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Outline:

I. Introduction

II. Definition of Maritime Terrorism

III. Historical overview

IV. Al Qaeda Background

V. Wake-up calls

VI. Analyzing the USS Cole Incident

A. Abdul al-Rahim al-Nashiri

B. Planning Cycle – Recruitment

C. Planning Cycle – Preparation

D. Planning Cycle – Procurement

E. Planning Cycle – Conclusion

VII. Post USS Cole Attack Skims

VIII. Global Maritime Trade Links

A. Weaknesses – Vessels

B. Weaknesses – Ports

C. Weaknesses – Containers

IX. Response

X. Conclusion

XI. Bibliography

I. Introduction

Terrorism is a phenomenon which citizens of most countries have been tragically familiar with long before the infamous 9/11 attacks in the United States. Despite the long history of a successful fight against the plague of traditional forms of political terrorism, security services have underestimated the threat which militant Islam poses to the Western world. Only the tragic death of about three thousand innocent and unsuspecting citizens on 9/11 opened people's eyes to visualizing the changing threat. It further exposed the vulnerabilities of the modern, increasingly open, and interdependent societies to highly organized terrorist groups.

Incidents such as the attacks on Super Ferry 14 (February 2004), the Madrid train bombing (March 2004), and the London tube bombing (July 2005) demonstrated in the most graphic and chilling way the vulnerability to transportation infrastructures. From this perspective, the question has changed from which country might be the terrorists' next target, to which mode of transportation would next attract their interest.

As an immediate reaction to these attacks, U.S. officials reviewed shipping and port security, and established security initiatives such as the Container Security Initiative (CSI). Moreover, the international community, in form of the International Maritime Organization (IMO), established the International Ship and Port Facility Security Code (ISPS Code). However, Al Qaeda operatives, acting in a fast learning and maximizing terrorist network, have learned to adapt to this rapidly changing environment. They appear to have stayed at least one step ahead of the security services invoked thus far by modifying their recruitment and the organizational structure.

Examples of their adaptability are the attacks on the *USS Cole* (October 2000) and *MV Limburg* (October 2002). Therefore, the purpose of this essay is to analyze Al Qaeda's maritime capabilities. Its past operations will be reviewed, new developments will be discussed, and projections will be given in order to help security services ensure a safer tomorrow.

II. Definition of Maritime Terrorism

The Council for Security Cooperation in the Asia Pacific (CSCAP) Working Group has offered an extensive definition for maritime terrorism:

"...the undertaking of terrorist acts and activities within the maritime environment, using or against vessels or fixed platforms at sea or in port, or against any one of their passengers or personnel, against coastal facilities or settlements, including tourist resorts, port areas and port towns or cities."

This definition, however, does not define what terrorism is and whether it would only include maritime attacks against civilian (merchant) vessels or also attacks against military crafts. I define maritime terrorism, therefore, as the use or threat of violence

against a ship (civilian as well as military), its passengers or sailors, cargo, a port facility, or if the purpose is solely a platform for political ends. The definition can be expanded to include the use of the maritime transportation system to smuggle terrorists or terrorist materials into the targeted country.

Maritime terrorism is motivated by political goals beyond the immediate act of attacking a maritime target. Piracy, in contradistinction, according to article 101 of the 1982 United Nations Convention on the Law of the Sea (UNCLOS) is defined as¹:

- (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 seas², 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 inciting or of intentionally facilitating an act described in subparagraph (a) or (b).”

Given these definitions, the grey area are cases of kidnap-for-ransom incidents, such as the May 2001 abduction of three American citizens and 17 Filipinos at the Dos Palmas resort on Palawan by Abu Sayyaf Group (ASG), an Al Qaeda affiliate³. Motivated by the need to finance their political aims, ASG repeatedly perpetrated such acts of piracy. Their actions are an example of the blurring of the distinction between terrorism and piracy.

III. Historical overview

Historically, the world's oceans have not been a major venue for terrorist activity. According to the RAND Corporation's terrorism database, maritime terrorist attacks have accounted for only two percent of all incidents since 1969.⁴ This relatively small number originates from the fact that security forces have had to deal with traditional terror groups. These groups can be divided into three major categories: (1) the vestiges of political terrorism (November 17, New Red Brigades, etc.), (2) separatist-irredentist terrorist groups (PIRA, ETA, The National Liberation Front of Corsica, etc.) and (3) foreign terrorist groups (Hamas, PKK, LTTE, etc.) - the latter using third (Western) countries as their support base⁵. All these groups are characterized by their hierarchical,

¹ United Nations Convention on the Law of the Sea

at: http://www.un.org/Depts/los/convention_agreements/texts/unclos/closindx.htm

² High Seas describes waters outside the common 12 nautical mile territorial (State) zone

³ ICT Profile of ASG at http://fighel.com/organizations/org_frame.cfm?orgid=3

⁴ Rand Databases <http://www.rand.org/ise/projects/terrorismdatabase>

⁵ Akiva Lorenz, “The European Union's Response to Terrorism”, <http://www.ict.org.il/apage/5176.php>

pyramidal structure and centralized command system. Almost all groups have a regional or local operational agenda using terrorism to target specific people or places, often giving early warnings that result reduce the damage to small numbers or individual casualties.

The sophistication, expense, and training to carry out maritime terrorism necessitates considerable overhead. It would require terrorist organizations to acquire appropriate vessels, mariner skills and, specialist weapons / explosive capabilities.⁶ Many terrorist groups are either not located near to coastal regions or do not possess the necessary means to carry out maritime attacks. Limited by scarce financial and operational resources, most traditional terrorist organizations have decided not to venture into the maritime arena as the ends do not justify their means. Therefore, following more pragmatic methods, many terrorist groups have preferred to stay with proven successful land based terrorism, especially when are not too difficult to target.

Initially, terrorism was primarily a means to attract the attention of the media, not to cause mass casualties. In the words of Brian Jenkins, an advisor to the RAND Corporation, the terrorists wanted “a lot of people watching, not a lot of people dead.” However, with international media networks only being in the fledgling stages of development, strategists in terrorist organizations assumed that maritime attacks in the open sea would fail to generate their desired hysteria. Moreover, pragmatism and a degree of realism often brought the political wing of terrorist organizations to realize that terrorism was not the best means of achieving their aims, but that they had a better chance of achieving their goals by political means.⁷ This, as well as the successful implementation of counter-terrorist strategies, led to the decline of traditional terrorism over the past decade.

