ON THE PROBLEM OF UTILIZING UNILATERAL ACTION TO PREVENT ACTS OF SEA PIRACY AND TERRORISM: A PROACTIVE APPROACH TO THE EVOLUTION OF INTERNATIONAL LAW

Leticia Diaz and Barry Hart Dubner*

PREFACE

Piracy and terrorist attacks have many similarities but the goals of pirates and terrorists are different. Pirates seek financial gain through robbery while terrorists seek to make a "political" point by causing massive murder and mayhem. Although the goals of pirates and terrorists appear to be different, the effects to the environment could be similar-destruction due to toxic oil and other types of pollution. Furthermore, possible cooperation between pirates and terrorists pose huge risks. The goal of this article is to determine how the international community can prevent piracy and terrorism. The irony is that perhaps piracy may subside at last, but only as a result of the increased efforts of the international community to prevent terrorism. The purpose of this article, therefore, is to explore the parameters of the problems and trends toward serious destruction connected to these acts and to suggest that if regional approaches fail, certain unilateral actions against the perpetrators may be necessary in order to avoid massive human and environmental destruction. The core question is whether unilateral action growing out of treaty obligations should be permitted.

INTRODUCTION

During the last three years after September 11, there have been many interesting newspaper articles on the intensification of crimes committed at sea and the resulting damages stemming therefrom. We have chosen three articles from the years 2002, ¹ 2003^2 and 2004^3 as

^{*}Leticia Diaz, Professor of Law, Barry University School of Law; J.D., Rutgers University School of Law, Newark (1994); Ph.D. (Organic Chemistry), Rutgers University, Newark (1988). Barry Hart Dubner, Professor of Law, Thomas M. Cooley Law School, Lansing, Michigan; (moving to Barry University September 2004); J.D., New York Law School; LL.M., University of Miami, School of Law; LL.M., New York University School of Law; J.S.D., New York University School of Law. Dr. Dubner would like to thank and acknowledge his research assistant, Gary Huggins, whose patience in editing, preparing, and organizing the footnotes proved invaluable.

^{1.} Keith Bradsher, Warnings From Al Qaeda Stir Fear That Terrorists May Attack Oil Tankers, N.Y. TIMES, Dec. 12, 2002, at A20.

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samples. These articles show serious changes in trends which we will examine later in the article.

On December 12, 2002, The New York Times reported that "a recent audio tape believed to have been made by Osama Bin Laden praised and seemed to take responsibility for a suicide attack two months ago in which a speedboat packed with explosives rammed and crippled a French tanker, the Limburg, off Yemen,,"⁴ and implied that these terrorists were interested in cutting the "economic lifelines" of the world's industrialized societies.⁵ The article pointed out that the world oil traffic was very vulnerable at a few maritime choke points. For example, the Strait of Hormuz accounts for approximately 13 millions of barrels of oil each day; the Strait of Malacca accounts for 10.3 million barrels; Suez Canal/Sumed Pipeline accounts for 3.8 million barrels; Bab el Mandeb accounts for 3.2-3.3 million barrels (based on a year 2000 estimate); and finally, Bosporus accounts for 2 million barrels (based on a 2001 estimate).⁶ Due to its strategic location, one quarter of the world's commercial trade passes through the Strait of Malacca, which, in turn, accounts for one "half of all sea shipments of oil, bound for East Asia or sometimes the United States, and [for] two-thirds of the world's shipment of liquefied natural gas."7

The article utilized the Strait of Malacca as an example of the vulnerability of ships passing in that commercial passageway. After an oil tanker had taken on 3 million gallons of gasoline and diesel fuel from Singapore, the second busiest port after Hong Kong, it would then pass by a "jungle-covered" island (Iyu Kecil) within one hour after its departure from Singapore.⁸ The island is supposedly "a base for an organized crime gang that has been hijacking smaller tankers to sell the cargos."⁹ As the ship continued along that route, which ships normally do, it would sail past Laboh Point, Malaysia three hours later. Tankers usually travel only at 11 knots (i.e., 13 land miles per hour).¹⁰ This route through the Strait has its share of pirates who usually attack with high-

9. Bradsher, supra note 1.

^{2.} Keith Bradsher, Attacks on Chemical Ships in Southeast Asia Seem to Be Piracy, Not Terror, N.Y. TIMES, Mar. 27, 2003, at A11.

^{3.} EDITORIAL, Piracy and Terrorism, N.Y. TIMES, Apr. 10, 2004, at A14.

^{4.} Bradsher, supra note 1.

^{5.} Id.

^{6.} Id.

^{7.} Id.

^{8.} *Id*.

^{10.} Id.

speed boats.¹¹ The tankers are seldom armed with anything other than fire axes and hoses so as not to aggravate boarding pirates.¹² Many companies ban crews from carrying guns or other armaments¹³ because they believe that the danger to both the crew, itself, and the cargo/ship would be greater if they had arms on board.¹⁴ The crew members might kill one another or provoke a more violent reaction from the pirates. While certain ship owners have begun calling for the formation of small military forces, which would patrol the Strait of Malacca, operating under a license from the United Nations, one of the real dangers is that organized pirates may decide to tip off terrorists with information necessary to destroy tankers and other ships carrying toxic material while in ports or in more densely populated areas.¹⁵ The second article to which we refer is one that appeared in The New York Times in March 2003.¹⁶ The attacks on ships carrying chemicals in Southeast Asia were accomplished by "pirates," not "terrorists."¹⁷ This assertion raises problems about certain traditional concepts or norms regarding jurisdictions in waters measured outward from the baselines of littoral states-a topic that will be covered later in this article. The New York Times reported that:

Any attack on a chemical tanker that resulted in a spill could pose difficulties for emergency responders. For one thing, owners of chemical tanker ships that carry cargo for hire are not always told what the cargo is. The owners are sometimes assured in advance that the cargo is safe, only to find that it is delivered to the docks by trucks escorted by police patrols, and is pumped into the ships by people wearing hazardous material suits.¹⁸

The article pointed out that all three chemical tankers attacked in the Strait during the month of March 2003 "had followed a standard practice in not reporting...the cargoes of any of the vessels at the time they were attacked [to the appropriate agency]."¹⁹ Reoccurring availability of this raises the question of environmental damage control after

- 14. Id.
- 15. *Id*.
- 16. Bradsher, supra note 1.
- 17. Bradsher, supra note 2.
- 18. *Id*.
- 19. Id.

^{11.} Bradsher, supra note 1.

^{12.} Id.

^{13.} Id.

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an accident if pirates board a particular chemical tanker and no one knows what toxic material is onboard.

Singapore officials have attempted to discourage attacks and their harmful results: "[t]ugboats must now provide six hours' advance warning of their movements inside Singapore's port."²⁰ Furthermore, all small vessels have been ordered not to enter—by day or night— the special anchorages for tankers carrying chemicals, crude oil, and highly explosive gases like liquefied natural gas.²¹ Malaysian officials refuse to discuss the situation. Most attackers seem to come from the Indonesian side of the Strait since there is less vigorous law enforcement on that particular side.²² Usually, the small boats that attack these ships are too low in the water "to be spotted by the ships' radar and [are] invisible in the almost utter darkness except for their navigation lights."²³

The final article that we have selected for the introduction appeared in The New York Times on April 10, 2004.²⁴ The Times reported that pirates were allegedly forging links with terrorists.²⁵ Nobody seems to know how much piracy is organized and what organization means in terms of attacks. According to the article, "tankerloads of crude oil are regularly stolen."²⁶ The article is also quick to point out that "a hijacked ship carrying a nuclear weapon or radioactive 'dirty bomb' could lay waste to a port or block a sea lane like the Strait of Malacca."²⁷ Apparently, in March 2003, ten armed men seized a chemical tanker off of Indonesia's coast for the purpose of learning to steer it.²⁸ Prior to that, in 2002, "163 members of the International Maritime Organization (IMO) agreed...to measures such as shipboard security officers, ship-to-shore alert systems and port security plans."29 One U.S. admiral, at the time, told a Congressional committee that the U.S. Navy was considering regular patrols in the Strait of Malacca.³⁰ Since no mention of this idea was made during consultations with Malaysian officials, diplomats had to "smooth ruffled feathers."³¹ Since shipping constitutes eighty percent

25. Id.

- 26. Id.
- 27. Id.
- 28. Id.
- 29. Piracy and Terrorism, supra note 3.
- 30. Id.
- 31. Id.

^{20.} Bradsher, supra note 2.

^{21.} Id.

^{22.} Id.

^{23.} Id..

^{24.} Piracy and Terrorism, supra note 3.

of the world trade/commerce, protecting shipping lanes, in both territorial waters and international straits, would seem to be of paramount concern. 32

The sequencing of the three articles shows that the acts of piracy/terrorism are becoming more serious threats to the international community. Once again, we are concerned with the possible toll on human life and the environment, if acts of terrorism/piracy cannot be prevented. With acts of piracy, we have statistics of past and current acts that show the consequences of the pirates' conduct. While we have statistics to show past acts of piracy, there are none for acts of terrorism. However, the loss of life and damage to the environment are likely to be greater in the case of terrorist acts. The wanton destruction of human life and the environment appear to be terrorists' goals. But, that is not always true. Unintentional loss could occur because tankers and other ships carrying chemicals, toxins, etc., could cause severe damage if left without crews to steer them; a problem that is likely to develop when pirates board a vessel for quick monetary gain and then leave. Terrorists may deliberately steer the ship into a populated or environmentally sensitive area with the purpose of destroying everything in sight— creating a "dirty bomb."³³

This article will set forth (a) the dimensions of the current acts of piracy/terrorism; (b) the applicable jurisdictional law of the sea; and (c) certain recommendations regarding prevention and law enforcement. Let us first turn our attention to the sheer weight of the problem by reviewing statistics kept by the International Maritime Bureau.

I. STATISTICS AND EXAMPLES OF PIRACY AND TERRORISM

The International Maritime Bureau (IMB), maintains a Piracy Reporting Center (PRC) in Kuala Lumpur, Malaysia.³⁴ Among other forms of assistance, the PRC issues reports of piracy and armed robbery on the sea on a weekly, quarterly, and annual basis. The IMB, "for statistical purposes," defines piracy and armed robbery as:

"An act of boarding or attempting to board any ship with the apparent intent to commit theft or any other crime and with the apparent intent or capability to use force in the furtherance of that act."³⁵

^{32.} Piracy and Terrorism, supra note 3.

^{33.} Id.

^{34.} INT'L CHAMBER OF COMM., INTERNATIONAL MARITIME BUREAU, PIRACY AND ARMED ROBBERY AGAINST SHIPS, 2002 ANNUAL REPORT (2003) [hereinafter ICC REPORT 2002].

^{35.} ICC REPORT 2002, supra not 34 at 3.

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This definition covers acts of piracy within internal and territorial waters. However, the international community has quite a different definition of piracy. It is located in Article 101 of the 1982 United Nations Convention on the Law of the Sea (UNCLOS).³⁶ As we will discuss later, the difference between the high seas, internal waters, and territorial seas, is important when determining who has jurisdiction over acts of piracy. Article 101 of UNCLOS states as follows:

Piracy consists of any of the following acts:

a) any illegal acts of violence or detention, or any act of depredation, committed for private ends by the crew or the passengers of a private ship or a private aircraft, and directed

(i) on the high seas, against another ship or aircraft, or against persons or property on board such ship or aircraft;

(ii) against a ship, aircraft, persons or property in a place outside the jurisdiction of any state;

(b) any act of voluntary participation in the operation of a ship or of an aircraft with knowledge of facts making it a pirate ship or aircraft;

(c) any act of inciting or of intentionally facilitating an act described in subparagraph (a) or (b).

Armed Robbery against Ships means any unlawful act of violence or detention or any act of depredation, or threat thereof, other than an act of "piracy," directed against a ship or against persons or property on board such ship, within a state's jurisdiction over such offenses.³⁷

The International Maritime Bureau points out that the International Maritime Organization, at its 74th meeting of the Maritime Safety Committee, addressed this matter of jurisdiction in the Draft Code of Practice for the Investigation of Crimes of Piracy and Armed Robbery Against Ships.³⁸ In the Draft Code, the IMO stated that: "[P]iracy

^{36.} United Nations Convention on the Law of the Sea, *opened for signature* Dec. 10, 1982, art. 101, S. Treaty Doc. No. 39, 103d Cong., 2d Sess. (1992); 21 I.L.M. 1261, U.N. Doc., reprinted in United Nations, the Law of the Sea: United Nations Convention on the Law of the Sea, A/Conf. 62/122 (1982), U.N. Sales No. E.83.V.5 (1983)[hereinafter UNCLOS].

