Safety and Security in the Malacca and Singapore Straits

An Agenda for Action
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We would like to acknowledge the help of Ong Weichong and I Made Andi Arsana without which the completion of this report would not have been possible. We are also grateful for comments received from a number of people, including Associate Professor Robert Beckman from the National University of Singapore, Mr Teh Kong Leong from the Singapore Maritime Foundation, and Ambassador Tommy Koh, Chairman of the Institute of Policy Studies, Singapore.
There is much concern over the safety of navigation in the Malacca and Singapore Straits, but recent attention has tended to focus on piracy and armed robbery at sea, and the threat of maritime terrorism. The “low probability, high impact scenario” of a maritime terrorist attack attracts attention because of post-9/11 heightened awareness of the terrorist threat, especially against transportation systems, and the possible economic consequences of a disruption of shipping traffic. However, the more fundamental issue is the safety of shipping in the Malacca and Singapore Straits in all its dimensions, embracing issues of security and environmental protection, as well as ones of safety.

Part of the problem is that a clear distinction has existed in the past between maritime safety and maritime security. The International Maritime Organisation (IMO) focused on maritime safety issues while security issues were deemed to be within the provenance of the security authorities of States. However, this traditional dichotomy has given way to a growing realization that a close inter-relationship exists between maritime safety and maritime security. Maritime safety is now an integral part of maritime security.

The Maritime Security Programme at the Institute of Defence and Strategic Studies (IDSS) has conducted a comprehensive analysis of the incidence of piracy and armed attacks against ships in the Malacca and Singapore Straits. On the basis of this analysis and an appreciation of other requirements, this Report recommends a comprehensive and integrated approach to safety, security and environmental protection in the Straits that recognizes the full range of needs and the interests of all stakeholders. It is aimed at preserving the momentum of cooperation between the littoral and user States that began with the Shangri-La Dialogue in 2005.

This Report, and its 21-Point Action Plan, should be seen as the first major attempt at bringing together all the concerns of safety, security and environmental protection in the Straits and the interests of all stakeholders. I commend it to all of us with an interest in preserving the free, safe and uninterrupted movement of shipping both in and through the Malacca and Singapore Straits.

Barry Desker
Director
IDSS

FOREWORD
EXECUTIVE SUMMARY

This report proposes a 21-Point Action Plan for enhancing maritime safety and security in the Malacca and Singapore Straits. It builds on the significant measures already identified at the 2005 Shangri-La Dialogue; in the Batam Joint Statement of the 4th Tripartite Ministerial Meeting of the Littoral States on the Straits of Malacca and Singapore held in August 2005; and in the Jakarta Statement on Enhancement of Safety, Security and Environmental Protection in the Straits of Malacca and Singapore agreed at the meeting convened by the International Maritime Organization (IMO) and the Indonesian Government in September 2005.

The report focuses on maritime safety and security at sea in the Straits themselves, specifically on the need for cooperation between the different stakeholders, national governments, international and regional organizations, and the private sector, and on the measures that might be introduced to ensure maritime safety and security in the Straits. It recommends a comprehensive and integrated approach that brings together institutional arrangements and operational measures for safety, security and marine environmental protection. The ultimate objective should be to establish a system of information exchange and situational awareness in the Straits that engages the states in the approaches to the Straits (i.e. India and Thailand), as well as the main littoral countries (i.e. Indonesia, Malaysia and Singapore).

The Maritime Security Programme at IDSS has conducted a comprehensive analysis of incidences of piracy and armed attacks against ships in the Malacca and Singapore Straits over the last ten years. Balanced assessments of risk require that the ships most at risk, and those not at risk, be identified. This requires a detailed appreciation of the pattern of shipping traffic, and of the types of vessel, using the Straits.

A basic conclusion from the IDSS analysis is that some types of ship are much more likely to be attacked than others. While by far the greater amount of trade through the Straits, by both value and volume, is carried in the large, mainline tankers, LNG carriers, container ships and vehicle carriers transiting the Straits from or to either Europe or the Middle East and East Asia, the greater majority of attacks are on smaller, more vulnerable vessels carrying trade across the Straits, or employed in the coastal trade on either side of the Straits. More attention needs to be given to the security of these vessels, including while they are in port or anchored off a port.

Accurate analysis and assessment of the risks of piracy and armed robbery against ships is essential. Such analysis provides the basis for assessments of the risks of maritime terrorism and for guidelines and contingency arrangements for protecting and managing attacks upon particular types of ship.

This report acknowledges the sovereign interests of littoral states in providing security in their territorial sea, archipelagic and internal waters. It also acknowledges the relevance of Article 43 of the 1982 UN Convention on the Law of the Sea (UNCLOS) that provides for cooperation between littoral and user states on matters of safety and environmental protection in the Straits.
The littoral states lack some of the capacity and expertise necessary to maintain security and safety in the Straits. Australia, China, India, Japan and the United States have all offered operational assistance of one form or another. However, in line with the comprehensive approach mentioned above, the scope of cooperation should not be limited to maritime security *per se* but should include measures for the safety of navigation and marine environmental protection. This report proposes that the littoral countries should agree on principles for assistance from non-littoral countries, including guidelines for the engagement of their security forces. It is important that the littoral states continue the momentum of the Batam Statement and meet regularly to identify and prioritize their needs for enhancing safety, security and environmental protection in the Straits.

Maritime jurisdiction in the Malacca and Singapore Straits is a complex and sensitive issue. This is particularly the case in the northern part of the Malacca Strait where Malaysia has claimed a large area of territorial sea and internal waters that appears contrary to international law. This claim might therefore complicate multilateral cooperation in the Straits in that it restricts the area to which a cooperative regime for safety and security might otherwise apply.

This report makes recommendations regarding institutional arrangements, capacity building, risk assessment and reduction, regime building, and prospective operational measures. It recognizes the fundamental responsibility of the littoral states for providing security and safety in the Straits, but stresses also the importance of cooperation with user states within a framework for assistance and cooperation under UNCLOS Article 43 that has been agreed by all parties. Work is required to investigate a regime for burden sharing and recovering the costs of providing security and safety in the Malacca and Singapore Straits.
21 RECOMMENDATIONS FOR AN ACTION PLAN

Institutional Arrangements And Capacity Building

1. Adopt a comprehensive approach to maritime security, safety and environmental protection in the Malacca and Singapore Straits.

2. Establish an inclusive approach to maritime security, safety and environmental protection in the Malacca and Singapore Straits that recognizes the interests of all stakeholders.

3. Strengthen the IMO-sponsored meeting process to provide a regular forum for dialogue between stakeholders on security, safety and environmental protection arrangements in the Straits.

4. Assist port administrations to build their capacity to suppress armed robbery against ships and other forms of maritime crime within anchorages and port approaches.

5. Develop guidelines for the employment of Private Security Companies (PSCs) in providing security for vessels transiting the Straits.

Risk Assessment and Reduction

6. Conduct more accurate analysis and assessments of the risks of piracy and armed robbery against ships.

7. Use the analysis of piracy and armed robbery against ships to inform assessments about the risks of maritime terrorism.

8. Develop cooperative arrangements, including agreed guidelines, for protecting vessels most at risk of hijacking.

9. Develop contingency arrangements for managing a major incident involving a cruise liner or passenger ferry in the Malacca and Singapore Straits.

