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MARITIME TERRORISM IN SOUTHEAST ASIA:
A RISK ASSESSMENT

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ABSTRACT

This article seeks to investigate the extent of the threat posed by maritime terrorism to commercial ports and shipping in Southeast Asia. It will focus in particular on the threat from the terrorist groups located in Indonesia and the Philippines and the vulnerability of vessels passing through Southeast Asia's strategic sea-lanes.

The article finds that there are inherent weaknesses present in the maritime transport industry. It also finds that there are terrorist groups in the region with maritime capabilities who possess the motives to target Western and economic interests. This necessitates the conclusion that maritime terrorism is a threat to commercial ports and shipping. The article then finds that the extent of the threat from maritime terrorism has increased in recent years, especially since the terrorist attack against the US on 11 September 2001. Finally, the article briefly discusses the potential consequences of a maritime terrorist attack and possible counter-measures and risk-treatment options.

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MARITIME TERRORISM IN SOUTHEAST ASIA: A RISK ASSESSMENT

'Just enough – just in time' - the buzzwords of a twenty-first century world trade system. One which is characterised by free-flowing international trade within a truly globalised economy. It is a system that has developed over the years to be as open and frictionless as possible in order to spur even greater economic growth. It is system where efficient production processes have reduced inventory-holding to a very minimum, hence the phrase 'just enough – just in time'. It is a system fundamentally dependent upon a large and heterogeneous fleet of ocean going vessels, reduced trading barriers and decreases in tariffs.

It was a system that would be irrevocably changed on one tragic day in September 2001.

Immediately following the shocking 11 September World Trade Centre attacks in New York, governments around the world hurried to assess their vulnerability to highly organised terrorist groups who were willing to sacrifice thousands of lives to achieve their aims. Although the initial focus was on the vulnerability of the air transport system, attention soon turned to the maritime sector - that is, the vulnerability of port infrastructure and commercial shipping to a maritime terrorist attack.

This issue became all the more pressing since the major shipping countries agreed that they would carry out risk assessments on their maritime sectors by July 2004, and implement the new security plans set out in the International Ship and Port Facility Security Code (ISPS Code). The ISPS Code is one of a number of amendments to the 1974 Safety of Life at Sea Convention (SOLAS). It contains detailed security-related requirements for Governments,

port authorities and shipping companies together with a series of guidelines on how to meet these requirements.

In light of these developments, this article will seek to examine whether maritime terrorism poses a threat to commercial shipping in transit or at port and port facilities, and if so, to what extent. The principle area of focus will be Southeast Asia, home to the worlds most strategic Sea Lanes of Communication (SLOCs) and the new front in the war on terror.

Maritime terrorism is, unlike piracy, a new phenomenon compared to other violent activities which take place in the marine environment. Where it has occurred, it has largely been in the context of civil war or wars of succession and has as a consequence remained the business of the affected state. Thus, the international naval community has remained to a large extent unfamiliar with the threat of maritime terrorism.

Historical Context

The incident that first brought the phenomenon of maritime terrorism to the world's attention, was the hijacking of the cruise liner *Achille Lauro* by Palestinian terrorists in 1985. The incident took place in Egyptian territorial waters. The crew and passengers were held hostage, and were threatened with death if a group of Palestinian prisoners detained in Israel were not freed. The terrorists surrendered after two days and were captured through US military intervention while they were escaping on board a commercial jetliner.[1]

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[1] C.C. Salinas, 'Improving Maritime Security in the APEC Region', *FASA,* (2002), p. 5.

Other high profile maritime terrorist attacks have been the suicide attack on the USS Cole in October 2000, killing 19 people[2] and the bombing of a Philippine ferry in February 2004, killing more than 100 people.[3] Although these attacks have been well documented, attention is only now starting to turn to the implications these attacks have for international maritime security in general. Apart from these somewhat isolated incidences of maritime terrorism, terrorist attacks against maritime targets are quite rare. They constitute only two per cent of all international terrorist incidences over the last 30 years.[4]

Terrorist groups that are known to have maritime capability are the Provisional Irish Republican Army (PIRA), Polisario, Abu Sayyaf Group (ASG), Palestinian groups, The Contras, anti-Castro organisations, Al-Qaeda, Moro Islamic Liberation Front (MILF) and the Liberation Tigers of Tamil Eelam (LTTE).

Over the years maritime terrorist attacks have taken different forms. They have been committed on board vessels or fixed platforms. The vessel itself may be used as a weapon against another. The best-known example of this is the attack on the USS Cole in 2000 by suicide bombers who used a small dinghy to come into direct contact with the American navy destroyer. Maritime terrorist attacks have also been perpetrated against ports or coastal facilities. Maritime attacks can be carried out from land, sea and air. Terrorist tactics range from 'employment of land-based teams – trained to place improvised explosive devices (IED) on ships – to terrorist divers, attack craft and sea mines. Maritime terrorist technologies

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[2]Peter Chalk, 'Threats to the Maritime Environments: Piracy and Terrorism', *RAND*, (28 Oct. 2002), p. 10.
[3] M. Baker, 'Manila told to step up war on terror'*, The Age*, (4 Dec. 2004), at http://www.theage.com.au/articles/2004/04/12/1081621892235.html?from=storyrhs&oneclick=true (last accessed 12 April 2004).
[4] Chalk (note 2) p. 9.

range from scuba, sea scooters and speedboats to [Global Positioning Systems] GPS'[5], all of which are available on the open market.

By far the most high profile maritime terrorist group is the LTTE, which has been employing maritime terrorist tactics since the 1980s in their ongoing war against the Sri Lankan government. Since July 1990 they have carried out over 40 sea-borne suicide attacks against the Sri Lankan navy.[6] The LTTE is at the cutting edge of maritime terrorism, and their activities are potentially copycat models for other groups. However, according to terrorism expert Dr Rohan Gunaratna: 'In both classified and open literature there has been little systematic research on terrorist maritime capabilities'.[7] The Sri Lankan case provides an 'early example of emerging trends and patterns in maritime terrorism'[8] that has been dangerously ignored.

The Implications of 9/11 for Maritime Terrorism

The advent of 11 September 2001 changed world perception of terrorism considerably, and brought new issues to light. As a result, the assessment of the threat from maritime terrorism has changed too. The attack on the Twin Towers in New York set new precedents. The sheer scale of the attack, its ambitious scope and impressive coordination, combined with the dedication and determination of the hijackers eclipsed anything previously seen in terrorism. The attacks demonstrated that ordinary means of transportation can be turned into lethal weapons of terror in the hands of determined terrorists. The current focus by policy makers

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[5] Rohan Gunaratna, 'The Asymmetric Threat from Maritime Terrorism', *Jane's Intelligence Review,* at http://www.jfs.janes.com/public/jfs/additional_info.shtml (last accessed 28 April 2003).
[6] Chalk (note 2) p. 12.
[7] Gunaratna, 'The Asymmetric Threat from Maritime Terrorism' (note 5).
[8] Rohan Gunaratna, 'Trends in Maritime Terrorism – The Sri Lankan Case', *Lanka Outlook*, (1998), p. 4.

on mass-destruction threats such as biological, chemical or nuclear attacks has led to an oversight in international security.