^{37.} Id.

^{38.} See ICC REPORT 2002, supra note 34.

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means unlawful acts as defined in article 101 of the 1982 United Nations Convention on the Law of the Sea (UNCLOS)."39 According to the IMB, these definitions, both the one set forth by the IMB for statistical purposes and the one which was agreed upon by consensus of the international community in UNCLOS now cover actual or attempted attacks regardless of whether the ship is berthed, at anchor, or at sea.⁴⁰ The reality of this situation, as we will see later, is that the definition of piracy has been greatly expanded. The international community simply wanted the definition of piracy to mean piracy on the high seas by one private vessel against another.⁴¹ It had nothing to do with acts of piracy occurring in municipal areas internal waters and territorial sea. Nevertheless, if one or more countries are unwilling or unable to control acts of piracy within their waters, the question is whether or not the international community can intervene to prevent extensive loss of human life and serious damage to the environmental ecosystems of certain regions. One of the problems is that while all states realize that commercial shipping lanes must be kept free of obstructions, States, at the same time, wish to maintain their territorial sovereignty and integrity. This will require a balancing of interests which can be accomplished by regional cooperation. But what happens if this regional approach becomes inadequate at a given moment? Since the damage and toll on human life and the environment resulting from terrorist acts has grown more serious, States now have a greater incentive to work harder to control terrorism. The point to be made here is that the acts of piracy may decrease as a result of States' efforts to continue increasing activity in an attempt to control acts of terrorism.

Nevertheless, for purposes of this article, the PRC statistics are most valuable. They show that the main problem with both prevention and enforcement is caused by inconsistency among the littoral states involved.

A. Piracy Statistics for 2002

Starting with the 2002 Annual Report, there were 370 "incidents" reported in 2002 compared to 335 in 2001.⁴² The PRC reported that

^{39.} International Maritime Organization: Code of Practice for the Investigation of the Crimes of Piracy and Armed Robbery Against Ships, *adopted* Nov. 29, 2001, annex at \P 2.1, A 22/Res.922 *available at* http://www.pmaesa.org/Maritime/Res%20A.922(22).doc (last visited Jan. 24, 2005) [hereinafter *Draft Code*].

^{40.} See ICC REPORT 2002, supra note 34.

^{41.} Id.

^{42.} Id. at 16.

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complacency in taking additional precautionary measures such as a strict anti-piracy watch in piracy risk prone areas might have caused a marked increase in successful seizure attempts by pirates. Also reported was the fact that the number of crews killed during this period declined to 10 as compared to 21 in 2001.⁴³ There were 24 crew members and passengers missing. The number of attacks involving knives rose from 105 to 136 in 2002. There was also a substantial increase in hijackings from 16 to 25 incidents. Many of these hijackings reported involved the taking of smaller boats, such as tugs, barges and fishing boats, in the Malacca Strait and in the Asian waters. This is because the syndicates in the area may be targeting ships, tugs, and barges carrying valuable palm oil and "gas oil." Indonesia reported the highest number of attacks with 103 reported incidents, and that sum equaled more than one quarter of the world's piratical attacks. Indonesian waters remained the highest risk area because no serious attempts to address the particular problem had taken place in 2002. Other areas of concern were Bangladesh and India. Piracy attacks in Bangladesh were ranked second highest and India dropped to the third spot with 18 attacks. This is attributed to increased patrols in Indian waters which had reduced attacks from 27 in the year 2001 to 18 in the year 2002. The Malacca Strait recorded 16 and 14 attacks respectively. That number had dropped compared to 2001. Malaysian authorities were apparently maintaining more vigilant and constant patrols in the Strait.44

B. Maritime Terrorism During 2002

Shipping is vulnerable to terrorism because it is necessary to verify the contents of the containers in order to ensure "the security of containers in transit, the identity of crew members on board the vessels, the transportation of biological and chemical weapons against vessels and their use, such as weapons." ⁴⁵

As was pointed out earlier, on October 6, 2002, terrorists attacked the French super-tanker MT Limburg. The attack was carried out when a small boat packed with explosives rammed into the tanker causing extensive damage. In addition to one crewmember death, some 90,000 barrels of oil were released into the Gulf of Aden waters off the shore of Yemen. It is pointed out in the actual report that this kind of attack is difficult to prevent because no shipboard responsive action can protect the ship in these circumstances. Why? Because these are slow vessels

^{43.} ICC REPORT 2002, supra note 34.

^{44.} Id.

^{45.} Id. at 22.

with restricted maneuverability. It's therefore impossible for the vessel to avoid a fast moving boat intent on collision. The IMB recommended that the coastal state ensure that the approaches to their port are secure, by having the local port authority specify approach channels for tankers and other vulnerable vessels.⁴⁶

These channels, and the areas on each side of them, should be monitored by coast- guard or police vessels to ensure that no small craft, leisure, fishing or unauthorized vessel enters this restricted zone. This is called making a 'clearway' through which authorized vessels can navigate without the fear that a small vessel close to the fairway will suddenly project itself towards it at high speed.⁴⁷

In addition, during 2002, the PRC reported that the FBI issued warnings that divers could be used to attack ocean vessels. They could attach explosives to the hulls. The FBI believed that there were plans to target the global petroleum sector by conducting maritime attacks against oil vessels.⁴⁸

C. Piracy Statistics and "New Brand of Piracy" in 2003

On May 6, 2003, it was reported by the PRC that "pirate attacks on ships have tripled in the last decade with a reported 103 attempts" in the first quarter.⁴⁹ For purposes of reporting, geographic areas were divided into sectors: i.e., Red Sea/Gulf of Aden (6 incidents); Nigeria (9); Bangladesh (9); India (9); and, Indonesia, the most dangerous waters with 28 attacks in the first quarter.⁵⁰ The report continued, "[A] total of 145 seafarers were reported killed, assaulted, kidnapped or missing in the first quarter of 2003, with bulk carriers nominated as the vessels most likely to face attack." ⁵¹

The ICC Commercial Crime Services reported that on September 2, 2003, gangs of heavily armed pirates used fishing and speed boats to

^{46.} ICC REPORT 2002, supra note 34.

^{47.} Id.

^{48.} Id. at 24.

^{49.} Pirate Attacks Have Tripled In A Decade, IMB Report Finds, ICC INT'L MAR. BUREAU, May 1, 2003, at http://www.iccwbo.org/home/news_archives/2003/stories/piracy-quarter-1.asp (last visited Oct. 31, 2004).

^{50.} Id.

^{51.} Id.

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target small oil tankers in the Malacca Strait.⁵² These attacks followed a pattern which had been set by Indonesian Aceh rebels. This was the first time that the IMB had discussed "political piracy."⁵³ It was pointed out by the IMB that in late July 2003, there were three attempted boardings in less than a week off the Sumatra coast in the Malacca Strait. Pirates fired automatic weapons at gas and oil tankers. However, on each occasion, preventive measures deployed by the crew thwarted the attack. An example of the following act of piracy was given: "the Malaysian registered tanker Penrider was carrying 1,000 tonnes of fuel oil aboard when she was attacked some 12 miles from Port Klang, Malaysia." Apparently, the ship was on route from Singapore to Penang when a fishing boat containing 14 pirates armed with AK-47 and M-16 assault rifles intercepted the ship, took hostages, and later released them unharmed after successful negotiations.⁵⁴ The Malaysians believed that the modus operandi was similar to that of an Aceh group thought to have been responsible for many other such attacks along the Strait of Malacca.⁵⁵ The problem with the escalation in "political" piracy (politically motivated terrorists and pirates) is that they will take greater risks in order to further their cause.⁵⁶ The greater risk could lead to untold environmental damage. On October 31, 2003, the IMB again warned of a strong possibility of political attacks on gas tankers and chemical tankers by pirates/terrorists that could lead to major environmental disaster.⁵⁷ The numbers of acts of piracy throughout the world had "reached a record 344 in the first nine months of 2003, with Indonesian waters remaining the most dangerous."58

The IMB report said,

A spate of attacks against small tankers in the Malacca Strait by gangs of heavily armed pirates aboard fishing boats and fast craft has heightened tension in the area. These have led to repeated warnings from the IMB and its Piracy Report-

^{52.} International Chamber of Commerce, New Brand of Piracy Threatens Oil Tankers in Malacca Straits, Sept. 2, 2003, available at http://www.iccwbo.org/ccs/news-archives/2003/piracy_ms.asp (last visited Nov. 17, 2004).

^{53.} Id.

^{54.} Id.

^{55.} Id.

^{56.} International Chamber of Commerce, *Concerns Grow As Pirates Attack Tankers*, Oct. 31, 2003, *available at* http://www.iccwbo.org/ccs/news_archives/2003/piracy-Oct-2003.asp (last visited Nov. 17, 2004).

^{57.} Id.

^{58.} Id.

ing Centre, which fear an environmental disaster in these restricted waters if a larger tanker is subjected to the same type of attack.⁵⁹

D. Report of "Jane's Defence Weekly" (March 31, 2004)⁶⁰

As a final note to the number of incidents reported, Jane's pointed out that in 2003 there were 445 incidents reported, compared with 370 in 2002 (obtaining its figures from the IMB). Southeast Asia/Far East showed an increase in reported incidents from 170 to 189; Africa/The Red Sea, showed an increase from 78 to 93; The Indian subcontinent showed an increase from 52 to 87; and The Americas showed an increase from 65 to 72.⁶¹ Although the attacks in the Strait of Malacca were up from 16 to 28, almost all of these incidents occurred in Indonesian waters due to the fact that the Malaysian authorities, particularly the Royal Malaysian Marine Police, started to use vigilant patrols and constant operations in order to prevent them.

The number of attacks involving guns rose to 100 in 2003 from 68 in 2002, while the number of hostages taken almost doubled to $359.^{62}$

Ships were boarded in 311 instances and a total of 19 ships were hijacked. Indonesian waters continue to be the most piracy-prone with 121 reported incidents in 2003, followed by Bangladesh with 58 attacks and Nigeria with 39. Attacks off Nigeria almost tripled compared with the previous year, making the Nigerian waters the most dangerous in Africa for attacks on shipping.⁶³

As will be discussed later, there were two important trends pointed out by Jane's. First, although the hijackings of merchant vessels (as opposed to tugs and barges) ceased during 2003,⁶⁴ hijackings which did occur fell into two main categories: "military-style operations by mili-

^{59.} International Chamber of Commerce, supra note 56..

^{60.} Richard Scott, Increased Piracy Makes High Seas More Dangerous, JANE'S DEFENCE WEEKLY, Mar. 31, 2004, at 1, at http://www4.janes.com/subscribe/jdw/doc_view.jsp?K2DocKev-/content1/janesdata/mags (last visited Oct. 31, 2004).

^{61.} ICC COM. CRIME SERVICES, *Piracy Takes Higher Toll of Seaman's Lives*, Jan. 28, 2004, at 1, *at* http://www.iccbo.org/ccs/news-archives/2004/Piracy_report_2003.asp (last visited Oct. 31, 2004).

^{62.} Scott, supra note 60, at 2.

^{63.} Id.

^{64.} Id.

tant groups seeking to hold crew members for ransom . . ." and attacks against soft targets such as tugs and barges. The problem, of course, is that those tankers that carry dangerous cargoes, could fall temporarily under the control of unauthorized and unqualified individuals who, in turn, might cause great environmental and safety problems.⁶⁵

Second, there was an increase in coordinated attacks which involved the use of several boats simultaneously, especially in Indonesian waters which form part of the Malacca Strait as well as Bintan Island. The attackers approached a target ship from different locations and sprayed the superstructure with gunfire in an attempt to get the vessel to stop.⁶⁶

Before leaving the subject of statistics and trends, the IMB reported on February 13, 2004, that "four crew members of an oil tanker were shot dead by pirates in the Malacca Strait off Indonesia's war-torn Aceh province" during the prior week after the owner failed to pay ransom for their release.⁶⁷ This incident would tend to show that the pirates/terrorists are becoming more brazen in their approach in dealing with ship owners which could, in turn, produce greater loss of human life and greater danger to the environment.⁶⁸

Although we can see the numbers of incidents of piracy/terrorism is on the rise in certain geographic areas, the question remains of what the international community can do to prevent serious danger to human life and the environment. In order to discuss security measures and enforcement, it is necessary first to set forth the jurisdictional issues involved. Without a thorough understanding of the jurisdictional parameters, it would be difficult to understand the current "norms" in international law.