The Provisional Irish Republican Army (PIRA) is a prime example of a traditional, European terrorist group, satisfying all the elements mentioned above. Between 1970 and 1996, the PIRA was the best-armed and most experienced terrorist group in Western Europe. During the 1980s, the PIRA smuggled more than 100 tons of arms and explosives from Libya to Ireland using container ships registered under flags of convenience.⁸ Although the PIRA was responsible for killing more civilians than any other terrorist group in Europe⁹, only a small percentage was due to attacks on passenger ferries and private yachts, such as the attack of the private yacht of Lord Mountbatten in 1979.¹⁰ The bomb destroyed the yacht, killing Mountbatten, two of his godchildren and one crewman.

⁶ This is due to the fact that many regular weapons / explosives do not operate efficiency in the hash maritime environments, eg. Salt water etc.

⁷ Akiva Lorenz, “The European Union's Response to Terrorism”, <http://www.ict.org.il/apage/5176.php>

⁸ Chalk, West European Terrorism and Counter-Terrorism, p. 42, and “Arming the IRA: The Libyan Connection,” *The Economist*, March 31, 1990

⁹ Paul Wilkinson, "International Terrorism: the changing threat and the EU's response", Chailot Paper N. 84, Oct. 2005

¹⁰ BBC, http://news.bbc.co.uk/onthisday/hi/dates/stories/september/5/newsid_2499000/2499279.stm

The PIRA focused primarily on its regional, ethno-separatist objectives in Northern Ireland with the overall goal of forcing the British out of Northern Ireland and uniting the whole of Ireland under a single Republican government. To gather political support, raise money and acquire weapons, the PIRA undertook enormous efforts to establish a Diaspora network outside of Great Britain.

Eventually, the signing of the “Good Friday Agreement,” known also as the “Belfast Agreement,” on April 10, 1998 between most of the parties in Northern Ireland, including Sinn Fein (the political arm of the IRA) and the British and Irish governments increased pressure on the PIRA to cease and desist its activities. After several decades of using terrorism as their main instrument to achieve their aims, the PIRA finally agreed in July 2005 to a cease fire, and to find a peaceful solution to the conflict.¹¹

Among the most experienced traditional terrorist groups that possess maritime capabilities are the Middle Eastern Palestinian Liberation Front (PLF), Fatah, Hezbollah and the South East Asian Liberation Tigers of Tamil Eelam (LTTE), the Abu Sayyaf Group (ASG) and Jemaah Islamiyah (JI).

IV. Al Qaeda Background

In recent years, many governments have faced an enemy that is best described as a loose cooperative of terrorist networks without the clearly defined, hierarchical structure and centralized control mechanism that characterizes traditional terrorist groups. The largest alliance of Islamic groups is the World Islamic Front for Jihad against Jews and Crusaders. A member of this alliance, the Al Qaeda (trans.: “the base”) movement was founded in 1988 under the leadership of Osama Bin Laden¹² to function ideologically and operationally at local, national, regional and global levels.

The Al Qaeda movement was an offshoot of the Maktab al-Khidamat, MAK, (Services Office), which was founded in 1984 by Palestinian Muslim Brotherhood leader Dr. Abdallah Yousuf Azzam, together with his protégé, Osama Bin Laden. Inspired by the Iranian Revolution (1979), the MAK recruited, trained, and financed thousands of foreign Sunni Islamic extremists to fight as mujahadeen (holy warriors) in Afghanistan against the Soviet occupation. Toward the end of the Afghan war, Osama Bin Laden, as other mujahideen, wanted to expand the struggle beyond Afghanistan. Through its widely dispersed cells and affiliates, Al Qaeda maintains a global reach in over 60 countries.¹³

Prior to 9/11, the leadership of Al Qaeda saw their mission as the training of as many operatives as possible and thus successfully staying beneath the radar of most intelligence agencies. However, Al Qaeda had to adapt to the changes brought about by “Operation

¹¹ MI5, Provisional Irish Republican Army (PIRA), <http://www.mi5.gov.uk/output/Page388.html> & PIRA at <http://www.globalsecurity.org/military/world/para/ira.htm>

¹² Rohan Gunaratna, “Inside Al Qaeda: Global Network of Terror”, Hurst & Co., 2002 and “The Rise and Decline of Al Qaeda”, http://www.9-11commission.gov/hearings/hearing3/witness_gunaratna.htm

¹³ Ibid

Enduring Freedom” (October 2001) when allied forces gathered to fight U. S. President George Bush’s “Axis of Evil.” This offensive successfully destroyed Al Qaeda's training bases, along with command and control headquarters, in what Dr. Rohan Gunaratna described as the “terrorist Disneyland” of Afghanistan.¹⁴

Al Qaeda’s horizontal network¹⁵ structure assured the continuation of what militant Islam views as defensive jihad. Although some operational capabilities were lost, Osama Bin Laden and his deputy, Ayman al-Zawahiri, continued to provide the ideological and religious inspiration, while their followers and affiliate terrorist groups continued to carry out the actual terror attacks. The result is that today there are “many Al Qaedas rather than the single Al Qaeda of the past.”¹⁶ These ad-hoc groups consist of like-minded individuals, often Muslim converts, with no prior involvement in terrorism. Noteworthy is the new trend of extremists with (petty) criminal records being involved in terrorist attacks, as was the case in the train bombings in Madrid.¹⁷ These adversaries are arguably more difficult to detect and to counter.

