

**The Current State of Maritime Security**  
**—Structural Weaknesses and Threats in the Sea Lanes—**

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# **The Current State of Maritime Security**

## **—Structural Weaknesses and Threats in the Sea Lanes—**

by Kazumine Akimoto

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Approximately 4.4 million years ago in Africa, when the apes first ventured out of the forest onto the plains and began to walk on two legs, the ancestors of the human race were born. The great journey of humans as they searched for safer, more fertile places to live reached as far as the southernmost tip of the American continent. In time, man also ventured further afield in search of the fruits of the sea eventually trading with others across the seas—this sees the emergence of a seafaring population.

A long time ago in Southeast Asia, the area of sea now dotted with many small islands was once a single land mass called Sundaland. When, 20,000 years ago, global warming melted the ice caps in the northern hemisphere and raised the level of the earth's oceans, parts of Sundaland were submerged, creating islands. At this point, people began to cross the sea by boat in droves, some of whom settled in Japan having reached it on the Kuroshio Current. This is the archeological hypothesis for the origins of the maritime peoples of the Asia-Pacific region.

The very beginnings of civilization can be found in the history of the relationship between humanity and the sea. As traders traveled, using various sea routes, different ethnic groups met, different cultures mingled, and the world became one. Those ethnic groups and nations which established maritime transportation and conducted trade on the oceans became economically prosperous. The existence of these routes on the sea, or sea lanes, was founded on the principle of free passage.

Today, humanity has entered a new era in its dealings with the sea. The end of the Cold War has eliminated the previous balance of sea power, the globalization of economic activity is breaking down national borders in the shipping industry, and legal structures on maritime exploitation are changing as a result of the UN Convention on the Law of the Sea: a paradigm shift in the maritime world is taking place leaving a strong impact on the sea lanes. Like a spider spinning a web in mid-air, the "Sea Lines of Communication (SLOC)" form a "web" that, when integrated with the various distribution systems, forms an organic complex that props up the logistic support systems that are so essential to the world economy. The term "Consolidated Ocean Web of Communication (COWOC)" would perhaps be more appropriate to describe this new world.

In this paper, I refer to the seas surrounding both Southeast Asia and Southwest Asia (the sea belt located at the Southeast Asia edge of the Eurasian Continent) as the Eurasian maritime world. My objectives in this presentation are to examine the shipping industry in that area, to obtain a clear understanding of its weakness from a security perspective, and to provide references that will help us to look at ways to improve the stability of sea lanes.

The theme I was originally given was "The Current State and Problems of Japan's Maritime Navigation." Considering the globalization of maritime transportation channels, however, I decided to extend my study to include the weaknesses of the sea lanes in Southeast Asia and Southwest Asia; the threats to those sea lanes; and the impact on Japan and the world if those sea lanes were ever to be destroyed. Thus, my presentation has become: "The Current State of Maritime Security—Structural Weaknesses and Threats in the Sea Lanes."

From 2000, The Ship & Ocean Foundation has started research on "The Various Problems Associated with the Shipping Routes of the Asia-Pacific Region" as part of "Ocean Policy Think Tank" projects. As part of the activities of this institute, I have received invaluable advice and cooperation from many, including Dr. Mark Valencia (East West Center), Mr. Daniel Coulter (US Department of Defense) and Dr. Stanley Weeks (SAIC) and am researching "The Structural

## **1. Sea lanes of Southeast Asia and Southwest Asia (the Eurasian maritime world) and their points of convergence and focus**

The sea lanes in the Eurasian maritime world<sup>1</sup> can be roughly divided into the following three areas:

- (1) Arabic coast line ~ Indian Ocean ~ Southeast Asian sea area ~ Northeast Asian sea area
- (2) Oceanian sea area ~ Southeast Asian sea area ~ Northeast Asian sea area
- (3) Africa ~ Indian Sea ~ Oceanian sea area ~ Northeast Asian sea area

Sea lanes are like the stems of a lotus plant: In the open seas outside the port of departure, these lanes gradually become wider, then converge at bottlenecks such as straits. After passing through the bottleneck, they diverge once more, before finally focusing in on other ports to collect cargo. After the Cold War, the dangers at these points of convergence and focus became apparent, and these dangers became recognized as threats to sea lanes.