10. Introduce measures to control the proliferation of small arms and light weapons in areas adjacent to the Straits.
**Regime Building**

11. Investigate a regime for burden sharing and recovering the costs of providing security, safety and environmental protection in the Malacca and Singapore Straits.

12. Strengthen arrangements for maritime search and rescue (SAR) in the Malacca and Singapore Straits.

13. Link these to the cooperative arrangements for maritime security and consequence management.

14. Encourage all littoral and adjacent countries to ratify the SAR and SUA Conventions.

15. Establish Joint Cooperation Zones where cooperative arrangements for safety and security might apply, which might include territorial seas or archipelagic waters of littoral countries.

16. Implement the Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP) as soon as possible.

**Operational Cooperation**

17. Improve cooperation between the maritime security forces of littoral countries to provide prompt responses to incidents in the Straits.

18. Develop Standard Operating Procedures (SOPs) to cover joint patrolling by maritime security forces, including entry into territorial seas, archipelagic and internal waters.

19. Develop Guidelines for the involvement of non-littoral countries for providing security in the Malacca Straits.

20. Foster a programme of multilateral and multi-agency security exercises in the Malacca and Singapore Straits and their approaches.

21. Provide international assistance for Indonesia in establishing a coastal radar network similar to that being established by Malaysia.
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INTRODUCTION

The Malacca and Singapore Straits are among the most important waterways in the world. Over 60,000 vessels use the Straits annually, including large tankers and cargo carriers proceeding from Europe and the Middle East to East Asia, as well as smaller vessels on local voyages. Around 30 per cent of world trade and 50 per cent of world energy needs pass through the Straits each year. Despite the introduction of additional safety measures, including comprehensive radar coverage, collisions continue to occur between ships in the Straits.

Safety and security in the Straits are a concern of both the littoral states and the user states. Due mainly to the activities of separatist groups and the high incidence of piracy in Southeast Asia, many observers believe that this region has a high risk of maritime terrorist attack. This situation has had unsatisfactory outcomes for the region, most notably the declaration by Lloyds of London that the Malacca Strait is a high war risk area for insurance purposes.

Managing maritime safety and security in the Straits is a major challenge for the region, and is high on the agenda of regional summits and conferences. The past year has seen many new initiatives and considerable activity directed towards enhancing security and safety in the Straits, but many of the proposed measures are not yet operational, and much more could still be done.

This report proposes a 21-Point Action Plan for enhancing maritime safety and security, as well as environmental protection, in the Malacca and Singapore Straits. It builds on the significant measures already identified at the Shangri-La Dialogue held in Singapore in June 2005; in the Batam Joint Statement of the 4th Tripartite Ministerial Meeting of the Littoral States on the Straits of Malacca and Singapore held in August 2005; and in the Jakarta Statement on Enhancement of Safety, Security and Environmental Protection in the Straits of Malacca and Singapore agreed at the meeting convened by the International Maritime Organization (IMO) and the Indonesian Government in September 2005. These three events were significant milestones, which have led to new cooperative momentum that this report seeks to maintain.

The 2005 Shangri-La Dialogue agreed on three basic principles of cooperation, that: (a) the primary responsibility for maritime security in the Straits lies with the littoral states; (b) the international community, agencies such as the IMO, and major user states have a role to play; and (c) measures undertaken should be respectful of the sovereignty of the littoral states and in accordance with international law.

The Jakarta Statement acknowledged the rights and obligations in the 1982 UN Convention on the Law of the Sea (UNCLOS), in particular Article 43 on burden sharing. It “invited the IMO to consider, in consultation with the littoral States, convening a series of follow on meetings for the littoral States to identify and prioritize their needs, and for user States to identify possible assistance to respond to those needs, which may include information exchange, capacity-building, training and technical support.”

2
This report focuses on safety and security at sea in the Straits themselves, specifically on the need for cooperation between the different stakeholders, national governments, international and regional organizations and the private sector, and on the measures that might be introduced to ensure maritime safety and security in the Straits. The report does not address the important dimensions of maritime safety and security that are the direct and sole responsibility of ports and the port states adjacent to the Straits, such as Port State Control (PSC) inspections to ensure ships comply with relevant international safety regulations, and implementing relevant provisions of the International Ship and Port Facility Security (ISPS) Code.

GEO-POLITICAL SETTING

Description

The Straits of Malacca and Singapore extend for nearly 600 nautical miles from the Andaman Sea and the channels between the northern tip of Sumatra and the Indian island of Grand Nicobar to just East of Singapore. At the broad western entrance to the Straits, the littoral coasts of Indonesia to the West and Thailand and Malaysia to the East are nearly 200 nautical miles apart. The Strait of Malacca funnels in a southeasterly direction to the vicinity of One Fathom Bank off Port Klang where the territorial seas of Indonesia and Malaysia overlap. The narrowest part of the Strait is at the south-western end of the Malay Peninsula where it is about eight miles wide.

The Singapore Strait is only about three miles wide at its narrowest point, where it lies entirely within the territorial seas of Singapore and Indonesia. At its eastern outlet into the South China Sea, where it is bounded solely by Malaysia and Indonesia, the seaway is about eleven miles wide.

Jurisdiction

The waters of the Malacca and Singapore Straits encompass internal waters, territorial seas, contiguous zones and exclusive economic zones (EEZs) of the littoral states (see box for an explanation of these zones). Figure 1 shows the various zones of maritime jurisdiction, as claimed by littoral states, in the Straits. Figure 1 depicts the maritime boundaries of the littoral states, the territorial sea baselines of Malaysia, Singapore, Thailand and India, and the archipelagic baselines of Indonesia in the vicinity of the Straits. The territorial sea and other maritime zones are measured from these baselines.

The point 02 51.6 S 101 00.27 E in the vicinity of One Fathom Bank is the northernmost extremity of the territorial sea boundary between Indonesia and Malaysia. South of this point, responsibility for safety and security rests with the littoral states. North of this point there is a large wedge of EEZ lying outside the limits of the territorial seas of the littoral countries. While the littoral states have jurisdiction with regard to the marine resources and preservation and protection of the marine environment in this area, ships of any nation might take enforcement action in this area against piracy and certain other offences, as allowed by international law.
Figure 1
Maritime Zones in the Malacca Strait (as claimed)

Figure 2
Maritime Zones in the Malacca Strait (in accordance with international law)
Maritime Zones of Jurisdiction in the Malacca and Singapore Straits

**Internal Waters**
The waters lying on the landward side of territorial sea baselines drawn in accordance with the 1982 UN Convention on the Law of the Sea (UNCLOS). The coastal State exercises full sovereignty over internal waters.

**Territorial Sea**
The outer limit of the territorial sea is to be no more than 12 nautical miles (nm) seaward of the baseline. A State has sovereignty over the territorial sea with the one qualification that it must allow the right of innocent passage of foreign vessels. Article 19 of UNCLOS sets out the activities that constitute non-innocent passage but questions of interpretation and jurisdiction arise with respect to some of these activities.

**Archipelagic Waters**
These are the waters within archipelagic baselines drawn in accordance with Article 47 of UNCLOS. Archipelagic waters come under full sovereignty of the archipelagic State with the exceptions of the rights of innocent passage and the requirement that archipelagic sea lanes passage be allowed to foreign ships and aircraft.

