

Maritime Security in the South China Sea

Craig Snyder

Volume 24, numéro 1, summer 2004

URI : https://id.erudit.org/iderudit/jcs24_1art05

[Aller au sommaire du numéro](#)

Éditeur(s)

The University of New Brunswick

ISSN

1198-8614 (imprimé)

1715-5673 (numérique)

[Découvrir la revue](#)

Citer cet article

Snyder, C. (2004). Maritime Security in the South China Sea. *Journal of Conflict Studies*, 24(1), 97–119.

Maritime Security in the South China Sea

by *Craig Snyder*

INTRODUCTION

Maritime Security in Southeast Asia in general and the South China Sea in particular is an issue that has taken on increased importance in recent years as a result of the convergence of two main factors. The first is the added importance of maritime resources and Exclusive Economic Zones (EEZ) as a result of the Third United Nation's Convention on the Law of the Sea (UNCLOS). Second, maritime security issues have gained in importance as the role of maritime forces moves from support for the domestic regime to protecting the state from external threats and non-traditional threats such as piracy, drugs, illegal migration, and terrorism. These factors have converged over the territorial disputes in the South China Sea.

The South China Sea contains three main areas of contested territory, the Spratly Islands, the Paracel Islands, and Scarborough Shoal. These territorial disputes have been the spark for a modernization/expansion program of the region's maritime forces (naval and air assets) that were only checked by the Asian financial crisis. While the financial crisis had significant impact on the arms modernization programs of many of the states in Southeast Asia this has for the most part merely resulted in a delay of the programs rather than a cancellation of the modernization programs.

The South China Sea issue is a particularly sensitive issue due to the widely held perception among the coastal states that in addition to the known presence of important fisheries resources, the area under dispute also boasts considerable seabed resources, most especially hydrocarbons. The South China Sea also represents a strategic waterway of global significance, providing the key maritime link between the Indian and Pacific Oceans. The nationalism that underlies the sovereignty claims should not be forgotten, however. The seemingly intractable nature of these complex jurisdictional disputes has led the littoral states to place increasing emphasis on their ability to enforce their sovereignty claims. One of the problems in attaining a resolution of the territorial disputes is the fact that there is no agreement among the claimants in terms of a legitimate basis for a claim. China, Taiwan, and Vietnam all base their claim on historic rights of sovereignty. The Philippines bases its claim on the grounds of discovery and proximity, while Malaysia and Brunei claim only those features that are within their Exclusive Economic Zones.¹

The perceived threat from China will likely spur the development of the maritime capabilities of the regional states. How far this development will go and the implication of this on the role, composition, strategic concepts, and strategic culture of the regional maritime forces in particular and their armed forces in general is the focus of this article. Moreover, changes in oceans governance legislation has raised the importance of maritime resources and the increased maritime power projection capability of the various states may also result in creating greater tension among the Southeast Asian states who until now have been restricted in their ability to conduct military operations far from their

shorelines or for any sustained period. Since the end of the Cold War and the decline in US naval presence in the region, coupled with an increase in the Chinese power projection capability, the perception by many in Southeast Asia is that there is a need to modernize and expand their own maritime forces to defend their maritime boundaries and to effectively administer and control their EEZ and territorial claims in the South China Sea. The central argument of this article is that, while minor or limited intensity conflict is possible, the likelihood of a large-scale military confrontation arising from the territorial disputes remains unlikely as none of the claimants yet have the military capability to enforce their sovereignty in the area.

Changes in Oceans Governance

One of the key factors behind the increased need for greater maritime military capabilities has been the changes in oceans governance legislation that gives coastal states greater sovereignty over their coastal and adjoining waters. Historically, the law of the sea has been based on two key principles. The first is the concept of state sovereignty over a territorial sea based on the concept of the "cannon-shot" rule (that is, a state retains sovereignty over coastal areas to the range of how far its cannons could shoot a cannon ball.) The second is the principle of the freedom of navigation that acknowledges the non-sovereign nature of the "high seas" and recognizes the rights of all states to access to maritime resources and to conduct unhindered seaborne trade.²

Contemporary debate over the need to codify rules and regulations in regards to maritime rights and obligations commenced in 1945 following two proclamations by the United States that directly challenged the historic free access to the seas. The first proclamation claimed US ownership of the "natural resources of the subsoil and seabed of the Continental Shelf beneath the high seas but contiguous to the coasts of the United States."³ The second claimed the right to "designate fisheries conservation zones in the high seas beyond the US claimed territorial sea."⁴ These proclamations claimed sovereign rights far beyond the historically established territorial seas and unsurprisingly other concerned coastal states soon followed suite by citing similar claims. Increasing concern over the growing tide of creeping coastal state jurisdictions led the United Nations to convene the First Conference on Law of the Sea in Geneva in 1958. This conference led to agreement on four Conventions relating to the determination of maritime zones and fishing and conservation on the high seas.⁵

However, it was not until 24 years later at the Third UNCLOS in 1982 that agreement was finally reached on all extant matters and the Convention signed. UNCLOS subsequently entered force on 16 November 1994. The Convention provides a comprehensive legal regime covering the world's oceans and resources, including maritime zones, economic and commercial activities, scientific research, technology, environmental management, and the settlement of disputes. It establishes a balance of state rights and obligations and attempts to prevent, or at least manage, conflict between competing interests. Although the Convention is not binding on non-signatory states, much of it is now considered as customary international law. Noting the number of national interests involved, UNCLOS is invariably a compromise agreement and this has led to some criticism of the Convention for being non-definitive and open to interpretation.⁶

UNCLOS establishes a comprehensive framework for the regulation of all ocean space and grants coastal states sovereign rights and obligations with respect to the marine and seabed resources adjacent to their coasts. It introduces a tiered series of maritime zones over which coastal states may exercise varying degrees of sovereignty or jurisdiction. The first of these tiers is defined as internal waters or those that are contained within the defined land territory of the state. State sovereignty is paramount within these waters and UNCLOS does not apply. Beyond the coastline all states can claim a 12 nautical mile (nm) territorial sea. A state's sovereignty over its territorial sea, including the air space above and the seabed and subsoil, has all the attributes of its sovereignty above its land territory with the sole limitation that foreign ships enjoy the right of "innocent passage." The second tier is a further 12 nm contiguous zone which acts as a buffer zone within which a coastal state has the right to exercise jurisdiction over matters such as customs, fiscal, immigration, and pollution control.⁷

An Exclusive Economic Zone is the third tier and may be claimed to a maximum distance of 200 nautical miles and within this region the coastal state may, in the exercise of its sovereign rights, take such measures as may be necessary to ensure compliance with laws and regulations, including "hot pursuit," boarding, inspection, arrest, and prosecution. Within the EEZ coastal states have sovereign rights for the purpose of exploring, exploiting, and managing the natural resources in the water column, the seabed, and subsoil. They also have the right to undertake scientific research and construct artificial structures within their claimed EEZ. These entitlements are qualified in that the freedom of navigation and over flight remains and other states retain the right to lay submarine cables. The rights are accompanied by specific coastal state obligations to take measures to protect the marine environment, control sea traffic, provide charts and maps, ensure safe navigation, enforce safety regulations, and to provide search and rescue services.⁸ The concept of the EEZ is now generally regarded as "a major innovation and a cornerstone of the Convention."⁹

The high seas are that part of the oceans that are outside the jurisdiction of any state, that is, beyond any claimed territorial waters or EEZ. On the high seas all vessels have the right of unrestricted navigation or over flight and the freedom to capture marine living resources and conduct scientific research. UNCLOS directs that the "high seas shall be reserved for peaceful purposes" and that "no State may validly purport to subject any part of the high seas to its sovereignty."¹⁰

