

**STRATEGY
RESEARCH
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STRATEGIC IMPLICATIONS OF CHINESE NAVAL EXPANSION

BY

**PETER JENSEN
U.S. Department of State**

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ABSTRACT

AUTHOR: Peter Jensen

TITLE: Strategic Implications of Chinese Naval Expansion

FORMAT: Strategy Research Project

DATE: 1 April 2000

PAGES: 42

CLASSIFICATION: Unclassified

In the early decades of the twenty-first century, China seeks to become the preeminent regional naval power in the Yellow Sea, the East China Sea and the South China Sea, and to acquire a credible defense capability hundreds of miles to the east of her shores. China also seeks a permanent naval presence in the Indian Ocean, and strives to become the superior naval force on both sides of the narrow choke points between the Indian and Pacific oceans. This paper will examine the growth of the Peoples' Liberation Army Navy (the PLAN), and the strategic implications thereof.

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PREFACE

Grateful thanks are extended to my project advisor, Col. Brian Moore, USMC (Ret), and to Colonel Larry Woertzel, USA (Ret).

There are a number of acronyms and abbreviations in this paper that have listed below. In references to ship-to-ship and surface-to-air missiles, NATO naming conventions are used.

ASW	Anti-Submarine Warfare
DDG	Guided Missile Destroyer
FFG	Guided Missile Frigate
LCM	Medium Landing Craft
LCU	Utility Landing Craft
LSM	Medium Landing Ship
LST	Tank Landing Ship
MIRV	Multiple Independently Targeted Reentry Vehicles
MSDF	Maritime Self-Defense Force (Japan)
PLAAF	People's Liberation Army Air Force
PLAN	People's Liberation Army Navy
PRC	People's Republic of China
ROKN	Republic of Korea Navy (South Korea)
SAM	Surface-to-Air Missile
SLBM	Sea-Launched Ballistic Missile
SLOC	Sea Line of Communication
SS	Diesel Attack Submarine
SSB	Diesel Ballistic Missile Submarine
SSBN	Nuclear Ballistic Missile Submarine
SSG	Diesel Guided Missile Submarine
SSM	Ship-To-Ship Missile
SSN	Nuclear Attack Submarine
USN	United States Navy

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STRATEGIC IMPLICATIONS OF CHINESE NAVAL EXPANSION

Beijing's leadership envisions a united China that is the indisputable economic, political, and military power in the Far East, a great nation that others in the region consult with and defer to. It is worth noting that China's name (Chung-guo) translates to "Middle Kingdom." This name dates back to antiquity, and describes a prosperous central hegemon surrounded by tributary states.

For the first time in modern history, China is developing a powerful offshore naval capability. The three primary reasons behind this naval expansion and modernization are the needs: a) to counter perceived encirclement by the U.S. and its allies in the Pacific Rim, b) to protect China's burgeoning import and export trade, most of which is transported by sea, and c) to gain heightened leverage in resolving the Taiwan issue and regional territorial disputes in China's favor.

In the early decades of the twenty first century, China seeks to become the preeminent regional naval power in the Yellow Sea, the East China Sea and the South China Sea, and to acquire a credible defense capability hundreds of miles to the east of her shores. China also seeks a permanent naval presence in the Indian Ocean, and strives to become the superior naval force on both sides of the narrow choke points between the Indian and Pacific oceans. This paper will examine the growth of the People's Liberation Army Navy (hereafter referred to as the PLAN), and the strategic implications thereof.

Evolution of the PLAN

At the time of their victory on the mainland in 1949, the Chinese Communists had a handful of vessels whose crews had defected from the Nationalist side. In one of the countless resolutions attendant to the founding of the People's Republic of China, the People's Republic Consultative Conference in September 1949 called for the establishment of a navy. The PLAN was formally established in September 1950.

In 1951, the Soviet Navy transferred fifty torpedo boats to the PLAN. Four coastal submarines, four Gordiy class destroyers and two minesweepers arrived from the USSR in 1954-55. From 1955 on, the PLAN produced their vessels in Chinese yards with Soviet assistance.¹

With the Sino-Soviet split in 1960, Moscow's naval assistance ended. For the next two decades, most new PLAN vessels were based on Soviet 1950s designs with subsequent Chinese enhancements and upgrades. These included the Romeo class submarine, the Osa (renamed Huangfen) class fast attack craft, and the Komar (renamed Houku) fast attack craft. The Chinese also produced their derivative of the Soviet Styx ship-to-ship missile (SSM).²

The 1970s saw the addition of almost 500 fast attack craft. All major surface combatants (frigates and destroyers) and many fast attack craft adopted SSMs as their primary armament. The PLAN launched its first domestically designed submarines, the diesel-electric Ming class, and the nuclear-powered Han class. The 1980s brought the first nuclear ballistic submarine (SSBN) and a shift in emphasis from fast attack craft to destroyers and frigates.³ After the collapse of the Soviet Union in 1991, Russian technology and know-how became available to the PLAN. At the turn of the millennium, China's leadership is aggressively expanding and modernizing the PLAN in pursuit of their nation's strategic objectives.

Evolution of PLAN Strategy

The very names given to the PLAN and the air force (PLAAF) reflected the fact that they were not co-equals of the army, but were established to support the army in a "people's war" of massive resistance against invading enemies. The PLAN's mission was to attack enemy vessels in coastal waters with its many fast attack craft and submarines. The naval doctrine of coastal defense remained largely unchanged from 1950 until the early 1980s.⁴

In 1982, Vice Admiral Liu Huaqing became commander in chief of the PLAN. In earlier years, Liu had studied at the Soviet Union's Voroshilov Naval Academy. It was there that his strategic thinking was deeply influenced by Fleet Admiral Sergei Gorshkov, the longtime head of the Soviet Navy. To ensure China's maritime rights and interests, Liu proposed that enemies should be discovered, intercepted, and destroyed as far away from the homeland as possible. To achieve this would mean the emergence of the PLAN from its subordinate role to the army, and the adoption of the "offshore active defense strategy."⁵

As the Soviet threat receded and China's export economy surged, Liu's call for a new naval strategy fell on increasingly receptive ears. In June 1985, Deng Xiaoping gave his blessing to this strategic

shift at a meeting of the Central Military Commission.⁶ The PLAN, which had been the long-neglected poor relation of China's defense establishment, now had a powerful new role to fill. Liu, a Deng protégé, went on to become an influential member of the army-dominated Central Military Commission.

