<table>
<thead>
<tr>
<th>Title</th>
<th>The shifting of maritime power and the implications for maritime security in Southeast Asia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author(s)</td>
<td>Ho, Joshua</td>
</tr>
<tr>
<td>Date</td>
<td>2004</td>
</tr>
<tr>
<td>URL</td>
<td><a href="http://hdl.handle.net/10220/4468">http://hdl.handle.net/10220/4468</a></td>
</tr>
<tr>
<td>Rights</td>
<td>Nanyang Technological University</td>
</tr>
</tbody>
</table>
No. 68

THE SHIFTING OF MARITIME POWER AND THE IMPLICATIONS FOR MARITIME SECURITY IN EAST ASIA

Joshua Ho

Institute of Defence and Strategic Studies
Singapore

JUNE 2004

With Compliments

This Working Paper series presents papers in a preliminary form and serves to stimulate comment and discussion. The views expressed are entirely the author’s own and not that of the Institute of Defence and Strategic Studies.
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; organise seminars/conferences on topics salient to the strategic and policy communities of the Asia-Pacific.

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) and Alastair Iain Johnston (Harvard University). 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 and overseas through the Master of Science in Strategic Studies and Master of Science in International Relations programmes. These programmes are conducted full-time and part-time by an international faculty from July each year. The Institute also has a Doctorate programme in Strategic Studies/International Relations. In 2004, it will introduce a new Master of Science in International Political Economy programme. 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, Singapore Technologies College and the Defence, Home Affairs and Foreign 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 which 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 and the biennial Asia Pacific Security Conference (held in conjunction with Asian Aerospace). Institute staff participate in Track II security dialogues and scholarly conferences in the Asia-Pacific. The Institute has contacts and collaborations with many think-tanks and research institutes in Asia, Europe and the United States. The Institute has also participated in research projects funded by the Ford Foundation and the Sasakawa Peace Foundation. The Institute 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.
ABSTRACT

The paper discusses how the possession of maritime power can lead to the accrual of economic power and highlights how maritime power is shifting to East Asia by observing trends in the four areas of inter and intra-regional trade flows, regional energy demand, strength of regional merchant fleets and strength of regional navies. The trends in the four areas indicate that maritime power is shifting to East Asia. Correlated to the increasing maritime power is the increasing economic growth of the region which is expected to surpass that of the United States and the European Union combined in 2015. However, the shift in the economic centre of gravity to East Asia or the Asia-Pacific is by no means a fait accompli and regional stability is critical to the continued economic growth in the region. Consequently, the ability of regional and extra-regional powers, like the United States to manage the power politics that emerge will be a key determinant of regional stability. Specifically, the main maritime challenges to regional stability will be to keep the vital sea lanes secure and to prevent inter-state maritime conflict from arising out of traditional rivalries, from resource competition, or from competing territorial boundary claims. The paper concludes that for long term stability in the region to occur, it would be necessary to nurture the fledgling multilateral institutions to maturity and to move towards greater political, economic and military cooperation and perhaps integration in the future.

*************

Joshua Ho is a Research Fellow at the Institute of Defence and Strategic Studies, Singapore. He obtained a B.A. and M.A. in Engineering from Cambridge University, U.K. on a SAF (Overseas) Scholarship, and also holds a MSc (Management) (Distinction) from the Naval Postgraduate School, California, where he was awarded the Graduate School of Business and Public Policy Faculty awards for Excellence in Management, given to the top student in the faculty, and Outstanding International Student. Joshua is a serving Naval Officer with 17 years of service and currently holds the rank of Lieutenant Colonel. He was trained as a Principal Warfare Officer and completed his command and staff training at the Royal Australian Navy Staff College and the Singapore Command and Staff College. He has served in various shipboard and staff appointments including the Command of a Missile Gun Boat and stints in the Naval Operations, Plans, and Personnel Departments as well as a short attachment to the Future Systems Directorate, MINDEF. He has held concurrent appointments of Honorary Aide de Camp to the President, Secretary to the Naval Staff Meeting, and Secretary to the Policy and Strategy Meeting chaired by the then Second Minister for Defence.
THE SHIFTING OF MARITIME POWER AND THE IMPLICATIONS FOR MARITIME SECURITY IN EAST ASIA

Introduction – The Nexus Between Maritime Power and Economic Power

For a long time the link between economic power and maritime power has been obvious and intuitive. The possession of maritime power facilitates the attainment of economic power and the quest for economic power is a motivation for the development of maritime power. A prime example of this link between maritime power and economic power can be found in the mercantilist era of Pre-World War I colonialism, where goods sought new markets in the areas that were colonised. In fact, from a very early stage, prominent personalities like Sir Walter Raleigh had also recognised the nexus between sea power and economic power.

Whosoever commands the sea commands the trade; whoever commands the trade of the world commands the riches of the world, and consequently the world itself.

Sir Walter Raleigh

The mercantilist period can be said to be the precursor of modern globalisation, and can best be described as globalisation by force as the people in the new markets did not have much choice but to accept the goods introduced by their colonial masters, mainly due to a lack of alternative action. Of course, these goods still expanded the available choice and enhanced the quality of life of the colonised peoples. However, in this new age of globalisation, where information is ubiquitous and rapidly becoming commoditised, Sir Walter Raleigh’s dictum still remains true because of a few factors: first, over 70 percent of the world’s surface is covered by ocean; second, over 90 percent of international trade when measured in weight and volume travels by water, which includes most of the world’s raw materials; third, the majority of the world’s major cities and urban populations lie within 200 kilometres of a coastline; and fourth, international
law provides for freedom of the seas in which any nation can use the open ocean for purposes of trade or defence without infringement on another’s sovereignty, subject to international agreements on pollution and exploitation of resources.¹

However, maritime power is not just about naval warfare or possession of a large and powerful navy. The term is more encompassing and has a much broader concept. Perhaps the term maritime power would more accurately describe the broad concept of sea power. However, whichever term is used, a country that is said to be a sea or maritime power should have at least the following five components:²

- access to international trade and commerce through the sea,
- access to raw material and natural resources through the sea,
- access to and be able to use resources in the ocean,
- the ability to use naval and maritime economic power as instruments of diplomacy and deterrence in time of peace, and
- the ability to operate navies in war.