**Contiguous Zone**
This is a zone contiguous to the territorial sea, which may not extend more than 24 nm from the territorial sea baseline. Article 33 of UNCLOS allows coastal States to exercise controls necessary to prevent the infringement of their customs, fiscal, immigration or sanitary laws and regulations within their territorial sea or to punish the infringement of such laws and regulations committed within their territorial sea.

**Straits Used for International Navigation**
A special regime applies when a strait used for international navigation is wholly or in part contained within the territorial sea of one or more States. This is the regime of straits transit passage, which allows a right of passage through the strait to all ships and aircraft. Like archipelagic sea lanes passage, this passage shall not be impeded and the right of passage cannot be suspended.

**Exclusive Economic Zone (EEZ)**
The EEZ is an area adjacent to the territorial sea, which cannot extend more than 200 nautical miles measured from the territorial sea baseline. In the EEZ, coastal States have sovereign rights for the purpose of exploiting, conserving and managing the living and non-living resources. Coastal States also have jurisdiction, as provided for in the relevant provisions of UNCLOS, in relation to the establishment of artificial islands, installations and structures; marine scientific research; and the protection and preservation of the marine environment.
Over the years, a number of incidents of piracy have occurred in these waters, including the serious collision in September 1992 involving the supertanker *Nagasaki Spirit* and the container ship *Ocean Blessing*. Some observers believe the collision may have been the result of a piratical attack on the latter vessel, but this will never be proven as all onboard this ship were killed in the fire and explosion that followed the collision. Figure 4 shows that about 20 attacks occurred in these waters between 2000 and 2005.

All the littoral countries claim a 12-mile territorial sea. In some parts of the Malacca Strait, Indonesia has employed a system of straight archipelagic baselines from which the Indonesian territorial sea is measured. Archipelagic waters lie inside these archipelagic straight baselines, and internal waters within the territorial sea straight baselines adopted by the other littoral countries.

As Figure 1 indicates, Malaysia has established a system of straight baselines from which to measure the extent of its territorial sea and to enclose a large area of internal waters. However, these have not been promulgated and are generally regarded as invalid under international law because they are not consistent with UNCLOS Article 7. It is understood that Indonesia has protested Malaysia’s territorial sea claim in the Malacca Strait but the United States has not yet done so because there has been no formal declaration of the claims.

Figure 2 shows the jurisdictional zones in the northern Malacca Strait if Malaysia were using a system of normal baselines as allowed by Article 5 of UNCLOS. The larger area of international waters is evident. Malaysia’s claim might therefore complicate multilateral cooperation in the Straits in that it restricts the area to which a cooperative regime for safety and security might otherwise apply.

**LEGAL SETTING**

*Strait Transit Passage*

UNCLOS establishes a special regime to apply when a strait used for international navigation is wholly or in part contained within the territorial sea of one or more states. This regime applies to the Singapore and Malacca Straits. It is available to all ships and aircraft. While transit passage may not be suspended, transiting ships must comply with generally accepted international regulations, procedures and practices for safety at sea and for the prevention, reduction, and control of pollution from ships. Also, the states bordering these straits may introduce appropriate regulations, although these must be non-discriminatory in their application.

Maritime jurisdiction associated with transit passage is complex. While exercising the right of transit passage, ships pass through several different jurisdictional zones, possibly under the jurisdiction of different coastal states. By definition, the strait contains territorial seas, and to enter and leave the strait, the ship must pass through the EEZ of one or more coastal states.

UNCLOS does not define the extent of a strait used for international navigation. There are no limits placed on choice of route through the strait. Unless sea lanes or traffic separation schemes are designated in accordance with UNCLOS Article 22, vessels are allowed to enter or leave an international strait at any point.
### SHIPPING PATTERNS

Three categories of vessel use the Malacca and Singapore Straits:

- **Through Traffic** – Ships transiting the Straits to or from the Bay of Bengal in the West, and Singapore/South China Sea in the East. These vessels are mainly larger tankers (over say, 20,000 GRT) and cargo carriers, including container vessels, larger bulk carriers, ro-ro ships, passenger ships and vehicle carriers.

- **Local Traffic** – Ships moving across or along the Straits on local voyages e.g. between ports in Indonesia, Malaysia, Thailand or Singapore. These vessels are mainly smaller product and chemical tankers (under say, 20,000 GRT), gas carriers, container ships (“feeder” vessels under say, 10,000 GRT), tugs and barges and general cargo ships.

- **Other** – Other vessels using the Straits, including fishing vessels, yachts, oil rig tenders, scientific research ships, dredgers, etc.

The Japan Maritime Research Institute (JMRI) conducted a survey of the number of ships passing through the Malacca and Singapore Straits in 1999. It found that the number of vessels passing through the Straits in 1999 totalled 75,510. The number of ships involved was 8,678, and many made more than one passage. Ships rated at less than 1,000 GRT were excluded. The ship types identified in the JMRI Study (with an assessment of whether they were through or local traffic) were as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Vessel Type</th>
<th>Number</th>
<th>Traffic Type</th>
</tr>
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<tr>
<td>Bulk Liquid Cargo</td>
<td>Oil Tanker</td>
<td>7,042</td>
<td>Mainly through</td>
</tr>
<tr>
<td></td>
<td>Liquefied Gas Tanker</td>
<td>3,029</td>
<td>Both</td>
</tr>
<tr>
<td></td>
<td>Product Tanker</td>
<td>11,255</td>
<td>Mainly local</td>
</tr>
<tr>
<td>Dry Bulk Carrier</td>
<td>Bulk Carrier</td>
<td>10,665</td>
<td>Both</td>
</tr>
<tr>
<td></td>
<td>Bulk/Oil Carrier</td>
<td>173</td>
<td>Mainly through</td>
</tr>
<tr>
<td>Other Dry Carrier</td>
<td>General Cargo Ship</td>
<td>17,029</td>
<td>Mainly local</td>
</tr>
<tr>
<td></td>
<td>Container Carrier</td>
<td>21,886</td>
<td>Both</td>
</tr>
<tr>
<td></td>
<td>Refrigerated Cargo Ship</td>
<td>774</td>
<td>Mainly through</td>
</tr>
<tr>
<td></td>
<td>Ro-Ro Cargo Ship</td>
<td>656</td>
<td>Mainly through</td>
</tr>
<tr>
<td></td>
<td>Vehicle Carrier</td>
<td>2,459</td>
<td>Mainly through</td>
</tr>
<tr>
<td></td>
<td>Passenger Ship</td>
<td>542</td>
<td>Both</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>75,510</strong></td>
<td></td>
</tr>
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This assessment suggests that about 55 per cent of these shipping movements were on local voyages, while the remainder was through traffic.

Figure 3 shows the location of ports on either side of the Malacca Strait, as well as shipping routes used by both mainline and local shipping traffic. The ships engaged in local ship-
ping trades are mainly small container ships and general cargo vessels transhipping cargoes from major ports to minor ports, and product tankers distributing refined petroleum products from refineries. The numerous tanker terminals on either side of the Strait will be noted. Sumatra in particular, lacks a road infrastructure capable of carrying heavy loads, and most petroleum and chemical products are carried by sea.

