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THE SECURITY OF REGIONAL SEA LANES

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ABSTRACT

The emergence of China and India as major global players will not only transform the regional geopolitical landscape but will also mean an increased dependence on the sea as an avenue for trade and transportation of energy and raw materials. Within the region, the Malacca Straits, Sunda Straits, and the Lombok Straits are the main sea lanes through which trade, energy and raw material resources flow. Indeed, the strategic importance of the regional lanes was recognised by the late Michael Leifer but the threats identified at that time were primarily those that concerned the safety of navigation, the control of the freedom of passage by the coastal state as well as the interruption of passage in the sea lanes by an external naval power like the Soviet Union. The threats that Michael Leifer had identified has faded into insignificance and new threats to the safety of shipping have arisen in their place, and these include piracy and the spectre of maritime terrorism.

In response to both threats, the littoral countries have adopted individual, bilateral and multilateral countermeasures. However, effective multilateral responses are still limited despite the need for such responses due to the transnational nature of the threats. Therefore, as countries in the region share significant maritime interests, the topic of maritime security needs to remain high on the regional political agenda if we want to realise the late Michael Leifer's vision of a stable and peaceful maritime regime in East Asia that will allow and oblige all states to manage their marine resources in accordance to the principles of international law, and without the risk of tension and conflict.

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The Rise of Asia

The emergence of China and India as new major global players is expected to transform the regional geopolitical landscape. Fuelling the rise of China and India is the combination of high economic growth, expanding military capabilities and large populations. For example, the combined 2002 GDPs of China, India and Japan are already half that of the United States in nominal terms.[1] A study by the National Intelligence Council in the United States had forecasted that by 2015, the combined GDPs of China, India and Japan would surpass that of the United States and the European Union at US$19.8 trillion, US$14 trillion and US$11.6 trillion respectively in 1998 dollars.[2] Goldman Sachs has projected that by 2050, the situation will become even more astounding when the combined GDPs of China, India and Japan will be slightly more than twice that of the United States and about four times that of Russia, United Kingdom, Germany, France and Italy combined in 2003 dollars.[3] In 2050, therefore, the largest economies in the world will be China, United States and India respectively, with Japan at a distant fourth. Because of the sheer size of China's and India's populations – projected by the US Census Bureau to be 1.4 billion and almost 1.3 billion respectively by 2020 – their standard of living need not approach Western levels for these countries to become important economic powers.

Besides China, India and Japan, the economies of other developing countries, like Indonesia, could also approach the economies of individual European countries by 2020. Experts assess that over the course of the next decade and a half, Indonesia may revert to high growth of 6 to

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[1] The 2002 GDPs of the United States, China, Japan, and India are US$11,145bn, US$1,299bn, US$3,986bn and US$501.2bn respectively in nominal terms. See Economic Intelligence Unit, *Country Report: United States of America* (London: November 2003), p. 5; "Country Forecast: China", *Economic Intelligence Unit*, November 2003, p.11; "Country Forecast: Japan", *Economic Intelligence Unit*, November 2003, p. 12; and "Country Forecast: India", *Economic Intelligence Unit*, November 2003, p.12.

[2] National Intelligence Council, *Global Trends 2015: A Dialogue About the Future with Nongovernment Experts* (Washington D.C.: National Intelligence Council Publication, December 2000), pp. 34-38.

[3] The forecasted 2050 GDPs of China, United States, India, and Japan, are US$45 bn, US$35 bn, US$27 bn and US$7 bn respectively in 2003 dollars. See Dominic Wilson and Roopa Purushothaman, "Dreaming with BRICs: The Path to 2050", *Goldman Sachs Global Economics Paper No. 99*, 1 October 2003, p.4.

7 percent, which along with its expected increase in its relatively large population from 226 to around 250 million, would make it one of the largest developing economies.

The rise of these regional powers, a virtual certainty barring any unforeseen reversals to the globalisation process, means that dependence on the regional sea lanes will increase. This is because countries in the region depend on the sea as an avenue for trade and transportation of energy and raw materials. In particular, the sea lanes along Southeast Asia are vital to the transportation of goods, energy and raw materials to the dynamic economies of Northeast Asia which is evidenced by the volume and value of resources trade that flows through these regional sea lanes.

Major Sea Lanes in Southeast Asia

The major sea lanes in Southeast Asia are constricted at key straits such as the Malacca and Singapore Straits, the Sunda Straits and the Lombok Straits. The Straits of Malacca is 600 miles long, and is the main corridor between the Indian Ocean and the South China Sea. The major sea lanes used by tankers from the Middle East are the Straits of Malacca and the Singapore and about 26 tankers, including three fully loaded supertankers heading for Asian ports, pass through the Strait daily. Because the Strait is relatively shallow, being only 21.8 metres deep at some points, the maximum recommended draught recommended by the International Maritime Organisation for passing ships is 19.8 metres. The navigable channel at its narrowest point is only 1.5 miles wide. In terms of total volume, more than 200 boats pass through the Straits of Malacca on a daily basis, or about 60,000 on an annual basis, carrying 80 percent of the oil transported to Northeast Asia.[4] In terms of value, the total tonnage carried by the Malacca Straits amount to 525 million metric tonnes worth a total of US$390 billion.[5] The amount of traffic makes it the busiest Straits in the world currently and it is likely to become even busier in the future as a result of increasing trade flows and energy demands in Asia. According to Lloyd's List bulletin, new orders for 200 LNG carriers will be required to satisfy the growth in demand during the next 15 years. The trend of increasing traffic has also been observed for the traffic data as reported via STRAITREP from 1999 to

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[4] John J. Brandon, "Piracy on High Seas is Big Business", *International Herald Tribune*, 28 December 2000.
[5] Sumihiko Kawamura, "Shipping and Regional Trade: Regional Security Interests", Sam Bateman and Stephen Bates (eds), *Shipping and Regional Security* (Canberra: Strategic and Defence Studies Centre, The Australian National University, 1998), p.15.