**The Asia-Pacific Century**

Much has been written and said about the 21st century being the Asia-Pacific century as the region is expected to experience phenomenal growth rates unprecedented in the history of world development. Although it is easy to dismiss these claims as pure hyperbole given the series of economic crises that have dogged the region since 1997, projections done by both U.S. intelligence agencies and wealth management institutions seem to point to an inescapable conclusion: that we are already witnessing the beginnings of an Asia-Pacific century.

---

² Expanded from the original list of four elements espoused by Tangredi. Ibid, p. 3.
Currently, the combined 2002 GDPs of China, India and Japan are already half that of the United States in nominal terms. By 2015, the CIA’s long term growth model has forecasted that 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 (See Figure 1). By 2050, Goldman Sachs has projected that the situation will become even more astounding with the combined GDPs of China, India and Japan slightly more that twice that of the United States and about four times that of Russia, United Kingdom, Germany, France and Italy combined in 2003 dollars (See Figure 2). In 2050, the largest economies in the world will be China, United States and India respectively, with Japan at a distant fourth. In the short span of time of only one generation, the economic centre of gravity would have shifted to Asia.

---

As the economic centre of gravity shifts to the Asia-Pacific, it is natural and inevitable that maritime power also shifts to Asia given the nexus between maritime power and economic power. Again, the shift in maritime power may have already started by observing current trends in four areas: (1) the trade flows into and within Asia, (2) the increasing energy demand in Asia, (3) the strength of the merchant fleets in the region, and (4) the spending on regional navies. Let us look at each trend in turn

Trends Indicating a Shift in Maritime Power

1. **Increasing Trade Flows into and within Asia**

   The first trend is that intra-Asian trade flows have increased (See Figure 3) and Asian trade with the United States and Europe is also increasing. In particular, China’s trade expansion has remained outstanding, as its exports and imports have risen by 30% between 2000 and 2002 even as world trade stagnated.\(^6\) China has become the fourth

---

largest merchandise trader in 2002, and across the globe, China has become a major supplier and a major export destination for many countries. For example:

- Trade between ASEAN and China has increased. China has become Singapore’s top export destination for the first nine months of 2003, eclipsing Malaysian and the United States for the first time. For Malaysia and the Philippines, China is climbing the export destination rankings.7 In Indonesia, China’s share of foreign direct investment approvals has risen dramatically to 67 percent in 2001, from a previous average figure of less than 1 percent.8 In Thailand, following the signing of a free trade agreement in 2002, bilateral trade has increased and exports to China have grown 62 percent to US$4.5 billion in the first ten months of 2003. It would probably be only a matter of time when the same scenario will emerge for the other ASEAN countries as China’s current trade deficit with the ASEAN countries stand at US$7.6 billion.

- If trade between ASEAN and China is increasing, China has already become Korea’s top export partner. From January to September 2003, South Korea exported goods totalling US$23.1 billion to China, overtaking its exports to the US (US$22.8 billion) and it is expected that China will become South Korea’s chief trade partner by 2005. In fact China’s current trade deficit with South Korea stands at US$13.1 billion.9

- Trade between Japan and China rose 28 percent to a record US$5.7 billion in October, and its total sales to China and Hong Kong that month accounted for 63 percent of its export growth. Japan’s two-way trade with China in the first half of 2003 totalled US$60.4 billion, a 34 percent improvement.

---

increase and this is the fourth consecutive year that Japanese exports to China have posted record growth. For the first time, Japan’s exports to China, Hong Kong and Taiwan have exceeded its exports to the US. China’s trade deficit with Japan stands at US$5 billion.\(^{10}\)

China also overtook the US to become Taiwan’s largest export market in 2001. In 2002, Taiwanese goods worth S$29.4 billion, a quarter of its total exports, went to the Chinese mainland, up 37.4 percent from 2001. In fact China’s trade deficit with Taiwan stands at US$31.5 billion.\(^{11}\)

\(^{10}\) Ibid.

\(^{11}\) Ibid.
• Trade between China and India has also grown ten-fold in the past decade.\textsuperscript{12} From US$2 billion in 2000, India is projecting its bilateral trade with China to grow to US$7 billion in 2003 and US$10 billion in 2004.\textsuperscript{13}

• The European Union’s imports from China as a percentage of its total imports increased by 1.5 percent to 8.3 percent while its exports to China as a total percentage share of its exports increased by 0.7 percent to 3.4 percent (See Figure 4).\textsuperscript{14}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{chart.png}
\caption{Share of China in Exports and Imports of Major Traders, 2000 and 2002 (Percentage share)}
\end{figure}


\textsuperscript{13} Lee Kim Chiew.

\textsuperscript{14} World Trade Organisation, p.2.