At the core of the offshore active defense strategy is a three-tiered layer of naval defenses extending from the coast to the first island chain. The first level of defense extends from the coast to fifty nautical miles out to sea. This is defended by radar, shore-based anti-ship missiles, fast attack craft, minesweepers, and the PLAN's own minefields. The second level of defense runs from 50 nm to 300 nm from the coast. It is here that the major surface combatants (destroyers and frigates) and the non-missile submarines would deploy. The outermost area is the sea space linking the Korean Peninsula to the Ryukyus and south to the Spratly Islands. Shore-based naval aircraft and submarines with SSM capability would defend this perimeter.⁷

The next step for the PLAN is to become a "green water navy." To the PLAN, "green water" reaches from Vladivostok in the north to the Strait of Malacca in the southeast, and eastward to the "first island chain" in the east. Geographically, the Pacific Ocean's first island chain includes, from north to south, the Aleutians, the Kuriles, Japan's archipelago, the Ryukyus, Taiwan, the Philippines, and Borneo. Beyond this chain is what the PLA calls "blue water" that extends out to the second island chain starting in the north at the Bonin Islands and moving southward to the Marianas, Guam, and the Caroline Islands.⁸ The PLAN seeks to attain a "green water navy" early in this century, and a "blue water navy" by 2050.⁹

There are a number of surmountable obstacles the PLAN must overcome to attain its goal of a wide-ranging, long-deploying green water fleet. One is acquiring enough replenishment vessels.¹⁰ Another persistent impediment to extended deployments has been inadequate desalinization technology on PLAN vessels.¹¹ Crews need drinking water, and there is only a finite amount of heavy, bulky water that can be stowed aboard. For PLAN vessels, this necessitates shorter deployments, or frequent underway replenishment.

The PLAN Today - Organization

The national headquarters of the PLAN is in Beijing. The PLAN's current commander is Vice Admiral Shi Yunsheng, a long-time naval aviator.¹² Operationally, the PLAN is divided into three fleets. They are: 1) the North Sea Fleet on the Yellow Sea; 2) the East Sea Fleet on the East China Sea and the Taiwan Straits; and 3) the South Sea Fleet along the South China Sea, including the island of Hainan.¹³

The PLAN has about 268,000 officers and men. These totals include 25,000 serving in the naval air forces, 28,000 assigned to shore defense duty, and 7,000 marines. Enlistment terms are for three years. There are 41,000 conscripts.¹⁴

The PLAN Today - Major Naval Weaponry

Submarine-Launched Ballistic Missiles (SLBM)

The JL-1 (NATO designation CSS-N-3) is a two-stage solid fueled SLBM. Twelve are currently deployed aboard China's single SSBN, the Xia class vessel. The missile has a maximum range of 1160 nm, and carries a single 250 kiloton warhead.¹⁵ A planned SLBM known as the JL-2 (NATO designation CSS-NX-5) will reportedly have a range of 8,000 kilometers, and will contain one 250 kiloton warhead, or three or four smaller multiple independently targeted reentry vehicles (MIRVs). The JL-2 will enter service in around 2005. The planned Type 94 SSBN will carry the JL-2.¹⁶

Ship-to-Ship Missiles (SSM)

With the purchase of the new Sovremenny class destroyers from Russia, the PLAN will inherit the new SS-N-22 Sunburn SSM. Specifically designed to defeat the USN's Aegis/Rim 67 air defenses, this advanced weapon is supersonic, and difficult to intercept.¹⁷

The PLAN's most common SSM is the CSS-N-4 Sardine missile, found on most destroyers and frigates, and on the newer fast attack craft. It is similar to the French-made Exocet that was used extensively in the Falklands War in 1982. The successor to the Sardine is the turbojet-powered CSS-N-8

Saccade. Still in use are the CSS-N-1 Scrubbrush (copied after the old Soviet Styx) and the CSS-C-3A Seersucker (an improvement on the Styx).¹⁸

Surface-To-Air Missiles (SAM)

One of the PLAN's weak areas is antiaircraft defense. The primary antiaircraft system on PLAN destroyers is the French-made Crotale SAM system. With a 7 nm range, the Crotale cannot attack aircraft launching cruise missiles beyond that range. Most frigates still rely on older antiaircraft guns.¹⁹ The new Sovremenny destroyers will probably carry the Russian SS-N-12 Grizzly SAM. The Grizzly flies at Mach 4, and has a range of 30 nm.²⁰

Anti-Submarine Warfare (ASW)

Another PLAN deficiency is its anti-submarine warfare capability. The mainstay ASW armaments are ASW mortars; this technology is decades old. ASW detection and targeting systems are similarly antiquated.²¹

The PLAN Today – Vessels

The PLAN currently has fifty five major surface combatants, and over 330 fast attack craft. Fleet strengths of surface combatants are shown in Table 1.²²

TABLE 1: SURFACE COMBATANTS

Ship Type	Active	Reserve	Building	Planned
Aircraft Carrier				2
Destroyers (DDG)	18		4	2
Sovremenny			2	
Luhai	1		1	2
Luhu	2			
Luda I/II/III	15		1	
Frigates (FFG)	37		4	2
Jiangwei I/II	6		3	2
Jianghu I/II/III/IV	31		1	
Fast Attack (missile)	87		3	
Houjian	5			
Houxin	20		3	
Huangfen(Osa)	34			
Houku (Komar)	28			
Other Fast Attack	249			
Misc Patrol Vessels	15		2	

Aircraft Carriers

The PLAN does not have any aircraft carriers. Their on-again, off-again acquisition has been a subject of prolonged debate within China's defense establishment. At time of writing, the Communist Party Central Committee and the State Council have reportedly approved the building of two aircraft carriers. They will each have a displacement of 25,000 to 30,000 tons, and will probably be capable of carrying fifteen to thirty combat aircraft. The completion date of these two carriers is estimated to be 2009.²³ China has no carrier-capable aircraft at the present time.

