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Abstract

This article provides a critical assessment of the contemporary threat of maritime terrorism in the Asia-Pacific region. It addresses the operational dimensions of the threat to ships and port infrastructure, and considers the effectiveness of the international and regional measures that have been introduced in recent years to deal with this threat. Based on a proposition that there has been rather too much emphasis on highly remote and speculative "doomsday" scenarios, the article supports the need for balance and equity in addressing the risks of maritime terrorism. It identifies types of terrorist attack that might be assessed as more credible, as well as some that might be considered less credible.

Keywords

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Assessing the Threat of Maritime Terrorism: Issues for the Asia-Pacific Region

Sam Bateman

This article provides a critical assessment of the contemporary threat of maritime terrorism in the Asia-Pacific region. It addresses the operational dimensions of the threat to ships and port infrastructure, and considers the effectiveness of the international and regional measures that have been introduced in recent years to deal with this threat. Based on a proposition that there has been rather too much emphasis on highly remote and speculative "doomsday" scenarios, the article supports the need for balance and equity in addressing the risks of maritime terrorism. It identifies types of terrorist attack that might be assessed as more credible, as well as some that might be considered less credible.

Maritime Terrorism

The need to counter the threat of maritime terrorism has led to fundamental changes in the international maritime security environment, and the maritime strategies of most countries, especially major seaborne trading nations. The maritime terrorist threats within the scope of this paper are possible attacks on a port facility or a ship at sea or in a port within the Asia-Pacific region. It does not address supply chain issues or the use of the maritime transportation system to carry terrorists or their materials, possibly through the use of shipping containers - in the worst case scenario, a weapon of mass destruction (WMD). The paper focuses on operational considerations related directly to ships and ports. Measures such as the Container Security Initiative (CSI), the Customs-Trade Partnership against Terrorism (C-TPAT), and the Proliferation Security Initiative (PSI) to secure the supply chain or prevent the proliferation of WMD are beyond the scope of this paper.

Seaborne trade is of great importance in the Asia-Pacific region. This is a consequence of both the maritime nature of the region and the fact that the booming economies of the modern world are all within the region. Seaborne trade gains additional importance in the Western Pacific and East Asia because of the archipelagic nature of this part of the world. Except in parts of China and the Malay Peninsula, there is no developed land transport infrastructure on the East Asian mainland, and foreign trade perforce must be carried by sea or air. East Asian ports are mainly linked by sea and intra-regional seaborne trade is of great significance. Furthermore, the archipelagic countries of Japan, the Philippines and Indonesia all have large domestic commercial shipping fleets essential for their domestic trade.

Shipping and seaborne trade are considered by many analysts to be vulnerable to terrorist attack. This assessment is based on the quantities of cargo involved, international shipping's diverse and large international labour force, difficulties of enforcement both in port and at sea, and the poor regulatory environment of the international shipping industry with low levels of accountability, complicated chains of ownership, and a high incidence of fraudulent documentation.¹ Terrorists could potentially exploit these weaknesses to use sea transport for their evil purposes, or to launch an attack on shipping and port infrastructure that could cause massive economic disruption. Within the region, one writer has claimed that Southeast Asia is now the centre of global maritime terrorism.²

The need to counter the threat of maritime terrorism has led to fundamental changes in the international maritime security environment. The new counter-measures have imposed large additional costs on the global transport system and have required significant effort from both government and industry. However so far, the maritime terrorist threat has had no significant impact on the volume or pattern of international seaborne trade. There has been stronger than expected economic growth in Asia, and this would not have been any different without the terrorist attacks on the World Center in New York on 11 September 2001 (9/11).

Maritime Security

Events of 9/11 and perceptions of a terrorist threat to shipping have forced a reappraisal of the concept of maritime security. The concept has a traditional meaning for navies and defence forces with their role of protecting the nation and its national interests against threats primarily of a military nature. However, the concept of *maritime security* has expanded following 9/11. It is still about protecting national security but instead of overt threats from military forces, there is a new emphasis on asymmetric threats, including both maritime terrorism and piracy. This focus is apparent in the work of the International Maritime Organization (IMO) directed towards enhancing the security of international shipping and seaborne trade.

The new approach to maritime security is based on a range of security- and military based measures. The IMO, primarily through the International Ship and Port Facility Security (ISPS) Code and related measures, has built up the physical and personal security of ships and ports, while the US has led the militarized approaches evident in the Global War on Terror (GWOT) championed by the Bush Administration.

¹ Organisation for Economic Cooperation and Development (OECD), *Security in Maritime Transport: Risk Factors and Economic Impact*, Paris: OECD, July 2003, p. 5

² Rommel C. Banlaoi, 'Maritime Terrorism in Southeast Asia – the Abu Sayyaf Threat', *Naval War College Review*, Autumn 2005, Vol. 58, No. 4, pp. 63-80.