• Between 2000 and 2002, US imports from China as a percentage share of its total imports increased by 2.5 percent to 11.1 percent, while its exports to China as a percentage share of its total exports increased by 1.1 percent.
to 3.2 percent (See Figure 4).\textsuperscript{15} The imbalance in export and import growth by the US explains its US$120 billion trade deficit with China.\textsuperscript{16}

2. Rising Energy Demand in Asia

The second trend is that resource demand, particularly energy demand, in Asia is rising in tandem with its economic development. Asia as a whole currently uses about as much energy as the United States. By 2020, Asia’s energy consumption will roughly double while U.S. consumption will rise by just slightly more than 25 percent. Specifically, Asia will increase its natural gas consumption by 191 percent, oil consumption by 88 percent, and coal consumption by 97 percent. (See Table 1).\textsuperscript{17}


<table>
<thead>
<tr>
<th>Region / Country</th>
<th>1990</th>
<th>2000</th>
<th>2010</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Industrialised Countries:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North America\textsuperscript{a}</td>
<td>100.6</td>
<td>118.7</td>
<td>137.2</td>
<td>159.4</td>
</tr>
<tr>
<td>Western Europe\textsuperscript{b}</td>
<td>59.9</td>
<td>66.8</td>
<td>72.1</td>
<td>77.3</td>
</tr>
<tr>
<td>Industrialised Asia\textsuperscript{c}</td>
<td>22.3</td>
<td>27.5</td>
<td>30.8</td>
<td>34.4</td>
</tr>
<tr>
<td><strong>Eastern Europe / Former Soviet Union</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>76.3</td>
<td>52.2</td>
<td>65.9</td>
<td>76.7</td>
</tr>
<tr>
<td><strong>Developing Countries:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Developing Asia\textsuperscript{d}</td>
<td>52.5</td>
<td>80.5</td>
<td>110.1</td>
<td>151.9</td>
</tr>
<tr>
<td>Middle East</td>
<td>13.1</td>
<td>20.3</td>
<td>25.0</td>
<td>32.0</td>
</tr>
<tr>
<td>Africa</td>
<td>9.3</td>
<td>11.9</td>
<td>14.4</td>
<td>18.0</td>
</tr>
<tr>
<td>Central and South America</td>
<td>14.4</td>
<td>21.0</td>
<td>25.2</td>
<td>23.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>348.4</td>
<td>398.9</td>
<td>480.6</td>
<td>583.0</td>
</tr>
</tbody>
</table>

\textsuperscript{a}United States and Canada. \textsuperscript{b}Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom. \textsuperscript{c}Japan, Australia and New Zealand. \textsuperscript{d}Afghanistan, Bangladesh, Bhutan, Brunei, Cambodia, China, Fiji, French Polynesia, Guam, Hong Kong, India, Indonesia, Kiribati, Laos, Malaysia, Macau, Maldives, Mongolia, Myanmar, Nauru, Nepal, New Caledonia, Niue, North Korea, Pakistan, Papua New Guinea, Philippines, Samoa, Singapore, Solomon Islands, South Korea, Sri Lanka, Taiwan, Thailand, Tonga, Vanuatu, and Vietnam.

\textsuperscript{15} Ibid.
\textsuperscript{16} Lee Kim Chiew.
Today, North America is the biggest energy consumer in the world and accounts for just under a third of the world’s energy consumption. Asia is second at 24 percent of the world’s consumption. By 2020, Asia will have the same energy consumption as North America and Western Europe combined. Despite the increase in energy consumption, there is sufficient supply to go around as proved oil reserves have increased by almost two-thirds over the past 20 years and natural gas reserves have also doubled in the same time period. Coal supplies are also plentiful and enough to last for the next 200 years.

However, Asia is only close to self-sufficiency in coal. For natural gas, Japan, South Korea and Taiwan already consume most of the region’s methane supply. To support the expected increase in consumption in natural gas, the region will have to turn to Russia as well as the Middle East. As the absolute demand for oil rises, Asia has also to import oil from outside the region, particularly from the Middle East.18 This increased energy demand will mean an increasing reliance on the sea as most of the energy is transported by sea.

3. **Strength of the Merchant Fleet**

The third trend is that the strength of the merchant fleet in Asia has been increasing relative to the proportion of the world’s fleets. By July 2003, Asia owned about 40 percent of the merchant fleets amongst the Top 20 owners in the world, and 41 percent by tonnage. If we include the US, then the Asia Pacific owns about 46 percent of the merchant fleets and 48.1 percent by tonnage and the figure looks set to increase in the future. Already construction of the world’s largest shipyard with a frontage of 8km is underway in Shanghai, China.19 The construction is expected to take up to 10 years and be completed by 2015 and it will position China to become the world’s largest shipbuilder. This development will further consolidate East Asia’s position as home to

---

18 Ibid, p.192.
the world’s largest shipbuilders with Chinese, South Korean and Japanese shipbuilders having 12.8%, 36.2% and 28.8% of the global order book in terms of tonnage currently.\textsuperscript{20}

Figure 5: Percentage of Top 20 Merchant Fleets By Region (As of 1 July, 2003)
(Source: Lloyd’s Register Fairplay in U.S. Department of Transportation Maritime Administration website)

4. Growth of Regional Navies

The fourth trend is that the capabilities of the East Asian navies are set to grow as regional countries continue to modernise their naval fleets. Asia-Pacific governments are expected to double their current expenditure on new naval ships by the end of this decade partly to protect their natural resources and partly to insure against regional conflict. Military reforms and modernisation programmes have been initiated in the region and East Asia’s Regional Defence Expenditure as a percentage of GDP has risen to 2.08 percent in 2002 (See Figure 6).\textsuperscript{21} The growth in emphasis on defence and in particular

the Navy is expected to continue into the future as AMI International’s Robert Keil has projected that regional governments will spend a total of US$14 billion annually by 2009 on their navies. The expected growth is in contrast to Europe market, which will cut its $13 billion annual bill by up to 25 percent within the same time frame.\textsuperscript{22}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure6.png}
\caption{East Asia Regional Defence Expenditure as a Percentage of GDP (1992-2002)}
\label{fig:figure6}
\end{figure}

