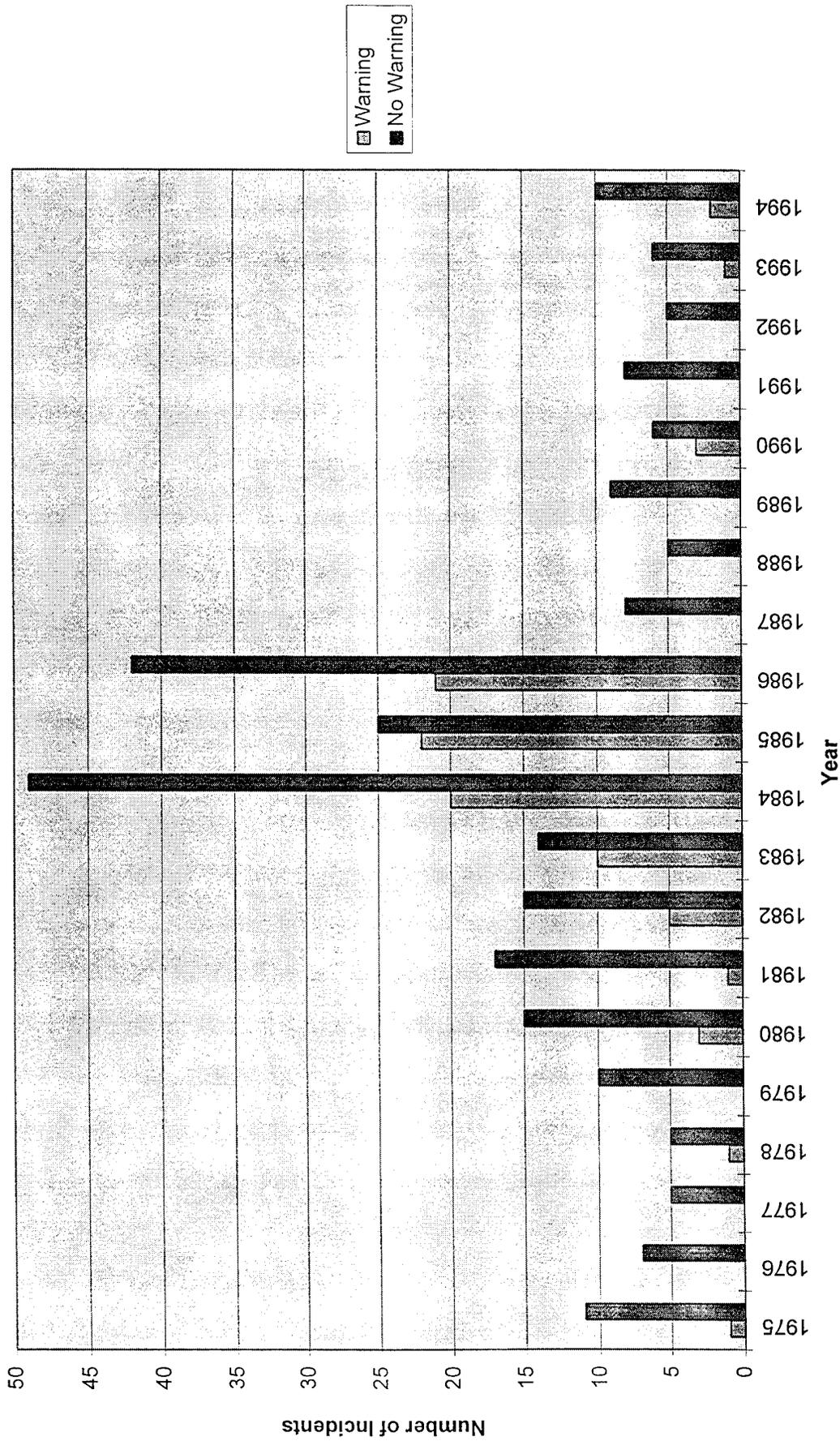


Figure 5.

G. MICROVIOLENCE BY VESSEL FLAG

Although port facilities are the occasional target of microviolents, over 95 percent of all maritime assets targeted have been vessels. Victim vessels come from virtually every state that maintains a flagged fleet. Due to the large number of states with vessels that have been victimized, only those states whose flagged fleet that have suffered at least 5 incidents have been broken down in Figure 6. Appendix B is useful in decoding the Defense Intelligence Agency (DIA) two-letter designation indicating state flag.

There is little surprise in the fact that those states that have the largest number of flagged vessels have been victimized the most. Liberia, Cyprus, Greece, and Panama exemplify this fact as all have been attacked the most frequently and simultaneously maintain the four largest flagged commercial fleets in the world. Also contributory to the probability of attack is the periodicity that a vessel enters the higher threat regions such as the Middle East. The more frequently a vessel transits through a hostile region, the more likely it is to suffer microviolent attack.

Efforts were made to understand microviolent victimization as a factor of a state's commercial fleet size. It was the goal to see if some states were being targeted more than others on a significant scale outside of a single episodal conflict. Despite the use of several methods, it was determined that there was no specific correlation between attacks and the number of vessels each state maintains and the regions they operate in. Attempts to

Incidents by Flag 1975-1995

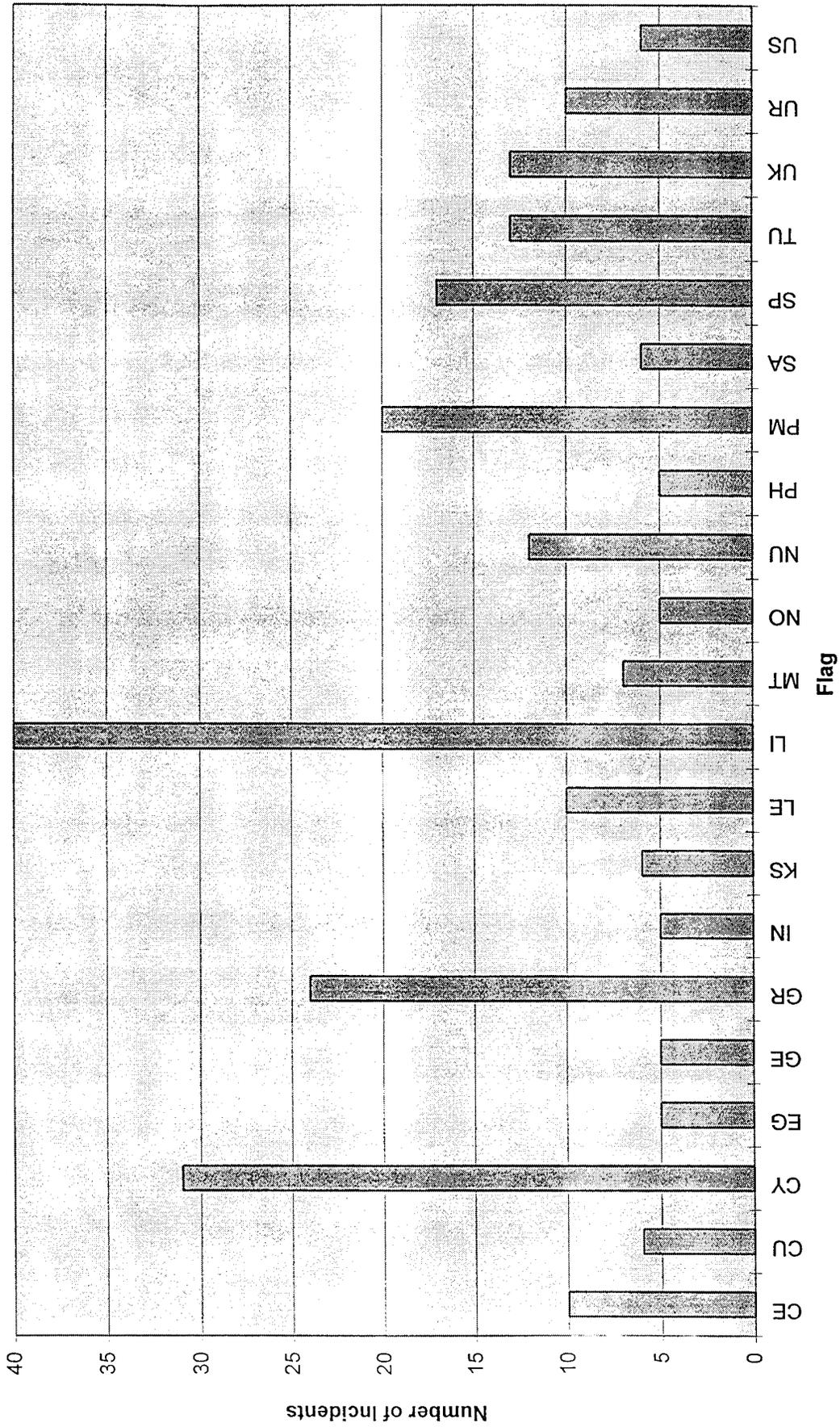


Figure 6.

normalize the phenomenon confirm that the more ships a state flags and their frequency to transit in higher threat regions seem to solely determine their probability of microviolent attack.