However, international law is not static. Future developments in legal norms are important factors that can influence the security of the region. The extent to which state and non-state actors abide by the relevant legislation shapes the extent of the security threat. If a state is weak, either politically or militarily, then challenges to its sovereignty can be made.¹¹

Role of Maritime Forces in Southeast Asia

Maritime forces by their very nature have great utility and can operate in areas ranging from open oceans, over the continental shelves, archipelagos, and into inshore areas and estuaries. Maritime forces exercise naval power by the influencing or controlling of behavior in the maritime environment, guaranteeing use of the sea, and providing flexible power projection capability.¹²

The very adaptability and utility of maritime forces provides governments a wide range of options to deal with both conventional and non-military threats. Ken Booth argues that the roles of maritime forces fall into three categories, or a trinity of roles: military, diplomatic, and policing.¹³ The military role has traditionally formed the base of the trinity, especially for Western states, because the nature of navies is shaped by their conventional military character. The diplomatic role is concerned with the attainment of political aims, and the policing role is concerned with the protection of a state's maritime claims and offshore resources. Importantly, due to the trinity of tasks required by maritime forces the ability to undertake diplomatic and policing or constabulary operations is derived from their ability to carry out their military roles. The capability to do these peacetime tasks is thus largely a by-product of the resources and core skills developed for war-fighting, although the capability match is not always easy or efficient.¹⁴

The maritime forces throughout Southeast Asia are small or medium in size in regards to both capability and total number of ships and aircraft. The main task of these maritime forces has generally not been the traditional military role of the defence of the state against external attack, although that capability has always been a consideration in force development. Rather the main task of maritime forces has been and continues to be "asserting sovereignty and security maritime resources, very often in disputed maritime zones."¹⁵ The role of these forces is primarily focused on the policing role of protecting resources in their exclusive economic zones, and in dealing with low-level, non-traditional threats, such as piracy, drug and other smuggling, and since 11 September 2001, terrorism.

As a result, maritime forces in many of these countries serve more of a constabulary than a war-fighting role. In addition to this, the geographic realities of Southeast Asia dictate that most states in the area need relatively large forces for these constabulary roles. The large coastlines, internal archipelagic waters, and EEZs require a large number of small coastal patrol vessels rather than a small number of major warships, such as frigates or destroyers. For the smaller states in the region, such as Singapore and to a lesser extent Brunei, that do not have large territorial waters and can concentrate on more forward defence, force structures are constrained as a result of the proximity of their neighbors and therefore do not need to develop forces beyond brown or green water capacity.¹⁶

This constabulary role is also beginning to be extended beyond their territorial waters as states in Southeast Asia start to recover from the Asian financial crisis and re-cast their strategic gaze on the territorial disputes with each other, and progress with their military modernization in general and air and naval modernization in particular. The rationale for this force structure and roles and responsibilities can be seen in the political history of many of these states. Following independence many of the regimes struggled over issues of political legitimacy and viewed internal security threats to the regime as the most important. The army, which in many states had a critical role in the independence struggle, has tended to play an active role in the domestic politics of the state and in many cases is used by the governing regime to combat the internal threats to the regime's authority. As a result, the army in many of these states maintains a predominant position in relation to the other services. In contrast those states with strong regime legitimacy, as demonstrated through liberal political structures and processes, are able to focus their

strategic policies on external threats and can therefore pursue a more balanced force structure.¹⁷

The primary role of many of the Southeast Asian state's naval forces is to protect national interests, territorial integrity, and sovereignty, and to ensure the security of their nationals and property in times of war. The peacetime duties of these forces focus on training for war, protecting the state's citizens and their property, supporting the state's foreign policy, and supporting the air and land forces. Many of the naval forces are also involved in hydrographical surveys, assisting civilian agencies in times of emergencies, search and rescue, and EEZ law enforcement. During the Cold War these maritime forces were equipped primarily with coastal patrol vessels armed with small calibre guns and limited maritime air-patrol capabilities. Since the end of the Cold War many have purchased more modern patrol craft armed with anti-ship missiles, and have increased their mine warfare and anti-submarine warfare capabilities. As well, they have extended their maritime air-patrol and enforcement capabilities by purchasing modern maritime patrol and advanced fighter aircraft for maritime strike capabilities.¹⁸

China's Military Capability

The concern over Chinese intentions in the South China Sea is a driving factor feeding an increasing fear of Chinese actions. But what can the Chinese military actually do in the region? For the People's Liberation Army (PLA) in general and the PLA Navy (PLA-N) in particular the South China Sea disputes provided an excellent basis for justifying the need to modernize China's maritime forces. By focusing on the disputes in the South China Sea the risks and benefits on the political, economic, and military level were minimal as compared with other disputes, such as that with Japan over the Sengakus or the US over Taiwan. While the South China Sea represented the threat of foreign encroachment on Chinese territory, the threat was from small Southeast Asian states that the PLA-N believed it could easily handle. The distance from the mainland and the "dangerous ground" of the Spratlys meant that the naval forces would need to be a modern, technically proficient, combat-ready, long distance navy skilled in joint operations. On the non-military front, China's political and economic ties with the other claimants were also not as strong as those with Japan and the economic returns offered by the South China Sea could be substantial and immediate.¹⁹

In the 1980s the PLA began to recognize that future international conflict would be of a limited nature with threats to the Chinese periphery rather than the heartland. In these conflicts victory would be dependent on high technology weapons, electronic warfare, highly motivated and well-trained troops, ground, air and sea mobility, and the ability to inflict maximum damage while not being bogged down in a protracted engagement.²⁰ In 1985, the PLA-N began to identify the need to shift from coastal defence to offshore defence. This strategy had the additional task of supporting and protecting economic and developmental projects in the waters surrounding the mainland. In light of this change it was decided that the PLA-N would require a nuclear submarine capability, a mobile force capable of responding to a variety of incidents in ocean conditions, and fortified positions where troops could be based and from which combat operations could be mounted. The adoption of this offshore defence strategy had important implications for the South China Sea as the Paracels and the Spratlys were now included in the area of operations. The new

strategy also required the development of new equipment, such as surface and sub-surface warships and aircraft capable of operating farther from the Chinese coastal areas.²¹

In 1986, the then-assistant commander-in-chief of the PLA-N, Zhang Xusan, argued that as naval operations are usually conducted far away from home bases it is important for the navy to have the capability to be able to detect and interdict an enemy invasion fleet quickly. It would therefore be necessary to concentrate on the development of highly mobile forces of high combat effectiveness in order to engage the enemy at the earliest possible time. In addition, it would be necessary for the navy to become familiar with the waters out to the "first islands chain."²² Over the next few years senior Chinese PLA-N officers advocated that, due to the increased threats emanating from the sea and in order to safeguard the waters inside the first islands chain, the navy would need to be modernized.²³

In 1992, the Chinese president, Jiang Zemin, announced that the role of the PLA would be modified to "ensure national unification, safeguard territorial integrity, and protect maritime rights and interests."²⁴ With this the PLA-N would be responsible for establishing a three-ring combat strategy. In the inner ring, within 150 nautical miles of the mainland, the navy would deploy a variety of small coastal defence vessels to protect this area. In the centre ring, between 150 and 300 nautical miles larger vessels, such as the new multi-role frigates, would be used to engage and destroy an enemy fleet. In the outer ring, beyond 300 nautical miles (from the Korean Strait in the north, Okinawa in the east and the Spratly Islands in the south), the navy would rely upon submarines and aircraft, such as the B-6 bombers and advanced fighters operating from the mainland.²⁵ Coupled with this new role the PLA-N published a report that same year calling on a readjustment to a naval strategy that ensured protection of Chinese oil and gas exploration and production efforts in the South China Sea. In April 1992, General Zhang Xusan, the deputy commander-in-chief of the PLA-N, was reported by the *China Daily* as stating that China planned to develop more advanced weaponry for the Navy in order to allow them to protect Chinese claims in the South China Sea.²⁶