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline
\hline
% of GDP & 1.92 & 1.88 & 1.82 & 1.79 & 1.87 & 1.89 & 1.84 & 1.88 & 1.81 & 1.94 & 2.08 \\
\hline
\end{tabular}
\caption{East Asia Regional Defence Expenditure as % GDP (1992-2002)}
\end{table}

\textbf{Alternative Global Futures}

The trends of increased trade flows, increased energy demands, increased strength of merchant fleets and increased spending on navies in the region all point to the shift of maritime power to Asia. As maritime power in the region increases, the ability of the regional countries, as well as extra-regional powers like the U.S., to manage the power politics that emerge will be a key determinant of stability. But what kind of possible future scenarios are we looking at? In the National Intelligence Council’s sponsored study on global trends by 2015, four alternative future global scenarios have been

\textsuperscript{22} “Regional Naval Bills Expected to Double, Say Experts,” \textit{The Straits Times Interactive}, 11 November 2003. Available at \url{http://straitstimes.asia1.com.sg/}
postulated based on outcomes of the globalisation process, which can be inclusive, pernicious, or result in regional competition and the creation of a post-polar world.23

(i) **Inclusive Globalisation**
The inclusive globalisation scenario depicts a positive outcome of globalisation where a majority of the people benefit from globalisation as global cooperation increases. Incidents of conflict are small within and among states that benefit from the globalisation process and internal conflicts will persist in and around the minority of states that are left behind in the process.

(ii) **Pernicious Globalisation**
The pernicious globalisation scenario paints a negative outcome of globalisation where the elites thrive and the majority of the population fail to benefit from globalisation. As a result, internal conflicts increase, which are fuelled by frustrated expectations, inequities and heightened communal tensions.

(iii) **Regional Competition**
The regional competition scenario postulates that regional identities will sharpen in Europe, Asia and the Americas, which is driven by political resistance to US global preponderance. Each region then becomes preoccupied with its own economic and political priorities. Although, military conflict among and within the three major regions does not materialise, internal conflicts increase in and around the other countries are left behind as in the inclusive globalisation scenario.

(iii) **Post-Polar World**
The post-polar world scenario paints a waning US influence in world affairs due to domestic politics and a stagnating economy which forces it

---

to withdraw and rationalise its military presence globally. Europe becomes inward looking and Asia prospers in spite of the absence of the United States. As a result of the absence of the United States, longstanding national rivalries among the Asian powers are ignited and conflict is postulated between traditional rivals China and Japan.

Future Maritime Challenges in East Asia

In all three of the four scenarios, the possibility of internal conflicts is postulated, and in three of the four scenarios, there is a possibility of internal conflicts spilling over to its neighbours with one scenario of a regional conflict. Hence, the ability to manage and resolve conflicts that arise will become a key determinant of regional stability if we want to allow the wealth effects from regional economic progress to spread and for the majority of the people to benefit from globalisation. Inter-state conflict prevention is important in the region as Asia remains the one place in the world where direct great power warfare seems possible over the next generation. This happens as previously authoritarian or closed regimes experience increasing political pluralism due to increased demands for more transparency and good governance by investors, who want to be assured that their monies will be safe. Mansfield and Snyder have shown that the period of transition to a more pluralistic political environment is the most dangerous time for interstate wars.24 In the maritime arena, the two main challenges are:

- to ensure the security of the sea lanes in order to ensure the continued unimpeded flow of resources and goods, and

- to prevent maritime conflicts between states due to resource and trade competition as the region and their navies grow.25

---

The main threat to resource and trade security will mainly arise from piracy and maritime terrorism in and around the vital sea lanes and choke points in East Asia, of which the Malacca Straits is the key thoroughfare for merchant shipping. Inter-state maritime conflict may also arise due to competition for resources, territorial boundary disputes and from traditional nationalistic rivalries.

### Resource and Trade Security

#### 1. Piracy

According to the International Chamber of Commerce’s International Maritime Bureau, the number of piracy attack on shipping throughout the world has reached a high of 445 in 2003. Since data was collected in 1992, this was the second highest figure collected with 469 incidents occurring in 2000. Southeast Asia and the Far East accounted for 43% of the world’s number of incidents, of which 16% occur within the Malacca and Singapore Straits.\(^{26}\) The lethality of the attacks has also increased as the number of crew/passenger deaths and the number of crew missing as a result of pirate attacks have increased by almost three times world wide in comparison to 2002.\(^{27}\) An increase in piracy rates and its lethality can drive up shipping costs through higher insurance rates, as the Malacca Straits and the Singapore Straits are the busiest straits in the world, with about 200 ships plying through daily. Estimates of the cost of pirate attacks have put it at around US$16 billion a year.\(^{28}\) The emphasis on combating piracy is important, as it is possible that terrorists conduct piracy as a means for raising revenues.\(^{29}\)

---


\(^{27}\) Ibid, p. 10.