H. DAMAGE CAUSED BY MARITIME MICROVIOLENCE

Microviolent physical damage to maritime vessels shown in Figure 7 largely mirrors that of the frequency of attack as discussed in Section B and illustrated in Figure 1. While there are slight variations, predominantly in the early years of the time line, it can be deduced that devastation caused by microviolent activity has not increased dramatically through the years. Damage was determined when it was either mentioned specifically in the incident report or deduced due to the successful use of a damaging weapon system in the attack. A further reduction by the amount of the damage itself was impossible due to insufficient information in the majority of reports.

The unavailability of information on the magnitude of damage and subsequent insurance claims from the shipping companies and insurance carriers made efforts to assess specific monetary cost due to microviolence impossible. In fact, an educated approximation was also nowhere to be obtained.¹⁸ This is predominantly due to the highly competitive nature of both shipping companies and the insurance carriers alike. They do not desire either their monetary assets or liabilities to enter public forum.

¹⁸ Numerous efforts were made by telephone in person to obtain an estimate of damage or the cost of repair of maritime assets damaged by microviolence with no response.

Microviolent Vessel Damage

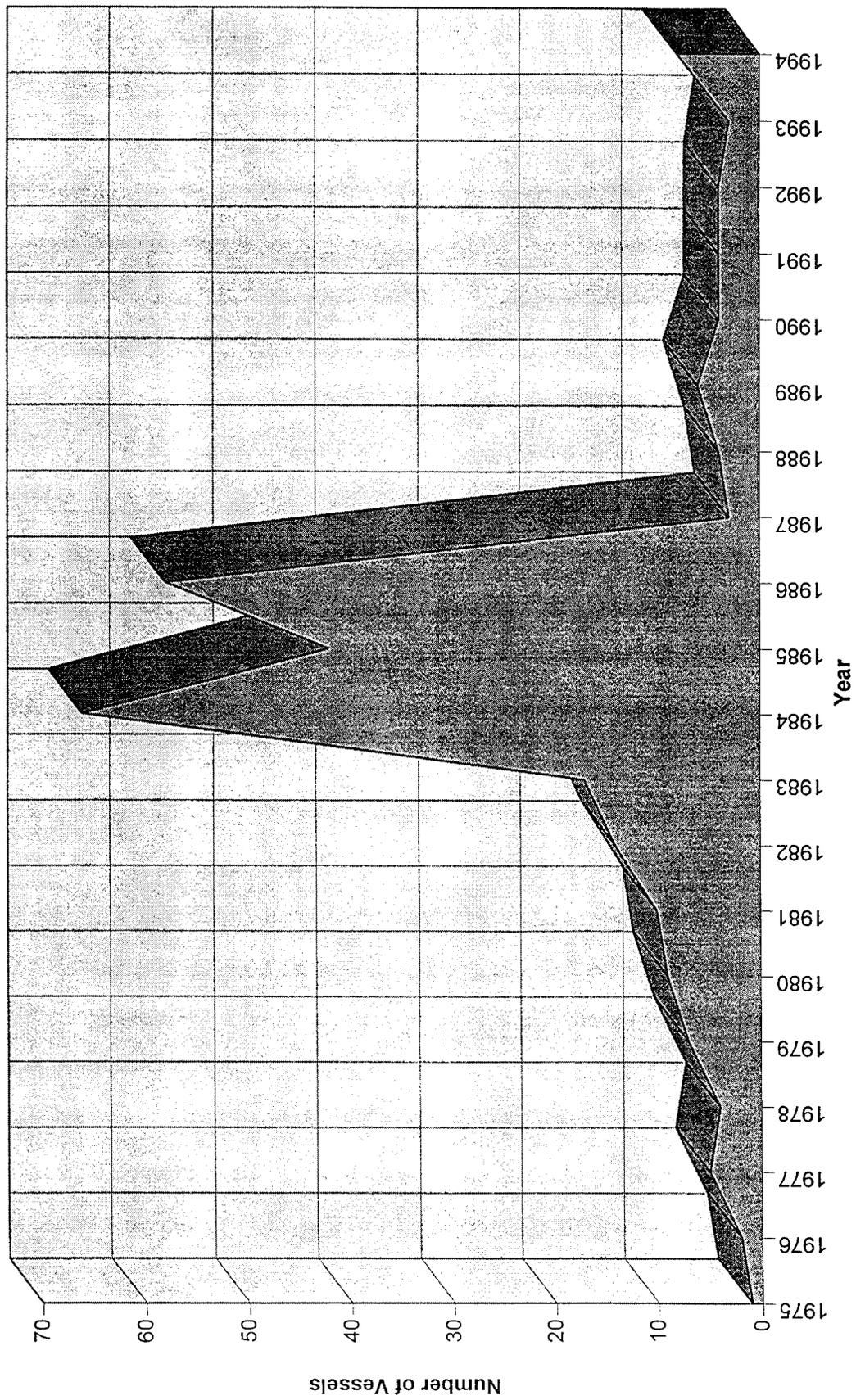


Figure 7.

I. CASUALTIES DUE TO MICROVIOLENCE

The human cost of microviolence, through deaths and injuries, is one of the largest issues within the shipping industry. The MAS Database was constructed in order to understand the magnitude of casualties due to this phenomenon. Figure 8 graphically displays all recorded injuries and deaths that were documented during the period of investigation.

The 20 year period yielded 786 casualties which can further be reduced to 351 deaths and 435 injuries that required medical attention. This averages to slightly over 2 casualties per microviolent incident. The noise of microviolent casualties has increased throughout the years of investigation. In the late 1970s one could expect approximately 10 casualties annually but this has increased through the years to 32 in the 1990s, indicating that microviolence is becoming more hazardous for those who venture into the maritime environment. One can expect three times as many casualties each year now than just 15 years ago. In addition to physical casualties 1347 individuals have been taken as hostages during attack.¹⁹ The disposition of these hostages remains uncertain in many cases.

Several interesting observations were apparent. The years which had more microviolent attacks did not necessarily have the highest casualty rates. From this it can be inferred that some

¹⁹ This figure includes the 750 passengers and 331 man crew of the *Achille Lauro* that was hijacked by members of the Palestine Liberation Organization (PLO) in 1985.