II. CONSENSUS OF THE INTERNATIONAL COMMUNITY REGARDING A DEFINITION OF THE TERM "PIRACY"—INTERNATIONAL LAW VERSUS THE CURRENT SITUATION

We have been using the term "piracy" throughout the earlier part of this article.⁶⁹ It was also pointed out that the definition of piracy under conventional wisdom was different from that of the statistical re-

^{65.} Scott, supra note 60, at 2.

^{66.} Id.

^{67.} International Chamber of Commerce, Murder of Four Sailors Marks Violent Start to Shipping Year 2004, Feb. 13, 2004, at http://www.iccwbo.org/home/news_archives/2004/aceh.asp. (last visited Oct. 31, 2004).

^{68.} Id.

^{69.} ICC REPORT 2002, supra note 34.

porting of the IMB.⁷⁰ The problem is that piracy under classical international law has presented different types of dangers during earlier centuries. Under international law, UNCLOS, these acts of piracy occur on the high seas, not in the territorial/internal waters of a coastal state.⁷¹ In order to understand the narrowness of the international definition of "piracy," it is necessary to understand certain jurisdictional terms. After looking at certain norms of international law with regard to the law of internal and territorial waters, straits and environmental standards, it will be obvious why certain treaty provisions will be ineffective against acts of piracy occurring in the waters of coastal states. The conventional crime (UNCLOS) of "piracy" is an act of violence, depredation, or detention committed for private ends, delegated to the high seas, and committed by one private ship against another ship.⁷² Terrorism (an act committed for political ends) can occur on land or sea, while maritime violence or crimes at sea (generic, all-encompassing terms) can only occur at sea⁷³ (transportation of slaves). In order to understand this better, it is necessary to discuss these terms. The reader will then understand why enforcement or prevention of these crimes is hampered by problems relating to sovereignty. This article includes a schematic jurisdictional diagram which has been drawn for the purpose of this analysis.⁷⁴

The coastal state exercises the utmost jurisdiction over its land territory. Every coastal state has a baseline which is used to measure the state's diminishing jurisdiction as one moves seaward. The coastal state exercises exclusive jurisdiction over its ports and harbors (with possible access to visiting ships). As one moves seaward from the baseline, the state exercises almost total jurisdiction over its territorial sea (except for the doctrine of innocent passage) which is measured twelve miles seaward from its baseline. The state's jurisdiction diminishes further when the contiguous zone, which extends for twelve miles beyond the territorial waters, reaches the high seas. The contiguous zone is a area of limited jurisdiction of the coastal state (e.g., navigation, sanitation, customs, fiscal) and is actually part of the high seas. The high seas are open to all nations and therefore the coastal

^{70.} ICC REPORT 2002, supra note 34.

^{71.} See generally UNCLOS, supra note 36.

^{72.} Id. at art. 101.

^{73.} ICC REPORT 2002, supra note 34.

^{74.} See Appendix A for a descriptive jurisdictional chart.

state is not allowed to exercise its jurisdiction in this area (with limited exceptions, e.g., the exclusive economic zone).

The high seas have been traditionally open to all nations for the purpose of preserving international shipping and commerce. International straits are also preserved for international commerce and are therefore open to all nations. The flow of international commerce is at the heart of all major maritime conventions and concerns regarding [piracy, terrorism and other] maritime violence. Commerce must be able to flow freely, uninhibited, without danger to life and limb and without the fear of loss to human life or of widespread environmental contamination.⁷⁵

At this point it is necessary to define piracy under treaty law.

A. Definitions

"Piracy" is defined in the [UNCLOS] as follows:

Article 101 Definition of piracy

Piracy consists of any of the following acts:

(a) any illegal acts of violence or detention, or any act of depredation, committed for private ends by the crew or the passengers of a private ship or a private aircraft, and directed:

(i) on the high seas, against another ship or aircraft, or against persons or property on board such ship or aircraft;

(ii) against a ship, aircraft, persons or property in a place outside the jurisdiction of any state;

(b) any act of voluntary participation in the operation of a ship or of an aircraft with knowledge or facts making it a pirate-ship or aircraft;

(c) any act of inciting or of intentionally facilitating an act described in subparagraph (a) or (b).

^{75.} Barry Hart Dubner, Human Rights and Environmental Disaster—Two Problems That Defy the "Norms" of the International Law of Sea Piracy, 23 SYRACUSE J. INT'L L. & COM. 1, 11-13 (1997)(citing UNCLOS, supra note 36).

Article 102 Piracy by a warship, government ship or government aircraft whose crew has mutinied

The acts of piracy, as defined in Article 101, committed by a warship, government ship or government aircraft whose crew has mutinied and taken control of the ship or aircraft are assimilated to acts committed by a private ship or aircraft.

Article 103 Definition of a pirate ship or aircraft

A ship or aircraft is considered a pirate ship or aircraft if it is intended by the persons in dominant control to be used for the purpose of committing one of the acts referred to in article 101. The same applies if the ship or aircraft has been used to commit any such act, so long as it remains under the control of the person guilty of that act.

Article 104 Retention or loss of the nationality of a pirate ship or aircraft

A ship or aircraft may retain its nationality although it has become a pirate ship or aircraft. The retention or loss of nationality is determined by the law of the state from which such nationality was derived.

Article 105 Seizure of a pirate ship or aircraft

On the high seas, or in any other place outside the jurisdiction of any state, every state may seize a pirate ship or aircraft, or a ship or aircraft taken by piracy and under the control of pirates, and arrest the persons and seize the property on board. The courts of the state which carried out the seizure may decide upon the penalties to be imposed, and may also determine the action to be taken with regard to the ships, aircraft or property, subject to the rights of third parties acting in good faith.

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Article 106 Liability for seizure without adequate grounds

Where seizure of a ship or aircraft on suspicion of piracy has been effected without adequate grounds, the state making the seizure shall be liable to the state the nationality of which is possessed by the ship or aircraft for any loss or damage caused by the seizure.⁷⁶

Prior thereto, the 1958 Geneva Convention on the High Seas defined "piracy" as follows:

Article 13

Every state shall adopt effective measures to prevent and punish the transport of slaves in ships authorized to fly its flag, and to prevent the unlawful use of its flag for that purpose. Any slave taking refuge on board any ship, whatever its flag, shall ipso facto be free.

Article 14

All states shall co-operate to the fullest possible extent in the repression of piracy on the high seas or in any other place outside the jurisdiction of any state.

Article 15

Piracy consists of any of the following acts:

(1)Any illegal acts of violence, detention or any act of depredation, committed for private ends by the crew or the passengers of a private ship or a private aircraft, and directed:

(a)On the high seas, against another ship or aircraft, or against persons or property on board such ship or aircraft;b)Against a ship, aircraft, persons, or property in a place outside the jurisdiction of any state;

(2)Any act of voluntary participation in the operation of a ship or of an aircraft with knowledge of facts making it a pi-

^{76.} Dubner, supra note 75, at 11-15 (citing UNCLOS, supra note 36).

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rate ship or aircraft;

(3)Any act of inciting or of intentionally facilitating an act described in sub-paragraph 1 or sub-paragraph 2 of this article.

Article 16

The acts of piracy, as defined in article 15, committed by a warship, government ship or government aircraft whose crew has mutinied and taken control of the ship or aircraft are assimilated to acts committed by a private ship.

Article 17

A ship or aircraft is considered a pirate ship or aircraft if it is intended by the persons in dominant control to be used for the purpose of committing one of the acts referred to in article 15. The same applies if the ship or aircraft has been used to commit any such act, so long as it remains under the control of the persons guilty of that act.

Article 18

A ship or aircraft may retain its nationality although it has become a pirate ship or aircraft. The retention or loss of nationality is determined by the law of the state from which such nationality was derived.

Article 19

On the high seas, or in any other place outside the jurisdiction of any state, every state may seize a pirate ship or aircraft, or a ship taken by piracy and under the control of pirates, and arrest the persons and seize the property on board. The courts of the state which carried out the seizure may decide upon the penalties to be imposed, and may also determine the action to be taken with regard to the ships, aircraft or property, subject to the rights of third parties acting in good faith.⁷⁷

The basic question for jurisdictional purposes is: What significance

^{77.} Dubner, *supra* note 60, at 15-16 (citing Convention on the High Seas, Apr. 29, 1958, 13 U.S.T. 2312 (1962), 450 U.N.T.S. 82).

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piracy, terrorism and other forms of maritime violence have in the law of nations? The answer to this question is simple and is contained in the 58th Session of the United Nations General Assembly, Report of the Secretary-General on Oceans and the Law of the Sea.⁷⁸ Basically, after setting forth the seriousness of the global challenges it was pointed out by the United Nations that the main concern is to develop international co-operation and coordination in order to have effective action. Indeed, certain regions have identified this need and given priority for regional cooperation by strengthening exchange of information, personnel, training, as well as enhanced capacity/building and joint research.⁷⁹ While the crimes at sea include international terrorism, transnational organized crime, illicit drug trafficking, the jurisdictional problem presented is to have coastal states act to prevent and suppress acts of piracy and terrorism against shipping. In order to do this, the Report points out that, in connection with the prevention and suppression of acts of piracy and terrorism against shipping, it is important to maintain a balance between the need to take protective measures to counter the threat to maritime security on the one hand, and the need to respect international law, in particular, human rights, on the other. "A balance must also be sought between tightening security measures and maintaining the efficient flow of international trade."80

Due to the fact that jurisdictional questions may arise because many of these acts of piracy/terrorism can and will occur in internal/territorial seas, the question of how one maintains tighter security measures without interfering in the efficient flow of international trade could present numerous problems unless the states work together. Therefore, it is necessary to set forth the security measures, both old and new, that were set forth in order to protect the safe passage of maritime transport. As one reads the recommendations of the General Assembly, the one item that will stand out is the trend toward more violence and catastrophic problems that could occur if proper planning and reactions were not forthcoming.

^{78.} Oceans and the Law of the Sea: Report of the Secretary-General, U.N. GAOR, 58th Sess., Agenda Item 53(a), U.N. Doc. A/RES/58/65 (2003), available at http://daccessdds.un.org/doc/UNDOC/GEN/N03/266/68/PDF/N0326668.pdf?OpenElement (last visited Jan. 20, 2004) [hereinafter Report of the Secretary-General 2003].

^{79.} Id. at 33

^{80.} Id.

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III. CURRENT MEASURES UTILIZED BY THE INTERNATIONAL COMMUNITY TO PREVENT PIRACY/TERRORISM

Suppression of Acts of Terrorism Against Shipping Α.

In Resolution 57/141, the General Assembly welcomed initiatives of the IMO, including the adoption of amendments to SOLAS and the International Maritime Security Code at the Conference of Contracting Parties to SOLAS that was held in December 2002 and will enter into force in July 2004.⁸¹ The Code's purpose is to provide a standardized, consistent framework for evaluating risk and enabling governments to assess threats in terms of vulnerability of ships and port facilities. Also included in a chapter entitled Modifications to Chapter V (Safety of navigation) of SOLAS, there is contained "a new timetable for the fitting of Automatic Information Systems (AIS)."82 As an example, the United States now requires detailed cargo manifests for the loading of containers bound for its ports, the purpose of which is to check the major changes of loading of containers in major ports such as Hong Kong.⁸³ "A new regulation 1/5 requires ships to be issued with a Continuous Synopsis Record (CSR), which is intended to provide an onboard record of the history of the ship."⁸⁴ The CSR must be issued by the Administration and contain information such as the names of the ship and the flag state, the date on which the ship was registered with that state, the ship's identification number, the port at which the ship is registered and the name of the registered owner(s) and their registered address. Any changes have to be recorded in the CSR within three months so as to provide updated and current information together with the history of the changes.⁸⁵ As far as security under SOLAS is concerned, a new special chapter (Chapter XI-2), requires that the flag states and coastal states have to conduct security assessments for their ships or port facilities, within their territory that serve ships engaged in international voyages, pursuant to which a security plan is then developed.

In addition, the General Assembly also urged states to become parties to the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (SUA Convention) and its Protocol, and invited states to participate in the review of those instruments by the

^{81.} Report of the Secretary-General 2003, supra note 78, at 34.

^{82.} Id.

^{83.} Id. at 33.

^{84.} Id. at 34.

^{85.} Id. at 34.

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Legal Committee of the IMO to strengthen the means of combating such unlawful acts, including terrorist acts.⁸⁶

B. Piracy and Armed Robbery Against Ships—A Current Assessment of the Problems by the General Assembly

After looking at the number of incidents of piracy in Resolution 57/141, the General Assembly again urged all states and relevant international bodies to cooperate in preventing and combating piracy and armed robbery at sea by adopting measures to assist with prevention, reporting and investigating incidents, and to bring the alleged perpetrators to justice, in accordance with international law. With the adoption of national legislation, along with the training of seafarers, port staff and enforcement personnel, and provisions of enforcement vessels and equipment to guard against fraudulent ship registration,⁸⁷ states would be better able to prevent and combat piracy and armed robbery.