Figure 3
Ports and Indicative Shipping Routes in the Malacca Strait
A COMPREHENSIVE APPROACH TO SAFETY AND SECURITY

There is a close relationship between maritime safety and maritime security. In the past it was normal in the shipping sector to make a distinction between safety and security, but this changed following 9/11 and safety and security are now inextricably linked. This new emphasis was reflected in the IMO changing its motto from “safer ships, cleaner oceans” to “safe, secure and efficient shipping on clean oceans”.

Operational measures to provide security at sea invariably have collateral benefits for safety at sea, and vice versa. It is inefficient, for example, to have cooperative arrangements in place for security at sea (e.g. anti-piracy patrols), which do not also cover other operational requirements, such as search and rescue operations and the management of major pollution incidents.

Safety and security are not mutually exclusive. Maritime safety is part of a comprehensive concept of security and includes: maritime safety services (including search and rescue, rescue coordination centres and maritime safety communications); marine environmental protection (especially the prevention of and response to ship-sourced marine pollution); marine navigational aids and services; and hydrographic surveying.

In developing cooperative measures to enhance maritime security in the Malacca and Singapore Straits, a comprehensive approach would bring together safety, security and environmental protection and exploit the collateral benefits of operational measures. This approach is in line with the agreement in the Batam Joint Statement of August 2005 that the issue of maritime security should be addressed comprehensively to include trans-boundary crime, such as piracy, armed robbery and terrorism, with a need also to address the issues of trafficking in persons, and smuggling of people, weapons and other trans-boundary crimes.

RECOMMENDATION 1

Adopt a comprehensive approach to maritime security, safety and environmental protection in the Malacca and Singapore Straits.

AN INCLUSIVE APPROACH TO SECURITY AND SAFETY

While the interests of countries in maritime safety and security often coincide, they can also conflict. Historically the politics of the sea involved a clash of interests between coastal states and maritime user states. To some extent this is still the case. User states tend to regard the Malacca Straits as an area of instability, lurking threats and ineffective law enforcement, but the littoral states see the area differently. As was demonstrated by their reaction in 2004 to the U.S. proposed Regional Maritime Security Initiative (RMSI), both Malaysia and Indonesia are sensitive to any attempt to “internationalize” management of the Straits that might compromise their sovereignty and sovereign rights in the area.
The littoral states share a large vested interest in security and safety in the Straits. Piracy and the threat of terrorism are priority concerns of Singapore, but Indonesia and Malaysia have additional concerns. First and foremost, they are concerned about maintaining sovereignty over their archipelagic waters, territorial sea and internal waters. Both have important economic infrastructure adjacent to the Straits. They are worried also about the trafficking of arms, drugs and people across the Malacca Strait, their fishing interests in the area, and environmental threats, particularly from ship-sourced marine pollution.

Apart from the risks of accidental pollution as a result of collisions or groundings, anecdotal evidence suggests the possibility of intentional (or operational) ship pollution in the Malacca Straits (e.g. from ships cleaning tanks). Understandably Malaysia and Indonesia point to the fragile quality of the marine environment of the Strait and its importance to their fishing and tourist interests.

The Batam Joint Statement recognized the importance of engaging the states bordering the funnels leading to the Straits of Malacca and Singapore, and the major users of the Straits, and supported continuing discussion on the overall subject of maritime security in the South East Asian region within the framework of ASEAN and the ASEAN Regional Forum (ARF). It also acknowledged the good work carried out by the Tripartite Technical Experts Group (TTEG) on Safety of Navigation in the Straits of Malacca and Singapore and recognized the efforts of the Revolving Fund Committee (RFC) in dealing with issues of environmental protection in the Straits. It further recommended the establishment of a TTEG on Maritime Security to supplement the work of the existing TTEG on safety.

In conformity with the Jakarta Statement, the United States convened a meeting of user states in February 2006 to discuss ways and means of providing assistance to the littoral states. However, in not inviting the littoral states to participate in this meeting, the United States risked accentuating the schism between the interests of the user states and those of the littoral states. It is important that the littoral states continue the momentum of the Batam Statement and meet regularly to identify and prioritize their needs for enhancing safety, security and environmental protection in the Straits.

**RECOMMENDATION 2**

Establish an inclusive approach to maritime security, safety and environmental protection in the Malacca and Singapore Straits that recognizes the interests of all stakeholders.

**IMPLEMENTING THE INCLUSIVE APPROACH**

The proposals for enhancing maritime safety and security in the Malacca and Singapore Straits, including the introduction of the Maritime Electronic Highway (MEH), may not become fully effective without a focal point to have broad oversight of safety and security in the Straits and to represent the interests of all stakeholders. Maritime security is a complex issue that cuts across national boundaries and agency responsibilities at both a national and international level.
The Jakarta Statement included agreement that a mechanism be established to provide for regular meetings between the littoral states, the user states, the shipping industry, and others with an interest in safe navigation through the Straits. This mechanism would reflect an inclusive approach to security, safety and environmental protection that brings together the littoral states, the major user states, the international shipping industry, maritime security forces, and regional and international organizations (especially IMO, World Bank/GEF, and ASEAN). These various stakeholders have different levels of interest, priorities, threat perceptions and expectations. The IMO-sponsored meeting process, which began with the Jakarta Meeting in 2005, offers a nascent structure to build on to provide a regular forum for dialogue between stakeholders on security, safety and environmental protection arrangements in the Straits.

RECOMMENDATION 3

Strengthen the IMO-sponsored meeting process to provide a regular forum for dialogue between stakeholders on security, safety and environmental protection arrangements in the Straits.

RESPONSIBILITY OF PORTS

Port states have a major role to play in the suppression of piracy and armed robbery against ships. While attacks are committed against ships, offshore installations and their crews, the causal factors and most effective solutions will be found onshore. Patrols at sea by maritime or marine police forces, possibly with the support of regional navies, may be effective in reducing the incidence of attacks, but the reality is that few offenders are actually caught at sea. The most effective solutions lie in traditional policing onshore, including investigation of possible links between piracy and organized crime, and in measures to improve the security of ports and harbours.

Possible measures by port states include the following:

- Improved security in wharf areas, ports, harbours and anchorages, including active patrolling both ashore and afloat and the institution of physical measures to prevent unauthorized access to ship and port areas
- The regular monitoring of attacks in ports and anchorages to develop a picture of the modus operandi of the attackers and the reporting of information to regional data bases
- Classifying piracy and sea robbery as just other forms of criminal activity and handling them accordingly (this recognizes the interrelationship of criminal activities and facilitates intelligence from wider sources of information)
- Ensuring that inchoate offences (conspiracy, aiding and abetting, etc.) form part of any anti-piracy legal framework
- Participation in regional cooperative activities aimed at the suppression of organized crime, including development of networks for the exchange of criminal intelligence

Analysis has shown that the majority of armed attacks against ships occur in ports and anchorages under the sovereign jurisdiction of port states. Port administrations should play
a more active role in the suppression of armed robbery and other forms of maritime crime. While the physical security of ships and ports falls within the scope of the ISPS Code, there is still an issue of security at sea, in the anchorages off ports and in the port approaches. This is a matter that clearly needs attention and there may be benefit in occasional meetings of the administrative authorities of ports in the region, including the agencies responsible for policing anchorages and port approaches, to share information and experiences. It is also an important area where capacity building is required.