Al Qaeda’s core ideology is the notion of global jihad against “apostate” Muslim rulers, the Crusaders and Zionists, such as the U.S. and its allies.¹⁸ Their jihad will come to fruition with the formation of a pan-Islamic Caliphate. Bin Laden argued that jihad, as a divine command, is an individual responsibility incumbent upon every Muslim; “It is no secret that warding off the American enemy is the top duty after faith and that nothing should take priority over it.”¹⁹ The willingness to sacrifice one’s life “in the path of Allah”, is also known as Ishjihad. According to Bin Laden, the first phase of the jihad will occur in counties which are entirely Muslim with a foundation of radical Islamic ideas, such as Saudi Arabia, Pakistan, and Egypt. Then, counties with large Muslim minorities, such as Singapore, Philippines and certain countries in Europe (e.g., France) would be targeted. Lastly, jihad will be delivered to the rest of the Western world. It is clear, therefore, that Al Qaeda, unlike traditional separatist-irredentist terrorist groups (like the PIRA), does not want to become part of today’s international (political) system, but to replace it entirely.

To reach its followers and affiliate cells, Al Qaeda uses the technological blessings of today’s globalized world. This is especially true regarding the internet, which is used as a multimedia medium, not only allowing its top ideologues to conduct psychological warfare illustrating their propaganda in myriad of written statements and audio or videos recordings that are posted either on web pages or blogs, but also to raise necessary funds for a continuous struggle.

Al Qaeda sees this struggle not as one of weeks or months, or even years, but of decades. Therefore, its ideology is absolutist and non-negotiable. This reduces the

¹⁴ Ibid

¹⁵ Bruce Hoffman, “Al Qaeda and the terrorist threat today

¹⁶ Bruce Hoffman, “The Changing Face of Al Qaeda and the Global War on Terrorism”

¹⁷ BBC, The New Al-Qaeda: the Madrid attack

¹⁸ Rohan Gunaratna, “Inside Al Qaeda: Global Network of Terror”, Hurst & Co., 2002 and “The Rise and Decline of Al Qaeda”, http://www.9-11commission.gov/hearings/hearing3/witness_gunaratna.htm

¹⁹ Zawahiri “Knights Under the Prophet's Banner” 2001

possibility of finding a political solution to nearly zero. Al Qaeda's fatawa (trans.: religious opinions) call for total war, permitting the use of chemical, biological, radiological or nuclear agents against their enemies.²⁰ Their tactics typically make use of coordinated, near-simultaneous suicide attacks, using traditional means such as car bombs, to cause mass casualties. At the same time, it is an organization whose strategists often think outside the box, as seen in its transformation of hijacked airplanes into missiles in the 9/11 attacks. Since the assassination of Theo Van Gogh (November 2004) by a seemingly well integrated Dutch and Moroccan citizen, Mohammed Bouyeri, who was radicalized by the propaganda of radical Islam, it has become clear that Al Qaeda tries to exploit the sense of alienation, humiliation and frustration experienced by Muslim immigrants in order to convince them to return to the values of Islam and rise up against their society. All of this points towards a change in the traditional strategies; now terrorists want not only "a lot of people watching," but also "a lot of people dead."

V. Wake-up call

On October 12, 2000, the *USS Cole*, an Arleigh Burke class destroyer, was attacked by a small craft loaded with 270 kg of C-4 explosives while making a routine refill stop in the port of Aden, Yemen. Steered by two Saudi suicide terrorists, Hassan al Khamri and Ibrahim al-Thawar, the small craft exploded alongside the *USS Cole* 47 minutes after the refueling was initiated, killing 17 U. S. servicemen and injuring 37 more.²¹ The attack caused \$250 million in damage to the warship taking 14 months to repair.²²

VI. Analyzing the USS Cole Incident

As noted above, Al Qaeda has demonstrated its capabilities to successfully operate and attack maritime vessels. Similar to Al Qaeda's carefully planned plot over several year to use airplanes to attack strategic targets that cumulated in the tragedy of 9/11, the planning to attack maritime targets which resulted in the *USS Cole* bombing was put in motion as early as 1998.²³

A. Abdul al-Rahim al-Nashiri

The mastermind of maritime terrorist operations for Al Qaeda (until his capture in Aden in November 2002) was Abdul al-Rahim al-Nashiri, otherwise known as the Prince of the Sea. Born in Mecca on January 5, 1965, al-Nashiri left formal education after intermediate school to follow the footsteps of his cousin and uncles in pursuit of jihad in

²⁰ Ibid

²¹ Yemen Gateway, Attack on the USS Cole <http://www.al-bab.com/yemen/cole1.htm>

²² USS Cole Bombing, http://www.globalsecurity.org/security/profiles/uss_cole_bombing.htm

²³ Office of the Director of National Intelligence, "Biographies of High Value Terrorist Detainees Transferred to the US Naval Base at Guantanamo Bay" September 6, 2006 at <http://www.dni.gov/announcements/content/DetaineeBiographies.pdf>

Tajikistan (1996).²⁴ In 1996, he traveled to Jalalabad, Afghanistan, where he encountered Osama Bin Laden, who attempted to convince al-Nashiri to join Al-Qaeda's jihad against the Americans. Al-Nashiri, at this point, refused because he found the idea of swearing a loyalty oath to Bin Laden to be distasteful.

Leaving Afghanistan, Nashiri returned to his native Saudi Arabia. He subsequently visited his home in Yemen. According to transcripts of his interrogation²⁵, it was there that al-Nashiri, eyeing the stream of U.S and foreign ships plying the waters along the coast of Yemen, conceptualized and developed the idea of using maritime terrorism. Returning to Afghanistan in 1997, al-Nashiri was still not willing to join bin Laden. Instead, he pursued a conventional jihad mission in fighting alongside Taliban forces against the Northern Alliance of Ahmed Massoud. During this time, al-Nashiri was also involved in the smuggling of four Russian-made Sagger anti-tank missiles from Yemen into Saudi Arabia which characterizes his metamorphosis towards Al Qaeda.

Having witnessed the martyrdom of his cousin Mohammad Ali al Makki (Azzam) in the Nairobi embassy bombing, al-Nashiri finally joined Al Qaeda in 1998. Shortly thereafter, al-Nashiri was tasked by Bin Laden to attack U.S. or Western oil tankers off the coast of Yemen.²⁶ Having difficulties finding appropriate targets along the western coast of Yemen, Bin Laden reportedly instructed him to shift his operational arena to the port of Aden and towards U.S. navy vessels.²⁷ Realizing that the average refueling stop of a U.S military vessel in the port of Aden was just less than four hours (the window of opportunity) al-Nashiri highlighted the importance of a good intelligence system based on informers. These sources were working for the Aden harbor or were posted along the Red Sea. The result of his intelligence capabilities were the attempted attack on the USS Sullivan (January 2000) and the successful attack on the USS Cole (October 2000) that brought al-Nashiri an elevated status within Al Qaeda.