The planned carriers are at the low end of the medium-sized range. Aircraft on such vessels typically have a combat radius of 200-300 nm.²⁴ Unlike destroyers and frigates that can deploy alone, a carrier in wartime needs escort warships and replenishment ships.

Destroyers

China has two Sovremenny class guided missile destroyers on order from Russia. The large Sovremenny's armament includes the advanced Sunburn SSM and the Grizzly SAM. Of the nation's domestically constructed surface combatants, the most advanced is the new 6000-ton Luhai class. The first Luhai is currently undergoing sea trials. She is the beefed-up descendant of the Luhu class destroyer, of which there are two.²⁵ The remaining fifteen destroyers are of the Luda class. Most were constructed in the 1970s and 1980s, and are armed with the older Seersucker SSMs.²⁶

Frigates

The PLAN has several classes of frigates. The three Jiangwei II and four Jiangwei I class frigates pack the biggest punch with six Sardine SSMs. The bulk of the PLAN's frigates are of the Jianghu I class, first built in the 1970s, and armed with Seersucker SSMs.²⁷

Fast Attack Vessels

Fast attack craft were once the primary instruments of China's coastal defense strategy. With the PLAN's new emphases on offshore defense and power projection, the numbers of these vessels have sharply dropped in recent years. Fast attack craft are poorly suited for long deployments.²⁸ That said, the newer missile boats are capable of commanding respect in coastal waters with their six modern SSMs on board. The four Houjian class and 17 Houxin class vessels fall into this category.²⁹

The older missile fast attack craft are smaller vessels with earlier SSMs. These include thirty eight Huangfen class (patterned after the old Soviet Osa class) and thirty Houku class (patterned after the old Soviet Komar class). The remaining fast attack craft in the PLAN number about 250, and are older vessels using guns or torpedoes as primary armaments.³⁰

Ballistic Missile Submarines

Fleet strengths of all submarines are shown in Table 2.³¹ The sole Xia SSBN seldom goes out to sea, and has never conducted an operational patrol.³² An old diesel Golf class submarine (SSB) was retrofitted many years ago to carry one SLBM, and is used for missile firing tests.³³

TABLE 2: SUBMARINES

Submarine Type & Classes	Active	Reserve	Building
SSBN Type 94			1
SSBN Xia	1		
SSB Golf	1		
SSN Type 93			1
SSN Han	5		
SSG Song	1		2
SSK Ming, Kilo	21		2
SS Romeo	37	31	

To maintain one SSBN on constant patrol, there must be at least three SSBNs in the fleet.³⁴ The PLAN is constructing the first of the successors to the Xia class. Known as the Type 94, she will carry 16 of the planned JL-2 SLBMs.³⁵

Nuclear-powered Attack Submarines

The PLAN's existing SSNs are of the Han class, commissioned between 1974 and 1990. Nuclear propulsion aboard existing PLAN vessels has been problematic. The five Han SSNs and the sole Xia SSBN embody very old technology, and their noise emission levels (measured in decibels) make them vulnerable to acoustic detection and attack by modern ASW systems³⁶

The PLAN's newest design, the Type 93, is under construction. Designed in conjunction with Russian experts, she is reportedly patterned after the formidable Russian Victor III. This project has benefited from a considerable amount of Russian design expertise and technology transfers.³⁷

Diesel Submarines

For many years, the mainstays of the PLAN's submarine fleet were the diesel-electric Romeo class vessels. Based on a 1950s Soviet design, they were built under license from 1962 until eclipsed by the Ming program in 1987. There are thirty seven on active service, with another thirty one in reserve. Romeos are steadily being scrapped, sold, or mothballed. Those on active service spend only a few days at sea every year due to an insufficient number of trained men.³⁸

The Ming class is an updated Romeo design. First produced in the early 1970s, they are obsolescent by Western standards. Mings are relatively inexpensive compared to the new Song class. They are still being produced to keep submarine numbers up as the Romeos retire, and are also sold for export.³⁹

China has also recently acquired four Kilo class submarines from Russia. The PLAN did not buy the extensive training or support package for the Kilos, and the vessels therefore seldom leave port.⁴⁰ When a well-trained crew operates a Kilo, this submarine is very difficult to detect.

China's latest diesel-electric submarine is the Song class. Entirely of Chinese design, these vessels are capable of launching adapted Sardine SSMs from torpedo tubes while submerged.⁴¹ The Song has a modern teardrop-shaped hull, and improved propeller technology to achieve quieter operations.⁴²

Amphibious Warfare Forces

There is a large number of amphibious craft on active service ranging from LSTs (250 troops and ten tanks) to small LCUs (200 troops only). There are several hundred smaller amphibious ships in reserve (Table 3) ⁴³

TABLE 3: MINESWEEPERS AND AMPHIBIOUS VESSELS

Minesweeper Type	Actv.	Rsrv.	Bldg.	PInd.
Ocean-going	27	13		
Coastal	7		1	

Amphibious Vessel Type	Actv.	Rsrv.	Bldg.	PInd.
LST	16			
LSM	43		3	
LCM/LCU	44	230		

Auxiliary Vessels

The PLAN has four modern replenishment ships with on-board helicopter facilities. There are three large submarine tenders built in the 1970s, with one assigned to each fleet.⁴⁴

Naval Aviation

Since China lacks aircraft carriers, naval aviation is completely shore-based. The PLAN's Air Wing is large, but consists of outdated aircraft and weapons systems (Table 4).⁴⁵ The Shenyang J-6 "Farmer" for example, is derived from the 1950s-era Soviet MIG-19.⁴⁶