For the PLA the modernization program focused on a reduction in the total size of the PLA and in developing more sophisticated land, air, and naval forces. To this end the PLA Air Force (PLA-AF) began to update its largely obsolete fleet of combat aircraft. The rapprochement between China and Russia in the 1990s provided China with an opportunity to circumvent the US military technology sanctions imposed on China after the Tiananmen Square massacre. In recent years, the PLA-AF has procured 50 Su-27SK and 28 Su-27UBK fighter aircraft from Russia and arranged to build a further 150 under licence. China has also taken delivery of 78 advanced Su-30MKK fighter aircraft with some 28 of the naval variant Su-30MK2 on order for the PLA-NAF. The Chinese have at the same time devoted increased resources to its problematic domestic production capabilities and currently have in development an upgrade program for their JH-7 fighter-bombers as well as the development of the J10 fighter. Once these projects are completed the domestic production runs could produce 30-50 of each type of aircraft.²⁷ The PLA-NAF has also modified its 18 older H-6D bombers to hold C-601 anti-ship missiles and up to 50 H-5 light bombers to hold torpedoes. China has also introduced airborne early warning (AEW) platforms onto its Y-8 aircraft. It is also looking to purchase Russian A-

50 *Mainstay* airborne early warning and control system (AWACS) aircraft. However, in comparison with the size of the PLA-AF and naval air wing, these numbers represent the modernization of less than 10 percent of the total force, and the pilots allocated to these modern "fourth generation" fighter and attack aircraft fly insufficient hours annually to gain proficiency in all air combat roles.²⁸ Additionally, China is reliant on Russia for the manufacture and deeper maintenance of some key aircraft systems, such as the high performance jet engines used in the latest generation fighter aircraft.²⁹ Thus, the operational significance of China's efforts to date to re-equip its air forces must be considered debatable at best.

China's naval forces are also in the process of modernization, focusing on deploying vessels that have greater range, are more survivable, and carry more lethal weapons systems.³⁰ Issues of training and maintenance will determine whether the naval component of China's power projection capability is fully realized. Over the past 10 years the PLA-N has purchased or ordered a total of four *Sovremenny* class guided-missile destroyers armed with SS-N-22 "Sunburn" anti-ship cruise missiles (ASCM) and the SA-N-7 "Gadfly" and SA-N-12 "Grizzly" surface-to-air missile (SAM) systems; a single *Luhai* class (Type 051B) guided-missile destroyer armed with the C-802 ship-to-ship missile (SSM); three *Luhu* class (Type 052) guided-missile destroyers, and 12 *Jiangwei* class guided-missile frigates. These latter warships are equipped with the "Crotale" short-range air defence systems that will most likely be replaced by a longer-range vertical-launch system (VLS). They also have integrated tactical data systems, an improved antisubmarine warfare suite that includes embarked helicopters, and diesel or gas turbine propulsion. The PLA-N is also upgrading some of its older Type 51 *Luda* class destroyers with the C-801 SSM, "Crotale" SAM, and modern fire control systems.³¹

The Chinese are also in the process of building two new types of guided-missile destroyers with fleet-air defence capabilities. The first two Type 052B destroyers were launched in 2002 and 2003. These are equipped with the SA-N-12 "Grizzly" SAM system guided by four indication radars and a Top Plate 3D air-search radar, and the new C-803 ASCMs with a data link antenna to receive mid-course target information. A further two Type-052C dedicated air-defence destroyers are also being produced with the first launched in April 2003. These will be equipped with a phased-array radar system similar to the American *Aegis* systems, and a vertical-launch system for air defence missiles. In addition to the new classes of missile destroyers, the PLA-N is also building a new class of frigate. Reportedly designated as Type 054, the new frigate is a stealthy surface combatant similar to the French-built *LaFayette* class. These ships are likely to be equipped with the C-803 SSM and the SA-N-7 "Gadfly" SAM. Two ships are currently under construction with the first launched on 11 September 2003.³²

In regards to its submarine force the PLA-N continues to deploy its outdated *Romeo* class submarines. They have also developed two new classes of attack submarines: the *Ming* (Type 035) and *Song* (Type 039) classes. The *Ming* is an updated version of the *Romeo* class with improved sonar and navigation equipment. The PLA-N's five *Song* submarines are the most advanced domestically produced submarine in China and incorporate a streamlined hull and skewed propeller for better submerged performance. The *Song* class are also equipped with a modified C-802 SSM which is capable of being launched from a submerged submarine. The PLA-N has also purchased four *Kilo* class attack submarines

(two Type EKM877 and two Type EKM636) and has ordered an additional eight of the more advanced EKM636 for delivery in 2007. The Chinese are also producing a nuclear powered attack submarine (Type 093) which is expected to be capable of firing both the C-802 ASCM and a proposed land attack cruise missile.³³

Constraints on Chinese Power Projection Capabilities

Chinese power projection capabilities beyond its sea borders, despite this modernization program, remain limited due to a lack of amphibious ships, heavy cargo carrying aircraft and other logistical shortcomings. The PLA-N remains technologically underdeveloped and it suffers from "a lack of integration in its command, control, and communication systems; targeting; air defense; and antisubmarine warfare capabilities. PLA-N ships are vulnerable to attack by aircraft, torpedoes, and antiship missiles. The navies of the ASEAN nations could, if able to cooperate together, exclude the PLA-N from the South China Sea."³⁴

While the SA-N-7 "Gadfly" and SA-N-12 "Grizzly" SAM systems, acquired from Russia, doubles the range of the PLA-N air defence capabilities, China's inferior fire-control system will limit their effectiveness. These will only provide protection for the fleet from air raids and to provide air defence cover when landing on individual islands. They have no capability to screen larger areas of operations, especially if operating against land based airpower in the littoral waters of an adversary.³⁵

The PLA-N submarine fleet, while currently being upgraded with the purchase of the Russian *Kilo class* submarines, is severely limited in its effectiveness as there are serious questions as to the seaworthiness of most of the fleet. The catastrophic accident onboard the *Ming class* submarine No. 361 earlier this year puts doubt as to the reliability of the remaining *Ming* and *Romeo class* submarines. Even the *Kilo* submarines are proving to be problematic for China as there were reports in 2002 of major battery failures on the two older EKM877 type.³⁶

China might have a large quantity of military equipment but it lacks quality, especially in aircraft and submarines.³⁷ The Chinese have not yet developed the capabilities for a "blue water" navy and it will take them a considerable amount of time to do so. The much speculated Chinese aircraft carrier is unlikely to be developed over the short-term as China possesses neither the technology nor the resources to build or buy one. While China has long aspired to an aircraft carrier capability, there are currently no plans or even tentative proposals to introduce such a capability. China would require at least two or three carriers to maintain a single carrier on operations at any one time, the others being in refit, transit, or replenishment. The cost of procuring a carrier task force of this size is significant, and China is unlikely to have sufficient defence funding in the foreseeable future. In addition, the technology necessary to develop a carrier battle group is not readily available to China. Even a modest vertical/short take-off and landing (VSTOL) carrier would be expensive and problematic to deploy within the next 20 years, especially given the difficulty in obtaining VSTOL technology aircraft.³⁸

Given the current state of the Chinese equipment and training, the Chinese have no capability to pursue an expansionist maritime policy.³⁹ The Chinese are attempting to address the training problem by increasing the amount of combined military exercises.