The militarizing of the terrorist threat is demonstrated by the War in Iraq, the operations against the Taliban in Afghanistan, and the tacit support by the US for Israel in its fight against Hezbollah. All of these operations have a significant maritime dimension, and the US Navy is developing a new Maritime Strategy, which will recognise the GWOT as the Navy's top priority, along with defending the US Homeland against terrorist attack.³ The new Maritime Strategy will have a strong emphasis on international cooperation effectively encouraging other countries to increase their military spending to meet the threat of maritime terrorism. This approach does not recognise that the fight against terrorism cannot be won by military force alone but requires a concerted effort based on diplomacy, intelligence, education, and winning community support.⁴ Increased military spending involves high opportunity costs through its diversion of resources from social, economic and educational measures that might alleviate root causes of terrorism.

There is also a close relationship between maritime safety and maritime security. While a distinction between the two meanings is apparent in English, in some languages they are almost synonymous.⁵ Safety and security are not mutually exclusive. Even the IMO has changed its motto from "safer ships, cleaner oceans" to "safe, secure and efficient shipping on clean oceans" to reflect this new emphasis. The operational measures to provide maritime security, including the prevention of all forms of illegal activity at sea, also provide additional safety at sea.

At a national level, these developments have brought more agencies into play with maritime security. While navies see their business as protecting the nation and national interests at sea, most navies are not responsible for the security of port facilities or ships in port. These activities are the responsibilities of the marine police or coast guard. Similar considerations apply to policing at sea. Just as on land where most countries apply a clear separation between the civil police and the military, a similar distinction can exist at sea between the roles of a navy and those of a coast guard.⁶ This distinction is becoming even more apparent in the post 9/11 environment. In Australia, for example, maritime security is now a shared responsibility between Defence, Coastwatch, and the Office of Transport Security, as well

³ Christopher P. Cava, 'U.S. Navy Chief calls for New 'Maritime Strategy'', *Defense News* online, June 15, 2006, and Sam Bateman, 'Navies of the World Unite! Will the New U.S. Maritime Strategy Work?', *IDSS Commentary 79/2006*, Singapore: Institute of Defence and Strategic Studies (IDSS), 11 August 2006

⁴ Tom Quiggin, 'Time for a Different Approach in the War on Terrorism?', *IDSS Commentary 82/2006*, Singapore: Institute of Defence and Strategic Studies (IDSS), 15 August 2006.

⁵ Maximo Quibranza Mejia Jr, 'Defining maritime violence and maritime security' in Proshanto K. Mukherjee, Maximo Q. Mejia Jr, Gotthard M. Gauci (eds), *Maritime violence and other security issues at sea*, Proceedings of the Symposium on Maritime Violence and other Security Issues at Sea, August 2002, World Maritime University, Malmö, Sweden, p. 28.

⁶ This paper uses the term "coast guard" to refer to the para-military policing forces at sea, although they may have different names in different countries e.g. the Malaysian Maritime Enforcement Agency or the Korean National Maritime Police.

as other agencies at the State and Federal levels.⁷ This wider definition of maritime security puts a premium on inter-agency coordination, both at the national and regional levels, and the lack of this coordination is often a barrier to effective maritime security in the region.

“New” Threats

Piracy and maritime terrorism have become the “new” threats to maritime security in the Asia-Pacific region. While acts of piracy and armed robbery against ships have a long history in Asian waters, particularly in Southeast Asia, international interest in the piracy threat has been much higher in recent years. Several factors explain this. First, the incidence of piracy and armed robbery against ships has led to assessments of higher risks of terrorist attack, and actions to counter piracy are seen as also reducing the risks of terrorist attack.⁸ Secondly, Northeast Asian countries, particularly China, Japan and South Korea, are highly dependent on energy supplies from the Middle East and have become concerned about the security of tankers carrying these supplies, as well as other shipping, passing through “choke points” in Southeast Asia. Thirdly, the United States with its heavy involvement in the Middle East is concerned about strategic mobility between the Indian and Pacific Oceans with most US Navy ships and submarines in the Middle East and the Indian Ocean being deployed from bases in the Pacific. Lastly, the major regional sea powers, as well as the United States, all have strategic motivation to establish a presence in Southeast Asia and may use the threats of piracy and terrorism to justify that presence.