2003, which indicates that traffic in the Malacca Straits has increased by 42 percent within the five-year period.

The Lombok Strait is wider, deeper and less congested than the Strait of Malacca. The minimum passage width in the Lombok Straits is 11.5 miles and the depths are greater than 150 metres. It is therefore considered the safest route for supertankers and the bigger of these eastbound ships sometimes transit this channel. For example, tankers that exceed 100,000 deadweight tonnes (DWT) have to divert through the Lombok Straits due to depth constraints of the Malacca Straits. Most ships transitting the Lombok Straits also pass through the Makassar Straits, which has an available width of 11 miles and a length of 600 miles. About 3,900 ships transit the Lombok Straits annually and in terms of value, the total tonnage carried by the Lombok Straits amount to 140 million metric tonnes worth a total of US$40 billion.[6] Ships carrying iron ore from Australia to China also enter the Indonesian Archipelago through the Lombok Strait.

The least of the three straits is the Sunda Straits. It is 50 miles long and is another alternative to the Malacca Straits. Its north-eastern entrance is 15 miles wide, but because of its strong currents and limited depth, deep draught ships of over 100,000 deadweight tonnes do not transit the strait and it is not heavily used. About 3,500 ships transit the Sunda Straits annually and in terms of value, the total tonnage carried by the Sunda Straits is 15 million metric tonnes worth a total of US$5 billion.[7]

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[6] Ibid.
[7] Ibid.

Figure 1: Routes taken by iron ore carriers and tankers between Australia and the Far East
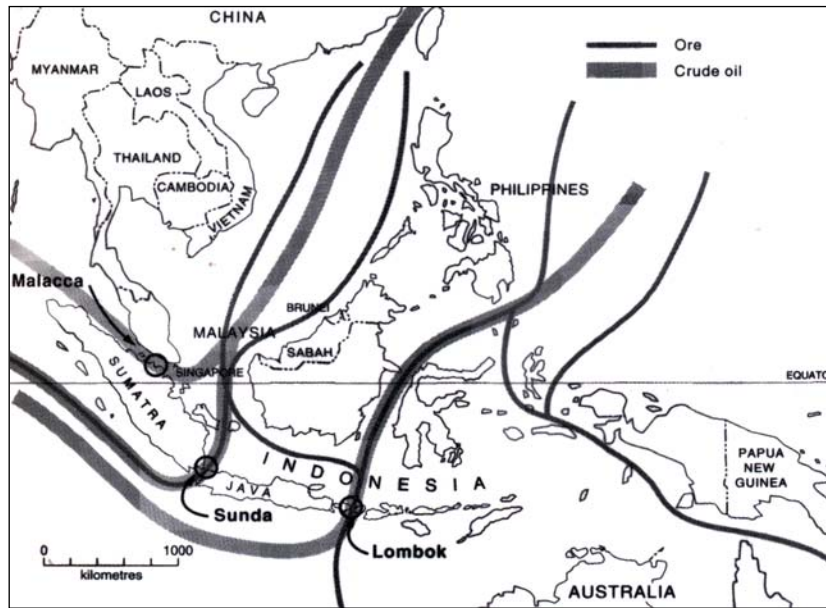

(Source: P.J. Rimmer, "Shipping Patterns in the Western Pacific – the China Factor", *Maritime Studies*, Vol. 94, May/June 1997, p.22)

Besides the transportation of oil and iron ore to the major economies in Northeast Asia like China, Japan, Taiwan and South Korea, the Malacca Straits and the Sunda Straits also carry a significant amount of container traffic given that large ports sit astride both these sea lanes. The ports that lie along the Malacca and Singapore Straits include Singapore, Port Klang, and Tanjung Pelepas. The fourth port, Tanjung Priok, sits astride the Sunda Straits. In addition, Singapore is a major transhipment hub and sits astride the east-west main route within the global hub and spoke container network. To give an idea of how much container traffic was handled at each port, based on year 2004 data, Singapore was the 2nd largest container port in the world, handling 20.6 million TEUs, Port Klang was the 13th largest container port in the world, handling 5.2 million TEUs, Tanjung Pelepas was the 16th largest container port in the world, handling 4 million TEUs, and Tanjung Priok was the 23rd largest container port in the world, handling 3.3 million TEUs.[8]

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[8] Jane RC Boyes and Jane Degerlund, "Rising to the top", *Containerisation International*, March 2005, p. 77.

