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Cooperative Maritime Security in Northeast Asia

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THE GEOSTRATEGIC maritime environment in Northeast Asia is changing. The Cold War order—marked by the possession of nuclear weapons, aggressive warfighting strategies, and the naval confrontation between the Soviet Union and the United States—has been replaced by an indistinct arrangement reflecting the fluid state of international relations. As the two military superpowers have reduced their military presence in response to changes in international politics and growing economic constraints, so their political leverage over the region has diminished.

Step by step with the reduction in the American and Russian naval presence in Northeast Asia since the end of the Cold War has come an effort by regional navies to enhance their forces' capabilities. China and Japan continue to expand their already significant naval power, while South Korea and Taiwan are starting to acquire more powerful forces. Maritime security issues are becoming a particular concern of Northeast Asian countries. They tend now to be more preoccupied with their maritime security than with internal security and land-based threats. At a strategic level, some East Asian states are concerned about a possible power vacuum in the region absent a Russian naval presence, and, with declining U.S. force levels, the development of naval power-projection capabilities by China and Japan.

The naval arms buildup in Northeast Asia is not as intense as that in Europe during the Cold War, and no state has yet acquired the capability to impose its

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military hegemony over the region. Nevertheless, interstate rivalries just short of conflict are emerging, and most regional states are increasing their power-projection capabilities in ways that could be dangerous if political relationships deteriorate in the future. Claims that the naval expansion in Northeast Asia threatens maritime security can be exaggerated, and they often are. However, the rapid buildup of Chinese and Japanese naval forces has heightened the perception of threat to the security of the region; except for the Korean Peninsula, current security concerns in Northeast Asia are focused on China's developing power-projection potential. Most countries in and around the region are heavily dependent on the sea lanes over which they trade, and in the event of crisis or war most combat logistic support would have to use the major sea lanes that traverse the region.

Recently, regional naval forces have displayed interest in the application of cooperative maritime security models to Northeast Asia. There is no Pacific-area equivalent of the Dangerous Military Activities Agreement or of the confidence-building measures that are embodied in the Stockholm and Helsinki accords. Aside from some agreements still in force between Russia and the United States, only informal procedures in a few bilateral and subregional treaties provide guidelines for the conduct of naval operations within the region. The formal and bilateral naval arms control approaches negotiated between the United States and the Soviet Union are gone. Furthermore, the significance of rules for preventing or restraining maritime conflicts is increasing in the post–Cold War era, and cooperative maritime security in the broad sense could play a key part in the effort.

The objective of this paper is to consider cooperative maritime security in Northeast Asia in the field of maritime confidence-building measures and maritime cooperation measures. First, however, the theoretical background will be set forth.

What Is Cooperative Maritime Security?

Since the Second World War, international politics and relations have focused on security in terms of the ability of states to defend against external military threats. Throughout history states have tried to find security in conquest, buffer-zones, or spheres of influence. Security studies were accordingly defined as "the study of the threat, use and control of military force."[1] This realistic and practical approach to security, characterized by an emphasis on military force and nuclear deterrence, underpinned the Cold War East-West relationship. In particular, military competition figured prominently in debates about security. Recently, however, international-relations scholars have been considering other approaches to the prevention and management of conflicts,

approaches that emphasize cooperation, not rivalry, and that give less weight to the military element.

In the post–Cold War era, cooperative security has arisen from European principles of "common security." The concept of common security was introduced in 1982 in the Report of the Palme Commission, *Common Security: A Blueprint for Survival*: "A more effective way to ensure security is to create a positive process that can lead to peace and disarmament. . . . Acceptance of common security as the organising principle for efforts to reduce the risk of war, limit war, and move towards disarmament means, in principle, that cooperation will replace confrontation in resolving conflicts of interest."[2] This concept is based on the assumption that unilateral security is no longer effective, because states are becoming too interdependent economically, politically, and militarily. The potential importance of common security is that it combines the ideas of idealists and realists in an attempt to avoid increasingly fruitless competition.[3]

Later, the Common Security Program in the United Kingdom, led by Stan Windass and Eric Grove, developed the concept of *cooperative* security, as applied to Europe. The report of that program—three years of consensus-building and problem-solving work among a distinguished team of experts and senior military and civilian Nato officials—defined cooperative security as "a relationship between antagonists, not between allies. Although they are antagonists both sides nevertheless share significant areas of common interest: (1) in avoiding war, and especially nuclear war; and (2) in reducing the level of their military expenditure to the minimum needed for security."[4] The implication is that cooperative security is one of the interrelated aspects of an integrated common security policy. For example, the Organization for Security and Cooperation in Europe (the OSCE, formerly the Conference on Security and Cooperation in Europe, or CSCE) aims at security cooperation among member states in the absence of a common external threat or enemy, and it establishes a European security regime in which the national actors are "neither wholly compatible nor wholly competitive."[5] This approach regards cooperative security as security *with* rather than *against* the adversary. Of course, cooperative security would be unnecessary where potential adversaries fully trusted each other.

This thinking was applied to the Asia-Pacific region at the September 1990 meeting of the UN General Assembly, by the then Canadian Secretary of State for External Affairs, Joe Clark. He was the first to envisage the new notion of cooperative security as focused on the North Pacific. Since then, the idea has been pursued by the North Pacific Cooperative Security Dialogue, organized by the Centre for International and Strategic Studies (CISS) at York University in Ontario. Its vision is broadly similar to the notion of common security in the European context, but it promises to be more appropriate for the Asia-Pacific region.[6]

Cooperative security—preventing threats—replaces preparing to counter threats as the centerpiece of security planning. Its scope covers military cooperation, various confidence-building security measures, incidents-at-sea agreements, "hotlines," and limitations on force size and weapon types.[7] It differs from common security in that it embraces a gradual or evolutionary approach. Giving prominence to flexibility, cooperative security allows for the development of informal or formal security policies, including the incorporation of existing bilateral alliances as a basis for a multilateral security structure.

The aspect of cooperative security that specifically concerns maritime postures and relationships assumes that there is a maritime area of common interest, namely the avoidance of threats and military confrontations. Eric Grove first explored cooperative maritime security, in the European context, in his 1990 *Maritime Strategy and European Security*.[8] Cooperative maritime security, however, can be applied in Northeast Asia as well. Such a structure, which would have both military and nonmilitary components, could be an effective means of maintaining subregional and regional maritime peace and stability. In fact, cooperative maritime security strategy is essential if the military confrontation is to be reduced without chaos and without danger. Cooperative maritime security attempts not only to strengthen the mutuality of security by binding neighboring nations together to secure common goals but also to broaden its definition beyond the traditional concerns to include naval arms control, confidence building, and maritime cooperation.

Today, cooperative maritime security is a salient issue in maritime security in the Asia-Pacific region. The Australian foreign minister, Gareth Evans, and a leading Australian strategic analyst, Paul Dibb, argue that "developing a cooperative approach to the maritime area is clearly a strategically important issue, not least because of the crucial nature of the sealanes passing through Southeast Asian waters and the South China Sea."[9] Such an approach has already manifested itself; an example is the biennial Western Pacific Naval Symposium, initiated by the Royal Australian Navy in 1988. Another is the Council for Security Cooperation in the Asia-Pacific Working Group on Maritime Cooperation, established in 1995. Its essential purpose is to provide "a more structured regional process of a non-governmental nature . . . to contribute to the efforts towards regional confidence-building and enhancing regional security through dialogue, consultation and cooperation."[10] Cooperative maritime security can both remove existing maritime problems and protect a region from external or potential threats such as piracy, pollution, or interference with sea lanes. Cooperative maritime security is essential in the Northeast Asian setting, in which a host of political, economic, and military factors contribute to an uncertain and changing environment. Even so, much of the success of regional maritime cooperation arrangements must depend on the degree of commitment of the participating countries.

The Geostrategic Environment for Cooperative Maritime Security

Although the North Pacific region is now relatively free of conflicts, the potential for them is serious, given the geography of the region, so the importance of cooperative maritime security is apparent. Contrary to the global trend, Northeast Asian navies are experiencing steady growth and rapid modernization. Five principal phenomena have a particular bearing on cooperative maritime security there.