Maritime Microviolent Casualties

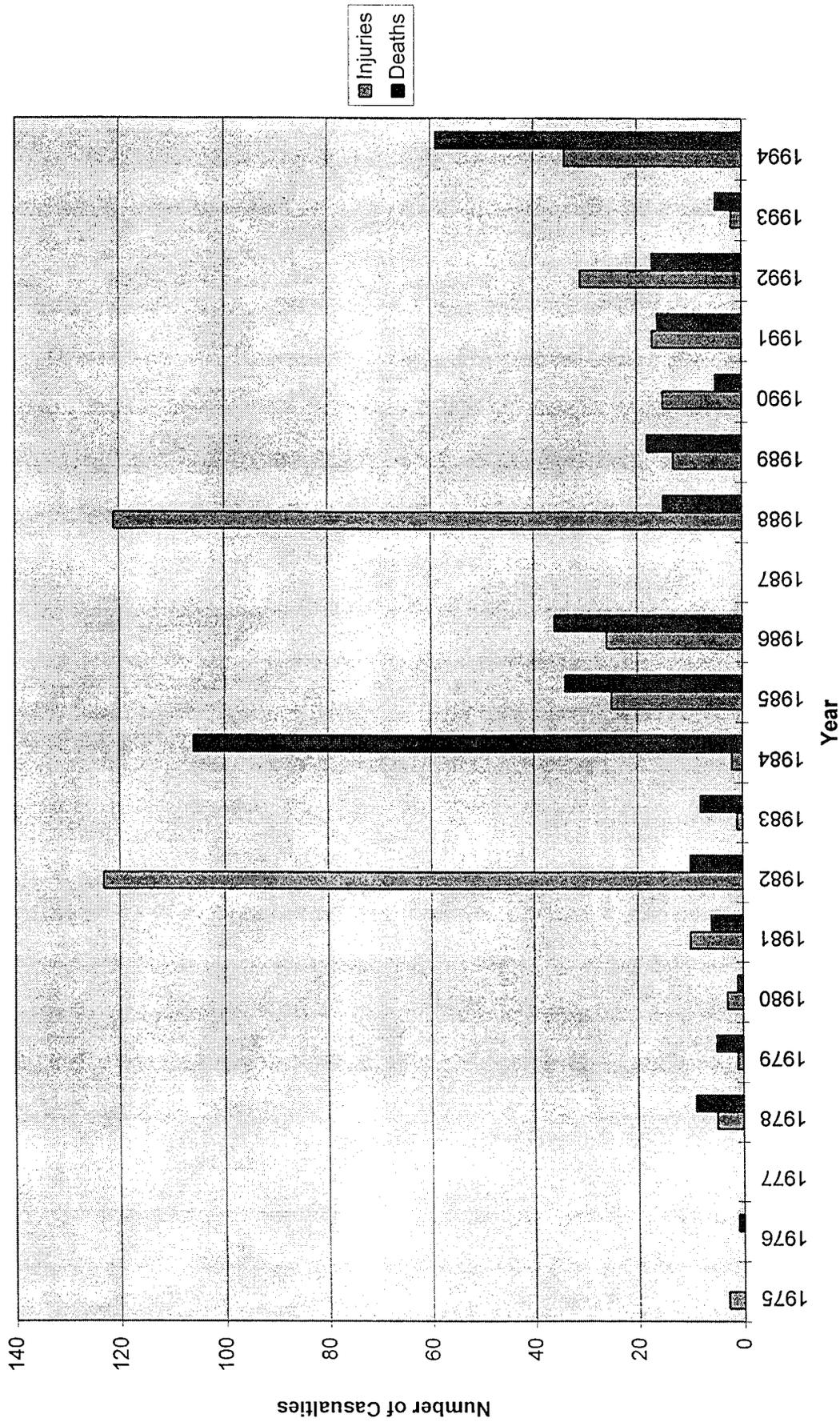


Figure 8.

forms of microviolence have a higher human cost than others. The high level of injuries present in 1982 and 1988 were due specifically to the machine-gunning of passenger ferries in the Philippines and Nicaragua by the Moro National Liberation Front (MNLF) and the Democratic Revolutionary Alliance (ARDE), respectively. It appears these vessels were targeted specifically to cause a high casualty rate. For example, during a two day period in December of 1982 two passenger ferries were targeted in a violent surge that killed 8 and injured 130 innocent civilians.

The high casualty rates in 1994 can be credited to the actions of the Tamil Tigers in Sri Lanka. Their frequent and devastating attacks on the Sri Lankan Navy have proven especially vicious with no end in sight. Three incidents in 1994 accounted for over 50 deaths and 30 injuries to Sri Lankan Navy personnel.

J. MICROVIOLENCE SPONSORSHIP

Microviolence in itself has been defined as political violence that is conducted by either groups engaged in a substate conflict, international organizations, or state belligerency and, therefore, it seems appropriate to conduct a trend analysis on what extent each of these groups are using microviolence as tool in their political struggle. Figure 9 shows this breakdown graphically. The **unknown** category was utilized when the perpetrator of the microviolence was either questionable or could not be determined. Table 1 summarizes the results covered in this subsection.

The largest number of microviolent actions have been conducted

Microviolent Sponsorship

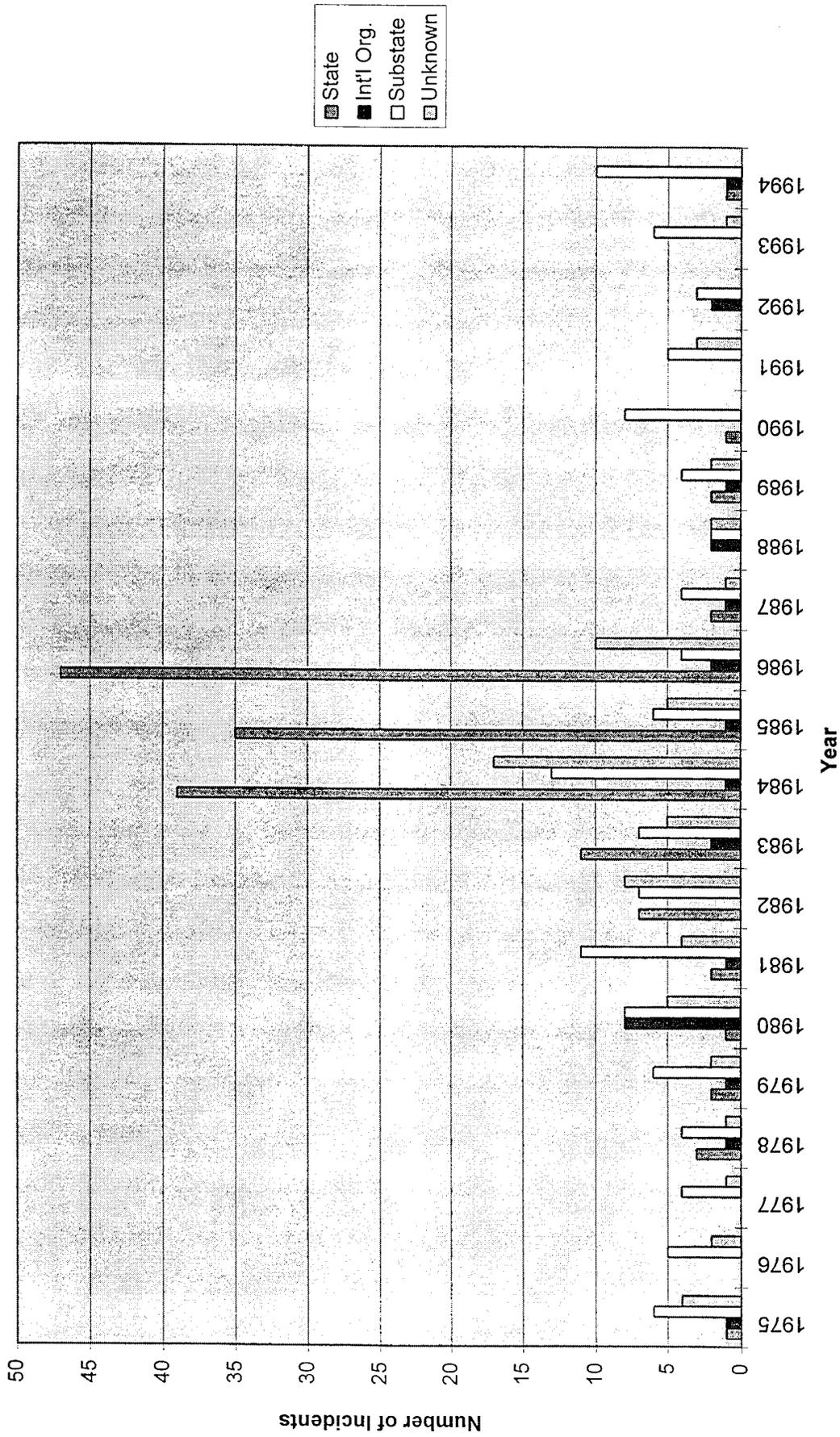


Figure 9.

by states as they attempt to effect their will on others. Microviolence associated with state belligerency, while present regularly in small numbers throughout the time line, reached extraordinary precedence during the height of the Tanker Wars of 1984-1986. As previously mentioned, the level of state belligerency quickly returned to the norm after the U.S./NATO presence was interjected into the region during OPERATION EARNEST WILL. One hundred and fifty-four attacks (41 percent) of all document attacks have been classified as acts of state belligerency. Despite the high level of this type of microviolence, the noise of state belligerency was relatively low at an expected 2 incidents per year. These attacks have resulted in 159 casualties (119 dead and 40 injured) and the damage or destruction of 89 vessels.²⁰ Although a large number of attacks by states have occurred, this equates to better than one casualty in each microviolent attack conducted by a legitimate state. The only confirmed source of state belligerency where hostages were taken was the capture of the *Mayaguez* in 1975 that resulted in the abduction of 37 personnel.

Microviolent attacks associated with substate conflicts were the second greatest source of microviolence. There were 123 confirmed attacks by these movements (20 percent of the total) which have resulted in 611 casualties (209 dead and 402 injured)

²⁰ Several vessels were struck several times by the Iraqis during the Tanker Wars. One vessel in particular was struck on four separate occasions by missiles from Iraqi warplanes.

and the damage and destruction of 112 vessels. The noise level associated with substate conflicts equals 4 incidents per year. While not the greatest source of incidents over the period under investigation, substate conflict did account for the highest noise level, casualties, and number of hostages. These movements have been credited with the taking of 1297 hostages for political leverage.