TABLE 4: NAVAL SHORE-BASED AIRCRAFT

Type	NATO Name	Role	Quantity
Xian H-6 & H-6 III	Badger	Bomber	30
Harbin H-5	Beagle	Bomber	100
Nanchang Q-5	Fantan	Attack	100
Shenyang J-6 & JJ-6	Farmer	Air Defense/Attack	250
Chengdu J-7I and II	Fishbed	Air Defense/Attack	100
SH-5		Maritime Patrol	4
Be-6	Madge	ASW Flying Boat	12
Y-7	Coke	Transport	10
Shijazhuang Y-5	Colt	Utility	40

China is now producing a licensed copy of Russia's leading fighter-bomber, the SU-27 (NATO designation Flanker). This advanced aircraft is Russia's counterpart to the U.S. F-15. It is probable that several SU-27s will be transferred to the PLAN, possibly for deployment from Woody Island in the Paracel Islands.⁴⁷

Need For a Navy - Trade and Merchant Shipping

China's foreign trade has increased dramatically in the past two decades.. Between 1978 and 1995, foreign trade rose from \$21 billion to \$280 billion, or from 10 percent of GNP to over 55 percent. By 1997, foreign trade totaled \$365 billion. China is now the tenth largest trading nation, whose trade constitutes 4% of the world's total. Shares could exceed 13% by 2015. According to the World Bank, China could be the second largest trading nation in the world by 2020.⁴⁸

In 1996, China ranked third in oil consumption, and imported 160 million barrels of foreign oil worth \$3.4 billion. Soon after 2000, imports will double, totaling 1 million barrels per day. By 2010, imports will soar to 3 billion barrels per day. Such a level of import will require over 500 supertanker trips per year, mainly from the Persian Gulf region.⁴⁹

China's grain suppliers are Australia, Argentina, Canada, and the United States. China's population, now at 1.3 billion, already depends on food imports. The population will exceed 1.5 billion by 2020. In the absence of a technological breakthrough, there could be an annual grain requirement of 285 million tons.⁵⁰

Maritime shipping is the key to China's economic growth and stability. With her poor connectivity to the rest of the Eurasian landmass via road, rail, and pipeline, China must rely upon the ship as the primary carrier of her trade. China's large merchant fleet continues to grow rapidly to meet this massive trade expansion. The fleet already numbers over 1500 PRC-flagged vessels, with several hundred more PRC-owned vessels under flags of other nations.

Threats to China's merchant fleet include potentially hostile foreign navies, piracy, and terrorism. To Beijing, potentially hostile navies include past and present adversaries (United States, Japan, Taiwan,

Vietnam, and India) and lesser powers with which China has territorial disputes (the Philippines and Malaysia).

Incidents of piracy in the region are growing. Well-armed speedboat crews attack hundreds of vessels every year. Crimes range from simple robbery to the hijacking of ships and the murder of entire crews. Piracy is especially common in the Strait of Malacca, the Singapore Strait and in the East China Sea. Some incidents have reportedly involved complicity (or outright participation) by local coastal patrol vessels from China, Indonesia, and other nations as well. In the grand scheme of the tens of thousands of ship transits in the region, piracy is a small, but highly visible problem.⁵¹

“China’s economic growth is directly dependent on ocean commerce which means keeping the shipping lanes open. A strong military, especially a navy, is therefore considered necessary to ensure continued economic growth. This realization is particularly important, because among military officers and among so many other people, the PRC’s economic growth is a genuine source of national pride. There are many things that the PRC has difficulty being proud about, but economic growth is an important exception, and navy officers see themselves as having a role in keeping that thriving.”⁵²

Need For A Navy - Territorial Ambitions

In February 1992, the National People’s Congress passed a law asserting ownership to all contested islands: the Spratlys, the Paracels, the Senkakus, and Taiwan (including the Taiwanese-occupied Pratas Islands and islets close to the mainland). The law further stipulates the right to, “adopt all necessary measures to prevent and stop the harmful passage of vessels through its territorial waters” and for “PRC warships or military aircraft to expel the intruders.”⁵³

Taiwan

The complex question of Taiwan has been a central concern of China for half a century. To China’s leadership, Taiwan is a “renegade province” that is by right an integral part of the nation. With increasing ethnic Taiwanese domination of the island’s political life, President Lee Teng-hui and the ruling Kuomintang have abandoned the old rhetoric about Kuomintang rule over all of China. A growing number of people in Taiwan now openly advocate *de jure* independence for the island. Across the Taiwan Straits, China has repeatedly threatened swift and savage retaliation if such a move ever takes place.

Senkaku Islands

The Senkaku Islands (Diaoyutai Islands in Chinese) are situated northeast of Taiwan near the southern extremity of Japan's Ryukyu Islands chain. Never inhabited, they were occasionally visited by Chinese fishermen over several centuries. Japan emerged victorious in the Sino-Japanese War of 1895, and took over the islands along with the major prize, Taiwan. At the end of World War II, Taiwan reverted to China, but the islands remained under Japanese rule.

The Senkakus lie amidst proven fishing grounds. Surveys have indicated the possibilities of oil. Both China and Taiwan have asserted that the islands are historically Chinese, and have demanded their return. Japanese leaders regard the Senkakus as part of Japan's Okinawa Prefecture, and refuse to negotiate the islands' status.

In July 1996, Japanese nationalists erected a small lighthouse on one of the islands. Protesters from Hong Kong and Taiwan attempted to land there later that year, and the protest leader drowned in heavy seas. In 1997, Japanese Coast Guard vessels turned back a twenty-boat flotilla of protesters seeking to demolish the lighthouse.⁵⁴

Paracel Islands

This small archipelago is east of Vietnam and south of China's island province of Hainan. In Vietnamese, they are known as Hoang Sa; in Chinese, they are the Xisha. In 1947, China occupied Woody Island, the largest of the Paracels. After claims, counterclaims, and the garrisoning of several islands by both sides, the PLAN and PLAAF drove the South Vietnamese forces out of the area in 1974. North Vietnam, as the beneficiary of Chinese military aid, had her kept claims of sovereignty over the Paracels muted throughout the Vietnam War. After the conflict's end in 1975, there was a rapid falling out between Beijing and Hanoi, and the latter reasserted a Vietnamese claim to the islands. The dispute remains unresolved; China has no intention of relinquishing the Paracels.⁵⁵