The Naval Arms Buildup. The first of these is the widespread naval buildup and acquisition of advanced weapons. Northeast Asia has been arming faster than Southeast Asia and the Persian Gulf area, as evidenced by increasing defense budgets at a time when defense budgets are declining in most of the Third World (see Table 1). For instance, in China, Taiwan, and South Korea, defense budgets have been growing by between 5 and 10 percent a year in real terms. Japan's annual rate of increase, though it has slowed to around 3 percent, is in absolute terms the biggest in the region.

A thaw in the Cold War commenced in the mid-1980s, but Northeast Asian countries began thereafter to invest a greater portion of their budget in the defense sector, spending after the Cold War an enormous amount of money to import weapons from abroad. As calculated from Table 1, from 1992 to 1996 Japan's defense budget increased by 25.6 percent, China's by an estimated 28.3 percent, Taiwan's by 34.7 percent, and South Korea's by 39.3 percent.[11] From 1988 to 1992, Japan spent $9.2 billion on importing weapons, thus becoming the second-largest weapons importer in the world. South Korea spent $3.5 billion, China $1.5 billion, Taiwan $2.2 billion, and North Korea, despite its chronic difficulties, $3.1 billion, to buy weapons abroad.[12]

The exact level of China's defense spending remains uncertain, with estimates ranging from the official figure of six billion dollars to a high of nearly fifty billion.[13] Taiwan's defense budget for fiscal year 1996 increased 20 percent over that of fiscal 1995, amounting to $13.6 billion.[14] These statistics show that Northeast Asian countries, without exception, have been engaged in military buildup programs. (Defense budgets are not expected to increase to the same degree in the next half-decade, due to economic problems.)

The horizontal proliferation of naval weapon systems and the modernization of regional navies in Northeast Asia have a variety of causes. One is the lessons of the Persian Gulf War; another is the reduction of the Russian military presence, especially the Russian Pacific Fleet, in the region. Further economic development is also a rationale for the growth of Northeast Asian navies—the great majority of trade depends on sea routes, and the protection of merchant shipping is a traditional task of navies (see Table 2).

Table 1
Changing Regional Defense Budgets, 1985–1996

	1985	1990	1992	1994	1996	Change (%)
Northeast Asia						
China	6.36	6.1	6.7	6.74	8.6	+32[a]
Japan	14.2	28.7	35.9	45.8	45.1	+218
North Korea	4.2	5.2	2.1	2.2	2.42	-42
South Korea	4.4	10.1	11.2	13.3	15.6	+254
Taiwan	4.1	8.69	10.1	9.55	13.6	+231
Southeast Asia						
Indonesia	2.3	1.5	1.8	2.32	3.0	+30
Malaysia	1.8	1.6	1.96	2.05	2.4[a]	+33
Thailand	1.5	2.1	2.71	3.62	4.0	+176
Philippines	0.5	0.98	1.4	0.88	1.1	+120
Singapore	1.2	1.7	1.7	3.0	4.0	+230
Persian Gulf						
Saudi Arabia	17.78	13.8	14.5	14.3	13.9[b]	-22
Iran	13.4	3.2	1.8	2.30	3.4	-75
Kuwait	1.87	1.5	9.3	3.09	2.9	+55
United Arab Emirates	2.04	1.6	2.6	1.88	1.9[a]	-7

Notes: Figures are in billions of U.S. dollars. Data do not reflect exchange-rate fluctuations.
a. Figures from official defense budget figures. For China, some estimates suggest that military-related spending is two or three times higher than official levels.
b. Estimated figures.
Source: IISS, *The Military Balance* (London: IISS, 1985–1996).

China. China has long produced a wide variety of naval ships, many based on Russian designs of the 1950s and 1960s. In recent years the Chinese have attempted to upgrade their equipment with imported technology and have begun to produce missiles and electronic systems of a relatively modern design. Recently, China has sought to benefit from economic hardship in Russia by buying Russian weapons and technology, such as Kilo-class submarines and *Sovremenny*-class destroyers, at bargain-basement prices. Despite its economic immaturity, China has been pressing forward with a vigorous plan to modernize its naval forces, allocating a huge amount of money for military spending. In fact, China is the country that has made the greatest leap in a naval arms buildup in the post–Cold War era. It is significant that China has been engaged in such an arms buildup, in view of the relative decline in the military threat.[15]

The *Luhu* and *Luda*-class destroyers, the *Jiangwei*-class frigates, the *Houjian* and *Houxin*-class patrol craft, and the *Dayun*-class replenishment ships are all

Table 2
Balance of Naval Forces in Northeast Asia

	China	Japan	Taiwan	North Korea	South Korea
Personnel	268,000	46,085	30,588	46,000	26,000
Submarines[a]	89[b]	18	4	22	4
Destroyers	18	42	18	0	7
Frigates	34	20	10	3	9
Amphibious Ships[c]	58[d]	6	20	10	16

Notes
a. Submarines exclude coastal and midget boats.
b. Includes twenty-seven reserve units.
c. Amphibious ships exclude LCUs and LCMs.
d. Includes four reserve units.

Source: Richard Sharpe [Capt., RN, Ret., OBE], *Jane's Fighting Ships 1996–1997* (London: Jane's Information Group, 1996).

now entering fleet service. During Premier Li Peng's visit to Moscow in December 1996 Russia agreed to deliver two *Sovremenny*-class destroyers, which will give the People's Liberation Army Navy (PLAN) improved surface strike capabilities.[16] As the authors of a recent book on China note, "The new *Jiangwei* class of frigates, the *Luhu*-class of destroyers, and the newly upgraded version of the older *Luda*-class destroyers are all formidable vessels, especially in the context of the other powers in the region. A *Jiangwei* frigate might not intimidate an American sailor, but it looks pretty unnerving to a Vietnamese."[17]

The PLAN continues to make its submarine force—the third largest in the world in numbers—a priority. There are an estimated ninety submarines, including two strategic submarines (one *Xia*-class SSBN and one Golf-class SSB), five *Han*-class nuclear attack boats, one cruise missile submarine, and eighty patrol submarines (of which twenty-seven are in reserve). A new Type 094 SSBN reportedly is under development and due to start building soon, but its construction may be delayed because of concentration on SSNs. It will be some time before China has an SSBN force like even that of Britain or France, and she will continue to rely on land-based missiles. Russian advisers are helping design a new Type 093 SSN based on the Russian Victor III, the first of which is expected to be launched in 1999 for completion in 2001. The *Ming*-class diesel-electric submarines developed so slowly that foreign experts suspected technical

problems as construction was suspended, then resumed. The last was launched in 1996, and thirteen are in service. The *Ming* has been replaced in production by the *Song* class (Type 039), the first of which was running trials in 1997; no further *Songs*, however, are under construction. In 1995, China ordered four Russian Kilos—the last pair of the newer Type 636—the last one to be delivered in late 1998. There is a single aging Type ESSG (a modified Romeo [*Wuhan*]-class) submarine with C-801 antiship cruise missiles. This system is also fitted in some of the *Hans* for surface launch. A new version capable of underwater launch from torpedo tubes is under development. Although they are reported to exist, aircraft carrier and new-generation SSBN programs may be delayed by China's economic and technical decisions. Block obsolescence looms for much of the PLAN fleet.[18]

Japan. The Japan Maritime Self-Defense Force (JMSDF) has sixty-two destroyers (four of them *Kongo*-class Aegis ships) and frigates of between 1,290 and 7,250 tons standard displacement, fifteen diesel submarines, three hydrofoil fast attack missile craft, thirty-five mine warfare ships (minesweepers, a minelayer, and a tender), six landing ships including a new *Osumi* "mini-LHA," and four fleet supply ships.[19] Japanese naval combat aircraft are organized into seventeen maritime patrol fixed-wing and antisubmarine (ASW) helicopter squadrons, with about a hundred Lockheed/Kawasaki P-3C Orions and an almost equal number of Mitsubishi HSS-2B and SH-60J helicopters, as well as a ten-plane MH-53E mine countermeasures squadron.[20]

JMSDF modernization is currently based on two basic defense-related documents—the new National Defense Program Outline, released in late 1995, and the Mid-Term Defense Buildup Plan. The current Program Outline sets forth Japanese security-related goals and guidelines for the next decade; the Buildup Plan lays down how the Outline is to be implemented and establishes the pace of military modernization through 2000. A third, and supporting, planning document, Japan's 1997 Defense White Paper, stresses revolutionary military high technology. The JMSDF's major vessel acquisition and procurement plans from 1 April 1997, based on the Defense White Paper, are for two 4,400-ton destroyers, one submarine, and one training and support ship.[21]

The characteristics of Japanese military capabilities are evident in the modernization of its naval forces. Japan was reported to be planning to acquire four additional Aegis destroyers (at a billion dollars per ship) in the near future.[22] A long-range fleet of Aegis destroyers would allow Tokyo to envision building an aircraft carrier; the Aegis system was originally designed to protect carrier battle groups. The JMSDF has a highly modern, if limited, naval capability centered primarily around destroyers (although an Aegis destroyer is similar in size to a cruiser), frigates, and minesweepers. These forces, together with a modern diesel submarine fleet and a very modern if small group of amphibious landing ships, give Japan a strong capability for defending the sea lanes throughout the

Northeast Asian area for which it is responsible under its security arrangements with the United States.