Since the late 1980s the Chinese have increasingly included army, air force, naval, and rapid reaction forces in their military exercises. While initial exercises were designed to respond to an invasion of the Chinese mainland, these have been expanded to include training in the rapid deployment of troops by air and sea, including airborne and seaborne landing operations.⁴⁰

Beijing's military training exercises are increasingly focusing on the United States as an adversary and on preparing for combined and joint operations under more realistic conditions. The PLA continues to focus on training to counter a more militarily advanced adversary and to incorporate the *Three Attacks and Three Defences* initiative - air defence training that concentrates on attacking stealth aircraft, cruise missiles, and helicopters, while defending against precision strikes, electronic warfare, and enemy reconnaissance. Moreover, the adoption of military training reforms in 2002 are designed to improve training of the army in general and the officer corps in particular, eventually resulting in a more professional military force. In 2002, PLA training emphasized maritime and amphibious operations, and the integration of conventional ground units with marines, airborne, and special operations forces (SOF). However, for the most part, while PLA ground, air and naval forces might have been in the field at the same time, there was no integration of the PLA-N marine and PLA-AF airborne units with the ground forces.⁴¹

A 1995 article in the Hong Kong Chinese language newspaper, *Kuang Chiao Ching*, described a potential assault task force that the PLA-N could assemble for an assault on the Spratlys. This would include one *Luhu* class destroyer, six *Luda* class destroyers, two frigates, 30 missile patrol boats, 10 landing ships, 10 minelayers, and 18 submarines. In addition, the task force would comprise 30 to 50 support ships and two to three battalions of marines. The task force would be supported by strike and fighter aircraft from the PLA-AF and the PLA-NAF. The strike aircraft would include the H-6 bomber, armed with C-601 anti-ship cruise missiles, and the new H-7, all-weather bomber, armed with C-801 anti-ship missiles. The 24 PLA-AF Su-27s along with the J-7 and J-8 fighters would also be included to provide air cover for both bombers and the fleet.⁴² Even today the likelihood of such a force being assembled or effective is highly doubtful. While a similar task force today could be extended to include the newer guided-missile frigates and Su-30s, the PLA-N lacks any long-range amphibious capability and almost no effective logistical or support infrastructure to supply their forces over long distances for a protracted period of time. They have three oil and fuel from port to port) and some 56 amphibious landing ships.⁴³

Moreover, the limited number of Sukhois in the Chinese inventory will not guarantee them control of the sky over the South China Sea. Even with the latest agreement to purchase additional aircraft this does not give the Chinese enough aircraft to continuously control the skies over the Spratlys. The Sukhois have an effective combat radius of 1,400 kilometres and as the nearest Chinese airbase, on Woody Island in the Paracels, is approximately 1,000 kilometres from the main group of the Spratlys the fighters will have very little time to patrol any potential combat area. In addition, the Sukhois are part of the PLA-AF not the PLA-NAF. As such, they are not equipped for naval operations, nor are the pilots trained for operations over water or to provide tactical support for naval units, which would severely restrict their effectiveness over the Spratlys.⁴⁴ The Chinese bomber force is also limited in regards to its combat radius as the H-6 has an effective range of

just over 1,600 kilometres,⁴⁵ so while they can reach the Spratlys they would have only a limited amount of time to search for such mobile targets as warships. While the PLA-AF have modified some of its H-6 aircraft into aerial refuellers the small size of these aircraft only provide a limited extension of the Chinese fighters' combat radius, especially in time of war when the tankers would be targets of enemy fighters. Moreover, aerial refuelling is a complex task requiring the tanker and fighters to rendezvous at specific coordinates, altitude, speed, and direction and the Chinese do not regularly practice in-air refuelling.⁴⁶ Finally, to date the Su-27 and Su-30s are stationed considerably inland in the Beijing, Nanjing, Guangzhou, Jinan, Shenyang, and Chengdu military regions while the airbases closest to the Spratlys, on Hainan and Woody Island, are PLA-N airfields rather than PLA-AF bases.⁴⁷

Questions need to be raised about the ability of the Chinese to operate the new weapons and weapon systems that they have purchased due to the fact that they are buying a wide variety of off-the-shelf high technology systems from several different suppliers. The technological leap that these systems represent for the Chinese maintenance crews as well as the mix of suppliers will severely limit the ability of the Chinese to properly maintain all the systems. The PLA-AF ground crews have had serious problems in maintaining the new Sukhois for flight training operations and many have reportedly crashed.⁴⁸

Vietnamese Military Capability

China's military power is restricted due to the distance its forces would have to travel to get to the Spratlys. Such restrictions, however, do not impinge on other claimants' military options. Vietnam does not possess a large naval force but the Spratlys are within range of the 12 Su-27SK fighters it has recently purchased from Russia as well as some 120 MiG-21s and 50 Su-22s in the Vietnamese Air Force.⁴⁹ While the majority of the Vietnamese fighters are no match for the Chinese Sukhois, the Vietnamese can deploy a far greater number of fighter and attack aircraft over a potential combat area. Moreover, as the Argentinean Air Force demonstrated in the Falklands-Malvinas Conflict, older aircraft can still be effective in dropping gravity bombs on warships that lack effective air defence capabilities.⁵⁰

The Vietnamese Navy, on the other hand, is very small and possesses almost no combat capability beyond its coastal waters. None of its frigates are combat worthy. It does have over 50 missile and coastal patrol craft and torpedo boats equipped with anti-ship missiles. It also has an amphibious assault capability, notably through an ex-Soviet *Polnochny* class medium landing ship and three former US World War Two era landing ships and a naval infantry force comprising roughly 27,000 troops. However, the only ships capable of operating effectively in the farther portions of the South China Sea are four new Russian built *Tarantul* class corvettes and eight *Osa-II* fast attack craft each with SS-N-2 "Styx" anti-ship missiles.⁵¹ In any clash with the PLA-N these ships would be severely out-classed and out-gunned.

Malaysian Military Capability

Malaysia has focused its maritime capabilities on a limited number of surface warships, such as its two *Lekiu (Yarrow)* class and two *Kasturi* class guided-missile frigates, each

equipped with Exocet SSMs, and four *Laksmana (Assad)* class guided-missile corvettes, and has stationed them for patrol of the South China Sea. Malaysia has also begun to receive the first of six "New Generation Patrol Vessels" from Germany (MEKO-A100 type frigates) and in June 2002 ordered two *Scorpene* class submarines from the French and Italian manufacturers DCN International and Izar. The vessels are to enter service in 2007 and 2008. While these forces provide Malaysia with significant capability, the focus of Malaysia's maritime strike capability is being developed through advanced fighter aircraft and anti-submarine warfare helicopters. The Malaysian Air Force, while small in total numbers, comprises highly sophisticated aircraft. They have 17 MiG-29 air-to-air combat fighters and eight F/A-18s armed with "Harpoon" anti-ship missiles. In 1999, Malaysia purchased six *Super Lynx* anti-submarine warfare helicopters and in 2003 they ordered 18 Su-30MKM fighters to be delivered mid-2006. Combined these will allow the Royal Malaysian Air Force either a significant amount of time to patrol their claimed area which extends only 350 kilometres offshore, or the ability to strike at potential enemy forces before they threaten Malaysian interests.⁵² Malaysia also has a maritime aerial surveillance capability through its recently purchased of four Beechcraft B200Ts, which have a range of 3,200 kilometres allowing the Malaysians to patrol a large portion of the South China Sea. While the small numbers of these aircraft limit the effectiveness of the patrols on a daily basis, in times of crises the effectiveness can be increased by focusing the patrols to the disputed areas of the South China Sea.