Figure 2: Asian-Pacific seaports ranked among the world's 'Top 20' in the World
Container League, 2000.
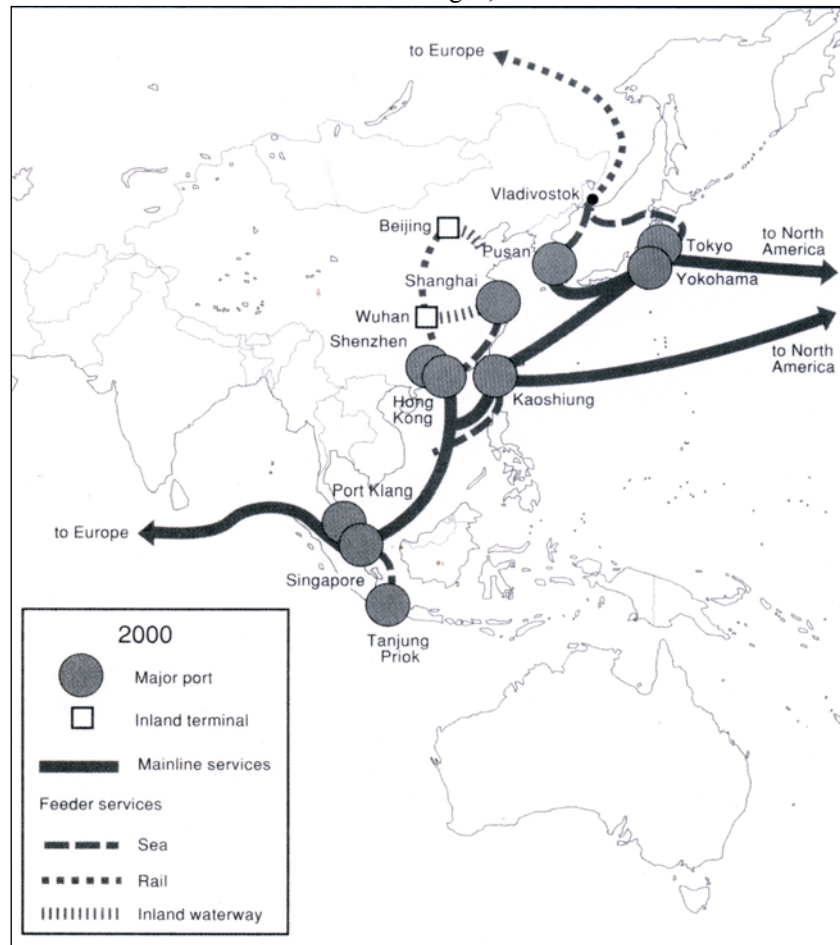
(Source: M. Beddow, "Top 30 Ports", Containerisation International, March 2001, p. 93)

Because the Malacca, Lombok and Sunda Straits are so important to the transportation of oil
and raw material, like iron ore, as well as for the conveyance of container traffic, the free and
safe navigation of commercial vessels in these sea lanes become important issues. Indeed,
the strategic importance of the regional sea lanes was recognised by no less a person than the
late Michael Leifer who wrote about the issue in 1983.[9] However, during that time, he
envisaged that there were three primary threats to the security of the sea lanes, and these
were, firstly, the failure to confront the problems of the safety of navigation in the sea lanes,
secondly, the possibility that the coastal state may pursue policies to control the freedom of
passage in the sea lanes which pass through their territorial and archipelagic waters, and
thirdly, the deployment by an external naval power, namely the Soviet Union, to interrupt
passage in the sea lanes. The three threats have since faded into insignificance with the

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[9] Michael Leifer, "The Security of Sea-lanes in South-East Asia", *Survival 25* (Jan/Feb 1983), p 16.

passage of the implementation of the traffic separation scheme and the STRAITREP reporting system in the Straits which provided a system to guarantee the safety of navigation in the Straits. The coming into force of UNCLOS ensured that the coastal state would not be able to prevent the freedom of navigation under the regime of transit passage through Straits used for International Navigation and the right of innocent passage through territorial waters. Finally, of course, the end of the Cold War put an end to the possibility of the Soviet navy closing off the Straits. Despite this, new threats to the safety of shipping have arisen in their place, and these include piracy and the spectre of maritime terrorism.

Piracy

According to the International Chamber of Commerce's International Maritime Bureau (IMB), the number of piracy attacks on shipping throughout the world in 2004 was 325.[10] This represents a significant drop in the number of attacks from the previous year of 445 in 2003, but is still the fifth highest rate since data was collected in 1992. The highest number of incidents of piracy occurred in 2000 when 469 incidents were reported. Despite the drop in worldwide pirate attacks, attacks in the Malacca and Singapore Straits continued unabated and in fact increased by 50 percent from 30 to 45 incidents. This is the second highest number of attacks in the Malacca and Singapore Straits since the IMB Piracy Reporting Centre commenced compiling statistics in 1991. Attacks in Indonesia continued to be high accounting for 29 percent of incidents worldwide as compared to 27 percent worldwide in 2003.

The attacks continue to be lethal as incidents involving pirates armed with guns continues to be high at 27 percent in comparison to 23 percent in 2003. Violence continues to rise and the number of crew killed increased to 30 from 21 in 2003. Hijacking of tugs and barges and kidnapping crew for ransom continues to increase especially in Indonesian waters and in the Northern Malacca Straits.[11] These attacks were initially believed to be the works of the GAM (Gerakan Aceh Merdeka), or the Free Aceh Movement, as a means to finance its activities. However, it appears that criminal syndicates are getting increasingly involved and operating from fishing boats, conducting kidnaps as an easy way to make money.

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[10] ICC International Maritime Bureau, "Piracy and Armed Robbery against Ships Annual Report: 1 January – 31 December 2004", January 2005, pp 4-11.
[11] Ibid, p. 16.

It is reported that three types of groups typically perpetrate sea piracy in Southeast Asia: (1) small criminals, (2) well-organised criminal gangs, and it is said, (3) armed separatists.[12] Although piracy has been an ongoing activity in the region for a long time, what makes piracy dangerous now is that these gangs appear to be better equipped and organised than most naval authorities and have demonstrated an increased propensity to use violence. They make use of speedboats, modems, radars, satellite phones, VHF radios and modern weaponry to take control of merchant ships. They also use hijacked ships for human smuggling and for the transport of illicit drugs and weapons.[13] Crime syndicates involved in piracy incidents take advantage of governments that lack the financial resources, political will and efficient law enforcement agencies to tackle their criminal activities.