International organizations, while nowhere as active as either states or substate contenders, have maintained a nearly constant level of microviolent noise with exception of one surge which transpired in 1981. This corresponds to noise level of 1 incident per year. International organizations have conducted 25 microviolent attacks over the past two decades which averages to 1.25 attacks per year. Only 14 casualties (3 dead and 11 injured) are attributed to microviolence by international organizations and 25 vessels have been damaged or destroyed. This indicates that when international organizations turn to microviolence they have been successful in inflicting damage in one form or another to their targets 100 percent of the time. Only 11 hostage abductions have been credited to these organizations.

	State Belligerency	International Organizations	Substate Contenders
Number of Incidents	154	25	123
Incident Noise	2	1	4
Total Casualties	159	14	611
Deaths	119	3	209
Injuries	40	11	402
Hostages	37	11	1297

Table 1. Breakdown of Subsection Results

K. WEAPONS USED IN MICROVIOLENCE

As subscribers to microviolence conduct their acts, they normally use weapons to either inflict direct damage or to coerce their victims. The MAS Database attempted to capture the type of weaponry employed in these attacks. A specific field was created that categorized 9 different weapon types used, from exploding devices by those perpetrators with the technical wherewithal to the use of swords by the more primitive. In the event that a multitude of weapons types were used in a specific microviolent attack, the case was categorized by the most destructive weapon used. Figure 10 illustrates the use of the 4 most frequently used weapons in microviolence and their use over the 20 year period of investigation. Table 2 summarizes the specifics outlined in this subsection.

The weapon of choice was the use of exploding devices in one form or another. This category does not include mines, either floating or magnetic variations placed on the hull, because it

Weapons Used in Microviolence

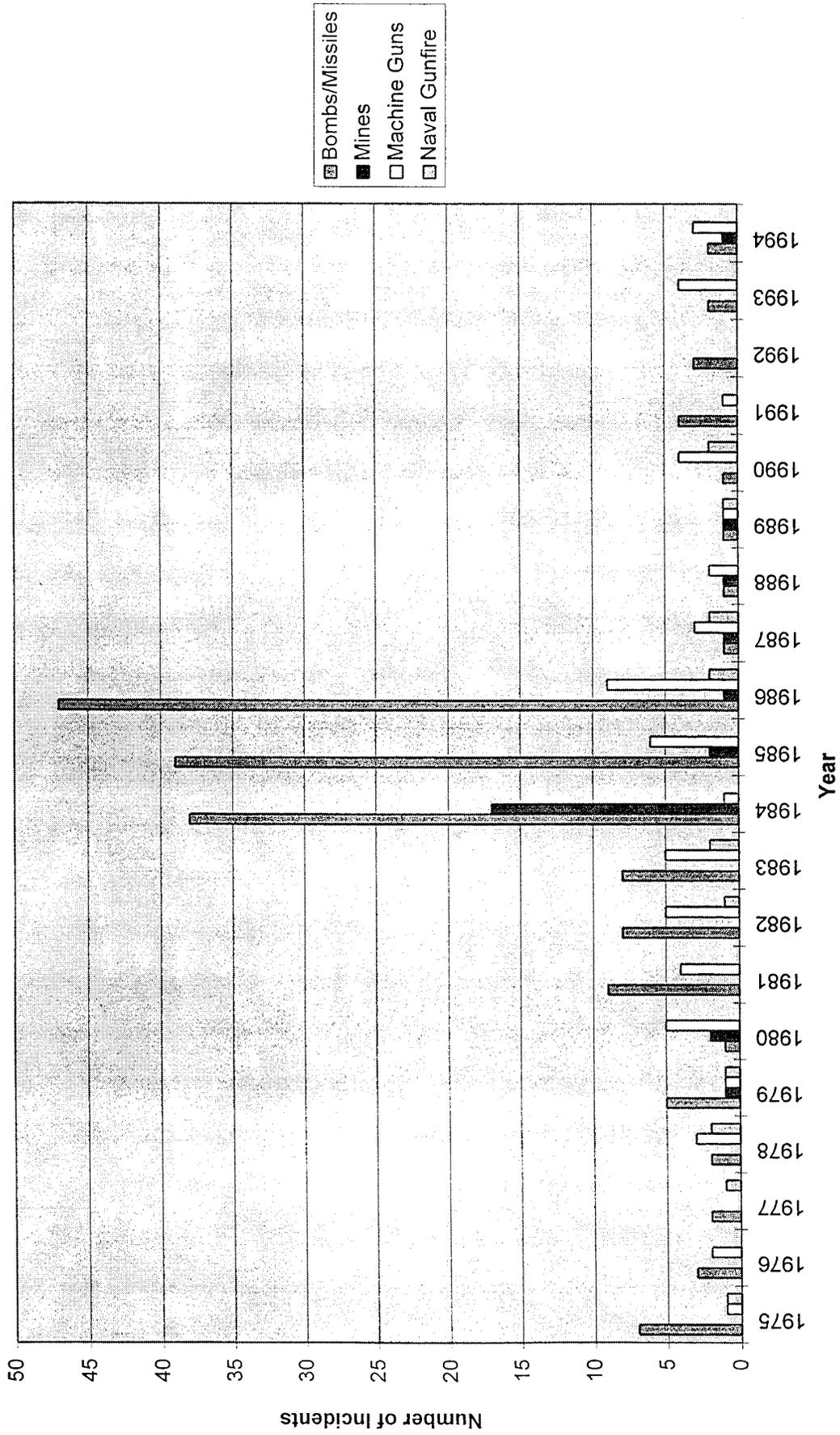


Figure 10.

was the author's desire to view these as a separate entity. This category does, however, include the use of radar guided missiles by technically proficient state belligerents. Both port facilities and vessels were the victims of attacks using explosives, but the vast majority were vessels. One hundred and eighty-four attacks against vessels occurred. Explosive use resulted in 502 casualties. The largest employers of explosives were state belligerents, who were also the most frequent perpetrators of microviolence.

The second most frequently used weapon type was machine-guns. Their use was employed in 60 different attacks which resulted in 205 casualties. This equates to 3.4 casualties per attack making machine-gun use the most devastating weapon in the conduct of microviolence. Target selection is predominantly the reason for this. When passenger ferries were targeted, machine-guns were the weapons of choice inflicting large numbers of casualties.

The use of mines occurred regularly totalling 27 incidents. The majority of these took place in Nicaragua and the Middle East which accounts for the sharp rise in their employment in 1984 at the height of the conflicts in these regions. Only used in 7 percent of the attacks, underwater mines were responsible for 6 casualties and the damage of 27 vessels making them 100 percent effective in their ability to cause damage.

State actors have one weapon system not available to other perpetrators of microviolence, that is the ability to use their

navy as an instrument of violence by using the organic weapon systems available on their craft. The use of weapons on naval vessels was categorized as naval gunfire and accounted for 15 attacks against both vessels and port facilities. Naval gunfire attacks resulted in 26 casualties.

	Explosives	Machine-guns	Mines	Naval Gunfire
Number of Incidents	184	60	27	15
Casualties	502	205	6	26
Casualty/No. of Incident	2.7	3.4	.2	.58

Table 2. Breakdown of Subsection Results

L. MARITIME MICROVIOLENT GROUPS

One of the most important fields in the MAS Database indicates the state, group, or organization that has been *confirmed* to have conducted the microviolent incident. Confirmation of the perpetrator in each case was established by either eye witness accounts or a single claim acknowledging responsibility by a group. On incidents that had multiple parties claiming responsibility and culpability could not reasonably be determined, the field was left blank in the event that final determination can be made at some point in the future.

The following list of perpetrators of microviolence is far from conclusive and reflects only the 10 most frequent subscribers to this tactic. They are listed in order of their frequency of microviolent use as illustrated in Figure 11. These

10 groups account for 51 percent of all microviolent attacks from 1975-1995.

1. The Iraqi Government

Iraq relied on the use of maritime microviolence in its war against Iran from 1981 through 1987. They frequently engaged merchant shipping traffic that conducted commercial trade with its enemy Iran. The height of microviolent activity was reached in the spring of 1984 when Iraq began a series of attacks against tankers calling at Kharg Island, Iran. The aim of these attacks was to hurt Iran's petroleum import capacity by scaring away prospective trade by targeting neutral-state shipping through increased insurance rates, and actual damage inflicted to the vessels.²¹ The majority of attacks were carried out by *Super Extendard* and later *Mirage F1* fighter aircraft. They were equipped with *Exocet* anti-ship missiles, which can be launched up to 35-40 miles away from the target, and guided to the target by radar. Ninety-one confirmed Iraqi microviolent attacks, or 24 percent of all microviolent incidents, were conducted.