Surveillance of the South China Sea is also conducted by the Royal Australian Air Force (RAAF) which operates two P-3C Orion maritime patrol aircraft from the Butterworth air base on the Malaysian peninsula. The RAAF also regularly operates a squadron of its F/A-18 fighters from the Butterworth air base during Five Power Defence Arrangements (FPDA) exercises.

While Royal Malaysian Air Force pilot skills are adequate and benefit from training they receive through the FPDA exercises, Malaysia's ability to adequately project maritime power will be restricted. Many analysts are concerned that the Malaysians are going to experience great difficulty in integrating the radically different fighters and their support and maintenance programs into the air force.⁵³ In regards to Malaysian naval capabilities, these are restricted by a lack of funding for the Royal Malaysian Navy as well as the failure of the Malaysians to develop sufficient doctrinal approaches for an effective maritime capability.⁵⁴

Taiwanese Military Capability

Taiwan's power projection capability is severely limited due to its primary concern for defence against invasion from the communist mainland. The Taiwanese Air Force is relatively large and has recently upgraded its fighter squadrons with modern F-16, *Ching Kuo*, and *Mirage 2000-5* fighters. However, Taiwan does not possess any in-air refuelling capabilities so these modern fighters would be of limited use over the Spratlys. Taiwan has a relatively modern naval force equipped with American, Israeli, and domestically produced ships and weapon systems. While the republic's naval forces are capable of operating farther from shore, the fleet is designed more to combat Chinese submarines and warships close to home and to support an invasion of the mainland than to protect distant outposts. The ROC Navy has deployed one combat support vessel capable of

replenishment at sea allowing the Taiwanese naval forces to operate farther from home.⁵⁵ However, the force responsible for patrolling the South China Sea is not the navy but rather the coastal police force, which is equipped with only lightly armed patrol vessels.

Philippines Military Capability

Unlike Malaysia or Vietnam, the Philippines military does not possess any real capability to fight in the disputed area. In the past, the government of the Philippines has not committed large amounts of resources to defend its claims to sovereignty over the Islands. Instead, it has relied on its Mutual Defence Treaty (MDT) with the United States to protect Filipino interests in the area. While the MDT does not specifically cover the Spratlys, Filipino decision makers have relied upon the unwillingness of any rival to risk a potential clash with the United States should it attack Filipino positions in the Spratlys. With the withdrawal of the United States Navy and Air Force from their bases in the Philippines in the 1990s, there was a great concern that the level of American interest in the South China Sea had also diminished and with it much of the Philippines' ability to defend its sovereignty in the area. The Philippine Navy and Air Force are small and equipped with outdated equipment and weapon systems. The Philippine Air Force has fewer than 15 F-5 fighters. The navy has almost no ability to patrol the disputed area as its ships include only one US *Cannon* class frigate and some 13 old, offshore patrol craft, all of World War Two vintage. In 1995, following the Chinese occupation of Mischief Reef, the Philippine Navy transported members of the international media to the vicinity of the reef, but the warship carrying these reporters broke down on the return voyage and had to be towed back to port. The Philippines has only a limited maritime surveillance capability in one Fokker F-27M aircraft.⁵⁶

Following the Chinese occupation of Mischief Reef the Philippines' Parliament passed a law that authorized the spending of 50 billion pesos (about US\$2 billion) to upgrade the armed forces. The law called for the development of the Navy's war fighting capabilities, including surface, amphibious, anti-air, and anti-submarine warfare capabilities. In addition, the Navy's sea-lift, transport, and maritime surveillance capabilities were to be upgraded. The Air Force was also allotted funds to purchase surveillance aircraft as well as multi-purpose fighter/attack aircraft.⁵⁷ In December 1996, a second bill was passed in the Congress allotting a further 164.5 billion pesos (US\$6.3 billion) to modernize the military over the next 15 years. The Congress, in passing the bill, issued a statement expressing its hope that this would increase the capability of the Philippine armed forces to a "level where it can effectively and fully perform its mandate to uphold the sovereignty and preserve the patrimony of the nation." To date not much has come from the arms modernization bills as the need to fight the Abu Sayyaf terrorist forces in the south has drained much of the defence spending in the Philippines.⁵⁸

In the short term, the Philippines has also tried to garner direct American support. The then-foreign secretary of the Philippines, Raul Manglapus, argued in a 1992 press conference following a meeting with the American ambassador to the Philippines, Frank Wisner, that the Americans were obliged to defend the Philippines if it was attacked in the Spratly Islands. He stated that the Mutual Defence Treaty "provides that a Philippine ship is an extension of Philippine territory and . . . [therefore] the United States is obligated to defend our ships." The United States refutes this claim stating that the treaty

only covers the territorial limits of the Philippines as they existed when the treaty was signed. Moreover, the treaty does not bind the Americans to use military force to defend the Philippines in any case.⁵⁹

Brunei Military Capability

The Royal Brunei Armed Forces have begun to extend their role in the South China Sea from coastal enforcement to protection of their offshore oil platforms and economic zones. While the Brunei military possesses no fighter aircraft, it has three *Waspada* class missile patrol craft equipped with Exocet ship-to-ship missiles. It has also ordered three new *Yarrow (Nakhoda Ragam)* class guided-missile frigates from Britain also equipped with Exocet SSMs.⁶⁰

Singapore Military Capability

Singapore, while not a claimant to the territorial disputes in the South China Sea, is included as it is perhaps the most advanced state in Southeast Asia in developing a balanced force designed for protection of its sea-lanes of communications (SLOC). To this end it has purchased three *Challenger (Sjoormen)* class coastal submarines (plus one for training), six *Victory* class corvettes armed with Harpoon SSMs, and advanced F-16 fighters. In 2000, Singapore also ordered six *La Fayette* class frigates to be delivered in 2009. It has also adopted appropriate doctrinal approaches for a comprehensive maritime strategy incorporating surface, sub-surface, and air components.⁶¹

Indonesian Military Capability

Although Indonesia is not directly involved in the Spratlys dispute, there is potential for maritime conflict with Beijing in the South China Sea. There has been some speculation that the Chinese "Historic Waters" dashed line would overlap with the Indonesian continental shelf boundary, which was delimited between Malaysia and Indonesia in 1969 and which contains the large Natuna natural gas fields. Indeed, following the Chinese occupation of Mischief Reef Indonesia raised with the Chinese authorities a map made public by Chinese officials in which the nine dashed lines appeared to overlap the Indonesian 200 nautical mile EEZ off of Natuna Island. In response to the Indonesian protests the two foreign ministers met in Beijing in July 1995. Upon his return to Jakarta, Ali Alatas, the Indonesian foreign minister, reported on his conversations with his counter-part, Qian Qichen who reassured Alatas that, while China had sovereignty over the Spratlys and that the sea border line is not certain, China had no dispute with Indonesia. Alatas said that Qian had told him that China recognized Indonesian sovereignty over Natuna and that Indonesia and China did not have any overlapping claims.⁶²

Indonesia, like the Philippines, however, has not been able to adequately modernize its maritime forces. Indonesia was particularly hard hit by the Asian financial crisis and many of its procurement projects were postponed or cancelled outright. Its naval forces are comprised of mostly patrol and coastal ships, most of which are ships from the former East German navy. The Indonesian military has also been concentrating on the political implication of the *refomasi* process and in dealing with various secessionist movements. As a result, the army has maintained its position as the senior service and its share of defence procurement budgets.