What was made clear by the events of 9/11, was that terrorist groups have widen their range of potential targets. According to David Claridge of Janusian Securities Ltd., Al-Qaeda in particular has 'started to shift its strategy towards economic targets.'[9] This new strategy was made evident in a statement by Al-Qaeda: 'We, the fighters of the holy war, in general are hoping to enter the next phase…It will be a war of killings, *a war against businesses*, which will hit the enemy where he does not expect us to.'[10] Thus, the targeting of maritime infrastructure is a now a real possibility

Commercial Shipping & Ports

The region of Southeast Asia encompasses a huge maritime area. In fact, it has been argued that it is at the centre of the world's sea network.

However, the region's Sea-lanes of Communication (SLOC) are also well known for having numerous critical 'chokepoints', in other words, points of convergence and focus such as straits and narrow waterways. The most important of these being the Straits of Malacca, Sunda and Lombok. The 'chokepoints' are created in part by the archipelagos of the Philippines and Indonesia, which are characterised by shallow, narrow waterways, but also by the large number of vessels passing through these waterways.

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[9] M. Ressa, 'Terrorism's New Frontline', *CNN*, (7 Nov. 2002), at
http://edition.cnn.com/2002/WORLD/asiapcf/southeast/10/29/asia.html (last accessed 18 May 2003).
[10] I. Lim, 'Not Yet All Aboard…But Already All At Sea Over Container Security Initiative', *Institute of Defence and Strategic Studies*, (2002), p. 2.

The region has over the past decade experienced the highest economic growth rate in the world: since 1990. The economic growth rate in Southeast Asia has been higher than the world's total, including that of North America and the European Union (EU).[11] One of the fundamental characteristics of this growth is that it is based on sea-borne trade. Thus there has been a rapid increase in the amount of container traffic traversing the region's waterways. More than half of the world's trade passes through the Straits of Malacca. Or put slightly differently, the Straits of Malacca experience more than three times the traffic of the Suez Canal and well over five times that of the Panama Canal.

Shipping routes have often been described as *the arteries* of the regional economy. In the Asia-Pacific, the uninterrupted flow of shipping is critical to most regional countries economic health and prosperity, and to some countries' very survival. Aside from SLOC, a number of other potentially vulnerable areas have also been identified in the maritime sector.

Vulnerability: Ports

Seaports by their very nature are vulnerable; ports are extensive in size and accessible by water and land. Their accessibility makes it difficult to apply the kinds of security measures that, for example, can be more readily applied at airports. Seaports are often located in or near major metropolitan areas: 'their activities, functions, and facilities, such as petroleum tank farms and other potentially hazardous material storage facilities, are often intertwined with the infrastructure of urban life, such as roads, bridges and factories'.[12]

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[11] J. S. Jon, 'East Asian Shipping Ownership', *Australian Maritime Affairs,* 10 (2003), p. 66.
[12] J. Z. Hecker, 'Port Security', *United States General Accounting Office*, (2002), p. 6.

Vulnerability: Inspection Rates

Due to the huge quantities of cargo coming into ports, even with the latest X-ray facilities (which are only available in the largest ports) only 1-5 per cent of imported sea cargo containers are inspected.[13] Following 9/11, the US Customs Service launched the Container Security Initiative (CSI). The key features of CSI are the posting of US Customs officials at major foreign ports, the increased screening of designated 'high-risk' containers at their port of loading and the use of 'smarter', tamper-proof containers and container-seals. Another important initiative that has been introduced in conjunction with CSI is the '24-hour rule', which requires the transmission of container manifests 24 hours before loading. However, CSI only enhances security for cargo going to the US and does not alter the security for cargo going to Southeast Asia. This is a worrying situation considering that total container traffic is expected to rise by 66 per cent by 2010.[14]

Vulnerability: Container Shipping

Another weakness in maritime security lies in the containers in which cargo is transported. Containers revolutionised the world of shipping and today some 200 million containers are traded annually.[15] However, the containerisation of cargo has meant that ports and cargo handlers no longer see each piece of cargo they are transporting – only the containers. As was noted above, a mere 1-5 per cent of containers are actually inspected, therefore the only information available on the contents of a particular container is based on the shippers' declaration.

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[13] N. Brew, 'Ripples from 9/11: the US Container Security Initiative and its Implications for Australia', *Current Issues* Brief, 28 (2003), p. 5.

[14] 'Shipper Nation', *The Baltic Asia-Pacific Shipping 2003*, at http://www.stroudgate.net/aps/articles/027.html (last accessed 20 May 2003).

[15] Peter Cozens, '12th Maritime Co-operation Working Group Meeting', *CSCAP*, (2002), p. 2.

Even if the shipper is not engaged in illegal activity, the containers are in fact vulnerable to tampering and access into the container can be gained relatively easily. The weakness lies in the container seals. It is presumed that if a container seal is intact, then the container has not been opened. However, the seals can cost anything between a few cents and hundreds of dollars each and are often vulnerable to pre-use tampering, manipulation, physical force and falsification.[16] As mentioned above, CSI addresses the problem of container-seal tampering. However, as was also stated above, the main beneficiary of this increased security is the US.

This lack of security at seaports in relation to container contents and the vulnerable nature of the container seals becomes all the more worrisome considering the container's journey before it actually arrives at its port destination. According to one OECD/OCDE Report, the container begins its journey at the manufacturer's premises where it is loaded with the cargo. It is then transported by road or rail to a port.

> While in transit, the container may be stationary for various periods of time as trucks are stopped on the roadside and/or container carrying trains are being assembled in freight yards. Once in port, the container is sent to a staging area before it is placed immediately next to the vessel at quay. Even within the port area, a container may be moved several times as required by the port operator and/or customs. After being placed on board a ship, the container can be removed and trans-shipped in another port onto another vessel before arriving at its destination port. Here again, the container may be moved several times…[17]

What is clear from this study of container movement is that the system has many flaws, making it fairly vulnerable to activities other than legitimate commercial purposes.

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[16] J. Saunders, 'Marine Vulnerability and the Terrorist Threat', *International Maritime Bureau*, (2003), p. 4.
[17] Maritime Transport Committee, 'Security in Maritime Transport: Risk Factors and Economic Impact', *OECD/OCDE,* (2003), p. 23.

Vulnerability: Information & Documentation

Maritime certificate fraud is a common problem in the maritime industry. The problem lies in the fact that it is possible and relatively easily to acquire the legal documents needed to command a vessel, without any proof of qualifications. Evidence of this is the existence of 'phantom ships'. These are vessels which have been hijacked by pirates - the ship is then repainted, the original crew dumped or killed and the cargo transferred or sold. The ship sails into a new port with a false name and false papers. These ships are used in various criminal maritime activities, such as to conduct pirate attacks and the smuggling of goods and people.