Later, al-Nashiri became chief of operations for Al Qaeda of the Arabian Peninsula consulting with Bin Laden while keeping operational security in selecting operatives and the formulation of new attacks. According to Michael Richardson, a visiting Senior Research Fellow at the Institute for Southeast Asian Studies, Singapore, al-Nashiri based his operation on four pillars:²⁸

- using a zodiac speed boat packed with explosive to ram warships or other ships;
- using medium sized boats as bombs to be blown up near slips or ports;
- using airplanes to ram boats; and
- having underwater demolition teams.

²⁴ Ibid

²⁵ Interview

²⁶ Ibid

²⁷ Ibid

²⁸ Michael Richardson, "A Time Bomb for Global Trade: Maritime-related Terrorism in an Age of Weapons of Mass Destruction", 2004

Until his capture in Aden on November 2002, al-Nashiri developed plans to attack U.S. warships in the Strait of Hormuz and Gibraltar, to bomb the fifth fleet headquarters in Bahrain, and to crash a small aircraft into the bridge of an allied navy vessel docked in the U.A.E.'s port Rashid. Due to his involvement in the USS Cole bombing, al-Nashiri, he was convicted in absentia and sentenced to death by a Yemeni court. Al-Nashiri is currently detained by the U.S. at Guantanamo Bay, Cuba.²⁹

B. Planning Cycle – Recruitment³⁰

Soon after al-Nashiri became the operational commander for Al Qaeda's maritime terrorism plot in Yemen (Spring 1999), Tawfiq Muhammed Salah Bin Roshayd Bin Attash (Khallad) wrote a recommendation letter to help al-Nashiri enlist local Jamal Ahmed Mohammed Ali Al-Badawi (facilitator), and Fahd Mohammed Ahmed al-Quso, to command logistics. Furthermore, al-Nashiri enlisted Saudis with Yemeni background, Hassan Awadh al-Khamri (Hassan) and Ibrahim al-Thawar (Nibras), as potential future suicide bombers.

C. Planning Cycle - Preparation³¹

In early summer of 1999, Badawi leased, on behalf of al-Nashiri, a safe house for six months in a quiet neighborhood of Aden. To ensure privacy, the group installed a gate and increased the height of the fence surrounding the residence. Furthermore, on request of al-Nashiri, Badawi traveled to Saudi Arabia to purchase a boat large enough to carry explosives, and a trailer and truck to tow the boat from the safe house to the harbor. Then, the boat was filled with C-4 explosives and readied for transport.

On January 3, 2000, al-Nashiri and his team brought the boat to the harbor after receiving word of the arrival of the *USS Sullivan*. Shortly after the launch, the boat steered by Hassan and Nibras sank in shallow water due to the large amount of explosives on board. On January 4, 2000 the group returned in order to salvage the boat and its precious cargo. The accident, thought to be al-Nashiri's most important lesson, was that a rehearsal is an essential part of the successful outcome of an operation. Rehearsal reveals logical problems (such as a boat being too heavy from too many explosives) and improves the speed, stealth, and the surprise factor in an attack.

After the failed attack on the *USS Sullivan*, Quso and Nibras traveled to Bangkok, Thailand to meet with Khallad. Because Bangkok was chosen (in Pakistan) in order not to arise the suspicion of intelligence services, Quso was directed to shave and wear western-style clothing. The men reportedly received approximately \$36,000 from Khallad.

²⁹ Office of the Director of National Intelligence, "Biographies of High Value Terrorist Detainees Transferred to the US Naval Base at Guantanamo Bay" September 6, 2006 at <http://www.dni.gov/announcements/content/DetaineeBiographies.pdf>

³⁰ United States of America versus Jamal al Badawi and Fahd al Quso at <http://fl1.findlaw.com/news.findlaw.com/hdocs/docs/cole/usalbadawi051503ind.pdf>

³¹ Ibid

D. Planning Cycle - Procurement³²

In the summer of 2000, Hassan leased a new safe house in Aden. As before, a fence was built to ensure privacy. Moreover, Hassan also leased an apartment overlooking the harbor to serve as an observation point. Al-Nashiri and Khallad traveled to Afghanistan to meet with Bin Laden and test explosives.

Over the summer, al-Nashiri and others refitted the boat and replaced the old explosives. In September 2000, Badawi trained Quso to operate a camera in order to film the attack. Khallad returned to Afghanistan while Bin Laden, in an interview with an Arabic language television station, called for jihad for the release of the "brothers in jail 'everywhere'."

On October 12, 2002, after receiving news about the *USS Cole*, the group transports the ship to the launch site. Slowly approaching the *USS Cole*, Hassan and Nibras waved their hands in a friendly gesture. Shortly afterwards their explosion left a 40 foot hole on the side of the *USS Cole* and killed 17 U. S. servicemen. Quso overslept and did not make it in time to film the attack. This was a loss to Bin Laden because the film was meant to be distributed for propaganda purposes. In January 2001, Bin Laden celebrated the bombing of the *USS Cole* with a poem at his son's wedding:³³

A destroyer: even the brave fear its might.
It inspires horror in the harbor and in the open sea.
She sails into the waves
Flanked by arrogance, haughtiness and false power.
To her doom she moves slowly
A dinghy awaits her, riding the waves.

E. Planning Cycle – Conclusion

By analyzing these time lines, it becomes evident that al-Nashiri was able to keep his activities below the radar screen of the Western and Yemeni security and intelligence agencies, but nevertheless emitted ominous indicators of the looming attack:

- **Strategic Indicators**, such as Bin Laden's speech (September 2000) and the recruitment of activists indicated the motivation and capability of a terrorist organization.
- **Operational Indicators**, such as increased communication between cell members, influx of foreign elements, travel and increased fund raising.
- **Tactical Indicators**, such as the leasing of safe houses and the raising of fences around the residencies, and other suspicious behavior such as rehearsals, individual panic, or nervousness.