\(^{29}\) The average take of sea robbers/pirates have been put at between US$5,000 to US$15,000 per incident. See 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.
Already the Indonesia Navy is responding to the increasing trend of piracy in its waters, as its Chief of Naval Staff, Admiral Bernard Kent Sondakh is promoting a package of reforms and modernising the Navy’s workhorse platforms to push the Indonesian Navy toward a new emphasis on coastal interdiction and increasing patrols against illegal activities in their own waters.30 The government of Riau Province, which sits astride the Singapore Straits, and whose islands reach far into the South China Sea, has also agreed to purchase small and fast patrol boats built domestically by PT Pelindo in Tanjung Pinang.31

Malaysia and Singapore have also taken action to keep the piracy rates low in the Malacca and Singapore Straits. For example, Malaysia 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.32 Singapore has implemented a range of measures to step up maritime security, including 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.33

2. 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. Indeed the ability of

31 The Provincial governments have gained considerable authority, formerly held by the central government, as part of an ongoing devolution of powers to the provincial level that started in 2001. Funding for the patrol craft will come from the provinces’ operating budget, which is now considerably larger than in the past because of the devolution. This innovative process provides economic security to the sponsoring province, creates jobs in the shipbuilding industry, and at the same time provides much needed equipment to the navy without the expenditure of scarce capital funds. See John B. Haseman, “Indonesia Expands Arms Purchasing,” Jane’s Intelligence Review, 1 December 2003.
ports to handle the latest generation of container ships and are 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.34 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.35

It has been estimated that the global economic impact from a closure of the port of Singapore alone could easily exceed US$200 billion per year from disruptions to inventory and production cycles. This cost far exceeds the US$8 billion per year cost of diverting all ships around Australia if the Malacca, Sunda, Lombok and Makassar Straits, and the South China Sea were closed.36 The shutting down of the ports in the western coast of the US in October 2002 due to industrial action had cost the US up to a billion dollars a day and highlights the importance of hub ports as crucial nodes in world trade.37

Hub ports therefore are potential lucrative targets for terrorists. The terrorists may link up with pirates to hijack carriers of liquefied petroleum gas and turn them into floating bombs to disable ports.38 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

---

34 A single 8,000 TEU ship requires less capital expenditure for new building and offers up to 20 percent savings in annual operating costs compared the current benchmark of 6,000 TEU ships. The limit for size in containerships that ply the Malacca Straits is 18,000 TEUs, as these ships will reach the limits of the depth in the Straits. See 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.

35 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.

36 Daniel Y. Coulter, p 139.


almost everything physical and living within this range. Beyond this range, a large number of fatalities and casualties would occur.\textsuperscript{39} 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.\textsuperscript{40} Another possible scenario is the sinking of a merchant ship at critical choke points in the Singapore Straits to block shipping and slow down maritime trade flows.\textsuperscript{41}

Maritime terrorism is viewed seriously in the region as there have been indications that South East Asian terrorist groups have begun to look at the maritime domain as a new avenue for attacks. For example, in March 2003, 10 pirates on speedboats boarded a chemical tanker, Dewi Madrim, off the coast of Sumatra in Indonesian waters. What was significant about this attack is that the pirates gained control of the ship and took over navigation of the ship before leaving an hour later with the ship’s cash, property, equipment and crew personal belongings.\textsuperscript{42} More recently, in the Northern reaches of the Malacca Straits, three very fast grey coloured speedboats approached a LPG tanker whilst underway. The boats followed the tanker for 40 minutes and fled when the crew sounded the ship’s whistle and directed search lights at the speed boats.\textsuperscript{43} The recent sinking of a car carrier after a collision with a Very Large Crude Carrier (VLCC) in the Singapore Straits also highlights the plausibility of sinking ships at critical choke points to block off the Singapore Straits.\textsuperscript{44}

Maritime terrorism, however, is not limited to physical disruption or destruction, and the threats to mega ports could also include cyber attacks, which can disrupt port operations and reduce port efficiency. As a hub port, Singapore has already taken

\begin{itemize}
\item \textsuperscript{39} Ben Sheppard, “Maritime Security Measures,” \textit{Jane’s Intelligence Review}, 1 March 2003.
\item \textsuperscript{40} Michael Richardson, \textit{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.
\item \textsuperscript{41} Goh Chin Lian, “Shippers Want Better Policing of the Straits,” \textit{The Straits Times (Singapore)}, 10 May 2004, p. H4.
\item \textsuperscript{42} ICC International Maritime Bureau, p. 25.
\item \textsuperscript{44} Ben Nadarajan, “Car Carrier Sinks Near Singapore,” \textit{The Straits Times Interactive}, 24 May 2004. Available at http://straitstimes.asia1.com.sg/\
\end{itemize}
measures to protect itself against cyber terrorists through legislation, and implementing technical measures in its systems and networks.\textsuperscript{45}

3. Inter-State Conflict

The other maritime challenge is the possibility of inter-state conflict. Inter-state conflict can arise in the region as a result of competition for resources and from traditional nationalistic rivalries due to competing territorial claims. Sources for concern include several competing resource, territorial, and boundary claims. These claims comprise those for the Spratly Islands, the Paracel Islands, the demarcation of maritime boundaries in the Kurile Islands, the Senkaku or Diaoyu Tai Islands and the Liancourt Rocks. Except for the Spratlys, which are claimed by the six parties of Brunei, China, Malaysia, Philippines, Taiwan and Vietnam, the other claims are bilateral in nature and hence more likely to be resolved. For example, the Paracels are disputed between China and Vietnam, the Kuriles between Russia and China, the Senkaku or Diaoyu Tai Islands by Japan and China, and Liancourt Rocks between Japan and South Korea.