Vulnerability: People

Crew-members of commercial vessels belong to different nationalities and there can be up to 60 crew-members on a ship. According to the International Maritime Bureau (IMB), it is currently virtually impossible to verify the authenticity of the identity of the crew. This is due mainly to the relative ease with which forged and/or falsified seafarer certificates and identity documents can be bought on the black market. In fact, the IMB discovered that in its survey of 54 maritime administrations, more than 12,000 cases of forged certificates of competency were reported.[18] Therefore, it is relatively easy for people to pose as crew-members using false documents, thus creating the potential for pirates or terrorists to board ships without being identified.

This situation is likely to improve in the near future. Following the ratification of the International Labour Organisations Sea Farers Identity Documents Convention 2003,

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[18] V. Sakhuya, 'Maritime Terrorism; India Must be Prepared', *Fautlines*, 12, (2003), p 3.

Governments are now preparing to implement a new biometric identity verification system. Seafarers will be required to carry a new identity document which will contain a bar-code that has their finger print details stored on it.

Vulnerability: Vessels in Transit

Vessels are particularly vulnerable to a breach of security when they are making their slow passage through narrow waterways like the Malacca Straits. The high degree of maritime traffic congestion limits the vessel's ability to avoid a potential threat and can provide cover for a perpetrator's attack. The tankers which lumber along at 11 knots are easy pray to smaller boats with outboard motors that can travel up to three times faster than the tankers. The tankers are often only equipped with spotlights, fire axes and hoses, as the laws in many seaports bar the equipping of tankers with deck guns. The many uninhabited, jungle-covered islands that border the Straits provide ideal launching points to attack passing vessels and also provide pirates and terrorists with refuge from law-enforcement units. Finally, the lack of visible maritime law-enforcement patrols in the region adds to the sense of maritime vulnerability, as deterrence is a key element in preventing the conduct of any criminal activities whether on land or sea.

Vulnerability: Bulk Shipments

Given the information above on the vulnerability of vessels in transit, the potential for security problems becomes even greater in the case of bulk shipments. Although bulk shipments of highly volatile liquid compounds are subject to tighter security and have escort requirements, this is not the case for the bulk shipment of fertilisers such as ammonium

nitrate. Ammonium nitrate is widely used throughout the world as an agricultural fertiliser. However, with some manipulation (e.g. through the addition of fuel oil) and triggered by a sufficiently large explosive catalyst, fertiliser grade ammonium nitrate can be used as a powerful explosive. Not only are vessels carrying dry bulk cargoes vulnerable to some sort of attack, but due to the opaque ownership mechanisms of the shipping industry, the vessels and their potentially dangerous cargo could easily be used for illegal purposes.

Vulnerability: Flags of Convenience

Most vessels in Southeast Asia fly flags of convenience. The most common in the region is the Panama flag. 'Shipping companies use flags of convenience to avoid heavy taxes and stringent inspections which would condemn their vessels to the wrecker yards. The vessels' real owners 'hide behind a wall of secrecy created by the dubious ownership structures, the crews are cheap foreign labour, with no rights'.[19] There is often little correlation between the nationality of registration and the nationality of owners, and these factors often have little relationship to the economies shipping or receiving cargoes. The nature of flags of convenience shipping means that these vessels are often used to carry out illegal activity, for example gun running and drug smuggling.

The Source of the Threat

At this juncture, it is important to point out that in order to be considered a threat, it is not necessary for a terrorist group to have already carried out a maritime terrorist attack against shipping or port facilities, or even displayed an interest in carrying out a maritime attack.

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[19] 'The Ships that Died of Shame', (14 Jan. 2003), at
http://www.smh.com.au/articles/2003/01/13/1041990234408.htm (last accessed 28 May 2003).

Terrorist groups that have carried out attacks in the region, and in particular targeted economic or Western interests will be sufficient criteria to merit an examination. As 11 September 2001 highlighted, terrorist groups are very unpredictable and should not be underestimated. As the perpetrators of 9/11, this is especially true of Al-Qaeda. Thus, this will be the first terrorist group to be examined in this paper.

Al-Qaeda

Al-Qaeda ('The Base') has been labelled as the first multinational terrorist group of the twenty-first century. According to Gunaratna, 'Al-Qaeda has moved terrorism beyond the status of a technique of protest and resistance and turned it into a global instrument with which to compete with and challenge Western influence in the Muslim world'.[20] Essentially, Al-Qaeda is an international terrorist network led by the infamous Osama bin Laden, which seeks to 'rid Muslim countries of what it sees as the profane influence of the West and replace their governments with fundamentalist Islamic regimes'.[21] More specifically, it has vowed to cut the 'economic lifelines' of the world's industrialised societies.[22]

Al-Qaeda's targets have included American and Western interests as well as Muslim governments perceived as corrupt - this has most commonly been the Saudi monarchy. Apart from the attacks on the Twin Towers and Pentagon in 2001, terrorist attacks by Al-Qaeda have included:

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[20] Rohan Gunaratna, *Inside Al-Qaeda*, (London: Hurst & Company, 2002), p.1.
[21] 'Terrorism Q & A: Al-Qaeda', *Council of Foreign Relations*, at
http://www.terrorismanswers.com/groups/alqaeda.html (last accessed 27 May 2003).
[22] K. Bradsher, 'Warnings From Al-Qaeda Stir Fear That Terrorists May Attack Oil Tankers', *South East Asia Security*, (12 Dec. 2002), p.1.

- The suicide attack against the USS Cole off the coast of Yemen in 2000, in which 17 American soldiers were killed.[23]

- The Millennium bombings in Indonesia, on Christmas Eve 2000 in which thirty churches were targeted.[24] This attack was thought to have been carried out in conjunction with Jemaah Islamiyah, an Indonesian terrorist group.

- The suicide attack against the French tanker, *Limburg*, also off the coast of Yemen in 2002, which resulted in the death of one crew-member.[25]

In his book '*Inside Al-Qaeda*', Gunaratna describes how Al-Qaeda's modes of attack range from 'low-tech assassinations, bombings and ambushes to experiments with explosive-laden gliders and helicopters and crop-spraying aircraft adapted to disperse highly potent agents. Al-Qaeda has no compunction about employing chemical, biological, radiological and nuclear weapons against population centres.'[26] The variety and innovation of the tactics and equipment used by this terrorist network highlight the importance of lateral thinking when trying to estimate the future threat posed by Al-Qaeda.