There are reports of up to 5 criminal syndicate groups operating in the Malacca Straits alone. The high piracy rates and its lethality have driven up shipping costs through higher insurance rates added to a number of cargoes. Estimates of the cost of pirate attacks have put it at around US$250 million a year.[14] Although the cost to shipping is high, not many ship owners have adopted measures to combat piracy, probably due to the prohibitive costs involved. Regarding anti-terrorism measures, the Organisation for Economic Cooperation and Development has estimated that the costs required to implement the slew of post-9-11 initiatives will require an initial capital cost of at least US$1.3 billion to ship operators and will incur additional annual operating costs of around US$730 million.[15]

The emphasis on combating piracy is important, as sea piracy has been linked to the threat of maritime terrorist attacks since the events of 11 September 2001. Young and Valencia write that 'the conflation of "piracy" and "terrorism" has become common in the mass media and in government policy statements.[16] Although it has been widely recognised that the motivations of the terrorist and that of the pirates are fundamentally different, we must

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[12] Peter Chalk, *Grey-Area Phenomena in Southeast Asia: Piracy, Drug Trafficking and Political Terrorism*, (Canberra: Canberra Papers on Strategy and Defence No. 123, Strategic and Defence Studies Centre, Australian National University, 1997), Chapter 2.

[13] William M. Carpenter and David G. Wiencek, "Maritime Piracy in Asia", in W. Carpenter and D. Wiencek (eds.), *Asian Security Handbook 2000* (Armonk, New York: M.E. Sharpe, 2000), pp. 92-93.

[14] Alan Farnham, "Pirates!" Fortune, 15 July 2001.

[15] See report of the Organisation for Economic Cooperation and Development, "Price of Increased Maritime Security is Much Lower than Potential Cost of a Major Terror Attack", at http://www.oecd.org/document/30/0,2340,en_2649_201185_4390494_1_1_1_1,00.html <Accessed on 5 April 2005>

[16] Adam J. Young and Mark J. Valencia, "Conflation of Piracy and Terrorism in Southeast Asia: Rectitude and Utility", *Contemporary Southeast Asia*, Volume 25, Number 2, August 2003, pp.270-274.

continue to watch for the possibility of an overlap between piracy and maritime terrorism simply because the manner of operations are similar and it is difficult to distinguish between the two when an incident is unfolding. Piracy thus forms the background noise from which maritime terrorist attacks may materialise.

Maritime Terrorism

Another threat to resource and trade security is the spectre of maritime terrorism. In the new era of globalisation, ports have evolved from being traditional interfaces between sea and land to providers of complete logistics networks brought about chiefly by containerisation. Containerisation has made it possible for the carriers to shift from a port-to-port focus to a door-to-door focus. This is due to the interchangeability of the various modes of transporting the container (by road, rail, or sea) also know as intermodalism, whereby it has become possible for goods to move from the point of production, without being opened, until they reach the point of sale or final destination. Ports are also being differentiated by their ability to handle the latest generation of container ships coming on stream. According to a study by Ocean Shipping Consultants for example, it is expected that by 2010, 8,000 TEU ships will be dominant in all trades. Concepts for a containership of 18,000 TEUs, the draught of which will maximise the available depth of the Malacca Straits, are already on the drawing board.[17] Hence, the dual trend of ports having to be providers of complete logistics networks and being able to handle large containerships coming on line mean that high-volume, mainline trade will focus on just a few mega ports, making these ports the critical nodes of global seaborne trade.[18]

So important are hub ports in the global trading system that it has been estimated that the global economic impact from a closure of the hub port of Singapore alone could easily exceed US$200 billion per year from disruptions to inventory and production cycles. The shutting down of the ports in the western coast of the US in October 2002 due to industrial

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[17] Daniel Y. Coulter, "Globalisation of Maritime Commerce: The Rise of Hub Ports" in Sam J. Tangredi (ed), *Globalization and Maritime Power* (Washington D.C.: National Defense University Press, December 2002), pp. 135-138.
[18] Flynn has identified the world's shipping mega ports as Long Beach, Los Angeles, Hong Kong, Singapore, Hamburg, Antwerp, and Rotterdam. See Stephen E. Flynn, "America the Vulnerable", *Foreign Affairs*, January/February 2002, pp. 60-74.

action cost the US up to a billion dollars a day and also highlights the importance of hub ports as crucial nodes in world trade.[19]

Hub ports are therefore potential lucrative targets for the terrorist. Maritime terrorists may hijack carriers of liquefied petroleum gas and turn them into floating bombs to disable ports.[20] For example, the destruction that can be caused by such floating bombs is severe, as the detonation of a tanker carrying 600 tonnes of liquefied petroleum gas would cause a fireball of 1,200 metres in diameter destroying almost everything physical and living within this range. Beyond this range, a large number of fatalities and casualties would occur.[21] Other possible scenarios for maritime terrorism include the detonation of a 'dirty bomb' in a hub port. The 'dirty bomb' is a conventional bomb configured to disperse radioactive material and could be smuggled through a container in a container ship.[22]

Besides attacks on hub ports, attacks on shipping can also be an attractive option for maritime terrorists. If attacks on shipping become severe, it is possible that ships may choose to divert from the current sea lanes to a safer route. The diversion could also impose costs to industry. A study done by the U.S. National Defence University has concluded that if the Malacca, Sunda, Lombok, Makassar Straits and the South China Sea were blocked, the extra steaming costs would account for US$8 billion dollars a year based on 1993 trade flows.[23] No doubt, the cost will be even higher if current trade flows were used for the cost estimate.