United States and Japan Military Capabilities

Both the United States and Japan maintain strong interests in the military balance in the South China Sea. While the Japanese Self-Defence Forces are of a high standard in regards to their size and technological development, the Japanese have limited capability to deploy their forces into a potential combat zone in the South China Sea. The Japanese are also very concerned about reviving any fears among the other Asian states of renewed Japanese aggressiveness in Southeast Asia. To this end, while Japanese diplomats express concern over any potential conflict in the area, they urge the various claimants to seek multilateral approaches to the disputes.⁶³

As for the United States, while the six aircraft carriers and 27 nuclear powered submarines that form the core of the Pacific Fleet ensures that US military capability is unsurpassed in the region, the Americans have repeatedly stated their neutrality with respect to the territorial dispute. In 1992, the US ambassador to the Philippines, Frank Wisner stated that the US would oppose the use of force but that it would not allow threats to the peace and stability of the area to go unchallenged.⁶⁴ The US has in the past also indicated a strong commitment to protecting international shipping rights through the South China Sea in times of conflict. In May 1995, the State Department issued a statement affirming American interests in maintaining peace and stability in the area and calling on the claimants to intensify their efforts to resolve the dispute peacefully and in accordance with international law. The statement also warned that any action restricting maritime activity in the South China Sea would be of great concern to the United States.⁶⁵ Further, in June 1995, Joseph Nye, the then-United States assistant secretary of defence for international security, warned that should freedom of the seas be threatened by any military action in the South China Sea the United States Navy would be prepared to escort and protect civilian ships passing through the area.⁶⁶ As for the Bush administration, while other issues have dominated senior decision makers, the statements that have been made in regards to the dispute have reiterated the US preference for a peaceful resolution to the dispute.⁶⁷

Implications of the Military Balance in the South China Sea

The arms modernization programs of the various rival claimants in the South China Sea have been seen by many analysts as evidence of a trend by Southeast Asian states to beef up their military in an attempt to increase their security in an area made jittery by the apparent withdrawal of American commitments to the region and the presence of an expansionist neighbor. The ASEAN states are, however, merely attempting to secure a minimum level of control over their adjacent seas. While the above list of military hardware stockpiles and acquisitions seems impressive the Southeast Asians suffer many problems in providing effective maintenance and logistical support similar to the Chinese. J.N. Mak argues that there is not a sufficient "maintenance culture" developing in the ASEAN states to guarantee effective operation of these assets during times of crisis. As the most recent purchases have involved buying off-the-shelf, sophisticated, high-technology weapons and weapon systems, there is a great deal of uncertainty as to how these will be integrated into the existing military systems.⁶⁸

None of the claimants are, therefore, likely to attempt a military occupation of the entire Spratly group. Any military conflict that does occur will likely be restricted to sporadic,

low-intensity conflict. While this limited military capability has not prevented armed clashes in the past, the claimants have tended to act with some self-restraint. Each claimant has sought to demonstrate its sovereign control over the disputed areas and this, at times, has led to an increase in tensions. In 1974 and 1988, these tensions erupted into brief military conflicts. In 1974, China took advantage of the Vietnam War to forcibly evict the South Vietnamese troops occupying the Western Paracel Islands. In 1988, China also took advantage of an UNESCO Oceanography Commission project to occupy several features in the Spratlys. This led to a brief naval clash between China and Vietnam in which two Vietnamese ships were sunk and over 70 sailors and marines killed.⁶⁹ These incidents are more the exception rather than the rule as the claimants have restricted their military deployments to unoccupied features in the Spratlys.

Given the level of uncertainty over the legality of any of the littoral states' claims to the disputed area and the intermixed pattern of occupation, crises will inevitably arise from time to time as any demonstration of sovereignty exercised by one claimant will have a direct impact on the claim of the others. The Chinese occupation of Mischief Reef is probably best seen in this light and not as precursor of future Chinese military aggression in the Spratlys. In this incident the Chinese acted against a previously unoccupied reef. Given the weakness of the Philippine military the Chinese could have easily overwhelmed a Philippine garrison if they had wanted to. Of course, this probably would have sparked a more militant response from the Philippines, the other claimants, and possibly the US and Japan. What the Chinese occupation did spark was the Philippine Senate's approval for an arms modernization law. Following approval of the legislation many international arms merchants descended on Manila to flog their goods, including representatives of the Chinese arms manufacturer, North Industries Corporation (Norinco), an enterprise controlled by the PLA. Norinco offered the Filipinos shipboard arms, missiles, and an air defence system. The question that needs to be asked by those concerned with Chinese intentions in the Spratlys is, why would the Chinese be seeking to sell the Filipinos weapons if they expect a military confrontation with them?

The likelihood of military confrontation arising as a result of any particular action by a claimant is limited as these actions do not represent a direct challenge to the other states' sovereignty claims. The improvements to military garrisons or the development of civilian structures on many of the features do nothing to threaten the sovereignty of the other claimants. Moreover, the claimants have tended to act with some self-restraint. While the Vietnamese and Chinese have been the most belligerent in their activities, especially with respect to oil exploration, they have recognized the danger of military confrontation and have looked to diplomacy to downplay the crises. In light of these activities the commonly held image of China as a regional bully bent on hegemonic domination of the region appears to be difficult to justify. While the Chinese have been active in pursuing their sovereignty claim, so have most of the others. With the sole exception of Brunei, all the claimants have deployed military troops to various features and have taken steps that not only increase their own claim to sovereignty over the Spratlys but *ipso facto*, impinge on the claims of the others.

CONCLUSION

Total occupation of the Spratlys by one claimant is, therefore, unlikely as none have sufficient military might to adequately defend the features even if they were able to

forcibly evict the current occupants. In light of this limited power projection capability the likelihood of an attempt to forcibly control the entire Spratly group is low. While most of the various claimants possess enough military might to attack individual garrisons, all are limited to a general strategy of denial rather than a strategy of conquest. On the diplomatic front the November 2002 signing of the "Declaration of the Conduct of Parties in the South China Sea," while committing all the claimants to abide by international law, avoid the threat of force, and refrain from any action that might complicate or escalate the dispute, is in effect not much of a progression from the 1992 ASEAN Manila Declaration on the South China Sea which China agreed to in principle, although refused to sign.⁷⁰ The Chinese are unlikely to attempt to seize the entire Spratly chain as any large-scale aggressive moves would most likely "internationalize" the conflict. The United States has so far remained neutral with regard to the various sovereignty claims but has always stated its desire to maintain freedom of navigation throughout the South China Sea. Therefore, any protracted conflict over the Spratlys is, therefore, likely to draw the United States into it.