Whether or not all this increased attention is justified is open to question. There was a marked fall in the number of piracy attacks in 2005,⁹ and the types of attack that are carried out are not those that warrant the direct operational involvement of non-littoral countries in providing maritime security in Southeast Asian waters. Most attacks are on vessels in port or at anchor off a port. These attacks are usually of a minor nature and will only be countered by more effective policing by port authorities, and not by international action although some assistance with building the capacity of the port authorities would be useful. Furthermore, attacks on vessels

⁷ The complex arrangements for comprehensive maritime security in Australia are discussed in Bateman, S., Bergin, A., Tsamenyi, M. and Woolner, D., ‘Integrated maritime enforcement and compliance in Australia’ in Rothwell, D. and VanderZwaag, D. (eds), *Towards Principled Oceans Governance - Australian and Canadian approaches and challenges* (Abingdon, Routledge, 2006), pp. 119-142

⁸ See for example, Gal Luft and Anne Korin, ‘Terrorism Goes to Sea’, *Foreign Affairs*, Vol. 83, No.6, September/October 2004, pp. 61-71. This paper, however, was later roundly criticised in a letter from an established expert on piracy to the Editor of *Foreign Affairs* its “uncritically repeating myths, half truths and unsupportable assertions of an alleged nexus of piracy and terrorism”. Charles Dragonette, ‘Lost at Sea’, *Foreign Affairs*, March/April 2005.

⁹ International Maritime Bureau (IMB), *Piracy and Armed Robbery against Ships – Annual Report for the Period 1 January- 31 December 2005*, 31 January 2006.

underway are mainly on smaller, more vulnerable vessels in local trades. “Mainline” container vessels and large tankers on international voyages through the Malacca and Singapore Straits between Europe or the Middle East and East Asia are not attacked unless they slow down, anchor or stop.¹⁰ Yet these are the vessels that are the focus of international interest in, and offers of assistance with the security of shipping using the Straits.

The potential for cooperation between pirates and terrorists has probably been overstated.¹¹ Piracy and maritime terrorism might involve a similar modus operandi by the attackers but a distinction exists between the two acts with piracy being conducted for private ends while terrorism has political motives. In assessments of the risk of maritime terrorism, pirates have been seen as having skills and expertise that might be attractive to a terrorist group, but these are not so specialised that they are not readily available. There are many former naval personnel, fishermen and commercial seafarers in the region with knowledge and experience that could be used by a terrorist group. A distinction must also be drawn between terrorists using piracy and armed robbery against vessels to raise funds on the one hand, and the direct targeting of a ship or port facility as an act of terrorism on the other. Both Gerakin Aceh Merdeka (GAM) in northern Sumatra and the Abu Sayyaf Group in the southern Philippines have carried out attacks, including kidnappings for ransom, to raise funds.

Assessing the Threat

There have been relatively few confirmed acts of maritime terrorism. Passenger ships and ferries have been preferred targets with the sinking of *Superferry 14* in February 2004 near Manila in the Philippines being the most serious act of maritime terrorism so far in terms of loss of life with 116 people killed.¹² However, the attacks on the USS *Cole* in Aden in October 2000 and on the French tanker *Limburg* off Yemen in 2004 usually attract most attention in writings on maritime terrorism because they were initiated by al-Qaeda and occurred in the context of 9/11. Numerous maritime terrorist attacks by the “Sea Tigers” of the Liberation Tigers of Tamil Eelam (LTTE) on both merchant ships and Sri Lankan warships are also often cited

¹⁰ Sam Bateman, Catherine Zara Raymond and Joshua Ho, *Safety and Security in the Malacca and Singapore Straits – An Agenda for Action*, Singapore, Institute of Defence and Strategic Studies (IDSS), May 2006.

¹¹ Adam Young and Mark J. Valencia, ‘Conflation of Piracy and Terrorism in Southeast Asia: Rectitude and Utility’, *Contemporary Southeast Asia*, Vol.25, No.2, August 2003, pp. 269-283.

¹² Other attacks on ferries in Southeast Asia include the February 2000 bombing of the Philippine ferry *Our Lady Mediatrix*, which killed forty people; and the December 2001 bombing of the Indonesian ferry *Kailifornia*, which killed ten. John F. Bradford, ‘The Growing Prospects for Maritime Security Cooperation in Southeast Asia’, *Naval War College Review*, Summer 2005, Vol.58, No.3, p. 67.

as examples of what might be possible, including the assessment that al-Qaeda has benefited from the techniques of the LTTE.¹³

It is not too difficult to conjure up “doomsday” scenarios for a maritime terrorist attack. A ship carrying a highly dangerous cargo could be hijacked and used as a floating bomb to destroy a port and cause large loss of human life, or a shipping container or a ship itself could be used to import a WMD.¹⁴ However, these are low probability, high consequence scenarios that can lead to some lack of balance in decision-making both by Governments and the business sector. Assessments of the threat of maritime terrorism must be rational and represent a reasonable balance between the likelihood of an attack occurring and the costs of providing adequate security against such an attack. The assessments depend on a multitude of factors, especially the capabilities and intentions of prospective maritime terrorists, the vulnerability of particular targets, and the consequences of an attack should one occur.