Despite US efforts to destroy its bases in Afghanistan and the subsequent capture or killing of more than half of its leadership, Al-Qaeda still has, according to the director of Australian Security Intelligence Organization (ASIO), Dennis Richardson 'considerable, real global capacity'.[27] This is especially true of its networks in Southeast Asia; 'Except for

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[23] 'Al-Qaeda', *National Security Australia,* at
http://www.nationalsecurity.gov.au/www/nationalsecurityhome.nsf/Web+Pages/A58E9224C81B4A44CA256D35000C9BC2?OpenDocument (last accessed 14 Aug. 2003).
[24] Gunaratna, *Inside Al-Qaeda* (note 20) p. 10.
[25] Brew (note 13) p. 3
[26] Gunaratna, *Inside Al-Qaeda* (note 20) p. 11.
[27] Holloway, G., 'Spy Boss Warns of Terror Strike' (13 August 2003), at
http://edition.cnn.com/2003/WORLD/asiapcf/auspac/08/12/australia.terrorism/ (last accessed 13 Aug 2003).

Singapore, and to a lesser extent, Malaysia, and the Philippines, Al-Qaeda's network in the Asia-Pacific has remained virtually intact in the wake of 9/11'.[28]

Al-Qaeda began making inroads into Southeast Asia in 1988. Osama bin Laden personally forged the link with Adburajak Janjalani, the founder and leader of the Abu Sayyaf Group (ASG) based in the Philippines. As a result, the ASG's organisation, ideology, target selection and tactics are deeply influenced by Al-Qaeda. It has also formed links with another Philippine group, the Moro Islamic Liberation Front (MILF).

Using the Philippines as a base, in the early 1990s Al-Qaeda penetrated several other Islamic terrorist groups in Malaysia, Indonesia and Singapore.[29] One of which was Jemmah Islamiyah or Islamic Group (JI) initially based in Indonesia. Al-Qaeda developed JI into a pan-Asian network extending from Malaysia to Japan in the north and to Australia in the South.[30] Following this, JI has carried out a number of attacks in the region with support from Al-Qaeda.

Attacks on maritime interests are known to have featured in Al-Qaeda's ongoing terrorism plans. Apart from the attacks on the *USS Cole* and the *Limburg,* which are perhaps the most well-publicised examples of Al-Qaeda's maritime capabilities, it has been uncovered that Al-Qaeda had also plans to attack Malaysian and US naval vessels while they were on patrol in the Straits of Malacca.[31] Late in 2002, US intelligence officials identified approximately 15 freighters around the world that they believe are controlled by Al-Qaeda and are used both for generating profit and for aiding terrorist attacks. However, the US-

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[28] Gunaratna, *Inside Al-Qaeda* (note 20) p. 174.
[29] Ibid., p. 185.
[30] Ibid., p. 186.
[31] P. Day, 'US Fears Terrorist Attack in the Straits of Malacca', *Financial Review*, (16 June 2003), p. 2.

maintained list of suspected Al-Qaeda ships, which was begun in September 2001 has varied from a low of a dozen to as high as 50 suspects, demonstrating the difficulties naval officials have in keeping track of vessels. [32]

Although international counter-terrorism efforts were given a boost in 2002 with the capture of Adb al-Rahim al-Nashiri, the alleged mastermind of Al-Qaeda's nautical strategy,[33] the situation in the global maritime industry remains strongly in favour of the terrorists. One of the main problems is the extensive use of 'flags of convenience' by maritime trade. US officials say that Al-Qaeda has been using a shipping fleet flagged in the Pacific-island of Tonga and owned by the shipping company called Nova to carry out its terrorist activities.

In February 2002, eight Pakistani men jumped off one of the Nova freighters, the *Twillinger*, at an Italian port, after a trip from Cairo. US officials claimed that: 'the men – who lied about being crew-members and carried false documents and large sums of money – had been sent by Al-Qaeda'.[34] Then in August of the same year, another Nova freighter named the *Sara*, radioed maritime authorities in Italy to report that 15 Pakistani men whom the ship's owner had forced to take aboard in Casablanca, were menacing the ship's crew. According to US officials, the 15 Pakistanis were found carrying tens of thousands of dollars, false documents, maps of Italian cities and evidence tying them to Al-Qaeda members in Europe. This led officials to conclude that these Pakistani men were possibly on a terrorist mission for Al-Qaeda. [35]

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[32] John Mintz, '15 Freighters Believed to Be Linked To Al-Qaeda', *Washington Post*, (31 Dec. 2002), p. 1.
[33] Ibid., p 1.
[34] Ibid., p. 3.
[35] Ibid., p. 4.

Al-Qaeda has even made use of legitimate merchant vessels to carry out its terrorist activities: In October 2002, inspectors at an Italian port opened a shipping container bound from Egypt to Canada via Italy and discovered a suspected member of Al-Qaeda. The container had been converted into a portable hotel room, complete with bed, toilet, laptop computer, two mobile phones, cameras and enough supplies for the three-week journey. Very worrying was the fact that the man had in his possession a Canadian passport, airport maps and airline security passes for Canada, Thailand and Egypt.[36]

Finally, terrorism experts believe that Al-Qaeda is investing significantly in maritime technology and tactics; establishing diving schools and experimenting with various gases. Claims have also been made that Al-Qaeda is developing tactics such as surface attacks using boats laden with explosives and the use of divers carrying explosives to attach to hulls of vessels.[37]

Jemaah Islamiyah

Jemaah Islamiyah is a militant Islamic terrorist group active in several Southeast Asian countries. Their aim is to establish an Islamic republic unifying Malaysia, Indonesia, Brunei, southern Thailand and Mindanao in the Philippines. Originally an Indonesian group, JI established cells throughout the region under Al-Qaeda's influence, its plan was to carve out smaller Islamic states from within the existing state borders and later unify them in an Islamic republic.[38] JI targets have included US, Western and economic interests in the region. The

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[36] Saunders (note 16) p. 4.
[37] F. A. Rahim, 'Terrorism Experts Warn Al-Qaeda May Target Cruise Liners', *Channel News Asia,* (18 Oct. 2002), at http://www.channelnewsasia.com/stories/singaporelocalnews/view.htm (last accessed 4 May 2003).
[38] 'Jemaah Islamiyah', *National Security Australia*, at http://www.nationalsecurity.gov.au/www/nationalsecurityhome.nsf/Web+Pages/687062508B9C1881CA256D3 5000D1FB5?OpenDocument (last accessed: 3 Sept, 2003).

group is believed to be part of the regional terrorist network which is controlled by Al-Qaeda. It now has some 200 members in Malaysia alone.[39] The most notable of JI's previous attacks are:

- The 12 October 2002 Bali suicide attack in a nightclub that killed nearly 200 people; mostly Western tourists including 88 Australians.[40]

- The Marriott Hotel bombing in Jakarta on 5 August 2003 that killed 12 people.[41]

- The suicide bombing of the Australian Embassy in Jakarta on 9 September 2004, which killed nine people and injured more than 180.

The attacks above show beyond doubt that JI is targeting economic and Western interests in the region. Following a statement released by JI after the latest Embassy bombing, it has become evident that Australian interests in particular are a target due to Australia's role in the war in Iraq.