**RECOMMENDATION 4**

Assist port administrations to build their capacity to suppress armed robbery against ships and other forms of maritime crime within anchorages and port approaches.

**PRIVATE SECURITY COMPANIES**

Private security companies (PSCs) offering security services at sea in the Malacca and Singapore Strait have proliferated in recent years. PSCs acknowledge that private security is only useful as a supplement to existing sovereign security provided by military, coastguard or police forces. They have shown interest in reaching agreement on common standards for the industry including the establishment of an industry association.

PSCs primarily have a deterrent role in providing security for particular types of vessel. These are the more vulnerable, high value vessels, such as oil rigs, dredgers, slow moving tugs and barges, and luxury motor yachts. Clients that have engaged PSCs in the past have the following profile:

- The asset is typically slow and vulnerable.
- The asset is typically very expensive.
- There may be large numbers of highly skilled personnel onboard.
- There are considerable financial penalties if the asset is delayed.

At present the littoral countries have adopted varying approaches to the employment of PSCs. It would help both the companies themselves and overall security of the Straits if the littoral states were to agree on Guidelines for the Employment of PSCs at sea in the Straits. These Guidelines might cover issues such as legal authorities, liaison with law enforcement agencies, training and security vetting of personnel, the use of weapons, and communications with sovereign authorities, record taking and evidence.

**RECOMMENDATION 5**

Develop guidelines for the employment of Private Security Companies (PSCs) in providing security for vessels transiting the Straits.
ANALYSIS OF ATTACKS

The Maritime Security Programme at IDSS has conducted a comprehensive analysis of the incidence of piracy and armed robbery against ships in the area of the Malacca and Singapore Straits over the last ten years. This section of the Report briefly summarizes the results of that analysis to provide a basis for later conclusions and recommendations.

Some types of ship are more likely to be attacked than others. While by far the greater amount of trade through the Straits, by both value and volume is carried in the large, main-line tankers, LNG carriers, container ships and vehicle carriers transiting the Straits from or to either Europe or the Middle East and East Asia, the majority of attacks are on the smaller, more vulnerable vessels carrying trade across the Straits or employed in the coastal trade on either side of the Straits. Balanced assessments of risk require that the ships most at risk, and those not at risk, be identified. This requires a detailed appreciation of the pattern of shipping traffic, and of the types of vessel, using the Straits.

Location of Attacks

Figure 4 shows the location of incidents of piracy and armed robbery against ships between 2000 and 2005. Attacks identified as occurring in the Malacca and Singapore Straits were mainly concentrated in the following areas:
• In or near Indonesian ports in Eastern Sumatra (particularly off Belawan in which area there were 35 incidents during the period)
• In international waters in the northern Malacca Strait
• Off Malacca in the southern Malacca Strait
• In the Phillip Channel off Singapore and in the western approaches to that channel
• In an area East of Bintan Island in the eastern approaches to the Singapore Strait

Security of shipping in or near ports in Indonesia is an Indonesian responsibility but security in the other areas identified is potentially a matter for multilateral cooperation.

**Number of Attacks**

Figure 5 shows trends with the number of attacks both actual and attempted. It demonstrates the problems with making observations about long-term trends with piracy. The figures in the 1990s and those in the 2000s are probably not comparable in that there was a greater tendency in 1999 and later to report minor attacks and attempted attacks. There are possible explanations for this not least of all the increased publicity given to piracy following several high profile attacks in the late 90s, such as that on the *Petro Ranger*, which elevated concern about the level of piracy in Southeast Asia generally. The proportion of ships attacked in the Malacca and Singapore Straits ranges from 0.06 per cent to 0.19 per cent of the total number of ships using the Straits annually, but these are predominantly on vessels on local voyages.

Relatively few actual attacks occur on large mainline “through traffic” vessels, which are underway and transiting the Straits. For example, of the actual attacks in 2005, only two were on “through traffic” vessels. These were on the bulk carrier *Ocean Bridge* (26,014 GRT), boarded off One Fathom Bank, on 31 March 2005 and the chemical tanker *Sun Jupiter* (5,359 GRT), boarded in the Singapore Strait on 2 February 2005.
Type of Attacks

Figure 6 shows the main type of attacks on ships taking place in the Straits. The figure indicates that the most common type of attack is robbery. The more sophisticated attacks involving kidnapping or hijacking, whilst receiving more attention from the media, are actually less frequent than sea robbery. In addition, the vessels targeted in these more sophisticated attacks are predominantly small vessels.

Of the 31 recorded incidents of kidnap during the period, only five were on vessels over 1,000 GRT. Of the 20 vessels hijacked, 16 were small (mainly fishing vessels or tugs). The other four were product tankers of over 1,000 GRT, possibly hijacked as part of an organized crime with the objective of stealing the cargo for sale on the black market.

Type of Voyage

Figure 7 shows actual attacks in the Straits by the type of voyage. This figure provides a good indication of the risks of attack and the types of ship that are most at risk. Clearly vessels on “local” voyages are most at risk. This is a function of their size, smaller crews, lower freeboard.
and their location (i.e. they may be closer to the coast and/or away from areas of higher shipping traffic). Even the ships on international voyages that are attacked tend to be smaller vessels. The larger tankers and cargo carrying vessels on international voyages are not attacked unless they slow down or stop for some reason. These vessels are also more likely to be taking all the precautions recommended by the IMO and ship-owners’ associations.

**Attacks by Vessel Type**

Figures 8 and 9 analyse the number of attacks by vessel type and size (when reported). Figure 8 shows some interesting trends, e.g. increased number of attacks on smaller vessels (tugs and fishing boats) and on product tankers. Fewer attacks occur on vessels above 20,000 GRT, and when these do occur, they are mostly on bulk carriers that may tend to be more vulnerable because they are slower or otherwise take fewer precautions against attack. Attacks on container vessels have fallen off, most probably because these vessels gain a measure of protection from their normal operational speed, reduced time in port, and possible greater security in the ports used by these vessels.

**Figure 8**

*Actual Attacks by Type of Vessel 2000–2005*

**Figure 9**

*Actual Attacks by Ship Type and Size*
NEED FOR ACCURATE ANALYSIS

Inaccurate assessments provided by commercial security agencies and the analysis of attacks carried out by IDSS have highlighted the importance of accurate assessments of the risks of armed attack against ships and maritime terrorism. The reliance almost entirely on data from the International Maritime Bureau has led to some exaggeration and misinterpretation of the problem. Implementation of the Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP) should help to address the problem. And the Information Sharing Centre (ISC) being established in Singapore under ReCAAP should be tasked specifically to conduct the necessary analysis on a routine basis.

RECOMMENDATION 6

Conduct more accurate analysis and assessments of the risks of piracy and armed robbery against ships.

RISKS OF MARITIME TERRORISM

A terrorist attack in the Malacca and Singapore Straits, or on one of the major ports in the region, has the potential to cause large-scale economic impact not just regionally but on a global scale. While there is a low probability of a terrorist attack occurring, the impact of such an attack might be very high. There could be disastrous consequences in terms of loss of life, destruction of infrastructure and environmental damage if terrorists were for example, to take over and detonate a vessel carrying a highly volatile or toxic cargo.