The points of convergence and focus such as straits and other bottlenecks are sometimes described as “chokepoints,”<sup>2</sup> while hub ports, which are used as distribution centers, are called “focal points<sup>3</sup>.” These terms have been adopted for this paper, in which I will attempt to provide a picture of the geographic positions of both the chokepoints and focal points of the sea lanes in the Eurasian maritime world.

### **(1) Chokepoints**

There are five chokepoints in the Eurasian maritime world:

1. Malacca/Singapore Strait
2. Sunda Strait
3. Lombok and Makassar Straits
4. South China Sea
5. East China Sea

In some cases, Nos. 2 and 3 should be considered together as the “Indonesian Archipelagic Waters.” Of these five chokepoints, No. 4, the South China Sea, refers to the area surrounded by the east coast of Vietnam, the Spratly Islands, the Bashi/Luzon Strait and Hainan Island. No. 5, the East China Sea, is the sea area bordered by Taiwan, the Diaoyu/Senkaku Islands, Kyushu, the Tsushima Strait, Cheju Island, and the East coast of China south of Shanghai. It may be more appropriate to refer to all of these locations as “seas” or “waters,” with the exception of No. 1, rather than “points,” but given their strategic importance and their instability as points of convergence, I have classified them all collectively as “chokepoints.”<sup>4</sup>

### **(2) Hub Ports**

Hub ports, which have developed as maritime distribution terminals, act as distribution centers linked to land and air transport, and as such play a central role in the logistic support systems that prop up the global economy. The following four hub ports will be examined as focal points in this presentation.<sup>5</sup>

1. Singapore
2. Hong Kong
3. Kaohsiung
4. Pusan

## **2. The Current Condition of World Shipping**

## (1) Sea traffic volumes

The world shipping market is broadly divided into two categories—"bulk shipping" and "container shipping." Below, bulk carriers and container ships, which are regarded as the typical vessels that serve each of these types of shipping are examined.

### A. Bulk Carriers

A bulk carrier is a ship used to transport crude oil, iron ore and other bulk cargoes in large volumes. The cargoes are broadly divided into two categories—"dry cargo" and "liquid cargo." Dry cargo includes iron ore, coal, grain and other, minor bulk cargoes such as steel and timber. The total volume of dry cargo transported in 2000 in the world shipping market was 1901.1 million tons, and the total tonnage used to carry these cargoes was 257.9 million tons (DWT). Liquid cargo is crude oil. The total volume of liquid cargo transported around the world in 2000 was 1762.8 million tons, and the total tonnage used to ship it was 234.3 million tons.

According to estimates made by the research group of Nippon Yusen Co. Ltd., the total tonnage of bulk carriers required to meet the global dry cargo demand of 1901.1 million tons would be 247.3 million tons, whereas the total tonnage of crude tankers required to meet the global demand for crude oil in the world would be 223.6 million tons.<sup>6</sup>

These estimates show that there is a surplus of 10.6 million tons of dry cargo tonnage and a surplus of 10.7 million tons of crude tanker tonnage in the world's bulk shipping market. Simply put, there is an over-supply of bulk carriers. Table 1 shows the volume of maritime cargoes and the necessary tonnage in major bulk shipping.<sup>7</sup>

**Table 1. Major Bulk Shipping (2000)**

	Volume of Maritime Cargoes	Required Tonnage
Iron Ore	448.0 million tons	65.9 million tons
Coal	518.9 million tons	52.8 million tons
Grain	230.9 million tons	32.6 million tons
Crude Oil	1,762.8 million tons	223.6 million tons

Source: *Zusetsu Kaiun Shikyo no Kaiko to Tenbo*, compiled by Nippon Yusen Research Group (Japan Shipping Exchange, Inc., July 2001).

### B. Container Shipping

Container ships currently account for approximately 40 to 50 percent of all voyages by liners that regularly ship cargoes of industrial parts and finished products. As of the beginning of 2001, the world's commercial container fleet numbered some 3800 vessels and handled 5.3 million TEU<sup>8</sup> of cargo.