In 1990, the Chinese completed a small air base on Woody Island. This “unsinkable aircraft carrier,” boasting an 8000-foot runway and several storage depots, can accommodate up to 40 Chinese combat aircraft. The base extends China’s air reach – an SU-27 fighter, for example, can fly from Woody Island to the disputed Spratly Islands well to the south, and patrol for at least an hour before returning.⁵⁶

Spratly Islands

The Spratly islands consist of fifty three scattered islets, together with some fifty coral reefs and sea mounts. The claimants are many – China, Taiwan, Vietnam, Malaysia, the Philippines, and Brunei. As in the case of the Senkaku islands, China and Taiwan each assert their claims based upon historical usage by Chinese fishermen over the centuries. Both claim all of the Spratlys as their own. Vietnam also claims the entire archipelago. Hanoi asserts that Vietnamese sovereignty is based upon the islands' annexation by former colonial power France in 1933. Malaysia, the Philippines, and Brunei each have claims to some of the southernmost islets. All claimants except Brunei have occupied and garrisoned some of the Spratlys (Table 5).⁵⁷ To the northeast of the Spratlys is Macclesfield Bank and Scarborough Reef, located west of Luzon and claimed by China, Taiwan, and the Philippines.

TABLE 5: COUNTRIES WITH CLAIMS IN THE SPRATLY ISLANDS

Country	Islands Occupied	Troops	Constructions
China	7	260	Several helicopter pads
Taiwan	1	100	Helicopter pad
Philippines	9	480	4400 ft runway
Vietnam	24	600	2000 ft runway
Malaysia	3	70	2000 ft runway
Brunei	0		

In 1988, the PLAN sank one Vietnamese vessel and damaged two others. In 1994, China constructed an early warning radar facility on Fiery Cross Reef. In 1995, Philippine forces discovered China had built a permanent structure on Philippines-claimed Mischief Reef 150 miles west of Palawan. It was in fact a naval communications station.⁵⁸ In 1998, the PLAN upgraded this facility with a fortified brick structure.⁵⁹

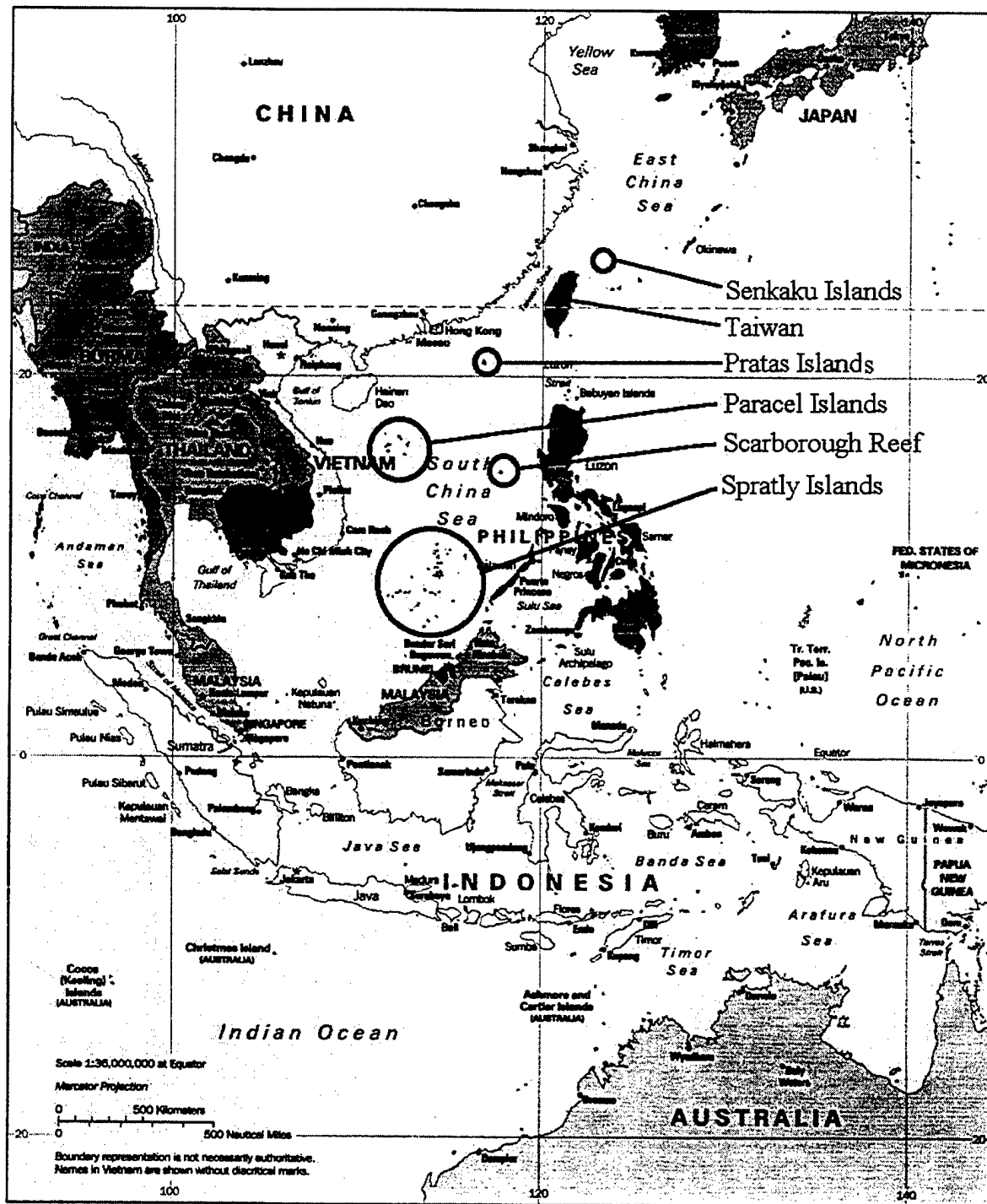
"...On one hand, China stresses that it wishes to resolve disputes peacefully, abide by the conventions contained in the 1982 United Nations Law of the Sea, and jointly develop any resources with the other claimants. At the same time, China continues to increase its presence in and around the reefs, laying down territorial markers, seizing unoccupied reefs, and building permanent structures. This policy has been variously referred to as "creeping assertiveness," "creeping sovereignty," and most recently by the Philippine Defense Secretary as "talk and take."⁶⁰