Terrorist Capabilities

The main maritime terrorist threat in Southeast Asia is usually seen as coming from al-Qaeda and its associated groups, particularly Jemaah Islamiyah (JI), and the Abu Sayyaf Group (ASG). These groups have training camps in the southern Philippines where they train together and share expertise.¹⁵ Members of these groups routinely move between Sabah, Indonesian Borneo and these camps by speedboat, local craft and ferries. The ASG in the Philippines has already shown that it can attack ships having claimed responsibility for the *Superferry 14* attack, and more recently, has been blamed for the bomb attack on the ferry *Dona Ramona* in August 2005 as the ship was about to depart from the port of Zamboanga.¹⁶ These attacks show that ferries, and potentially cruise liners, are vulnerable to attack. With passenger ships and ferries, it is not so much the bomb that does the damage but rather the fire and panic that might follow an explosion with so many people in a relatively confined area. In March 2004, Philippine military sources were quoted as saying that the ASG was training with JI to prepare for possible seaborne and underwater attacks outside the Philippines.¹⁷

In relative terms, maritime targets may be less attractive than land or air targets. Ships at sea are difficult targets, and an attack on port infrastructure may have rather less impact than an attack on a major building or facility

¹³ Rohan Gunaratna ‘Terrorist threat to shipping is ‘imminent and growing’ *Lloyd’s List*, Wednesday 29 September 2004.

¹⁴ Michael Richardson, *A Time Bomb for Global Trade – Maritime-related Terrorism in an Age of Weapons of Mass Destruction*, Singapore, Institute of Southeast Asian Studies, 2004, pp. 112-133.

¹⁵ Rommel Banlaoi, ‘Romulo: RP won’t be frontline of terror attack’, *Philippine Daily Inquirer*, August 13, 2005, p. A1.

¹⁶ ‘Ferry Blast Injures 30 in Southern Philippines’, *The New York Times* online, August 28, 2005.

¹⁷ ‘Terrorists train for Seaborne Attacks’, *JoyoNews*, Joyo@aol.com, Friday March 18, 2005.

(such as a mass transportation system) that has both high economic and iconic value. Unless a ship itself was used as a bomb or as a means of introducing a WMD, a maritime terrorist attack may not cause large loss of life. Even then, a terrorist group would require very specialised skills and capabilities before it could even have a modicum of confidence that the mission might be a success. From a terrorist viewpoint, hijacking a ship to use as a floating bomb would have a lower probability of a successful outcome than hijacking an aircraft for a 9/11 type mission or placing a bomb on a crowded train. The destruction of a port facility might have significant economic impact but might not loom large in the public consciousness. The potential list of targets for a terrorist is limitless but maritime targets may not be high on the list. The preferred targets for terrorists are likely to remain on land where, as shown by the attacks on mass urban transport in London and Madrid, success is more readily assured.

Threats to Ships

Ships are more vulnerable in port, or in the approaches to a port, than when they are at sea where they might gain considerable protection from their size and speed. Most large, modern merchant ships travel at speeds in excess of fourteen knots and it is both difficult and dangerous for small craft to attempt to approach them at this speed. Smaller ships and vessels alongside or at anchor figure prominently in the statistics on acts of piracy and armed attacks on ships collected by the International Maritime Bureau (IMB). In port, ships face threats from the landside, small boats and underwater swimmers. The attack on USS *Cole* demonstrated this vulnerability. This has led to the USN and other Western navies much greater attention to the force protection of their ships during port calls.¹⁸

The ships that are most vulnerable to terrorist attack are those carrying hazardous or dangerous cargoes that could turn the ship into a bomb, passenger ferries and cruise liners, as well as naval vessels. Smaller tankers with cargoes of lighter more volatile crude oils, as well as refined products such as gasoline, kerosene, and diesoline, are potentially a greater risk than large ships carrying heavy crude oil which is difficult to ignite. While most attention has focused on the larger tankers and liquid natural gas (LNG) carriers, smaller vessels such as product tankers, Liquid petroleum gas (LPG) carriers and chemical tankers are more prominent in the piracy statistics and may be more vulnerable to terrorist attack.¹⁹ These vessels are generally slower than larger vessels, and have smaller crews and lower freeboards. But generally, it remains the case that gas carriers and tankers are more vulnerable when loading or unloading than at sea. Thus the

¹⁸ For example, each USN ship has an integrated tactical team (SITT) that protects the ship against a variety of threats while in port. Paul Mullen and Jon Bartee, 'Put a SWAT Team on Every Ship', *U.S. Naval Institute Proceedings*, December 2002, pp. 30-33.

¹⁹ Bateman, Raymond and Ho, *Safety and Security in the Malacca and Singapore Straits*, p. 23-4.

problem is more one of terminal security rather than of ship security and of providing security for ships entering port.