Recently, the trend has been to build bigger and bigger container ships. Whereas most container ships in the 1990s were less than 5000 TEU, most ships today are between 5000 and 7000 TEU. In 1999, the largest ship ever built in the world was commissioned, with a capacity of 9800 TEUs. It is predicted that we will eventually see ships with capacities of 12,000 to 18,000 TEU, which will inevitably mean that container ports will have to become mega-ports if they are to handle such huge vessels.

## (2) Hub Ports

With the growing trend towards container ships in the liner sector of the shipping market, faster distribution and processing of larger volumes has become possible. This has led to more manufacturing of products in multiple countries, spurring on the development of the global economy. The hub ports that handle container ships are gradually becoming more systematized. Moreover, as networking on a global scale develops between hub ports, the feeder services networks that link the

hub ports with regional ports and land and air transport systems are gradually taking on the shape of “hub and spokes.” In this process, shipping must be seen not simply as a system for sea transport, but as an essential sub-system of the Total Logistic Support System that props up the global economy. Similarly to computer networks, the sea lanes form the “mesh” of the “net,” with the hub ports as the focal points. In this way, the “Sea Lines of Communication (SLOC)” are gradually taking on characteristics that may be better served by the description “Consolidated Ocean Web of Communication.”

Some observers have predicted that by 2010, container shipping will account for 70 percent of maritime transportation.

Today, when the world is demanding “Just in Time” deliveries, it is essential that the liner market maintains firm distribution systems. Just in time will become an even more important as bigger and bigger container ships are built for the liner market. Any disruption of distribution systems, no matter how temporary, could have a devastating effect on economic activity.

**Table 2. Cargo Volumes Handled by Four Major Hub Ports of Eurasian maritime world**

Hub Port	Cargo Volumes Handled
Singapore	1.7 million tons
Hong Kong	1.7 million tons
Pusan	7.0 million tons
Kaohsing	6.5 million tons

Source: *Containerization International* (March 2001)

### 3. Threats at Chokepoints and Hub Ports

#### (1) New Paradigm in the Maritime World and Security Instability

The maritime world has experienced many paradigm shifts throughout its history. Today, the paradigm of the sea is being altered greatly by the following five changes.

- The disappearance of the power balance on the sea and changes to naval strategies.
- The increasingly borderless nature of the shipping world due to the globalization of economic activity.
- Changes to the basic structures of maritime laws due to the UN Convention on the Law of the Sea.
- The shift in the ocean regime from a global unipolar structure to a regional multipolar structure.
- The diversification of interested parties concerned with the sea.

The above five changes have caused the following new forms of instability.

- Disputes between states over sovereign rights to resources or the establishment of national-jurisdiction waters
- The increasing complexity of sea lane defense due to the multi-nationalization of the shipping world
- Differences in opinion between coastal states and nations that use the sea about “freedom of the sea” and “sea control,” and about “use of the sea for peaceful purposes” and “shipping activities.”
- Impediments to free passage due to excessive jurisdictional claims and concerns about the division of the oceans.
- The impact on peace of the destruction of resources and the environment resulting from inappropriate sea control

The Eurasian maritime world is a major artery of the “Ocean Web of Communication,”

containing more than 100 straits, seven seas and two waters that are used for international navigation. Those with particular significance in security terms are the five chokepoints mentioned earlier. In addition to the disputes and risks resulting from the new factors of instability mentioned earlier, there have long been many other potential and tangible threats around these chokepoints. These include terrorist acts and internal instability due to historical ethnic and religious conflicts or poverty, as well as disputes between countries over the sovereign rights to territories and islands.

Also, the hub ports that support the global economy as focal points are all located in developing countries or regions, which do not necessarily have the requisite defense capabilities needed to protect them against acts of destruction or military attack.

Next, we should take a look at the specific threats in the chokepoints and focal points of the Eurasian maritime world.

## **(2) Threats to Chokepoints and Hub Ports**

The following situations could severely restrict or completely circumvent the passage of ships through the chokepoints and focal points of the Eurasian maritime world.