In addition, prominent officials have also made indicated that commercial shipping could be potential targets. For example, at the 2003 Shangri-La Dialogue, Singapore's Deputy Prime Minister (DPM), Dr Tony Tan had warned that with the hardening of land and aviation targets, the threat of terrorism is likely to shift to maritime targets, particularly commercial shipping.[24] Besides Dr. Tony Tan, other officials have also warned of the possibility of

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[19] George Bush, "Remarks by President George W. Bush Re: West Coast Ports Work Stoppage", *White House Briefing - Federal News Service*, 8 October 2002.
[20] Michael Richardson, "Terror at Sea: The World's Lifelines are at Risk," *The Straits Times Interactive*, 17 November 2003. Available at http://straitstimes.asia1.com.sg/

[21] Ben Sheppard, "Maritime Security Measures", *Jane's Intelligence Review*, 1 March 2003.
[22] 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 112-114.
[23] Daniel Y. Coulter, p 139.
[24] Remarks by Dr Tony Tan, Deputy Prime Minister and Minister for Defence, at the Plenary Session on "Maritime Security after September 11th", *Second IISS Asia Security Conference*, Singapore, 30 May-1 June 2003.

maritime terrorism. For example, on 5 August 2004, England's First Sea Lord and Chief of the Naval Staff, Admiral Sir Alan West, had warned that Al Qaeda and other terrorist groups were plotting to launch attacks on merchant shipping. He also said that sea-borne terrorism could potentially cripple global trade and have grave knock-on effects on developed economies.[25] Besides statements by prominent officials, there are also possible indications that Southeast Asia terrorist groups may have begun to look at the maritime domain as a new avenue for attacks.

However, one of the most definitive statements that local terrorist groups have been setting their sights on commercial shipping came from Indonesia's National Intelligence Agency. They revealed that detained members of Southeast Asian Islamic terror group Jemaah Islamiah, which is linked to al-Qa'eda, admitted that shipping in the Malacca Strait had been a possible target.[26] The discovery of plans detailing vulnerabilities in US naval fleets on Al-Qaeda linked terrorist suspect Babar Ahmad also puts beyond a shadow of doubt that Al-Qaeda terrorist groups have been looking at the maritime domain as a possible mode of attack.[27]

Individual Counter-Measures

Having detailed the nature of the threats of piracy and maritime terrorism, it must be said that the regional countries are already taking steps to address the issues. For example, according to its Chief of Naval Staff, the Indonesia Navy is responding to the increasing trend of piracy in its waters by promoting a package of reforms and modernising the Navy's platforms to push the Indonesian Navy toward a new emphasis on coastal interdiction and increasing patrols against illegal activities in their own waters.[28] Indonesia has also formed Navy Control Command Centres (Puskodal) in Batam and Belawan with equipment and the placement of special forces which can respond to armed hijackings and piracy.[29] The

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[25] "First Sea Lord warns of al-Qa'eda plot to target merchant ships", *Lloyd's List*, 5 August 2004.
[26] "Malacca Strait is terror target admit militants", *Lloyd's List*, 26 August 2004.
[27] "Terror on the High Seas", *Asia Times*, 21 October 2004.
[28] Robert Karniol, "Indonesian Navy to Focus on Coastal Interdiction", *Jane's Defence Weekly*, 12 November 2003.
[29] Admiral Bernard Kent Sondakh, "National Sovereignty and Security in the Strait of Malacca", *Paper delivered at conference on 'The Straits of Malacca: Building a Comprehensive Security Environment'*, Maritime Institute of Malaysia, Kuala Lumpur, 11-13 October 2004, p.8-10.

Indonesian Chief of Naval Staff has urged the shipping community to contact the two Control Command Centres if it faces problems with piracy in Indonesian waters.

In addition to the hard measures adopted, the Indonesian Ministry of Home Affairs has also undertaken dissuasion programmes. These programmes focus on the alleviation of poverty and the increase of the people's welfare in the remote areas. In particular, the six regencies of Rokan, Hilir, Bengkalis, Siak, Palawan, Indragiri Ilir and Karimun, that border the Malacca and Singapore Straits are currently the main priority areas. The next priority is then given to the tens of regencies that border the other SLOCs through Indonesia.[30]

Malaysia has also taken action to keep the piracy rates low in the Malacca and Singapore Straits. For example, the Royal Malaysian Navy has built a string of radar tracking stations along the Straits of Malacca to monitor traffic and has acquired new patrol boats largely to combat piracy.[31] At the maritime enforcement level, a special anti-piracy task force has been established by the Royal Malaysian Marine Police in 2000 with immediate acquisition of 20 fast strike crafts and 4 rigid inflatable boats (RIBs) at a cost of RM 15 million. Recently 60 marine police officers are also being trained as a marine police tactical unit (commando). This unit will be assisted with another two elite forces in the Police Department – Special Action Forces and 69 Commando Unit and they will accompany the marine police units. The unit will be deployed along the Straits of Malacca.[32] In addition, the Malaysian Police will also deploy assault weapons on tugs and barges plying the busy shipping lanes of the Malacca Strait in response to two attacks involving tugs in March 2005 after a long absence of piracy in Malaysian waters.[33] The Royal Malaysian Navy has also intensified its training activities and patrols in the Northern reaches of the Malacca Straits beyond the area of the one fathom bank in an effort to increase presence and thus deter both piracy and maritime terrorism.[34]

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[30] Robert Magindaan, "Maritime Terrorism Threat: An Indonesian Perspective", *Paper presented at Observer Research Foundation Workshop on Maritime Counter Terrorism*, 29-30 November 2004, p. 3.
[31] Nick Brown, "Malaysia asks for Help to Fight Piracy", *Jane's Navy International*, 1 November 2003.
[32] Iskander Sazlan, "Counter Maritime Terrorism: Malaysia's Perspective", *Paper presented at Observer Research Foundation Workshop on Maritime Counter Terrorism*, 29-30 November 2004, p.13.
[33] "Malaysia to deploy armed police on tugs and barges", *Lloyd's List*, 4 April 2005.
[34] Adm Dato' Sri Mohd Anwar bin HJ Mohd Nor, Chief of Navy, Royal Malaysian Navy, "Malaysia's Approach", *Presentation at ARF Regional Cooperation in Maritime Security Conference*, 2-4 March 2005.