Oil and gas reserves and productive fishing grounds allegedly surround the Spratly Islands. The Islands also sit astride the strategic sea lines of communications (SLOCs) in the South China Sea. The complex jurisdictional claims have led to the claimants to place an increasing emphasis on their ability to enforce their sovereignty claims militarily by maintaining a military presence on the islands. Only Brunei does not maintain a military presence on one or more of the islands. The military presence has created a mosaic of small, isolated more or less fortified outposts, and multiple overlapping claims to maritime jurisdiction scattered across the southern South China Sea. The developments have continued unchecked and the claims remain unaddressed. As the disputes remain unresolved and the claimants continue to jostle for position and enhance their military presence in the region as a means of physically reinforcing their territorial claims, the potential for confrontation leading to conflict exists. Indeed, the

\textsuperscript{45} Ho Ka Wei and Ben Nadarajan, “Thwarting the Cyber Terrorist,” \textit{The Straits Times Interactive}, 14 November 2003. Available at \url{http://straitstimes.asia1.com.sg/}
disputes over the Spratlys remains the most troubling of the claims due to the number of claimants involved and the strategic locations of the islands along the strategic sea-lanes in the South China Sea, and remains the principal source of tension in Southeast Asia and retains the potential to trigger a regional conflict.46

A related issue to the Spratlys dispute is China’s U-shaped line drawn in the South China Sea since December 1947, with areas within the line being claimed as historic waters.47 The claim implies that a major portion of the South China Sea belongs to China and is problematic as the claim is not in accordance with the spirit of the United Nations Convention on the Law of the Sea that China has acceded to on the 7 June 1996.

**Overcoming Challenges - Positive Developments**

Despite the challenges posed to resource and trade security through piracy and maritime terrorism, in addition to the possibility inter-state maritime conflict, recent developments have made the resolution of these challenges more likely. The increased cooperation through the development of a web of relationships in East Asia increases the security of access to resources and trade and decreases the likelihood of inter-state conflict.

1. **Development of a Web of Relationships in Asia**

The region as a whole is beginning to be more integrated politically and economically with constant dialogues and summits being held to discuss regional issues of concern. ASEAN’s expansion to include all 10 South-east Asian states and the upgrading of dialogues with Japan, South Korea and China to summit level heralded a new era of cooperative engagements. The ASEAN Regional Forum (ARF) also served to bring the United States, Russia and China in a multilateral forum to discuss security issues of regional concern. China and India acceded to the Treaty of Amity and

---

Cooperation (TAC) at the ASEAN summit in Bali in October 2003 and Japan to the TAC in the Japan-ASEAN Commemorative Summit in December 2003. Such actions promote stability in the region as the signatories commit themselves to working for peace and stability in the region by seeking cooperation, renouncing force in settling disputes and using the High Council to settle disputes.

In tandem with the increase in political dialogue between the regional countries, a web of economic relationships has also been developed in the form of bilateral Free Trade Areas (FTA). China offered to establish a FTA with ASEAN within 10 years. Japan is proposing a comprehensive economic partnership with ASEAN and is starting negotiation of FTAs with the Philippines, Thailand and Malaysia. Wanting to remain engaged, India has also intentions to sign an FTA with ASEAN within the next 10 years. ASEAN itself is also working toward bringing about an ASEAN Economic Community by 2020.

Maritime cooperation has also increased in the region, primarily using the anti-terrorist or piracy platform as a rationale for cooperation. The key powers, China, India, Japan and the United States have shown a desire to increase their maritime influence in the region. Specifically:

- ASEAN and China signed a declaration on conduct in the South China Sea, which was concluded on the 4 November 2002. The declaration will promote stability as it calls for self-restraint, encourages the peaceful settlement of disputes and respect for freedom of navigation and overflight rights. Erection of new structures are also banned on the presently uninhabited islands in the South China Sea and promotes voluntary military consultations as well as prior notification of joint military

---

48 Leszek Buszynski, “ASEAN, the Declaration on Conduct, and the South China Sea,” Contemporary Southeast Asia, Volume 25, Number 3, December 2003, p. 343.
exercises that will be conducted within the vicinity of the islands.\(^{49}\) The main weakness of the declaration however, is its non-binding nature.

- Japan has initiated an anti-piracy programme that involves 16 nations, including the ASEAN members, India, China and South Korea (Regional Co-operation Agreement on Against Piracy or ReCAAP). The Japanese Coast Guard has also been dispatching patrol ships and aircraft to various countries in Asia from 2000 amidst growing piracy in Asian waters.\(^{50}\)

- The US has bestowed major non-NATO ally status on the Philippines and Thailand and relations have started to warm with Vietnam, as evidenced by the visit of Vietnamese Defence Minister to Washington and the port call of the USS Vandergrift to Ho Chi Minh city in November. Relations with Australia, Japan, South Korea and Singapore continue to be close.\(^{51}\)

- There is a growing web of cooperation amongst ASEAN countries and increasing numbers of bilateral exercises being conducted. For example, Singapore and Malaysia has a bilateral naval exercise, Philippines and Malaysia have conducted combined naval patrols near Sabah, the Five Power Defence Arrangement (FPDA) is also shifting its exercise focus from conventional threats to include counter-terrorism drills, the first of such exercises will be held in the South China Sea later this year.\(^{52}\) It is expected that the first of such exercises will be held later this year. The Philippines, Indonesia and Japan have held anti-piracy exercises.

\(^{49}\) Ibid. \\
Indonesia and Singapore have cooperated to prevent sea robbery in its common waters through the Indo-Sin Coordinated Patrols (ISCP).53

The web of relationships between the United States, regional powers and ASEAN countries, together with Naval and Coast Guard presence serve to act as a deterrent and dissuade potential actors from conducting acts of maritime terrorism or piracy. However, a lack of a good agreement for cooperation could hinder actual arrests and halt the growth of piracy in the region. The contentious issue remains that of hot pursuit, by allowing the ships of one country to continue the chase and conduct arrests in the waters of a neighbouring country.54 The web of relationships in the political, economic and military spheres, also provide a mechanism for the resolution of conflicts before they arise.