Like Al-Qaeda, JI has planned attacks against naval vessels in the region. In late 2001, JI had planned to target American military vessels docked at Singapore's Changi Naval Base.[42] However these plans had to be put on hold as the Singapore JI members lacked the operational capacity to launch the attack. Renewed fears of a JI attack against maritime targets came after US Intelligence passed on warnings about a plot to hijack a vessel in the

[39] Gunaratna, *Inside Al-Qaeda* (note 20) p. 200.
[40]'Terror Alert For Ships', *CBS News,* (22 Nov. 2002), at http://www.cbsnews.com/stories/2002/11/13/attack/main529166.htm (last accessed 27 May 2003).
[41] 'Investigators leave Indonesia to Question Suspected JI Chief', *ABC Radio Australia News*, (20 Aug. 2003), at http://www.abc.net.au/ra/newstories/RANewsStories_928692.htm (last accessed 20 Aug. 2003).
[42] 'Sweeping Asian Terror Alliance Uncovered', *CNN,* (19 Sept. 2002), at http://www.cnn.com/2002/WORLD/asiapcf/southeast/09/19/singapore.arrests/ (last accessed 11 Aug 2003).

SLOCs of the region. The warnings issued in September 2004, stated that activists from JI

have been discussing plans to seize a vessel using local pirates.[43]

Abu Sayyaf Group and the Moro Islamic Liberation Front

The Abu Sayyaf Group (ASG) meaning 'bearer of the sword' in Arabic, and the Moro

Islamic Liberation Front (MILF) are both separatist groups active in the Philippines. MILF is

currently the largest Islamic separatist group, with an estimated 15,000 members.[44] Since the

late 1990s, the MILF has been in peace negotiations with the Philippine government.

However, the talks have been punctuated with violent outbreaks on both sides. The MILF

have mounted attacks against both military and civilian targets, resulting in the deaths of over

210 people in 2003.[45] One such attack took place on April 2003 in a busy seaport in Davao

City in the Philippines, 17 people were killed in the attack.[46] The group has also carried out

attacks on Philippine shipping, mainly by placing bombs on domestic inter-island ferries

being used to transport members of the Armed Forces of the Philippines and Christians to and

from Mindanao.[47]

The ASG was formed by a group of terrorists who split from the MILF. It committed

its first major attack in 1991. The ASG has been responsible for abducting foreign nationals

and holding them to ransom, bombings and assassinations. It has also made threats against

the global petroleum industry. Examples of its attacks include:

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[43] P. Sherwell, Ansari & M. Kearney, *Al-Qaeda terrorists 'plan to turn tanker into a floating bomb',* at
http://www.telegraph.co.uk/news/main.jhtml?xml=/news/2004/09/12/wterr12.xml&sSheet=/news/2004/09/12/ix
world.html (last accessed 12 Sept 2004).
[44] 'Moro Islamic Liberation Front' *International Policy Institute for Counter-terrorism,* at
http://www.ict.org.il/inter_ter/orgdet.cfm?orgid=92 (last accessed 3 Aug 2003).
[45] 'Police Link MILF Bomb Suspect to Al-Qaeda', *The Nation Newspaper*, (27 May 2003), at
http://www.inq7.net/nat/2003/may/27/nat_5-1.htm (last accessed 27 May 2003).
[46] Ibid.
[47] Ibid.

- The kidnapping of 20 people from a tourist resort on Palawan Island, in 2001, in which several people were murdered including a US citizen.[48]

- The bombing of *M/V Superferry* 14 shortly after it left Manila Bay on 27 February 2004, killing more than 100 people. [49]

Both the MILF and the ASG are known to have trained in camps in Afghanistan that provided training for Al-Qaeda recruits. It is believed that Al-Qaeda provides financial support to both groups to carry out their attacks. The ASG also finances its operations through robbery, piracy and ransom.

Terrorism in Southeast Asia represents a tangled web of networks, often making it nearly impossible to attribute – beyond doubt – an attack to a particular group. However, what is clear from the analysis above is that all the terrorist groups in the region have both the motivation and the potential capability to carry out an attack on regional and Western maritime interests.

It has come to the attention of maritime terrorism researchers that there is a possibility that pirates and terrorists could join forces. Pirates could sell assets such as maritime and littoral knowledge, stolen vessels (such as tugs) and stolen documentation to conventional terrorists, who could then employ these assets to carry out a large-scale terrorist attack. This is a particularly worrying in Southeast Asia which is one of the world's most pirate-prone regions. According to the International Maritime Bureau (IMB), the waters around Indonesia

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[48] 'Abu Sayyaf Group*', National Security Australia* , at
http://www.nationalsecurity.gov.au/www/nationalsecurityhome.nsf/Web+Pages/EE03462FCADDEAC8CA256D35000D8BF1?OpenDocument (last accessed 24 Aug. 2003).
[49] Mark Baker, 'Manila told to step up war on terror'*, The Age,* (13 April 2004), at
http://www.theage.com.au/articles/2004/04/12/1081621892235.html?from=storyrhs&oneclick=true (last accessed 13 April 2003).

and the Straits of Malacca alone account for over a third of all piracy in the world, with 130 attacks occurring in 2004.[50] If the terrorist groups of the region employ the knowledge and expertise of the pirates to carry out their maritime attacks, the threat level is set to increase substantially.

The Threat of Maritime Terrorism

Before beginning the assessment of whether or not maritime terrorism is a threat to shipping interests and infrastructure in the region, consideration should be given to the presence of existing security measures. This will help to further establish the context within which the threat of maritime terrorism exists.

The various governments whose states border the strategic waterways of the region are responsible for patrolling the waterways. Most maritime security measures currently in place in Southeast Asia have been designed primarily to deal with the more conventional threats to maritime security, which include for example, illegal immigration, drugs and arms smuggling, and piracy, and are usually on a bilateral basis. There is at present very little in the way of international legal agreements regarding most maritime crime or violence and there is also a lack multinational enforcement strategies.

Recently, there have been some minor developments aimed at addressing the region's maritime security issues. In June 2004, the partner states of the Five Power Defence Arrangements (FPDA), which include Australia, Malaysia, New Zealand, Singapore and the United Kingdom, agreed to widen the scope of the grouping's military exercises to include

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[50] 'Annual Report, Piracy and Armed Robbery Against Ships', *ICC International Maritime Bureau,* 2004, pg. 5.

non-conventional security threats including maritime terrorism. Also, the first trilateral coordinated maritime patrol of the Malacca Strait (known as operation MALSINDO) by Malaysian, Indonesian and Singaporean forces took place in late July of 2004.[51] However, there is still much to be done.

According to Sam Bateman, a retired commodore of the Australian Navy, there is 'a lack of trained maritime police, inadequate boats and equipment, as well as inexperience with complicated concepts of law enforcement such as the doctrine of hot pursuit.[52] This is particularly a problem in Indonesia, which has the lowest defence budget in Southeast Asia.[53] Although developments such as the creation of MALSINDO are a step in the right direction, they fail to address the most fundamental issues as those outlined by Sam Bateman.