Another important measure adopted by the Malaysian government is the formation of the Malaysian Maritime Enforcement Agency (MMEA), the equivalent of a coast guard, to be fully set up in November 2005. The MMEA will bring together several existing maritime enforcement agencies such as the Royal Malaysian Marine Police, the Fisheries Department, Immigrations Department, Customs Department and the Marine Department. The consolidation of maritime related agencies into a single command of the MMEA will enable more focus and enhance ability to deal with maritime related offences.[35] The MMEA will also be involved in enforcement duties and search and rescue. Already the RMN will be transferring six patrol vessels over to the MMEA in June.[36]

Singapore has also implemented a range of measures to step up maritime security. These include an integrated surveillance and information network for tracking and investigating suspicious movements; intensified navy and coastguard patrols; random escorts of high-value merchant vessels plying the Singapore Straits and adjacent waters; and the re-designation of shipping routes to minimise the convergence of small craft with high-risk merchant vessels.[37] In addition to increasing its own patrolling activities, Singapore has also cooperated closely with the International Maritime Organisation (IMO) by implementing amendments to the International Convention for the Safety of Life at Sea in the form of the International Ships and Port Facility Security (ISPS) Code, which came into effect in July 2004. Singapore has also signed the 1988 Rome Convention on the Suppression of Unlawful Acts against the Safety of Maritime Navigation (SUA Convention). The convention would extend the rights of maritime forces to pursue terrorists, pirates and maritime criminals into foreign territorial waters and provides guidelines for the extradition and prosecution of maritime criminals. Singapore will also be putting up radiation detectors at its ports to scan containers for nuclear and radioactive material under the US Megaports Initiative.[38] The Republic of Singapore Navy has also formed the Accompanying Sea Security Teams (ASSeT), similar to armed marshals, to board selected merchant ships proceeding into and out of harbour to prevent the possibility of a ship being taken over by terrorists.[39]

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[35] Iskander Sazlan, p. 13.
[36] Nick Leong, "RMN to transfer six patrol ships to new agency", *The Star Online*, 27 April 2005. Available at http://thestar.com.my/news/story.asp?file=/2005/4/27/nation/10767646&sec=nation <Accessed on 27 April 2005>.
[37] Richand Scott, "IMDEX: Singapore Stresses Counters to Maritime Terrorism", *Jane's Defence Weekly*, 1 November 2003.
[38] David Boey, "Radiation detectors for Singapore port", *The Straits Times Interactive*, 11 March 2005.
[39] Goh Chin Lian, "Armed Navy escorts for suspect ships", *The Straits Times Interactive*, 28 February 2005.

Bilateral Counter-Measures

Besides individual measures, there have been efforts at bilateral cooperation based on a web approach. Indonesia and Singapore agreed in 1992 to establish the Indonesia-Singapore Coordinated Patrols in the Singapore Straits. This has involved the setting up of direct communication links between their navies and the organisation of coordinated patrols every three months in the Singapore Straits.[40] Singapore and Indonesia have also set up a Joint Radar Surveillance system that will monitor traffic in the Straits, and that will also provide the position, course and speed of the shipping in the Straits.[41] Indonesia and Malaysia also decided in 1992 to establish a Maritime Operation Planning Team to coordinate patrols in the Straits of Malacca. The Malaysia-Indonesia Coordinated Patrols are done four times a year, and so is the Malaysia-Indonesia Maritime Operational Coordinated Patrol, which is conducted together with other maritime institutions, like customs, search and rescue and police from the two countries.[42]

Besides the three littoral states, other countries are also beginning to get involved in the security of the Malacca Straits. For example, India have begun talks with Indonesia on how to improve maritime security in the northern part of the Malacca Straits, Thailand has recently expressed interest in contributing to the security of the Malacca Straits, especially in terms of capacity building. However, in both these cases concrete measures have yet to materialise. China has also recently signed a strategic partnership agreement with Indonesia and one of the items is increased maritime cooperation that could include joint efforts to combat smuggling and piracy.[43] At a more concrete level, the US has also conducted anti-piracy exercises with Indonesia which has involved the boarding and inspection of shipping. The exercise was called Crisis Action Planning SMEE 05-03.[44]

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[40] Robert Go, "Singapore Strait Patrols Keep Pirates at Bay", *The Straits Times Interactive*, 16 May 2002.
[41] "Singapore and Indonesian Navies Launch Sea Surveillance System", *MINDEF News Release*, 27 May 2005. Available at http://app.sprinter.gov.sg/data/pr/20050527997.htm <Accessed on 2 June 2005>
[42] Admiral Bernard Kent Sondakh, p. 11.
[43] "China and Indonesia seal strategic pact", *International Herald Tribune*, 26 April 2005. Available at http://www.iht.com/articles/2005/04/25/news/indonesia.php <Accessed on 9 May 2005>
[44] "TNI starts anti-piracy exercise with US military", *Gatra*, 2 May 2005. Available at http://www.gatra.com/2005-05-02/artikel.php?id=84037 <Accessed on 9 May 2005>

Multilateral Counter-Measures

In comparison to the bilateral cooperation that exists in Southeast Asia, the multilateral response to piracy and terrorism has been more limited and only starting to take shape. Although many multilateral fora exist, like the Asia-Pacific Economic Cooperation (APEC), the Association of Southeast Asian Nations (ASEAN), the ASEAN Regional Forum (ARF), and ASEAN Plus Three, very few concrete measures have actually materialised from these high-level fora. The few operational measures that have materialised arise from the ARF and the ASEAN Plus Three framework.

ASEAN Regional Forum (ARF)

The ASEAN Regional Forum (ARF) currently comprises 24 countries, namely the ASEAN countries,[45] Australia, Canada, China, European Union, India, Japan, Democratic People's Republic of Korea (North Korea), South Korea, Mongolia, New Zealand, Pakistan, Papua New Guinea, Russian Federation and the United States.