Threats to Ports

There are at least 1,600 ports around the world used by ships trading internationally. Port security, and maritime security more generally, are very different to aviation security. The public generally understands and accepts the need for aviation security, but this may not be so with maritime security. The security of ports and ships must consider all environments: land, air, sea surface and sub-surface. Airports have defined perimeters and usually some form of “buffer zone” between an airport and other activities. Access to an airport is more easily controlled than to a port. Airline passengers expect to be screened with their baggage and airline and airport workers can be closely monitored. In comparison, ports may not have a clearly defined perimeter, even on the landside where they might be located in or adjacent to heavily populated urban areas. Ports vary greatly with regard to their physical attributes while airports are all basically similar. Each port is different by virtue of its geography, topography, surroundings and population.²⁰ Ports by their very nature are vulnerable. They are busy areas with access both by land and sea. While separate facilities may not be large in area, the geographical extent of a port may be very wide.

Waterside security will generally be more difficult and costly than landside security. While tight physical security might be possible on the entry points to a port from the landside, it is extremely difficult to secure a port and the ships in it from attacks launched from the seaward, particularly if there is a high level of small craft activity in the port. Singapore has recognised this vulnerability with the introduction of the Harbour Craft Transponder System (HARTS) that requires all watercraft using its ports to be fitted with a transponder that identifies the craft to monitors onshore. Singapore also uses Accompanying Sea Security Teams (ASSeT) teams to board and protect selected ships deemed to pose a greater risk to the port prior to their entering harbour or while they are transiting through Singapore’s waters.²¹

In the US, the Department of Homeland Security has been criticised for spending millions of dollars on port security without sufficiently focusing on those that are most vulnerable.²² There would appear to be a need now to modify this approach somewhat by concentrating on key vulnerabilities, including the security of the full supply chain, and the identification of ships, port facilities and cargoes that pose the greater risks. For example, a petrochemical port facility located in a built-up area is clearly much more

²⁰ Chris Mayer, ‘Access and identity are key points’, *Lloyd’s List*, Thursday September 30, 2005.

²¹ ‘Singapore Navy to escort passing merchant ships to stop terrorism’, *Khaleej Times* online, 28 February 2005.

²² Eric Lipton, ‘Audit Faults U.S. for Its Spending on Port Defence’, *The New York Times*, February 20, 2005.

vulnerable than a bulk ore or grain loading facility in a remote area. There is also the consideration that an oil refinery or a LNG terminal is a more feasible target for a terrorist group than using a ship as a “floating bomb”. Probably too much emphasis has been given to “worst case” scenarios.

Attack Scenarios

It is instructive to identify potential types of attack that terrorists might make against maritime targets. Possible attack scenarios are grouped below according to the ones deemed less credible and those considered more credible. The focus of these scenarios is on threats to ships and port infrastructure emanating from the sea. The groupings below are based on judgments relating to the capabilities of known terrorist groups, the ease with which particular types of attack might be launched, and the probability of a successful outcome for the terrorists.

LESS CREDIBLE SCENARIOS

- *Ship sunk to block the Straits of Malacca and Singapore.* This is a popular attack scenario among some academics and sections of the media but in reality, this scenario must be assessed as less credible, if not even as impossible.²³ There are several reasons for this. First is the width of the Straits. Even at the most narrow point of the traffic separation scheme (TSS) off One Fathom Bank, the channel is still 0.6 nautical miles (or about 1,000 metres) wide. Thus more than one large vessel would have to be sunk in the correct position to effectively block this side of the TSS and even then, it would be a simple matter of traffic management to temporarily route deep draught vessels on the other side of the TSS, and vessels of lesser draught could be routed outside of the TSS. The second reason concerns the difficulties of hijacking a large vessel and managing to sink it in an optimum position. This would be an extremely demanding task even for highly experienced seafarers working with the assistance of tugs. An associated scenario of attacking a large tanker in a narrow part of the TSS, and causing a fire and explosion onboard so that a large burning oil slick was created is marginally more credible.²⁴
- *Ship with hazardous or dangerous cargo used as “floating bomb”.* This is another popular scenario among many commentators but it is also assessed as less credible. The types of ship that are often considered in this scenario are the larger tankers and LNG carriers although consideration should also be given to vessels such as

²³ Catherine Zara Raymond, ‘Maritime Terrorism in Southeast Asia: Potential Scenarios’, *Terrorism Monitor*, Vol.14, Issue 7, April 6, 2006, p. 2.

²⁴ Neela Bannerjee and Keith Bradsher, ‘A Vulnerable Time to be Moving Oil by Sea’, *The New York Times* online, 19 October 2002.

chemical tankers and ships with volatile cargoes (e.g. ammonium nitrate). Again there would be problems with successfully hijacking such a vessel and then navigating it into a position where maximum damage might result from an explosion onboard. More importantly however, even the most technically competent terrorists could not be confident that an attack of this nature would succeed. Missile attacks on tankers during the “tanker war” of the 1980s²⁵ showed how difficult it is to ignite a fire on a tanker. Similarly expert opinion suggests how difficult it would be to cause an LNG carrier to explode.²⁶ A smaller tanker, LPG carrier, or chemical tanker with a volatile substance onboard may be a better prospect from a terrorist view point,²⁷ although the extent of damage caused will be less than that from an attack on a larger vessel. Smaller vessels might be more easily hijacked than a larger ship, and with their smaller crews, it might even be possible to hide the fact from port authorities that the vessel had been hijacked and was being operated by a terrorist crew.