2. The Iranian Government

Like Iraq, Iran also carried out "retaliatory" strikes against ships trading with its enemy, although to lesser extent. Iran's confirmed microviolent efforts numbered 31 throughout its war with Iraq. Iran relied more on anti-shipping missiles from helicopters which proved less effective and required a closer

²¹ Thomas S. Schiller, *Violence at Sea*, Edited by Brigadier Brian Parrit, ICC Publishing S.A., 1986 p. 113.

Most Active Microviolents

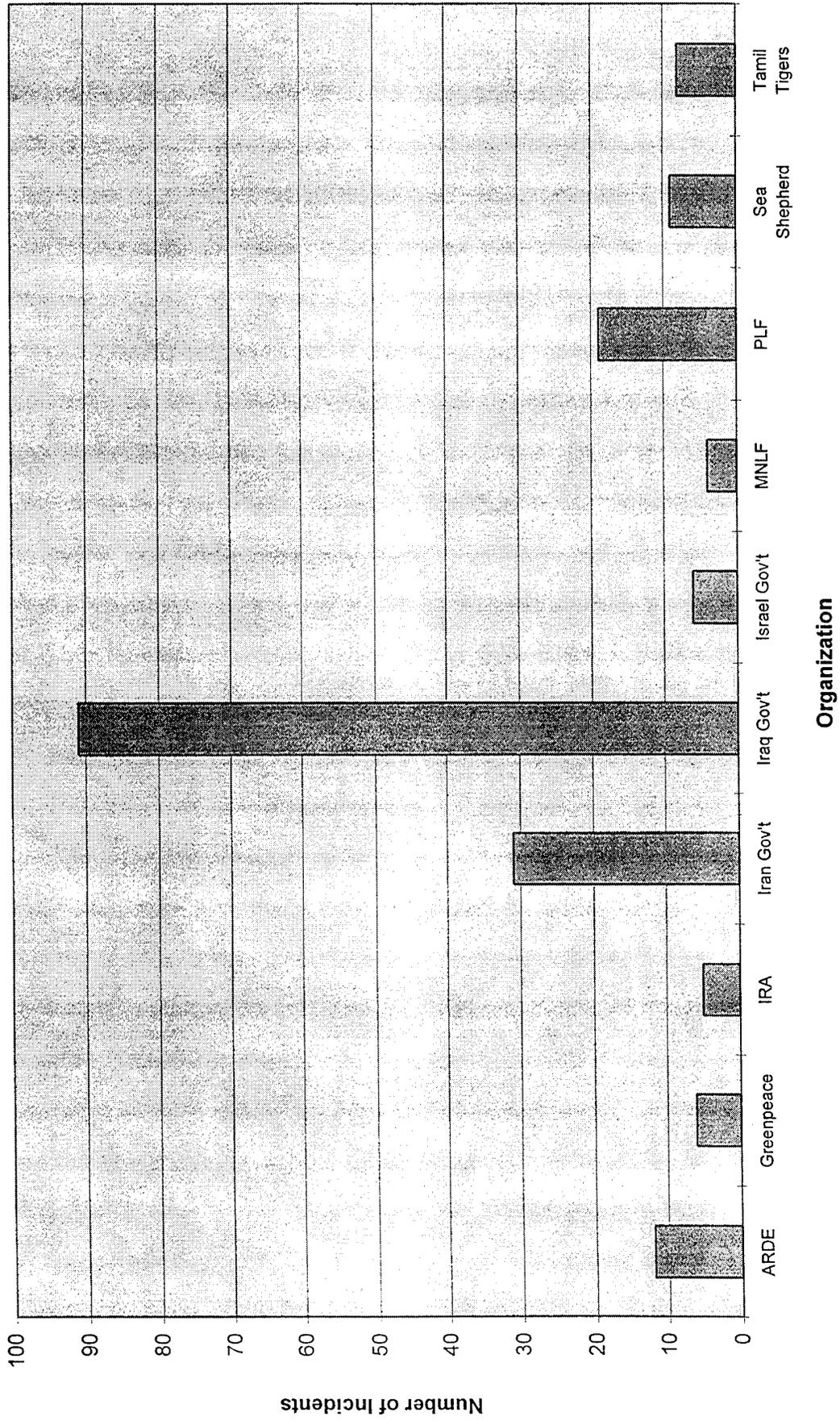


Figure 11.

approach to the target.

3. Polisario Liberations Front (PLF)

The Polisario Liberation Front, which is currently fighting for the independence of what was formerly the Spanish Sahara, has been one of the most active practitioners of maritime microviolence. In the MAS Database, PLF is credited with 19 confirmed attacks since 1975. The usual *modus operandi* is to engage fishing vessels off of the coast of what Polisario claims is the Saharan Arab Democratic Republic. They often use inflatable-type motorized boats, and usually attack the target with machine-guns or rocket propelled grenades (RPG). On several occasions, the vessels have been boarded, the crew abducted and held for ransom. Two such incidents in 1980 were instrumental in obtaining Spanish and Portuguese recognition of Polisario.

4. Democratic Revolutionary Alliance (ARDE)

The ARDE which was based in Nicaragua and adjacent countries conducted 12 confirmed microviolent attacks against the Sandanista regime in the maritime environment. Their microviolent activities began in 1983, peaked in 1984, and all but ceased by the end of 1985. Most of the attacks recorded were the result of vessels striking mines placed by ARDE off Nicaraguan ports or the machine-gunning of passenger ferries.

The mining incidents of in the maritime environment were merely a part of their larger effort to disrupt the Nicaraguan economy. The most controversial aspect of the ARDE microviolent actions was the role of the United States in the maritime

attacks. The United States, the CIA in particular, was found culpable in aiding the ARDE mining actions by the International Court of Justice in the Hague.

5. Sea Shepherd Conservation Society

The Sea Shepherd Conservation Society is a non-governmental organization (NGO) involved in the investigation and documentation of violations of international law, regulations and treaties protecting wildlife species. The Society is also involved with the enforcement of international laws, regulations and treaties when no enforcement by national governments or international regulatory organizations occurs due to absence or political will. In these instances, Sea Shepherd takes enforcement into their own hands through the use of microviolence against those they believe are not complying to the required guidelines for marine wildlife. They have conducted 9 microviolent acts during the period under investigation against their adversaries, generally in the form of the sinking of vessels through ramming or sabotage. They are considered a greater threat than other international organizations such as Greenpeace because of their proclivity toward premeditated vigilante-type violence.

6. Tamil Tigers

The 11 year war of national liberation waged by the Tamil Tigers against the government of Sri Lanka did not enter the maritime environment with any regularity until 1990. Since then, 75 percent of their attacks have taken place. The Tamil Tigers

have conducted 8 attacks at sea during the 20 year period. Suicide bombings and the ramming of government naval vessels with explosive-laden small craft are their tactics of choice. Incidents are rapidly increasing and it is likely that the microviolent attacks will continue until a resolution to the conflict within Sri Lanka is realized.

7. Greenpeace

The NGO Greenpeace has used microviolence to further its environmental causes throughout the world. Its relatively large number of inventoried vessels have given this organization extreme flexibility in making their political statement. While the majority of their demonstrations remain peaceful, they have been credited with 6 incidents of microviolence.

These incidents tend to occur due to inadvertent escalation of a planned peaceful protest. The microviolence was not premeditated, but rather resulted through the lack of control by both the protestors and those protested against. It is important to note that Greenpeace has also been the victim of microviolent actions as exemplified by the sinking of the vessel *Rainbow Warrior* in New Zealand by French agents which resulted in one death.

8. Israeli Government

The Israeli government, most notably the Israeli Navy, have conducted several microviolent attacks against maritime targets. Not perceiving their actions as state belligerency, the Israelis

view their microviolence as preemptive in nature.²² In order to protect their citizenry they believe they must take the conflict to the territory of their enemies even in the absence of open hostilities. Six microviolent incidents have been credited to them.

9. Irish Republican Army (IRA)

The long standing conflict between the IRA and the British government over the control of Northern Ireland has a long history of maritime microviolence. This is understandable in light of the fact that both Ireland and the United Kingdom are island states and are closely linked to the sea. IRA attacks in the maritime element have caused comparatively little damage and have obtained little lasting publicity with the exception of the assassination of Lord Mountbatten by a bomb while on his yacht *Shadow V* in August of 1979. Their 5 incidents during the 20 year period of analysis have been minuscule when compared with their terrestrial efforts.