- ① Natural disasters
- ② Man-made disasters (accidents, etc.)
- ③ Restrictions to passage due to excessive claims of sovereign or jurisdictional rights
- ④ Transnational crimes at sea (including piracy and armed robbery)
- ⑤ Terrorist acts at sea or in ports
- ⑥ International or internal armed conflicts

Although no defense or security implications *per se* would arise from natural or man-made disasters, it is obvious that any large-scale disaster at a chokepoint would be an extremely serious disruption. For example, in any given day, 150 ships pass through the Malacca/Singapore Strait and 58 percent of their cargo is crude oil.

Restrictions to passage from excessive claims of sovereign or jurisdictional rights are growing as the result of coastal states adopting systems that disregard the basic principles of the Convention on the Law of the Sea. Disasters and military force are not the only things that can sever sea routes. Many of the claims to national-jurisdictional waters of the coastal states go far beyond the Convention's provisions. Some countries have established military warning zones, and others have declared measures that obstructed the right of warships to pass through their territorial waters in safety. One country even claims an exclusive zone of 285 miles. With complete disregard for the countries that use the sea, this kind of "creeping jurisdiction" is eroding the freedom of the sea.

Transnational crimes on the sea include piracy, which the Convention on the Law of the Sea defines as

any illegal acts of violence or detention, or any act of depredation, committed for private ends . . . directed: (i) on the high seas, against another ship or aircraft, or against persons or property on board such ship or aircraft; (ii) against a ship, aircraft, persons or property in a place outside the jurisdiction of any State;...

The vast majority of such acts of piracy occur inside territorial waters. Pirates evade their pursuers by escaping from one territorial water to another. Thus, piracy cannot be controlled without international cooperation. In 1992, Indonesia, Malaysia and Singapore, the three countries with jurisdiction in the Malacca Strait, started collaborative patrols and began to exchange information.<sup>10</sup> This led to a considerable decline in the number of pirate attacks in the Malacca Strait, but the incidence of piracy in the Indonesian Archipelagic Waters subsequently increased in direct proportion.<sup>11</sup> Many of the coastal nations have invoked the Convention on the Law of the Sea to claim that criminal acts within territorial waters are not acts of piracy but domestic crimes that the coastal states themselves should control. This attitude is contributing to the difficulties in establishing a coordinated response by the nations of the region. The International Maritime Bureau

(IMB) defines “piracy and armed robbery of vessels” as “an act of boarding or attempting to board any vessel with the intent to commit theft or any other crime and with the intent or capability to use the furtherance of that act,” and has called for a more realistic approach. The difficulty of finding a common definition is testament to the gravity of the piracy problem.<sup>12</sup>

More attention must be paid to the issue of terrorism on the sea and in ports, as a problem that is likely to grow in the future. There had been no major incidents since the 1985 hijack of the *Achille Lauro* by Palestinian guerrillas. In 2000, however, several conspicuous sea terrorist acts took place including the bombing of the *USS Cole* in Aden Port, and the illegal confinement of European tourists by Abu Sayaf guerrillas in the Philippines. The hijacking of a container ship or oil tanker, or the occupation or destruction of a hub port, if such an incident were ever to occur, would have an enormous impact on the global political and economic situation. The only countries in the Asia-Pacific region to ratify the Convention of Rome<sup>13</sup> on international cooperation against hijacking are China, Australia, the United States, Canada, India and Sri Lanka. The vast majority of the Southeast Asian nations have yet to ratify this convention.

Hypothetical scenarios for chokepoints being cut off due to international conflicts include tension in the South China Sea over territorial rights to islands or the development of submarine oilfields, an armed conflict between China and Taiwan, a crisis on the Korean peninsula and oil embargoes imposed to resolve such a crisis. The territorial dispute in the South China Sea involves six countries and regions, with an unpredictable future as there are no signs of any agreement on code of conduct guidelines to prevent conflict. As a threat to focal points in the region, it is easy to envisage either Kaohsiung or Hong Kong becoming a target of destruction in a Sino-Taiwanese war. Although an armed conflict between the countries of Southeast Asia is virtually unimaginable, one unstable country’s domestic politics, such as that of Indonesia, could easily spillover to affect other countries whereby chokepoints within that country’s jurisdictional waters are closed or a hub port located in a certain country is destroyed.