Republic of Korea. The ROK Navy is placing greater emphasis on its long-range capabilities, procuring hundreds of new combat planes from the United States and building dozens of new frigates and destroyers. Since 1981 the South Korean fleet has acquired nine frigates, twenty-seven corvettes, six minehunters (with two more planned), several support vessels, and eleven Super Lynx ship-borne antiship helicopters (with a further order of its ASW version expected).[23] Seoul is pursuing the 3,900-ton Korean Destroyer (KDX) program, but that has been delayed by the selection of its command and fire control system. The KDX prototype, the *King Kwanggaeto*, was launched on 28 October 1996 for delivery in 1998, with the second scheduled for handover in 1999 and the third in 2000.[24] South Korea's program for nine Type 209 submarines is picking up speed, with the first of the class, *Chang Bogo*, commissioned in 1993 and four more already commissioned. Only one of the nine is German made, all of the others being built in South Korea. The original plans for a total of eighteen submarines are unlikely to be funded; current programs aim at nine.[25] The new submarine project, which will upgrade the existing Type 209-1200 submarines to 1,500-ton boats with air-independent propulsion, might be delayed for several years by economic problems.[26]

Republic of China. The Taiwanese Navy has been undergoing a robust modernization process, one that seems to envision a force-in-being rather than the capability to launch an attack. Although Taiwan's destroyers have been recently rehabilitated and rearmed, their effectiveness and reliability are hampered by age. Taiwan's landing craft are predominantly leftovers from U.S. World War II construction. A new combat support ship, the *Wu Yi* AOE, the largest vessel ever built for the Taiwanese Navy, represents a major step forward, but it is not sufficient to support a large offshore operation. The dramatic improvements in the Taiwanese fleet, especially the ongoing acquisition of modern *Cheng Kung* (U.S. *Ingraham*-like) and *Kang Ding* (French *La Fayette*) FFGs and *Knox* FFs, seem to aim mainly at sea-lane defense, reflecting a shift in Taiwan's military priorities from preparing to meet a full-scale PLA invasion to defending against a blockade or other forms of limited war. For example, in June 1992 the Taiwanese Navy staged its first sea-control exercise, dealing with a simulated attempt by the PLAN to cut off Taiwan's seaborne trade by mining harbors and attacking commercial shipping bound to and from the island. The existing submarine force of four is small, and Taiwan is facing enormous problems supplementing it. Taiwanese submarine deals with France, Germany, and the Netherlands have met with protests from mainland China. However, the Taiwanese Navy is currently considering indigenous construction of submarines.[27]

Territorial and Resource Disputes. The 1982 Law of the Sea Convention, which was adopted as a result of the third UN Conference on the Law of the Sea, is a powerful institutional framework for defining and resolving maritime issues. The Convention extended exclusive economic zones (EEZs) out to two hundred nautical miles; because the seas of Northeast Asia are either enclosed or semi-enclosed and are studded with so many islands that nowhere does the distance from one headland or island to another exceed four hundred nautical miles, much of the region's offshore expanse has been subjected to overlapping resource claims and intense territorial disputes (see Table 3). Many involve claims by coastal states over the continental shelf, and criteria for resolving overlapping shelf and EEZ claims.

There are territorial disputes between Russia and China, about the boundary along the Amur River; between Russia and Japan, over the Kurile Islands (or Northern Territories); between China, Taiwan, and Japan, over a group of barren islets to the north of Taiwan, known in Japanese as the Senkakus and in Chinese as Diaoyu Tao; between Russia and the United States, over the Bering Sea; and between South Korea and Japan over the Liancourt Rocks (known in the respective nations as the Tok-Do and Takeshima) in the southern part of the East Sea (otherwise the Sea of Japan).

Offshore resources are a related concern, particularly as the seabed of the East China Sea and in the Sea of Okhotsk is believed to be rich in reserves of oil and gas. These problems are serious enough to threaten maritime security, but they could be alleviated by maritime safety agreements and confidence-building measures.

The natural resources in and under the seas of Northeast Asia are in many cases subject to contending claims. The interests of most countries in the region are in the broadest sense economic. The North Pacific is a resource-rich region, especially in commercial fisheries. Three principal issues pertaining to the use of living resources—illegal fishing, unregulated fishing, and driftnetting—have threatened international environmental security in the Bering Sea and the adjacent North Pacific. These have all resulted in bitter disputes, impaired relations between victim and culprit states, and international countermeasures. Besides the United States and Russia, the states most involved with current management practices in the Bering Sea are South Korea, North Korea, Japan, Taiwan, and China.[28]

Military tensions and conflicts within the Asia-Pacific region are becoming increasingly associated with access to and control over resources and with environmental degradation. In many ways, the disputes over the Senkakus, the Tok Islands, and the Northern Territories are related to these issues. Claims to the islands involve such resources as fisheries, petroleum, and minerals, and also concerns for their ecosystems. On the other hand, however, restrictions on the passage of vessels through the disputed zones impede the navigation of oil tankers

Table 3
Law of the Sea Disputes Affecting the Northeast East Asian Region

Nature of Dispute	Countries Involved	Occupying Countries
Various Overlapping Claims to the Spratly Islands		
Amboyna Cay	China, Vietnam, Taiwan, Philippines, Malaysia	Vietnam
Commodore Reef	China, Vietnam, Taiwan, Philippines, Malaysia	Philippines
Falt Island	China, Vietnam, Taiwan, Philippines, Malaysia	Philippines
Itu Aba Island	China, Vietnam, Taiwan, Philippines	Taiwan
Lankiam Cay	China, Vietnam, Taiwan, Philippines	Philippines
Loaita/South Island	China, Vietnam, Taiwan, Philippines	Philippines
Mischief Reef	China, Philippines	China
Nam Yit Island	China, Vietnam, Taiwan, Philippines	Vietnam
Nanshan Island	China, Vietnam, Taiwan, Philippines	Philippines
Northeast Cay	China, Vietnam, Taiwan, Philippines	Philippines
Pearson Reef	China, Vietnam, Taiwan, Philippines	Vietnam
Sand Cay	China, Vietnam, Taiwan, Philippines	Vietnam
Sin Cowe Island	China, Vietnam, Taiwan, Philippines	Vietnam
Southeast Cay	China, Vietnam, Taiwan, Philippines	Vietnam
Spratly Island	China, Vietnam, Taiwan, Philippines	Vietnam
West York Island	China, Vietnam, Taiwan, Philippines	Philippines
Thitu Island	China, Vietnam, Taiwan, Philippines	Philippines
Disputed Claims over the Paracel Groups	China, Vietnam, Taiwan, Philippines	China
Boundary Disputes in the Gulf of Tonkin	China, Vietnam	
Disputed Claims over the Yellow and East China Seas		
Paratas Reef	China, Taiwan	Taiwan
Senkaku Island	China, Taiwan, Japan	Japan
Penghu/Pescadores	China, Taiwan	Taiwan
Disputed Claims over the East Sea		
Tok Islands	South Korea, Japan	South Korea
South Kuril Islands	Russia, Japan	Russia

and, therefore, energy security interests. Military action to enforce claims could damage existing oil exploration and production facilities, threatening widespread pollution. The economic stakes and strategic trends in the region are such that any regional conflict now would have a major, if not dominant, maritime dimension.