10. Moro National Liberation Front (MNLF)

This Filipino Moslem separatist group is credited with 4 microviolent attacks. While it is true the MNLF has not conducted a large number of attacks, they are responsible for some of the most brutal and deadly attacks to date. They have hijacked ferry vessel with large numbers of passengers and generally sought ransom in order to further finance their

²² Samual M. Katz, *Guards Without Frontiers*, Arms and Armour Press, 1990, p. 54.

separatist movement. Frequently, they machine-gunned large percentages of the passengers in an effort to lend credibility to their continued threats of violence. The MNLF has not conducted an attack since 1983 and experts have suggested that they reached the peak of their activity in the mid 1970s; and have subsequently been coopted and divided, with a resulting decline in strength ever since.²³

M. TRENDS OF HIGH MICROVIOLENT STATES

The episodal nature of microviolence is readily visible when examining the 5 states with the highest level of microviolent victimization over the past two decades. See Figure 12. One can see that the violence is limited to periods where political conflict is present. As the political situation becomes less volatile due to either resolution of the political conflict, as in the case Nicaragua, or the appearance of a stabilizing force such as the Western involvement in the Persian Gulf, then the incidents of microviolence subside and eventually disappear.

N. RECENT TRENDS OF HIGH MICROVIOLENT STATES

The past 5 years have shown a marked difference in those states which have higher levels of microviolent victimization than those mentioned in the previous subsection. Only one state in the past 5 years can also be categorized as one of the highest incident state's over the entire 20 year period. This indicated

²³ Thomas S. Schiller, p. 90.

Trends in 5 Highest Microviolent States

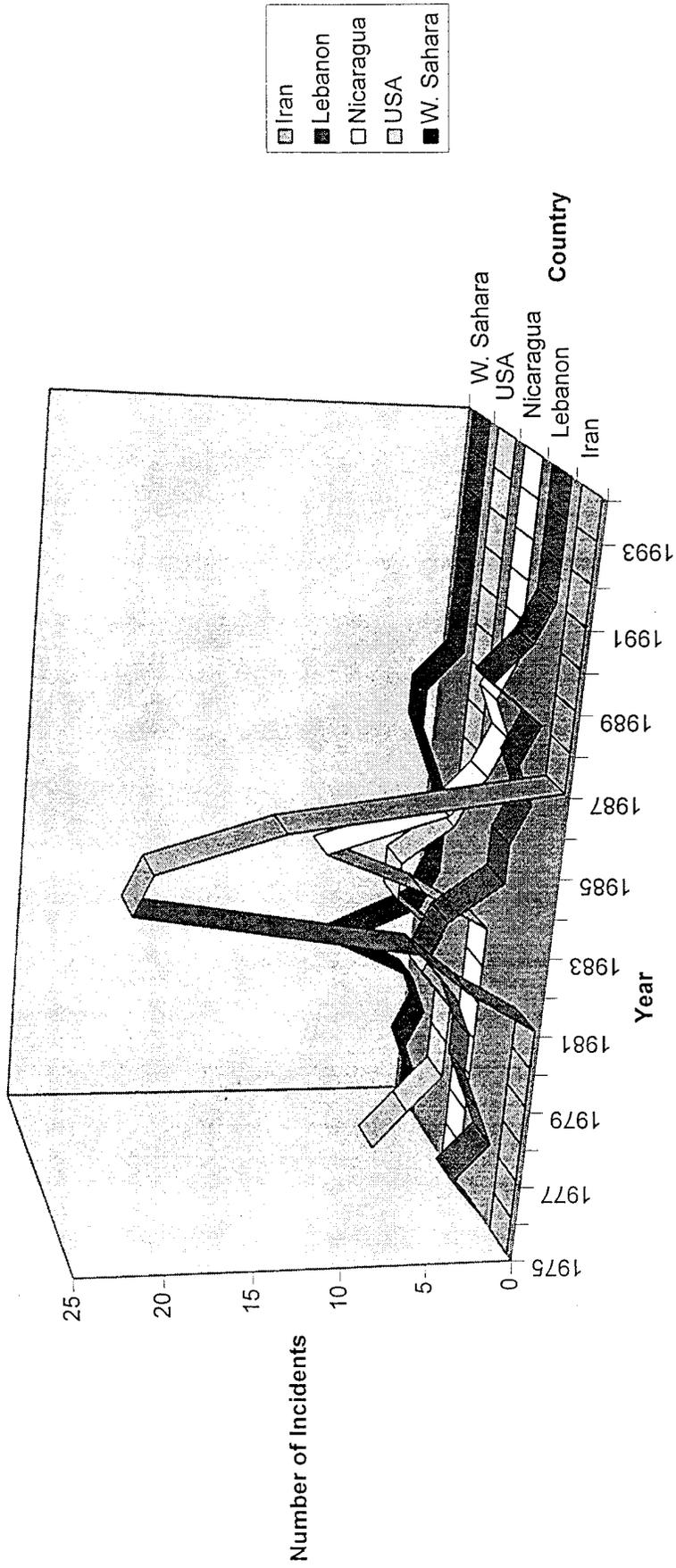


Figure 12.

that a transition in microviolent victimization has taken place as "new" states become victims, while the "old" states resolve their political situations that have resorted to violence in the quest for a solution. Figure 13 reveals those states with the highest microviolent victimization frequency from 1989 to 1994 in an effort to understand the current world microviolence situation.

Both Cuba and Sri Lanka show a dramatic increase in activity. Greece also shows an increase over the period but has seen a reduction in microviolent incident from 1993 to 1994. The events in Sri Lanka are the result of the Tamil push for independence and establishment of their own homeland. The Cuban problem, on the other hand, is truly unique. The microviolent incidents that have occurred in the 5 past five years in Cuba have all been the result of refugees seizing vessels and crews with a desire of leaving the country for the United States where they are hoping to obtain asylum. On several instances the vessels were seized by groups of refugees estimated at 2000 people. Similar incidents have taken place with Algerians trying make there way to Italy, but to a lesser extent. This violence associated with mass demographic movements in the hopes to evade political and economic crisis in their homeland is a recent development in the maritime environment at this scale.

5 Year Trend in States With High Recent Microviolence

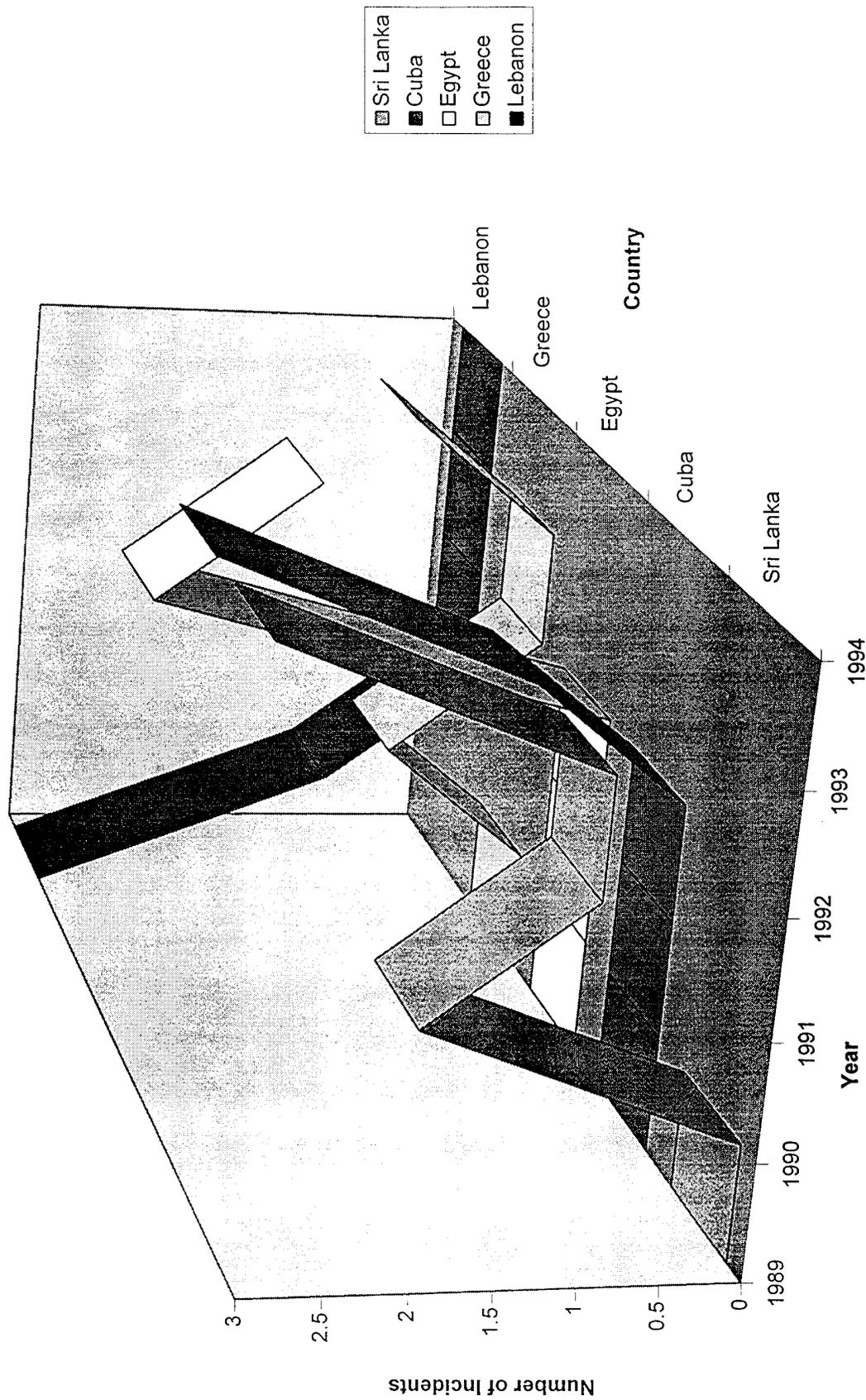


Figure 13.

V. CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER STUDY

A. THE MICROVIOLENT PROBLEM

This thesis was initially undertaken as an effort to create a database to help in the understanding of terrorism within the maritime environment. It soon became apparent that by looking at only terrorism within the traditionally accepted guidelines, the database would reflect nothing more than a hand full of cases, while other cases with similar characteristics would be left out. Hence, the search for a functional paradigm that looked at the problem from a unique position: that of the individual operating in the maritime environment, whether that person be a mariner, soldier, or in the employment of a port facility. To these people it is quite transparent who is the perpetrator of the political violence. The only fact of importance is that it occurred and what can they do to prevent it from happening again.

While it is not the goal of this thesis to make recommendations for actions to prevent incidents of microviolence, it is the goal to find out what is transpiring in the maritime environment outside of restrictive and politically correct definitions. It is believed that this goal was achieved by selecting the correct paradigm for viewing the problem. The concept of microviolence allowed this comprehensive database and subsequent findings to be realized.

B. CONCLUSIONS

The constant presence and regularity of maritime microviolence throughout 1975-1995 and the subsequent results from "looking at the numbers" has resulted in several themes that seem to occur regularly throughout the authors analysis and may be the foundation for further future study. They are as follows:

1. Microviolence will always be present as long as political groups interact. This creates the background noise for episodal deviations which may result in incident increases in a given year due to specific conflicts; the noise of microviolence sets the baseline for expectation. This equates to anticipated 8 incidents annually resulting in 32 casualties and the damage of 6 vessels.

2. States that have strong ties to the maritime environment suffer more readily to maritime microviolence than those that do not. While this may seem obvious to some, it is an important fact nonetheless. Not all states are affected by maritime microviolence. Those, however, that are affected must both anticipate incidents to occur and be prepared to handle such problems. Neutral flagged vessels that enter territorial waters or regions where conflicts are present have also been attacked regularly indicating that maritime oriented states that enter foreign areas with ongoing political conflict also increase their chance of attack.

3. Like political agendas, microviolence is episodal. It fluctuates with the political environment. As the situation calms so does the frequency of violence. Microviolence will subside and eventually disappear during a conflict between political actors on its own. Its life is only as long as the political conflict present itself.

4. Massive intervention similar to that which occurred during OPERATION EARNEST WILL seems to deter and suppress microviolence in a region with "chronic" incidents. The massive U.S./NATO presence in the Middle East during the Tanker Wars virtually stopped microviolence in the region. This seems a viable option in the resolution to future conflicts where the international community cannot wait for the conflict to resolve itself.

5. Microviolence is becoming more hazardous for the mariner due increased casualty rates. This may be a result of a numbing effect within the international arena as political contenders compete to ensure their agenda reaches the public forum. The noise of casualties as a result maritime microviolence has increased from 10 casualties per year in the late 1970s to 32 per year today.

The purpose of this thesis was to create a comprehensive database on illegitimate political violence. The resulting Microviolence at Sea Database is the most complete repository of this phenomenon in the maritime environment. The findings contained in this

assessment were deigned to give the reader a brief introduction to the way the MAS Database can contribute to the larger analytical examination of political conflict.

APPENDIX A

MICROVIOLENCE AT SEA DATABASE

TAS_ID: I__I__I__I__I

DATE: I__I__I__I__I__I__I
Y Y M M D D

VESSEL_NAME OR PORT FACILITY ATTACKED_____

TYPE_TAR: 1. Vessel 2. Port Facility

FLAG: I__I__I

OWNER:_____

GP_RESP:_____

SPONSOR: 1. State 2. International Organization
3. Local national 4. Unknown

GROUP_CTRY: I__I__I

DEM_MET: _____

DEMANDS: _____

MOTIVATION: _____

TYPE: 1. Incendiary or explosive device used
2. Mines or explosive devices placed on hull
3. Gunfire from approaching boat or aircraft
4. Kidnapping or hostage taking only
5. Other

TIME_CAT: 1. Day 2. Night

LOCATION

DMA_REG (DMA Geographic Subregion): I__I__I

LATITUDE: I__I__I I__I__I I__I

LONGITUDE: I__I__I__I I__I__I I__I

GEN-REGION: See Codebook for this category.

WATERS: 1. International 2. Territorial

WATERS_CTRY: I__I__I Country

PORT: I__I__I__I__I Use JMIE Port List

26 January 95:Version 2

TARGET INFORMATION

STATUS: 1. Underway 2. Pierside 3. At anchor 4. Under Tow
5. Drifting 6. Awaiting Berthing (In an anchorage)
7. Disabled (Non-maneuverable) 8. Moored
9. Port Facility Itself

VESSEL_SPD: Actual Speed (Knots) I__I__I Code at 0 in 2, 3, 8,
or 9 above.

TYPE: I__I__I See Code Book, also ONI-2660S-001-93 (March 1993)

TONNAGE: I__I__I__I__I__I__I Exact Tonnage

HOMEPORT: I__I__I Country (Not the same as Flag!)

FBRD_L: I__I__I (Meters)

CREW_SIZE: I__I__I__I

CREW_NAT_M: I__I__I

CREW_NAT_OFF: I__I__I

CREW_NAT_C: I__I__I

SHIP_LGTH: I__I__I__I (Meters)

PAST_ATT: (Previous History of Terrorist Attack): 1. Yes 2. No

PAST_RT: (Same routine): 1. Yes 2. No

PERM_CODE: 1. Scuttled or abandoned 2. Recovered 3. Destroyed
4. Disposition Unknown

PREVENTIVE MEASURES USED

USE_LIGHT I__I USE_WATCAN I__I

USE_WATCH (DECK) I__I USE_WATCH (Bridge) I__I

USE_INCSPEED I__I USE_CREWRES I__I

USE_WEAPONS I__I USE_EVASMVT I__I (Evasive mvmt)

USE_NOISE I__I USE_RADAR I__I USE_ALARM I__I

ATTACKERS

NUM_TERRORISTS: I__I__I

BOARD_SUCCESS: 1. Yes 2. No 3. No Attempt

APP_NAT: (Appearance, Nationality) I__I__I

APP_MASKED: 1. Yes 2. No

APP_DISGUISED: 1. Yes 2. No

TIME_ONBD: I__I__I__I (Minutes)

TER_OBS: (Terrorist observed while onboard) 1. Yes 2. No

METHOD_BRDING: (Method of boarding)

- 1. Anchor Chain 2. Stowaway 3. Other Vesel 4. Brow
- 5. Grappling Hook 6. Mooring Line 7. Ladder 8. Stern Ramp
- 9. Ship Itself

PLACE_BOARD: (Place of boarding) 1. Bow 2. Stern 3. Amidships
4. Port 5. Starboard

DIR_APPROACH: (N, NE, E, SE, S, SW, W, NW)= 1-8
1 2 3 4 5 6 7 8

DET_BEF_BOARD: (Presence Detected Before Boarding) 1. Yes 2. No

TER_BASING: 1. Land 2. Sea 3. Man-made Fixed Base

BASE_COUNTRY: I__I__I

MOM_USED: (Mothership Used) 1. Yes 2. No 3. Self-Supporting

MOM_IDENT: _____

TER_WARN: (Terrorist warning given before boarding) 1. Yes
2. No

TYPE_TER_WARN: 1. Verbal 2. Elec Comms 3. Shots Fired

4. Visual or Light

TYPE_TER_CRAFT: 1. Speedboat 2. Gunboat 3. Canoe
4. Harbor Service Craft 5. Rowboat
6. Trawler/Fishing Boat 7. Junk/Sampan

TER_CRAFT_LEN: (Length) I__I__I__I (Meters)