³² Ibid

³³ Yemen Gateway, Attack on the *USS Cole* <http://www.al-bab.com/yemen/cole8.htm>

All of these indicators should raise the red flag of the security services analysts.

Thus, Al Qaeda was able to exploit the vulnerabilities of its adversaries (a stationary ship with a lax crew) while learning from its mistakes (*USS Sullivan*). The example with the *USS Cole* has shown that terrorist organization can, with even relatively miniscule funding of \$40,000, create damages costing in the hundreds of millions of dollars. Moreover, the attacks showed that maritime attacks could take place from land to sea, in the port area, or near it.

Since the time spent out on sea during the duration of a maritime terror attack is only a few minutes, it makes it nearly impossible for maritime security services to successfully prevent an attack. Thus, the logical starting point in preventing future maritime attacks, as Dr. Rohan Gunaratna stated, is to disrupt the terrorist infrastructure on land where an identified terrorist can be much more effectively targeted by security services. The failure to detect the planning and preparations of a maritime terrorism attack will lead to an attack attempt by that terrorist organization.³⁴

VII. Post USS Cole Attack Skims

Following the successful bombing of the *USS Cole*, al-Nashiri planed to use the acquired and tested knowledge on maritime terrorism to expand his operations. Due to the highlighted force protection protocols of the U.S. and other foreign navies, he focused on the Strait of Hormuz. According to his interrogation, al-Nashiri, planned to attack U.S. navy ships with several speedboats launched from a mother vessel traveling on one of two one nautical mile wide channels. The plan was to detonate the mother vessel once it passed any possible target. After a final intelligence review, al-Nashiri deemed the success of such a mission was unlikely and aborted its operation. This opportunity was not al-Nashiri's only shot, as he subsequently sent three Saudi nationals to Morocco to implement other maritime terrorist attacks. Moroccan security services arrested the three Saudi terrorists in June 2002. They were planning to attack U.S. and British navel forces with explosive loaded speed boats in the Strait of Gibraltar. The slow and careful planning, starting with the marriage of the terrorists to local women in order to blend into society, had the characteristics of an al-Nashiri operation similar to the *USS Cole*. Moreover, with the hardening and establishing of new security protocols for navy vessels against small boat attacks, al-Nashiri, shortly before his capture in November 2002, intended to use divers and swimmer delivery vehicles (SDVs) to attack Al Qaeda's adversaries.³⁵ Al Qaeda operatives would either plant explosives on the hull of a ship, try to sneak on board in order to hijack the ship for ransom or to be steered as a floating bomb, or use the SDV loaded with sealed explosives to function as an "underwater suicide bomber" against ships or offshore installations.

³⁴ Dr. Rohan Gunaratna "The Threat to the Maritime Domain: How Real Is the Terrorist Threat?" at <http://www.nwc.navy.mil/nsdm/Rugerpapers.htm>

³⁵ Terror's New Frontier: Underwater , CBS News
<http://www.cbsnews.com/stories/2005/03/18/terror/main681524.shtml>

A further use of SDVs is to combine them with divers and to position sea mines in narrow chokepoints such as the Strait of Malacca or the Suez Channel. However, according to Oded Yoffe,³⁶ CEO of an Israeli maritime security firm, the rate of success of such events is unlikely due to the difficult situations under water, such as currents, low visibility, etc. An operation in such a hostile environment requires years of operational experience. Al Qaeda has increased its operational capabilities in recent years by acquiring sophisticated diving equipment as well as training their operatives in commercial diving techniques.

As a possible example, consider the allegations against Tunisian national Wahid Gomri, a diving instructor in the Safe Dive club in Eindhoven, Netherlands. He has come under scrutiny by the Dutch intelligence agency AIVD after three of his students were suspected of Al Qaeda links in 2003. Gomri and his students attended the Al Fourkhan mosque in Eindhoven, which Dutch police have identified as a centre for Muslim extremists. Labeled as the "Al Qaeda diving team", and with many questions unanswered (such as who was behind the money transfers from India), Dutch investigators could not collect enough evidence to convict any of the accused.³⁷ However, according to Dutch authorities, the investigation against Gomi, who today lives in England, are still open.

Another example of Al Qaeda's efforts to acquire the necessary skills to operate underwater is the arrest of 35-year-old Abu Sayyaf operative Angelo Gamal Baharan in 2005. According to Baharan, he underwent scuba training in the Philippines' southwestern province of Palwan in preparation for an unspecified operation outside the Philippines.³⁸ In response to the perceived threat of underwater terrorism, the Professional Association of Diving Instructors (PADI) provided the FBI, in May 2002, with the information of about two million divers who had learned to scuba dive during the previous three years. The prosecution of Baharan's alleged acts to support terrorism is on-going.

While Al Qaeda, under al-Nashiri, constantly adapted to the changing tactical environment, Al Qaeda shifted its focus towards attacking the global economy and the merchant fleet as its facilitator. On October 6, 2002, a small fiberglass boat loaded with 100 - 200 kg of TNT explosives guided by two Yemenite suicide terrorists rammed the French VLCC (Very Large Crude Carrier) MV Limburg, killing one and injuring 25 crew members. The attack occurred 400 nautical miles outside the port of Aden while the Limburg prepared to take on a pilot-assisted approach to the Ash Shihir terminal to load 1.5 million barrels of crude oil. Being leased to the Malaysian state petroleum company Petronas, the MV Limburg carried, at the time of attack, 400,000 barrels of crude of which an estimated 90,000³⁹ of which spilled into the Gulf of Aden. As a direct result of

³⁶ Interview with Oded Yoffe, December 2006

³⁷ Fears Persist of Al Qaeda Terrorist Link to PADI Dive Center
<http://www.cdn.info/news/article/a030802.html>

³⁸ Terror's New Frontier: Underwater, CBS News
<http://www.cbsnews.com/stories/2005/03/18/terror/main681524.shtml>