Following requests by the US post-9/11, the IMO developed an international maritime security code that would address some of the perceived vulnerabilities found to be present in most states' maritime security systems. In December 2002, adoption of the new code – the International Ship and Port Facility Security Code (ISPS Code) – was made mandatory through the International Convention for the Safety of Life at Sea (SOLAS). The Code, which entered into force on July 2004, covers: Cargo vessels over 500 gross tonnes on international voyages, port facilities serving ships on international voyages, passenger ships and mobile offshore drilling units.[54] It requires that ships and port facilities carry out security assessments, after which ships are required to create ship security plans, appoint ship security officers and company security officers. Ships are also required to carry certain onboard

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[51]Adam Ward, (ed.), 'Piracy and maritime terror in Southeast Asia', *IISS*, Vol. 10, Issue 6, (2004).

[52] R. Holleran, 'What if Asia's Terrorists Join Hands?' *South China Morning Post,* (17 May 03) p. 1.

[53] Dana Robert Dillon, 'Piracy in Asia: A Growing Barrier to Maritime Trade', *Backgrounder*, 1379 (2000), p. 2.

[54] 'Safeguarding Australia', *AAPMA,* at http://www.aapma.au/news/120803.php3 (last accessed 24 Aug. 2003).

equipment.[55]   Port facility requirements will include port facility security plans and port facility security officers. Port facilities are also obliged to keep certain security equipment.[56]

However, the main problem with the new security measures introduced by the IMO is that although most shipping nations are members and therefore signatories of the SOLAS Convention, the IMO has had trouble enforcing its regulations in the past. This is especially true in the case of states, which have on their shipping registers flags of convenience vessels. These states 'lack the resources or people with sufficient expertise to enforce the standards that are acceptable to the shipping community at large'.[57] In fact in the majority of cases, one could argue that although security plans may be in place and security officers designated, the unfortunate reality is that it is often crew members of a fairly low rank and with limited training that are tasked to implement the Code. Another weakness is that the ISPS Code only covers ships and port facilities, so it does not require facilities further along the supply chain or the suppliers of the goods to adopt any new security measures. The Code only recommends what 'security equipment' should be kept on board ships and at port facilities and does not evaluate if these equipment, for example a hand-held radio, will significantly improve maritime security.

Many in the maritime transport industry believe that existing security measures already in place in ports will go some way to meet the new ISPS requirements.[58] This, and the information above, shows quite clearly that fulfilling the requirements of the ISPS Code will not significantly alter the future situation with regards to the threat from maritime terrorism.

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[55] 'SOLAS: International Ship & Port Facility Security Code', *IMO Press Release*, (2003), p. 3.
[56] Ibid., p. 3.
[57] K. Matthews, 'Trade and Shipping: A Common Interest of the Asia-Pacific', *Australian Maritime Affairs,* 10, (2003), p. 53-60, p. 54.
[58] 'Safeguarding Australia' (note 54).

An amendment to an existing SOLAS chapter and adopted at the same time as the ISPS Code stated that ships[59] must install an Automatic Identification System (AIS) at the latest by 31 December 2004. AIS is 'a shipboard broadcast system that acts like a continuous and autonomous transponder...It allows ships to easily track, identify, and, exchange pertinent navigation information from one another or ashore'.[60]

While AIS information will enhance the security of port and coastal states, due to the fact that it will provide valuable data about vessels entering and leaving their waters, it is arousing fears amongst the shipping community that the information could fall into the hands of terrorists. Information including the ship's name, speed, course, position, next port and estimated time of arrival will be available to anyone, including terrorists. Also, SOLAS does not require ships of less than 300 gross tonnage to be equipped with an AIS, therefore small fishing vessels and leisure craft will not be able to be tracked. A small speedboat, like the one used in the attack on the *USS Cole* would not need to be fitted with AIS, under the requirements of SOLAS. Thus, the installation onboard ships of the AIS, like the adoption of the ISPS Code, will not significantly reduce the threat of maritime terrorism.

From the vulnerabilities that exist in the maritime transport sector and the terrorist groups operating in the area, a maritime terrorist attack against a vessel, particularly a western one or commercial port is a real possibility and has been for some time. There are a number of reasons for this. Firstly, an attack directed against any economic or Western

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[59] 'The regulation requires AIS to be fitted aboard all ships of 300 gross tonnage and upwards engaged on international voyages, cargo ships of 500 gross tonnage and upwards not engaged on international voyages and passenger ships irrespective of size built on or after 1 July 2002.' '*IMO adopts comprehensive maritime security measures*', at http://www.imo.org/Newsroom/mainframe.asp?topic_id=583&doc_id=2689 (last accessed 25 Aug. 2003).
[60] 'Automatic Identification System (AIS)', *US Coast Guard*, at http://www.uscg.mil/hq/g-cp/comrel/factfile/Factcards/AIS.html (last accessed 2 Jan. 2005).

interests, both represented by commercial shipping and ports, would be in line with the long-declared aims of the region's terrorist groups. The terrorist groups in the region have not only declared their aims to target ports or ships, but have in the past carried out strikes against these targets.

Secondly, Al-Qaeda, JI, the ASG and the MILF have shown their interest in specifically targeting maritime infrastructure and shipping, as they have either attacked such targets before or intelligence sources have revealed their plans to do so. Thirdly, most of the terrorist groups in the area certainly have the capability to carry out an attack against a port or vessel. It is possible to draw this conclusion because the terrorist groups in question have either carried out an attack before, or would be able to easily obtain the equipment and materials necessary to conduct an attack. If the tactics of the LTTE are anything to go by, all that is needed is an explosives laden speedboat.

Fourthly, commercial shipping and ports are not only attractive targets because they are of economic importance and/or they represent Western interests, but also because an attack against the maritime industry has the potential to do immense damage in a number of different ways. It has the potential to fulfil a terrorists' most basic aim – to create terror. To make matters worse, these targets - commercial ports and vessels - are relatively unprotected.

If terrorists gained entry to a container that was then taken aboard a vessel, they could either hide on board ready to execute an attack against the vessel or smuggle dangerous substances or explosives into a country. As was noted earlier, Al-Qaeda has attempted to hide one of its members on board a container ship in the past. Although that time Al-Qaeda was unsuccessful, it is quite possible that the group has smuggled its members overseas in

that way before. Also, due to the lack of security checks at boarding stations of ferries, terrorists could easily board the vessel carrying explosives. In fact in 1999, a US Customs inspector carrying out a routine questioning of a passenger travelling on a vehicle ferry from Victoria, British Columbia, to Port Angeles, Washington, discovered a mini bomb factory stuffed into the trunk of the passenger's car.[61]

Another worrying case that has been called 'a telling experiment' exposed the gaping holes in America's port security. ABC News borrowed 15 pounds of depleted uranium from an environmental group, packed it in a container and successfully shipped it from Turkey to New York. Despite the fact that the container of depleted uranium was clearly marked, it made its journey undetected.[62] If it can be done by ABC News, surely there is a possibility that it could be done by a terrorist group.