- *Underwater swimmer attack on ship or port facility.* There have been reports of Al Qaeda and ASG groups developing skills in underwater diving with a view to developing a capability to attack a ship or port facility.²⁸ However, the skills and capabilities required for a successful attack are quite sophisticated and in relative terms, may not be worth investment by terrorists. However, warships, particularly in a port where the waterfront might be less secure, could be vulnerable to this type of attack.

MORE CREDIBLE SCENARIOS

- *Bomb attack on cruise liner or passenger ferry.* While maritime security experts generally believe that passenger vessels do not make good targets because they have so many people onboard and are not easy to board, nevertheless they are vulnerable to terrorist attack by placing bombs onboard. This has been demonstrated by several attacks on passenger ferries in the Philippine and Indonesian archipelagoes in recent years, including that on the *Superferry 14*. The problem is not so much the actual explosion but the fire and panic that invariably follow. The large loss of life on the *Superferry 14* was not caused by the bomb but by poor fire fighting and evacuation procedures.
- *“Choke point” blocked by sea mines.* This scenario is the one that might cause the highest level of economic disruption possibly

²⁵ Nicholas Tracy, *Attack on Maritime Trade*, Basingstoke: Macmillan, 1991, pp. 224 -230,

²⁶ Richardson, *A Time Bomb for Global Trade*, p. 43.

²⁷ Bateman, Raymond and Ho, *Safety and Security in the Malacca and Singapore Straits*, p. 24.

²⁸ ‘Terrorists train for Seaborne Attacks’, *JoyoNews*, Joyo@aol.com, Friday March 18, 2005.

without even any direct damage being caused. The mining of a ship in the Malacca and Singapore Straits, the sighting of a mine, or even just a declaration that mines had been dropped in the Straits could lead to the re-routing of most shipping traffic away from the Straits. During the “tanker war” of the 1980s, the laying of mines was arguably more successful in disrupting shipping traffic than the use of anti-ship missiles.²⁹ In comparison with other scenarios discussed in this section, this scenario might seem a low cost option for a terrorist group. The waters of the Straits are shallow and ideal for mining by either floating mines or mines placed on the sea bottom. This scenario would require a multinational response and this has been recognised by the attention given by the Western Pacific Naval Symposium to mine counter-measure exercises, including in waters off Singapore.³⁰

- *Suicide attack by small craft.* Following the suicide small boat attacks on the tanker *Limburg* and the USS *Cole*, as well as attempted attacks on other US warships, speedboats may be “emerging as the weapon of choice” of maritime terrorists.³¹ While these small craft offer advantages in terms of speed, stealth and surprise, there also has to be some qualifications as to where such attacks are likely. The *Limburg* and *Cole* attacks both occurred in potentially “unfriendly waters” in areas where terrorist groups are known to exist. This type of attack would be less likely in more secure “friendly waters”, where it would be difficult for the terrorists to establish a launching area for the attack.

Measures to Counter the Threat

The global solutions to problems of maritime security have been pitched at several levels, including the physical security of ships and ports, operational cooperation at sea, the tracking of vessels, the integrity of container cargo, and enhancing seafarer identity documentation. They include the new measures by the IMO, particularly the ISPS Code, other amendments to the 1974 Safety of Life at Sea (SOLAS) Convention, such as the mandatory fitting of ship-borne Automatic Identification Systems (AIS), and planned amendments to the 1988 Convention for the Suppression of Unlawful Acts

²⁹ Tracy, *Attack on Maritime Trade*, p. 229.

³⁰ The Western Pacific Naval Symposium (WPNS) is a consortium of 18 Western Pacific navies and 4 observer navies. In June 2001, Singapore hosted the first WPNS mine countermeasures and diving exercises involving 16 countries, 15 ships and 1,500 personnel. Sea Power Centre – Australia, ‘The Western Pacific Naval Symposium’, *Semaphore*, Issue 5, March 2006 (available on the website at <www.navy.gov.au/spc/>).