## **4. Detours and alternative routes**

### **(1) Detours around chokepoints**

The potential to make a detour in the event of a blockage in one or more of the Eurasian maritime world’s five chokepoints, and the losses incurred as a result of the detour, are examined below.

#### ***A. Block in Malacca/Singapore Strait***

If the Indonesian Archipelagic Waters were open, ships could enter the South China Sea through the Sunda Strait, or take a route East of the Philippines via the Lombok-Macassar Straits. In the case of a shipment of crude oil from the Gulf to Japan for example, in comparison to the route through the Malacca/Singapore Strait, the detour would add about three days to the voyage. Also, an additional 15 or so tankers would be required to secure the necessary volume of crude oil for peacetime requirements.

#### ***B. Block in South China Sea***

Once more, based on the premise that the Indonesian Archipelagic Waters are open, ships could navigate to the East of the Philippines via the Lombok-Macassar Straits. The delay in transporting crude oil from the Middle East to Japan and the number of additional tankers required would be the same as in case A, the blockage of the Malacca/Singapore Strait.

#### ***C. Block around the Indonesian archipelago***

In this case, the Sunda Strait and the Lombok-Macassar Strait would be blocked, and it may also be impossible to navigate through the Malacca-Singapore Strait. The only detour available would be to go around the south of Australia. In the same example of transporting crude oil from the Middle East to Japan, this would add two weeks to the voyage and an additional 80 or so tankers would be needed to fulfill peacetime crude oil requirements.

#### ***D. Block in East China Sea***

A possible detour in this case would be to go around the East of the Japanese archipelago. In the example of transporting crude oil from the Middle East to Japan, no detrimental effect can be detected in this detour. Incidentally, very few ships use the Taiwan Strait, with almost all ocean-going vessels passing through the Bashi Strait before entering the East China Sea from Taiwan's East.

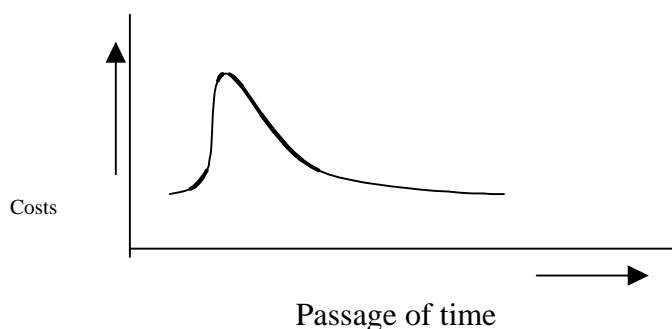
### **(2) Acceptability of Chokepoint detours**

#### ***A. Bulk Shipping***

Quantitative estimates of the economic losses that would be incurred by such detours differ according to the calculation methods and premises used. Some estimates of the potential losses to Japan from disruption of shipments of crude oil from the Middle East to Japan are \$87.9 million if the Malacca/Singapore Strait were blocked, \$200 million if the South China Sea were closed, and \$1.2 billion if the Indonesian Archipelagic Waters became impassable. To what extent such losses would affect the Japanese economy is something that would have to be considered in terms of the economic situation at the time, so it is impossible to make an arbitrary general judgment. Nevertheless, if the Malacca/Singapore Strait and the Indonesian Archipelagic Waters were blocked, then all crude oil and other freight bound for Japan would have to make a detour around the south coast of Australia, which would have a significant economic impact not only on Japan but on many other countries, including the countries of Southeast Asia and South Korea. Although the US would also feel an economic impact, of even greater concern would be the security implications to the United States in the restrictions on the movements of its navy and the effect of such restrictions on its strategic relations with China.