2. Opening up of Arctic Routes and Resources

Besides political developments and the increasing nature of cooperation in the region, natural developments may also improve trade and resource security in the region in the longer term. The United States Intergovernmental Panel on Climate Change have forecasted that the global average temperature will increase by 1.4 to 5.8 degrees Celsius over the next century. The temperature increases is expected to be greater for areas over land than over water, and greater in polar than in temperate regions. The largest temperature changes are predicted to occur in the Arctic and preliminary observations already support the magnitude of the Arctic change. Projections have indicated that increases for the Artic will exceed the global averages by 40 percent, although such projections have remained highly seasonal, with an increase by mid-century in summer temperature of only 1 to 2°C but of 8 to 9°C in winter. The variance of the warming is almost as large as magnitude of the warming itself with a variance ranging from 1 to 2°C in summer to 5 to 6°C in winter. Such warming will result in a reduction in Arctic ice

54 Adam J. Young and Mark J. Valencia, pp. 279-280.
which will subsequently open the Arctic sea routes to commercial shipping and fishing, and the Arctic regions to hydrocarbon removal.55

The opening up of Arctic sea routes is anticipated by 2050 and possibly in 10 to 20 years time. The opening of the trade routes through the Arctic will translate to significant reductions in transit distances between Europe and East Asia, Europe and the west coast of the United States, and between East Asia and the east coast of the United States. For example, the Northern Sea Route between Europe and East Asia is 40 percent shorter than that through the Suez Canal. This new route will mean a reduction of traffic in the Malacca Straits, and will consequently reduce the vulnerability of Europe-Asia trade to piracy and maritime terrorism. In addition the opening up of the Northern Sea Route will also allow access to Siberia’s huge oil and natural gas reserves, which are estimated to be comparable to those of the Middle East. Again, the diversification of sources of energy supply will reduce the vulnerability of energy supply to Asia and improve overall stability in the region.

**Conclusion – Towards an Inclusive Globalisation Scenario**

The Asia-Pacific century looks set to 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, maritime power will also shift to East Asia as a result of three factors: the increasing trade flows into and within East Asia; the rising energy demand which necessitate an increasing reliance on the sea as a mode of transport; and the increase in the merchant fleet to facilitate transportation of energy resources as well as goods and raw materials via the sea.

Maritime power is also shifting towards East Asia as regional countries modernise their navies in order to secure their trade routes, ensure their access to natural resources

---

and to ensure against potential disruptions to maritime security like piracy, maritime terrorism and inter-state conflicts. How this surge in regional maritime power is accommodated, and how regional and extra-regional countries like China, India, the United States, Japan, Russia and the Koreas manage the power politics that emerge will be a key determinant of regional stability. A worthy goal for all concerned is the continued nurturing of regional multilateral frameworks to full maturity in order for the regional conflicts to be resolved in accordance with the rule of international law, and the move towards an inclusive globalisation process which will benefit the majority of people.
Bibliography


Tan, Andrew and Boutin, Kenneth J.D., *Non-Traditional Security Issues in Southeast Asia* (Singapore: Institute of Defence and Strategic Studies, 2001)


<table>
<thead>
<tr>
<th>IDSS Working Paper Series</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Vietnam-China Relations Since The End of The Cold War</td>
</tr>
<tr>
<td>Ang Cheng Guan         (1998)</td>
</tr>
<tr>
<td>Desmond Ball           (1999)</td>
</tr>
<tr>
<td>3. Reordering Asia: “Cooperative Security” or Concert of Powers?</td>
</tr>
<tr>
<td>Amitav Acharya         (1999)</td>
</tr>
<tr>
<td>4. The South China Sea Dispute re-visited</td>
</tr>
<tr>
<td>Ang Cheng Guan         (1999)</td>
</tr>
<tr>
<td>Joseph Liow Chin Yong  (1999)</td>
</tr>
<tr>
<td>6. ‘Humanitarian Intervention in Kosovo’ as Justified, Executed and Mediated by NATO: Strategic Lessons for Singapore</td>
</tr>
<tr>
<td>Kumar Ramakrishna      (2000)</td>
</tr>
<tr>
<td>7. Taiwan’s Future: Mongolia or Tibet?</td>
</tr>
<tr>
<td>Chien-peng (C.P.) Chung (2001)</td>
</tr>
<tr>
<td>8. Asia-Pacific Diplomacies: Reading Discontinuity in Late-Modern Diplomatic Practice</td>
</tr>
<tr>
<td>Tan See Seng           (2001)</td>
</tr>
<tr>
<td>9. Framing “South Asia”: Whose Imagined Region?</td>
</tr>
<tr>
<td>Sinderpal Singh        (2001)</td>
</tr>
<tr>
<td>10. Explaining Indonesia's Relations with Singapore During the New Order Period: The Case of Regime Maintenance and Foreign Policy</td>
</tr>
<tr>
<td>Terence Lee Chek Liang (2001)</td>
</tr>
<tr>
<td>11. Human Security: Discourse, Statecraft, Emancipation</td>
</tr>
<tr>
<td>Tan See Seng          (2001)</td>
</tr>
<tr>
<td>Nguyen Phuong Binh    (2001)</td>
</tr>
<tr>
<td>13. Framework for Autonomy in Southeast Asia’s Plural Societies</td>
</tr>
<tr>
<td>Miriam Coronel Ferrer (2001)</td>
</tr>
<tr>
<td>Ananda Rajah          (2001)</td>
</tr>
</tbody>
</table>
15. Natural Resources Management and Environmental Security in Southeast Asia: Case Study of Clean Water Supplies in Singapore
   Kog Yue Choong (2001)

16. Crisis and Transformation: ASEAN in the New Era
   Etel Solingen (2001)

17. Human Security: East Versus West?
   Amitav Acharya (2001)

18. Asian Developing Countries and the Next Round of WTO Negotiations
   Barry Desker (2001)

19. Multilateralism, Neo-liberalism and Security in Asia: The Role of the Asia Pacific Economic Co-operation Forum
   Ian Taylor (2001)