While the incidence of piracy and armed attacks against ships in the Straits might suggest the modus operandi that terrorists might adopt in attacking a ship, it is important to distinguish clearly between piracy and terrorism and there is little evidence of links between terrorist and pirate groups. However, analysis of the acts of piracy and armed
robbery in the Straits should be used to inform assessments of the risks of terrorist attack in the Straits. For example, such analysis shows that due to the relative vulnerability of smaller and slower vessels, the greatest threat to a port might in fact come from a small LPG or chemical tanker rather than the larger vessels, which tend to attract the most security attention at present.

**RECOMMENDATION 7**

*Use the analysis of the incidence of piracy and armed robbery against ships to inform assessments about the risks of maritime terrorism.*

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*SPECIAL ARRANGEMENTS FOR HIGH-RISK VESSELS*

The analysis at IDSS has shown that smaller vessels, such as tugs and barges, gas carriers, and chemical and product tankers, are most at risk of attack. They have also figured prominently in the number of incidents of hijacking or the kidnapping for ransom of crew members. Some of these vessels carry highly volatile or dangerous cargoes that could be used for terrorist purposes. The security of these vessels, particularly when they are in inshore waters, warrants special attention, including prospective guidelines for cooperation between the littoral countries.

**RECOMMENDATION 8**

*Develop cooperative arrangements, including agreed guidelines, for protecting vessels most at risk of hijacking.*
THREAT TO PASSENGER VESSELS

With the notable exception of the attempted attack on the cruise liner *Seabourn Spirit* off the coast of Somalia in November 2005, acts of piracy against passenger vessels, both cruise liners and ferries, have been rare. 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 the placing of bombs onboard. This has been demonstrated by several attacks on passenger ferries in the Philippine and Indonesia archipelagoes in recent years. The problem is not so much the actual explosion but the fire and panic that invariably follow. Managing such an incident would be highly demanding for local authorities and would require close cooperation between the littoral states. Relevant arrangements require close attention in contingency planning.

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**RECOMMENDATION 9**

Develop contingency arrangements for managing a major incident involving a cruise liner or passenger ferry in the Malacca and Singapore Straits.

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**USE OF SMALL ARMS AND LIGHT WEAPONS**

Figure 10 shows trends with the use of small arms and light weapons. While knives and machetes continue to be used in the majority of attacks, there is an increasing trend towards the use of small arms. However, some fall-off in the use of these weapons occurred in 2005. With much evidence suggesting the proliferation of small arms and light weapons in Southeast Asia, it is not surprising to find that piracy and armed robbers are making greater use of them. Furthermore, much illegal trafficking in small arms may have occurred across the
Malacca Strait, particularly from southern Thailand into Aceh. A link between pirates and the arms traffickers is not improbable.

The proliferation of small arms and light weapons in Southeast Asia is a major factor underpinning any apparent increase in the level of violence used by pirates and sea robbers. Small arms trafficking, much of which occurs by sea, is an integral part of broader transnational crime that includes terrorism, drug trafficking, money laundering, piracy and human trafficking. Due largely to its proximity and role in the Cambodian conflict, Thailand is a key point of origin and transit in the trafficking of small arms. Measures to control the proliferation of small arms and light weapons would assist in reducing the levels of violence used in acts of piracy and armed robbery at sea. Prospective measures include better regulation of legal arms shipments, juridical cooperation, and better record keeping and storage of arms.

**RECOMMENDATION 10**

*Introduce measures to control the proliferation of small arms and light weapons in areas adjacent to the Straits.*
BURDEN SHARING

Coastal states adjoining a strait used for international navigation have considerable service responsibilities for vessels transiting the strait (e.g. provision and maintenance of navigational aids, communications systems, hydrographic charts and other navigational information, search and rescue services, offshore security services, basic vessel salvage services and marine pollution contingency arrangements). These responsibilities are acknowledged in UNCLOS Article 43, the so-called “burden sharing” article, which provides for cooperation between user states and states bordering a strait used for international navigation on the provision of navigational and safety aids and the prevention of marine pollution.

UNCLOS Article 43 envisages that users should contribute to the costs of safety and environmental protection, but then there is a problem of devising a mechanism for cost-recovery. A basic question is whether the contribution should come from governments or ship-owners. These issues have been addressed over the years in many international and regional forums, but a satisfactory formula for burden sharing has not yet been devised. Another problem is that many argue that any imposition of a fee for transit, either direct or indirect, would be contrary to the principle of freedom of transit through a strait used for international navigation.

There would be value in detailed study to investigate burden sharing and the recovery of the costs of safety and security services in the Malacca and Singapore Straits. This work might draw on cost recovery principles developed elsewhere, including for example the provision of air traffic control services provided to aircraft transiting national airspace, or lighthouse and navigational aid services to ships passing through a country’s territorial sea. The study should bring together legal and economic experts.

RECOMMENDATION 11
Investigate a regime for burden sharing and recovering the costs of providing security, safety and environmental protection in the Malacca and Singapore Straits.

INTERNATIONAL CONVENTIONS

SUA Convention

There are about a dozen international conventions dealing with the threat of terrorism, but only the 1988 Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation (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. 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 travelling as passengers onboard the vessel. Some Southeast Asian countries have still to ratify the SUA Convention (see Table 1).

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 programmes. A mechanism is also provided to facilitate the boarding on the high seas and in EEZs of vessels suspected of engaging in these activities.

**SAR Convention**

The 1979 Convention on Maritime Search and Rescue (SAR Convention) encourages cooperation between state parties and SAR organizations with regard to search and rescue operations at sea. The Convention obliges state parties to provide adequate SAR services for persons in distress around their coasts. Parties are encouraged to enter into SAR agreements.
with neighbouring states, involving the establishment of SAR regions, the pooling of facilities, establishment of common procedures, training and liaison visits. The Convention states that parties should take measures to expedite entry into its territorial waters for rescue units from other parties.

Largely because most Southeast Asian countries are not party to the SAR Convention, arrangements for maritime SAR in the Malacca Straits are not well developed. Furthermore, despite the approach now promoted by the IMO and the International Civil Aviation Organization (ICAO), maritime and air SAR arrangements in the area are not aligned. Figure 11 shows the Maritime SAR areas in Southeast Asia that have been agreed with the IMO. These areas do not accord with maritime boundaries and can be problematic in practice.

Maritime SAR is an operational requirement that requires similar command and control arrangements and resources (i.e. patrol vessels, aircraft and systems) to those required for the maintenance of maritime security. It also requires close cooperation between neighbouring countries. Attention should be given to improving arrangements for maritime SAR in the Malacca Strait and linking these to the cooperative arrangements for maritime security. These arrangements might also cover consequence management, i.e. managing the consequences of a major disaster in the Strait involving great loss of life and/or large-scale pollution. Emergency and response services provided to users of the Strait play a vital role in the maintenance of the safety of shipping, as well as in protecting the marine environment.

**MARPOL**

The International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 (MARPOL 73/78) is the main international instrument for preventing ship-sourced marine pollution. It emphasizes enforcement and requires that violations of the requirements of the Convention be prohibited and sanctions established under the law of the flag state of the ship concerned regardless of where the violation occurs. Parties to MARPOL 73/78 are enjoined to cooperate in the detection of violations and in enforcement. The Convention provides the basis for effective control of ship-sourced marine pollution in the Malacca and Singapore Straits.