Endnotes

1. For a survey of the various claims, see Marwyn S. Samuels, *Contest for the South China Sea* (New York: Methuen, 1982); Pan Shiyong, "The Nansha Islands: A Chinese Point of View," *Window*, 2, no. 36 (3 September 1993); Craig A. Snyder, "Building Multilateral Cooperative Security," *Asian Perspective* 21, no. 1 (Spring-Summer 1997), pp. 5-36; Dieter Heinzig, *Disputed Islands in the South China Sea: Paracels - Spratlys - Pratas - Macclesfield Bank* (Wiesbaden: Otto Harrassowitz, 1976); and Liselotte Odgaard, *Maritime Security between China and Southeast Asia* (Aldershot: Ashgate, 2002).
2. Martin Pratt, ed., *Jane's Exclusive Economic Zones, 2000-2001* (London: Jane's Information Group, 2000), p. 1.
3. *Ibid.*, p. 2.
4. *Ibid.*
5. *Ibid.*
6. Environment Australia, *Australia's Ocean Policy, International Agreements*, Background Paper 2 (Canberra: Environment Australia, October 1997), p. 3; and, Pratt, *Jane's Exclusive Economic Zones*, p. 3.
7. Martin Tsamenyi and Max Herriman, "Introduction," in Martin Tsamenyi and Max Herriman, eds., *Rights and Responsibilities in the Maritime Environment: National and International Dilemmas* Wollongong Paper on Maritime Policy No. 5 (Wollongong, NSW: Centre for Maritime Policy, University of Wollongong, 1996), p. 6.
8. Pratt, *Jane's Exclusive Economic Zones*, pp. 1-7.
9. Tsamenyi and Herriman, *Rights and Responsibilities*, p. 2.
10. Pratt, *Jane's Exclusive Economic Zones*, p. 7.
11. The changing nature of international law is an area that the Chinese are attempting to exploit in regards to their South China Sea territorial claims. While the Chinese may

privately accept the shaky nature of their claim to the Spratly and Paracels, they are actively seeking to modify international law to strengthen Chinese claims to the area. Ian Townsend-Gault, Associate Professor of Law and Director, Southeast Asian Legal Studies, University of British Columbia, Interview with Author, 1 March 2001.

12. Dick Sherwood, "Implications for Naval Roles," in Doug MacKinnon and Dick Sherwood, eds., *Policing Australia's Offshore Zones Problems and Prospects* Wollongong Paper on Maritime Policy No. 9 (Wollongong, NSW: Centre for Maritime Policy, University of Wollongong, 1999), p. 129.

13. Ken Booth, *Navies and Foreign Policy* (London: Croom Helm, 1977), p. 15-25.

14. Dick Sherwood, "Oceans Governance and its Impact on Maritime Strategy," in David Wilson and Dick Sherwood, eds., *Oceans Governance and Maritime Strategy* (St. Leonard's, NSW: Allen and Unwin, 2000), pp. 26-31.

15. Joon Num Mak, "Fighting the Maritime War in the 21st Century: War? What War?" in David Wilson, ed., *Maritime War in the 21st Century*, Papers in Australian Maritime Affairs, No. 8 (Canberra: Royal Australian Navy Sea Power Centre, Defence Publishing Service, 2002), p. 42.

16. Mak, "Fighting the Maritime War in the 21st Century," pp. 43-45. See also International Institute for Strategic Affairs, *Military Balance 2003-2004* (Oxford: Oxford University Press, 2003) [hereafter cited as IISS, *Military Balance 2003-4*].

17. Eric Heginbotham argues that the political ideology of naval officers had a particular impact on the rise of navies in those countries where liberal political leaders held power as these leaders were not beholden on the more conservative army officers. See Eric Heginbotham, "The Fall and Rise of Navies in East Asia: Military Organizations, Domestic Politics, and Grand Strategy," *International Security* 27, no. 2 (Fall 2002), pp. 86-125.

18. Mak, "Maritime Warfare in the 21st Century," pp. 56.

19. John W. Garver, "China's Push Through the South China Sea: The Interaction of Bureaucratic and National Interests," *The China Quarterly* (December 1992), pp. 1021-22; and, You Ji, "A Test Case for China's Defence and Foreign Policies," *Contemporary Southeast Asia* 16, no. 4 (March 1995), p. 380.

20. David Shambaugh, "Growing Strong: China's Challenge to Asian Security," *Survival* 36, no. 2 (Summer 1994), p. 53.

21. Wen-Chung Liao, *China's Blue Waters Strategy in the 21st Century: From the First Islands Chain Toward the Second Islands Chain* Occasional Paper Series (Taipei: Chinese Council of Advanced Policy Studies, September 1995), pp. 5-8.

22. The first island chain comprises Japan, Taiwan, and the Philippines. See Wen-Chung Liao, *China's Blue Waters Strategy*.

23. Wen-Chung Liao, *China's Blue Waters Strategy*, pp. 9-10.

24. Jiang Zemen quoted in Wen-Chung Liao, *China's Blue Waters Strategy*, p. 11.

25. *Ibid.*, pp. 13-14.

26. Mike Yeong, "China's New Assertiveness," *Business Times* (Singapore), 27 August 1992.
27. David Shambaugh argues that both projects have taken several decades to be developed and recent advances have only come as a result of the incorporation of foreign engines, radars, and avionics. See David Shambaugh, *Modernizing China's Military: Progress, Problems and Prospects* (Berkeley, CA: University of California Press, 2002), pp. 258-65; Stockholm International Peace Research Institute, *SIPRI Yearbook: World Armaments and Disarmament* (Stockholm: Almquist and Wiksell, 2002), pp. 420-21 [hereafter cited as SIPRI, *SIPRI Yearbook*, 2002]; and Nikolai Novichkov, "China Expected to Buy a Third Batch of Su-30MKK," *Jane's Defence Weekly*, 10 September 2002; and IISS, *Military Balance 2003-4*, pp. 295, 303-04.
28. Reports vary as to the amount of flying hours flown by Chinese fighter pilots, but the PLA-AF is quoted as indicating an average of 100 to 130 flying hours, compared with 180 to 225 for Western air forces. See Harold Brown, Joseph W. Prueher, and Adam Segal, *Chinese Military Power: Report of an Independent Task Force Sponsored by the Council on Foreign Relations* Maurice R. Greenberg Center for Geoeconomic Studies, (New York: Council on Foreign Relations, 2003), p. 50. The United States Department of Defense, *Annual Report on the Military Power of the PRC* (Washington, DC: July 2000) [hereafter cited as *2000 Report to Congress*], also indicates that PRC "pilot proficiency is improving, but China's best pilots lag behind their Taiwan counterparts in terms of capabilities."
29. Alexander Nemets and Thomas Torda, "Most Recent Trends in the Development of the Chinese Aviation Industry and Their Strategic Implications," 2 May 2002 accessed 1 November 2003.
30. W.M. Carpenter and D.G. Weincek, "Chinese Defence Build-Up on Track," *Global Defence Review* 1999, (<http://www.global-defence.com/asia/asia1.htm>) accessed 22 February 2002.
31. Shambaugh, *Modernizing China's Military*, pp. 267-70; United States Department of Defence, *Annual Report to Congress*, July 2003 [Hereafter cited as *2003 Report to Congress*]; IISS, *Military Balance, 2003-4*, pp.152-53, 303-04; SIPRI, *SIPRI Yearbook*, 2002, pp. 420-421; and, Alexander Nemets and Thomas Torda, "PLA Navy: From 'Green Water' to 'Blue Water'" - Part II, 30 July 2002, (www.newsmax.com)
32. Shambaugh, *Modernizing China's Military*, pp. 267-70; *2003 Report to Congress*; IISS, *Military Balance, 2003-4*, pp.152-53, 303-304; SIPRI, *SIPRI Yearbook*, 2002, pp. 420-21; and Nemets and Torda, "PLA Navy."
33. Shambaugh, *Modernizing China's Military*, pp. 271-4; *2000 Report to Congress*; IISS, *Military Balance, 2003-4*, pp. 152-55; SIPRI, *SIPRI Yearbook*, 2002, pp. 420-21; and Nemets and Torda, "PLA Navy."
34. Brown, Prueher, and Segal, *Chinese Military Power*, p. 28.
35. Ibid., p. 47; and Federation of American Scientists, (www.fas.org/man/dod-101/sys/ship/row/plan/sovremenny.htm) accessed 10 November 2003.
36. Shambaugh, *Modernizing China's Military*, p. 266; You Ji, "A Test Case for China's

Defence and Foreign Policies," *Contemporary Southeast Asia* 16, no. 4 (March 1995), p. 386; Brian Hsu, "China has Major Trouble with new Kilo Submarines," *Taipei Times*, 2 July 2002 (www.taiwansecurity.org) accessed 10 August 2002.