³⁹ Guardian, Tanker blast was work of terrorists
<http://www.guardian.co.uk/international/story/0,,813404,00.html>

the bombing, oil prices rose by \$0.48 / barrel due to increasing insurance fees for ships calling Aden. This premium fee, in turn, caused most ships to call neighboring ports resulting in an additional loss of \$ 3.8 million in monthly port revenue and the loss of employment of as many as three thousand employees.⁴⁰ Al Qaeda's communiqués issued after the bombing of the MV Limburg in 2002 read:

- “We congratulate our Islamic nation for heroic and brave jihadi operations that were undertaken by its justified mujahideen sons in Yemen against the crusader oil tanker and in Kuwait against the invading forces and the American occupation. By hitting the oil tanker in Yemen, the mujahideen hit the secret line, the provision line and the feeding to the artery of the life of the crusader's nation. They reminded the enemies of the heaviness of the blood bill and the enormity of losses, that they will pay a high price for the continuation of their aggression on our nation and their plunder of our good and our wealth”.⁴¹
- “If a boat which didn't cost US \$1,000 managed to devastate an oil tanker of that magnitude, imagine the extent of the danger that threatens the West's commercial lifeline, which is petroleum.”⁴²

VIII. Global Maritime Trade Links

Decreasing trading barriers and reduced tariffs created an increasingly open and interdependent globalized economy. According to the United Nations Conference on Trade and Development (UNCTAD), an estimated 85% of the world's trade volume (7.1 billion tons of goods) was shipped by sea in 2006. Carried by at least 46,000 ships calling at over 4,000 ports worldwide, the maritime sector employs more than 1.3 million people (seafarers and port workers). The majority of consumer goods are shipped by as many as 15 million containers making over 230 million journeys per year.⁴³ Catchphrases as “Just enough – Just in Time” have left lasting effects on the way trade is conducted in the 21st Century. As Michael Richardson explains:

“The global economy is built on integrated supply chains that feed components and other materials to users just before they are required and just in the right amounts. That way, inventory costs are kept low. If the supply chains are disrupted, it will have repercussions around the world, profoundly affecting business confidence.”⁴⁴

⁴⁰ Maritime Transport Committee, “Security in Maritime Transport: Risk Factors and Economic Impact”, OECD 2003, p. 3

⁴¹ Statement from Al Qaeda's political bureau regarding the explosion of the Christian oil tanker in Yemen, dated 13 October 2002, released in wide circulation on 15 October; translated by Aimee Ibrahim http://findarticles.com/p/articles/mi_m0IBS/is_4_29/ai_112129347/pg_2

⁴² Ibid at http://findarticles.com/p/articles/mi_m0IBS/is_4_29/ai_112129347/pg_3

⁴³ United Nations Conference on Trade and Development at http://www.unctad.org/en/docs/rmt2006_en.pdf

⁴⁴ Michael Richardson, “A Time Bomb for Global Trade: Maritime-Related Terrorism in an Age of Weapons of Mass Destruction”, Singapore 2004, p. 7.

Carried by a heterogeneous fleet of vessels, the maritime transport sector is one of the most vulnerable points in today's interdependent societies.

A. Weaknesses – Vessels

Merchant vessels, as with pleasure vessels, can serve, in principal, in four ways to facilitate a maritime terrorist attack:

- **The vessel can be used as a weapon against port, offshore facilities and other maritime vessels.** Previous maritime terrorist attacks by Al Qaeda, such as the *USS Cole* and *MV Limburg*, tended to use small explosive loaded boats to attack their target. Although it seems likely that Al Qaeda will continue on this path due to a positive cost / benefit analysis, maritime security experts tend to view a growing threat in the possible use of a Liquefied Natural Gas (LNG) tanker to attack port cities. Experts such as former National Security Advisor Richard A. Clarke and the 2004 Institute for the Analysis of Global Security (IAGS) study⁴⁵ found that LNG is an easily explosive material: “a similar attack to the *USS Cole* in 2000 could cause at least half a cargo hold's worth of LNG to seep out of the ship and ignite... in just over three minutes, the fire could spread two-thirds of a mile from the ship.”⁴⁶ Nevertheless, the Federal Energy Regulation Authority (FERC) stated that LNG in its liquid (transport) state is not explosive. According to FERC, when LNG becomes a gas it is not explosive if it is unconfined (which would be the case of a terrorist attack on a vessel in transit).⁴⁷ Moreover, due to the dangerous nature of its cargo, today's LNG tankers have a robust cargo security system in place. During the Iran-Iraq war in October 1984, an LNG cargo vessel took a direct hit by an Exocet anti-ship missile. According to a Distrigas spokeswoman, the ship did not explode and the crew was able to contain the fire.⁴⁸

In addition to the perceived danger through LNG and LPG carriers, maritime security experts also focus on certain extremely hazardous bulk shipments, such as atomic waste or ammonium nitrate. The latter is used worldwide as an agricultural fertilizer. However, mixed with fuel oil, ammonium nitrate becomes a powerful explosive treasured both by commercial demolition teams as well as terrorists. Being easy to handle and widely available, ammonium nitrate has seen its use in terrorist attacks across the globe, from the first World Trade Center truck bombing (1993) to those in Oklahoma City (1995), Nairobi (1998), Bali (2002) and Istanbul (2003). One of the worst disasters

⁴⁵ Study: LNG - Not in my backyard, <http://www.iags.org/n0121041.htm>

⁴⁶ Ibid

⁴⁷ Natural gas is only flammable within a narrow range of concentrations in the air (5% to 15%). Less air does not contain enough oxygen to sustain a flame, while more air dilutes the gas too much for it to ignite. Source FERC <http://www.ferc.gov/for-citizens/citizen-guides/lng.asp>

⁴⁸ Who's Afraid of LNG? <http://www.greenfutures.org/projects/LNG/LNG1-4-04.html>

involving two ships carrying ammonium nitrate occurred in Texas City on April 16-17, 1947. The incident occurred after loading 2,300 tons of ammonium nitrate into the French bulk carrier Grandchamp. The explosion created a 5 meter tidal wave while the blast wave destroyed most of the town of 15,000 residents. Five hundred and sixty-eight people were counted dead, and the economic damages ranged into the hundreds of millions of dollars.