The extra freight costs involved in such detours would not be significant. The greatest expense would be the costs of chartering new ships to supplement the shortfalls resulting from delays in delivery. In terms of crude oil, however, Japan does have a domestic stockpile. If that stockpile could be used to cover the shortfall without having to resort to additional tankers, Japan should be able to manage for about twelve months even if the tankers had to make a detour travelling via the south coast of Australia. Also, as mentioned above, there is significant surplus capacity of crude oil tankers. Thus, the considerable number of underutilized crude oil tankers could move to areas of new demand. As can be seen in figure 1, the new charter costs would experience an initial sharp increase, but market principles would eventually prevail and costs would settle down to appropriate levels.

Figure 1: Response of idle vessels



(Source: INSS and CNA, *Chokepoints*, National Defense University Press, 1996)



## ***B. Container Shipping***

In the case of container shipping, however, the situation is dramatically different. If container ships were forced to take detours that result in delivery delays, this would impose serious losses on the world economy. In container shipping, raw materials and products are shipped from regional ports in containers and are gathered together at the hub ports. They are then allocated to coastal shipping or land transportation. With the demands for JIT, large-scale turmoil in manufacturing processes could be expected to result from any delays in delivery. The blockage of any chokepoints would undoubtedly affect the economies of many countries in a short period of time.

### **(3) Weaknesses of the Hub Ports**

The focal points are the heart of the “Ocean Web of Communication,” and the destruction of their systems, for whatever reason, would incur immeasurable economic losses. Also, unlike chokepoints, in the case of focal points, there is neither the possibility of a detour if there is a disruption nor are there any alternative ports. Ships enter the Port of Singapore at the rate of almost one vessel every two minutes. It would be virtually impossible to redirect all of these ships to other ports. Today, with the global economy moving as one, the effects of the paralysis of a hub port would know no bounds.

## **5. Sea Lane Defense in a New Maritime Era**

In the event of an obstructed sea lane due to a block in one of the chokepoints or an inaccessible hub port, the following points should be noted.

- For chokepoints, detours are possible but only for the three major ocean sea lanes, and coastal routes would still be disrupted. As things stand today in sea transport, which should be described as a “COWOC,” even the breakdown of the functions of just one coastal sea lane would affect the economies of many countries.
- One cannot make any sweeping generalizations about the economic losses and the acceptability of detours around chokepoints. In terms of bulk shipping, surplus vessels and crude oil stockpiles may help those countries with spare economic capacity to escape significant losses. The losses due to a disruption in container shipping, however, would have a negative impact on the global economy.
- If a chokepoint were to be cut off by an international armed conflict, terrorist attack, criminal act or other similar reason, the establishment of detours would likely be the safest option. Nevertheless, “freedom of navigation” is an essential requirement for the survival and progress of nations and the human race. It is something that must be given to all ships in obeisance of the Convention on the Law of the Sea and its related agreements, as well as other international agreements for the protection of resources and the environment. Such an event is not a question of merely making a detour if the sea lane is blocked, but one that should be seen as a situation that demands responses in terms of defense power.
- The required solutions are the stabilization of the security environment, the maintenance of order around the chokepoints and focal points, and regional approaches to the strengthening of defense positions.

## **Conclusion**

In Greek history, the ancient Phoenicians built boats from Lebanese cedar and crossed the Mediterranean Sea to trade with other peoples. It is said that around 1200 BC, they passed through the Strait of Gibraltar, traveled down the Western coast of Africa and around the Cape of Good Hope to the Arabian Sea. After a history of battles in the Mediterranean between sea powers and land powers, and between the various sea powers—such as in the Battle of Salamis, the Punic Wars, and the Battle of Lepanto—the Spanish and the Portuguese emerged as renowned sea travelers and began their great voyages across the ocean, using sea lanes to unite Earth.