On March 22, 2004, the United Nations prepared a report on "the request of the General Assembly in paragraph 78 of its Resolution 58/240 of December 23, 2003, for the Secretary-General to present at the fifty-ninth session his annual comprehensive report on developments and issues relating to oceans and the law of the sea."⁸⁸ This report pointed out with regard to prevention and suppression of acts of terrorism against shipping, that:

158. A new comprehensive maritime security regime for international shipping contained in several amendments to SOLAS will enter into force on July 1, 2004. The new regime includes the International Ship and Port Facility Security (ISPS) Code, Part A which is mandatory and Part B, which is voluntary. Flag states will be required to issue a Continuous Synopsis Record (CSR) to ships flying their flag, designed to provide an on-board record of the history of the ship with its name, flag State, the date on which the ship was registered with that State, the ship's identification number, the port at which the ship is registered and the name of the registered owner(s) and their registered address. In Decem-

^{86.} Report of the Secretary-General 2003, supra note 78, at 34.

^{87.} Id. at 34-5.

^{88.} Oceans and the Law of the Sea: Report of the Secretary-General, U.N.C.L.O.S. 59th Sess., Agenda Item 51(a), summary, U.N. Doc. A/59/62 (2004), available at http://www.un.org/Depts/los/general_assembly/general_assembly_reports.htm (last visited Oct. 25, 2004) [hereinafter Report of the Secretary-General 2004].

ber 2003, the IMO Assembly adopted a format and guidelines for the maintenance of the CSR [by] resolution A.959(23).

159. Under the ISPS Code, all ships must be provided with a ship security alert system according to a strict timetable requiring most vessels to be fitted by 2004 and the remainder by 2006. Ships must be able to present to port State control officers an International Ship Security Certificate which provides evidence that the ship conforms to the new security requirements. If the coastal State has clear grounds for believing that the ship is not in compliance, it may either require the ship to rectify the non-compliance or proceed to a location specified in its territorial sea or internal waters; or it may inspect the ship if it is in its territorial sea; or deny its entry into port. A ship can only be denied entry into port or be expelled therefrom if there are clear grounds for believing that the ship poses an immediate threat to the security or safety of persons, or of ships or other property, and there are no appropriate means for removing the threat. In such cases the authorities of the port State should communicate the relevant facts to the authorities of the State of the next port of call, and to other potentially affected coastal States. Ships that are unduly delayed or detained are entitled to compensation for any loss or damage suffered. The new amendments also apply to port facilities where there is a ship/port interface. The wider issue of the security of port areas has been the subject of collaboration between IMO and ILO, resulting in a Code of Practice on Security in Ports which has been submitted to the Governing Board of ILO for approval in March 2004. The Code extends the consideration of port security beyond the area of port facility into the whole port. It is intended to be compatible with the provisions of the ISPS Code and addresses port security policy, assessment and plans as well as related tasks and roles, and security awareness and training, which are vital for the successful implementation of an appropriate port security strategy.

160. Modifications to Chapter V (Safety of Navigation) of SOLAS containing a new timetable for the fitting of Automatic Identification Systems (AIS) will enter into force on December 31, 2004. Ships of less than 50,000 gross ton-

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nage, other than passenger ships and tankers, will have to fit AIS by that date. The Subcommittee on Safety of Navigation (NAV) is developing functional requirements for the long-range identification and tracking of ships. It has been suggested that coastal states be permitted to identify and track ships up to 200 nm miles offshore.

161. The General Assembly in its resolution 58/240 once again urged States to become parties to the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (SUA Convention) and its Protocol, invited them to participate in the review of those instruments by the IMO Legal Committee (LEG) and urged them to take appropriate measures to ensure in the effective implementation, in particular through the adoption of legislation aimed at ensuring a proper framework for responses to incidents of armed robbery and terrorist acts at sea. The Committee continued its consideration of a draft protocol to the SUA Convention and its Protocol in October 2003, focusing on draft article 3bis introducing new offenses and on draft article 8bis on boarding provisions. While the Committee seemed to accept the need to include provisions concerning boarding in the draft protocol, albeit with substantial modifications to the current draft, no agreement was reached on whether provisions on weapons of mass destruction (WMD) should be included. Delegations believed that the master and the crew should be protected from prosecution where under normal circumstances they would have no control over and were ignorant of the reasons for the transport of substances carried on board.89

With regard to piracy and armed robbery against ships, the same report stated:

163. The number of incidents of piracy and armed robbery against ships, reported from 1984 (when IMO began keeping records) to the end of March 2003, has risen to 3, 041. According to the International Maritime Bureau (IMB) of the International Chamber of Commerce (ICC), during 2003 the

^{89.} Report of the Secretary-General 2004, supra note 88 at 39-40.

number of incidents increased to 445 actual and attempted attacks, from 370 in 2002. Violence also rose, with 21 seafarers killed, 40 assaulted and 88 injured. The number of hostages nearly doubled, to 359. Ships were boarded 311 times and 19 ships were hijacked. [IMB] believes that kidnapping of crew are largely the work of militia groups in politically vulnerable areas.

164. Reports indicate that the areas most affected were the Far East, in particular the South China Sea and the Malacca Strait, South America and the Caribbean, the Indian Ocean and West and East Africa. Indonesia continues to record the highest number of attacks with 121 reported incidents in 2003. Piracy attacks in Bangladesh ranked second highest with 58 attacks and Nigeria ranks third with 39 attacks. There were 28 incidents in the Malacca Straits. Most of the attacks worldwide were reported to have taken place in territorial waters while the ships were at anchor or berthed.

165. In resolution 58/240, the General Assembly again urged states to combat piracy and armed robbery at sea by adopting measures, including those relating to assistance with capacity-building through training of seafarers, port staff and enforcement personnel and by adopting national legislation, as well as providing enforcement vessels and equipment and guarding against fraudulent ship registration. It also urged States to promote, conclude and implement cooperation agreements, in particular at the regional level and in high-risk areas. The 10 States members of the Association of South-East Asian Nations and China, Japan, the Republic of Korea, Bangladesh, India and Sri Lanka are negotiating a regional cooperation agreement on combating piracy and armed robbery against ships in Asia.

166. IMO has also been promoting the conclusion of regional agreements/Memoranda of Understanding on the prevention and suppression of piracy and armed robbery in the contest of the regional meetings it has convened as part of its antipiracy project. The Maritime Safety Committee at its 77th session endorsed the sub-regional/regional meetings convened by the secretariat and expert missions to other regions

of the world; and agreed that IMO should continue to take the lead in the development of regional cooperation activities and agreements/arrangements.⁹⁰

While these Reports are technically instructive, it is important to look at prior discussions within the international community in order to see how the problems of piracy/terrorism, and trends related thereto, have changed since September 11. One could ask themselves: Are these discussions really addressing possible acts of terrorism that could occur within today's communications and weapons systems?

IV. ON THE EVOLUTION OF THE PIRACY/TERRORISM PROBLEM

In order to get a better idea of the number of piratical and armed robbery incidents against ships, the General Assembly at its 56^{th} session, in Resolution 56/12 on "Oceans and the Law of the Sea," identified the following problems (although not applicable in all participating countries):⁹¹

[T]he continuing economic situation prevailing in certain parts of the region; the geographical configuration of certain countries; the resource constraints on law enforcement agencies; the lack of communication and cooperation among the various national agencies involved; the response time after an incident had been reported to the coastal state concerned by affected ships; general problems of incident reporting, such as alerting the nearest coastal states and other ships in the area of a ship under attack or threat of attack; and, the prosecution of pirates and armed robbers when apprehended; together with the lack of regional cooperation.⁹²

This information was gathered at what was known as the Singapore meeting. The solutions, offered to address the problems that existed at that time, were basically that local coastal states identify vulnerable areas off their coasts and in their ports and direct resources to cope with the increased risks to safe navigation and environmental protection

^{90.} Report of the Secretary-General 2004, supra note 88, at 41-2.

^{91.} See id.

^{92.} Oceans and the Law of the Sea: Report of the Secretary-General U.N.C.L.O.S. 56th Sess., Agenda Item 42(a), at 39, U.N. Doc. A/56/58 (2001), available at http://www.un.org/Depts/los/general_assembly_reports.htm (last visited Oct. 25, 2004) [hereinafter Report of the Secretary-General 2001].

in such areas with particular emphasis being placed on areas used by international shipping. In addition, states were to provide specific advice for ships on protective measures and local reporting procedures, to provide coordinated patrols and joint exercises, where appropriate; and, to test existing anti-piracy systems and strengthen regional cooperation. It was also urged at the Singapore meeting that governments, who had not yet ratified the 1988 Convention for the Suppression of Unlawful Acts against the Safety of Navigation (SUA Convention) and the 1988 Protocol for the Suppression of Unlawful Acts Against the Safety of Fixed Platforms Located on the Continental Shelf (the SUA Protocol), might consider doing so. At that time, there were 52 states who were parties to the 1988 Convention, representing 48% of the world tonnage; and, 48 states who were parties to the Protocol.⁹³

Of special interest to the General Assembly was the creation of a uniform policy to prevent and suppress acts of piracy and armed robbery, as well as to sensitize countries in the affected areas, and to take action by assisting or providing resources to do so.⁹⁴ The lack of increased awareness by coastal states was the key to the problem of piracy. At the time of this General Assembly paper, pirates fell generally into two categories: (1) poor, opportunistic people; and (2) professional pirates.⁹⁵ As the reader will see later in this article, pirates now seem to be better organized. In addition, we now have the problem of terrorism and the possible coordinated efforts by pirates and terrorists, which have heightened the dangers of transit by commercial shipping, together with the loss of human life and possible environmental disasters that would ensue. At this particular meeting of the General Assembly, recommendations for combating piracy at that time included preventive measures by the crew; namely, (1) distributing IMO circulars providing guidance in this respect; (2) industry initiatives creating a piracy reporting center (which of course is in effect today); (3) a model law developed by the Comité Maritime International which may assist in answering some of the problems; (4) use of technology, tracking devices costing less than \$300 per month which can be hidden on board a ship; (5) a proactive approach by coastal and flag states, (For example, if a coastal state is unable or unwilling to prosecute pirates then the flag state should have a role to play) (emphasis added); (6) regional cooperation, such as, joint patrols which have proven to be deterrents; and, (7) intergovernmental involvement with the possibility of creating an international task force.

^{93.} Report of the Secretary-General 2001, supra note 92, at 41-2.

^{94.} Id. at 42.

^{95.} Id. at 43.

Regarding cooperation at the global level, it was suggested that the IMO draft Code of Practice for the Investigation of Crimes of Piracy Against Ships should be adhered to by states involved.⁹⁶

In summarizing the main problem areas with respect to piracy and armed robbery at sea at that time, the main problem was the lack of communication and cooperation among the various national agencies involved in a country (the reader will observe that this problem was prevalent before September 11 in the United States and may still be a problem).⁹⁷ Additionally, the response time was slow and, in some cases, totally lacking, after the incident had been reported to the relevant coastal state by affected ships. And, finally, there were general problems of incident reporting, many ship owners did not want to report these acts so that their business would not be affected by customers seeking to utilize their ships for the carrying of cargo.

Other problems, which were tangential to the main problems as perceived at that time included the lack of timely and proper investigation into reported incidents; the prosecution of pirates and armed robbers when apprehended; and the lack of significant regional cooperation among maritime law enforcement authorities in affected countries.⁹⁸ Finally, the continuing economic situation prevailing in certain parts of the region; the geographical configuration of certain countries; and the resource constraints on law enforcement agencies created additional problems.⁹⁹

The overall problem is that armed robbery, taking place in territorial seas of coastal states, in international straits, and in archipelagic waters could threaten the rights of innocent passage and transit passage, which is enjoyed by all states under the UNCLOS. In addition, it has been pointed out how an environmental disaster resulting from an attack on a ship carrying hazardous cargo would affect an ecosystem by taking lives as well as endangering the area for future growth.¹⁰⁰

On the international level, it has also been pointed out by the General Assembly that Article 100 of UNCLOS requires countries to cooperate to the fullest extent in the repression of piracy on the *high seas*.¹⁰¹ *The majority of the acts of piracy occurred in territorial waters or ports*

^{96.} See generally Report of the Secretary-General 2001, supra note 92.