Although the countries involved have generally managed to avoid direct conflict, territorial claims may well disturb the stability of the region; overlapping EEZ claims are particular flashpoints. Establishing clear and recognized maritime boundaries and sovereign jurisdictions will be difficult; until such settlements are finally reached, various cooperative efforts and confidence-building programs—predominantly of a maritime nature—could serve to lessen the likelihood of conflict and promote an atmosphere of trust and mutual respect necessary for lasting agreements.

Marine Pollution. The rapid economic development of Northeast Asia led to pollution at sea to an extent that has created regional concern. There are many sources of sea pollution, most of them activities on land. In recent years many Northeast Asian countries, including China and Russia, have pursued a policy of "development first and environment protection later." In 1991, for example, Chinese industrial waste thrown into the rivers included 1,836 metric tons of heavy metals, 1,127 tons of arsenic, and 4,666 tons of cyanides.[29] According to the Bohai Zone Fishery and Fishing Harbor Administration, under the Ministry of Agriculture, some 20 percent of fishery resources in the Bo Hai (the northwestern extremity of the Yellow Sea) have been seriously damaged by environmental pollution and overfishing.[30] The Stockholm Environment Institute has stated that "if the Chinese economy grows 8.5 percent a year for the next decades, by the year 2025 China will produce three times as much carbon dioxide as the United States";[31] that situation would also be reflected in the pollution of the Yellow Sea.

The environmental impact of Soviet dumping of solid and liquid nuclear waste in the East Sea, the Sea of Okhotsk, and the waters southeast of Kamchatka since the 1960s is an urgent problem, and its assessment requires Japanese collaboration. These dangerous disposals have continued since the dissolution of the Soviet Union. For instance, the Russian Pacific Fleet dumped radioactive waste in the East Sea in October 1993; Japan and South Korea protested. In addition, Moscow sank about six hundred tons of written-off ammunition in the East Sea on 14 February 1995.[32] It has also been reported that in 1992 a missile on board a ballistic missile submarine accidentally exploded in the Sea of Okhotsk near Shimushir and that an advanced missile fell overboard from a transport ship off southeastern Sakhalin. Further, the continuing disposal of nuclear waste, such as reactor coolant, by the Russian Pacific Fleet has created a growing need to determine the extent of the pollution problem in the region.[33]

The Importance of Sea Lanes. In the Asia-Pacific region the ocean is important not only for coastal states but also for the developed countries that consider the region's sea lines of communication so important that they maintain a military presence in the region. Thus both direct and indirect risks to regional maritime stability exist. These dangers include the large movement of refugees, drug trafficking, and the potential for conflict arising from the absence of an institutional structure to manage disputes.

Furthermore, the use of the seas as a highway for commerce makes Northeast Asia a target for piracy, as has been seen in the East China and Yellow seas. From 1992 to early 1994 there was a northward shift of the focus of piracy, from the Straits of Malacca and Singapore to the Hong Kong–Luzon-Hainan Island area, the South China Sea, and significantly, the East China Sea and beyond. In the Yellow Sea there was a single reported piracy incident in 1994. Piracy is a never-ending menace to the freedom of navigation, and the incidents continue (see Table 4).[34]

Table 4
Piracy Events in Far East, 1991–1996

	1991	1992	1993	1994	1995	1996
China–Hong Kong–Macao			1	4	31	9
Taiwan					2	
East China Sea		1	10	6		1
Gulf of Tonkin				1		
Hong Kong–Luzon-Hainan			27	12	7	14
South China Sea	14	6	31	6	3	2
Vietnam				2	4	
Vladivostok (Russia)					1	
Kampuchea			1			
Yellow Sea			1	1		
Total	14	7	71	32	48	26

Source: ICC-International Maritime Bureau, *Piracy Annual Report 1993–1997* (Kuala Lumpur: IMB Regional Piracy Centre, 1993–1997).

To date, however, not much thought has been given to applying cooperative maritime security to all these issues. Long-term economic security is dependent upon the free flow of trade, which in a conflict situation would require cooperative measures to protect. During the Cold War, the protection of shipping was largely the preserve of the major maritime powers; it is now at least as much a concern of the regional countries themselves. Today these problems are typically handled nationally, with a resulting potential for international conflict.

Regional Approaches to Cooperative Maritime Security in Northeast Asia

Recently, there have been several bilateral naval activities for cooperative maritime security in the region. Examples are the first-ever U.S.-Russian humanitarian relief exercise, COOPERATE AT SEA, held near Vladivostok in August 1994; the recent resumption of Russian naval ship visits to China; the first-ever visit of South Korean naval vessels to Japan in January 1995, and to Russia in September 1993; and the visit of the guided missile destroyer *Admiral Vinogradov* on 27 June 1997 to Japan, in the first Russian naval port visit there in 103 years.

There have also been some important developments in terms of bilateral and multilateral cooperation of a strictly environmental and economic nature. Recent research supported by Japan and Russia on pollution in the Sea of Okhotsk and the East Sea; the increased number of bilateral exercises between Russian and other regional navies; and trilateral discussions between the United States, the Republic of Korea, and Japan on sea-lane security are all examples of purposeful interaction. The significant feature of all of these activities is that they have been directed toward some common goal.

The ROK Navy organized an international sea power symposium in August 1989 at Seoul. There, issues of Korean and regional maritime security were addressed. Since that conference near the end of the Cold War, it has become clear that the approaches of Northeast Asian countries to cooperative maritime security can be divided into two broad categories: maritime confidence-building measures and maritime cooperation measures.

Maritime Confidence-Building. Measures to reduce apprehension between adversaries about capabilities and intentions have the advantage of not involving the reduction or constraint of naval force structure, combat readiness, or modernization. At the same time they can enhance stability and predictability at sea, eliminate mutual misunderstanding, reduce inadvertent conflicts at sea arising from misperception of, or inadequate or mistaken reaction to, other nations' activities. Furthermore, it is certain that such international problems on the high seas as the driftnetting and territorial delimitation in the North Pacific cannot be solved through the unilateral adoption and enforcement of national measures. Rather, multilateral confidence-building measures lessen these problems and contribute to Northeast Asian security.

The complex security context of Northeast Asia requires a new look at maritime risk reduction in the region. This assessment must consider the relevance of existing maritime measures in the region as well as the maritime risk reduction experience in Southeast Asia. A variety of confidence-building measures merit consideration, including the best established maritime incidents-at-sea (INCSEA) agreements as well as broader measures that enhance openness and

transparency of forces and plans. The following kinds of initiatives could assist maritime security and stability and can be applied to Northeast Asia specifically.

Multilateral Meetings. The issue of maritime security has recently been prominent on the agenda of the Western Pacific Naval Symposium (WPNS) and of an unofficial "second-track" organization called the Working Group on Maritime Cooperation of the Council for Security Cooperation in Asia Pacific (CSCAP). The WPNS generally handles special matters of naval cooperation, and the CSCAP Working Group concentrates on broader issues of maritime cooperation.