As the sea lanes brought prosperity to the maritime nations, defense of the sea lanes became

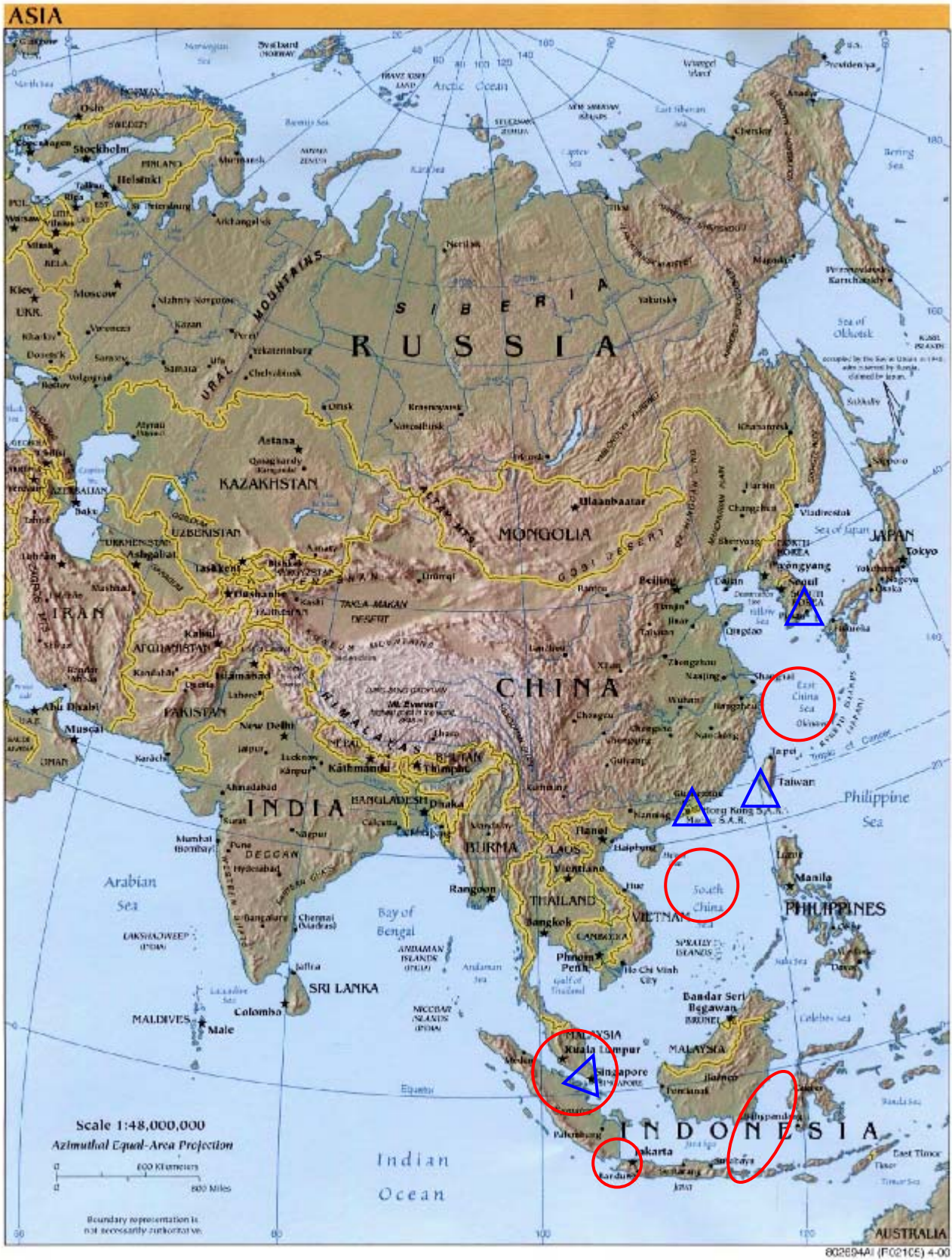
their navies' primary duty, and the importance of sea control began to be recognized. The Netherlands and Great Britain rose and fell over their domination of the sea. In both the First and the Second World Wars and throughout the years of the Cold War, the fundamental structure of the order of the sea's use was intrinsically linked to naval activities and strategies.