With the hardening of military vessels and the strategic shift towards mass transportation systems, cruise ships have increasingly attracted the attention of terrorists. Besides being highly iconic, Al Qaeda favors the possibility to find up to 5,000 (Queen Mary II) targets in a small, confined space.⁴⁹ The preferred method of an attack would either be by poisoning the food or using explosive loaded speed boats to ram the cruise ship. Moreover, an important consideration is the increased probability that the victims will be of Judeo-Christian (the primary target off the jihad agenda), without risking wider Muslim interests.⁵⁰ An example of this directive toward cruise ships occurred in August 2005. Al Qaeda operative and Syrian national Lu'ai Sakra was arrested for planning to attack Israeli cruise ships while visiting Turkey with explosive laden speedboats.

- **A “mother ship” can be used to launch an attack using either small explosive loaded boats or a different weapons system.** Al-Nashiri planned to use a mother ship in order to attack targets in the Strait of Hormuz. Previously, this tactic was used by several other groups, such as the LTTE and the different Palestinian groups. The majority of such attacks that took place in Israel happened in the 1970s. An example of an attack launched from a mother ship was on the Tel Aviv Savoy Hotel by Fatah on March 5, 1975. Taking the hotel guests hostages, the eight terrorists demanded the release of 11 terrorists, including the terrorist leader Hilaryon Qapuzhi. Storming the building, the IDF (Israel Defense Force) succeeded in freeing three of the hostages while eight were killed by the terrorists. Following the Savoy attack, Israel security officials had to rethink their maritime defense strategy to counter the increasing threat of maritime terrorism, such as launching rockets from ships outside the national waters (less than 12 nautical miles) against a major Israeli city.
- **The vessel can be sunk in a narrow chokepoint in order to disrupt infrastructure.** Global and interdependent trade follows the shortest sea way often passing narrow and shallow waterways called chokepoints in order to get their merchandise from “point A” to “point B”. Six of the nine chokepoints in the world are located in geographical areas where local terrorist groups with ties to Al Qaeda possess maritime capabilities. A successful closure of the Strait of Hormuz by attacking and sinking of a VLCC tanker thereby disrupting the sea-lane could stop all traffic through this

⁴⁹ Rand, “Maritime Terrorism – Risk and Liability”, 2006

⁵⁰ Rand, “Maritime Terrorism – Risk and Liability”, 2006

specific chokepoint. As a result, the world economy would experience a sudden shortfall of 90% of Saudi crude oil and all of Kuwaiti and Iraqi crude oil, which is typically shipped through the Strait of Hormuz. Although some of the Saudi crude oil could be sent through a pipeline to the Yanub export terminal on the Red Sea,⁵¹ the massive cut to the oil supply would increase the oil price to unknown heights.

A successful closure of the Malacca Strait by attacking and sinking of a VLCC tanker thereby disrupting the sea-lane could stop all traffic through this specific chokepoint. Using the Lombok strait, the average travel time would increase by four days; it would increase by seven days would it be necessary to sail around Indonesia altogether. Taking into account that an average day of a larger container ship cost up to \$ 125,000 the economic burden of the closure of the Malacca Strait would be between \$500,000 – \$875,000 per ship.⁵²

- **Ships can be used to either smuggle weapons / terrorist operatives into another county or to launder illicit funds for the terrorist organization.** The ability to freely transport personnel and/or weapons around the world is one of the most important factors for international terrorist. According to a Norwegian Intelligence source, Al Qaeda possesses a “phantom fleet” of 23 ships.⁵³ The ships were used to smuggle explosives to Kenya and Bali in preparation for the attacks in 1998 and 2002. It was also used to smuggle terrorist operatives into foreign countries (Europe). An example was the case of the Twillinger, a Nova freighter that transported eight Pakistanis, traveling with false identifications and large sums of money, in February 2001. Ostensively, the purpose was to provide a steady flow of funds by transporting either legal goods or engaging in criminal activities, such as drug smuggling and human trafficking. Flags of convenience were originally created to avoid heavy taxes and stringent inspections which might not allow the vessel to operate. Today the flag has become the best friend of terrorist organizations as it allows them / the boat owner to hide behind a wall of secrecy.

B. Weaknesses – Ports

Ports are one of the major security weaknesses in the maritime transport arena. They were constructed to be widely accessible by land and sea in order to facilitate an increasing amount of materials moving through them. Their infrastructures are often interlined with that of the neighboring cities. Their hazardous storage facilities were built according to the cost benefit analysis, not according to security considerations. The

⁵¹ EIA <http://www.eia.doe.gov/emeu/cabs/saudi.html>

⁵² Ellis, Eric “Singapore’s New Straits: Piracy on the High Seas in on the Rise in South-East Asia.” Fortune Magazine

⁵³ U.S., International Authorities Track Terrorist Shipping Assets, Activities
<http://www.amo-union.org/newspaper/Morgue///1-2002/Sections/News/terrorist.htm>

extensive size of current mega-ports precludes a closed, secure environment. Moreover, thousands of workers and seamen stream daily into them. It is alleged that a sizable portion of these individuals do not possess authentic identification and/or workers licenses and permits.

For example, the Ashdod port screens all incoming containers, and hence, it is viewed by many as the world's safest harbor. Nevertheless, the on March 16, 2002, two 18-year-old Palestinians hid behind a false wall in a 15 meter container and succeeded in infiltrating the Israeli Port of Ashdod.⁵⁴ The subsequent terror attack killed 10 port workers.

Indeed, the U.S., at present, is only able to inspect about five percent of all incoming containers. However, as the incident from March 16, 2002 pointed out, the fact is that the human eye behind the technology can sometimes miss an important detail. Moreover, attacks on ports can be launched against a ship or port facility from either the sea, underwater, from land and from the air. As ports are essential links in the supply chain, the disruption of one port could lead additional economic costs as shippers have to make alternative arrangements.

C. Weaknesses - Containers

Another weakness in the maritime trade is the containers in which goods are transported. Today, 15 million containers are making 230 million journeys.⁵⁵ With an average of a five percent inspection rate worldwide, containers can be easily be used to smuggle illegal goods, human beings or weapons. The problem is port workers can't see the contents of a container, or make a proper assessment that when the container seal is intact. Furthermore, a sealed container is no guarantee of a safe inspection, because seal mechanisms are vulnerable to manipulation. Therefore, containers are often viewed as the most vulnerable link in the maritime trade transport system.