^{97.} Id.

^{98.} Id.

^{99.} Id. at 39.

^{100.} Id. at 36.

^{101.} Report of the Secretary-General 2001, supra note 92. at 37; see also UNCLOS, supra note 36, at art. 100.

of States while the ships were at anchor or berthed (emphasis added). The reader will be presented with statistics that are more current but the reality of the problem is the same. The IMO had issued guidelines on preventing attacks of piracy and armed robbery. These guidelines were contained in circulars as requested by the United Nations General Assembly in its resolutions on oceans and the law of the sea 54/31 and $55/7.^{102}$ However, these circulars did not address the jurisdictional problems that existed then, or today, between the use of traditional norms in UNCLOS and the trend toward catastrophic violence. There appears to be a gap in the international consensus, i.e., the reality of the situation today as compared to what problems existed at an earlier period of time (classical forms of piracy vs. organized pirates and terror-The evolution of international law, utilizing UNCLOS as a ists). framework, has become of paramount concern to all countries that rely on shipping through international zones and territorial waters (e.g., around 40,000 merchant ships sail the globe without any type of regulation).¹⁰³ Finally, it was pointed out that when drafting regional agreements, attention should be paid to the different characteristics of the various regions, as well as to their political environments.¹⁰⁴ The ideal would be to forge a consensus before calling on IMO's expertise in the elaboration of regional agreements. All states should become involved in this preparation. Regional cooperative arrangements or agreements should be open not only to the states of the region, but also to those that have a substantial interest in navigation in the region. Thus, emergency plans in the event of a pollution incident should be put forward as well.¹⁰⁵ It was also mentioned that when ships were attacked in port or at anchorage, the local municipal law of the coastal state involved should have been utilized.¹⁰⁶ However, when acts endangered the safety of navigation and occurred on board foreign flag ships while under way in the territorial sea, in international straits or in waters beyond the limits of the territorial sea, those acts were frequently not proscribed nor punished by the criminal law of the coastal state.¹⁰⁷ It was suggested that the SUA Convention and its Protocol could have filled many of the jurisdictional gaps by following the approach taken by the 1988 United Nations Convention against Illicit Traffic in Narcotic Drugs and Psy-

^{102.} Report of the Secretary-General 2003, supra note 78, at 38-9.

^{103.} Id. at 36.

^{104.} Id. at 37.

^{105.} Id. at 40-1.

^{106.} Report of the Secretary-General 2001, supra note 92, at 37.

^{107.} Nathaniel Philbrick, Waterworld, N.Y. TIMES, May 16, 2004, at 5.

chotropic Substances.¹⁰⁸ The delegates at the United Nations agreed that enforcement should be within the framework of international law.¹⁰⁹ The main problem with current international law is that it is evolving slowly.¹¹⁰ In the meantime, certain temporary measures should be permitted in order to prevent catastrophic types of incidents. The trends are moving more quickly than the states can plan. Thus, as the reader will observe, the reaction to these incidents may act as preventive measures in order to deter future acts.

The types of acts of piracy and terrorism after 9-11 have become quite severe. For instance, as seen by all of the statistics set forth in this article, piracy attacks have increased over the years (as exemplified by charts that have been provided by a private maritime organization involved with security).¹¹¹ The trend shown in the charts is an increase in numbers of acts over the years; the types of "arms used;" "countries with over 10 attacks per year;" and of special interest to this article, the types of ships that are attacked. Data which indicated that from 1991 to 2003, oil tankers and tankers LPG were more prone to attack than ever with concurrent loss of personal life.

Therefore, what has evolved from simple economic types of crime by unorganized gangs has become a major problem. For example, we currently have rebels fighting to establish an Islamic state in Indonesia's troubled province of Aceh. "Possibly, the worst scenario that could happen is that a passenger ship with thousands of passengers and a large crew being rammed by a gas carrier or even a toxic chemical carrier, which then releases chemicals in a cloud of vapor over a very crowded city."¹¹²

Hong Kong has a vessel arriving and departing about every two minutes. They have introduced a new, state-of-the-art monitoring system which can track thousands of vessels in real time. However, it is not foolproof. In fact, the Chinese Maritime Search and Rescue Center and the state-controlled China Ocean Shipping Company conducted a joint exercise on June 23, 2004. They used a small boat to simulate a suicide bomb attack against a large oil tanker in the South China Sea. The exercise seemed to be based on a past attack against the French tanker Limburg, off Yemen, on October 6, 2002. China increasingly relies on oil imports from the Middle East and, as a result, needs to pro-

^{108.} Report of the Secretary-General 2001, supra note 92, at 41.

^{109.} Id.

^{110.} Id.

^{111.} Id. at 35 112. Id.

tect commercial sea lanes.¹¹³ Therefore, it is safe to say that we can have "terrorists seeking so-called soft targets for attacks that could take thousands of lives and cripple world trade and provide a powerful symbol of destructiveness"¹¹⁴ according to the Primer: Piracy in Asia. So the area in Southeast Asia would appear to be a breeding ground for pirates and terrorists. Keep in mind that two-thirds of the world's cargo, and half of its oil imports travel through the Malacca Strait, and that Indonesia saw more pirate attacks than any other country in the world.¹¹⁵ An example of new trends can be provided:

In March, armed men seized the Indonesian chemical tanker Dewi Madrim in the Malacca Strait. They robbed the ship, but they also spent an hour steering it through the strait. Why? 'There's a very strong possibility that we're looking at the equivalent of a flight training school for terrorists,' said Dominic Armstrong, a maritime expert for Aegis Security in London. The second act or piracy that did not fit the usual criminal pattern was the seizure of an oil tanker, the Penrider, near Malavsia in August. Pirates attacked the ship and took three crew members hostage. The owners paid \$100,000 for their release, but government officials in Malaysia said the money went not to pirates, but to an Islamic guerrilla organization in Indonesia. The accused group, the Free Aceh Movement, denied the charge. However, the Free Aceh Movement has previously ordered all ships coming near the Aceh shore of the Malacca Strait to ask its permission to pass.¹¹⁶

As far as how much damage a ship's explosion could create, two interesting points are made by the "Virtual Information Center,"

An explosion in the port of Halifax, Nova Scotia, in 1917 gives a clue. A French ship, the Mont Blanc, carrying munitions for the Western Front, collided near Halifax with

116. Id. at 24.

^{113.} Keith Bradsher, China: Guarding Against Suicide Boats, N.Y. TIMES, June 25, 2004, at A6.

^{114.} Id.

^{115.} See USCINCAP Virtual Information Center, Primer: Piracy in Asia, 24 (Oct. 31, 2003), available at http://www.secure-marine.com/piracy_update.pdf (last visited Oct. 25, 2004) [hereinafter Primer].

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the merchant ship Imo on Dec. 6, 1917. The impact set off the Mont Blanc's powder, killing 1,900 people immediately in the small Canadian town. There were 9,000 injuries, and almost the entire northern part of the town, more than 300 acres[-] sic was destroyed. During World War II, two munitions carriers, the Bryant and Quinalt Victory, exploded dockside at a naval port in San Francisco Bay. More than 300 crew members and dock workers died. The University of California's seismograph measured the blast as a small earthquake, equal to 5,000 tons of dynamite. That is more or less the power of the atomic bomb used on Hiroshima. A similar incident in a densely populated port city like New York is the Coast Guard's worst nightmare. Has there ever been a suicide bombing by ship? The tactic was used against pirates, when, in 1804, the new U.S. Navy was besieging the port of Tripoli to suppress North African piracy. Commodore Edward Preble's gunships proved ineffective against Tripoli's massive city walls, so he ordered the USS Intrepid to sail up to the city's fortress packed with explosives. Master Commandant Richard Somers and 12 volunteers set out in fog on the evening of Sept. 4, 1804. Suddenly, their ship blew up well short of its target. All of the American seamen were killed. No one discovered why the ship blew up, but Preble insisted his men had done it themselves to avoid capture. If so, they were the sea's first suicide bombers.¹¹⁷

As the reader will recall, the IMB "said attacks on ships had tripled in the past 10 years, with 103 assaults in the first three months of this year (2003)."¹¹⁸ The problem is that nobody seems to know what the strategic intentions of terrorists groups are with relationship to shipping. Naturally the security of ports and ships has been increased in the United States and other maritime countries. Apparently, what could happen is that the pirates and the terrorists could join hands in their attempts to create or disrupt Asian trade by scuttling "large ships in one or more of the three narrow straits, Malacca, Sunda and Lombok, along the southern edge of the South China Sea," thereby "forcing ships to sail much longer and more costly distances around Australia as they ply between East and South Asia.¹¹⁹

^{117.} Primer, supra note 115, at 24.

^{118.} Id. at 26.

^{119.} Keith Bradsher, China: Guarding Against Suicide Boats, N.Y. TIMES, June 25,

In order to understand the possible environmental impact to our oceans due to attacks by pirates and terrorists, it is necessary to review the disastrous effects of chemical and oil spills.

V. THE EFFECT OF CHEMICAL AND OIL SPILLS ON OUR GLOBAL WATERS

Rachel Carson¹²⁰ asserted "that one of the most basic human rights must surely be the 'right of the citizen to be secure in his own home against the intrusion of poisons applied by other persons." She further goes on to state "[t]hrough ignorance, greed, and negligence, government had allowed 'poisonous and biologically potent chemicals' to fall indiscriminately into the hands of persons largely or wholly ignorant of their potentials for harm."¹²¹ Ms. Carson could never have anticipated that pirates or terrorists would overtake vessels laden with oil and/or chemicals and negligently or intentionally contaminate our waters. However, her concern over the impact of chemicals in the wrong hands is analogous to the frightening issues of our day that are articulated in this paper.

Our oceans are replete with a wide array of saltwater ecosystems which "exist where streams and rivers meet the sea and where tides and coastal currents mix."¹²² These ecosystems provide us with ecological and economic means that are immeasurable. For example, about two-thirds of America's commercial fish and shellfish utilize these ecosystems for spawning grounds and nurseries.¹²³ But these ecosystems are at risk from mounting environmental changes stemming from pollution, land and resource use, invasive species, climate change, and extreme events.¹²⁴ Since over fifty percent of America's population resides within fifty miles of the coastline, a major environmental collision would be disastrous.¹²⁵ This section of the article will focus on the environmental threats to marine ecosystems as a result of oil, and/or chemical spills.

Oil spills on the world's oceans greatly contribute to the major

^{2004,} at A6.

^{120.} Primer, supra note 115, at 23.

^{121.} Id.

^{122.} NATIONAL CENTERS FOR COASTAL OCEAN SCIENCE, COASTAL OCEANS, *at* http://www.nccos.noaa.gov/ecosystems/coastalocean/coastalocean.html (last visited Nov. 16, 2004) [hereinafter NCCOS].

^{123.} Id.

^{124.} Id.

^{125.} Id.

threat facing the environment.¹²⁶ It is estimated about 75 million gallons of petroleum find their way into North America's oceans every year.¹²⁷ Most oil is transported via tankers.¹²⁸ What would be the environmental effects were these tankers to collide whether by accident, piracy, or terroristic acts? Could our ecosystem survive a massive oil spill? What about a massive chemical spill? And what about the cost to remedy the environmental consequences? The following will explore the scientific effects of oil spills on our world's waterways.

Oil spilled into waterways has significant chemical effects on marine environment.¹²⁹ Each of these components could independently or collectively cause a host of problems.¹³⁰ For example, spilled crude oil could burn resulting in atmospheric emissions of carbon dioxide gas and acid rain, which adds greatly to issues of global warming.¹³¹ Other issues of import arise with the less dense components of the spilled oil. These more volatile components evaporate and react with sunlight and oxygen to form greenhouse and acid gasses that are quite similar to those discussed from combustion of oil.¹³² The heavier fractions of the crude oil form a mixture called "mousse," which either washes up on shore or sinks to the bottom of the water.¹³³ This "mousse" could easily wreak havoc on the habitat of many sensitive as well as less sensitive organisms, upsetting the natural food chain.¹³⁴ Still, other oil may be degraded into less complex molecules through a chemical reaction induced by sunlight or bacteria.¹³⁵ Although less harmful, this process contributes to the overall effects resulting from an oil spill.

As stated, oil spills are responsible for a vast array of environmental harms. Wildlife, especially seabirds as well as marine mammals are susceptible.¹³⁶ However, organisms in the ocean as well as near coastal areas, will surely suffer ill effects. These marine organisms are

128. Id.

- 132. Id.
- 133. See Id.

^{126.} See NCCOS, supra note 122.