³¹ Captain James Pelkofski USN, ‘Before the Storm: Al Qaeda’s Coming Maritime Campaign’, *U.S. Naval Institute Proceedings*, Vol. 131 No.12, December 2005, p. 22,

against the Safety of Maritime Navigation (SUA Convention) and its Protocol covering offshore facilities.³²

ISPS CODE

The ISPS Code has been a great success. It has had benefits going well beyond the greater security of ships and port facilities that are required to conform to the Code. These benefits include greater awareness of security throughout maritime industry, and the reduction of other forms of maritime crime, including cargo fraud and cargo pilfering. Giving an officer a specific responsibility for managing the security of a ship also helps increase security awareness onboard and reduces the overall vulnerability of the ship.

Notwithstanding the benefits, there are residual problems with the Code's effectiveness. It applies only to the so-called "SOLAS ships" i.e. commercial ships over 500 gross tonnage employed on international voyages. Unless extended by national legislation,³³ it does not apply to fishing vessels, ships under 500 gross tonnage, or to ships employed only in the domestic trade. The number of vessels to which the ISPS code does not apply is particularly large in the Asia-Pacific region where there are large fishing fleets, many smaller trading vessels, and big domestic commercial fleets, particularly in China, Japan, Indonesia and the Philippines.³⁴

The ISPS Code imposes significant additional costs on ship-owners, including possibly having to employ extra crew.³⁵ The OECD estimated that the initial burden on ship operators to be at least US\$1,279 million and US\$730 million per year thereafter, primarily for additional management staff and security-related equipment.³⁶ There may be some irony here in that the international shipping market is buoyant at present, and the market may be absorbing the costs of the new maritime security measures. A "crunch" may well come with the next slump in global shipping.

Lastly, and despite some rhetoric to the contrary, the ISPS Code, like other instruments of international law, cannot be enforced effectively. The IMO can monitor compliance but ultimately it depends on individual countries effectively implementing the Code. Flag states have to ensure compliance

³² A new Protocol to the SUA Convention has been adopted by the IMO. It includes new offences and expanded provisions on ship-boarding. New provisions allow flag states to request assistance with ship-boarding and law enforcement, or another Party to seek the approval of a flag state to board and search a suspect ship claiming the nationality of the flag state.

³³ The Maritime Transport Security Act (Commonwealth) 2003 in Australia, for example, extends ISPS provisions to all ships employed on interstate voyages but not to ones employed on intrastate voyages.

³⁴ James Brewer, 'Small vessels, big security risk', *Lloyd's List*, Tuesday June 7, 2005.

³⁵ Katrin Berkenkopf, 'ISPS benefits doubtful, says German tramp owner', *Lloyd's List* online, October 28, 2004

³⁶ Organization for Economic Cooperation and Development (OECD), *Security in Maritime Transport: Risk Factors and Economic Impact*, Paris: OECD, July 2003, p. 2.

of ships flying their flag, port states have to manage implementation of the Code in their ports and port facilities, and seafarer supplying countries, such as Bangladesh, Indonesia and the Philippines, have to have the bureaucracy in place to implement new seafarer identity documentation requirements.

SUA CONVENTION

There are about a dozen international conventions dealing with the threat of terrorism but only the SUA Convention and its Protocol relate to terrorism at sea. The purpose of this Convention was to close the gap created by the limited definition of piracy already mentioned. These limitations were brought to light by the *Achille Lauro* incident in 1985. This was not an act of piracy because the terrorists, who seized the ship, were traveling as passengers onboard the vessel.³⁷ The SUA Convention extends coastal State enforcement jurisdiction beyond the territorial limits, and in particular circumstances, allows exercise of such jurisdiction in an adjacent State's territorial sea. The fact that some Southeast Asian countries have still to ratify the SUA Convention is probably due to some sensitivity to extra-territorial aspects of the Convention.

An IMO Diplomatic Conference in October 2005 adopted new Protocols to the SUA Convention and its related protocol on Fixed Platforms. These provide an international treaty framework for combating and prosecuting individuals who use a ship as a weapon or means of committing a terrorist attack, or transport by ship terrorists or cargo intended for use in connection with weapons of mass destruction programs.³⁸ A mechanism is also provided to facilitate the boarding in international waters of vessels suspected of engaging in these activities. These expanded provisions of the SUA Convention through the introduction of this Protocol are unlikely to make the Convention any more attractive to those countries, which so far have chosen not to ratify it.

TRACKING SHIPS

In an ideal world, ships would move around the world like civil aircraft, being passed from one system of traffic control to another. With initiatives promoted by the US and now under consideration by the IMO for the Long Range Identification and Tracking (LRIT) of vessels, a system may eventually emerge for commercial ships above a certain size and making use of AIS data. The US intends to develop a system that will integrate current and future surveillance and tracking resources to identify and track

³⁷ The *Achille Lauro* affair occurred in the Mediterranean when Arab terrorists took over the cruise liner, killing an elderly American tourist in the process. It was not an intentional terrorist act rather an unfortunate incident resulting after four terrorists trying to get to Israel were caught off guard when a steward entered their cabin and found them cleaning their weapons. The *Achille Lauro* affair, however, has had major consequences, including disputes between the United States and other countries on issues of criminal jurisdiction.