The vulnerability of a ship in transit through the narrow waterways of the Malacca Straits has already been discussed. If we combine this information with the high rates of success of pirates illegally boarding ships, it seems likely that a group of terrorists could take over a merchant vessel. In 2003, pirates boarded a chemical tanker in the Strait of Malacca, captured the crew and began navigating the vessel.[63] If the pirates had in fact been terrorists, the results could have been devastating.

Freighters carrying large cargos of chemicals or petroleum would be particularly attractive to maritime terrorists. According the Director of Terrorism Studies at the Australian National University's Strategic and Defence Studies Centre, Clive Williams:

[61] B. N. Meeks, 'FBI: Al-Qaeda interested in ferries', *MSNBC News*, (31 July 2003), at http://www.msnbc.com/news/946574.asp?0bl+-0&cp1=1 (last accessed 31 July 2003).
[62] Lim (note 11), p. 2.
[63] John Brandon, 'Terrorism on the High Seas', *Herald Tribune,* (5 June 2003), p. 1.

'Terrorists could feasibly take over a cargo ship and use it as a weapon against military vessels or civilian infrastructure such as bridges…A seized ship could be used to cause large scale pollution'.[64] The impact of this type of attack would be considerable if the ship was carrying nuclear materials. There is also the possibility of terrorists boarding commercial vessels while appearing to be legitimate crew-members. This seems highly probable given how many maritime certificate fraud cases take place in the Philippines and Indonesia, where the terrorist groups are known to have bases.

Although the unpredictability of terrorism makes it hard to carry out accurate risk assessments, from the evidence presented above, the threat from maritime terrorism must be taken seriously. Commercial ports and shipping in Southeast Asia are at risk from maritime terrorism. On the other hand, perhaps the threat is not as great as the information above would suggest. The fact that maritime terrorist attacks only make up 2 per cent of all terrorist attacks worldwide should be considered, and law enforcement officials continue to be successful in foiling planned maritime attacks in Southeast Asia. For example, early in 2002 Singapore intelligence disrupted an Al-Qaeda plot to attack a US ship in the region.[65]

However, if any lesson should be learnt from the attacks of 11 September 2001, it should be that just because it has not been done before, does not mean it is not possible. As D.J. Shackleton of the Royal Australian Navy Sea Power Centre correctly remarks: 'One could suggest many scenarios, equally alarming and equally credible – or incredible. But, however far-fetched, we need to consider them'.[66]

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[64] Brew (note 13) p. 3.
[65] Maria Ressa, 'Terrorism's New Frontline', *CNN*, (29 Oct. 2002), at
http://edition.cnn.com/2002/WORLD/asiapcf/southeast/10/29/asia.html (last accessed 2 Oct. 2003).
[66] D. Shackleton, 'Opening Address', *International SLOC Conference*, (2001), p. 3.

In order to make a proper estimation of the extent to which maritime terrorism poses a threat to commercial shipping and ports, it is necessary to consider a number of events and developments which have taken place recently which appear to have increased the threat from maritime terrorism. The most significant of these is the 11 September attacks. This catastrophic event not only set new precedents for terrorism in general but also led to a number of developments, which have increased the threat of maritime terrorism.

The mass casualties that were the result of the 9/11 attacks show that terrorists today are willing to carry out strikes against targets that will result in a large number of civilian deaths. Studies of terrorist groups and their tactics often argue that they wish to gain the maximum media coverage with the minimum of deaths. It was though that terrorists did not want to alienate themselves from the masses, which they felt they represented. This theory has lost its credibility post-9/11. If terrorists are now more than ever willing to carry out mass casualty attacks, then ports, which are often located near highly populated areas and have cruise ships carrying hundreds of people aboard docked at their piers, are now more at risk. One example is Sydney Port, which is located very near the Sydney Opera House and the Harbour Bridge; both famous Australian tourist destinations.

The 9/11 attacks showed the world that Al-Qaeda's technical sophistication, the amount of planning and their dedication is far greater than previous estimates. According to David Claridge of Janusian Securities Ltd: 'Al-Qaeda has shown themselves to be able to learn from previous attacks'.[67] Also, Al-Qaeda is believed to be investing in improving its maritime attack capabilities. If it shares its expertise with the other terrorist groups in the

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[67] Ressa (note 65).

area, the situation could be even dire. It now seems even more within the capabilities of Al-Qaeda and its associate groups in Southeast Asia to carry out a maritime terrorist attack.

Following 9/11, aviation security was tightened considerably in many countries. Security around embassies was also stepped up. This improved security around the more traditional hard targets could lead terrorist groups to direct their focus away from these areas. The Bali nightclub bombing, the attack on the French super-tanker the Limburg, and the Marriott Hotel bombing are all examples of this. Thus, one must assume that maritime targets are also under an increased threat.

Another reason why maritime terrorism is more of a threat now in Southeast Asia than it was in the past, is that Al-Qaeda's base of operations shifted to the region following the destruction of its network in Afghanistan. Although Al-Qaeda and the other terrorist groups examined in this study have been operating in Southeast Asia for some time, the bombing of the Bali nightclub emphasised their increased presence and their willingness to carry out attacks against Western and economic soft targets.

Terrorism experts have argued that the success of the attack on the USS Cole and the intense media coverage it generated set a precedent for maritime terrorism, increasing the likelihood that more maritime terrorist attacks will be carried out in the future. According to intelligence sources, 'the success of the *Cole* attack…prompted more terrorist groups to express an interest – and a few to invest – in maritime attack capabilities'.[68]

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[68] Gunaratna, 'The Asymmetric Threat from Maritime Terrorism' (note5).

The new trend of suicide bombing, which was first seen in the 9/11 attacks and subsequently in the Bali nightclub bombing, has considerably enlarged the potential scenarios that a terrorist attack can take. The terrorists' capabilities are no longer limited by having to have an escape route; therefore the potential targets of terrorists are now more vulnerable. It would also appear that most security currently in place around possible targets is rendered largely useless against an attack by a suicide bomber(s).

Finally, it could be argued that in an era of reduced state sponsorship of terrorist groups, terrorists may turn increasingly to maritime attacks in order to generate funds for their activities. The success of the pirates in Southeast Asia may also influence this trend.