The ARF adopted the Statement on Cooperation against Piracy and other Threats to Maritime Security at the 10th ARF Post Ministerial Conference held in Cambodia in June 2003. In this document, ARF participants regard maritime security as "an indispensable and fundamental condition for the welfare and economic security of the ARF region". The ARF participants also expressed their commitment to becoming parties to the Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation (SUA) Convention and its protocol. The SUA protocol extends the coastal State enforcement jurisdiction beyond the territorial limits, and in particular circumstances, allows the exercise of such jurisdiction in an adjacent State's territorial sea. It also allows the State to prosecute criminals for crimes committed in another State's territorial waters. To date, half of ASEAN have signed the convention, namely Brunei, Myanmar, Singapore, Philippines and Vietnam.[46] Malaysia has also indicated that they would sign the convention sometime in 2005.

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[45] ASEAN comprises 10 nations: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam.
[46] Myanmar – 18 December 2003, Brunei – 3 March 2004, Philippines – 5 April 2004, Singapore – 3 May 2004. Available at http://www.imo.org/includes/blastDataOnly.asp/data_id%3D116666/status.xls <Accessed on 13 May 2005>.

ASEAN Plus Three

The ASEAN Plus Three forum comprises the ASEAN nations together with the countries of China, Japan, and South Korea. The ASEAN Plus Three is an attempt to build a regional association that is more limited in its geographic membership than APEC or the ARF. In November 2001, at the ASEAN+3 Summit in Brunei, Koizumi proposed the convening of a governmental-level working group to study the formulation of a regional cooperation agreement related to anti-piracy measures. Acceptance of this proposal has led to negotiations for the establishment of the "Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia" (ReCAAP) between representatives of the ASEAN states, China, Japan, South Korea, India, Sri Lanka and Bangladesh.

At a meeting on the 11 November 2004 in Tokyo, Japan, the 16 nations agreed to the setting up of an Information Sharing Centre (ISC) in Singapore.[47] The Information Sharing Centre will have a full-time multi-national staff to maintain a database for piracy related information and facilitate communication between national agencies prosecuting piracy cases. The ten participating nations of ReCAAP will have to accede to the Information Sharing Centre initiative before it can be set up, but so far, only the four countries of Japan, Laos, Cambodia and Singapore have acceded to the initiative. The setting up of the Information Sharing Centre is important as it will bring critical analysis to bear on the whole topic of piracy based on information made available through the government agencies. More ReCAAP participating countries should accede to the formation of the ISC and do it soon.

Other Multilateral Arrangements

Besides the agreements and the arrangements that arise out of the existing multilateral mechanisms, there are three other arrangements which have not originated from these more formal mechanisms but are nevertheless important. The three arrangements include the Five Power Defence Agreement, the Western Pacific Naval Symposium, the controversial Regional Maritime Security Initiative, which resulted in the three littoral countries coming together to conduct the Malacca Straits Coordinated Patrols.

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[47] "Asian nations band to fight piracy", *The Straits Times Interactive*, 13 November 2004.

Five Power Defence Agreement (FPDA)

The FPDA was founded in 1971 and brings together Australia, Malaysia, New Zealand, Singapore and the United Kingdom in a consultative defence arrangement. The FPDA was formed primarily as a response to the Indonesian Confrontation as the members have agreed to consult each other should there be a threat to the security of each of the member countries. Its original focus on conventional threats has now given way to more non-conventional threat scenarios. Recently, the FPDA agreed to expand the scope of its activities to include non-conventional security threats, such as maritime terrorism. The FPDA has also conducted an anti-terror drill as part of Bersama Lima in September 2004.[48]

Western Pacific Naval Symposium (WPNS)

The WPNS was created in 1988 and brings together 18 member navies, namely those of Australia, Brunei, Cambodia, China, France, Indonesia, Japan, Malaysia, New Zealand, Papua New Guinea, Philippines, Russia, Singapore, South Korea, Thailand, Tonga, United States, Vietnam and the 3 observer navies of Canada, Chile, and India.[49] The administrator of the WPNS is the U.S. Pacific Command. The WPNS was originally a forum used to promote mutual understanding among navies of the region and aims to increase naval cooperation in the Western Pacific among Navies by providing a forum for the discussion of maritime issues, both global and regional, and in the process, generate a flow of information and opinion between naval professionals leading to common understanding and possibly agreement. The WPNS has now grown to include regular shore-based and sea exercises. It was decided recently that coast guard agencies will be invited to participate in the next WPNS sea exercise and it is hoped that this will enhance inter-agency coordination and understanding.[50] Another new initiative is known as the 'Connecting Networks for the Enhancement of Knowledge Sharing'. This initiative aims to allow non-navy agencies and

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[48] David Boey, "FPDA tackles terror threat in drill; The five defence partners add a new facet to exercise, and will hunt down and board a 'hijacked ship' in the South China Sea", *The Straits Times Interactive*, 11 September 2004.
[49] Western Pacific Naval Symposium Website. Available at http://www.apan-info.net/wpns/ <Accessed on 13 May 2005>
[50] RADM Ronnie Tay, "Multi-lateral Frameworks and Exercises: Enhancing Multi-lateral Co-operation in Maritime Security", *Presentation at the ARF Regional Co-operation in Maritime Security Conference*, 2 - 4 March 2005.

inter-governmental agencies to be invited to present relevant topics of interest at Workshops and symposia. The WPNS has also just concluded a multilateral sea exercise on the 21-22 May 2005 of which, one of the aims was to improve the inter-operability between participating navies through the compilation of the sea situation picture and the sharing of data through a common data link. Participation in WPNS activities is voluntary.