The WPNS, which meets biennially, comprises the navies of the Association of Southeast Asian Nations (ASEAN), China, Japan, the Republic of Korea, the United States, Australia, New Zealand, and Papua New Guinea. The WPNS was held in Sydney in 1988, in Bangkok in 1990, in Hawaii (hosted by the Commander in Chief, U.S. Pacific Fleet) in November 1992, in Kuala Lumpur in 1994, and in Tokyo in 1996. The Sixth WPNS will be held in Seoul on 14–15 October 1998. The Bangkok WPNS agreed that a technical workshop of representatives of regional navies should develop ideas about enhanced naval cooperation in relevant areas. Special mention was made of protection of shipping and the need for procedures to exchange information on maritime activities of common concern. Flag officers from nineteen Asia-Pacific navies, including those of Russia, China, Japan, and South Korea, agreed at the fifth WPNS in Tokyo to study guidelines for maritime operations. They agreed to provide each other information about their naval forces, doctrine, and, where appropriate, warship movements. The WPNS cannot promote multilateral maritime cooperation in highly sensitive areas, but it has organized a series of subordinate workshops that have produced a maritime information exchange directory, a tactical signals book, a replenishment at sea manual, and planning guidance for command-post exercises.[35]

The concept of a Council for Security Cooperation in Asia and the Pacific was first articulated at a meeting in Seoul in November 1992. The critical achievement of the Seoul meeting was an agreement to establish the Council to provide "a more structured regional process of a nongovernmental nature . . . to contribute to the efforts towards regional confidence-building and enhancing regional security through dialogues, consultation and cooperation."[36] The Council is a multilateral, nongovernmental organization dedicated to security dialogue in Asia and the Pacific. The first meeting was held in Kuala Lumpur in December 1994 (a month after the European Council for Security Cooperation in Asia and the Pacific met in London). The Council's Working Group on Maritime Cooperation is one of the most important second-track entities in the region. A working group held in Kuala Lumpur in June 1995 discussed major issues, such as regionwide or

subregional safety at sea agreements, that would address regional maritime instability caused by piracy, drug trafficking, and illegal migration.[37]

Joint Exercises. At present the "Rim of the Pacific" (RIMPAC) exercise is the only regular (every two years) multilateral naval cooperation in the Asia-Pacific region. The original purpose of RIMPAC, which was first held in 1971, was to increase the interoperability of Pacific naval forces against the growing power of the Soviet Pacific Fleet. The United States, Canadian, and Australian navies originally took part in the exercise; the ROK Navy joined them ten years later. In 1990 the nature of RIMPAC began to change; it is now aimed at strengthening naval ties to deal with post–Cold War regional security issues such as piracy and humanitarian operations. However, the ROK Navy still has no bilateral naval exercises with either the Chinese navy or the JMSDF.

A Korean defense analyst, Professor Hyun-Ki Kim, has suggested that the United States should take the lead in fostering naval cooperation between the ROK Navy and the JMSDF.[38] Shared defense of the sea lanes in and around the East and Yellow seas would be the objective, and a lower economic defense burden would be a potential benefit. Overcoming many challenges and objections, the ROK Navy recently has established "low key" cooperation with the JMSDF, such as exchanges of naval officers for naval war and staff colleges, and port visits.

Port Visits and Military-to-Military Contacts. The first South Korean defense minister ever to travel to Japan arrived there in April 1994 to finalize naval goodwill visits. Other such visits have taken place with Russia, with two Korean destroyers calling at Vladivostok in September 1993. The Korean navy is extending its range, with visits to Indonesia and Bangladesh becoming almost routine. All of this points to the political use of the South Korean navy to establish further ties with regional powers while maintaining friendly relations with Russia and containing North Korea. Furthermore, the Republic of Korea and Japan have agreed to an exchange of naval training squadrons, with Seoul proposing that Korean submarine sailors train on Japanese submarines and simulators.[39]

A multinational port visit can be a useful level of naval cooperation. The first regional instance was the International Fleet Review of May 1990 at Penang, Malaysia, in which sixty-three warships from eighteen countries participated.[40] Military-to-military contacts, including personnel exchanges with regional navies, are another low-level form of multinational naval cooperation. This has been very fruitful in the Asia-Pacific region, as shown by U.S.-Russian naval staff exchanges, increased Korean-Japanese maritime contact, and the Chinese-Japanese strategic dialogue.

Incidents at Sea (INCSEA) Agreements. The success of a 1993 agreement between the Russian Navy and the ROK Navy as well as the JMSDF to prevent incidents at sea has led to the prospect of a wider multilateral agreement in the

region. An INCSEA agreement is designed to prevent inherently or inadvertently dangerous military activities or to contain their consequences; it does so by articulating codes of conduct for military forces and by mandating modes of consultation and communication in crises. As Asia-Pacific navies grow in reach and capability, bilateral and multilateral subregional INCSEA agreements should become valuable maritime confidence-building measures.

Also, the 1972 INCSEA Agreement between the United States and the Soviet Union has served as a model for over a dozen similar bilateral documents, as well as for the 1989 U.S.-Soviet agreement at the Joint Staff–General Staff level on prevention of dangerous military activities.[41]

However, the limitations and exclusions of existing incidents-at-sea agreements are also relevant. Submerged submarine operations are excluded, but even more importantly, the agreements are limited to high seas activities only.

A prospective regional INCSEA agreement should be seen primarily as an operational instrument rather than a political one. It is important to emphasize that such documents alone cannot effectively solve the problems associated with submarine operations or disputes over EEZ boundaries. On 27–29 October 1994, for example, an incident between the aircraft carrier USS *Kitty Hawk* and a Chinese *Han*-class nuclear attack submarine occurred in the Yellow Sea.[42] No INCSEA treaty modeled on existing agreements would have applied to that situation. (The United States and China agreed on an INCSEA treaty on 19 January 1998.) A flexible set of bilateral and multilateral negotiations is needed to provide common ground on the interpretation of territorial seas and EEZs and on submerged submarine communications in extremely dangerous situations. Indeed, it is understood that Russia has negotiated such an agreement with the Republic of Korea and Japan.

A United Nations Arms Register. The present UN register of conventional arms, through its intrinsic value and thanks to parallel endeavors, can be highly effective in not only reducing dangerous misperceptions but also in promoting trust and partnership between states. According to UN reports, nineteen out of forty-seven Asian countries submitted information in 1994, up from seventeen in 1993. However, several important Asia-Pacific countries, including Thailand, Brunei, Vietnam, Cambodia, North Korea, and of course Taiwan (which as neither a member nor a recognized observer of the UN was not invited to participate), have not yet joined the register. The summer 1994 meeting of the UN Group of Experts on the UN Arms Register was a major disappointment for those who had hoped for a significant strengthening or expansion of the register in the near future. In particular, no progress was made on adding new military weapons and indigenous production to the register, or on amending or adding to the categories of weapons covered.[43]

Nor is the UN effort to track worldwide arms transfers effective, despite a growing international push for all 185 member nations and observers to publish

annual accounts of weapon deliveries.[44] This has led some Asia-Pacific states, especially certain ASEAN nations, to call for the establishment of a regional arms register that would provide more information, particularly with regard to naval forces. At present the UN global register records changes in ownership only of "warships" of 750 tons or more displacement. Reducing that tonnage threshold and adding detailed information on the nature of these ships could be useful. It has been argued that the establishment of an ASEAN regional arms register with a naval emphasis "could contribute to the long term development of the Register while at the same time promoting regional security."[45]

Maritime Cooperation. Maritime cooperation measures can offer a number of benefits. Their main goals are cost reduction through shared development or combined operations for humanitarian purposes, joint development of marine resources, the protection of sea lanes, and the prevention of marine pollution. Maritime cooperation measures can also maintain communications when tensions heighten. They show that neighboring countries can work together to deal with certain kinds of problems at the regional or subregional level. This can help not only to deter potential adversaries but also to assure outside countries that they need not have great concern for their seaborne trade. Maritime cooperation measures are divided into two areas, operational measures (such as the protection of sea lanes and the control of pollution) and functional ones (such as cooperation for resources). They cover search and rescue and actions to counter marine pollution and such illegal activities as drug smuggling, piracy, and fisheries infringement.

Protection of Sea Lanes. Extravagant claims to sovereignty over adjacent waters, unresolved maritime boundaries, and potentially restrictive interpretations of the right of innocent passage can threaten sea lanes. During the Cold War, the Republic of Korea, the United States, and Japan held unofficial conferences in order to deal with the sea lane problems that would arise in the event of a superpower confrontation in Northeast Asia. Later, several ASEAN countries, Australia, and New Zealand joined the conference series. The focus has now shifted toward rapid economic growth through sea trade. For example, over two hundreds ships a day transit the straits of Malacca, and half of them are oil tankers. Nowadays, most coastal countries in the region have a vested interest in stability on the sea lanes; naval exercises focused on sea lane protection could help generate a regional consensus.