TER_WPNS_USED: (Weapons used) I__I (Code as necessary)
1. RPGs 2. Swords 3. Torpedo 4. Naval Gunfire
5. Knives 6. Machineguns 7. Pistols
8. Exploding devices 9. Mines

CASUALTIES

CASUALTIES: 1. Yes 2. No

MAS_INJ: (Master injured) 1. Yes 2. No

MAS_DEATH: 1. Yes 2. No

OFF_INJ: 1. Yes 2. No

OFF_DEATH: 1. Yes 2. No

NUM_OFF_INJ: I__I

NUM_OFF_DEAD: I__I

CREW_INJ: 1. Yes 2. No

CREW_DEATH: 1. Yes 2. No

NUM_CREW_INJ: I__I__I

NUM_CREW_DEAD: I__I__I

HOSTAGE_TAKEN: 1. Yes 2. No

NUM_HOS_TAKEN: (Number of Hostages Taken) I__I__I

CLASS_INJURY: Code as most serious

1. No injuries
2. Minor injuries
3. Medium injuries (attended to on board)
4. Serious injuries (major attention, medevac reqd)
5. Death

RESPONSE

VERB_REPORT: 1. Before Attack 2. During Attack
3. Immediately After Attack 4. Delayed

REPORT_WATERS: 1. Territorial 2. International Waters

REP_PORT: 1. Yes 2. No

REP_SHORE: 1. Yes 2. No

REP_SHIPOWNER: 1. Yes 2. No

REP_IMO: 1. Yes 2. No

REP_RCC: (Rescue and Coordination Center) 1. Yes 2. No

REP_IMB: 1. Yes 2. No

REP_OTHER: _____

INVESTIGATION: 1. Territorial State 2. Internal (Shipowner)
3. Other Party (Indicate in Notes)

INS_CLAIM: (Insurance Claim Filed) 1. Yes 2. No 3. Unknown

LOSSES

SHIP_DAM: 1. Yes 2. No

SHIP_DAMAGE: \$I__I__I__I__I__I__I__I__I__I

MOVEMENT DATA

LAST_PORT: I__I__I__I__I Use JMIE Port Code List

DEST_PORT: I__I__I__I__I Use JMIE Port Code List

PORT_DIRECT: (Port Direction) 1. Inbound 2. Outbound 3. At Sea
4. In Port 5. At Anchorage

COMMENTS/MISCELLANEOUS

SOURCE: _____

NOTES: _____

APPENDIX B

REGIONAL BREAKDOWN

1. South East Asia

1. Philippines (RP)
2. Vietnam (VM)

2. North East Asia

1. Japan
2. Okinawa

3. Indonesia

4. Mediterranean

1. Algeria (AG)
2. Lebanon (LE)
3. France (FR)
4. Turkey (TU)
5. Israel (IS)
6. Tunisia (TS)
7. Spain (SP)*
8. Italy (IT)
9. Albania (AL)
10. Greece (GR)
11. Libya (LY)

5. West Africa

1. Angola (AO)
2. South Africa (SF)
3. Morocco (MO)
4. Western Sahara (WI)

6. East Africa

1. Djibouti (DJ)
2. Egypt (EG)
3. Ethiopia (ET)
4. Somalia (SO)

7. Central America

1. El Salvador (ES)
2. Nicaragua (NU)
3. Panama (PM)
4. Mexico (MX)

8. South America

1. Brazil (BR)
2. Colombia (CO)
3. Peru (PE)
4. Suriname (NS)

9. India

1. Bangladesh (BG)
2. India (IN)
3. Pakistan (PK)
4. Sri Lanka (CE)

10. North Atlantic

1. Belgium (BE)
2. Germany (GE)
3. United Kingdom (UK)
4. Ireland (EI)
5. Sweden (SW)
6. Portugal (PO)
7. Spain (SP)*
8. Netherlands (NL)
9. Iceland (IC)
10. Norway (NO)

11. Middle East

1. Gulf of Oman
2. Saudi Arabia (SA)
3. Iran (IR)
4. Iraq (IZ)
5. Persian Gulf
6. North Yemen (YS)
7. South Yemen (YE)
8. Qatar (QA)

12. USA/Canada

13. Caribbean

1. Bahamas (BF)
2. Cuba (CU)
3. Straits of Florida
4. Puerto Rico (US)

APPENDIX C

TWO LETTER DIA COUNTRY DESIGNATION

CE- SRI LANKA

CU- CUBA

CY- CYPRUS

EG- EGYPT

GE- GERMANY

GR- GERMANY

IN- INDIA

KS- REPUBLIC OF KOREA

LE- LEBANON

LI- LIBERIA

MT- MALTA

NO- NORWAY

NU- NICARAGUA

RP- PHILIPPINES

PM- PANAMA

SA- SAUDI ARABIA

SP- SPAIN

TU- TURKEY

UK- UNITED KINGDOM

UR- USSR/RUSSIA

US- UNITED STATES

INITIAL DISTRIBUTION LIST

	<u>No. Copies</u>
1. Defense Technical Information Center 8725 John H. Kingman Rd., STE 0944 Ft. Belvoir, VA 22060-6218	2
2. Library Code 13 Naval Postgraduate School Monterey, CA 93943-5002	2
3. Office of Naval Intelligence (ONI-21) 4301 Suitland Road Washington, D.C. 20395	3
4. Commander in Chief U.S. Special Operations Command ATTN: Dr. John Parton MacDill AFB, FL 33608-6001	1
5. The Director Central Intelligence Agency Office of Training and Education Registration Division Washington, D.C. 20505	1
6. Commander, Naval Special Warfare Command NAB Coronado San Diego, CA 92155	3
7. Dr. Frank Teti Chairman, National Security Affairs (NS/TE) Naval Postgraduate School Monterey, CA 93943-5000	1
8. Superintendent ATTN: Dr. Gordon H. McCormick (Code NS/MC) Naval Postgraduate School Monterey, CA 93943-5000	3

9. Superintendent 1
 ATTN: Bard Mansanger
 (Code MA/MA)
 Naval Postgraduate School
 Monterey, CA 93943-5000
10. Ms. Jennifer Duncan 15
 (Code NS/JD)
 Center for the Study of Political Violence
 Naval Postgraduate School
 Monterey, CA 93943-5000
11. The Joint Staff 1
 J-3 Special Operations Branch
 Washington, D.C. 20318-3000
12. Eric Ellen 1
 Director, International Maritime Bureau
 Maritime House, 1 Linton Road
 Barking, Essex IG11 8HG, United Kingdom
13. Dr. Robert Mullen 1
 IN-30/OTA, US Department of Energy
 1000 Independence Avenue SW, Room GM-097 FORS
 Washington, D.C. 20585
14. Defense Mapping Agency Hydrographic/Topographic Center 1
 ATTN: Byron K. Reynolds
 Navigation Division/NAVINFONET Staff, ST D 44
 4600 Sangamore Road
 Bethesda, MD 20816-5003
15. Thomas C. Fitzhugh 1
 Executive Director, Maritime Security Council
 700 Louisiana, Suite 4600
 Houston, TX 77002-2732
16. Richard V. Harding 1
 Executive Agent, Joint Maritime Information Element
 Commandant (G-OIN)
 2100 2nd Street SW
 Washington, D.C. 20593-0001

17. Mr. Carlo Medina 1
1283 Sixth Street
Monterey, CA 93940

18. Library 1
Naval War College
Newport, RI 02840

19. CNO (N513) 1
Pentagon Room 5E514
Washington, D.C. 20350-2000

20. Commander, Naval Special Warfare Development Group 1
FCTCL Dam Neck
Virginia Beach, VA 23461-5200

21. Commander, Naval Special Warfare Group One 1
NAB Coronado
San Diego, CA 92155

22. Commander, Naval Special Warfare Group Two 1
NAB Little Creek
Norfolk, VA 23521

23. Marquat Memorial Library 1
US Army John F. Kennedy Special Warfare Center and School
RM C287, Bldg. D3915
ATTN: Fred Fuller
Ft. Bragg, NC 28307-5000

24. Strategic Studies Group (SSG) 1
Naval War College
Newport, RI 02840

25. Department of Military Strategy 1
National War College (NWMS)
Ft. Leslie J. McNair
Washington, D.C. 20319-6111

26. US Army Command & General Staff College 2
Concepts and Doctrine Directorate
ATTN: Mr. John B. Hunt
Ft. Leavenworth, KS 66027

27. Office of the Secretary of the Navy 1
ATTN: Naval Historian
The Pentagon
Washington, D.C. 20330
28. LT Michael D. Lumpkin 1
Commander, THIRD FLEET
NAS North Island
San Diego, CA 92155