37. Gary Klintworth, *Asia Pacific Security: Less Uncertainty, New Opportunities* (Melbourne: Addison Wesley Longman, 1996), p. 221.

38. Ian Storey and You Ji, "Chinese Aspirations to Acquire Aircraft-Carrier Capability Stalled," *Jane's Intelligence Review* 14, no. 2 (April 2002), pp. 36-39; Shambaugh, *Modernizing China's Military*, pp. 270-71; and *2003 Report to Congress*.

39. Michael G. Gallagher, "China's Illusory Threat to the South China Sea," *International Security* 19, no. 1 (Summer 1994), p. 193.

40. Patrick E. Tyler, "China Revamps Forces with Eye to Sea Claims," *The New York Times*, 2 January 1995; and Arthur S. Ding, "The PRC's Military Modernization and a Security Mechanism for the Asia-Pacific," 31, no. 8 (August 1995), p. 11.

41. Dennis Blasko, "People's Liberation Army Ground Forces: Moving into the 21st Century," *Chinese Military Update* 1, no. 2 (July 2003), p. 7; and *2003 Report to Congress*, p. 5.

42. Bruce Blanche, "The Spratlys Task Force," *Jane's Intelligence Review* 8, no. 4 (April 1996), p. 189.

43. Shambaugh, *Modernizing China's Military*, p. 270; IISS, *Military Balance, 2003-4*, p. 154; and Larry M. Wortzel, "China Pursues Traditional Great-Power Status," *Orbis* 38, no. 2 (Spring 1994), p. 167.

44. "China Boosts Presence in South China Sea," *International Defense Review* 27, no. 5 (1 May 1994), p. 10; Felix K. Chang, "Beyond the Unipolar Moment: Beijing's Reach in the South China Sea" *Orbis* 40, no. 3 (Summer 1996), p. 363-64; Shambaugh, *Modernizing China's Military*, p. 265; and Brown, Prueher, and Segal, *Chinese Military Power*, p. 48.

45. Wortzel, "China Pursues Traditional Great-Power Status," p. 169.

46. You Ji, "A Test Case for China's Defence and Foreign Policies," *Contemporary Southeast Asia* 16, no. 4 (March 1995), p. 386; Felix K. Chang, "Beyond the Unipolar Moment: Beijing's Reach in the South China Sea," *Orbis* 40, no. 3 (Summer 1996), p. 361; Shambaugh, *Modernizing China's Military*, p. 270; and *2003 Report to Congress*.

47. *2003 Report to Congress*.

48. Shambaugh, *Modernizing China's Military*, p. 265.

49. The MiG-21 and Su-22 have a combat radius of approximately 500 kilometres, which can be extended with external fuel tanks, while Vietnamese airbases are located approximately 400 to 500 kilometres from the main group of Spratly Islands. See Chang, "Beyond the Unipolar Moment," p. 360; and, IISS, *Military Balance, 2003-4*, pp. 174-75, 309.

50. While the Argentinean Air Force was not successful in preventing a British landing on East Falkland Island their pilots flying ageing A-4 attack fighters were able to score a large number of "hits" to British warships. The Argentinean Naval Air Corps also

demonstrated the effectiveness of air-launched missiles against naval forces not adequately protected by air cover. For a more detailed assessment of the air war in the Falklands, see Stewart W.B. Menaul, "The Falklands Campaign: A War of Yesterday?" *Strategic Review* 10, no. 4 (Fall 1982), pp. 84-85.

51. Brian Cloughley, "ASEAN at Arms: A Defense Profile," *International Defense Review* 28, no. 12 (1 December 1995), p. 22; and IISS, *Military Balance, 2003-4*, pp. 174-75, 309.

52. "Malaysia Acquires Scorpene Submarines," *Jane's Navy International*, (<http://jni.janes.com/>) posted 13 June 2002; IISS, *Military Balance, 2003-4*, pp. 163-64, 306-07; SIPRI, *SIPRI Yearbook, 2002*, pp.435-36; and, Mak, "Maritime Warfare in the 21st Century," pp. 58-59.

53. Kalimullah Hassan, "KL's Choice of Russian and US Fighters Sparks Debate," *The Straits Times* (Singapore), 14 July 1993; and, Cloughley, "ASEAN At Arms," p. 22.

54. Mak, "Maritime Warfare in the 21st Century," p. 58.

55. IISS, *Military Balance: 2003-4*, pp. 170-72.

56. Cloughley, "ASEAN at Arms," p. 22; and, IISS, *Military Balance 2003-4*, pp. 167-69, 307.

57. "Ramos Signs Military Modernization Law," *Agence France Presse*, 23 February 1995.

58. "Philippines' Ramos Hails Passage of Military Modernization Bill," *Agence France Presse*, 15 December 1996.

59. "Manila Expects U.S. Help If Attacked in Spratlys," *The Reuter Library Report*, 13 April 1992; and "US Refuses to Include Spratlys in Defence Treaty with Manila," *Agence France Presse*, 10 December 1996.

60. IISS, *Military Balance: 2003-4*, pp. 151, 303.

61. Mak, "Maritime Warfare in the 21st Century," pp. 49-53; IISS, *Military Balance, 2003-4*, pp. 169-70, 307-8; SIPRI, *SIPRI Yearbook, 2002*, p. 442; and "Singapore Reveals Project Delta Frigate," *Jane's Defence Weekly*, (<http://jdw.janes.com>) posted 22 November 2002.

62. "Indonesia Satisfied by China's Natuna Explanation," *Reuters World Service*, 21 July 1995; and Simon Sinaga, "Natunas 'Belong to Indonesia'," *The Straits Times* (Singapore), 22 July 1995.

63. Japan, Ministry of Foreign Affairs, *Press Conference by the Press Secretary*, 30 May 1997, (www.mofa.go.jp/announce/press/1997/5/530.html#3) accessed 1 November 2003.

64. "US Says it is Against Force in Spratlys," *New Straits Times* (Kuala Lumpur), 13 March 1992; and, IISS, *Military Balance, 2003-4*, p. 26.

65. Harry J. Kenny, "The South China Sea: A Dangerous Ground," *Naval War College Review* 49, no. 3 (Summer 1996), p. 105; and Nigel Holloway, "Jolt from the Blue," *Far Eastern Economic Review* (3 August 1995), p. 22.

66. Holloway, "Jolt from the Blue," pp. 22-23.

67. See United States, US Embassy Hanoi, "Admiral Blair Discusses Vietnam's Anti-Terrorism Support: Blair's Remarks to the Press, February 2 in Hanoi," 4 February, 2002 (usembassy.state.gov/vietnam/www/hwf020204.html) accessed 1 November 2003.
68. J.N. Mak, "Armed, But Ready? ASEAN Conventional Warfare Capabilities," *Harvard International Review* 16, no. 2 (Spring 1994), p. 20.
69. Marko Milivojeviæ, "The Spratly and Paracel Islands Conflict," *Survival* 31, no. 1 (January/February 1989), p. 71; and David Holley, "China, Hanoi Count Losses in Isles Clash," *Los Angeles Times*, 17 March 1988.
70. Barry Wain, "Taking Charge," *Far Eastern Economic Review* (14 November 2002); Catharin Dalpino and Juo-yu Lin, "China and Southeast Asia: The Difference of a Decade," *Brookings Northeast Asian Survey 2002-03*, pp. 80-82; and, Snyder, "Building Multilateral Security Cooperation."