Control of Marine Pollution. Marine environmental issues are of increasing concern to the Northeast Asian region because of the threat posed to natural resources. The need for cooperation for the environmental protection of Northeast Asian seas has become self-evident; the remaining question is how to establish an appropriate cooperative maritime security regime. The 1982 Convention on the Law of the Sea covers the cooperation of states bordering

enclosed or semi-enclosed seas. According to Article 207, "states shall adopt laws and regulations to prevent, reduce and control pollution of the marine environment from land-based sources, including rivers, estuaries, pipelines and outfall structures, taking into account internationally agreed rules, standards and recommended practices and procedures." One result is the Agreement on Marine Scientific and Technological Cooperation between China and Spain, which was signed on 6 April 1992 in Madrid. It covers studies on protection from marine pollution as well as basic studies on oceanography and on the development, use, and management of marine resources.[46]

Several environmental management activities are increasing in Northeast Asia. For instance, all Northeast Asian countries except Mongolia are members of the Northwest Pacific Action Plan. At its first meeting in Vladivostok in 1991, the group decided that the Plan would initially cover marine environmental issues in the East Sea and the Yellow Sea.[47] With the assistance of the World Bank, China and South Korea have outlined an action plan for monitoring and protecting the "Yellow Sea Large Marine Ecosystem" as well as making possible sustainable utilization of the sea's biological resources.[48] Another regional initiative, the Northeast Asia Environment Program, is one of the most effective institutional instruments of environmental cooperation. With the help of the United Nations Economic and Social Commission on Asia and the Pacific and of the UN Development Program, it has held a series of meetings bringing together high-level foreign ministry officials since the early 1990s.[49] Also, a joint South Korea–Japan-Russia excursion in March 1994 in the East Sea measured the degree of radioactive waste contamination. Japan agreed not only to provide Russia a hundred million dollars for decommissioning nuclear submarines but also to contribute to a joint study on controlling pollution in the Sea of Okhotsk and off northeastern Sakhalin.[50]

Living Marine Resources. There are bilateral arrangements between regional countries not only to protect marine resources but also to decrease conflicts. For instance, the 1965 fisheries agreement in force between Korea and Japan regulates fishing operations mainly around the southern part of the Korean Peninsula. A 1975 fisheries agreement between China and Japan, which replaced nongovernmental arrangements of 1955, applied mostly to the waters west of a rough median line between China and the other coastal states. Both agreements were the result of long, bitter disputes.

The main features of the Korea-Japan treaty are that it authorizes each state to adopt an exclusive twelve-mile fishery zone along its coast and that it establishes a joint control zone adjacent to the Korean EEZ. The resources within the joint control zone are to be shared on an equal basis, with a maximum annual catch of 150,000 tons (with a 10 percent fluctuation) for each party in specified major fisheries.[51] For enforcement in the joint control zone the "flag state" principle is

applied, denying coastal states the right of visit and arrest in case of violations by the other party.[52]

It should be noted that third countries' fishing vessels have violated territorial waters. According to the National Fishery Administration of Korea, for example, there were in 1993 about 1,300 cases of violation by Chinese fishing vessels of the Korean fishery resources protection area. In addition, that same year the number of Chinese fishing vessels claiming emergency refuge in Korean ports reached 7,779.[53] Northeast Asian countries have not solved the problem of overlapping EEZs in the Yellow Sea. Without an effective agreement, the numbers in both instances are expected to keep increasing unless relevant measures are taken by the two countries. The situation has recently worsened due to increased Chinese fishing in the militarily sensitive area around the Five Islands in tbe Yellow Sea off North Korea, where the South Korean government has restricted fishing even for its own nationals in order to avoid conflict with North Korea.

In most cases, present arrangements manage fishing only by regulating the distribution of catch and the scale of effort—the number of vessels, fishing seasons, and the size of gear. There is no general forum in which management issues or the distribution of catches can be discussed by all interested parties. The existing bilateral fisheries commissions do not even publish decisions or the data upon which they are based. There is a clear need for a mutual agreement for the prevention of illegal fishing in the region.

Nonliving Marine Resources. With the exception of the Japan-Korea Joint Development Agreement of 1974, little progress has been made in the settlement of the offshore boundary disputes that have prevented the active searcb for oil in Northeast Asian waters. South Korea, Taiwan, and China rely on the principle of "natural prolongation," arguing from Japan's geophysical relationship to the East China Sea and the Okinawa Trough beneath it. The trough lies immediately west of the Ryukyu chain, stretching from the Japauese home island of Kyushu to Taiwan, its depth ranging from a maximum of approximately 2,800 meters near its southern end to eight hundred meters off the northernmost Ryukyus. According to South Korea, Taiwan, and China, this trough terminates the natural prolongation of the Japanese territory and thus constitutes a natural boundary between themselves and Japan. Japan, however, has insisted on the application of the principle of "equidistance." This bitter dispute has been resolved, at least partially, by a joint development agreement between South Korea and Japan; China, however, has protested that the agreement infringes its sovereignty.

Most countries in the world accepted the exclusive economic zone as a sensible system of resource management and marine environment protection; the coastal countries in Northeast Asia, however, have hardly been enthusiastic about them in the East China Sea and the Yellow Sea. Russia was the first

country in the region to claim a two-hundred-mile exclusive fishery zone (in 1976) and a two-hundred-mile EEZ (in 1984). In addition, North Korea established an EEZ in 1977. The other major coastal states—China (in 1997), South Korea (in 1996), and Japan (in 1996)—have also established their zones. One reason would seem to be that the introduction of EEZs would considerably reinforce the position of Japan vis-à-vis China and Korea in the continental-shelf resource controversy. Ultimately, the introduction of the EEZ is in no way expected to change dramatically the final balance sheets of the coastal states. The gain or loss on the part of each will be merely relative, depending on the needs of each. This may be why the status quo in the region has so far not been disrupted even though the coastal states are obviously concerned over maritime cooperation.

Prospects and Recommendations

As Asia-Pacific regional naval forces grow, and certainly in anticipation of the growing reach of the Chinese fleet, it can be expected that calls for cooperative maritime security will increase. This is likely to happen whatever the outcome in North Korea. Prospects for acceptance and implementation of maritime confidence-building measures are much better than those for initiatives that seek to limit naval construction. A number of promising avenues for maritime confidence-building measures suggest themselves:

- Increasing reciprocal naval port visits and military-to-military contacts
- Strengthening governmental discussions of such subjects as maritime strategy, doctrine, data on naval forces, and future building plans
- Exchanging observers at naval exercises
- Publishing a maritime information directory based on the UN Arms Register.

In addition, there are a number of possibilities for fruitful maritime cooperation:

- Establishing multilateral and mutual naval exercises for search and rescue operations
- Publishing joint handbooks of naval tactical procedures for humanitarian operations
- Strengthening such organizations as the Northwest Pacific Action Plan
- Establishing a marine pollution monitoring network.

The new security environment of maritime cooperation and the imperative for budget reduction due to economic problems since late 1997 have given

Northeast Asian countries a good opportunity to apply cooperative maritime security models in the region. The principal objective of cooperative maritime security in Northeast Asia is not only to implement a stable maritime regime but also to reduce the economic burden of the exploitation of marine resources and of the building up of naval forces. Such a regime is an essential prerequisite for a maritime security environment in which countries would not feel the need to acquire the larger maritime forces that are now being planned in the region. Maritime confidence-building measures should be attempted first on a bilateral or a multilateral basis, thereafter advancing to higher levels of dialogue and cooperation. As one analyst has noted, "Small steps in which states could find some common ground can help modify doctrinal thinking in a manner that might later make far-reaching measures feasible."[54] As for maritime cooperation measures, at present the focus should be on joint development of marine resources and the prevention of marine pollution, as achievable objectives.

Notes

1. Joseph S. Nye, Jr., and Sean M. Lynn-Jones, "International Security Studies: A Report of a Conference on the State of the Field," *International Security*, Spring 1988, pp. 5–27.

2. Olaf Palme et al., *Common Security: A Blueprint for Survival* (New York: Simon and Schuster, 1982), p. 7.

3. For a more comprehensive evaluation of the meaning of common security, see Barry Buzan, "Common Security, Non-Provocative Defense, and the Future of Western Europe," *Review of International Studies*, October 1987, pp. 265–6.

4. Stan Windass and Eric Grove, eds., *Cooperative Security in Europe*, vol. 2 (Adderbury, U.K.: Foundation for International Security, May 1987), p. 1.