The South China Sea's shallow waters are rich in marine life. This is important to China and the other littoral states as a key food source for growing populations. The area also has deposits of offshore oil and natural gas. Estimates vary widely as to the size of the reserves and their commercial viability. China, Vietnam, and the Philippines have all signed contracts for oil exploration in the Spratlys.⁶¹ While no major reserves have yet been found in the immediate vicinity, a key value of these islands is one of proximity. It is worth noting some provisions of the United Nations Law of the Sea:

1. Article 3 establishes that "every state has the right to establish the breadth of its territorial sea up to a limit not exceeding 12 nautical miles."
2. Articles 55-75 define the concept of an Exclusive Economic Zone (EEZ) as an area up to 200 nautical miles beyond and adjacent to the territorial sea. A coastal state with an EEZ has "sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil..."
3. Article 121 states that rocks that cannot sustain human habitation or economic life of their own shall have no economic zone or continental shelf. (Building a habitable structure can sidestep this provision).

In simpler terms, if China controls the Spratlys and the Paracels, she will either have economic rights or outright sovereignty to most of the South China Sea. China's claims are shown in Figure 1.

FIGURE 1: CHINA'S ISLAND CLAIMS



Sea Lines of Communication

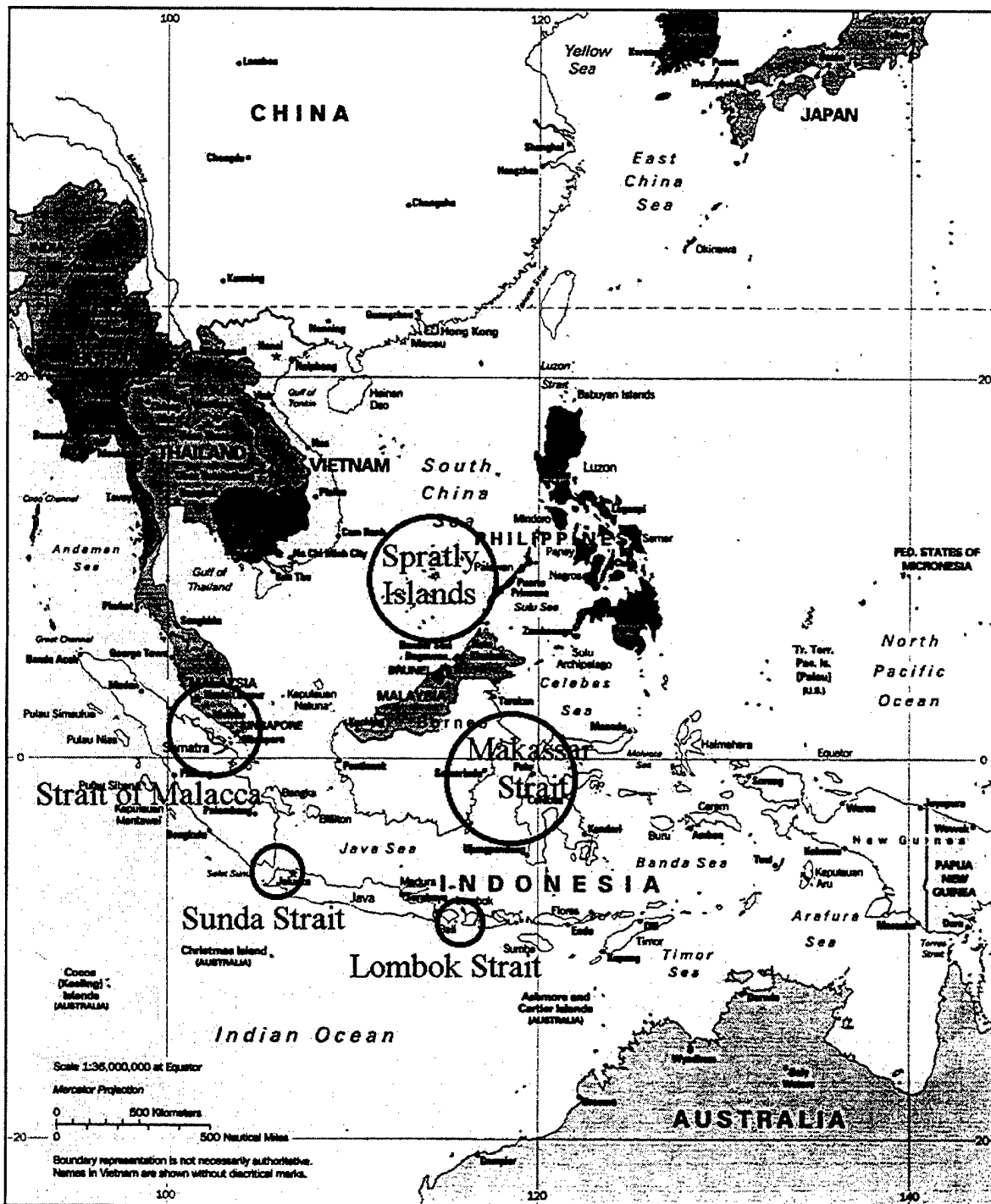
It is difficult to understate the strategic importance of the South China Sea to the region, and to the world. More than half of the world's annual merchant fleet tonnage passes through the Strait of Malacca, the Sunda Strait, and the Lombok Strait, with the majority continuing into the South China Sea. These straits, and the Spratlys area in the South China Sea itself are known as *chokepoints* along what are known as Sea Lines of Communication, or SLOCs.⁶² The chokepoints for the Southeast Asia SLOCs are shown in Figure 2.