Not only will there be more attempts of maritime terrorism, but the probability of the attacks being successful are also likely to increase. This is due to two factors. Firstly, according to the IMB, there has been 'a marked increase in successful boarding by pirates combined with a drop in the number of attempted attacks suggest[ing] that many ships were complacent about the need for additional precautionary measures.'[69] If the terrorists tapped the pirates' expertise, which many terrorist experts have argued is very possible, the consequences would be an increase the probability of success for a terror attack on a targeted ship.[70]

Secondly, improvements in marine technology are taking place all the time and the most up-to-date equipment is well within the purchasing power of Al-Qaeda. According to Vijay Sakhuja, a maritime security analyst:

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[69] 'High Seas Terrorism Alert in Piracy Report', *The World Business Organisation*, (29 Jan. 2003), at http://www.iccwbo.org/home/news_archives/2003/stories/piracy%20_report_2002.asp (last accessed 29 March 2003).

[70] Gerard Ong, "Pre-empting Maritime Terrorism in Southeast Asia", *Institute of South East Asian Studies*, (2002), p. 2.

> Dual use technologies such as the Global Positioning System (GPS), satellite communications systems, seaport scooters, scuba diving equipment and mini-submarines are either being added to the inventory list of maritime terrorists or will be done so in the near future…Already, terrorists are going beyond the crude employment of an explosive laden speedboat to the use of long-range rocket launchers and armour piercing weapons.[71]

The use of increasingly sophisticated equipment by the Southeast Asian terrorists and in particular those within the Al-Qaeda network, will further weaken any present security in the maritime industry and will result in a higher rate of success for their maritime terrorist attacks.

The full extent of the threat from maritime terrorism against commercial shipping and ports will never truly be known until such an attack is carried out, as was the case with the 11 September attacks. However, the evidence presented above should not be ignored. It shows that the threat from maritime terrorism, and the likelihood that an attack will be successfully carried out against the maritime industry, has increased substantially in recent years.

Potential Consequences of a Maritime Terrorist Attack

Terrorist attacks are by definition very difficult to predict and the scale of any such attack will vary considerably from case to case. While the human costs are likely to be low unless the attack is carried out against a ferry or cruise ship, the economic impact is likely to be much greater. However, it is almost impossible to calculate accurately the exact impact of an attack. This is due in part to the fact that like most economic activity, trade is very susceptible to unquantifiable psychological factors. Trade and commerce cannot flourish where there is no confidence in the security environment within which it must operate. A

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[71] Ibid., p. 3.

good example of this is the attack on the *Limburg*, which although was only an attack on a single vessel, had a profound economic impact on the Yemeni maritime industry. Immediately following the attack, underwriters tripled insurance premiums for vessels calling on Yemeni ports. These premiums led some lines to cut Yemen from their schedules and/or switch to ports in neighbouring counties. Yemeni terminals saw throughput plummet. Local sources claim as many as 3000 people lost their employment and government estimated losses stemming from the attack are USD 15 million per month.[72]

The Southeast Asian shipping industries are already suffering from the sharp rise in piracy in the late 1990s. Thus, a terrorist attack in the Strait of Malacca would considerably add to the already existing perception that the region is insecure. If a maritime terrorist attack caused the closure of the Sunda and Lombok Straits, ships would be forced to reroute around the Indonesian archipelago. This would raise freight rates, putting severe pressure on the economies of regional and extra-regional countries. So too would an attack on one of the region's major ports. Manufacturers could face increased warehousing costs due to the backlog of exports if a port was closed for several days.

The possible environmental consequences of a maritime terrorist attack could also be very severe. If terrorists hijacked an oil tanker or a freighter carrying toxic chemicals and released its cargo off the coast of, for example, Australia it would devastate the marine environment and could cause the contamination of Australia's waterways. Australia's tourist industry, which is largely based around coastal resorts, would also suffer.

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[72] Maritime Transport Committee (note 17) p. 17.

Counter-Measures and Risk-Treatment Options

It is beyond the scope of this article to provide a full discussion of the counter-measures and risk-treatment options that would decrease the threat from maritime terrorism. However, a few preliminary suggestions will be made.

The problem with increasing the security of the maritime transport industry is that the smooth and efficient flow of trade and cargo may well be disrupted. A cost-benefit exercise would help policy-makers to impose the correct levels of security. However, the threat of terrorism comprises so many unknown variables that traditional benefit-cost analysis may be rendered nearly impossible. Rather than increasing the security wall around the maritime transport industry, risk-treatment options should be directed against the threat itself. In other words, the terrorist groups and their networks in Southeast Asia need to be neutralised before they have a chance to plan a maritime terrorist attack. To do this the countries of Southeast Asia must invest more in 'high-grade counter-terrorist intelligence'.[73]

More importantly, the states of Southeast Asia must co-operate in their fight against terrorism. Maritime terrorism is a global phenomenon; therefore the only way it will be combated is through increased multilateral co-operation. To combat maritime terrorism, all the Southeast Asian states should sign the IMO's 1988 Convention on the Suppression of Unlawful Acts against the Safety of Maritime Navigation: 'Ratification of the convention gives signatory governments the power to prosecute people caught in their own territorial

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[73] Gunaratna, R., *Inside Al-Qaeda* (note 20) p. 235.

waters for acts of piracy committed under another countries jurisdiction'.[74] In Asia, only Japan, Singapore and China are signatories to this convention.

Finally, the long-term response should address the social environment that provides the support base and source of recruitment for the terrorist groups in the area. This can only be done through improvements in education and the standard of living in Southeast Asia.

Conclusions

The devastating attack on the US on 11 September 2001, clearly demonstrated two things. Firstly, a terrorist's next move is very hard to predict. Secondly, terrorists should never be underestimated. However as fantastical some of the possible scenarios of a terrorist attack may be, they must not be dismissed lightly. Most importantly, we cannot afford to wait for the terrorist attack to become a reality before we become aware of defence weaknesses. The events of 9/11 made this only too clear. We must respond quickly to new developments and trends. For example, the UK Government has only recently started drills for an attack on the underground. This suggests an earlier complacency on the part of the Government, especially considering the fact that a sarin gas attack did take place in the Tokyo subway more than two years.

Terrorists have moved on. They are looking for new targets, and maritime transport could be part of their new agenda. The risks need to be assessed. Commercial ports and shipping are suffering from weaknesses inherent in the international maritime transport industry's infrastructure. Its preoccupation with the principle of '*just enough – just in time*'

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[74] Natalino Ronzitti, *Piracy and International Law,*(London: Martinus Nijhoff publishers, 1990), p. 21.

and a free-flowing system, has left it vulnerable to breaches in its security. This paper also finds a number of groups within the region of Southeast Asia who aim to target Western and/or economic interests, and have demonstrated their capability to carry out such attacks.

The threat of maritime terrorism has existed for a number of years. Recently there have been a number of developments that point to the fact that the threat from maritime terrorism has increased. The most significant event was the 9/11 attack and the precedent it set for a new scale of terrorist offensive. This, in addition to the Bali nightclub bombing, confirmed that a new brand of global terror had arrived in Southeast Asia. The most significant development seen in recent years that has affected the extent to which maritime terrorism poses a threat is the 'hardening' of land targets following 9/11. The 'soft underbelly' of the maritime industry is now, by default, one of the new targets of this global terror.

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