The collapse of the Cold War structure served to deprive the maritime world of a balance of power, which acted as a system of stabilization. At the same time, the borderless trend in the shipping industry also gathered pace, and the sea lanes were plunged into a world of "chaos." When the Convention on the Law of the Sea came into force, "sea control" came to impose certain restrictions on the "freedom of the sea." Various systems were established and agreements exchanged, and not only nations but a variety of other entities came to have an influence on these systems and agreements. With this, all kinds of values started to encroach into the maritime world. The basic structure of the order of the sea's use has been shaken, and the maritime world is encountering a new paradigm.

The weaknesses of the sea lanes in terms of security have a number of root causes. These include differences in opinions about the freedom of the sea and sea control between the traditional users of the oceans and the coastal nations who possess jurisdictional rights of their adjacent waters, disputes over marine resources in and around the sea lanes, terrorist and criminal activities arising from poverty and suppression, and from the various dangers that have been born from the very "chaos" of the sea lanes themselves.

The sea lanes of the Eurasian maritime world are major arteries of the Ocean Web of Communication. They are the site of chokepoints and focal points that, despite their strategic importance, are unstable in terms of security. The time has come to consider new ways to stabilize the sea lanes in line with the new paradigm of the maritime world.

Figure 2. Chokepoints and Focal Points



○ Chokepoints (Malacca/Singapore Strait, Sunda Strait, Lombok and Macassar Straits, South China Sea, East China Sea)

△ Focal Points (Singapore, Hong Kong, Kaohsing, Pusan)

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- <sup>1</sup> For details of the “Eurasian maritime world,” see Kazumine Akimoto, “Eurasia Kaiyo Sekai to Sea Lane Boei — Keiyo Sekai no Paradigm Shift” [The Eurasian Maritime World and Sea Lane Defense—The Paradigm Shift in the Maritime World], *Hato*, No. 149 (July 2000)
- <sup>2</sup> The Institute for National Strategic Studies (INSS), National Defense University and The Center for Naval Analyses, *Chokepoints*, (Washington, DC: National Defense University Press, 1996) refers to the points of convergence of routes in sea lanes as “chokepoints.”
- <sup>3</sup> Daniel Coulter, “The Present State of the World’s Sea Lanes and Its Security Implications,” *Asia Taiheiyo Chiiki ni okeru Kaijo Kotsumo wo Meguru Shomondai* [Problems in the Sea Transport Networks of the Asia-Pacific Region], a report compiled by the Ship and Ocean Foundation. Coulter refers to the hub points where sea transport networks meet as “focal points.”
- <sup>4</sup> The same classifications as in *Chokepoints*.
- <sup>5</sup> Coulter, “The Present State of the World’s Sea Lanes” also chose the same four hub ports.
- <sup>6</sup> Figures for volume of maritime cargoes and required tonnage obtained from *Zusetsu Kaiun Shikyo no Kaiko to Tenbo* [Past and Future Outlook of Shipping Market Explained in Graphs], compiled by Nippon Yusen Research Group, (Japan Shipping Exchange, Inc., July 2000).
- <sup>7</sup> Ibid.
- <sup>8</sup> *Sekai no Container Sentai oyobi Shuko Jokyo 2000 Ban* [World Container Ship Fleet and State of Use, 2000 Edition], compiled by Nippon Yusen Research Group (Japan Shipping Exchange, Inc., July 2000), p 1.
- <sup>9</sup> United Nations Convention on the Law of the Sea of 1982, Article 101.
- <sup>10</sup> When in pursuit of a suspected pirate vessel, these countries inform the police authorities of the neighboring country before the target vessel enters the latter country’s territorial waters and ask them to continue the pursuit (commonly known as “hot hands off,” after the term “hot pursuit.”)
- <sup>11</sup> *Higashi Asia Senryaku Gainen 2000* [East Asian Strategic Concepts 2000], National Defense Institute (National Defense Institute, 2000), pp. 81–84.
- <sup>12</sup> The International Maritime Organization of the United Nations is currently considering anti-piracy measures in the Maritime Security Committee (MSC). As part of these deliberations, it prepared a final draft definition of “piracy and armed robbery” in June 2001.
- <sup>13</sup> *Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation*. Deliberated after the terrorist attack on the Achille Lauro in the Mediterranean Sea in 1985, passed in 1988, came into effect in 1992.