**RECOMMENDATION 12**

Strengthen arrangements for maritime search and rescue (SAR) in the Malacca Straits.

**RECOMMENDATION 13**

Link these to the cooperative arrangements for maritime security and consequence management.
STATUS OF CONVENTIONS

Table 1 shows the current status in Southeast Asia of key international conventions for maritime safety and security. There are still major gaps in the level of ratification of these important conventions. Cambodia and Thailand are not parties to UNCLOS and only Singapore is a party to the SAR Convention. Furthermore, the SUA Convention and its Protocol have not been ratified by Indonesia, Malaysia, Thailand and Cambodia. Only the 1974 International Convention for the Safety of Life at Sea (SOLAS Convention) has been ratified by all regional countries, although some of its protocols have not been. Although MARPOL appears widely ratified, Singapore is the only regional country that is party to all annexes of MARPOL.

The SUA and SAR Conventions are of fundamental importance to the maintenance of maritime security and safety in the Straits of Malacca and Singapore, but relatively few of the littoral and adjacent states are parties to these Conventions. This matter needs to be investigated with a view to determining why countries are not ratifying these conventions and identifying ways and means of overcoming any apparent objections to ratification.

Table 1
Status of Conventions

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Sources: IMO and UN Division for Ocean Affairs and the Law of the Sea
Note: Most countries are only party to some Annexes of MARPOL

RECOMMENDATION 14
Encourage all littoral and adjacent countries to ratify the SUA and SAR Conventions.
Joint Cooperation Zones

The analysis conducted by IDSS had highlighted some “high risk” areas for attack by armed robbers. These include the area immediately to the East of Bintan Island. As some of these areas may lie entirely, or almost entirely, within the sovereign waters of a littoral state, the littoral state concerned may therefore be concerned about the conduct of joint or coordinated patrols in such areas. It may be possible to establish Joint Cooperation Zones in these areas, which do not affect sovereignty claims or compromise territorial sovereignty of the respective littoral countries. Domestic legislation might be required by all state parties to the agreement to make piracy and acts of armed robbery against ships in the joint zones crimes under domestic law, punishable with severe penalties.

Joint Cooperation Zones might involve surveillance and response operations by the forces of the littoral states and/or, more ambitiously, the forces of non-littoral countries. Despite contentions over sovereignty, the concept of these zones deserves to be examined to allow for user state participation in providing security and safety.

Recommendation 15

Establish Joint Cooperation Zones where cooperative arrangements for safety and security might apply, and which might include territorial seas or archipelagic waters of littoral countries.

Implementation of ReCAAP

All ASEAN nations, Japan, China, Korea, India, Bangladesh and Sri Lanka are working under ReCAAP to set up an information network and a cooperation regime to prevent piracy and armed robbery against ships in the regional waters. ReCAAP is a very significant achievement for the region that provides the basis for regional cooperation to counter piracy and armed robbery against ships. It includes an authoritative definition of “armed robbery against ships”, and provides for the establishment of an Information Sharing Center (ISC) to be located in Singapore. Good progress is being made with setting up the ISC, and sufficient ratifications are now likely to allow ReCAAP to enter into force soon.

Recommendation 16

Implement ReCAAP as soon as possible.
SURVEILLANCE AND RESPONSE

A distinction must be made between the operational nature of “surveillance” on the one hand, and of “patrol”, “response” or “enforcement” on the other. Aircraft are normally the most effective means of undertaking surveillance, but satellites and land-based radar systems might also be used, such as the Marine Electronic Highway (MEH) in the Malacca Strait. Consideration also has to be given to surveillance and identification systems for developing maritime situational awareness and for long range identification and tracking (LRIT) of vessels, including the use of automatic identification systems (AIS).

Patrols might be conducted by both ship and aircraft and are mainly for deterrence purposes by demonstrating a physical presence in an area of interest. However, they also ensure that the means are available in the area to respond to a situation, including positively identifying a suspicious target that has been detected by other means. Response invariably requires a surface ship; for example, to rescue survivors or to take enforcement action by boarding and, if necessary, detaining a suspicious vessel.

Several measures have been introduced recently to enhance surveillance in the Straits. In May 2005, Singapore and Indonesia launched a cooperative system, known as the Surface Picture Surveillance System (SURPIC) to provide real-time surveillance of the Singapore Strait and its approaches.

Also in 2005, Malaysia, Singapore, Indonesia and Thailand launched a joint security-initiative, known as the “Eyes in the Sky” project, to provide cooperative air surveillance and situational awareness of what is happening in the Strait. It does not include response operations. The project involves routine patrols of designated areas of the Strait by maritime patrol aircraft from the participating countries. Depending on whose territorial waters the incident takes place in, patrol assets will be activated within their existing national decision-making structure to undertake the required follow-on actions. Other “friendly states and stakeholders” may later be invited to join the initiative.

Recent press reports suggest that the littoral states will sign a pact in April 2006 outlining standard operating procedures for maritime security in the Straits. However, these are unlikely to reflect fully the comprehensive and integrated approach recommended in this paper.

RECOMMENDATION 17

Improve cooperation between the maritime security forces of littoral countries to provide prompt response to incidents in the Straits.
JOINT PATROLS

Coordinated naval patrols by Malaysia, Indonesia and Singapore (Operation MALSINDO) were implemented in July 2004. The cooperative patrolling undertaken in the Malacca and Singapore Straits at present falls within the category of “coordinated patrolling” rather than “joint patrolling”. They are primarily conducted on a bilateral rather than multilateral basis. The littoral states exchange patrol programmes, understand the command and control arrangements of their neighbours’ forces, and generally know what enforcement assets the neighbouring country might have in the area of operations. “Joint patrols” would involve assets (ships and aircraft) directly working together.

Recent reports have suggested that Indonesia, Malaysia, Singapore and Thailand will soon agree a standard operating procedure (SOP) that would allow patrol boats from each country to enter another’s territorial sea when chasing a suspicious vessel. However, limitations would be placed on the military action that could be taken and how near a ship or aircraft might approach the coast of another country. Reports of setting the latter limit as “three nautical miles from the coast” need clarification, as in some locations, this could put the ship or aircraft well inside archipelagic or internal waters.

RECOMMENDATION 18
Develop Standard Operating Procedures (SOPs) to cover joint patrolling by maritime security forces, including entry into the territorial sea and archipelagic waters.

OPERATIONAL INVOLVEMENT OF NON-LITTORAL FORCES

Offers and proposals have been made for the involvement of non-littoral countries in ensuring maritime security in the Straits. This involvement might range from training and support, including information sharing and developing situational awareness, through to an operational role at sea, including both patrolling and escorting high value targets. Non-littoral forces might operate in the northern Malacca Strait outside the territorial sea of the littoral states, but those states have been sensitive to the involvement of these forces within their territorial seas.

India, Japan, China, the United States and Australia have all offered operational assistance of one form or another. In line with the comprehensive approach to security recommended in this Report, the scope of assistance and cooperation should not be limited to maritime security per se, but also include measures for the safety of navigation and environmental protection.