In principle, closure of a chokepoint would simply mean the use of an alternative route. For example, ships denied access to the Strait of Malacca might use the Sunda Strait. The Lombok Strait and Makassar Strait offer alternatives to the South China Sea. In practice however, prolonged closure of major chokepoints would mean that much of the world's merchant fleet would be required to sail further, generating a substantial requirement for vessel capacity. All excess vessel capacity might be absorbed, depending on the number of chokepoints closed and how long they were closed.⁶³

Closure of the Strait of Malacca would immediately raise freight rates. Denial of the Spratly Islands chokepoint would disrupt the world's shipping markets even more severely. Even the threat of closure could close a chokepoint. If for example, war-related uncertainty over the Spratlys caused maritime insurers to increase rates or deny coverage, shippers might be motivated to seek safer SLOCs.⁶⁴

A chokepoint closure has implications that reach far beyond the shipping industry. It is economically disruptive to both the nearby littoral states whose economies depend upon the SLOCs and to the destination states that need the commodity. Shipping disruptions translate into higher prices for energy or other commodities upon which the economies of the region depend. Significantly, Japan has the largest amount of inter-regional shipping through the Southeast Asia SLOCs. Over 40% of Japan's trade and most of her oil imports pass through these waterways.⁶⁵

FIGURE 2: SHIPPING LINES OF COMMUNICATIONS (SLOCS)



The Burmese Connection

China has established close relations with the repressive military regime in Myanmar. Chinese military aid exceeded \$1.6 billion in the 1990s. The payback has been PLAN access to Burmese naval facilities. A Chinese signals intelligence station is already operating on Great Coco Island just north of India's Andaman Islands chain. Burmese naval facilities are being expanded and modernized with Chinese assistance.⁶⁶ To quote one senior Chinese defense official, "We can no longer accept the Indian Ocean as only an ocean of the Indians."⁶⁷ Not surprisingly, New Delhi is viewing China's westward reach with considerable alarm.

Russia's Role in China's Naval Growth

To China's defense industry, good help is hard to find. The nation's impressive economic growth has masked the fact that the number of technically educated Chinese adults is unimpressive. Less than five million adults have a post-secondary education. While that number may not appear small in absolute terms, a large number of state enterprises, private enterprises, government agencies, and foreign corporations all compete for the same talent. Educational statistics are not encouraging – since the late 1970s, no more than 4% of the nation's adults have been enrolled in higher education, vice 37% in the West.⁶⁸

China is capable of mass-producing ships. However, her ability to independently develop and mass-produce advanced naval systems is limited. The nation does not have enough engineering and technological expertise. To date, this has meant reliance upon foreign purchases (Sovremenny class DDG, Sunburn SSM, Crotale SAM system, SU-27 aircraft) and on reverse-engineering foreign systems (Styx SSM, various MIGs). Reverse engineering for China has a painstaking process; the time from prototype acquisition to domestic production has averaged about fifteen years.⁶⁹

The above constraints do not preclude a strengthening of the PLAN. It only means that the PLAN's more advanced warships and shipboard systems will: a) be purchased in Russia; b) be constructed in China under Russian license; or c) be designed and constructed in China with Russian technical assistance. As long as cash-strapped Russia is willing to share military technology for the right price, China will not need to engineer systems from scratch or reverse-engineer obsolescing foreign systems.

The PLAN in 2015

The shallower analyses of China's naval buildup invariably compare the PLAN with the far larger and technologically superior United States Navy (USN). While it is true that a full-blown donnybrook between the USN and the PLAN would result in a short, exciting life for the latter, such a clear-cut scenario will not take place. The issue for 2015 will not be the PLAN's strength relative to the USN, but its strength relative to other navies of the region.

The PLAN in 2015 will have two aircraft carriers. An expanded fleet of modern destroyers will be capable of both protecting the carriers as part of a battle group, and of cruising independently. There will be an increase in replenishment vessels to support battle groups. New classes of nuclear and diesel-electric attack submarines will replace the old Romeo class vessels. There will be enough SSBNs on hand to have one on constant patrol. China will have made significant improvements in anti-submarine warfare, anti-aircraft capability, and electronic countermeasures, but will still lag behind the West. Amphibious landing capability will remain a lower priority item. There will be a continued de-emphasis on fast attack vessels, though they will still be produced for export.

China will not attempt to seize the Senkakus. To do so would constitute a direct attack on Japan. Japan's navy, the Maritime Self Defense Force, has the requisite surface, submarine, and shore-based air capability to repel any PLAN attack on what Japan historically regards as its territory. Japan's security is the cornerstone of U.S. policy in the Far East, and any Chinese attack on the Senkakus would mean swift and effective U.S. intervention.

China will not exercise her strategic nuclear option against Taiwan, although she will threaten to do so. The Beijing leadership does not intend to destroy the prize in order to possess it. This leaves power projection by conventional means. China does not currently have the capability to invade Taiwan, and will not in 2015. The PLAN's current sealift capacity, though large in absolute terms, is completely inadequate to transport enough troops and materiel to succeed against Taiwan's large, well-armed, and well-trained ground forces. The workable course for the PLAN is not to hit Taiwan's beaches, but Taiwan's trade routes. This densely populated island depends on merchant shipping for virtually all of her trade. In an attack on

Taiwan, PLAN submarines would blockade Kaohsiung, Chilung, and the smaller ports. This sea denial could be confined to mine-laying, or could extend to torpedo and missile attack upon merchant vessels.

A PLAN blockade of Taiwan without U.S. intervention would be difficult to break. The PLAN has a powerful advantage with its submarine fleet. Taiwan's ASW defenses are particularly weak.⁷⁰ To test American support and Taiwanese resolve, China may opt for measures short of full blockade, i.e., prolonged "naval exercises" off Taiwanese ports, or "inspections" of merchant vessels entering or leaving Taiwanese waters.

China will retain her hold on the Paracels, and Vietnam will mount no challenge for them. China may attempt to seize the Vietnamese-garrisoned islets in the Spratlys, effectively expelling Vietnam from the area. This will require air and naval superiority over Vietnam, and the amphibious capability to land marines. China meets all three conditions for such power projection. If China mounts this attack before the completion of the aircraft carriers, the PLAN's air cover for such an assault would have to deploy for long distances. However, Vietnam lacks (and will continue to lack) the air and sea power to successfully repulse a Chinese assault, and to dislodge Chinese forces once they are ashore.