The fear that terrorists could exploit the container system first came to fruition on October 18, 2001 when port authorities in the Italian port of Gioia Tauro⁵⁶ discovered a stowaway within a shipping container. The container was complete with a bed, heater, toilet facilities and water.

In recent years, however, the focus shifted towards the use of a container as delivery vehicles for weapons of mass destruction. The fear was fuelled by Al Qaeda's fatwa (2003) to use WMD against the enemies of Islam, and plans that surfaced to acquire CBRN weapons. The latest attempt was that of Al Qaeda of the Two Rivers trying to use CBRN in order to strike the Jordanian royal family and the Jordanian intelligence

⁵⁴ Suicide bombing in Ashdod Port, at http://www.mfa.gov.il/MFA/MFAArchive/2000_2009/2004/3/Suicide%20bombing%20at%20Ashdod%20Port%2014-Mar-2004

⁵⁵ United Nations Conference on Trade and Development at http://www.unctad.org/en/docs/rmt2006_en.pdf

⁵⁶ Sue M. Cobb, at <http://kingston.usembassy.gov/062904.html>

headquarters in 2004. According to Jordanian intelligence, the attack could have caused as many as 80,000 dead⁵⁷ and as many as 150,000 injured. As Al Qaeda's plan for 2004 provided for two vehicle borne suicide attacks, it is imaginable that Al Qaeda could use the container, loaded on a merchant ship, as a delivery system to attack port or coastal cities.

IX. Response

In response to the 9/11 attacks, the IMO and the U.S. developed several programs to counter the threat of maritime terrorism. A brief summary of their objectives follow.

The Conference on Maritime Security adopted the International Ship and Port Facility Security Code (ISPS Code) in 2002 but was implemented in July 1, 2004. The ISPS Code was an amendment to the 1974 Safety of Life at Sea (SOLAS) Convention. The ISPS outlines the minimum security procedures that all ships and ports must meet to improve overall maritime security. In case a certain ship does not fulfill the requirements as stated in the ISPS Code, it can be turned away by the relevant authorities in the destination country. The ISPS Code in general binds all vessels of the "SOLAS" class (ships above 500 tones and passengers) vessels employed on international voyages to:

- install an automatic identification system (AIS) that will provide authorities with the ship's identity, position, course and speed. It also will provide the last harbor visited by the ship;
- display the unique ship identification number (SIN) on either the ship's hull or superstructure;
- install a ship security alert system; and
- creation of a ship security plan and having a security officer on board.

The downside is that these requirements are only for "SOLAS" class ships. Therefore, it doesn't apply to warships, government vessels, fishing vessels and ships less than 500 tons. Moreover, a high percentage of these ships are found in maritime terror plagued areas, such as South East Asia and the Persian Gulf.

The ISPS code by the IMO imposes significant additional costs to ship owners. This high cost penalty is particular acute for small vessels. Ship owners in developing countries cannot comply and compete in the global market. In addition, the ISPS code is seen as a U.S. code responsible for national port and ship security, presenting difficulties to other nations involved. Officials of many developing countries consider the ISPS code as a measure to counter maritime terrorism and provide security to the West. Their fiducial priority, however, is with their own economic development.

⁵⁷ Global Defense Review <http://www.global-defence.com/2006/Weapons/article.php?id=581>

The Container Security Initiative (CSI), introduced in 2002, is a U.S. initiative involving a series of bilateral accords that allow for the forward deployment of U.S. Customs and Border Protection (CBP) officers. Their duty is to identify and inspect suspicious containers before they are placed on vessels destined for the United States in order to extend the zone of security outward so that American borders are the last line of defense, not the first.⁵⁸ Moreover, with the establishment of the C-TPAT (Customs-Trade Partnership against Terrorism) CBP recognizes that it only through close cooperation with the ultimate owners of the international supply chain, such as importers and carriers, can increase the cargo security. International importers can expedite processing of their cargo while complying with the rules of the CBP.

Countries that do not implement CSI procedures will be at a disadvantage, because their cargo will be subjected to extensive examination. To date, more than 45,000 companies have agreed to participate in C-TPAT.⁵⁹ Nevertheless, several countries' governments remain skeptical. They consider the underlying purpose of "extending of the zone of security outward" as a method to shift the terrorist threat away from the U.S.

Lastly, the Proliferation Security Initiative (PSI) was announced by President Bush in May 31, 2003. It aims to combat the proliferation of weapons of mass destruction by sanctioning the right to stop, board, and, if necessary, seize a vessel on the high seas if it is suspected of smuggling CBRN materials.⁶⁰ Currently, 15 countries have joined the PSI, with major region gaps in membership. For example, Singapore is the only member country from Southeast Asia. Another major weakness of the PSI is its limited authority under international law. Thus, at present, warships can only halt ships in international waters when they have the consent of the flag's state.

X. Conclusion

Al Qaeda is a network that has so far understood how to adapt to a rapidly changing environment. It was able to rise from its ashes and find vulnerable spots in an open society. Maritime transportation, with its many weaknesses, is one of those weak spots waiting to be exploited by Al Qaeda. International counter-measures such as the ISPS code and U.S. initiatives like the Container Security Initiatives (CSI) and Proliferation Security Initiative (PSI) can only be regarded as the first step in order to close this Achilles' heel.

Based on the evidence presented above, I believe that in the near future we will witness more maritime attempts to disrupt the oil flow in the Persian Gulf and against cruise ships. It is only a matter of time until Al Qaeda once more will succeed in attacking the West. Maritime terrorism is positioned to be their method of choice.

⁵⁸ Statement of Mr. Jayson P. Ahern, http://judiciary.senate.gov/testimony.cfm?id=856&wit_id=2514

CSI in Brief at http://www.cbp.gov/xp/cgov/border_security/international_activities/csi/csi_in_brief.xml

⁵⁹ C-TPAT http://www.cbp.gov/xp/cgov/import/commercial_enforcement/ctpat/ctpat_faq.xml

⁶⁰ State, <http://usinfo.state.gov/products/pubs/proliferation/>

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