Regional Maritime Security Initiative (RMSI)

The Regional Maritime Security Initiative (RMSI)[51] is very much the brainchild of the U.S. Pacific Command and initiated perhaps due to the frustration at the slowness in the implementation of concrete measures in the region to tackle the transnational maritime terrorist threat. The RMSI is a long-term, multi-national approach to counter transnational threats, including terrorism, maritime piracy, illegal trafficking and other criminal activities in the maritime domain. RMSI intends to be a partnership of regional nations who are willing to contribute their resources to enhance maritime security. It is not a treaty or an alliance and will not result in a standing naval force patrolling the Pacific. The goal of the RMSI is "to develop a partnership of willing regional nations with varying capabilities and capacities, to identify, monitor and intercept transnational maritime threats under existing international and domestic laws". The RMSI aims to build and synchronise inter-agency and international capacity, to harness available and emerging technologies, to develop a maritime situational awareness to match the picture that is available for international airspace, and to develop responsive decision-making structures that can call on immediately available maritime forces to act when required.

Despite its laudable goals, it appears that the RMSI is still very much in the preliminary planning phase, and that PACOM may now be using the Western Pacific Naval Symposium (WPNS) as a forum to advance the concept of the RMSI.

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[51] "RMSI: The Idea, The Facts", *U.S. Pacific Command Website*, 21 December 2004. Available at http://www.pacom.mil/rmsi/ <Accessed on 13 May 2005>

Operation MALSINDO (Malacca Straits Coordinated Patrols)

When the RMSI was announced by PACOM, the littoral states of Malaysia and Indonesia perceived it as a means by which the US would conduct operational patrols in the Malacca Straits as a means to secure its maritime interests. Both were opposed to the notion of patrols conducted by extra-regional countries, whilst Singapore was more open to its conduct. As a by-product of the RMSI, and in response to the concerns expressed by the US over the security for vessels transiting the Malacca Straits, Operation MALSINDO was born.[52] Currently, 17 ships have been allocated to the patrols, seven from Indonesia, five from Malaysia, and five from Singapore. The first trilateral naval patrols were launched in July 2004 and is aimed at reducing piracy and smuggling activities in the Straits on a 24/7 basis. Each navy only patrols within the territorial waters of their respective countries. To be more effective, it may be necessary to explore the possibility of conducting Joint patrols where resources are pooled for the common task.

Limitations of Existing Counter-Measures

Despite the existence of major multilateral fora and apparent mechanisms for maritime cooperation, there are some major impediments to existing mechanisms and arrangements. Firstly, the regional countries view independence and sovereignty very strongly and they are generally reluctant to agree to participate in cooperative activities if they appear to be compromising national sovereignty or sovereign rights. This is especially felt in the maritime arena where the Law of the Sea has allowed for extended jurisdiction over both territorial waters and the Exclusive Economic Zone, and which has resulted in numerous overlapping or conflicting claims to offshore areas, islands and reefs.

Secondly, there are capacity gaps between the different countries that make up the region. The capacity gaps generally correspond with the economic gaps between countries in the region. The capacity gaps have driven a wedge in bilateral as well as multilateral cooperation and countries which are at the lower end of the capability gap do not want to be seen to be dependent on the more capable or senior partners in the process.

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[52] K.C. Vijayan, "3-nation patrols of strait launched; Year-round patrols of Malacca Straits by navies of Singapore, Indonesia, Malaysia aimed at deterring piracy and terrorism", *The Straits Times Interactive*, 21 July 2004.

Lastly, political suspicions are still festering in the region and the political frameworks that could facilitate cooperative maritime security is lacking. ASEAN and the ARF have limitations due to a lack of enforcement power and lingering differences and security concerns that exist between pairs of regional countries. The three limitations could explain why most of the initiatives that have been implemented and have moved forward have been those proposed by extra-regional countries like the US and Japan and not regional ones. The U.S. and Japan in particular are countries that are pushing ASEAN to adopt more cooperative maritime security measures. China on the other hand is more content on developing bilateral relations to suit their strategic interests, in particular with the Philippines and the Indonesians.

Towards a Stable and Peaceful Maritime Regime

In conclusion, the Asia-Pacific century will be established with China, India and Japan leading the pack. Fuelling the Asia-Pacific engine will be the continued economic growth of China as well as those of India, Japan, and the United States. As a by-product and because of regional economic growth, trade flows into and within the Asia-Pacific and the demand for energy in the region will increase, both of which mean an increasing reliance on the sea as a mode of transport.

This surge in the use of the sea a mode of transport means that the security and the safeguarding of the sea lanes have become more crucial than ever. Hence, besides individual measures, there is a need to move towards a more cooperative regime between both the littoral states as well as other stakeholders to enhance the security of the sea lanes as the threats are transnational in nature. An act of armed robbery that occurred at the end of February shows the transnational character of the threat to shipping in the sea lanes. The incident involved a Japanese tug, occurred in Malaysian waters, and the Japanese crew were taken as hostages. Perpetrators from Indonesia were suspected to be responsible for the incident. The hostages were finally released in the vicinity of Southern Thailand after the Japanese owners paid up the ransom.

Therefore, as countries in the region share significant maritime interests, the creation of a maritime security needs to remain high on the regional political agenda if we want to realise the late Michael Leifer's vision of a stable and peaceful maritime regime in East Asia, one

that will allow and oblige all states to manage their marine resources in accordance to the principles of international law, and without risk of tension and conflict.[53] But as we pursue the creation of this stable maritime regime we should, however, keep the three broad principles espoused by Singapore's Defence Minister at the recent March ASEAN Regional Forum Confidence Building Measure Conference on Regional Cooperation in Maritime Security in mind:[54] that littoral states have the primary role in addressing maritime security issues, that other stakeholders have important roles to play, and that consultation should be pursued and the rule of international law observed in the implementation of any new initiatives.

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[53] Michael Leifer, "The Maritime Regime and Regional Security in East Asia", *The Pacific Review Vol. 4, No. 2,* 1991, pp. 126-127.
[54] David Boey and Goh Chin Lian, "ARF states should stage joint drills; Defence Minister asks Asean Regional Forum to go beyond talks to boost maritime security", *The Straits Time Interactive,* 3 March 2005.

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