A move against Vietnam in the Spratlys, if done quickly and cleanly enough to constitute a *fait accompli*, and with enough apparent "provocation" to avoid the appearance of unilateral aggression, will provoke indignation - and inaction - among Vietnam's fellow ASEAN members. The Philippines, Malaysia, and Brunei have claims that conflict with Vietnam as well as with China. It is unlikely that they would extend military assistance to effectively uphold a Vietnamese claim.

Seizure of the Philippine-claimed Spratlys southeast of the Vietnamese claim would pose more of a problem for China. The U.S. and the Philippines are formally allied through a 1951 mutual assistance treaty. The Philippines lodged her Spratly claims years afterwards, and the U.S. has taken "no position on the legal merits of the competing claims" in the dispute.⁷¹ However, if the PLAN were to heavily engage Philippine forces (such as attacking a garrisoned island), the conflict could quickly escalate to include U.S. intervention.

Barring a major political transformation in Myanmar, that pariah regime's only benefactor will still be China. Economic and military aid will continue to flow, and the price paid will be full basing rights for the PLAN. With the "West Sea Fleet" sailing from Burmese ports, the PLAN's green water naval presence will extend all the way from the Yellow Sea to Bay of Bengal along some of the world's busiest SLOCs. A strong Chinese hand resting gently on this strategic windpipe will also have the power to squeeze it shut.

Recommended Courses of Action

The U.S. cannot prevent the enlargement and modernization of the PLAN. It will become a stronger force in an area of great strategic importance to the U.S. It should not be allowed to become a force of regional destabilization.

As long as Taiwan remains a parliamentary democracy that is unwilling to join the mainland, the U.S. has no alternative but to protect the island from aggression. To abdicate this responsibility would result in a total loss of credibility in the region and beyond. If China's belligerence towards the island intensifies (in actions, not just rhetoric), the U.S. should consider assisting Taiwan at her weakest point – antisubmarine warfare. The P-3 Orion aircraft is an excellent long-range anti-submarine platform. If circumstances so dictate, the U.S. should make it available for sale to Taiwan's naval air forces.

The U.S. must make it clear to China – preferably, behind closed doors - that the USN will intervene in any PLAN attempt to blockade Taiwan's ports. The U.S. must also oppose obstructive PLAN "exercises" near established shipping routes to Taiwan, and systematic PLAN harassment of merchant vessels.

Much of the PLAN's success is "made in Moscow." Russian fire sales of advanced naval and aviation technology are rapidly accelerating the strengthening of the PLAN. In the diplomatic arena, the U.S. should give a high priority to stemming additional Russian transfers to China, and pursue this with whatever enticements and/or coercion that Washington deems necessary. Given Israel's reliance upon strong U.S. support for the past half century, that nation's sales of aviation, electronic, and radar technology to China are completely unacceptable. There will always be countries willing to openly or secretly share

military technology with China. Although we cannot halt the process, we should still attempt to delay it with the aim of maintaining or widening our relative technological edge.

India's concerns about China run deep. The land border dispute remains unresolved. China's close military ties to Pakistan and the prospects of PLAN basing in Myanmar constitute an encircling threat.

It is time for Washington to "play the India card." The world's largest democracy will be the world's most populous nation in a few decades' time. India is already the regional power in South Asia, and her relative importance in the world will grow in the 21st Century. The U.S. must set aside India's strident nonalignment rhetoric, her past flirtations with the old Soviet Union, her economic nationalism, and her recent nuclear testing. Our similarities outweigh our differences – we share strong democratic traditions, a common language, and a common interest in regional stability.

India should be constructively engaged on several levels - militarily, economically, and diplomatically. Insofar as naval matters are concerned, the Indian Navy is the largest in South Asia, and boasts a medium attack carrier with Harrier VTOL aircraft. Organized along the lines of the Royal Navy, the Indian Navy is a highly professional force.

"...the United States should build its alliance incrementally with India by engaging in joint naval operations...Further steps could include enhancing officer contacts and exchanges, reserving seats at the U.S. Naval Academy, developing a naval liaison office, increasing port calls between nations, and establishing standardized methods of communications to diffuse inevitable tensions that will flare up in the Indian Ocean...Unfortunately, military relations between the two nations have been curtailed by U.S. law, in response to India's nuclear tests. Now that India is a nuclear state, military cooperation is needed more than ever." ⁷²

It is a vital U.S. national interest to have unobstructed SLOCs in Southeast Asia. The key for Washington is to broaden naval partnerships with the littoral states. In Singapore, USN vessels now have access to the Sembawang Naval Base. Upon completion of the Changi Naval Base in 2000, USN vessels (including aircraft carriers) will have access there as well. The USN conducts annual exercises with the Royal Thai Navy, and a recently concluded Visiting Forces Agreement will allow U.S.-Philippine naval exercises to resume. Malaysia and Indonesia now allow USN port calls. There is currently no naval relationship with Vietnam.⁷³ From the Bay of Bengal to the East China Sea, expanded port calls and

combined patrols and exercises should become the order of the day. China would brand this as "containment" of the PLAN. And so it would be.

Washington should ultimately seek to reestablish a naval base in the South China Sea. Singapore, Subic Bay in the Philippines and Cam Ranh Bay in Vietnam are all geographically excellent locations. Basing rights can be expensive, controversial (local perceptions of surrendered sovereignty) and carry historical baggage (the U.S. once governed the Philippines, and was once at war with Vietnam). That said, with a marked increase in Chinese naval power and the demonstrated will to use it, nations on the South China Sea will become more amenable to a resident USN presence.

Naval cooperation is but one of many arenas of engagement for the U.S., Japan, South Korea, India, and the littoral nations of the South China Sea. Should China become a force of aggression, encroachment, and instability, the U.S. must take the lead in creating a broad "Pacific Alliance," that would parallel the successful Atlantic Alliance forged half a century before.

Word count: 7728

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