5. Janice G. Stein, "Detection and Defection," *International Journal*, Autumn 1985, p. 600.

6. York University's working paper series suggests the potential for cooperative security in the Asia-Pacific region. See Stewart Henderson, *Canada and Asia Pacific Security: The North Pacific Cooperative Security Dialogue: Recent Trends*, NPCSD Working Paper No. 1 (North York, Ont.: York Univ., January 1992); and David B. Stewart, *Common, Comprehensive and Cooperative Security in the Asia-Pacific, Canadian Consortium on Asia-Pacific*, CANCAPS Paper no. 3 (March 1994). For other discussions of the application of cooperative security to the Asia-Pacific region, see R. Mark Bean, *Cooperative Security in Northeast Asia* (Washington, D.C.: National Defense Univ. Press, 1990); James E. Goodby, "Cooperative Security in Northeast Asia," Disarmament Topical Papers no. 11 (New York: UN Department for Disarmament Affairs, 1992), pp. 68–86; and Chul-Ki Lee, "Gongdong Anbo, Gipdan Anbo, Hupruk Anbo Dongbuk Jukyong" [The application of common security, collective security, and cooperative security in Northeast Asia], *Tongil Youngku* [Unification Studies], Fall 1995, pp. 235–63.

7. For the main purpose of cooperative security, see Ashton B. Carter, William J. Perry, and John D. Steinbruner, *A New Concept of Cooperative Security* (Washington, D.C.: Brookings Institution, 1992), pp. 7–10; and Seyom Brown, ed., *International Relations in a Changing Global System* (Boulder, Colo.: Westview, 1995), p. 35.

8. For more details, see Eric Grove, *Maritime Strategy and European Security*, Common Security Studies no. 2 (London: Brassey's, 1990).

9. Gareth Evans and Paul Dibb, *Australian Paper on Practical Proposals for Security Cooperation in the Asia-Pacific Region* (Canberra: Department of Foreign Affairs and Trade, and Strategic and Defence Studies Centre, 1994), p. 10.

10. Desmond Ball, "CSCAP: Its Future Place in the Regional Security Architecture," in Bunn Nagara and Cheah Siew Ean, eds., *Managing Security and Peace in the Asia-Pacific* (Kuala Lumpur: Institute for Strategic and International Studies, 1996), p. 301. For a more comprehensive analysis of the CSCAP Working Group on Maritime Cooperation, see Sam Bateman and Stephen Bates, eds., *Calming the Waters: Initiatives for Asia-Pacific Cooperation*, Canberra Papers on Strategy and Defense no. 114 (Canberra: Strategic and Defence Studies Centre, Australian National Univ., 1996).

11. International Institute for Strategic Studies [hereafter IISS], *The Military Balance, 1993–1994*, and *1996–1997* (London: IISS, 1993 and 1996).

12. Stockholm International Peace Research Institute [hereafter SIPRI], *SIPRI Yearbook 1993* (Oxford: Oxford Univ. Press, 1993), p. 445.

13. Many analysts of Chinese military expenditures consider the actual military resource base may be three to five times higher than official defense budget figure. See David Shambaugh, "World Military Expenditures," in SIPRI, *SIPRI Yearbook 1994* (Oxford: Oxford Univ. Press, 1994), pp. 441–8; David Shambaugh, "Wealth in Search of Power: The Chinese Military Budget and Revenue Base," paper presented at the conference "Chinese Economic Reform: The Impact on Security Policy," Hong Kong, 8–10 July 1994; Paul Godwin and John J. Schulz, "Arming the Dragon for the 21st Century: China's Defense Modernization Program," *Arms Control Today*, December 1993, pp. 3–8 ; and IISS, *The Military Balance 1995–1996* (London: IISS, 1995), p. 270.

14. Nayan Chanda, "Fear of the Dragon," *Far Eastern Economic Review*, 13 April 1995, p. 25, and "Taiwan Increases Defence Spending," *Asian Defence Journal* [hereafter *ADJ*], December 1995, p. 135.

15. Each frigate has a displacement of 4,200 tons and is equipped with advanced radar, guns, torpedoes, surface-to-surface and surface-to-air missiles, and antisubmarine helicopters. "Shipyard Denies Navy Frigates Order Cancelled: Beijing Naval Threat Cited," *Central News Agency* (Taipei), 9 March 1995, in *BBC Summary of World Broadcast* [hereafter *SWB*], 13 March 1995, p. FE/2250 F/2. See also Richard Sharpe [Capt., RN, Ret., OBE], *Jane's Fighting Ships, 1997–98* (Coulsdon, Surrey, U.K.: Jane's Information Group, 1997), pp. 113–5.

16. For a comprehensive analysis of the PLAN's modernization programs, see Gene D. Tracey, "China's Navy in the 1990s," *ADJ*, October 1989, p. 44; "Reporters Visit Nuclear Submarine Base," *Jianchuan Zhishi* [Naval and merchant ships], 8 August 1989, in *Foreign Broadcast Information Service* [hereafter *FBIS*] *China*, 31 January 1990, pp. 62–3; Ling Yu, "New Trends in the Chinese Communist Navy's Destroyer Force," *Wide Angle*, 16 June 1990, pp. 40–9; Philip L. Ritcheson, "China's Impact on Southeast Asian Security," *Military Review*, April 1994, p. 46; Stephen L. Ryan, "The PLA Navy's Search for a Blue Water Capability," *ADJ*, May 1994, p. 30; John Wilson Lewis and Xue Litai, *China's Strategic Seapower: The Politics of Force Modernization* (Stanford, Calif.: Stanford Univ. Press, 1994); You Ji, "The PLA Navy in the Changing World Order: The South China Sea Theatre," in Dick Sherwood, ed., *Maritime Power in the China Sea: Capabilities and Rationale* (Canberra: Australian Defence Studies, Australian Defence Force Academy, 1994), pp. 93–5; Michael T. Klare, "The Next Great Arms Race," *Foreign Affairs*, Summer 1993, p. 137; You Ji, "A Test Case for China's Defense and Foreign Policies," *Contemporary Southeast Asia*, March 1995, pp. 384–5; "Newly Purchased Russian Submarine Transits Taiwan Straits," *Lien Ho Pao* (Hong Kong), 20 February 1995, in *SWB*, 22 February 1995, p. FE/2234G/5; "Gungkuk Six Russian Kilogup Zamsuham Guip Gaehuk" [China purchased six Russian Kilo-class submarines], *Gukbang Ilbo* [Defense news], 6 March 1995, p. 2; Paul Beaver, "China Plans Its Greatest Leap Forward," *Jane's Navy International* [hereafter *JNI*], July–August 1995, p. 11; You Ji, "The Chinese Navy and Regional Security," *ADJ*, September 1995, p. 12; Jason Glashow and Michael J. Witt, "Boost in Chinese Buildup Fuels Asian Worry," *Defense News* [hereafter *DN*], 29 January–4 February 1996, p. 6; Norman Friedman, "World Naval Developments," U.S. Naval Institute *Proceedings* [hereafter *USNIP*], March 1996, p. 124; and "China Expands Reach with Russian Destroyers," *Jane's Defence Weekly* [hereafter *JDW*], 15 January 1997, p. 5.

17. Nicholas D. Kristof and Sheryl WuDunn, *China Wakes* (New York: Times Books/ Random House, 1994), p. 380.

18. See Duk-Ki Kim [Lt. Cdr., ROKN], "Modernization of China's Submarine Forces," *The Submarine Review*, January 1997, pp. 50–8; Sharpe, 113–6; U.S. Office of Naval Intelligence [hereafter ONI], *Worldwide Submarine Challenges* (Washington, D.C.: ONI, 1997), pp. 20–1; Joris J. Lok, "Regional Submarine Program Stalled," *JDW*, 18 February 1998, p. 37; and A. D. Baker, "World Navies in Review," *USNIP*, March 1997, p. 99.