^{127.} Nancy Rabalais, *Oil in the Sea, available at* http://www.issues.org/issues/20.1/rabalais.html (last visited Nov. 18, 2004).

^{129.} ENERGY FACT SHEET: OIL SPILLS (1993), available at http://www.iclei.org/EFACTS/OILSPILL.htm (last visited Nov. 11, 2004) [hereinafter Energy Fact Sheet].

^{130.} *Id*.

^{131.} Id.

^{134.} Energy Fact Sheet, *supra* note 129. The spill can also leak into fresh ground water if it occurred close enough to a coastline. *Id*.

^{135.} Rabalais, supra note 127.

^{136.} Primer, supra note 115.

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endangered by oil in three different ways: by poisoning after ingestion, by coming in direct contact, and by destroying entire habitats.¹³⁷

Several examples of the oil's impact will be visited. Fish, known as a larger creature in marine life, ingest large quantities of oil through their gills and can be killed on impact.¹³⁸ If they survive their first encounter with oil, their reproductive system may be inhibited or interrupted, resulting in a new generation of deformed offspring.¹³⁹ More sluggish species such as slow moving shellfish are particularly susceptible to ill effects because they can not break away from the thick oil.¹⁴⁰ Another example of an ill fated species is that of marine mammals and birds. When in direct contact with oil slicks these species, to their detriment, ingest a significant amount of oil, and can also be killed by direct exposure.¹⁴¹ Oil clogs a bird's feathers rendering the bird unable to fly and eradicating the capability of a bird's feathers to maintain a warm temperature: making it utterly helpless.¹⁴² The oil also may cause a bird's feathers to become so heavy that the bird sinks and drowns.¹⁴³

Once wildlife has been adversely affected due to oil contamination it may be possible to rehabilitate some species.¹⁴⁴ Although some species can be helped, the harmful environmental effects might be long lasting and long reaching. For example, oiled fish could lead to immediate contamination of a food source and a reduction in reproductive ability through disruption of normal reproductive cycle.¹⁴⁵

One would be remiss to speak to the issue of oil spills without addressing the infamous 1989 Exxon Valdez oil spill in Prince William Sound, Alaska.¹⁴⁶ On March 24, 1989 the tanker Exxon Valdez ruptured its tank causing the largest oil spill in the history of the United

138. Id.

140. Id.

143. Id.

144. Effects of Oil on Wildlife, Tri-State Bird Rescue & Research, Inc., available at http://www.tristatebird.org/oilspill/effects_of_oil.htm (last visited Nov. 11, 2004).

145. Id.

^{137.} Energy Fact Sheet, supra note 129.

^{139.} Id. The negative effects of oil ingestion by micro-organisms such as plankton are not fully understood. Id.

^{141.} Energy Fact Sheet, supra note 129.

^{142.} Id.

^{146.} *Id.* The gastrointestinal tract, pancreas and liver are also at risk. For example birds may injure their gastrointestinal tracts while attempting to clean their feathers through preening. These damaged birds are then incapable of proper digestion eventually leading to debilitation and weakness. At this point their immune systems may become compromised. *Id.*

States.¹⁴⁷ The environmental effects were devastating. About eleven million gallons of crude oil spilled into an extremely sensitive ecosystem.¹⁴⁸ Almost five months later, the oil had navigated so that more than twelve hundred miles of shoreline were affected.¹⁴⁹ The effects of the spill were instantaneous, killing countless birds, fish and marine mammals.¹⁵⁰ Serious damage was done to many of the natural resources of the area.¹⁵¹ The scene was a plethora of ecosystem destruction. "Dead fish lay on the shore, birds were covered . . . in oil and unable to fly."¹⁵² Sea birds by the thousands were killed, as well as "300 harbor seals, and 250 bald eagles."¹⁵³ Killer whales were also killed.¹⁵⁴

Even after costly and massive clean up efforts, and along with the passage of years, the negative environmental impact lingers. Because an ecosystem is a synergistic dependent system, where one living thing depends on another, the long lasting effects of this type of impact are gargantuan. When fish are covered in oil and die, other species are influenced. For example, dead fish result in less food for the seals that eat them.¹⁵⁵ As the seals diminish in quantity there is less food for orcas that eat seals to survive. One could continue up the chain to humans who eat seal meat for sustenance.¹⁵⁶ In addition to the physical harm, humans were also victim to adverse economic consequences by environmental disasters. Many who were fishermen suffered a loss of income in the aftermath of this catastrophic oil spill. Thus the consequences were both environmental and economic in nature.¹⁵⁷

Water quality and ecosystem changes are also adversely affected by chemicals and toxins occurring from either intentional or unintentional ocean dumping.¹⁵⁸ Heavy metals as well as other toxic chemicals

153. Id.

^{147.} Prince William Sound: An Ecosystem in Transition, *available at* http://response.restoration.noaa.gov/spotlight/spotlight.html (last visited Nov. 11, 2004).

^{148.} Christine Cartwright, Natural Resource Damage Assessment: The Exxon Valdez Oil Spill and Its Implications, 17 RUTGERS COMPUTER & TECH. L.J. 451 (1991).

^{149.} Id. The oil spill occurred in less than five hours. Id.

^{150.} Id. at 457.

^{151.} Id. at 451.

^{152.} Exxon Valdez Oil Spill: The Aftermath, available at http://nj.essortment.com/exxonvaldezoil_regp.htm (last visited Nov. 11, 2004).

^{154.} Id. The spill killed 250,000 sea birds. Id.

^{155.} Id.

^{156.} Id.

^{157.} See Exxon Valdez, supra note 152.

^{158.} Id. With respect to overall economic expenditure, more than two billion dollars have been spent to clean up Prince William Sound. Id.

have properties that cause bioaccumulating in many marine species.¹⁵⁹ Those not killed by toxic bioaccumulation have been killed due to oxygen depletion.¹⁶⁰ Those who survive may be diseased: an impact felt by humans as well as the habitat.

Toxic substances may be carcinogenic, mutagenic and teratogenic.¹⁶¹ Introduction of these toxic substances or pollutants into the oceans is increasing in quantities significant enough to bring about destructive effects on resources and our environment.¹⁶² As stated previously, some of these chemicals are bioaccumulated in species effectuating a change in habitat.¹⁶³ A classic example of a chemical that is lethal, mainly due to its bioaccumulation properties, is DDT. DDT¹⁶⁴ has a half-life¹⁶⁵ of 15 years.¹⁶⁶ The impact of 100 kg (kilograms) of DDT is that after 100 years, over a kilogram of DDT will linger in the environment.¹⁶⁷ This phenomenon is of great consequence because through the processes of bioaccumulation and biomagnification,¹⁶⁸ a large amount of DDT will end up in the bodies of organisms.¹⁶⁹ DDT is a very stable compound and is quite fat soluble. It is metabolized slowly and stored in the fatty tissues.¹⁷⁰

Although one may wonder why ocean dumping or pollution should cause such deleterious effects, it is because the dilution factor is not sufficient to override the significant toxic impact. It is not necessarily the ocean waters, where the point of first impact may occur, that becomes

^{159.} Bioaccumulation & Biomagnification, *at* http://www.marietta.edu/~biol/102/2bioma95.html (last visited on June. 15, 2004). The term bio-accumulation speaks to how pollutants enter a food chain. The pollutant increases in concentration from the environment to the first organism in a food chain. *Id*.

^{160.} Id.

^{161.} Id.

^{162.} Vaclav K. Mejstrik, *The Oceans: Exploitation of Resources and Pollution, available at* http://business.hol.gr/bio/HTML/PUBS/VOL3/jg-mej.htm (last visited Oct. 25, 2004).

^{163.} Id. It is estimated these pollutants stay around for decades. Id.

^{164.} Bioaccumulation & Biomagnification, *supra* note 159 ("DDT stands for dichloro dipheyny trichlorethane."). See also DDT- A Banned Insecticide, available at http://www.chelationtherapyonline.com/technical/p86.htm (last visited Nov. 16, 2004).

^{165.} The half-life of a chemical defines the rate at which it will decay. The number assigned ranges from 0-255. See generally Chemical Half Life, at http://www.doiuble.co.nz/creatures/genetics/halflife.htm (last visited on Nov. 22, 2004) ("The higher the number, the longer it takes the chemical to drop down to zero.").

^{166.} See Bioaccumulation & Biomagnification, supra note 159.

^{167.} Id.

^{168.} Id.

^{169.} Id. Biomagnification is defined as "an increase in concentration of a pollutant from one link in a food chain to another." Id.

^{170.} See Bioaccumulation & Biomagnification, supra note 159.

the final resting ground for toxic implantation. Rather, many wastes are transported to coastal areas where coastal ecosystems are degraded.¹⁷¹ Chronic pollution is produced by many other sources such as dredging, filling, paving, construction of terminals, factory roads, and other types of urbanization. Coastal waters also receive polluting substances through river discharges and coastal out-falls.¹⁷² The introduction of non-native species into coastal ecosystems by chemical spills will certainly add to biological pollution: a result our societal environment will most likely not be able to sustain for very long.

Even under optimum pristine conditions, the sea is not a bottomless supplier of food and other resources. A terroristic or piracy attack leading to oil or chemical spills could lead to disastrous consequences traveling up the entire food chain. Environmental groups, cognizant of the deleterious effects of chemical spills or dumping, led a movement which amended the Marine Protection Research and Sanctuaries Act of 1972 with the passing of the Ocean Dumping Ban Act in 1988.¹⁷³ This Act is utilized to curb ocean dumping by cruise ships in the waters of the United States.¹⁷⁴ However, neither this Act nor any other will protect against illicit dumping—inadvertent or deliberate—by pirates, terrorists, or any other person operating with sinister goals. What if terrorists or pirates take over a ship laden with chemicals and are not competent seamen? What if they intentionally mishandle the ship? What if their ultimate goal is to scuttle the ship into an ocean oil rig? The environmental effects of such villainy would be devastating.

The introduction of foreign systems such as chemicals into our oceans has serious impacts on marine life and environment.¹⁷⁵ Toxic chemicals in water can bioaccumulate in species leading to reduced fish populations. Additionally, pathogens introduced can cause disease not only in fish, but in humans who later consume contaminated fish.¹⁷⁶

^{171.} See UNEP, An Overview of Land Based Sources of Marine Pollution, at http://www.cep.unep.org/issues/lbsp.html (last visited Nov. 24, 2004).

^{172.} See Mejstrik, supra note 162. These coastal waters and ecosystems are highly fertile ground for biological activity and hence are of great import to public health and need. *Id.*

^{173.} Ocean Dumping Ban Act, Pub. L. No. 100-688(1988) (amending Marine Protection, Research and Sanctuaries Act, 33 U.S.C. 1401 *et. seq.(1972)*).

^{174.} Charles B. Anderson, Ocean Dumping and the Marine Protection, Research and Sanctuaries Act, 1 LOY. MAR. L.J. 79 (2002).

^{175.} See id.

^{176.} Id. at 81; see also Consumer Factsheet on: Polychlorinated Biphenyls, at http://www.epa.gov/safewater/contaminants/dw_contamfs/pcbs.html (last visited Nov. 24, 2004). An example of a toxic chemical would be PCBs (Polychlorinated Biphenyls). Id.

Chemical and biological changes are also natural consequences. These changes include "oxygen depletion, accelerated growth of algae and plankton (so-called 'red tides'), and PH imbalances."¹⁷⁷ Furthermore, physical effects can cause suffocation of bottom dwelling organisms or loss of marine life from suspended solids in the water column.¹⁷⁸

Data from the Office of U.S. Customs indicates that 3.2 billion pounds of pesticide products were in transit between 1997–2000.¹⁷⁹ This translates into about 45 tons of chemicals per hour. It is estimated that 65 million pounds of pesticides exported from the U.S. were forbidden for use in the U.S.¹⁸⁰ In fact, products considered not acceptable for domestic use may be exported to other countries, placing these potentially harmful chemicals in global waterways.¹⁸¹ These extremely hazardous chemicals would wreak environmental havoc on the ecosystem were they to be discharged accidentally into our waters. Intentional use of these and other chemicals (such as a dirty bomb) for terroristic activities would have similar impacts. Therefore, measures must be taken to ensure chemicals carried on tankers are in containers that can sustain the strongest of blows.