The three key littoral states (Indonesia, Malaysia and Singapore) might agree guidelines covering the involvement of foreign assets in their waters, including the nature of this assistance and limitations on the level of involvement. For example, the guidelines might cover the actions available to an escorting vessel in the advent of an attack in the territorial sea or archipelagic waters of a littoral state. These guidelines would promote understanding and provide a useful confidence-building measure.
**RECOMMENDATION 19**

Develop guidelines for the involvement of non-littoral countries for providing security in the Malacca Strait.

**MULTILATERAL MARITIME SECURITY EXERCISES**

Multilateral maritime security exercises are extremely useful in building confidence, familiarity and interoperability, which are necessary for more substantive cooperative arrangements. Particularly if they are widened to include all agencies involved with maritime security, exercises offer the potential to overcome problems sometimes encountered with inter-agency coordination. The Western Pacific Naval Symposium (WPNS) and the Five Power Defence Arrangements (FPDA) have both recently begun introducing maritime security related exercises into their programmes of activities. These activities should be supported in the best interests of establishing a cooperative security regime in the Straits without compromising the sovereignty of the littoral states.

**RECOMMENDATION 20**

Foster a programme of multilateral and multi-agency maritime security exercises in the Malacca and Singapore Straits and their approaches.

**TRAFFIC MONITORING SYSTEMS**

The IMO and the littoral states have introduced a mandatory ship reporting scheme for the Malacca and Singapore Straits known as STRAITREP. STRAITREP facilitates and enhances identification and communication between ships and shore-based authorities. It enables shore-based authorities to advise transiting ships on the traffic situation in the Straits, as well as facilitating SAR operations and responses to maritime incidents.

Indonesia, Malaysia, Singapore and the IMO have also agreed the establishment of the MEH for the Malacca and Singapore Straits. This will be an essential tool for marine pollution prevention, marine pollution control, marine environmental planning and management, as well as safety of navigation.

As well as the MEH, Malaysia has developed a network of coastal radars and AIS base stations to provide vessel traffic services (VTS) and assist in building situational awareness of what is happening at sea in the Straits. Whilst this network provides comprehensive coverage on the Malaysian side of the Straits, there are still major gaps on the Indonesian side. At present Indonesia lacks the resources to establish such a network, and priority should be accorded to international assistance for Indonesia in establishing such a network and linking this with the Malaysian network. The ultimate objective should be to establish a system of information exchange and situational awareness in the Straits that engages the states in the approaches to the Straits (i.e. India and Thailand), as well as the main littoral countries.
RECOMMENDATION 21
Provide international assistance for Indonesia in establishing a coastal radar network similar to that being established by Malaysia.

Notes

1. This report acknowledges that “piracy”, as defined under international law, only occurs on the high seas and in exclusive economic zones (EEZs). The expression “armed robbery against ships” is used to cover incidents that occur in the territorial sea, archipelagic waters or internal waters of a state. This is the approach adopted by the International Maritime Organization (IMO).
3. The boundary shown between Malaysia and Indonesia in the Malacca Strait is for the continental shelf only. An EEZ boundary between the two countries is in dispute. Maritime boundaries have also not been agreed at either end of the Singapore Strait in areas where a three-party agreement is required between the littoral states.
4. The United States regards EEZs as part of international waters, which comprise the high seas and contiguous zones, as well as EEZs.
5. UNCLOS Article 38(1).
6. UNCLOS Article 44.
7. UNCLOS Article 39(2).
8. UNCLOS Article 42.
10. This would be in accordance with the ISPS Code. The U.S. Coast Guard has produced a National Planning Guide on Port Security. See http://www.dot.gov/dotinfo/uscg/hq/gm/nmc/security/portplan.htm
11. This area includes ports and port approaches in Indonesia and Malaysia adjacent to the Malacca Strait. The report is based on data collected from Annual International Maritime Bureau (IMB) Reports and Lloyd’s Seasearcher Database. However, the classifications used in this publication are not necessarily the same as those used in the IMB Reports.
12. For the purposes of this study, a vessel on an international voyage is either proceeding through the Straits from one entrance to another, or proceeding to or from a port outside the immediate area of the Straits. A ship on a local voyage is one which is proceeding between two ports in the immediate area of the Straits.
13. The bomb attack on the Philippine passenger ferry Superferry 14 off Manila in February 2004 constitutes the most serious maritime terrorist attack by an extremist Muslim group. Sixty-three people were killed and 53 others are missing presumed dead.
The Institute of Defence and Strategic Studies (IDSS) was established in July 1996 as an autonomous research institute within the Nanyang Technological University. Its objectives are to:

- Conduct research on security, strategic and international issues.
- Provide general and graduate education in strategic studies, international relations, defence management and defence technology.
- Promote joint and exchange programmes with similar regional and international institutions; and organize seminars/conferences on topics salient to the strategic and policy communities of the Asia-Pacific.

Constituents of IDSS include the International Centre for Political Violence and Terrorism Research (ICPVTR), the Centre of Excellence for National Security (CENS) and the Asian Programme for Negotiation and Conflict Management (APNCM).

Research

Through its Working Paper Series, IDSS Commentaries and other publications, the Institute seeks to share its research findings with the strategic studies and defence policy communities. The Institute’s researchers are also encouraged to publish their writings in refereed journals. The focus of research is on issues relating to the security and stability of the Asia-Pacific region and their implications for Singapore and other countries in the region. The Institute has also established the S. Rajaratnam Professorship in Strategic Studies (named after Singapore’s first Foreign Minister), to bring distinguished scholars to participate in the work of the Institute. Previous holders of the Chair include Professors Stephen Walt (Harvard University), Jack Snyder (Columbia University), Wang Jisi (Chinese Academy of Social Sciences), Alastair Iain Johnston (Harvard University) and John Mearsheimer (University of Chicago). A Visiting Research Fellow Programme also enables overseas scholars to carry out related research in the Institute.

Teaching

The Institute provides educational opportunities at an advanced level to professionals from both the private and public sectors in Singapore as well as overseas through graduate programmes, namely, the Master of Science in Strategic Studies, the Master of Science in International Relations and the Master of Science in International Political Economy. These programmes are conducted full-time and part-time by an international faculty. The Institute also has a Doctoral programme for research in these fields of study. In addition to these graduate programmes, the Institute also teaches various modules in courses conducted by the SAFTI Military Institute, SAF Warrant Officers’ School, Civil Defence Academy, and the Defence and Home Affairs Ministries. The Institute also runs a one-semester course on “The International Relations of the Asia-Pacific” for undergraduates in NTU.

Networking

The Institute convenes workshops, seminars and colloquia on aspects of international relations and security development that are of contemporary and historical significance. Highlights of the Institute’s activities include a regular Colloquium on Strategic Trends in the 21st Century, the annual Asia Pacific Programme for Senior Military Officers (APPSMO) and the biennial Asia Pacific Security Conference. IDSS staff participate in Track II security dialogues and scholarly conferences in the Asia-Pacific. IDSS has contacts and collaborations with many international think tanks and research institutes throughout Asia, Europe and the United States. The Institute has also participated in research projects funded by the Ford Foundation and the Sasakawa Peace Foundation. It also serves as the Secretariat for the Council for Security Cooperation in the Asia Pacific (CSCAP), Singapore. Through these activities, the Institute aims to develop and nurture a network of researchers whose collaborative efforts will yield new insights into security issues of interest to Singapore and the region.