19. Sharpe, pp. 359–89.

20. Sharpe, pp. 359, 371.

21. Robert Karniol, "Japan Stresses an Expanded Role and Stability in Its White Paper," *JDW*, 16 July 1997, p. 18.

22. Asagumo Shimbunsha, *Almanac of the Self-Defense Force Armament, 1992* (Tokyo: Asagumo Shinbun Press, 1992), p. 193; more recently, A. D. Baker stated that this is no longer planned, with four conventional destroyers to be purchased instead. See Baker, p. 99.

23. Richard Sharpe [Capt. RN, Ret., OBE], *Jane's Fighting Ships 1994–95* (Coulsdon, Surrey, U.K.: Jane's Information Group, 1994), pp. 388–97.

24. For a comprehensive analysis of the KDX program, see Joris Janssen Lok, "South Korea's Naval Buildup Continues," *JDW*, 8 May 1993, p. 7; for recent updates, see Baker, p. 100.

25. Lok, "Buildup Continues," p. 7.

26. "Hyundai Court Move Stalls Daewoo Submarine Order," *JNI*, January–February 1998, p. 55; and Lok, "Programme Stalled," p. 37.

27. Barbara Opall, "Taiwan Trims Industry Goals," *DN*, 1–7 September 1997, p. 4.

28. Douglas M. Johnston, *Fishery Politics and Diplomacy in the North Pacific: New Resources of Instability*, NPCSD Working Paper no. 7 (Ontario: Centre for International and Strategic Studies, York Univ., 1992), p. 15; and D. M. Johnston, "The Driftnetting Problem in the Pacific Ocean: Legal Considerations and Diplomatic Options," *Ocean Development and International Law*, vol. 21, no. 1, 1990, pp. 5–39.

29. Kristof and WuDunn, p. 390.

30. "Huanghai, Bohai Sea Fishery Resources Dwindling," *Front Line* (Hong Kong), January 1997, p. 96.

31. Cited in Kristof and WuDunn, p. 390.

32. "Pacific Fleet Only to Dump 'About 10 Tons' According to Press Officer," *Kyodo News Service*, in *SWB*, 17 February 1995, p. FE/2230E/5; and "Russian Pacific Fleet Dumps Discarded Ammunition," ITAR-TASS News Agency, in *SWB*, 17 February 1995, p. FE/2230E/4.

33. Oleg Bukharin and Joshua Handler, "Russian Nuclear-Powered Submarine Decommissioning," *Science & Global Security*, vol. 5, no. 2, 1995, pp. 254–60; Raphael Vartanov and Charles D. Hollister, "Nuclear Legacy of the Cold War," *Marine Policy*, vol. 21, no. 1, 1997, p. 13; "Your Health: Getting Rid of the Atomic Fleet's Nuclear Fuel," *Moscow News*, 14–20 April 1995, p. 14; Joshua Handler, "No Sleep in the Deep for Russian Subs," *Bulletin of the Atomic Scientists*, April 1993, pp. 7–9; "Russia's Pacific Fleet: Problems with Nuclear Waste," *Jane's Intelligence Review*, March 1995, pp. 136-40; and "Russian Naval Nuclear Submarine Safety, Construction, Defense Conversion, Decommissioning, and Nuclear Waste Disposal Problems," *Trip Report: Greenpeace Visit to Moscow and Russian Far East, July–November 1992* (Washington, D.C.: Greenpeace, 15 February 1993), pp. 19–20. The Sea of Okhotsk missile accidents were reported first in *Sovietsky Sakhalin*, on 3 June 1992, and the next day in *Izvestia*. See Tsuneo Akaha, "Muddling Through Successfully: Japan's Post-War Ocean Policy and Future," *Marine Policy*, May 1995, p. 179.

34. Barry Hart Dubner, *Maritime Violence: The Problems with Modern Day Piracy*, MIAMP Issue Paper no. 9/95 (Kuala Lumpur: Malaysian Institute of International Affairs, 1995), p. 2; and "Sea Piracy Dips," *International Herald Tribune*, 29 October 1996, p. 4.

35. For a discussion of the issues inhibiting multilateral naval cooperation in the western Pacific, see Sam Bateman, "Build a WestPac Naval Alliance," *USNIP*, January 1993, pp. 77–82. For a discussion of the WPNS, see Kenji Kinoshita [Capt., JMSDF], "Improving Security in the Western Pacific," *USNIP*, March 1997, pp. 85–6.

36. Desmond Ball, Richard L. Grant, and Jusuf Wanandi, *Security Cooperation in the Asia-Pacific Region* (Washington, D.C.: Center for Strategic and International Studies, 1993), p. 37. For more detail, see Desmond Ball, "The Council for Security Cooperation in the Asia Pacific (CSCAP)," *The Indonesian Quarterly*, Fourth Quarter 1993, pp. 495–505.

37. Stanley B. Weeks, "Law and Order at Sea: Pacific Cooperation in Dealing with Piracy, Drugs, and Illegal Migration," paper presented at the CSCAP Working Group on Maritime Cooperation, First Meeting, Kuala Lumpur, Malaysia, 2–3 June 1995.

38. Hyun-Ki Kim, "The Probability of Naval Cooperation between Korea and Japan," paper presented at the Third International Sea Power Symposium, cosponsored by the ROK Navy and the Sejong Institute, Seoul, 4–5 August 1993.

39. Paul Bracken, "South Korean Naval Development: Competition and Cooperation," paper presented at a Center for Naval Analyses–Korean Institute for Defense Analyses (CNA-KIDA) workshop, Seoul, 10 October 1994, p. 114.

40. R. Sachi, "The RMN's International Royal Fleet Review," *ADJ*, May 1990, pp. 18–21.

41. For background on the 1972 and 1989 agreements, see John H. McNeill, "Military-to-Military Arrangements for the Prevention of U.S.-Russian Conflict," *Naval War College Review*, Spring 1994, pp. 23–9.

42. Barbara Starr, "Han Incident Proof of China's Naval Ambition," *JDW*, 7 January 1995, p. 5.

43. Malcolm Chalmers and Owen Greene, "The UN Register of Conventional Arms," *Bulletin of Arms Control*, November 1994, pp. 8–13.

44. For more comprehensive analysis of this point, see Barbara Opall, "Major Arms Buyers Shun Voluntary UN Register," *DN*, 14–20 October 1996, p. 22; Brooks Tigner, "UN Arms Registry Loses Clout," *DN*, 4–10 December 1995, p. 28; and Hendrik Wagenmakers, "The UN Register of Conventional Arms: A New Instrument for Cooperative Security," *Arms Control Today*, April 1993, pp. 16–21.

45. Owen Greene, "Naval Transparency, Regional Security and the UN Register," paper presented at the conference "From Cooperative Security to Multilateral Peacekeeping: Medium Powers in a New Century," Univ. of British Columbia, Vancouver, 23–25 February 1995, p. 11.

46. Sang-Dong Lee, "A Framework for Cooperation for the Protection of the Marine Environment in the Yellow Sea," in Dalchoong Kim et al., eds., *Exploring Maritime Cooperation in Northeast Asia* (Seoul: Institute of East and West Studies, Yonsei Univ., 1993), pp. 55–6.

47. Lyuba Zarsky, "The Prospects for Environmental Cooperation in Northeast Asia," *Asian Perspective*, Fall–Winter 1995, pp. 124–5.

48. Richard L. Edmonds, "China's Environment," in William A. Joseph, ed., *China Briefing, 1994* (Boulder, Colo.: Westview, 1994), pp. 156–7.

49. Zarsky, p. 125.

50. Akaha, p. 179.

51. Jin-Hyun Paik, "Exploitation of Natural Resources: Potential for Conflicts," paper presented to the first Meeting Group on Maritime Cooperation, Kuala Lumpur, 2–3 June 1995, p. 3.

52. The "flag state principle" means that "states concerned shall ensure that conservation measures and their implementation do not discriminate in form or in fact against the fishermen of any state"; quoted in Renate Platzöder, ed., *The 1994 United Nations Convention on the Law of the Sea* (Dordrecht: Martinus Nijhoff, 1995), p. 44.

53. Ibid., p. 5.

54. R. Deyanov, "The Role and Security Objectives of Confidence-Building Measures at Sea," in UN Department of Disarmament Affairs, *Naval Confidence-Building Measures*, Disarmament Topical Paper no. 4 (New York: United Nations, 1990), p. 15.

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