VI. PREVENTION AND ENFORCEMENT—TWO CONCEPTS THAT MAY PRESENT CONFLICTS OF NORMS IN INTERNATIONAL LAW OF THE SEA

The goal of all nations is to prevent piracy and terrorism *before* the acts, themselves, occur. As the reader has observed, areas such as Hong Kong and Singapore have increased tracking systems with regard to ships in their ports. Other nations have done the same. However, it may be necessary to increase patrols of naval vessels throughout the international straits and possibly even territorial waters. One of the problems is that UNCLOS was written at a time when terrorism was not a

181. Id.

These organic chemicals were put to many uses in the U.S., e.g. as pesticides. *Id.* These chemicals are so dangerous that the EPA has set the MCL (Maximum Contaminant Level) at 0.5 ppb (parts per billion). *Id.* This is the lowest level to which it is deemed safe for ingestion by humans. *Id.* There are short-term as well as long-term health effects as a result of exposure. *Id.* Short term effects include acne-like eruptions, pigmentation of the skin, hearing and vision problems and spasms. *Id.* Long term PCBs can cause throat and gastro-intestinal tract irritation, changes in liver function and even cancer. *Id.*

^{177.} Anderson, *supra* note 174, at 81. Economic losses, as discussed earlier, are also a by-product of this type of foreign contamination. *Id*.

^{178.} Id. Death occurs by ingestion. Id.

^{179.} Carl Smith, *Pesticide Exports from U.S. Ports, 1997-2000,* 7 INT'L J. OCCUPATIONAL & ENVTL. HEALTH 266 (2001), available at http://www.fasenet.org/pesticide_report97-00.pdf (last visited Nov. 24, 2004).

^{180.} Id.

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concern, and most forms of piracy that it addressed had gone out of fashion in the late 1800s, early 1900s. However, UNCLOS and customary law are developing even as this article is written. The framework is there through various treaties and regional agreements. The question is: just how far can a country, such as the United States, proceed in order to protect itself as well as the world's commercial shipping; and, by doing so, thereby preventing and enforcing antipiracy/terrorism laws? In order to answer this question of pro-activity, one must first look at what is being done currently (i.e., in practice).

A. Piracy in Ports

Recently, a private Dutch security company—Secure-Ship developed a high-voltage electric fence that can be mounted around a ship deck.¹⁸² "Crew members can activate port and/or starboard zones, allowing work to take place on one side of the ship while the fence is charged on the other."¹⁸³ "The electric fence delivers a 9,000-volt shock at any point of contact—a painful but not deadly charge."¹⁸⁴ The positive point is that it represents an "anti-boarding device [that] will...prevent stowaways, deter[] illegal immigration and possibly thwart[] would-be terrorists."¹⁸⁵ "However, the presence of electrically charged wires means the system cannot be used on oil tankers or other ships carrying heavily flammable materials."¹⁸⁶ Thus, this system cannot prevent all potential acts of terrorism.¹⁸⁷

The second type of security system is called "ShipLoc." ¹⁸⁸ "Ship-Loc is an inexpensive satellite tracking system, which allows shipping companies armed with only a personal computer with Internet access to monitor the exact location of their vessels."¹⁸⁹ It can facilitate an antihijacking wall by giving an "independent and precise location of ships at regular intervals."¹⁹⁰ What happens is that crews may, "in the case of

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^{182.} International Chamber of Commerce, *Electric Fence for Ships Steps up Fight Against Pirates*, (Jan. 23, 2003), *at* http://www.iccwbo.org/home/news_archives/2003/stories/electric_fence.asp (last visited Jan. 24, 2005) [hereinafter *Electric Fence*].

^{183.} Id.

^{184.} Id.

^{185.} Id. quoting Captain Pottengal Mukundan.

^{186.} Electric Fence, supra note 182.

^{187.} Id.

^{188.} International Chamber of Commerce, *ICC Commercial Crime Services: The IMB Piracy Reporting Centre at* http://www.iccwbo.org/ccs/menu_imb_piracy.asp (last visited Nov. 24, 2004) [hereinafter *ICC Commercial Crime Services*].

^{189.} Id.

^{190.} Id.

danger...activate an alarm button that automatically sends, a message to the ship owner and to competent authorities."¹⁹¹ Apparently it is not very costly, and is fully compliant with the IMO regulation concerning ship security alert systems that was adopted during a diplomatic conference in December 2002, SOLAS XXI-2-0.¹⁹² The regulation itself is expected to go into place as of July 2004.¹⁹³ It "requires ships of over 500 GT (gross tons) to be equipped with an alarm system in order to re-enforce ship security."¹⁹⁴

The IMO Draft Code of Practice for the Investigation of the Crimes of Piracy and Armed Robbery Against Ships, of course, defines piracy under article 101 of UNCLOS. Moreover, the Draft Code also creates a separate crime called "'Armed robbery against ships,' [which] means any unlawful act of violence or detention or any act of depredation, or threat thereof, other than an act of piracy, directed against a ship or against persons or property on board such a ship, within a State's jurisdiction over such offences."¹⁹⁵

It is now apparent that these acts of violence must be prevented in order to keep shipping lanes open. The major commercial traffic occurs in international straits. The international community has reached a consensus on the status of straits in UNCLOS. The consensus, together with its interplay on environmental expectations agreed upon by the international community in UNCLOS will now be presented so that the reader can further appreciate the gaps that exist between conventional wisdom and the reality of how these violent acts affect pro-action and enforcement of outdated standards.

The point is that UNCLOS and other agreed upon conventions and protocols are going to have to evolve at a more rapid pace from the current framework.

B. Acts of Piracy/Terrorism in International Straits

The basic problem presented in the article is: should warships that proceed through international straits be permitted to attack unilaterally, pirates/terrorists that are outside the "international" aspect of the strait and are in territorial waters? As was mentioned in our jurisdictional discussion, "the coastal state exercises exclusive jurisdiction over its in-

^{191.} See ICC Commercial Crime Services, supra note 188.

^{192.} Id.

^{193.} See id.

^{194.} Id.

^{195.} Draft Code, supra note 39, at annex ¶¶ 2.1-2.2.

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ternal waters (e.g., ports and harbors)."196

As one moves seaward from the baseline, the state exercises almost total jurisdiction over its territorial sea, with the one exception of the doctrine of innocent passage.

Innocent passage is defined by UNCLOS at Article 19, as follows:

1. Passage is innocent so long as it is not prejudicial to the peace, good order or security of the coastal state. Such Passage shall take place in conformity with this convention and with other rules of international law. 2. Passage of a foreign ship shall be considered to be prejudicial to the peace, good order or security of the coastal state if in the territorial sea it engages in any of the following activities: (h) any act of willful and serious pollution contrary to this Convention; (I) any fishing activities; (j) the carrying out of research or survey activities... (1) any other activity not having a direct bearing on passage.

A limited area of jurisdiction beyond the territorial sea as we move further seaward from a baseline of the coastal state is the contiguous zone. The contiguous zone exists so that a state may exercise necessary control over issues such as pollution, navigation, customs, and sanitation. This zone is still considered part of the high seas.

The high seas have traditionally been open to all states in order to preserve international shipping and commerce.¹⁹⁷ International straits are also preserved for international commerce and are therefore open to all nations. The flow of international commerce is at the heart of all maritime conventions. Commerce must be able to flow freely, uninhibited, without danger to life and limb and without fear of widespread environmental contamination.¹⁹⁸

Coastal states also have the right to protect themselves and take measures in order to avoid pollution arising from maritime casualties

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^{196.} Barry Hart Dubner, On the Interplay of International Law of the Sea and the Prevention of Maritime Pollution—How Far Can a State Proceed in Protecting Itself From Conflicting Norms in International Law 11 GEO. INT'L ENVIL. L. REV. 137, 141 (1998).

^{197.} Id..

^{198.} Dubner, supra note 75 at 141-43.

under Article 221 of UNCLOS, which concerns measures to avoid pollution arising from maritime casualties, as follows:

nothing in this Part shall prejudice the right of States, pursuant to international law, both customary and conventional, to take and enforce measures beyond the territorial sea proportionate to the actual or threatened damage to protect their coastline or related interest, including fishing, from pollution or threat of pollution following upon a maritime casualty or acts relating to such a casualty, which may reasonably be expected to result in major harmful consequences.¹⁹⁹

Of course, we are dealing with international straits. International straits can be defined as:

natural waterways used for international navigation between two bodies of land which may be continental land masses, a continental land mass and an island, or even two islands, irrespective of the size, width and length of the waterway. Since these straits are physically part of the oceans, they may comprise internal waters, territorial seas, exclusive economic zones and even areas of high seas. This being the case, third states would appear to enjoy a right of innocent passage in the portion which belongs to the territorial sea and the freedom of navigation in the other portions of the strait. This is the situation which seems to prevail in straits which, throughout their length, are wider than 24 nautical miles and therefore encompass an area of exclusive economic zone. Where, however, the breadth of the international strait is less than 24 nautical miles at some point within its length, a special passage regime appears necessary (emphasis added).

Certain treaty provisions may govern navigational use of some international straits in whole or in part.²⁰⁰ For example, the Bosporus is regulated by the 1936 Montreux Convention relating to the Turkish straits.²⁰¹ However, not all straits are regulated by treaties. Some are geographic in nature and fall within one or more of the legal regimes iden-

^{199.} UNCLOS, *supra* note 36, at art. 221.

^{200.} Id. at 148.

^{201.} Id.

tified in [UNCLOS].

There are five different straits used for international navigation that are identified by [UNCLOS], each with a distinct legal regime. According to the State Department interpretation, the regime of innocent passage, rather than transit passage, applies in straits used for international navigation that connect parts of the high seas or exclusive economic zones with the territorial sea of a coastal state. There shall be no suspension of innocent passage through such straits.²⁰²

According to UNCLOS, "passage" means "navigation through the territorial sea for the purpose of either traversing that sea without entering internal waters or calling at a roadstead or port facility outside internal waters; *or proceeding to or from internal waters* or a call at such roadstead or port facility."²⁰³ In addition:

under Article 34(1), the regime of passage through international straits does not affect the legal status of the waters or the sovereignty or jurisdiction of the states bordering the straits. *However, states bordering these straits are required* to exercise their sovereignty and jurisdiction in accordance with Part III and other rules of international law. States bordering straits must not impede the right of innocent passage.

Assuming that these vessels are proceeding in what is termed 'innocent passage' under customary and/or conventional treaty law, there are permissible restrictions on passage (e.g., restrictions set up for navigational safety and environmental protection). Under international law, the restrictions have to be reasonable and necessary and cannot have the practical effect of denying or impairing the right of innocent The restrictions cannot discriminate, in form or passage. substance, against ships of any states or those carrying cargoes, to, from, or on behalf of any state. The coastal state may, where navigational safety dictates, require foreign ships exercising the right of innocent passage to utilize designated sea lanes and traffic separation schemes. Article 21 further states that the coastal state has the power to adopt certain laws and regulations regarding innocent passage through the

^{202.} Dubner, supra note 196, at 148.

^{203.} Id. at 152.

territorial sea with respect to eight subject areas, one of which is the preservation of the environment of the coastal state and the prevention, reduction and control of pollution.

When are straits used for international navigation? The decisive criteria for designation as an international strait is its geographical location connecting, for example, parts of the high seas, and the fact that it is used for international navigation. Under Article 34(1) of the Convention, the regime of passage through international straits does not affect the legal status of these waters (be they 'territorial' or not) under the sovereignty or jurisdiction of the coastal states bordering the straits.

Using the Bosporus as an example, the straits known as the Turkish Straits connect the Aegean Sea and the Black Sea via the Sea of Marmora.²⁰⁴ The Bosporus connects the Black Sea with the Sea of Marmora, while the Dardanelles connects the Aegean Sea with the Sea of Marmora. The Bosporus is about 17 miles long and varies in width between one-third and 2 miles.²⁰⁵ The Dardanelles is about 35 miles long, with its width decreasing from four miles at the Aegean to about 0.7 miles at its narrowest, and with its depth varying from 160 to 320 feet. The Sea of Marmora is about 140 miles long. The Turkish Straits are governed by the Montreux Convention of July 20, 1936 and fall under the Article 35(c) exception contained in the Convention. Under the Montreux Convention, merchant vessels enjoy complete freedom of transit, day or night, regardless of their cargo or flag. Piloting and towage are optional.²⁰⁶

Contrary to the conventional wisdom on the passage of warships in international straits, Articles 29 through 32 (UNCLOS) remind us that if a warship passes through territorial waters and disregards any request for compliance of a coastal state, "the coastal state may require it to leave the territorial sea immediately."²⁰⁷ Also, under Article 31 (UNCLOS), "the flag state shall bear international responsibility for any loss or damage to the coastal state resulting from non-compliance by a warship with the laws and regulations of the coastal state concerning

204. Dubner, *supra* note 196, at 152.
205. *Id.*206. *Id.* at 154.
207. UNCLOS, *supra* note 36, at art. 30.

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passage through territorial seas."208

As the reader will observe, there are restrictions on the passage of warships through territorial seas of coastal states, even those overlying an international strait. The main problem facing the international community is the potential for horrible loss of life and irrecoverable environmental loss on the one hand, and the fact that the consensus regarding unilateral action (especially after the Iraq situation) may make it impossible to prevent acts of terror if there are going to be too many restrictions on warships in these waters.²⁰⁹ The United States recently entered into an agreement with Panama that provided for the boarding of ships on the high seas in support of efforts to stop the trade in deadly weapons (nuclear, chemical or biological arms or equipment) and materials (i.e., the Proliferation Security Initiative).²¹⁰ The Initiative would subject nearly fifteen percent of the world's roughly 50,000 large cargo ships to boarding and inspection on short notice. The interesting point is that both countries (i.e., United States and Panama), can ask each other to board their vessels outside their own territorial waters and to seize the cargo IF it turns out to be related to unconventional weapons programs. Each state would have two hours to respond to the requests. If no response is made, the interdiction may proceed. A New York Times article stated.