20. Humanitarian Intervention and Peacekeeping as Issues for Asia-Pacific Security
    Derek McDougall (2001)

21. Comprehensive Security: The South Asian Case
    S.D. Muni (2002)

    You Ji (2002)

23. The Concept of Security Before and After September 11
    a. The Contested Concept of Security
       Steve Smith (2002)
    b. Security and Security Studies After September 11: Some Preliminary Reflections
       Amitav Acharya (2002)

24. Democratisation In South Korea And Taiwan: The Effect Of Social Division On Inter-Korean and Cross-Strait Relations

25. Understanding Financial Globalisation
    Andrew Walter (2002)

26. 911, American Praetorian Unilateralism and the Impact on State-Society Relations in Southeast Asia
    Kumar Ramakrishna (2002)

27. Great Power Politics in Contemporary East Asia: Negotiating Multipolarity or Hegemony?
    Tan See Seng (2002)

28. What Fear Hath Wrought: Missile Hysteria and The Writing of “America”
    Tan See Seng (2002)
29. International Responses to Terrorism: The Limits and Possibilities of Legal Control of Terrorism by Regional Arrangement with Particular Reference to Asean
   Ong Yen Nee (2002)
30. Reconceptualizing the PLA Navy in Post – Mao China: Functions, Warfare, Arms, and Organization
   Nan Li (2002)
   Helen E S Nesadurai (2002)
32. 11 September and China: Opportunities, Challenges, and Warfighting
   Nan Li (2002)
33. Islam and Society in Southeast Asia after September 11
   Barry Desker (2002)
34. Hegemonic Constraints: The Implications of September 11 For American Power
   Evelyn Goh (2002)
35. Not Yet All Aboard…But Already All At Sea Over Container Security Initiative
   Irvin Lim (2002)
36. Financial Liberalization and Prudential Regulation in East Asia: Still Perverse?
   Andrew Walter (2002)
37. Indonesia and The Washington Consensus
   Premjith Sadasivan (2002)
38. The Political Economy of FDI Location: Why Don’t Political Checks and Balances and Treaty Constraints Matter?
   Andrew Walter (2002)
39. The Securitization of Transnational Crime in ASEAN
   Ralf Emmers (2002)
40. Liquidity Support and The Financial Crisis: The Indonesian Experience
   J Soedradjad Djiwandono (2002)
41. A UK Perspective on Defence Equipment Acquisition
42. Regionalisation of Peace in Asia: Experiences and Prospects of ASEAN, ARF and UN Partnership
   Mely C. Anthony (2003)
43. The WTO In 2003: Structural Shifts, State-Of-Play And Prospects For The Doha Round
   Razeen Sally (2003)
44. Seeking Security In The Dragon’s Shadow: China and Southeast Asia In The Emerging Asian Order
Amitav Acharya (2003)

45. Deconstructing Political Islam In Malaysia: UMNO’S Response To PAS’ Religio-Political Dialectic

46. The War On Terror And The Future of Indonesian Democracy

47. Examining The Role of Foreign Assistance in Security Sector Reforms: The Indonesian Case
Eduardo Lachica (2003)

48. Sovereignty and The Politics of Identity in International Relations
Adrian Kuah (2003)

49. Deconstructing Jihad; Southeast Asian Contexts
Patricia Martinez (2003)

50. The Correlates of Nationalism in Beijing Public Opinion

51. In Search of Suitable Positions’ in the Asia Pacific: Negotiating the US-China Relationship and Regional Security

52. American Unilaterism, Foreign Economic Policy and the ‘Securitisation’ of Globalisation

53. Fireball on the Water: Naval Force Protection-Projection, Coast Guarding, Customs Border Security & Multilateral Cooperation in Rolling Back the Global Waves of Terror from the Sea
Irvin Lim (2003)

54. Revisiting Responses To Power Preponderance: Going Beyond The Balancing-Bandwagoning Dichotomy
Chong Ja Ian (2003)

55. Pre-emption and Prevention: An Ethical and Legal Critique of the Bush Doctrine and Anticipatory Use of Force In Defence of the State

56. The Indo-Chinese Enlargement of ASEAN: Implications for Regional Economic Integration
Helen E S Nesadurai (2003)

57. The Advent of a New Way of War: Theory and Practice of Effects Based Operation
Joshua Ho (2003)
   Irvin Lim
(2004)

59. Force Modernisation Trends in Southeast Asia
   Andrew Tan
(2004)

60. Testing Alternative Responses to Power Preponderance: Buffering, Binding, Bonding and Beleaguering in the Real World
   Chong Ja Ian
(2004)

61. Outlook on the Indonesian Parliamentary Election 2004
   Irman G. Lanti
(2004)

62. Globalization and Non-Traditional Security Issues: A Study of Human and Drug Trafficking in East Asia
   Ralf Emmers
(2004)

63. Outlook for Malaysia’s 11th General Election
   Joseph Liow
(2004)

64. Not Many Jobs Take a Whole Army: Special Operations Forces and The Revolution in Military Affairs.
   Malcolm Brailey
(2004)

65. Technological Globalisation and Regional Security in East Asia
   J.D. Kenneth Boutin
(2004)

66. UAVs/UCAVS – Missions, Challenges, and Strategic Implications for Small and Medium Powers
   Manjeet Singh Pardesi
(2004)

67. Singapore’s Reaction to Rising China: Deep Engagement and Strategic Adjustment
   Evelyn Goh
(2004)

68. The Shifting Of Maritime Power And The Implications For Maritime Security In East Asia
   Joshua Ho
(2004)