³⁸ U.S. Department of State, 'Protocols to the United Nations Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (SUA)', *Fact Sheet*, October 21, 2005.

the world's 121,000 merchant ships of more than 300 tons.³⁹ It will use a data base similar to that used for tracking Soviet submarines during the Cold War. However, many other vessels using the world's oceans remain outside its scope. This inability to monitor the movement of fishing vessels, as well as cruising yachts and other private vessels, remains a major gap in international arrangements for maritime security.

Even with current LRIT plans, there are still unresolved issues. It is by no means certain, for example, that a coastal state has a right to identify and track ships exercising the freedom of navigation either through its exclusive economic zone (EEZ) or on the high seas, and not intending to proceed to a port or an anchorage located within the territory of that coastal state.⁴⁰ As well as tracking at sea, an effective international system should also include standardised reporting of shipping arrivals and departures but this might arouse both security and commercial sensitivities. And again, there will be issues with enforcing the system. For example, while the ISPS Code requires that ships be fitted with AIS transponders, many ships may be turning the transponders off when at sea. If queried on this, it is all too easy say that the equipment was malfunctioning.

Conclusions

The maritime transportation industry has been greatly affected by the threat of maritime terrorism. It now has a vastly different regulatory environment to the one that prevailed prior to 9/11. However, there are still grounds for reservations about the credibility of the terrorist threat to shipping and the cost-benefits of the new counter-measures. Despite assertions about the risks and outcomes of a catastrophic maritime terrorist attack, the maritime terrorist incidents, which have occurred, have had little impact on the free movement of shipping and seaborne trade in comparison with the massive costs of implementing the new counter-measures.

So far the approach to countering the threat of maritime terrorism has been a generalised one with all ships and ports being required to meet new international standards. It has also been a defensive one based on a "guards, guns and gates" approach that is not designed to get industry or community support, or to get at the root causes of terrorism. Recent counter-measures to the threat of maritime terrorism have imposed major additional costs on ship-owners, ports and shippers.⁴¹ They are also imposing delays on port operations and slowing down the process of

³⁹ David Munns, '121,000 Tracks', *Seapower*, July 2005, pp. 10-13.

⁴⁰ Hartmut Hesse and Nicolaos L. Charalambous, 'New Security Measures for the International Shipping Community' *WMU Journal of Maritime Affairs*, 2004, Vol.3, No.2, p. 138.

⁴¹ A study conducted by the Maritime Institute of Malaysia (MIMA) concluded that Malaysia's efforts to comply with the ISPS Code cost her ports US\$21.5 million and shipping companies US\$2.8 million. Noor Apandi Osman, 'Financial Implications of the ISPS Code in Malaysia', *Maritime Studies* 141, March-April 2005, pp. 16-23.

international trade.⁴² Ports have introduced significant extra charges to cover the costs of additional security; insurance companies have increased security premiums; and providers of security services and equipment are doing good business. In some ways, a displacement of goals has occurred. While the stated objective of the new measures is to protect the maritime transportation system, ships and ports from being used for terrorist purposes, the real benefits have been in terms of enhanced cargo security, reduced illegal use of shipping containers and customs fraud.

The new focus on maritime security has led to an environment of increased naval and military spending, particularly in the Asia-Pacific region. When developing countries in the region should be pursuing programmes that would drive down poverty and social unrest and thus remove root causes of piracy and terrorism, they are being pressed to increase their defence spending to provide greater security in their adjacent waters. While the US sees this greater security as part of the GWOT, the target countries are increasing their defence spending for more conventional reasons and against more traditional threats. These militarized and security-based approaches have high opportunity costs and could well have serious adverse consequences in the future.

It is time now for a reality check and to consider the broader maritime strategic and security environment rather than remaining fixated on the threat of maritime terrorism. Problems such as the root causes of piracy and terrorism and the ready availability of small arms around the world must be addressed. There must also be some limit to the current booming levels of naval arms spending in the region.⁴³ This spending diverts resources from measures to address poverty and promote economic development. Meanwhile, the international community seems to be giving lower priority and fewer resources to measures to protect and preserve the marine environment and to conserve its biodiversity, despite the established importance of the health of the oceans to the future of the world.⁴⁴

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⁴² Alexander Da Silva, 'Harbor rules hit small shops', *Honolulu Star-Bulletin*, Thursday August 18, 2005.

⁴³ By 2009, Asia-Pacific countries may be spending a combined US\$14 billion on new naval ships or almost double the figure for 2003. 'Naval ship spending to increase in Asia Pacific, defense experts say', *The China Post* online, 11 November 2003.

⁴⁴ For an audit of the current state of the global oceans see the Independent World Commission on the Oceans, *The Ocean Our Future*, Cambridge, Cambridge University Press, 1998.