With these agreements with Panama and Liberia and the support of more than 60 other nations, the U.S. will have the ability to seek rapid consent to board ships that represent roughly 46 percent of the world's commercial fleet in deadweight tons...Liberia has some 2,000 large cargo ships, that is, ships of over 500 dead-weight tons, registered under its flag...Panama has some 5,600. That means that the sun never sets on their ships.²¹¹

As the trends show by the types of incidents involved, and the fact that the terrorists and pirates are possibly much more organized than in the past, unilateral action may be necessary where regional action fails. Regional action with regard to stopping piracy is no longer a tremendous problem because, as the risk of terrorism has increased, it would

^{208.} UNCLOS, supra note 36, at art. 31.

^{209.} Dubner, supra note 196, at 160-61.

^{210.} Judith Miller, *Panama Joins Accord to Stem Ships' Transport of Illicit Arms*, N.Y. TIMES, May 11, 2004, at A11 (internal quotations omitted).

^{211.} Id.

seem that the various actions that coastal states have taken, with respect to the various commercial shipping lanes, should stop or eliminate the amount of piracy conducted by individuals who are not organized.

Organized theft (such as through phantom ships) has not been of major importance other than economic loss. The main concern with this article is: how does the international community address the potential loss of life and damage to the environment from organized pirates acting in consort with terrorists?

On closer examination, one would think that organized pirates would not want to have anything to do with terrorists because it would only mean that there would be stronger outrage/condemnation and enforcement by the international community which, in turn, could lead to annihilation of the pirates. Terrorists are not interested in financial gain (i.e., they are not committing these acts of terrorism for financial reward) other than to try to raise monies to increase the voracity and numbers of acts of terrorism. So, it does not seem that any organized pirate worth his/her salt would be interested in working with terrorists, although that has been a concern. With the increase in regional cooperation among the various states in Southeast Asia, it would seem that the acts of piracy should be reduced in the future. However, this really does not address the potential for acts of terrorism, and the response that should be consented/acquiesced to by the international community.

The idea that humanitarian intervention should be a distinct legal basis for using force, with fixed criteria or principals in advance governing legitimate appeal to the right, is not a new one.²¹²

One view is that the case for codifying a right of humanitarian intervention rests on: a normative attitude toward such interventions, a view about the impact of codification on the legitimacy of international law, a position concerning the role of formalization in curbing abuses, and a view about the relative benefits of clarity versus open-endedness in the evolution of international legal norms.²¹³

Thus, the argument for a maritime power, such as the United States, policing international straits/pathways for international commerce without the consent of the coastal states would seem to be a violation of international law, unless the breach is "excusable" because of protection against the probable occurrence of severe loss of human life (humanitarian intervention). Such intervention is technically illegal under the rules of the UN Charter, "but may be morally and politically jus-

^{212.} BARRY E. CARTER ET. AL., INTERNATIONAL LAW, 1081 (Aspen 4th ed. 2003).

^{213.} Id. at 1083.

As far as unilateral and environmental action is concerned, "[t]he 1992 Rio Declaration on Environment and Development addressed the acceptability of unilateral actions relating to extraterritorial environmental problems that have effects on trade."²¹⁶

Principle 12 provides as follows:

States should cooperate to promote a supportive and open international economic system that would lead to economic growth and sustainable development in all countries, to better address the problems of environmental degradation. Trade policy measures for environmental purposes should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade. Unilateral actions to deal with environmental challenges outside the jurisdiction of the importing country should be avoided. Environmental problems should, as far as possible, be based on an international consensus.²¹⁷

Any unilateral action should be utilized to promote a positive and reasonable community response to a particular problem, especially in furtherance of treaty obligations. There is no question that the use of unilateral action poses problems with the international community as a whole, especially after the Iraqi situation. One of the benefits of taking unilateral action is that it will make the international community aware of the particular problems in one state that could affect other states as well. Speed and quickness of action may be the only way to prevent loss of human life and horrendous damage to the environment. The drawback is that as long as the acts affect only a local regional area, the

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^{214.} Id. at 1082.

^{215.} See id.

^{216.} EDITH BROWN WEISS ET AL., INTERNATIONAL ENVIRONMENTAL LAW AND POLICY, 1065 (Aspen Law & Business 1998).

^{217.} Rio Declaration on Environment and Development: Report of the United Nations Conference on Environment and Development, annex I, at princ. 12, A/Conf.151/26 (Vol. 1) last updated Jan. 12, 2000, available at http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm (last visited Jan. 24, 2005).

international community may not be interested in creating a new legal regime or approach. The point is that these acts may cause a chain reaction which will affect the entire international community.

There are certain aspects or elements of unilateral action that are apparently acceptable in the international community. For example, if the unilateral action is reasonable under the circumstances and if the length of the action is temporary as opposed to permanent, temporary action might be acceptable, whereas a permanent blockade would not. If warships, for example, continue to go through territorial waters without permission, this would be a permanent abuse over a period of time. The unilateral action probably would be more acceptable if nations acquiesce (e.g., say nothing about the action for as long as it goes on) because, while they do not want to agree to permit warships to travel through internal waters, they understand that it might be necessary to do so this one time in order to keep commercial routes open for navigation. Also, the state utilizing this type of concept would probably want to get affirmative permission from as many international organizations, (e.g., the Organization of American States) in order to back up its assertion that the unilateral action is necessary. Regional action should be taken to prevent terrorist bombings in vital commercial and environmental areas. However, it may be necessary for other states to assist on a limited basis. Quick response time would seem of paramount importance.

An argument can be made by the maritime powers that by protecting the shipping routes from terrorists, they are protecting the international community's lifelines. Again, the problem is one of perception. How much stretching of traditional concepts of international law will be necessary in order to achieve free commercial navigation in these international waters?

CONCLUSION

Terrorists are planning to cause havoc in certain areas of the world. It has been shown that at least one ship was hijacked for the purpose of training terrorists on how to pilot a tanker. This is a ship that we know about. The question is, how extensive is this type of action at the present time? Assuming that the international community believes that the acts of terrorism against shipping in international straits means attacks against the world community, it is apparent that a pro-active approach has to be taken by the international community.

There are degrees of acceptability of unilateral actions. The acts have to be reasonable; temporary in nature; for a very specific purpose (i.e., to protect against severe loss of human life and/or environmental

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catastrophe); and, either acquiesced in, or with affirmative approval of these actions by states that cannot afford—for either political or economical reasons—to assist the intervening states. It all depends on how much of a heavy hand is used in these situations. When one compares the concept of state sovereignty with the alternative scenarios in these types of situations, a temporary infringement will surely be of paramount necessity.

It is suggested in this article that, in addition to regional action, it will be necessary for maritime nations to patrol those areas that are heavily ridden with international outlaws. There are numerous statistics showing where these areas are located. There has been regional action in certain areas (e.g., Singapore). However, the very nature of the extensive problems, both geographical and political, makes it difficult to request certain coastal states, especially with populations that may not be as sympathetic toward the goals of prevention, to take action on a municipal level in order to prevent acts of terrorism.

Despite what is going on in Iraq, these potential acts of piracy/terrorism pose different problems and should be treated differently than should the unilateral intervention by one state into the affairs of another. There does not need to be any abuse of international law where it is necessary to conduct unilateral incursions into territorial waters. The intervening state should first attempt to get permission. If consent is not forthcoming, then the intervening state's first duty should be to protect human life and prevent environmental disaster. Naturally, it would be responsible for any damage that it caused the coastal state. There are degrees of acceptability of unilateral actions.

International law is an evolving concept. UNCLOS is an example of an international framework which has to evolve with events happening since the 1982 inception of this convention. Under UNCLOS, the crime of piracy occurs on the high seas only. Yet, piracy has been conducted more by organized gangs in internal waters and territorial seas. States need to proscribe and enforce their municipal statutes in internal waters and territorial seas in order to block these acts and to react, in kind, to them. Regional cooperation is currently occurring in certain areas.

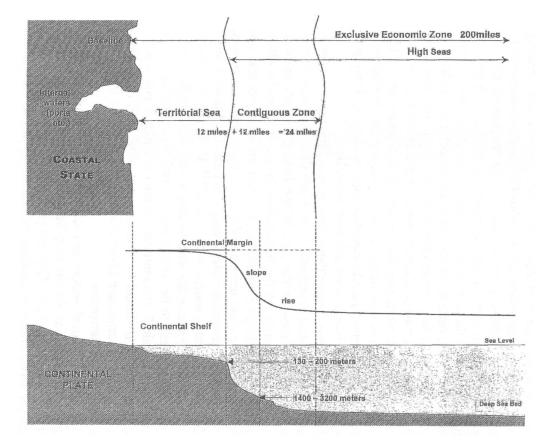
Under UNCLOS, it is the duty of the coastal states to prevent damages to their environments as well as loss of life and property due to the crime of piracy. By preventing these acts in their territory, they are preventing severe damage to other states. They have a duty to do as much as they can and should not be allowed to hide under a shield of sovereignty. International straits of passage need to be kept open. Otherwise, the international community will be in economic ruin. The crime of terrorism has come to the fore since 9/11. It existed prior thereto; however, those past acts were considered "isolated" at best. The ferocity with which terrorists act against mankind is startling. Terrorists are concerned with destroying life, property and creating havoc wherever they deem their acts to be possible and advantageous to their "cause." The problem presented is: how do we prevent the acts from occurring? What methods are necessary to enforce such prevention? Some authors believe that because acts of terrorism have the potential for catastrophe, certain "norms" in international law will have to be "stretched" in order to accommodate states seeking to suppress these acts. In looking at the past conduct of certain states, it can be seen that some coastal states are either unwilling or unable to suppress acts of terrorism. The problem is that Indonesia and Malaysia are divided by a heavily traversed international shipping lane that needs to be kept open. Regional cooperation is important and must continue.

"Alan Chan, whose vessel Petro Ranger was hijacked in 1999 in the South China Sea, said vessel attacks in South East Asia arose from a serious lack of resources on the part of the Indonesian government, which made it impossible for the Indonesian Navy and Police to effectively patrol their extensive coastline. He said the situation was not likely to change in the short term, and therefore, there was a continuing risk to shipping in Indonesian waters, which includes the Malacca Strait – still the most dangerous waters in the world."²¹⁸ However, it is doubtful whether these states have the wherewithal to keep the shipping moving safely. What needs to be created as a "norm" by consensus of the international community? If a maritime nation is willing to patrol these international waters, it should be able to react in all UNCLOS zones (preferably with the permission of the coastal states) in order to prevent, or respond to, acts of terrorism.

Finally, international waters and territorial seas should have another layer of jurisdiction for the specific crime of terrorism and/or piracy; namely, *reaction zones*. The "hot pursuit" doctrine should also be extended for those crimes originating in *reaction zones* as well as for those occurring exclusively on the high seas. Are these proposals subject to abuse by the intervening states? Yes, however, there may be no other alternative open in a given situation! Do not think in terms of sovereignty; it is a struggle between darkness and light.

^{218.} ICC Commercial Crime Services, *Shipowners Call for Coordinated International* Sea Patrols (Nov. 23, 2004), at http://www.iccwbo.org/home/news_archives/menu_2004.asp (last visited Nov. 23, 2004).

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Schematic Jurisdictional Diagram

adapted from BARRY E. CARTER & PHILLIP R. TRIMBLE, INTERNATIONAL LAW 990-92, Charts 9-1, 9-2, 9-3 (2d ed. 1995) Aspen Law & Business (Aspen Publishers, Inc.)